DIGITAL WORKSTATION MONITOR SPEAKER

Tyros3 / TRS-MS02

SERVICE MANUAL

Tyros3

TRS-MS02

CONTENTS

PK 001811

YAMAHA
HAMAMATSU, JAPAN

IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is belived to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground bus in the unit (heavy gauge black wires connect to this bus.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: This product contains chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW	: EARTH
BLUE	: NEUTRAL
BROWN	: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or colored GREEN or GREEN-and-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

• This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd. (3 wires)

WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

SAVING DATA

Be sure to perform it

Saving and backing up your data

- The data of the types listed below are lost when you turn off the power to the instrument. Save the data to the User drive or appropriate external media.
  - Created/Edited Voices
  - Created/Edited Styles
  - Memorized One Touch Settings
  - Recorded/Edited Songs
  - Created Multi Pads
  - Edited MIDI Settings

  Data in the User drive may be lost due to malfunction or incorrect operation. Save important data to an external media. Data in the internal hard disk drive may be lost due to malfunction or incorrect operation. We recommend that you backup any necessary data to computer by using the USB Storage Mode.

Backing up the USB storage device/external media

- To protect against data loss through media damage, we recommend that you save your important data onto two USB storage devices/external media.

SPECIFICATIONS (Tyros3)

Keyboard	Keys		61 keys (C1–C6) Initial Touch/Aftertouch
	Type		Organ (FSX)
Voice	Polyphony (max)		128
	Layer		R1/R2/R3/L
	Split		Style (default point: F#2), Left (default point: F#2), Right 3 (default point: G2)
	Voices		749 Voices + 20 Organ Flutes + 480 XG Voices + 256 GM2 Voice + 35 Drum/SFX kits (And GS Voices for GS Song playback)
		MegaVoice	23
		S.Articulation2! (AEM technology)	11 [TRUMPET] JazzTrumpet / ClassicTrumpet [SAXOPHONE] JazzSax / BreathySax [FLUTE/CLARINET] Clarinet / BalladClarinet / RomanceClarinet / IrishPipeAir / IrishPipeDance [ACCORDION] Harmonica / BluesHarp
		S.Articulation!	53
		Sweet!	26
		Cool!	58
		Live!	70
		Live! Drums	12 (Included Live! SFX)
		Organ Flutes!	20 Presets
Voice Expandability	Custom Voices		Yes (Wave Addition: Normal Voices, Drum Voices)
	Premium Voices		Yes (optional DIMM memory is necessary)
	Voice Set		Yes
Style	Styles		450
	Format		SFF GE
	Control		SYNC STOP, SYNC START, START/STOP, AUTO FILL IN
	Section		Intro x 3, Ending x 3, Main x 4, Fill In x 4, Break
	Fingering		Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard
	Style Creator		Yes
	RAM Capacity per a Style		approx. 120 KB
OTS (One Touch Setting)			4 for each Style
Music Finder	Preset Records		1850
	Music Finder Plus		Yes
Song	Preset Songs		5 Sample Songs
	Control		REC, STOP, PLAY/PAUSE, REW, FF, METRONOME
	Recording		Quick Recording, Multi Recording, Step Recording
	Tracks		16
	RAM Capacity per a Song		approx. 300 KB
	Lyric Display		Yes
	Score Display		Yes
	Song Position Jump		4 point / Loop
Style/Song Control			FADE IN/OUT, TAP TEMPO, TEMPO (5–500)
Data Compatibility			GM, XG, XF, SFF, SFF GE, GM2/GS (for Song Playback)
Hard Disk Recorder	Tracks		Play: 2 Stereo Track REC: 1 Stereo Track
	Control		REC, STOP, PLAY/PAUSE, PREV, NEXT, SELECT, SETTING
	File Format		Wave (16-bit, 44.1 kHz, stereo)
MultiPad	Preset		123 banks x 4 Pads
	Control		Pad 1–4, SELECT, STOP, SYNC START
Vocal Harmony			60 Preset + 10 user

Effects	Reverb	42
	Chorus	106
	DSP1–DSP7	272
	DSP8–DSP9	272 (for Style)
	Master Compressor	5 presets + 5 user settings
	Master Equalizer	5 presets + 2 user settings
	Harmony/Echo	Yes
	Sustain Button	Yes
Registration Memory	Buttons	1–8
	Control	Bank select, Memory, Freeze, Registration Sequence
Control	Pitch Bend Wheel	Yes
	Modulation Wheel	Yes
	Articulation Switch	ART. 1, ART. 2
	Sliders	9 (including 1 assignable)
Transpose		-12–0–12 (Keyboard/Song/Master)
Tuning		414.8–440–466.8 Hz
Display		640 x 480 dots TFT VGA color 7.5 inch LCD
	Language	5 languages (English, German, French, Spanish, Italian)
	Text Viewer	Yes
	Wallpaper Customize	Yes
Storage		USB to Device
	Internal Flash	3.2MB
	Hard Disk (installable)	Yes
Terminals	USB TO HOST	USB 2.0 HighSpeed x 1
	USB TO DEVICE	USB 2.0 HighSpeed x 2 (Front/Back)
	MIDI	MIDI A (IN/OUT), MIDI B (IN/OUT)
	FOOT PEDAL	1 (SUSTAIN), 2 (ARTICULATION 1), 3 (VOLUME), Function Assignable
	Audio	LINE OUT MAIN (L/L+R, R)
		LINE OUT SUB (1, 2)
		LOOP SEND (L/L+R, R) / AUX OUT (Level Fixed): Selectable
		LOOP RETURN (L/L+R, R) / AUX IN (with TRIM control)
		MIC/LINE IN (with TRIM control)
		PHONES
	RGB OUT	Yes
	VIDEO OUT	NTSC / PAL Composit
	LAN	Yes (Internet Direct Connection)
	For Option Speaker	To Satellite Speaker (L/R), To Sub Woofer (L/R)
	Power Supply	AC IN
Dimensions [W x D x H] (without Music Rest)		1140 x 450 x 143 mm
Weight (without Music Rest)		15 kg
Included Accessories		AC power cord, Music rest and brackets, CD-ROM, Owner's Manual, Installation Guide, User Registration Card

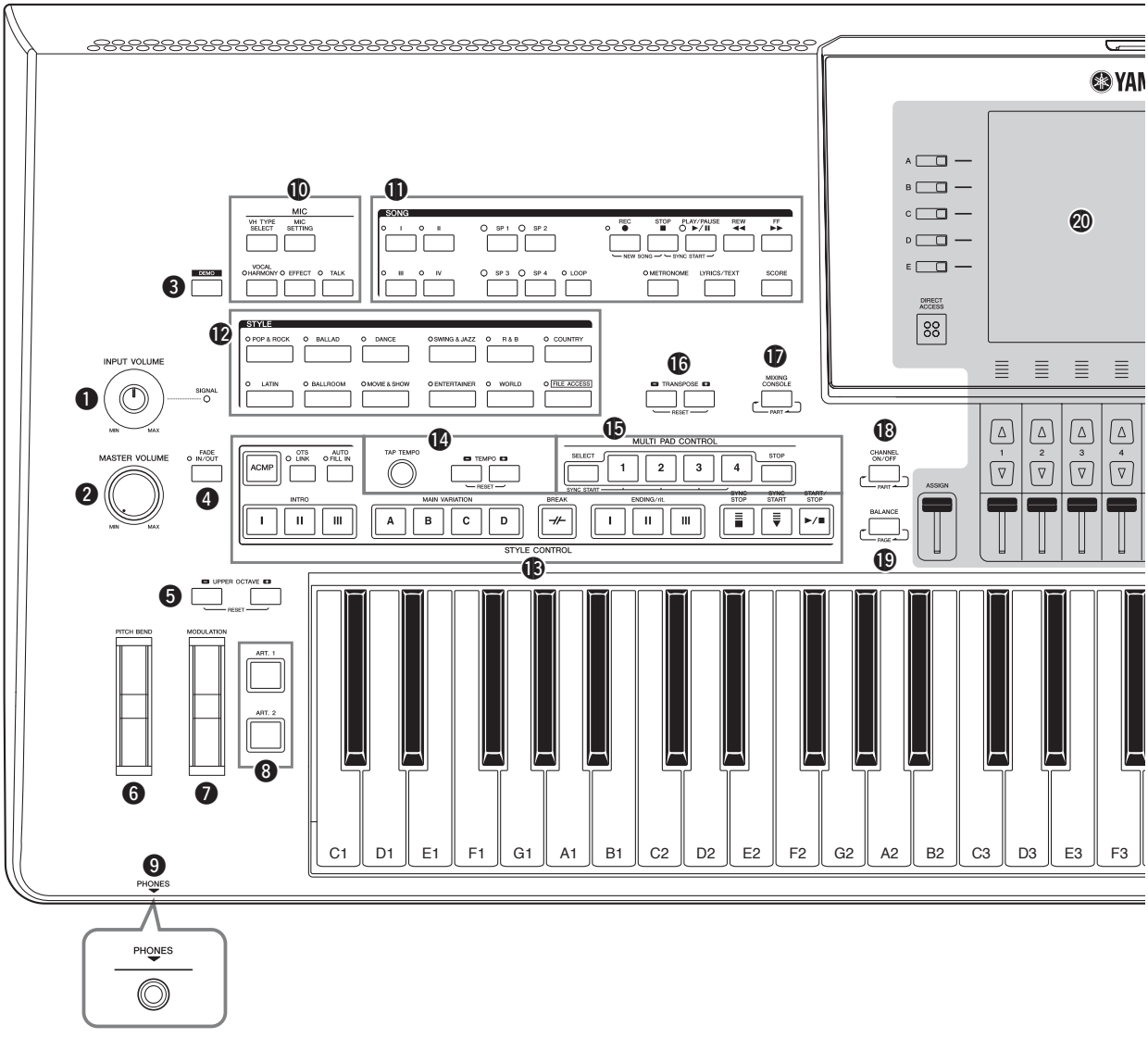
Optional Accessories	Speaker	TRS-MS02
	Headphones	HPE-150
	Footswitch	FC4/FC5
	Foot Controller	FC7
	MIDI Foot Controller	MFC10
	Floppy Disk Drive	UD-FD01
	Keyboard Stand	L-7S

SPECIFICATIONS (TRS-MS02)

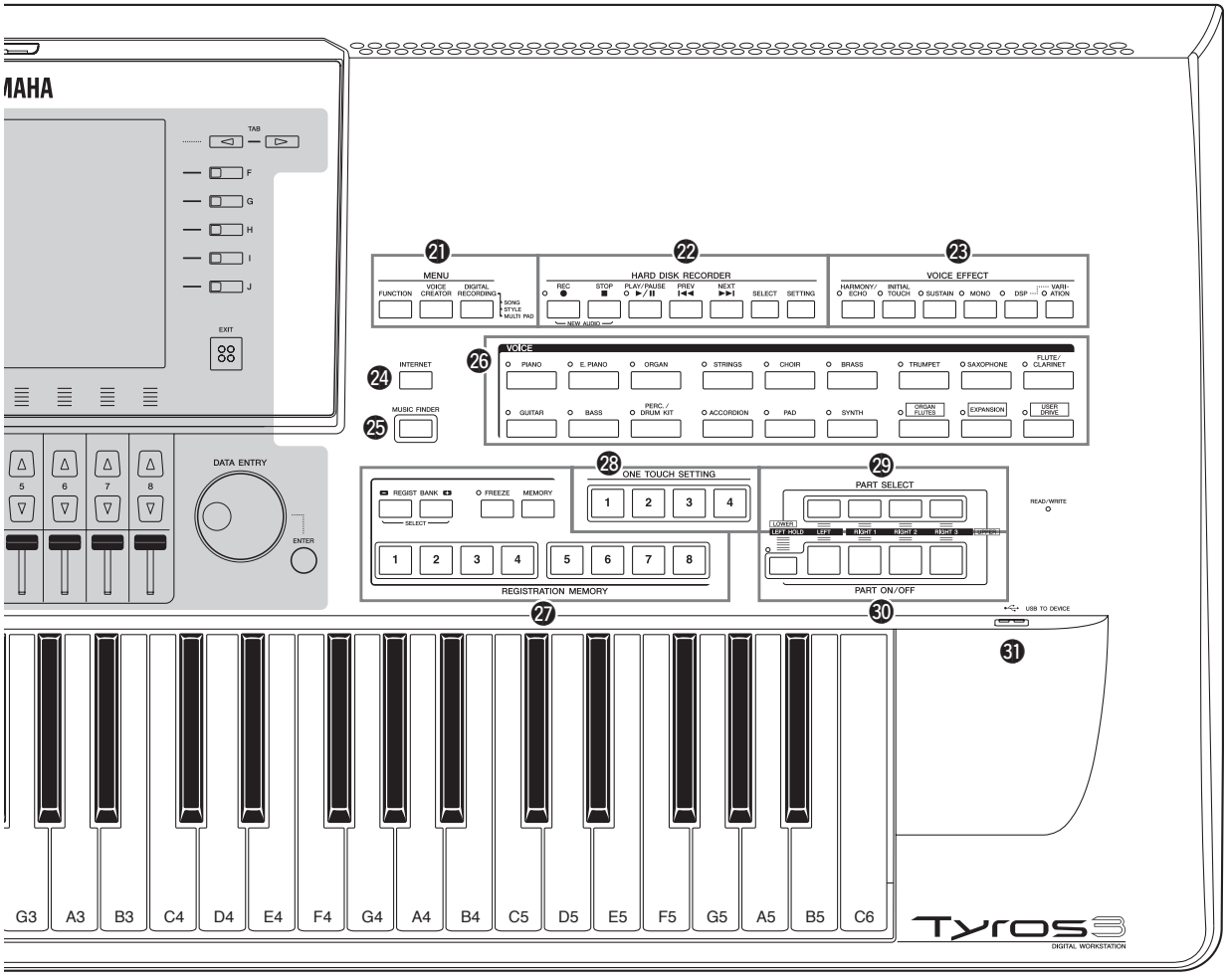
Type	Advanced Active Servo Technology
Output power	Satellite speakers..... 20 W + 20 W (1 kHz, 4 Ω at T.H.D.=10%) Subwoofer..... 40 W (100 Hz, 5 Ω at T.H.D.=10%)
Frequency response	32 Hz to 20 kHz
Speaker unit	Satellite speakers Tweeter.....1.9 cm (3/4") dome, magnetic shielding Midrange..... 8 cm (3") cone, magnetic shielding Subwoofer.....16 cm (6.5") cone, magnetic shielding
Power consumption	65W
Power supply	U.S.A. and Canada models.....AC 120 V, 60 Hz Australia model.....AC 240 V, 50 Hz U.K. and Europe models.....AC 230 V, 50 Hz
Dimensions (W x H x D)	Satellite speakers.....97 (3.8") x 174 (6.9") x 178 (7")mm Subwoofer.....350 (13.8") x 210 (8.3") x 321 (12.6") mm
Weight	Satellite speakers.....0.7 kg (1 lb. 9 oz.) x 2 Subwoofer.....8.0 kg (17 lbs. 10 oz.)
Accessories	Speaker brackets x 2, RCA pin cables x 2, RCA pin/8-pin combination cable x 1

PANEL LAYOUT (Tyros3)

• Top Panel

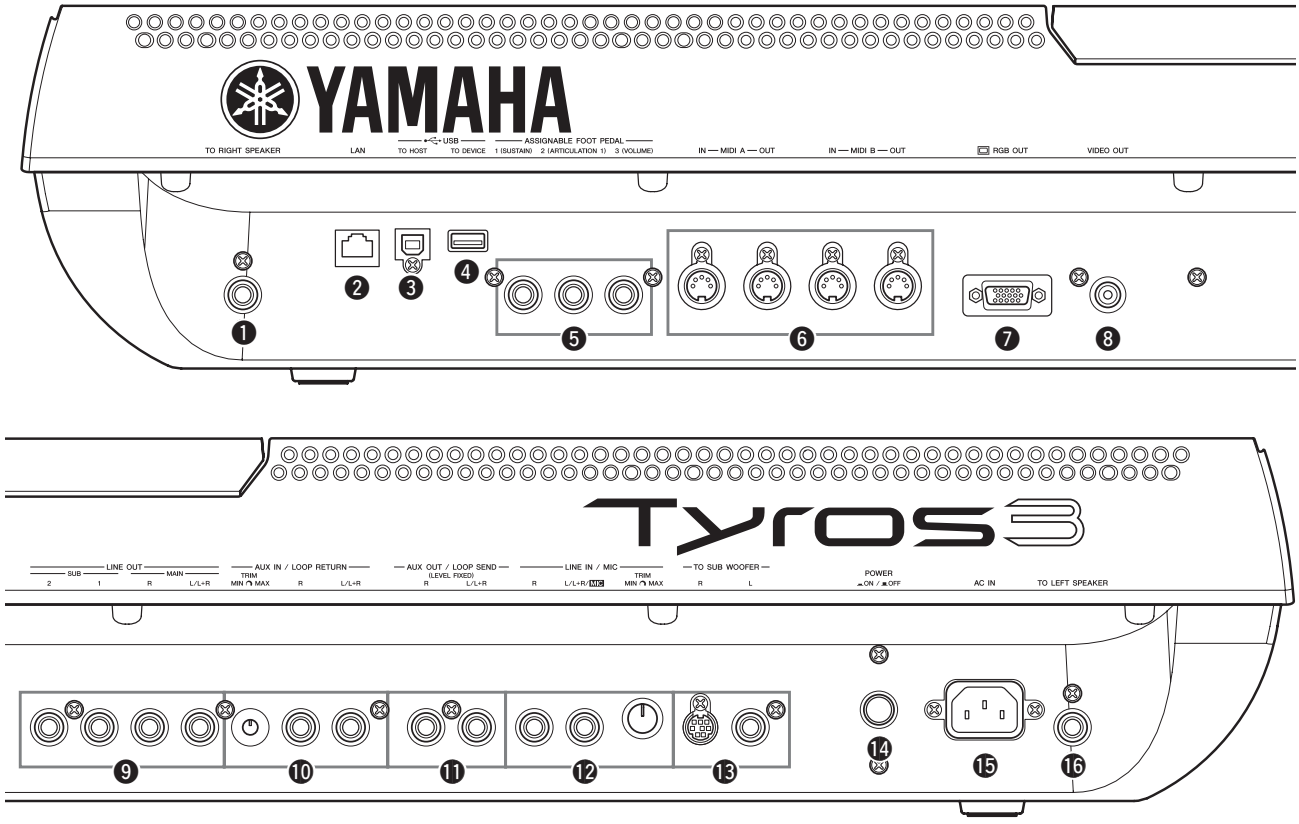


❶ [INPUT VOLUME] control
❷ [MASTER VOLUME] control
❸ [DEMO] button
❹ [FADE IN/OUT] button
❺ [UPPER OCTAVE] buttons
❻ [PITCH BEND] wheel
❼ [MODULATION] wheel
❽ [ART. 1/ART. 2] buttons
❾ [PHONES] jack
❿ [MIC] buttons
⓫ [SONG] buttons
⓬ [STYLE] category selection buttons
⓭ [STYLE CONTROL] buttons
⓮ [TEMPO] buttons
⓯ [MULTI PAD CONTROL] buttons
⓰ [TRANSPOSE] buttons
⓱ [MIXING CONSOLE] button
⓲ [CHANNEL ON/OFF] button
⓳ [BALANCE] button
⓴ LCD and related controls



㉑ [MENU] buttons
㉒ [HARD DISK RECORDER] buttons
㉓ [VOICE EFFECT] buttons
㉔ [INTERNET] button
㉕ [MUSIC FINDER] button
㉖ [VOICE] category selection buttons
㉗ [REGISTRATION MEMORY] buttons
㉘ [ONE TOUCH SETTING] buttons
㉙ [PART SELECT] buttons
㉚ [PART ON/OFF] buttons
㉛ [USB TO DEVICE] terminal

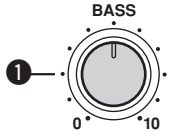
• Rear Panel



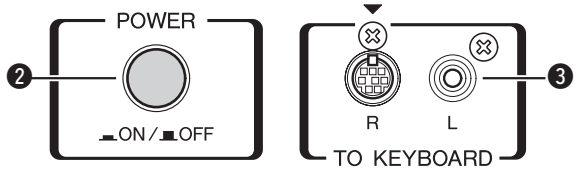
❶ [TO RIGHT SPEAKER] jack
❷ [LAN] terminal
❸ [USB TO HOST] terminal
❹ [USB TO DEVICE] terminal
❺ [ASSIGNABLE FOOT PEDAL] jacks
❻ [MIDI] terminals
❼ [RGB OUT] terminal
❽ [VIDEO OUT] terminal
❾ [LINE OUT] jacks
❿ [AUX IN/LOOP RETURN] jacks
⓫ [AUX OUT/LOOP SEND] jacks
⓬ [LINE IN/MIC] jacks
⓭ [TO SUB WOOFER] jacks
⓮ [POWER ON/OFF] switch
⓯ [AC IN] terminal
⓰ [TO LEFT SPEAKER] jack

■ PANEL LAYOUT (TRS-MS02)

SUBWOOFER FRONT



SUBWOOFER REAR

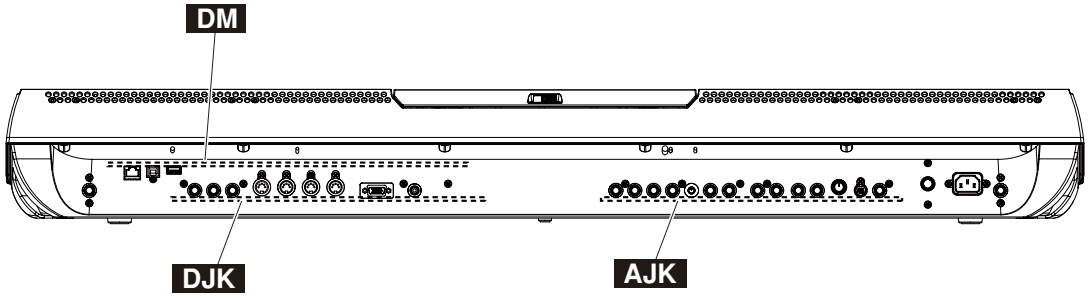


SATELLITE SPEAKER REAR

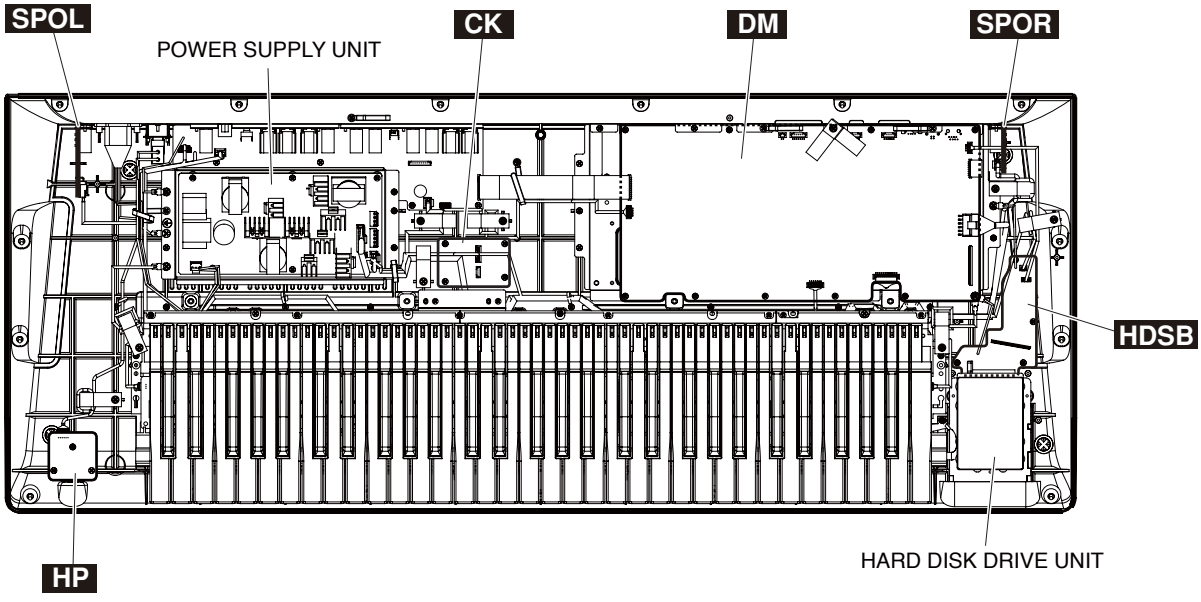
❶ [BASS] control knob
❷ Main [POWER] switch
❸ [TO KEYBOARD L,R] jacks (WOOFER)
❹ [TO KEYBOARD] jack (Satellite)

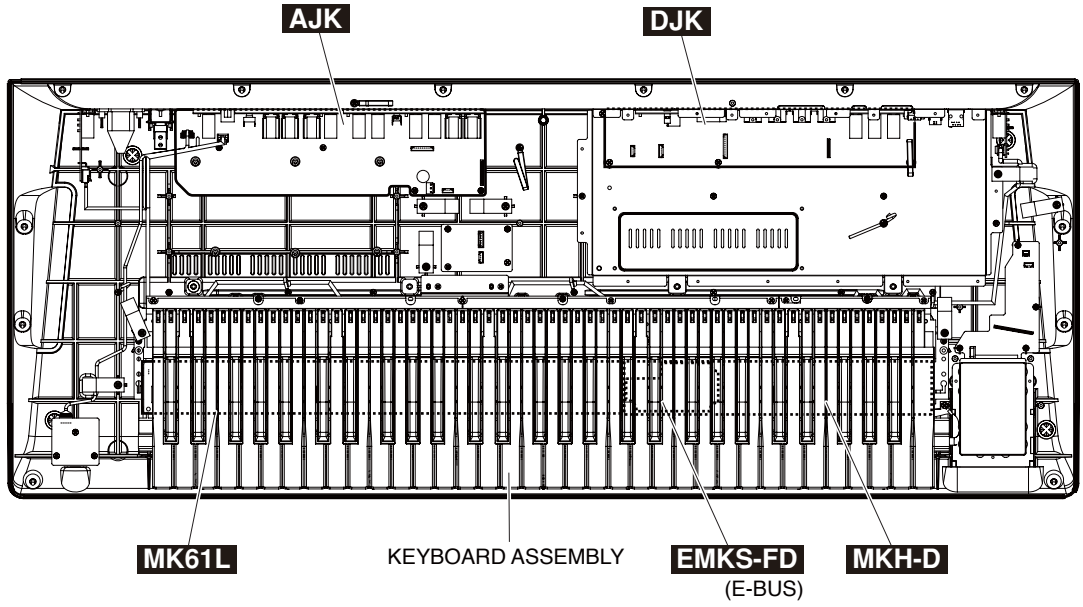
CIRCUIT BOARD LAYOUT

• **Rear Side**

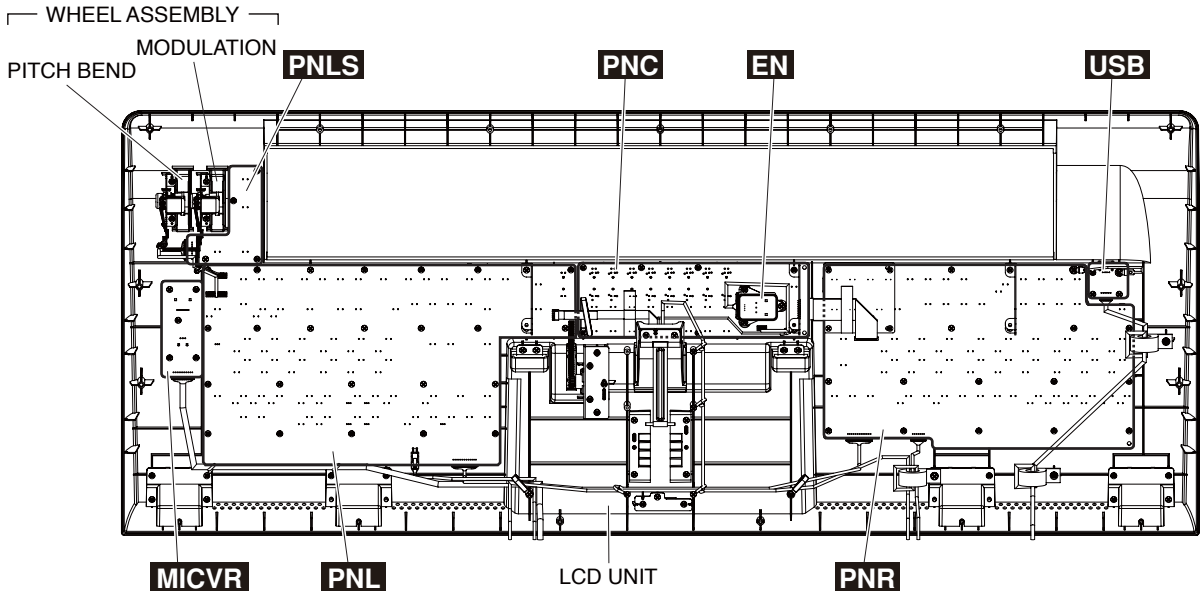


• **Lower Case Side**

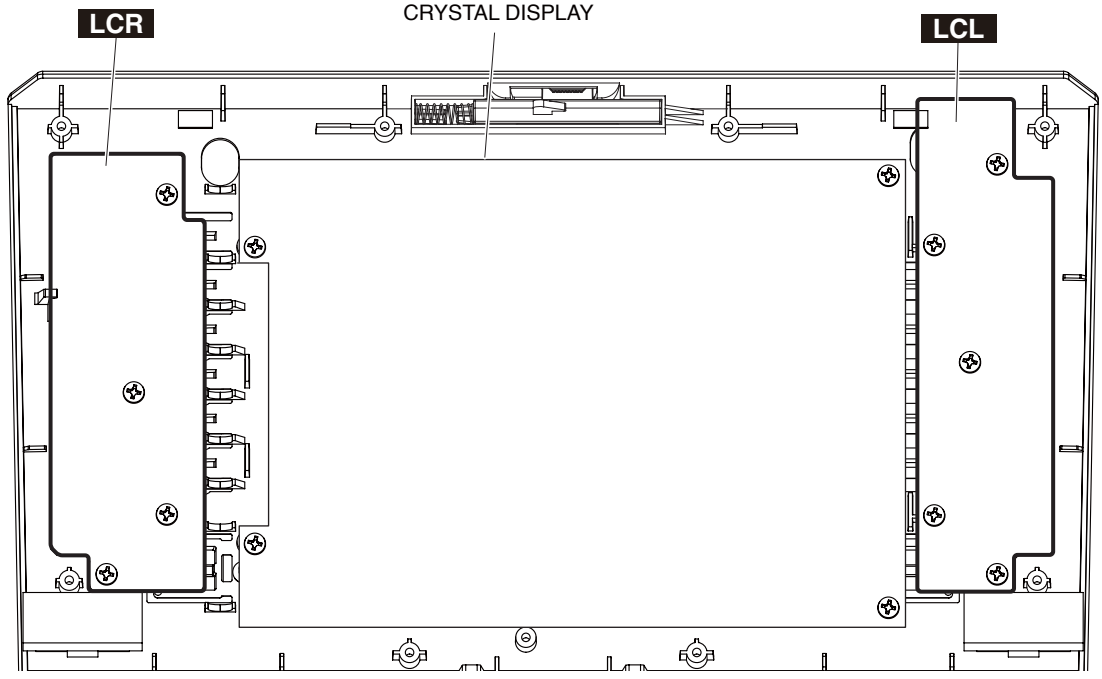




• **Upper Case Side**



• **LCD Unit**



DISASSEMBLY PROCEDURE (Tyros3)

Precautions

- **If you want to turn the instrument or upper case unit upside down, prepare supporting materials and put the both end portions of the instrument or upper case unit on the supporting materials. (Fig. A)**
- **During reassembly, reinstall the adhesive tape, cord holder, GND wire and ferrite core that were removed during disassembly as they were before removal.**

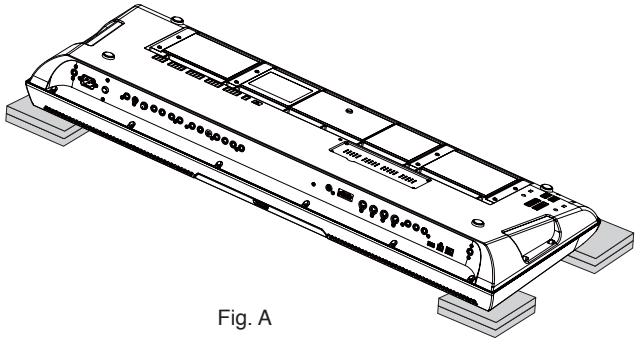
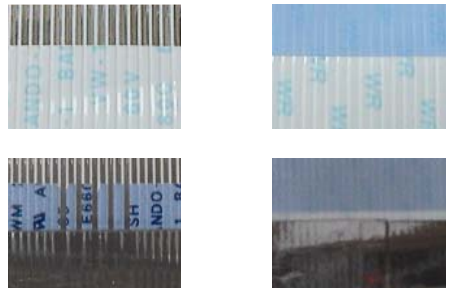


Fig. A

- **Notes on Flat Cable**
  When connecting to the connector, pay attention not to insert the cable inversely. (Photo A)



Front Side Back Side

Photo A

1. Separation of Upper Case Unit and Lower Case Unit

(The required: About 5 minutes).

1-1 Remove the four (4) screws marked [S12] and seventeen (17) screws marked [S14A], lift the rear side of the upper case unit a little, pull it toward you a little paying attention not to damage connector assemblies, and lift the upper case unit carefully. (Fig. 1, Photo 1)

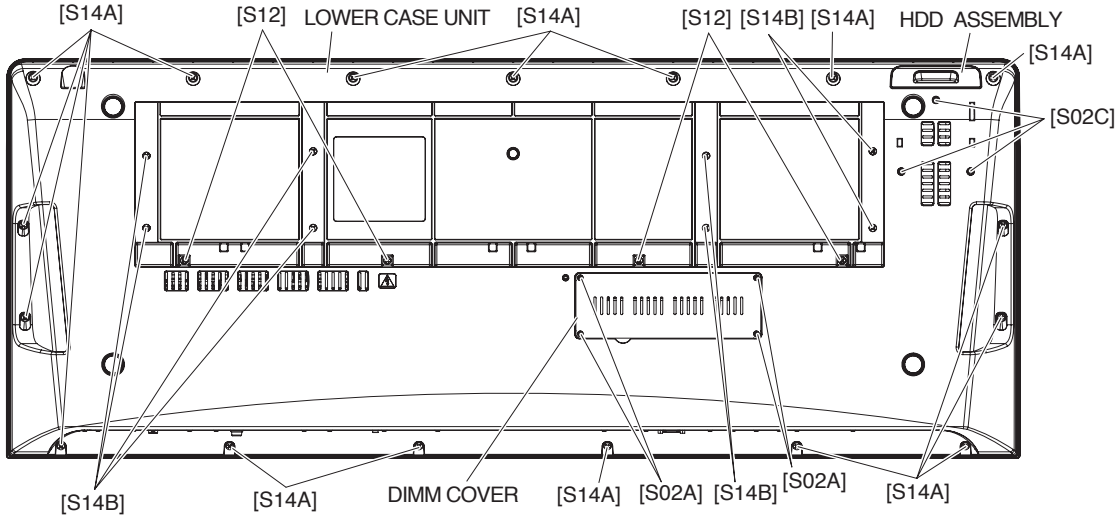
1-2 Remove the six (6) screws marked [S03A]. The ACDM earth angle can then be removed. (Fig. 2)

1-3 Remove the screw marked [S09]. (Fig. 2)

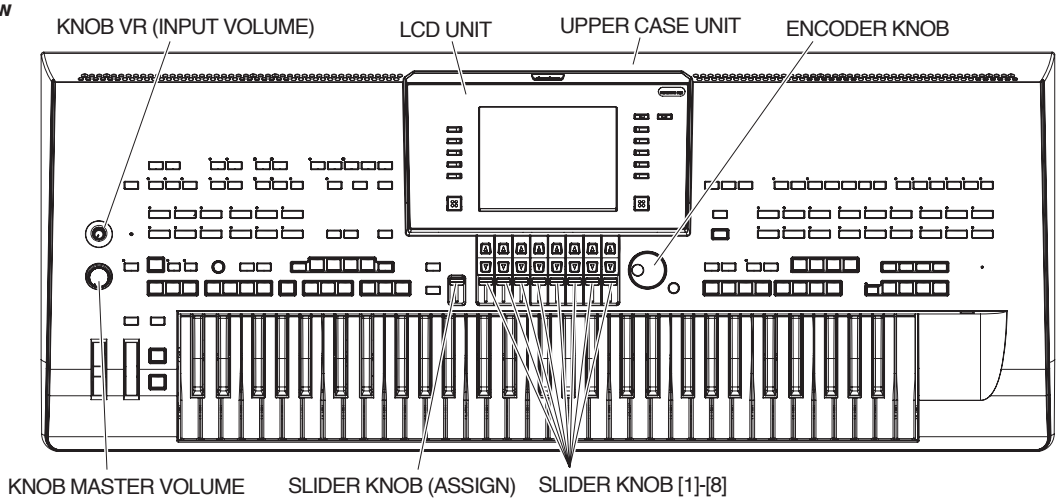
1-4 Disconnect all the connector assemblies connecting the upper case unit and lower case unit. The upper case unit and lower case unit can then be separated.

Photo 1

• Bottom View



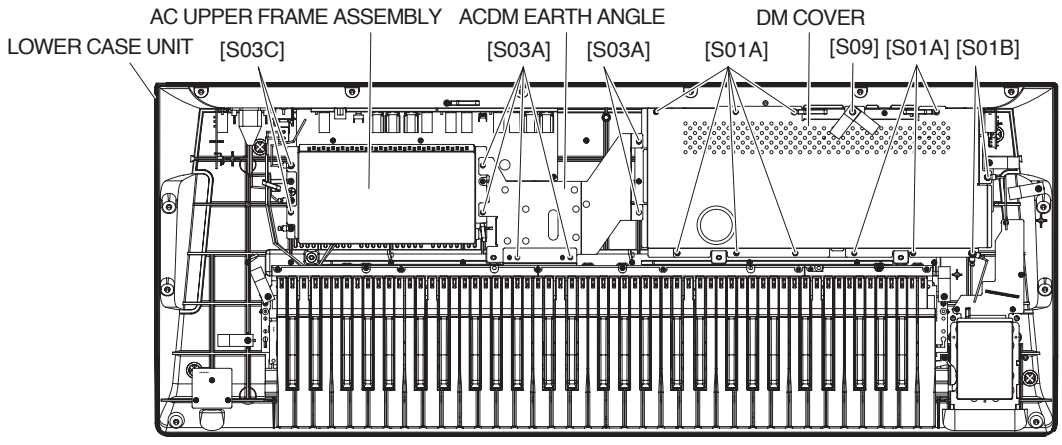
• Top View



[S02]: BIND HEAD SCREW 3.0X8 MFZN2B3 (WE983600)
[S12]: BIND HEAD SCREW 4.0X10 MFZN2W3 (WE96650R)
[S14]: BIND HEAD TAPPING SCREW-B 4.0X16 MFZN2W3 (WF15410R)

Fig. 1

• **Top View**



[S01]: BIND HEAD SCREW 3.0X6 MFZN2W3 (WE774000)
[S03]: BIND HEAD TAPPING SCREW-B 3.0X8 MFZN2W3 (WE774301)
[S09]: PW HEAD MACHINE SCREW 3.0 X 12 MFZN2W3 (WP817100)

Fig. 2

2. DM Circuit Board

(Time Required: About 8 minutes)

* ***If there is a DIMM inserted into the DIMM socket, remove the four (4) screws marked [S02A], DIMM cover and the DIMM before going to the procedures below. (Fig1, Fig. 3)***

2-1 Separate the upper case unit and lower case unit. (See procedure 1.)

2-2 Remove the sine (9) screws marked [S01A] and two (2) screws marked [S01B]. The DM cover can then be removed. (Fig. 2)

2-3 Remove the four (4) screws marked [S01C] and the screw marked [S02B]. The DM circuit board can then be removed. (Fig. 4)

* ***MAC (Media Access Control) address is stored in the DM circuit board. If the DM circuit board is replaced, MAC address will be changed.***

• **Removing DIMMs**

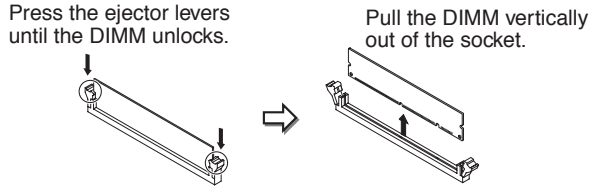
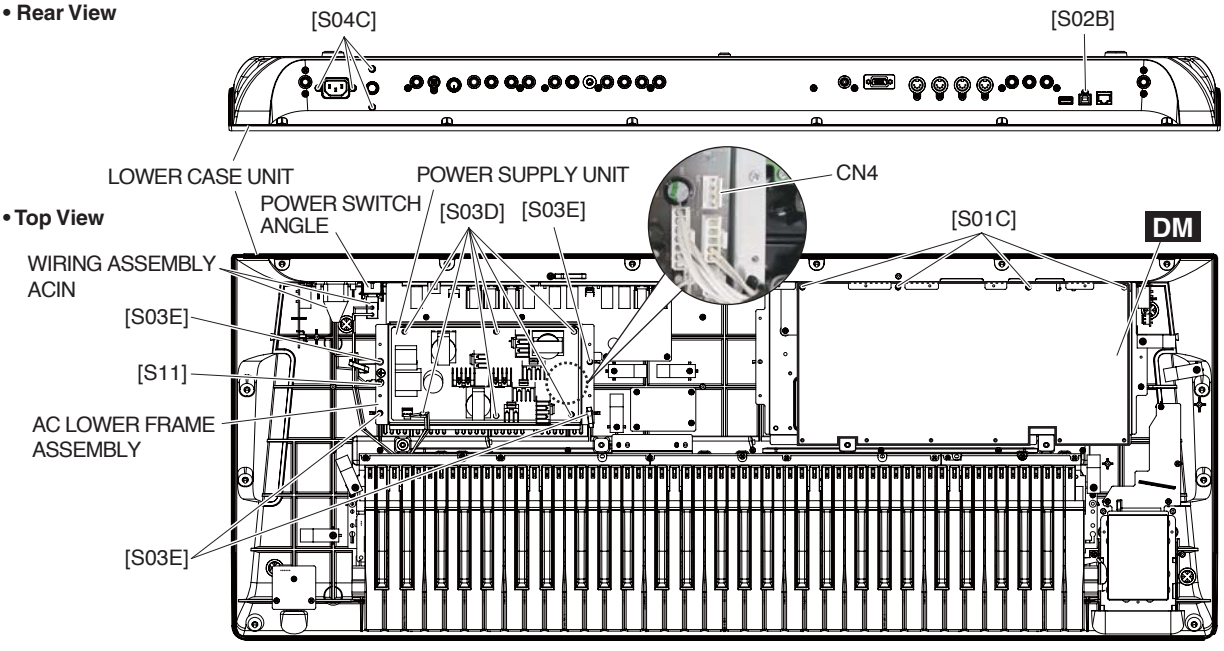


Fig. 3

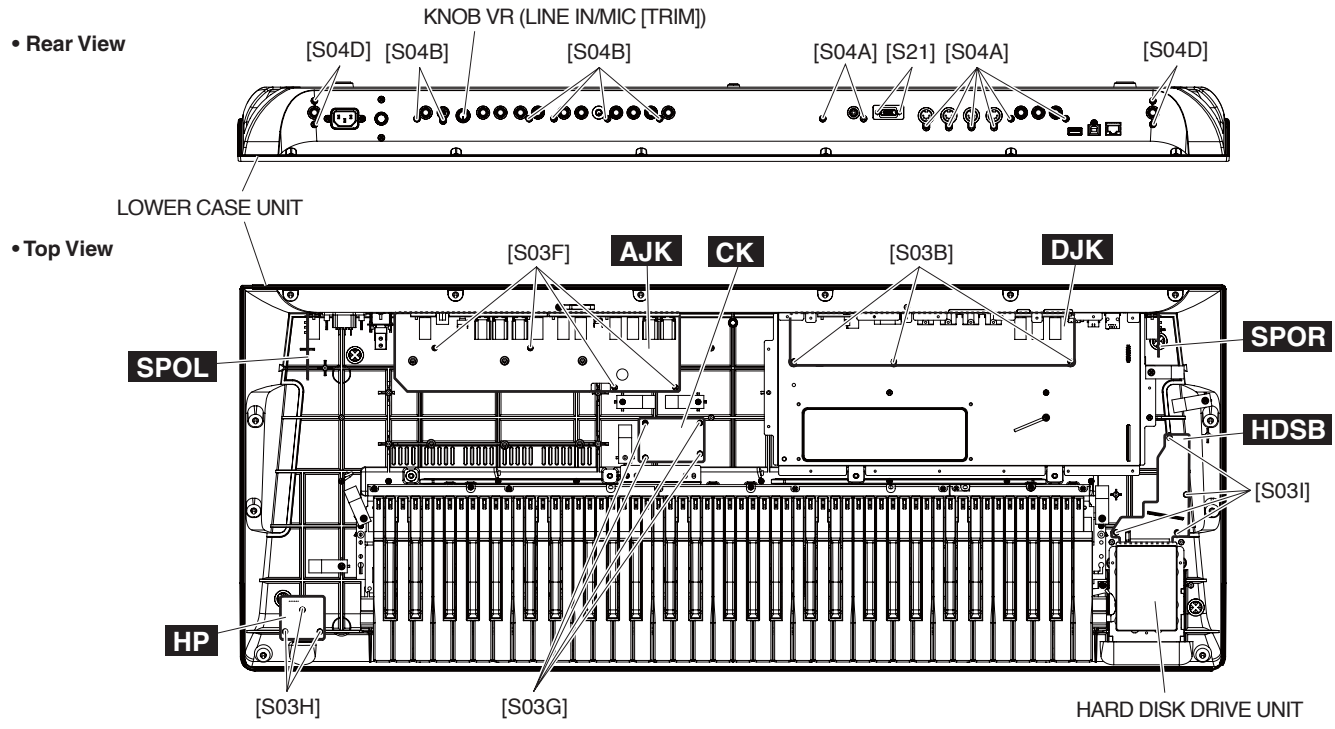
• **Rear View**

• **Top View**



[S01B]: BIND HEAD SCREW 3.0X6 MFZN2W3 (WE774000)
[S02B]: BIND HEAD SCREW 3.0X8 MFZN2B3 (WE983600)
[S03]: BIND HEAD TAPPING SCREW-B 3.0X8 MFZN2W3 (WE774301)
[S04C]: BIND HEAD TAPPING SCREW-B 3.0X10 MFZN2B3 (WE972200)
[S11]: BIND HEAD SCREW 4.0X8 MFZN2W3 (WE968500)

Fig. 4



[S03]: BIND HEAD TAPPING SCREW-B 3.0X8 MFZN2W3 (WE774301)
[S04]: BIND HEAD TAPPING SCREW-B 3.0X10 MFZN2B3 (WE972200)
[S21]: HEXAGONAL LOCK SCREW HFS-4S-B1WM (V7569300)

Fig. 5

3. DJK Circuit Board
(Time Required: About 10 minutes)

3-1 Separate the upper case unit and lower case unit. (See procedure 1.)

3-2 Remove the DM circuit board. (See procedure 2.)

3-3 Remove the three (3) screws marked [S03B], eight (8) screws marked [S04A] and two (2) hexagonal lock screws marked [S21]. The DJK circuit board can then be removed. (Fig. 5)

4. AC Upper Frame Assembly
(Time Required: about 6 minutes)

4-1 Separate the upper case unit and lower case unit. (See procedure 1.)

4-2 Remove the two (2) screws marked [S03C]. The AC upper frame assembly can then be removed. (Fig. 2)

5. Power Supply Unit
(Time Required: About 7 minutes)

5-1 Separate the upper case unit and lower case unit. (See procedure 1.)

5-2 Remove the AC upper frame assembly. (See procedure 4.)

5-3 Remove the six (6) screws marked [S03D]. The power supply unit can then be removed. (Fig. 4)

* ***No cord should be connected to the CN4 of the power supply unit. Pay attention to connection during installment. (Fig. 4)***

6. AC Lower Frame Assembly
(Time Required: about 7 minutes)

6-1 Separate the upper case unit and lower case unit. (See procedure 1.)

6-2 Remove the AC upper frame assembly. (See procedure 4.)

6-3 Remove the two (4) screws marked [S03E] and the screw marked [S11]. The AC lower frame assembly can then be removed with the power supply unit on it. (Fig. 4)

* ***No cord should be connected to the CN4 of the power supply unit. Pay attention to connection during installment. (Fig. 4)***

7. AJK Circuit Board
(Time Required: About 8 minutes)

7-1 Separate the upper case unit and lower case unit. (See procedure 1.)

7-2 Remove the AC upper frame assembly. (See procedure 4.)

7-3 Remove the AC lower frame assembly with the power supply unit on it (See procedure 6.)

7-4 Remove the VR knob (LINE IN/MIC [TRIM]). (Fig. 5)

7-5 Remove the four (4) screws marked [S03F] and six (6) screws marked [S04B]. The AJK circuit board can then be removed. (Fig. 5)

8. ACIN Wiring Assembly
(Time Required: About 7 minutes)

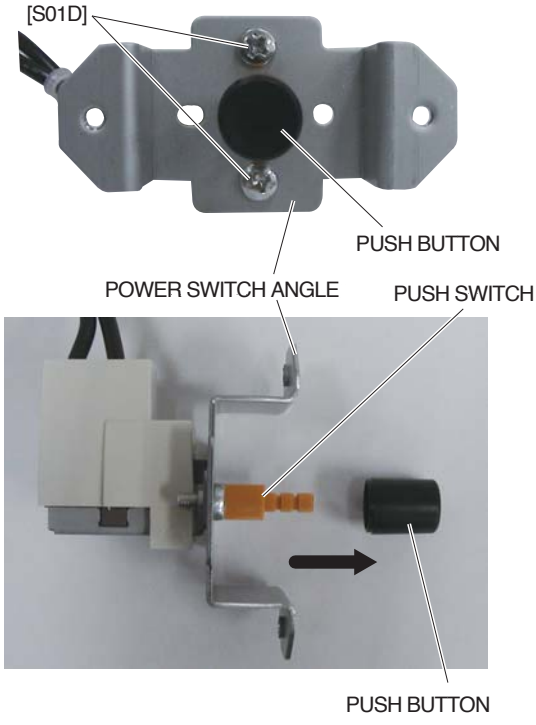
8-1 Separate the upper case unit and lower case unit. (See procedure 1.)

8-2 Remove the AC upper frame assembly. (See procedure 4.)

8-3 Remove the four (4) screws marked [S04C] and the screw marked [S11]. The ACIN wiring assembly can then be removed together with the power switch angle. (Fig. 4)

8-4 Remove the two (2) screws marked [S01D]. The power switch angle can then be removed. (Photo 2)

* ***The push button is not part of the ACIN wiring assembly. When replacing the ACIN wiring assembly (push switch), remove the push button from the push switch of the ACIN wiring assembly and install it on the new ACIN wiring assembly. (Photo 2)***



[S01]: BIND HEAD SCREW 3.0X6 MFZN2W3 (WE774000)

Photo 2

9. SPOL Circuit Board, SPOR Circuit Board
(Time Required: About 6 minutes)

9-1 Separate the upper case unit and lower case unit. (See procedure 1.)

9-2 Remove the two (2) screws marked [S04D]. The SPOL circuit board can then be removed. (Fig. 5)

* ***The SPOR circuit board can be removed in the same way.***

10. CK Circuit Board
(Time Required: About 6 minutes)

10-1 Separate the upper case unit and lower case unit. (See procedure 1.)

10-2 Remove the four (4) screws marked [S03G]. The CK circuit board can then be removed. (Fig. 5)

11. HP Circuit Board
(Time Required: About 6 minutes)

11-1 Separate the upper case unit and lower case unit. (See procedure 1.)

11-2 Remove the three (3) screws marked [S03H]. The HP circuit board can then be removed. (Fig. 5)

12. HDSB Circuit Board
(Time Required: About 6 minutes)

12-1 Separate the upper case unit and lower case unit. (See procedure 1.)

12-2 Remove the two (2) screws marked [S01B] and four (4) screws marked [S03I]. (Fig. 2, Fig. 5)

12-3 Pull off the HDSB circuit board from the HDD terminal. (Photo 3)

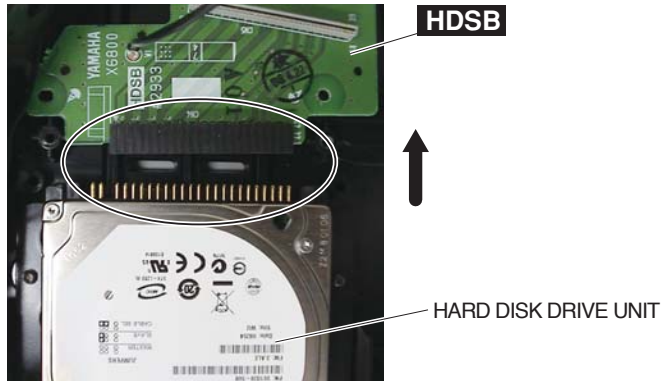
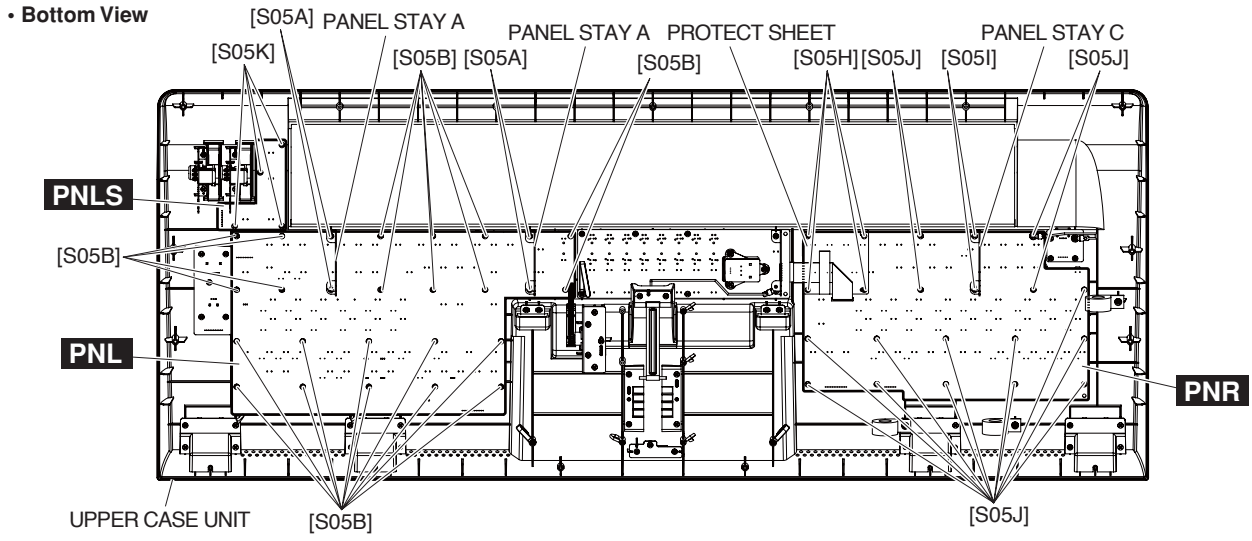


Photo 3



[S05]: BIND HEAD TAPPING SCREW-B 3.0X10 MFZN2W3 (WE774200)

Fig. 6

13. PNL Circuit Board
(Time Required: About 10 minutes)

13-1 Remove the slider knob (ASSIGN) from the control panel. (Fig. 1)

13-2 Separate the upper case unit and lower case unit. (See procedure 1.)

13-3 Remove the four (4) screws marked [S05A]. The two (2) panel stays A can then be removed. (Fig. 6)

13-4 Remove the twenty-two (22) screws marked [S05B]. The PNL circuit board can then be removed. (Fig. 6)

14. EN Circuit Board
(Time Required: About 6 minutes)

14-1 Remove the encoder knob from the control panel (Fig. 1, Fig. 7).

14-2 Separate the upper case unit and lower case unit. (See procedure 1.)

14-3 Remove the three (3) screws marked [S05C]. The ENC assembly can then be removed. (Fig. 9)

14-4 Remove the hexagonal nut marked [A] and the washer marked [B]. The ENC stay can then be removed. (Fig. 8)

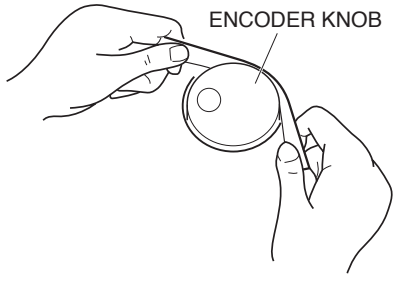


Fig. 7

15. PNC Circuit Board
(Time Required: About 8 minutes)

15-1 Remove the eight (8) slider knobs (ASSIGN) and the encoder knob from the control panel. (Fig. 1)

15-2 Separate the upper case unit and lower case unit. (See procedure 1.)

15-3 Remove the ENC assembly. (See procedure 14-3)

15-4 Release the lock at the back of the LCD unit, open the LCD unit and remove the screw marked [S05D] which has been hidden. (Fig. 9, 10)

15-5 Remove the five (5) screws marked [S05E], the screw marked [S05F], the screw marked [S05G] and the panel stay B. The PNC circuit board can then be removed. (Fig. 9)

16. PNR Circuit Board
(Time Required: About 9 minutes)

16-1 Separate the upper case unit and lower case unit. (See procedure 1.)

16-2 Remove the four (4) screws marked [S05H] and the protect sheet. (Fig. 6)

16-3 Remove the two (2) screws marked [S05I]. The panel stay C can then be removed. (Fig. 6)

16-4 Remove the fifteen (15) screws marked [S05J]. The PNR circuit board can then be removed. (Fig. 6)

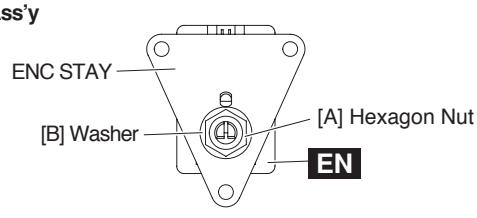
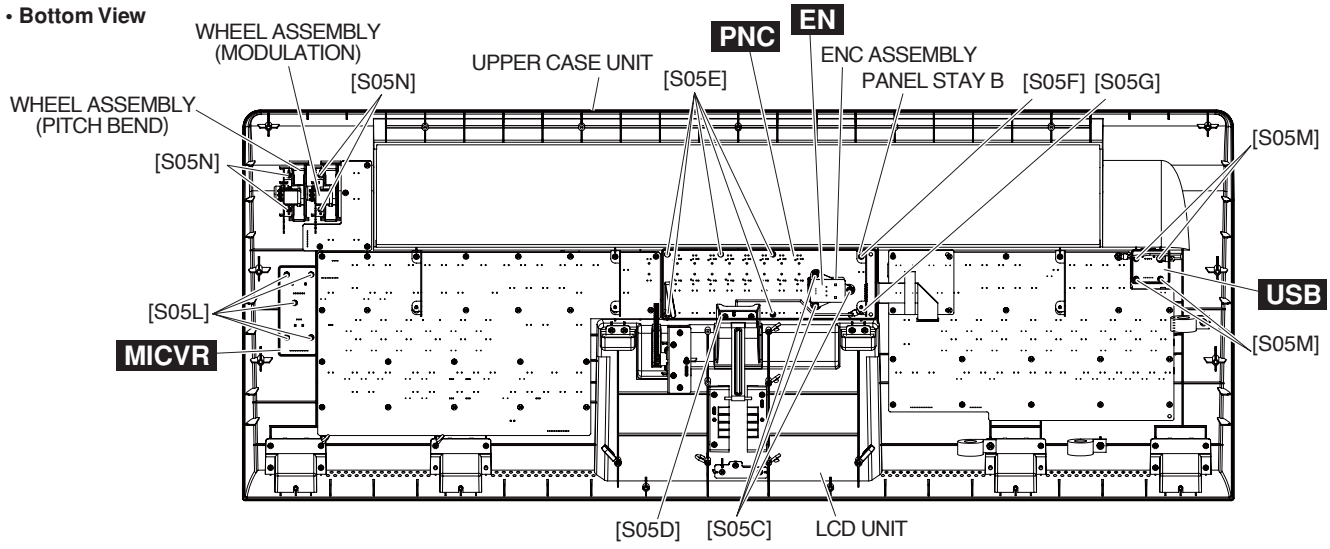


Fig. 8



[S05]: BIND HEAD TAPPING SCREW-B 3.0X10 MFZN2W3 (WE774200)

Fig. 9

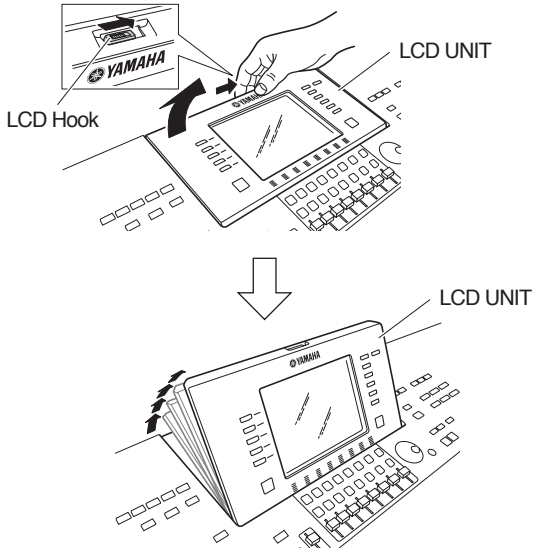


Fig. 10

17. PNLS Circuit Board
(Time Required: About 6 minutes)

17-1 Separate the upper case unit and lower case unit. (See procedure 1.)

17-2 Remove the four (4) screws marked [S05K]. The PNLS circuit board can then be removed. (Fig. 6)

18. MICVR Circuit Board
(Time Required: About 6 minutes)

18-1 Remove the VR knob (INPUT VOLUME) and the MASTER VOLUME knob from the control panel. (Fig. 1)

18-2 Separate the upper case unit and lower case unit. (See procedure 1.)

18-3 Remove the five (5) screws marked [S05L]. The MICVR circuit board can then be removed. (Fig. 9)

19. USB Circuit Board
(Time Required: About 6 minutes)

19-1 Separate the upper case unit and lower case unit. (See procedure 1.)

19-2 Remove the four (4) screws marked [S05M]. The USB circuit board can then be removed. (Fig. 9)

20. Wheel Assembly (PITCH BEND, MODULATION)
(Time Required: About 6 minutes)

20-1 Separate the upper case unit and lower case unit (See procedure 1).

20-2 Remove the two (2) screws marked [S05N]. The wheel assembly (PITCH BEND) can then be removed. (Fig. 9)

* ***The wheel assembly (MODULATION) can be removed in the same way.***

21. LCD Unit (Time Required: About 7 minutes)

21-1 Separate the upper case unit and lower case unit. (See procedure 1.)

21-2 Remove the two (2) screws marked [S05O]. The stay hinge assembly can then be removed. (Fig. 11)

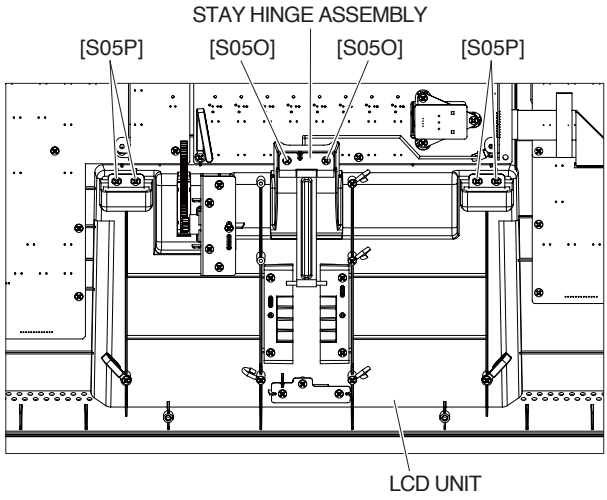
21-3 Remove the four (4) screws marked [S05P] and the screw marked [S05G]. (Fig. 9, 11)

21-4 Turn the front side of the upper case unit upward.

* ***Disconnect the connector assemblies of the LCD unit in advance.***

21-5 Release the lock at the back of the LCD unit, raise the LCD unit and remove the two (2) dust proof cloths. (Fig. 10, 12)

21-6 Tip the LCD unit until it is at an angle shown in Fig. 13, lift it a little and then pull it out obliquely upward. (Fig. 13)



[S05]: BIND HEAD TAPPING SCREW-B
3.0X10 MFZN2W3 (WE774200)

Fig. 11

22. LCD Lower Assembly and Gear
(Time Required: About 7 minutes)

22-1 Separate the upper case unit and lower case unit. (See procedure 1.)

22-2 Remove the LCD unit. (See procedure 21.)

22-3 Remove the eight (8) screws marked [S04E], slide the LCD hook and remove the LCD lower assembly and gear while shifting the hook at the back of the LCD unit as shown in Photo 4. (Fig. 14, Photo 4)

23. LCL Circuit Board
(Time Required: About 7 minutes)

23-1 Separate the upper case unit and lower case unit. (See procedure 1.)

23-2 Remove the LCD unit. (See procedure 21.)

23-3 Remove the LCD lower case assembly and gear. (See procedure 22.)

23-4 Lift the stopper of the CN2 connector as shown in Fig. 15 and then remove the flat cable and ferrite core. (Fig. 15)

23-5 Remove the five (5) screws marked [S03J]. The LCL circuit board can then be removed. (Fig. 15)

24. LCR Circuit Board
(Time Required: About 7 minutes)

24-1 Separate the upper case unit and lower case unit. (See procedure 1.)

24-2 Remove the LCD unit. (See procedure 21.)

24-3 Remove the LCD lower case assembly and gear. (See procedure 22.)

24-4 Remove the four (4) screws marked [S03K]. The LCR circuit board can then be removed. (Fig. 15)

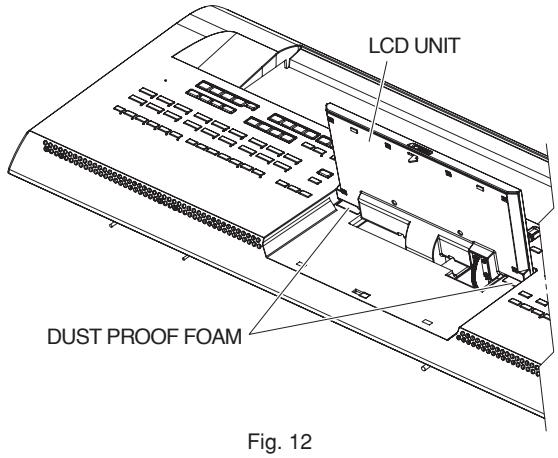


Fig. 12

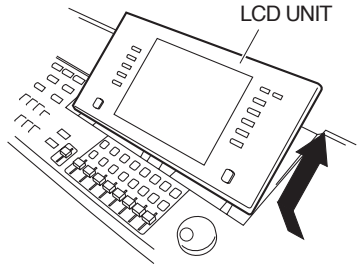
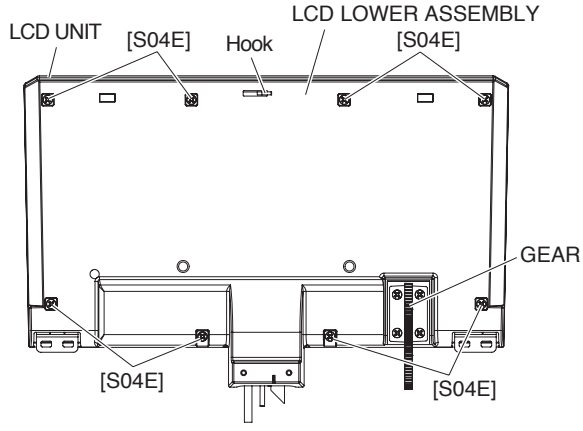


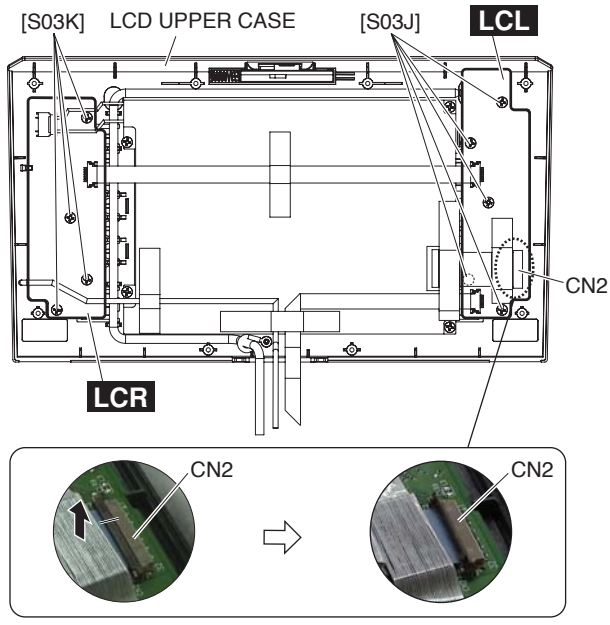
Fig. 13



[S04E]: BIND HEAD TAPPING SCREW-B
3.0X10 MFZN2B3 (WE972200)

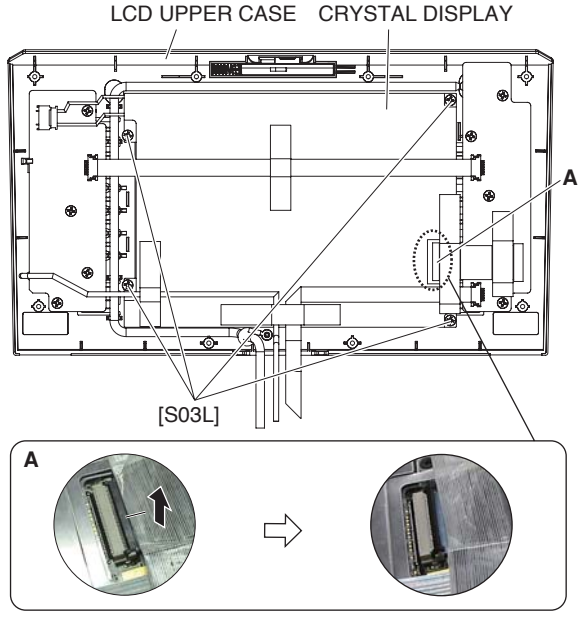
Fig. 14

Photo 4



[S03]: BIND HEAD TAPPING SCREW-B
3.0X8 MFZN2W3 (WE774301)

Fig. 15



[S03L]: BIND HEAD TAPPING SCREW-B
3.0X8 MFZN2W3 (WE774301)

Fig. 16

25. Crystal Display
(Time Required: About 7 minutes)

25-1 Separate the upper case unit and lower case unit. (See procedure 1.)

25-2 Remove the LCD unit. (See procedure 21.)

25-3 Remove the LCD lower case assembly and gear. (See procedure 22.)

25-4 Lift the stopper of the connector at the portion [A] as shown in Fig. 16 and then remove the flat cable and ferrite core. (Fig. 16)

25-5 Remove the four (4) screws marked [S03L]. The crystal display can then be removed. (Fig. 16)

⚠ **When connecting to the connector, pay attention not to insert the cable inversely.**

26. Keyboard Assembly
(Time Required: About 9 minutes)

26-1 Separate the upper case unit and lower case unit. (See procedure 1.)

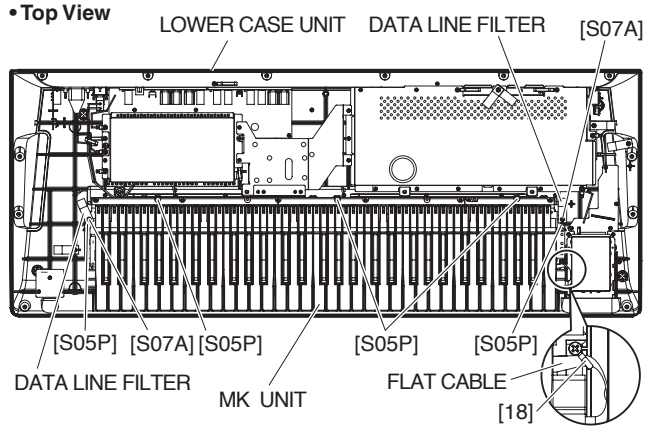
26-2 Remove the two (2) screws marked [S07A]. The two (2) data line filters can then be removed. (Fig. 17)

26-3 Remove the eight (8) screws marked [S14B] and five (5) screws marked [S05P]. (Fig. 1、Fig. 17)

* ***Be sure to loosen the cord holder marked [18] and release the flat cable (PC sensor) from the cord holder before lifting the keyboard. (Fig.17)***
If the keyboard is lifted without releasing the flat cable from the cord holder, the flat cable or the sensor may be damaged.

26-4 Raise the MK unit from front side so that the front side will face upward while paying attention to the connector assemblies. (Photo 5)

26-5 Remove the screw marked [MS13] and two (2) screws marked [MS03]. The keyboard assembly can then be removed. (Fig. 18)



[S05P]: BIND HEAD TAPPING SCREW-B 3.0X10 MFZN2W3 (WE774200)
[S07A]: PW HEAD TAPPING SCREW-B 3.0X12 MFZN2W3 (WF00210R)

Fig. 17

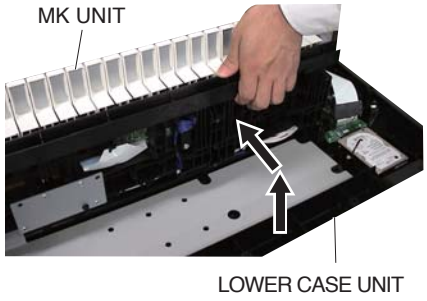
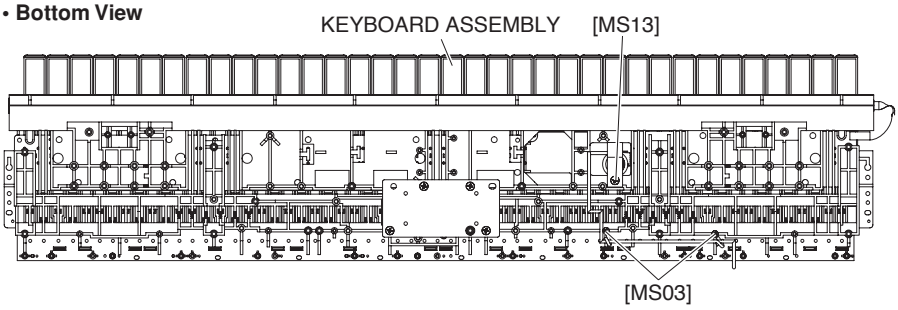


Photo 5

• **Bottom View**



[MS03]: BIND HEAD TAPPING SCREW-B 3.0X8 MFZN2W3 (WE774301)
[MS13]: BIND HEAD TAPPING SCREW-B 4.0X12 MFZN2W3 (WE98120R)

Fig. 18

27. Keys (White and Black Keys)

27-1 Remove the keyboard assembly. (See procedure 26.)

27-2 Remove the key stoppers corresponding to the keys to be replaced. (Table 1, Fig. 19)

27-3 **White key**

27-3-1 Place the white key in the horizontal position and remove it, lifting while pushing rearward. (Photo 6)

* ***At this time, a key guide cap may come off together. (Photo 8)***

27-4 **Black key**

27-4-1 Remove the white keys on the right and left sides of the black key to be removed. (Photo 6)

27-4-2 Place the black key in the horizontal position and remove it, lifting while pushing rearward. (Photo 7)

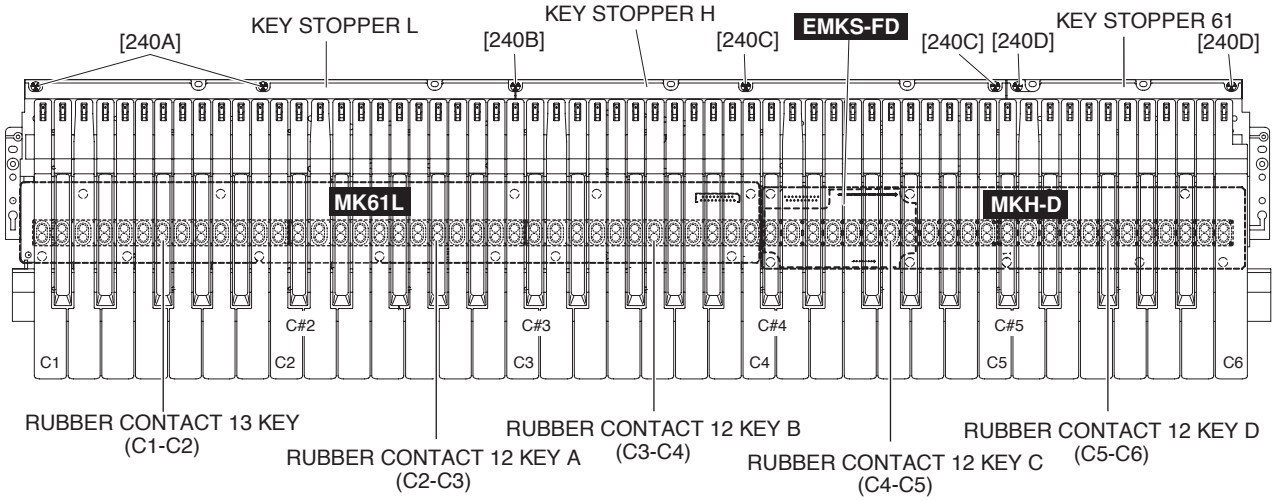
Photo 6

Photo 7

Photo 8

Table 1

	KEY STOPPER L	KEY STOPPER H	KEY STOPPER 61
REMOVE SCREW	[240A] X 2, [240B] X 1	[240B] X 1, [240C] X 2	[240D] X 2



[240]: BIND HEAD TAPPING SCREW-P 3.0X16 MFZN2B3 (WE983200)

Fig. 19

28. Installing Keys (White and Black Keys)

28-1 Black key

28-1-1 With the white keys to the right and left sides removed, lower the front end of the horizontal black key and fit it into the frame while pushing it rearward.

* ***At this time, pay attention not to bend the key guide cap by lowering the front portion of the key too much. (Photo 8)***

28-2 White key

28-2-1 After installing the black keys, install the white keys in the same way as the black keys.
(See procedure 28-1.)

28-3 Install the removed key stoppers.
(Table 1, Fig. 19)

29. Disassembling Keyboard Assembly

29-1 Rubber Contact

29-1-1 Remove the keyboard assembly.
(See procedure 26.)

29-1-2 Remove the key stoppers and keys listed in the table 2, corresponding to the rubber contacts to be removed. (Table 2, fig. 19) (See procedure 27.)

29-1-3 Pull out the rubber contact. (Fig. 19)

* ***The orientation of rubber contacts on the keyboard is previously designated. Pay attention not to install the rubber contacts inversely. (Fig. 20)***

* ***When installing the rubber contact, push it with the end of a clip. (Photo 9)***

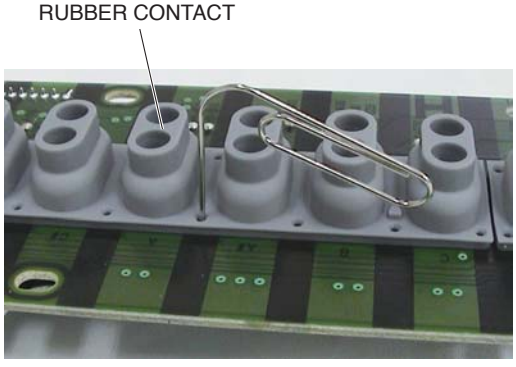


Photo 9

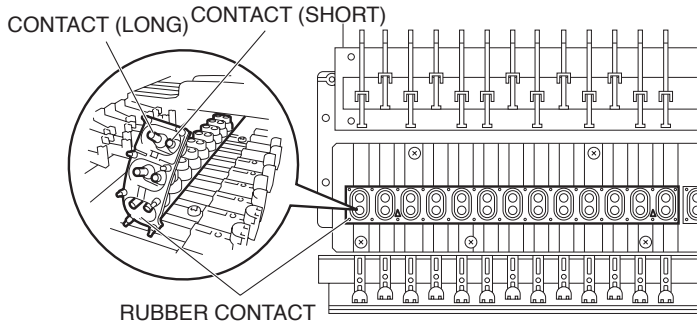
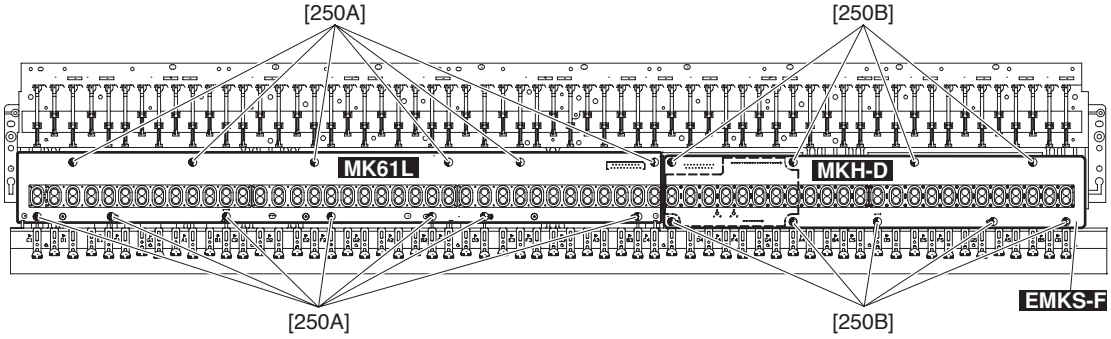


Fig. 20

Table 2

	RUBBER CONTACT 13KEY	RUBBER CONTACT 12KEY A	RUBBER CONTACT 12KEY B	RUBBER CONTACT 12KEY C	RUBBER CONTACT 12KEY D
APPLICATION CIRCUIT BOARD	MK61L	MK61L	MK61L	MKH-D	MKH-D
REMOVE KEY STOPPER	L	L, H	L, H	H	61
REMOVE KEY	C1-C2	C2-C3	C3-C4	C4-C5	C5-C6



[250]: BIND HEAD TAPPING SCREW-P 3.0X8 MFZN2B3 (WF266600)

Fig. 21

29-2 **MK61L Circuit Board**
(Time required: About 8 minutes)

29-2-1 Remove the keyboard assembly.
(See procedure 26.)

29-2-2 Remove the key stopper L and key stopper H. (Table 1, Fig. 19)

29-2-3 Remove the keys and the key springs from C1 to C4.
(See procedure 27.)

29-2-4 Remove the thirteen (13) screws marked [250A] and disconnect the connector from the underside of the keyboard unit. The MK61L circuit board can then be removed. (Fig. 21, Photo 10)

* ***The rubber contacts are not parts of the MK61L circuit board. When replacing the MK61L circuit board, remove the rubber contacts from the circuit board and install them to new circuit board.***

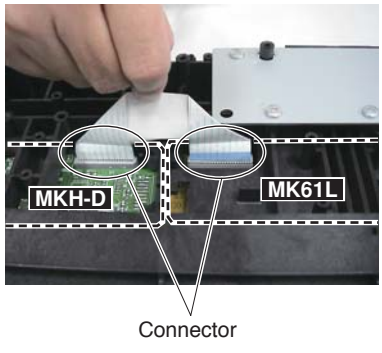


Photo 10

29-3 **MKH-D Circuit Board, EMKS-FD Circuit Board**
(Time required: About 8 minutes)

29-3-1 Remove the keyboard assembly.
(See procedure 26.)

29-3-2 Remove the key stopper H and key stopper 61. (Table 1, Fig. 19)

29-3-3 Remove the keys and key springs from C4 to C6.
(See procedure 27.)

29-3-4 Remove the nine (9) screws marked [250B] and disconnect the connectors from the underside of the keyboard. The MKH-D circuit board can then be removed. (Fig. 21, Photo 10)

* ***The EMKS-FD circuit board is a part of the MKH-D circuit board and is soldered to the MKH-D circuit board at connectors. (Photo 11)***

* ***The rubber contacts are not parts of the MKC circuit board. When replacing the MKC circuit board, remove the rubber contacts from the circuit board and install them to new circuit board.***

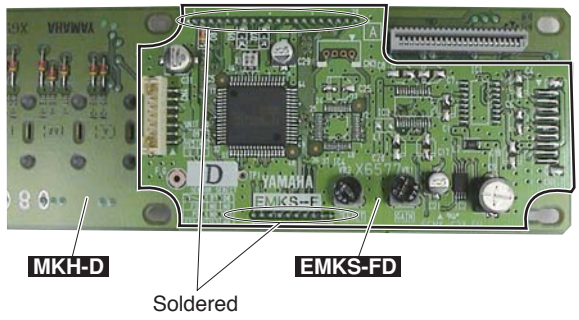
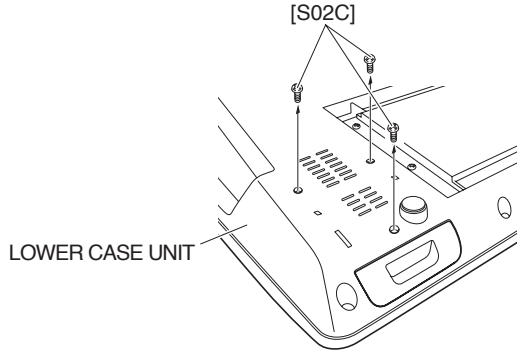


Photo 11

30. Hard Disk Drive Unit

Turn the Tyros3's power off, disconnect any cables including AC power cord from the keyboard.
Also make sure to close the LCD panel and disconnect a USB device from the USB TO DEVICE terminal.
Turn the Tyros3 face down on a blanket or some soft surface, giving you direct access to the bottom of the instrument.

30-1 Remove the three (3) screws marked [S02C]. (Fig. 1, Fig. 22)



[S02C]: BIND HEAD SCREW 3.0X8 MFZN2B3 (WE983600)

Fig. 22

30-2 Pull out the HDD bracket. (Fig. 23)

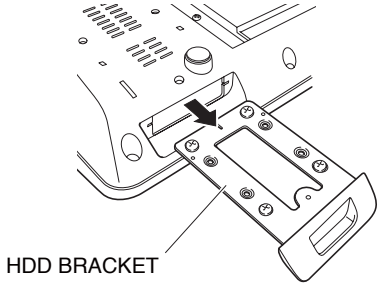
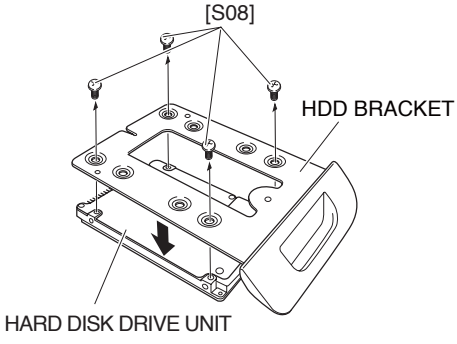


Fig. 23

30-3 Remove the four (4) screws marked [S08]. The hard disk drive unit can then be removed. (Fig. 24)



[S08]: BIND HEAD SCREW 3.0X4 MFNI33 (VG048000)

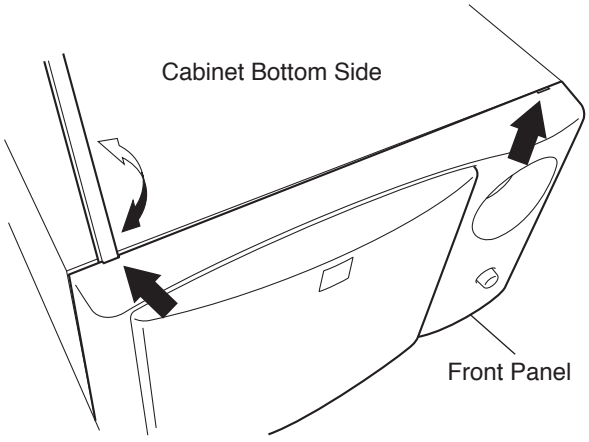
Fig. 24

DISASSEMBLY PROCEDURE (TRS-MS02)

1. Grille Assembly

(Time required: About 2 minutes)

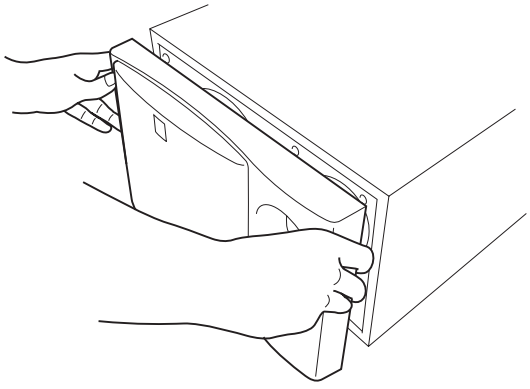
1-1 Lay the unit upside down, insert a thin plate such as a ruler into the two slits on the bottom, then unclench slightly the front panel. (Fig.1)



(Fig.1)

* *Take great care not to damage the cabinet. Stop unclenching when a small clearance is formed.*

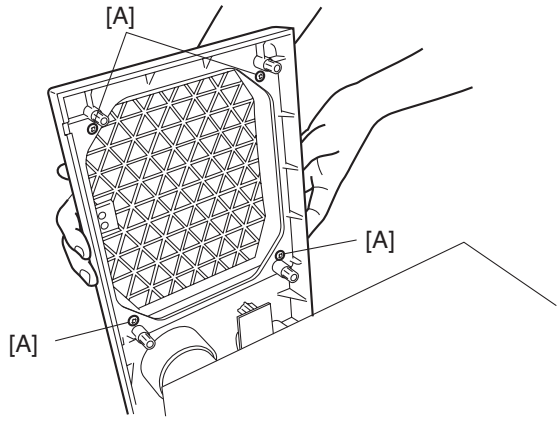
1-2 Pull the front panel forward to remove. (Fig.2)



(Fig.2)

* *The front panel is fixed on the cabinet by six dowels, so take care not to force diagonally too much.*

1-3 Remove the four (4) screws marked [A]. The grille assembly can then be removed. (Fig.3)



(Fig.3)

2. AC Power Cord

(Time required: About 3 minutes)

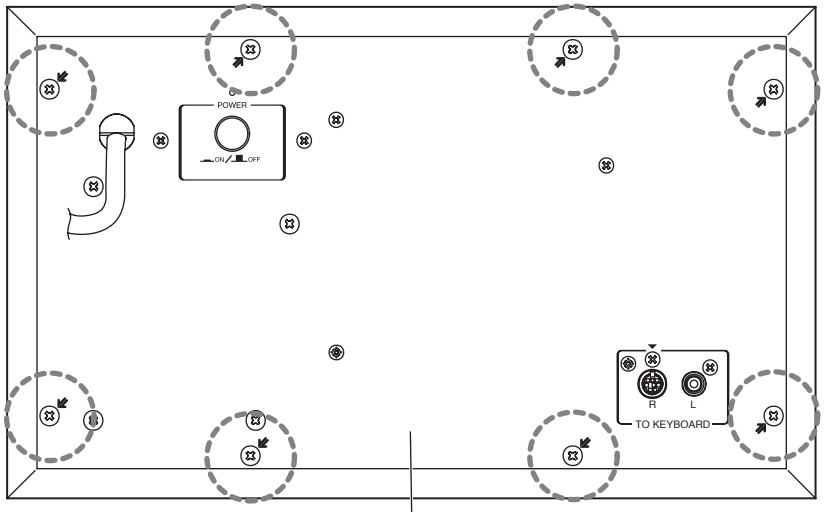
2-1 Remove the eight (8) screws marked [B]. The rear panel can then be removed.
(The screws to be removed are indicated by arrows '->' on the rear panel.) (Fig.4)

* *When reinstalling the rear panel, confirm that the packing is not damaged to avoid air leakage. (Fig.5)*

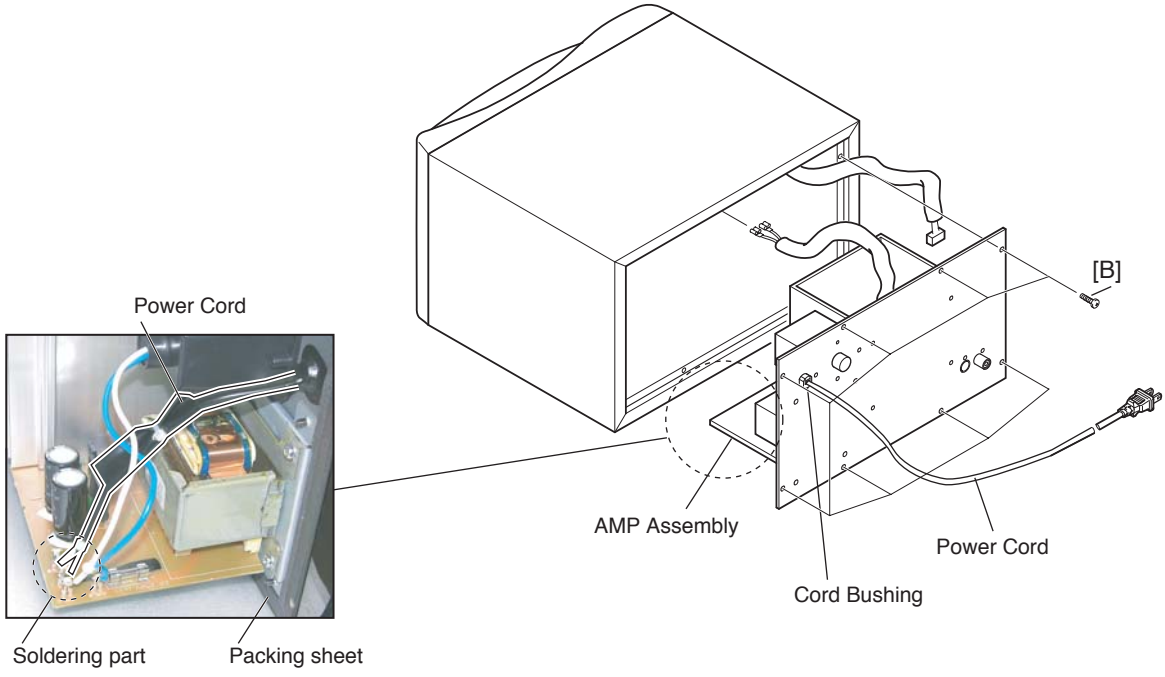
2-2 Remove the soldering portions of the AC power cord from the AMP assembly. (Fig.5)

2-3 Remove the cord bushing from the rear panel. The AC power cord can then be removed. (Fig.5)

* *When reinstalling the rear panel, confirm that the packing is not damaged to avoid air leakage. (Fig.5)*



(Fig.4)



(Fig.5)

Fig. 1

INSTALLING THE OPTIONAL DIMMS

Installing optional DIMMs to the Tyros3 allows you to save large amounts of Voice data created by the Voice Creator function. This section explains how to install DIMM memory modules to the Tyros3.

⚠WARNING

- Before beginning installation, switch off the power to the Tyros3 and connected peripherals, and unplug them from the power outlet. Then remove all cables connecting the Tyros3 to other devices. (Leaving the power cord connected while working can result in electric shock. Leaving other cables connected can interfere with work.)
- Be careful not to drop any screws inside the instrument during installation (this can be prevented by keeping the optional units and cover away from the instrument while attaching). If this does happen, be sure to remove the screw(s) from inside the unit before turning the power on. Loose screws inside the instrument can cause improper operation or serious damage.
- Install the optional units carefully as described in the procedure below. Improper installation can cause shorts which may result in irreparable damage and pose a fire hazard.

⚠CAUTION

- Do not touch the exposed metal parts in the circuit board. Touching these parts may result in a faulty contact.
- Be careful not to misplace any of the screws since all of them are used.
- Be careful of static electricity. Static electricity discharge can damage the DIMMs or the instrument. Before you handle the DIMMs, to reduce the possibility of static electricity, touch some unpainted metal surface or a ground wire on a device that is grounded.
- Do not use any screws other than what are installed on the instrument.

Compatible DIMMs

The Tyros3 does not necessarily support all commercially available DIMMs. Yamaha cannot guarantee operation of DIMMs that you purchase. Before purchasing DIMMs, see the following page:
http://music-tyros.com/

DIMM Type and DIMM Configuration

- Yamaha recommends that you purchase DIMMs that conform to the JEDEC* standard. Please be aware, however, that conformance to this standard does not constitute a guarantee that the DIMMs will operate correctly on the Tyros3.

* *JEDEC (Joint Electron Device Engineering Council) sets standards for terminal configurations within electronic devices.*

- Use only 168-pin DIMMs of 64, 128, 256 or 512 MB capacity (synchronized DRAM; PC100 or PC133).
- Use only DIMMs that have a height of 38.2 mm or less.
- When installing DIMMs, make sure to install them in a matched pair of the same capacity. You cannot install only one module and leave the second memory socket open. Also make sure each DIMM in the pair is of the same manufacturer and the same type. DIMMs of different makers and configurations may not work together.
- When purchasing DIMMs, make sure that the DIMM design does not utilize more than 18 memory chips per module. (DIMMs comprised of more than 18 chips do not operate correctly on the Tyros3.)

DIMM Installation

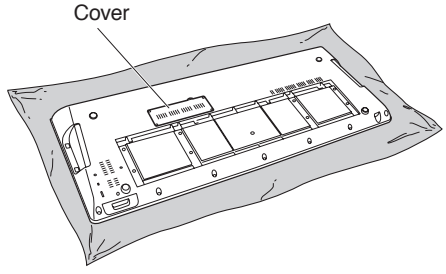
Before following the steps below, make sure you have appropriate DIMMs and a Phillips screwdriver.

1 **Turn the Tyros3's power off, and disconnect any cables including AC power cord from the keyboard.**

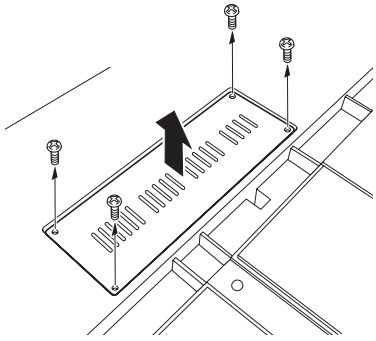
Also make sure to close the LCD panel and disconnect a USB device from the USB TO DEVICE terminal.

2 **Turn the Tyros3 face down on a blanket or some soft surface, giving you direct access to the bottom of the instrument.**

3 **Remove the four screws from the cover.**

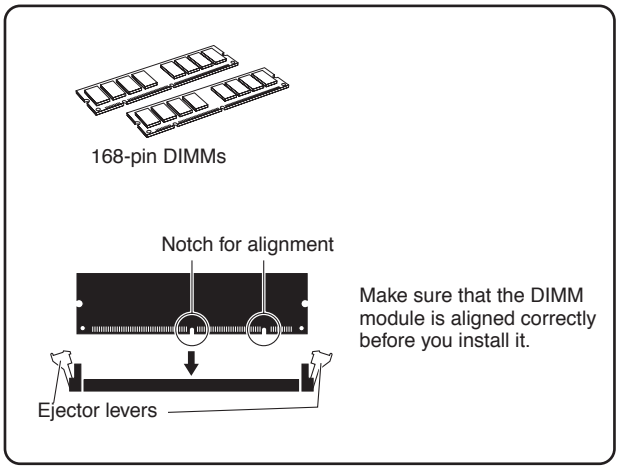


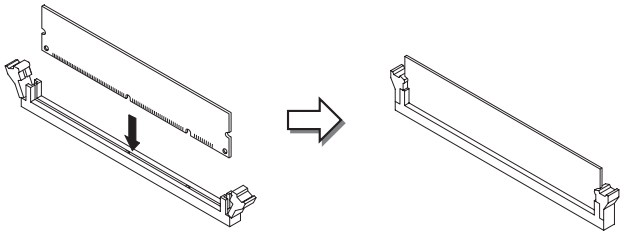
4 **Insert the two DIMMs into the DIMM sockets.**



Open the ejector levers, then insert the DIMM vertically in the socket.

5 **Re-install the cover you removed in step 3, in reverse order.**





Insert the DIMM vertically in the socket, aligning the notches to the corresponding protrusions.

Press it in firmly until it “snaps” or locks in place.

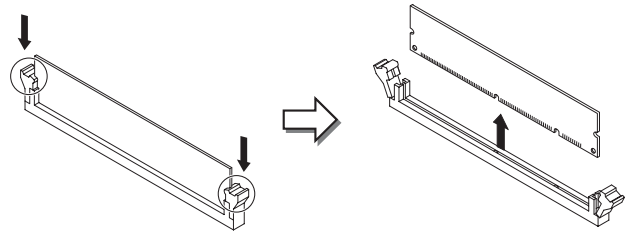
6 **Check that the installed DIMMs are functioning properly.**

Set the Tyros3 right-side up, turn the power on and check the WAVE RAM by accessing [VOICE CREATOR] → [B] LIBRARY EDIT → [8 ▼] PROPERTY.
If the DIMMs have been installed properly, the appropriate available memory size is indicated in the display.

Removing DIMMs

Press the ejector levers until the DIMM unlocks.

Pull the DIMM vertically out of the socket.



REPLACING THE INTERNAL HARD DISK

If the factory-installed hard disk crashes or when you want to replace it with another one (for example, one you have used on the Tyros/Tyros2), you can remove the current one and install the new one by following the procedure below. The hard disk used must be a 2.5-inch P-ATA (parallel ATA) compatible; however, not all such drives may be installable.

⚠WARNING

- Before beginning, switch off the power to the Tyros3 and connected peripherals, and unplug them from the power outlet. Then remove all cables connecting the Tyros3 to other devices. (Leaving the power cord connected while working can result in electric shock. Leaving other cables connected can interfere with work.)
- Be careful not to drop any screws inside the instrument. If this does happen, be sure to remove the screw(s) from inside the unit before turning the power on. Loose screws inside the instrument can cause improper operation or serious damage. If you are unable to retrieve a dropped screw, consult your Yamaha dealer for advice.
- Install the hard disk units carefully as described in the procedure below. Improper installation can cause shorts which may result in irreparable damage and pose a fire hazard.
- Do not disassemble, modify, or apply excessive force to board areas and connectors on hard disk units. Bending or tampering with boards and connectors may lead to electric shock, fire, or equipment failures.

⚠CAUTION

- Before removing the installed hard disk unit, make sure to backup any necessary data on the disk to computer by using the USB Storage Mode. This will prevent loss of important data and enable you to use the data on the new hard disk. (If you need to backup the recorded audio files, save the hidden folder “HDR.ROOT” to the computer.)
- It is recommended that you wear gloves to protect your hands from metallic projections on hard disk units and other components. Touching leads or connectors with bare hands may cause finger cuts, and may also result in poor electrical contact or electrostatic damage.
- Handle the hard disk unit with care. Dropping or subjecting them to any kind of shock may cause damage or result in a malfunction.
- Be careful of static electricity. Static electricity discharge can damage the IC chips on the hard disk or the instrument. Before you handle the hard disk, to reduce the possibility of static electricity, touch the metal parts other than the painted area or a ground wire on the devices that are grounded.
- Do not touch the exposed metal parts in the circuit board. Touching these parts may result in a faulty contact.
- Be careful not to misplace any of the screws since all of them are used.
- Do not use any screws other than what are installed on the instrument.

NOTE

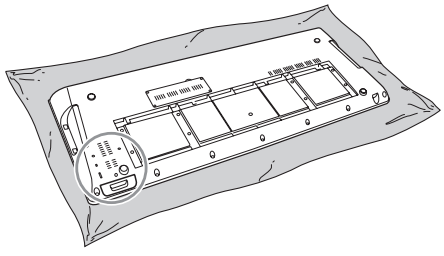
- Hard disk drives thicker than 12.7 mm cannot be installed to the Tyros3.
- S-ATA compatible hard disks cannot be used.

