

Portable Grand DGX-640W/DGX-640C

SERVICE MANUAL



DGX-640W



DGX-640C

■ CONTENTS

SPECIFICATIONS.....	3
PANEL LAYOUT	4
CIRCUIT BOARD LAYOUT & WIRING	6
BLOCK DIAGRAM.....	8
DISASSEMBLY PROCEDURE	9
LSI PIN DESCRIPTION	20
CIRCUIT BOARDS.....	24
TEST PROGRAM.....	33
BACKUP and INITIALIZATION.....	38
USER DATA BACKUP	39
SYSTEM BOOTING FLOW CHART	45
PARTS LIST	
OVERALL CIRCUIT DIAGRAM	

As for an optional LP-7A pedal unit,
refer to the LP-7A/LP-5A service manual
(CL [001812](#)).

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 believed 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

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

Making sure that neither core is connected to the earth terminal of the three pin plug.

• This applies only products distributed by Yamaha-Kemble music (U.K.) Ltd. (2 wires)

■ WARNING

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

■ SAVING DATA

Saving and backing up your data

Some data items are automatically saved as backup data in the internal memory even if you turn the power off.

Saved data may be lost due to malfunction or incorrect operation. Save important data to a USB storage device/or other external device such as a computer.

■ SPECIFICATIONS

Keyboards

- 88 Graded Hammer Standard keys (A-1-C7), with Touch Response.

Display

- 320 x 240 dots LCD display (backlit)

Setup

- STANDBY/ON
- MASTER VOLUME: MIN-MAX
- LCD CONTRAST

Realtime Control

- Pitch Bend Wheel

Voice

- 142 panel voices + 12 drum/SFX kits + 381 XGlite voices
- Polyphony: 64
- DUAL
- SPLIT

Style

- 165 Preset Styles + External files
- Style Control: ACMP ON/OFF, SYNC STOP, SYNC START, START/STOP, INTRO/ENDING/rit., MAIN/AUTO FILL
- Fingering: Multi Finger, Full Keyboard, All Fingered
- Style Volume

Music Database

- 305 + External files

Education Feature

- Dictionary
- Lesson 1-3, Repeat & Learn

Registration Memory

- 8 banks x 4 types

Function

- VOLUME: Style Volume, Song Volume
- OVERALL: Tuning, Transpose, Split Point, Touch Sensitivity, Pitch Bend Range, Chord Fingering
- MAIN VOICE: Volume, Octave, Pan, Reverb Level, Chorus Level, DSP Level
- DUAL VOICE: Volume, Octave, Pan, Reverb Level, Chorus Level, DSP Level
- SPLIT VOICE: Volume, Octave, Pan, Reverb Level, Chorus Level
- EFFECT: Reverb Type, Chorus Type, DSP ON/OFF, DSP Type, Sustain, Master EQ Type
- HARMONY: Harmony Type, Harmony Volume
- Performance assistant technology: Performance assistant technology Type
- PC: PC Mode
- MIDI: Local On/Off, External Clock, Initial Send, Keyboard Out, Style Out, Song Out
- METRONOME: Time Signature Numerator, Time Signature Denominator, Metronome Volume, Bell Quantize
- SCORE: Lesson Track (R), Lesson Track (L)
- LESSON: GRADE
- DEMO: Demo Cancel, DEMO GROUP, DEMO PLAY MODE
- LANGUAGE: English/Japanese

Effects

- Reverb: 35 types
- Chorus: 44 types
- DSP: 238 types
- Harmony: 26 types

Song

- 30 Preset Songs + 5 User Songs + Accessory CD-ROM Songs (70)
- Song Clear, Track Clear
- Song Volume
- Song Control: REPEAT & LEARN, A-B REPEAT, PAUSE, REW, FF, START/STOP

Performance assistant technology

- Chord, Chord/Free, Melody, Chord/Melody

Recording

- Song
 - User Song: 5 Songs
 - Recording Tracks: 1, 2, 3, 4, 5, STYLE

MIDI

- Local On/Off
- Keyboard Out
- Initial Send
- Style Out
- External Clock
- Song Out

Auxiliary jacks

- PHONES/OUTPUT, DC IN 12V, USB TO HOST, USB TO DEVICE, SUSTAIN, PEDAL UNIT

Amplifier

- 6W + 6W

Speakers

- 12cm x 2 + 3cm x 2

Power Supply

- Adaptor: Users within U.S or Europe: PA-150 or an equivalent recommended by Yamaha
Others: PA-5D, PA-150 or an equivalent

Dimensions (W x D x H)

- 1,397 x 445 x 146 mm (55" x 17-1/2" x 5-3/4")
with keyboard stand:
1,399 x 445 x 761 mm (55-1/16" x 17-1/2" x 29-15/16")

Weight

- 20.7kg (45 lbs. 10 oz.)
with keyboard stand: 27.7kg (61 lbs. 1 oz.)

Supplied Accessories

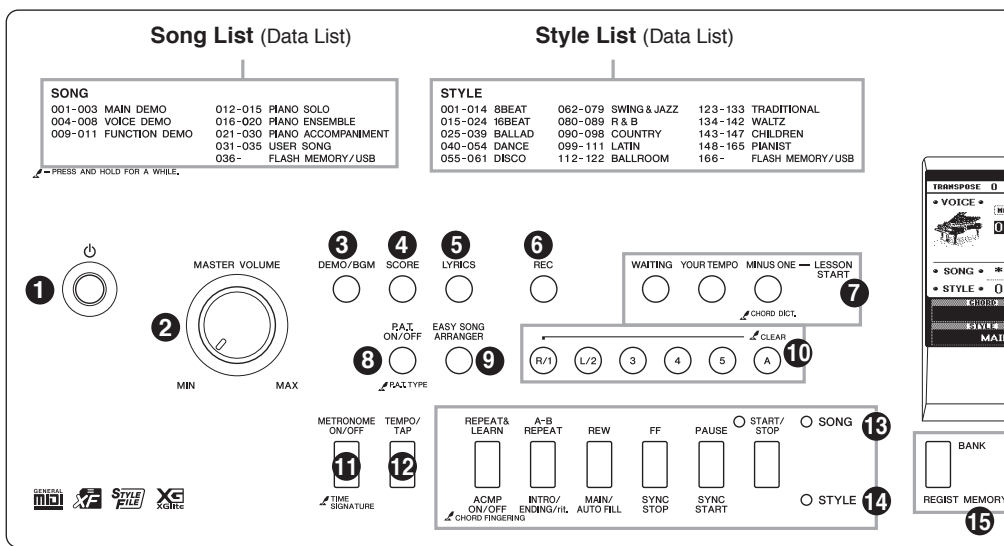
- Data List
- Music Rest
- Accessory CD-ROM
- Keyboard Stand
- Owner's Manual
- Footswitch
- My Yamaha Product User Registration
- * The PRODUCT ID on the sheet will be needed when you fill out the User Registration form.
- AC Power adaptor (PA-150 or an equivalent)
- * May not be included depending on your particular area.

Optional Accessories

- AC Power Adaptor: Users within U.S or Europe: PA-150 or an equivalent recommended by Yamaha
Others: PA-5D, PA-150 or an equivalent
- Headphones: HPE-150
- Pedal Unit: LP-7A
- Footswitch: FC4/5

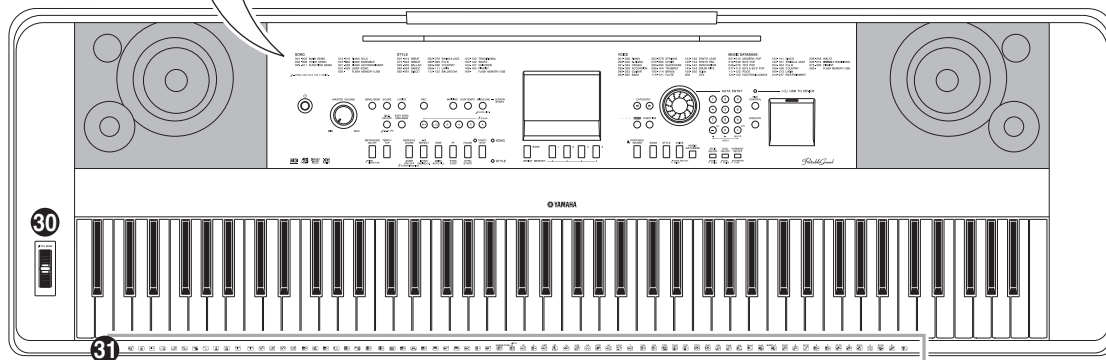
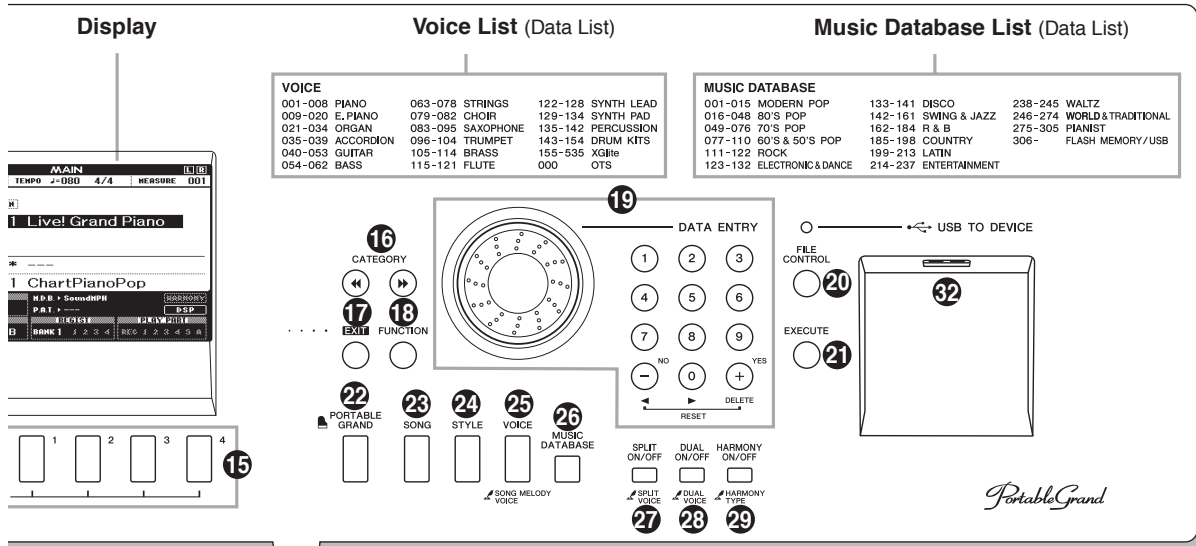
■ PANEL LAYOUT