Before following the steps below, make sure you have an appropriate hard disk drive and a Phillips screwdriver.

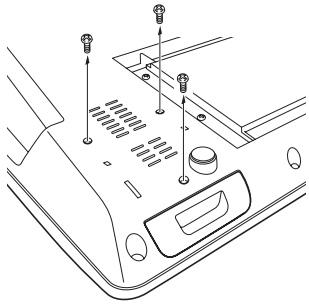
1 **Turn the Tyros3’s power off, disconnect any cables including AC power cord from the keyboard.**

Also make sure to close the LCD panel and disconnect a USB device from the USB TO DEVICE terminal.

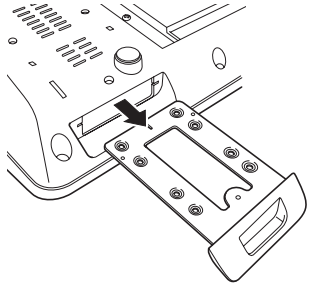
2 **Turn the Tyros3 face down on a blanket or some soft surface, giving you direct access to the bottom of the instrument.**



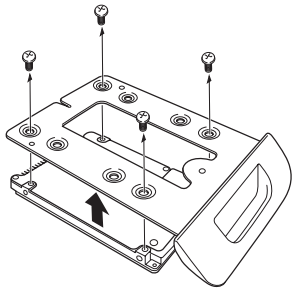
3 **Remove the three screws.**



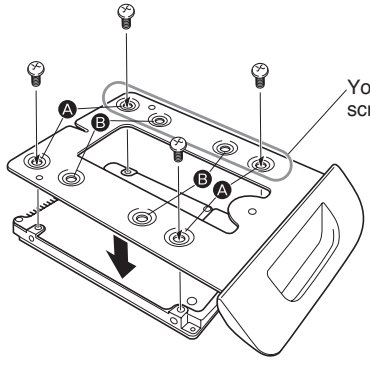
4 **Pull out the hard disk bracket.**



5 **Remove the four screws to remove the installed hard disk unit from the bracket.**



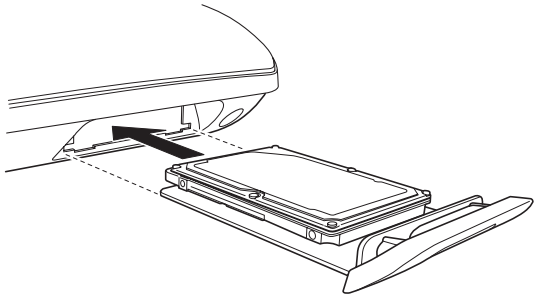
6 **Attach the new hard disk unit to the bracket using the four screws removed in step 5.**



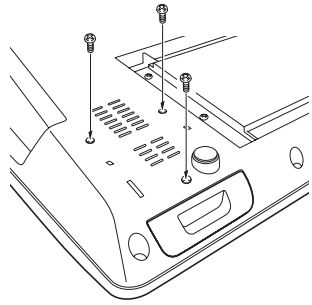
Make sure the bottom of the hard disk is facing up. Depending on the type of hard disk drive you plan to install, select holes Ⓐ or holes Ⓑ to attach the hard disk drive.
* Holes Ⓐ are used in this illustration.

7 **Set the Tyros3 right-side up.**

8 **Insert the hard disk bracket into the slot.**



9 **Turn the Tyros3 face down again and fasten the three screws removed in step 3.**



10 **Check that the installed hard disk is functioning properly.**

Set the Tyros3 right-side up, and turn the power on. If the HD tab appears on the File Selection display, the hard disk is OK.

NOTE

If you have installed the hard disk that was once used for the Tyros/Tyros2 and turn the Tyros3's power on, you can immediately view the files on the hard disk and use the Song files from the Tyros/Tyros2. However, to properly use the Style, Multi Pad, and Registration Memory files from the Tyros/Tyros2, you will need to convert the data using a computer and the File Converter software (available for free download on the Tyros3 website).

LSI PIN DESCRIPTION

● HD6433693B14HV (X480120R) E-VKS

EMKS-FD: IC005

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	NC		Not used	33	NC		Not used
2	NC			34	NC		
3	AVCC	-	Power supply	35	$\overline{NMI}$	I	Non maskable interrupt
4	X2	O	Crystal resonator	36	P80/FTCI	I/O	8-bit I/O port / External event input
5	X1	I		37	P81/FTIOA	I/O	8-bit I/O port / Output compare
6	VCL	-	Power supply	38	P82/FTIOB	I/O	8-bit I/O port / Output / input capture
7	$\overline{RES}$	I	Reset pin	39	P83/FTIOC	I/O	8-bit I/O port / Input PWM
8	TEST	I	Test pin	40	P84/FTIOD	I/O	8-bit I/O port / Output
9	VSS	-	Ground	41	P85	I/O	8-bit I/O port
10	OSC2	O	Crystal or ceramic resonator	42	P86	I/O	
11	OSC1	I		43	P87	I/O	
12	VCC	-	Power supply	44	P20/SCK3	I/O	3-bit I/O port / Clock
13	P50/$\overline{WKP0}$	I/O	8-bit I/O port / Interrupt request	45	P21/RXD	I/O	3-bit I/O port / Receive data input
14	P51/$\overline{WKP1}$	I/O		46	P22/TXD	I/O	3-bit I/O port / Transmit data output
15	NC		Not used	47	NC		Not used
16	NC			48	NC		
17	NC			49	NC		
18	NC			50	NC		
19	P52/$\overline{WKP2}$	I/O	8-bit I/O port / Interrupt request	51	P14/$\overline{IRQ0}$	I/O	7-bit I/O port / Interrput request
20	P53/$\overline{WKP3}$	I/O		52	P15/$\overline{IRQ1}$	I/O	
21	P54/$\overline{WKP4}$	I/O		53	P16/$\overline{IRQ2}$	I/O	
22	P55/$\overline{WKP5}$/$\overline{ADTRG}$	I/O	8-bit I/O port / Interrupt request / A/D converter trigger	54	P17/$\overline{IRQ3}$/TRGV	I/O	7-bit I/O port / Interrput request / Trigger input
23	P10/TMOW	I/O	7-bit I/O port	55	PB4/AN4	I/O	8-bit I/O port / Analog input
24	P11	I/O		56	PB5/AN5	I/O	
25	P12	I/O		57	PB6/AN6	I/O	
26	SDA	I/O	IIC data I/O pin	58	PB7/AN7	I/O	
27	SCL	I/O		59	PB3/AN3	I/O	
28	P74/TMRIV	I/O	3-bit I/O port / Timer	60	PB2/AN2	I/O	
29	P75/TMCIV	I/O		61	PB1/AN1	I/O	
30	P76/TMOV	I/O		62	PB0/AN0	I/O	
31	NC		Not used	63	NC		Not used
32	NC			64	NC		

• HD6417727F160CV (X2890B00) CPU

DM: IC3

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vcc-RTC	-	Power supply for RTC (1.9V)	121	PTM[4]/PINT[4]/AFE_RDET_/USB1d_TXDMNS	I	Not in use
2	XTAL2	-	Not in use (XTAL for internal RTC)	122	Reserved/USB1d_SUSPEND	O	
3	EXTAL2	-		123	USB1_ovr_crnt/USBF_VBUS	I	USB function VBUS
4	Vss-RTC	-	Power supply for RTC (0V)	124	USB2_ovr_crnt_	-	USB2_HOST2 over current detection
5	MD1	-	Clock mode setting	125	RTS2_/USB1d_TXENL	O	Not in use
6	MD2	-		126	PTE[2]/USB1_pwr_en	O	USB1 voltage control
7	NMI	-	Not in use (Non-maskable interrupt request)	127	PTE[1]/USB2_pwr_en	O	USB2 voltage control
8	IRQ0/IRL0_/PTH[0]	I	External interrupt request	128	CKE/PTK[5]	O	Enable (SDRAM)
9	IRQ1/IRL1_/PTH[1]	I		129	/RAS3/PTJ[0]	O	RAS for SDRAM
10	IRQ2/IRL2_/PTH[2]	I		130	Reserved/PTJ[1]	O	Not in use
11	IRQ3/IRL3_/PTH[3]	I		131	Reserved//CAS/PTJ[2]	O	CAS for SDRAM
12	IRQ4/PTH[4]	I		132	VssQ	-	VssQ
13	VEPWC	O	VEE control pin for LCD panel	133	Reserved/PTJ[3]	O	Output port (DAC Reset)
14	VCPWC	-	VCC control pin for LCD panel	134	VccQ	-	VccQ
15	MD5	-	Big endian setting	135	Reserved/PTJ[4]	O	Output port (SIO Reset)
16	/BREQ	-	Not in use (bus request)	136	Reserved/PTJ[5]	O	Output port (DAC Mute)
17	/BACK	-	Bus acknowledge	137	Vss	-	Vss
18	VssQ	-	VssQ	138	PTD[5]/CL1	O	LCD line clock
19	CKIO2	-	System clock output	139	Vcc	-	Vcc
20	VccQ	-	VccQ	140	PTD[7]/DON	O	LCD DISPLAY ON
21	D31/PTB[7]	I/O	Data bus	141	PTE[6]/M_DISP	O	LCD alternater
22	D30/PTB[6]	I/O		142	PTE[3]/FLM	O	LCD frame line marker
23	D29/PTB[5]	I/O		143	PTE[0]/TDO	O	JTAG (test data output)
24	D28/PTB[4]	I/O		144	PCC0RESET/DRACK0	O	DMA request acceptance
25	D27/PTB[3]	I/O		145	PCC0DRV_/DACK0_	O	DMA acknowledge
26	D26/PTB[2]	I/O		146	/WAIT	-	Hardware wait request
27	D25/PTB[1]	I/O		147	/RESETM	-	Manual reset request
28	D24/PTB[0]	I/O		148	/ADTRG/PTH[5]	I	Analog A/D trigger
29	VssQ	-	VssQ	149	/IOIS16/PTG[7]	I	Not in use
30	D23/PTA[7]	I/O	Data bus	150	/ASEMD0	-	
31	VccQ	-	VccQ	151	PTG[5]/ASEBRKAK_		
32	D22/PTA[6]	I/O	Data bus	152	PTG[4]	I	
33	D21/PTA[5]	I/O		153	PCC0BVD2/PTG[3]/AUDATA[3]	I	
34	D20/PTA[4]	I/O		154	PCC0BVD1/PTG[2]/AUDATA[2]	I	
35	Vss	-	Vss	155	Vss	-	Vss
36	D19/PTA[3]	I/O	Data bus	156	PCC0CD2/PTG[1]/AUDATA[1]	I	Not in use
37	Vcc	-	Vcc	157	Vcc	-	Vcc
38	D18/PTA[2]	I/O		158	PCC0CD1/PTG[0]/AUDATA[0]	I	Not in use
39	D17/PTA[1]	I/O		159	VssQ	-	VssQ
40	D16/PTA[0]	I/O		160	PTF[7]/PINT[15]/TRST_	I	Not in use
41	D15	-	Data bus	161	VccQ	-	VccQ
42	VssQ	-	VssQ	162	PTF[6]/PINT[14]/TMS	I	Not in use
43	D14	-	Data bus	163	PTF[5]/PINT[13]/TDI	I	
44	VccQ	-	VccQ	164	PTF[4]/PINT[12]/TCK	I	
45	D13	-	Data bus	165	PTF[3]/PINT[11]/Reserved	I	
46	D12	-		166	PCCREG_/PTF[2]/Reserved	I	
47	D11	-		167	PCC0VS1_/PTF[1]/Reserved	I	
48	D10	-		168	PCC0VS2_/PTF[0]/Reserved	I	
49	D9	-		169	MD0	-	Clock mode setting
50	D8	-		170	Vcc-PLL1	-	Power supply for Vcc_PLL1 - PLL1(1.9V)
51	D7	-		171	CAP1	-	External capacitance for CAP1 _ PLL1
52	D6	-		172	Vss-PLL1	-	Power supply for Vss_PLL1 _ PLL1(0V)
53	VssQ	-	VssQ	173	Vss-PLL2	-	Power supply for Vss_PLL2 _ PLL2 (0V)
54	D5	-	Data bus	174	CAP2	-	External capacitance for CAP2 _ PLL2
55	VccQ	-	VccQ	175	Vcc-PLL2	-	Power supply for Vcc_PLL2 _ PLL2 (1.9V)
56	D4	-	Data bus	176	PCC0WAIT_/PTH[6]/AUDCK	I	Not in use
57	D3	-		177	Vss	-	Vss
58	D2	-		178	Vcc	-	Vcc
59	D1	-		179	XTAL	-	Clock oscillator
60	D0	-		180	EXTAL	-	External clock
61	A0	-	Address bus	181	LCD15/PTM[3]/PINT[10]	I	Not in use
62	A1	-		182	LCD14/PTM[2]/PINT[9]	I	
63	A2	-		183	LCD13/PTM[1]/PINT[8]	I	
64	VssQ	-	VssQ	184	LCD12/PTM[0]	I	Input port (Flash ROM RY/BY)
65	A3	-	Address bus	185	STATUS0/PTJ[6]	O	Output port (Flash ROM write protect)
66	VccQ	-	VccQ	186	STATUS1/PTJ[7]	O	Output port (Flash ROM ACC)
67	A4	-	Address bus	187	CL2/PTH[7]	O	LCD clock output
68	A5	-		188	VssQ	-	VssQ
69	A6	-		189	CKIO	-	System clock input/output (for SDRAM)
70	A7	-		190	VccQ	-	VccQ
71	A8	-		191	TxD0/SCPT[0]	O	Output port for SCI
72	A9	-		192	SCK0/SCPT[1]	O	Not in use
73	A10	-		193	TxD_SIO/SCPT[2]	O	
74	A11	-		194	SIOMCLK/SCPT[3]	O	
75	VssQ	-	VssQ	195	TxD2/SCPT[4]	O	Output port for SCI
76	A12	-	Address bus	196	SCK_SIO/SCPT[5]	O	Not in use
77	VccQ	-	VccQ	197	SIOFSYNC/SCPT[6]	O	
78	A13	-	Address bus	198	RxD0/SCPT[0]	i	Receiving data 0
79	A14	-		199	RxD_SIO/SCPT[2]	i	Not in use
80	A15	-		200	Vss	-	Vss
81	A16	-		201	RxD2/SCPT[4]	i	Receiving data 2
82	A17	-		202	Vcc	-	Vcc
83	A18	-		203	SCPT[7]/CTS2_/IRQ5	I	Not in use
84	A19	-		204	LCD11/PTC[7]/PINT[3]	O	Output port (PLG CLOCK ON/OFF)
85	A20	-		205	LCD10/PTC[6]/PINT[2]	O	Not in use
86	VssQ	-	VssQ	206	LCD9/PTC[5]/PINT[1]	O	
87	A21	-	Address bus	207	VssQ	-	VssQ
88	VccQ	-	VccQ	208	LCD8/PTC[4]/PINT[0]	O	Not in use
89	A22	-	Address bus	209	VccQ	-	VccQ
90	A23	-		210	LCD7/PTD[3]	O	LCD DATA7
91	Vss	-	Vss	211	LCD6/PTD[2]	O	LCD DATA6
92	A24	-	Address bus	212	LCD5/PTC[3]	O	LCD DATA5
93	Vcc	-	Vcc	213	LCD4/PTC[2]	O	LCD DATA4
94	A25	-	Address bus	214	LCD3/PTC[1]	O	LCD DATA3
95	BS_/PTK[4]	O	Not connected (bus cycle start signal)	215	LCD2/PTC[0]	O	LCD DATA2
96	RD_	-	Read strobe	216	LCD1/PTD[1]	O	LCD DATA1
97	WE0_/DQMLL	O	Write 0 signal	217	LCD0/PTD[0]	O	LCD DATA0
98	WE1_/DQMLU/WE	O	Write 1 signal	218	DREQ0_/PTD[4]	I	DMA request
99	WE2_/DQMUL/ICIORD_/PTK[6]	O	Write 2 signal	219	LCK/UCLK/PTD[6]	I	USB clock
100	VssQ	-	VssQ	220	/RESETP	-	Power on reset request
101	WE3_/DQMUU/ICIOWR_/PTK{7}	O	Write 3 signal	221	CA	-	Hardware standby request
102	VccQ	-	VccQ	222	MD3	-	Bus width setting for area0
103	RD/WR_	O	Read/Write	223	MD4	-	
104	PTE[7]/PCC0RDY/AUDSYNC_	O	I/O	224	/Scan_testen	-	Test pin (fixed to 3.3V)
105	/CS0	-	Chip Select 0	225	Avcc_USB	-	USB analog power supply (3.3V)
106	/CS2	-	Chip Select 2	226	USB1_P	IO	USB1 data input/output (+)
107	/CS3	-	Chip Select 3	227	USB1_M	IO	USB1 data input/output (-)
108	/CS4/PTK[2]	O	Chip Select 4	228	Avss_USB	-	USB analog power supply (0V)
109	/CS5/CE1A_/PTK[3}	O	Chip Select 5	229	USB2_P	IO	USB2 data input/output (+)
110	/CS6/CE1B_	O	Chip Select 6	230	USB2_M	IO	USB2 data input/output (-)
111	CE2A_/PTE[4]	O	Output port (SWP50 Reset)	231	Avcc_USB	-	USB analog power supply (3.3V)
112	CE2B_/PTE[5]	O	Output port (PLG Board Reset)	232	Avss	-	A/D analog power supply (0V)
113	AFE_HC1/USB1d_DPLS/PTK[0]	O	SPD DATA	233	AN[2]/PTL[2]	I	AD converter input
114	AFE_RLYCNT_/USB1d_DMNS/PTK[1]	O	SPD CL	234	AN[3]/PTL[3]	I	
115	VssQ	-	VssQ	235	AN[4]/PTL[4]	I	
116	AFE_SCLK/USB1d_TXDPLS	I	Not in use (USB1 D+ transmission)	236	AN[5]/PTL[5]	I	
117	VccQ	-	VccQ	237	Avcc	-	A/D analog power supply (3.3V)
118	PTM[7]/PTINT[7]/AFE_FS/USB1d_RCV	I	Not in use	238	AN[6]/PTL[6]/DA[1]	I	AD converter input
119	PTM[6]/PTINT[6]/AFE_RXIN/USB1d_SPEED	I		239	AN[7]/PTL[7]/DA[0]	O	DA converter output (LCD contrast)
120	PTM[5]/PTINT[5]/AFE_TXOUT/USB1d_TXSE0	I		240	Avss	-	A/D analog power supply (0V)

• R5S72060W200FPV (X8924A00) CPU

DM: IC507

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	RD	O	Read	53	PE15 /	I/O	General port /
2	PA8 /	I/O	General port /		TIOC4D /	I/O	MTU2 input capture/output compare (channel 4) /
	RD/WR	O	Read/write signal		DACK1 /	O	DMA-transfer request accept /
3	PVss	I	Ground for I/O circuits		IRQOUT / CKE	O	Interrupt request output / CK enable
4	PC1 /	I	General port /	54	MD_CLK2	I	Clock mode set
	A1	O	Address bus	55	MD_CLK0	I	
5	A2	O	Address bus	56	Vss	I	Ground
6	A3	O		57	Vcc	I	Power supply
7	A4	O		58	MD2	I	Mode set
8	A5	O		59	MD0	I	
9	A6	O		60	PA9 /	I/O	General port /
10	A7	O			TCLKD /IRQ3 /	I	MTU2 timer clock input / Interrupt requests 3 /
11	A8	O			FRAME / CKE	O	FRAME signal / CK enable
12	A9	O		61	PE9 / TIOC3B /	I/O	General port / MTU2 input capture/output
13	Vcc	I	Power supply		SCK3 /	I/O	compare (channel 3) / Serial clock /
14	Vss	I	Ground		RTS3	O	Transmit request
15	PVss	I	Ground for I/O circuits	62	PA17 /	I/O	General port /
16	PVcc	I	Power supply for I/O circuits		WAIT /	I	Wait /
17	A10	O	Address bus		DACK2	O	DMA-transfer request accept
18	A11	O		63	PVcc	I	Power supply for I/O circuits
19	A12	O		64	PVss	I	Ground for I/O circuits
20	A13	O		65	PVss	I	
21	A14	O		66	PE13 /	I/O	General port /
22	A15	O			TIOC4B /	I/O	MTU2 input capture/output compare (channel 4) /
23	A16	O			MRES	I	Manual reset
24	Vcc	I	Power supply	67	CS0	O	Chip select 0
25	Vss	I	Ground	68	PA11 /	I/O	General port /
26	A17	O	Address bus		CS1 /	O	Chip select 1 /
27	A18	O			POE5	I	Port output control
28	A19	O		69	PE8 /	I/O	General port /
29	A20	O			TIOC3A /	I/O	MTU2 input capture/output compare (channel 3) /
30	PA18 /	I/O	General port /		SCK2	I/O	Serial clock
	BREQ /	I	Bus-mastership request /	70	PA24 /	I/O	General port /
	TEND0 /	O	DMA-transfer end output /		CE2A /	O	Upper byte select for PCMCIA card /
	PINT2	I	Interrupt requests 2		DREQ3 / PINT6	I	DMA-transfer request / Interrupt requests 6
31	PVcc	I	Power supply for I/O circuits	71	PA25 /	I/O	General port /
32	CKIO	I/O	System clock I/O		CE2B /	O	Upper byte select for PCMCIA card /
33	PVss	I	Ground for I/O circuits		DACK3 /	O	DMA-transfer request accept /
34	PLLVss	I	Ground for PLL		PINT7 / POE8	I	Interrupt requests 7 / Port output control
35	PLLVcc	I	Power supply for PLL	72	PB3 / IRQ1 / POE1 /	I	General port / Interrupt requests1 / Port output control /
36	PVcc	I	Power supply for I/O circuits		SDA	I/O	Serial data pin
37	RES	I	Power-on reset	73	PB2 / IRQ0 /	I	General port / Interrupt requests 0 /
38	PVss	I	Ground for I/O circuits		POE0 /	I	Port output control /
39	XTAL	O	Crystal		SCL	I/O	Serial clock pin
40	EXTAL	I	External clock	74	PE7 /	I/O	General port /
41	PVss	I	Ground for I/O circuits		TIOC2B /	I/O	MTU2 input capture/output compare (channel 2) /
42	PVcc	I	Power supply for I/O circuits		RxD2 /	I	Receive data /
43	NMI	I	Non-maskable interrupt		BS / UBCTRG	O	Bus start / User break trigger output
44	PVss	I	Ground for I/O circuits	75	PE0 /	I/O	General port /
45	PVss	I			TIOC0A /	I/O	MTU2 input capture/output compare (channel 0) /
46	PB9 /	I/O	General port /		DREQ0 /	I	DMA-transfer request /
	A21 /	O	Address bus /		AUDCK	O	AUD clock
	IRQ7 / ADTRG /	I	Interrupt requests 7 / A/D conversion trigger input	76	PVcc	I	Power supply for I/O circuits
	POE8	I	/ Port output control	77	PVss	I	Ground for I/O circuits
47	PA5 / SCK1 /	I/O	General port / Serial clock /	78	Vss	I	Ground
	DREQ1 / IRQ1 /	I	DMA-transfer request / Interrupt requests 1 /	79	Vcc	I	Power supply
	A22	O	Address bus	80	PE3 /	I/O	General port /
48	PA4 /	I/O	General port /		TIOC0D /	I/O	MTU2 input capture/output compare (channel 0) /
	TxD1 / A23	O	Transmit data / Address bus		TEND1 / AUDATA3	O	DMA-transfer end output / AUD data
49	PA3 /	I/O	General port /	81	PA1 /	I/O	General port /
	RxD1 /	I	Receive data /		TxD0 /	O	Transmit data /
	A24	O	Address bus		PINT1 /	I	Interrupt requests 1 /
50	PA2 / SCK0 /	I/O	General port / Serial clock /		CS5/CE1A	O	Chip select 5/Lower byte select for PCMCIA card
	DREQ0 / IRQ0 /	I	DMA-transfer request / Interrupt requests 0 /	82	PE5 /	I/O	General port /
	A25	O	Address bus		TIOC1B /	I/O	MTU2 input capture/output compare (channel 1) /
51	PC0 /	I/O	General port /		TxD3 / AUDATA1 /	O	Transmit data / AUD data
	A0	O	Address bus		CS6/CE1B	O	Chip select 6/Lower byte select for PCMCIA card
52	PE16 /	I/O	General port /	83	PE1 /	I/O	General port /
	CS8	O	Chip select 8		TIOC0B /	I/O	MTU2 input capture/output compare (channel 0) /
					TEND0	O	DMA-transfer end output

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
84	PE6 / SCK3 /	I/O	General port / Serial clock /	135	PD21 / D21	I/O	General port / Data bus
	TIOC2A /	I/O	MTU2 input capture/output compare (channel 2) /	136	PD20 / D20	I/O	
	AUDATA0 / $\overline{CS7}$	O	AUD data / Chip select 7	137	PD19 / D19	I/O	
85	PA0 /	I/O	General port /	138	PD18 / D18	I/O	
	RxD0 / PINT0 /	I	Receive data / Interrupt requests 0 /	139	PD17 / D17	I/O	
	$\overline{CS4}$	O	Chip select 4	140	PD16 / D16	I/O	
86	PE4	I/O	General port	141	PD15 / D15	I/O	
87	PE2 /	I/O	General port /	142	PD14 / D14	I/O	
	TIOC0C /	I/O	MTU2 input capture/output compare (channel 0) /	143	PD13 / D13	I/O	
	DREQ1	I	DMA-transfer request	144	Vss	I	Ground
88	PE14	I/O	General port	145	Vcc	I	Power supply
89	AVss	I	Analog ground	146	PD12 / D12	I/O	General port / Data bus
90	PF0 / AN0	I	General port / Analog input pins	147	PVss	I	Ground for I/O circuits
91	PF1 / AN1	I		148	PD11 / D11	I/O	General port / Data bus
92	PF2 / AN2	I		149	PVcc	I	Power supply for I/O circuits
93	PF3 / AN3	I		150	PD10 / D10	I/O	General port / Data bus
94	PF4 / AN4	I		151	PD9 / D9	I/O	
95	PF5 / AN5	I		152	PD8 / D8	I/O	
96	PF6 / AN6 /	I	General port / Analog input pins /	153	D7	I/O	Data bus
	DA0	O	Analog output pins	154	D6	I/O	
97	PF7 / AN7 /	I	General port / Analog input pins /	155	D5	I/O	
	DA1	O	Analog output pins	156	D4	I/O	
98	AVref	I	Analog reference voltage	157	D3	I/O	
99	AVcc	I	Analog power supply	158	Vss	I	Ground
100	PE10 /	I/O	General port /	159	Vcc	I	Power supply
	TIOC3C /	I/O	MTU2 input capture/output compare (channel 3) /	160	D2	I/O	Data bus
	TxD2	O	Transmit data	161	D1	I/O	
101	Vcc	I	Power supply	162	PVss	I	Ground for I/O circuits
102	Vss	I	Ground	163	PVcc	I	Power supply for I/O circuits
103	PE11 /	I/O	General port	164	D0	I/O	Data bus
	TIOC3D /	I/O	MTU2 input capture/output compare (channel 3) /	165	$\overline{PA21}$ /	I/O	General port /
	$\overline{RxD3}$ / CTS3	I	Receive data / Transmit enable		$\overline{CS5/CE1A}$ /	O	Chip select 5/Lower byte select for PCMCIA card /
104	$\overline{ASEBRKAK/ASEBRK}$	I/O	Break mode acknowledge/Break request		$\overline{CASU}$ /	O	CAS /
105	PE12 /	I/O	General port /		TIC5U /	I	MTU2 input capture (channel 5) /
	TIOC4A /	I/O	MTU2 input capture/output compare (channel 4) /		PINT5	I	Interrupt requests 5
	$\overline{TxD3}$	O	Transmit data	166	$\overline{PB5}$ /	I/O	General port /
106	$\overline{WDTOVF}$	O	Watchdog timer overflow		IRQ3 / $\overline{POE3}$ /	I	Interrupt requests 3 / Port output control /
107	ASEBCK	O	ASECK output		$\overline{CASL}$	O	CAS
108	PVcc	I	Power supply for I/O circuits	167	$\overline{PA16}$ /	I/O	General port /
109	$\overline{PA19}$ /	I/O	General port /		$\overline{WE3/DQMUU/AH/ICIOWR}$ /	O	Byte select/Byte select/Address hold/Write strobe for PCMCIA I/O /
	$\overline{BACK}$ /	O	Bus-mastership request acknowledge /		$\overline{DREQ2}$ /	I	DMA-transfer request /
	TEND1 /	O	DMA-transfer end output /		$\overline{AUDSYNC}$ / CKE	O	AUD sync signal / CK enable
	PINT3	I	Interrupt requests 3	168	PA6 /	I/O	General port /
110	$\overline{TCK}$	I	Test clock		$\overline{TCLKA}$ /	I	MTU2 timer clock input /
111	$\overline{TRST}$	I	Test reset		$\overline{CS2}$ /	O	Chip select 2
112	TDI	I	Test data input	169	PA7 /	I/O	General port /
113	PVss	I	Ground for I/O circuits		$\overline{TCLKB}$ /	I	MTU2 timer clock input /
114	Vss	I	Ground		$\overline{CS3}$ /	O	Chip select 3
115	Vcc	I	Power supply	170	$\overline{PA23}$ /	I/O	General port /
116	TMS	I	Test mode select		$\overline{WE3/DQMUU/AH/ICIOWR}$ /	O	Byte select/Byte select/Address hold/Write strobe for PCMCIA I/O /
117	PVcc	I	Power supply for I/O circuits		TIC5W	I	MTU2 input capture (channel 5)
118	$\overline{PVss}$	I	Ground for I/O circuits	171	$\overline{PA22}$ /	I/O	General port /
119	$\overline{ASEMD}$	I	Debugging mode		$\overline{WE2/DQMUL/ICIORD}$ /	O	Byte select/Byte select/Read strobe for PCMCIA I/O /
120	TDO	O	Test data output		TIC5V	I	MTU2 input capture (channel 5)
121	PD31 / D31	I/O	General port / Data bus	172	$\overline{PA13}$ /	I/O	General port /
122	PD30 / D30	I/O			$\overline{WE1/DQMLU/WE}$ /	O	Byte select/Byte select/Write strobe for PCMCIA memory /
123	PD29 / D29	I/O			$\overline{POE7}$	I	Port output control
124	PD28 / D28	I/O		173	$\overline{PA12}$ /	I/O	General port /
125	PVcc	I	Power supply for I/O circuits		$\overline{WE0/DQMLL}$ /	O	Byte select/Byte select /
126	PVss	I	Ground for I/O circuits		$\overline{POE6}$	I	Port output control
127	PD27 / D27	I/O	General port / Data bus	174	PB4 /	I/O	General port /
128	PD26 / D26	I/O			$\overline{IRQ2}$ /	I	Interrupt requests 2 /
129	PD25 / D25	I/O			$\overline{POE2}$ /	I	Port output control /
130	PD24 / D24	I/O			$\overline{RASL}$	O	RAS
131	PVcc	I	Power supply for I/O circuits	175	$\overline{PA20}$ /	I/O	General port /
132	PD23 / D23	I/O	General port / Data bus		$\overline{CS4}$ / $\overline{RASU}$ /	O	Chip select 4 / RAS /
133	PVss	I	Ground for I/O circuits		PINT4	I	Interrupt requests 4
134	PD22 / D22	I/O	General port / Data bus	176	PVcc	I	Power supply for I/O circuits

● **T6TZ2XBG-0002** (X7376B00) **SWP51** (Tone Generator)

DM: IC505, 506

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
1	E5	VSS	-	Ground	106	E22	VSS	-	Ground
2	D4	VDD1	-	Power supply +1.5 V	107	D23	VDD1	-	Power supply +1.5 V
3	C3	CD15	I/O	Data bus of internal register	108	C24	HMA15	O	Wave memory address bus
4	B2	CD13	I/O		109	B25	HMA16	O	
5	A1	CD14	I/O		110	A26	HMA22	O	
6	D5	CD6	I/O		111	E23	HMA25	O	
7	E6	CD2	I/O		112	F22	VDD3	-	Power supply +3.3 V
8	C4	CD9	I/O		113	D24	HMA27	O	Wave memory address bus
9	B3	CD11	I/O		114	C25	HMA0	O	
10	A2	CD12	I/O		115	B26	HMA23	O	
11	A3	CD10	I/O		116	C26	HMA24	O	
12	D6	CD1	I/O		117	F23	VDD3	-	Power supply +3.3 V
13	E7	VSS	-	Ground	118	G22	HMA26	O	Wave memory address bus
14	C5	CD5	I/O	Data bus of internal register	119	E24	HMA30	O	
15	B4	CD8	I/O		120	D25	HMA28	O	
16	A4	CD7	I/O		121	D26	HMA29	O	
17	D7	VSS	-	Ground	122	G23	LMA17	O	Wave memory address bus (Lower data memory)
18	C6	CD0	I/O	Data bus of internal register	123	F24	LMA19	O	
19	E8	VSS	-	Ground	124	H22	VSS	-	Ground
20	D8	VDD3	-	Power supply +3.3 V	125	H23	VDD3	-	Power supply +3.3 V
21	B5	CD4	I/O	Data bus of internal register	126	E25	LMA20	O	Wave memory address bus (Lower data memory)
22	A5	CD3	I/O		127	E26	LMA21	O	
23	C7	CA2	I	Address bus of internal regisuter	128	G24	LMA9	O	
24	B6	CA0	I		129	F25	LMA18	O	
25	E9	CA8	I		130	J22	LMA12	O	
26	D9	CA9	I		131	J23	LMA4	O	
27	C8	CA5	I		132	H24	LMA6	O	
28	A6	CA1	I		133	F26	LMA8	O	
29	B7	CA3	I		134	G25	LMA7	O	
30	A7	CA4	I		135	G26	LMA10	O	
31	E10	VSS	-	Ground	136	K22	VSS	-	Ground
32	D10	VDD1	-	Power supply +1.5 V	137	K23	VDD1	-	Power supply +1.5 V
33	C9	CA10	I	Address bus of internal regisuter	138	J24	LMA13	O	Wave memory address bus (Lower data memory)
34	B8	CA6	I		139	H25	LMA11	O	
35	A8	CA7	I		140	H26	LMA5	O	
36	B9	CA11	I		141	J25	LMA3	O	
37	E11	CA14	I		142	L22	LMA16	O	
38	D11	CA15	I		143	L23	LMA0	O	
39	C10	CA13	I		144	K24	LMA2	O	
40	A9	CA12	I		145	J26	LMA14	O	
41	B10	CSN0	I	Chip select	146	K25	LMA15	O	
42	A10	CSN1	I		147	K26	LMA1	O	
43	E12	VSS	-	Ground	148	M22	VSS	-	Ground
44	D12	VDD3	-	Power supply +3.3 V	149	M23	VDD3	-	Power supply +3.3 V
45	C11	WRN	I	Write strobe	150	L24	LMA22	O	Wave memory address bus (Lower data memory)
46	B11	RDN	I	Read strobe	151	L25	LMA23	O	
47	A11	WAITo	O	Hardware wait request	152	L26	LMA24	O	
48	C12	IRQo	O	Interrupt request	153	M24	LMA27	O	
49	B12	DREQo	O	DMA request	154	M25	LMA28	O	
50	E13	TCK	I	Test pin	155	N22	LMA25	O	
51	D13	TRST	I		156	N23	LMA26	O	
52	C13	VSS	-	Ground	157	N24	LMA30	O	
53	A12	XO	O	Crystal osc. output	158	M26	LMA29	O	
54	B13	XI	I	Crystal osc. input	159	N25	MOEN	O	Wave memory output enable
55	A13	VDD3	-	Power supply +3.3 V	160	N26	MWEN	O	Wave memory write enable
56	A14	SLAVE	I	Master/Slave select	161	P26	LMD15	I/O	Wave memory data bus (Lower 16 bit)
57	E14	TMS	I	Test pin	162	P22	VSS	-	Ground
58	D14	TDO	O		163	P23	VDD3	-	Power supply +3.3 V
59	C14	ICN	I	Initial clear	164	P24	LMD13	I/O	Wave memory data bus (Lower 16 bit)
60	B14	RFCLKo	O	PLL Clock	165	P25	LMD14	I/O	
61	B15	PLL_TSTN	I	Test pin	166	R25	LMD11	I/O	
62	C15	PLL_BP	I		167	R24	LMD10	I/O	
63	D15	VDD3	-	Power supply +3.3 V	168	R23	VDD3	-	Power supply +3.3 V
64	E15	VSS	-	Ground	169	R22	VSS	-	Ground
65	A15	RFCLKi	I	PLL Clock	170	R26	LMD12	I/O	Wave memory data bus (Lower 16 bit)
66	A16	VDD1	-	Power supply +1.5 V	171	T26	LMD9	I/O	
67	B16	TMODE	I	Test pin	172	T25	LMD8	I/O	
68	C16	PLL_AVD	-	Analog power supply +1.5 V (PLL)	173	T24	LMD7	I/O	
69	D16	NC	-	Not used	174	T23	VSS	-	Ground
70	E16	NC	-	Not used	175	T22	VSS	-	Ground
71	A17	PLL_AVS	-	Analog ground (PLL)	176	U26	LMD6	I/O	Wave memory data bus (Lower 16 bit)
72	B17	TEST1	I	Test pin	177	U25	LMD5	I/O	
73	A18	VSS	-	Ground	178	V26	LMD3	I/O	
74	C17	SYI	I	Sync. clock	179	U24	LMD4	I/O	
75	D17	VDD1	-	Power supply +1.5 V	180	U23	VDD1	-	Power supply +1.5 V
76	E17	VSS	-	Ground	181	U22	VSS	-	Ground
77	B18	KONTRGo	O	Key on data	182	V25	LMD2	I/O	Wave memory data bus (Lower 16 bit)
78	A19	KONTRGi	I		183	W26	LMD0	I/O	
79	C18	CK512	O	Master clock (512 Fs)	184	V24	LMD1	I/O	
80	B19	CK128	O	Master clock (256 Fs)	185	W25	DCSL0	O	Wave memory chip select (Low)
81	D18	BCLK	O	Master clock (64 Fs)	186	V23	VDD3	-	Power supply +3.3 V
82	E18	SYO	O	Sync. clock	187	V22	VDD1	-	Power supply +1.5 V
83	C19	HMA20	O	Wave memory address bus	188	W24	DCSL1	O	Wave memory chip select (Low)
84	A20	HMA21	O		189	Y26	DQML3	O	MASK signal
85	B20	HMA19	O		190	Y25	DQML1	O	
86	C20	HMA18	O		191	Y24	DMAL14	O	Address bus (DIMM, SDRAM)
87	D19	VDD3	-	Power supply +3.3 V	192	W23	VDD3	-	Power supply +3.3 V
88	E19	VSS	-	Ground	193	W22	VSS	-	Ground
89	A21	HMA9	O	Wave memory address bus	194	AA26	DMAL13	O	Address bus (DIMM, SDRAM)
90	B21	HMA7	O		195	AA25	DMAL12	O	
91	A22	HMA6	O		196	AB26	DMAL9	O	
92	D20	HMA8	O		197	Y23	VSS	-	Ground
93	C21	HMA10	O		198	AA24	DMAL11	O	Address bus (DIMM, SDRAM)
94	E20	HMA17	O		199	Y22	VSS	-	Ground
95	D21	VDD3	-	Power supply +3.3 V	200	AA23	DMAL10	O	Address bus (DIMM, SDRAM)
96	B22	HMA11	O	Wave memory address bus	201	AB25	DMAL8	O	
97	A23	HMA4	O		202	AC26	DMAL6	O	
98	C22	HMA5	O		203	AB24	DMAL7	O	
99	B23	HMA13	O		204	AC25	DMAL5	O	
100	E21	VSS	-	Ground	205	AA22	VSS	-	Ground
101	D22	HMA12	O	Wave memory address bus	206	AB23	VSS	-	Ground
102	C23	HMA3	O		207	AC24	DMAL4	O	Address bus (DIMM, SDRAM)
103	A24	HMA14	O		208	AD26	DMAL3	O	
104	B24	HMA2	O		209	AD25	DMAL2	O	
105	A25	HMA1	O		210	AE26	DMAL0	O	

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
211	AB22	VSS	-	Ground
212	AC23	VDD1	-	Power supply +1.5 V
213	AD24	DMAL1	O	Address bus (DIMM, SDRAM)
214	AE25	DCSL2	O	Wave memory chip select (Low)
215	AF26	DRAS0	O	DIMM, SDRAM row address strobe (RAS signal)
216	AC22	DCAS0	O	DIMM, SDRAM column address strobe (CAS signal)
217	AB21	VDD3	-	Power supply +3.3 V
218	AD23	DCLKIN	I	DIMM, SDRAM clock input
219	AE24	DQML2	O	MASK signal
220	AF25	DCSL3	O	Wave memory chip select (Low)
221	AF24	DQML0	O	MASK signal
222	AC21	VDD3	-	Power supply +3.3 V
223	AB20	VSS	-	Ground
224	AD22	DWEN0	O	DIMM, SDRAM write enable
225	AE23	DCLK0	O	DIMM, SDRAM clock signal
226	AF23	DCLK1	O	
227	AC20	DCLKE	O	DIMM, SDRAM clock enable
228	AD21	HMD13	I/O	Wave memory data bus (Upper data memory)
229	AB19	VSS	-	Ground
230	AC19	VDD3	-	Power supply +3.3 V
231	AE22	HMD15	I/O	Wave memory data bus (Upper data memory)
232	AF22	HMD14	I/O	
233	AD20	HMD10	I/O	
234	AE21	HMD12	I/O	
235	AB18	VDD1	-	Power supply +1.5 V
236	AC18	VDD3	-	Power supply +3.3 V
237	AD19	HMD7	I/O	Wave memory data bus (Upper data memory)
238	AF21	HMD11	I/O	
239	AE20	HMD9	I/O	
240	AF20	HMD8	I/O	
241	AB17	VSS	-	Ground
242	AC17	VDD1	-	Power supply +1.5 V
243	AD18	HMD4	I/O	Wave memory data bus (Upper data memory)
244	AE19	HMD6	I/O	
245	AF19	HMD5	I/O	
246	AE18	HMD3	I/O	
247	AB16	VSS	-	Ground
248	AC16	VSS	-	Ground
249	AD17	HMD1	I/O	Wave memory data bus (Upper data memory)
250	AF18	HMD2	I/O	
251	AE17	HMD0	I/O	
252	AF17	DCSH0	O	Wave memory chip select (High)
253	AB15	VSS	-	Ground
254	AC15	VDD3	-	Power supply +3.3 V
255	AD16	DCSH1	O	Wave memory chip select (High)
256	AE16	DQMH3	O	MASK signal
257	AF16	DQMH1	O	
258	AD15	DMAH14	O	Address bus (DIMM, SDRAM)
259	AE15	DMAH13	O	
260	AB14	VSS	-	Ground
261	AC14	VSS	-	Ground
262	AD14	DMAH11	O	Address bus (DIMM, SDRAM)
263	AF15	DMAH12	O	
264	AE14	DMAH10	O	
265	AF14	DMAH9	O	
266	AF13	DMAH8	O	
267	AB13	VDD3	-	Power supply +3.3 V
268	AC13	VDD3	-	Power supply +3.3 V
269	AD13	DMAH6	O	Address bus (DIMM, SDRAM)
270	AE13	DMAH7	O	
271	AE12	DMAH4	O	
272	AD12	DMAH3	O	
273	AC12	VDD3	-	Power supply +3.3 V
274	AB12	VSS	-	Ground
275	AF12	DMAH5	O	Address bus (DIMM, SDRAM)
276	AF11	DMAH2	O	
277	AE11	DMAH1	O	
278	AD11	DMAH0	O	
279	AC11	VSS	-	Ground
280	AB11	VSS	-	Ground
281	AF10	DRAS1	O	DIMM, SDRAM row address strobe (RAS signal)
282	AE10	DCSH2	O	Wave memory chip select (High)
283	AF9	DQMH2	O	MASK signal
284	AD10	DCSH3	O	Wave memory chip select (High)
285	AC10	VDD1	-	Power supply +1.5 V
286	AB10	VSS	-	Ground
287	AE9	DQMH0	O	MASK signal
288	AF8	DWEN1	O	DIMM, SDRAM write enable
289	AD9	DCAS1	O	DIMM, SDRAM column address strobe (CAS signal)
290	AE8	DCLK2	O	DIMM, SDRAM clock signal
291	AC9	VDD3	-	Power supply +3.3 V
292	AB9	VDD1	-	Power supply +1.5 V
293	AD8	DCLK3	O	DIMM, SDRAM clock signal
294	AF7	MELO0	O	MEL wave data output
295	AE7	MELO1	O	
296	AD7	MELO2	O	
297	AC8	VDD3	-	Power supply +3.3 V
298	AB8	VSS	-	Ground
299	AF6	MELO3	O	MEL wave data output
300	AE6	MELO4	O	
301	AF5	MELO5	O	
302	AC7	MELO6	O	
303	AD6	MELO7	O	
304	AB7	WCLK0	O	For DAC word clock
305	AC6	WCLK1	O	
306	AE5	EIRQ	O	E bus interrupt request
307	AF4	EICN	O	E bus initial clear
308	AD5	ESDA	I/O	E bus data
309	AE4	ESCL	I/O	E bus clock
310	AB6	MELI0	I	MEL wave data input
311	AC5	MELI1	I	
312	AD4	MELI2	I	
313	AF3	MELI3	I	
314	AE3	MELI4	I	
315	AF2	MELI5	I	
316	AB5	VSS	-	Ground
317	AC4	VDD1	-	Power supply +1.5 V
318	AD3	MELI6	I	MEL wave data input
319	AE2	MELI7	I	
320	AF1	ADLR	O	For ADC word clock
321	AB4	DITo	O	Digital audio output
322	AA5	VSS	-	Ground
323	AC3	AFRM	I/O	Frame signal (ABUS)
324	AD2	ACLK	I/O	Clock signal (ABUS)
325	AE1	ADIR	O	Direction signal (ABUS)
326	AD1	ADAT0	I/O	Data bus (ABUS)
327	AA4	VDD3	-	Power supply +3.3 V
328	Y5	ADAT9	I/O	Data bus (ABUS)
329	AB3	ADAT3	I/O	
330	AC2	ADAT1	I/O	
331	AC1	ADAT2	I/O	
332	Y4	ADAT10	I/O	
333	AA3	ADAT6	I/O	
334	W5	VSS	-	Ground
335	W4	VDD3	-	Power supply +3.3 V
336	AB2	ADAT4	I/O	Data bus (ABUS)
337	AB1	ADAT5	I/O	
338	Y3	ADAT11	I/O	
339	AA2	ADAT7	I/O	
340	V5	ADAT14	I/O	
341	V4	ADAT15	I/O	
342	W3	ADAT13	I/O	
343	AA1	ADAT8	I/O	
344	Y2	ADAT12	I/O	
345	Y1	TDI	I	Test pin
346	U5	VSS	-	Ground
347	U4	VDD1	-	Power supply +1.5 V
348	V3	HRD13	I/O	DRAM data bus
349	W2	HRD15	I/O	
350	W1	HRD14	I/O	
351	V2	HRD12	I/O	
352	T5	HRD7	I/O	
353	T4	HRD6	I/O	
354	U3	HRD10	I/O	
355	V1	HRD11	I/O	
356	U2	HRD9	I/O	
357	U1	HRD8	I/O	
358	R5	VSS	-	Ground
359	R4	VDD3	-	Power supply +3.3 V
360	T3	HRD5	I/O	DRAM data bus
361	T2	HRD4	I/O	
362	T1	HRD3	I/O	
363	R3	HRD2	I/O	
364	R2	HRD1	I/O	
365	P5	VDD3	-	Power supply +3.3 V
366	P4	HRD0	I/O	DRAM data bus
367	P3	RWEN	O	DRAM write enable
368	R1	RQML	O	MASK signal (SDRAM)
369	P2	RCAS	O	DRAM column address strobe (CAS signal)
370	P1	RRAS	O	DRAM row address strobe (RAS signal)
371	N1	RA13	O	DRAM address bus
372	N5	VDD3	-	Power supply +3.3 V
373	N4	VDD3	-	Power supply +3.3 V
374	N3	RA10	O	DRAM address bus
375	N2	RA12	O	
376	M2	RA1	O	
377	M3	RA2	O	
378	M4	VDD3	-	Power supply +3.3 V
379	M5	VSS	-	Ground
380	M1	RA0	O	DRAM address bus
381	L1	RA3	O	
382	L2	RA4	O	
383	L3	RA5	O	
384	L4	VSS	-	Ground
385	L5	VSS	-	Ground
386	K1	RA6	O	DRAM address bus
387	K2	RA7	O	
388	J1	RA9	O	
389	K3	RA8	O	
390	K4	VDD1	-	Power supply +1.5 V
391	K5	VSS	-	Ground
392	J2	RA11	O	DRAM address bus
393	H1	RCLK	O	SDRAM clock signal
394	J3	RCLKE	O	SDRAM clock enable
395	H2	RCLKIN	I	SDRAM, DRAM clock input
396	J4	VDD3	-	Power supply +3.3 V
397	J5	VDD1	-	Power supply +1.5 V
398	H3	RQMH	O	MASK signal (SDRAM)
399	G1	LRD15	I/O	DRAM data bus (Lower data)
400	G2	LRD14	I/O	
401	G3	LRD13	I/O	
402	H4	VDD3	-	Power supply +3.3 V
403	H5	VSS	-	Ground
404	F1	LRD12	I/O	DRAM data bus (Lower data)
405	F2	LRD11	I/O	
406	E1	LRD8	I/O	
407	G4	VDD3	-	Power supply +3.3 V
408	F3	LRD10	I/O	DRAM data bus (Lower data)
409	G5	VDD3	-	Power supply +3.3 V
410	F4	LRD9	I/O	DRAM data bus (Lower data)
411	E2	LRD7	I/O	
412	D1	LRD5	I/O	
413	E3	LRD6	I/O	
414	D2	LRD4	I/O	
415	F5	VSS	-	Ground
416	E4	VSS	-	Ground
417	D3	LRD3	I/O	DRAM data bus (Lower data)
418	C1	LRD2	I/O	
419	C2	LRD1	I/O	
420	B1	LRD0	I/O	

● LC4256V-75TN100 (X6046B0R) CPLD (MAT)

DM: IC205

Pin No.	NAME	I/O	FUNCTION/CONNECTION	Pin No.	NAME	I/O	FUNCTION/CONNECTION
1	GND	-	DGND	51	GND	-	DGND
2	TDI	I	for CPLD data writing (JTAG pin)	52	TMS		for CPLD data communication (JTAG pin)
3	DGA_AUDIO_IN	O	Digital audio signal output	53	MELO_0	O	Data for PLAYBACK tracks1 and 2
4	I/O		(to +3.3VD)	54	I/O		(to +3.3VD)
5	DGA_OUT	I	Digital audio signal input	55	MELO_2	O	Data for PLAYBACK tracks 3 and 4
6	I/O		(to +3.3VD)	56	MELI_0	I	Data for RECORD tracks 1 and 2
7	GND	-	DGND	57	GND	-	DGND
8	I/O		(to +3.3VD)	58	I/O		(to +3.3VD)
9	IDERD_O	I	IDE READ signal (active-low)	59	I/O		
10	IDEWR_O	I	IDE WRITE signal (active-low)	60	I/O		
11	IDEMACK_O	I	DMA ACKNOWLEDGE signal (active-low)	61	I/O		
12	CLOCK_INPUT	I	DMA REQUEST signal (active-low)	62	I		
13	VCCO	-	Power supply +3.3VD	63	VCCO	-	Power supply +3.3VD
14	DMACLR	I	DMA CLEAR signal (active-low)	64	I/O		(to +3.3VD)
15	I/O		(to +3.3VD)	65	I/O		
16	I/O			66	I/O		
17	I/O			67	DGAMCLK	O	System master clock (22.5792MHz)
18	GND	-	DGND	68	GND	-	DGND
19	HDIRQ	I	INTERRUPT signal (HDD to CPU) (active-high)	69	DGAWCLK	O	System word clock (44.1kHz)
20	XHDIRQ	O	INTERRUPT signal (HDD to CPU) (active-low)	70	I/O		(to +3.3VD)
21	I/O		(to +3.3VD)	71	IDEMARQ512D	O	IDE DMA request
22	I/O			72	DMAERR	O	(Not used)
23	FS64DGA	I	Bit clock for data between DGA and MAT	73	I	I	(to DGND)
24	TCK	I	Clock for CPLD data communication (JTAG pin)	74	TDD	O	for CPLD data communication
25	VCC		Power supply +3.3VD	75	VCCO	-	Power supply +3.3VD
26	GND	-	DGND	76	GND		DGND
27	I		(to +3.3VD)	77	I		(to +3.3VD)
28	I/O			78	I/O		(to DGND)
29	I/O			79	WCLK1	O	Word clock for DAC (Not used)
30	I/O			80	I/O		(to DGND)
31	I/O			81	WCLK0	O	Word clock for DAC (Not used)
32	GND	-	DGND	82	GND	-	DGND
33	VCCO	-	Power supply +3.3VD	83	VCCO	-	Power supply +3.3VD
34	I/O		(to +3.3VD)	84	ADLR	O	LR signal for DAC (Not used)
35	I/O			85	I/O		(to DGND)
36	I/O			86	FS640UT	O	Maste clock for DAC (Not used)
37	I/O			87	I/O/GOE1		(to DGND)
38	CK512	I	Master clock (22.5792KHz)	88	FS	I	Sampling frequency (44.1kHz)
39	FS128	I	Bit clock for data between SWP50 and MAT (11.2894MHz)	89	FS256	I	256FS (11.2896MHz)
40	I/O		(to +3.3VD)	90	VCCO	-	Powe supply +3.3VD
41	I/O			91	I/O/GOE0		(to +3.3VD)
42	I/O			92	I/O		
43	I/O			93	I/O		
44	I/O			94	I/O		
45	VCCO	-	Power supply +3.3VD	95	VCCO	-	Powe supply +3.3VD
46	GND	-	DGND	96	GND	-	Ground
47	I/O		(to +3.3VD)	97	I/O		(to +3.3VD)
48	I/O			98	I/O		
49	I/O			99	I/O		
50	I/O			100	IDMARQ_0512HDL	O	Output in case that the DMA request signal is negated by the rising or falling edge of 512FS. (Not used.)

● YGV628B-VZ (X6356B00) RGB CONTROLLER AVDP7

DM: IC402

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	A23	I	CPU address bus	89	SA13	O	Video memory address bus
2	A22	I		90	VDD	-	Digital power supply +3.3 V
3	A21	I		91	SA11	O	Video memory address bus
4	A20	I		92	SA12	O	
5	VDD	-	Digital power supply +3.3 V	93	SA9	O	
6	A19	I	CPU address bus	94	SA10	O	
7	VSS	-	Digital ground	95	SA8	O	
8	A18	I	CPU address bus	96	SA0	O	
9	A17	I		97	VSS	-	Digital ground
10	A16	I		98	SA1	O	Video memory address bus
11	A15	I		99	SA6	O	
12	A14	I		100	SA7	O	
13	A13	I		101	VDD	-	Digital power supply +3.3 V
14	A12	I		102	SA2	O	Video memory address bus
15	A11	I		103	SA5	O	
16	A10	I		104	SA3	O	
17	A9	I		105	SA4	O	
18	A8	I		106	VSS	-	Digital ground
19	VDD	-	Digital power supply +3.3 V	107	GCK2OUT	O	Dot clock output 2
20	VSS	-	Digital ground	108	VDD	-	Digital power supply +3.3 V
21	A7	I	CPU address bus	109	DRO0	O	Digital R signal output
22	A6	I		110	DRO1	O	
23	A5	I		111	DRO2	O	
24	A4	I		112	DRO3	O	
25	A3	I		113	DRO4	O	
26	A2	I		114	DRO5	O	
27	A1	I		115	DGO0	O	Digital G signal output
28	WRH_N	I	Write strobe input	116	DGO1	O	
29	WRL_N	I		117	VSS	-	Digital ground
30	RD_N	I	Read pulse input	118	DGO2	O	Digital G signal output
31	RESET_N	I	Reset input	119	DGO3	O	
32	VSS	-	Digital ground	120	VDD	-	Digital power supply +3.3 V
33	CS_N	I	Chip select	121	DGO4	O	Digital G signal output
34	VDD	-	Digital power supply +3.3 V	122	DGO5	O	
35	DREQ_N	O	Direct memory access	123	DBO0	O	Digital B signal output
36	INT_N	O	Interrupt	124	DBO1	O	
37	READY_N	O	CPU bus ready	125	DBO2	O	
38	WAIT_N	O	CPU bus wait	126	DBO3	O	
39	D15	I/O	CPU data bus	127	VSS	-	Digital ground
40	D14	I/O		128	DBO4	O	Digital B signal output
41	D13	I/O		129	DBO5	O	
42	D12	I/O		130	YS_N	O	YS signal output
43	VSS	-	Digital ground	131	BLANK_N	O	Non-display interval output
44	D11	I/O	CPU data bus	132	VDD	-	Digital power supply +3.3 V
45	D10	I/O		133	DACVSS	-	DAC analog ground
46	VDD	-	Digital power supply +3.3 V	134	R	O	Analog R signal output
47	D9	I/O	CPU data bus	135	G	O	Analog G signal output
48	D8	I/O		136	B	O	Analog B signal output
49	D7	I/O		137	IREF	-	DAC reference electric-current input
50	D6	I/O		138	DACVDD	-	DAC analog power supply +3.3 V
51	D5	I/O		139	TEST2_N	I	Test pin
52	D4	I/O		140	TEST1_N	I	
53	VSS	-	Digital ground	141	TEST0_N	I	
54	D3	I/O	CPU data bus	142	CSYNC_N	O	Horizontal synchronized signal / Compound synchronized signal output
55	D2	I/O		143	VSYNC_N	O	Vertical synchronized signal output
56	D1	I/O		144	GCK1OUT	O	Dot clock output 1
57	D0	I/O		145	VDD	-	Digital power supply +3.3 V
58	VDD	-	Digital power supply +3.3 V	146	GCK2IN	I	Dot clock input 2
59	SDQ0	I/O	Video memory data bus	147	DRI0	I	Digital R signal input
60	SDQ15	I/O		148	VSS	-	Digital ground
61	VSS	-	Digital ground	149	DRI1	I	Digital R signal input
62	SDQ1	I/O	Video memory data bus	150	DRI2	I	
63	SDQ14	I/O		151	DRI3	I	
64	SDQ2	I/O		152	DRI4	I	
65	SDQ13	I/O		153	DRI5	I	
66	SDQ3	I/O		154	DGI0	I	Digital G signal input
67	VSS	-	Digital ground	155	DGI1	I	
68	SDQ12	I/O	Video memory data bus	156	DGI2	I	
69	VDD	-	Digital power supply +3.3 V	157	DGI3	I	
70	SDQ4	I/O	Video memory data bus	158	VDD	-	Digital power supply +3.3 V
71	SDQ11	I/O		159	DGI4	I	Digital G signal input
72	SDQ5	I/O		160	VSS	-	Digital ground
73	SDQ10	I/O		161	DGI5	I	Digital G signal input
74	VSS	-	Digital ground	162	DBI0	I	Digital B signal input
75	SDQ6	I/O	Video memory data bus	163	DBI1	I	
76	SDQ9	I/O		164	DBI2	I	
77	SDQ7	I/O		165	DBI3	I	
78	SDQ8	I/O		166	DBI4	I	
79	VDD	-	Digital power supply +3.3 V	167	DBI5	I	
80	LDQM	O	Video memory data mask output	168	HSIN_N	I	Horizontal synchronized signal input
81	VSS	-	Digital ground	169	VSIN_N	I	Vertical synchronized signal input
82	WE_N	O	Video memory write enable	170	VDD	-	Digital power supply +3.3 V
83	UDQM	O	Video memory data mask output	171	VSS	-	Digital ground
84	CAS_N	O	Video memory column address strobe output	172	GCK1IN	I	Dot clock input 1
85	SDCKOUT	O	Video memory clock output	173	SYCKIN	I	System clock input
86	RAS_N	O	Video memory low address strobe output	174	PLLVDD	-	PLL analog power supply +3.3 V
87	VSS	-	Digital ground	175	PLLVSS	-	PLL analog ground
88	SCS_N	O	Video memory chip enable	176	FILTER	-	Filter connect pin for PLL

● ISP1761BE (X9073A00) HI-SPEED USB OTG CONTROLLER

DM: IC207

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	OC3_N	I	Port 3 analog (5 V input) and digital overcurrent input Input, 3.3 V tolerant	75	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor
2	REF5V	I	5 V reference input for analog OC detector; Connect a 100 nF decoupling capacitor	76	DATA28	I/O	Data bit 28 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant
3	ID	I	ID input for detection of the default host or peripheral setting when port 1 is in the OTG mode Input, 3.3 V tolerant	77	DATA29	I/O	Data bit 29 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant
4	GND		Analog ground	78	DATA30	I/O	data bit 30 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant
5	VREG(1V8)	O	Core power output (1.8 V); Internal 1.8 V for the digital core; Used for decoupling; Connect a 100 nF capacitor	79	GND		Digital ground
6	VCC(5V0)	I	Input to internal regulators (3.0 V to 5.5 V); Connect a 100 nF decoupling capacitor	80	DATA31	I/O	Data bit 31 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant
7	VCC(5V0)	I		81	TEST		Connect to ground
8	GND		Oscillator ground	82	A1	I	Address pin 1 Input, 3.3 V tolerant
9	VREG(3V3)	O	Regulator output (3.3 V); For decoupling only; Connect a 100 nF capacitor and a 4.7 mF to 10 mF capacitor	83	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor
10	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor	84	A2	I	Address pin 2 Input, 3.3 V tolerant
11	XTAL1	I	12 MHz crystal connection input; Connect to ground if an external clock is used	85	VREG(1V8)	O	Core power output (1.8 V); Internal 1.8 V for the digital core; Used for decoupling; Connect a 100 nF capacitor and a 4.7 mF to 10 mF capacitor
12	XTAL2	O	12 MHz crystal connection output	86	A3	I	Address pin 3 Input, 3.3 V tolerant
13	CLKIN	I	12 MHz oscillator or clock input; Connect to VCC(I/O) when not in use 3.3 V tolerant	87	A4	I	Address pin 4 Input, 3.3 V tolerant
14	GND		Digital ground	88	GND		Core ground
15	GND		RREF1 ground	89	A5	I	Address pin 5 Input, 3.3 V tolerant
16	RREF1	I	Reference resistor connection; Cconnect a 12 kW ± 1 % resistor between this pin and the RREF1 ground	90	GND		Digital ground
17	GND		Analog ground for port 1	91	A6	I	Address pin 6 Input, 3.3 V tolerant
18	DM1	I/O	Downstream data minus port 1	92	A7	I	Address pin 7 Input, 3.3 V tolerant
19	GND		Analog ground	93	A8	I	Address pin 8 Input, 3.3 V tolerant
20	DP1	I/O	Downstream data plus port 1	94	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor
21	PSW1_N	O	Power switch port 1, active LOW Output pad, push-pull open-drain, 8 mA output drive, 5 V tolerant	95	A9	I	Address pin 9 Input, 3.3 V tolerant
22	GND		RREF2 ground	96	A10	I	Address pin 10 Input, 3.3 V tolerant
23	RREF2	I	Reference resistor connection; Connect a 12 kW ± 1 % resistor between this pin and the RREF2 ground	97	A11	I	Address pin 11 Input, 3.3 V tolerant
24	GND		Analog ground for port 2	98	A12	I	Address pin 12 Input, 3.3 V tolerant
25	DM2	I/O	Downstream data minus port 2	99	GND		Digital ground
26	GND		Analog ground	100	A13	I	Address pin 13 Input, 3.3 V tolerant
27	DP2	I/O	Downstream data plus port 2	101	A14	I	Address pin 14 Input, 3.3 V tolerant
28	PSW2_N	O	Power switch port 2, active LOW Output pad, push-pull open-drain, 8 mA output drive, 5 V tolerant	102	A15	I	Address pin 15 Input, 3.3 V tolerant
29	GND		RREF3 ground	103	A16	I	Address pin 16 Input, 3.3 V tolerant
30	RREF3	I	Rreference resistor connection; Connect a 12 kW ± 1 % resistor between this pin and the RREF3 ground	104	VCC(I/O)		Digital voltage; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor
31	GND		Analog ground for port 3	105	A17	I	Address pin 17 Input, 3.3 V tolerant
32	DM3	I/O	Downstream data minus port 3	106	CS_N	I	Chip select signal that indicates the area being accessed; Active LOW Input, 3.3 V tolerant
33	GND		Analog ground	107	RD_N	I	Read enable; Active LOW Input, 3.3 V tolerant
34	DP3	I/O	Downstream data plus port 3	108	WR_N	I	Write enable; Active LOW Input, 3.3 V tolerant
35	PSW3_N	O	Power switch port 3, active LOW Output pad, push-pull open-drain, 8 mA output drive, 5 V tolerant	109	GND		Digital ground
36	GND		Digital ground	110	VBAT_ON_N	O	To indicate the presence of a minimum 3.3 V on pins 6 and 7 (open-drain); Connect to VCC(I/O) through a 10 kW pull-up resistor Output pad, push-pull open-drain, 8 mA output drive, 5 V tolerant
37	DATA0	I/O	Data bit 0 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	111	DC_IRQ	O	Peripheral Controller interrupt signal Output 4 mA drive, 3.3 V tolerant
38	DATA1	I/O	Data bit 1 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	112	HC_IRQ	O	Host Controller interrupt signal Output 4 mA drive, 3.3 V tolerant
39	DATA2	I/O	Data bit 2 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	113	DC_DREQ	O	DMAC request for the Peripheral Controller output 4 mA drive; 3.3 V tolerant
40	VCC(I/O)	I/O	Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor	114	HC_DREQ	O	DMAC request for Host Controller Output 4 mA drive, 3.3 V tolerant
41	DATA3	I/O	Data bit 3 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	115	VCC(I/O)		Digital voltage; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor
42	DATA4	I/O	Data bit 4 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	116	HC_DACK	I	Host Controller DMA request acknowledgment; When not in use, connect to VCC(I/O) through a 10 kW pull-up resistor Input, 3.3 V tolerant
43	DATA5	I/O	Data bit 5 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	117	DC_DACK	I	Peripheral Controller DMA request acknowledgment; When not in use, connect to VCC(I/O) through a 10 kW pull-up resistor Input, 3.3 V tolerant
44	GND	-	Digital ground	118	VREG(1V8)	O	Core power output (1.8 V); Internal 1.8 V for the digital core; Used for decoupling; Connect a 100 nF capacitor
45	DATA6	I/O	Data bit 6 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	119	HC_SUSPEND /WAKEUP_N	I/O	Host Controller suspend and wake-up; Three-state suspend output (active LOW) and wake-up input circuits are connected together • HIGH = output is three-state; ISP1761 is in suspend mode. • LOW = output is LOW; ISP1761 is not in suspend mode. Connect to VCC(I/O) throug h an external 10 kW pull-up resistor output pad, open-drain, 4 mA output drive, 3.3 V tolerant
46	DATA7	I/O	Data bit 7 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
47	DATA8	I/O	Data bit 8 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
48	VCC(I/O)	I/O	Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor				
49	DATA9	I/O	Data bit 9 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
50	VREG(1V8)	O	Core power output (1.8 V); Internal 1.8 V for the digital core; Used for decoupling; Connect a 100 nF capacitor				
51	DATA10	I/O	Data bit 10 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
52	DATA11	I/O	Data bit 11 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
53	GND	-	Core ground				
54	DATA12	I/O	Data bit 12 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
55	GND		Digital ground				
56	DATA13	I/O	Data bit 13 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
57	DATA14	I/O	Data bit 14 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
58	DATA15	I/O	Data bit 15 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
59	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor				
60	DATA16	I/O	Data bit 16 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
61	DATA17	I/O	Data bit 17 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
62	DATA18	I/O	Data bit 18 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	120	DC_SUSPEND /WAKEUP_N	I/O	Peripheral Controller suspend and wake-up; Three-state suspend output (active LOW) and wake-up input circuits are connected together. • HIGH = output is three-state; ISP1761 is in suspend mode. • LOW = output is LOW; ISP1761 is not in suspend mode. Connect to VCC(I/O) through an external 10 kW pull-up resistor Output pad, open-drain, 4 mA output drive, 3.3 V tolerant
63	GND		Digital ground				
64	DATA19	I/O	Data bit 19 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
65	DATA20	I/O	Data bit 20 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	121	GND		Core ground
66	DATA21	I/O	Data bit 21 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	122	RESET_N	I	External power-up reset; Active LOW Input, 3.3 V tolerant
67	VCC(I/O)		Digital supply; 1.65 V to 3.6 V; Connect a 100 nF decoupling capacitor	123	GND		Analog ground
68	DATA22	I/O	Data bit 22 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	124	C_B	I/O	Charge pump capacitor input; Connect a 220 nF capacitor between this pin and pin 125
69	DATA23	I/O	Data bit 23 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	125	C_A	I/O	Charge pump capacitor input; Connect a 220 nF capacitor between this pin and pin 124
70	DATA24	I/O	Data bit 24 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	126	VCC(C_IN)	I	Charge pump input; Connect to 3.3 V
71	GND		Digital ground	127	OC1_N/VBUS	I/O,I	This pin has multiple functions: • Port 1 OC1_N detection when port 1 is configured for host functionality and an external power switch is used; Connect to VCC(I/O) through a 10 kW resistor • VBUS out when internal charge pump is used and port 1 is configured for the host functionality; Maximum 50 mA current capability; Only for port 1 • VBUS input detection when port 1 is defined for the peripheral functionality.
72	DATA25	I/O	Data bit 25 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				
73	DATA26	I/O	Data bit 26 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant	128	OC2_N	I	Port 2 analog (5 V input) and digital overcurrent input; If not used, connect to VCC(I/O) through a 10 kW resistor Input, 3.3 V tolerant
74	DATA27	I/O	Data bit 27 input and output Bidirectional pad, push-pull input, three-state output, 4 mA output drive, 3.3 V tolerant				

● S1L52502F24J200 (X2688A0R) GATE ARRAY

DM: IC203

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	LV_{DD}		Power supply +3.3V	105	HV_{DD}		Power supply +5V
2	XDACK	I	CPU DMA acknowledge	106	LEDD0	O	Port/Test output
3	XDRAK	I	CPU DREQ request acknowledge	107	LEDD1	O	
4	XDREQ	O	CPU DMA request	108	LEDD2	O	
5	ATPGEN	I	ATPG test input	109	LEDD3	O	
6	Vss		Ground	110	Vss		Ground
7	ENCA0	I	Encoder0 A input	111	LV_{DD}		Power supply +3.3V
8	ENCB0	I	Encoder0 B input	112	XTA22I	I	XTAL input terminal
9	ENCA1	I	Encoder1 A input	113	Vss		Ground
10	ENCB1	I	Encoder1 B input	114	XTA22O	O	XTAL output terminal
11	HV_{DD}		Power supply +5V	115	LV_{DD}		Power supply +3.3V
12	ENCA2	I	Encoder2 A input	116	HV_{DD}		Power supply +5V
13	ENCB2	I	Encoder2 B input	117	LEDD4	O	Port/Test output
14	ENCA3	I	Encoder3 A input	118	LEDD5	O	
15	ENCB3	I	Encoder3 B input	119	LEDD6	O	
16	Vss		Ground	120	LEDD7	O	
17	ENCA4	I	Encoder4 A input	121	Vss		Ground
18	ENCB4	I	Encoder4 B input	122	VCOI	I	VCO clock input
19	ENCA5	I	Encoder5 A input	123	HV_{DD}		Power supply +5V
20	ENCB5	I	Encoder5 B input	124	PDOUT	O	PLL phase comparator output
21	HV_{DD}		Power supply +5V	125	Vss		Ground
22	TSTEN	I	Test mode change	126	XRESET	I	Reset signal input
23	XIDCS0	O	IDE chip select	127	EXTWCI	I	External synchronization WC input
24	XIDCS1	O		128	SDIN	I	Digital sound input
25	XIDDOE	O	IDE bus buffer DIR signal	129	SDOUT	O	Digital sound output
26	Vss		Ground	130	HV_{DD}		Power supply +5V
27	HV_{DD}		Power supply +5V	131	XDSPCS0	O	DSP6 chip select
28	XIDWR	O	IDE write signal	132	XDSPCS2	O	DSP chip select (reserve)
29	XIDRD	O	IDE read signal	133	XDSPCS1	O	DSP7 chip select
30	XIDMACK	O	IDE DMA acknowledge	134	Vss		Ground
31	IDMARQ	I	IDE DMA request	135	AUDIOIN0	I	Audio data input
32	Vss		Ground	136	AUDIOIN1	I	
33	IDD0	I/O	IDE data bus	137	AUDIOUT0	O	Audio data output
34	IDD1	I/O		138	LV_{DD}		Power supply +3.3V
35	IDD2	I/O		139	AUDIOUT1	O	Audio data output
36	IDD3	I/O		140	AUDIOUT2	O	
37	HV_{DD}		Power supply +5V	141	AUDIOUT3	O	
38	IDD4	I/O	IDE data bus	142	Vss		Ground
39	IDD5	I/O		143	AUDIOUT4	O	Audio data output
40	IDD6	I/O		144	AUDIOUT5	O	
41	IDD7	I/O		145	AUDIOUT6	O	
42	Vss		Ground	146	LV_{DD}		Power supply +3.3V
43	IDD8	I/O	IDE data bus	147	HV_{DD}		Power supply +5V
44	IDD9	I/O		148	CK512	O	FS512 clock
45	IDD10	I/O		149	FS256	O	FS256 clock
46	IDD11	I/O		150	FS128	O	FS128 clock
47	HV_{DD}		Power supply +5V	151	Vss		Ground
48	IDD12	I/O	IDE data bus	152	XFS64	O	FS64 clock (reverse)
49	IDD13	I/O		153	ALRCK	O	System WC (FS)
50	IDD14	I/O		154	XSSYNC	O	DSP synchronizing signal output
51	IDD15	I/O		155	HV_{DD}		Power supply +5V
52	Vss		Ground	156	Vss		Ground
53	LV_{DD}		Power supply +3.3V	157	LV_{DD}		Power supply +3.3V
54	SDRD0	I/O	SDRAM data bus	158	HV_{DD}		Power supply +5V
55	SDRD1	I/O		159	XDLCS	O	Data buffer enable
56	SDRD2	I/O		160	XLCDCS0	O	LCD driver chip select
57	SDRD3	I/O		161	XLCDCS1	O	
58	Vss		Ground	162	Vss		Ground
59	SDRD4	I/O	SDRAM data bus	163	CD0	I/O	CPU data bus
60	SDRD5	I/O		164	CD1	I/O	
61	SDRD6	I/O		165	CD2	I/O	
62	SDRD7	I/O		166	CD3	I/O	
63	LV_{DD}		Power supply +3.3V	167	LV_{DD}		Power supply +3.3V
64	SDRD8	I/O	SDRAM data bus	168	CD4	I/O	CPU data bus
65	SDRD9	I/O		169	CD5	I/O	
66	SDRD10	I/O		170	CD6	I/O	
67	SDRD11	I/O		171	CD7	I/O	
68	Vss		Ground	172	Vss		Ground
69	SDRD12	I/O	SDRAM data bus	173	CD8	I/O	CPU data bus
70	SDRD13	I/O		174	CD9	I/O	
71	SDRD14	I/O		175	CD10	I/O	
72	SDRD15	I/O		176	CD11	I/O	
73	LV_{DD}		Power supply +3.3V	177	LV_{DD}		Power supply +3.3V
74	SDRA0	O	SDRAM address output	178	CD12	I/O	CPU data bus
75	SDRA1	O		179	CD13	I/O	
76	SDRA2	O		180	CD14	I/O	
77	SDRA3	O		181	CD15	I/O	
78	Vss		Ground	182	Vss		Ground
79	LV_{DD}		Power supply +3.3V	183	LV_{DD}		Power supply +3.3V
80	SDRA4	O	SDRAM address output	184	CA1	I	CPU address input
81	SDRA5	O		185	CA2	I	
82	SDRA6	O		186	CA3	I	
83	SDRA7	O		187	CA4	I	
84	Vss		Ground	188	Vss		Ground
85	SDRA8	O	SDRAM address output	189	CA5	I	CPU address input
86	SDRA9	O		190	CA6	I	
87	SDRA10	O		191	CA7	I	
88	SDRA11	O		192	CA12	I	
89	LV_{DD}		Power supply +3.3V	193	LV_{DD}		Power supply +3.3V
90	SDRA12	O	SDRAM address output	194	CA13	I	CPU address input
91	SDRA13	O		195	CA16	I	
92	XSDRWE	O	SDRAM write signal	196	XCCS5	I	CPU chip select
93	XSDRRAS	O	SDRAM row address strobe	197	XCCS6	I	
94	Vss		Ground	198	Vss		Ground
95	XSDRCAS	O	SDRAM column address strobe	199	XCRD	I	CPU read signal
96	XSDRCS0	O	SDRAM chip select	200	XCWR	I	CPU write signal
97	XSDRCS1	O		201	XCIRQ	O	CPU interrupt request
98	SDRDQM	O	SDRAM data enable	202	XFTMIRQ1	O	
99	LV_{DD}		Power supply +3.3V	203	LV_{DD}		Power supply +3.3V
100	SDRCLK	O	SDRAM clock	204	XFTMIRQ2	O	CPU interrupt request
101	XTCLR	I	Test counter clear	205	XFTMIRQ3	O	
102	HV_{DD}		Power supply +5V	206	FSPLAY	O	FS count signal
103	TESTRAM	I	RAM test mode	207	SCANEN	I	Scan enable input
104	Vss		Ground	208	Vss		Ground

● S1L50553F21Y000 (X4195A0R) MCI (Gate Array)

DM: IC503

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	CLKI	I	Clock	41	VDD	-	Power supply
2	CLKO	O		42	RESET	I	Reset
3	VDD	-	Power supply	43	VSS	-	Ground
4	SCANENB	I/O	Scan enable	44	OUT4	O	Output
5	ATPGENB	I/O		45	OUT3	O	
6	VSS	-	Ground	46	INP2	I	Input
7	PLLTEST	I	Test	47	INP1	I	
8	$\overline{\text{PLLRES}}$	I	Reset	48	INP0	I	
9	PLLVSS	-	Ground	49	TESTENB	I/O	Test enable
10	MVDD	-	Power supply	50	VSS	-	Ground
11	PLLVSS	-	Ground	51	OSCO		
12	AVDD	-	Analog power supply	52	VDD	-	Power supply
13	CHG0			53	OSCI		
14	LPVSS	-	Ground	54	VSS	-	Ground
15	VSS	-		55	SIRQ	I/O	Interrupt request
16	MIRQ	I/O	Interrupt request	56	SCS	I	Control port
17	MCS	I	Control port	57	SWR	I	Write
18	MWR	I	Write	58	SRD	I	Read
19	MRD	I	Read	59	SA		
20	MA			60	VSS	-	Ground
21	VDD	-	Power supply	61	VDD	-	Power supply
22	MD0	I/O	DRAM data bus	62	SD0	I/O	Serial data
23	MD1	I/O		63	SD1	I/O	
24	MD2	I/O		64	SD2	I/O	
25	MD3	I/O		65	SD3	I/O	
26	MD4	I/O		66	SD4	I/O	
27	MD5	I/O		67	SD5	I/O	
28	MD6	I/O		68	SD6	I/O	
29	MD7	I/O		69	SD7	I/O	
30	VSS	-	Ground	70	VSS	-	Ground
31	MD8	I/O	DRAM data bus	71	SD8	I/O	Serial data
32	VDD	-	Power supply	72	VDD	-	Power supply
33	MD9	I/O	DRAM data bus	73	SD9	I/O	Serial data
34	MD10	I/O		74	SD10	I/O	
35	MD11	I/O		75	SD11	I/O	
36	MD12	I/O		76	SD12	I/O	
37	MD13	I/O		77	SD13	I/O	
38	MD14	I/O		78	SD14	I/O	
39	MD15	I/O		79	SD15	I/O	
40	VSS	-	Ground	80	VSS	-	Ground

● MB3516APF-G-BND-EF (X2314A00) RGB ENCODER

DM: IC406

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	GND1	-	Ground	13	N.C.	-	Not used
2	R-IN	I	Analog R signal input	14	N.C.	-	Not used
3	G-IN	I	Analog G signal input	15	CROMA-OUT	O	Chrominance signal output
4	B-IN	I	Analog B signal input	16	Y-OUT	O	Y-signal output
5	N.C.	-	Not used	17	Y-TRAP	-	Luminance signal band control
6	fsc-IN	I	Subcarrier input	18	N.C.	-	Not used
7	NTSC/$\overline{\text{PAL}}$-IN	I	NTSC/PAL selector	19	Vcc2	-	Power supply +5 V
8	N.C.	-	Not used	20	VIDEO-OUT	O	Composite video signal output
9	N.C.	-	Not used	21	B-OUT	O	Analog B signal output
10	$\overline{\text{CSYNC}}$-IN	I	Composite sync signal input	22	G-OUT	O	Analog G signal output
11	N.C.	-	Not used	23	R-OUT	O	Analog R signal output
12	Vcc1	-	Power supply +5 V	24	GND2	-	Ground

● **M34519M6-521FP** (X5646200) **CPLD** (Complex Programmable Logic Device)

PNL: IC2, 3
PNR: IC2, 3

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P13	I/O	Port P1 serves as a 4-bit I/O port	22	VDD	–	Power supply +5V
2	D0	I/O	Each pin of port D has an independent 1-bit wide I/O function	23	VDCE	I	This pin is used to operate/stop the voltage drop detection circuit
3	D1	I/O		24	P30/INT0	I/O	Port P3 serves as a 4-bit I/O port / INT0 pin and INT1 pin accept external interrupts
4	D2	I/O		25	P31/INT1	I/O	
5	D3	I/O		26	P32	I/O	Port P3 serves as a 4-bit I/O port
6	D4	I/O		27	P33	I/O	
7	D5	I/O		28	P60/AIN0	I/O	Port P6 serves as a 4-bit I/O port / A/D converter analog input pins
8	D6/CNTR0	I/O	Each pin of port D has an independent 1-bit wide I/O function / CNTR0	29	P61/AIN1	I/O	
9	D7/CNTR1	I/O	Each pin of port D has an independent 1-bit wide I/O function / CNTR1	30	P62/AIN2	I/O	
10	P50	I/O	Port P5 serves as a 4-bit I/O port	31	P63/AIN3	I/O	
11	P51	I/O		32	P40/AIN4	I/O	Port P4 serves as a 4-bit I/O port / A/D converter analog input pins
12	P52	I/O		33	P41/AIN5	I/O	
13	P53	I/O		34	P42/AIN6	I/O	
14	P20/SCK	I/O	Port P2 serves as a 3-bit I/O port / Serial I/O data transfer synchronous clock I/O pin	35	P43/AIN7	I/O	
15	P21/SOUT	I/O	Port P2 serves as a 3-bit I/O port / Serial I/O data output pin	36	P00	I/O	Port P0 serves as a 4-bit I/O port
16	P22/SIN	I/O	Port P2 serves as a 3-bit I/O port / Serial I/O data input pin	37	P01	I/O	
17	$\overline{\text{RESET}}$	I/O	An N-channel open-drain I/O pin for a system reset	38	P02	I/O	
18	CNVSS	–	Connect CNVSS to VSS and apply "L" (0V) to CNVSS certainly	39	P03	I/O	
19	XOUT	O	I/O pins of the main clock generating circuit	40	P10	I/O	Port P1 serves as a 4-bit I/O port
20	XIN	I		41	P11	I/O	
21	VSS	–	Ground	42	P12	I/O	

● **DM9000AEP** (X7029A00) **LAN CONTROLLER**

DM: IC210

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	BGRES	I/O	Bandgap pin	25	SD13	I/O	Processor data bus
2	RXVDD25	-	Power output +2.5 V	26	SD12	I/O	
3	RX+	I/O	TP RX input	27	SD11	I/O	
4	RX-	I/O		28	SD10	I/O	
5	RXGND	-	RX ground	29	SD9	I/O	
6	TXGND	-	TX ground	30	VDD	-	Digital power supply +3.3 V
7	TX+	I/O	TP TX output	31	SD8	I/O	Processor data bus
8	TX-	I/O		32	CMD	I	Command type
9	TXVDD25	-	Power output +2.5 V	33	GND	-	Digital ground
10	SD7	I/O	Processor data bus	34	INT	O	Interrupt request
11	SD6	I/O		35	$\overline{\text{IOR}}$	I	Processor read command
12	SD5	I/O		36	$\overline{\text{IOW}}$	I	Processor write command
13	SD4	I/O		37	CS	I	Chip select
14	SD3	I/O		38	LED2	O	Link/Active LED
15	GND	-	Digital ground	39	LED1	O	Speed LED
16	SD2	I/O	Processor data bus	40	$\overline{\text{PWRST}}$	I	Power on reset
17	SD1	I/O		41	TEST	I	Operation mode
18	SD0	I/O		42	VDD	-	Digital power supply +3.3 V
19	EEDIO	I/O	IO data to EEPROM	43	X2	O	Crystal 25 MHz out
20	EECK	O	Clock to EEPROM	44	X1	I	Crystal 25 MHz in
21	EECS	O	Chip select to EEPROM	45	GND	-	Digital ground
22	SD15	I/O	Processor data bus	46	SD	I	Fiber-optic signal detect
23	VDD	-	Digital power supply +3.3 V	47	RXGND	-	RX ground
24	SD14	I/O	Processor data bus	48	BGGND	-	Bandgap ground

● **AK5381VT-E2** (X5219A0R) **ADC** (Analog to Digital Converter)

DM: IC902

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	AINR	I	Rch Analog input pin	9	SDTO	O	Audio serial data output pin
2	AINL	I	Lch Analog input pin	10	LRCK	I/O	Output channnel clock pin
3	CKS1	I	Mode select 1 pin	11	MCLK	I	Master clock input pin
4	VCOM	O	Common voltage output pin	12	SCLK	I/O	Audio serial data clock pin
5	AGND	-	Analog ground	13	PDN	I	Power down mode pin
6	VA	-	Analog power supply	14	DIF	I	Audio interface format pin
7	VD	-	Digital power supply	15	CKS2	I	Mode select 2 pin
8	DGND	-	Digital ground	16	CKS0	I	Mode select 0 pin

• **AK4396VF-E2** (X8324A00) **DAC** (Digital to Analog Converter)

DM: IC900, 901

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DV	-	Digital ground	15	TTL	I	CMOS/TTL level select
2	DV_{DD}	-	Digital power supply +3.3 V	16	VREFL	I	Low level voltage reference input
3	MCLK	I	Master clock input	17	VREFH	I	High level voltage reference input
4	PDN	I	Power-down mode	18	AV_{DD}	-	Analog power supply +5 V
5	BICK	I	Audio serial data clock	19	AV_{SS}	-	Analog ground
6	SDATA	I	Audio serial data input	20	AOUTR-	O	Rch negative analog output
7	LRCK	I	L/R clock	21	AOUTR+	O	Rch positive analog output
8	SMUTE/CSN	I	Soft mute/Chip select	22	AOUTL-	O	Lch negative analog output
9	DFS0/CAD0	I	Sampling speed mode select/Chip address 0	23	AOUTL+	O	Lch positive analog output
10	DEM0/CCLK	I	De-emphasis enable 0/Control data clock	24	VCOM	O	Common voltage output
11	DEM1/CDTI	I	De-emphasis enable 1/Control data input	25	P/S	I	Parallel/serial select
12	DIF0	I	Digital input format	26	TST1/DZFL	O	Test 1/Lch zero input detect
13	DIF1	I		27	TST2/CAD1	I	Test 2/Chip address 1
14	DIF2	I		28	ACKS/DZFR	I/O	Master clock auto setting mode/Rch zero input detect

• **DS99R103TSQX/NOPB** (X9323A00) **LVDS**

DM: IC8

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DIN[23:0]	I	Transmitter Parallel Interface Data Inputs Pins. Tie LOW if unused.	19	DOUT-	O	Transmitter LVDS Inverted (-) Output. This output is intended to be loaded with a 100 ohm load to the DOUT- pin.
2	DIN[23:0]	I					
3	DIN[23:0]	I		20	DOUT+	O	Transmitter LVDS True (+) Output. This output is intended to be loaded with a 100 ohm load to the DOUT+ pin.
4	DIN[23:0]	I					
5	DCAOFF	I	RESERVED - This pin MUST be tied LOW.	21	VssDR	O	Analog Ground, LVDS Output Ground
6	VssL		Digital Ground, Tx Logic Ground	22	V_{DD}DR	O	Analog Voltage Supply, LVDS Output Power
7	V_{DD}L		Digital Voltage supply, Tx Logic Power	23	PRE	I	PRE-emphasis select pin. • PRE = (RPRE ≧ 3 kΩ); Imax = [(1.2/R) 20], Rmin = 3 kΩ • PRE = H or floating; pre-emphasis is disabled
8	DCBOFF	I	RESERVED - This pin MUST be tied LOW.				
9	TPWDNB	I	Transmitter Power Down Bar • TPWDNB = H; Transmitter is Enabled and ON. • TPWDNB = L; Transmitter is in power down mode (Sleep), LVDS Driver DOUT (+/-) Outputs are in TRI-STATE stand-by mode, PLL is shutdown to minimize power consumption.	24	Vss		ESD Ground
				25	DIN[23:0]	I	Transmitter Parallel Interface Data Inputs Pins. Tie LOW if unused.
				26	DIN[23:0]	I	
				27	DIN[23:0]	I	
10	TCLK	I	Transmitter Parallel Interface Clock Input Pin. Strobe edge set by TRFB configuration pin	28	DIN[23:0]	I	
				29	DIN[23:0]	I	
11	TRFB	I	Transmitter Clock Edge Select Pin • TRFB = H; Parallel Interface Data is strobed on the Rising Clock Edge • TRFB = L; Parallel Interface Data is strobed on the Falling Clock Edge	30	V_{DD}T		Digital Voltage supply, Tx Serializer Power
				31	VssT		Digital Ground, Tx Serializer Ground
				32	DIN[23:0]	I	Transmitter Parallel Interface Data Inputs Pins. Tie LOW if unused.
12	VODSEL	I	VOD Level Select • VODSEL = L; LVDS Driver Output is ~400 mV (RL = 100 Ω) • VODSEL = H; LVDS Driver Output is ~800 mV (RL = 100 Ω) For normal applications, set this pin LOW. For long cable applications where a larger VOD is required, set this pin HIGH.	33	DIN[23:0]	I	
				34	DIN[23:0]	I	
				35	DIN[23:0]	I	
				36	DIN[23:0]	I	
				37	DIN[23:0]	I	
13	RESRVD	I	RESERVED - This pin MUST be tied LOW.	38	DIN[23:0]	I	
14	V_{DD}PT1		Analog Voltage supply, PLL Power	39	DIN[23:0]	I	
15	VssPT1		Analog Ground, PLL Ground	40	DIN[23:0]	I	
16	V_{DD}PT0		Analog Voltage supply, VCO Power	41	DIN[23:0]	I	
17	VssPT0		Analog Ground, VCO Ground	42	V_{DD}IT	I	Digital Voltage supply, Tx Input Power
18	DEN	I	Transmitter Data Enable • DEN = H; LVDS Driver Outputs are Enabled (ON). • DEN = L; LVDS Driver Outputs are Disabled (OFF), Transmitter LVDS Driver DOUT (+/-) Outputs are in TRI-STATE, PLL still operational and locked to TCLK.	43	VssIT	I	Digital Ground, Tx Input Ground
				44	DIN[23:0]	I	Transmitter Parallel Interface Data Inputs Pins. Tie LOW if unused.
				45	DIN[23:0]	I	
				46	DIN[23:0]	I	
				47	DIN[23:0]	I	
				48	DIN[23:0]	I	

• DS99R104TSQX/NOPB (X9324A00) LVDS

LCL: IC2

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	RPWDNB	I	Receiver Data Enable • REN = H; ROUT[23-0] and RCLK are Enabled (ON). • REN = L; ROUT[23-0] and RCLK are Disabled (OFF), Receiver ROUT[23-0] and RCLK Outputs are in TRI-STATE, PLL still operational and locked to TCLK.	26	ROUT[7:0]	O	Receiver Parallel Interface Data Outputs - Group 1
				27	ROUT[7:0]	O	
				28	ROUT[7:0]	O	
				29	VssOR1	O	Digital Ground, LVCMOS Output Ground
				30	VDDOR1	O	Digital Voltage supply, LVCMOS Output Power
2	RESRVD	I	RESERVED - This pin MUST be tied LOW.	31	ROUT[7:0]	O	Receiver Parallel Interface Data Outputs - Group 1
			LVDS SERIAL INTERFACE PINS	32	ROUT[7:0]	O	
3	ROUT[23:16]	O	Receiver Parallel Interface Data Outputs _ Group 3	33	ROUT[7:0]	O	
4	ROUT[23:16]	O		34	ROUT[7:0]	O	
5	ROUT[23:16]	O		35	VssR0		Digital Ground, Logic Ground
6	ROUT[23:16]	O		36	VDDR0		Digital Voltage supply, Logic Power
7	VDDOR3	O	Digital Voltage supply, LVCMOS Output Power	37	VDDR1		Digital Voltage supply, Logic Power
8	VssOR3	O	Digital Ground, LVCMOS Output Ground	38	VssR1		Digital Ground, Logic Ground
9	ROUT[23:16]	O	Receiver Parallel Interface Data Outputs _ Group 3	39	VDDIR		Analog LVDS Voltage supply, Power
10	ROUT[23:16]	O		40	VssIR		Analog LVDS Ground
11	ROUT[23:16]	O		41	RIN+	I	Receiver LVDS True (+) Input This input is intended to be terminated with a 100 ohm load to the RIN+ pin.
12	ROUT[23:16]	O					
13	ROUT[15:8]	O	Receiver Parallel Interface Data Outputs - Group 2				
14	ROUT[15:8]	O		42	RIN-	I	Receiver LVDS Inverted (-) Input This input is intended to be terminated with a 100 ohm load to the RIN- pin.
15	ROUT[15:8]	O					
16	ROUT[15:8]	O					
17	LOCK	O	LOCK indicates the status of the receiver PLL • LOCK = H; receiver PLL is locked • LOCK = L; receiver PLL is unlocked, ROUT[23-0] and RCLK are TRI-STATED	43	RRFB	I	Receiver Clock Edge Select Pin • RRFB = H; ROUT LVCMOS Outputs strobed on the Rising Clock Edge. • RRFB = L; ROUT LVCMOS Outputs strobed on the Falling Clock Edge.
				44	VssPR1		Analog Ground, PLL VCO Ground
18	RCLK	O	Parallel Interface Clock Output Pin. Strobe edge set by RRFB configuration pin.	45	VDDPR1		Analog Voltage supply, PLL VCO Power
				46	VssPR0		Analog Ground, PLL Ground
19	VssOR2	O	Digital Ground, LVCMOS Output Ground	47	VDDPR0		Analog Voltage supply, PLL Power
20	VDDOR2	O	Digital Voltage supply, LVCMOS Output Power	48	REN	I	Receiver Data Enable • REN = H; ROUT[23-0] and RCLK are Enabled (ON). • REN = L; ROUT[23-0] and RCLK are Disabled (OFF), Receiver ROUT[23-0] and RCLK Outputs are in TRI-STATE, PLL still operational and locked to TCLK.
21	ROUT[15:8]	O	Receiver Parallel Interface Data Outputs - Group 2				
22	ROUT[15:8]	O					
23	ROUT[15:8]	O					
24	ROUT[15:8]	O					
25	ROUT[7:0]	O	Receiver Parallel Interface Data Outputs - Group 1				

• μPD780031AYGK-N09 (XZ916300) E-PNS2a LED/SWITCH DRIVER

PNL: IC1
PNR: IC1

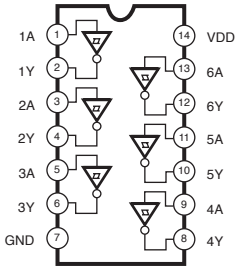
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P50/A8	I/O	Port 5 / Higher address bus	33	P10/ANI0	I	Port 1 / A/D converter analog input
2	P51/A9	I/O		34	AVREF	I	A/D converter reference voltage input
3	P51/A10	I/O		35	AVDD	-	Analog power supply +5 V
4	P53/A11	I/O		36	RESET	I	System reset input
5	P54/A12	I/O		37	XT2	-	Subsystem clock oscillation
6	P55/A13	I/O		38	XT1	I	
7	P56/A14	I/O		39	IC	-	Internally connected
8	P57/A15	I/O		40	X2	-	Main system clock oscillation
9	Vss0	-	Ground	41	X1	I	
10	VDD0	-	Power supply +5 V	42	Vss1	-	Ground
11	P30	I/O	Port 3	43	P00/INTP0	I/O	Port 0 / External interrupt request input
12	P31	I/O		44	P01/INTP1	I/O	
13	P32/SDA0	I/O	Port 3 / Serial data input/output	45	P02/INTP2	I/O	
14	P33/SCL0	I/O	Port 3 / Serial clock input/output	46	P03/INTP3/ADTRG	I/O	Port 0 / External interrupt request input / Trigger signai input
15	P34	I/O	Port 3	47	P70/TI00/TO0	I/O	Port 7 / External count clock input / 16-bit timer/event counter 0 output
16	P35	I/O		48	P71/TI01	I/O	Port 7 / Capture trigger input
17	P36	I/O		49	P72/TI50/TO50	I/O	Port 7 / External count clock input / 8-bit timer/event counter 50 output
18	P20/SI30	I/O	Port 2 / Serial data input	50	P73/TI51/TO51	I/O	Port 7 / External count clock input / 8-bit timer/event counter 51 output
19	P21/SO30	I/O	Port 2 / Serial data output	51	P74/PCL	I/O	Port 7 / Clock output
20	P22/SCK30	I/O	Port 2 / Serial clock input/output	52	P75/BUZ	I/O	Port 7 / Buzzer output
21	P23/RxD0	I/O	Port 2 / Serial data input	53	P64/RD	I/O	Port 6 / Strobe signal output for reading
22	P24/TxD0	I/O	Port 2 / Serial data output	54	P65/WR	I/O	Port 6 / Strobe signal output for writing
23	P25/ASCK0	I/O	Port 2 / Serial clock input/output	55	P66/WAIT	I/O	Port 6 / Wait insertion
24	VDD1	-	Power supply +5 V	56	P67/ASTB	I/O	Port 6 / Strobe output
25	AVss	-	Ground	57	P40/AD0	I/O	Port 4 / Lower address/data bus
26	P17/ANI7	I	Port 1 / A/D converter analog input	58	P41/AD1	I/O	
27	P16/ANI6	I		59	P42/AD2	I/O	
28	P15/ANI5	I		60	P43/AD3	I/O	
29	P14/ANI4	I		61	P44/AD4	I/O	
30	P13/ANI3	I		62	P45/AD5	I/O	
31	P12/ANI2	I		63	P46/AD6	I/O	
32	P11/ANI1	I		64	A47/AD7	I/O	

IC BLOCK DIAGRAM

- **SN74AHC14PWR** (X3098A00)
- **SN74LV14APWR** (X6688A0R)
- **TC74VHC14FT** (XV890B0R)

DM: IC4, 5, 7, 510

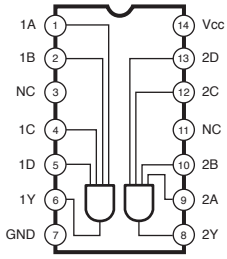
Hex Inverter



- **SN74LV21APWR** (X2377A0R)
- **TC74VHC21FT** (X5542A00)

DM: IC20

Dual 4 Input AND



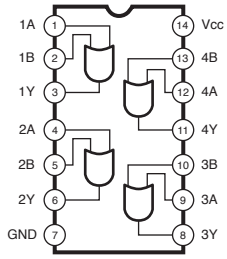
- **SN74LV32APWR** (X5647A00)

DM: IC6

- **SN74LVC32APWR** (X5405A00)

DM: IC212

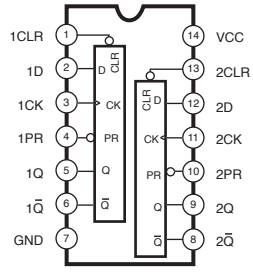
Quad 2 Input OR



- **SN74ACT74PWR** (X9486A00)
- **TC74ACT74FT** (X6536A0R)

DM: IC404

Dual D-Type Flip-Flop

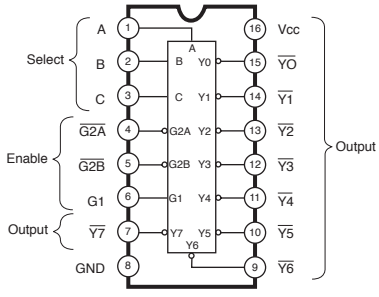


INPUTS				OUTPUTS	
PR	CLR	CLK	D	Q	Q
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H	H
H	H	f	H	H	L
H	H	f	L	L	H
H	H	L	X	Q₀	Q₀

- **SN74LVC138APWR** (X7074A00)

DM: IC502

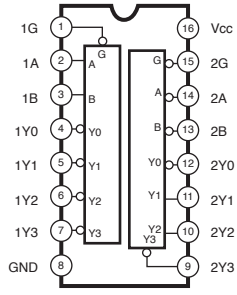
3 to 8 Demultiplexer



- **HD74LVC139TELL** (X4963A0R)
- **SN74LVC139APWR** (X7227A00)

DM: IC24, 25

Dual 2 to 4 Demultiplexer



- **SN74AHCT245PWR** (X2709A0R)
- **TC74VHCT245AFT** (XT744B0R)

DM: IC200

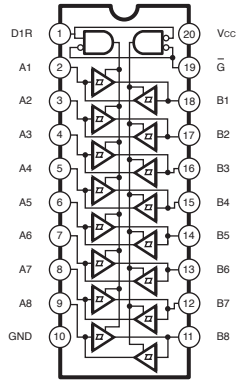
- **SN74LV245APWR** (X3693A0R)
- **TC74VHC245FT** (XU797B00)

DM: IC201

- **SN74LVC245APWR** (XZ287A0R)

DM: IC16—19, 21, 22, 808—811

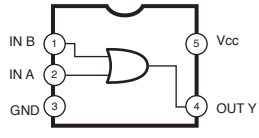
Octal 3-State Bus Transceiver



- **SN74LVC1G32DCKR** (X5825A00)

DM: IC213

2-Input OR Gate



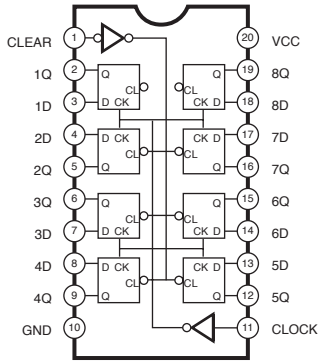
FUNCTION TABLE

INPUTS		OUTPUT
A	B	Y
H	X	H
X	H	H
L	L	L

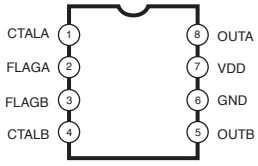
- **SN74LV273APWR** (X5074A00)
- **TC74VHC273FT** (X7942B00)

DM: IC23

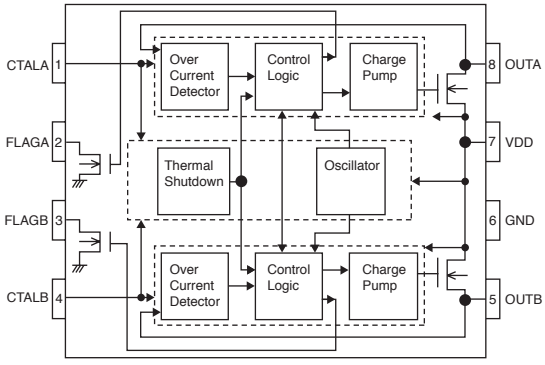
Octal D-Type Flip-Flop



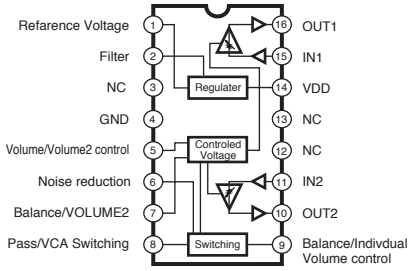
● **BD6517F-E2** (X7951A00)
DM: IC206
High Side Switch



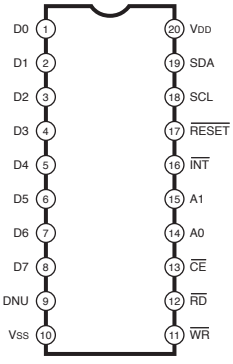
Pin No.	Pin Name	Pin Function
1 4	CTRLA CTRLB	Control input
2 3	FLAGA FLAGB	Error flag output
5 8	OUTB OUTA	Switch output
6	GND	Ground
7	VDD	Switch input

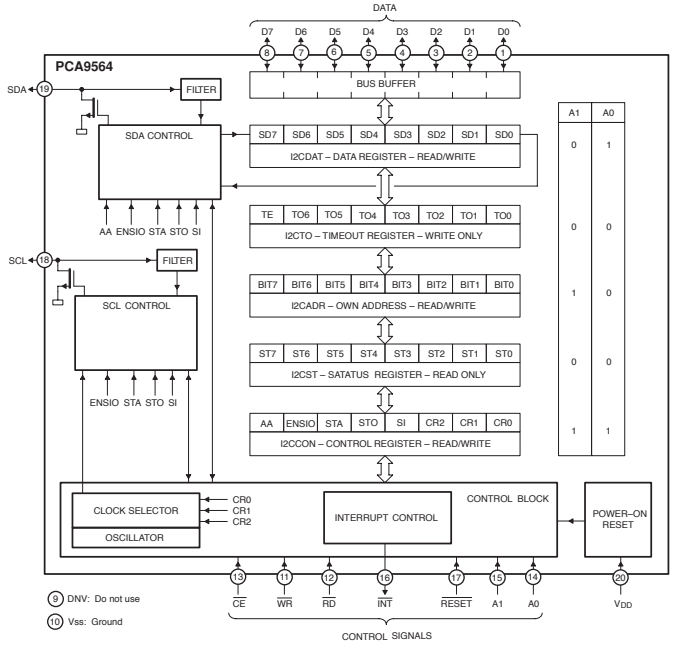


● **M51132L** (XE470A0R)
AJK: IC3
VCA

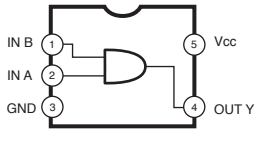


● **PCA9564PW** (X6155A0R)
DM: IC208
Parallel bus to I²C-bus controller

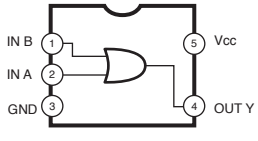




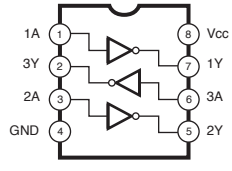
● **TC7SH08FU** (XR680A00)
DM: IC202, 209, 812, 813
2 Input AND Gate



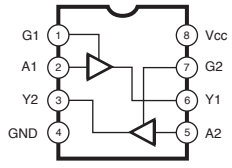
● **TC7SH32FU** (XW633A0R)
DM: IC27, 211
● **TC7SET32FU** (XW814A0R)
DM: IC9
2-Input OR Gate



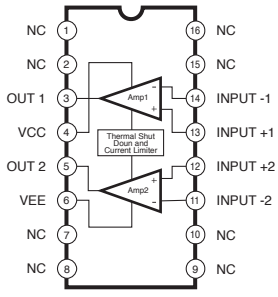
● **TC7WU04FU** (XQ805A00)
DM: IC400, 401
Triple Inverter



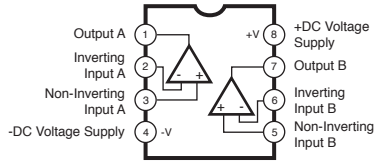
- **TC7WT126FU** (X7703A00)
  DM: IC405
  Dual Bus Buffer



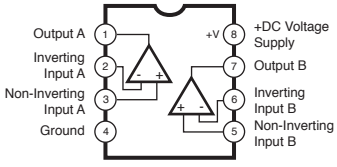
- **LA6517M-TRM-E-R** (XT131A0R)
  AJK: IC6
  Dual Power Operational Amplifier



- **NJM2068M-D(TE2)** (X3505A00)
  AJK: IC4, 5, 7, 8 DM: IC903, 904, 906
- **NJM2100V** (X2538A00)
  EMKS-FD: IC002
- **NJM4580E(TE2)** (X2331A0R)
  AJK: IC2
  Dual Operational Amplifier



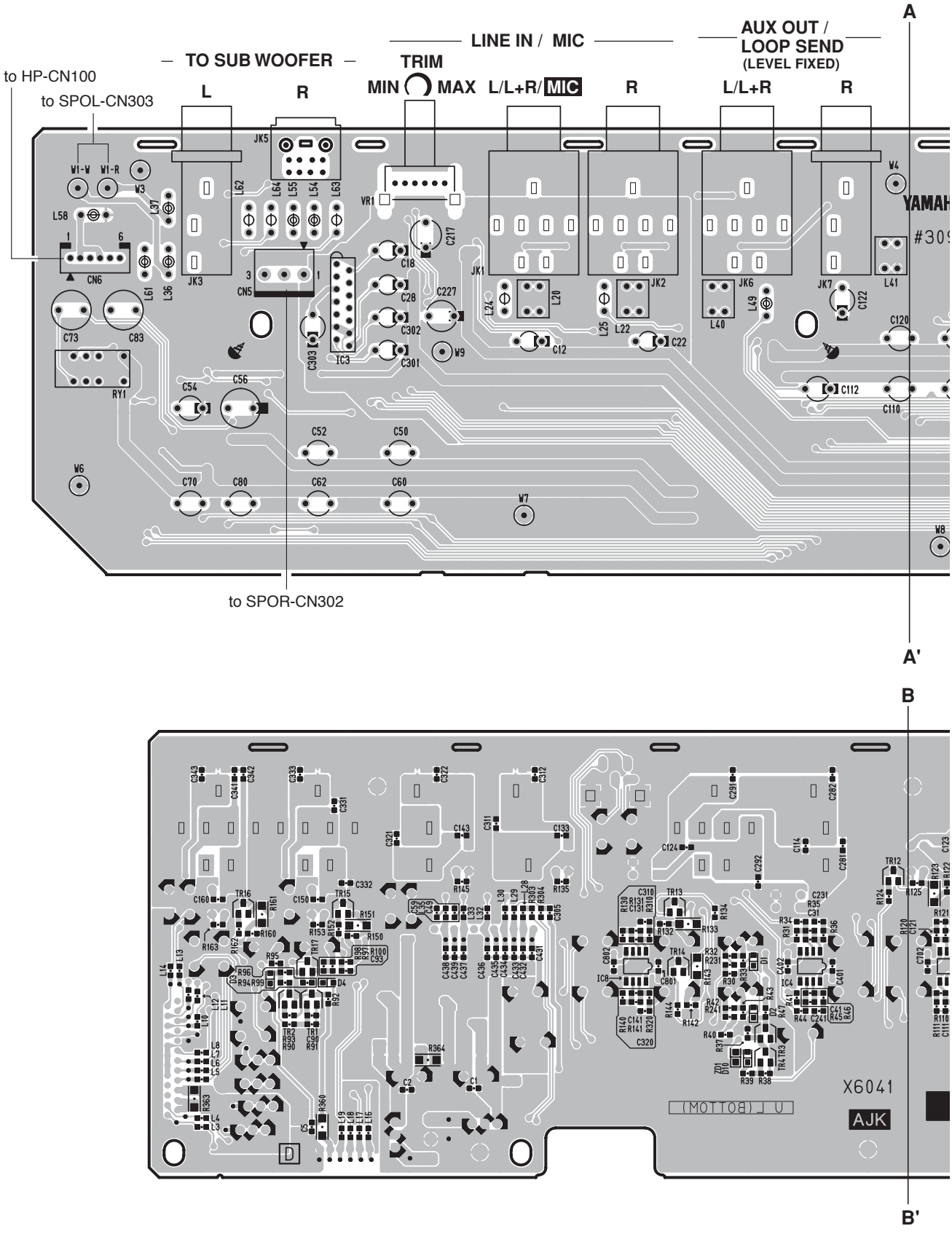
- **NE5532DR** (X5482A00)
  DM: IC903, 904, 906
  Dual Operational Amplifier



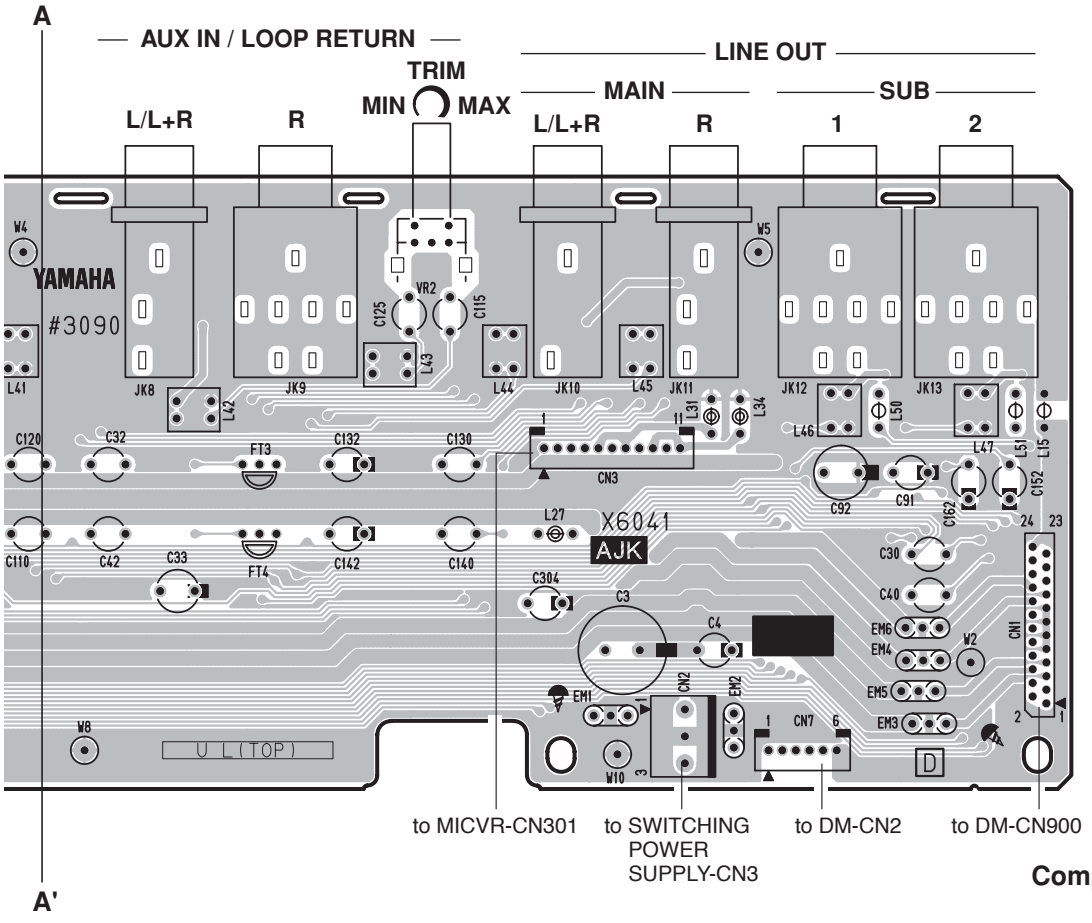
CIRCUIT BOARDS

Note: See parts list for details of circuit board component parts.

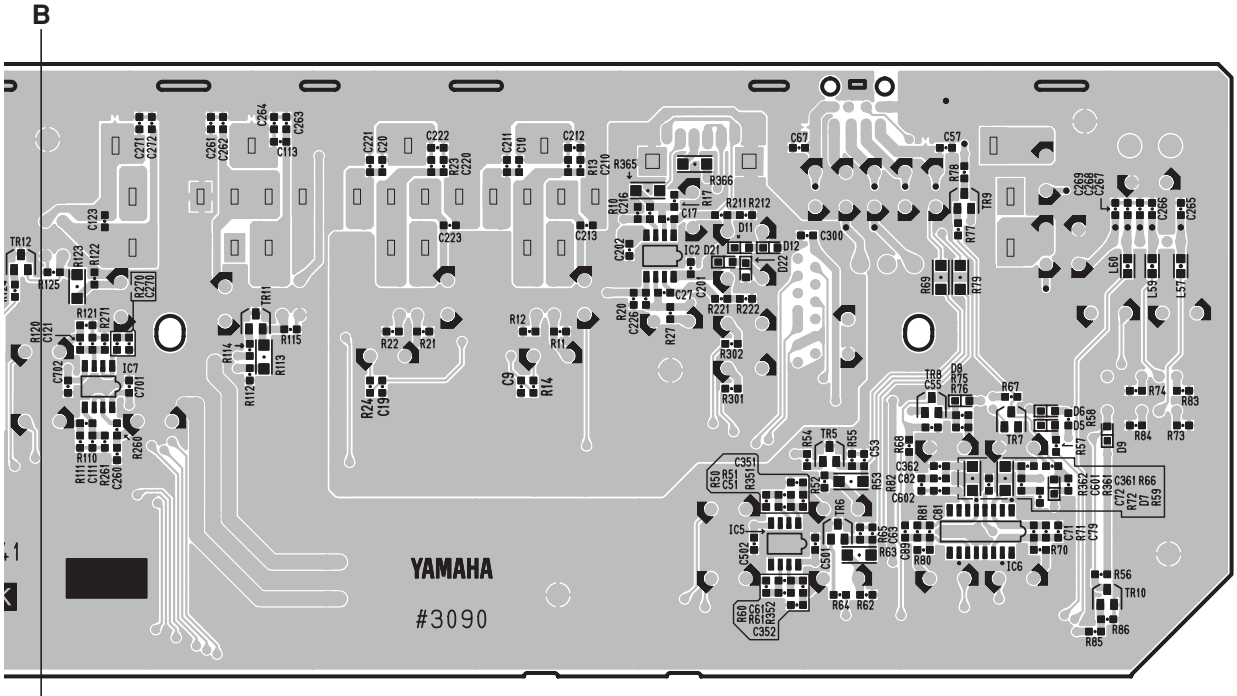
• AJK Circuit Board



Scale: 90/100

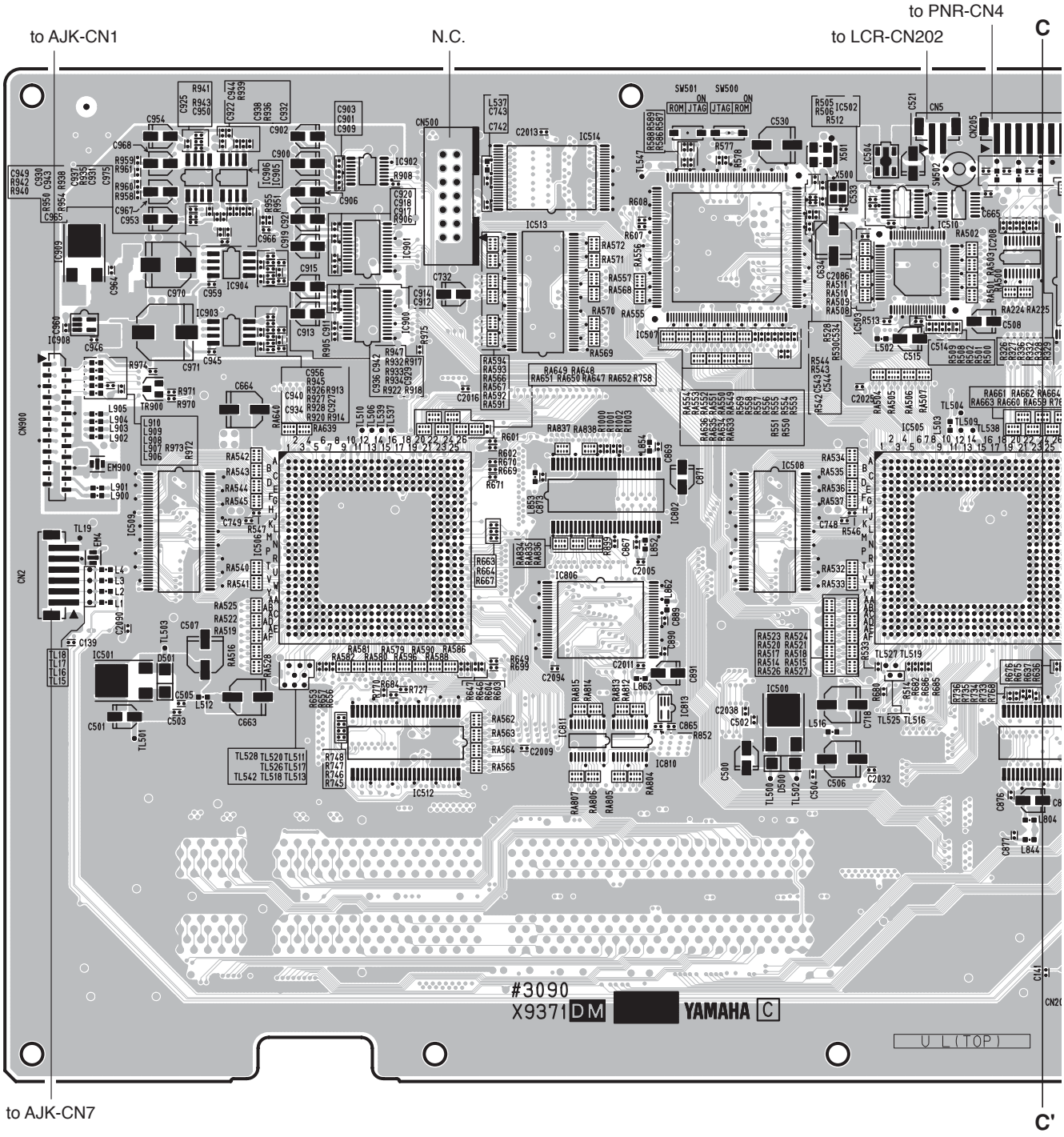


Component side

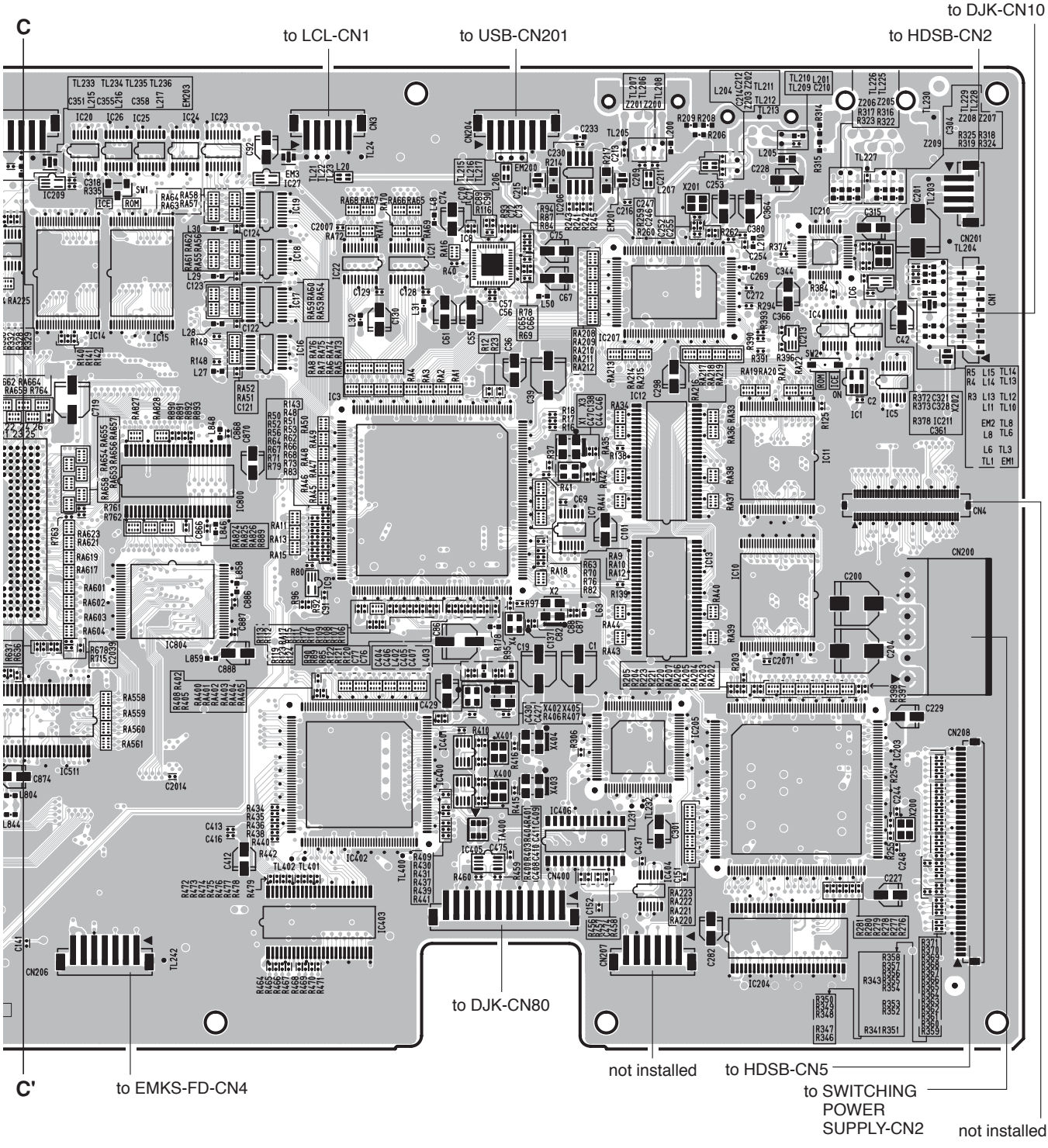


Pattern side

● DM Circuit Board

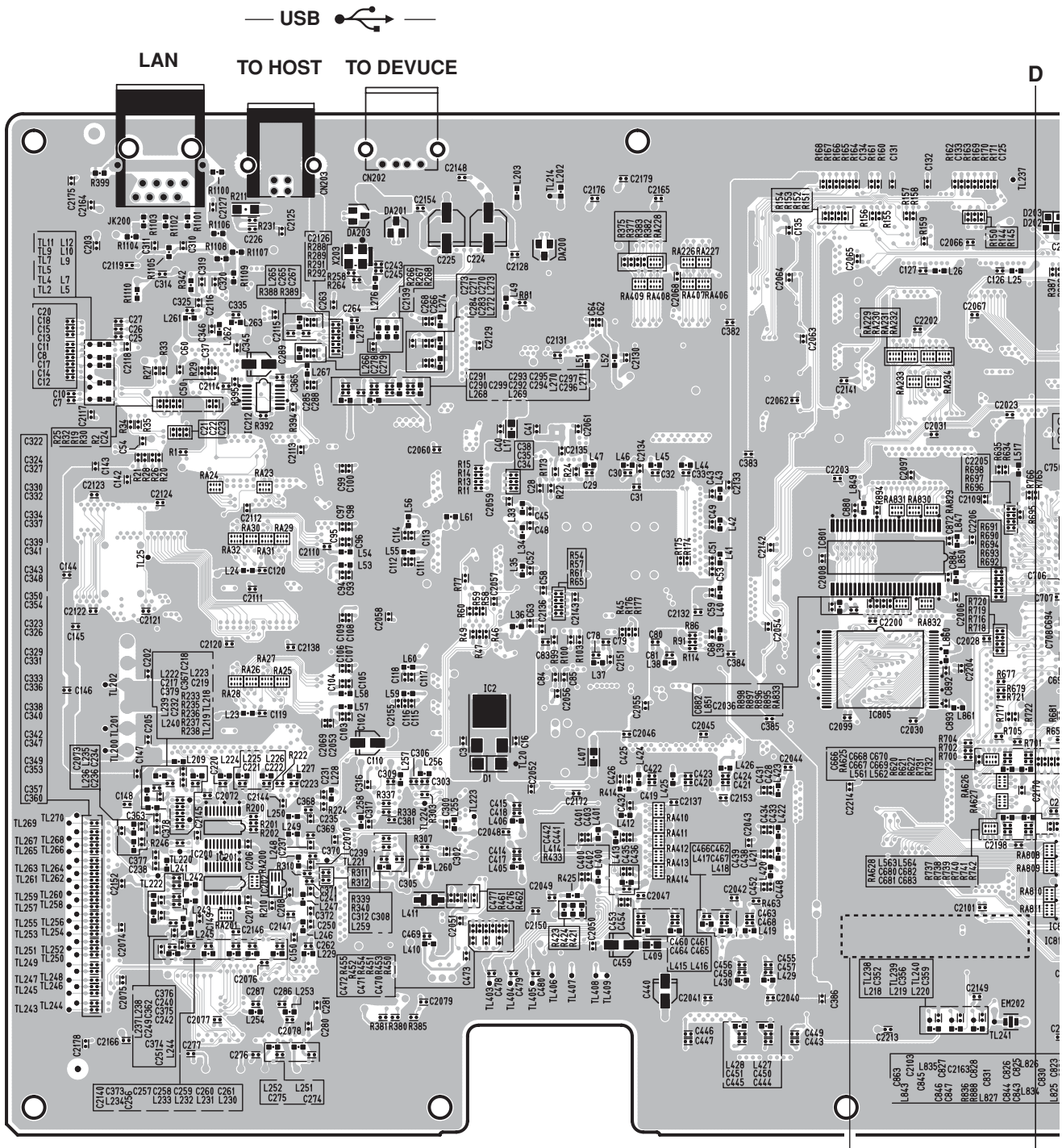


Scale: 90/100



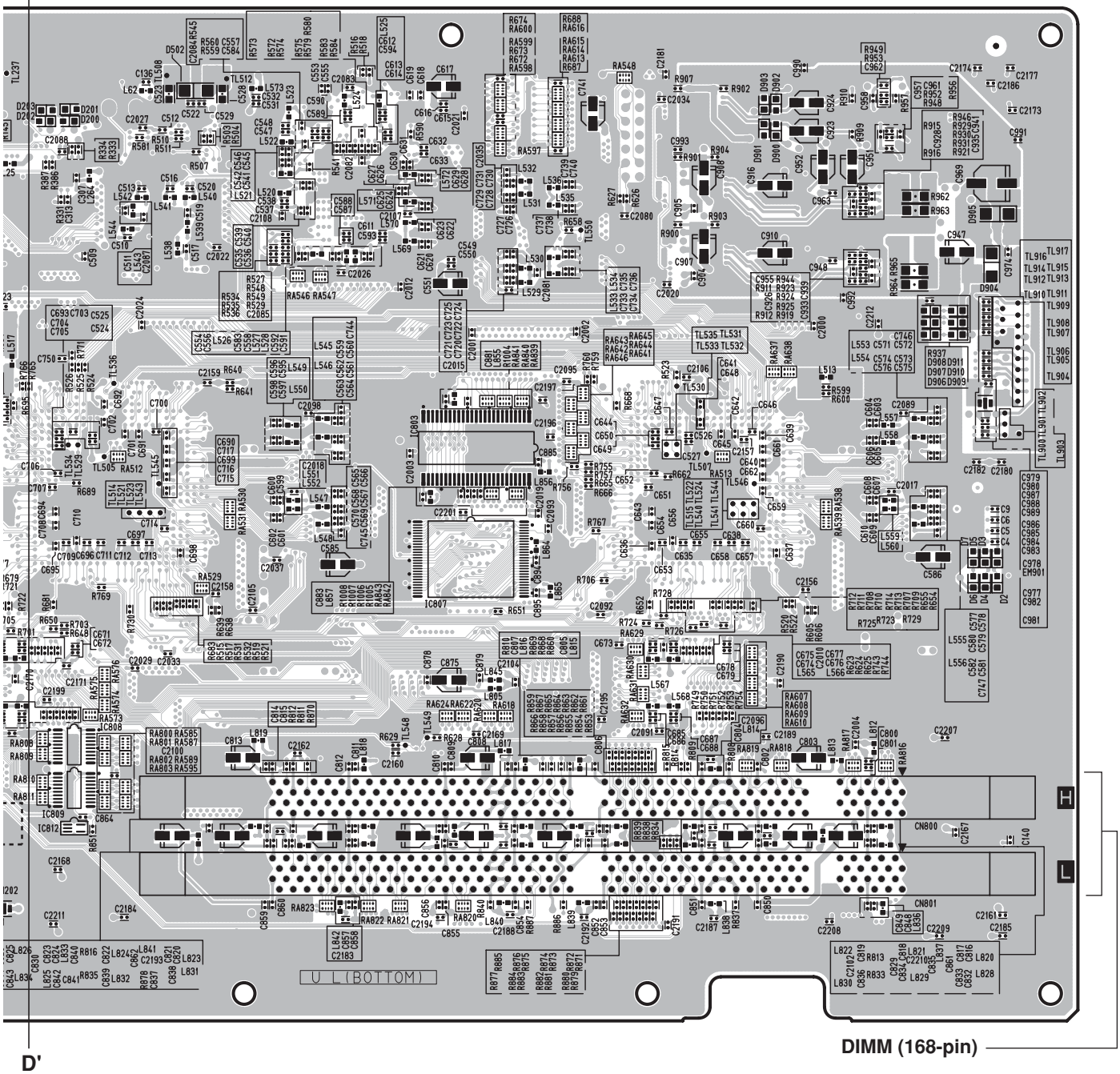
Component side

• DM Circuit Board



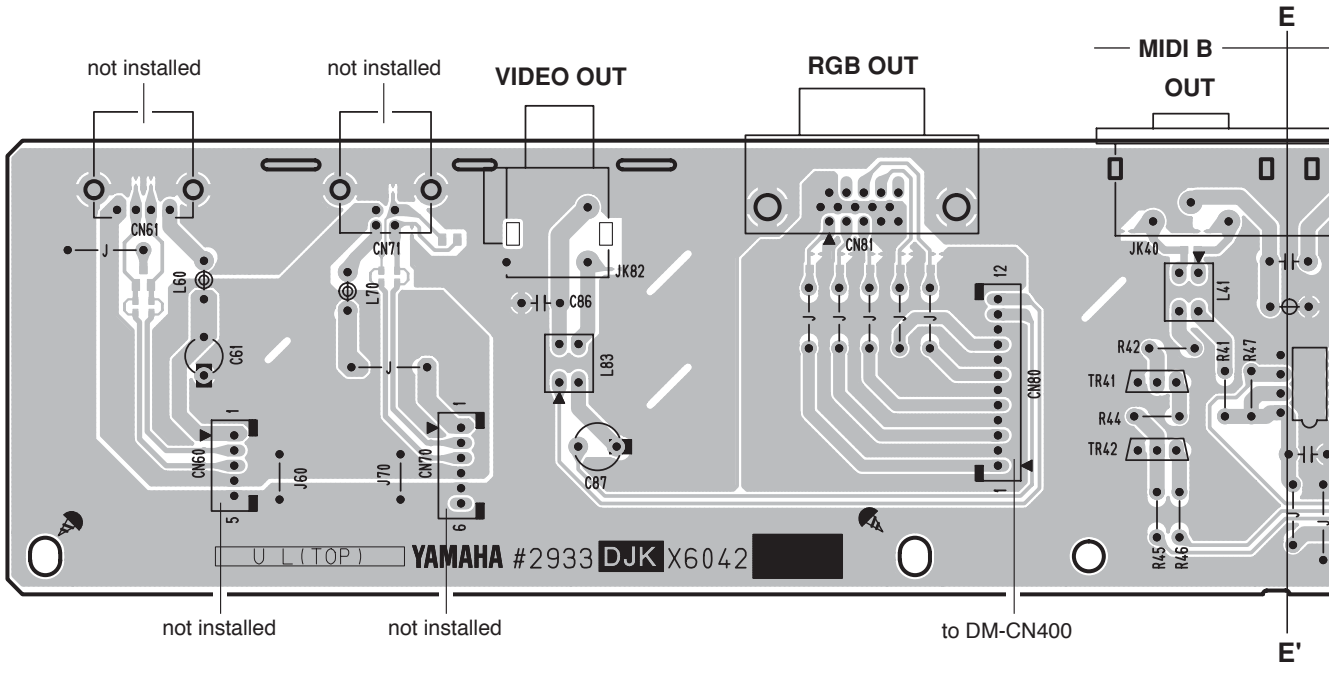
This number is the Ethernet MAC Address written on the DM circuit board.
If the DM circuit board is replaced, the MAC address will be changed.
The MAC address is required to execute the test program through Ethernet. (Attached in the dotted frame.)

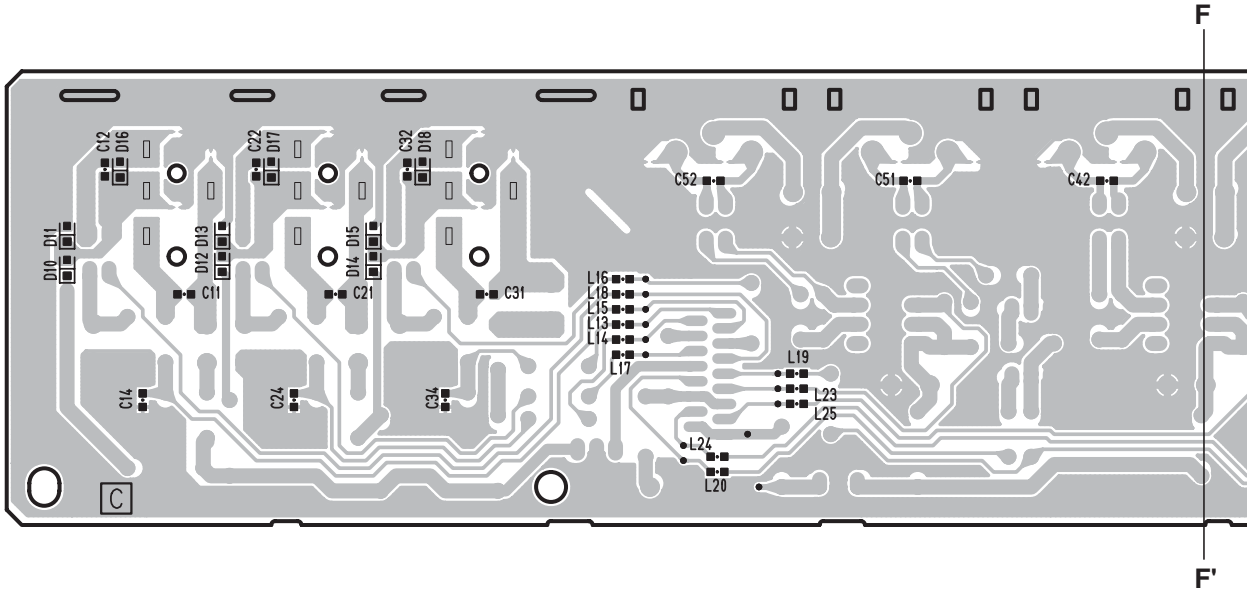
Scale: 90/100

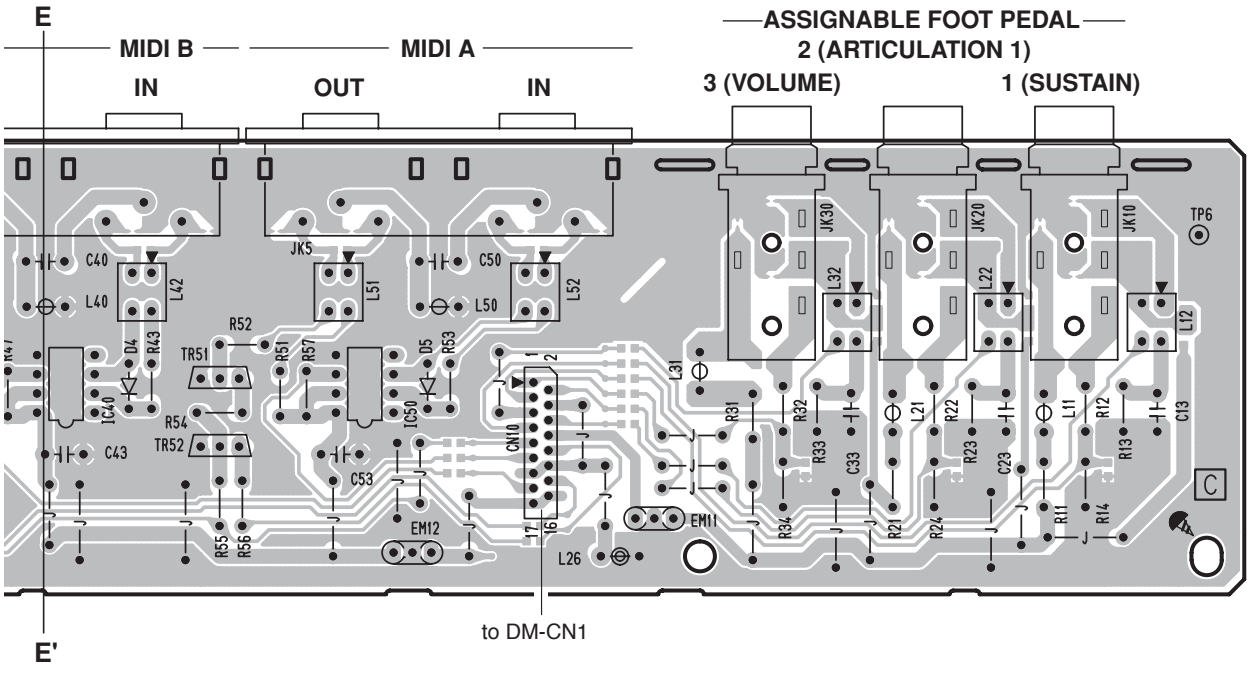


Pattern side

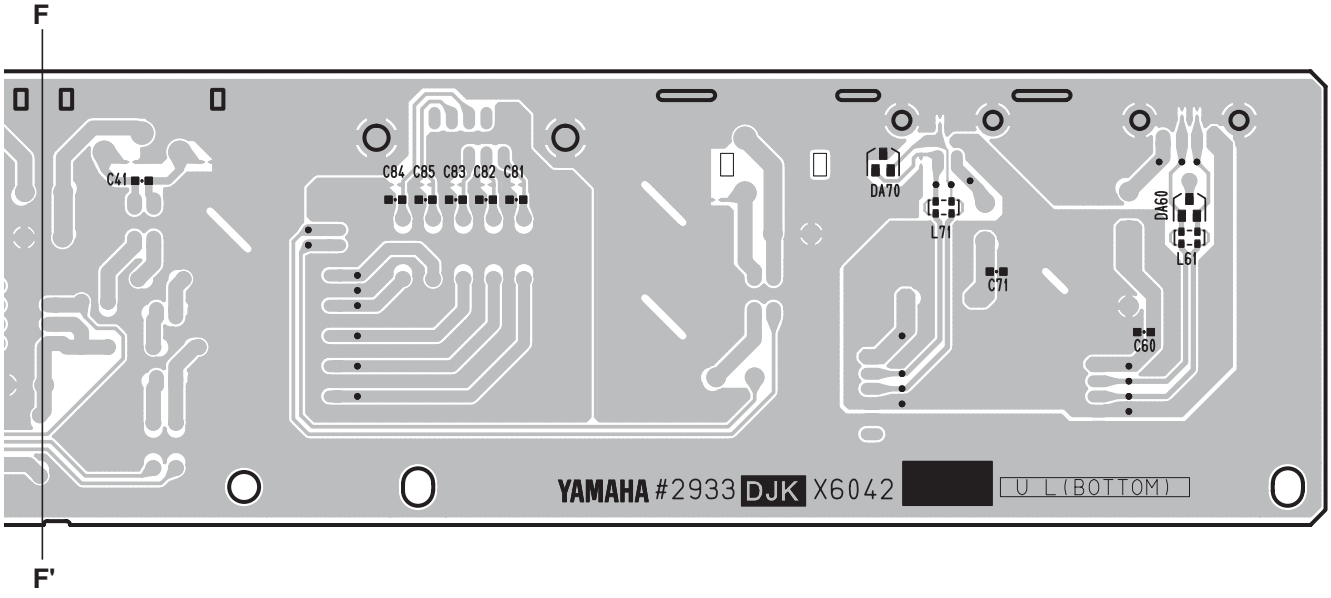
● DJK Circuit Board





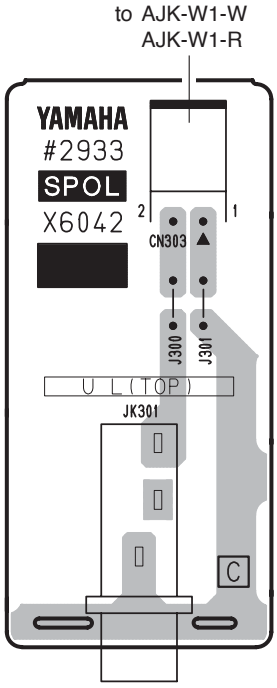


Component side



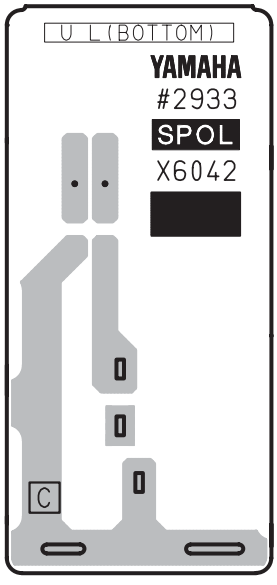
Pattern side

● SPOL Circuit Board



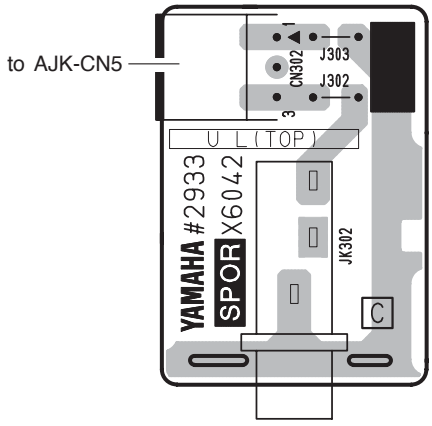
TO LEFT SPEAKER

Component side



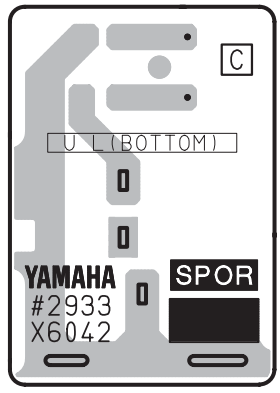
Pattern side

● SPOR Circuit Board



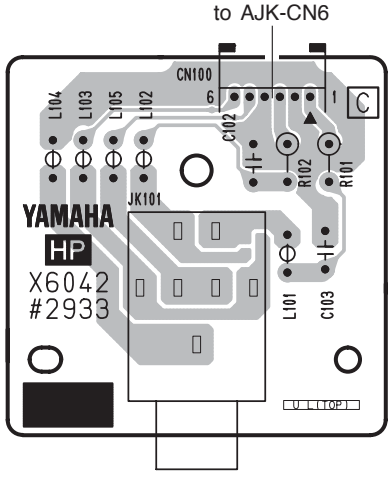
TO RIGHT SPEAKER

Component side



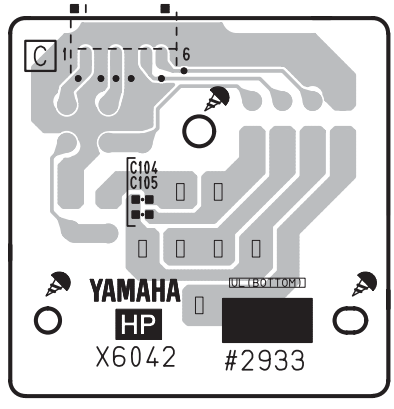
Pattern side

● HP Circuit Board



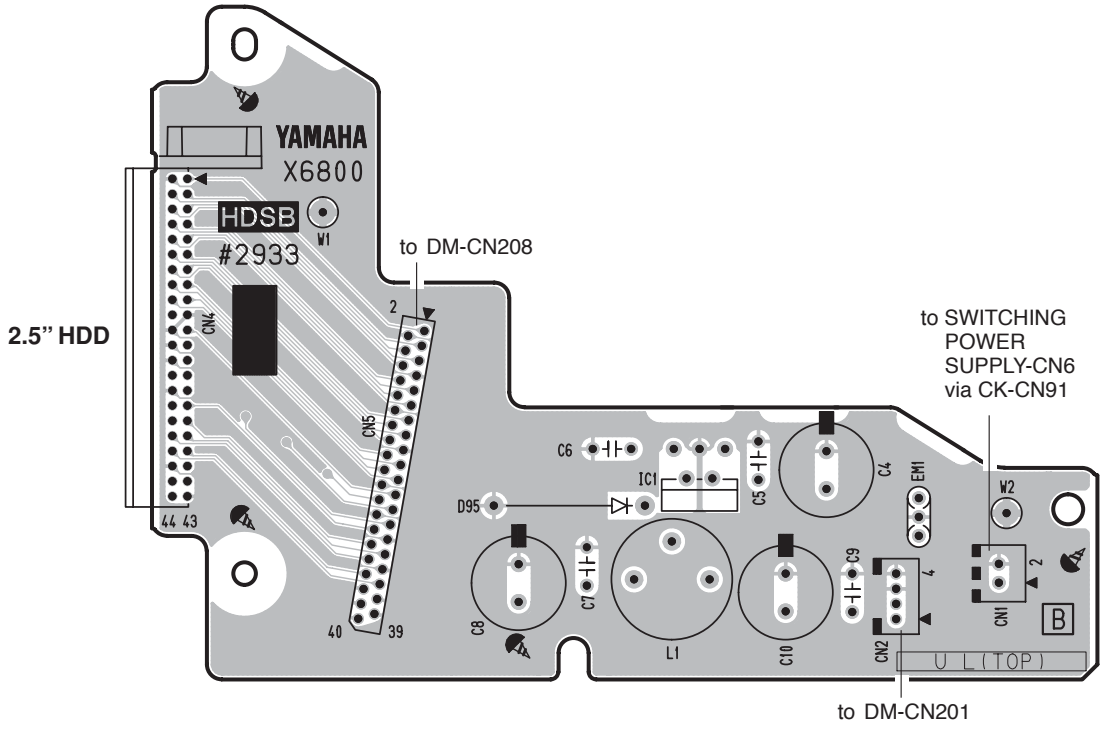
PHONES

Component side

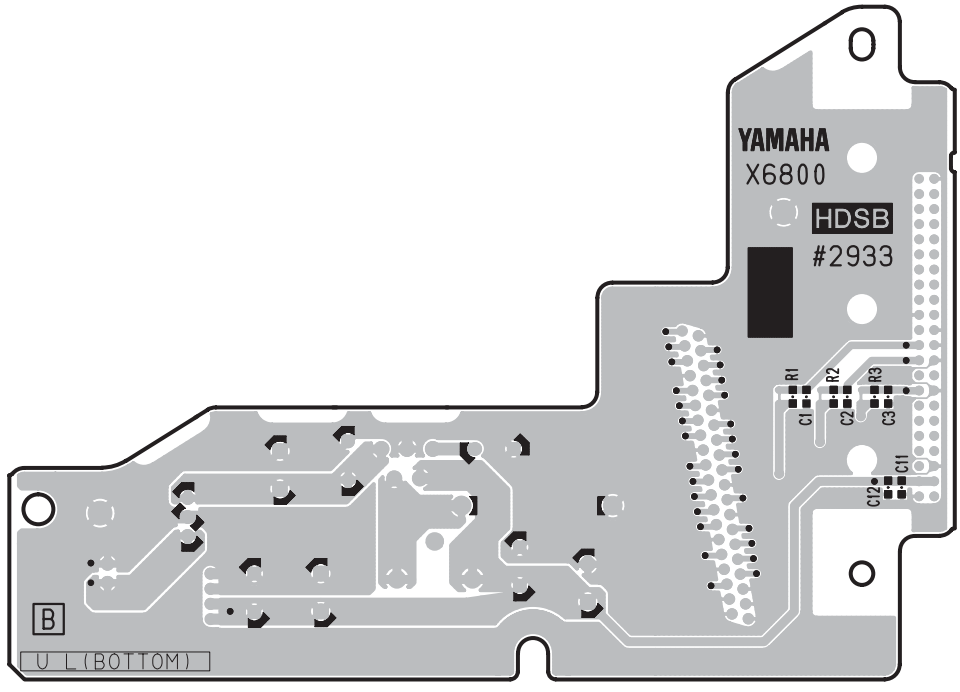


Pattern side

● HDSB Circuit Board

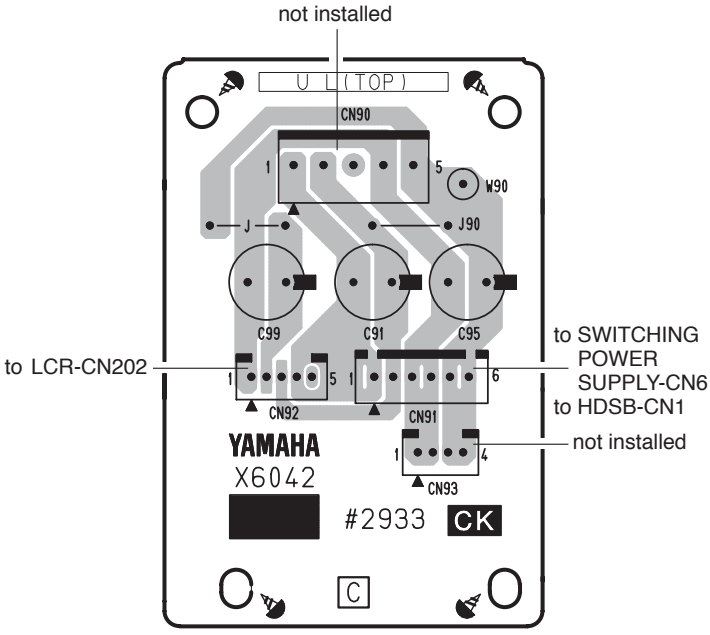


Component side

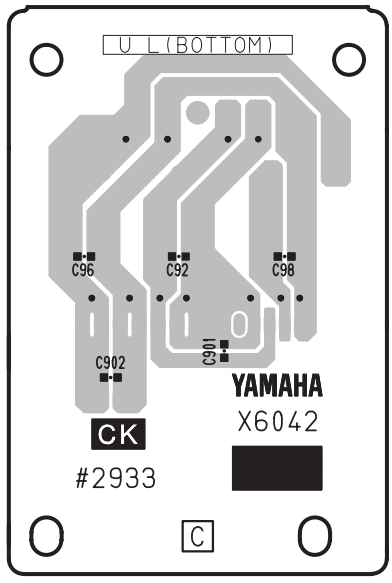


Pattern side

● CK Circuit Board

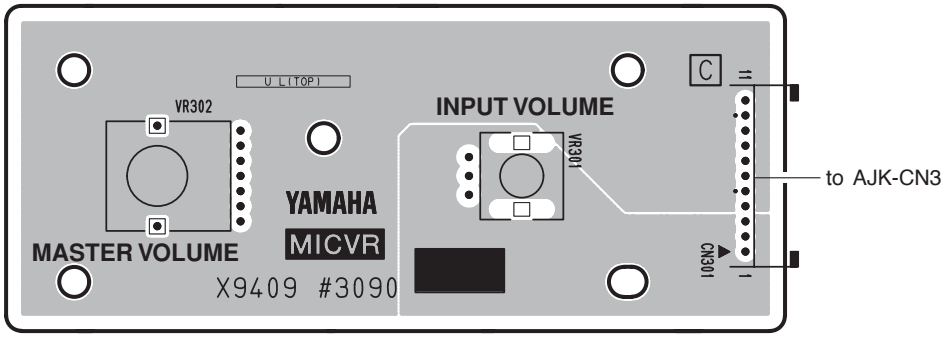


Component side

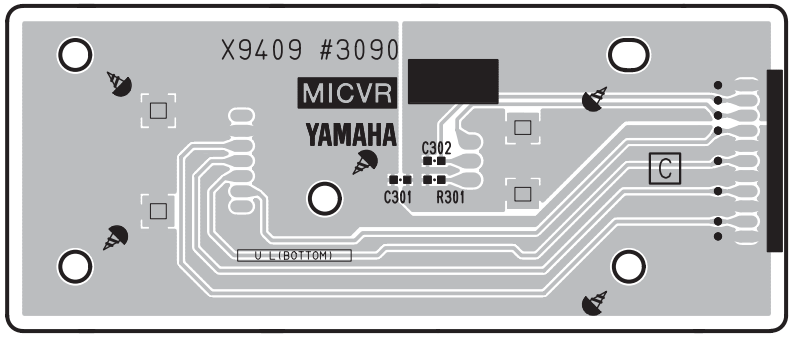


Pattern side

● MICVR Circuit Board



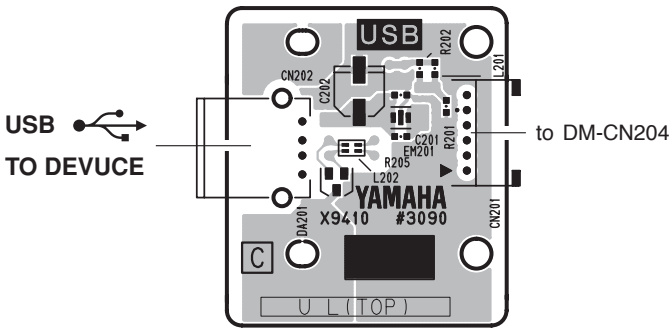
Component side



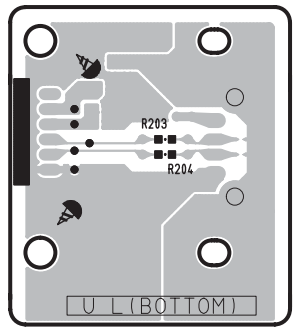
Pattern side

CK: 2NA-WE81600 ⚠2
MICVR: 2NA-WM24250

● USB Circuit Board

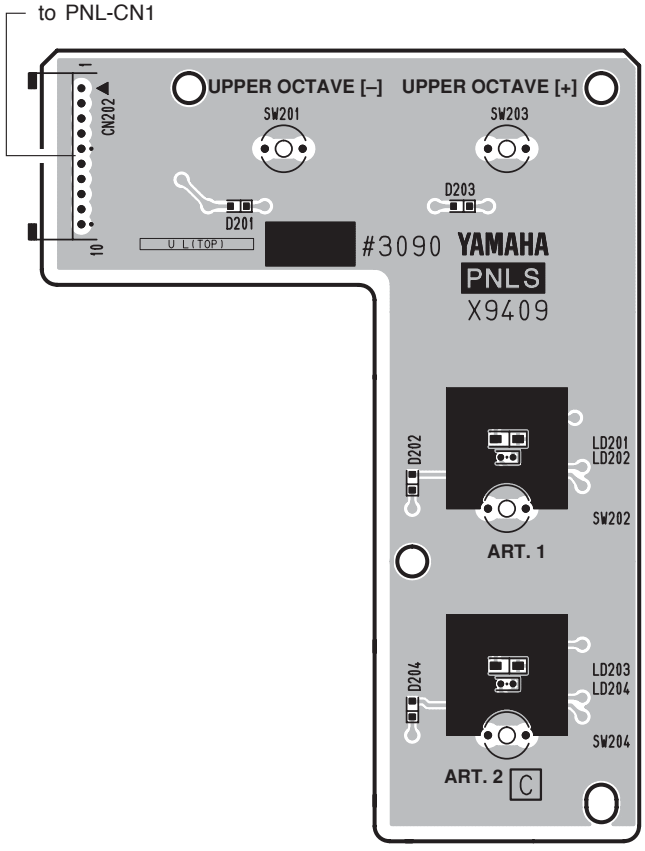


Component side

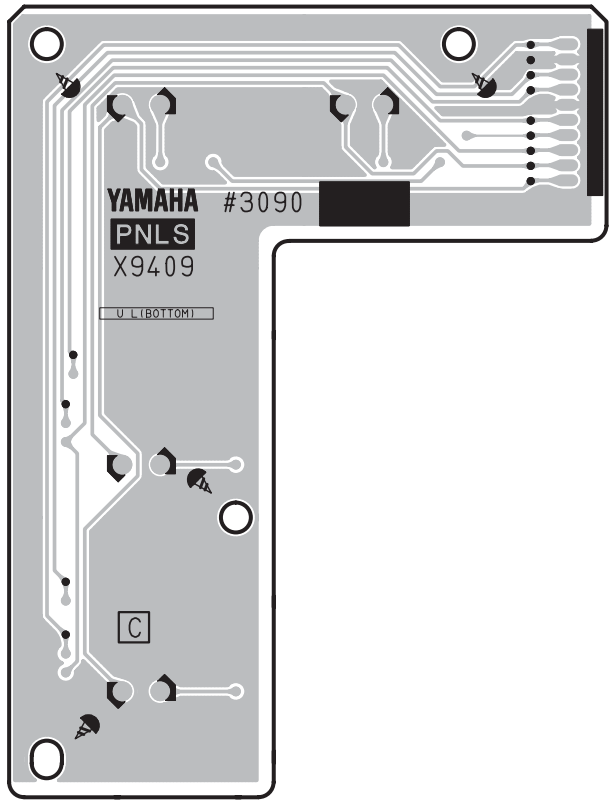


Pattern side

● PNLS Circuit Board



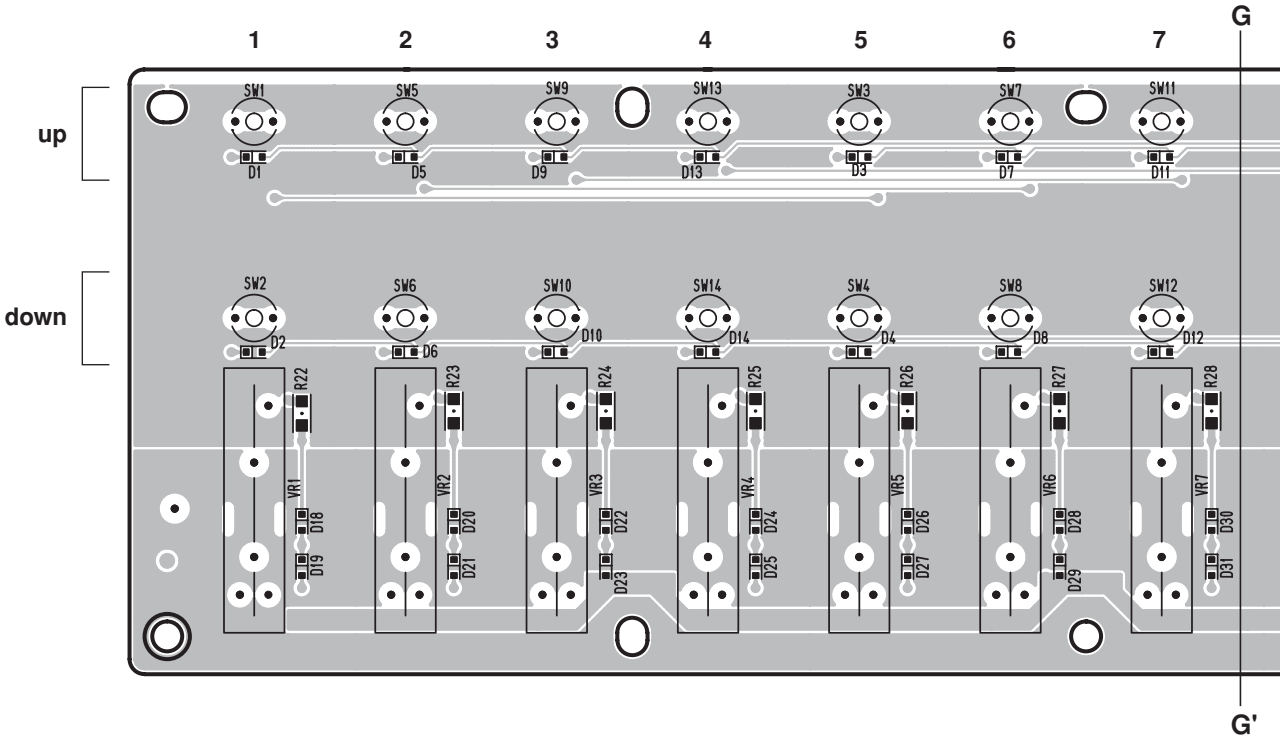
Component side

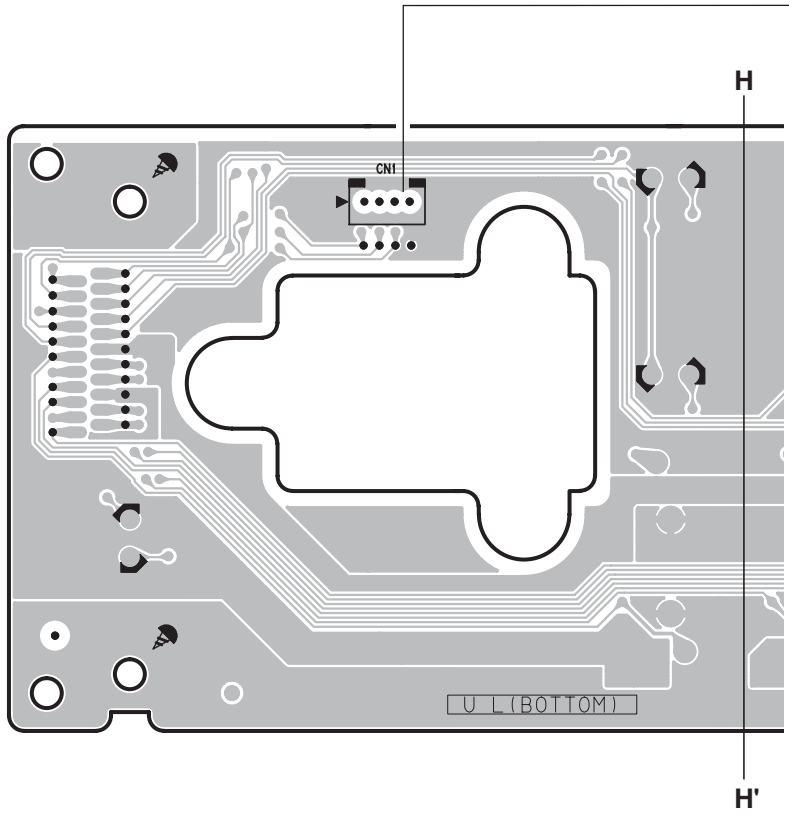


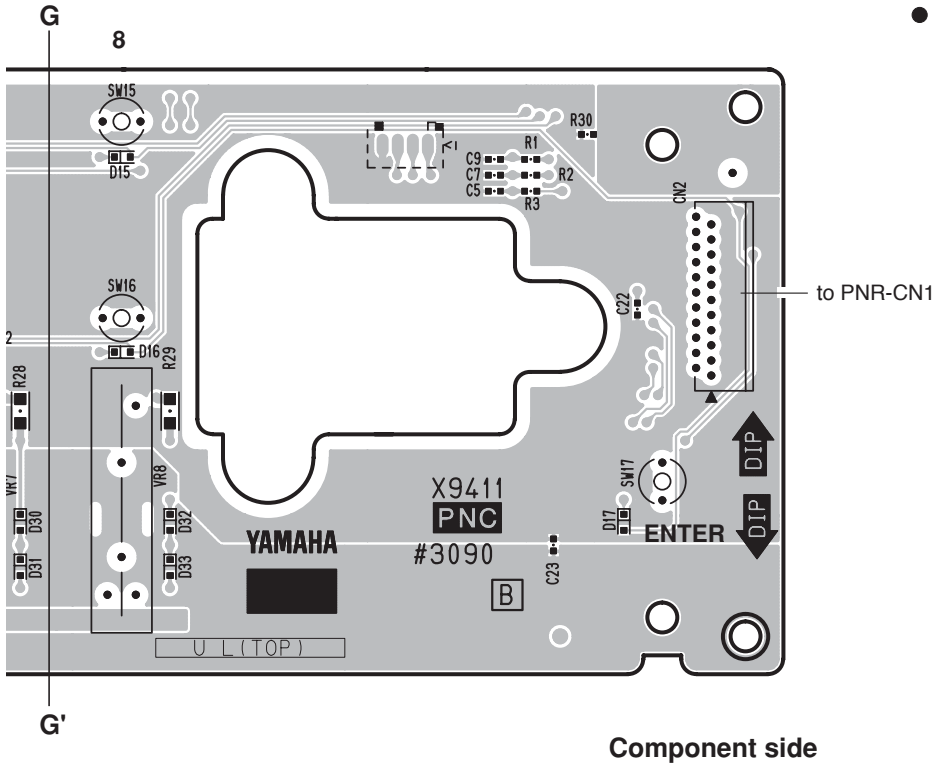
Pattern side

PNLS: 2NA-WM24250
USB: 2NA-WM24240

● PNC Circuit Board

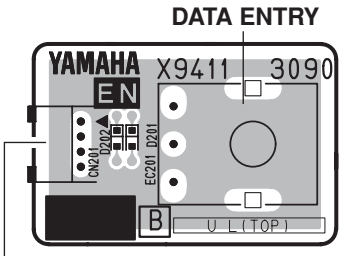




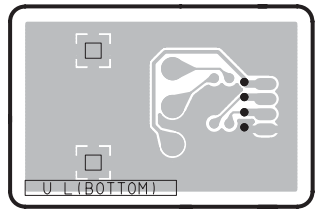


Component side

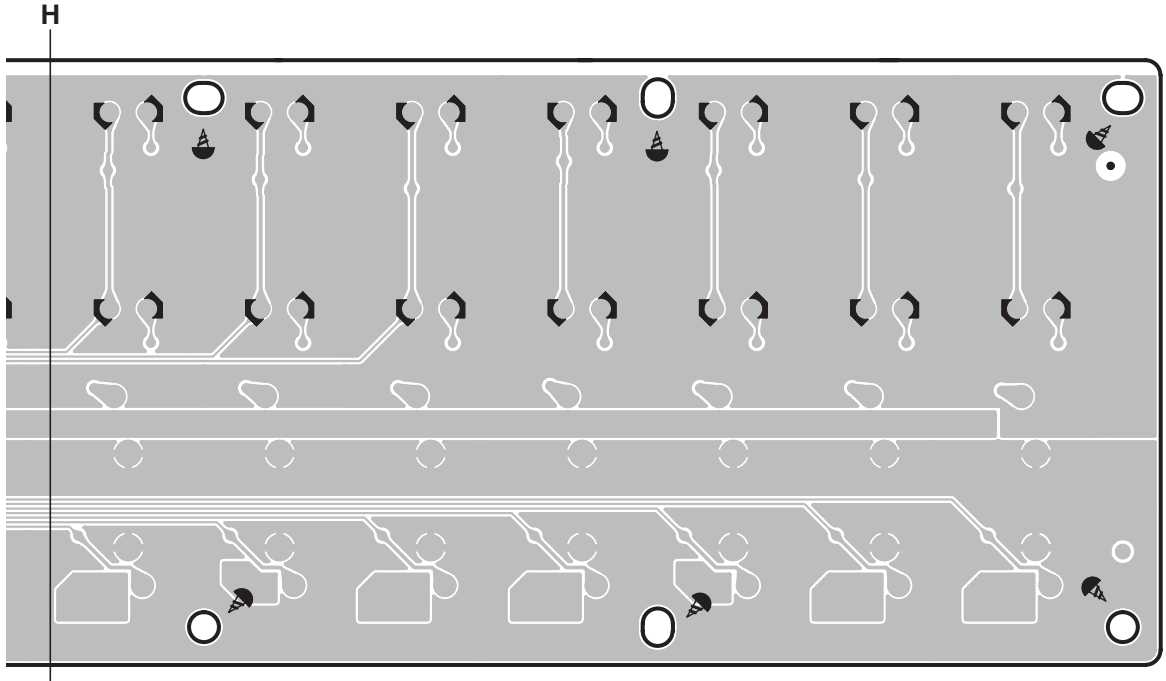
● EN Circuit Board



Component side

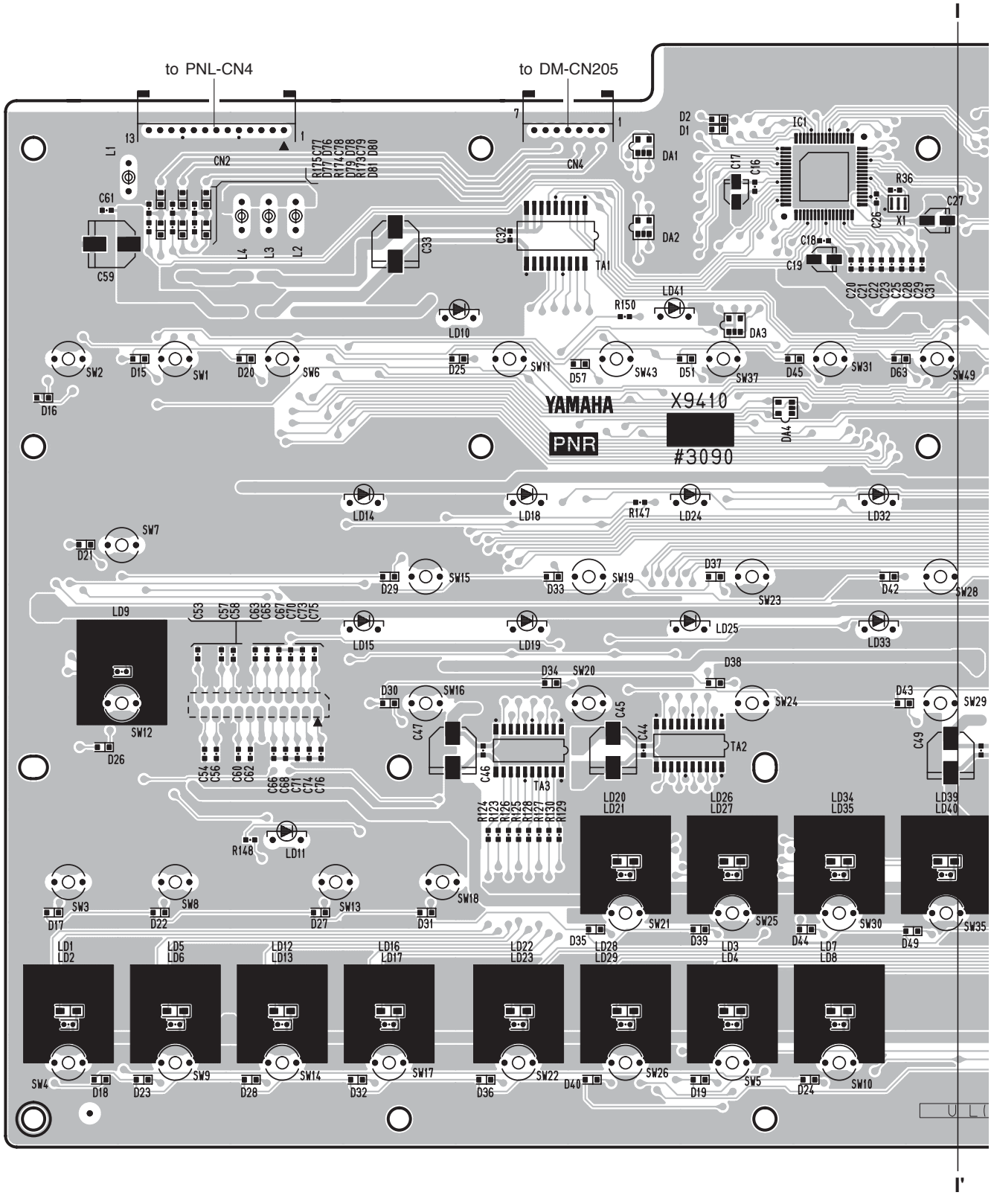


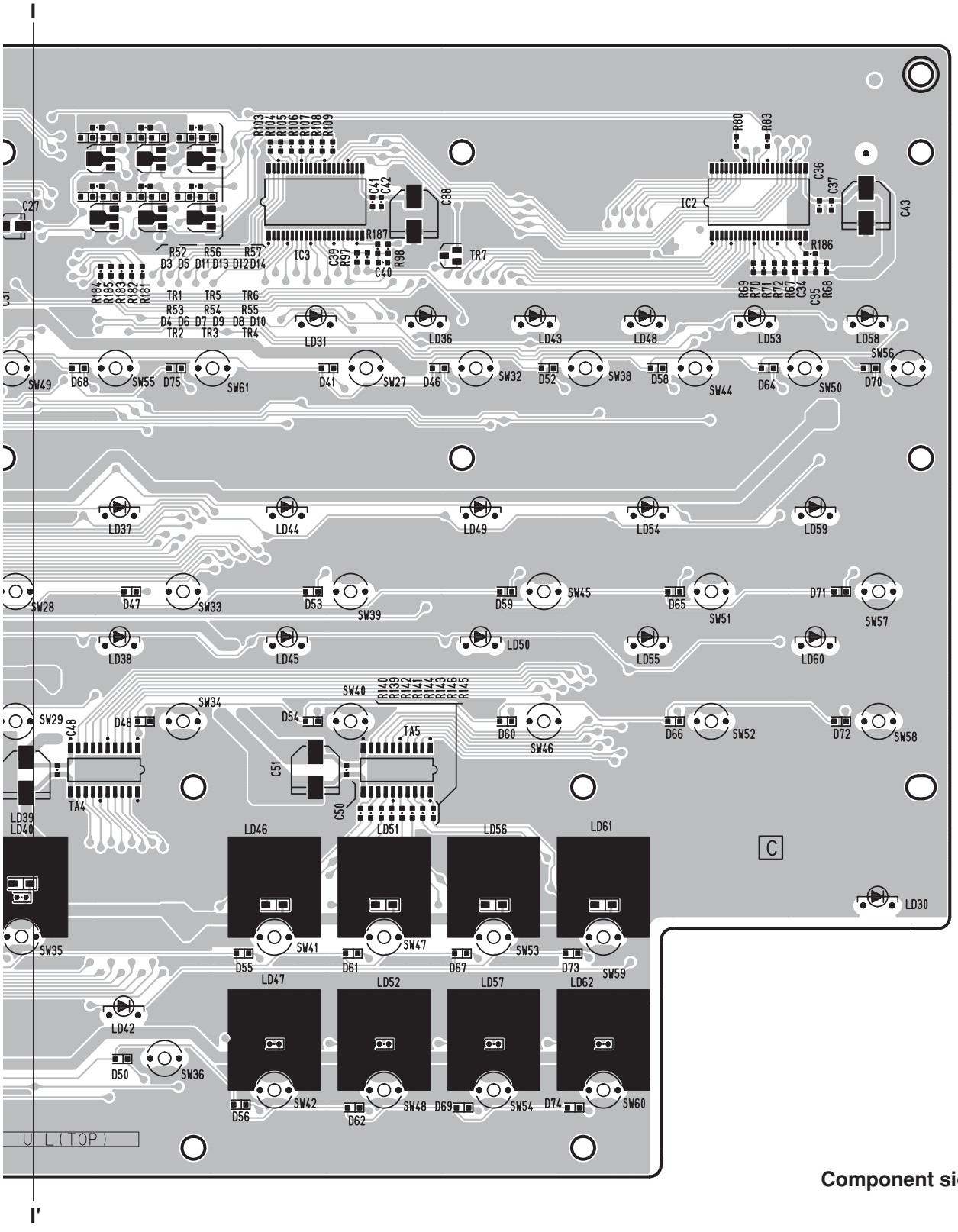
Pattern side



Pattern side

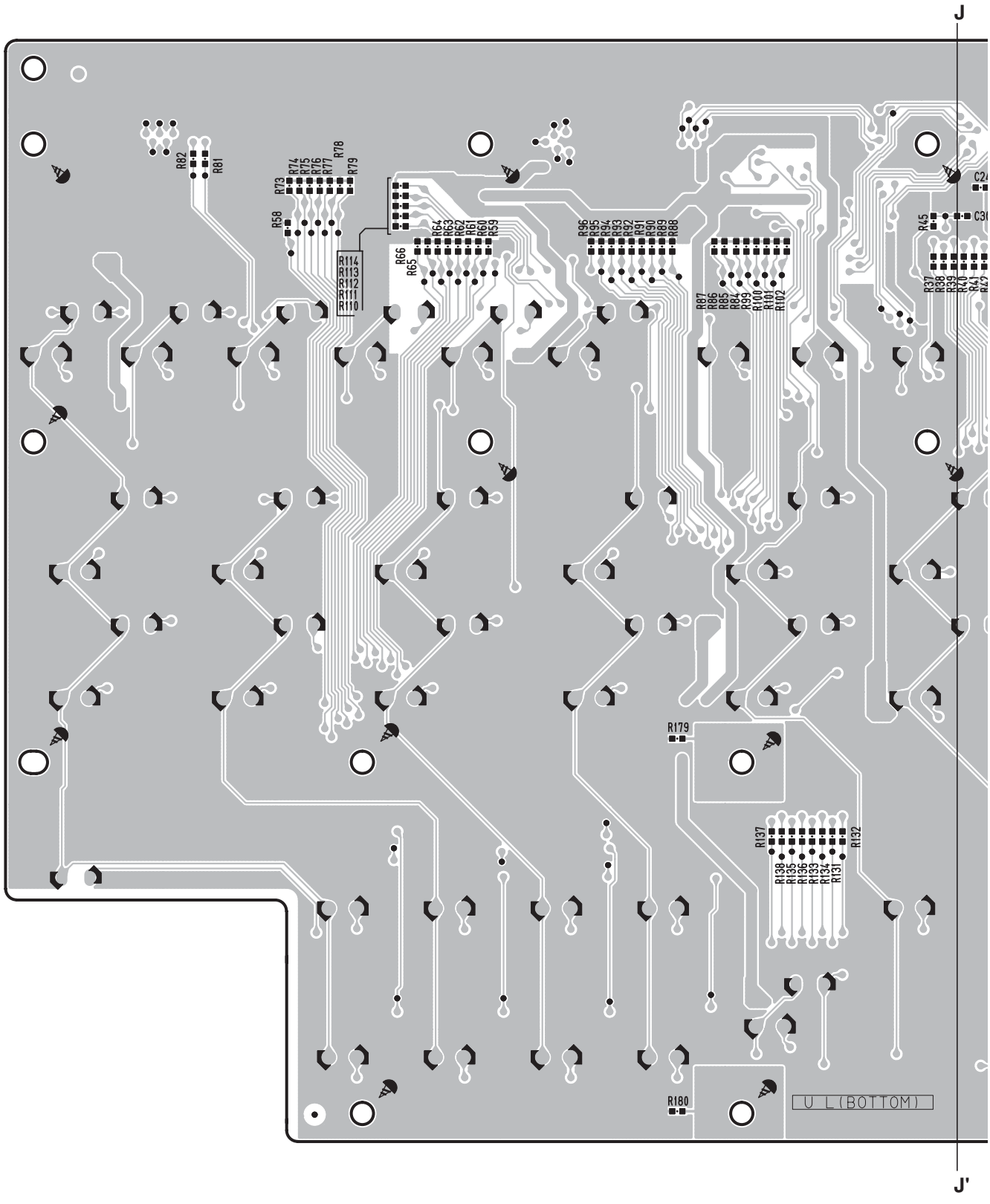
• PNR Circuit Board

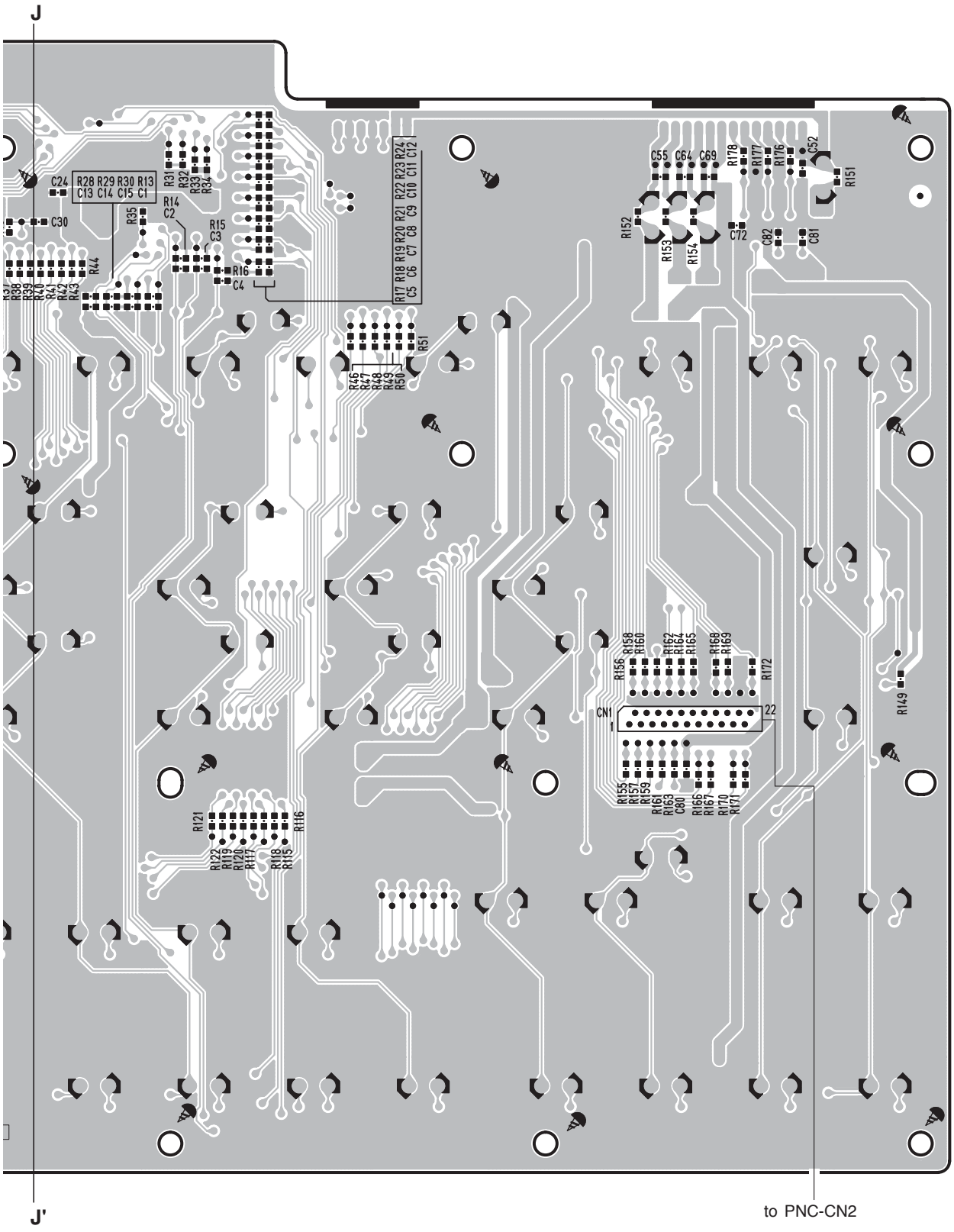




Component side

• PNR Circuit Board





Pattern side

● PNR Circuit Board

<LED Name>

REF NO.	NAME
LD1	REGISTRATION MEMORY [1]
LD2	REGISTRATION MEMORY [1]
LD3	REGISTRATION MEMORY [7]
LD4	REGISTRATION MEMORY [7]
LD5	REGISTRATION MEMORY [2]
LD6	REGISTRATION MEMORY [2]
LD7	REGISTRATION MEMORY [8]
LD8	REGISTRATION MEMORY [8]
LD9	MUSIC FINDER
LD10	HARD DISK RECORDER [REC]
LD11	REG. MEMORY [FREEZE]
LD12	REGISTRATION MEMORY [3]
LD13	REGISTRATION MEMORY [3]
LD14	VOICE [PIANO]
LD15	VOICE [GUITAR]
LD16	REGISTRATION MEMORY [4]
LD17	REGISTRATION MEMORY [4]
LD18	VOICE [E.PIANO]
LD19	VOICE [BASS]
LD20	ONE TOUCH SETTING [1]
LD21	ONE TOUCH SETTING [1]
LD22	REGISTRATION MEMORY [5]
LD23	REGISTRATION MEMORY [5]
LD24	VOICE [ORGAN]
LD25	VOICE [PERC./DRUM KIT]
LD26	ONE TOUCH SETTING [2]
LD27	ONE TOUCH SETTING [2]
LD28	REGISTRATION MEMORY [6]
LD29	REGISTRATION MEMORY [6]
LD30	READ/WRITE
LD31	VOICE EFFECT [HARMONY/ECHO]
LD32	VOICE [STRINGS]
LD33	VOICE [ACCORDION]
LD34	ONE TOUCH SETTING [3]
LD35	ONE TOUCH SETTING [3]
LD36	VOICE EFFECT[INITIAL TOUCH]
LD37	VOICE [CHOIR]
LD38	VOICE [PAD]
LD39	ONE TOUCH SETTING [4]
LD40	ONE TOUCH SETTING [4]
LD41	HARD DISK RECORDER [PLAY/PAUSE]
LD42	PART ON/OFF [LEFT HOLD]
LD43	VOICE EFFECT [SUSTAIN]
LD44	VOICE [BRASS]
LD45	VOICE [SYNTH]
LD46	PART SELECT [LEFT]
LD47	PART ON/OFF [LEFT]
LD48	VOICE EFFECT [MONO]
LD49	VOICE [TRUMPET]
LD50	VOICE [ORGAN FLUTES]
LD51	PART SELECT [RIGHT 1]
LD52	PART ON/OFF [RIGHT 1]
LD53	VOICE EFFECT [DSP]
LD54	VOICE [SAXOPHONE]
LD55	VOICE [EXPANSION]
LD56	PART SELECT [RIGHT 2]
LD57	PART ON/OFF [RIGHT 2]
LD58	VOICE EFFECT [VARIATION]
LD59	VOICE [FLUTE/CLARINET]
LD60	VOICE [USER DRIVE]
LD61	PART SELECT [RIGHT 3]
LD62	PART ON/OFF [RIGHT 3]

<Switch Name>

REF NO.	NAME
SW1	MENU [VOICE CREATOR]
SW2	MENU [FUNCTION]
SW3	REGIST BANK [–]
SW4	REGISTRATION MEMORY [1]
SW5	REGISTRATION MEMORY [7]
SW6	MENU [DIGITAL RECORDING]
SW7	INTERNET
SW8	REGIST BANK [+]
SW9	REGISTRATION MEMORY [2]
SW10	REGISTRATION MEMORY [8]
SW11	HARD DISK RECORDER [REC]
SW12	MUSIC FINDER
SW13	REG. MEMORY [FREEZE]
SW14	REGISTRATION MEMORY [3]
SW15	VOICE [PIANO]
SW16	VOICE [GUITAR]
SW17	REGISTRATION MEMORY [4]
SW18	REG. MEMORY [MEMORY]
SW19	VOICE [E.PIANO]
SW20	VOICE [BASS]
SW21	ONE TOUCH SETTING [1]
SW22	REGISTRATION MEMORY [5]
SW23	VOICE [ORGAN]
SW24	VOICE [PERC./DRUM KIT]
SW25	ONE TOUCH SETTING [2]
SW26	REGISTRATION MEMORY [6]
SW27	VOICE EFFECT [HARMONY/ECHO]
SW28	VOICE [STRINGS]
SW29	VOICE [ACCORDION]
SW30	ONE TOUCH SETTING [3]
SW31	HARD DISK RECORDER [PREV]
SW32	VOICE EFFECT [INITIAL TOUCH]
SW33	VOICE [CHOIR]
SW34	VOICE [PAD]
SW35	ONE TOUCH SETTING [4]
SW36	PART ON/OFF [LEFT HOLD]
SW37	HARD DISK RECORDER [PLAY/PAUSE]
SW38	VOICE EFFECT [SUSTAIN]
SW39	VOICE [BRASS]
SW40	VOICE [SYNTH]
SW41	PART SELECT [LEFT]
SW42	PART ON/OFF [LEFT]
SW43	HARD DISK RECORDER [STOP]
SW44	VOICE EFFECT [MONO]
SW45	VOICE [TRUMPET]
SW46	VOICE [ORGAN FLUTES]
SW47	PART SELECT [RIGHT 1]
SW48	PART ON/OFF [RIGHT 1]
SW49	HARD DISK RECORDER [NEXT]
SW50	VOICE EFFECT [DSP]
SW51	VOICE [SAXOPHONE]
SW52	VOICE [EXPANSION]
SW53	PART SELECT [RIGHT 2]
SW54	PART ON/OFF [RIGHT 2]
SW55	HARD DISK RECORDER [SELECT]
SW56	VOICE EFFECT [VARIATION]
SW57	VOICE [FLUTE/CLARINET]
SW58	VOICE [USER DRIVE]
SW59	PART SELECT [RIGHT 3]
SW60	PART ON/OFF [RIGHT 3]
SW61	HARD DISK RECORDER [SETTING]

● PNL Circuit Board

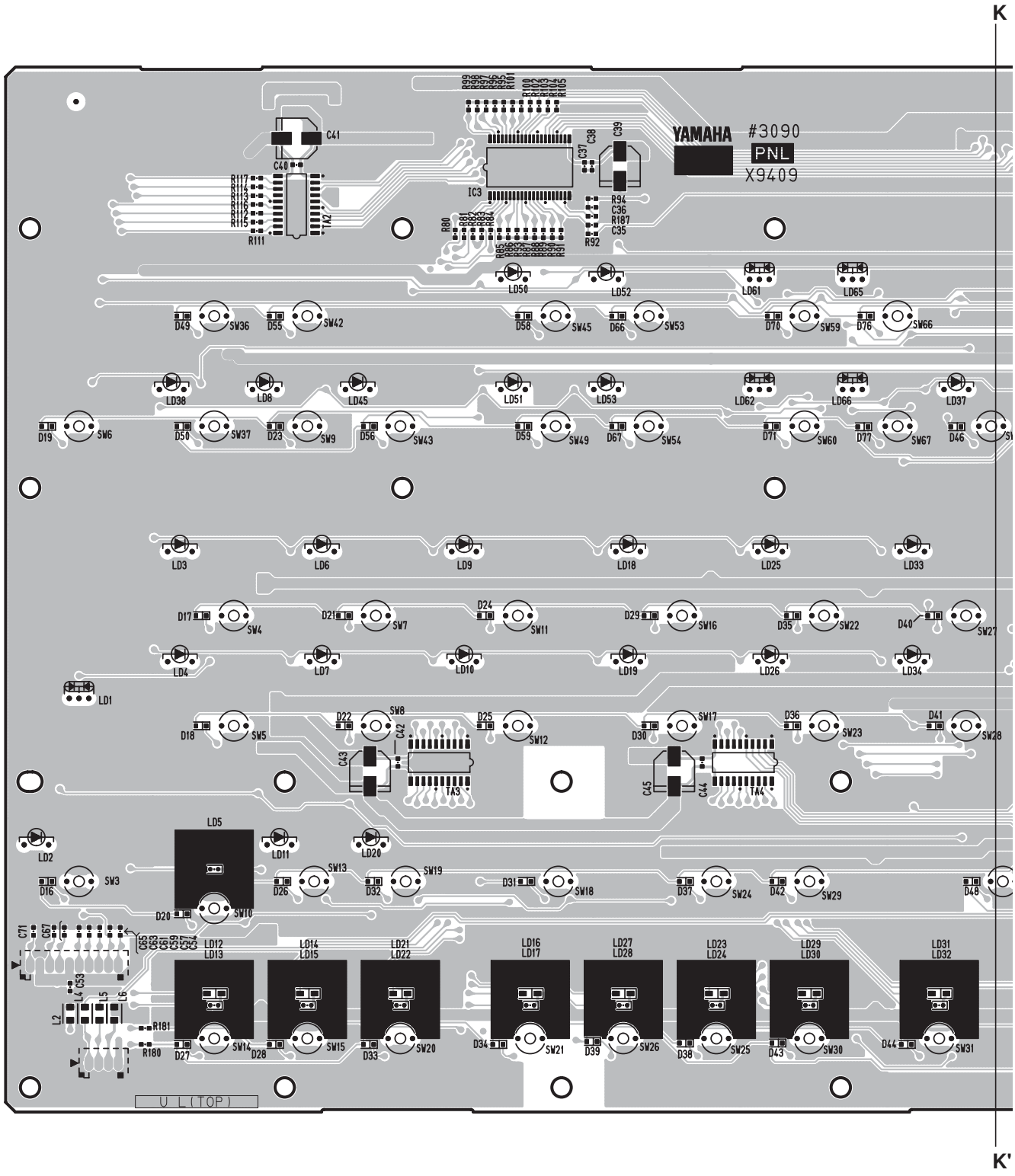
<LED Name>

REF NO.	NAME
LD1	SIGNAL
LD2	FADE IN/OUT
LD3	STYLE [POP & ROCK]
LD4	STYLE [LATIN]
LD5	STYLE CONTROL [ACMP]
LD6	STYLE [BALLAD]
LD7	STYLE [BALLROOM]
LD8	MIC [EFFECT]
LD9	STYLE [DANCE]
LD10	STYLE [MOVIE & SHOW]
LD11	STYLE CONTROL [OTS LINK]
LD12	STYLE CONTROL INTRO [I]
LD13	STYLE CONTROL INTRO [I]
LD14	STYLE CONTROL INTRO [II]
LD15	STYLE CONTROL INTRO [II]
LD16	MAIN VARIATION [A]
LD17	MAIN VARIATION [A]
LD18	STYLE [SWING & JAZZ]
LD19	STYLE [ENTERTAINER]
LD20	STYLE CONTROL [AUTO FILL IN]
LD21	STYLE CONTROL INTRO [III]
LD22	STYLE CONTROL INTRO [III]
LD23	MAIN VARIATION [C]
LD24	MAIN VARIATION [C]
LD25	STYLE [R & B]
LD26	STYLE [WORLD]
LD27	MAIN VARIATION [B]
LD28	MAIN VARIATION [B]
LD29	MAIN VARIATION [D]
LD30	MAIN VARIATION [D]
LD31	STYLE CONTROL [BREAK]
LD32	STYLE CONTROL [BREAK]
LD33	STYLE [COUNTRY]
LD34	STYLE [FILE ACCESS]
LD35	ENDING/rit. [I]
LD36	ENDING/rit. [I]
LD37	SONG [LOOP]
LD38	MIC [VOCAL HARMONY]
LD39	ENDING/rit. [II]
LD40	ENDING/rit. [II]
LD41	SONG [REC]
LD42	SONG [METRONOME]
LD43	MULTI PAD CONTROL [1]
LD44	MULTI PAD CONTROL [1]
LD45	MIC [TALK]
LD46	MULTI PAD CONTROL [2]
LD47	MULTI PAD CONTROL [2]
LD48	ENDING/rit. [III]
LD49	ENDING/rit. [III]
LD50	SONG [I]
LD51	SONG [III]
LD52	SONG [II]
LD53	SONG [IV]
LD54	MULTI PAD CONTROL [3]
LD55	MULTI PAD CONTROL [3]
LD56	STYLE CONTROL [SYNC STOP]
LD57	SONG [PLAY/PAUSE]
LD58	MULTI PAD CONTROL [4]
LD59	MULTI PAD CONTROL [4]
LD60	STYLE CONTROL [SYNC START]
LD61	SONG [SP 1]
LD62	SONG [SP 3]
LD63	STYLE CONTROL [START/STOP]
LD64	STYLE CONTROL [START/STOP]
LD65	SONG [SP 2]
LD66	SONG [SP 4]

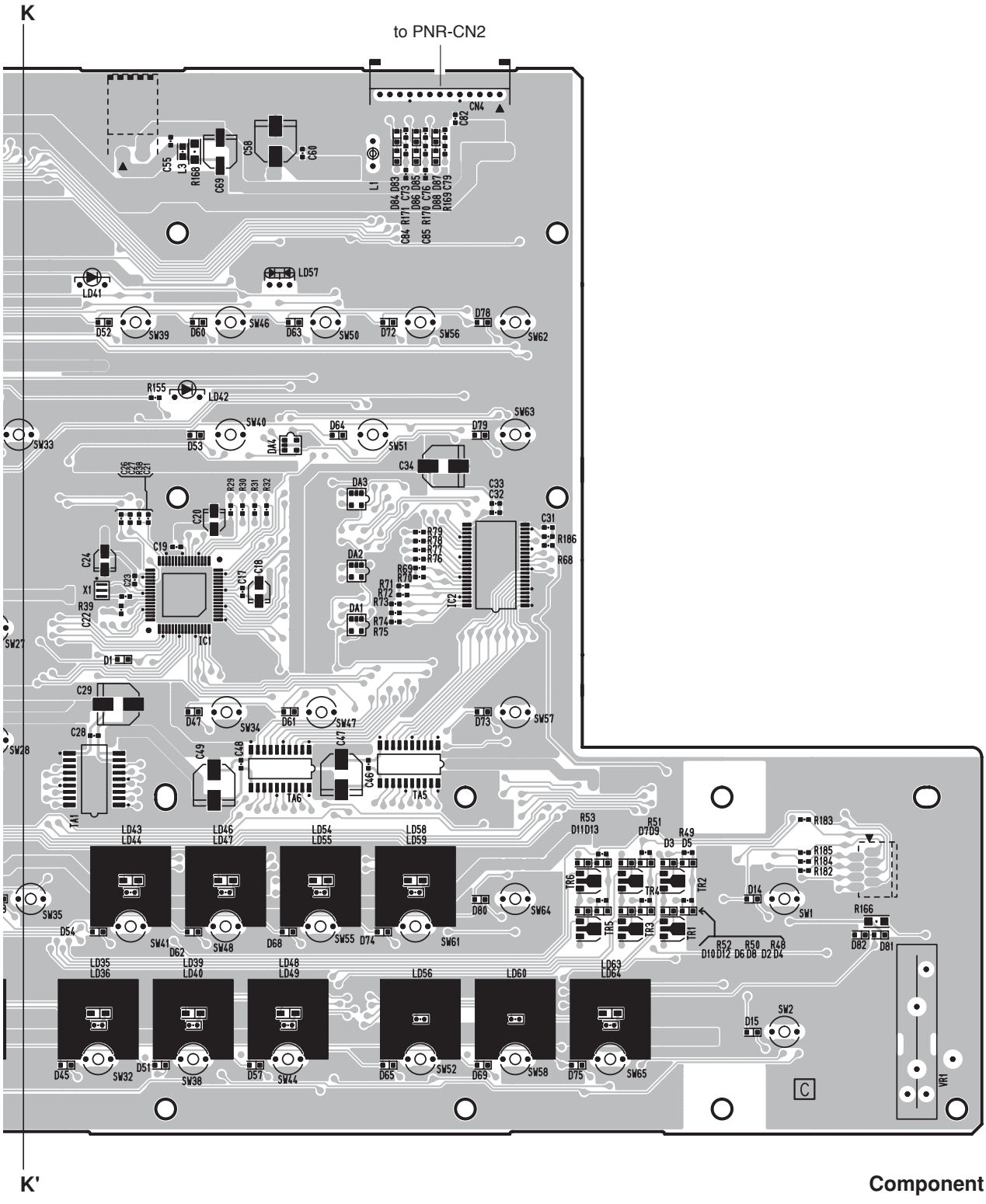
<Switch Name>

REF NO.	NAME
SW1	CHANNEL ON/OFF
SW2	BALANCE
SW3	FADE IN/OUT
SW4	STYLE [POP & ROCK]
SW5	STYLE [LATIN]
SW6	DEMO
SW7	STYLE [BALLAD]
SW8	STYLE [BALLROOM]
SW9	MIC [EFFECT]
SW10	STYLE CONTROL [ACMP]
SW11	STYLE [DANCE]
SW12	STYLE [MOVIE & SHOW]
SW13	STYLE CONTROL [OTS LINK]
SW14	STYLE CONTROL INTRO [I]
SW15	STYLE CONTROL INTRO [II]
SW16	STYLE [SWING & JAZZ]
SW17	STYLE [ENTERTAINER]
SW18	TAP TEMPO
SW19	STYLE CONTROL [AUTO FILL IN]
SW20	STYLE CONTROL INTRO [III]
SW21	MAIN VARIATION [A]
SW22	STYLE [R & B]
SW23	STYLE [WORLD]
SW24	TEMPO [-]
SW25	MAIN VARIATION [C]
SW26	MAIN VARIATION [B]
SW27	STYLE [COUNTRY]
SW28	STYLE [FILE ACCESS]
SW29	TEMPO [+]
SW30	MAIN VARIATION [D]
SW31	STYLE CONTROL [BREAK]
SW32	ENDING/rit. [I]
SW33	SONG [LOOP]
SW34	TRANSPOSE [-]
SW35	MULTI PAD CONTROL [SELECT]
SW36	MIC [VH TYPE SELECT]
SW37	MIC [VOCAL HARMONY]
SW38	ENDING/rit. [II]
SW39	SONG [REC]
SW40	SONG [METRONOME]
SW41	MULTI PAD CONTROL [1]
SW42	MIC [MIC SETTING]
SW43	MIC [TALK]
SW44	ENDING/rit. [III]
SW45	SONG [I]
SW46	SONG [STOP]
SW47	TRANSPOSE [+]
SW48	MULTI PAD CONTROL [2]
SW49	SONG [III]
SW50	SONG [PLAY/PAUSE]
SW51	SONG [LYRICS/TEXT]
SW52	STYLE CONTROL [SYNC STOP]
SW53	SONG [II]
SW54	SONG [IV]
SW55	MULTI PAD CONTROL [3]
SW56	SONG [REW]
SW57	MIXING CONSOLE
SW58	STYLE CONTROL [SYNC START]
SW59	SONG [SP 1]
SW60	SONG [SP 3]
SW61	MULTI PAD CONTROL [4]
SW62	SONG [FF]
SW63	SONG [SCORE]
SW64	MULTI PAD CONTROL [STOP]
SW65	STYLE CONTROL [START/STOP]
SW66	SONG [SP 2]
SW67	SONG [SP 4]