Front Panel

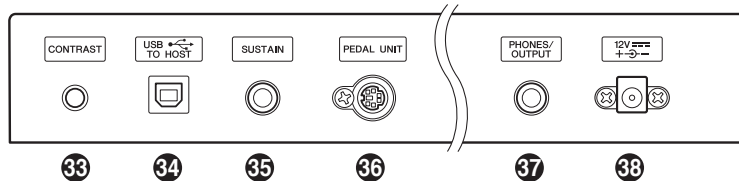


Front Panel

- ❶ [⏻](Standby/On) switch
- ❷ [MASTER VOLUME] control
- ❸ [DEMO/BGM] button
- ❹ [SCORE] button
- ❺ [LYRICS] button
- ❻ [REC] button
- ❼ LESSON START
 - [WAITING] button
 - [YOUR TEMPO] button
 - [MINUS ONE] button
- ❽ [P.A.T. ON/OFF] button
- ❾ [EASY SONG ARRANGER] button
- ❿ Song Track
 - [1]–[5], [A] buttons
 - Lesson
 - [R/1] and [L/1] buttons
- ⓫ [METRONOME ON/OFF] button
- ⓬ [TEMPO/TAP] button
- ⓭ SONG
 - [REPEAT&LEARN] button
 - [A-B REPEAT] button
 - [REW] button
 - [FF] button
 - [PAUSE] button
 - [START/STOP] button
- ⓮ STYLE
 - [ACMP ON/OFF] button
 - [INTRO/ENDING/rit.] button
 - [MAIN/AUTO FILL] button
 - [SYNC STOP] button
 - [SYNC START] button
 - [START/STOP] button
- ⓯ REGIST MEMORY [BANK], [1]–[4] buttons
- ⓰ CATEGORY [◀] and [▶] buttons
- ⓱ [EXIT] button
- ⓲ [FUNCTION] button
- ⓳ DATA ENTRY
 - Dial, Number buttons [0]–[9], [+], and [-] buttons
- ⓴ [FILE CONTROL] button
- ⓵ [EXECUTE] button
- ⓶ [PORTABLE GRAND] button
- ⓷ [SONG] button
- ⓸ [STYLE] button
- ⓹ [VOICE] button
- ⓺ [MUSIC DATABASE] button
- ⓻ [SPLIT ON/OFF] button
- ⓼ [DUAL ON/OFF] button
- ⓽ [HARMONY ON/OFF] button
- ⓾ [PITCH BEND] wheel
- ⓿ Drum Kit
- ⓿ USB TO DEVICE terminal



Rear Panel

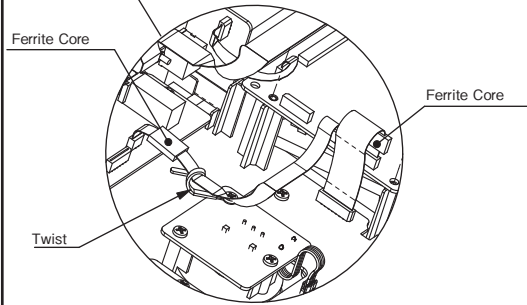
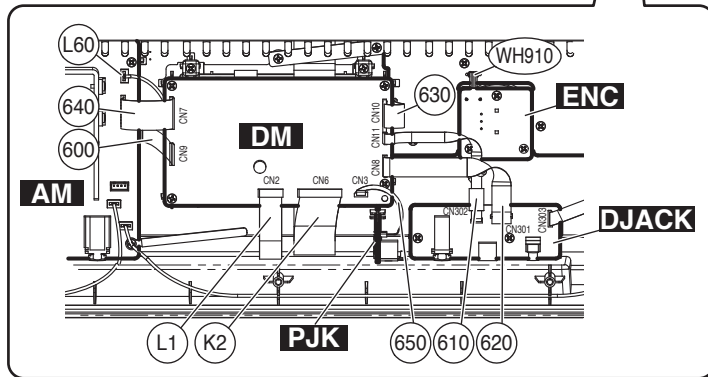
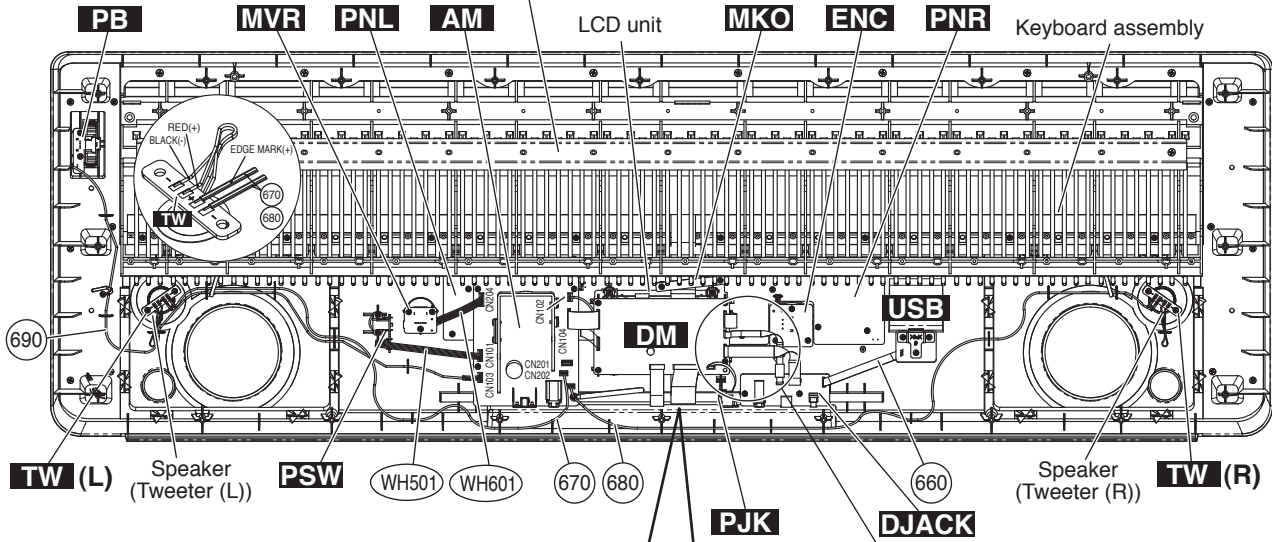
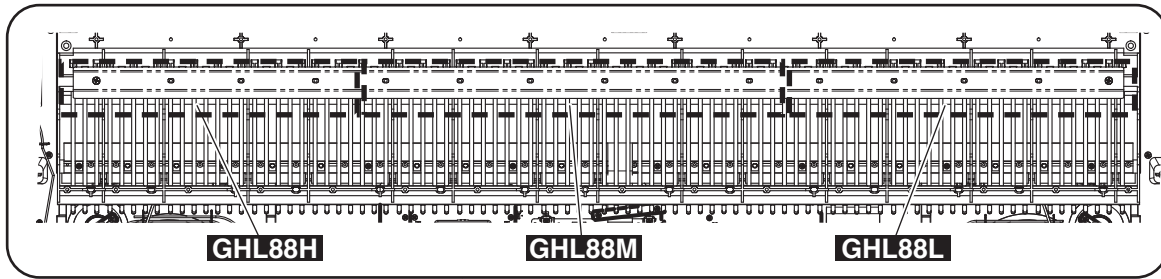


Rear Panel

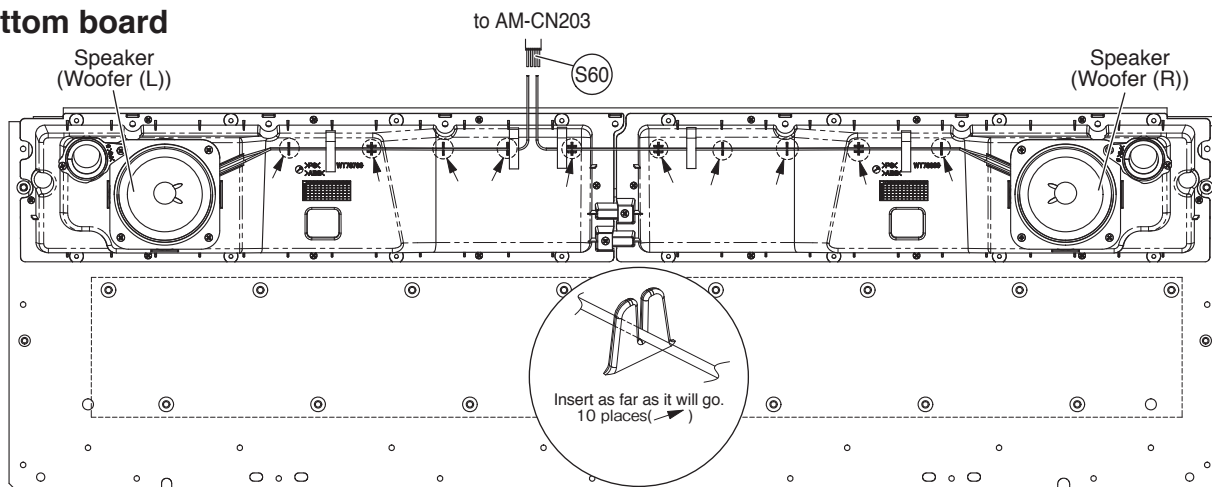
- 33 CONTRAST knob
- 34 USB TO HOST terminal
- 35 SUSTAIN jack
- 36 PEDAL UNIT jack
- 37 PHONES/OUTPUT jack
- 38 DC IN jack

CIRCUIT BOARD LAYOUT&WIRING

• Upper case < Bottom view >



• Bottom board



Location	Part No.	Connector Assembly	Destination			Remarks
600	WT969900	Flexible flat cable	DM-CN9 *1	PNL-CN1 *1	12P 80mm	
610	WP070500	Wiring assembly FFC	DM-CN11 *1	DJACK-CN302 *1	5P 120mm with ferrite core, *8	
620	WN827900	Flexible flat cable	DM-CN8 *1	DJACK-CN301 *1	12P 120mm	
630	(WT97000)*	Wiring assembly FFC2	DM-CN10 *1	PNR-CN2 *1	15P 65mm with ferrite core, *9	
640	WT970100	Flexible flat cable	DM-CN7 *1	AM-CN104 *1	19P 70mm	
650	WT970200	Flexible flat cable	DM-CN3 *1	PJK-CN701 *1	6P 80mm	
660	(WU39370)*	Wiring assembly FFC3	DJACK-CN303 *1	USB-CN304 *1	8P 130mm with sponge	
L1	--	Flexible flat cable	LCD unit *4	DM-CN2 *1	14P, *10	
K2	WT973500	Flexible flat cable	GHL88M-CN2 *4	DM-CN6 *1	27P	
670	(WT97210)*	Wiring assembly TWL	AM-CN201 *2	TW *3	2P with sponge	
680	(WT97230)*	Wiring assembly TWR	AM-CN202 *2	TW *3	2P with sponge	
690	(WT97240)*	Wiring assembly PB	AM-CN103 *2	PB-CN401 *2	3P with sponge	
WH501	(WT97250)*	Wiring assembly PSW	AM-CN101 *2	PSW-CN501 *4	4P with sponge	
WH601	(WV45160)*	Wiring harness MVR	AM-CN204 *2	MVR-CN601 *4	5P	
WH901	WT972700	Wiring harness ENC	PNR-CN3 *4	ENC-CN901 *4	3P Ribbon cable	
L60	WB092100	BL Wire harness assembly	AM-CN102 *2	LCD unit *3	2P with sponge	
S60	(WT97280)*	Wiring assembly SP	AM-CN203 *5	Speaker-Rch *6	4P with sponge	
				Speaker-Lch *7		

* The parts with "()" in "Part No." are not available as spare parts.

*1 : The conductor of a cable and the point of contact of a connector are untited.

*2 : Edge mark is connected to Pin 1 (Δ) side.

*3 : It manual soldering so that the edge mark is connected to + side.

*4 : Connected

*5 : White wire is connected to Pin 1 (Δ) side.

*6 : It manual soldering so that the red wire is connected to + side
and the black wire is connected to - side.

*7 : It manual soldering so that the white wire is connected to + side
and the black wire is connected to - side.

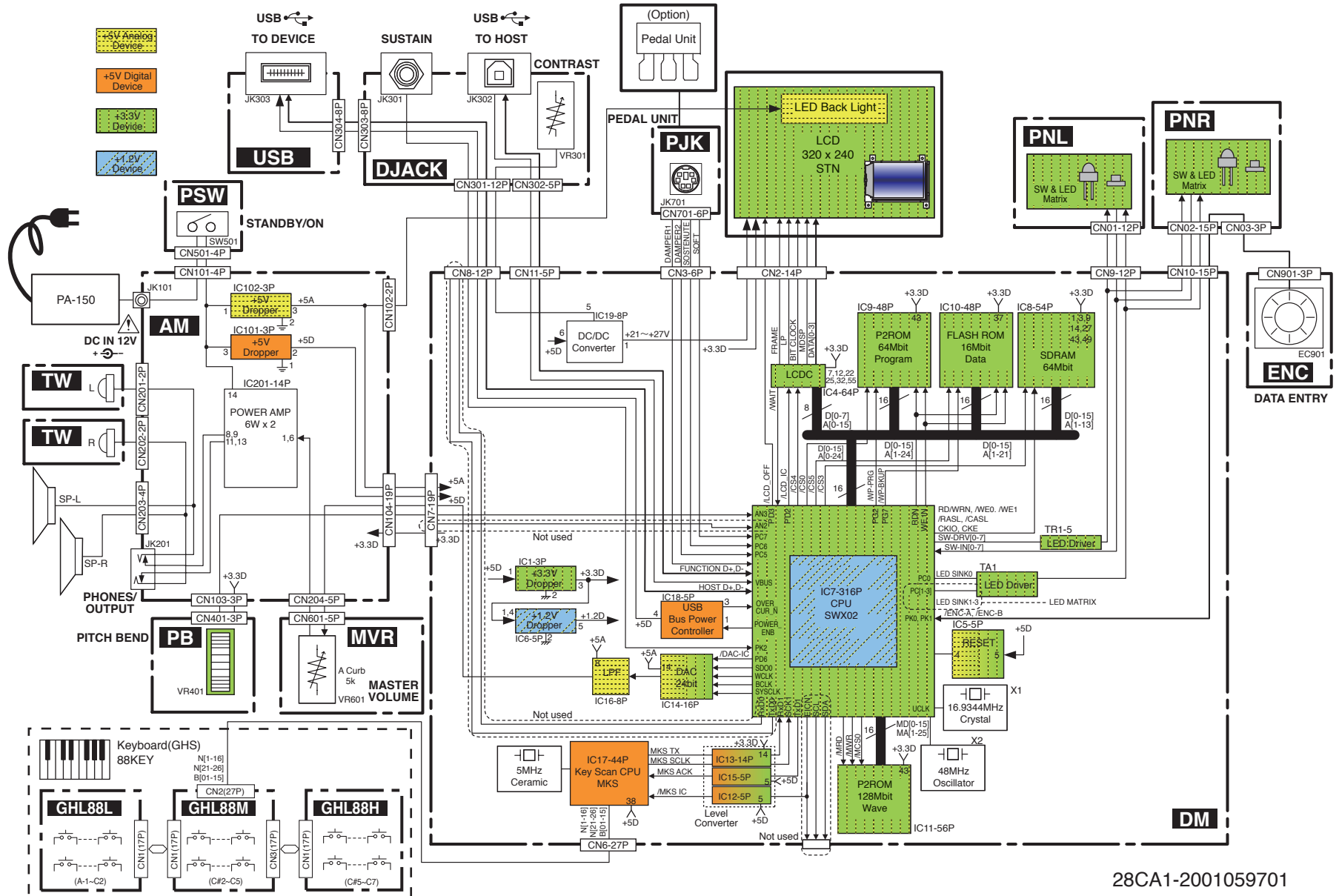
*8 : FFC cable is connected to locate Ferrite core in DJACK side.

*9 : FFC cable is connected to locate Ferrite core in DM side.

*10 : with the provided FFC cable of LCD unit.

Caution: Be sure to attach the removed filament tape just as it was before removal.

■ BLOCK DIAGRAM

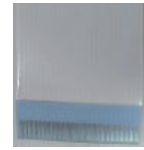


28CA1-2001059701

■ DISASSEMBLY PROCEDURE

CAUTION:

- 1) Flat cable's contacts are visible from the back.
Pay attention not to insert and install the cable to the connector inversely. (Photo.1)
- 2) Be surto attach the removed filament tape just as it was before removal.