● PNL Circuit Board

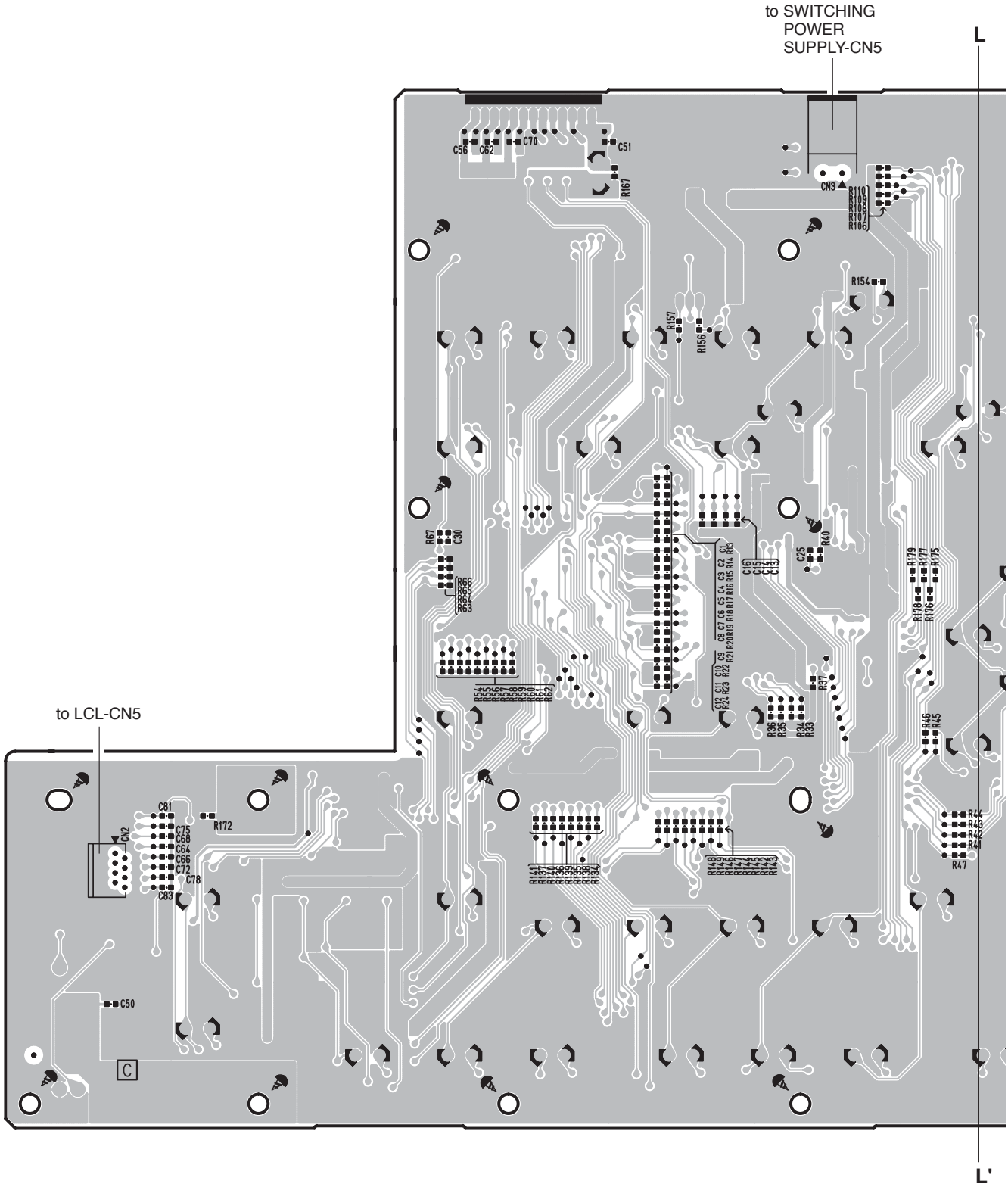


Scale: 85/100

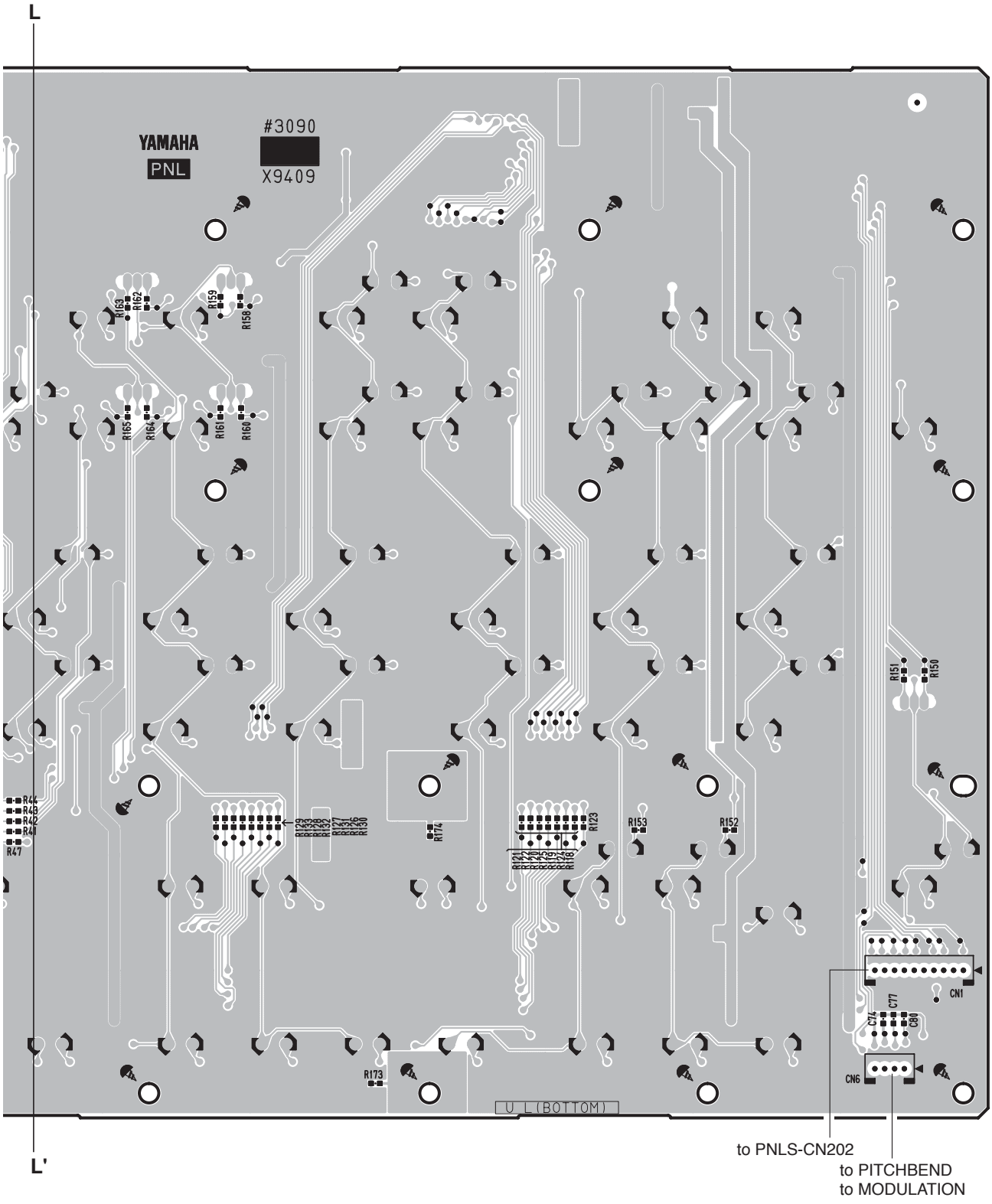


Component side

● PNL Circuit Board

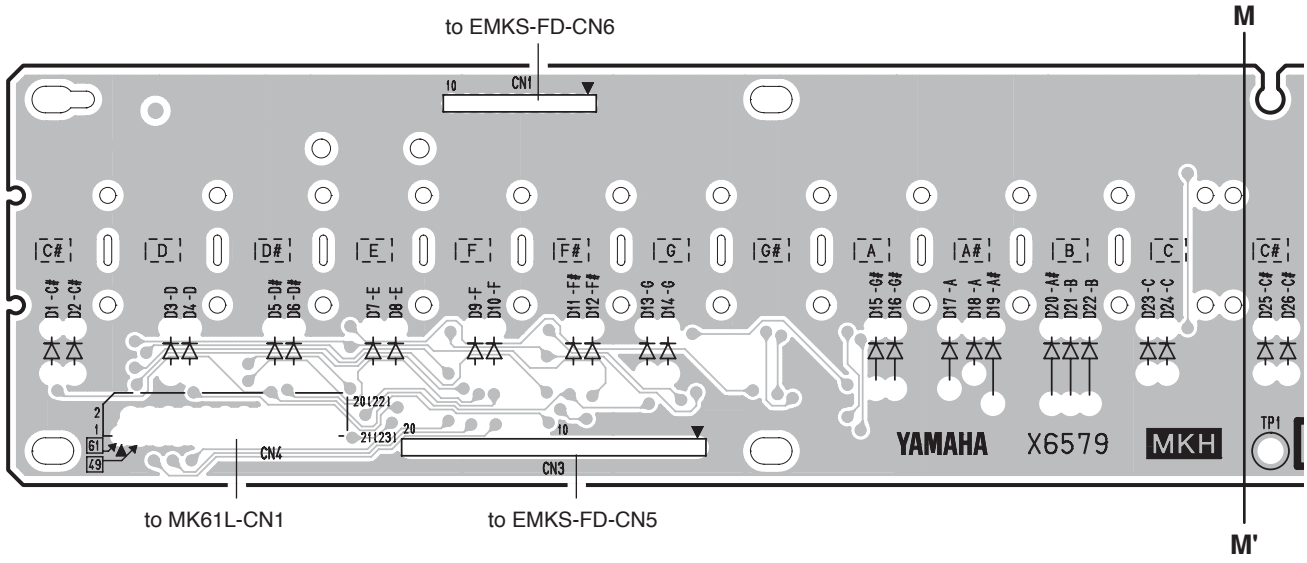


Scale: 85/100

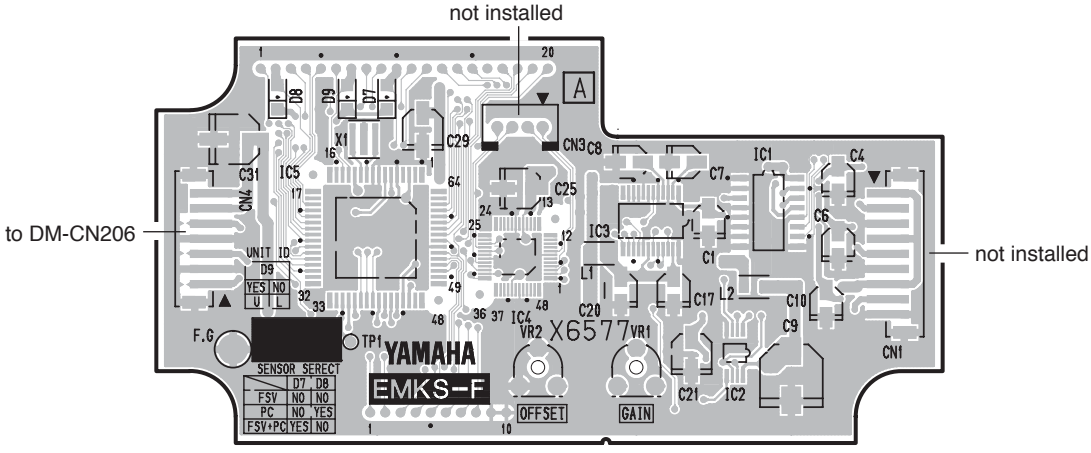


Pattern side

● MKH-D Circuit Board

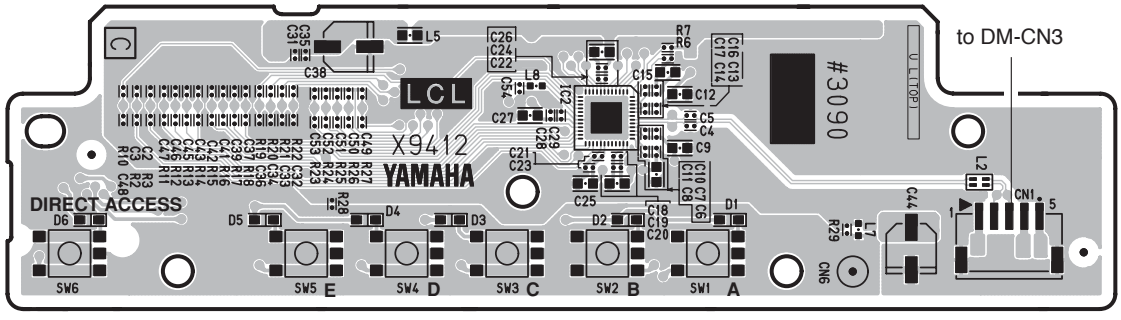


● EMKS-FD Circuit Board



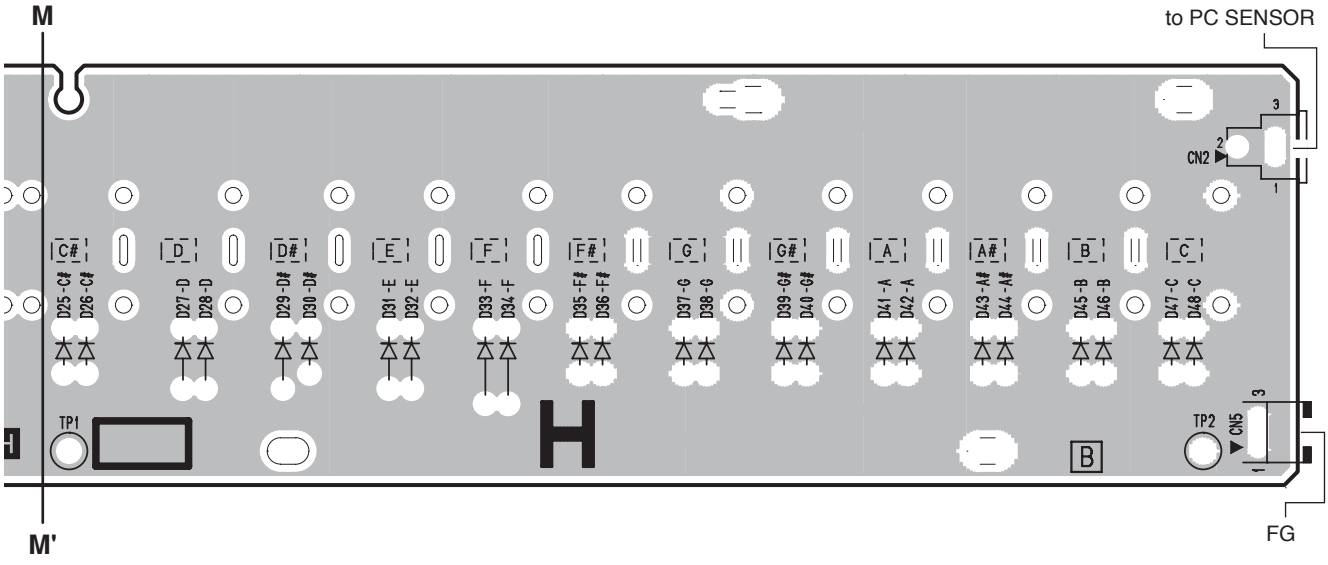
Component side

● LCL Circuit Board



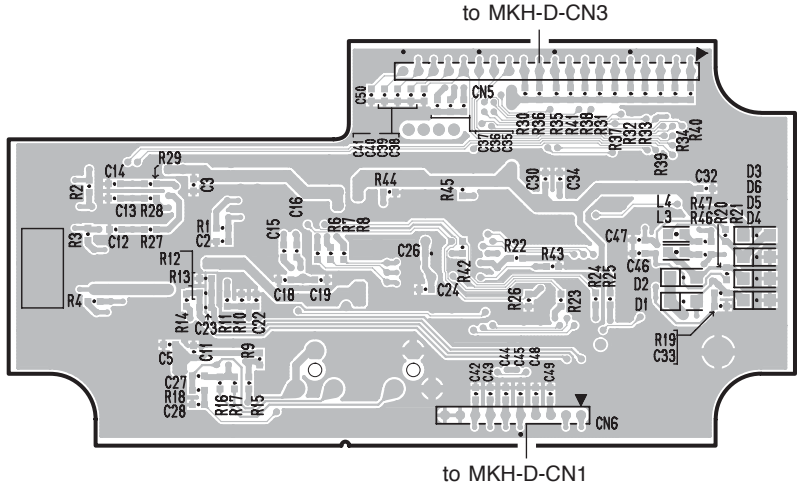
Component side

EMKS-FD: WE62240
LCL: 2NA-WM24270
MKH-D: 2NAKZ-WD78540 ⚠2



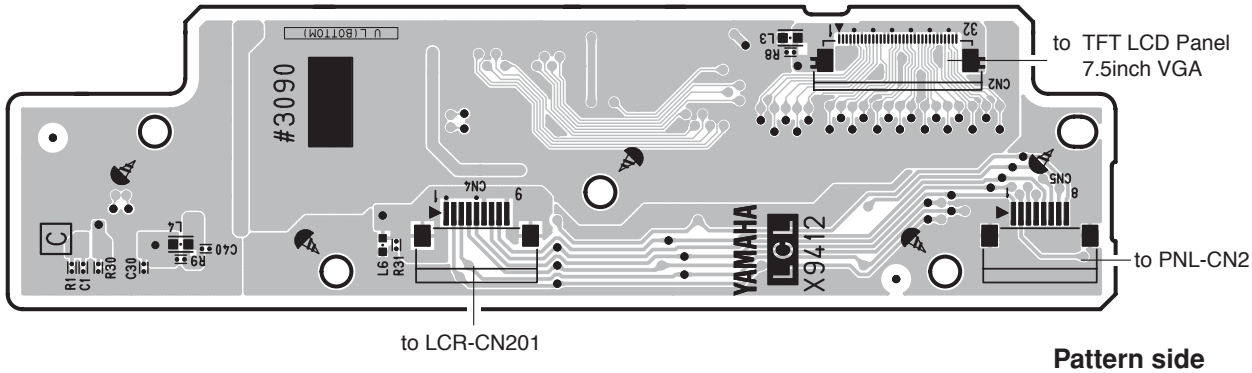
Component side

● EMKS-FD Circuit Board



Pattern side

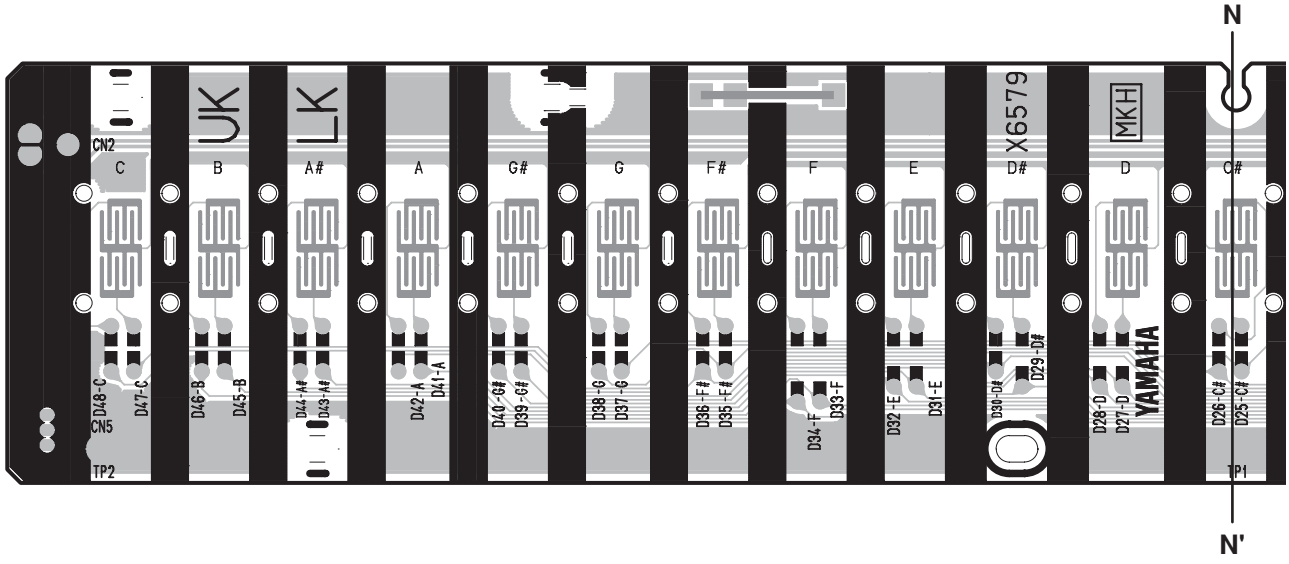
● LCL Circuit Board



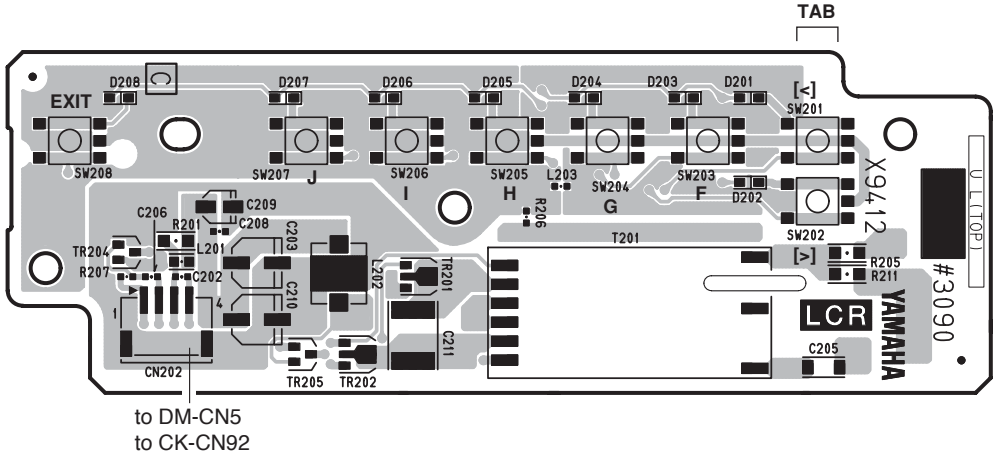
Pattern side

EMKS-FD: WE62240
LCL: 2NA-WM24270
MKH-D: 2NAKZ-WD78540 ⚠2

• MKH-D Circuit Board

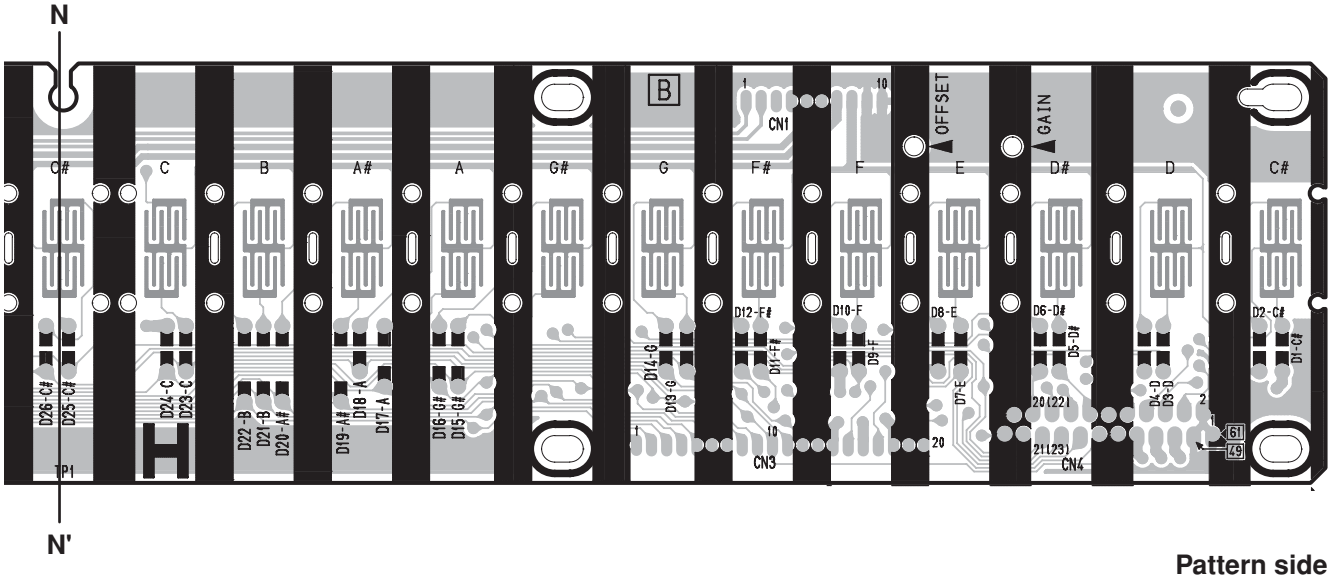


• LCR Circuit Board



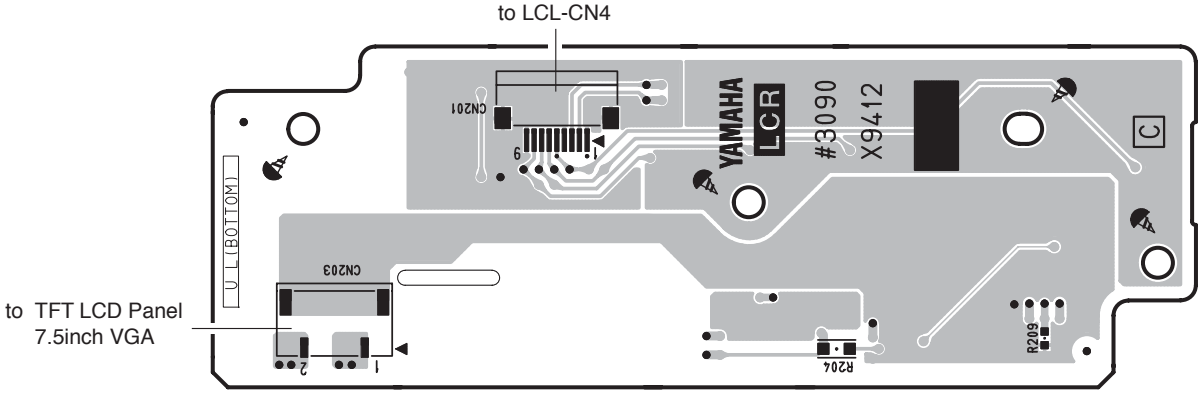
Component side

LCR: 2NA-WM24270
MKH-D: 2NAKZ-WD78540 ⚠2



Pattern side

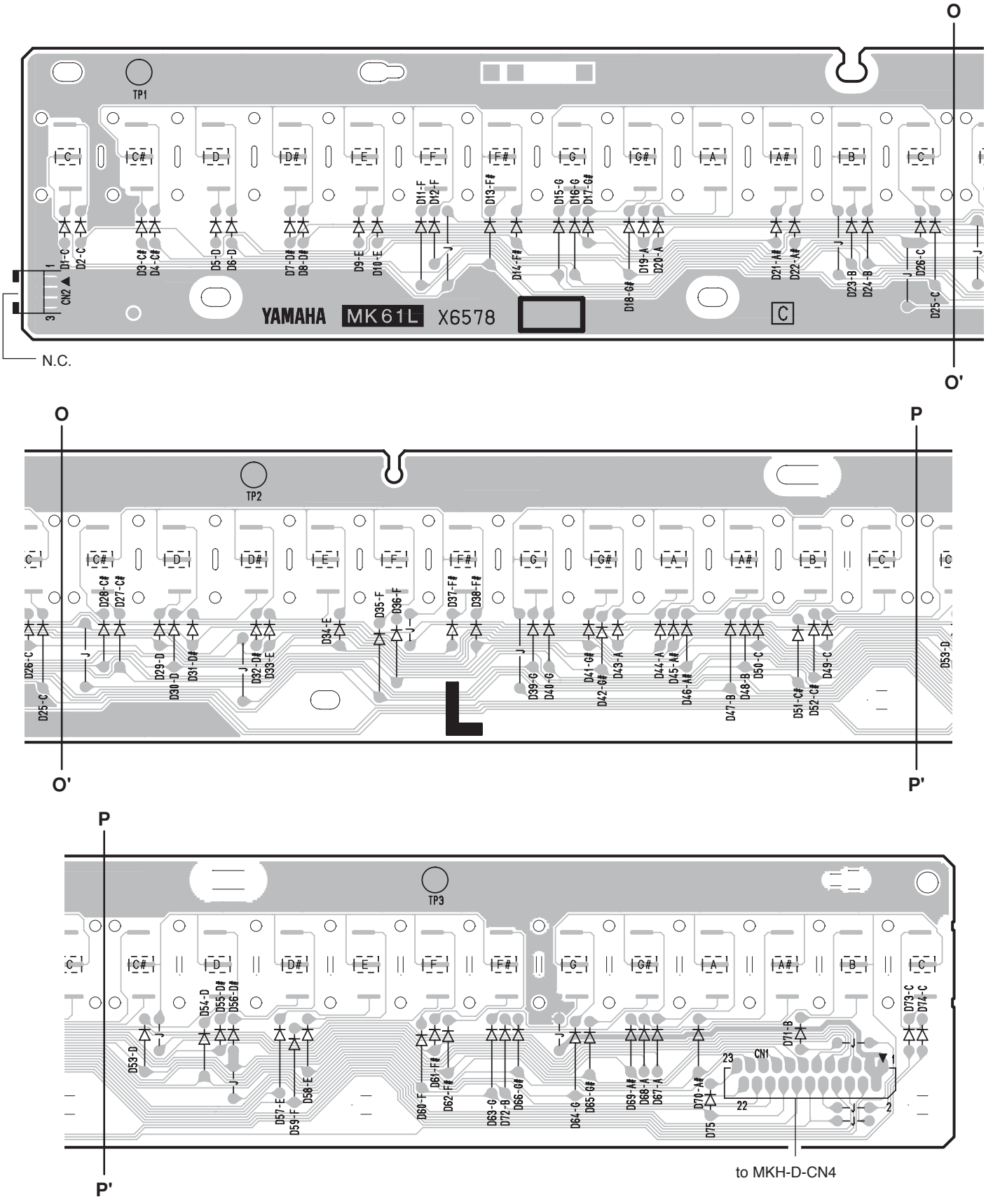
● LCR Circuit Board



Pattern side

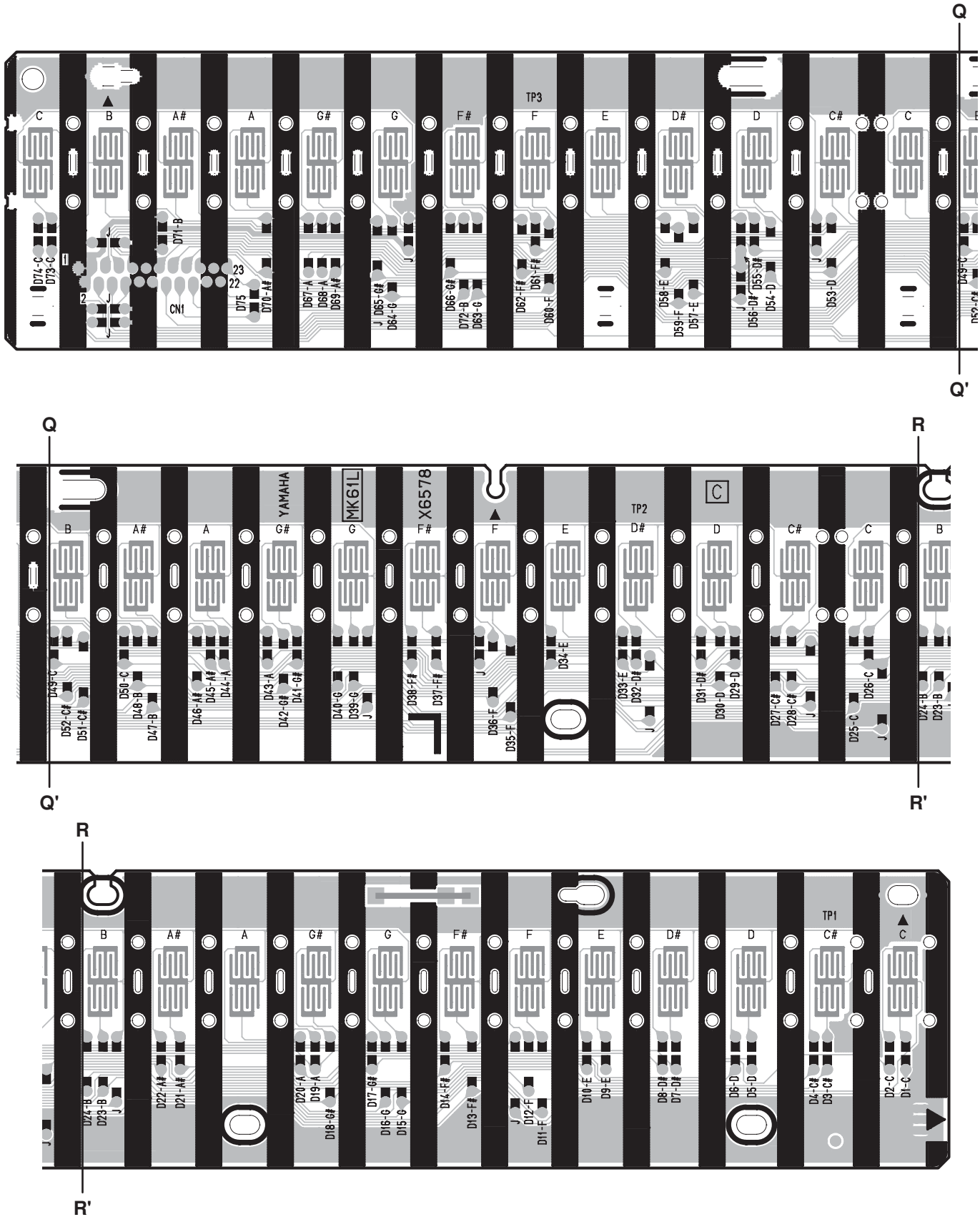
LCR: 2NA-WM24270
MKH-D: 2NAKZ-WD78540 ⚠2

● MK61L Circuit Board



Component side

● MK61L Circuit Board



Pattern side

TEST PROGRAM

1 Measurement Conditions

1-1: Measuring Instruments

- Low-frequency oscillator
- Level meter (JIS-C curve)
- Frequency counter, which can detect hundredth value or more
- Oscilloscope

1-2: Jig

- Stereo PHONE jack cable (33 Ω or 30 Ω load)
- Monaural PHONE jack cable (10 k Ω load), 2 pcs. used simultaneously
- Mini DIN 8-pin cable (470 Ω load)
- Video cable (75 Ω coaxial)
- USB cable (type AB)
- Color CRT monitor (RGB input compatible)
- Microphone
- Optional speaker (TRS-MS02 or equivalent)
- MIDI cable, 2 pcs. used simultaneously
- Mini D-Sub15 pin RGB cable
- Color CRT monitor (NTSC and PAL system compatible)
- Foot pedal (FC7 or equivalent)
- Headphone
- DIMM (Transcend TS64ML64V6 (512 MB) or equivalent, Two same model type of 512 MB used simultaneously)
- USB-Storage device (YD-8U10, or any USB-Storage device with read/write enable compatible with USB2.0)

1-3: Others

- The tolerance shall be within ±2 dB
- The unit for analog input/output level is as follows:
  0 dBu = 0.775 Vrms

2 Starting up the test program

* Install two (2) DIMMs before turning on the power of Tyros3. (P. 26)

* Before starting checking, format the HDD referring to the “Formatting HDD” (P. 113).

Turn on the [POWER] switch while holding down the [C#2], [F2], and [G#2] keys (C#2 major code). (Fig. 1)

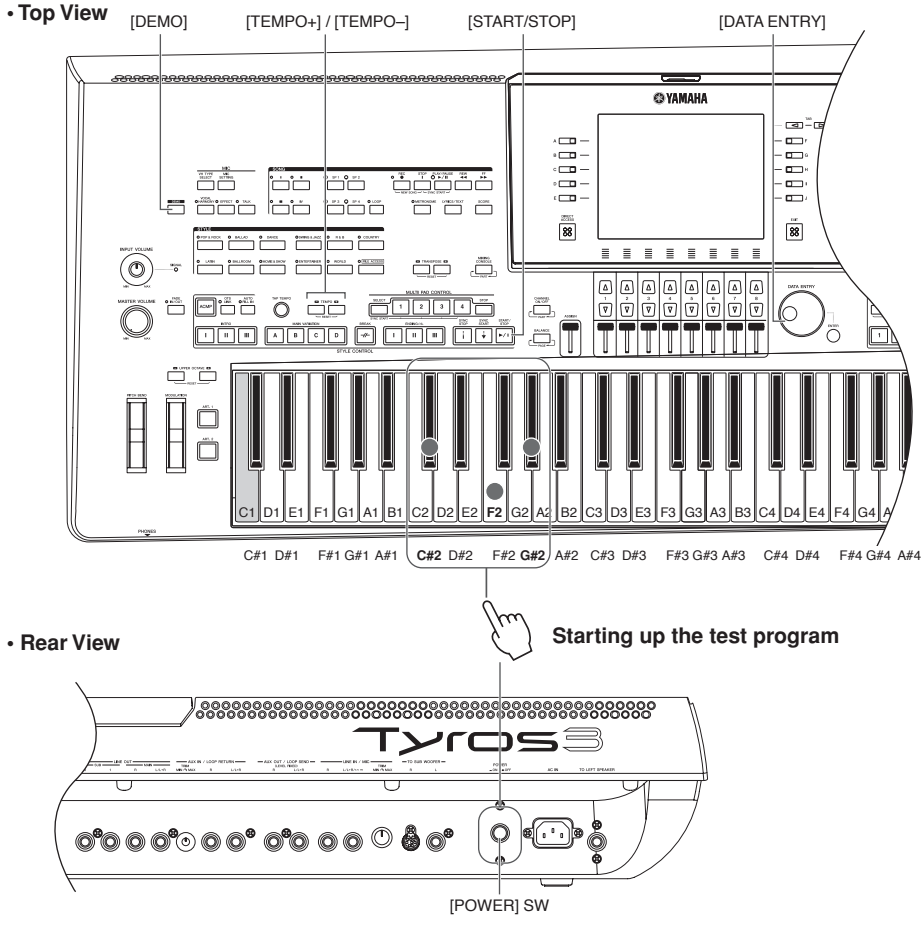


Fig. 1

Start-up screen (normal state)

```
TEST

Device Connection Check
[DIMM]:Device found
[HDD ]:Device found
```

Start-up screen (when an error is detected)

```
TEST
SwErr:0A01, 0A02

Device Connection Check
[DIMM]:No Device
[HDD ]:No Device
```

"SwErr"
(A panel switch is being pressed. Displays up to two codes for panel switch held down in four figures in hexadecimal notation.)

"[DIMM] : No Device"
(No DIMM is installed.)

"[HDD] : No Device"
(No HDD is installed.)

2-1: How to carry out tests

1) When the test program is started, **"TEST"** will be displayed.
2) To increase test item number: Press the [TEMPO+] button or turn the [DATA ENTRY] dial clockwise. (Fig. 1)
To decrease test item number: Press the [TEMPO–] button or turn the [DATA ENTRY] dial counterclockwise. (Fig. 1)
To execute the test: Press the [START/STOP] button once. (Fig. 1)
Indication of "--" underneath of each test items is shown as progressing the test and in case of asterisks "*" is shown as progress bar when the test takes time such as "Flash Check1,2", "Wave ROM Check 2" etc.

- If the test result is OK:
Press the [START/STOP] button again to go back to the item selection display. (Fig. 1)
- If the test result is NG:
Press the lowest key (C1) on the keyboard or the [DEMO] button to go back to the item selection display. (Fig. 1)
([START/STOP] button is ineffective in case of NG)

• **Test Program Item List**

Number	Check item	Displayed Message	Automatic check
1	Version indication	Version	X
2	Simplified check of ROM	ROM Check1	O
3	Simplified check of RAM	RAM Check1	O
4	Simplified check of Backup Flash ROM	BACKUP ROM Check1	O
5	Simplified check of Wave ROM	Wave ROM Check1	O
6	Simplified check of Wave RAM (SDRAM)	Wave RAM(SDRAM) Check1	O
7	Simplified check of Wave RAM (DIMM)	Wave RAM(DIMM) Check1	O
8	Simplified check of Effect RAM	Effect RAM Check1	O
9	Sound check of Tone Generator 1	TG 1 Check	X
10	Sound check of Tone Generator 2	TG 2 Check	X
11	Pitch check	Pitch Check	X
12	Output Level R check	Output R Check	X
13	Output Level L check	Output L Check	X
14	Output Level Sub-1 check	Output Sub-1 Check	X
15	Output Level Sub-2 check	Output Sub-2 Check	X
16	EQ (Low) frequency check	EQ Low Check	X
17	EQ (Mid) frequency check	EQ Mid Check	X
18	EQ (High) frequency check	EQ High Check	X
19	SP MUTE check	SP MUTE Check	X
20	MUTE check	MUTE Check	X
21	MIC L check	MIC L Check	X
22	MIC R check	MIC R Check	X
23	SW, LED check	SW,LED Check	X
24	All Panel LEDs On check	All LED On Check	X
25	Red LEDs On check	Red LED On Check	X
26	Green LEDs On check	Green LED On Check	X
27	Other colors LEDs On check	Other LED On Check	X
28	Whole LCD On check	All LCD On Check	X
29	Whole LCD Off check	All LCD Off Check	X
30	LCD pattern check	LCD Pattern Check	X
31	Pitch Bend Wheel check	Pitch Bend Wheel Check	O
32	Modulation Wheel check	Modulation Wheel Check	O
33	Slider check	Slider Check	O
34	Pedal 1 check	Pedal 1 Check	O
35	Pedal 2 check	Pedal 2 Check	O
36	Pedal 3 check	Pedal 3 Check	O
37	MIDI check	MIDI Check	O
38	Loop Send/Return check	Loop Send/Return Check	X
39	Sub Out connection check	Sub Out Check	O
40	Video Out check (NTSC RGB)	Video Out NTSC RGB	X
41	Video Out check (PAL RGB)	Video Out PAL RGB	X
42	RGB Out check	RGB Out Check	X
43	USB to Device/Host check	USB to Device/Host Check	O
44	USB Storage Device check	USB Storage Device Check	O
45	LAN check	LAN Check	O
46	DGA (HDD) check	DGA (HDD) Check	O
47	DGA (TG) check	DGA (TG) Check	X
48	Keyboard Type check	KeyboardType Check	O
49	Touch check	Touch Check	O
50	Full check of ROM	ROM Check2	O
51	Full check of RAM	RAM Check2	O
52	Full check of Backup Flash ROM	BACKUP ROM Check2	O
53	Full check of Wave ROM	Wave ROM Check2	O
54	Full check of Wave RAM (SDRAM)	Wave RAM (SDRAM) Check2	O
55	Full check of Wave RAM (DIMM)	Wave RAM (DIMM) Check2	O
56	Full check of Effect RAM	Effect RAM Check2	O
57	Panel PCB check (PNL)	Panel PCB Check (PNL)	X
58	Panel PCB check (LCL)	Panel PCB Check (LCL)	X
59	Panel PCB check (LCR)	Panel PCB Check (LCR)	X
60	Panel PCB check (PNC)	Panel PCB Check (PNC)	X
61	Panel PCB check (PNR)	Panel PCB Check (PNR)	X
62	Panel PCB check (LCL/R/C)	Panel PCB Check (LCL/R/C)	X
63	Factory Set	Factory Set	X
64	Test Exit	Test Exit	X

Test 1

Function: Version indication

Description:

Displays version of program/data.

Use the TAB [◁]/[▷] keys to switch between plural pages.

Displayed Message:

```
001:Version
```

Selected screen

```
Model Name    :TYROS3 (E)
MainProgram   :1.00
SubProgram    :1.00
Bitmap1       :1.00
Bitmap2       :1.00
Contents      :1.00
Wave1         :1.00
```

Page 1 (Example)

```
Main Boot     :1.00
Sub1 Boot     :1.00
```

Page 2

Supplement:

Indicates model name (destination) and program/data versions.

"0.00" will be shown if the version is not recognized correctly.

Test 2

Function: Simplified check of ROM

Description:

Executes Read test (checksum test) of ROM.

Executes Write pin check of Program Flash ROM as well.

Displayed Message:

```
002:ROM Check1
```

Selected screen

```
002:ROM Check1
OK
```

In case of OK

```
002:ROM Check1
MAIN PROG ROM H/L   NG
MAIN DATA ROM       NG
SUB  PROG ROM       NG
MAIN PROG WR        NG
```

In case of NG (Example)

Supplement:

In case of NG, name of the ROM of which NG is detected will be shown.

"No Card" will be shown if SUB PROG is not detected.

Error Indications	Circuit Board	Location	Name in Circuit Diagram
MAIN PROG ROM H/L NG	DM	IC10	MAIN PROG-L 256 M FLASH
MAIN PROG WR NG		IC11	MAIN PROG-H 256 M FLASH
MAIN DATA ROM NG	DM	IC14	DATA ROM 64 M
SUB PROG ROM NG	DM	IC514	SUB BOOT ROM 8 M
SUB PROG ROM No Card			

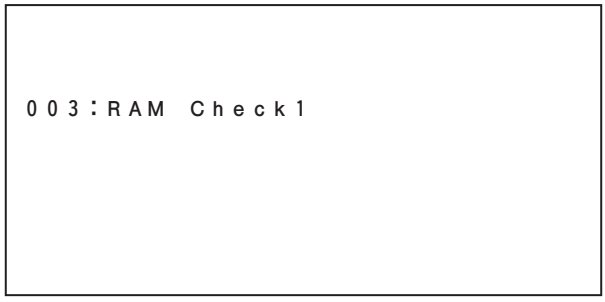
Test 3

Function: Simplified check of RAM

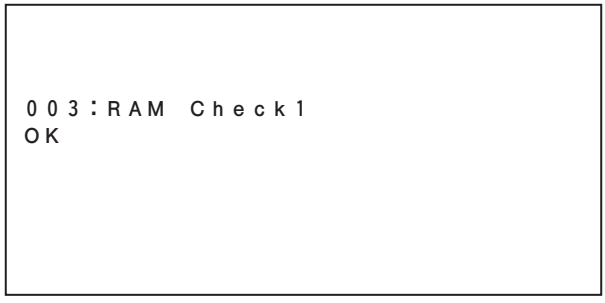
Description:

Executes Read/Write test (connection check) of RAM.

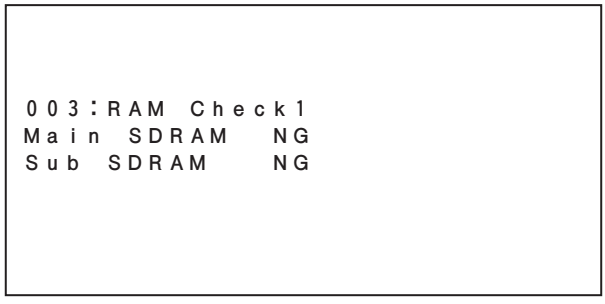
Displayed Message:



Selected screen



In case of OK



In case of NG

Supplement:

Location of NG will be shown in case of NG.

If sound board is not recognized, **"No Card"** will be shown for SUB SDRAM.

Error Indications	Circuit Board	Location	Name in Circuit Diagram
Main SDRAM NG	DM	IC12 IC13	SDRAM 256 M SDRAM 256 M
Sub SDRAM NG	DM	IC513	MAIN RAM 128 M SDRAM
Sub SDRAM No Card			

Test 4

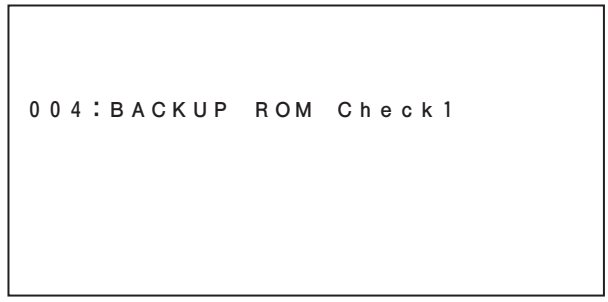
Function: Simplified check of Backup ROM

Description:

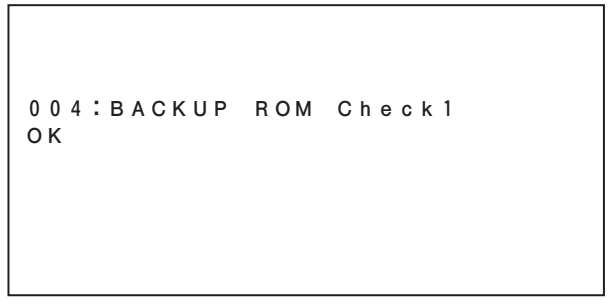
Executes Read/Write test (connection check) of Backup Flash ROM. It will take about 9 seconds for the check.

* The check cannot be aborted until OK/NG result is indicated.

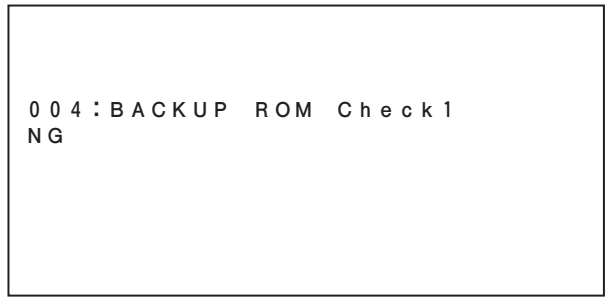
Displayed Message:



Selected screen



In case of OK



In case of NG

Supplement:

The check cannot be aborted until OK/NG result is indicated.

Original data will be written back after the test is executed.

Do not turn off the power during checking or the data will be lost.

Error Indications	Circuit Board	Location	Name in Circuit Diagram
NG	DM	IC15	BACKUP 64 M FLASH

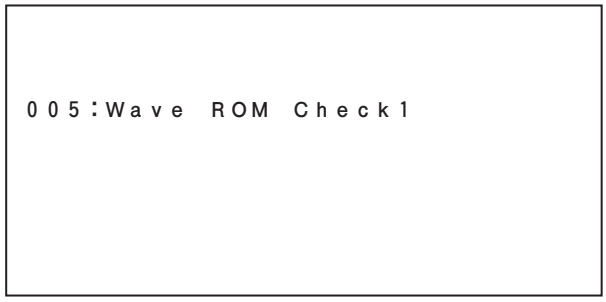
Test 5

Function: Simplified check of Wave ROM

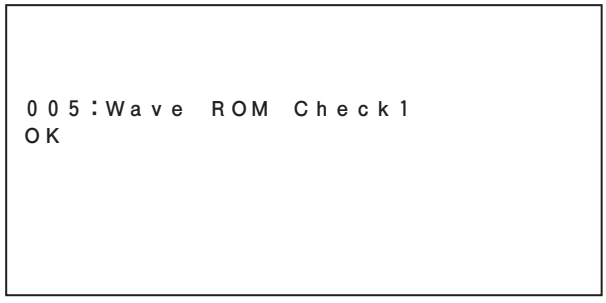
Description:

Executes Read test (checksum test) of Wave ROM.

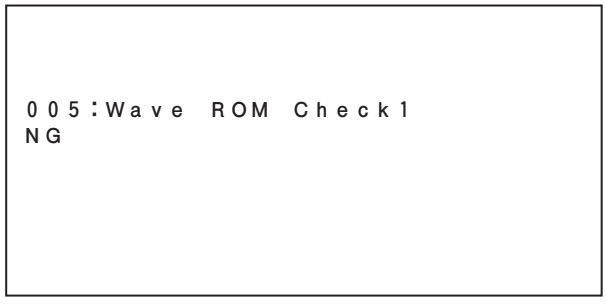
Displayed Message:



Selected screen



In case of OK



In case of NG

Error Indications	Circuit Board	Location	Name in Circuit Diagram
NG	DM	IC800	WAVE ROM L1 512 M MASK
		IC801	WAVE ROM L2 512 M MASK
		IC802	WAVE ROM H1 512 M MASK
		IC803	WAVE ROM H2 512 M MASK

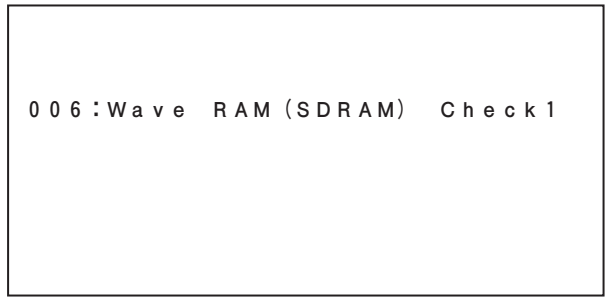
Test 6

Function: Simplified check of Wave RAM (SDRAM)

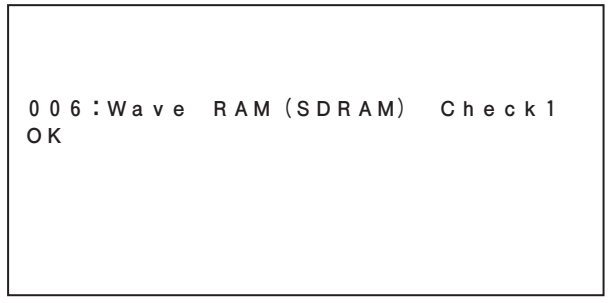
Description:

Executes simplified address checksum test of SDRAM for wave.

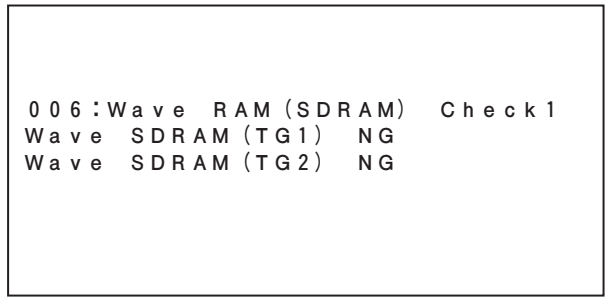
Displayed Message:



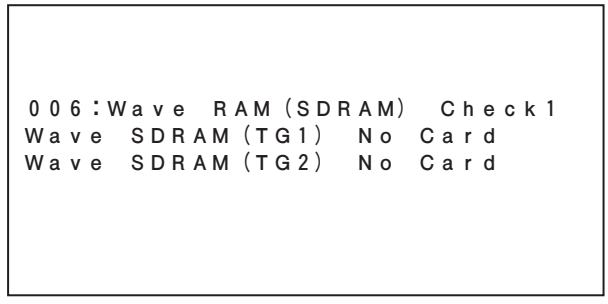
Selected screen



In case of OK



In case of NG



In case no sound board is recognized

Supplement:

Check from TG1 → SWP51B Master (DM: IC505),
TG2 → SWP51B Slave (DM: IC506).

Error Indications	Circuit Board	Location	Name in Circuit Diagram
Wave SDRAM(TG1) NG	DM	IC511	SAMPLING RAM-L 16 M SDRAM
Wave SDRAM(TG2) NG		IC512	SAMPLING RAM-H 16 M SDRAM
Wave SDRAM(TG1) No Card			
Wave SDRAM(TG2) No Card			

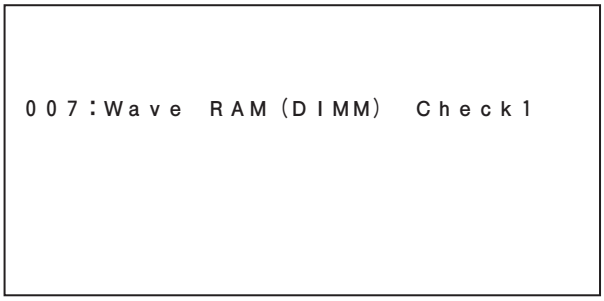
Test 7

Function: Simplified check of Wave RAM (DIMM)

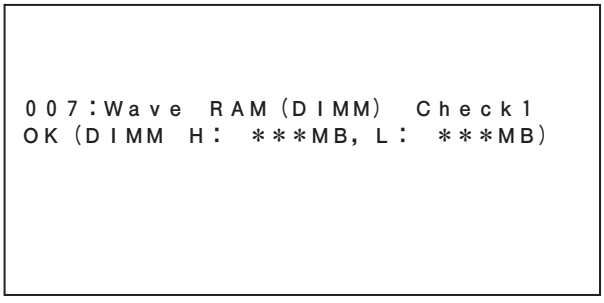
Description:

Executes simplified address checksum test of DIMM for wave. Indicates DIMM size as well.

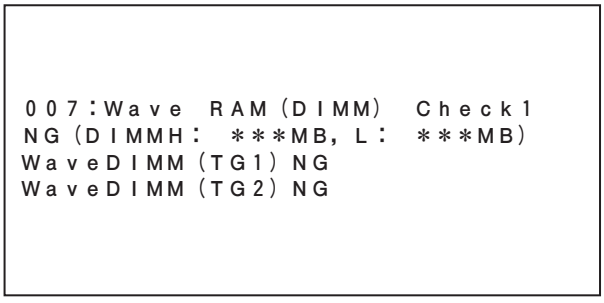
Displayed Message:



Selected screen



In case of OK (Indicates DIMM size in MB)



In case of NG (Indicates DIMM size in MB)

Supplement:

Check from TG1 → SWP51B Master (DM: IC505),
TG2 → SWP51B Slave (DM: IC506).
OK will be shown if DIMM connection is confirmed. Visually check DIMM size.

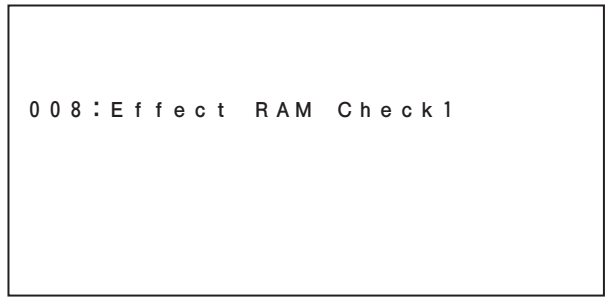
Test 8

Function: Simplified check of Effect RAM

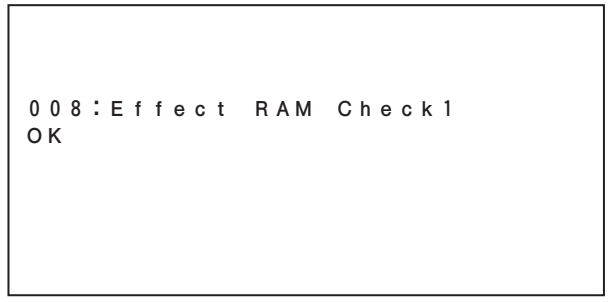
Description:

Checks RAM that works for Effect.

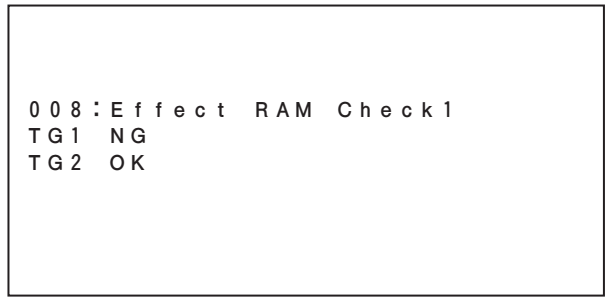
Displayed Message:



Selected screen



In case of OK



In case of NG

Supplement:

TG1 indicates Effect RAM of SWP51B Master (DM: IC505) and TG2 indicates Effect RAM of SWP51B Slave (DM: IC506).

Error Indications	Circuit Board	Location	Name in Circuit Diagram
TG1 NG	DM	IC508	WORK RAM 64 M SDRAM
TG2 NG	DM	IC509	WORK RAM 64 M SDRAM

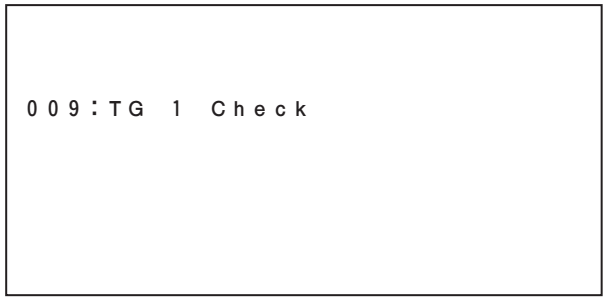
Test 9

Function: Sound check of the Tone Generator 1

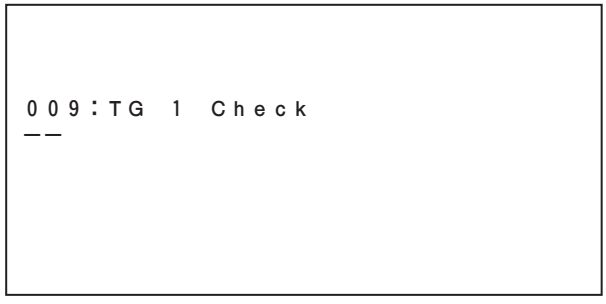
Description:

Sequentially outputs sounds starting from lower keys by switching the channel of the sound source at the SWP51B Master side for checking sound generator and sound. Check that there is no abnormal sounds or noise.

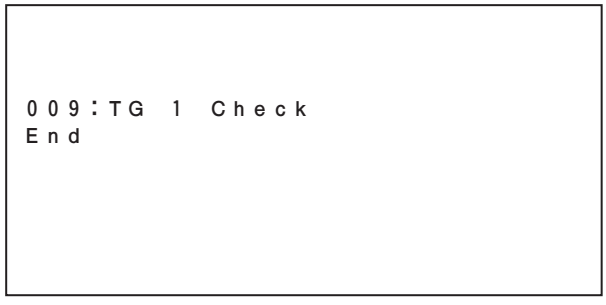
Displayed Message:



Selected screen



When a sound is being produced.



When the checking is finished.

Supplement:

Sound producing keyboard range is 32 notes from C2 to G4. Number of sounds is 64.

Indications during Execution	Circuit Board	Location	Name in Circuit Diagram
TG1 Check --	DM	IC505	SWP51B MASTER
TG2 Check --	DM	IC506	SWP51B SLAVE

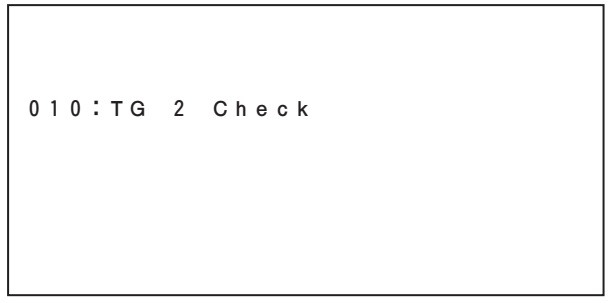
Test 10

Function: Sound check of the Tone Generator 2

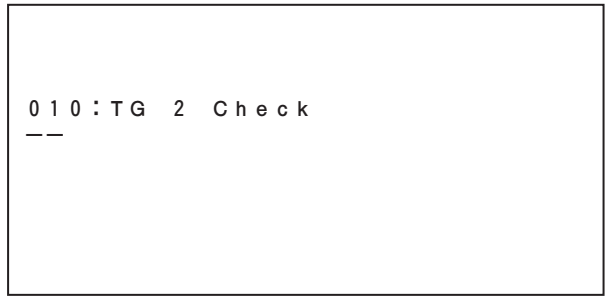
Description:

Sequentially outputs sounds starting from lower keys by switching the channel of the sound source at the SWP51B Slave side for checking sound generator and sound. Check that there is no abnormal sounds or noise.

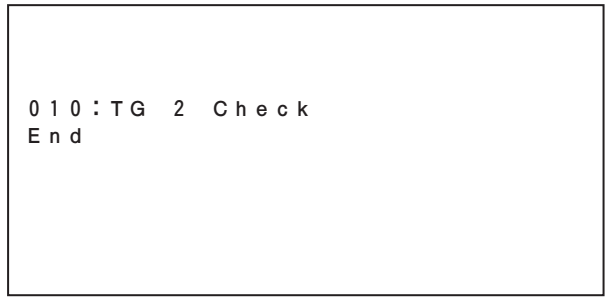
Displayed Message:



Selected screen



When a sound is being produced.



When the checking is finished.

Supplement:

Sound producing keyboard range is 32 notes from C2 to G4. Number of sounds is 64.

Indications during Execution	Circuit Board	Location	Name in Circuit Diagram
TG1 Check --	DM	IC505	SWP51B MASTER
TG2 Check --	DM	IC506	SWP51B SLAVE

Test 11

Function: Pitch check

Description:

Set the [MASTER VOLUME] to the maximum level.

Connect a frequency counter to the [PHONES] jack. (Either L or R)

(Load should be 33 Ω. (30 Ω is acceptable as well: -0.6 dB))

Confirm that the frequency counter shows "441.43 +/- 0.22 Hz".

- Amount of volume decay:

  Set the [MASTER VOLUME] to the minimum level.

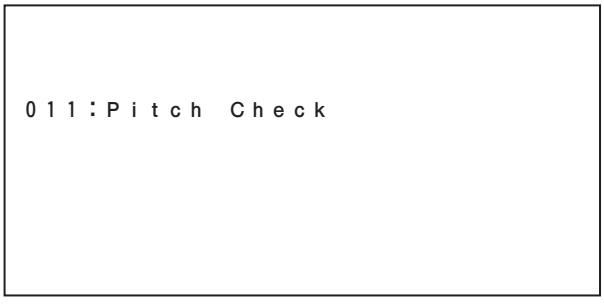
  Connect a level meter (JIS-C curve) to the L/R of [PHONES] terminal.

  (Load should be 33 Ω. (30 Ω is acceptable as well: -0.6 dB))

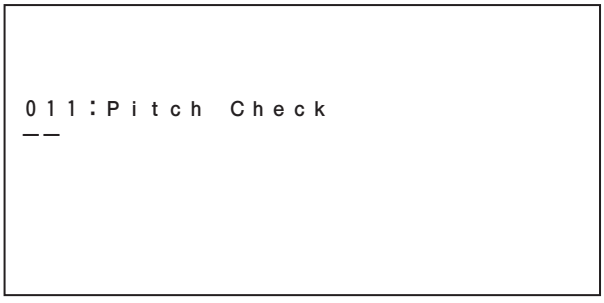
  • PHONES L: -60.0 dBu or less

  • PHONES R: -60.0 dBu or less

Displayed Message:



Selected screen



When a sound is being produced.

Supplement:

Sound is stopped when the test item is quit.

Test 12

Function: Output Level R check

Description:

Connect a level meter (JIS-C curve) to each jack. ([PHONES] L, R, [LINE OUT MAIN] L/L+R, R, [AUX OUT/LOOP SEND] L/L+R, R, [TO SUB WOOFER R] L, R)

Set the [MASTER VOLUME] to the maximum level and check the output level of the R channel.

[PHONES] L, R

(33 Ω load (30 Ω is acceptable as well: -0.6 dB))

• PHONES L: -55.0 dBu or less

• PHONES R: +1.0±2 dBu

[LINE OUT MAIN] L/L+R, R

(10 k Ω load (2 monaural jacks used simultaneously))

• LINE OUT MAIN L/L+R: -75.0 dBu or less

• LINE OUT MAIN R: +9.5±2 dBu

[AUX OUT/LOOP SEND] L/L+R, R

(10 k Ω load (2 monaural jacks used simultaneously))

• AUX OUT/LOOP SEND L/L+R: -75.0 dBu or less

• AUX OUT/LOOP SEND R: +5.0±2 dBu

[TO SUB WOOFER R] L, R

(470 Ω load (L side: between 6P–3P, R side: between 5P–3P, GND: 3P))

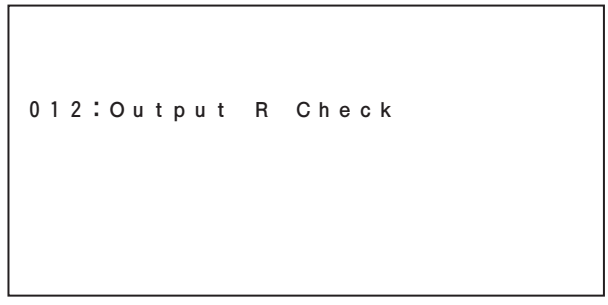
• TO SUB WOOFER R L: -65.0 dBu or less

• TO SUB WOOFER R R: +5.5±2 dBu

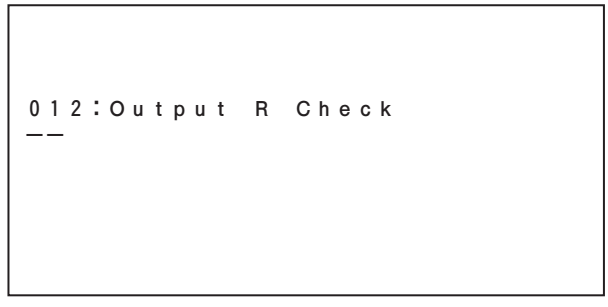
Disconnect the headphone and connect the optional speakers to the left and right speaker terminals.

Confirm that the sound comes out only right speaker.

Displayed Message:



Selected screen



When a sound is being produced.

Supplement:

Sound is stopped when the test item is quit.

Test 13

Function: Output Level L check

Description:

Connect a level meter (JIS-C curve) to each jack. ([PHONES] L, R, [LINE OUT MAIN] L/L+R, R, [AUX OUT/LOOP SEND] L/L+R, R, [TO SUB WOOFER R] L, R)

Set the [MASTER VOLUME] to the maximum level and check the output level of the L channel.

[PHONES] L, R
(33 Ω load (30 Ω is acceptable as well: -0.6 dB))
- PHONES L: +1.0±2 dBu
- PHONES R: -55.0 dBu or less

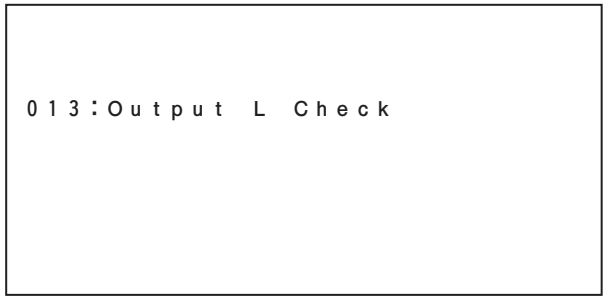
[LINE OUT MAIN] L/L+R, R
(10 k Ω load (2 monaural jacks used simultaneously))
- LINE OUT MAIN L/L+R: +9.5±2 dBu
- LINE OUT MAIN R: -75.0 dBu or less

[AUX OUT/LOOP SEND] L/L+R, R
(10 k Ω load (2 monaural jacks used simultaneously))
- AUX OUT/LOOP SEND L/L+R: +5.0±2 dBu
- AUX OUT/LOOP SEND R: -75.0 dBu or less

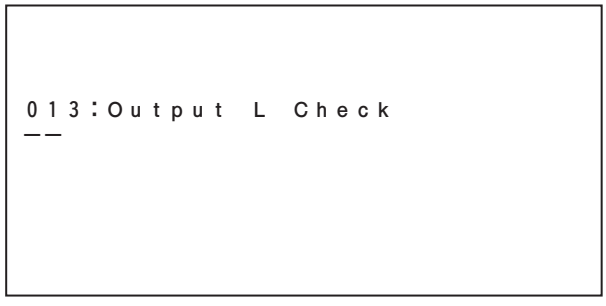
[TO SUB WOOFER R] L, R
(470 Ω load (L side: between 6P–3P, R side: between 5P–3P, GND: 3P))
- TO SUB WOOFER R L: +5.5±2 dBu
- TO SUB WOOFER R R: -65.0 dBu or less

Disconnect the headphone and connect the optional speakers to the left and right speaker terminals.
Confirm that the sound comes out only left speaker.

Displayed Message:



Selected screen



When a sound is being produced.

Supplement:

Sound is stopped when the test item is quit.

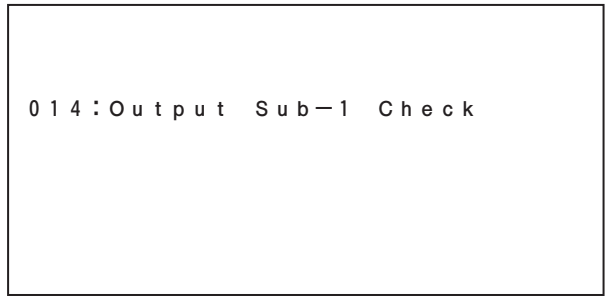
Test 14

Function: Output Level Sub-1 check

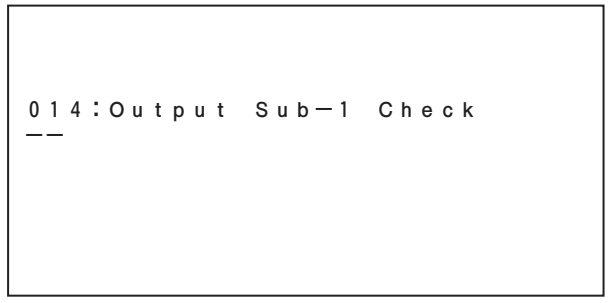
Description:

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter (JIS-C curve) to the SUB1/SUB2 of [LINE OUT] terminal. (Load should be 10 k Ω)
- LINE OUT SUB1: +3.0±2 dBu
- LINE OUT SUB2: -75.0 dBu or less

Displayed Message:



Selected screen



When a sound is being produced.

Supplement:

Sound is stopped when the test item is quit.

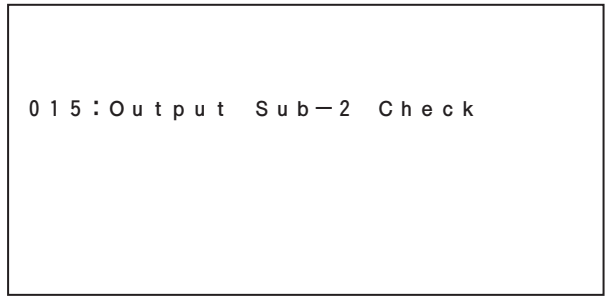
Test 15

Function: Output Level Sub-2 check

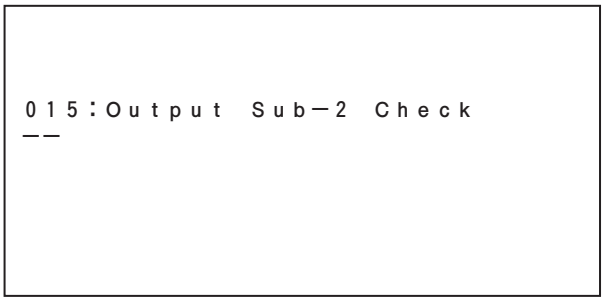
Description:

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter (JIS-C curve) to the SUB1/SUB2 of [LINE OUT] terminal. (Load should be 10 k Ω.)
- LINE OUT SUB1: -75.0 dBu or less
- LINE OUT SUB2: +3.0±2 dBu

Displayed Message:



Selected screen



When a sound is being produced.

Supplement:
Sound is stopped when the test item is quit.

Noise Level:
Set the [MASTER VOLUME] to the maximum level.
Connect a level meter to the L/R of [PHONES] terminal.
Load should be 33 Ω. (30 Ω is acceptable as well: -0.6 dB)
L side: -80.0 dBu or less
R side: -80.0 dBu or less

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter to the MAIN L/L+R, R of [LINE OUT] terminal.
(Use two monaural jacks simultaneously)
Load should be 10 k Ω.
L side: -75.0 dBu or less
R side: -75.0 dBu or less

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter to the [WOOFER R] terminal.
(L side: between 6P-3P, R side: between 5P-3P, GND: 3P)
Load should be 470 Ω.
L side: -80.0 dBu or less
R side: -80.0 dBu or less

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter to the [LINE OUT SUB1] terminal.
Load should be 10 k Ω.
SUB1 side: -80.0 dBu or less

Set the [MASTER VOLUME] to the maximum level.
Connect a level meter to the [LINE OUT SUB2] terminal.
Load should be 10 k Ω.
SUB2 side: -80.0 dBu or less

Test 16

Function: EQ (Low) frequency check

Description:
The sine wave of about 65.4 Hz (C1) is output from the [LINE OUT] jacks (MAIN L/L+R, MAIN, R, SUB1, SUB2).

Displayed Message:

Selected screen

When a sound is being produced.

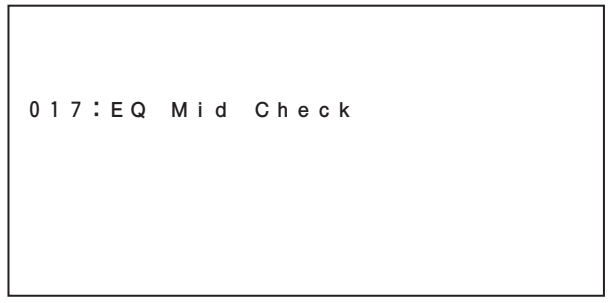
Supplement:
Sound is stopped when the test item is quit.

Test 17

Function: EQ (Mid) frequency check

Description:
The sine wave of about 523 Hz (C4) is output from the [LINE OUT] jacks (MAIN L/L+R, MAIN, R, SUB1, SUB2).

Displayed Message:



Selected screen

When a sound is being produced.

Supplement:
Sound is stopped when the test item is quit.

Test 18

Function: EQ (High) frequency check

Description:
The sine wave of about 4,186 Hz (C7) is output from the [LINE OUT] jacks (MAIN L/L+R, MAIN, R, SUB1, SUB2).

Displayed Message:

```
018:EQ High Check
```

Selected screen

```
018:EQ High Check
--
```

When a sound is being produced.

Supplement:
Sound is stopped when the test item is quit.

Test 19

Function: SP MUTE check

Description:
When the test is executed, the sine wave of about 1,046 Hz (C5) is output from the [LINE OUT] jacks (MAIN L/L+R, MAIN, R, SUB1, SUB2).
Confirm that the **"ON"** and **"OFF"** of SP MUTE can be toggled by pressing the TAB [◁] or the TAB [▷] button.

Displayed Message:

```
019:SP MUTE Check
```

Selected screen

```
019:SP MUTE Check
OFF
```

During MUTE OFF

```
019:SP MUTE Check
ON
```

During MUTE ON

Supplement:
SP MUTE (sound) shall not be controlled with connection/disconnection of headphones during this test.
Sound is stopped when the test item is quit.

Test 20

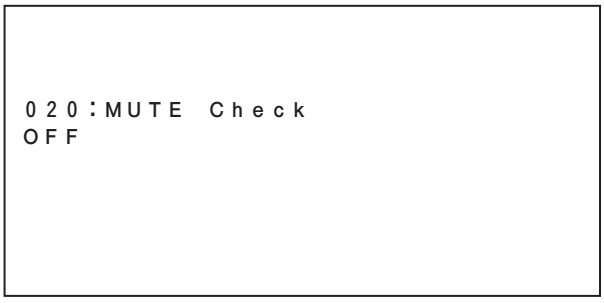
Function: MUTE check

Description:
When the test is executed, the sine wave of about 1,046 Hz (C5) is output from the [LINE OUT] jacks (MAIN L/L+R, MAIN, R, SUB1, SUB2).
Confirm that the **"ON"** and **"OFF"** of MUTE can be toggled by pressing the TAB [◁] or the TAB [▷] button.

Displayed Message:

```
020:MUTE Check
```

Selected screen



During MUTE OFF

During MUTE ON

Supplement:

MUTE (sound) shall not be controlled with connection/disconnection of headphones during this test.
Sound is stopped when the test item is quit.

Test 21

Function: MIC L check

Description:

Check output sound with MIC L input. Check that there is no abnormal sounds or noise.

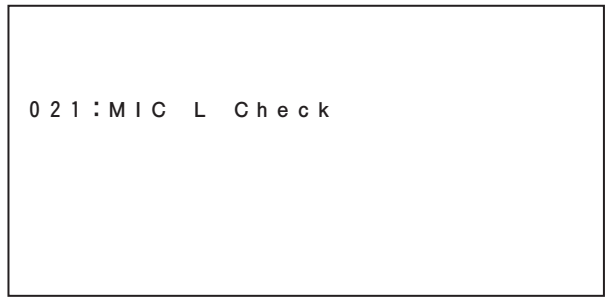
The [MASTER VOLUME] can be set to any level.
Set the [INPUT VOLUME] to the maximum level.
Set the [LINE IN/MIC TRIM] volume to the maximum level
Connect a level meter (JIS-C curve) to the L/L+R of [AUX OUT/LOOP SEND] terminal. (Load should be 10 k Ω.)
Input signal of -45 dBu (1 kHz sine wave) from an oscillator to the L/L+R of [LINE IN/MIC] terminal and measure at output terminals.

- AUX OUT/LOOP SEND L/L+R: +13.0±2 dBu

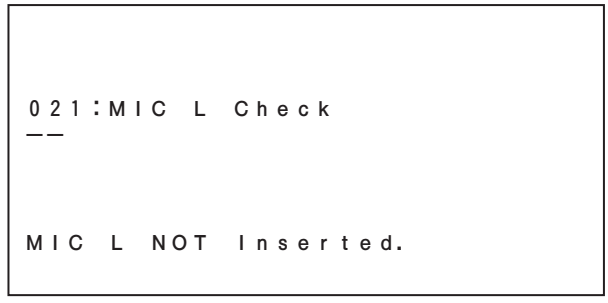
- Amount of TRIM volume decay:
  Change the [LINE IN/MIC TRIM] volume to the minimum level with the other setups remained as above. (Leave the [INPUT VOLUME] at the maximum position.)
  Measure output terminals.
  - AUX OUT/LOOP SEND L/L+R: -34.0±2 dBu
- Amount of volume decay:
  Change the [INPUT VOLUME] to the minimum level with the other setups remained as above.
  (Leave the [LINE IN/MIC TRIM] volume at the minimum level.)
  Measure output terminals.
  - AUX OUT/LOOP SEND L/L+R: -70.0 dBu or less

Check also if connection and disconnection of MIC is detected by inserting and removing MIC.

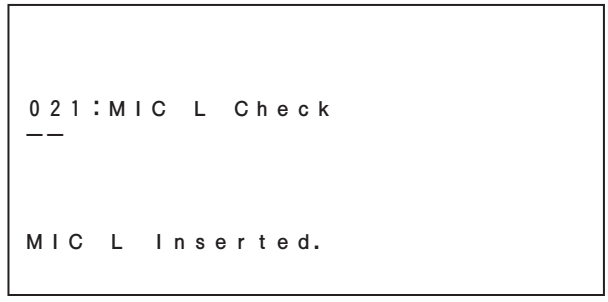
Displayed Message:



Selected screen



When MIC L is unconnected



When MIC L is connected

Supplement:

[SIGNAL] LED do not light up.

Test 22

Function: MIC R check

Description:

Check output sound with MIC R input. Check also that there is no abnormal sounds or noise.

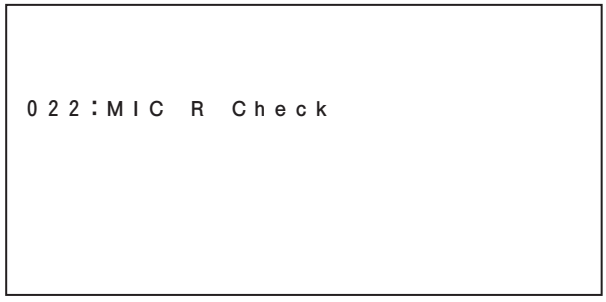
The [MASTER VOLUME] can be set to any level.
Set the [INPUT VOLUME] to the maximum level.
Set the [LINE IN/MIC TRIM] VOLUME to the maximum level.
Connect a level meter (JIS-C curve) to the R of [AUX OUT/LOOP SEND] terminal. (Load should be 10 k Ω.)
Input signal of -45 dBu (1 kHz sine wave) from an oscillator to the R of [LINE IN/MIC] terminal and measure at output terminals.

- AUX OUT/LOOP SEND R: +13.0±2 dBu

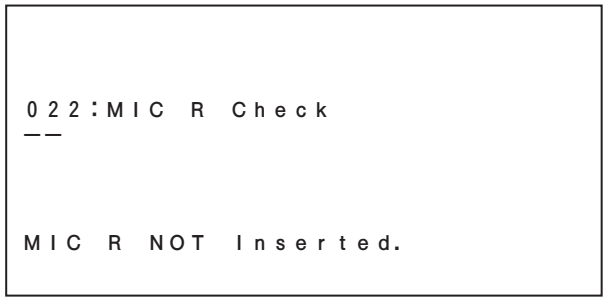
- Amount of TRIM volume decay:
  Change the [LINE IN/MIC TRIM] volume to the minimum level with the other setups remained as above. (Leave the [INPUT VOLUME] at the maximum position.)
  Measure output terminals.
  • AUX OUT/LOOP SEND R: -34.0±2 dBu
- Amount of volume decay:
  Change the [INPUT VOLUME] to the minimum level with the other setups remained as above.
  (Leave the [LINE IN/MIC TRIM] volume at the minimum level.)
  Measure output terminals.
  • AUX OUT/LOOP SEND R: -70.0 dBu or less

Check also if connection and disconnection of MIC is detected by inserting and removing MIC.

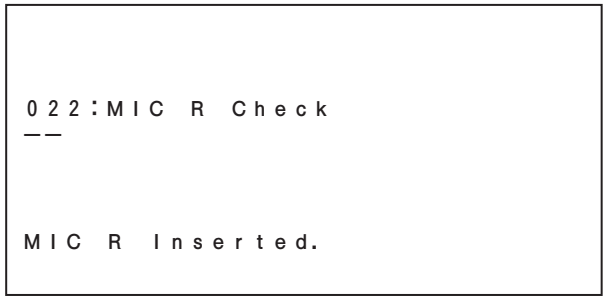
Displayed Message:



Selected screen



When MIC R is unconnected



When MIC R is connected

Supplement:
[SIGNAL] LED do not light up.

AUX IN/LOOP RETURN input level:
Set the [MASTER VOLUME] to the maximum level.
Set the [AUX IN/LOOP RETURN TRIM VOLUME] to the maximum level.
Connect a level meter to the MAIN L/L+R, R of [LINE OUT] terminal.
Load should be 10 k Ω.
Input signals from an oscillator to the L/L+R, R of [AUX IN/LOOP RETURN] terminal.
Input Level: -20 dBu (1 kHz sine wave)
L side: +2.0 ±2 dBu
R side: +2.0 ±2 dBu

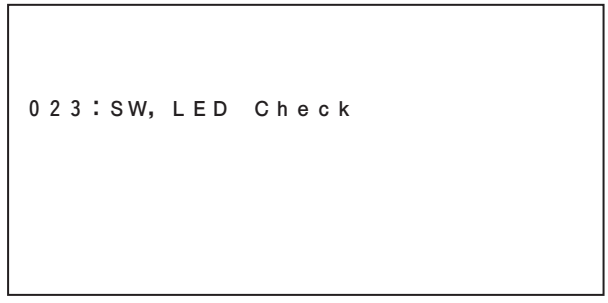
Amount of volume decay:
Change the [AUX IN/LOOP RETURN TRIM VOLUME] to the minimum level with the other setups remained as above.
L side: -75.0 dBu or less
R side: -75.0 dBu or less

Test 23

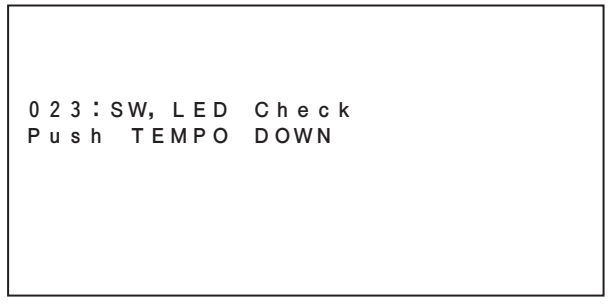
Function: Switch, LED Check

Description:
When a panel switch is being pressed, a sound is kept produced at a pitch corresponding to the switch (page 112).
When the switch is released, the sound is stopped.
If there is an LED for the switch, the LED will light up.
The LED will be turned off when the next switch is pressed correctly.
In case of two-colored LED, both the two colors will light.
Operate the [DATA ENTRY] dial following the indications on the LCD to check Dial Up and Dial Down. (The number should increase when turned clockwise and decrease when turned counterclockwise.)

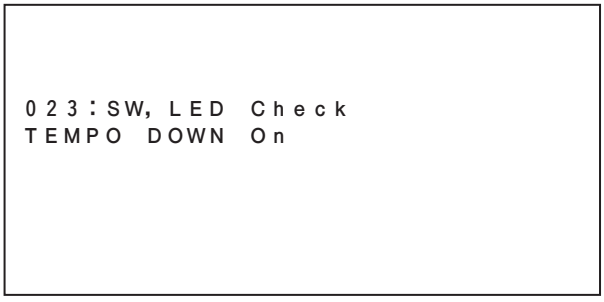
Displayed Message:



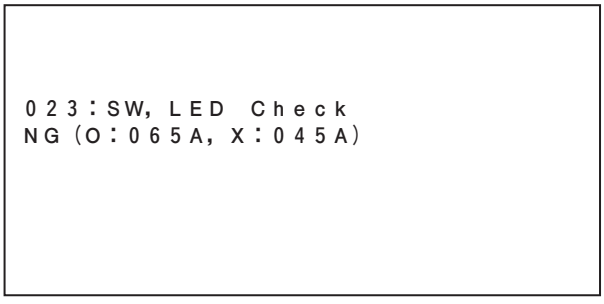
Selected screen



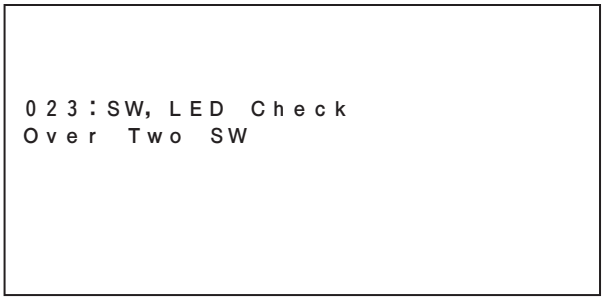
Indicates a switch name.



The specified switch is pressed.



A wrong switch is pressed.
(O: ID of the switch to be pressed,
X: ID of the switch which is actually pressed)



Plural switches are pressed.

Test completed

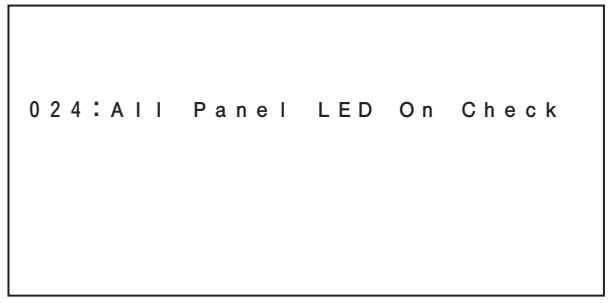
Supplement:
If an unspecified switch is pressed, a sound corresponding to the switch will be played.
Press the [START/STOP] switch to go back to the selection screen when the test is completed.
Press the [DEMO] switch to abort the test halfway and return to the item selection display. (The switch is effective only after the checking of the switch is completed)

Test 24

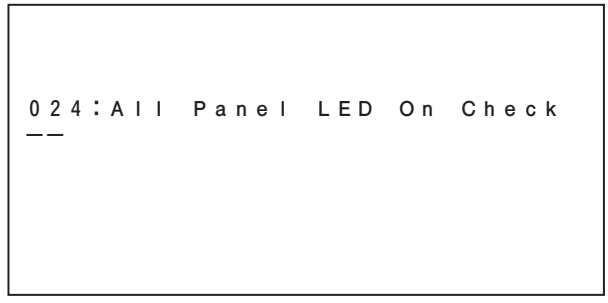
Function: All Panel LEDs On check

Description:
Turns on all the panel LEDs. (Two-colored LEDs will light in orange.)

Displayed Message:



All LED on check



During checking

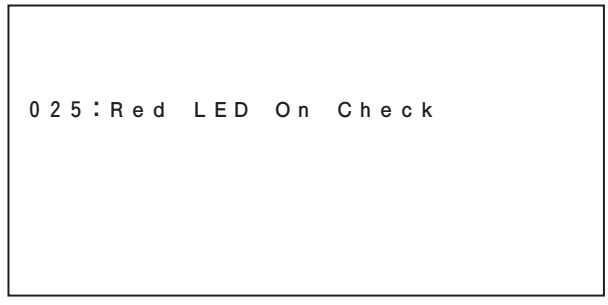
Supplement:
There are two lighting areas and the areas will be switched as the TAB [◁]/[▷] key is pressed.
The LEDs will go off after exiting the test item.

Test 25

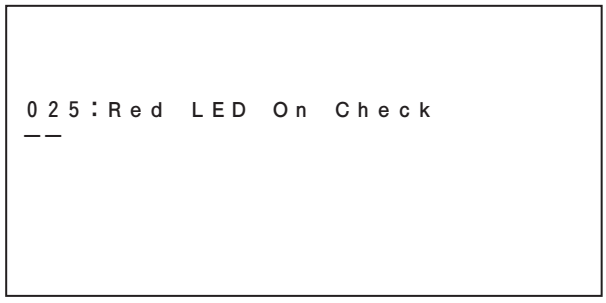
Function: Red LEDs On check

Description:
Turns on all the red panel LEDs. (Two-colored LEDs will light in red.)

Displayed Message:



Selected screen



During checking

Supplement:

There are two lighting areas and the areas will be switched as the TAB [◁]/[▷] key is pressed.

The LEDs will go off after exiting the test item.

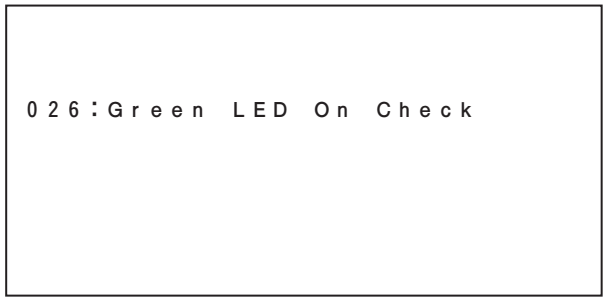
Test 26

Function: Green LEDs On check

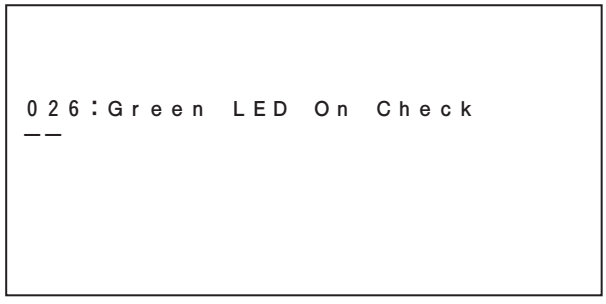
Description:

Turns on all the green panel LEDs. (Two-colored LEDs will light in green.)

Displayed Message:



Selected screen



During checking

Supplement:

There are two lighting areas and the areas will be switched as the TAB [◁]/[▷] key is pressed.

The LEDs will go off after exiting the test item.

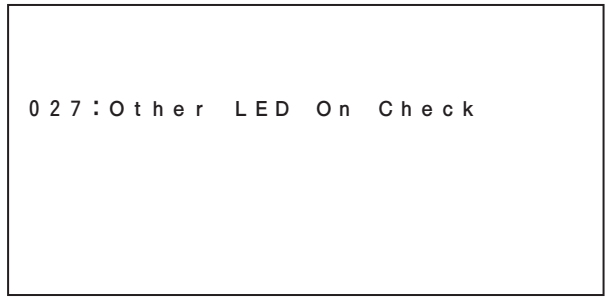
Test 27

Function: Other colors LEDs On check

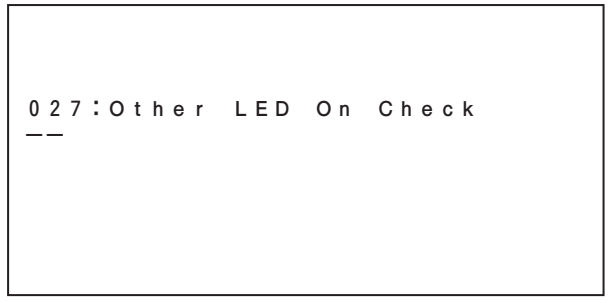
Description:

Turns on all the panel LEDs (orange and white) other than the red and green ones.

Displayed Message:



Selected screen



During checking

Supplement:

The LEDs will go off after exiting the test item.

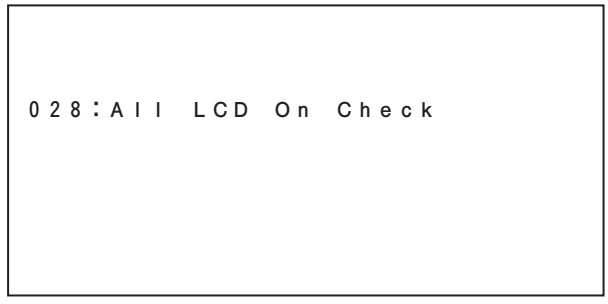
Test 28

Function: Whole LCD ON check

Description:

Lights up all the dots on the LCD.

Displayed Message:



Selected screen

During checking

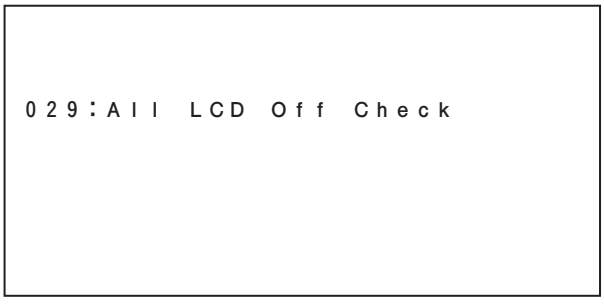
Test 29

Function: Whole LCD OFF check

Description:

Turns off all the dots on the LCD. (The whole screen will be white)

Displayed Message:



Selected screen

During checking

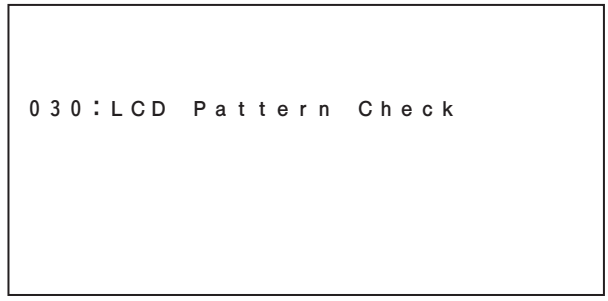
Test 30

Function: LCD pattern check

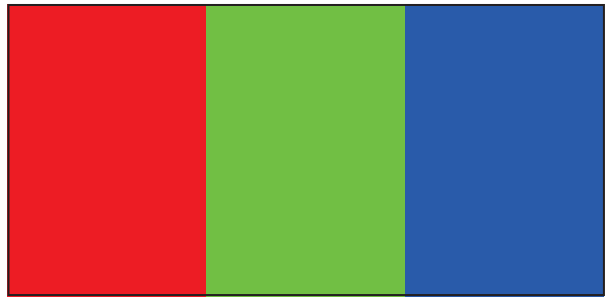
Description:

Displays color patterns for checking LCD picture quality. Switch the patterns RGB → rainbow → flicker noise check with the TAB [◁]/[▷] keys.

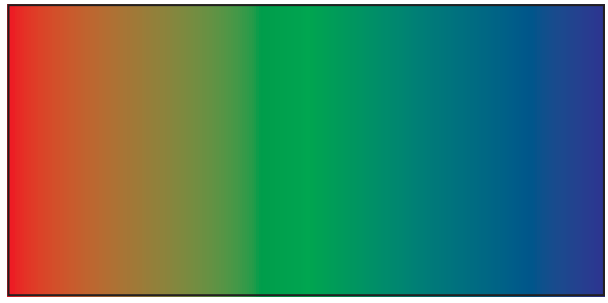
Displayed Message:



Selected screen



RGB pattern



Rainbow pattern

Flicker noise pattern

Test 31

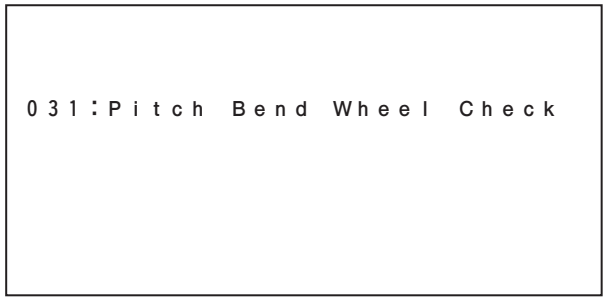
Function: Pitch Bend Wheel check

Description:

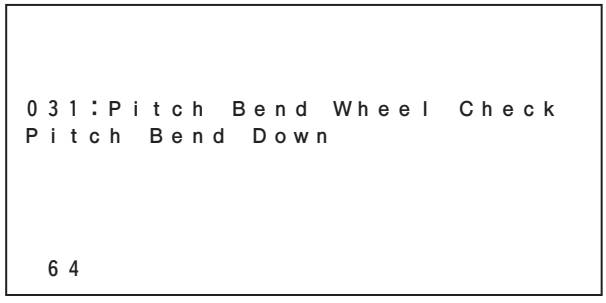
Checks the pitch bend wheel. Center position of the wheel is detected after detecting MIN and MAX.

① "Pitch Bend Down":
Turn the wheel all the way toward you from the center position. (The sine wave C3 note sound will be produced when the wheel is at the minimum value, 0.)
② "Pitch Bend Up":
Turn the wheel all the way away from you. (The sine wave G3 note sound will be produced when the wheel is at the maximum value, 127.)
③ "Pitch Bend Center":
Release the wheel to set it back to the center position. (The sine wave C4 note sound will be produced when the wheel is at the center with the value of 64.)

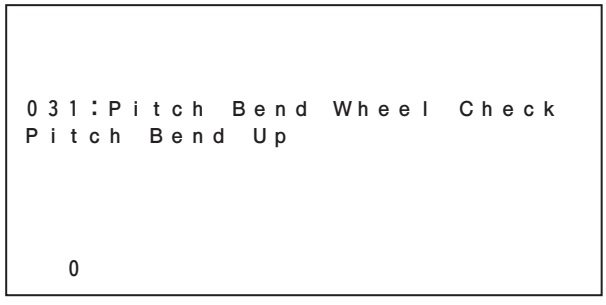
Displayed Message:



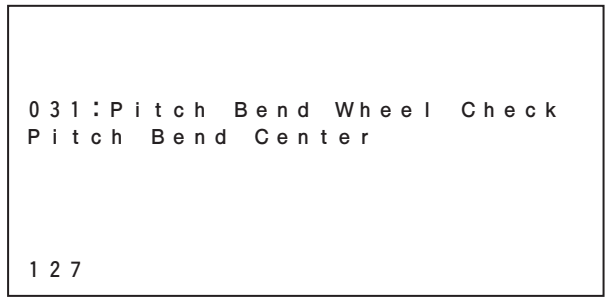
Selected screen



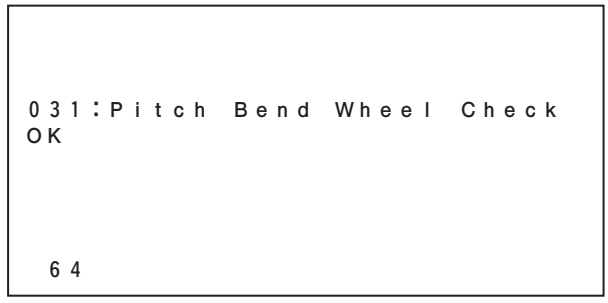
When the checking is started



Detection of the minimum value



Detection of the maximum value



In case of OK (When the center value is detected)

Test 32

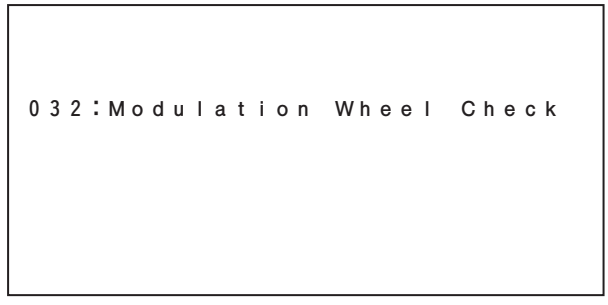
Function: Modulation wheel check

Description:

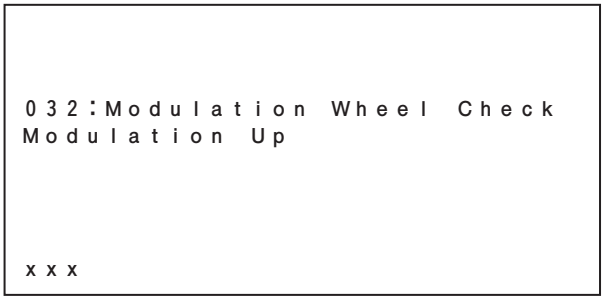
Checks the modulation wheel. MAX and MIN are detected.

① "Modulation Up":
Turn the wheel all the way away from you. (The sine wave C3 note sound will be produced when the wheel is at the maximum value, 127.)
② "Modulation Down":
Turn the wheel all the way toward you. (The sine wave C4 note sound will be produced when the wheel is at the minimum value, 0.)