Front Side (Printed Side)
Photo.1

Back side

1. Bottom Board Assembly (Time required: About 8 minutes)

- 1-1 Remove the five (5) screws marked [940A]. The lower case F can then be removed. (Fig.2)
- 1-2 Remove the four (4) screws marked [940B] and the guide screw marked [950A]. The lower case L can then be removed. (Fig.2)
- 1-3 Remove the four (4) screws marked [940C] and the guide screw marked [950B]. The lower case R can then be removed. (Fig.2)
- 1-4 Remove the thirty (30) screws marked [940D]. The bottom board assembly can then be separated from the upper case assembly. (Fig.2)

- * When the lower case L is assembled, tighten the screws marked [940B] in the order of 1, 2, 3 and 4. (Fig.2)
- * When the lower case R is assembled, tighten the screws marked [940C] in the order of 1, 2, 3 and 4. (Fig.2)

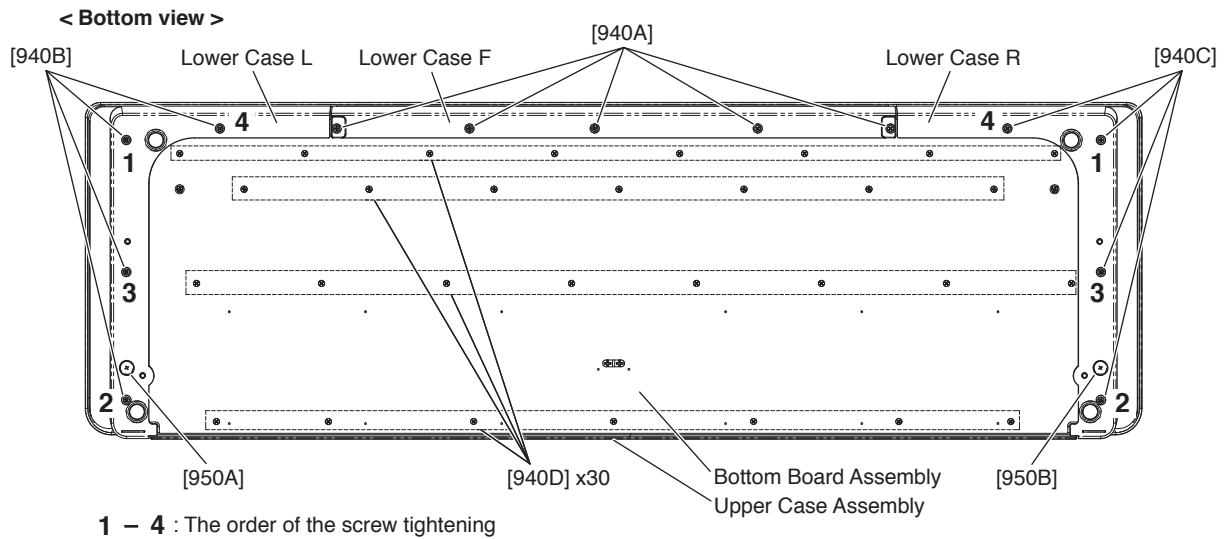


Fig.2

**2. Circuit Boards and Assemblies
(Upper Case Part)
(Time required: About 9 minutes)**

- 2-1 Separate the upper case assembly from the bottom board assembly. (See procedure 1.)
- 2-2 After removing the upper case assembly, remove the following screws. Each circuit board and assembly can then be removed. (Fig.3)(Table 1)

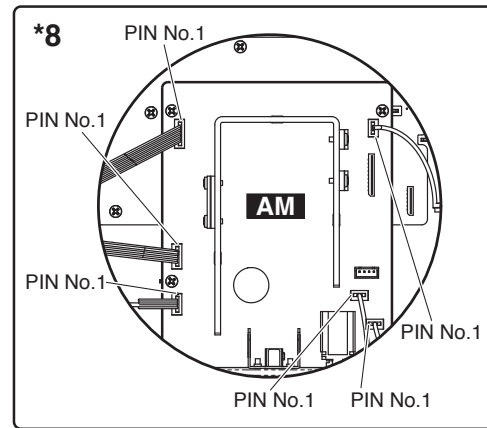


Fig.3-2

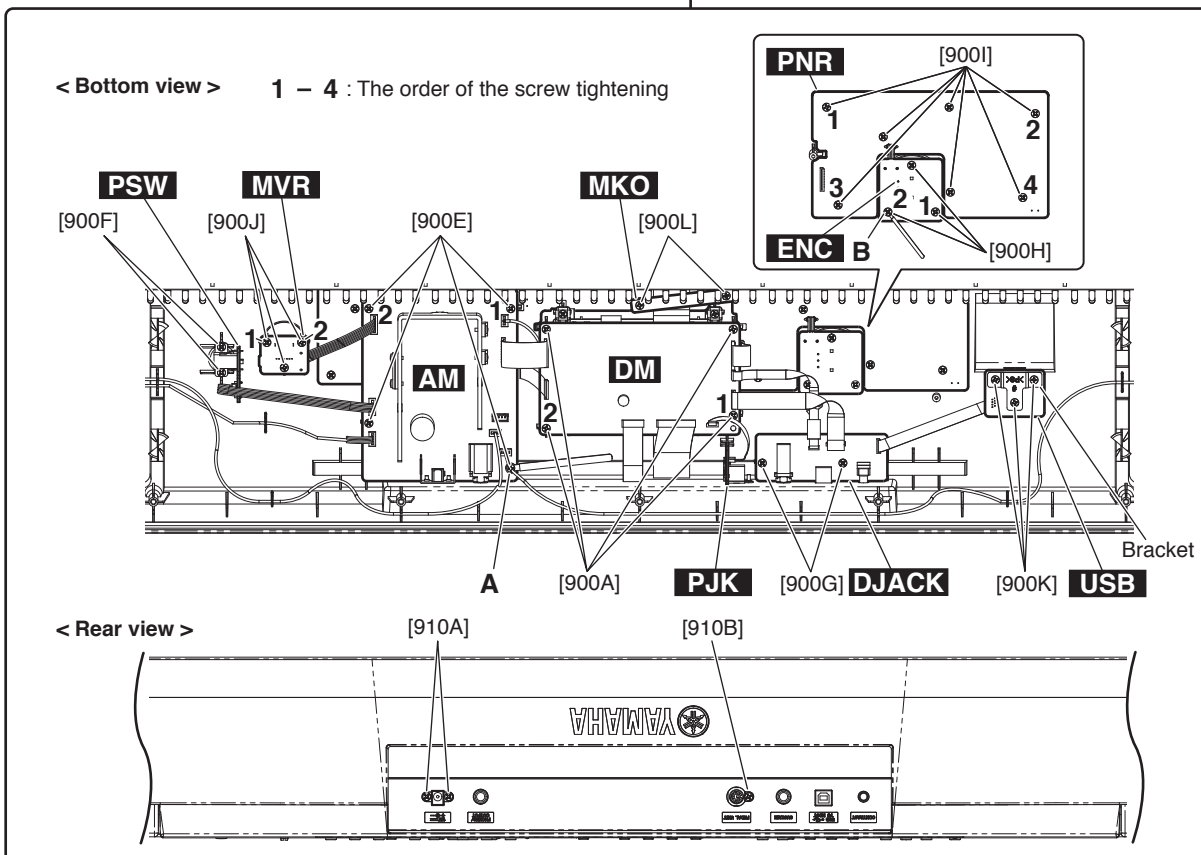
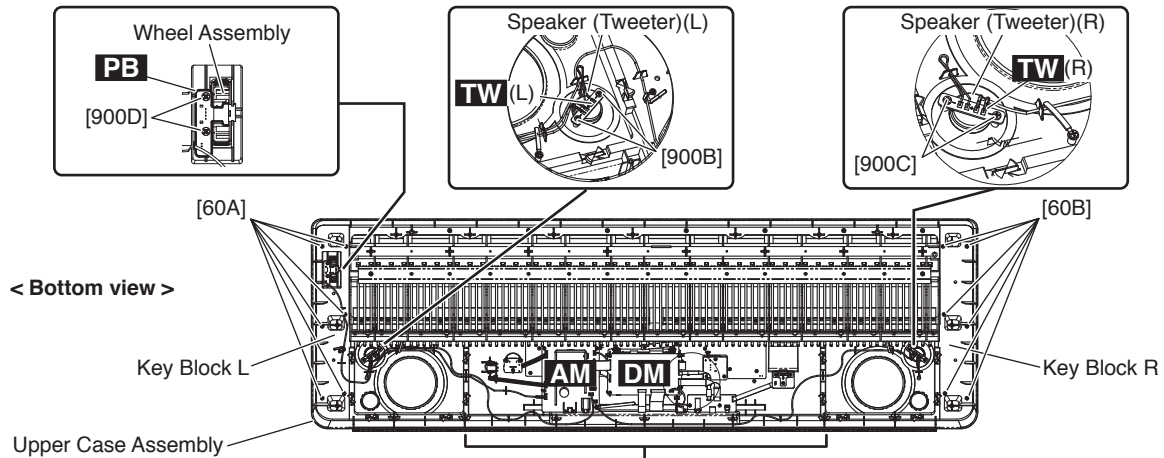


Fig.3

Circuit Board and Assembly	Screw Ref.No. / Part Name	QTY	Fig.	
DM Circuit Board	900A (*1)	4	3	
TW Circuit Board (L) Speaker (Tweeter) (L)	900B	2	3	
TW Circuit Board (R) Speaker (Tweeter) (R)	900C	2	3	
Wheel Assembly PB Circuit Board	900D	2	3	
AM Circuit Board	900E (*1)(*2)(*8)	4	3, 3-2	
	910A	2	3	
PSW Circuit Board	900F	2	3	
	Push Knob (*9)	1	3-3	
DJACK Circuit Board	900G	2	3	
PJK Circuit Board	910B	1	3	
PNR Circuit Board & ENC Circuit Board	(*3) Encoder Knob (*10)	(*1)	1	3-4
		(*6) 900H (*1)	3	3
		900I (*7)	7	3
MVR Circuit Board	(*1) V-Knob (*11)	(*1)	1	3-5
		900J (*1)	3	3
USB Circuit Board	900K (*4)	3	3	
MKO Circuit Board	900L (*5)	2	3	
Key Block L	60A	6	3	
Key Block R	60B	6	3	

- *1 When assembling it, tighten the screw marked 1, 2 and other screws in this order. (Fig.3)
- *2 As for the screw at the location of A, it is thghtened together with a cord holder. (Fig.3)
- *3 The PNR and the ENC circuit boards are connected with a board-in connector. (Fig.3)
- *4 As for the three (3) screws, they are tightened together with a bracket. (Fig.3)
- *5 The MKO circuit board is used as a flat cable holder. (Fig.3)
- *6 As for the screw at the location of B, it is thghtened together with a cord holder. (Fig.3)
- *7 When assembling it, tighten the screw marked 1, 2, 3, 4 and other screws in this order. (Fig.3)
- *8 When connecting the wiring to the connector on the AM circuit board, match the edge mark of the wiring to the pin no.1 mark on the AM circuit board. (Fig.3-2)
- *9 Push Knob (See Fig.3-3.)
- *10 Encoder Knob (See Fig.3-4.)
- *11 V-Knob (See Fig.3-5.)

Table 1

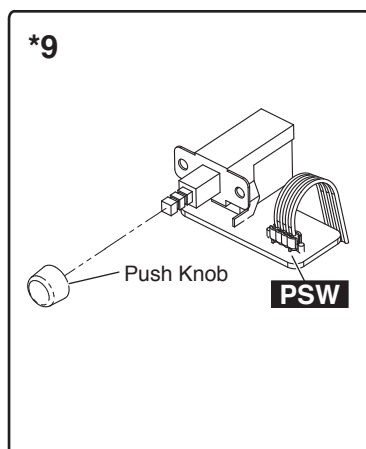


Fig.3-3

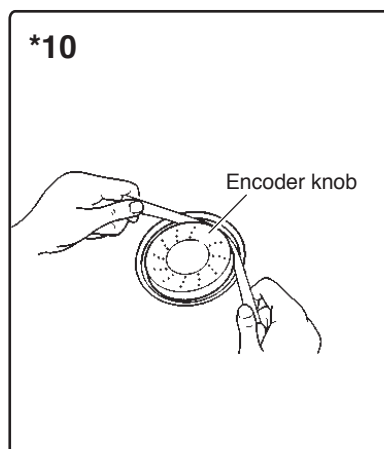


Fig.3-4

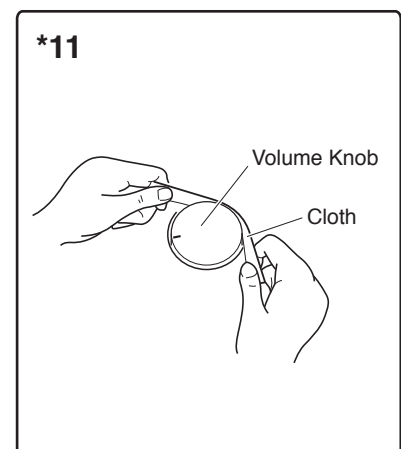


Fig.3-5

**3. LCD Assembly
(Time required: About 10 minutes)**

- 3-1 Separate the upper case assembly from the bottom board assembly. (See procedure 1.)
- 3-2 Remove the DM circuit board. (See procedure 2.)
- 3-3 Remove the four (4) screws marked [900M]. The LCD assembly can then be removed. (Fig.4)

* *When the LCD assembly is assembled, tighten the screws marked [900M] in the order of 1, 2, 3 and 4. (Fig.4)*

**4. PNL Circuit Board
(Time required: About 12 minutes)**

- 4-1 Separate the upper case assembly from the bottom board assembly. (See procedure 1.)
- 4-2 Remove the AM circuit board. (See procedure 2.)
- 4-3 Remove the MKO circuit board. (See procedure 2.)
- 4-4 Remove the twelve (12) screws marked [900N]. The PNL circuit board can then be removed. (Fig.5)

* *When the PNL circuit board is assembled, tighten the screws marked [900N] in the order of 1, 2, 3, 4 and the remaining screws. (Fig.5)*

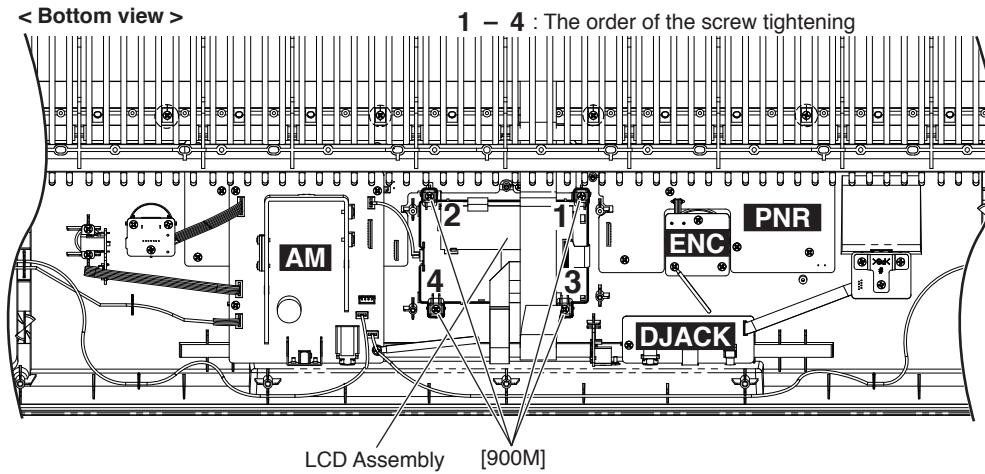


Fig.4

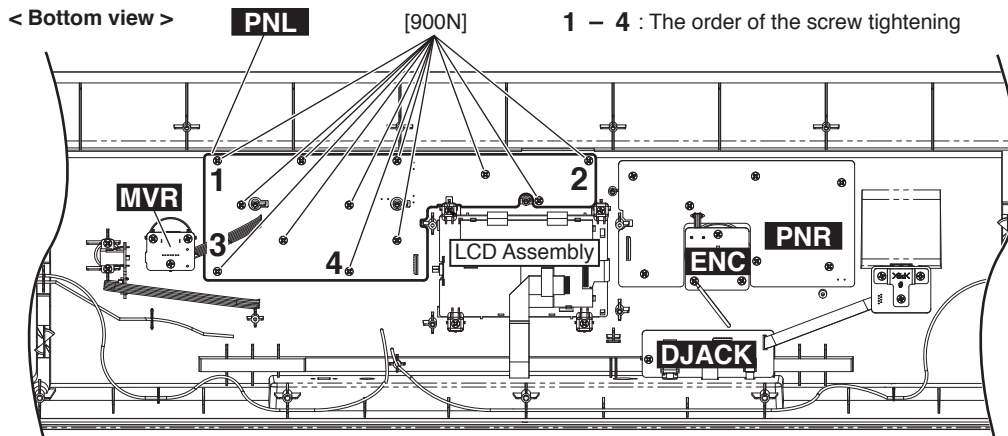


Fig.5

**5. Speaker (Woofer)
(Time required: About 9 minutes)**

- 5-1 Separate the bottom board assembly from the upper case assembly. (See procedure 1.)
- 5-2 Remove the four (4) screws marked [100A]. The speaker port can then be removed. (Fig.6)
- 5-3 Remove the three (3) screws marked [100B]. The speaker (woofer) can then be removed. (Fig.6)
- * *The woofers L and R can be removed in the same manner.*
- * *When the woofer is assembled, tighten the screws marked [100A] and [100B] in the order of 1, 2 and the remaining screws. (Fig.6)*

**6. GHL Keyboard Assembly
(Time required: About 12 minutes)**

- 6-1 Separate the upper case assembly from the bottom board assembly. (See procedure 1.)
- 6-2 Remove the MKO circuit board (holder). (See procedure 2.)
- 6-3 Remove the eight (8) screws marked [930A] and the eight (8) screws marked [920]. The GHL keyboard assembly can then be removed from the upper case assembly. (Fig.7)
- 6-4 Remove the two (2) screws marked [930B]. The reinforcing plate can then be removed from the GHL keyboard assembly. (Fig.7)
- * *When the reinforcing plate is assembled, tighten the screws marked [930B] in the order of 1 and 2. (Fig.7)*
- * *When the GHL keyboard assembly is assembled, tighten the screws marked [930A] in the order of 1, 2, 3 and the remaining screws. (Fig.7)*