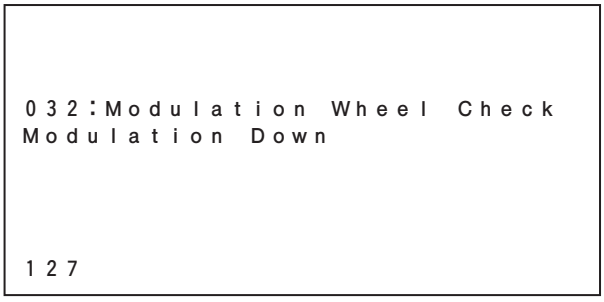
Displayed Message:



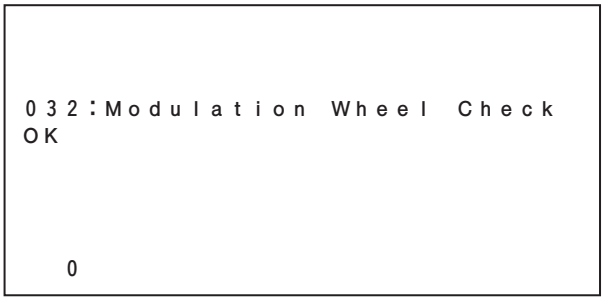
Selected screen



When the checking is started
(xxx: Indicates current value)



Detection of the maximum value



Detection of the minimum value (In case of OK)

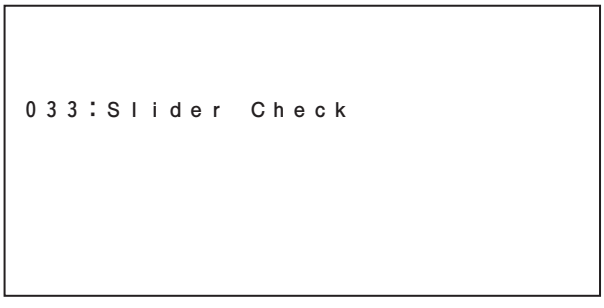
Test 33

Function: Slider check

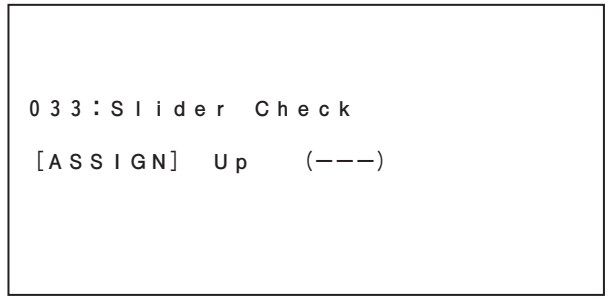
Description:

Slide the 9 sliders one by one in the order of Max (255) to Min (0) and check that the operation is detected.
When checking a slider, current value will be shown.
Checking is executed in the order of [ASSIGN] → [S1] → [S2] → ··· → [S8], and the result of each slider should be OK to proceed to the next checking.

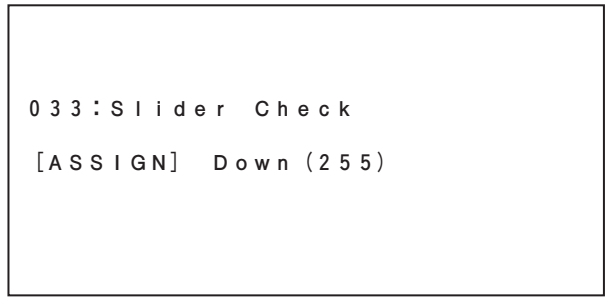
Displayed Message:



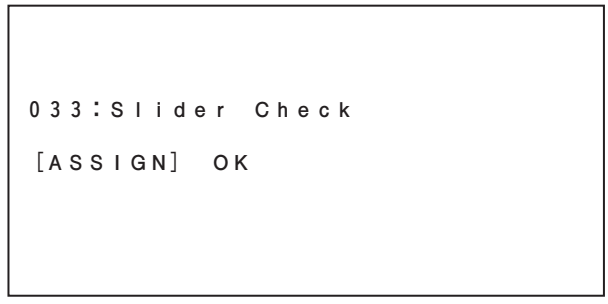
Selected screen



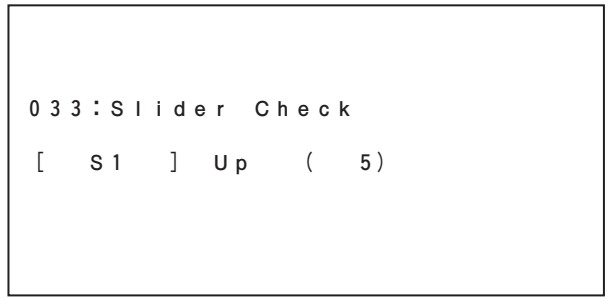
When the checking is started.
(Starts with the [ASSIGN]. Indicates current value in parentheses ( ).)



During checking
(After the maximum value is detected, the indication will change to **"Down"**.)



During checking
(After the minimum value is detected, the indication will change to **"OK"**.)



The indication changes to the next slider and the checking will be executed.

When the checking proceeds to the slider 8 and the result is **"OK"**,

```
033:Slider  Check
OK
```

the indication will change to **"OK"**.

Supplement:

It is not until the device is moved after the checking is started when a value is loaded.

A current value will be indicated for a device until the result is judged as OK.

When the result of all the devices are OK, only **"OK"** will be shown on the screen.

Test 34

Function: Pedal 1 check

Description:

Detects Max/Min of the pedal 1.

Execute the test after connecting a foot pedal (FC7) to the [ASSIGNABLE FOOT PEDAL 1] terminal.

① "Pedal 1 Down":
Depress the pedal.
(The sine wave C3 note sound will be produced.)

② "Pedal 1 Up":
Release the pedal.
(The sine wave G3 note sound will be produced.)

③ "Pedal 1 Out":
Disconnect the pedal from the terminal.
(The sine wave C4 note sound will be produced.)

Displayed Message:

```
034:Pedal1  Check
```

Selected screen

```
034:Pedal1  Check
Pedal1  Down
```

When the checking is started

```
034:Pedal1  Check
Pedal1  Up
```

Detection of Min

```
034:Pedal1  Check
Pedal1  Out
```

Detection of Max

```
034:Pedal1  Check
OK
```

In case of OK (Disconnection detection)

```
034:Pedal1  Check
No  Pedal
```

When unconnected (No foot pedal is connected)

Supplement:
Use an FC7 pedal for the checking.

Test 35

Function: Pedal 2 check

Description:

Detects Max/Min of the pedal 2.

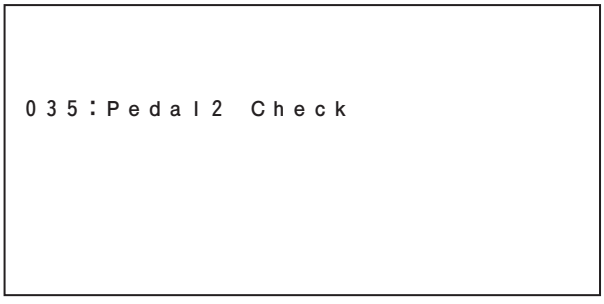
Execute the test after connecting a foot pedal (FC7) to the [ASSIGNABLE FOOT PEDAL 2] terminal.

① "Pedal 2 Down":
Depress the pedal.
(The sine wave C3 note sound will be produced.)

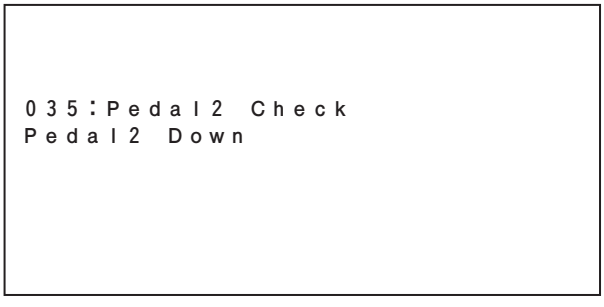
② "Pedal 2 Up":
Release the pedal.
(The sine wave G3 note sound will be produced.)

③ "Pedal 2 Out":
Disconnect the pedal from the terminal.
(The sine wave C4 note sound will be produced.)

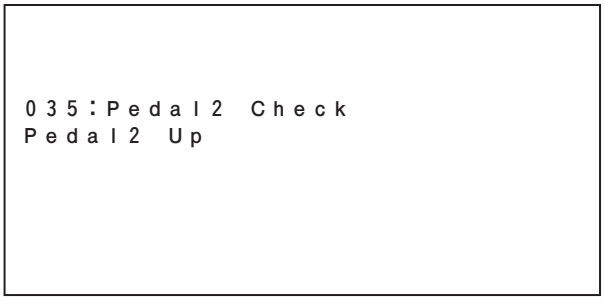
Displayed Message:



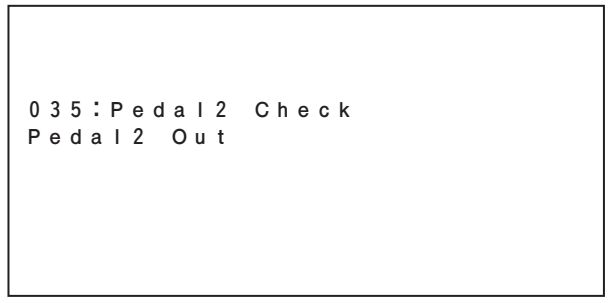
Selected screen



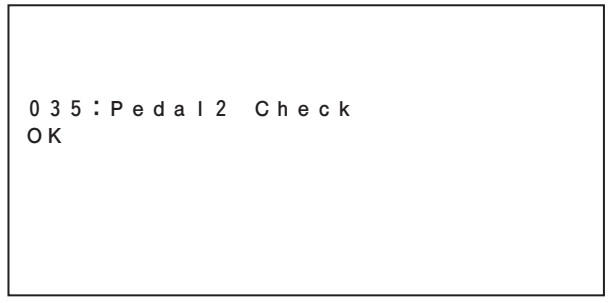
When the checking is started



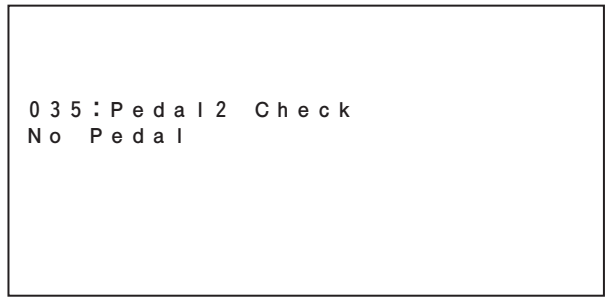
Detection of Min



Detection of Max



In case of OK (Disconnection detection)



When unconnected (No foot pedal is connected)

Supplement:
Use an FC7 pedal for the checking.

Test 36

Function: Pedal 3 check

Description:

Detects Max/Min of the pedal 3.

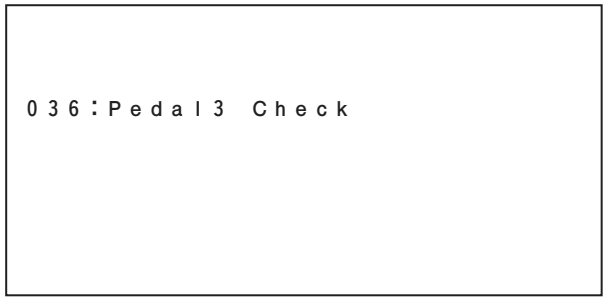
Execute the test after connecting a foot pedal (FC7) to the [ASSIGNABLE FOOT PEDAL 3] terminal.

① "Pedal 3 Down":
Depress the pedal.
(The sine wave C3 note sound will be produced.)

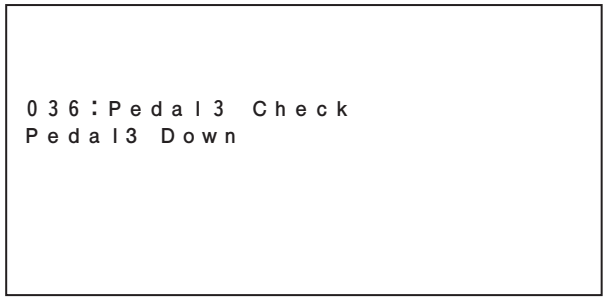
② "Pedal 3 Up":
Release the pedal.
(The sine wave G3 note sound will be produced.)

③ "Pedal 3 Out":
Disconnect the pedal from the terminal.
(The sine wave C4 note sound will be produced.)

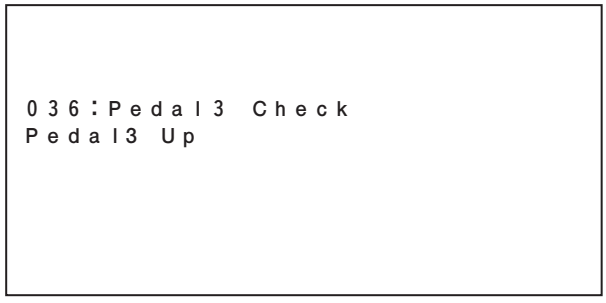
Displayed Message:



Selected screen

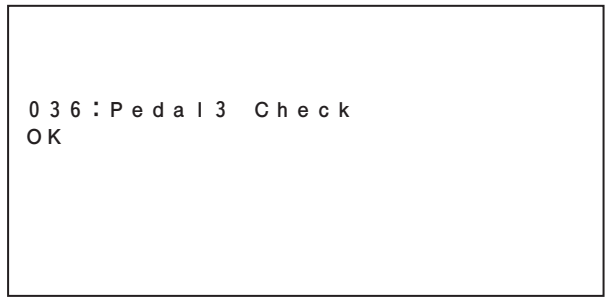


When the checking is started

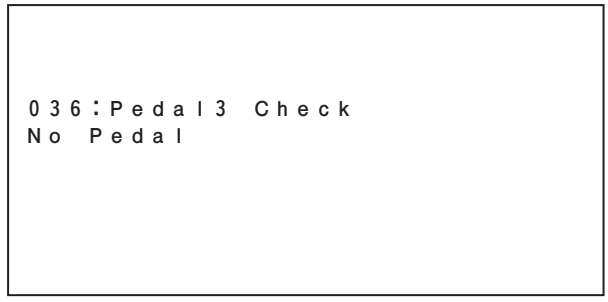


Detection of Min

Detection of Max



In case of OK (Disconnection detection)



When unconnected (No foot pedal is connected)

Supplement:

Use an FC7 pedal for the checking.

Test 37

Function: MIDI check

Description:

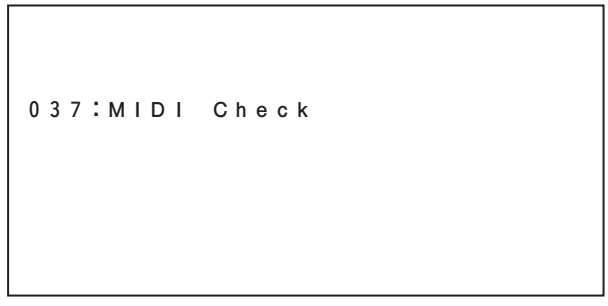
Checks transmission/reception of signals with the [MIDI IN] and [MIDI OUT] terminals connected with a MIDI cable in a loop. (Start checking with the MIDI terminals connected with a MIDI cable in a loop.)

Connect [MIDI-A OUT] to [MIDI-A IN] and [MIDI-B OUT] to [MIDI-B IN] with MIDI cables. (The result will be NG if connected alternately.)

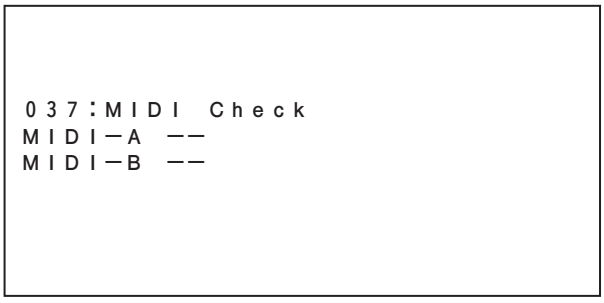
The test result of MIDI-A is OK and the sine wave C3 note sound will be produced.

The test result of MIDI-B is OK and the sine wave C4 note sound will be produced.

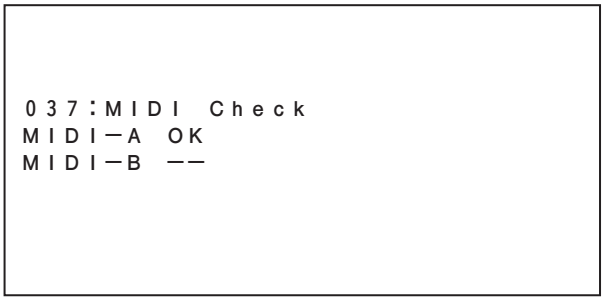
Displayed Message:



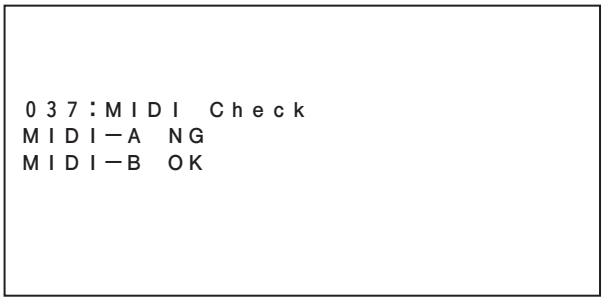
Selected screen



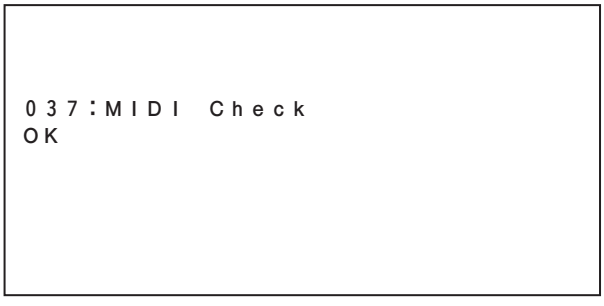
When the checking is started



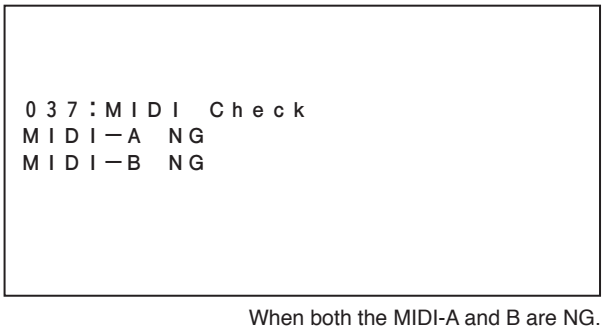
When the MIDI-A is OK and MIDI-B is unchecked.



When the MIDI-A is NG and MIDI-B is OK.



When both the MIDI-A and B are OK.



When both the MIDI-A and B are NG.

Supplement:

In case of no input one second after the output, the result is judged as NG.

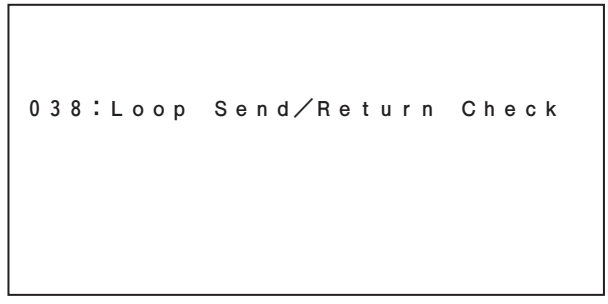
Test 38

Function: Loop Send/Return check

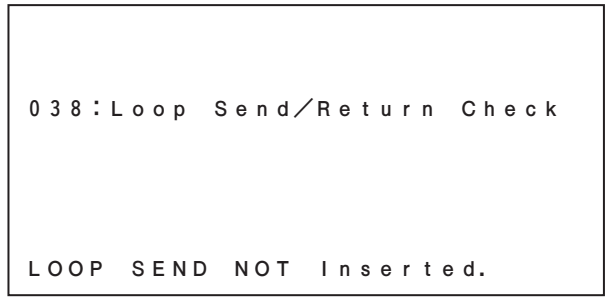
Description:

Loop Send/Return function check using an audio cable.
The sine wave A3 note signal will be outputted from [LINE OUT (MAIN)] when test is started.
The sound output will switched from [LINE OUT (MAIN)] to [AUX OUT/LOOP SEND] terminals when an audio cable is inserted to [AUX OUT/LOOP SEND L/L+R] terminal.
If connect [AUX OUT/LOOP SEND] to [AUX IN/LOOP RETURN] terminals in above setting, A3 note signal will output from [LINE OUT (MAIN)].

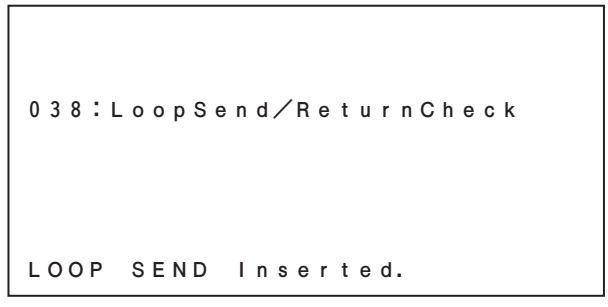
Displayed Message:



Selected screen



When the LOOP SEND jack is not connected.



When connection to the LOOP SEND jack is detected.

Supplement:

No detection of connection is conducted at the [AUX OUT/LOOP SEND(R)] terminal.

Test 39

Function: Sub Out connection check

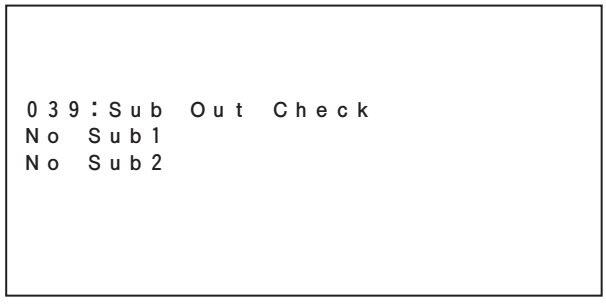
Description:

[LINE OUT SUB 1] and [LINE OUT SUB 2] function check using an audio cable.

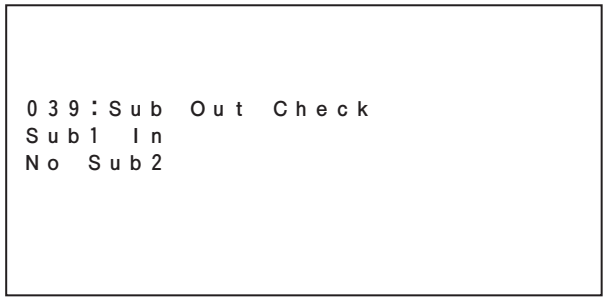
The C3 note will be outputted when an audio cable is inserted to the [LINE OUT SUB] terminals, and C4 note will output when an audio cable is disconnected from the terminals.

Displayed Message:

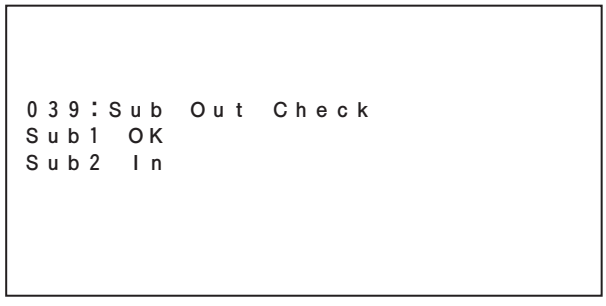
Selected screen



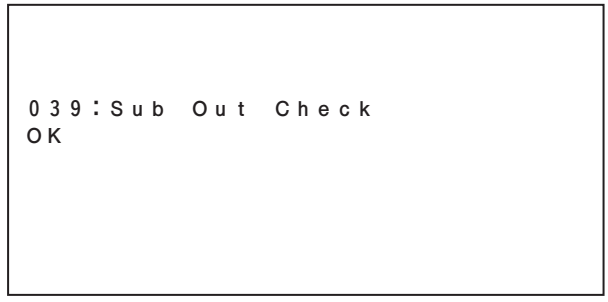
An audio cable is not inserted to the terminals



An audio cable is inserted to the SUB 1 terminal only.



An audio cable is disconnected from SUB 1 terminal and inserted to the SUB 2 terminal.



An audio cable is disconnected both terminal of SUB 1 and SUB 2.

Supplement:

Checking can be started with either the SUB 1 or 2.

Test 40

Function: Video Out check (NTSC RGB)

Description:

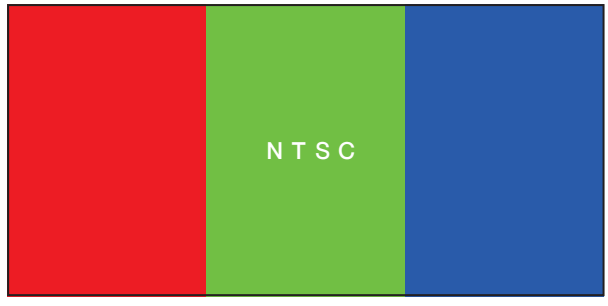
Conducts RGB (NTSC) test of the [VIDEO OUT] terminal.

Connect a color CRT monitor that can display in NTSC and PAL systems to the [VIDEO OUT] terminal with a video cable (75Ω coaxial).

Check that RGB color bars (red, green and blue) are shown on the TV.

Displayed Message:

Selected screen



During checking

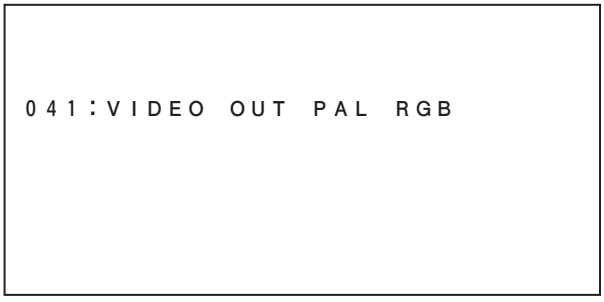
Test 41

Function: Video Out check (PAL RGB)

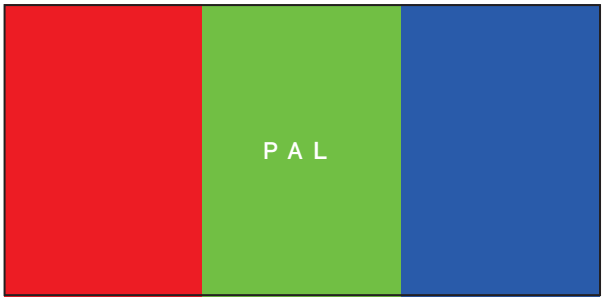
Description:

Conducts RGB (PAL) test of the [VIDEO OUT] terminal.
Connect a color CRT monitor that can display in NTSC and PAL systems to the [VIDEO OUT] terminal with a video cable (75Ω coaxial).
Check that RGB color bars (red, green and blue) are shown on the TV.

Displayed Message:



Selected screen



During checking

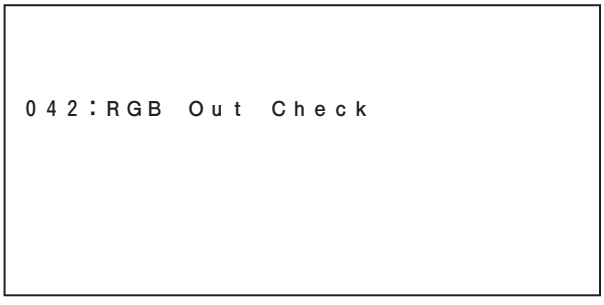
Test 42

Function: RGB Out check

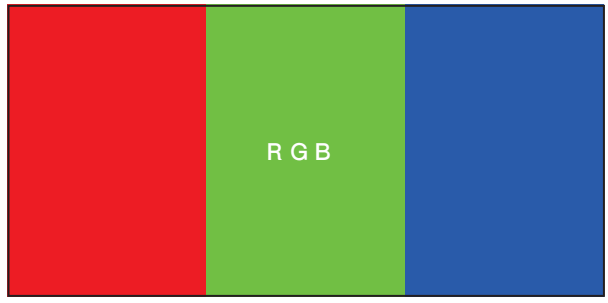
Description:

Conducts RGB test of the [RGB OUT] terminal.
Connect a color CRT monitor that can display in RGB to the [RGB OUT] terminal.
Check that RGB color bars (red, green and blue) are shown on the RGB monitor.

Displayed Message:



Selected screen



During checking

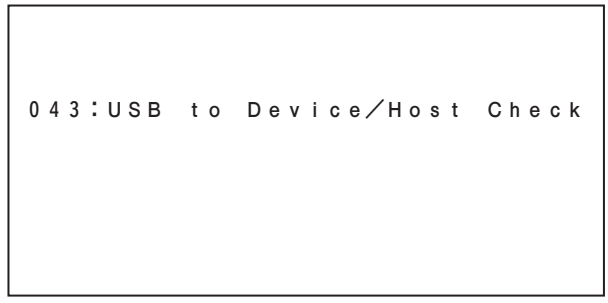
Test 43

Function: USB to Device/Host check

Description:

Conducts checking of the [USB TO DEVICE] terminal and [USB TO HOST] terminal simultaneously.
Start checking without connecting a USB cable in a loop.
The sine wave C4 note sound will be produced if the result of the two tests is OK.

Displayed Message:



Selected screen

* When the screen appears, connect the [USB TO DEVICE] terminal and [USB TO HOST] terminal with a USB cable.

Checking [USB TO DEVICE] and [USB TO HOST]

```
043:USB to Device/Host Check
Connect USB Storage
```

* When the screen appears, connect the storage device to the [USB TO DEVICE] terminal on the front side.

Checking USB Storage

```
043:USB to Device/Host Check
OK
```

In case of OK

```
043:USB to Device/Host Check
NG
```

In case of NG

Supplement:

It is impossible to determine is the [USB TO DEVICE] terminal or [USB TO HOST] terminal is defective in case of NG.

The **"USB Storage Check"** can be used to check the [TO DEVICE] terminal. Combine the test to determine which terminal is defective.

Be sure to use a USB Storage whose operation is already checked. It does not matter if it is equipped with a disk or not.

Test 44

Function: USB Storage Device check

Description:

Connect a USB Storage device and check if it can be used. (Reads every 100 sectors from sector 0 and conducts sector read/write tests at ten points.)

Connect a storage device to the [USB TO DEVICE] terminal at the front side.

Displayed Message:

```
044:USB Storage Device Check
```

Selected screen

```
044:USB Storage Device Check
Start
```

When the checking is started

```
044:USB Storage Device Check
OK
```

In case of OK

```
044:USB Storage Device Check
NG
```

In case of NG (Read/Write failure)

```
044:USB Storage Device Check
NO DISK
```

No media

```
044:USB Storage Device Check
UNFORMAT DISK
```

Media unformatted

```
044:USB Storage Device Check
PROTECT DISK
```

Media protected

Test 45

Function: LAN check

Description:

Conducts signal communication checking with the [LAN] terminal of the Tyros3 and a router for checking connected with a LAN cable. (Starts checking with the instrument connected with the LAN cable.)

It will take about 20 seconds for the check.

Displayed Message:

```
045:LAN Check
```

Selected screen

```
045:LAN Check
OK
```

In case of OK

```
045:LAN Check
NG
```

In case of NG

Supplement:

Use a router, which has the following specifications, in initial configuration.

- Equipped with DHPC server function
- Default IP address is 192.168.xxx.xxx

Do not connect an equipment other than the instrument to be checked to the router.

Test 46

Function: DGA (HDD) check

Description:

Checks if the DGA SDRAM (DM: IC204) and HDD are Read/Write enabled. (Sector Read/Write checking is conducted using the last 2 sectors of HDD after checking the SDRAM connection)

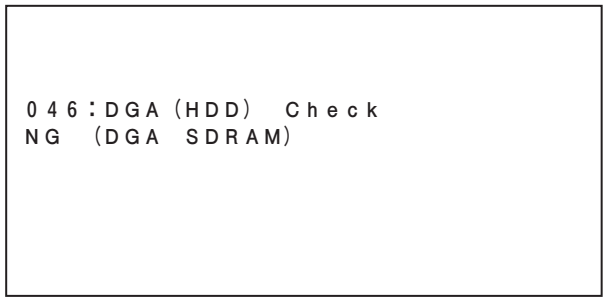
Displayed Message:

```
046:DGA (HDD) Check
```

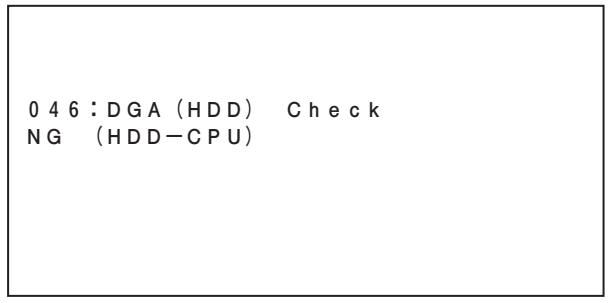
Selected screen

```
046:DGA (HDD) Check
OK
```

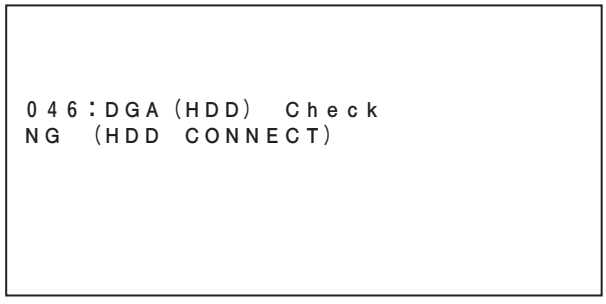
In case of OK



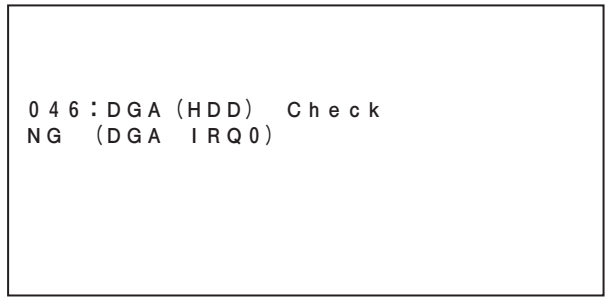
In case of NG (SDRAM connection error)



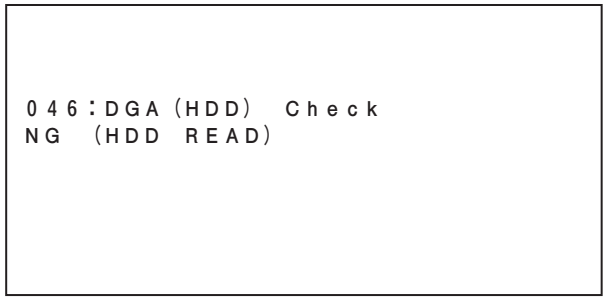
In case of NG (DMA transmission error between HDD and CPU)



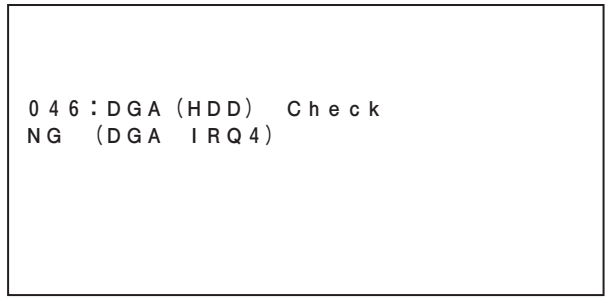
In case of NG (HDD connection error)



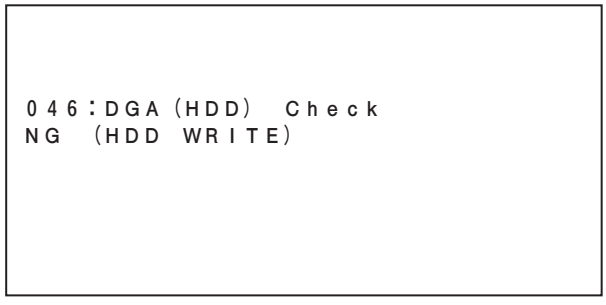
In case of NG (IRQ0 line connection error)



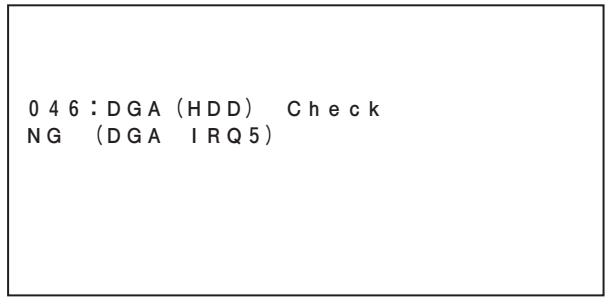
In case of NG (HDD Read error)



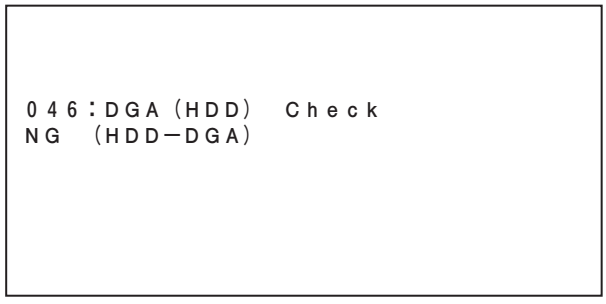
In case of NG (IRQ4 line connection error)



In case of NG (HDD Write error)



In case of NG (IRQ5 line connection error)



In case of NG (DMA transmission error between HDD and DGA)

Test 47

Function: DGA (TG) check

Description:

Checks connections of MEL connection between the DGA (DM: IC203) and SWP50 (DM: IC205).

Connect headphones to the [PHONES] terminal and switch between the LINE-A (input to the MEL4 of SWP50) and LINE-B (input to the MEL5 of SWP50) with the TAB [◁]/[▷] keys.

<LINE-A>
The sine wave A3 note sound (about 441.4 Hz) is produced with PAN at center.
<LINE-B>
The sine wave about 1378 Hz is produced with PAN at R (repetition of sound production for 3 seconds and no sound for 0.5 second).

Displayed Message:

```
047:DGA(TG)  Check
```

Selected screen

```
047:DGA(TG)  Check
--

LINE-A
```

Checking LINE-A

```
047:DGA(TG)  Check
--

LINE-B
```

Checking LINE-B

Supplement:
You may feel that TAB switches does not respond well when you depress, because, the unit can not respond during a sound is outputted from LINE-B (about 3 second period).
Sound is stopped when the test item is quit.

Test 48

Function: Keyboard Type check

Description:
Judges connected keyboard type and indicated keyboard name.

Displayed Message:

```
048:KeyboardType  Check
```

Selected screen

```
048:KeyboardType  Check
OK
(FSX61)
```

In case of OK

```
048:KeyboardType  Check
NG
(GH3)
```

In case of NG

Supplement:
The keyboard name will be indicated in case of NG as well.

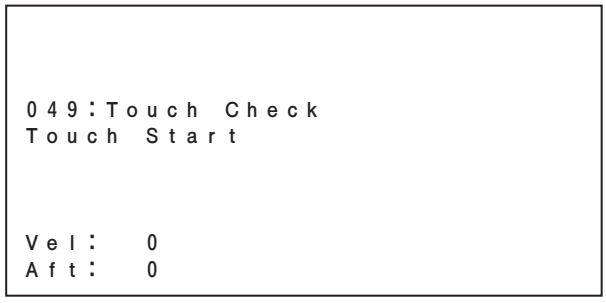
Test 49

Function: Touch check

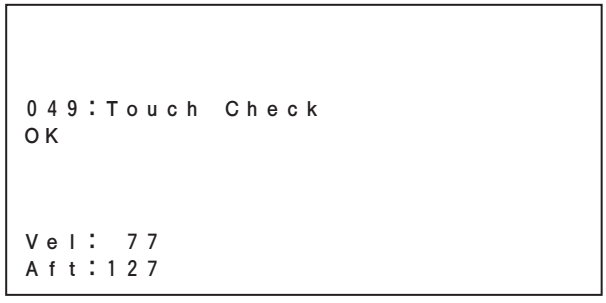
Description:
Press the C3 key and press that until after touch will be activated.
Indicates initial touch (velocity)/after touch value of 0 to 127 decimally on the LCD.
Result will be OK if MAX (sine wave C3 note sound is produced) → MIN_(sine wave C4 note sound is produced) are detected.

Displayed Message:

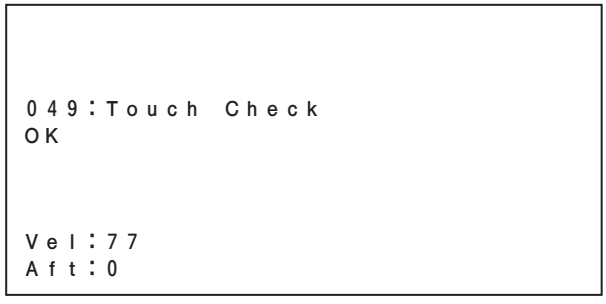
Selected screen



When the checking is started



Upper: Velocity value



Lower: After touch value

When the maximum value of after touch is detected
In case of OK (When the minimum value of after touch is detected)

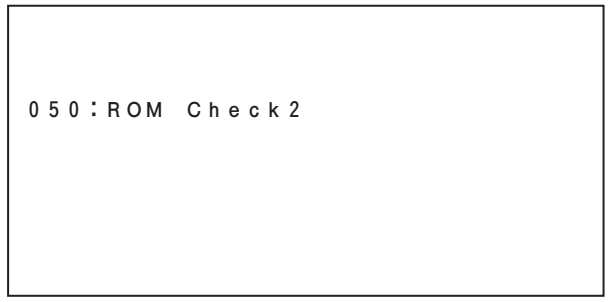
Test 50

Function: Full check of ROM
(This is a test for factory inspection)

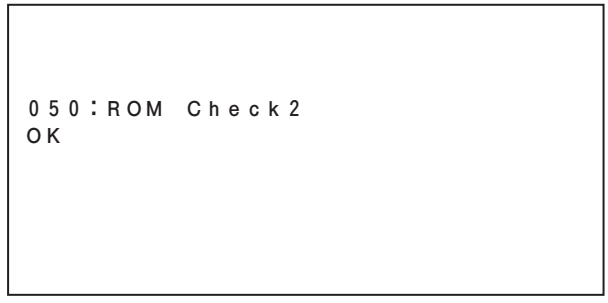
Description:

Conducts read test (checksum inspection) on Program area and Data area.
It will take about 35 seconds for the check.

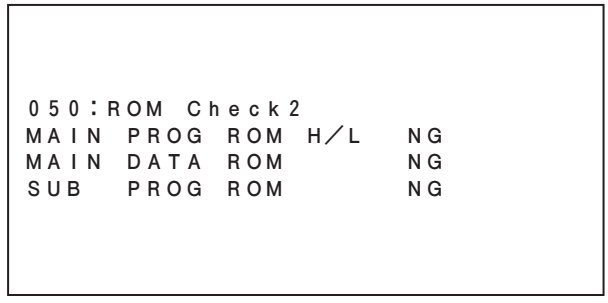
Displayed Message:



Selected screen



In case of OK



In case of NG (Example)

Supplement:

In case of NG, the name of the ROM of which NG is detected will be shown.
"No Card" will be shown if SUB PROG is not detected.

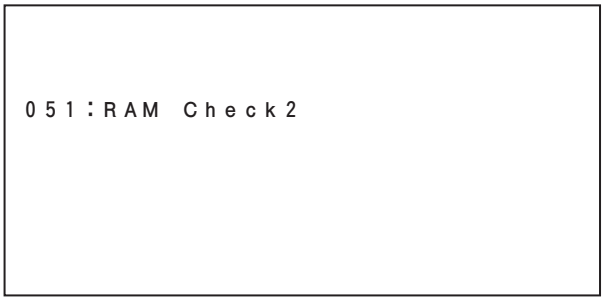
Error Indications	Circuit Board	Location	Name in Circuit Diagram
MAIN PROG ROM H/L NG	DM	IC10	MAIN PROG-L 256 M FLASH
MAIN PROG WR NG		IC11	MAIN PROG-H 256 M FLASH
MAIN DATA ROM NG	DM	IC14	DATA ROM 64 M
SUB PROG ROM NG	DM	IC514	SUB BOOT ROM 8 M
SUB PROG ROM No Card			

Test 51

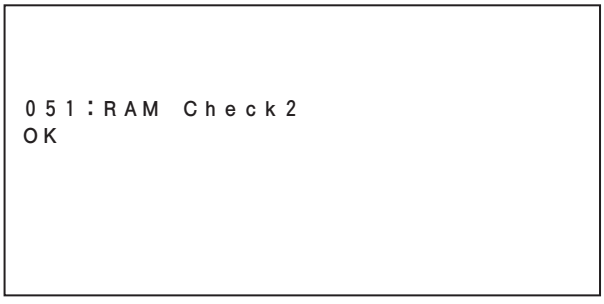
Function: Full check of RAM
(This is a test for factory inspection)

Description:
Executes Read/Write test (connection check) of RAM.

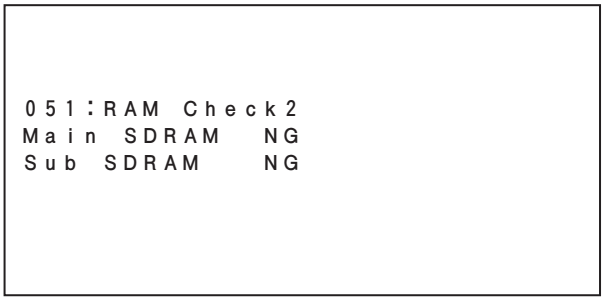
Displayed Message:



Selected screen



In case of OK



In case of NG

Supplement:
Location of NG will be shown in case of NG.
If sound board is not recognized, **"No Card"** will be shown for SUB SDRAM.

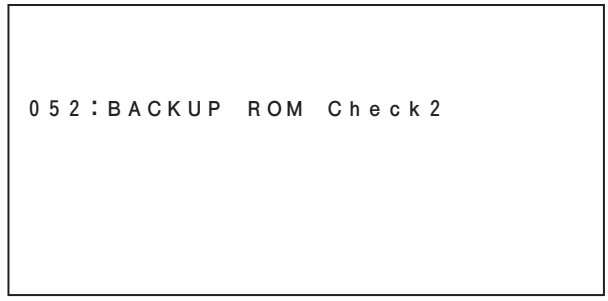
Error Indications	Circuit Board	Location	Name in Circuit Diagram
Main SDRAM NG	DM	IC12 IC13	SDRAM 256 M SDRAM 256 M
Sub SDRAM NG	DM	IC513	MAIN RAM 128 M SDRAM
Sub SDRAM No Card			

Test 52

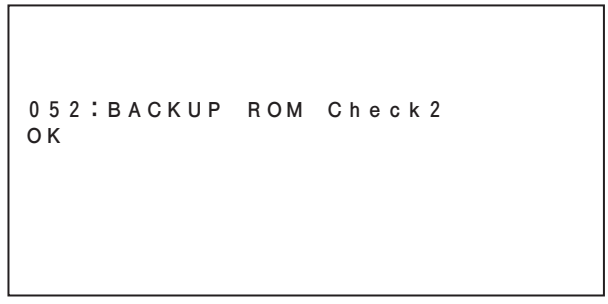
Function: Full check of backup ROM
(This is a test for factory inspection)

Description:
Executes Read/Write test of the entire blocks of Backup Flash ROM.
It will take about 4 minutes for the check.

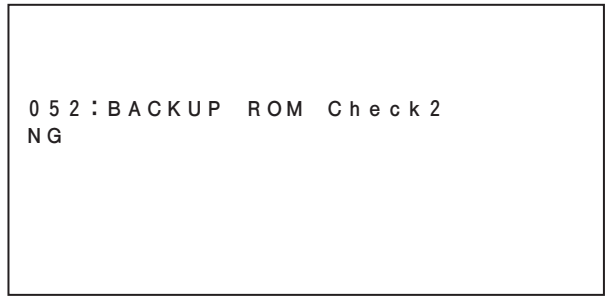
Displayed Message:



Selected screen



In case of OK



In case of NG

Supplement:
The check cannot be aborted until OK/NG result is indicated.
Original data will be written back after the test is executed.
Do not turn off the power during checking or the data will be lost.

Error Indications	Circuit Board	Location	Name in Circuit Diagram
NG	DM	IC15	BACKUP 64 M FLASH

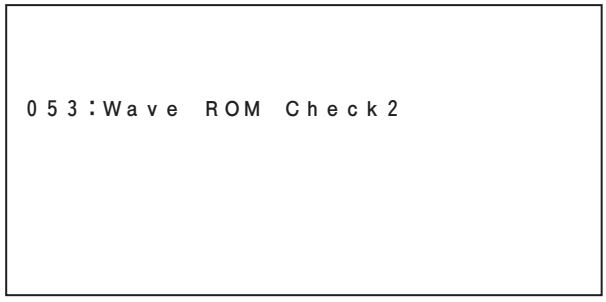
Test 53

Function: Full check of Wave ROM
(This is a test for factory inspection)

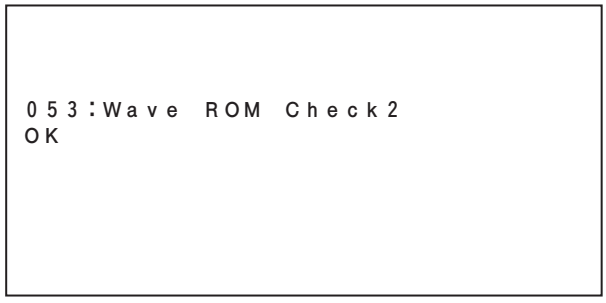
Description:

Executes Read test (full address checksum test) of Wave ROM.
It will take about 2 minutes and 50 seconds for the check.

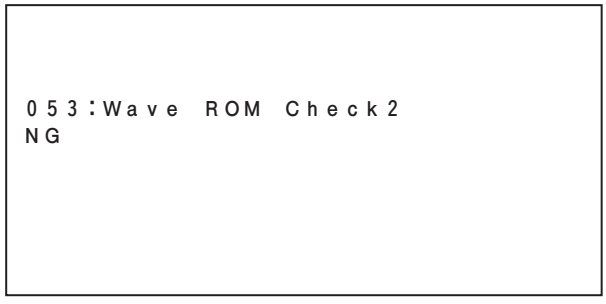
Displayed Message:



Selected screen



In case of OK



In case of NG

Applicable to serial number up to B00 01470, E00 02830, U00 01285 and ET00 01125

Error Indications	Circuit Board	Location	Name in Circuit Diagram
NG	DM	IC800	WAVE ROM L1 512 M MASK
		IC801	WAVE ROM L2 512 M MASK
		IC802	WAVE ROM H1 512 M MASK
		IC803	WAVE ROM H2 512 M MASK

Applicable to serial number from B00 01471, E00 02831, U00 01286 and ET00 01126

Error Indications	Circuit Board	Location	Name in Circuit Diagram
NG	DM	IC804	WAVE ROM L1 512 M MASK
		IC805	WAVE ROM L2 512 M MASK
		IC806	WAVE ROM H1 512 M MASK
		IC807	WAVE ROM H2 512 M MASK

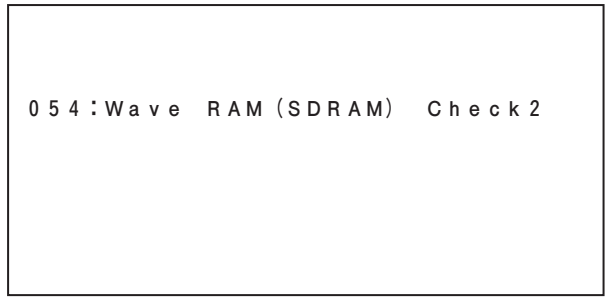
Test 54

Function: Full check of Wave RAM (SDRAM)
(This is a test for factory inspection)

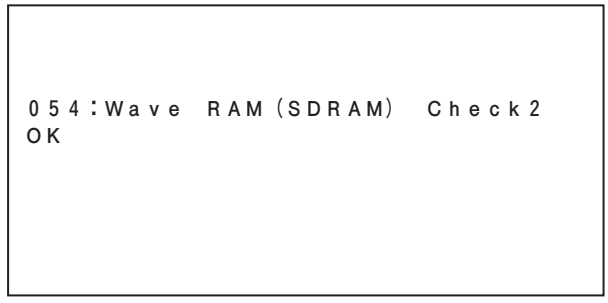
Description:

Executes full address checksum test of SDRAM for wave.
It will take about 6 seconds for the check.

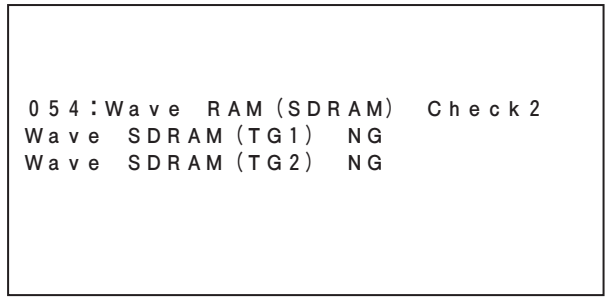
Displayed Message:



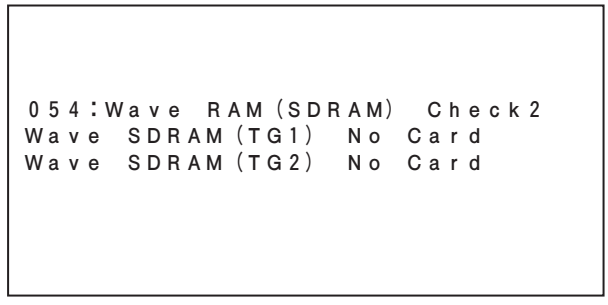
Selected screen



In case of OK



In case of NG



In case of NG (In case no sound board is recognized)

Supplement:

Check from TG1 → SWP51B Master (DM: IC505), TG2 → SWP51B Slave (DM: IC506).

Error Indications	Circuit Board	Location	Name in Circuit Diagram
Wave SDRAM(TG1) NG	DM	IC511	SAMPLING RAM-L 16 M SDRAM
Wave SDRAM(TG2) NG		IC512	SAMPLING RAM-H 16 M SDRAM
Wave SDRAM(TG1) No Card			
Wave SDRAM(TG2) No Card			

Test 55

Function: Full check of Wave RAM (DIMM)
(This is a test for factory inspection)

Description:

Executes full address checksum test of DIMM for wave.
Indicates DIMM size as well.

Displayed Message:

```
055:Wave RAM(DIMM) Check2
```

Selected screen

```
055:Wave RAM(DIMM) Check2
OK(DIMM H: 64MB, L: 64MB)
```

In case of OK (Indicates DIMM size in MB)

```
055:Wave RAM(DIMM) Check2
NG(DIMM H: 0MB, L: 0MB)
Wave DIMM(TG1) NG
Wave DIMM(TG2) NG
```

In case of NG (Indicates DIMM size in MB)

```
055:Wave RAM(DIMM) Check2
NG(DIMM H: 0MB, L: 0MB)
Wave DIMM(TG1) No Card
Wave DIMM(TG2) No Card
```

In case of NG (In case no sound board is recognized)

Supplement:

Check from TG1 → SWP51B Master (DM: IC505), TG2 → SWP51B Slave (DM: IC506).

OK will be shown if DIMM connection is confirmed. Visually check DIMM size.

Specification check requires checking with DIMMs of maximum size, 512 MB, for both H/L.

Test 56

Function: Full check of Effect RAM
(This is a test for factory inspection)

Description:

Full address checksum inspection of EffectRAM
It will take about 18 seconds for the check.

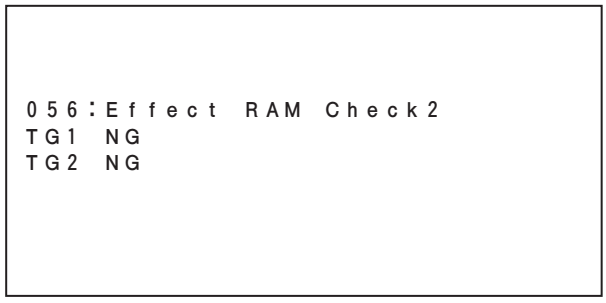
Displayed Message:

```
056:Effect RAM Check2
```

Selected screen

```
056:Effect RAM Check2
OK
```

In case of OK



In case of NG

Supplement:

TG1 indicates Effect RAM of SWP51B Master (DM: IC505) and TG2 indicates Effect RAM of SWP51B Slave (DM: IC506).

Error Indications	Circuit Board	Location	Name in Circuit Diagram
TG1 NG	DM	IC508	WORK RAM 64 M SDRAM
TG2 NG	DM	IC509	WORK RAM 64 M SDRAM

Test 57 to 62

Factory Inspection only.

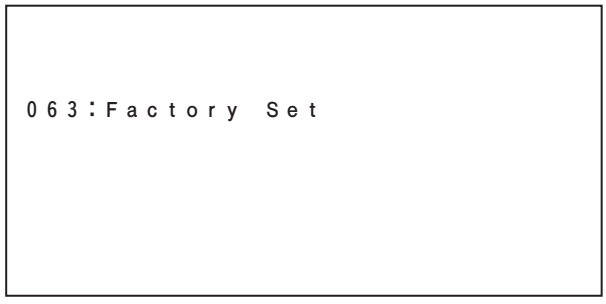
Test 63

Function: Factory Set

Description:

Restores the Tyros 3 to the factory initial setup. (Sets the initial data to the Flash ROM.)

Displayed Message:



Selected screen

During execution

Supplement:

In this stage, the flag for initialization is raised only and initialization will be executed when the power is turned on next time.

⚠ Caution

Don't turn off the power until the main screen is indicated after executing the **"Factory Set"**.

Test 64

Function: Exiting test mode

Description:

Quits the test mode and restarts. (Restarting should be conducted automatically. Check if the restarting is conducted.)

Displayed Message:

Selected screen

Supplement:

⚠ Caution

Don't turn off the power until the main screen is indicated after executing the **"Exiting test mode"**.

INITIAL SETTING

Setting at the time of factory shipping.

- MASTER VOLUME: MIN
- INPUT VOLUME: MIN
- MODURATION WHEEL: MIN (toward you)
- LINE IN/MIC TRIM VOLUME: MAX
- AUX IN/LOOP RETURN TRIM VOLUME: MIN
- SLIDER VOLUME: MAX (top side)

• **Switch Test Sequence**

Turn	SW Name / Display	Note Number
1	TYPE SELECT	C2
2	MIC SETTING	C#2
3	SONG I	D2
4	SONG II	D#2
5	SP1	E2
6	SP2	F2
7	REC	F#2
8	STOP	G2
9	PLAY/PAUSE	G#2
10	REW	A2
11	FF	A#2
12	DEMO	B2
13	VOCAL HARMONY	C3
14	EFFECT	C#3
15	TALK	D3
16	SONG III	D#3
17	SONG IV	E3
18	SP3	F3
19	SP4	F#3
20	LOOP	G3
21	METRONOME	G#3
22	LYRICS/TEXT	A3
23	SCORE	A#3
24	POP & ROCK	B3
25	BALLAD	C4
26	DANCE	C#4
27	SWING & JAZZ	D4
28	R & B	D#4
29	COUNTRY	E4
30	LATIN	F4
31	BALLROOM	F#4
32	MOVIE & SHOW	G4
33	ENTERTAINER	G#4
34	WORLD	A4
35	FILE ACCESS	A#4
36	TRANSPOSE –	B4
37	TRANSPOSE +	C5
38	MIXING CONSOLE	C#5
39	FADE IN/OUT	D5
40	ACMP	D#5
41	OTS LINK	E5
42	AUTO FILL IN	F5
43	TAP TEMPO	F#5
44	TEMPO –	G5
45	TEMPO +	G#5
46	M.PAD SELECT	A5
47	M.PAD 1	A#5
48	M.PAD 2	B5
49	M.PAD 3	C6
50	M.PAD 4	C2
51	M.PAD STOP	C#2
52	CHANNEL ON/OFF	D2
53	INTRO I	D#2
54	INTRO II	E2
55	INTRO III	F2
56	MAIN A	F#2
57	MAIN B	G2
58	MAIN C	G#2
59	MAIN D	A2
60	BREAK	A#2
61	ENDING/rit. I	B2
62	ENDING/rit. II	C3
63	ENDING/rit. III	C#3
64	SYNC STOP	D3
65	SYNC START	D#3
66	START/STOP	E3
67	BALANCE	F3
68	UPPER OCTAVE –	F#3
69	UPPER OCTAVE +	G3
70	SA1	G#3
71	SA2	A3
72	A	A#3
73	B	B3
74	C	C4
75	D	C#4
76	E	D4
77	DIRECT ACCESS	D#4
78	TAB <	E4
79	TAB >	F4
80	F	F#4
81	G	G4
82	H	G#4
83	I	A4
84	J	A#4
85	EXIT	B4
86	1-U	C5
87	2-U	C#5
88	3-U	D5
89	4-U	D#5
90	5-U	E5
91	6-U	F5
92	7-U	F#5
93	8-U	G5
94	1-L	G#5
95	2-L	A5
96	3-L	A#5
97	4-L	B5
98	5-L	C6
99	6-L	C2
100	7-L	C#2
101	8-L	D2
102	ENTER	D#2
103	FUNCTION	E2
104	VOICE CREATOR	F2
105	DIGITAL RECORDING	F#2
106	REC	G2
107	STOP	G#2
108	PLAY/PAUSE	A2
109	PREV	A#2
110	NEXT	B2
111	SELECT	C3
112	SETTING	C#3
113	HARMONY ECHO	D3
114	INITIAL TOUCH	D#3
115	SUSTAIN	E3
116	MONO	F3
117	DSP	F#3
118	DSP VARIATION	G3
119	INTERNET	G#3
120	PIANO	A3
121	E.PIANO	A#3
122	ORGAN	B3
123	STRINGS	C4
124	CHOIR	C#4
125	BRASS	D4
126	TRUMPET	D#4
127	SAXOPHONE	E4
128	FLUTE/CLARINET	F4
129	MUSIC FINDER	F#4
130	GUITAR	G4
131	BASS	G#4
132	PERC./DRUM KIT	A4
133	ACCORDION	A#4
134	PAD	B4
135	SYNTH	C5
136	ORGAN FLUTES	C#5
137	EXPANSION	D5
138	USER DRIVE	D#5
139	REGIST BANK –	E5
140	REGIST BANK +	F5
141	FREEZE	F#5
142	MEMORY	G5
143	OTS 1	G#5
144	OTS 2	A5
145	OTS 3	A#5
146	OTS 4	B5
147	PART SELECT LEFT	C6
148	PART SELECT RIGHT1	C2
149	PART SELECT RIGHT2	C#2
150	PART SELECT RIGHT3	D2
151	REGIST. MEMORY 1	D#2
152	REGIST. MEMORY 2	E2
153	REGIST. MEMORY 3	F2
154	REGIST. MEMORY 4	F#2
155	REGIST. MEMORY 5	G2
156	REGIST. MEMORY 6	G#2
157	REGIST. MEMORY 7	A2
158	REGIST. MEMORY 8	A#2
159	LEFT HOLD	B2
160	PART ON/OFF LEFT	C3
161	PART ON/OFF RIGHT1	C#3
162	PART ON/OFF RIGHT2	D3
163	PART ON/OFF RIGHT3	D#3

FORMATTING HDD

1. While holding down the [F] button and [J] button, turn on the power switch.

2. The device information indication mode will be started and the following screen will be shown.

```
========================
      Device Information
========================

   [ A ] : USB Storage

   [ B ] : DIMM

   [ C ] : Internal HDD

   Press [EXIT] to quit.
```

3. Press the [C] button to go to the internal HDD information indication screen. If unformatted, “UNFORMAT DISK” will be shown. If the HDD is formatted, the screen in procedure 5 will be shown.

```
========================
      IDE HDD Information
========================

  UNFORMAT DISK

        Press [DEMO] to format.
        Press [EXIT] to quit.
```

4. Press the [DEMO] button to execute formatting. “Formatting …” will be indicated during formatting procedure.
5. Information of the internal HDD will be shown when the formatting is completed. The formatting is executed normally if “TYROS3_HD” is shown in the “Volume Name” field. (If an error occurrs, only error message will be indicated. Refer to the error message list at the end of this section.)

```
========================
      IDE HDD Information
========================

    Vender ID     :  Not exist
    Product ID    :  ST980815A
    Revision      :  3.AL
    Capacity      :  74.42[GB]
    Serial ID     :  Exist
    Volume Name   :  TYROS3_HD

    R/W test      :

        Press [START/STOP] to test.
        Press [DEMO] to format.
        Press [EXIT] to quit.
```

6. Press the [START/STOP] button to start Read/Write test. A countdown indication from 10 to 1 will appear in the R/W test field as the checking is executed. Countdown indication from 10 to 1 will appear three times as three types of checking is executed.
7. When the Read/Write test is completed successfully, “OK” will be shown in the R/W test field. “NG” will be shown if an error is detected.

```
========================
      IDE HDD Information
========================

    Vender ID     :  Not exist
    Product ID    :  ST980815A
    Revision      :  3.AL
    Capacity      :  74.42[GB]
    Serial ID     :  Exist
    Volume Name   :  TYROS3_HD

    R/W test      :  OK

        Press [START/STOP] to test.
        Press [DEMO] to format.
        Press [EXIT] to quit.
```

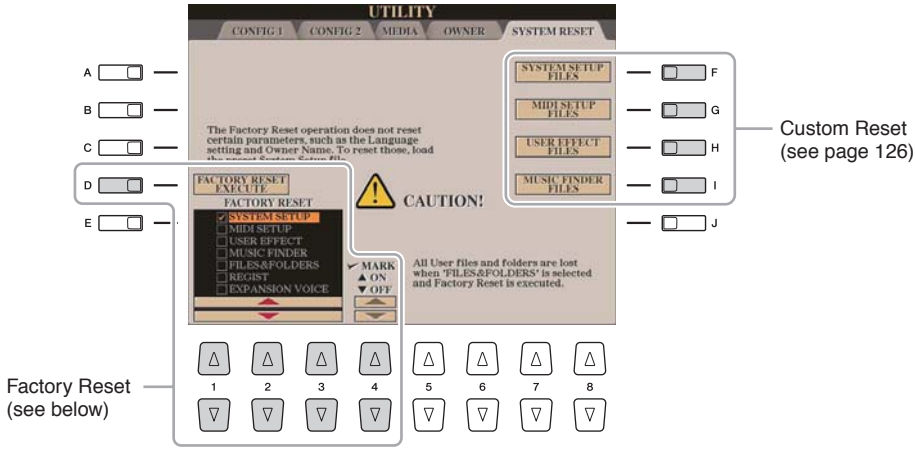
8. When the “OK” is displayed in the Read/Write test, the checking is finished. Turn off the power switch.

• Error messages list

· Unformatted “UNFORMAT DISK”
· Device error “DEVICE ERROR”
· HDD unrecognized “NO DISK”

SYSTEM RESET

There are two reset methods in the SYSTEM RESET display: Factory Reset and Custom Reset.



Factory Reset–Restoring the Factory Programmed Settings

This function lets you restore the status of the Tyros3 to the original factory settings.

1 Select the desired item to be restored by using [1▲▼]–[3▲▼] buttons and add a checkmark to it by pressing the [4 ▲] (MARK ON) button.

To remove the checkmark, press the [4▼] (MARK OFF) button.

SYSTEM SETUP	Restores the System Setup parameters to the original factory settings. Refer to the Data List for details about which parameters belong to the System Setup.
MIDI SETUP	Restores the MIDI settings including the MIDI templates on the USER tab display to the original factory status.
USER EFFECT	Restores the User Effect settings including the user effect types, user master EQ types, user compressor types, and user vocal harmony types created via the Mixing Console display to the original factory settings.
MUSIC FINDER	Restores the Music Finder data (all records) to the original factory settings.
FILES & FOLDERS	Deletes all files and folders stored in the USER tab display.
REGIST	Temporarily deletes the current Registration Memory settings of the selected Bank. The same can be done also by turning the [POWER] button ON while holding the B5 key (rightmost B key on the keyboard).
EXPANSION VOICE	Deletes all Expansion Voices.

2 Press the [D] (FACTORY RESET) button to execute the Factory Reset operation for all checkmarked items.

Custom Reset–Saving and Recalling Your Original Settings as a Single File

For the items below, you can save your Original Settings as a Single File for future recall.

1 **Make all desired settings on the instrument.**

2 **Call up the operation display.**
[FUNCTION] → [I] UTILITY → TAB [◀][▶] SYSTEM RESET

3 **Press one of the [F]–[I] buttons to call up the relevant display for sav-ing your data**

[F]	**SYSTEM SETUP FILES**	Parameters set on the various displays such as the [FUNCTION] → [I] UTILITY and microphone setting display are handled as a single System Setup file. Refer to the Data List for details on which parameters belong to the System Setup.
[G]	**MIDI SETUP FILES**	The MIDI settings including the MIDI templates on the USER tab display are handled as a single file.
[H]	**USER EFFECT FILES**	The User Effect settings including the user effect types, user master EQ types, user compressor types, and user vocal harmony types created via the Mixing Console displays are managed as a single file.
[I]	**MUSIC FINDER FILES**	All the preset and created records of the Music Finder are handled as a single file.

4 **Use the TAB [◀][▶] buttons to select one of the tabs (other than the PRESET) to which your settings will be saved.**

5 **Press the [6▼] (SAVE) button to save your file.**

6 **To recall your file, press the desired [F]–[I] buttons in the SYSTEM RESET display, then select the desired file.**

OS UPDATE

⚠*CAUTIONS*

- While updating the program software, do not turn off the power or do not pull out the USB memory.
- It takes about 5 minutes to update the program software.

1 Preparation

Download the Tyros3 updated program from the download page on the YSISS home page to the USB memory.
(YSISS URL>>http://plaza.yamaha.co.jp/ysiss/exindex.nsf)
(Insert the USB memory containing only the update program into the USB terminal of the Tyros3.)

Tools required for update:
USB memory
(containing only the update program to be installed)

The program software in the USB memory

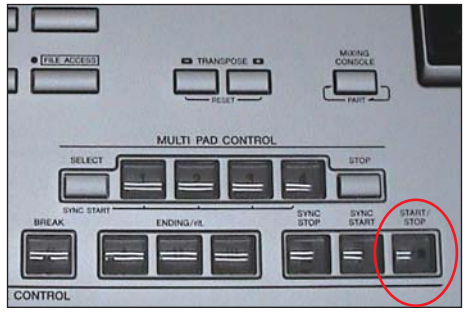
- Installer:
  TYROS3INST.PRG
- The main body of the program data (Boot part):
  TYROS3MAINBOOT.PRG
- The main body of the program data:
  TYROS3mainprg1.prg - TYROS3mainprg5.prg

2 Executing the software update

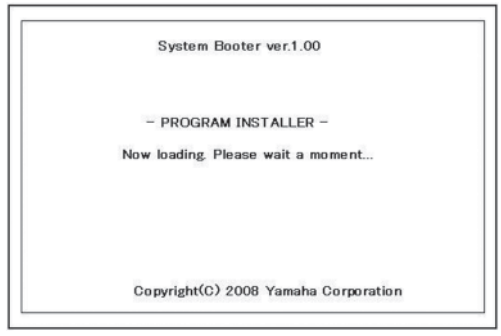
2-1 Connect the USB memory to the Tyros3.
Connect the USB memory containing only the update program data to the [USB TO DEVICE] terminal on the front panel.
CAUTIONS: Make sure of the direction of the USB memory before inserting it.
(The reverse insertion may cause the damage on the [USB TO DEVICE] terminal.)
Do not turn off the power during the program update.
Do not remove the USB memory from the [USB TO DEVICE] terminal until the update has been completed.

2-2 Installing the update program

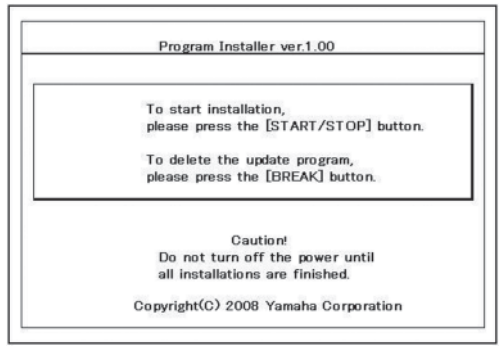
2-2-1 Turn the power on with the [START/STOP] button pressed and held.

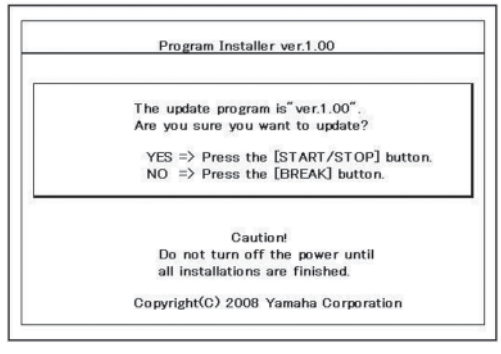


2-2-2 Keep pressing the [START/STOP] button until the following screen is displayed on the LCD.

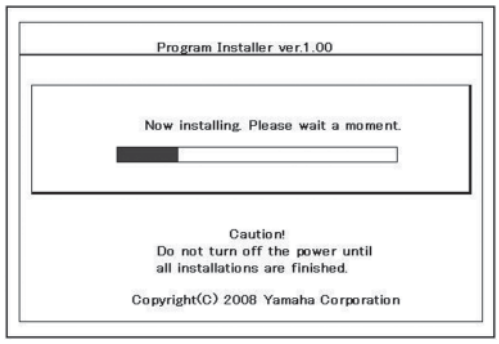


2-2-3 After a while, the following screen is displayed. (Occasionally, it might take more time.)

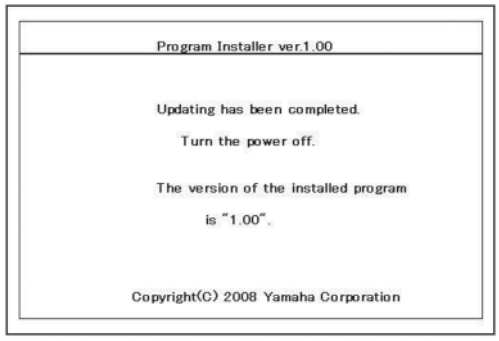




2-2-4 Press the [START/STOP] button to start the installation.



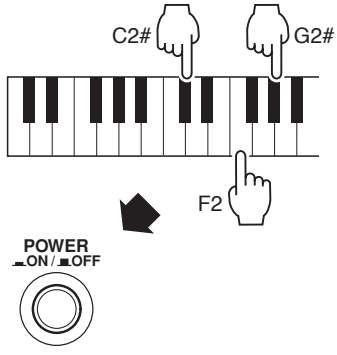
2-2-5 When the installations are finished, the following screen is displayed on the LCD.



2-2-6 Turn the power off.

3 Verifying the program version

3-1 Turn the power on with the [C2#], [F2] and [G2#] keys (C2# major chord) pressed and held.



3-2 **"TEST"** display appears, and the test mode starts.
3-3 Press the [TEMPO+] button or turn the [DATA ENTRY] dial clockwise to display **"001: Version"**.
3-4 Press the [START/STOP] button to display the version of each data.
3-5 Confirm that the version of the main program is the same as the version installed this time.
3-6 Press the [START/STOP] button again to return to the wait state for test number.

4 Executing the factory set

4-1 Press the [TEMPO–] button or turn the [DATA ENTRY] dial counterclockwise to display **"094:Factory Set"**.
4-2 Press the [START/STOP] button to execute the factory set.
4-3 **"Factory Set OK"** appears on the LCD.
4-4 Press the [START/STOP] button again to return to the wait state for test number.
4-5 Press the [TEMPO+] button or turn the [DATA ENTRY] dial clockwise to display **"063:Test Exit"**.
4-6 Press the [START/STOP] button to reboot the Tyros3.
4-7 When the main screen appears normally, the factory set is completed. (Occasionally, it might take a few minutes.) **CAUTION:** Do not turn the power off before the main screen shows up.
4-8 Turn the power off.

5 Ending the program installation

The program installation is completed here.

● TROUBLESHOOTING

Q1. Power has been turned off or the USB memory has been removed during operation.

A1. It is neccesary to re-installation the program. Perform the installation procedure from initial step.

Q2. An error message appears on the screen and installation can not be performed.

A2. Check the following points.

- Is the USB memory is inserted properly?
- Is not there any dirt on the USB memory terminal?
- Does the USB memory contain the whole renewal data (program) in the root directory?
- Is not any damage of the data (program) in the USB memory or the USB memory itself?
- Is the renewal data (program) mactched with the model?
- Perform reinstallation using another USB memory.

INITIALIZING INTERNET SETTINGS

The settings of the Internet function are not initialized when using the Initialize operation of the instrument; Internet settings must be initialized separately, as explained here. Initializing will reset to the default values not only the settings of the browser, but also all settings you have made in the Internet Settings displays (except for the cookies and bookmarks), including those related to Internet connection.

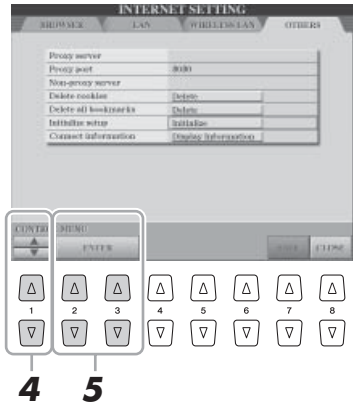
1 Press the INTERNET buttons to connect the Internet.

To close the website display and return to the operation display of the instrument, press the [EXIT] button.

2 Press the [5 ▼] (SETTING) button to call up the Internet Settings display.

3 TAB [◀] [▶] button to select the OTHERS.

4 Press the [1 ▲▼] (UP/DOWN) buttons to select "Initialize setup".



5 Use the [2 ▲▼]/ [3 ▲▼] (ENTER) buttons to initialize the Internet settings.

NOTE

Cookies and bookmarks still remain after executing this initialize operation.
To delete the cookies or bookmarks, select “Delete cookies” or “Delete all bookmarks” in step 4.

DATA BACKUP

For maximum data security Yamaha recommends that you copy or save your important data to a USB storage device. This provides a convenient backup if the internal memory is damaged.

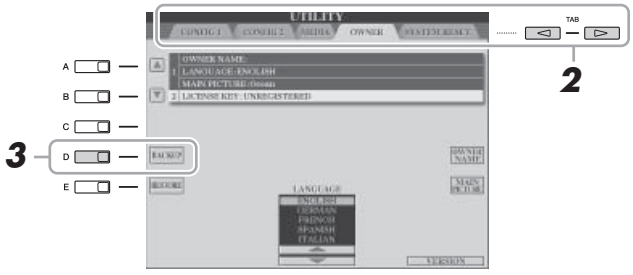
1 Insert/connect the backup USB storage device (destination).

NOTE

Completing the backup/restore operation may take a few minutes.

2 Call up the operation display.

[FUNCTION] → [I] UTILITY → TAB [◀] [▶] OWNER



⚠ CAUTION

Move the Protected Songs which are saved to the USER display before restoring. If the songs are not moved, the operation deletes the data.

NOTE

To save the Song, Style, Multi Pad, Registration Memory Bank and Voice independently, execute the Copy & Paste operation from the File Selection display.

3 Press the [D] (BACKUP) button to save the data to the USB storage device.

To restore the data, press the [E] (RESTORE) button in this display.

NOTE

To save the Music Finder Record, Effect, MIDI Template and System File, call up the operation display: [FUNCTION] → [I] UTILITY →TAB [◀] [▶] SYSTEM RESET. For more information, refer to the Reference Manual on the website.

DISPLAY MESSAGES

[BOOTER]

Displayed message	Meaning	Progress/status	How to service
Now loading. Please wait a while...	Data is being loaded. Wait a while.	The installer file is being loaded.	
Media error!	Media error!	Installer file loading error (media error) Failed in loading the installer file Part of the media is damaged (I/O error)	Replace the installation media and retry.
Installer program checksum error!	Installer checksum error!	Installer file loading error (checksum error) Checksum in the installer file disagrees. File damaged Tampered	Store the installation file again or replace the installation media and perform reinstallation.
Please eject the media.	Remove the media.	When an error occurs	
Please insert the Installer media.	Install the installation media.	A media containing the installer is not connected when the booter is started.	
Installer program not found!	No installer found.	When the installation file is undetected The installer file corresponding to the instrument is not found	
Installer program data error!	Installation program error!	The installer is defective File damaged Tampered Version mismatch	
Installer program data mismatch!	Installation updater error!	When the installer is mismatched Loading of an installer for a different model has been attempted Loading of an installer for a version which cannot be updated has been attempted	
Program error!	Program error!	Starting is disabled because the main program has not been detected The instrument program has not been installed	Perform reinstallation.
Please install the program.	Install the program.	same as above	
Error! Unformatted or incompatible data.	Unformatted or unsupported error!	The installer cannot be loaded from the installer The media is not formatted in any one format of FAT12, FAT16 or FAT32 Unformatted System area in the media is damaged	Format the media in FAT12, FAT16 or FAT32 system.

[INSTALLER]

Displayed message	Meaning	Progress/status	How to service
Now loading. Please wait a moment…	Data is being loaded. Wait a while.	Data is being loaded	
Now installing. Please wait a moment…	During installing. Wait a while.	During installation of data	
Now deleting. Please wait a moment...	Data is being deleted. Wait a while.	During data deletion	
Please insert the media.	Install the media.	There is no media from which data should be loaded	Reinsert the media.
Install data does not exist.	Upgrading data not found.	Data not contained in the media	Install the installation file again.
Can't delete the install data.	The version upgrading data can not be deleted.	When an error occurs (Media writing disabled)	Release the protect of the media.
E001 Install data address error!	E001 Data address error!	When an error occurs (Installation data error)	Install the installation file again.
E002 Install data size error!	E002 Data size error!	When an error occurs (Installation data error)	
E003 Install data checksum error!	E003 Data checksum error!	When an error occurs (Installation data error)	
Install data ID error!	Data ID error!	When an error occurs (Installation data error)	
Install data version error!	Data version error!	When an error occurs (Installation data error)	
Install data read error!	Data loading error!	When an error occurs (Installation data error)	
E004 Flash ID error!	E004 Flash ID error!	When an error occurs (Flash writing disabled)	Perform reinstallation. Replace the Flash ROM even if the result is undesirable after the reinstallation.
E005 Flash erase error!	E005 Flash deletion error!	When an error occurs (Flash writing disabled)	
E006 Flash write error!	E006 Flash writing error!	When an error occurs (Flash writing disabled)	
E007 Flash verify error!	E007 Flash verify error!	When an error occurs (Flash writing disabled)	
E008 Flash checksum error!	E008 Flash checksum error!	When an error occurs (Flash writing disabled)	
Updating has been completed. Turn the power off. The version of the installed program is X.XX.	Installation completed. Turn off the power and then turn on again. The version of the installed program is “X.XX”.	When the installing completed	
To start installation, please press the [START/STOP] button. To delete the update program, please press the [BREAK] button.	To start the installation, press the [START/STOP] button. To delete the version upgrading data, press the [BREAK] button.	When the installer is started.	
The update program is ver.X.XX. Are you sure you want to update? YES: Press the [START/STOP] button. NO: Press the [BREAK] button.	Version upgrading data is "ver.X.XX". Do you start installing? YES: Press the [START/STOP] button. NO: Press the [BREAK] button.	When the completion of the installation is detected	
The update program is ver.X.XX. Are you sure you want to delete? YES: Press the [START/STOP] button. NO: Press the [BREAK] button.	Version upgrading data is "ver.X.XX". Do you delete the data? YES: Press the [START/STOP] button. NO: Press the [BREAK] button.	When the deletion of the data is detected	

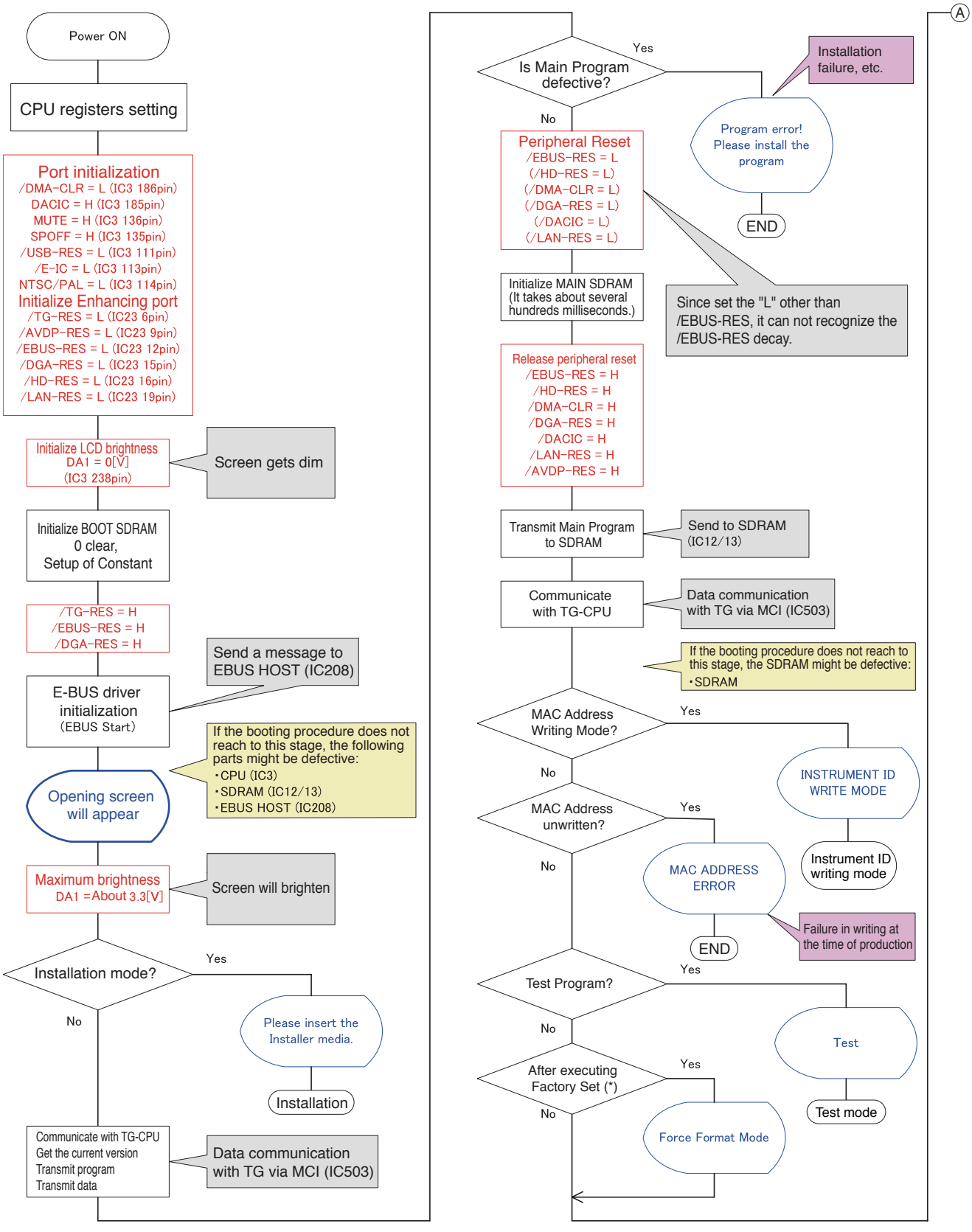
[At start]

Displayed message	Meaning	Progress/status	How to service
Improper power shut down! Backup data and/or User files have been lost.	Power has not been turned off normally. Backup data and user file have been lost.	Data is being restored as defect has been detected in the data backed up in the data flash.	
Initializing system setup.	System setup being initialized	During execution of Factory Set	
Force Format Mode.	Forced clear	Factory Reset is performed in the forced clear mode	
Initializing registration backup.	Registration backup being initialized	When the registration backup data is cleared	
Data Flash ROM Device Error.	Data flash error	Starting is disabled because the data flash is damaged	Perform reinstallation. Replace the Flash ROM even if the result is undesirable after the reinstallation.
MAC ADDRESS ERROR !!	MAC address error	MAC address is not written or defective	

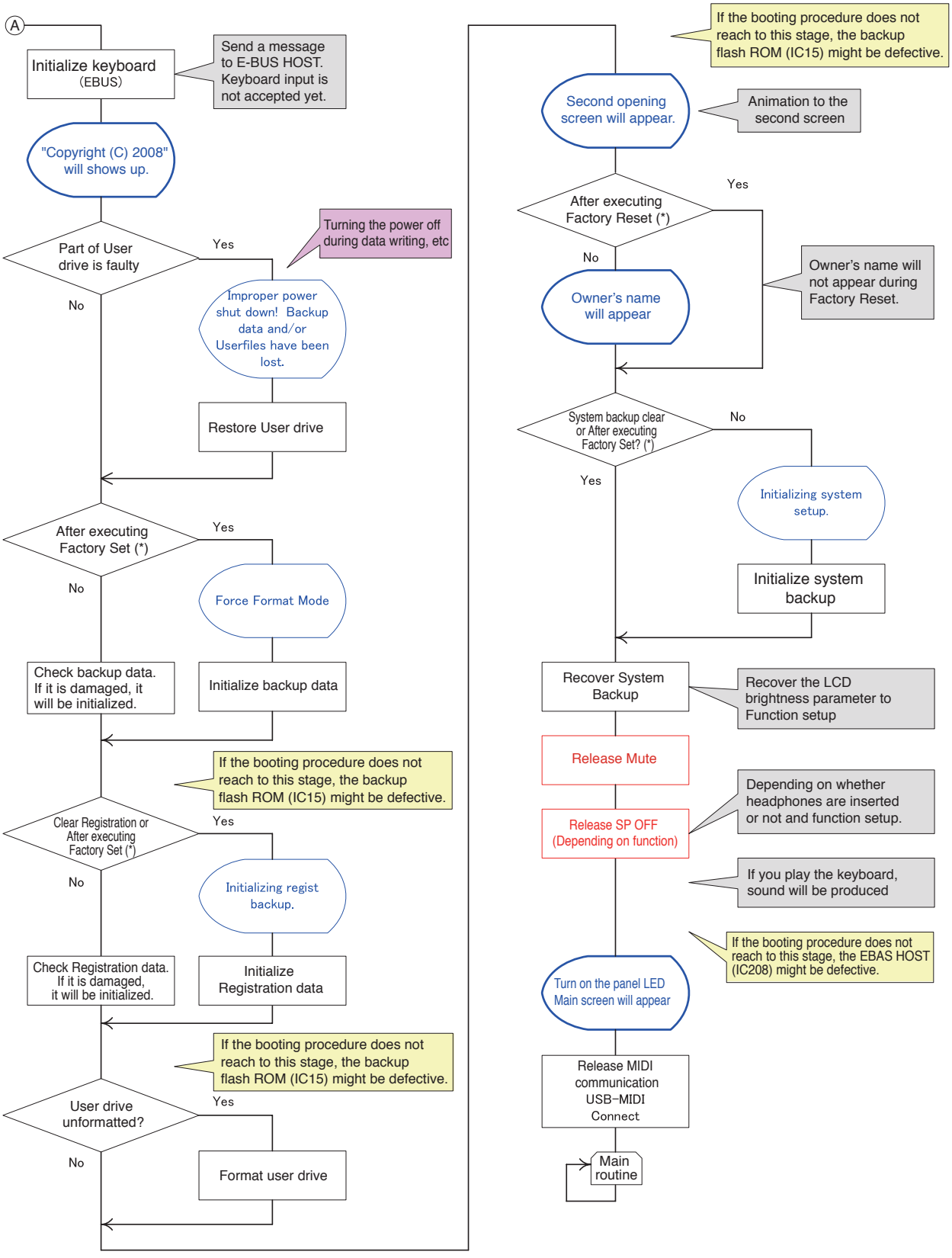
[ASSERTION]

Displayed message	Meaning	Progress/status	How to service
–––––––––––––––––––––––––– Unexpected error! Turn the power off and on again –––––––––––––––––––––––––– Parameter 1 Parameter 2 / Parameter 3	Fatal error occurred. Turn off the power and then turn on again.	Unexpected error System down	

SYSTEM BOOTING FLOWCHART



* "After executing Factory Set" refers to the condition when the power is turned on after executing "Factory Set" in the Test Program.


A
Initialize keyboard (EBUS)
Send a message to E-BUS HOST. Keyboard input is not accepted yet.
"Copyright (C) 2008" will shows up.
Part of User drive is faulty
Yes
No
Turning the power off during data writing, etc
Improper power shut down! Backup data and/or Userfiles have been lost.
Restore User drive
After executing Factory Set (*)
Yes
No
Force Format Mode
Check backup data. If it is damaged, it will be initialized.
Initialize backup data
If the booting procedure does not reach to this stage, the backup flash ROM (IC15) might be defective.
Clear Registration or After executing Factory Set (*)
Yes
No
Initializing regist backup.
Check Registration data. If it is damaged, it will be initialized.
Initialize Registration data
If the booting procedure does not reach to this stage, the backup flash ROM (IC15) might be defective.
User drive unformatted?
Yes
No
Format user drive
If the booting procedure does not reach to this stage, the backup flash ROM (IC15) might be defective.
Second opening screen will appear.
Animation to the second screen
After executing Factory Reset (*)
Yes
No
Owner's name will appear
Owner's name will not appear during Factory Reset.
System backup clear or After executing Factory Set? (*)
No
Yes
Initializing system setup.
Initialize system backup
Recover System Backup
Recover the LCD brightness parameter to Function setup
Release Mute
Release SP OFF (Depending on function)
Depending on whether headphones are inserted or not and function setup.
If you play the keyboard, sound will be produced
If the booting procedure does not reach to this stage, the EBAS HOST (IC208) might be defective.
Turn on the panel LED Main screen will appear
Release MIDI communication USB-MIDI Connect
Main routine

MIDI IMPLEMENTATION CHART

YAMAHA [Digital Workstation] Date:17-Apr-2008
Model TYROS3 MIDI Implementation Chart Version : 1.0

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	1 - 16	1 - 16	
	Changed	1 - 16	1 - 16	
Mode	Default	3	3	
	Messages	x	x	
	Altered	**********	x	
Note Number	: True voice	0 - 127 **********	0 - 127 0 - 127	
Velocity	Note ON	o 9nH,v=1-127	o 9nH,v=1-127	
	Note OFF	x 9nH,v=0	x	
After Touch	Key's	x	o	
	Ch's	o	o	
Pitch Bend		o	o 0-24 semi	
Control Change	0,32	o	o	Bank Select
	1,5,7,10,11	o	o	
	6,38	o	o	Data Entry
	64,65,66,67	o	o	
	71,72,73,74	o	o	Sound Controller
	80,81	o	o	
	84	o	o	Portamento Cntrl
	91,93,94	o	o	Effect Depth
	96,97	x	o	RPN Inc,Dec
	98,99	o	o	NRPN LSB,MSB
	100,101	o	o	RPN LSB,MSB
Prog Change	: True #	o 0 - 127 **********	o 0 - 127	
System Exclusive		o	o	
Common	: Song Pos.	x	x	
	: Song Sel.	x	x	
	: Tune	x	x	
System Real Time	:Clock	o	o	
	:Commands	o	o	
Aux	:All Sound OFF	x	o(120,126,127)	
	:Reset All Cntrls	x	o(121)	
	:Local ON/OFF	x	o(122)	
	:All Notes OFF	x	o(123-125)	
Mes- sages	:Active Sense	o	o	
	:Reset	x	x	
Notes:				

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON , MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

MIDI DATA FORMAT

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers.
Hexa-decimal numbers may include the letter “H” as a suffix. Also, “n” can freely be defined as any whole number.
To enter data/values, refer to the table below.

Decimal	Hexadecimal	Binary
0	00	0000 0000
1	01	0000 0001
2	02	0000 0010
3	03	0000 0011
4	04	0000 0100
5	05	0000 0101
6	06	0000 0110
7	07	0000 0111
8	08	0000 1000
9	09	0000 1001
10	0A	0000 1010
11	0B	0000 1011
12	0C	0000 1100
13	0D	0000 1101
14	0E	0000 1110
15	0F	0000 1111
16	10	0001 0000
17	11	0001 0001
18	12	0001 0010
19	13	0001 0011
20	14	0001 0100
21	15	0001 0101
22	16	0001 0110
23	17	0001 0111
24	18	0001 1000
25	19	0001 1001
26	1A	0001 1010
27	1B	0001 1011
28	1C	0001 1100
29	1D	0001 1101
30	1E	0001 1110
31	1F	0001 1111

Decimal	Hexadecimal	Binary
32	20	0010 0000
33	21	0010 0001
34	22	0010 0010
35	23	0010 0011
36	24	0010 0100
37	25	0010 0101
38	26	0010 0110
39	27	0010 0111
40	28	0010 1000
41	29	0010 1001
42	2A	0010 1010
43	2B	0010 1011
44	2C	0010 1100
45	2D	0010 1101
46	2E	0010 1110
47	2F	0010 1111
48	30	0011 0000
49	31	0011 0001
50	32	0011 0010
51	33	0011 0011
52	34	0011 0100
53	35	0011 0101
54	36	0011 0110
55	37	0011 0111
56	38	0011 1000
57	39	0011 1001
58	3A	0011 1010
59	3B	0011 1011
60	3C	0011 1100
61	3D	0011 1101
62	3E	0011 1110
63	3F	0011 1111

Decimal	Hexadecimal	Binary
64	40	0100 0000
65	41	0100 0001
66	42	0100 0010
67	43	0100 0011
68	44	0100 0100
69	45	0100 0101
70	46	0100 0110
71	47	0100 0111
72	48	0100 1000
73	49	0100 1001
74	4A	0100 1010
75	4B	0100 1011
76	4C	0100 1100
77	4D	0100 1101
78	4E	0100 1110
79	4F	0100 1111
80	50	0101 0000
81	51	0101 0001
82	52	0101 0010
83	53	0101 0011
84	54	0101 0100
85	55	0101 0101
86	56	0101 0110
87	57	0101 0111
88	58	0101 1000
89	59	0101 1001
90	5A	0101 1010
91	5B	0101 1011
92	5C	0101 1100
93	5D	0101 1101
94	5E	0101 1110
95	5F	0101 1111

Decimal	Hexadecimal	Binary
96	60	0110 0000
97	61	0110 0001
98	62	0110 0010
99	63	0110 0011
100	64	0110 0100
101	65	0110 0101
102	66	0110 0110
103	67	0110 0111
104	68	0110 1000
105	69	0110 1001
106	6A	0110 1010
107	6B	0110 1011
108	6C	0110 1100
109	6D	0110 1101
110	6E	0110 1110
111	6F	0110 1111
112	70	0111 0000
113	71	0111 0001
114	72	0111 0010
115	73	0111 0011
116	74	0111 0100
117	75	0111 0101
118	76	0111 0110
119	77	0111 0111
120	78	0111 1000
121	79	0111 1001
122	7A	0111 1010
123	7B	0111 1011
124	7C	0111 1100
125	7D	0111 1101
126	7E	0111 1110
127	7F	0111 1111

- Except the table above, for example 144-159(decimal)/9nH/10010000-1001 1111(binary) denotes the Note On Message for each channel (1-16). 176-191/BnH/1011 0000-1011 1111 denotes the Control Change Message for each channel (1-16). 192-207/CnH/1100 0000-1100 1111 denotes the Program Change Message for each channel (1-16). 240/F0H/1111 0000 denotes the start of a Sys-tem Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.

- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

MIDI CHANNEL MESSAGE (1)

[MIDI] [Song Creator]

MIDI Events	Status byte	1st Data byte			2nd Data byte			Voice		MIDI Reception					MIDI Transmission						PLAY		REC
	Status	Data	(HEX)	Parameter	Data	(HEX)	Parameter	Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
Key Off [GM1] [GM2]	8nH (n:Channel Number)	kk		Key no. (0-127)	vv		Velocity(0-127)	O	O (Harmony Channel/ Melody Channel)	O	O	O	O	O	X	X	O	O	X	O	X	X
Key On [GM1] [GM2]	9nH (n:Channel Number)	kk		Key no. (0-127)	vv		Key On : vv=1-127 Key Off : vv=0	O	O (Harmony Channel/ Melody Channel)	O	O	O	O	O	●	O	O	O	●	O	X	O
Control Change	BnH	0	(00H)	Bank Select MSB [GM2]	0 8 8 8 62 63 64 104 120 121 126 127	(00H) (08H) (08H) (08H) (3EH) (3FH) (40H) (68H) (78H) (79H) (7EH) (7FH)	Normal MegaVoice SA Voice SA2 Voice Custom Drum Voice Custom Voice SFX Voice Normal GM2 Rhythm GM2 Normal SFX kit Drum kit	O	X	O	O	O (Regist)	O	O	●	O	●	●	X	O	O	O
		1	(01H)	Modulation [GM1] [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (All Keyboard parts)	O	O	●	O	O	O	●	O	O	O
		5	(05H)	Portamento Time [GM2]	0-127	(00H...7FH)	Data	O (Except Organ Flutes)	X	O	O	O (All Keyboard parts)	X	O	●	O	X	O	X	O	O	O
		6	(06H)	Data Entry MSB [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	X	O
		7	(07H)	Main Volume [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O (A/D Part Receive Channel)	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		10	(0AH)	Panpot [GM1] [GM2]	0-127	(00H...7FH)	L64...C...R63	O	O (A/D Part Receive Channel)	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		11	(0BH)	Expression [GM1] [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (All Keyboard parts)	O	O	●	●	●	●	●	O	O	O
		32	(20H)	Bank Select LSB [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (Regist)	O	O	●	O	●	●	X	O	O	O
		38	(26H)	Data Entry LSB [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (All Keyboard parts)	X	O	●	O	X	O	X	O	X	O
		64	(40H)	Sustain (Damper) [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		65	(41H)	Portamento [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O (Except Organ Flutes)	X	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		66	(42H)	Sostenuto [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	X	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		67	(43H)	Soft Pedal [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	X	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		71	(47H)	Harmonic Content [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		72	(48H)	Release Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		73	(49H)	Attack Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		74	(4AH)	Brightness [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		75	(4BH)	Decay Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		76	(4CH)	Vibrato Rate [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		77	(4DH)	Vibrato Depth [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		78	(4EH)	Vibrato Delay [GM2]	0-127	(00H...7FH)	-64...0...+63	O	X	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		80	(50H)	General Purpose Controller (Articuration 1)	0-127	(00H...7FH)	0 : OFF 127 : ON	O (SA/SA2 Voice Only)	X	O	X	X	X	X	●	X	X	O	X	O	O	O
		81	(51H)	General Purpose Controller (Articuration 2)	0-127	(00H...7FH)	0 : OFF 127 : ON	O (SA/SA2 Voice Only)	X	O	X	X	X	X	●	X	X	O	X	O	O	O
		84	(54H)	Portamento Control	0-127	(00H...7FH)	Key no. (0-127)	O	X	O	O	X	O	O	O	O	●	O	X	O	X	O

● : Transmitted via panel operations and keyboard/controller performances. O : Available

[GM1]...GM Required Parameter
[GM2]...GM Leve2 Required Parameter

								[MIDI]												[Song Creator]		
MIDI Events	**Status byte**	**1st Data byte**			**2nd Data byte**			**Voice**		**MIDI Reception**					**MIDI Transmission**					**PLAY**		**REC**
	Status	**Data**	**(HEX)**	**Parameter**	**Data**	**(HEX)**	**Parameter**	**Regular/ Drum/ Organ Voice**	**Mic/Vocal Harmony**	**Song**	**Right1 Right2 Right3 Left**	**Keyboard**	**Style**	**Extra**	**Right1 Right2 Right3 Left**	**M.Pad**	**Style**	**Song**	**Upper Lower**	**PLAY**	**REW**	**From panel (Right1/ Right2/ Right3/ Left)**
		91	(5BH)	Effect1 Depth (Reverb Send Level) [GM2]	0-127	(00H...7FH)	Data	O	O (A/D Part Receive Channel)	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		93	(5DH)	Effect3 Depth (Chorus Send Level) [GM2]	0-127	(00H...7FH)	Data	O	O (A/D Part Receive Channel)	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		94	(5EH)	Effect4 Depth (Variation Send Level)	0-127	(00H...7FH)	Data	O	X	O	O	O (All Keyboard parts)	O	O	O	O	●	●	X	O	O	X
		96	(60H)	RPN Increment	-	-	The data byte is ignored.	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	X	O	X	O	X	O	X	X
		97	(61H)	RPN Decrement	-	-	The data byte is ignored.	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	X	O	X	O	X	O	X	X
		98	(62H)	NRPN LSB	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
		99	(63H)	NRPN MSB	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
		100	(64H)	RPN LSB [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		101	(65H)	RPN MSB [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
Mode Message	BnH (n:Channel Number)	120	(78H)	All Sound Off [GM2]	0	(00H)	Data	O	X	O	O	O (All Keyboard parts)	O	O	X	O	X	O	X	O	X	X
		121	(79H)	Reset All Controllers [GM1] [GM2]	0	(00H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		122	(7AH)	Local Control	0 127	(00H) (7FH)	OFF ON	-	-	O					X	X	X	X	X	X	X	X
		123	(7BH)	All Note Off [GM1] [GM2]	0	(00H)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	X	O	X	O	X	O	X	X
		124	(7CH)	Omni Off [GM2]	0	(00H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		125	(7DH)	Omni On [GM2]	0	(00H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		126	(7EH)	Mono [GM2]	0-16	(00H...10H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		127	(7FH)	Poly [GM2]	0	(00H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
Program Change [GM1] [GM2]	CnH (n:Channel Number)	pp	(00H... 7FH)	Voice Number (0-127)	-	-	-	O	X	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
Channel After Touch [GM1] [GM2]	DnH (n:Channel Number)	vv	(00H... 7FH)	Data	-	-	-	O	X	O	O	O (All Keyboard parts)	X	O	X	O	X	O	X	O	X	O
Polyphonic After Touch	AnH (n:Channel Number)	kk	(00H... 7FH)	Key no. (0-127)	vv	(00H...7FH)	Data	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
Pitch Bend Change [GM1] [GM2]	EnH (n:Channel Number)	cc	(00H... 7FH)	LSB	dd	(00H...7FH)	MSB	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	O	O	●	O	O	O
Realtime Message	F8H MIDI Clock	-	-	-	-	-	-	-	-	O (Received when the Clock is set to MIDI A, MIDI B, USB1, or USB2.)					O (Transmitted when the Clock is set to Internal and the Transmit Clock is set to on.)					-	-	-
	FAH Start	-	-	-	-	-	-	-	-	O (Received when the Clock is set to MIDI A, MIDI B, USB1, or USB2.)					O (Transmitted when the Transmit Clock is set to on.)					-	-	-
	FBH Continue	-	-	-	-	-	-	-	-	X					X					-	-	-
	FCH Stop	-	-	-	-	-	-	-	-	O (Received when the Clock is set to MIDI A, MIDI B, USB1, or USB2.)					O (Transmitted when the Transmit Clock is set to on.)					-	-	-
	FEH Active Sense [GM2]	-	-	-	-	-	-	-	-	O					O					-	-	-
	FFH System Reset	-	-	-	-	-	-	-	-	X					X					-	-	-

● : Transmitted via panel operations and keyboard/controller performances. O : Available

About Mic/Vocal Harmony column:
Harmony Channel/Melody Channel: The relevant parameters are received by the song part designated by the Effect's Harmony Channel Parameter or Melody Channel Parameter.
A/D Part Receive Channel: The relevant parameters are received by the song part designated by the AD Part Receive Channel of the XG format.