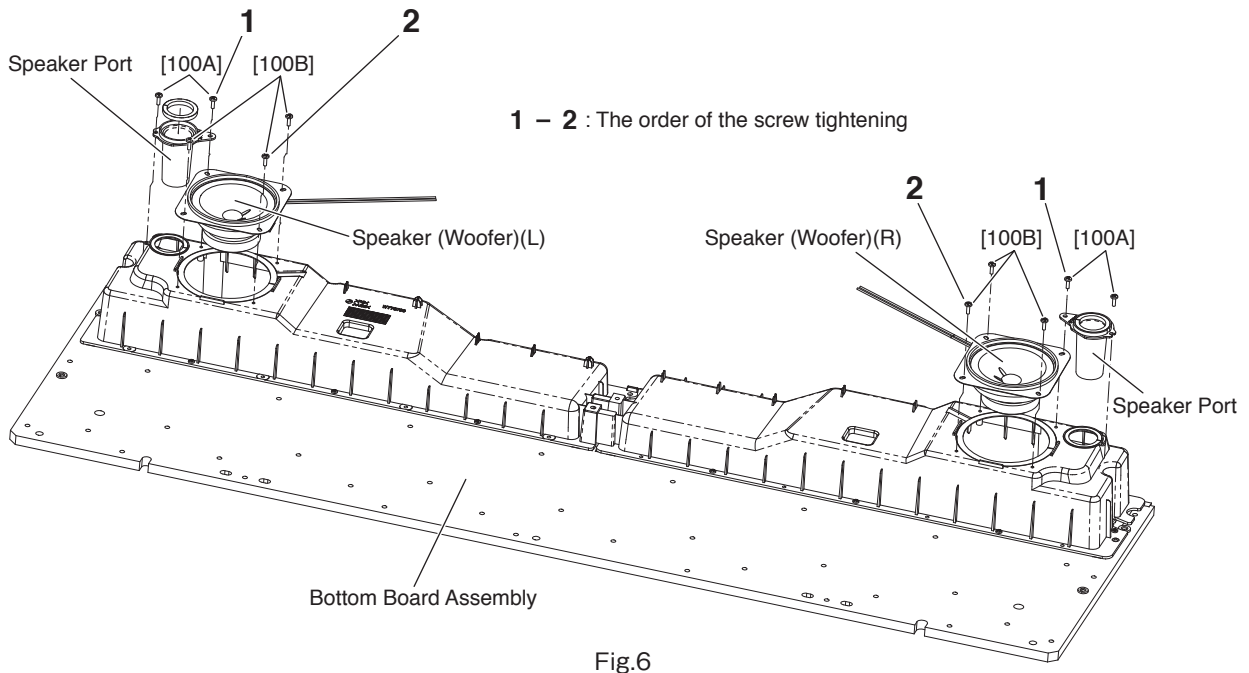


Fig.6

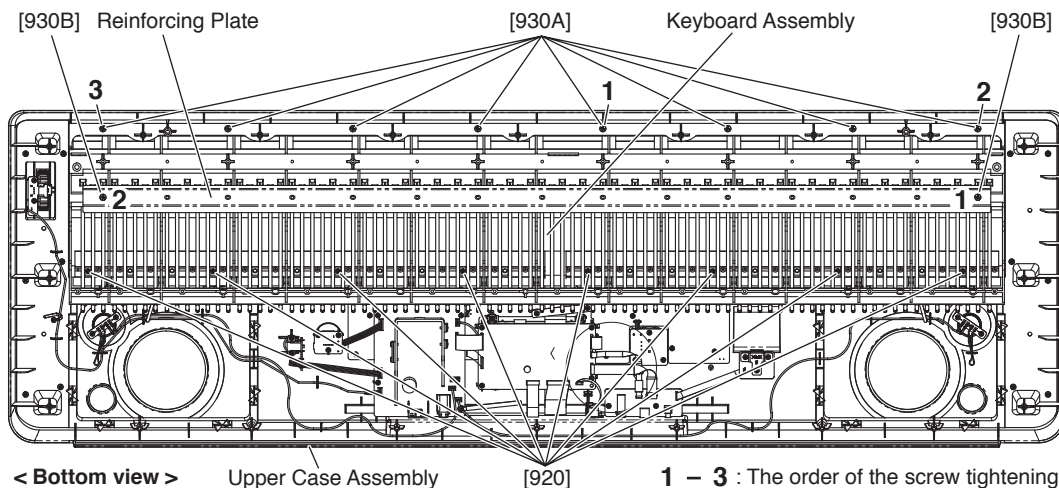


Fig.7

7. Disassembling the Keyboard Assembly

- 7-1 White key assembly and black key assembly
Remove the four (4) screws marked [270A] fixing a black key assembly and two (2) white key assemblies for one octave (C-B).
To remove the black and white key assemblies for one octave, grip and lift the both end lugs of white key, and then slide the black and white key assemblies towards you. (Fig.8, Fig.9)
- 7-2 When removing white keys numbered as A-1 and B-1 key and black key numbered as A#-1, remove two (2) screws marked [270B] and then lift the back of the keys and slide the black and white keys towards you. (Fig.8)
- 7-3 When removing the C7 key, remove a screw marked [270C] and then lift the back of C7 key and slide it towards you. (Fig.8)

* When removing white key assembly and black key assembly, be careful not to allow grease to attach to the circuit board and rubber contacts, etc. (Fig.9)

7-4 Actuate Rubber

Remove the actuate rubber. (Fig.10)

7-5 Rubber Contact

Remove the black and white key assemblies for two octaves related to the subject rubber contact.
The rubber contact can then be removed. (Fig.11, Fig.12)

* Note that the rubber contact has a specific installation direction.

* One rubber contact fits for C#-C (for C-B keys).