[GM1]...GM Required Parameter
[GM2]...GM Leve2 Required Parameter

MIDI CHANNEL MESSAGE (2)

NRPN [MIDI] [Song Creator]

NRPN		Data Entry		Parameter	Data Range	Voice		MIDI Reception					MIDI Transmission					PLAY		REC
MSB	LSB	MSB	LSB			Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
01H	08H	mmH	--	Vibrato Rate	mm : 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	09H	mmH	--	Vibrato Depth	mm : 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	0AH	mmH	--	Vibrato Delay	mm : 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	20H	mmH	--	Low Pass Filter Cutoff Frequency	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	21H	mmH	--	Low Pass Filter Resonance	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	30H	mmH	--	EQ Bass Gain	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	X	X	O	X	O	O	X
01H	31H	mmH	--	EQ Treble Gain	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	X	X	O	X	O	O	X
01H	34H	mmH	--	EQ Bass Frequency	mm : 04H-28H (32...2.0k[Hz])	O	X	O	X	X	X	X	X	X	X	O	X	O	O	X
01H	35H	mmH	--	EQ Treble Frequency	mm : 1CH-3AH (500...16.0k[Hz])	O	X	O	X	X	X	X	X	X	X	O	X	O	O	X
01H	63H	mmH	--	EG Attack Time	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	64H	mmH	--	EG Decay Time	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	66H	mmH	--	EG Release	mm : 00H-40H-7FH (-64...0...+63)	O	X	O	X	X	O	X	X	O	X	O	X	O	O	X
14H	rrH	mmH	--	Drum Low Pass Filter Cutoff Frequency	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
15H	rrH	mmH	--	Drum Low Pass Filter Resonance	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
16H	rrH	mmH	--	Drum EG Attack Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
17H	rrH	mmH	--	Drum EG Decay Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
18H	rrH	mmH	--	Drum Pitch Coarse	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
19H	rrH	mmH	--	Drum Pitch Fine	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
1AH	rrH	mmH	--	Drum Level	rr : drum instrument note number mm : 00H-7FH (0...127)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
1CH	rrH	mmH	--	Drum Pan	rr : drum instrument note number mm : 00H, 01H-40H-7FH (RND, L63...C...R63)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
1DH	rrH	mmH	--	Drum Reverb Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
1EH	rrH	mmH	--	Drum Chorus Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
1FH	rrH	mmH	--	Drum Variation Send Level	rr : drum instrument note number mm : 00H-7FH (0...127) (Variation Connection= SYSTEM) mm : 00H, 01H-7FH (OFF, ON) (Variation Connection= INSERTION)	O (Drum Only)	X	O	X	X	X	X	X	X	O	O	X	O	X	X
30H	rrH	mmH	--	Drum EQ Bass Gain	rr : drum instrument note number mm : 00H-7FH (0...127)	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X
31H	rrH	mmH	--	Drum EQ Treble Gain	rr : drum instrument note number mm : 00H-7FH (0...127)	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X
34H	rrH	mmH	--	Drum EQ Bass Frequency	rr : drum instrument note number mm : 04H-28H (32...2.0[Hz])	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X
35H	rrH	mmH	--	Drum EQ Treble Frequency	rr : drum instrument note number mm : 1CH-3AH (500...16.0[Hz])	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X

● : Transmitted via panel operations and keyboard/controller performances. O : Available

NRPN MSB: 14H-35H (for drums) message is accepted as long as the channel is set with a drum voice.
Data Entry LSB: Ignored.

NRPN (VocalHarmony)

[MIDI] [Song Creator]

NRPN		Data Entry		Parameter	Data Range	Voice		MIDI Reception					MIDI Transmission						PLAY	REC
MSB	LSB	MSB	LSB			Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
00H	00H	mmH	--	Harmony Mute	mm : 00H-3FH, 40H-7FH (Off, On)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	O	X	O	X	X
01H	1AH	mmH	--	Detune Modulation	mm : 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	O	X	O	X	X
02H	10H	mmH	--	Harmony1 Volume	mm : 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	11H	mmH	--	Harmony2 Volume	mm : 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	12H	mmH	--	Harmony3 Volume	mm : 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	20H	mmH	--	Harmony1 Pan	mm : 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	21H	mmH	--	Harmony2 Pan	mm : 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	22H	mmH	--	Harmony3 Pan	mm : 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	30H	mmH	--	Harmony1 Detune	mm : 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	31H	mmH	--	Harmony2 Detune	mm : 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	32H	mmH	--	Harmony3 Detune	mm : 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X

● : Transmitted via panel operations and keyboard/controller performances. O : Available

Data Entry LSB: Ignored.

RPN

[MIDI] [Song Creator]

RPN		Data Entry		Parameter	Data Range	Voice		MIDI Reception					MIDI Transmission						PLAY	REC
MSB	LSB	MSB	LSB			Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3m Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
00H	00H	mmH	--	Pitch Bend Sensitivity [GM1][GM2]	mm : 00H-18H (0...+24 [semitones])	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
00H	01H	mmH	llH	Fine Tune [GM1][GM2]	mm ll : 00H 00H -100[cent] ... mm ll : 40H 00H 0[cent] ... mm ll : 7FH 7FH 100[cent]	O	X	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
00H	02H	mmH	--	Coarse Tune [GM1][GM2]	mm : 28H-40H-58H (-24...0...+24[semitones])	O	X	O	O	O (All Keyboard parts)	O	O	X	O	O	O	X	O	O	X
00H	05H	mmH	llH	Modulation Sensitivity [GM2]	mm : Specified in semitone steps ll : Specified in 100/128 cent steps	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
7FH	7FH	--	--	Null [GM2]	-	O	O	O	O	O (All Keyboard parts)	O	O	X	O	O	O	X	O	X	X

● : Transmitted via panel operations and keyboard/controller performances. O : Available

About Mic/Vocal Harmony column:
The relevant parameters are received by the song part designated by the Effect's Harmony Channel Parameter or Melody Channel Parameter.

[GM1]...GM Required Parameter
[GM2]...GM Leve2 Required Parameter

XG PARAMETER CHANGE TABLE

* Not received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parmeters is set to off.

MIDI Parameter Change table (XG SYSTEM)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/ Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
00	00	00	4	00-0F	MASTER TUNE	-102.4...0...+102.3[cent]	*Panel setting value	O	O	O					●					O	X	X
		01		00-0F		1st bit3-0→bit15-12																
		02		00-0F		2nd bit3-0→bit11-8																
		03		00-0F		3rd bit3-0→bit7-4																
						4th bit3-0→bit3-0																
		04	1	00-7F	MASTER VOLUME	0...127	7F	O	X	O (Available for extra parts of a song)					O					O	O	X
		05	1	00-7F	MASTER ATTENUATOR	0...127	00	X	X	X					X					X	X	X
		06	1	28-58	TRANSPOSE	-24...0...+24 [semitones]	40	O	O	O (Available for extra parts of a song)					O					O	O	X
		7D	1	N	DRUM SETUP RESET	N:Drum setup number	-	O (Drum Only)	X	O (Available for extra parts of a song)					O					O	X	X
		7E	1	00	XG SYSTEM ON	00=XG system ON	-	O	X	O (Available for extra parts of a song)					O					O	X	O
		7F	1	00	ALL PARAMETER RESET	00=ON	-	O	X	O (Available for extra parts of a song)					O					O	X	X

TOTAL SIZE 07

● : Transmitted via panel operations O : Available

MIDI Parameter Change table (SYSTEM INFORMATION)

Address (H)			Size (H)	Data (H)	Parameter	Description	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
							Regular/ Drum/ Organ Voice	Mic/ Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
01	00	00	E	20-7F	Model Name 1	32...127(ASCII CHARACTER)	-		-					O (Available only when receiving requests via MIDI)					-	-	-
		...		...	...	...															
		0D		20-7F	Model Name 14	32...127(ASCII CHARACTER)															
		0E	1		NOT USED																
		0F	1		NOT USED																

TOTAL SIZE 10

Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
02	01	00	2	00-7F	REVERB TYPE MSB	Refer to Effect Parameter List	01(=HALL1)	O	O	O					●					O	O	O
				00-7F	REVERB TYPE LSB	Refer to Effect Parameter List	00															
		02	1	00-7F	REVERB PARAMETER 1	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		03	1	00-7F	REVERB PARAMETER 2	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		04	1	00-7F	REVERB PARAMETER 3	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		05	1	00-7F	REVERB PARAMETER 4	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		06	1	00-7F	REVERB PARAMETER 5	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		07	1	00-7F	REVERB PARAMETER 6	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		08	1	00-7F	REVERB PARAMETER 7	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		09	1	00-7F	REVERB PARAMETER 8	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		0A	1	00-7F	REVERB PARAMETER 9	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		0B	1	00-7F	REVERB PARAMETER 10	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O	O					●					O	O	O
		0D	1	01-7F	REVERB PAN	L63...C...R63	40	O	O	O					O					O	O	X

TOTAL SIZE 0E

02	01	10	1	00-7F	REVERB PARAMETER 11	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		11	1	00-7F	REVERB PARAMETER 12	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		12	1	00-7F	REVERB PARAMETER 13	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		13	1	00-7F	REVERB PARAMETER 14	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		14	1	00-7F	REVERB PARAMETER 15	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O
		15	1	00-7F	REVERB PARAMETER 16	Refer to Effect Parameter List	Depends on Reverb Type	O	O	O					●					O	O	O

TOTAL SIZE 06

● : Transmitted via panel operations O : Available

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception						[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra		Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
02	01	20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List Refer to Effect Parameter List	41(=CHORUS1) 00	O	O			O						●			O	O	O
		22	1	00-7F	CHORUS PARAMETER 1	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		23	1	00-7F	CHORUS PARAMETER 2	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		24	1	00-7F	CHORUS PARAMETER 3	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		25	1	00-7F	CHORUS PARAMETER 4	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		26	1	00-7F	CHORUS PARAMETER 5	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		27	1	00-7F	CHORUS PARAMETER 6	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		28	1	00-7F	CHORUS PARAMETER 7	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		29	1	00-7F	CHORUS PARAMETER 8	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		2A	1	00-7F	CHORUS PARAMETER 9	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		2B	1	00-7F	CHORUS PARAMETER 10	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O			O						●			O	O	O
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40	O	O			O						O			O	O	X
		2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O	O			O						O			O	O	X

TOTAL SIZE 0F

02	01	30	1	00-7F	CHORUS PARAMETER 11	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		31	1	00-7F	CHORUS PARAMETER 12	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		32	1	00-7F	CHORUS PARAMETER 13	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		33	1	00-7F	CHORUS PARAMETER 14	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		34	1	00-7F	CHORUS PARAMETER 15	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O
		35	1	00-7F	CHORUS PARAMETER 16	Refer to Effect Parameter List	Depends on Chorus Type	O	O			O						●			O	O	O

TOTAL SIZE 06

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception						[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra		Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
02	01	40	2	00-7F 00-7F	VARIATION TYPE MSB VARIATION TYPE LSB	Refer to Effect Parameter List Refer to Effect Parameter List	05(=DELAY L,C,R) 00	O	O			O						●			O	O	O
		42	2	00-7F 00-7F	VARIATION PARAMETER 1 MSB VARIATION PARAMETER 1 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		44	2	00-7F 00-7F	VARIATION PARAMETER 2 MSB VARIATION PARAMETER 2 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		46	2	00-7F 00-7F	VARIATION PARAMETER 3 MSB VARIATION PARAMETER 3 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		48	2	00-7F 00-7F	VARIATION PARAMETER 4 MSB VARIATION PARAMETER 4 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		4A	2	00-7F 00-7F	VARIATION PARAMETER 5 MSB VARIATION PARAMETER 5 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		4C	2	00-7F 00-7F	VARIATION PARAMETER 6 MSB VARIATION PARAMETER 6 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		4E	2	00-7F 00-7F	VARIATION PARAMETER 7 MSB VARIATION PARAMETER 7 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		50	2	00-7F 00-7F	VARIATION PARAMETER 8 MSB VARIATION PARAMETER 8 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		52	2	00-7F 00-7F	VARIATION PARAMETER 9 MSB VARIATION PARAMETER 9 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		54	2	00-7F 00-7F	VARIATION PARAMETER 10 MSB VARIATION PARAMETER 10 LSB	Refer to Effect Parameter List Refer to Effect Parameter List	Depends on Variation Type	O	O			O						●			O	O	O
		56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O			O						●			O	O	O
		57	1	01-7F	VARIATION PAN	L63...C...R63	40	O	O			O						O			O	O	X
		58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O	O			O						O			O	O	X
		59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB (0...64...127)	00	O	O			O						O			O	O	X
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00	O	O			O						●			O	O	O
		5B	1	00-7F	VARIATION PART NUMBER	Reception : Part1...16(0...15) Transmission : Part1...16(0...15) AD(64) OFF(127)	7F	O	O			O						●			O	O	O
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O						O			O	O	X
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O						O			O	O	X
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O						O			O	O	X
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O						O			O	O	X
		60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O						O			O	O	X

TOTAL SIZE 21

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception				[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
02	01	70	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O
		71	1	00-7F	VARIATION PARAMETER 12	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O
		72	1	00-7F	VARIATION PARAMETER 13	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O
		73	1	00-7F	VARIATION PARAMETER 14	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O
		74	1	00-7F	VARIATION PARAMETER 15	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O
		75	1	00-7F	VARIATION PARAMETER 16	Refer to Effect Parameter List	Depends on Variation Type	O	O		O					●				O	O	O

TOTAL SIZE 06

● : Transmitted via panel operations O : Available

MIDI Parameter Change table (MULTI EQ)

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
02	40	00	1	00-04	EQ TYPE	flat, jazz, pops, rock, classic	* The MULTI EQ Parameter can not be reset to its factory setting with XG SYSTEM ON.	O	O		O					O				O	X	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]		O	O		O					●				O	X	X
		02	1	04-28	EQ FREQUENCY1	32...2.0k[Hz]		O	O		O					●				O	X	X
		03	1	01-78	EQ Q1	0.1...12.0		O	O		O					●				O	X	X
		04	1	00-01	EQ SHAPE1	shelving, peaking		O	O		O					O				O	X	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]		O	O		O					●				O	X	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]		O	O		O					●				O	X	X
		07	1	01-78	EQ Q2	0.1...12.0		O	O		O					●				O	X	X
		08	1		NOT USED			-	-		-					-				-	-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]		O	O		O					●				O	X	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]		O	O		O					●				O	X	X
		0B	1	01-78	EQ Q3	0.1...12.0		O	O		O					●				O	X	X
		0C	1		NOT USED			-	-		-					-				-	-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]		O	O		O					●				O	X	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]		O	O		O					●				O	X	X
		0F	1	01-78	EQ Q4	0.1...12.0		O	O		O					●				O	X	X
		10	1		NOT USED			-	-		-					-				-	-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]		O	O		O					●				O	X	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]		O	O		O					●				O	X	X
		13	1	01-78	EQ Q5	0.1...12.0		O	O		O					●				O	X	X
		14	1	00-01	EQ SHAPE5	shelving, peaking		O	O		O					O				O	X	X

TOTAL SIZE 15

● : Transmitted via panel operations O : Available

MIDI Parameter Change table (EFFECT2)

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Refer to Effect Parameter List Refer to Effect Parameter List	* The EFFECT2 Parameter can not be reset to its factory setting with XG SYSTEM ON.	O	O		O					●				O	O	O
		02	1	00-7F	INSERTION EFFECT PARAMETER 1	Refer to Effect Parameter List		O	O		O					●				O	O	O
		03	1	00-7F	INSERTION EFFECT PARAMETER 2	Refer to Effect Parameter List		O	O		O					●				O	O	O
		04	1	00-7F	INSERTION EFFECT PARAMETER 3	Refer to Effect Parameter List		O	O		O					●				O	O	O
		05	1	00-7F	INSERTION EFFECT PARAMETER 4	Refer to Effect Parameter List		O	O		O					●				O	O	O
		06	1	00-7F	INSERTION EFFECT PARAMETER 5	Refer to Effect Parameter List		O	O		O					●				O	O	O
		07	1	00-7F	INSERTION EFFECT PARAMETER 6	Refer to Effect Parameter List		O	O		O					●				O	O	O
		08	1	00-7F	INSERTION EFFECT PARAMETER 7	Refer to Effect Parameter List		O	O		O					●				O	O	O
		09	1	00-7F	INSERTION EFFECT PARAMETER 8	Refer to Effect Parameter List		O	O		O					●				O	O	O
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9	Refer to Effect Parameter List		O	O		O					●				O	O	O
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	Refer to Effect Parameter List		O	O		O					●				O	O	O
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception : Part1...16(0...15) Transmission : Part1...16(0...15) AD(64) OFF(127)		O	O		O					●				O	O	O
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		O	O		O					O				O	O	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		O	O		O					O				O	O	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		O	O		O					O				O	O	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		O	O		O					O				O	O	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		O	O		O					O				O	O	X

TOTAL SIZE 12

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice: Regular/ Drum/ Organ Voice	Voice: Mic/Vocal Harmony	MIDI Reception: Song	MIDI Reception: Right1 Right2 Right3 Left	MIDI Reception: Keyboard	MIDI Reception: Style	MIDI Reception: Extra	MIDI Transmission: Right1 Right2 Right3 Left	MIDI Transmission: M.Pad	MIDI Transmission: Style	MIDI Transmission: Song	MIDI Transmission: Upper Lower	[Song Creator] PLAY: PLAY	PLAY: REW	REC: From panel (Right1/ Right2/ Right3/ Left)
		20	1	00-7F	INSERTION EFFECT PARAMETER 11	Refer to Effect Parameter List	* The EFFECT2 Parameter can not be reset to its factory setting with XG SYSTEM ON.	O	O		O				●					O	O	O
		21	1	00-7F	INSERTION EFFECT PARAMETER 12	Refer to Effect Parameter List		O	O		O				●					O	O	O
		22	1	00-7F	INSERTION EFFECT PARAMETER 13	Refer to Effect Parameter List		O	O		O				●					O	O	O
		23	1	00-7F	INSERTION EFFECT PARAMETER 14	Refer to Effect Parameter List		O	O		O				●					O	O	O
		24	1	00-7F	INSERTION EFFECT PARAMETER 15	Refer to Effect Parameter List		O	O		O				●					O	O	O
		25	1	00-7F	INSERTION EFFECT PARAMETER 16	Refer to Effect Parameter List		O	O		O				●					O	O	O

TOTAL SIZE 6

		30	2	00-7F	INSERTION EFFECT PARAMETER 1 MSB	Refer to Effect Parameter List	* The EFFECT2 Parameter can not be reset to its factory setting with XG SYSTEM ON.	O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 1 LSB	Refer to Effect Parameter List																
		32	2	00-7F	INSERTION EFFECT PARAMETER 2 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 2 LSB	Refer to Effect Parameter List																
		34	2	00-7F	INSERTION EFFECT PARAMETER 3 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 3 LSB	Refer to Effect Parameter List																
		36	2	00-7F	INSERTION EFFECT PARAMETER 4 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 4 LSB	Refer to Effect Parameter List																
		38	2	00-7F	INSERTION EFFECT PARAMETER 5 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 5 LSB	Refer to Effect Parameter List																
		3A	2	00-7F	INSERTION EFFECT PARAMETER 6 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 6 LSB	Refer to Effect Parameter List																
		3C	2	00-7F	INSERTION EFFECT PARAMETER 7 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 7 LSB	Refer to Effect Parameter List																
		3E	2	00-7F	INSERTION EFFECT PARAMETER 8 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 8 LSB	Refer to Effect Parameter List																
		40	2	00-7F	INSERTION EFFECT PARAMETER 9 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 9 LSB	Refer to Effect Parameter List																
		42	2	00-7F	INSERTION EFFECT PARAMETER 10 MSB	Refer to Effect Parameter List		O	O		O				●					O	O	O
				00-7F	INSERTION EFFECT PARAMETER 10 LSB	Refer to Effect Parameter List																

TOTAL SIZE 14

● : Transmitted via panel operations O : Available

The second byte of the address is considered as an Insertion effect number.
n : insertion effect number (n=0-5)

For effect types that do not require MSB, the Parameters for Address 02-0B will be received and the Parameters for Address 30-42 will not be received.
For effect types that require MSB, the Parameters for Address 30-42 will be received and the Parameters for Address 02-0B will not be received.
Type MSB of the effect types that require Parameter MSB are: 5, 6, 7, 8, 95, 96, 97, 98, 104.
When Bulk Dumps that include Effect Type data are transmitted, the Parameters for Address 02-0B will always be transmitted. But, effects that require MSB, when the bulk dump is received the Parameters for Address 02-0B will not be received.

MIDI Parameter Change table (SPECIAL EFFECT)

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice: Regular/ Drum/ Organ Voice	Voice: Mic/Vocal Harmony	MIDI Reception: Song	MIDI Reception: Right1 Right2 Right3 Left	MIDI Reception: Keyboard	MIDI Reception: Style	MIDI Reception: Extra	MIDI Transmission: Right1 Right2 Right3 Left	MIDI Transmission: M.Pad	MIDI Transmission: Style	MIDI Transmission: Song	MIDI Transmission: Upper Lower	[Song Creator] PLAY: PLAY	PLAY: REW	REC: From panel (Right1/ Right2/ Right3/ Left)
04	00	00	2	00-7F	INSERTION EFFECT TYPE MSB	Vocoder(89), Chordal(90), Detune(91), Chromatic(92), Thru(0...88, 93...127)	* The SPECIAL EFFECT Parameter can not be reset to its factory setting with XG SYSTEM ON.	X	O		O				●					O	O	X
				00-7F	INSERTION EFFECT TYPE LSB																	
		02	1	00-7F	INSERTION EFFECT PARAMETER 1 Harmony Mode			X	O		O				●					O	O	X
		03	1	00-7F	INSERTION EFFECT PARAMETER 2 Harmony Gender Type	Off(0), Auto(1)		X	O		O				●					O	O	X
		04	1	00-7F	INSERTION EFFECT PARAMETER 3 Lead Gender Type	Off(0), Unison(1), Male(2), Female(3)		X	O		O				●					O	O	X
		05	1	00-7F	INSERTION EFFECT PARAMETER 4 Lead Gender Depth	-64...0...+63(0...127)		X	O		O				●					O	O	X
		06	1	00-7F	INSERTION EFFECT PARAMETER 5 Lead Pitch Correction	Free(0), Correct(1)		X	O		O				●					O	O	X
		07	1	00-7F	INSERTION EFFECT PARAMETER 6 Auto Upper Gender Threshold	0...12(0...12)		X	O		O				●					O	O	X

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice: Regular/ Drum/ Organ Voice	[MIDI] Voice: Mic/Vocal Harmony	[MIDI] MIDI Reception: Song	[MIDI] MIDI Reception: Right1 Right2 Right3 Left	[MIDI] MIDI Reception: Keyboard	[MIDI] MIDI Reception: Style	[MIDI] MIDI Reception: Extra	[MIDI] MIDI Transmission: Right1 Right2 Right3 Left	[MIDI] MIDI Transmission: M.Pad	[MIDI] MIDI Transmission: Style	[MIDI] MIDI Transmission: Song	[MIDI] MIDI Transmission: Upper Lower	[Song Creator] PLAY: PLAY	[Song Creator] PLAY: REW	[Song Creator] REC: From panel (Right1/ Right2/ Right3/ Left)
		08	1	00-7F	INSERTION EFFECT PARAMETER 7 Auto Lower Gender Threshold	0...12(0...12)	* The SPECIAL EFFECT Parameter can not be reset to its factory setting with XG SYSTEM ON.	X	O		O				●					O	O	X
		09	1	00-7F	INSERTION EFFECT PARAMETER 8 Upper Gender Depth	-64...0+63(0...127)		X	O		O				●					O	O	X
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9 Lower Gender Depth	-64...0...+63(0...127)		X	O		O				●					O	O	X
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	L63>H...L=H...L<H63 (1...64...127)		X	O		O				●					O	O	X
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	AD(64), OFF(0...63, 65...127)		X	O		O				●					O	O	O
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		X	X		X				X					X	X	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		X	X		X				X					X	X	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		X	X		X				X					X	X	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		X	X		X				X					X	X	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		X	X		X				X					X	X	X
TOTAL SIZE 12																						
		14	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (HARMONY CHANNEL)	1...16(0...15), OFF(127)		X	O		O				●					O	O	X
		15	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (MELODY CHANNEL)	1...16(0...15), OFF(127)		X	O		O				O					O	O	X
TOTAL SIZE 2																						
		20	1	00-7F	INSERTION EFFECT PARAMETER 11 Vibrato Depth	0...100cemt(0...127)		X	O		O				●					O	O	X
		21	1	00-7F	INSERTION EFFECT PARAMETER 12 Vibrato Rate	0Hz(0),0.1...12.7Hz(1...127)		X	O		O				●					O	O	X
		22	1	00-7F	INSERTION EFFECT PARAMETER 13 Vibrato Delay	0...2.54sec(0...127)		X	O		O				●					O	O	X
		23	1	00-7F	INSERTION EFFECT PARAMETER 14			X	X		X				X					X	X	X
		24	1	00-7F	INSERTION EFFECT PARAMETER 15			X	X		X				X					X	X	X
		25	1	00-7F	INSERTION EFFECT PARAMETER 16			X	X		X				X					X	X	X
TOTAL SIZE 6																						

● : Transmitted via panel operations O : Available

MIDI Parameter Change table (MULTI PART)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice: Regular/ Drum/ Organ Voice	[MIDI] Voice: Mic/Vocal Harmony	[MIDI] MIDI Reception: Song	[MIDI] MIDI Reception: Right1 Right2 Right3 Left	[MIDI] MIDI Reception: Keyboard	[MIDI] MIDI Reception: Style	[MIDI] MIDI Reception: Extra	[MIDI] MIDI Transmission: Right1 Right2 Right3 Left	[MIDI] MIDI Transmission: M.Pad	[MIDI] MIDI Transmission: Style	[MIDI] MIDI Transmission: Song	[MIDI] MIDI Transmission: Upper Lower	[Song Creator] PLAY: PLAY	[Song Creator] PLAY: REW	[Song Creator] REC: From panel (Right1/ Right2/ Right3/ Left)
8	nn	00	1	00-20	ELEMENT RESERVE	0...32	part10,26=0, other parts=2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		01	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts=00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		02	1	00-7F	BANK SELECT LSB	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		03	1	00-7F	PROGRAM NUMBER	1...128	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		04	1	00-0F,7F	Rcv CHANNEL	1...16, OFF	Part No.	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		05	1	00-01	MONO/POLY MODE	MONO, POLY	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		06	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST (for Drum)	01	O	X	O	X	X	O	X	X	X	X	O	X	O	X	X
		07	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	O	X	O	X	X	X	X	●	X	●	●	X	O	X	O
		08	1	28-58	NOTE SHIFT	-24...0...+24[semitones]	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		09 0A	2	00-0F 00-0F	DETUNE	-12.8...0...+12.7[Hz] 1st bit3-0→bit7-4 2nd bit3-0→bit3-0	08 00	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		0B	1	00-7F	VOLUME	0...127	64	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		0E	1	00-7F	PAN	RND,L63...C...R63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		11	1	00-7F	DRY LEVEL	0...127	7F	O	X	O	O	X	O	O	X	O	●	●	X	O	O	O
		12	1	00-7F	CHORUS SEND	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		13	1	00-7F	REVERB SEND	0...127	28	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		14	1	00-7F	VARIATION SEND	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	O
		15	1	00-7F	VIBRATO RATE	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		1D	1	28-58	MW PITCH CONTROL	-24...0...+24[semitones]	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		MIDI Reception					MIDI Transmission					[Song Creator] PLAY		REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
		1E	1	00-7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		23	1	28-58	BEND PITCH CONTROL	-24...0...+24[semitones]	42	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		24	1	00-7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		26	1	00-7F	BEND LFO PMOD DEPTH	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		27	1	00-7F	BEND LFO FMOD DEPTH	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		28	1	00-7F	BEND LFO AMOD DEPTH	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	X	X

TOTAL SIZE 29

		30	1	00-01	Rcv PITCH BEND	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		31	1	00-01	Rcv CH AFTER TOUCH(CAT)	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		34	1	00-01	Rcv POLY AFTER TOUCH(PAT)	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		36	1	00-01	Rcv RPN	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		37	1	00-01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		38	1	00-01	Rcv MODULATION	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		39	1	00-01	Rcv VOLUME	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3A	1	00-01	Rcv PAN	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3C	1	00-01	Rcv HOLD1	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		40	1	00-01	Rcv BANK SELECT	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		41	1	00-7F	SCALE TUNING C	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		42	1	00-7F	SCALE TUNING C#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		43	1	00-7F	SCALE TUNING D	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		44	1	00-7F	SCALE TUNING D#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		45	1	00-7F	SCALE TUNING E	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		46	1	00-7F	SCALE TUNING F	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		47	1	00-7F	SCALE TUNING F#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		48	1	00-7F	SCALE TUNING G	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		49	1	00-7F	SCALE TUNING G#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		4A	1	00-7F	SCALE TUNING A	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		4B	1	00-7F	SCALE TUNING A#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		4C	1	00-7F	SCALE TUNING B	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
		4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	O	X	X	O	X	O	X	O	X	O	O	X
		4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	O	X	O	O	X	X	O	X	O	X	O	X	O	O	X
		51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	O	X	O	O	X	X	O	X	O	X	O	X	O	O	X
		52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	O	X	O	O	X	X	O	X	O	X	O	X	O	O	X
		53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		61	1	28-58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	O (Except Organ Flutes)	X	O	O	X	X	O	X	X	X	O	X	O	O	X
		68	1	00-7F	PORTAMENTO TIME	0...127	00	O	X	O	O	X	X	O	X	X	X	O	X	O	O	X
		69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X

TOTAL SIZE 3F

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
		70	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		71	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	O	X	O	O	X	O	O	●	●	●	●	X	O	O	O
		73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	O	X	O	O	X	O	O	●	●	●	●	X	O	O	O
TOTAL SIZE 04																						
		74	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		75	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		76	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	O	X	O	O	X	X	O	●	O	O	O	X	O	O	O
		77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	O	X	O	O	X	X	O	●	O	O	O	X	O	O	O
		78	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		79	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7A	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7B	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7C	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7D	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7E	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7F	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL SIZE 0C																						
0A	nn	40	1	00-7F	MW OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	O	X	X	O	●	O	X	O	X	O	O	O
		41	1	00-7F	BEND OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	X	X	X	X	X	X	X	O	X	O	O	X
		42	1	00-7F	CAT OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	O	X	X	O	X	O	X	O	X	O	O	X
		43	1	00-7F	PAT OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	X	X	X	X	X	X	X	O	X	O	O	X
		44	1	00-7F	AC1 OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	X	X	X	X	X	X	X	O	X	O	O	X
		45	1	00-7F	AC2 OFFSET LEVEL CONTROL	-100 - 100[%]	40	O	-	O	X	X	X	X	X	X	X	O	X	O	O	X

TOTAL SIZE 06

● : Transmitted via panel operations O : Available

nn : PART NUMBER

If there is a Drum Voice assigned to the part, the following parameters are ineffective.
- BANK SELECT LSB
- PORTAMENTO
- MONO/POLY
- SCALE TUNING
- POLY AFTER TOUCH
- PITCH EG

MIDI Parameter Change table (A/D PART)

Address (H)			Size (H)	Data (H)	Parameter	Description		[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
10	0n	00	1	00-01	INPUT GAIN	MIC, LINE	* The A/D PART parameter can not be reset to its factory setting with XG SYSTEM ON.	X	X			X					X			X	X	X
		01	1	00-7F	BANK SELECT MSB	0...127		X	X			X					X			X	X	X
		02	1	00-7F	BANK SELECT LSB	0...127		X	X			X					X			X	X	X
		03	1	00-7F	PROGRAM NUMBER	1...128		X	X			X					X			X	X	X
		04	1	00-0F,7F	Rcv CHANNEL	1...16,OFF		X	O			O					O			O	X	X
		05	1		NOT USED			-	-			-					-			-	-	-
		06	1		NOT USED			-	-			-					-			-	-	-
		07	1		NOT USED			-	-			-					-			-	-	-
		08	1		NOT USED			-	-			-					-			-	-	-
		09	1		NOT USED			-	-			-					-			-	-	-
		0A	1		NOT USED			-	-			-					-			-	-	-
		0B	1	00-7F	VOLUME	0...127		X	O			O					●			O	X	X
		0C	1		NOT USED			-	-			-					-			-	-	-
		0D	1		NOT USED			-	-			-					-			-	-	-
		0E	1	01-7F	PAN	L63...C...R63		X	O			O					●			O	X	X
		0F	1		NOT USED			-	-			-					-			-	-	-
		10	1		NOT USED			-	-			-					-			-	-	-
		11	1	00-7F	DRY LEVEL	0...127		X	O			O					●			O	X	X
		12	1	00-7F	CHORUS SEND	0...127		X	O			O					●			O	X	X
		13	1	00-7F	REVERB SEND	0...127		X	O			O					●			O	X	X
		14	1	00-7F	VARIATION SEND	0...127		X	O			O					●			O	X	X

TOTAL SIZE 15

● : Transmitted via panel operations O : Available

n : A/D Part Number (0)

MIDI Parameter Change table (DRUM SETUP)

Address			Size	Data	Parameter	Description	XG Default	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
(H)			(H)	(H)			(H)	Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
3n	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		01	1	00-7F	PITCH FINE	-64...0...+63[cent]	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		02	1	00-7F	LEVEL	0...127	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		05	1	00-7F	REVERB SEND	0...127	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		07	1	00-7F	VARIATION SEND	0...127	7F	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		08	1	00-01	KEY ASSIGN	SINGLE, MULTI	00	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		09	1	00-01	Rcv NOTE OFF	OFF, ON	Depends on the note	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0B	1	00-7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0C	1	00-7F	LOW PASS FILTER RESONANCE	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	O(Drum Only)	X	O(Available only for song parts)					O					O	X	X

TOTAL SIZE 10

Address			Size	Data	Parameter	Description	XG Default	[MIDI] Voice		[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
(H)			(H)	(H)			(H)	Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Right3/ Left)
		20	1	00-7F	EQ BASS GAIN	-12...+12[dB]	40	X	X	X					O					X	X	X
		21	1	00-7F	EQ TREBLE GAIN	-12...+12[dB]	40	X	X	X					O					X	X	X
		22	1		NOT USED		-	-	-	-					-					-	-	-
		23	1		NOT USED		-	-	-	-					-					-	-	-
		24	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	X	X	X					O					X	X	X
		25	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	X	X	X					O					X	X	X
		26	1		NOT USED		-	-	-	-					-					-	-	-
		27	1		NOT USED		-	-	-	-					-					-	-	-
		28	1		NOT USED		-	-	-	-					-					-	-	-
		29	1		NOT USED		-	-	-	-					-					-	-	-
		2A	1		NOT USED		-	-	-	-					-					-	-	-
		2B	1		NOT USED		-	-	-	-					-					-	-	-
		2C	1		NOT USED		-	-	-	-					-					-	-	-
		2D	1		NOT USED		-	-	-	-					-					-	-	-

TOTAL SIZE 0E

n : Drum Setup Number (0-1)
rr : note number(0D-5B)

In the following cases, the instrument will initialize all Drum Setups.
- XG SYSTEM ON received
- GM SYSTEM ON received
- GM LEVEL2 SYSTEM ON received
- GS RESET received
- DRUM SETUP RESET received (only when in XG mode)

[Note]
When a part to which a Drum Setup is assigned receives a program change, the assigned Drum Setup will be initialized.
If the same Drum Setup is assigned to two or more parts, changes in Drum Setup parameters (including program changes) will apply to all parts to which it is assigned.

SYSTEM EXCLUSIVE MESSAGES (1)

[GM1]...GM Required Parameter
[GM2]...GM Leve2 Required Parameter

Not received when Receive System Exclusive Message Parameters is set to off.
Not transmitted when Transmit System Exclusive Message Parmeters is set to off.

System Exclusive Messages (Universal Real Time Messages)

		[MIDI]												[Song Creator]		
MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission					PLAY		REC
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
Master Volume [GM2]	F0 7F XN 04 01 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000001 01 = Sub-ID #2=Master Volume 0sssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	O	X	O (Available for extra parts of a song)					O					O	O	X
Master Fine Tuning [GM2]	F0 7F XN 04 03 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000011 03 = Sub-ID #2=Master Fine Tuning 0sssssss SS = Fine Tuning LSB 0ttttttt TT = Fine Tuning MSB 11110111 F7 = End of Exclusive	O	X	O (Available for extra parts of a song)					O					O	X	X
Master Coase Tuning [GM2]	F0 7F XN 04 04 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000100 04 = Sub-ID #2=Master Coarse Tuning 00000000 00 0ttttttt TT = Coarse Tuning MSB 11110111 F7 = End of Exclusive	O	X	O (Available for extra parts of a song)					O					O	X	X
Reverb Parameter [GM2]	F0 7F XN 04 05 01 01 01 01 PP VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000101 05 = Sub-ID #2=Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 00000001 01 = Slot path LSB = 1 (Reverb) 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter. : : 11110111 F7 = End of Exclusive Parameter(pp) Value(vv) Display pp=0 Reverb Type 0...8 0:RoomS 1:RoomM 2:RoomL 3:HallM 4:HallL(default) 8:GM Plate pp=1 Reverb Time 0...127 0...11.0s	O	O	O					O					O	O	X
Chorus Parameter [GM2]	F0 7F XN 04 05 01 01 01 02 PP VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000101 05 = Sub-ID #2=Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 00000010 02 = Slot path LSB = 2 (Chorus) 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter. : : 11110111 F7 = End of Exclusive Parameter(pp) Value(vv) Display pp=0 Chorus Type 0...5 0:GM Chorus1 1:GM Chorus2 2:GM Chorus3 (default) 3:GM Chorus4 4:FB Chorus 5:GM Flanger pp=1 Mod Rate 0...127 0...15.5Hz pp=2 Mod Depth 0...127 pp=3 Feedback 0...127 pp=4 Send to Reverb 0...127	O	O	O					O					O	O	X

[MIDI] [Song Creator]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission					PLAY		REC
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
Channel Pressure (Aftertouch) [GM2]	F0 7F XN 09 01 0M PP RR ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=Controller Destination Setting 00000001 01 = Sub-ID #2=Controller Type:01(Channel Pressure) 0000mmmm 0M = MIDI Channel (00-0F) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Data : : 11110111 F7 = End of Exclusive Make sure to set both the controlled parameter and the range. Parameters not set will be restored to their default values. Control Parameter(pp) Data(RR) Description Default Value pp=00 Pitch Control 28H-58H -24...0...+24semitones 40H pp=01 Filter Cutoff Control 00H-7FH -9600...0...+9450cents 40H pp=02 Amplitude Control 00H-7FH -100...0...+100% 40H pp=03 LFO Pitch Depth 00H-7FH 0...127 00H pp=04 LFO Filter Depth 00H-7FH 0...127 00H pp=05 LFO Amplitude Depth 00H-7FH 0...127 00H	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
Controller (Control Change) [GM2]	F0 7F XN 09 03 0M CC PP RR ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=Controller Destination Setting 00000011 03 = Sub-ID #2=Controller Type:03(Control Change) 0000mmmm 0M = MIDI Channel (00-0F) 0ccccccc CC = Controller Number (01H-1FH, 40H-5FH) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Range : : 11110111 F7 = End of Exclusive Make sure to set both the controlled parameter and the range. Parameters not set will be restored to their default values. Control Parameter(pp) Data(RR) Description Default Value pp=00 Pitch Control 28H-58H -24...0...+24semitones 40H pp=01 Filter Cutoff Control 00H-7FH -9600...0...+9450cents 40H pp=02 Amplitude Control 00H-7FH -100...0...+100% 40H pp=03 LFO Pitch Depth 00H-7FH 0...127 00H pp=04 LFO Filter Depth 00H-7FH 0...127 00H pp=05 LFO Amplitude Depth 00H-7FH 0...127 00H	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
Key-Based Instrument Control [GM2]	F0 7F XN 0A 01 0M KK CC VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001010 0A = Sub-ID #1=Key-Based Instrument Control 00000001 01 = Sub-ID #2=Controller 0000mmmm 0M = MIDI Channel (00-0F) 0kkkkkkk KK = Key Number 0ccccccc CC = Controller Number 0vvvvvvv VV = Value : : 11110111 F7 = End of Exclusive Make sure to set both the controlled number and the value. Control Number(CC) Value(VV) Description Default Value CC=07H Volume 00H-7FH -100...0...+100% 40H CC=0AH Pan 00H-7FH (absolute) L63...C...R63 (Preset value) CC=5BH Reverb Send Level 00H-7FH (absolute) 0...Max (Preset value) CC=5DH Chorus Send Level 00H-7FH (absolute) 0...Max (Preset value)	O (Drum Only)	X	O	X	X	X	X	X	X	X	O	X	O	X	X

System Exclusive Messages (Universal Non-Real Time Messages)

[MIDI] [Song Creator]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission					PLAY	REC
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
GM1 System On [GM1] [GM2]	F0 7E XN 09 01 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000001 01 = Sub-ID #2=General MIDI On 11110111 F7 = End of Exclusive	O	-	O (Available for extra parts of a song)					O					O	X	O
GM2 System On [GM2]	F0 7E XN 09 03 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000011 03 = Sub-ID #2=General MIDI2 On 11110111 F7 = End of Exclusive	O	-	O (Available for extra parts of a song)					O					O	X	X
General MIDI System Off [GM1] [GM2]	F0 7E XN 09 02 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000010 02 = Sub-ID #2=General MIDI Off 11110111 F7 = End of Exclusive	O	-	O (Available for extra parts of a song)					O					O	X	X
Scale/ Octave Tuning [GM2]	F0 7E XN 08 08 JJ GG MM SS ... F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N=0-F,whichever is received. X=ignored 00001000 08 = Sub-ID #1=MIDI Tuning Standard 00001000 08 = Sub-ID #2=scale/octave tuning 1byte form 0jjjjjjj JJ = Channel/option byte1 bits 0 to 1 = channel 15 to 16 bits 2 to 6 = reserved 0ggggggg GG = Channel byte2 - bits0 to 6 = channel 8 to 14 0mmmmmmm MM= Channel byte2 - bits0 to 6 = channel 1 to 7 0sssssss SS = 12byte tuning offset of 12 semitones from C to B 00H means -64cent 40H means 0cent 7FH means +63cent : : 11110111 F7 = End of Exclusive	O	X	O (Available for song parts)					O					O	X	X

SYSTEM EXCLUSIVE MESSAGES (2)

* Not received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parmeters is set to off.

System Exclusive Messages (Style)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower
Section Control	F0 43 7E 00 ss dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01111110 7E = Style 00000000 00 = 0sssssss ss = Switch No. 00H INTRO A 01H INTRO B 02H INTRO C 03H INTRO D 08H MAIN A 09H MAIN B 0AH MAIN C 0BH MAIN D 10H FILL IN AA 11H FILL IN BB 12H FILL IN CC 13H FILL IN DD 18H BREAK FILL 20H ENDING A 21H ENDING B 22H ENDING C 23H ENDING D 0ddddddd dd = Switch On/Off 00H(Off) 7FH(On) 11110111 F7 = End of Exclusive	-	-			O						●	
Tempo Control	F0 43 7E 01 t4 t3 t2 t1 F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01111110 7E = Style 00000001 01 = 0ttttttt t4 = tempo4 0ttttttt t3 = tempo3 0ttttttt t2 = tempo2 0ttttttt t1 = tempo1 11110111 F7 = End of Exclusive	-	-			O						●	
Chord Control	F0 43 7E tt d1 d2 d3 d4 F7 Type1 (tt=02) 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01111110 7E = Style 00000010 02 = type 1 0ddddddd d1 = chord root(cr) 0ddddddd d2 = chord type(ct) 0ddddddd d3 = bass note(bn) 0ddddddd d4 = bass type(bt) 11110111 F7 = End of Exclusive cr : Chord Root 0fffnnnn fff: b or #, nnnn: note(root) 0000nnnn 0n bbb 0001nnnn 1n bb 0010nnnn 2n b 0011nnnn 3n natural 0100nnnn 4n # 0101nnnn 5n ## 0110nnnn 6n ### 0fff0000 x0 reserved 0fff0001 x1 C 0fff0010 x2 D 0fff0011 x3 E 0fff0100 x4 F 0fff0101 x5 G 0fff0110 x6 A 0fff0111 x7 B ct : Chord Type 0 - 34,127 00000000 00 0 Maj 00000001 01 1 Maj6 00000010 02 2 Maj7 00000011 03 3 Maj7(#11) 00000100 04 4 Maj(9) 00000101 05 5 Maj7(9) 00000110 06 6 Maj6(9) 00000111 07 7 aug 00001000 08 8 min 00001001 09 9 min6 00001010 0A 10 min7 00001011 0B 11 min7b5 00001100 0C 12 min(9) 00001101 0D 13 min7(9) 00001110 0E 14 min7(11) 00001111 0F 15 minMaj7 00010000 10 16 minMaj7(9) 00010001 11 17 dim 00010010 12 18 dim7 00010011 13 19 7th 00010100 14 20 7sus4 00010101 15 21 7b5 00010110 16 22 7(9) 00010111 17 23 7(#11) 00011000 18 24 7(13) 00011001 19 25 7(b9) 00011010 1A 26 7(b13) 00011011 1B 27 7(#9) 00011100 1C 28 Maj7aug 00011101 1D 29 7aug 00011110 1E 30 1+8 00011111 1F 31 1+5 00100000 20 32 sus4 00100001 21 33 1+2+5 00100010 22 34 cc bn : On Bass Note — Same as Chord root; 127:No bass chord bt : Bass Chord — Same as Chord type; 127:No bass chord * Not received when Receive Chord System Exclusive Message Parameters is set to off. * Not transmitted when Transmit Chord System Exclusive Message Parameters is set to off.	-	-			O						●	
	Type2 (tt=03) 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01111110 7E = Style 00000011 03 = type 2 0ddddddd dd = note1 0ddddddd dd = note2 0ddddddd dd = note3 : : 0ddddddd dd = note10 11110111 F7 = End of Exclusive	-	-			O						X	

● : Transmitted via panel operations O : Available

System Exclusive Messages (XG)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower
XG Parameter Changes	F0 43 1n 4C hh mm ll dd ... F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n = Device Number n=always 0(when transmit), n=0-F(when recieve) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 0ddddddd dd = Data : : 11110111 F7 = End of Exclusive	* Refer to XG Parameter Change Table.				O * Refer to XG Parameter Change Table.							O * Refer to XG Parameter Change Table.
XG Bulk Dump	F0 43 0n 4C aa bb hh mm ll dd ... dd cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0000nnnn 0n = Device Number n=always 0(when transmit), n=0-F(when recieve) 01001100 4C = Model ID 0aaaaaaa aa = Byte Count MSB 0bbbbbbb bb = Byte Count LSB 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 0ddddddd dd = Data : : 0ddddddd dd = Data 0ccccccc cc = Checksum 11110111 F7 = End of Exclusive	* Refer to XG Parameter Change Table.				O * Refer to XG Parameter Change Table.							O * Refer to XG Parameter Change Table.
XG Prameter Request	F0 43 3n 4C hh mm ll F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0011nnnn 3n = Device Number n=always 0(when transmit), n=0-F(when recieve) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	-	-			O * Refer to XG Parameter Change Table.							O * Refer to XG Parameter Change Table.
XG Dump Request	F0 43 2n 4C hh mm ll F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0010nnnn 2n = Device Number n=always 0(when transmit), n=0-F(when recieve) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	-	-			O * Refer to XG Parameter Change Table.							O * Refer to XG Parameter Change Table.

System Exclusive Messages (Hard Disk Recorder Control)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower
Hard Disk Recorder Control	F0 43 73 01 50 19 00 00 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Tyros ID 00000001 01 = Model ID 01010000 50 = SubID 00011001 19 = SubID (Hard Disk Recorder Control) 00000000 00 = SubID 00000000 00 = SubID (Start/Stop Control) 0ddddddd dd = data dd=00H:Start, 01H:Stop, 02H:Pause 11110111 F7 = End of Exclusive Controls start/stop of the audio song, but this is not synchronized with the MIDI song.	X	X			O			X	X	X	O	X

System Exclusive Messages Special Operators (Vocal Harmony Additional Parameters)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower
Vocal Harmony Pitch to Note ON/OFF	F0 43 73 01 11 0n 50 00 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Tyros ID 00000001 01 = Model ID 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00000000 00 = Pitch to Note Parameter No. 0ddddddd dd = data (00H : Off, 01H : On) 11110111 F7 = End of Exclusive	X	O			O					●		
Vocal Harmony Pitch to Note Part	F0 43 73 01 11 0n 50 01 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Tyros ID 00000001 01 = Model ID 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00000001 01 = Pitch to Note Part Parameter No. 0ddddddd dd = data 00H : Right1 01H : Right2 02H : Left 03H : (not used) 04H : Upper 11110111 F7 = End of Exclusive	X	O			O					●		
Vocal Harmony Vocoder Part (Harmony Part(Panel))	F0 43 73 01 11 0n 50 10 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Tyros ID 00000001 01 = Model ID 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00010000 10 = Vocoder Part Parameter No. 0ddddddd dd = data 00H : Off 01H : Upper 02H : Lower 11110111 F7 = End of Exclusive	X	O			O					●		

● : Transmitted via panel operations O : Available

System Exclusive Messages (Others)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/ Drum/ Organ Voice	Mic/Vocal Harmony	Song	Right1 Right2 Right3 Left	Keyboard	Style	Extra	Right1 Right2 Right3 Left	M.Pad	Style	Song	Upper Lower
Internal Clock (Clavinova compliance)	F0 43 73 01 02 F7 00000001 01 = Model ID 00000010 02 = Internal Clock Substatus	-	-			O					X		
External Clock (Clavinova compliance)	F0 43 73 01 03 F7 00000001 01 = Model ID 00000011 03 = External Clock Substatus	-	-			O					X		
Organ Flutes data Bulk Dump (Clavinova compliance)	F0 43 73 01 06 0B 00 00 01 06 0n [Bulk Data] sum F7 01H Model ID 06H Bulk ID 0BH Bulk No. (Organ Flutes data Bulk Dump) 00H,00H,01H,06H Data Length :16bytes 1st Channel No. 0nH 2nd Footage [1'] 00 - 08H 3rd [1 1/3'] 00 - 08H 4th [1 3/5'] 00 - 08H 5th [2'] 00 - 08H 6th [2 2/3'] 00 - 08H 7th [4'] 00 - 08H 8th [5 1/3'] 00 - 08H 9th [8'] 00 - 08H 10th [16'] 00 - 08H 11th [Attack 2'] 00 - 08H 12th [Attack 2 2/3'] 00 - 08H 13th [Attack 4'] 00 - 08H 14th Settings [Attack Length] 00 - 08H 15th [Response] 00 - 08H 16th [Attack Mode] 00 - 01H 00H: Each, 01H: First 17th [Wave Variation] 00 - 01H 00H: Sine, 01H: Vintage 18th [Volume] 01 - 09H 19th [aux] 00H 20th [aux] 00H 21th [aux] 00H 22th [aux] 00H sum Check Sum = 0-sum(BULK DATA)	O (Organ Flute)	X	O	O	X	X	O	●	X	X	O	X
MIDI Master Tuning	F0 43 1n 27 30 00 00 0m 0l cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n n= always 0(when transmit), n=0-F(when receive) 00100111 27 = Model ID of TG100 00110000 30 = Address High 00000000 00 = Address Mid 00000000 00 = Address Low 0000mmmm 0m = Master Tune MSB 00001111 0l = Master Tune LSB 0ccccccc cc = don't care 11110111 F7 = End of Exclusive	O	O			O					X		

● : Transmitted via panel operations O : Available

Song Meta Event List

Data Format	Parameter	Description	Note
FF 05 len [Data]	Lyrics	len=Data length, [Data]=Lyrics Data	-
FF 06 len [Data]	Marker	len=Data length, [Data]=Marker	Used as a Song Position Jump Marker.
FF 51 03 t1 t2 t3	Set Tempo	t1 t2 t3 =Tempo value B7 1B 00-01 D4 C0 (Tempo 5-500)	Entered when recording.
FF 58 04 nn dd cc bb	Beat	nn=Numerator, dd=Denominator (2n) cc=MIDI clock per metronome click, bb=Number of thirty-second notes in MIDI quarter note	Entered when recording.
FF 59 02 sf mi	Key Signature	sf=-7-7 mi=0: Major key, 1: minor key	Entered from the [Score] -> SETUP display.

YAMAHA META EVENT

FF 7F 06 43 73 0A 00 07 dd	Score Start Bar	ddH: Start from this measure dd= -100-1, 1-100	Same as ScBar entered from the [SONG CREATOR] ->SYS/EX. Display
FF 7F len 43 73 0D 01 [Data]	Keyboard Voice	Voice settings for the RIGHT1-3 and LEFT	Entered to the song from the [SONG CREATOR]->CHANNEL ->SETUP display.

YAMAHA XF META EVENT

FF 7F 07 43 7B 01 cr ct bn bt	Chord Name	Refer to “Chord Control” in the MIDI Data Format (System Exclusive Messages)	Entered when recording.
FF 7F 05 43 7B 03 20 08	Phrase Mark	Used as a marker for each phrase when executing Phrase Mark repeat playback.	Used when performing the Phrase Mark repeat playback.
FF 7F 04 43 7B 04 dd	Phrase Max	Maximum Phrase Number	Used when performing the Phrase Mark repeat playback.
FF 7F 05 43 7B 0C rr ll	Guide Track Flag	Sets the TRACK1 and TRACK2 parameters on the [FUNCTION]-> [SONG SETTING] display. rr = RIGHT CH (0: OFF, 1-16CH) ll = LEFT CH (0: OFF, 1-16CH)	Entered when recording.
FF 7F len 43 7B 21 00 pp [Data]	Lyrics Bitmap	Specifies the background picture of the Lyrics display. pp=Display type (0: Center, 1: Tile) [Data]=File Path	Entered to the song from the [SONG CREATOR]->CHANNEL ->SETUP display.

Song System Exclusive Message List

Data Format	Parameter	Description	Note

Guide

F0 43 73 01 1F 00 cc dd F7	Guide Mode	ccH = Part Select No 00H (RIGHT CH=ON, LEFT CH=ON) 01H (RIGHT CH=OFF, LEFT CH=ON) 02H (RIGHT CH=ON, LEFT CH=OFF) 03H (RIGHT CH=OFF, LEFT CH=OFF) ddH = Mode 00H=Guide OFF 01H=Follow Lights 02H=Any Key 03H=Karao-Key 04H=Vocal CueTIME	Entered to the song from the [SONG CREATOR]->CHANNEL->SETUP display.

Score

F0 43 73 01 50 12 00 00 dd F7	Left Part indication On/Off	00H: OFF, 7FH:ON	Entered to the song from the [SONG CREATOR]->CHANNEL->SETUP display.
F0 43 73 01 50 12 00 01 dd F7	Right Part indication On/Off	00H: OFF, 7FH:ON	
F0 43 73 01 50 12 00 02 dd F7	Lyrics indication On/Off	00H: OFF, 7FH:ON	
F0 43 73 01 50 12 00 03 dd F7	Chord indication On/Off	00H: OFF, 7FH:ON	
F0 43 73 01 50 12 00 04 dd F7	N.Name indication On/Off	00H: OFF, 7FH:ON	
F0 43 73 01 50 12 00 05 dd F7	Size designation	00H:SMALL, 01H:MIDDLE, 02H:LARGE, 03H:X-LARGE	
F0 43 73 01 50 12 00 06 dd F7	Left Ch	00H-0FH=CH, 7EH=OFF, 7FH=AUTO	
F0 43 73 01 50 12 00 07 dd F7	Right Ch	00H-0FH=CH, 7EH=OFF, 7FH=AUTO	
F0 43 73 01 50 12 00 08 dd F7	Quantize triplet On/Off	00H: Triplet OFF, 7FH: Triplet ON	
F0 43 73 01 50 12 00 09 dd F7	Quantize	00H: quarter, 01H: eighth, 02H: sixteenth, 03H: thirty-second	
F0 43 73 01 50 12 00 0A dd F7	NoteName	00H:ABC, 01H:FixedDo, 02H:MovableDo	
F0 43 73 01 50 12 00 0B dd F7	Color Note	00H:OFF, 7FH:ON	

Style

F0 43 73 01 51 00 00 00 03 10 00 dd F7	STYLE SPLIT POINT	dd=STYLE SPLIT POINT (Note Number)	Entered to the song from the [SONG CREATOR]->CHANNEL->SETUP display.
F0 43 73 01 51 05 00 03 04 00 00 dd dd F7	Style No.	dd dd = Style No.	Entered when recording.
F0 43 7E 00 ss dd F7	Section Control	Refer to the MIDI Data Format.	Entered when recording.

Hard Disk Recorder

F0 43 73 01 50 19 00 00 dd F7	Hard Disk Recorder Control	Controls start/pause/stop of the audio song, but this is not synchronized with the MIDI song. 00H:Start, 01H:Stop.02H:Pause	Edited from the [SONG CREATOR]->SYS->EX display.

DIGITAL WORKSTATION

Tyros3

PARTS LIST

■ CONTENTS

Notes : DESTINATION ABBREVIATIONS

A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model
K : Korean model	

■ WARNING

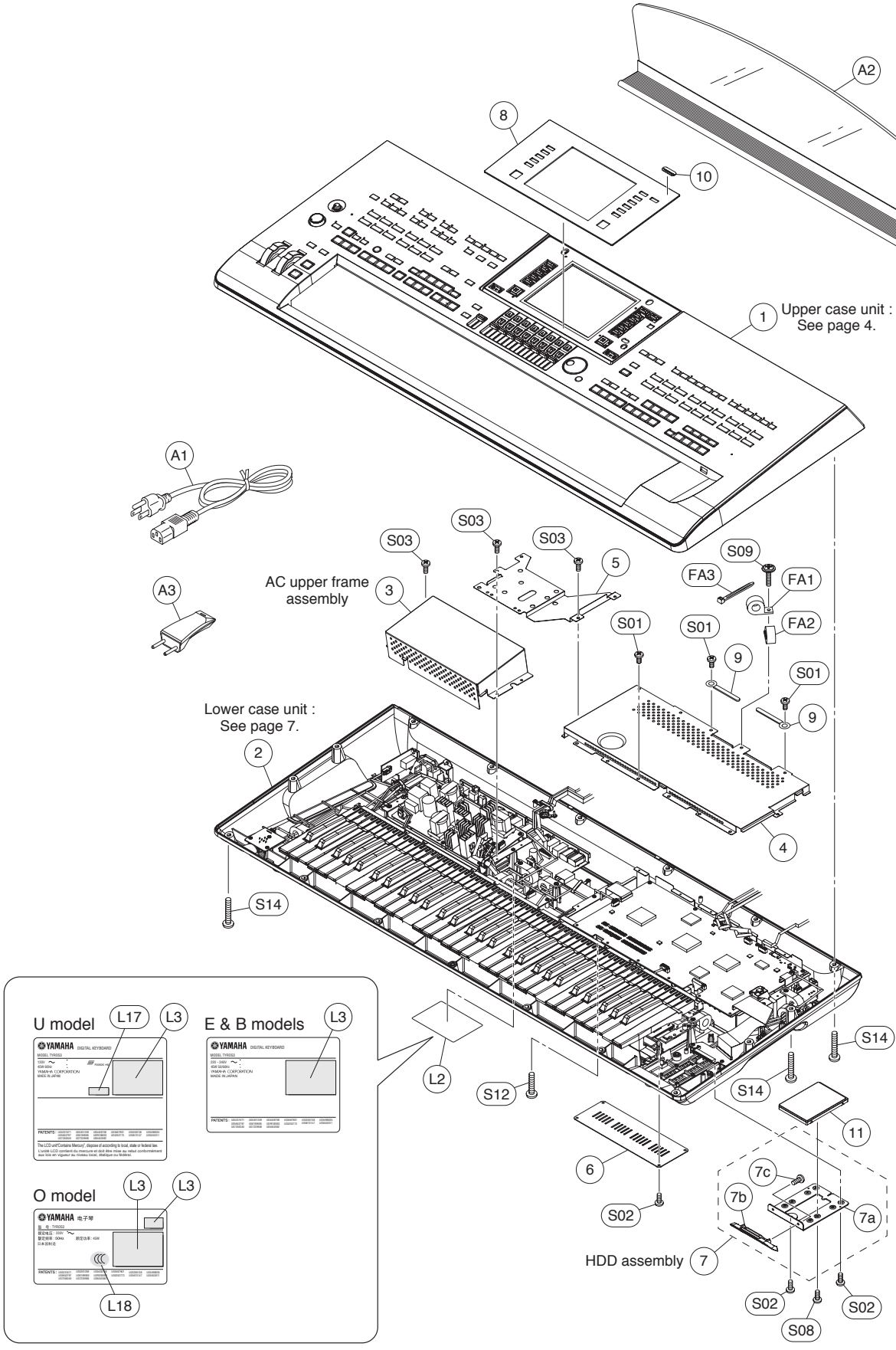
Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

Parts marked with “※1” are applicable to products with serial number up to B00 01470, E00 02830, U00 01285 and ET00 01125.

Parts marked with “※2” are applicable to products with serial number from B00 01471, E00 02831, U00 01286 and ET00 01126.

OVERALL ASSEMBLY

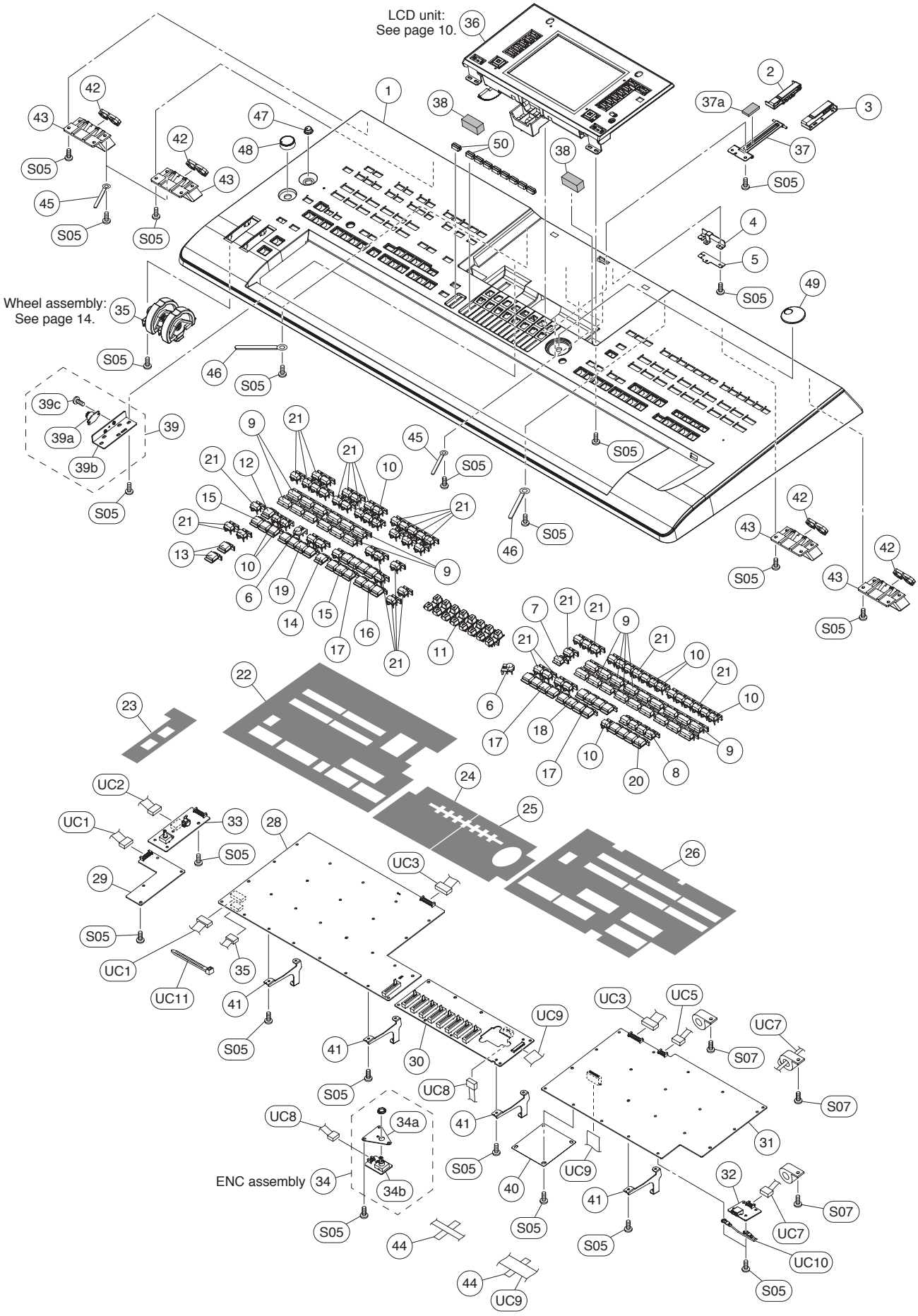


	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
			OVERALL ASSEMBLY		総組立	Tyros3		
		--	OVERALL ASSEMBLY		総組立	(WN43920)		
	1	--	UPPER CASE UNIT		上ケースユニット	(WN11920)		
	2	--	LOWER CASE UNIT		下ケースユニット	(WN10380)		
	3	--	AC UPPER FRAME ASSEMBLY		電源上フレームＡｓｓ’ｙ	(WF32810)		
	4	--	DM COVER		ＤＭカバー	(WN42610)		
	5	--	ACDM EARTH ANGLE		ＡＣＤＭアース金具	(WN43990)		
*	6	**WN440000**	DIMM COVER		ＤＩＭＭカバー			
	7	--	HDD ASSEMBLY		ＨＤＤ＿Ａｓｓ’ｙ	(WN33210)		
*	7a	**WN218200**	HDD BRACKET		ＨＤＤブラケット			
*	7b	**WN332300**	HDD FRONT COVER		ＨＤＤフロントカバー			
	7c	**WE774301**	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Ｂタイト十ＢＩＮＤ		2	
*	8	**WN517800**	LCD COVER		ＬＣＤカバー			
	9	**CB81751R**	WIRE CLIP	S-14B-E,S-14	束線止め		2	03
	10	--	LCD LABEL		ＬＣＤラベル	(V218020)		
*	11	**WP376100**	HARD DISK DRIVE UNIT	2.5 inch 80GB	ハードディスク			
	12	--	WIRING ASSEMBLY	FA	ＦＡ束線構成	(WN15380)		
	S01	**WE774000**	BIND HEAD SCREW	3.0X6 MFZN2W3	小ネジ十ＢＩＮＤ		11	
	S02	**WE983600**	BIND HEAD SCREW	3.0X8 MFZN2B3	小ネジ十ＢＩＮＤ		7	
	S03	**WE774301**	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Ｂタイト十ＢＩＮＤ		6	
	S08	**VG048000**	BIND HEAD SCREW	3.0X4 MFNI33	十バインド小ネジ		4	01
*	S09	**WP817100**	PW HEAD MACHINE SCREW	3.0 X 12 MFZN2W3	小ネジ十ＰＷＨ		1	
	S12	**WE96650R**	BIND HEAD SCREW	4.0X10 MFZN2W3	小ネジ十ＢＩＮＤ		4	01
	S14	**WF15410R**	BIND HEAD TAPPING SCREW-B	4.0X16 MFZN2W3	Ｂタイト十ＢＩＮＤ		25	01
		--	WIRING ASSEMBLY	FA	ＦＡ束線構成	(WN15380)		
	FA1	**V312290R**	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ			06
	FA1	**VD94780R**	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ			05
	FA2	**V312290R**	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ			06
	FA2	**VD94780R**	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ			05
	FA3	**CB06925R**	BINDING TIE	BK-1 (10pcs/pack)	インシュロックタイ			01
	FA3	**VV55840R**	CORD BINDER	AZ-100	結束バンド			01
			ACCESSORIES		付属品			
⚠	A1	**V6190600**	AC CORD	CSA UC-972-N01	電源コードＣＳＡ	U		
⚠	A1	**V619070R**	AC CORD	VDE EC-857-N01	電源コードＶＤＥ	E		08
⚠	A1	**WE66730R**	AC CORD	BS	電源コード	B		09
⚠	A1	**WC901301**	POWER SUPPLY CORD	CHN 3P 2.5m	電源コードセット	O		
	A2	**WB530800**	MUSIC REST		譜面板（箱入り）			15
	A3	**WF18010R**	SCORE STAND ASSEMBLY		スタンド袋入り		2	
*	A4	**X9878B00**	CD-ROM		光ディスク			
	L2	--	NAME PLATE	U	銘板	U (WQ31400)		
	L2	--	NAME PLATE	E	銘板	E,B (WQ31410)		
	L2	--	NAME PLATE	CHN	銘板	O (WQ31420)		
	L3	--	LABEL		商品ラベル	(WC19230)		
	L17	**VA039300**	LABEL	DE-TOKO-DO	ラベル	U		03
	L18	--	LABEL	CCC AV	ラベル	O (WA65000)		

✻: New Parts

RANK: Japan only

UPPER CASE UNIT



	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
			UPPER CASE UNIT		上ケースユニット	Tyros3		
		--	UPPER CASE UNIT		上ケースユニット	(WN11920)		
*	1	WN097500	UPPER CASE		上ケース印刷品			
	2	V913660R	STAY GUIDE MOLDING L	LEFT	ステイガイド成形品L			02
	3	V913670R	STAY GUIDE MOLDING R	RIGHT	ステイガイド成形品R			02
	4	--	LCD LOCK PLATE		LCDロックプレート	(WF30630)		
	5	--	LOCK PLATE COVER		ロックプレート蓋	(WF30640)		
*	6	WP216000	PANEL BUTTON	x1	パネルボタン塗装品	TAP TEMPO,ENTER	2	
*	7	WN134400	BUTTON ASSEMBLY	x1	ボタンAss'y	MUSIC FINDER		
*	8	WN134700	BUTTON ASSEMBLY	x4	ボタンAss'y	PART SELECT		
*	9	WP216100	PANEL BUTTON	3x2	パネルボタン塗装品	STYLE([POP&ROCK],..,[FILE ACCESS]),VOICE ([PIANO],..,[USER DRIVE])	5	
*	10	WP216200	PANEL BUTTON	x1	パネルボタン塗装品	STYLE CONTROL([OTS LINK],[AUTO FILL IN]),SONG[LOOP],	7	
*	11	WP216300	PANEL BUTTON	x16	パネルボタン塗装品	HARD DISK RECORDER ([SELECT],[SETTING]), VOICE EFFECT[VARI-ATION], PART ON/OFF[LEFT HOLD] [1]–[8](up/down)		
*	12	WN135500	BUTTON ASSEMBLY	x1	ボタンAss'y	STYLE CONTROL [ACMP]		
*	13	WN297700	BUTTON ASSEMBLY	x1	ボタンAss'y	ART.1,ART.2	2	
*	14	WN135900	BUTTON ASSEMBLY	x1	ボタンAss'y	STYLE CONTROL [BREAK]		
*	15	WN136000	BUTTON ASSEMBLY	x3	ボタンAss'y	ENDING/rit. ([I]–[III]) INTRO ([I]–[III])	2	
*	16	WN136100	BUTTON ASSEMBLY	X3	ボタンAss'y	STYLE CONTROL([SYNC STOP],[SYNC START],[START/STOP])		
*	17	WN136200	BUTTON ASSEMBLY	x4	ボタンAss'y	MULTI PAD CONTROL[1]–[4], ONE TOUCH SETTING[1]–[4], REGISTRATION MEMORY[1]–[4]	3	
*	18	WN136300	BUTTON ASSEMBLY	x4	ボタンAss'y	REGISTRATION MEMORY[5]–[8]		
*	19	WN136400	BUTTON ASSEMBLY	x4	ボタンAss'y	MAIN VARIATION ([A],[B],[C],[D])		
*	20	WN136500	BUTTON ASSEMBLY	x4	ボタンAss'y	AART ON/OFF ([LEFT],[RIGHT1]–[RIGHT3])		
*	21	WP216400	PANEL BUTTON	x1,x2,x3,x5,x6	パネルボタン塗装品	DEMO,FADE IN/OUT,UPPER OCTAVE –/+,MIC ([VH TYPE SELECT],..,[TALK]),SONG ([I],..,[SCORE]),TRANSPOSE [–]/[+],MIXING CONSOLE,	9	
						TEMPO [–]/[+],MULTI PAD CONTROL([SELECT[,[STOP]), CHANNEL ON/OFF,BALANCE, MENU([FUNCTION],.., [DIGITAL RECORDING]),		
						HARDDISK RECORDER([REC],..,[NEXT]),VOICE EFFECT ([HARMONY/ECHO],..,[DSP]), INTERNET,REGISTRATION MEMORY(REGISTBANK [–]/[+], [FREEZE],[MEMORY])		
	22	--	NONWOVEN FABLIC CLOTH	L	不織布	(WN11930)		
	23	--	NONWOVEN FABLIC CLOTH	LL	不織布	(WN11940)		
	24	--	NONWOVEN FABLIC CLOTH	CL	不織布	(WN11950)		
	25	--	NONWOVEN FABLIC CLOTH	CR	不織布	(WN11960)		
	26	--	NONWOVEN FABLIC CLOTH	R	不織布	(WN11970)		
	27	--	WIRING ASSEMBLY	UC	UC束線構成	(WN15390)		
*	28	WK611300	CIRCUIT BOARD	PNL	PNLシート			
*	29	WK611900	CIRCUIT BOARD	PNLS	PNLSシート			
*	30	WK611400	CIRCUIT BOARD	PNC	PNCシート			
*	31	WK599200	CIRCUIT BOARD	PNR	PNRシート			
*	32	WK611700	CIRCUIT BOARD	USB	USBシート			
*	33	WM239800	CIRCUIT BOARD	MICVR	MICVRシート			
	34	--	ENC ASSEMBLY		ENC_Ass'y	(WN13660)		
	34a	--	ENC STAY	1.0 PLATE	ENC固定金具	(WH43150)		
*	34b	WK611800	CIRCUIT BOARD	EN	ENシート			
	35	--	WHEEL ASSEMBLY		ホイールAss'y	(WN84220)		
*	36	WN136900	LCD UNIT		LCDユニット			
	37	--	STAY HINGE ASSEMBLY		ステイ金具Ass'y	(WN59290)		
	37a	--	ANTIVIBRATION FOAM	25X15	防振フォーム	(WA52230)		

*: New Parts

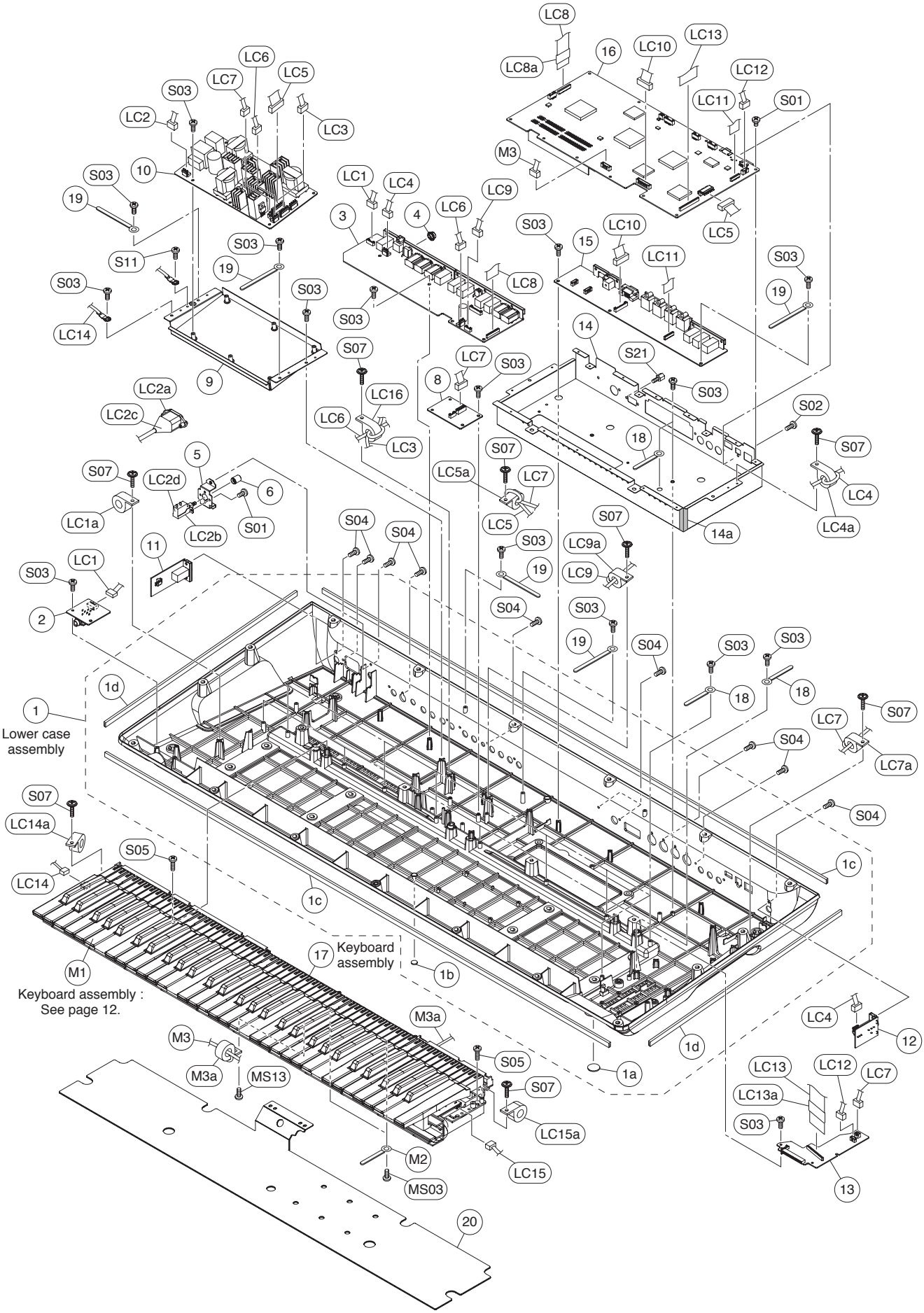
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	38	--	DUST PROOF SPONGE	CALMFLEX F-2	防塵フォーム	(V929030)	2	
	39	--	DUMPER ASSEMBLY		ダンパーAss'y	(WN75330)		
	39a	**V928760R**	ROTARY DAMPER	PT	ロータリーダンパー			06
	39b	--	DUMPER STAY		ダンパー取付け金具	(WN64950)		
	39c	**WE774000**	BIND HEAD SCREW	3.0X6 MFZN2W3	小ネジ十BIND		2	
	40	--	PROTECT SHEET		保護シート	(WN11980)		
	41	--	PANEL STAY		パネルステイ	(WN11910)	4	
	42	**WF11020R**	STABILIZER		スタビライザー		4	02
*	43	**WN142900**	ROD HOLDER		ロッドホルダー		4	
	44	**22764900**	ADHESIVE TAPE	12X50m	粘着テープ		2	
	44	**VP83460R**	FILAMENT TAPE	12X50m	粘着テープ		2	
	45	**CB829850**	CORD HOLDER	S-34B-E	束線止め		6	03
	46	**CB81751R**	WIRE CLIP	S-14B-E,S-14	束線止め		3	03
	47	**V2300100**	KNOB VR		VRノブ	INPUT VOLUME		04
	48	**VQ218900**	KNOB MASTER VOLUME		Vーツマミ	MASTER VOLUME		03
	49	**VQ664100**	ENCODER KNOB		エンコーダツマミ	DATA ENTRY		02
*	50	**WN163600**	SLIDER KNOB		スライダーノブ	ASSIGN,[1]–[8] sliders	9	
	S05	**WE774200**	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2W3	Bタイト十BIND		110	
	S07	**WF00210R**	PW HEAD TAPPING SCREW-B	3.0X12 MFZN2W3	Bタイト十PWH		3	01
		--	WIRING ASSEMBLY	UC	UC束線構成	(WN15390)		
	UC1	--	WIRING ASSEMBLY	PNLS PH-PH 10P-120	PNLS束線	(WN54580)		
	UC2	--	WIRING ASSEMBLY	VOL PH-PH 11P-720	VOL束線	(WQ38330)		
	UC3	--	WIRING ASSEMBLY	PNLR PH-PH 13P-550	PNLR束線	(WN54570)		
*	UC5	**WM858800**	WIRING ASSEMBLY	EBUSP-LF 7P-450	EBUSPーLF束線			
	UC7	--	USB CABLE	6P-700L	USBケーブル	(WM51940)		
	UC8	**VK097400**	WIRING ASSEMBLY	KRD-KRD 4P-100	KRDーKRD束線			02
*	UC9	**WN834100**	FFC CABLE	22P-100L	FFCケーブル			
	UC10	--	WIRING ASSEMBLY	GND1 LUG-LUG L=70	GND1束線	(WN74950)		
	UC11	**CB06925R**	BINDING TIE	BK-1 (10pcs/pack)	インシュロックタイ			01
	UC11	**VV55840R**	CORD BINDER	AZ-100	結束バンド			01

*: New Parts

RANK: Japan only

LOWER CASE UNIT



	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS		QTY	RANK
			LOWER CASE UNIT		下ケースユニット	Tyros3			
		--	LOWER CASE UNIT		下ケースユニット		(WN10380)		
*	1	WN103700	LOWER CASE ASSEMBLY		下ケースAss'y				
	1a	V928180R	FOOT	T1.6	ゴム脚			4	01
	1b	CB043752	RUBBER INSULATOR	T1.6	ゴム脚				
	1c	--	CUSHION		クッション		(WN10530)	2	
	1d	--	CUSHION		クッション		(WN10540)	2	
*	2	WM198900	CIRCUIT BOARD	HP	HPシート				
*	3	WM198300	CIRCUIT BOARD	AJK	AJKシート				
	4	V2300100	KNOB VR		VRノブ	LINE IN/MIC [TRIM]			04
	5	--	POWER SWITCH ANGLE		PSWアングル		(WE13590)		
	6	CB825380	PUSH BUTTON		プッシュボタン	POWER ON/OFF			03
	7	--	WIRING ASSEMBLY	LC	LC束線構成		(WN15410)		
*	8	WM199300	CIRCUIT BOARD	CK	CKシート				
	9	--	AC LOWER FRAME ASSEMBLY		電源下フレームAss'y		(WN55820)		
	10	WB50130R	POWER SUPPLY UNIT	CE,U,CS	電源ユニット				
*	11	WM199000	CIRCUIT BOARD	SPOL	SPOLシート				
*	12	WM199200	CIRCUIT BOARD	SPOR	SPORシート				
*	13	WM840900	CIRCUIT BOARD	HDSB	HDSBシート				
	14	--	DM ANGLE ASSEMBLY		DMアングルAss'y		(WQ43100)		
	14a	--	ADHESIVE TAPE	ECT W=15mm	綿粘着テープ		(ZL35000)		
	14a	--	ADHESIVE CLOTH-TAPE	15mmX30m	アセテートクロス粘着		(WG52680)		
*	15	WM198200	CIRCUIT BOARD	DJK	DJKシート				
*	16	WM154500	CIRCUIT BOARD	DM	DMシート				
	17	--	KEYBOARD ASSEMBLY		MKユニット		(WN50810)		
	18	CB829850	CORD HOLDER	S-34B-E	束線止め			11	03
	19	CB81751R	WIRE CLIP	S-14B-E,S-14	束線止め			5	03
*	20	WP202400	SHIELD SHEET MK		シールドシートMK				
	S01	WE774000	BIND HEAD SCREW	3.0X6 MFZN2W3	小ネジ＋BIND			2	
	S02	WE983600	BIND HEAD SCREW	3.0X8 MFZN2B3	小ネジ＋BIND				
	S03	WE774301	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Bタイト＋BIND			45	
	S04	WE972200	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2B3	Bタイト＋BIND			22	01
	S05	WE774200	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2W3	Bタイト＋BIND			5	
	S07	WF00210R	PW HEAD TAPPING SCREW-B	3.0X12 MFZN2W3	Bタイト＋PWH			8	01
	S11	WE968500	BIND HEAD SCREW	4.0X8 MFZN2W3	小ネジ＋BIND				01
	S21	V7569300	HEXAGONAL LOCK SCREW	HFS-4S-B1WM	6角ロックネジ			2	
		--	KEYBOARD ASSEMBLY		MKユニット		(WN50810)		
	M1	WD53490R	KEYBOARD ASSEMBLY	FSX D C61 K6	FSX鍵盤D				
	M2	CB829850	CORD HOLDER	S-34B-E	束線止め			2	03
	M3	--	WIRING ASSEMBLY	MK EBUSK-LF KRD-KRD 7P	MK束線構成	L=500	(WN71300)		
	M3a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06
	M3a	VD94780R	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ				05
	MS03	WE774301	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Bタイト＋BIND			2	
	MS13	WE98120R	BIND HEAD TAPPING SCREW-B	4.0X12 MFZN2W3	Bタイト＋BIND				01
		--	WIRING ASSEMBLY	LC	LC束線構成		(WN15410)		
*	LC1	WN754000	WIRING ASSEMBLY	HP-LF 6P-600	HP－LF束線				
	LC1a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06
	LC1a	VD94780R	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ				05
	LC2	--	WIRING ASSEMBLY	ACIN VH 3P	ACIN束線		(WM51340)		
⚠	LC2a	WA78260R	AC-IN CONNECTOR ACINLET	R-301(B18)	ACインレット	AC IN			02
⚠	LC2b	VP18400R	PUSH SWITCH	SDDLB13600	プッシュSW	POWER ON/OFF			03
	LC2c	VE469200	PLUG COVER	TRANSPARENCE	プラグカバー				04
	LC2d	V580080R	POWER SWITCH COVER	IVORY/BLACK	パワースイッチカバー				01
	LC3	--	WIRING ASSEMBLY	SW-PNL 5P/2P-500	SW－PNL束線		(WN54830)		
	LC4	--	WIRING ASSEMBLY	SPR VH-VH 3P-1500	SPR束線		(WN75410)		
	LC4a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06
	LC4a	VD94780R	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ				05
	LC5	--	WIRING ASSEMBLY	DM-PWR 7P/6P-850	DM－PWR束線		(WM69050)		
	LC5a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06
	LC5a	VD94780R	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ				05
	LC6	--	WIRING ASSEMBLY	AJK-PWR 3P-170	AJK－PWR束線		(WN78550)		
	LC7	--	WIRING ASSEMBLY	SW-CK-HD 6P-2P/2P-900	SW－CK－HD束線		(WN54840)		
	LC7a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06
	LC7a	VD94780R	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ				05
*	LC8	WP373400	WIRING ASSEMBLY	FFC2 24P-200L	FFC2束線				
*	LC8a	V5657100	FERRITE CORE	FSRC310120RN00T	フェライトコア				
	LC9	--	WIRING ASSEMBLY	JKDET-LF KRD-KRD 6P	JKDET－LF束線		(WM85670)		
	LC9a	V312290R	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ				06

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
LC10	--	WIRING ASSEMBLY	VIDEO PH-PH 12P-300	ＶＩＤＥＯ束線	(WE84670)		
* LC11	**WN833700**	FFC CABLE	17P-250L	ＦＦＣケーブル			
LC12	--	WIRING ASSEMBLY	USB-PWR PH-PH 4P-210	ＵＳＢ－ＰＷＲ束線	(WN73550)		
LC13	**WF76120R**	WIRING ASSEMBLY	FFC1 40P-180 (HDD)	ＦＦＣ１束線			08
LC13a	--	FERRITE CORE	BP53RD080510120M	フェライトコア	(VP73330)	2	
LC14	--	WIRING ASSEMBLY	EPPH1 PHR-3 3P	アース線ＥＰＰＨ１	(WG26500)		
LC14a	**V312290R**	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ			06
LC14a	**VD94780R**	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ			05
LC15	--	WIRING ASSEMBLY	EPPH1 PHR-3 3P	アース線ＥＰＰＨ１	(WG26500)		
LC15a	**V312290R**	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ			06
LC15a	**VD94780R**	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ			05
LC16	**V312290R**	DATA LINE FILTER	K1 NFT-13BK2	データラインフィルタ			06
LC16	**VD94780R**	DATA LINE FILTER	ESD-R-25D-B	データラインフィルタ			05

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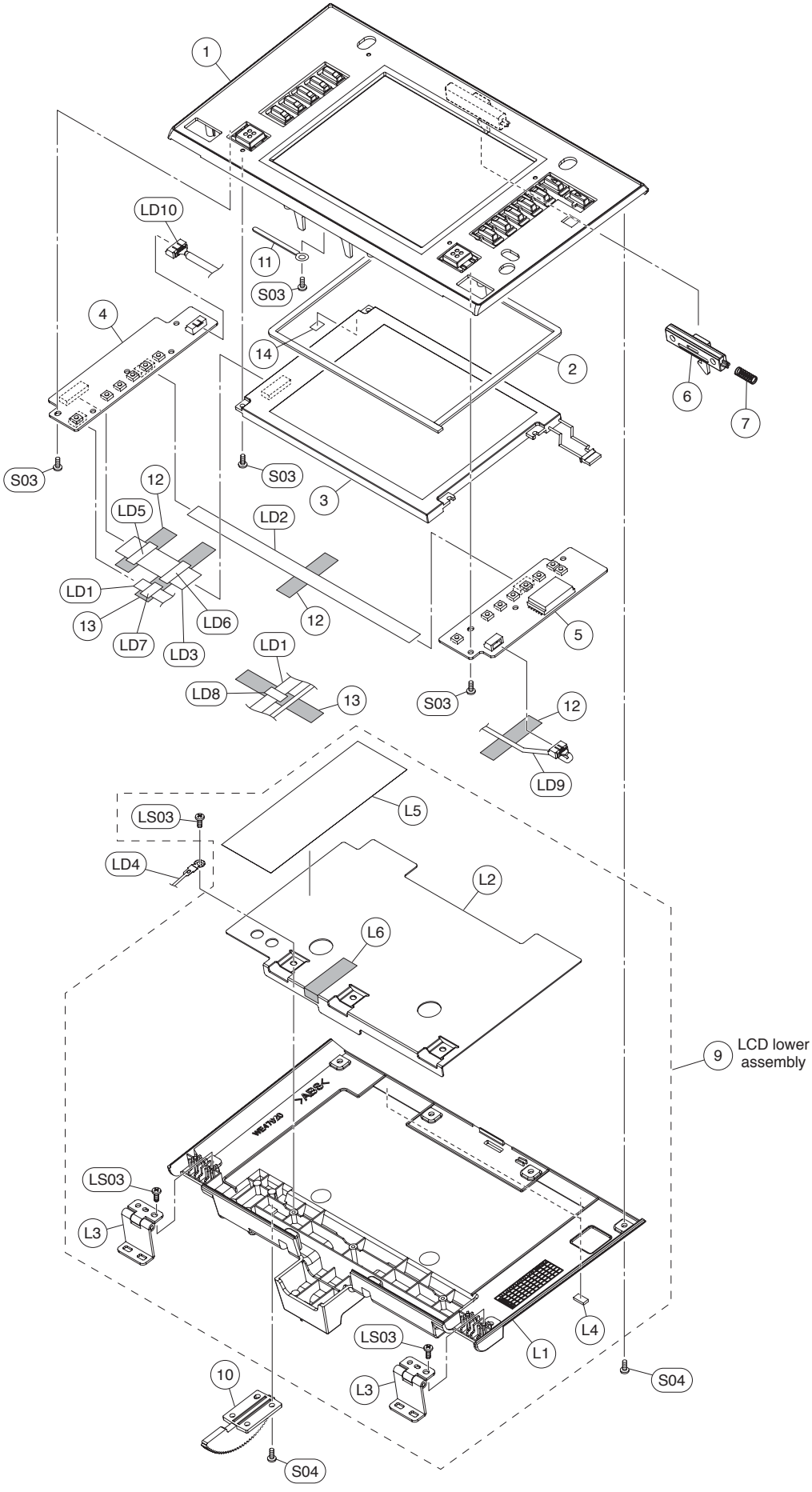
LCD UNIT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LD10
11
S03
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14
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S03
S03
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LD5
LD2
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LD6
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LD9
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LS03
LD4
L2
L6
9
LCD lower assembly
LS03
L3
LS03
L3
L1
L4
S04
10
S04

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
			LCD UNIT		ＬＣＤユニット	Tyros3		
*		**WN136900**	LCD UNIT		ＬＣＤユニット			
*	1	**WN137000**	LCD UPPER CASE		ＬＣＤ上ケース塗装品			
	2	**--**	DUST PROOF FOAM		防塵フォーム	(WN21370)		
*	3	**WN675600**	CRYSTAL DISPLAY	LTA075A363F	液晶ディスプレイ			
*	4	**WK611500**	CIRCUIT BOARD	LCL	ＬＣＬシート			
*	5	**WK611600**	CIRCUIT BOARD	LCR	ＬＣＲシート			
	6	**--**	LCD HOOK HOLDER		ＬＣＤフックホルダー	(WF25560)		
	7	**V928820R**	RETURN SPRING		リターンスプリング			
	8	**--**	WIRING ASSEMBLY	LD	ＬＤ束線構成	(WN15400)		
	9	**--**	LCD LOWER CASE ASSEMBLY		ＬＣＤ下ケースＡｓｓ’ｙ	(WN13740)		
	10	**V913540R**	GEAR		ギヤー成形品			01
	11	**CB829850**	CORD HOLDER	S-34B-E	束線止め			03
	12	**22764900**	ADHESIVE TAPE	12X50m	粘着テープ		3	
	12	**VP83460R**	FILAMENT TAPE	12X50m	粘着テープ		3	
	13	**22764900**	ADHESIVE TAPE	12X50m	粘着テープ		2	
	13	**VN195401**	ADHESIVE TAPE	12X70m	粘着テープ		2	03
*	14	**WQ837500**	CUSHION		クッション			
	S03	**WE774301**	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Ｂタイト＋ＢＩＮＤ		14	
	S04	**WE972200**	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2B3	Ｂタイト＋ＢＩＮＤ		12	01
		--	LCD LOWER CASE ASSEMBLY		ＬＣＤ下ケースＡｓｓ’ｙ	(WN13740)		
*	L1	**WN137300**	LCD L CASE	LOWER	ＬＣＤ下ケース成形品			
	L2	**--**	LCD SUPPORT STAY		ＬＣＤ補強金具	(WF30650)		
	L3	**--**	HINGE		蝶番金具	(WF30620)	2	
	L4	**V934810R**	FOOT	T2.0	ゴム脚		2	01
	L5	**--**	INSULATION FILM L	RUMIRA-S10	絶縁フィルムＬ	(V942440)		
	L6	**22764900**	ADHESIVE TAPE	12X50m	粘着テープ			
	L6	**VA126101**	FILAMENT TAPE	12X50m	粘着テープ			01
	LS03	**WE774301**	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Ｂタイト＋ＢＩＮＤ		7	
		--	WIRING ASSEMBLY	LD	ＬＤ束線構成	(WN15400)		
*	LD1	**WN833900**	FFC CABLE	8P-330L	ＦＦＣケーブル			
*	LD2	**WN834000**	FFC CABLE	9P-220L	ＦＦＣケーブル			
*	LD3	**WN834200**	FFC CABLE	32P-50L	ＦＦＣケーブル			
	LD4	**--**	WIRING ASSEMBLY	GND2 LUG-LUG L=240	ＧＮＤ２束線	(WN74960)		
*	LD5	**WH416800**	FERRITE CORE	FSRC222120RX000T	データラインフィルタ			
*	-8	**WH416800**	FERRITE CORE	FSRC222120RX000T	データラインフィルタ			
	LD9	**--**	WIRING ASSEMBLY	CK-LC-DM PH5P/4P/2P	ＣＫ－ＬＣ－ＤＭ束線	L=1000 (WN54850)		
*	LD10	**WM519500**	LVDS CABLE	5P-1250L	ＬＶＤＳケーブル			

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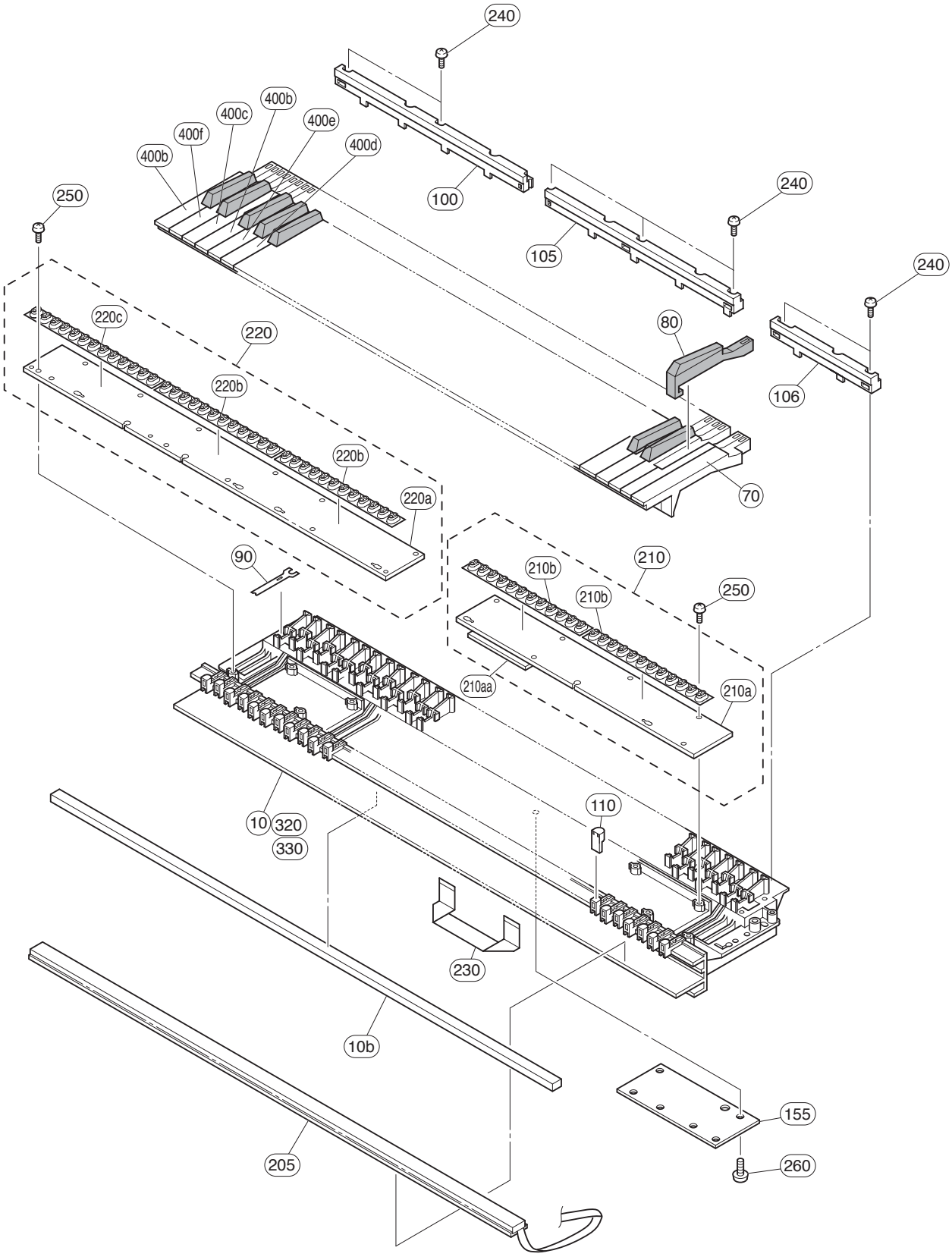
KEYBOARD ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		KEYBOARD ASSEMBLY		ＦＳＸ鍵盤Ｄ	Tyros3		
	WD53490R	KEYBOARD ASSEMBLY	FSX D C61 K6	ＦＳＸ鍵盤Ｄ			
10	**--**	KEYBOARD FRAME	WITH STOPPER	ＭＫフレーム	(WD5349A)		
10a	**--**	KEYBOARD FRAME		ＭＫフレーム	(WD80950)		
10b	**WD80450R**	STOPPER U	C61 857X7.0X4.4	ストッパーＵ			04
70	**WB16730R**	WHITE KEY ASSEMBLY C'	C'	白鍵Ａｓｓ’ｙＣ’	C6		03
80	**WB16740R**	BLACK KEY ASSEMBLY		黒鍵Ａｓｓ’ｙ		25	03
90	**WB16760R**	KEY SPRING	FSX	鍵バネ		61	
100	**WC436600**	KEY STOPPER L		キーストッパーＬ			03
105	**WC436700**	KEY STOPPER H		キーストッパーＨ			03
106	**WD80420R**	KEY STOPPER	FSX 61	キーストッパー６１			02
110	**WB17110R**	KEY GUIDE CAP		キーガイドキャップ		61	01
155	**--**	FRAME FITTING ANGLE		フレーム固定金具	(WB18860)		
* 205	**WK369400**	PC SENSOR	YMHM-016-03	ＰＣセンサー			
210	**--**	MKH-D ASSEMBLY	MKH-D	ＭＫＨ－Ｄ Ａｓｓ’ｙ	(WD80060)		
210a	**WD80100R**	CIRCUIT BOARD	MKH-D	ＭＫＨ－Ｄシート			
* 210aa	**WE623100**	CIRCUIT BOARD	EMKS-FD(E-BUS)ON MKH-D	ＥＭＫＳ－ＦＤシート			
210b	**WB16880R**	RUBBER CONTACTM	FSX OCT. 12KEYS 2M	接点ゴム １２Ｋｅｙ	C4#–C5,C5#–C6	2	04
220	**--**	MK61L ASSEMBLY	MK61L FSV-X	ＭＫ６１Ｌ Ａｓｓ’ｙ	(WD53540)		
220a	**WD80010R**	CIRCUIT BOARD	MK61L	シートＭＫ６１Ｌ			
220b	**WB16880R**	RUBBER CONTACT	FSX OCT. 12KEYS 2M	接点ゴム １２Ｋｅｙ	C2#–C3,C3#–C4	2	04
220c	**WB16890R**	RUBBER CONTACT	FSX OCT. 13KEYS 2M	接点ゴム １３Ｋｅｙ	C1–C2		04
230	**WF12750R**	CABLE RELAY	23P	中継カード電線			02
240	**WE983200**	BIND HEAD TAPPING SCREW-P	3.0X16 MFZN2B3	Ｐタイト＋ＢＩＮＤ		7	01
250	**WF266600**	BIND HEAD TAPPING SCREW-P	3.0X8 MFZN2B3	Ｐタイト＋ＢＩＮＤ		22	01
260	**WE97440R**	BIND HEAD TAPPING SCREW-P	4.0X12 MFZN2W3	Ｐタイト＋ＢＩＮＤ		4	01
320	**WM230500**	GREASE	G-1030Y 50g	グリス	(WC77150)		
330	**--**	GREASE	MOLYKOTE HP-500	グリス	(WG23930)		
400	**WB1640A0**	WHITE KEY OCTAVE SET	C,F/B,E/A/G/D	白鍵ＯＣＴ．セット		5	
400b	**WB16680R**	WHITE KEY ASSEMBLY C,F	C,F	白鍵Ａｓｓ’ｙ ＣＦ		2	03
400c	**WB16690R**	WHITE KEY ASSEMBLY B,E	B,E	白鍵Ａｓｓ’ｙ ＢＥ		2	03
400d	**WB16700R**	WHITE KEY ASSEMBLY A	A	白鍵Ａｓｓ’ｙ Ａ			03
400e	**WB16710R**	WHITE KEY ASSEMBLY G	G	白鍵Ａｓｓ’ｙ Ｇ			
400f	**WB16720R**	WHITE KEY ASSEMBLY D	D	白鍵Ａｓｓ’ｙ Ｄ			03