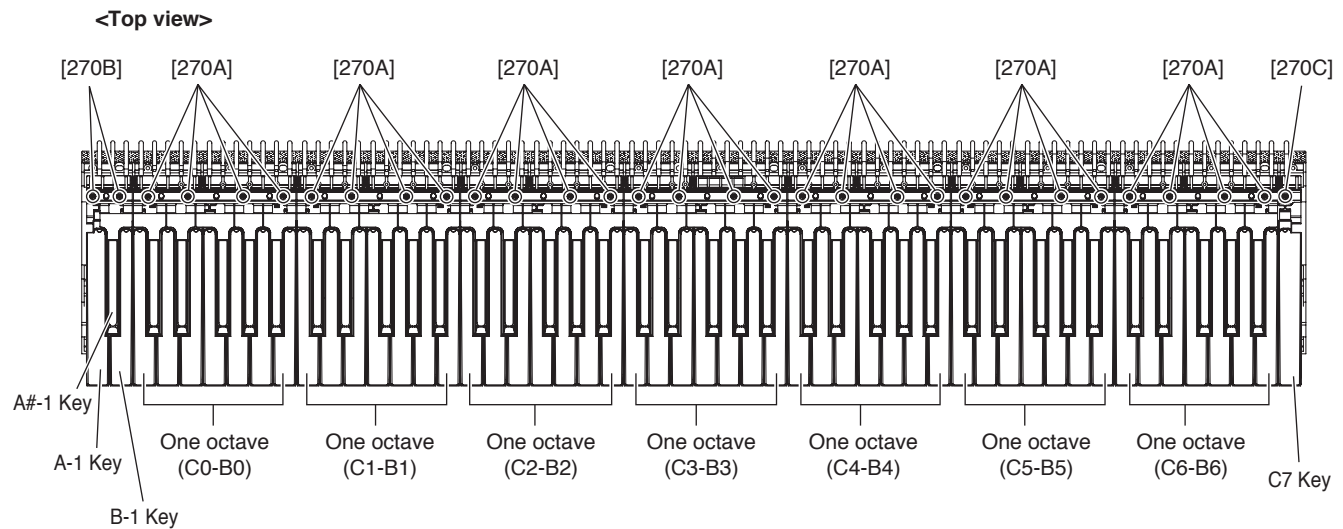


Fig.8

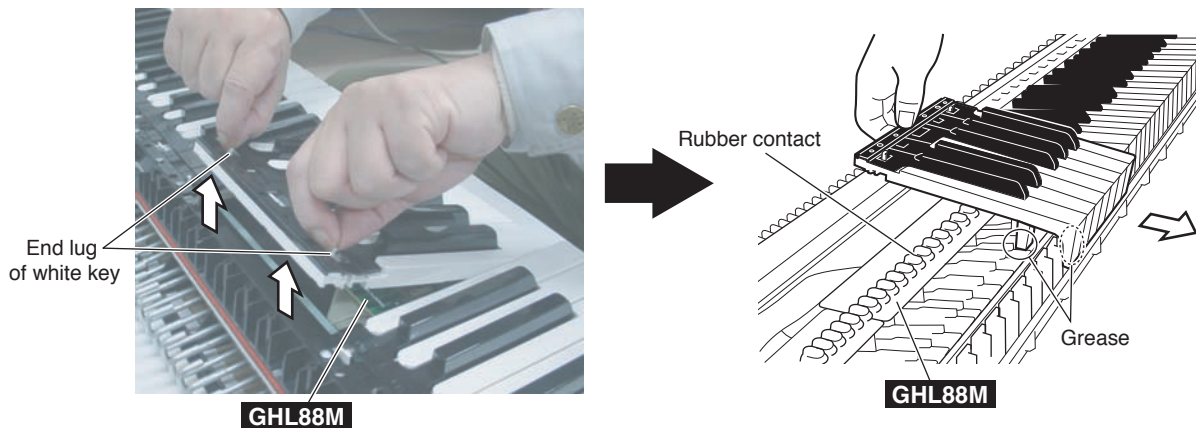


Fig.9

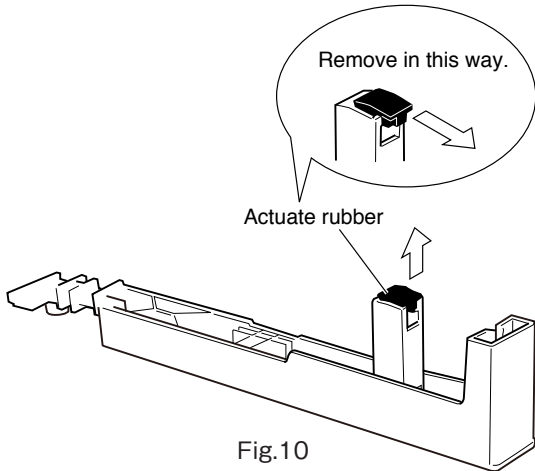


Fig.10

<Top view>

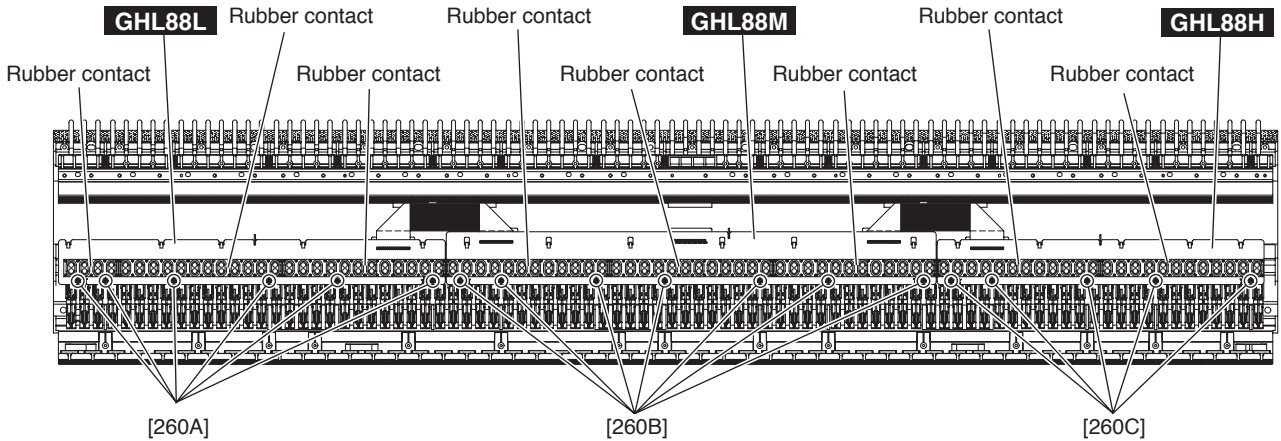
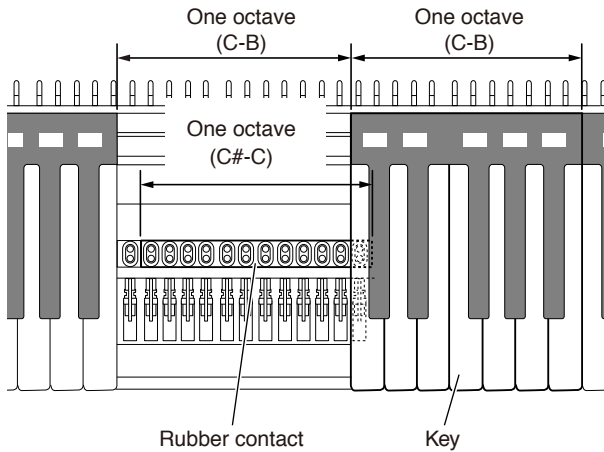


Fig.11



To remove the rubber contact for one octave, keys for 2 octaves need to be removed.

Fig.12

7-6 GHL88L Circuit Board

Remove the black and white key assemblies (A1-B2).
 (See procedure 7-1.)
 Remove the six (6) screws marked [260A]. The GHL88L circuit board can then be removed. (Fig.11)

7-7 GHL88M Circuit Board

Remove the black and white key assemblies (C1-B5).
 (See procedure 7-1.)
 Remove the seven (7) screws marked [260B]. The GHL88M circuit board can then be removed. (Fig.11)
 Detach the filament tape and disconnect the FFC cable.
 (Fig.13)

7-8 GHL88H Circuit Board

Remove the black and white key assemblies (C5-C7).
 (See procedure 7-1.)
 Remove the five (5) screws marked [260C]. The GHL88H circuit board can then be removed. (Fig.11)

7-9 Hammer (White Key), (Black Key)

Remove the black and white key assemblies for the related keys.
 With the key frame placed upside down, push the hammer forward from the rear, then a click sound is heard and the hammer bearing section can be removed from the hammer axis of the key frame.

Take out the hammer sideways. (Fig.14, Fig.15)

* *When removing the hammer, take care not to cause damage to the hammer bearing and its claw.*

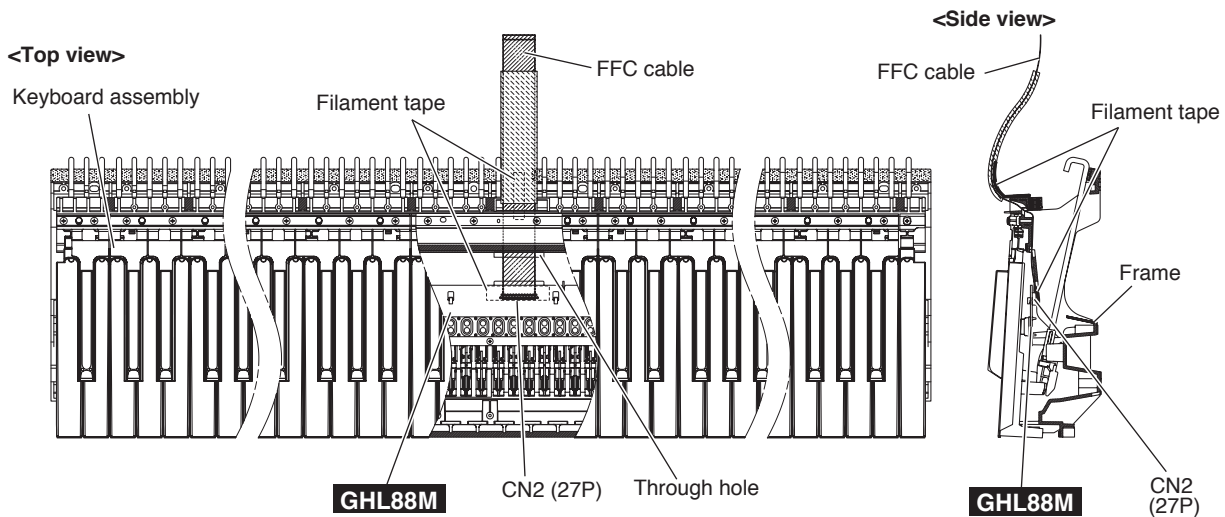


Fig.13

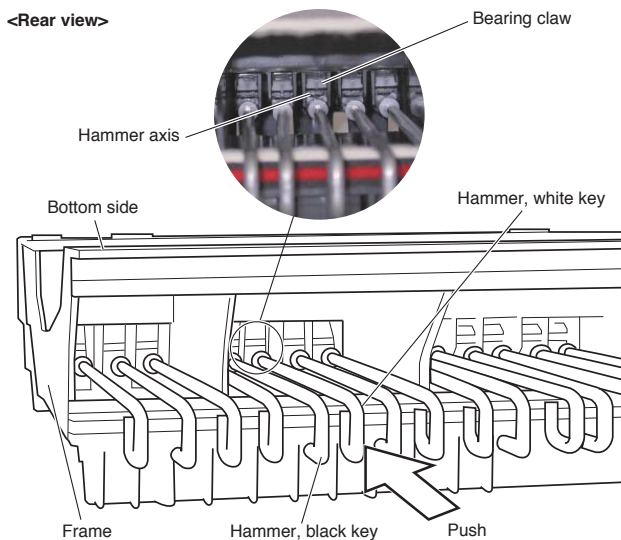


Fig.14

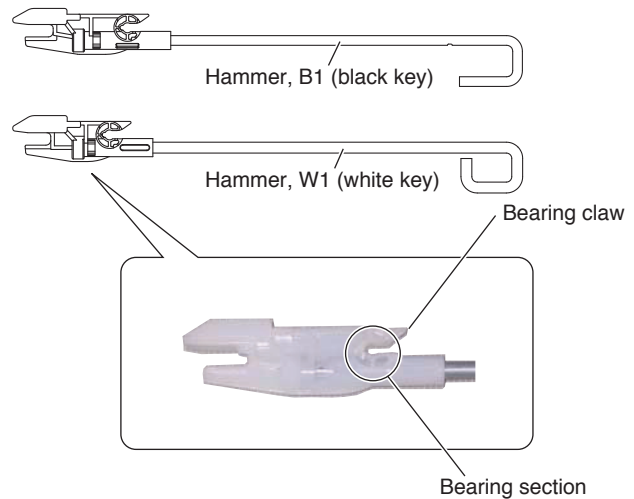


Fig.15

8. Assembling the Keyboard Assembly

8-1 Hammer (White Key), (Black Key)

After applying grease to the bearing section of the hammer, bring the hammer (white key)(black key) sideways from the rear, fit its bearing section to the hammer axis of the key frame and pull it forward until a click sound is heard. (Fig.16)

* *There are 8 hammer types differing in weight. Be sure to check the type of the hammer for correct installation. (Table 2)*

8-2 GHL88L Circuit Board

Tighten the six (6) screws marked [260A] to fix the GHL88L circuit boards. (Fig.11)

8-3 GHL88M Circuit Board

Connect the FFC cable to CN2 of the GHL88M circuit board, attach the filament tape. (Fig.13)

Pass the end of the cable into the through hole in the frame and pull it out from its outlet. (Fig.13)

Tighten the seven (7) screws marked [260B] to fix the GHL88M circuit board. (Fig.11)

8-4 GHL88H Circuit Board

Tighten the five (5) screws marked [260C] to fix the GHL88H circuit board. (Fig.11)

Part Name		Range for Applicable Tone Name
White Key	Hammer, W1	A-1 - F1
	Hammer, W2	G1 - E3
	Hammer, W3	F3 - D5
	Hammer, W4	E5 - C7
Black Key	Hammer, B1	A#-1 - F#1
	Hammer, B2	G#1 - D#3
	Hammer, B3	F#3 - C#5
	Hammer, B4	D#5 - A#6