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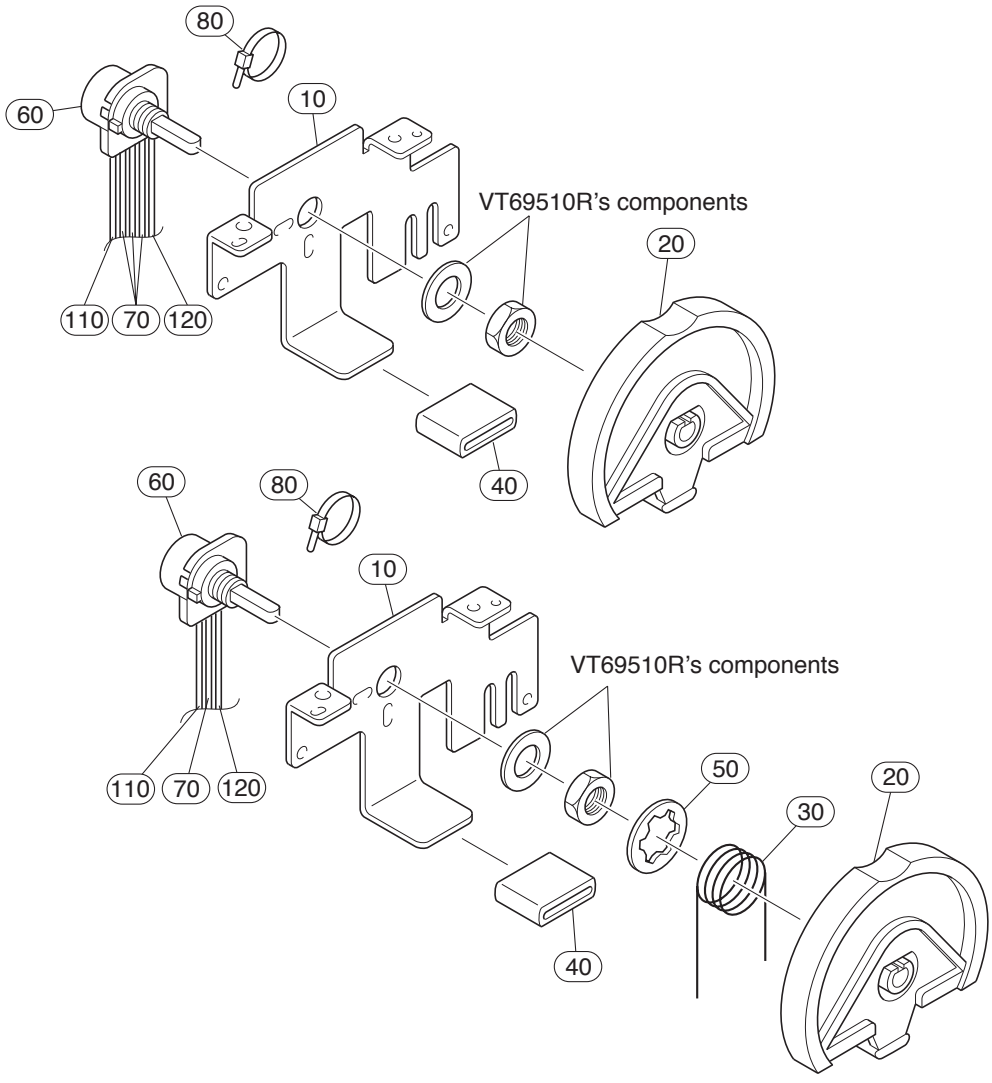
■ WHEEL ASSEMBLY



	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
			WHEEL ASSEMBLY		ホイールAss'y	Tyros3		
		--	WHEEL ASSEMBLY		ホイールAss'y	(WN84220)		
*	10	**WN842300**	WHEEL FRAME		ホイールフレーム		2	
	20	**V457990R**	WHEEL	EX	ホイールEX	PITCH BEND,MODULATION	2	04
	30	**VC79280R**	SPRING		リターンSP			01
	40	**CB81902R**	WHEEL TUBE		ホイールチューブ		2	04
	50	**EW60011R**	STOPPER, CS-RING TYPE	12	CS形止め輪			01
	60	**VT69510R**	ROTARY VARIABLE RESISTOR	SP. 10.0K RK163111	ローターリーVR	PITCH BEND,MODULATION	2	03
	70	--	WIRING ASSEMBLY	WHEEL PH 4P-150,170	WHEEL束線	(WE84700)		
	80	**CB06925R**	BINDING TIE	BK-1 (10pcs/pack)	インシュロックタイ		2	01
	110	--	WIRE HARNESS BLACK		ビニール線	(VK88170)		
	120	--	WIRE HARNESS RED		ビニール線	(VK88160)		

*: New Parts

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■ ELECTRICAL PARTS

AJK

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
			ELECTRICAL PARTS		電気部品	Tyros3		
*		**WM198300**	CIRCUIT BOARD	AJK	AJKシート	(WM18510)(X6041D0)		
*		**WM199300**	CIRCUIT BOARD	CK	CKシート	(WM18500)(X6042C0)		
*		**WM198200**	CIRCUIT BOARD	DJK	DJKシート	(WM18500)(X6042C0)		
*		**WM198900**	CIRCUIT BOARD	HP	HPシート	(WM18500)(X6042C0)		
*		**WM199000**	CIRCUIT BOARD	SPOL	SPOLシート	(WM18500)(X6042C0)		
*		**WM199200**	CIRCUIT BOARD	SPOR	SPORシート	(WM18500)(X6042C0)		
*		**WM154500**	CIRCUIT BOARD	DM	DMシート	(X9371C0)		
*		**WK611800**	CIRCUIT BOARD	EN	ENシート	(WM24260)(X9411B0)		
*		**WK611400**	CIRCUIT BOARD	PNC	PNCシート	(WM24260)(X9411B0)		
*		**WM840900**	CIRCUIT BOARD	HDSB	HDSBシート	(WM82880)(X6800B0)		
*		**WK611500**	CIRCUIT BOARD	LCL	LCLシート	(WM24270)(X9412C0)		
*		**WK611600**	CIRCUIT BOARD	LCR	LCRシート	(WM24270)(X9412C0)		
*		**WM239800**	CIRCUIT BOARD	MICVR	MICVRシート	(WM24250)(X9409C0)		
*		**WK611300**	CIRCUIT BOARD	PNL	PNLシート	(WM24250)(X9409C0)		
*		**WK611900**	CIRCUIT BOARD	PNLS	PNLSシート	(WM24250)(X9409C0)		
		WD80010R	CIRCUIT BOARD	MK61L	シートMK61L	(WD80020)(X6578C0)		
		WD80100R	CIRCUIT BOARD	MKH-D	MKH－Dシート	(WD78570)(X6579B0)		
*		**WE623100**	CIRCUIT BOARD	EMKS-FD(E-BUS)ON MKH-D	EMKS－FDシート	(WE62270)(X6577A0)		
*		**WK599200**	CIRCUIT BOARD	PNR	PNRシート	(WM24240)(X9410C0)		
*		**WK611700**	CIRCUIT BOARD	USB	USBシート	(WM24240)(X9410C0)		
*		**WM198300**	CIRCUIT BOARD	AJK	AJKシート	(WM18510)(X6041D0)		
		--	JACK PLATE AML		JACK金具 AML	(WE80690)		
		--	AMR JACK PLATE		AMR JACK金具	(WE81090)		
	C1	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	C2	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	C3	**UR839330**	ELECTROLYTIC CAPACITOR	3300 16.0V RX TP	ケミコン			01
	C4	**UR838100**	ELECTROLYTIC CAPACITOR	100.00 16.0V RX TP	ケミコン			
	C5	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	C9	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ（SL）			
	C10	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ（SL）			
	C12	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
	C12	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
	C12	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE-	ケミコン			
	C17	**US06156R**	CERAMIC CAPACITOR-CH (CHIP)	56P 50V J RECT.	チップセラ（CH）			01
	C18	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
	C18	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
	C18	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE	ケミコン			
	C19	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ（SL）			
	C20	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ（SL）			
	C22	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
	C22	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
	C22	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE	ケミコン			
	C27	**US06156R**	CERAMIC CAPACITOR-CH (CHIP)	56P 50V J RECT.	チップセラ（CH）			01
	C28	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
	C28	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
	C28	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE	ケミコン			
	C30	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C31	**US06127R**	CHIP MULTILAYER CERAMIC	27P 50V J RECT.	チップセラ（CH）			01
	C32	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C33	**UM397470**	ELECTROLYTIC CAPACITOR	47.00 16.0V RX TP	ケミコン			
	C33	**VS49070R**	ELECTROLYTIC CAPACITOR	47.0 16.0V TP	ケミコン 5L			01
	C33	**WA66840R**	ELECTROLYTIC CAPACITOR	47.00 16V TATETE	ケミコン			
	C40	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C41	**US06127R**	CHIP MULTILAYER CERAMIC	27P 50V J RECT.	チップセラ（CH）			01
	C42	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C49	**US06322R**	CERAMIC CAPACITOR-B (CHIP)	2200P 50V K RECT.	チップセラ（B）			01
	C50	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C51	**US061470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（CH）			
	C52	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
	C53	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C54	**UM397220**	ELECTROLYTIC CAPACITOR	22.00 16.0V RX TP	ケミコン			
	C54	**WA66820R**	ELECTROLYTIC CAPACITOR	22.00 16V TATETE	ケミコン			
	C55	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	C56	**UM398100**	ELECTROLYTIC CAPACITOR	100.00 16.0V RX TP	ケミコン			
	C56	**WA66850R**	ELECTROLYTIC CAPACITOR	100.00 16V TATETE	ケミコン			01
	C57	**US06256R**	CERAMIC CAPACITOR-SL (CHIP)	560P 50V J RECT.	チップセラ（SL）			
	C59	**US06322R**	CERAMIC CAPACITOR-B (CHIP)	2200P 50V K RECT.	チップセラ（B）			01
	C60	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C61	**US061470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（CH）			
C62	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C63	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C67	**US06256R**	CERAMIC CAPACITOR-SL (CHIP)	560P 50V J RECT.	チップセラ（SL）			
C70	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C71	**US06212R**	CERAMIC CAPACITOR-SL (CHIP)	120P 50V J RECT.	チップセラ（SL）			01
C72	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C73	**UN848100**	ELECTROLYTIC CAPACITOR-BP	100.00 25.0V RX TP	BPケミコン			01
C79	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C80	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C81	**US06212R**	CERAMIC CAPACITOR-SL (CHIP)	120P 50V J RECT.	チップセラ（SL）			01
C82	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C83	**UN848100**	ELECTROLYTIC CAPACITOR-BP	100.00 25.0V RX TP	BPケミコン			01
C89	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C90	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C91	**UR865330**	ELECTROLYTIC CAPACITOR	0.33 50.0V RX TP	ケミコン			01
C92	**UR848220**	ELECTROLYTIC CAPACITOR	220.00 25.0V RX TP	ケミコン			
C93	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C110	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C111	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C112	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C113	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C114	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C115	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C120	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C121	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C122	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C123	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C124	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C125	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C130	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C131	**US06156R**	CERAMIC CAPACITOR-CH (CHIP)	56P 50V J RECT.	チップセラ（CH）			01
C132	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C133	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C140	**VB63970R**	ELECTROLYTIC CAPACITOR-BP	4.7 25.0V TATETE	BPケミコン 5L			01
C141	**US06156R**	CERAMIC CAPACITOR-CH (CHIP)	56P 50V J RECT.	チップセラ（CH）			01
C142	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C143	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C150	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C152	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C160	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C162	**VB63990R**	ELECTROLYTIC CAPACITOR	4.7 50.0V TATETE	ケミコン 5L			
C201	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C202	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C216	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C217	**UM397470**	ELECTROLYTIC CAPACITOR	47.00 16.0V RX TP	ケミコン			
C217	**VS49070R**	ELECTROLYTIC CAPACITOR	47.0 16.0V TP	ケミコン 5L			01
C217	**WA66840R**	ELECTROLYTIC CAPACITOR	47.00 16V TATETE	ケミコン			
C226	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ（SL）			
C227	**UM397470**	ELECTROLYTIC CAPACITOR	47.00 16.0V RX TP	ケミコン			
C227	**VS49070R**	ELECTROLYTIC CAPACITOR	47.0 16.0V TP	ケミコン 5L			01
C227	**WA66840R**	ELECTROLYTIC CAPACITOR	47.00 16V TATETE	ケミコン			
C231	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C241	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C264	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C271	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C282	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C291	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C300	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C301	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
C301	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
C301	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE	ケミコン			
C302	**UM416100**	ELECTROLYTIC CAPACITOR	1.00 50.0V RX TP	ケミコン			
C302	**VB63980R**	ELECTROLYTIC CAPACITOR	1.0 50.0V TATETE	ケミコン 5L			01
C302	**WA67040R**	ELECTROLYTIC CAPACITOR	1.00 50V TATETE-	ケミコン			
C303	**UM397220**	ELECTROLYTIC CAPACITOR	22.00 16.0V RX TP	ケミコン			
C303	**WA66820R**	ELECTROLYTIC CAPACITOR	22.00 16V TATETE	ケミコン			
C304	**UR865470**	ELECTROLYTIC CAPACITOR	0.47 50.0V RX TP	ケミコン			
C305	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C312	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01

✻: New Parts

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C322	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C333	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C343	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C361	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C362	**US063100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C401	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C402	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C501	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C502	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C601	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C602	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C701	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C702	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C801	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C802	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
CN1	**VZ479500**	CONNECTOR BASE PIN	52806 24P TE	FFCコネクター			
CN2	**LB93203R**	CONNECTOR	VH 3P TE	ベースポスト			01
CN3	**VB39070R**	CONNECTOR	PH 11P TE EH TYPE	ベースポスト			01
CN5	**LB93203R**	CONNECTOR	VH 3P TE	ベースポスト			01
CN6	**VB390200**	CONNECTOR	PH 6P TE	ベースポスト			
CN7	**VB390200**	CONNECTOR	PH 6P TE	ベースポスト			
D1	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
-12	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
D1	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
-12	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
D1	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
-12	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
D21	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
D21	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
D21	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
D22	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
D22	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
D22	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
EM1	**VI243100**	EMI FILTER	DSS6NB32A271Q93A	LCフィルター			01
-6	**VI243100**	EMI FILTER	DSS6NB32A271Q93A	LCフィルター			01
FT3	**IE10262R**	FET	2SK246-Y(TPE2,F)	FET			01
FT4	**IE10262R**	FET	2SK246-Y(TPE2,F)	FET			01
IC2	**X2331A0R**	IC	NJM4580E(TE2)	IC	OP AMP		01
IC3	**XE470A0R**	IC	M51132L	IC	VCA		04
IC4	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		
IC5	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		
IC6	**XT131A0R**	IC	LA6517M-TRM-E-R	IC	OPRATIONAL POWER AMP		
IC7	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		
IC8	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		
JK1	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	LINE IN/MIC [L/L+R/MIC]		03
JK2	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	LINE IN/MIC [R]		03
JK3	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	TO SUB WOOFER [L]		02
JK5	**VV881001**	DIN JACK	8P CMS5008-0101F	丸形ミニチャーコネクタ	TO SUB WOOFER [R]		
JK6	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	AUX OUT/LOOP SEND [L/L+R]		03
JK7	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	AUX OUT/LOOP SEND [R]		02
JK8	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	AUX IN/LOOP RETURN [L/L+R]		02
JK9	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	AUX IN/LOOP RETURN [R]		03
JK10	**VC68750R**	PHONE JACK BLACK	YKB21-5014	ホーンコネクタ（黒）	LINE OUT MAIN [L/L+R]		01
JK11	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	LINE OUT MAIN [R]		02
JK12	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	LINE OUT SUB [1]		03
JK13	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	LINE OUT SUB [2]		03
L3	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-8	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L10	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-14	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L15	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L16	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-19	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
⚠ L20	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L22	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
L24	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L25	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L27	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L28	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-30	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01

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L31	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L32	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L33	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L34	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L35	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L36	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
L37	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
⚠ L40	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 8 0 U			03
⚠ -47	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 8 0 U			03
L49	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
-51	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L54	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
L55	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
L57	**VQ72490R**	CHIP INDUCTANCE	BK212 5HM601-T	チップインダクタ			01
L58	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
L59	**VQ72490R**	CHIP INDUCTANCE	BK212 5HM601-T	チップインダクタ			01
L60	**VQ72490R**	CHIP INDUCTANCE	BK212 5HM601-T	チップインダクタ			01
L61	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
⚠ L62	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 2 0 U			01
⚠ -64	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 2 0 U			01
R10	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R11	**RD357220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R12	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R13	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R14	**RD355560**	CHIP RESISTOR 1/16W	560.0 63M J RECT.	チップ抵抗			
R17	**RD355220**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			
R20	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R21	**RD357220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R22	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R23	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R24	**RD355560**	CHIP RESISTOR 1/16W	560.0 63M J RECT.	チップ抵抗			
R27	**RD355220**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			
R30	**RD357330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			
R31	**RD357820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
R32	**RD358560**	CHIP RESISTOR 1/16W	560.0K 63M J RECT.	チップ抵抗			
R33	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R34	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R35	**RD357820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
R36	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R37	**RD357270**	CHIP RESISTOR 1/16W	27.0K 63M J RECT.	チップ抵抗			
R38	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R39	**RD356470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
R40	**RD357330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			
R41	**RD357820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
R42	**RD358560**	CHIP RESISTOR 1/16W	560.0K 63M J RECT.	チップ抵抗			
R43	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R44	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R45	**RD357820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
R46	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R47	**RD358560**	CHIP RESISTOR 1/16W	560.0K 63M J RECT.	チップ抵抗			
R50	**RD357150**	CHIP RESISTOR 1/16W	15.0K 63M J RECT.	チップ抵抗			
R51	**RD357270**	CHIP RESISTOR 1/16W	27.0K 63M J RECT.	チップ抵抗			
R52	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R53	**RD15522R**	CARBON RESISTOR (CHIP)	220.0 1/4 J TP	チップ抵抗			
R54	**RD356220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			01
R55	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R56	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R57	**RD356470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
R58	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R59	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R60	**RD357150**	CHIP RESISTOR 1/16W	15.0K 63M J RECT.	チップ抵抗			
R61	**RD357270**	CHIP RESISTOR 1/16W	27.0K 63M J RECT.	チップ抵抗			
R62	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R63	**RD15522R**	CARBON RESISTOR (CHIP)	220.0 1/4 J TP	チップ抵抗			
R64	**RD356220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			01
R65	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R66	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R67	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R68	**RD357120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
R69	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01

✻: New Parts

RANK: Japan only

AJK

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R70	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R71	**RD35718R**	CHIP RESISTOR 1/16W	18.0K 63M J RECT.	チップ抵抗			01
R72	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
R73	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R74	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
-76	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R77	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R78	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R79	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01
R80	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R81	**RD35718R**	CHIP RESISTOR 1/16W	18.0K 63M J RECT.	チップ抵抗			01
R82	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
R83	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R84	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R85	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R86	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R90	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R91	**RD358100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
R92	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R93	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R94	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R95	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R96	**RD356330**	CHIP RESISTOR 1/16W	3.3K 63M J RECT.	チップ抵抗			
R97	**RD355470**	CHIP RESISTOR 1/16W	470.0 63M J RECT.	チップ抵抗			
R98	**RD355470**	CHIP RESISTOR 1/16W	470.0 63M J RECT.	チップ抵抗			
R99	**RD358100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
R100	**RD357120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
R110	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R111	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R112	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R113	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R114	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R115	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R120	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R121	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R122	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R123	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R124	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R125	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R130	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R131	**RD35718R**	CHIP RESISTOR 1/16W	18.0K 63M J RECT.	チップ抵抗			01
R132	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R133	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R134	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R135	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R140	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R141	**RD35718R**	CHIP RESISTOR 1/16W	18.0K 63M J RECT.	チップ抵抗			01
R142	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R143	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R144	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R145	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R150	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R151	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R152	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R153	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R160	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R161	**RD155680**	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チップ抵抗			01
R162	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R163	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R211	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R212	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R221	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R222	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R231	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R241	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R260	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R270	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R301	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R302	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R303	**RD357330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			

✻: New Parts

RANK: Japan only

AJK and CK/DJK/HP/SPOL/SPOR

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	R304	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R310	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R320	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R351	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R352	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R360	**RD150000**	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チップ抵抗			01
	R361	**RD15433R**	CARBON RESISTOR (CHIP)	33.0 1/4 J TP	チップ抵抗			01
	R362	**RD15433R**	CARBON RESISTOR (CHIP)	33.0 1/4 J TP	チップ抵抗			01
	R365	**RD150000**	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チップ抵抗			01
	R366	**RD150000**	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チップ抵抗			01
	RY1	**V824560R**	RELAY	DC ATX203 12V	リレー			04
	RY1	**WB751900**	RELAY	DC EC2-12NU-F 12V	リレー 12V			
	TR1	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	-4	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	TR1	**WC52940R**	TRANSISTOR	KTC3875S-Y	トランジスタ			01
	-4	**WC52940R**	TRANSISTOR	KTC3875S-Y	トランジスタ			01
	TR5	**WC883400**	TRANSISTOR	2SD2704 K TP	トランジスタ 2SD			
	TR6	**WC883400**	TRANSISTOR	2SD2704 K TP	トランジスタ 2SD			
	TR7	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	TR7	**WC52940R**	TRANSISTOR	2SC KTC3875S-Y	トランジスタ			01
	TR8	**VJ92720R**	TRANSISTOR	2SA1162-Y(TE85R,F)	トランジスタ 2SA			01
	TR8	**VV556500**	TRANSISTOR	2SA1037AK Q,R,S TP	トランジスタ 2SA			
	TR8	**WC52950R**	TRANSISTOR	KTA1504S-Y	トランジスタ			
	TR9	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	TR9	**WC52940R**	TRANSISTOR	KTC3875S-Y	トランジスタ			01
	TR10	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	TR10	**WC52940R**	TRANSISTOR	KTC3875S-Y	トランジスタ			01
	TR11	**WC883400**	TRANSISTOR	2SD2704 K TP	トランジスタ 2SD			
	-16	**WC883400**	TRANSISTOR	2SD2704 K TP	トランジスタ 2SD			
	TR17	**VJ92720R**	TRANSISTOR	2SA1162-Y(TE85R,F)	トランジスタ 2SA			01
	TR17	**VV556500**	TRANSISTOR	2SA1037AK Q,R,S TP	トランジスタ 2SA			
	TR17	**WC52950R**	TRANSISTOR	KTA1504S-Y	トランジスタ			
	VR1	**WG13900R**	ROTARY VARIABLE RESISTOR	A 50.0K RK12L12A0C	二連ロータリーVR	AUX IN/LOOP RETURN [TRIM]		02
	VR2	**VV04920R**	ROTARY VARIABLE RESISTOR	B 10K RK09K12A	二連ロータリーVR	LINE IN/MIC [TRIM]		03
	W1	**--**	WIRING ASSEMBLY	SPL VH-VH 2P-250	SPL 束線	(WE84550)		
	W3	**--**	WIRING ASSEMBLY	GND3 LUG-PIN L=130	GND3 束線	(WN89510)		
	ZD1	**VU172800**	ZENER DIODE	UDZS12B TE-17 12V	ツェナーダイオード			01
*		**WM199300**	CIRCUIT BOARD	CK	CKシート	(WM18500)(X6042C0)		
*		**WM198200**	CIRCUIT BOARD	DJK	DJKシート	(WM18500)(X6042C0)		
*		**WM198900**	CIRCUIT BOARD	HP	HPシート	(WM18500)(X6042C0)		
*		**WM199000**	CIRCUIT BOARD	SPOL	SPOLシート	(WM18500)(X6042C0)		
*		**WM199200**	CIRCUIT BOARD	SPOR	SPORシート	(WM18500)(X6042C0)		
		--	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
		--	SP JACK PLATE		SP JACK金具	(WE81080)	2	
		--	DML JACK PLATE		DML JACK金具	(WE81100)		
		--	DMR JACK PLATE		DMR JACK金具	(WE81110)		
		WE774301	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Bタイト十BIND			
	C13	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C14	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ(SL)			
	C23	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C24	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ(SL)			
	C33	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C34	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ(SL)			
	C40	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C43	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C50	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C53	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C86	**FG613100**	CERAMIC CAPACITOR-B	1000P 50V K RX TP	セラコン(B)			
	C87	**UR838220**	ELECTROLYTIC CAPACITOR	220.00 16.0V RX TP	ケミコン			
	C95	**WB47690R**	ELECTROLYTIC CAPACITOR-ZL	470.00 16.0V RX TP	ケミコンZL			01
	C96	**US065100**	CERAMIC CAPACITOR-F (CHIP)	0.100 50V Z RECT.	チップセラF			
	C98	**US065100**	CERAMIC CAPACITOR-F (CHIP)	0.100 50V Z RECT.	チップセラF			
	C99	**WB47690R**	ELECTROLYTIC CAPACITOR-ZL	470.00 16.0V RX TP	ケミコンZL			01
	C102	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C103	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C104	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ(SL)			
	C105	**US062220**	CERAMIC CAPACITOR-SL (CHIP)	220P 50V J RECT.	チップセラ(SL)			
	CN10	**V768700R**	FFC CONNECTOR	52806 17P TE	FFCコネクタ			01
	CN80	**VB39080R**	CONNECTOR	PH 12P TE EH TYPE	ベースポスト			01

*: New Parts

RANK: Japan only

CK/DJK/HP/SPOL/SPOR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
CN81	**V6706500**	D-SUB CONNECTOR	KH 15P SE	D－Sub コネクタ	RGB OUT		05
CN91	**LB918060**	BASE PIN	XH 6P TE I-TYPE	ベーススツキポスト			
CN92	**VB39010R**	CONNECTOR	PH 5P TE	ベースポスト			01
CN100	**VB858500**	BASE PIN	PH 6P SE	ベースポスト			
CN302	**LB93303R**	BASE POST CONNECTOR	VH 3P SE	ベースポスト			01
CN303	**LB933020**	CONNECTOR	VH 2P SE	ベースポスト			
D4	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
D5	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
D10	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
-18	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
D10	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
-18	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			
EM11	**VI243100**	EMI FILTER	DSS6NB32A271Q93A	LCフィルター			01
EM12	**VI243100**	EMI FILTER	DSS6NB32A271Q93A	LCフィルター			01
IC40	**VD47320R**	IC PHOTO COUPLER	6N137-000E	フォトカプラ			05
IC50	**VD47320R**	IC PHOTO COUPLER	6N137-000E	フォトカプラ			05
J60	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
J300	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
-303	**--**	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
JK5	**VJ88550R**	DIN JACK	3P YKF51-5054V	DINコネクタ	IN-MIDI A-OUT		04
JK10	**VS11540R**	PHONE JACK BLACK	LGR4609-7100F	ホーンコネクタ（黒）	PEDAL [1 (SUSTAIN)]		01
JK20	**VS11540R**	PHONE JACK BLACK	LGR4609-7100F	ホーンコネクタ（黒）	PEDAL [2 (ARTICULATION 1)]		01
JK30	**VS11540R**	PHONE JACK BLACK	LGR4609-7100F	ホーンコネクタ（黒）	PEDAL [3 (VOLUME)]		01
JK40	**VJ88550R**	DIN JACK	3P YKF51-5054V	DINコネクタ	IN-MIDI B-OUT		04
JK82	**VI311100**	PIN JACK	1P YKC21-3017V	ピンジャック 1P	VIDEO OUT		
JK101	**LB101870**	HEADPHONE JACK	YKB21-5006	ホーンコネクタ	PHONES		03
JK101	**WJ306200**	PHONE JACK	MSJ-064-15A B AG	ホーンコネクタ			
JK301	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	TO LEFT SPEAKER		02
JK302	**VB312600**	PHONE JACK BLACK	YKB21-5012	ホーンコネクタ（黒）	TO RIGHT SPEAKER		02
⚠ L11	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 20U			01
⚠ L12	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
L13	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-20	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
⚠ L21	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 20U			01
⚠ L22	**VF45660R**	COIL	SBT-0180W RX	コイル 80U			03
L23	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-25	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L26	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
⚠ L31	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 20U			01
⚠ L32	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L40	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 20U			01
⚠ L41	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L42	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L50	**VB835000**	COIL	FL05RD200AT TE 20uH	コイル 20U			01
⚠ L51	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L52	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
⚠ L83	**VF45660R**	COIL	SBT-0180W RX 80uH	コイル 80U			03
L101	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
-105	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
R11	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R12	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R13	**HF75610R**	CARBON RESISTOR	1.0K 1/4 J AX TP	カーボン抵抗			01
R14	**HF75710R**	CARBON RESISTOR	10.0K 1/4 J AX TP	カーボン抵抗			01
R21	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R22	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R23	**HF75610R**	CARBON RESISTOR	1.0K 1/4 J AX TP	カーボン抵抗			01
R24	**HF75710R**	CARBON RESISTOR	10.0K 1/4 J AX TP	カーボン抵抗			01
R31	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R32	**HF75510R**	CARBON RESISTOR	100.0 1/4 J AX TP	カーボン抵抗			01
R33	**HF75610R**	CARBON RESISTOR	1.0K 1/4 J AX TP	カーボン抵抗			01
R34	**HF75710R**	CARBON RESISTOR	10.0K 1/4 J AX TP	カーボン抵抗			01
R41	**HF75522R**	CARBON RESISTOR	220.0 1/4 J AX TP	カーボン抵抗			01
-43	**HF75522R**	CARBON RESISTOR	220.0 1/4 J AX TP	カーボン抵抗			01
R44	**HF75615R**	CARBON RESISTOR	1.5K 1/4 J AX TP	カーボン抵抗			01
R45	**HF75722R**	CARBON RESISTOR	22.0K 1/4 J AX TP	カーボン抵抗			01
R46	**HF75722R**	CARBON RESISTOR	22.0K 1/4 J AX TP	カーボン抵抗			01
R47	**HF75610R**	CARBON RESISTOR	1.0K 1/4 J AX TP	カーボン抵抗			01
R51	**HF75522R**	CARBON RESISTOR	220.0 1/4 J AX TP	カーボン抵抗			01
-53	**HF75522R**	CARBON RESISTOR	220.0 1/4 J AX TP	カーボン抵抗			01
R54	**HF75615R**	CARBON RESISTOR	1.5K 1/4 J AX TP	カーボン抵抗			01

✻: New Parts

RANK: Japan only

CK/DJK/HP/SPOL/SPOR and DM

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R55	**HF75722R**	CARBON RESISTOR	22.0K 1/4 J AX TP	カーボン抵抗			01
R56	**HF75722R**	CARBON RESISTOR	22.0K 1/4 J AX TP	カーボン抵抗			01
R57	**HF75610R**	CARBON RESISTOR	1.0K 1/4 J AX TP	カーボン抵抗			01
R101	**HV754330**	FLAME PROOF C. RESISTOR	33.0 1/4 J RX TP	不燃化カーボン抵抗			
R102	**HV754330**	FLAME PROOF C. RESISTOR	33.0 1/4 J RX TP	不燃化カーボン抵抗			
TR41	**IC174020**	TRANSISTOR	2SC1740S R,S TP	トランジスタ 2SC			
TR41	**WC292100**	TRANSISTOR	KTC3199-Y-AT/P	トランジスタ			
TR42	**IC174020**	TRANSISTOR	2SC1740S R,S TP	トランジスタ 2SC			
TR42	**WC292100**	TRANSISTOR	KTC3199-Y-AT/P	トランジスタ			
TR51	**IC174020**	TRANSISTOR	2SC1740S R,S TP	トランジスタ 2SC			
TR51	**WC292100**	TRANSISTOR	KTC3199-Y-AT/P	トランジスタ			
TR52	**IC174020**	TRANSISTOR	2SC1740S R,S TP	トランジスタ 2SC			
TR52	**WC292100**	TRANSISTOR	KTC3199-Y-AT/P	トランジスタ			
*	**WM154500**	CIRCUIT BOARD	DM	DMシート	(X9371C0)		
	--	MAC ADDRESS LABEL		MACアドレスラベル	(WH26440)		
	--	USB EARTH ANGLE		USBアース金具	(WN33200)		
C1	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C2	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C3	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C4	**US661100**	CERAMIC CAPACITOR-CH(CHIP)	10P 50V D RECT.	チップセラ(CH)			
-6	**US661100**	CERAMIC CAPACITOR-CH(CHIP)	10P 50V D RECT.	チップセラ(CH)			
C7	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C8	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C9	**US661100**	CERAMIC CAPACITOR-CH(CHIP)	10P 50V D RECT.	チップセラ(CH)			
C10	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
-15	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C16	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C17	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C18	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C19	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OSケミコン			03
C20	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ(B)			
C21	**US643470**	CERAMIC CAPACITOR-B (CHIP)	4700P 25V K RECT.	チップセラ(B)			01
C24	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
-27	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C28	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C29	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C30	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C31	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C32	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
-35	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C36	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C38	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C39	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C40	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C41	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C42	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C43	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
-45	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C47	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C48	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
-52	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C53	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C54	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C55	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C56	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C57	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C58	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C59	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C60	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C61	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C62	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C63	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C64	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C65	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C66	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C67	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C68	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
C69	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
C70	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			

*: New Parts

RANK: Japan only

DM

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C71	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C72	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C73	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C74	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C75	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C76	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C77	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C78	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C79	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C80	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C81	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C82	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C83	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-85	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C86	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OSケミコン			03
C89	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C90	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C91	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C92	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C93	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C94	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C95	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C96	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C97	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C98	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C99	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C100	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C101	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C102	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C103	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C104	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C105	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C106	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C107	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C108	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C109	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C110	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C111	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C112	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C113	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C114	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C115	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C116	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C117	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C118	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-120	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C121	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-124	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C125	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-127	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C128	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C129	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C130	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C131	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-135	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C137	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C139	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-152	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C200	**UF12847R**	ELECTROLYTIC CAP. (CHIP)	470 10V	チップケミコン			02
C201	**UF12847R**	ELECTROLYTIC CAP. (CHIP)	470 10V	チップケミコン			02
C202	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C203	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C204	**UF12847R**	ELECTROLYTIC CAP. (CHIP)	470 10V	チップケミコン			02
C205	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-208	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C210	**US661220**	CERAMIC CAPACITOR-CH(CHIP)	22P 50V J RECT.	チップセラ（CH）			
C213	**US661220**	CERAMIC CAPACITOR-CH(CHIP)	22P 50V J RECT.	チップセラ（CH）			
C215	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C216	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C217	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01

✻: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C218	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C219	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-223	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C224	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C225	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C226	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C227	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C228	**UF056470**	ELECTROLYTIC CAP. (CHIP)	4.7 35V	チップケミコン			01
C229	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C230	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C231	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C232	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C233	**US126100**	CERAMIC CAPACITOR-F (CHIP)	1.0000 10V Z RECT.	チップセラ F			01
C234	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C235	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C236	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C237	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-242	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C244	**US661100**	CERAMIC CAPACITOR-CH(CHIP)	10P 50V D RECT.	チップセラ（CH）			
C246	**US661120**	CERAMIC CAPACITOR-CH(CHIP)	12P 50V J RECT.	チップセラ（CH）			
C247	**US661120**	CERAMIC CAPACITOR-CH(CHIP)	12P 50V J RECT.	チップセラ（CH）			
C248	**US661100**	CERAMIC CAPACITOR-CH(CHIP)	10P 50V D RECT.	チップセラ（CH）			
C249	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C250	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-252	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C253	**V945030R**	ELECTROLYTIC CAP. (CHIP)	10.00 10.0V REFLOW	チップ OSケミコン			02
C254	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-256	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C257	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-262	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C263	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-266	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C267	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C268	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C269	**US135220**	CERAMIC CAPACITOR-F (CHIP)	0.2200 16V Z RECT.	チップセラ（F）			01
C270	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C271	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C272	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C273	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C274	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-277	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C278	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C279	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C280	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C281	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C282	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C283	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C284	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C285	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C286	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C287	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C288	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C289	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C290	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C291	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C292	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C293	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C294	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C295	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C296	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C297	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C298	**V945030R**	ELECTROLYTIC CAP. (CHIP)	10.00 10.0V REFLOW	チップ OSケミコン			02
C299	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C300	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C301	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C302	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-306	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C307	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C308	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C309	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C310	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C311	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C312	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C313	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C314	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C315	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C316	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-320	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C321	**US661120**	CERAMIC CAPACITOR-CH(CHIP)	12P 50V J RECT.	チップセラ（CH）			
C322	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
C325	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C328	**US661120**	CERAMIC CAPACITOR-CH(CHIP)	12P 50V J RECT.	チップセラ（CH）			
C335	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C344	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C345	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C346	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C351	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
C352	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
C356	**US661220**	CERAMIC CAPACITOR-CH (CHIP)	22P 50V J RECT.	チップセラ（CH）			
C359	**US661220**	CERAMIC CAPACITOR-CH (CHIP)	22P 50V J RECT.	チップセラ（CH）			
C361	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C362	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C363	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C364	**V945030R**	ELECTROLYTIC CAP. (CHIP)	10.00 10.0V REFLOW	チップ OSケミコン			02
C365	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C366	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C367	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-380	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C382	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-386	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C400	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C401	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C402	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C403	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C404	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C406	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C408	**US660700**	CERAMIC CAPACITOR-CH (CHIP)	7P 50V D RECT.	チップセラ（CH）			01
C409	**US661120**	CERAMIC CAPACITOR-CH (CHIP)	12P 50V J RECT.	チップセラ（CH）			
C410	**US660700**	CERAMIC CAPACITOR-CH (CHIP)	7P 50V D RECT.	チップセラ（CH）			01
C411	**US661120**	CERAMIC CAPACITOR-CH (CHIP)	12P 50V J RECT.	チップセラ（CH）			
C412	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C413	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C416	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C419	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
-421	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C422	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-424	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C425	**US661680**	CERAMIC CAPACITOR-CH (CHIP)	68P 50V J RECT.	チップセラ（CH）			
C426	**US663150**	CERAMIC CAPACITOR-B (CHIP)	1500P 50V K RECT.	チップセラ（B）			
C427	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C428	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C429	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C430	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C431	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C432	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C433	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C434	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C435	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C436	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C437	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C438	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C439	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C440	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C441	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C442	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C443	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C444	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-446	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C447	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C448	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
-451	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C452	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C453	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C454	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-456	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C457	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C458	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C459	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C460	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
-463	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C464	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-468	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C469	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-472	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C473	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（CH）			01
C474	**US660500**	CERAMIC CAPACITOR-CH (CHIP)	5P 50V C RECT.	チップセラ（CH）			
C475	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C476	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C477	**US661150**	CERAMIC CAPACITOR-CH (CHIP)	15P 50V J RECT.	チップセラ（CH）			
C478	**US661100**	CERAMIC CAPACITOR-CH (CHIP)	10P 50V D RECT.	チップセラ（CH）			
-480	**US661100**	CERAMIC CAPACITOR-CH (CHIP)	10P 50V D RECT.	チップセラ（CH）			
C500	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C501	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C502	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-505	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C506	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OSケミコン			03
C507	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OSケミコン			03
C508	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C509	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C510	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C511	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C512	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C513	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C514	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C515	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C516	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C517	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C519	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C520	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C521	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C522	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C523	**WG888300**	CHIP MULTILAYER CERAMIC	10.0 6.3V K TP	チップ積層セラコン			
C524	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C525	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C526	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C527	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C528	**WG888300**	CHIP MULTILAYER CERAMIC	10.0 6.3V K TP	チップ積層セラコン			
C529	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C530	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OSケミコン			03
C533	**US661120**	CERAMIC CAPACITOR-CH (CHIP)	12P 50V J RECT.	チップセラ（CH）			
C534	**US661120**	CERAMIC CAPACITOR-CH (CHIP)	12P 50V J RECT.	チップセラ（CH）			
C535	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C536	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C537	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C538	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C539	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C540	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C541	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C542	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C543	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C544	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C545	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C546	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C547	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C548	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C549	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C550	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C551	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C553	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C554	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01

✻: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C555	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C556	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C557	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C558	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C559	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C560	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C561	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C562	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C563	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C564	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C565	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C566	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C567	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C568	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C569	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C570	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C571	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C572	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C573	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C574	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C575	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C576	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C577	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C578	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C579	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C580	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C581	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C582	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-584	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C585	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C586	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C587	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C588	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C589	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C590	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C591	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C592	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C593	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C594	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C595	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C596	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C597	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C598	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C599	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C600	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C601	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C602	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C603	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C604	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C605	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C606	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C607	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C608	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C609	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C610	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C611	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C612	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C613	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C614	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C615	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C616	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C617	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C618	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C619	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C620	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C621	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C622	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C623	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C624	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C625	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01

✻: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C626	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C627	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C628	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C629	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C630	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C631	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C632	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C633	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C634	**V945210R**	ELECTROLYTIC CAP. (CHIP)	100.00 6.3V REFLOW	チップ OS ケミコン			03
C635	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C636	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C637	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C638	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C639	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C640	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C641	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C642	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C643	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C644	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C645	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C646	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C647	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C648	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C649	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C650	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C651	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C652	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C653	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C654	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C655	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C656	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C657	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C658	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C659	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C660	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C661	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C662	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C663	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C664	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C665	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-667	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C668	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C669	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C670	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C671	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C672	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-674	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C675	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C676	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C677	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C678	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C679	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C680	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C681	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C682	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C683	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C685	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C686	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C687	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C688	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C690	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C691	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C692	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C693	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C694	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C695	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C696	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C697	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C698	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C699	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01

✻: New Parts

RANK: Japan only

DM

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C700	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C701	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C702	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C703	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C704	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C705	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C706	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C707	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C708	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C709	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C710	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C711	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C712	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C713	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C714	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C715	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C716	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C717	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C718	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C719	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
C720	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C721	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C722	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C723	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C724	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C725	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C726	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C727	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C728	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C729	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C730	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C731	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C732	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C733	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C734	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C735	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C736	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C737	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C738	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C739	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C740	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C741	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C742	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-747	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C800	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C801	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C802	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C803	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C804	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C805	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C806	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C807	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C808	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C809	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C810	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C811	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C812	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C813	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C814	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C815	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C816	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C817	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C818	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-820	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C821	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C822	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C823	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C824	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C825	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C826	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C827	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C828	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C829	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
-831	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C832	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C833	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C834	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C835	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C836	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C837	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C838	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C839	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C840	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C841	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C842	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C843	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C844	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C845	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C846	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C847	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C848	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C849	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C850	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
-852	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C853	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C854	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C855	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C856	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C857	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C858	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C859	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C860	**US662470**	CERAMIC CAPACITOR-B (CHIP)	470P 50V K RECT.	チップセラ（B）			01
C861	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
-863	**UF01722R**	ELECTROLYTIC CAP. (CHIP)	22 6.3V	チップケミコン			01
C864	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C865	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
C866	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-869	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C870	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C871	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C872	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C873	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C874	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C875	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C876	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-887	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C888	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C889	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C890	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C891	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C892	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-895	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C900	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C901	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C902	**UF066220**	ELECTROLYTIC CAP. (CHIP)	2.2 50V	チップケミコン			
C903	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
-905	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C906	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
-908	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C909	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C910	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C911	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C912	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C913	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C914	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C915	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C916	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C917	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C918	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
C919	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	C920	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C921	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
	C922	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C923	**V9410700**	ELECTROLYTIC CAP.-BP(CHIP)	1 50V RVB-50V010MU	チップBPコン			
	C924	**V9410700**	ELECTROLYTIC CAP.-BP(CHIP)	1 50V RVB-50V010MU	チップBPコン			
	C925	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C926	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	-929	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C930	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
*	C933	**US642180**	CERAMIC CAPACITOR-CH (CHIP)	180P 25V J RECT.	チップセラ（CH）			
*	-936	**US642180**	CERAMIC CAPACITOR-CH (CHIP)	180P 25V J RECT.	チップセラ（CH）			
	C937	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	C938	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
*	C939	**US642180**	CERAMIC CAPACITOR-CH (CHIP)	180P 25V J RECT.	チップセラ（CH）			
*	-942	**US642180**	CERAMIC CAPACITOR-CH (CHIP)	180P 25V J RECT.	チップセラ（CH）			
	C945	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C946	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C947	**UF056470**	ELECTROLYTIC CAP. (CHIP)	4.7 35V	チップケミコン			01
	C948	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C949	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
	C950	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
	C951	**UF056470**	ELECTROLYTIC CAP. (CHIP)	4.7 35V	チップケミコン			01
	-954	**UF056470**	ELECTROLYTIC CAP. (CHIP)	4.7 35V	チップケミコン			01
	C955	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C956	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C957	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
	C958	**US662100**	CERAMIC CAPACITOR-CH (CHIP)	100P 50V J RECT.	チップセラ（CH）			
	C959	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C960	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ（B）			01
	C961	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C962	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C963	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C964	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
*	C965	**US633820**	CERAMIC CAPACITOR-B (CHIP)	8200P 16V K RECT.	チップセラ（B）			
*	C966	**US633820**	CERAMIC CAPACITOR-B (CHIP)	8200P 16V K RECT.	チップセラ（B）			
	C967	**V9410700**	ELECTROLYTIC CAP.-BP(CHIP)	1 50V RVB-50V010MU	チップBPコン			
	C968	**V9410700**	ELECTROLYTIC CAP.-BP(CHIP)	1 50V RVB-50V010MU	チップBPコン			
	C969	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
	C970	**UF13822R**	ELECTROLYTIC CAP. (CHIP)	220 16V	チップケミコン			01
*	C971	**UF138680**	ELECTROLYTIC CAP. (CHIP)	680 16V	チップケミコン			
	C974	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C975	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C977	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C978	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C979	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	-989	**US663100**	CERAMIC CAPACITOR-B (CHIP)	1000P 50V K RECT.	チップセラ（B）			
	C990	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	-993	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	C2000	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	-2214	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ（F）			
	CN1	**WC19920R**	CONNECTOR, FFC/FPC	52808 17P TE	FFC／FPCコネクタ			01
	CN2	**VT388700**	CONNECTOR BASE PIN	PH 6P TE	ベース付ポスト			
	CN3	**VT388600**	CONNECTOR BASE PIN	PH 5P TE	ベース付ポスト			
	CN5	**VT388300**	CONNECTOR BASE PIN	PH 2P TE	ベース付ポスト			
	CN200	**LB933060**	BASE POST CONNECTOR	VH 6P SE	ベースポスト			
	CN201	**VT388500**	CONNECTOR BASE PIN	PH 4P TE	ベース付ポスト			
	CN202	**WA245700**	USB CONNECTOR	YKF45-0027 4P SE	USBコネクタ	USB [TO DEVICE]		02
	CN203	**V902080R**	USB CONNECTOR	4P SE B-TYPE	USBコネクタB	USB [TO HOST]		02
	CN204	**VT388700**	CONNECTOR BASE PIN	PH 6P TE	ベース付ポスト			
	CN205	**VT388800**	CONNECTOR BASE PIN	PH 7P TE	ベース付ポスト			
	CN206	**VT388800**	CONNECTOR BASE PIN	PH 7P TE	ベース付ポスト			
	CN208	**WC199000**	FMN CONNECTOR	FMN 40P TE	FMNコネクター			
	CN400	**VT389300**	CONNECTOR BASE PIN	PH 12P TE	ベース付ポスト			
	CN800	**WG870200**	DIMM SOCKET	DMM-168FLAA2-3A13N	DIMMソケット	DIMM (168-pin)		05
	CN801	**WG870200**	DIMM SOCKET	DMM-168FLAA2-3A13N	DIMMソケット	DIMM (168-pin)		05
	CN900	**V902830R**	CONNECTOR, FFC/FPC	52808-2471 24P TE	FFC／FPCコネクタ			02
	D1	**VS20110R**	DIODE	D1F60 1A 600V TP	チップダイオード			01
	D2	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
	-7	**VR49650R**	DIODE	MA2J1110GL TP	チップダイオード			01
	D2	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード			

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	REF NO.	PART NO.	DESCRIPTION	部品名	REMARKS	QTY	RANK
	-7	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード		
	D2	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	-7	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	D500	**VS20110R**	DIODE	D1F60 1A 600V TP	チップダイオード		01
	-502	**VS20110R**	DIODE	D1F60 1A 600V TP	チップダイオード		01
	D900	**VR49650R**	DIODE	MA2J1110GL TP	チップ ダイオード		01
	-903	**VR49650R**	DIODE	MA2J1110GL TP	チップ ダイオード		01
	D900	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード		
	-903	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード		
	D900	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	-903	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	D904	**VS20110R**	DIODE	D1F60 1A 600V TP	チップダイオード		01
	D905	**VS20110R**	DIODE	D1F60 1A 600V TP	チップダイオード		01
	D906	**VR49650R**	DIODE	MA2J1110GL TP	チップ ダイオード		01
	-911	**VR49650R**	DIODE	MA2J1110GL TP	チップ ダイオード		01
	D906	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード		
	-911	**VT332900**	DIODE	1SS355 TE-17 TP	ダイオード		
	D906	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	-911	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード		
	EM1	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
	-4	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
	EM200	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
	-203	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
	EM900	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
	EM901	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ		01
*	IC1	**X9901A00**	IC	R3112N291C-TR-F	I C	SYSTEM RESET	
	IC2	**X7820A00**	IC	BA18BC0FP-E2	I C	REGULATOR +1.8V	2
	IC3	**X2890B00**	IC	HD6417727F160CV	I C	CPU (MAIN)	15
	IC4	**X3098A00**	IC	SN74AHC14PWR	I C	INVERTER	
	IC4	**X6688A0R**	IC	SN74LV14APWR	I C		01
	IC4	**XV890B0R**	IC	TC74VHC14FT(EL,K)	I C		01
	IC5	**X3098A00**	IC	SN74AHC14PWR	I C	INVERTER	
	IC5	**X6688A0R**	IC	SN74LV14APWR	I C		01
	IC5	**XV890B0R**	IC	TC74VHC14FT(EL,K)	I C		01
	IC6	**X5647A00**	IC	SN74LV32APWR	I C	OR	
	IC7	**X3098A00**	IC	SN74AHC14PWR	I C	INVERTER	
	IC7	**X6688A0R**	IC	SN74LV14APWR	I C		01
	IC7	**XV890B0R**	IC	TC74VHC14FT(EL,K)	I C		01
*	IC8	**X9323A00**	IC	DS99R103TSQX/NOPB	I C	LVDS	
	IC9	**XW814A0R**	IC	TC7SET32FU(TE85L,F)	I C	OR	01
*	IC10	**X9326D00**	IC	S29GL256N10TFI020	I C	FLASH ROM 256M PROG-L	
*	IC11	**X9327D00**	IC	S29GL256N10TFI020	I C	FLASH ROM 256M PROG-H	
	IC12	**X4942A0R**	IC	MT48LC16M16A2P-75	I C	SDRAM 256M	10
	IC12	**X4943B00**	IC	W9825G6DH-75	I C		
	IC12	**X6833A00**	IC	EDS2516ADTA-75-E	I C		
*	IC12	**X9556A00**	IC	M12L2561616A-7TG	I C		
	IC13	**X4942A0R**	IC	MT48LC16M16A2P-75	I C	SDRAM 256M	10
	IC13	**X4943B00**	IC	W9825G6DH-75	I C		
	IC13	**X6833A00**	IC	EDS2516ADTA-75-E	I C		
*	IC13	**X9556A00**	IC	M12L2561616A-7TG	I C		
*	IC14	**X9328100**	IC	MR27T6402L-1LWTNZ03D	I C	P2ROM 64M DATA	
*	IC15	**X9697A00**	IC	MX29LV640DBTC-90G	I C	FLASH ROM 64M BACKUP	
	IC16	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER	1
	-19	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER	1
	IC20	**X2377A0R**	IC	SN74LV21APWR	I C	AND	01
*	IC20	**X5542A00**	IC	TC74VHC21FT(EL)	I C		
	IC21	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER	1
	IC22	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER	1
	IC23	**X5074A00**	IC	SN74LV273APWR	I C	D-FF	01
	IC23	**X7942B00**	IC	TC74VHC273FT(EL,K)	I C		01
	IC24	**X4963A0R**	IC	HD74LVC139TELL-E	I C	DECODER	02
	IC24	**X7227A00**	IC	SN74LVC139APWR	I C		01
	IC25	**X4963A0R**	IC	HD74LVC139TELL-E	I C	DECODER	02
	IC25	**X7227A00**	IC	SN74LVC139APWR	I C		01
	IC27	**XW633A0R**	IC	TC7SH32FU(TE85L)	I C	OR	
	IC200	**X2709A0R**	IC	SN74AHCT245PWR	I C	TRANSCEIVER	2
	IC200	**XT744B0R**	IC	TC74VHCT245AFT	I C		2
	IC201	**X3693A0R**	IC	SN74LV245APWR	I C	TRANSCEIVER	2
	IC201	**XU797B00**	IC	TC74VHC245FT(EL,K)	I C		1
	IC202	**XR680A00**	IC	TC7SH08FU(TE85L)	I C	AND	

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	REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
	IC203	**X2688A0R**	IC	S1L52502F24J200	I C	DGA (GATE ARRAY)		9
	IC204	**X2760C00**	IC	K4S641632K-UC75000	I C	SDRAM 64M		07
	IC204	**X7753B00**	IC	IS42S16400D-7TL	I C			
	IC204	**XZ414D00**	IC	W9864G6GH-7	I C			
	IC205	**X6046B0R**	IC	LC4256V-75TN100	I C	MAT (CPLD)		08
	IC206	**X7951A00**	IC	BD6517F-E2	I C	HIGH SIDE SWITCH		
*	IC207	**X9073A00**	IC	ISP1761BE,557	I C	USB2.0 HOST CONTROLLER		
	IC208	**X6155A0R**	IC	PCA9564PW,118-PBF	I C	PCI BUS CONTROLLER		
	IC209	**XR680A00**	IC	TC7SH08FU(TE85L,JF)	I C	AND		
	IC210	**X7029A00**	IC	DM9000AEP	I C	LAN CONTROLLER		9
	IC211	**XW633A0R**	IC	TC7SH32FU(TE85L,JF)	I C	OR		
	IC212	**X5405A00**	IC	SN74LVC32APWR	I C	OR		
	IC213	**X5825A00**	IC	SN74LVC1G32DCKR	I C	OR GATE		01
	IC400	**XQ805A00**	IC	TC7WU04FU(TE12L,F)	I C	INVERTER		
	IC401	**XQ805A00**	IC	TC7WU04FU(TE12L,F)	I C	INVERTER		
	IC402	**X6356B00**	IC	YGV628B-VZ	I C	RGB CONTROLLER AVDP7		
	IC403	**X2590B0R**	IC	W9816G6CH-7	I C	SDRAM 16M		06
	IC403	**X5217A00**	IC	IS42S16100C1-7TLTR	I C			
	IC403	**X5693B00**	IC	M12L16161A-7TG	I C			
	IC404	**X6536A0R**	IC	TC74ACT74FT(EL)	I C	D-FF		02
*	IC404	**X9486A00**	IC	SN74ACT74PWR	I C			
	IC405	**X7703A00**	IC	TC7WT126FU(TE12L)	I C	BUFFER		02
	IC406	**X2314A00**	IC	MB3516APF-G-BND-EF	I C	RGB ENCODER		4
	IC500	**X7700A00**	IC	BA15BC0FP-E2	I C	REGULATOR +1.5V		
	IC501	**X7700A00**	IC	BA15BC0FP-E2	I C	REGULATOR +1.5V		
	IC502	**X7074A00**	IC	SN74LVC138APWR	I C	DECODER		
	IC503	**X4195A0R**	IC	S1L50553F21Y000	I C	MCI (GATE ARRAY)		5
	IC504	**X9292A00**	IC	R1172H121D-T1-F	I C	REGULATOR +1.2V		
	IC505	**X7376B00**	IC	T6TZ2XBG-0002	I C	SWP51B		
	IC506	**X7376B00**	IC	T6TZ2XBG-0002	I C	SWP51B		
*	IC507	**X8924A00**	IC	R5S72060W200FPV	I C	CPU (SUB)		
	IC508	**X0176C00**	IC	W9864G2GH-7	I C	SDRAM 64M		
	IC508	**X4627C00**	IC	M12L64322A-7TG	I C			
*	IC508	**X4629B00**	IC	IS42S32200C1-7TL	I C			
	IC509	**X0176C00**	IC	W9864G2GH-7	I C	SDRAM 64M		
	IC509	**X4627C00**	IC	M12L64322A-7TG	I C			
*	IC509	**X4629B00**	IC	IS42S32200C1-7TL	I C			
	IC510	**X3098A00**	IC	SN74AHC14PWR	I C	INVERTER		
	IC510	**X6688A0R**	IC	SN74LV14APWR	I C			01
	IC510	**XV890B0R**	IC	TC74VHC14FT(EL,K)	I C			01
	IC511	**X2590B0R**	IC	W9816G6CH-7	I C	SDRAM 16M		06
	IC511	**X5217A00**	IC	IS42S16100C1-7TLTR	I C			
	IC511	**X5693B00**	IC	M12L16161A-7TG	I C			
	IC512	**X2590B0R**	IC	W9816G6CH-7	I C	SDRAM 16M		06
	IC512	**X5217A00**	IC	IS42S16100C1-7TLTR	I C			
	IC512	**X5693B00**	IC	M12L16161A-7TG	I C			
*	IC513	**X9426A00**	IC	M12L128324A-7TG	I C	SDRAM 128M		
*	IC513	**X9427A00**	IC	W9812G2GH-75	I C			
*	IC514	**X9329100**	IC	MR27V802F-10TTNZ03	I C	MASK ROM 8M		
*	IC800	**X9330100**	IC	MR26T51203L-105TM0	I C	MASK ROM 512M WAVE L1 ※1		
*	IC801	**X9331100**	IC	MR26T51203L-106TM0	I C	MASK ROM 512M WAVE L2 ※1		
*	IC802	**X9332100**	IC	MR26T51203L-107TM0	I C	MASK ROM 512M WAVE H1 ※1		
*	IC803	**X9333100**	IC	MR26T51203L-108TM0	I C	MASK ROM 512M WAVE H2 ※1		
*	IC804	**YA421100**	IC	MR26V51252R-100TA0	I C	MASK ROM 512M WAVE L1 ※2		
*	IC805	**YA422100**	IC	MR26V51252R-101TA0	I C	MASK ROM 512M WAVE L2 ※2		
*	IC806	**YA423100**	IC	MR26V51252R-102TA0	I C	MASK ROM 512M WAVE H1 ※2		
*	IC807	**YA424100**	IC	MR26V51252R-103TA0	I C	MASK ROM 512M WAVE H2 ※2		
	IC808	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER		1
	-811	**XZ287A0R**	IC	SN74LVC245APWR	I C	TRANSCEIVER		1
	IC812	**XR680A00**	IC	TC7SH08FU(TE85L)	I C	AND		
	IC813	**XR680A00**	IC	TC7SH08FU(TE85L)	I C	AND		
	IC900	**X8324A00**	IC	AK4396VF-E2	I C	DAC		06
	IC901	**X8324A00**	IC	AK4396VF-E2	I C	DAC		06
	IC902	**X5219A0R**	IC	AK5381VT-E2	I C	ADC		05
	IC903	**X3505A00**	IC	NJM2068M-D(TE2)	I C	OP AMP		
	IC903	**X5482A00**	IC	NE5532DR	I C			
	IC904	**X3505A00**	IC	NJM2068M-D(TE2)	I C	OP AMP		
	IC904	**X5482A00**	IC	NE5532DR	I C			
	IC906	**X3505A00**	IC	NJM2068M-D(TE2)	I C	OP AMP		
	IC906	**X5482A00**	IC	NE5532DR	I C			

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	IC908	**XZ642A00**	IC	TAR5S33(TE85L,F)	I C	REGULATOR +3.3V		
	IC909	**XS534A00**	IC	NJM78M05DL1A	I C	REGULATOR +5V		
	JK200	**WG468100**	MODULAR CONNECTOR	8P RJSE-1E08T089A	モジュラーコネクター	LAN		05
	L1	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	-15	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	L17	**VR57990R**	CHIP INDUCTANCE	BK2125 HS601-T	チップインダクタ			01
	L20	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
	L23	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-26	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L27	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-52	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L53	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-60	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L61	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L62	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
*	L63	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L200	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-203	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	L204	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
	L205	**V8901200**	CHIP SOLID INDUCTANCE	BLM21PG221SN1D	チップソリッドインダ			01
	L206	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
	L207	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
*	L209	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L210	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L215	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	-220	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
*	L222	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-275	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L400	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D1	チップインダクタ			
*	-402	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D1	チップインダクタ			
	L407	**VR57990R**	CHIP INDUCTANCE	BK2125 HS601-T	チップインダクタ			01
	L409	**VR57990R**	CHIP INDUCTANCE	BK2125 HS601-T	チップインダクタ			01
	L410	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L412	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-430	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L502	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	L503	**V2747000**	CHIP INDUCTANCE	BLM18PG600SN1	チップインダクタ			
	L512	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L513	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L516	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L517	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L520	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-528	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L529	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-537	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
*	L538	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-572	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L804	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L805	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	L812	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
*	-865	**WH559500**	CHIP INDUCTANCE	BLM18PG471SN1D	チップインダクタ			
	L900	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	-910	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	R1	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R2	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	R3	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	-5	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R11	**RD458470**	CHIP RESISTOR 1/16W	470.0K 63M J RECT.	チップ抵抗			
	R12	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R13	**RD458470**	CHIP RESISTOR 1/16W	470.0K 63M J RECT.	チップ抵抗			
	-15	**RD458470**	CHIP RESISTOR 1/16W	470.0K 63M J RECT.	チップ抵抗			
	R16	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	-18	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R19	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R20	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R21	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R23	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R24	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R25	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
	-28	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01

*: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R29	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R32	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R33	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R34	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
R35	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
R40	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R41	**RD45515R**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			01
R45	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-47	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R48	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R49	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R50	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-53	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R54	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R56	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R57	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R58	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-60	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R61	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R62	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-64	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R65	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R66	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-68	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R69	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R70	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R71	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R73	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R76	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R77	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R78	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R79	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R80	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R81	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R82	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R83	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R84	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R85	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R86	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R87	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R89	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-91	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R92	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R93	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R94	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R95	**RD45515R**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			01
R96	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R99	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R103	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R106	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
R107	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R108	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-110	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R112	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R113	**RD457220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R114	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R115	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R116	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R119	**RD45747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R120	**RD458470**	CHIP RESISTOR 1/16W	470.0K 63M J RECT.	チップ抵抗			
-122	**RD458470**	CHIP RESISTOR 1/16W	470.0K 63M J RECT.	チップ抵抗			
R123	**RD45747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R124	**RD45747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R138	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R139	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R143	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R145	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R148	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R150	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R151	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01

✻: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
-154	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R155	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R156	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R157	**RD45515R**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			01
R158	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R159	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R160	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R161	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R164	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-167	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R168	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R169	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
-171	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R172	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R173	**RD45747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R174	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R175	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R177	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R200	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
-202	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R203	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
-205	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R206	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R208	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R209	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R210	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R220	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R221	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R222	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R223	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R224	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R231	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
R233	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R235	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
-238	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R241	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-243	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R245	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R246	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R254	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R255	**RD459100**	CHIP RESISTOR 1/16W	1.0M 63M J RECT.	チップ抵抗			
R259	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R262	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R264	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R266	**RF35712R**	CHIP RESISTOR 1/16W	12.0K D 1608	チップ抵抗			01
-268	**RF35712R**	CHIP RESISTOR 1/16W	12.0K D 1608	チップ抵抗			01
R276	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-281	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R288	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R289	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R291	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R292	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R294	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R303	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R306	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R307	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R311	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R315	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R316	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
-319	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
R322	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
-325	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
R326	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
-329	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R331	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R332	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R333	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R334	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R335	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R336	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			

✻: New Parts

RANK: Japan only

DM

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	R337	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R338	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	-340	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R341	**RD456560**	CHIP RESISTOR 1/16W	5.6K 63M J RECT.	チップ抵抗			01
	R342	**RF35668R**	CHIP RESISTOR 1/16W	6.8K D 1608	チップ抵抗			01
	R343	**RD456560**	CHIP RESISTOR 1/16W	5.6K 63M J RECT.	チップ抵抗			01
*	R346	**RD454100**	CHIP RESISTOR 1/16W	10.0 63M J RECT.	チップ抵抗			
*	R347	**RD454100**	CHIP RESISTOR 1/16W	10.0 63M J RECT.	チップ抵抗			
	R348	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	-350	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R351	**RD454820**	CHIP RESISTOR 1/16W	82.0 63M J RECT.	チップ抵抗			01
	R352	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	-354	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R355	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R356	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	-371	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R373	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R374	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R375	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R377	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R378	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R380	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R381	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R382	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R383	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R384	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R385	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R386	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R387	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R388	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R390	**RD45512R**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
	-392	**RD45512R**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
	R393	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	-396	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R397	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R398	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R399	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R400	**RD459100**	CHIP RESISTOR 1/16W	1.0M 63M J RECT.	チップ抵抗			
	R401	**RD459100**	CHIP RESISTOR 1/16W	1.0M 63M J RECT.	チップ抵抗			
	R402	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R403	**RD455330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
*	R404	**RD455270**	CHIP RESISTOR 1/16W	270.0 63M J RECT.	チップ抵抗			
	R405	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R406	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R408	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
	R409	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R410	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R414	**RF35668R**	CHIP RESISTOR 1/16W	6.8K D 1608	チップ抵抗			01
	R421	**RF354820**	CHIP RESISTOR 1/16W	82.0 D 1608	チップ抵抗			
	R423	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
	R424	**RF355100**	CHIP RESISTOR 1/16W	100.0 D 1608	チップ抵抗			
	R425	**RF354820**	CHIP RESISTOR 1/16W	82.0 D 1608	チップ抵抗			
	R430	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R431	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	R433	**RD45747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
	R434	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	-436	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	R437	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
	R438	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
	R439	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
	R440	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	R441	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
	R442	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	R450	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	-452	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R453	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
	-455	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
	R456	**RD456220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			
	-458	**RD456220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			
	R459	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			

*: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R460	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
R461	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R462	**RD454750**	CHIP RESISTOR 1/16W	75.0 63M J RECT.	チップ抵抗			01
R463	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
-479	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R500	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R501	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
R502	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
R503	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-507	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R508	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R509	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R510	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-512	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R513	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R514	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R515	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R516	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R517	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R518	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-522	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R523	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R524	**RD454220**	CHIP RESISTOR 1/16W	22.0 63M J RECT.	チップ抵抗			
R525	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R526	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R527	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R529	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R531	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-536	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R541	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R542	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R543	**RD455680**	CHIP RESISTOR 1/16W	680.0 63M J RECT.	チップ抵抗			01
R544	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R545	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R546	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-551	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R553	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-558	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R559	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R560	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R569	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R572	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R573	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R574	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
R575	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R577	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R578	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R579	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R580	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R581	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R583	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R584	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R586	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R587	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R588	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R589	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R590	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R607	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R608	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R620	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
-625	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R626	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R627	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
R628	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R629	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R646	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R647	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R648	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-650	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R651	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			

✻: New Parts

RANK: Japan only

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R652	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R653	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R654	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R655	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-657	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R658	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R663	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-667	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R669	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-671	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R672	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R673	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R674	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R675	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R676	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R677	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-679	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R680	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R681	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R682	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R683	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R684	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-686	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R687	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R688	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R690	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-694	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R696	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-698	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R699	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-720	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R721	**RD454560**	CHIP RESISTOR 1/16W	56.0 63M J RECT.	チップ抵抗			01
R722	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-728	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R729	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R730	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R731	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-754	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R755	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
-766	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗			01
R767	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
-770	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R771	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R808	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R809	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R810	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-813	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R814	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R815	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R816	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R833	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R834	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R835	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
-837	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R838	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R839	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R840	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
R851	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R852	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R853	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
-888	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
R889	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗	※1		01
-899	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗	※1		01
R900	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
-904	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R907	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
R908	**RD454680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			01
R909	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
R910	**RD45522R**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			01
R911	**RD456390**	CHIP RESISTOR 1/16W	3.9K 63M J RECT.	チップ抵抗			

✻: New Parts

RANK: Japan only

DM

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	-918	**RD456390**	CHIP RESISTOR 1/16W	3.9K 63M J RECT.	チップ抵抗			
	R919	**RD457120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
	-923	**RD457120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
	R924	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R925	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R926	**RD457120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
	R927	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R928	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R929	**RD457120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
	R930	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R931	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R932	**RD457120**	CHIP RESISTOR 1/16W	12.0K 63M J RECT.	チップ抵抗			
	R933	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R934	**RD456470**	CHIP RESISTOR 1/16W	4.7K 63M J RECT.	チップ抵抗			
	R938	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	-941	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R942	**RD457330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			01
	R943	**RD457330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			01
	R944	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
	-947	**RD454470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			01
*	R948	**RD457820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
*	R949	**RD457820**	CHIP RESISTOR 1/16W	82.0K 63M J RECT.	チップ抵抗			
	R950	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R951	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R952	**RD456220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			
	R953	**RD456220**	CHIP RESISTOR 1/16W	2.2K 63M J RECT.	チップ抵抗			
	R954	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R955	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R956	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R957	**RD458100**	CHIP RESISTOR 1/16W	100.0K 63M J RECT.	チップ抵抗			
	R960	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R961	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R962	**WD07550R**	CARBON RESISTOR (CHIP)	6.8 1/8W J	チップ抵抗			
	-965	**WD07550R**	CARBON RESISTOR (CHIP)	6.8 1/8W J	チップ抵抗			
	R970	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	-972	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R973	**RD456100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			
	R974	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R975	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R1000	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗	※1		01
	-1008	**RD454390**	CHIP RESISTOR 1/16W	39.0 63M J RECT.	チップ抵抗	※1		01
	R1100	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-1110	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	RA1	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-8	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA9	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA10	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA11	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	RA12	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA13	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	RA15	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	RA16	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	RA17	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	-24	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA25	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-32	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA33	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	-36	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA37	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-44	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA45	**WH207000**	RESISTOR ARRAY	100 X 4	抵抗アレイ			
	-50	**WH207000**	RESISTOR ARRAY	100 X 4	抵抗アレイ			
	RA51	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA52	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
*	RA53	**WH204600**	RESISTOR ARRAY	10 X 4	抵抗アレイ			
*	-58	**WH204600**	RESISTOR ARRAY	10 X 4	抵抗アレイ			
	RA65	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	-68	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
*	RA69	**WH204600**	RESISTOR ARRAY	10 X 4	抵抗アレイ			
*	-72	**WH204600**	RESISTOR ARRAY	10 X 4	抵抗アレイ			

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	RA73	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-76	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
*	RA200	**WH210600**	RESISTOR ARRAY	3.3K X 4	抵抗アレイ			
	RA201	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-205	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA206	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	RA207	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	RA208	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-215	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA216	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	-219	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA220	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	-223	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	RA224	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA225	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA226	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-234	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA400	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	-405	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	RA406	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-409	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA410	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	-414	**WH213400**	RESISTOR ARRAY	47K X 4	抵抗アレイ			01
	RA500	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-503	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA504	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-511	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA512	**WH211800**	RESISTOR ARRAY	10K X 4	抵抗アレイ			
	RA513	**WH211800**	RESISTOR ARRAY	10K X 4	抵抗アレイ			
	RA514	**WH214200**	RESISTOR ARRAY	100K X 4	抵抗アレイ			01
	RA515	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA516	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA517	**WH214200**	RESISTOR ARRAY	100K X 4	抵抗アレイ			01
	RA518	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA519	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA520	**WH214200**	RESISTOR ARRAY	100K X 4	抵抗アレイ			01
	RA521	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA522	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA523	**WH214200**	RESISTOR ARRAY	100K X 4	抵抗アレイ			01
	RA524	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA525	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA526	**WH214200**	RESISTOR ARRAY	100K X 4	抵抗アレイ			01
	RA527	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA528	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA529	**WH211800**	RESISTOR ARRAY	10K X 4	抵抗アレイ			
	RA530	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-545	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA546	**WH211800**	RESISTOR ARRAY	10K X 4	抵抗アレイ			
	-548	**WH211800**	RESISTOR ARRAY	10K X 4	抵抗アレイ			
	RA549	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-556	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA557	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA558	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	-565	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	RA566	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	-568	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA569	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA570	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA571	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA572	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA573	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-576	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA579	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-582	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA585	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-590	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA591	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA592	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA593	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA594	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01

*: New Parts

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DM and EN/PNC

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	RA595	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA596	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA597	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	-600	**WH206600**	RESISTOR ARRAY	68 X 4	抵抗アレイ			01
	RA601	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-604	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA607	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-610	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA613	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	-616	**WH216700**	RESISTOR ARRAY	0 X 4	抵抗アレイ			01
	RA617	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-632	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA633	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-640	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA641	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	-664	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	RA800	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	-807	**WH205400**	RESISTOR ARRAY	22 X 4	抵抗アレイ			01
	RA808	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	-815	**WH206200**	RESISTOR ARRAY	47 X 4	抵抗アレイ			01
	RA816	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	-823	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ			01
	RA824	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ	※1		01
	-843	**WH206000**	RESISTOR ARRAY	39 X 4	抵抗アレイ	※1		01
	TA400	**V273190R**	PAIR TRANSISTOR	IMX9	ペアトランジスタ			01
	TR900	**VV556400**	TRANSISTOR	2SC2412K Q,R,S TP	トランジスタ 2SC			
	TR900	**WC52940R**	TRANSISTOR	KTC3875S-Y	トランジスタ			01
*	X1	**WM284600**	QUARTZ CRYSTAL UNIT	24.000MHz DSO321SR	水晶発振器			
*	X4	**WP142100**	QUARTZ CRYSTAL UNIT	16.000MHz DSO321SR	水晶発振器			
*	X200	**WM284900**	QUARTZ CRYSTAL UNIT	22.5792MHz DSX321G	水晶振動子			
	X201	**WK192600**	QUARTZ CRYSTAL UNIT	12MHz DSX321G	水晶振動子			
	X202	**WM135400**	QUARTZ CRISTAL UNIT	25MHz DSX321G	水晶振動子			
*	X400	**WM285100**	QUARTZ CRYSTAL UNIT	17.734475MHz DSX321G	水晶振動子			
*	X401	**WM285000**	QUARTZ CRYSTAL UNIT	14.31818MHz DSX321G	水晶振動子			
*	X402	**WM284700**	QUARTZ CRYSTAL UNIT	25.175MHz DSO321SR	水晶発振器			
*	X500	**WM284800**	QUARTZ CRYSTAL UNIT	16.666666MHz DSX321G	水晶振動子			
*		**WK611800**	CIRCUIT BOARD	EN	ENシート	(WM24260)(X9411B0)		
*		**WK611400**	CIRCUIT BOARD	PNC	PNCシート	(WM24260)(X9411B0)		
	C22	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ(F)			01
	C23	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ(F)			01
	CN1	**VB39000R**	CONNECTOR	PH 4P TE	ベースポスト			01
	CN2	**WK743400**	FFC CONNECTOR	52807 22P SE	FFCコネクタ			
	CN201	**VB858300**	BASE-PIN	PH 4P SE	ベースポスト			
	D1	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-33	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D201	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D202	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	EC201	**VU48130R**	ENCODER	REB161(9X5)PVB15FH	16形エンコーダ	DATA ENTRY		03
	R1	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	-3	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R22	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01
	-29	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01
	R30	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	SW1	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[1] (up)		01
	SW2	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[1] (down)		01
	SW3	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[5] (up)		01
	SW4	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[5] (down)		01
	SW5	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[2] (up)		01
	SW6	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[2] (down)		01
	SW7	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[6] (up)		01
	SW8	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[6] (down)		01
	SW9	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[3] (up)		01
	SW10	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[3] (down)		01
	SW11	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[7] (up)		01
	SW12	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[7] (down)		01
	SW13	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[4] (up)		01
	SW14	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[4] (down)		01
	SW15	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[8] (up)		01
	SW16	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	[8] (down)		01

*: New Parts

RANK: Japan only

EN/PNC and HDSB and LCL/LCR

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	SW17	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ENTER		01
*	VR1	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[1] slider		
*	VR2	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[2] slider		
*	VR3	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[3] slider		
*	VR4	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[4] slider		
*	VR5	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[5] slider		
*	VR6	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[6] slider		
*	VR7	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[7] slider		
*	VR8	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	[8] slider		
*		**WM840900**	CIRCUIT BOARD	HDSB	HDSBシート	(WM82880)(X6800B0)		
	C4	**WA45810R**	ELECTROLYTIC CAPACITOR	1000 25.0V TP	ケミコンPW			01
	C5	**VC69480R**	CEAMIC CAPACITOR	0.1000 25V Z TATET	半導体セラコン			01
	C6	**FG64410R**	CERAMIC CAPACITOR-F	0.0100 50V Z RX TP	セラコン(F)			01
	C7	**VC69480R**	CEAMIC CAPACITOR	0.1000 25V Z TATET	半導体セラコン			01
	C8	**WA45810R**	ELECTROLYTIC CAPACITOR	1000 25.0V TP	ケミコンPW			01
	C9	**VC69480R**	CEAMIC CAPACITOR	0.1000 25V Z TATET	半導体セラコン			01
	C10	**WA45810R**	ELECTROLYTIC CAPACITOR	1000 25.0V TP	ケミコンPW			01
	CN1	**LB918020**	BASE PIN	XH 2P TE I-TYPE	ベーストピキポスト			0
	CN2	**VB39000R**	CONNECTOR	PH 4P TE	ベースポスト			01
	CN4	**WE69380R**	PIN HEADER SIDE	2mm GSFB203 44P SE	ピンヘッダー2mm			04
	CN5	**WB497000**	FCC CONNECTOR	FFC FMN 40P TE	FFCコネクター			
	D95	**V8107700**	DIODE	RK46	ショットキーダイオード			
	EM1	**VI243100**	EMI FILTER	DSS6NB32A271Q93A	LCフィルター			01
	IC1	**XT442A0R**	IC	SI-8050S	IC	REGULATOR +5V		5
	L1	**VZ060700**	CHOKE COIL	ELC15E221N 220uH	チョークコイル			05
	W1	**--**	WIRING ASSEMBLY	GND4 LUG-PIN L=90	GND4束線	(WP24390)		
	W2	**--**	WIRING ASSEMBLY	GND4 LUG-PIN L=90	GND4束線	(WP24390)		
*		**WK611500**	CIRCUIT BOARD	LCL	LCLシート	(WM24270)(X9412C0)		
*		**WK611600**	CIRCUIT BOARD	LCR	LCRシート	(WM24270)(X9412C0)		
	C2	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C3	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C4	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C5	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C6	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C7	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C8	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C9	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C10	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C11	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C12	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C13	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C14	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C15	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C16	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C17	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C18	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C19	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C20	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C21	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C22	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C23	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C24	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C25	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	-27	**WD758100**	CERAMIC CAPACITOR (CHIP)	22U 6.3V K RECT.	チップセラ			01
	C28	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C29	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C30	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C31	**US634100**	CERAMIC CAPACITOR-B (CHIP)	0.010 16V K RECT.	チップセラ(B)			01
	C32	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	-34	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C35	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C36	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C37	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C38	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
	C39	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	C40	**US635100**	CERAMIC CAPACITOR-F (CHIP)	0.100 16V Z RECT.	チップセラ(F)			
	C41	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01
	-43	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ(CH)			01

*: New Parts

RANK: Japan only

LCL/LCR and MICVR/PNL/PNLS

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	C44	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
	C45	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（ＣＨ）			01
	-47	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（ＣＨ）			01
	C49	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（ＣＨ）			01
	-54	**US661470**	CERAMIC CAPACITOR-CH (CHIP)	47P 50V J RECT.	チップセラ（ＣＨ）			01
	C202	**US065100**	CERAMIC CAPACITOR-F (CHIP)	0.100 50V Z RECT.	チップセラ　F			
*	C203	**WN562400**	ELECTROLYTIC CAP. (CHIP)	220.00 16.0V	チップケミコン　UD	}		
*	C203	**WQ357300**	ELECTROLYTIC CAP. (CHIP)	220.00 16.0V	チップケミコン	}		
	C205	**WF07860R**	MONOLITHIC CERAMIC CAP.	12P 3.15KV J KAKUT	チップ積層セラコン			01
	C206	**US065100**	CERAMIC CAPACITOR-F (CHIP)	0.100 50V Z RECT.	チップセラ　F			
	C208	**US065100**	CERAMIC CAPACITOR-F (CHIP)	0.100 50V Z RECT.	チップセラ　F			
	C209	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
*	C211	**WP188400**	CHIP FILM CAPACITOR	0.0820 100V J KAKU	チップフィルムコン			
	CN1	**VT619100**	CONNECTOR BASE PIN	PH 5P SE	ベース付ポスト			
*	CN2	**WN459800**	FFC CONECTOR	6240 32P SE	ＦＦＣコネクター			
	CN4	**V900600R**	FFC CONNECTOR	52207 9P SE	ＦＦＣコネクター			03
	CN5	**VZ24920R**	CONNECTOR	52207-0890 8P	コネクター			02
	CN201	**V900600R**	FFC CONNECTOR	52207 9P SE	ＦＦＣコネクター			03
	CN202	**V2915800**	CONNECTOR BASE PIN	PH 4P SE	ベース付ポスト			01
	CN203	**WE260900**	CONNECTOR	BH 2P SE	ＢＨ　コネクター			03
	D1	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-6	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D201	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-208	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
*	IC2	**X9324A00**	IC	DS99R104TSQX/NOPB	IC	LVDS		
	L2	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
	L4	**V2449900**	CHIP INDUCTANCE	BLM21PG600SN1D	チップインダクタ			01
	L5	**V2449900**	CHIP INDUCTANCE	BLM21PG600SN1D	チップインダクタ			01
*	L8	**WP372900**	CHIP INDUCTANCE	BLM18BB471SN1D	チップインダクタ			
	L201	**V8901200**	CHIP SOLID INDUCTANCE	BLM21PG221SN1D	チップソリッドインダ			01
*	L202	**WN556100**	COIL	CDH74NP-181JC	コイル			
	L203	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	R1	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R2	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R3	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R6	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R7	**RD457100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			
	R8	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R10	**RD455100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
	R11	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	-27	**RD454330**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			
	R29	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	-31	**RD45000R**	CHIP RESISTOR 1/16W	0.00 63M J RECT.	チップ抵抗			01
	R204	**RD15612R**	CARBON RESISTOR (CHIP)	1.2K 1/4 J TP	チップ抵抗			
	R205	**RD150000**	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チップ抵抗			01
	R207	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R209	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R211	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01
	SW1	**VU435300**	SWITCH	SKHMQKE010	タクトSW	A		
	SW2	**VU435300**	SWITCH	SKHMQKE010	タクトSW	B		
	SW3	**VU435300**	SWITCH	SKHMQKE010	タクトSW	C		
	SW4	**VU435300**	SWITCH	SKHMQKE010	タクトSW	D		
	SW5	**VU435300**	SWITCH	SKHMQKE010	タクトSW	E		
	SW6	**VU435300**	SWITCH	SKHMQKE010	タクトSW	DIRECT ACCESS		
	SW201	**VU435300**	SWITCH	SKHMQKE010	タクトSW	TAB [◁]		
	SW202	**VU435300**	SWITCH	SKHMQKE010	タクトSW	TAB [▷]		
	SW203	**VU435300**	SWITCH	SKHMQKE010	タクトSW	F		
	SW204	**VU435300**	SWITCH	SKHMQKE010	タクトSW	G		
	SW205	**VU435300**	SWITCH	SKHMQKE010	タクトSW	H		
	SW206	**VU435300**	SWITCH	SKHMQKE010	タクトSW	I		
	SW207	**VU435300**	SWITCH	SKHMQKE010	タクトSW	J		
	SW208	**VU435300**	SWITCH	SKHMQKE010	タクトSW	EXIT		
*	T201	**WB485100**	INVERTER TRANSFORMER	CIOH175	インバータトランス			
	TR201	**V906580R**	TRANSISTOR	2SC4672-T100PQ	トランジスタ　2SC			01
	TR202	**V906580R**	TRANSISTOR	2SC4672-T100PQ	トランジスタ　2SC			01
	TR204	**VY67760R**	DIGITAL TRANSISTOR	DTC123JKA TP	デジタルトランジスタ			01
	TR205	**VV655000**	DIGITAL TRANSISTOR	DTA114EKA TP	デジタルトランジスタ			
*		**WM239800**	CIRCUIT BOARD	MICVR	MICVRシート	(WM24250)(X9409C0)		
*		**WK611300**	CIRCUIT BOARD	PNL	PNLシート	(WM24250)(X9409C0)		

✻: New Parts

RANK: Japan only

MICVR/PNL/PNLS

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
*		**WK611900**	CIRCUIT BOARD	PNLS	ＰＮＬＳシート	(WM24250)(X9409C0)		
		V964210R	LED SPACER	LH-5-9.5	ＬＥＤスペーサー		6	01
	C1	**US062470**	CERAMIC CAPACITOR-SL (CHIP)	470P 50V J RECT.	チップセラ（ＳＬ）			
	-16	**US062470**	CERAMIC CAPACITOR-SL (CHIP)	470P 50V J RECT.	チップセラ（ＳＬ）			
	C17	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C18	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
	C19	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C20	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
	C21	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C22	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C23	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C24	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
	C25	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C26	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C27	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C28	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C29	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C30	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C31	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（ＣＨ）			
	C32	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C33	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C34	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C35	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C36	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（ＣＨ）			
	C37	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C38	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C39	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C40	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C41	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C42	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C43	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C44	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C45	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C46	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C47	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C48	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C49	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C50	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（Ｂ）			
	C51	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（ＳＬ）			01
	C53	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C55	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C56	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C58	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
	C60	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（ＳＬ）			01
	C62	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C69	**UF03810R**	ELECTROLYTIC CAP. (CHIP)	100 16V	チップケミコン			01
	C70	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C74	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C77	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C79	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（ＳＬ）			01
	C80	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C82	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C84	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（ＣＨ）			
	C85	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（ＣＨ）			
	C301	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C302	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	CN1	**VB39060R**	CONNECTOR	PH 10P TE	ベースポスト			01
	CN2	**WF45040R**	FFC CONNECTOR	52807 8P SE	ＦＦＣコネクタ			01
	CN3	**LB933020**	CONNECTOR	VH 2P SE	ベースポスト			
	CN4	**VK015400**	BASE POST CONNECTOR	PH 13P SE	ベースポスト			
	CN6	**VB39000R**	CONNECTOR	PH 4P TE	ベースポスト			01
	CN202	**VB85890R**	BASE-PIN	PH 10P SE	ベースポスト			01
	CN301	**VB38960R**	CONNECTOR	PH 11P SE SIDE TYPE	ベースポスト			01
	D1	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D14	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-88	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D201	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-204	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	IC1	**XZ916300**	IC	UPD780031AYGK-N09	Ｉ　　Ｃ	E-PNS2a LED/SWI0TCH DRIVER		
	IC2	**X5646200**	IC	M34519M6-521FP	Ｉ　　Ｃ	LSC		04

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	IC3	**X5646200**	IC	M34519M6-521FP	I C	LSC		04
	L1	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
	L2	**V584810R**	CHIP INDUCTANCE	56U ELJFC560JF	巻線チップインダクタ			01
	L3	**V8901200**	CHIP SOLID INDUCTANCE	BLM21PG221SN1D	チップソリッドインダ			01
	L4	**V584810R**	CHIP INDUCTANCE	56U ELJFC560JF	巻線チップインダクタ			01
	-6	**V584810R**	CHIP INDUCTANCE	56U ELJFC560JF	巻線チップインダクタ			01
	LD1	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SIGNAL		01
*	LD2	**WM469900**	LED GREEN	HFG223P-BW14	LED	FADE IN/OUT		
*	LD3	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [POP & ROCK]		
*	LD4	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [LATIN]		
	LD5	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL [ACMP]		01
*	LD6	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [BALLAD]		
*	LD7	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [BALLROOM]		
*	LD8	**WM469900**	LED GREEN	HFG223P-BW14	LED	MIC [EFFECT]		
*	LD9	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [DANCE]		
*	LD10	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [MOVIE & SHOW]		
*	LD11	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	STYLE CONTROL [OTS LINK]		
	LD12	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	STYLE CONTROL INTRO [I]		01
	LD13	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL INTRO [I]		01
	LD14	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	STYLE CONTROL INTRO [II]		01
	LD15	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL INTRO [II]		01
	LD16	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MAIN VARIATION [A]		01
	LD17	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MAIN VARIATION [A]		01
*	LD18	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [SWING & JAZZ]		
*	LD19	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [ENTERTAINER]		
*	LD20	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	STYLE CONTROL [AUTO FILL IN]		
	LD21	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	STYLE CONTROL INTRO [III]		01
	LD22	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL INTRO [III]		01
	LD23	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MAIN VARIATION [C]		01
	LD24	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MAIN VARIATION [C]		01
*	LD25	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [R & B]		
*	LD26	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [WORLD]		
	LD27	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MAIN VARIATION [B]		01
	LD28	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MAIN VARIATION [B]		01
	LD29	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MAIN VARIATION [D]		01
	LD30	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MAIN VARIATION [D]		01
	LD31	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	STYLE CONTROL [−//−]		01
	LD32	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL [−//−]		01
*	LD33	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [COUNTRY]		
*	LD34	**WM469900**	LED GREEN	HFG223P-BW14	LED	STYLE [FILE ACCESS]		
	LD35	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ENDING/rit. [I]		01
	LD36	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ENDING/rit. [I]		01
*	LD37	**WM469900**	LED GREEN	HFG223P-BW14	LED	SONG [LOOP]		
*	LD38	**WM469900**	LED GREEN	HFG223P-BW14	LED	MIC [VOCAL HARMONY]		
	LD39	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ENDING/rit. [II]		01
	LD40	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ENDING/rit. [II]		01
*	LD41	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	SONG [●]		
*	LD42	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	SONG [METRONOME]		
	LD43	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MULTI PAD CONTROL [1]		01
	LD44	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MULTI PAD CONTROL [1]		01
*	LD45	**WM469900**	LED GREEN	HFG223P-BW14	LED	MIC [TALK]		
	LD46	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MULTI PAD CONTROL [2]		01
	LD47	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MULTI PAD CONTROL [2]		01
	LD48	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ENDING/rit. [III]		01
	LD49	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ENDING/rit. [III]		01
*	LD50	**WM469900**	LED GREEN	HFG223P-BW14	LED	SONG [I]		
*	LD51	**WM469900**	LED GREEN	HFG223P-BW14	LED	SONG [III]		
*	LD52	**WM469900**	LED GREEN	HFG223P-BW14	LED	SONG [II]		
*	LD53	**WM469900**	LED GREEN	HFG223P-BW14	LED	SONG [IV]		
	LD54	**WF30100R**	LED (CHIP GREEN	SML-012PTT86A	チップLED	MULTI PAD CONTROL [3]		01
	LD55	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MULTI PAD CONTROL [3]		01
	LD56	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL [■]		01
	LD57	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SONG [▶/❚❚]		01
	LD58	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	MULTI PAD CONTROL [4]		01
	LD59	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	MULTI PAD CONTROL [4]		01
	LD60	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL [▼]		01
	LD61	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SONG [SP 1]		01
	LD62	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SONG [SP 3]		01
	LD63	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	STYLE CONTROL [▶/■]		01
	LD64	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	STYLE CONTROL [▶/■]		01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
LD65	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SONG [SP 2]		01
LD66	**VG19760R**	LED YELLOW-GREEN/RED	GL3ED8	2色LED	SONG [SP 4]		01
LD201	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ART. 1		01
LD202	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ART. 1		01
LD203	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ART. 2		01
LD204	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ART. 2		01
R13	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-24	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R29	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-37	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R38	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R39	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R40	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R41	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
-47	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
R48	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-66	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R67	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R68	**RD356680**	CHIP RESISTOR 1/16W	6.8K 63M J RECT.	チップ抵抗			
R69	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-75	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R76	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
-79	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R80	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-91	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R92	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R93	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R94	**RD356680**	CHIP RESISTOR 1/16W	6.8K 63M J RECT.	チップ抵抗			
R95	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-101	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R102	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
-105	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R106	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
-110	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R111	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R112	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R113	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R114	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R115	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
-117	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R118	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
-121	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R122	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
-125	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R126	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
-129	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R130	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
-133	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R134	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R135	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R136	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R137	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R138	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
-141	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R142	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R143	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R144	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R145	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R146	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R147	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R148	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R149	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R150	**RD35418R**	CHIP RESISTOR 1/16W	18.0 63M J RECT.	チップ抵抗			01
R151	**RD35418R**	CHIP RESISTOR 1/16W	18.0 63M J RECT.	チップ抵抗			01
R152	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
-155	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R156	**RD35418R**	CHIP RESISTOR 1/16W	18.0 63M J RECT.	チップ抵抗			01
-165	**RD35418R**	CHIP RESISTOR 1/16W	18.0 63M J RECT.	チップ抵抗			01
R166	**RD15510R**	CARBON RESISTOR (CHIP)	100.0 1/4 J TP	チップ抵抗			01
R169	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R170	**RD355120**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
R171	**RD355120**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
R172	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
-174	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R175	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
-179	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R180	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
-185	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R186	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R187	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R301	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
SW1	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	CHANNEL ON/OFF		01
SW2	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	BALANCE		01
SW3	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	FADE IN/OUT		01
SW4	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [POP & ROCK]		01
SW5	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [LATIN]		01
SW6	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	DEMO		01
SW7	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [BALLAD]		01
SW8	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [BALLROOM]		01
SW9	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIC [EFFECT]		01
SW10	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [ACMP]		01
SW11	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [DANCE]		01
SW12	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [MOVIE & SHOW]		01
SW13	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [OTS LINK]		01
SW14	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL INTRO [I]		01
SW15	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL INTRO [II]		01
SW16	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [SWING & JAZZ]		01
SW17	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [ENTERTAINER]		01
SW18	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	TAP TEMPO		01
SW19	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [AUTO FILL IN]		01
SW20	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL INTRO [III]		01
SW21	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MAIN VARIATION [A]		01
SW22	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [R & B]		01
SW23	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [WORLD]		01
SW24	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	TEMPO [–]		01
SW25	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MAIN VARIATION [C]		01
SW26	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MAIN VARIATION [B]		01
SW27	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [COUNTRY]		01
SW28	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE [FILE ACCESS]		01
SW29	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	TEMPO [+]		01
SW30	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MAIN VARIATION [D]		01
SW31	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [BREAK]		01
SW32	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ENDING/rit. [I]		01
SW33	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [LOOP]		01
SW34	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	TRANSPOSE [–]		01
SW35	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [SELECT]		01
SW36	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIC [VH TYPE SELECT]		01
SW37	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIC [VOCAL HARMONY]		01
SW38	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ENDING/rit. [II]		01
SW39	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [●]		01
SW40	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [METRONOME]		01
SW41	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [1]		01
SW42	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIC [MIC SETTING]		01
SW43	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIC [TALK]		01
SW44	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ENDING/rit. [III]		01
SW45	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [I]		01
SW46	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [■]		01
SW47	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	TRANSPOSE [+]		01
SW48	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [2]		01
SW49	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [III]		01
SW50	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [▶/▮▮]		01
SW51	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [LYRICS/TEXT]		01
SW52	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [▤]		01
SW53	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [II]		01
SW54	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [IV]		01
SW55	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [3]		01
SW56	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [◀◀]		01
SW57	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MIXING CONSOLE		01
SW58	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [▼]		01
SW59	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [SP 1]		01

✻: New Parts

RANK: Japan only

MICVR/PNL/PNLS and MK61L and MKH-D/EMKS-FD(E-BUS)ON MKH-D and EMKS-FD(E-BUS)ON MKH-D

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	SW60	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [SP 3]		01
	SW61	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [4]		01
	SW62	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [►►]		01
	SW63	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [SCORE]		01
	SW64	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MULTI PAD CONTROL [STOP]		01
	SW65	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	STYLE CONTROL [►/■]		01
	SW66	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [SP 2]		01
	SW67	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	SONG [SP 4]		01
	SW201	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	UPPER OCTAVE [–]		01
	SW202	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ART. 1		01
	SW203	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	UPPER OCTAVE [+]		01
	SW204	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ART. 2		01
	TA1	**V856660R**	TRANSISTOR ARRAY	TD62785FG-(5,EL)	トランジスタアレイ			05
	TA2	**WC71000R**	TRANSISTOR ARRAY	M54562FP-DB1J	トランジスタアレイ			
	-6	**WC71000R**	TRANSISTOR ARRAY	M54562FP-DB1J	トランジスタアレイ			
	TR1	**WA01310R**	DIGITAL TRANSISTOR	DTDG23YP T100	デジタルトランジスタ			01
	-6	**WA01310R**	DIGITAL TRANSISTOR	DTDG23YP T100	デジタルトランジスタ			01
*	VR1	**WN562700**	SLIDE VARIABLE RESISTOR	B 10.0K RS20111A9A	スライドVR	ASSIGN		
	VR301	**VJ78950R**	VARIABLE RESISTOR	B 10.0K RK09K1130A	ロータリーVR	INPUT VOLUME		01
	VR302	**VT683100**	ROTARY VARIABLE RESISTOR	A 10.0K RK14K12C	二連ロータリーVR	MASTER VOLUME		03
*	X1	**WM775700**	CERAMIC RESONATOR	8.38MHz CSTCE8M38G55	セラミック振動子			
		WD80010R	CIRCUIT BOARD	MK61L	シートMK61L	(WD80020)(X6578C0)		
		--	JUMPER CABLE	0.55	ジャンパー線	(VA07890)		
	CN001	**VM689000**	FFC CONNECTOR	52045 23P TE	FFCコネクター			
	CN002	**VB858200**	BASE-PIN	PH 3P SE	ベースポスト			
	D0001	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
	-75	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
		WD80100R	CIRCUIT BOARD	MKH-D	MKH-Dシート	(WD78570)(X6579B0)		
*		**WE623100**	CIRCUIT BOARD	EMKS-FD(E-BUS)ON MKH-D	EMKS-FDシート			
*	CN002	**WK372800**	FFC CONNECTOR	5597 3P SE	FFC用コネクター			
	CN004	**VM689000**	FFC CONNECTOR	52045 23P TE	FFCコネクター			
	CN005	**VB858200**	BASE-PIN	PH 3P SE	ベースポスト			
	D0001	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
	-48	**VB941200**	DIODE	1SS133,1SS176 TE	ダイオード			
*		**WE623100**	CIRCUIT BOARD	EMKS-FD(E-BUS)ON MKH-D	EMKS-FDシート	(WE62270)(X6577A0)		
		--	PC SUPPORT	JIS R33 T=5	基板サポート	(WB72300)		
	C0005	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0009	**UF118470**	ELECTROLYTIC CAP. (CHIP)	470 6.3V	チップケミコン			
	C0011	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0021	**UF01747R**	ELECTROLYTIC CAP. (CHIP)	47 6.3V	チップケミコン			01
	C0022	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0023	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0027	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0028	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0029	**UF01747R**	ELECTROLYTIC CAP. (CHIP)	47 6.3V	チップケミコン			01
	C0030	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0031	**UF018100**	ELECTROLYTIC CAP. (CHIP)	100 6.3V	チップケミコン			
	C0032	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0033	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ(B)			
	C0034	**US135100**	CERAMIC CAPACITOR-F (CHIP)	0.1000 16V Z RECT.	チップセラ(F)			
	C0035	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ(SL)			
	-45	**US062100**	CERAMIC CAPACITOR-SL (CHIP)	100P 50V J RECT.	チップセラ(SL)			
	C0046	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ(CH)			
	C0047	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ(CH)			
	CN004	**VT388800**	CONNECTOR BASE PIN	PH 7P TE	ベース付ポスト			
	CN005	**WB24980R**	TERMINAL	20P GPFA105-2002A0	中継ターミナル			04
	CN006	**WE62140R**	TERMINAL	10P GPFA105-1002A0	中継ターミナル			02
	D0001	**VV92590R**	DIODE	RLS-73 TE-11 TP	ダイオード			01
	-6	**VV92590R**	DIODE	RLS-73 TE-11 TP	ダイオード			01
	D0008	**VV92590R**	DIODE	RLS-73 TE-11 TP	ダイオード			01
	IC002	**X2538A00**	IC	NJM2100V(TE2)	IC	OP AMP		
	IC005	**X480120R**	IC	HD6433693B14HV	IC	E-VKS		05
	L0002	**V584810R**	CHIP INDUCTANCE	56U ELJFC560JF	巻線チップインダクタ			01
	L0003	**VR57990R**	CHIP INDUCTANCE	BK2125 HS601-T	チップインダクタ			01
	L0004	**VR57990R**	CHIP INDUCTANCE	BK2125 HS601-T	チップインダクタ			01
	R0009	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
	R0010	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01

*: New Parts

RANK: Japan only

EMKS-FD(E-BUS)ON MKH-D and PNR/USB

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R0011	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R0012	**RD356680**	CHIP RESISTOR 1/16W	6.8K 63M J RECT.	チップ抵抗			
R0013	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R0014	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R0015	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R0016	**RD357220**	CHIP RESISTOR 1/16W	22.0K 63M J RECT.	チップ抵抗			01
R0017	**RD35747R**	CHIP RESISTOR 1/16W	47.0K 63M J RECT.	チップ抵抗			01
R0018	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R0019	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R0020	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			
R0021	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			
R0022	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R0025	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
R0030	**RD357330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			
-41	**RD357330**	CHIP RESISTOR 1/16W	33.0K 63M J RECT.	チップ抵抗			
R0043	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
R0046	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			
R0047	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			
VR001	**VA788700**	TRIMMER POTENTIOMETER	B 470.0K FUSE 3P R	半固定VR	GAIN adj.		01
VR001	**WM950000**	VR TRIMMER	B 470.0K FUSE 3P	半固定VR			
VR002	**VA78860R**	TRIMMER POTENTIOMETER	B 330.0K FUSE 3P R	半固定VR	OFFSET adj.		01
VR002	**WM949900**	VR TRIMMER	B 330.0K FUSE 3P	半固定VR			
X0001	**V458460R**	CERAMIC RESONATOR	20MHz CSTCV20M0X51J	セラミック振動子			01
*	**WK599200**	CIRCUIT BOARD	PNR	PNRシート	(WM24240)(X9410C0)		
*	**WK611700**	CIRCUIT BOARD	USB	USBシート	(WM24240)(X9410C0)		
C1	**US062470**	CERAMIC CAPACITOR-SL (CHIP)	470P 50V J RECT.	チップセラ（SL）			
-15	**US062470**	CERAMIC CAPACITOR-SL (CHIP)	470P 50V J RECT.	チップセラ（SL）			
C16	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C17	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C18	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C19	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C20	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
-23	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C24	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C25	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C26	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C27	**UF037100**	ELECTROLYTIC CAP. (CHIP)	10 16V	チップケミコン			
C28	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C29	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C30	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C31	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C32	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C33	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C34	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C35	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（CH）			
C36	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C37	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C38	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C39	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C40	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（CH）			
C41	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C42	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C43	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C44	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C45	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C46	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C47	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C48	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C49	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C50	**US064100**	CERAMIC CAPACITOR-B (CHIP)	0.0100 50V K RECT.	チップセラ（B）			
C51	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C52	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（SL）			01
C55	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C59	**UF11822R**	ELECTROLYTIC CAP. (CHIP)	220 6.3V	チップケミコン			01
C61	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（SL）			01
C64	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C69	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C72	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
C79	**US06168R**	CERAMIC CAPACITOR-SL (CHIP)	68P 50V J RECT.	チップセラ（SL）			01

*: New Parts

RANK: Japan only

PNR/USB

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	C80	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	C81	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（CH）			
	C82	**US061330**	CERAMIC CAPACITOR-CH (CHIP)	33P 50V J RECT.	チップセラ（CH）			
	C201	**US14510R**	CERAMIC CAPACITOR-F (CHIP)	0.1000 25V Z RECT.	チップセラ（F）			01
	CN1	**WA17860R**	FFC CONNECTOR	52806-2210 22PIN	FFCコネクタ			01
	CN2	**VK015400**	BASE POST CONNECTOR	PH 13P SE	ベースポスト			
	CN4	**VB858600**	BASE PIN	PH 7P SE L-TYPE	ベースポスト			
	CN201	**VB858500**	BASE PIN	PH 6P SE	ベースポスト			
	CN202	**WA245700**	USB CONNECTOR	YKF45-0027 4P SE	USBコネクタ	USB TO DEVICE		02
	D1	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D2	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	D15	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	-81	**WG139300**	DIODE	KDS4148U-RTK/P TE	ダイオード			
	EM201	**WE94560R**	EMI FILTER (CHIP)	NFM21CC223R1H3D	エミフィルチップ			01
	IC1	**XZ916300**	IC	UPD780031AYGK-N09	IC	E-PNS2a LED/SWITCH DRIVER		
	IC2	**X5646200**	IC	M34519M6-521FP	IC	LSC		04
	IC3	**X5646200**	IC	M34519M6-521FP	IC	LSC		04
	L1	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
	-4	**GE300670**	FERRIT BEAD	BL02RN2R1P1A TATET	フェライトビーズ			02
	L201	**VY65720R**	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
	L202	**WG834800**	COIL	DLW21HN900SQ2L	コイル			
	LD1	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [1]		01
	LD2	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [1]		01
	LD3	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [7]		01
	LD4	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [7]		01
	LD5	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [2]		01
	LD6	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [2]		01
	LD7	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [8]		01
	LD8	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [8]		01
	LD9	**WK279100**	LED (CHIP) WHITE	SMLE12WBC7W	チップLED	MUSIC FINDER		
✻	LD10	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	HARD DISK RECORDER [●]		
✻	LD11	**WN414500**	LED	HFR8239P(P1D2)-BW	LED	REG. MEMORY [FREEZE]		
	LD12	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [3]		01
	LD13	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [3]		01
✻	LD14	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [PIANO]		
✻	LD15	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [GUITAR]		
	LD16	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [4]		01
	LD17	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [4]		01
✻	LD18	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [E.PIANO]		
✻	LD19	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [BASS]		
	LD20	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ONE TOUCH SETTING [1]		01
	LD21	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ONE TOUCH SETTING [1]		01
	LD22	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [5]		01
	LD23	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [5]		01
✻	LD24	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [ORGAN]		
✻	LD25	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [PERC./DRUM KIT]		
	LD26	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ONE TOUCH SETTING [2]		01
	LD27	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ONE TOUCH SETTING [2]		01
	LD28	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	REGISTRATION MEMORY [6]		01
	LD29	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	REGISTRATION MEMORY [6]		01
✻	LD30	**WM469900**	LED GREEN	HFG223P-BW14	LED	READ/WRITE		
✻	LD31	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE EFFECT [HARMONY/ECHO]		
✻	LD32	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [STRINGS]		
✻	LD33	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [ACCORDION]		
	LD34	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ONE TOUCH SETTING [3]		01
	LD35	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ONE TOUCH SETTING [3]		01
✻	LD36	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE EFFECT[INITIAL TOUCH]		
✻	LD37	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [CHOIR]		
✻	LD38	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [PAD]		
	LD39	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	ONE TOUCH SETTING [4]		01
	LD40	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	ONE TOUCH SETTING [4]		01
✻	LD41	**WM470100**	LED AMBER	HFY123P-BW14	LED	HARD DISK RECORDER [►/▮▮]		
✻	LD42	**WM469900**	LED GREEN	HFG223P-BW14	LED	PART ON/OFF [LEFT HOLD]		
✻	LD43	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE EFFECT [SUSTAIN]		
✻	LD44	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [BRASS]		
✻	LD45	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [SYNTH]		
	LD46	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	PART SELECT [LEFT]		01
	LD47	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	PART ON/OFF [LEFT]		01
✻	LD48	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE EFFECT [MONO]		
✻	LD49	**WM469900**	LED GREEN	HFG223P-BW14	LED	VOICE [TRUMPET]		

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
*	LD50	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE [ORGAN FLUTES]		
	LD51	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	PART SELECT [RIGHT 1]		01
	LD52	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	PART ON/OFF [RIGHT 1]		01
*	LD53	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE EFFECT [DSP]		
*	LD54	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE [SAXOPHONE]		
*	LD55	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE [EXPANSION]		
	LD56	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	PART SELECT [RIGHT 2]		01
	LD57	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	PART ON/OFF [RIGHT 2]		01
*	LD58	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE EFFECT [VARIATION]		
*	LD59	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE [FLUTE/CLARINET]		
*	LD60	**WM469900**	LED GREEN	HFG223P-BW14	L E D	VOICE [USER DRIVE]		
	LD61	**WF30100R**	LED (CHIP) GREEN	SML-012PTT86A	チップLED	PART SELECT [RIGHT 3]		01
	LD62	**WF300900**	LED (CHIP) ORANGE	SML-512DW	チップLED	PART ON/OFF [RIGHT 3]		01
	R13	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-24	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R28	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-35	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R36	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
	R37	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
	-45	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
	R46	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
	-51	**RD35433R**	CHIP RESISTOR 1/16W	33.0 63M J RECT.	チップ抵抗			01
	R52	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-66	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R67	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
	R68	**RD356680**	CHIP RESISTOR 1/16W	6.8K 63M J RECT.	チップ抵抗			
	R69	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-79	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R80	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	-83	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R84	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-96	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R97	**RD356100**	CHIP RESISTOR 1/16W	1.0K 63M J RECT.	チップ抵抗			01
	R98	**RD356680**	CHIP RESISTOR 1/16W	6.8K 63M J RECT.	チップ抵抗			
	R99	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-105	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R106	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	-109	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R110	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	-114	**RD357100**	CHIP RESISTOR 1/16W	10.0K 63M J RECT.	チップ抵抗			01
	R115	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R116	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R117	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R118	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R119	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R120	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R121	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R122	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R123	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R124	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R125	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R126	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R127	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R128	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R129	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R130	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R131	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R132	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R133	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R134	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R135	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R136	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R137	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R138	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R139	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R140	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R141	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R142	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
	R143	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
	R144	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R145	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R146	**RD355390**	CHIP RESISTOR 1/16W	390.0 63M J RECT.	チップ抵抗			
R147	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R148	**RD355330**	CHIP RESISTOR 1/16W	330.0 63M J RECT.	チップ抵抗			
R149	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R150	**RD35415R**	CHIP RESISTOR 1/16W	15.0 63M J RECT.	チップ抵抗			01
R155	**RD355220**	CHIP RESISTOR 1/16W	220.0 63M J RECT.	チップ抵抗			
R156	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
-159	**RD355100**	CHIP RESISTOR 1/16W	100.0 63M J RECT.	チップ抵抗			
R160	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
-172	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R173	**RD354470**	CHIP RESISTOR 1/16W	47.0 63M J RECT.	チップ抵抗			
R174	**RD355120**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
R175	**RD355120**	CHIP RESISTOR 1/16W	120.0 63M J RECT.	チップ抵抗			01
R176	**RD35410R**	CHIP RESISTOR 1/16W	10.0 63M J RECT.	チップ抵抗			01
R177	**RD35410R**	CHIP RESISTOR 1/16W	10.0 63M J RECT.	チップ抵抗			01
R178	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
-180	**RD350001**	CHIP RESISTOR 1/16W	0 63M J RECT.	チップ抵抗			01
R181	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
-185	**RD355150**	CHIP RESISTOR 1/16W	150.0 63M J RECT.	チップ抵抗			
R186	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
R187	**RD354680**	CHIP RESISTOR 1/16W	68.0 63M J RECT.	チップ抵抗			
SW1	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MENU [VOICE CREATOR]		01
SW2	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MENU [FUNCTION]		01
SW3	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGIST BANK [–]		01
SW4	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [1]		01
SW5	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [7]		01
SW6	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MENU [DIGITAL RECORDING]		01
SW7	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	INTERNET		01
SW8	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGIST BANK [+]		01
SW9	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [2]		01
SW10	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [8]		01
SW11	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [●]		01
SW12	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	MUSIC FINDER		01
SW13	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REG. MEMORY [FREEZE]		01
SW14	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [3]		01
SW15	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [PIANO]		01
SW16	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [GUITAR]		01
SW17	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [4]		01
SW18	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REG. MEMORY [MEMORY]		01
SW19	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [E.PIANO]		01
SW20	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [BASS]		01
SW21	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ONE TOUCH SETTING [1]		01
SW22	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [5]		01
SW23	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [ORGAN]		01
SW24	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [PERC./DRUM KIT]		01
SW25	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ONE TOUCH SETTING [2]		01
SW26	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	REGISTRATION MEMORY [6]		01
SW27	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [HARMONY/ECHO]		01
SW28	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [STRINGS]		01
SW29	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [ACCORDION]		01
SW30	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ONE TOUCH SETTING [3]		01
SW31	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [◄◄]		01
SW32	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [INITIAL TOUCH]		01
SW33	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [CHOIR]		01
SW34	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [PAD]		01
SW35	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	ONE TOUCH SETTING [4]		01
SW36	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART ON/OFF [LEFT HOLD]		01
SW37	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [►/▮▮]		01
SW38	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [SUSTAIN]		01
SW39	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [BRASS]		01
SW40	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [SYNTH]		01
SW41	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART SELECT [LEFT]		01
SW42	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART ON/OFF [LEFT]		01
SW43	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [■]		01
SW44	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [MONO]		01
SW45	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [TRUMPET]		01
SW46	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [ORGAN FLUTES]		01
SW47	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART SELECT [RIGHT 1]		01
SW48	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART ON/OFF [RIGHT 1]		01

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	SW49	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [►►]		01
	SW50	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [DSP]		01
	SW51	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [SAXOPHONE]		01
	SW52	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [EXPANSION]		01
	SW53	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART SELECT [RIGHT 2]		01
	SW54	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART ON/OFF [RIGHT 2]		01
	SW55	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [SELECT]		01
	SW56	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE EFFECT [VARIATION]		01
	SW57	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [FLUTE/CLARINET]		01
	SW58	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	VOICE [USER DRIVE]		01
	SW59	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART SELECT [RIGHT 3]		01
	SW60	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	PART ON/OFF [RIGHT 3]		01
	SW61	**WG31840R**	TACT SWITCH	SKRGAMD010	タクトSW	HARD DISK RECORDER [SETTING]		01
	TA1	**V856660R**	TRANSISTOR ARRAY	TD62785FG-(5,EL)	トランジスタアレイ			05
	TA2	**WC71000R**	TRANSISTOR ARRAY	M54562FP-DB1J	トランジスタアレイ			
	-5	**WC71000R**	TRANSISTOR ARRAY	M54562FP-DB1J	トランジスタアレイ			
	TR1	**WA01310R**	DIGITAL TRANSISTOR	DTDG23YP T100	デジタルトランジスタ			01
	-6	**WA01310R**	DIGITAL TRANSISTOR	DTDG23YP T100	デジタルトランジスタ			01
	TR7	**VY67760R**	DIGITAL TRANSISTOR	DTC123JKA TP	デジタルトランジスタ			01
*	X1	**WM775700**	CERAMIC RESONATOR	8.38MHz CSTCE8M38G55	セラミック振動子			
*		**WP376100**	HARD DISK DRIVE UNIT	2.5 inch 80GB	ハードディスク			
*		**WN675600**	CRYSTAL DISPLAY	LTA075A363F	液晶ディスプレイ			
		VT69510R	ROTARY VARIABLE RESISTOR	SP. 10.0K RK163111	ロータリーVR	PITCH BEND,MODULATION	2	03
⚠		**WB50130R**	POWER SUPPLY UNIT	CE,U,CS	電源ユニット			
⚠		**WA78260R**	AC-IN CONNECTOR ACINLET	R-301(B18)	ACインレット	AC IN		02
⚠		**VP18400R**	PUSH SWITCH	SDDLB13600	プッシュSW	POWER ON/OFF		03

*: New Parts

RANK: Japan only

TRS-MS02

PARTS LIST

■ CONTENTS

Notes : DESTINATION ABBREVIATIONS

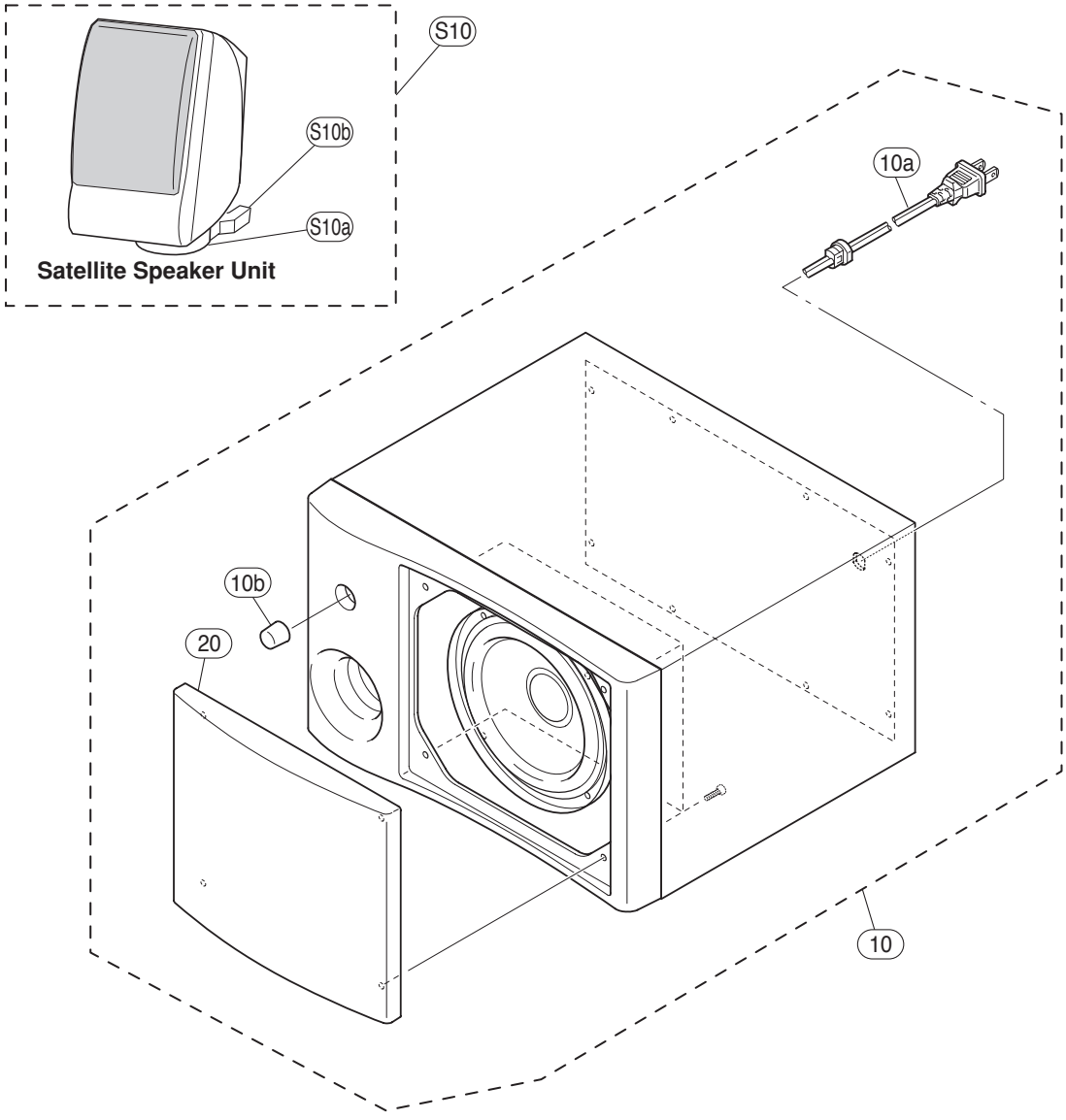
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model
K : Korean model	

■ WARNING

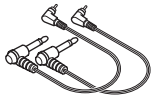
Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

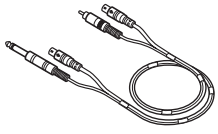
OVERALL ASSEMBLY



ACCESSORIES



Speaker Cable
(RCA pin cables)



Woofer Cable
(RCA pin/8-pin
combination cable)

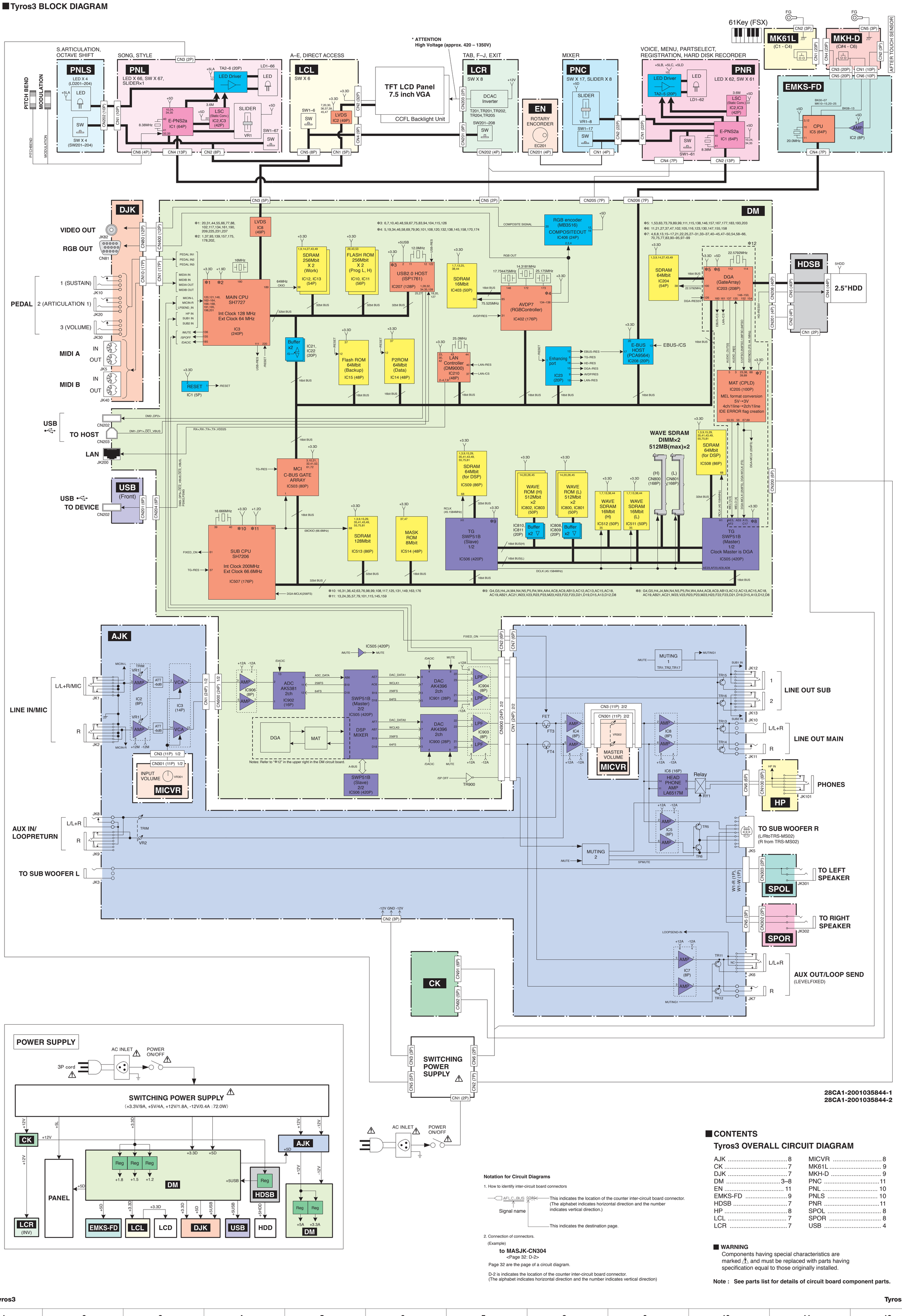
Speaker Stand Assembly
(Speaker brackets)

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		WOOFER SPEAKER SYSTEM		ウーファースピーカシステム	TRS-MS02		
10	**WF886600**	WOOFER UNIT E		ウーファーユニット	E		
10	**WF886700**	WOOFER UNIT U		ウーファーユニット	U		
10	**WF886800**	WOOFER UNIT B		ウーファーユニット	B		
10	**WF886900**	WOOFER UNIT A		ウーファーユニット	A		
⚠ 10a	**V8366400**	POWER CORD	PHP-205 LF	電源コード	E		04
⚠ 10a	**V8366300**	POWER CORD		電源コード	U		04
⚠ 10a	**WF886300**	POWER CORD	PHP-330 2 LF	電源コード	B		
⚠ 10a	**WF886400**	POWER CORD	PHP-208 2 LF	電源コード	A		
10b	**WF887500**	KNOB VR		ノブ	BASS		
20	**WG033100**	GRILLE ASSEMBLY		グリルAss'y			
S10	**WF887000**	SATELLITE SPEAKER		サテライトスピーカ		2	
S10a	**WF887300**	TABLE		テーブル		2	
S10b	**WF887400**	LEVER		レバー		2	
		ACCESSORIES		付属品			
	WF887200	WOOFER CABLE	RCA pin/8-pin L=1885	ウーファーケーブル			
	WF887100	SPEAKER CABLE	RCA	スピーカケーブル		2	
	WF237400	SPEAKER STAND ASSEMBLY		スピーカスタンドAss'y		2	

✻: New Parts

RANK: Japan only

Tyros3 BLOCK DIAGRAM



28CA1-2001035844-1
28CA1-2001035844-2

Notation for Circuit Diagrams

1. How to identify inter-circuit board connectors

2. Connection of connectors.

(Example)

to MASJK-CN304
<Page 32: D-2>

Page 32 are the page of a circuit diagram.

D-2 is indicates the location of the counter inter-circuit board connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction)

CONTENTS

Tyros3 OVERALL CIRCUIT DIAGRAM

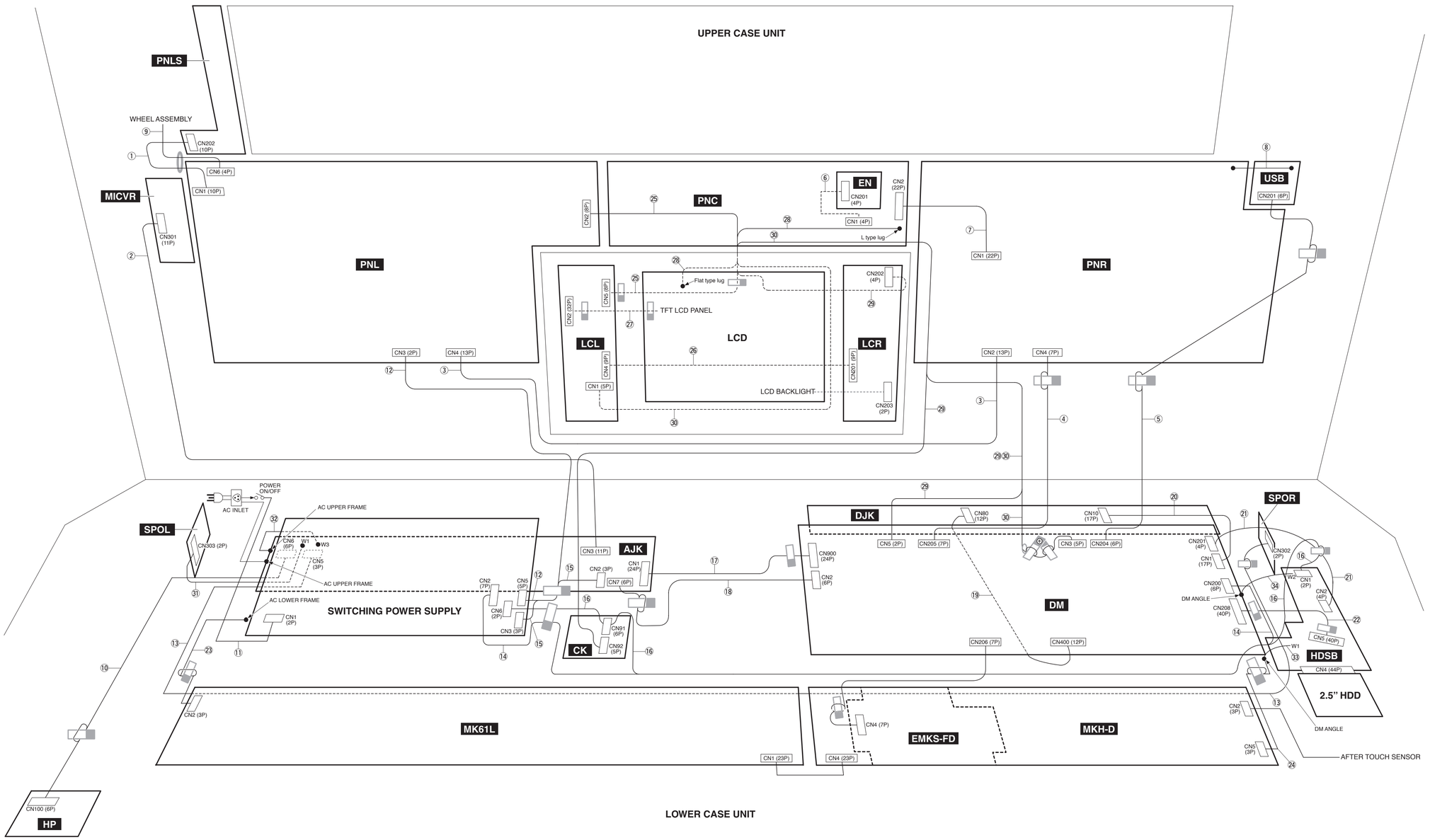
WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

Note : See parts list for details of circuit board component parts.

Tyros3

■ Tyros3 WIRING



LOWER CASE UNIT

OVERALL ASSEMBLY: **2NC-WN43920-4**
UPPER CACE UNIT: **2NBEX-WN11920-7** 1
LOWER CACE UNIT: **2NBEX-WN10380-4** 1
LCD UNIT: **2NBEX-WN13690-3**

No.	Unit Name	Location No.	Part No.	Connector Assembly	Destination		Remarks
①	UPPER CASE UNIT	UC1	(WN54580)	PNLS	PNL-CN1	PNLS-CN202	10P L=120
②		UC2	(WQ38330)	VOL	MICVR-CN301	AJK-CN3	11P L=720
③		UC3	(WN54570)	PNLR	PNL-CN4	PNR-CN2	13P L=550
④		UC5	WM858800	EBUSP-LF	PNR-CN4	DM-CN205	7P L=450
⑤		UC7	(WM51940)	USB	USB-CN201	DM-CN204	6P L=700
⑥		UC8	VK097400	KRD-KRD	PNC-CN1	EN-CN201	4P L=100
⑦		UC9	WN834100	FFC	PNC-CN2	PNR-CN1	22P L=100
⑧		UC10	(WN74950)	GND1	PNR	USB	LUG/LUG Fixes by a screw
⑨	WHEEL ASSEMBLY	70	(WE84700)	WHEEL	WHEEL ASSEMBLY	PNL-CN6	4P L=150, 170
⑩	LOWER CASE UNIT	LC1	WN754000	HP-LF	HP-CN100	AJK-CN6	6P L=600
⑪		LC2	(WM51340)	ACIN	INLET/POWER SWITCH	SWITCHING POWER SUPPLY-CN1	3P
⑫		LC3	(WN54830)	SW-PNL	SWITCHING POWER SUPPLY-CN5	PNL-CN3	5P/2P L=500
⑬		LC4	(WN75410)	SPR	AJK-CN5	SPOR-CN302	3P L=1500
⑭		LC5	(WM69050)	DM-PWR	SWITCHING POWER SUPPLY-CN2	DM-CN200	7P/6P L=850
⑮		LC6	(WN78550)	AJK-PWR	SWITCHING POWER SUPPLY-CN3	AJK-CN2	3P L=170
⑯		LC7	(WN54840)	SW-CK-HD	SWITCHING POWER SUPPLY-CN6	CK-CN91	2P/6P L=200
						HDSB-CN1	2P/2P L=900
⑰		LC8	WP373400	FFC2	AJK-CN1	DM-CN900	24P L=200

No.	Unit Name	Location No.	Part No.	Connector Assembly	Destination		Remarks
⑱	LOWER CASE UNIT	LC9	(WM85670)	JKDET-LF	AJK-CN7	DM-CN2	6P
⑲		LC10	(WE84670)	VIDEO	DJK-CN80	DM-CN400	12P L=300
⑳		LC11	WN833700	FFC	DJK-CN10	DM-CN1	17P L=250
㉑		LC12	(WN73550)	USB-PWR	HDSB-CN2	DM-CN201	4P L=210
㉒		LC13	WF76120R	FFC1	HDSB-CN5	DM-CN208	40P L=180 (HDD)
㉓		LC14	(WG26500)	EPPH1	MK61L-CN2	AC LOWER FRAME	3P
㉔		LC15	(WG26500)	EPPH1	MKH-D-CN5	DM ANGLE	3P
㉕	LCD UNIT	LD1	WN833900	FFC	LCL-CN5	PNL-CN2	8P L=330
㉖		LD2	WN834000	FFC	LCL-CN4	LCR-CN201	9P L=220
㉗		LD3	WN834200	FFC	LCL-CN2	LCD	32P L=50
㉘		LD4	(WN74960)	GND2	LCD SUPPORT STAY	PANEL STAY	Flat type lug / L type lug
㉙		LD9	(WN54850)	CK-LC-DM	LCR-CN202	CK-CN92	4P/5P L=1000
						DM-CN5	4P/2P L=750
㉚		LD10	WM519500	LVDS	LCL-CN1	DM-CN3	5P L=1250
㉛	AJK CIRCUIT BOARD	W1	(WE84550)	SPL	AJK-W1	SPOL-CN303	2P L=250
㉜		W3	(WN89510)	GND3	AJK-W3	AC UPPER FRAME	PIN/LUG L=130
㉝	HDSB CIRCUIT BOARD	W1	(WP24390)	GND4	HDSB-W1	DM ANGLE	PIN/LUG L=90
㉞		W2	(WP24390)	GND4	HDSB-W2	DM ANGLE	PIN/LUG L=90

: DATA LINE FILTER

: CORD BINDER

The parts that correspond to the number with ( ) are not prepared as service parts.

Tyros3

■Tyros3 OVERALL CIRCUIT DIAGRAM 1/9 (DM 1/6)


DM 1/6
RESET
SYSTEM RESET
INVERTER
OR
LCD
to CK-CN92 <Page 7: J-8>
to LCR-CN202 <Page 7: L-7>
to LCL-CN1 <Page 7: J-2>
LVDS
to DJK-CN10 <Page 7: F-8>
to AJK-CN7 <Page 8: I-4>
FLASH ROM 256M PROG-L
FLASH ROM 256M PROG-H
P2 ROM 64M DATA
FLASH ROM 64M BACKUP
D-FF
DECODER
SDRAM 256M
TRANSCEIVER
AND
Not Installed
CPU (MAIN)
IC3
HD6417727F160C
Clock operation: MODE1
Area 0 Bus width: 32bit
Big Endian
Internal Clock : 128MHz
Bus Clock : 64MHz
REGURATOR +1.8V
28CC1-2001031804-1
MA2J1110GL (VR49650R) DIODE
D1F60 (VS20110R) DIODE 1A 600V
1SS355 TE-17 (VT332900) DIODE
KDS4148U-RTK/P (WG139300) DIODE
BA18BC0FP (X7820A00) REGULATOR +1.8V

: Not Installed

Note : See parts list for details of circuit board component parts

■Tyros3 OVERALL CIRCUIT DIAGRAM 2/9 (DM 2/6, USB)


DM 2/6
USB2.0
E-BUS
LAN
HDD
USB
to SW Power Supply Unit - CN2 <Page 8: H-8>
to HDSB-CN2 <Page 7: M-10>
HIGH SIDE SWITCH
USB TO DIVICE (REAR)
USB TO HOST (REAR)
OR
OR GATE
AND
PCI BUS CONTROLLER
to PMR-CN4 <Page 11: F-11>
to FMKS-FD - CN4 <Page 9: E-6>
HI-SPEED USB2.0 HOST/OTG CONTROLLER
IC207
ISP1761BE
LAN CONTROLLER
IC210
DM9000AEP
TRANSCEIVER
Open Drain
SDRAM 64M
K4S641632K-UC75000
IC204
IC203
S1L52502F24J000
DGA (GATE ARRAY)
IDE I/F. SDRAM I/F. Address Dec.TIMER
MAT (CPLD)
IC205
LC4256V-75TN100
MEL AUDIO TRANSFORMER
VCCO:OUTPUT
to HDSB-CN5 <Page 7: N-9>
USB TO DEVICE
28CC1-2001031804-2
28CC1-2001031847-2

△ : Metal Film Resistor
: Not installed

Note : See parts list for details of circuit board component parts

Tyros3 OVERALL CIRCUIT DIAGRAM 3/9 (DM 3/6)

DM 3/6

REGULATOR +1.2V

SDRAM 128M MAIN

MASK ROM 8M SUB BOOT

MCI (GATE ARRAY)

CPU (SUB)

INVERTER

DECODER

SDRAM 64M WORK RAM

SDRAM 16M

REGULATOR +1.5V

REGULATOR +1.5V

SWP51B MASTER

SWP51B SLAVE

- D1F60 (VS20110R) DIODE 1A 600V
  DM: D500 - 502
  1: ANODE
  2: CATHODE
- BA15BC0FP (X7700A00) REGULATOR +1.5V
  DM: IC500, 501
  FIN: GND
- R1172H121D (X9292A00) REGULATOR +1.2V
  DM: IC504
  1: CE or CE
  2: GND
  3: NC
  4: VOUT
  5: VOUT

28CC1-2001031804-4

: Not installed

Note : See parts list for details of circuit board component parts

Tyros3 OVERALL CIRCUIT DIAGRAM 4/9 (DM 4/6)

DM 4/6

: Not installed

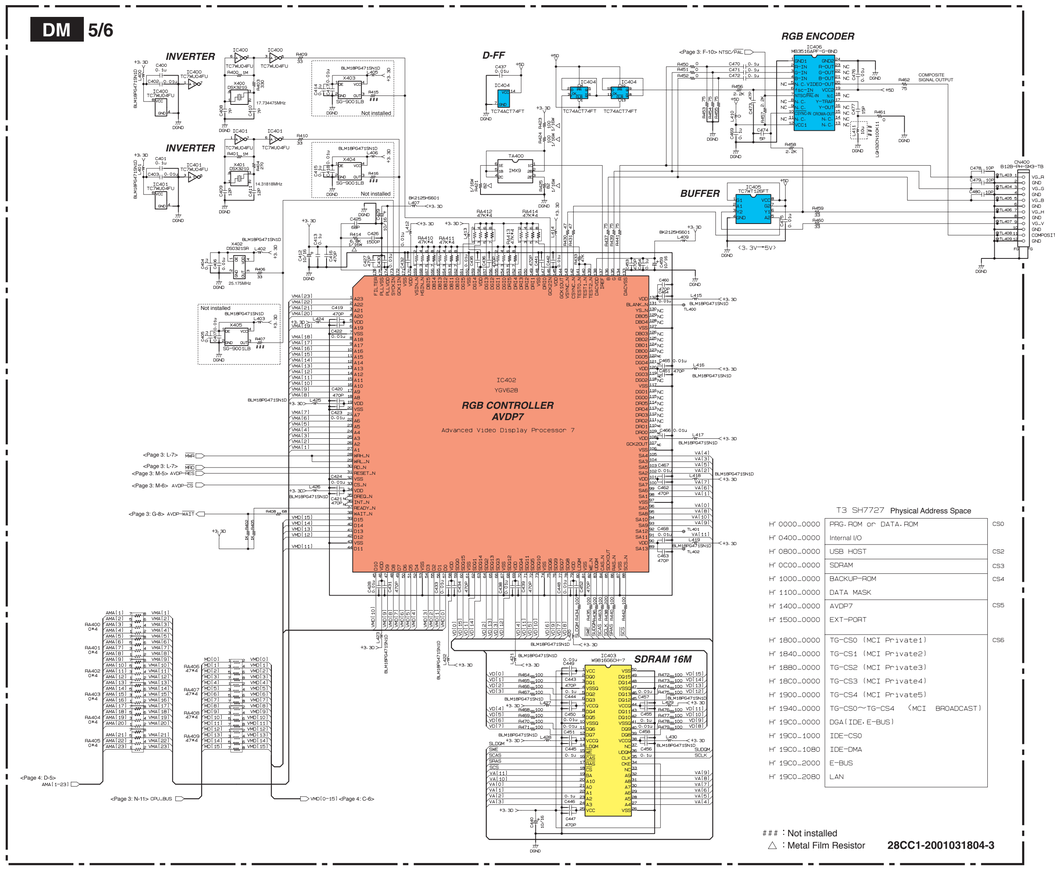
Note : See parts list for details of circuit board component parts

Parts marked with "※1" are applicable to products with serial numbers up to B00 01470, E00 02830, U00 01285 and ET00 01125.

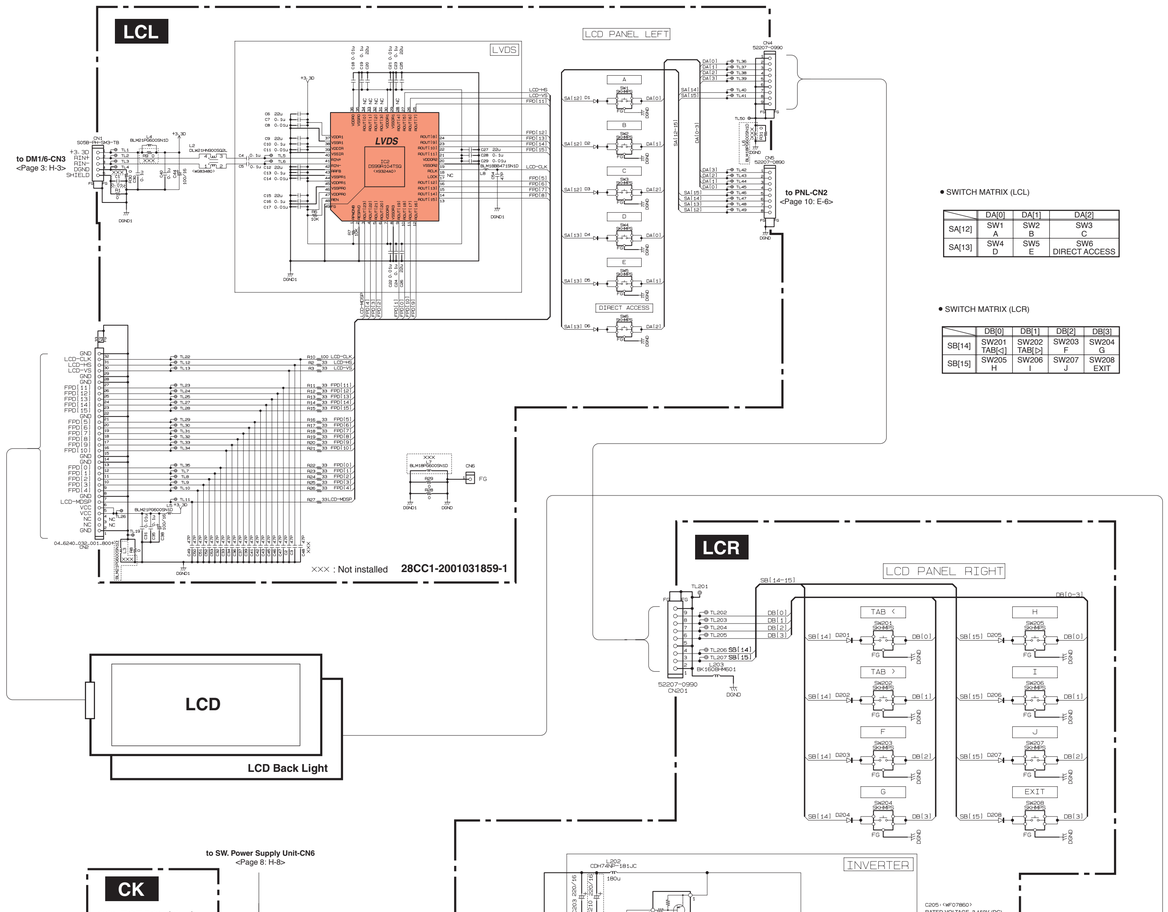
Parts marked with "※2" are applicable to products with serial numbers from B00 01471, E00 02831, U00 01286 and ET00 01126 and up.

Tyros3 OVERALL CIRCUIT DIAGRAM 5/9 (DM 5/6, DJK, LCL, LCR, CK, HDSB)

DM 5/6



LCL



• SWITCH MATRIX (LCL)

	DA[0]	DA[1]	DA[2]
SA[12]	SW1 A	SW2 B	SW3 C
SA[13]	SW4 D	SW5 E	SW6 DIRECT ACCESS

• SWITCH MATRIX (LCR)

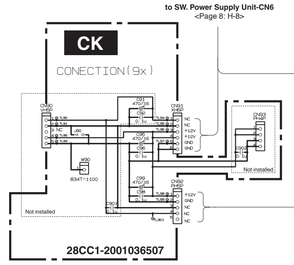
	DB[0]	DB[1]	DB[2]	DB[3]
SB[14]	SW201 TAB[<]	SW202 TAB[>]	SW203 F	SW204 G
SB[15]	SW205 H	SW206 I	SW207 J	SW208 EXIT

LCD

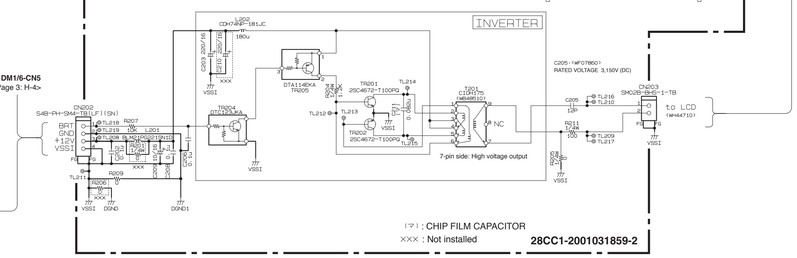
LCD Back Light

LCR

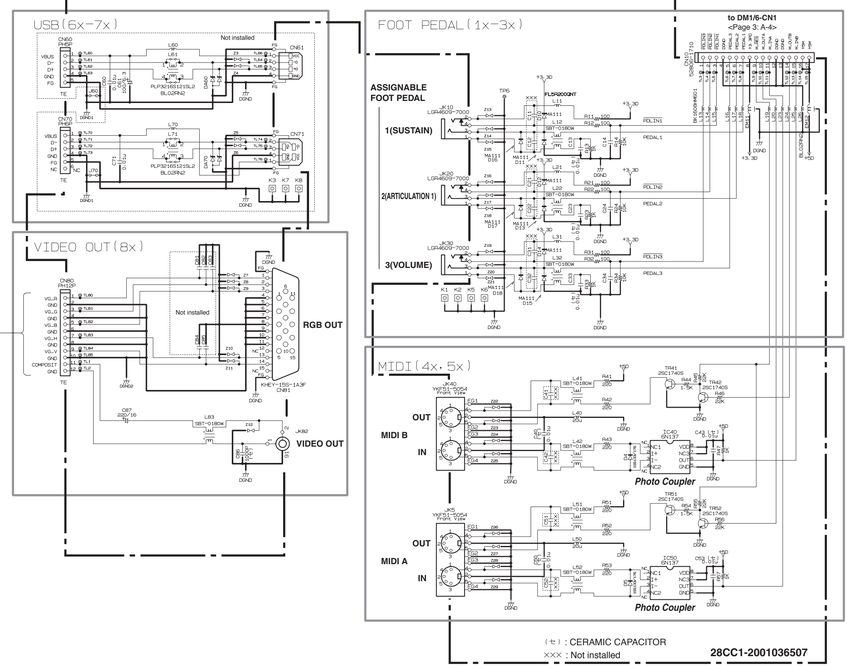
CK



INVERTER

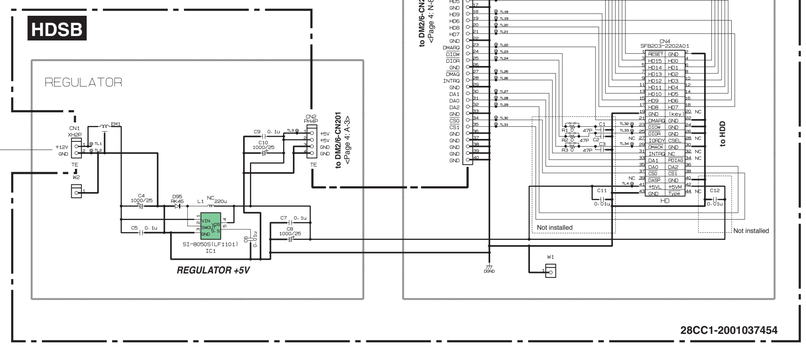


DJK



• MA2J1110GL (VR49650R) DIODE DJK: D10-18	• 2SC1740S (IC174020) TRANSISTOR DJK: TR41, 42, 51	• IMX9 (V273190R) PAIR TRANSISTOR DM: TA400
• 1SS355 TE-17 (VT332900) DIODE DJK: D10-18	• KTC3199 (WC292100) TRANSISTOR DJK: TR41, 42, 51	• KDS4148U-RTK/P (WG139300) DIODE LCL: D1-6 LCR: D201 - 208
• 2SC4672-T100PQ (V906580R) TRANSISTOR LCR: TR201, 202	• DTA114EKA (VV655000) DIGITAL TRANSISTOR LCR: TR205	• DTC123JKA (VY67760R) DIGITAL TRANSISTOR LCR: TR204
• SI-8050S (XT442A0R) REGULATOR +5V HDSB: IC1		

HDSB

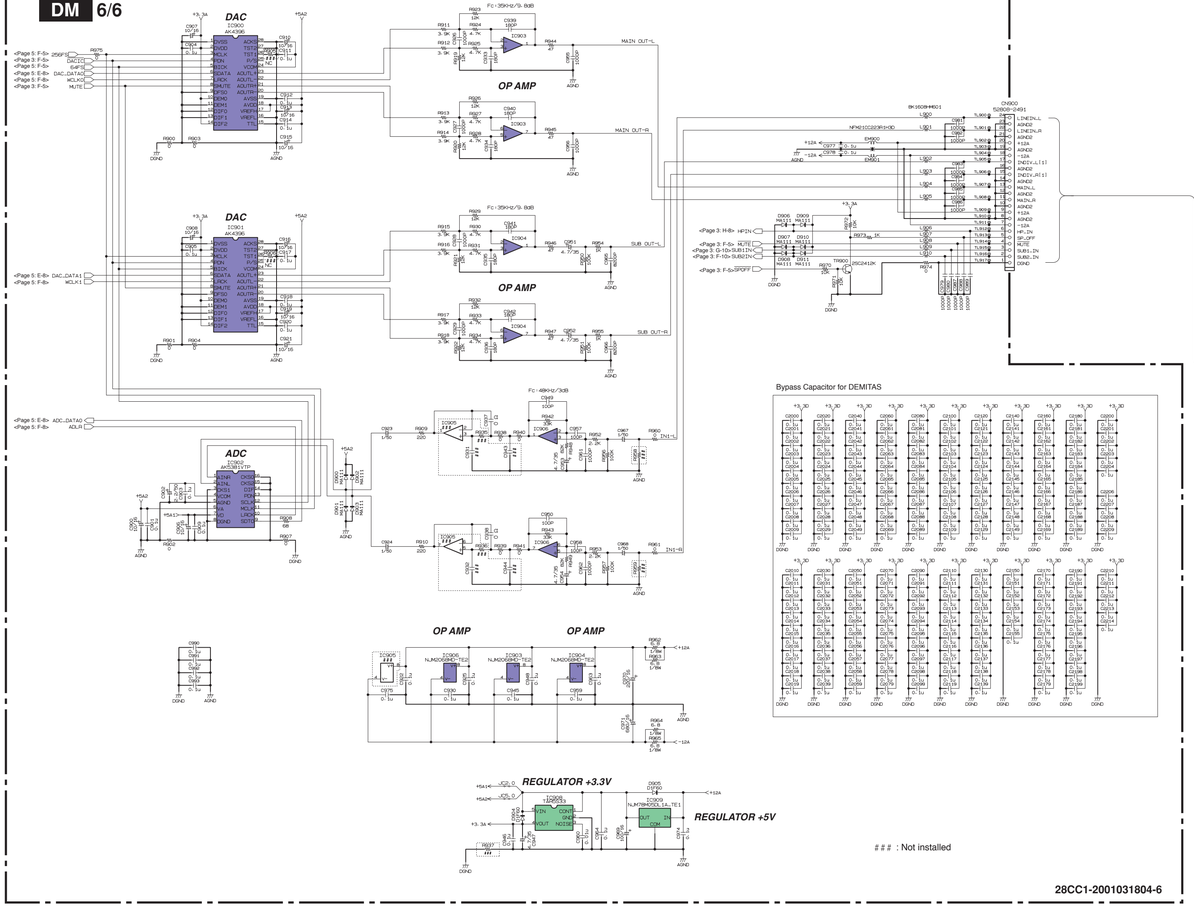


Note : See parts list for details of circuit board component parts

Tyros3

■Tyros3 OVERALL CIRCUIT DIAGRAM 6/9 (AJK, DM 6/6, HP, MICVR, SPOL, SPOR, SW. Power Supply Unit)

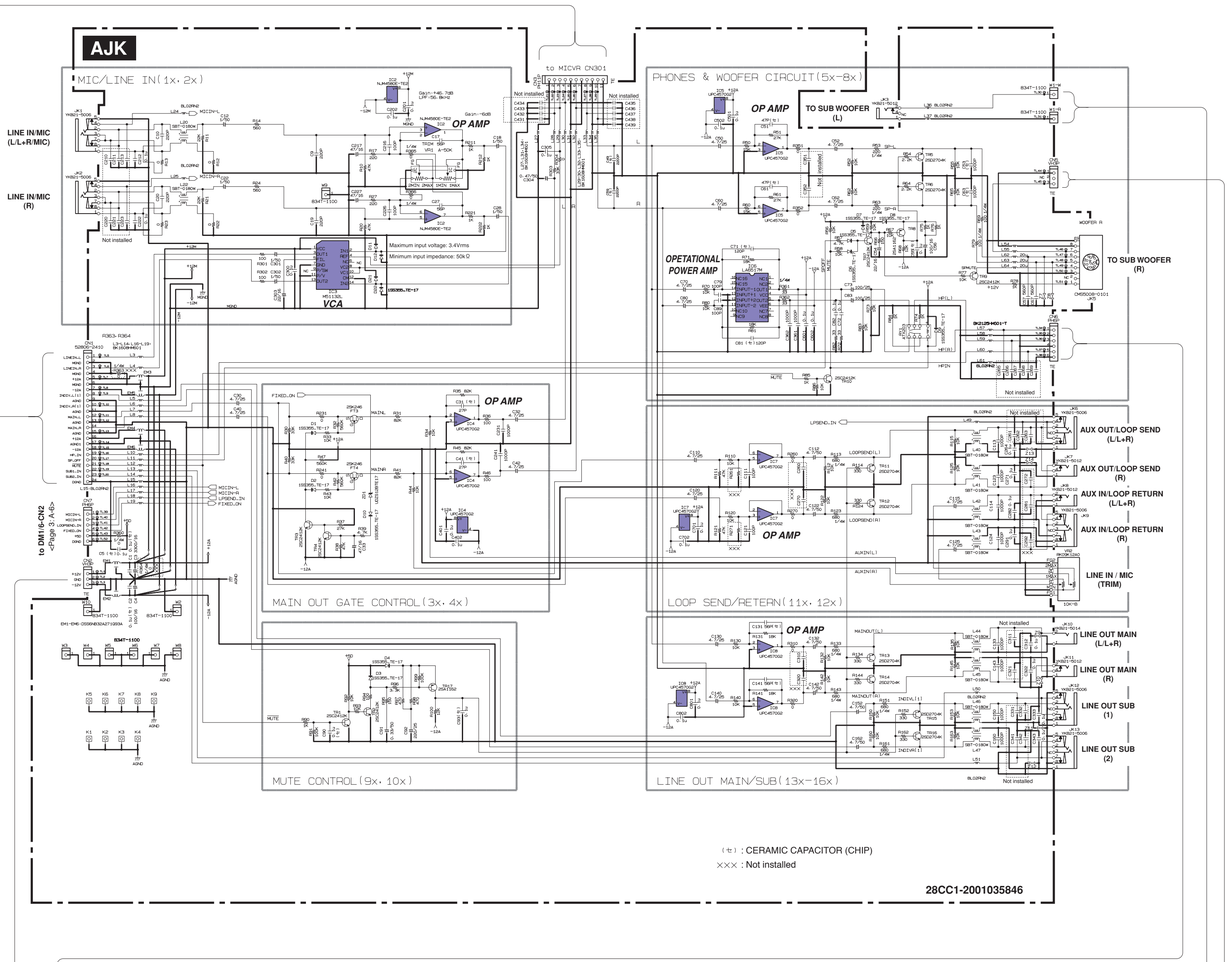
DM 6/6



: Not installed

28CC1-2001031804-6

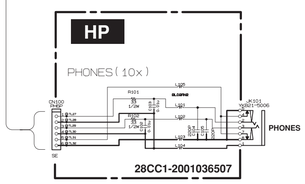
AJK



(七) : CERAMIC CAPACITOR (CHIP)
××× : Not installed

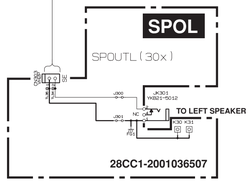
28CC1-2001035846

HP



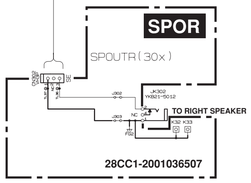
28CC1-2001036507

SPOL



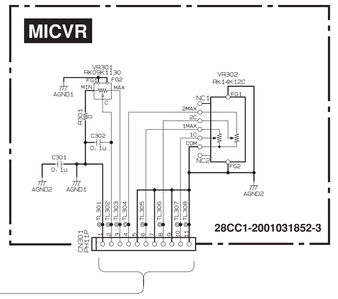
28CC1-2001036507

SPOR



28CC1-2001036507

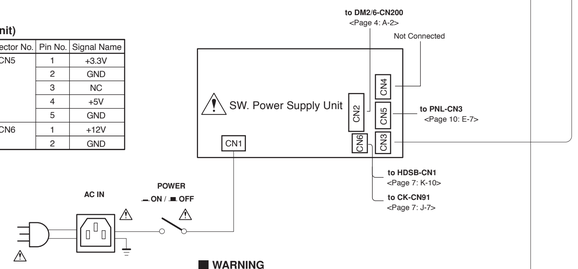
MICVR



28CC1-2001031852-3

Connector Table (Power Supply Unit)

Connector No.	Pin No.	Signal Name	Connector No.	Pin No.	Signal Name
CN1	1	AC NEUTRAL	CN5	1	+3.3V
	2	AC LIVE		2	GND
CN2	1	+3.3V		3	NC
	2			4	+5V
	3	GND		5	GND
	4		CN6	1	+12V
	5	NC		2	GND
	6	+5V			
	7	GND			
CN3	1	+12V			
	2	GND			
	3	-12V			



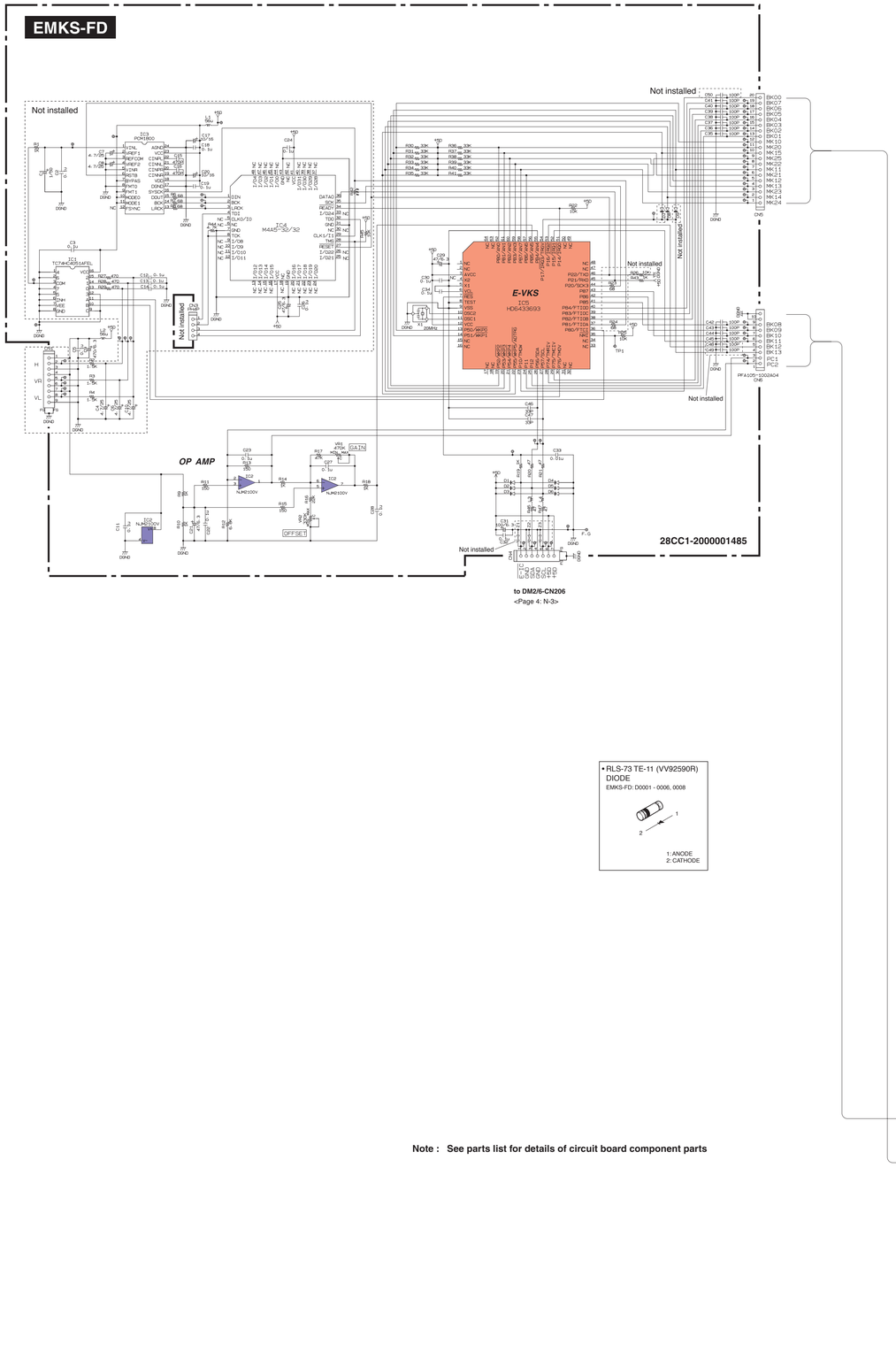
■ **WARNING**
Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

• MA2J1110GL (VR49650R) DIODE DM: D900-903, 906-911 1: ANODE 2: CATHODE	• D1F60 (VS20110R) DIODE 1A 600V DM: D904, 905 1: ANODE 2: CATHODE	• NJM78M05DL1A (XS534A00) REGULATOR +5V DM: IC909 1: INPUT 2: GND 3: OUTPUT	• TAR5S33 (XZ642A00) REGULATOR +3.3V DM: IC908 VIN VOUT CONT GND NOISE	• 2SC2412K (VV556400) TRANSISTOR DM: TR900 1: EMITTER 2: BASE 3: COLLECTOR	• KTC3875S (WC52940R) TRANSISTOR DM: TR900 1: EMITTER 2: BASE 3: COLLECTOR	• MA2J1110GL (VR49650R) DIODE AJK: D1-12, 21, 22 1: ANODE 2: CATHODE	• 1SS355 TE-17 (VT332900) DIODE AJK: D1-12, 21, 22 1: ANODE 2: CATHODE	• KDS4148U-RTK/P (WG139300) DIODE AJK: D1-12, 21,22 1: ANODE 2: CATHODE	• UDZS12B TE-17 (VU172800) ZENER DIODE 12V AJK: ZD1 1: ANODE 2: CATHODE
• 1SS355 TE-17 (VT332900) DIODE DM: D900-903, 906-911 1: ANODE 2: CATHODE	• KDS4148U-RTK/P (WG139300) DIODE DM: D900-903, 906-911 1: ANODE 2: CATHODE	• 2SK246-Y (IE10262R) FET AJK: FT3, 4 1: SOURCE 2: GATE 3: DRAIN	• 2SA1162-Y (VJ92720R) TRANSISTOR AJK: TR8, 17 1: BASE 2: EMITTER 3: COLLECTOR	• KTA1504S-Y (WC52950R) TRANSISTOR AJK: TR8, 17 1: EMITTER 2: BASE 3: COLLECTOR	• 2SA1037AK (VV556500) TRANSISTOR AJK: TR8, 17 1: BASE 2: EMITTER 3: COLLECTOR	• KTC3875S (WC52940R) TRANSISTOR AJK: TR1-4, 7, 9, 10 1: EMITTER 2: BASE 3: COLLECTOR	• 2SC2412K (VV556400) TRANSISTOR AJK: TR1-4, 7, 9, 10 1: EMITTER 2: BASE 3: COLLECTOR	• 2SD2704K (WC883400) TRANSISTOR AJK: TR5, 6, 11-16 1: EMITTER 2: BASE 3: COLLECTOR	

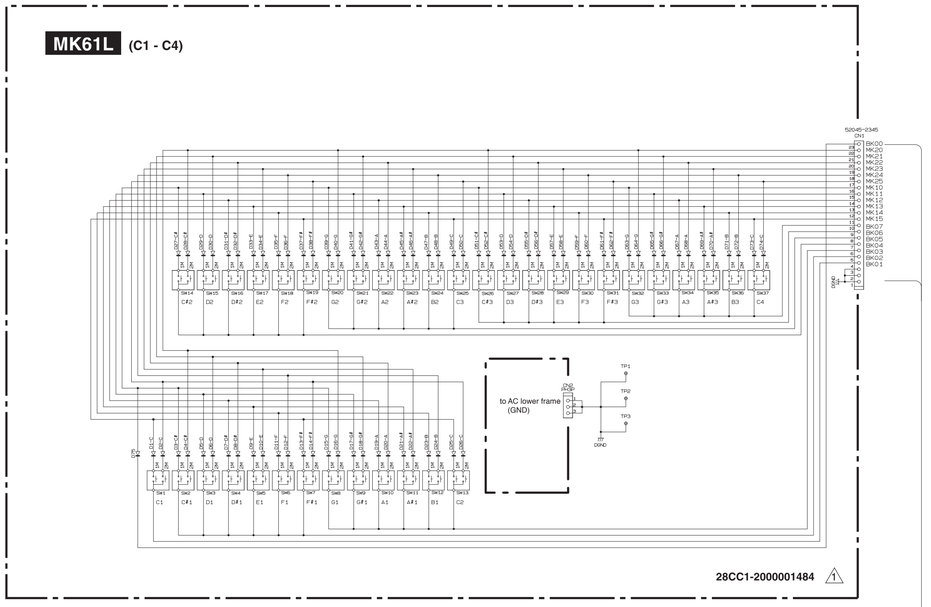
Note : See parts list for details of circuit board component parts

■Tyros3 OVERALL CIRCUIT DIAGRAM 7/9 (EMKS-FD, MK62L, MKH-D)

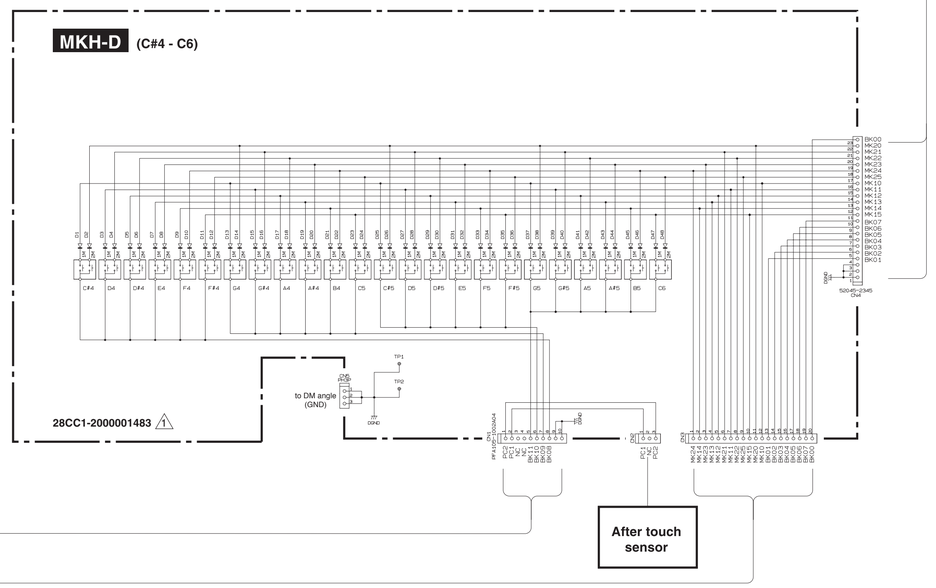
EMKS-FD



MK61L (C1 - C4)



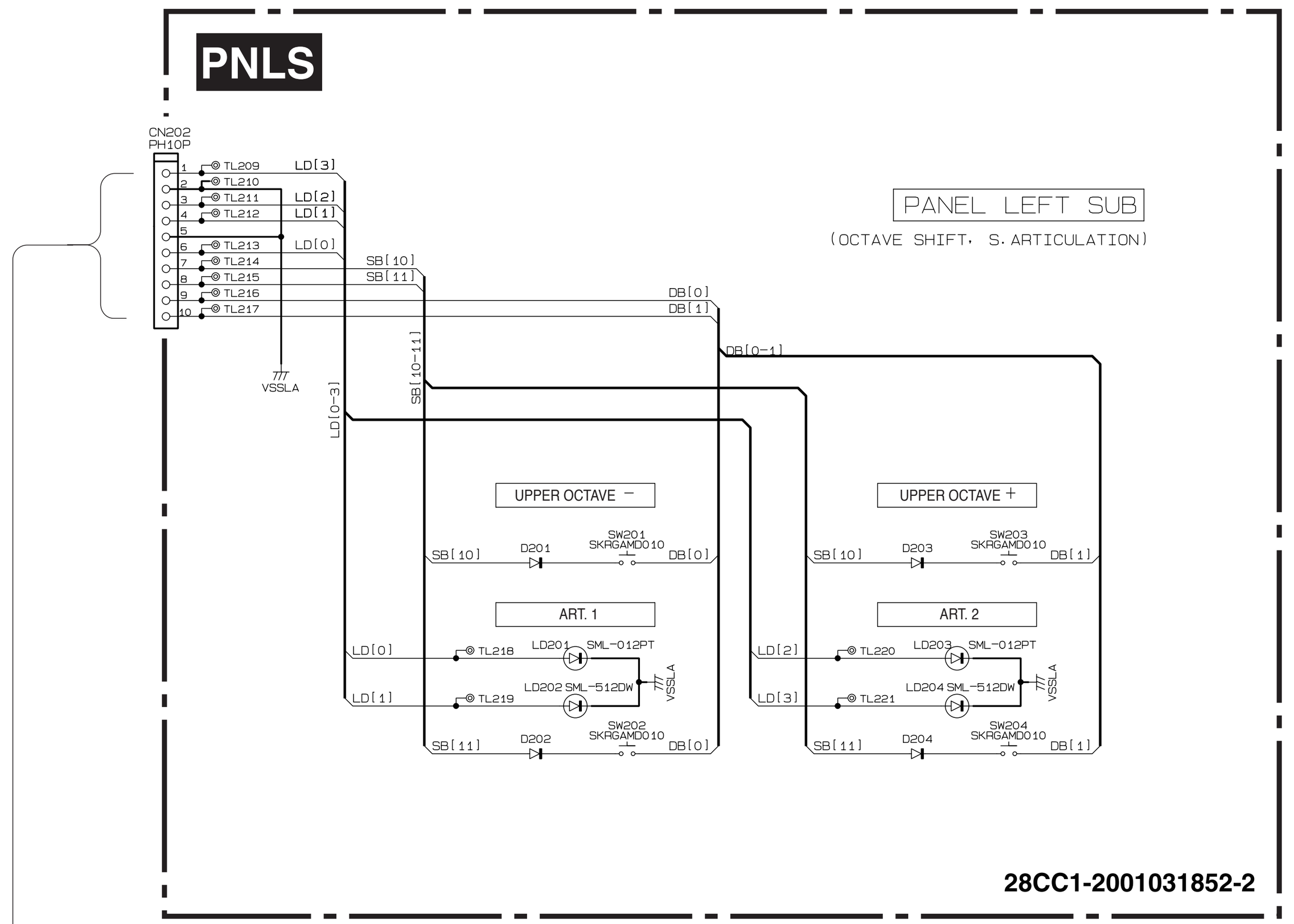
MKH-D (C#4 - C6)



• RLS-73 TE-11 (VV92590R)
DIODE
EMKS-FD: D0001 - 0006, 0008

Note : See parts list for details of circuit board component parts

■Tyros3 OVERALL CIRCUIT DIAGRAM 8/9 (PNL, PNLS)

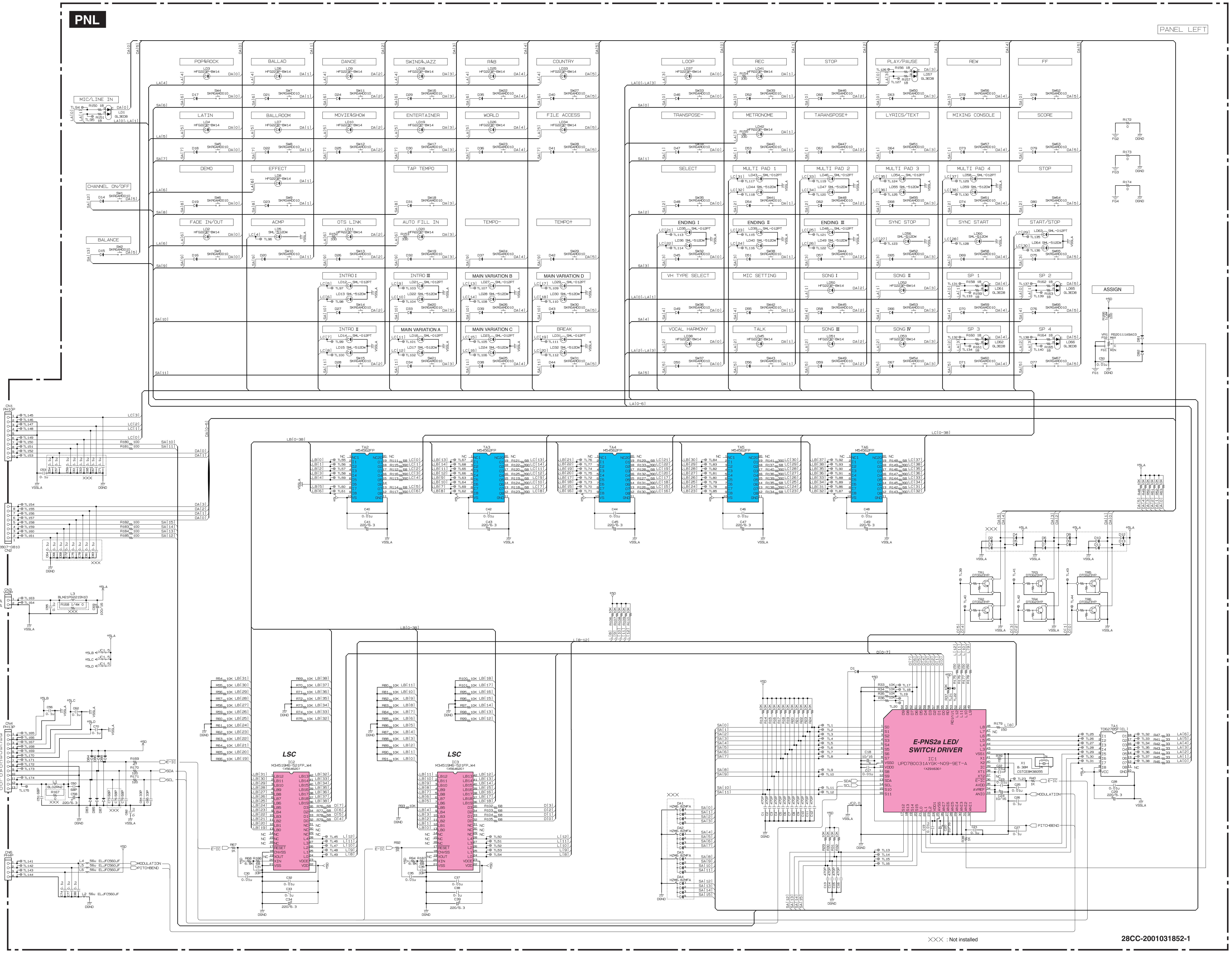


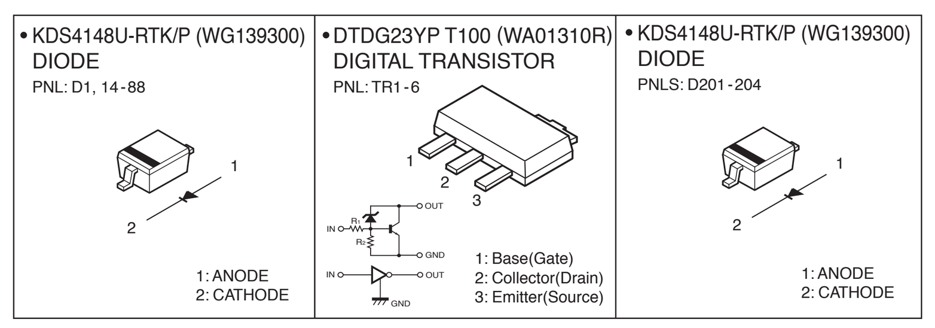
● SWITCH MATRIX (PNLS)

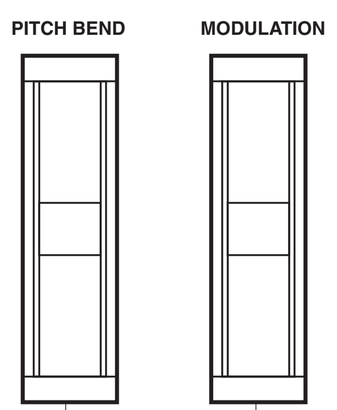
	DB[0]	DB[1]
SB[10]	SW201 UPPER OCTAVE [-]	SW203 UPPER OCTAVE [+]
SB[11]	SW202 ART. 1	SW204 ART. 2

● LED MATRIX (PNLS)

	VSSLA
LD[0]	LD201 ART. 1
LD[1]	LD202 ART. 1
LD[2]	LD203 ART. 2
LD[3]	LD204 ART. 2







● SWITCH MATRIX (PNL)

	DA[0]	DA[1]	DA[2]	DA[3]	DA[4]	DA[5]
SA[0]	SW33 SONG [LOOP]	SW39 SONG [REC]	SW46 SONG [STOP]	SW50 SONG [PLAY/PAUSE]	SW56 SONG [REW]	SW62 SONG [FF]
SA[1]	SW34 TRANSPOSE [-]	SW40 SONG [METRONOME]	SW47 TRANSPOSE [+]	SW51 SONG [LYRICS/TEXT]	SW57 MIXING CONSOLE	SW63 SONG [SCORE]
SA[2]	SW35 MULTI PAD CONTROL [SELECT]	SW41 MULTI PAD CONTROL [1]	SW48 MULTI PAD CONTROL [2]	SW55 MULTI PAD CONTROL [3]	SW61 MULTI PAD CONTROL [4]	SW64 MULTI PAD CONTROL [STOP]
SA[3]	SW32 ENDING/rit. [I]	SW38 ENDING/rit. [II]	SW44 ENDING/rit. [III]	SW52 STYLE CONTROL [SYNC STOP]	SW58 STYLE CONTROL [SYNC START]	SW65 STYLE CONTROL [START/STOP]
SA[4]	S36 MIC [VH TYPE SELECT]	SW42 MIC [MIC SETTING]	SW45 SONG [I]	SW53 SONG [II]	SW59 SONG [SP 1]	SW66 SONG [SP 2]
SA[5]	SW37 MIC [VOCAL HARMONY]	SW43 MIC [TALK]	SW49 SONG [III]	SW54 SONG [IV]	SW60 SONG [SP 3]	SW67 SONG [SP 4]
SA[6]	SW4 STYLE [POP & ROCK]	SW7 STYLE [BALLAD]	SW11 STYLE [DANCE]	SW16 STYLE [SWING & JAZZ]	SW22 STYLE [R & B]	SW27 STYLE [COUNTRY]
SA[7]	SW5 STYLE [LATIN]	SW8 STYLE [BALLROOM]	SW12 STYLE [MOVIE & SHOW]	SW17 STYLE [ENTERTAINER]	SW23 STYLE [WORLD]	SW28 STYLE [FILE ACCESS]
SA[8]	SW6 DEMO	SW9 MIC [EFFECT]		SW18 TAP TEMPO		
SA[9]	SW3 FADE IN/OUT	SW10 STYLE CONTROL [ACMP]	SW13 STYLE CONTROL [OTS LINK]	SW19 STYLE CONTROL [AUTO FILL IN]	SW24 TEMPO [-]	SW29 TEMPO [+]
SA[10]			SW14 STYLE CONTROL INTRO [I]	SW20 STYLE CONTROL INTRO [III]	SW26 MAIN VARIATION [B]	SW30 MAIN VARIATION [D]
SA[11]			SW15 STYLE CONTROL INTRO [II]	SW21 MAIN VARIATION [A]	SW25 MAIN VARIATION [C]	SW31 STYLE CONTROL [BREAK]
SA[12]						SW1 CHANNEL ON/OFF
SA[13]						SW2 BALANCE

● LED MATRIX (PNL)

	DA[0]	DA[1]	DA[2]	DA[3]	DA[4]	DA[5]
LA[0]	LD1 <GREEN> SIGNAL	LD41 SONG [REC]		LD57 <GREEN> SONG [PLAY/PAUSE]	LD61 <GREEN> SONG [SP 1]	LD65 <GREEN> SONG [SP 2]
LA[1]	LD1 <RED> SIGNAL		LD50 SONG [I]	LD52 SONG [II]	LD61 <RED> SONG [SP 1]	LD65 <RED> SONG [SP 2]
LA[2]	LD38 MIC [VOCAL HARMONY]	LD45 MIC [TALK]	LD51 SONG [II]	LD53 SONG [IV]	LD62 <GREEN> SONG [SP 3]	LD66 <GREEN> SONG [SP 4]
LA[3]	LD37 SONG [LOOP]	LD42 SONG [METRONOME]		LD57 <RED> SONG [PLAY/PAUSE]	LD62 <RED> SONG [SP 3]	LD66 <RED> SONG [SP 4]
LA[4]	LD3 STYLE [POP & ROCK]	LD6 STYLE [BALLAD]	LD9 STYLE [DANCE]	LD18 STYLE [SWING & JAZZ]	LD25 STYLE [R & B]	LD33 STYLE [COUNTRY]
LA[5]	LD4 STYLE [LATIN]	LD7 STYLE [BALLROOM]	LD10 STYLE [MOVIE & SHOW]	LD19 STYLE [ENTERTAINER]	LD26 STYLE [WORLD]	LD34 STYLE [FILE ACCESS]
LA[6]	LD2 FADE IN/OUT	LD8 MIC [EFFECT]	LD11 STYLE CONTROL [OTS LINK]	LD20 STYLE CONTROL [AUTO FILL IN]		

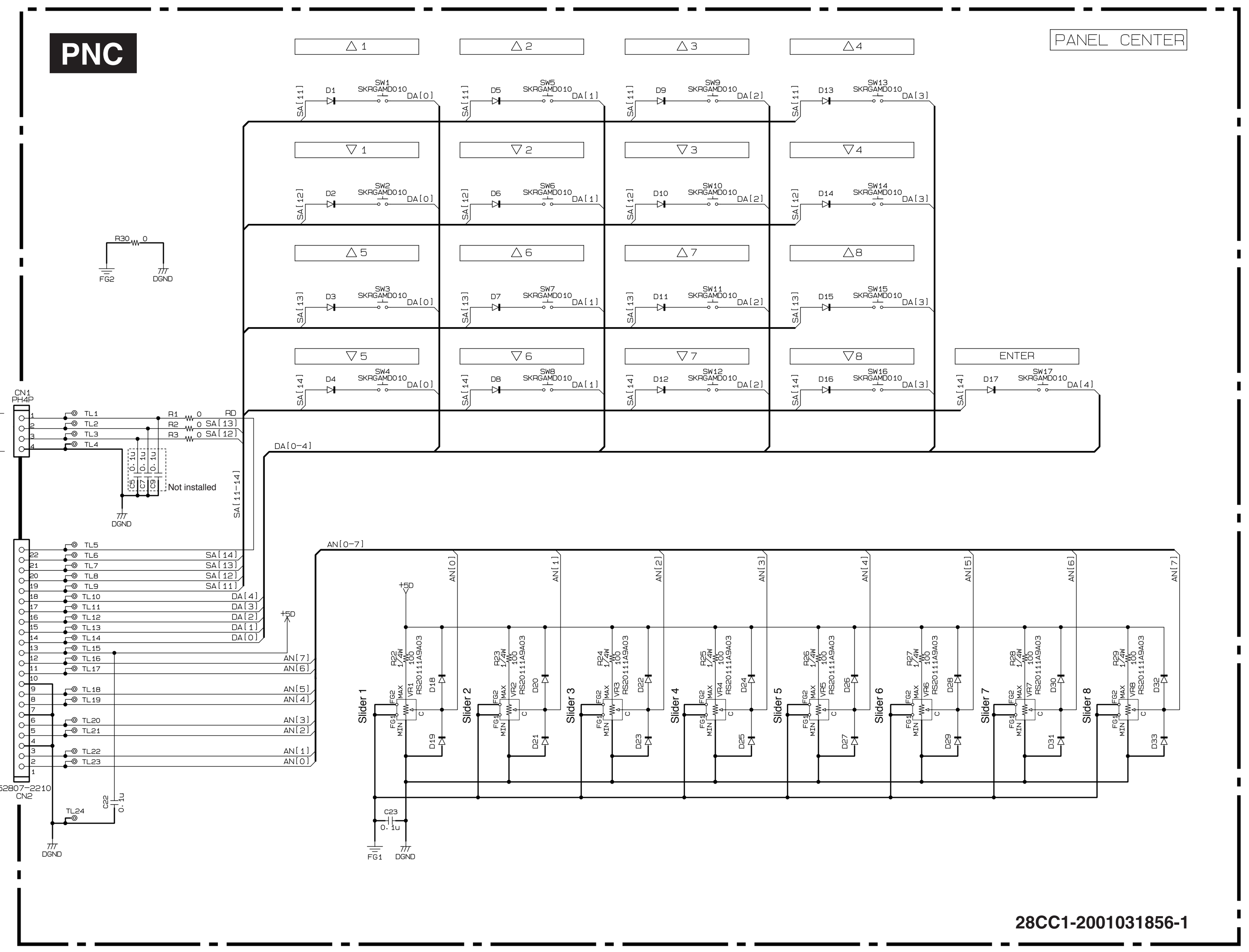
● LED MATRIX (PNL)

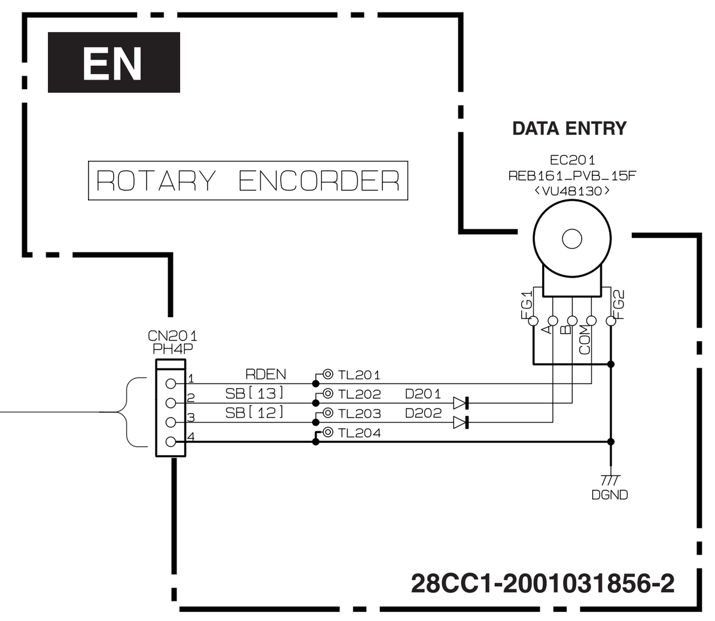
	VSSLA		VSSLA		VSSLA
LC[0]		LC[14]	LD28 MAIN VARIATION [B]	LC[28]	LD60 STYLE CONTROL [SYNC START]
LC[1]		LC[15]	LD23 MAIN VARIATION [C]	LC[29]	LD63 STYLE CONTROL [START/STOP]
LC[2]		LC[16]	LD24 MAIN VARIATION [C]	LC[30]	LD64 STYLE CONTROL [START/STOP]
LC[3]		LC[17]	LD29 MAIN VARIATION [D]	LC[31]	LD43 MULTI PAD CONTROL [1]
LC[4]	LD5 STYLE CONTROL [ACMP]	LC[18]	LD30 MAIN VARIATION [D]	LC[32]	LD44 MULTI PAD CONTROL [1]
LC[5]	LD12 STYLE CONTROL INTRO [I]	LC[19]	LD31 STYLE CONTROL [BREAK]	LC[33]	LD46 MULTI PAD CONTROL [2]
LC[6]	LD13 STYLE CONTROL INTRO [I]	LC[20]	LD32 STYLE CONTROL [BREAK]	LC[34]	LD47 MULTI PAD CONTROL [2]
LC[7]	LD14 STYLE CONTROL INTRO [II]	LC[21]	LD35 ENDING/rit. [I]	LC[35]	LD54 MULTI PAD CONTROL [3]
LC[8]	LD15 STYLE CONTROL INTRO [II]	LC[22]	LD36 ENDING/rit. [I]	LC[36]	LD55 MULTI PAD CONTROL [3]
LC[9]	LD21 STYLE CONTROL INTRO [III]	LC[23]	LD39 ENDING/rit. [II]	LC[37]	LD58 MULTI PAD CONTROL [4]
LC[10]	LD22 STYLE CONTROL INTRO [III]	LC[24]	LD40 ENDING/rit. [II]	LC[38]	LD59 MULTI PAD CONTROL [4]
LC[11]	LD16 MAIN VARIATION [A]	LC[25]	LD48 ENDING/rit. [III]		
LC[12]	LD17 MAIN VARIATION [A]	LC[26]	LD49 ENDING/rit. [III]		
LC[13]	LD27 MAIN VARIATION [B]	LC[27]	LD56 STYLE CONTROL [SYNC STOP]		

Note : See parts list for details of circuit board component parts.

Tyros3

■ Tyros3 OVERALL CIRCUIT DIAGRAM 9/9 (PNC, PNR, EN)





• SWITCH MATRIX (PNC)

	DA[0]	DA[1]	DA[2]	DA[3]	DA[0]
SA[11]	SW1 [1] (△)	SW5 [2] (△)	SW9 [3] (△)	SW13 [4] (△)	
SA[12]	SW2 [1] (▽)	SW6 [2] (▽)	SW10 [3] (▽)	SW14 [4] (▽)	
SA[13]	SW3 [5] (△)	SW7 [6] (△)	SW11 [7] (△)	SW15 [8] (△)	
SA[14]	SW4 [5] (▽)	SW8 [6] (▽)	SW12 [7] (▽)	SW16 [8] (▽)	SW17 ENTER

• SWITCH MATRIX (PNR)

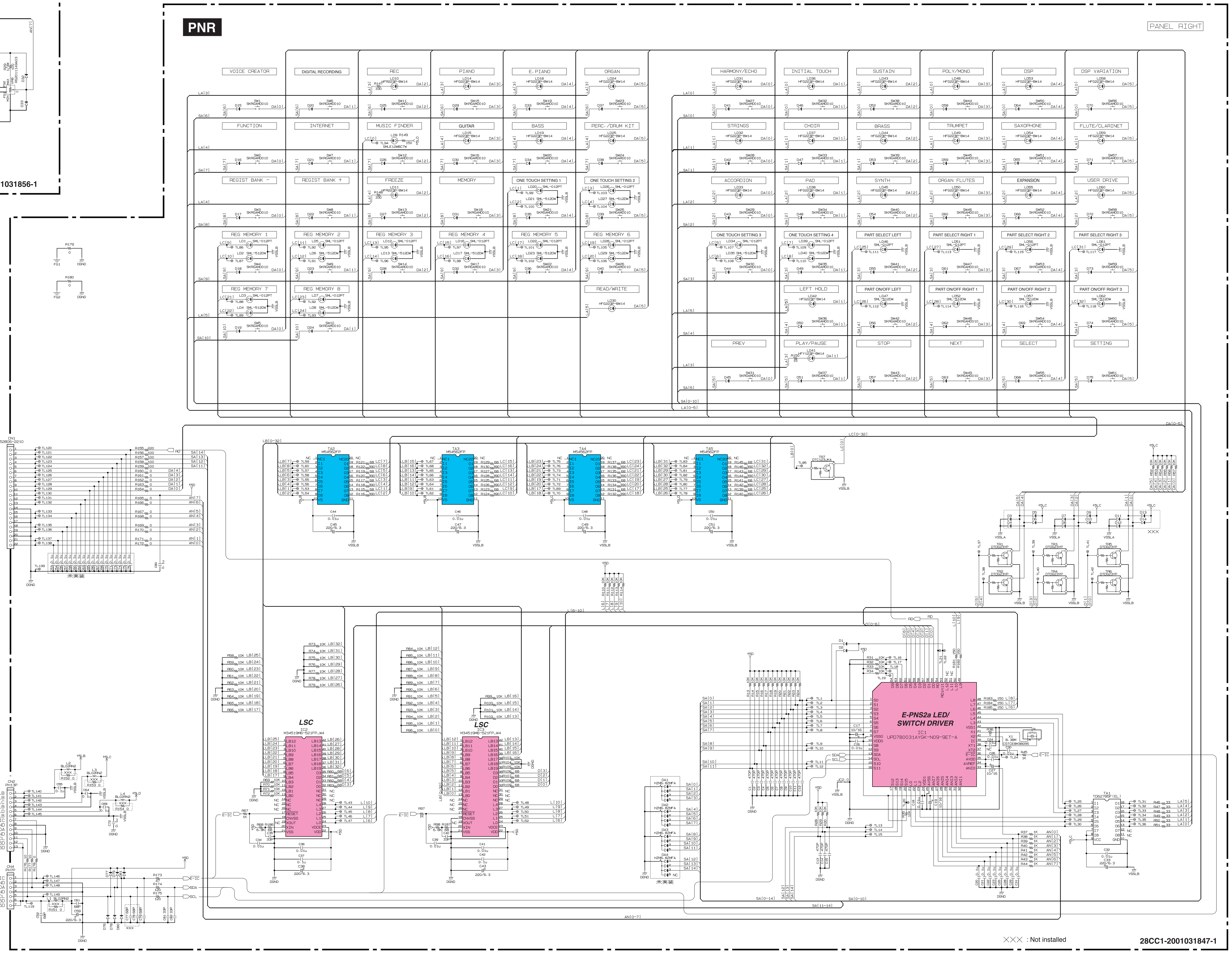
	DA[0]	DA[1]	DA[2]	DA[3]	DA[4]	DA[5]
SA[0]	SW27 VOICE EFFECT [HARMONY/ECHO]	SW32 VOICE EFFECT [INITIAL TOUCH]	SW38 VOICE EFFECT [SUSTAIN]	SW44 VOICE EFFECT [MONO]	SW50 VOICE EFFECT [DSP]	SW56 VOICE EFFECT [VARIATION]
SA[1]	SW28 VOICE [STRINGS]	SW33 VOICE [CHOIR]	SW39 VOICE [BRASS]	SW45 VOICE [TRUMPET]	SW51 VOICE [SAXOPHONE]	SW57 VOICE [FLUTE/CLARINET]
SA[2]	SW29 VOICE [ACCORDION]	SW34 VOICE [PAD]	SW40 VOICE [SYNTH]	SW46 VOICE [ORGAN FLUTES]	SW52 VOICE [EXPANSION]	SW58 VOICE [USER DRIVE]
SA[3]	SW30 ONE TOUCH SETTING [3]	SW35 ONE TOUCH SETTING [4]	SW41 PART SELECT [LEFT]	SW47 PART SELECT [RIGHT 1]	SW53 PART SELECT [RIGHT 2]	SW59 PART SELECT [RIGHT 3]
SA[4]		SW36 PART ON/OFF [LEFT HOLD]	SW42 PART ON/OFF [LEFT]	SW48 PART ON/OFF [RIGHT 1]	SW54 PART ON/OFF [RIGHT 2]	SW60 PART ON/OFF [RIGHT 3]
SA[5]	SW31 HARD DISK RECORDER [PREV]	SW37 HARD DISK RECORDER [PLAY/PAUSE]	SW43 HARD DISK RECORDER [STOP]	SW49 HARD DISK RECORDER [NEXT]	SW55 HARD DISK RECORDER [SELECT]	SW61 HARD DISK RECORDER [SETTING]
SA[6]	SW1 MENU [VOICE CREATOR]	SW6 MENU [DIGITAL RECORDING]	SW11 HARD DISK RECORDER [REC]	SW15 VOICE [PIANO]	SW19 VOICE [E.PIANO]	SW23 VOICE [ORGAN]
SA[7]	SW2 MENU [FUNCTION]	SW7 INTERNET	SW12 MUSIC FINDER	SW16 VOICE [GUITAR]	SW20 VOICE [BASS]	SW24 VOICE [PERC./DRUM KIT]
SA[8]	SW3 REGIST BANK [-]	SW8 REGIST BANK [+]	SW13 REGISTRATION MEMORY [FREEZE]	SW18 REGISTRATION MEMORY [MEMORY]	SW21 ONE TOUCH SETTING [1]	SW25 ONE TOUCH SETTING [2]
SA[9]	SW4 REGISTRATION MEMORY [1]	SW9 REGISTRATION MEMORY [2]	SW14 REGISTRATION MEMORY [3]	SW17 REGISTRATION MEMORY [4]	SW22 REGISTRATION MEMORY [5]	SW26 REGISTRATION MEMORY [6]
SA[10]	SW5 REGISTRATION MEMORY [7]	SW10 REGISTRATION MEMORY [8]				

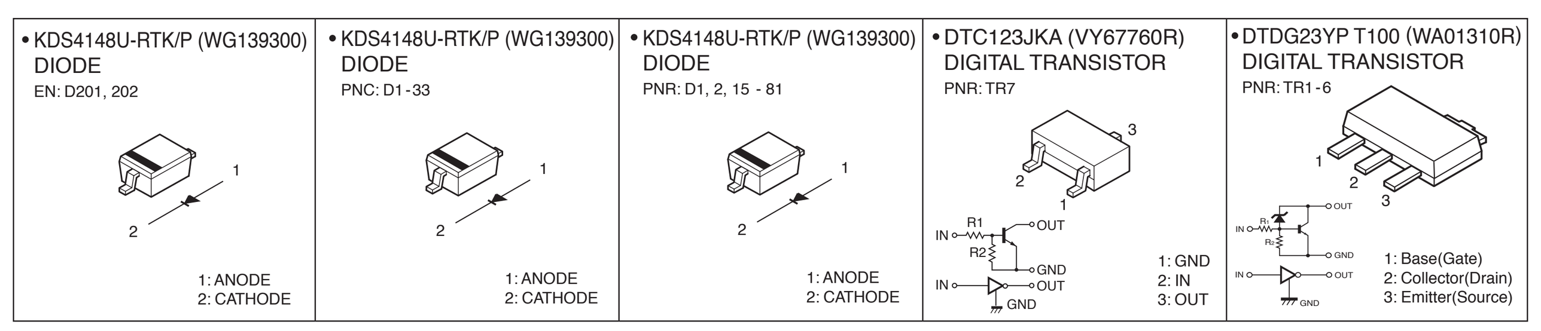
• LED MATRIX (PNR)

	+5LD	VSSLB		+5LD	VSSLB		+5LD	VSSLB
LC[0]	LD9 MUSIC FINDER		LC[11]		LD5 REGISTRATION MEMORY [2]	LC[22]		LD4 REGISTRATION MEMORY [7]
LC[1]		LD20 ONE TOUCH SETTING [1]	LC[12]		LD6 REGISTRATION MEMORY [2]	LC[23]		LD7 REGISTRATION MEMORY [8]
LC[2]		LD21 ONE TOUCH SETTING [1]	LC[13]		LD12 REGISTRATION MEMORY [3]	LC[24]		LD8 REGISTRATION MEMORY [8]
LC[3]		LD26 ONE TOUCH SETTING [2]	LC[14]		LD13 REGISTRATION MEMORY [3]	LC[25]		LD46 PART SELECT [LEFT]
LC[4]		LD27 ONE TOUCH SETTING [2]	LC[15]		LD16 REGISTRATION MEMORY [4]	LC[26]		LD47 PART ON/OFF [LEFT]
LC[5]		LD34 ONE TOUCH SETTING [3]	LC[16]		LD17 REGISTRATION MEMORY [4]	LC[27]		LD51 PART SELECT [RIGHT 1]
LC[6]		LD35 ONE TOUCH SETTING [3]	LC[17]		LD22 REGISTRATION MEMORY [5]	LC[28]		LD52 PART ON/OFF [RIGHT 1]
LC[7]		LD39 ONE TOUCH SETTING [4]	LC[18]		LD23 REGISTRATION MEMORY [5]	LC[29]		LD56 PART SELECT [RIGHT 2]
LC[8]		LD40 ONE TOUCH SETTING [4]	LC[19]		LD28 REGISTRATION MEMORY [6]	LC[30]		LD57 PART ON/OFF [RIGHT 2]
LC[9]		LD1 REGISTRATION MEMORY [1]	LC[20]		LD29 REGISTRATION MEMORY [6]	LC[31]		LD61 PART SELECT [RIGHT 3]
LC[10]		LD2 REGISTRATION MEMORY [1]	LC[21]		LD3 REGISTRATION MEMORY [7]	LC[32]		LD62 PART ON/OFF [RIGHT 3]

• LED MATRIX (PNR)

	DA[0]	DA[1]	DA[2]	DA[3]	DA[4]	DA[5]
LA[0]	LD31 VOICE EFFECT [HARMONY/ECHO]	LD36 VOICE EFFECT [INITIAL TOUCH]	LD43 VOICE EFFECT [SUSTAIN]	LD48 VOICE EFFECT [MONO]	LD53 VOICE EFFECT [DSP]	LD58 VOICE EFFECT [VARIATION]
LA[1]	LD32 VOICE [STRINGS]	LD37 VOICE [CHOIR]	LD44 VOICE [BRASS]	LD49 VOICE [TRUMPET]	LD54 VOICE [SAXOPHONE]	LD59 VOICE [FLUTE/CLARINET]
LA[2]	LD33 VOICE [ACCORDION]	LD38 VOICE [PAD]	LD45 VOICE [SYNTH]	LD50 VOICE [ORGAN FLUTES]	LD55 VOICE [EXPANSION]	LD60 VOICE [USER DRIVE]
LA[3]		LD41 HARD DISK RECORDER [PLAY/PAUSE]	LD10 HARD DISK RECORDER [REC]	LD14 VOICE [PIANO]	LD18 VOICE [E.PIANO]	LD24 VOICE [ORGAN]
LA[4]			LD11 REGISTRATION MEMORY [FREEZE]	LD15 VOICE [GUITAR]	LD19 VOICE [BASS]	LD25 VOICE [PERC./DRUM KIT]
LA[5]		LD42 PART ON/OFF [LEFT HOLD]				LD30 READ/WRITE





Note : See parts list for details of circuit board component parts.