Table 2

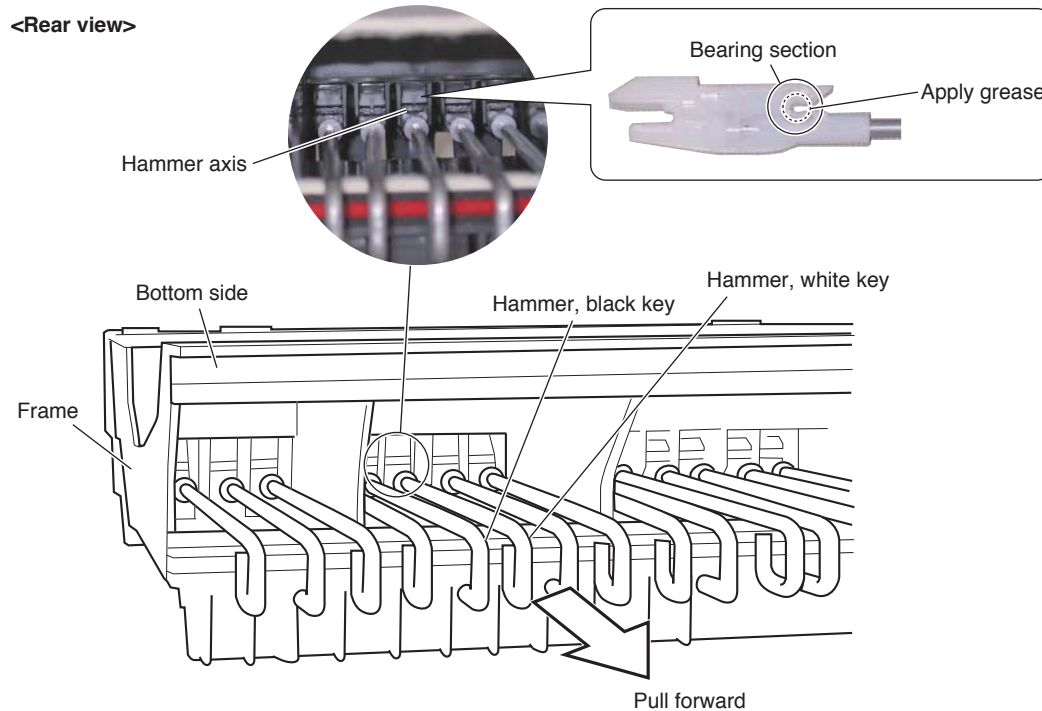


Fig.16

8-5 Rubber Contact

Note that the rubber contact has a specific installation direction. Be careful not to install it in the wrong direction.

* A triangle mark (Δ) on the rubber contact must face the front. (Fig.17)

To prevent looseness of the rubber contact, fit it securely in place using a clip or similar object. (Fig.18)

8-6 Actuate Rubber

After applying grease to top and bottom faces of the actuate rubber, fit it to the white key (black key). (Fig.19)

8-7 White key assembly and black key assembly

After applying grease to the key guide, install the white key assembly/black key assembly.

At this time, check to make sure that the key guide of the key frame and inside slit at the front of white key as well as the contact arm of the hammer and actuate rubber of the white key assembly/black key assembly are installed properly. (Fig.20)

Use the four (4) screws marked [270A] to fix 1 octave white key assembly/black key assembly. (Fig.8)

8-8 Use the two (2) screws marked [270B] to fix the A-1 to B-1 keys. (Fig.8)

8-9 Use a screw marked [270C] to fix the C7 key. (Fig.8)

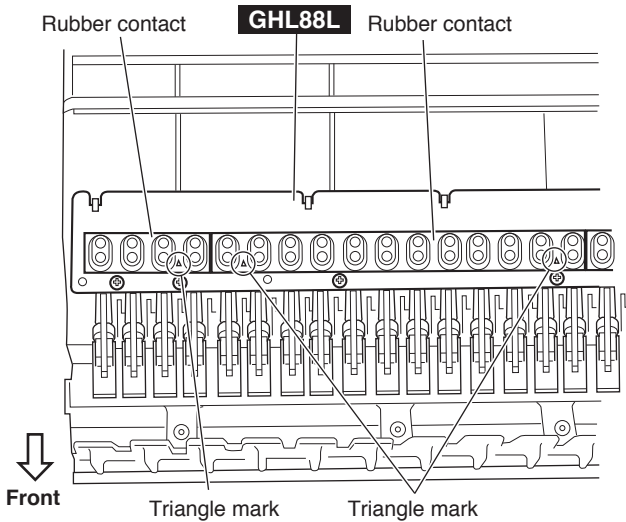


Fig.17

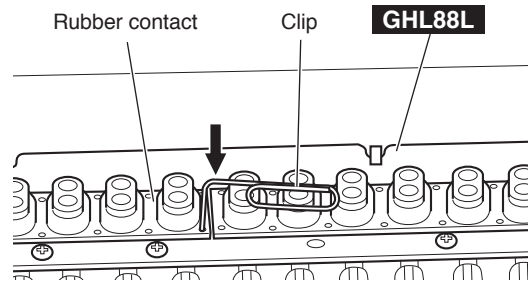


Fig.18

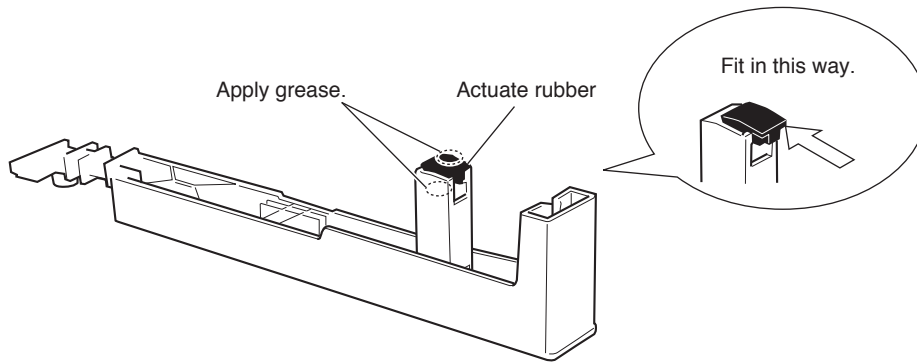


Fig.19

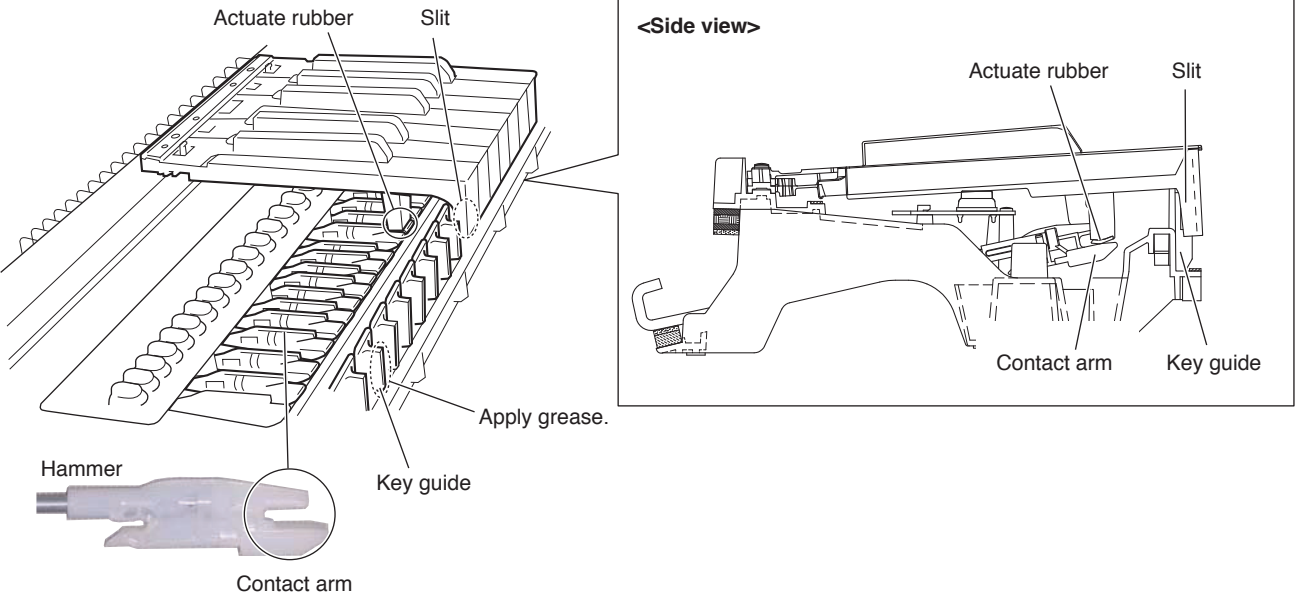


Fig.20

■ LSI PIN DESCRIPTION

CONTENTS

- **AK4385ET** (X6040A01) **DAC** (Digital to Analog Converter) 20
- **R8A02032BG** (X8810A00) **CPU** (SWX02) 22
- **S1D13700F01A100** (X5422A00) **LCD CONTROLLER**..... 21
- **μPD789022GB-A15-8E** (XZ56010R) **CPU**(MKS)..... 21

● **AK4385ET** (X6040A01) **DAC** (Digital to Analog Converter)

DM: IC14

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	MCLK	I	Master Clock	9	AOUTR-	O	Rch Analog out(-)
2	BICK	I	Audio Serial Data Clock	10	AOUTR+	O	Rch Analog out(+)
3	SDTI	I	Audio Serial Date Input	11	AOUTL-	O	Lch Analog out(-)
4	LRCK	I	L/R Clock	12	AOUTL+	O	Lch Analog out(+)
5	PDN	I	Power Down mode	13	Vss	-	Ground
6	CSN	I	Chip Select	14	VDD	-	Power Supply
7	CCLK	I	Control Data Input	15	DZFR	O	Rch Data Zero Input Detect
8	CDTI	I	Control Data Input	16	DZFL	O	Lch Data Zero Input Detect

● **μPD789022GB-A15-8E (XZ56010R) CPU (MKS)**

DM: IC17

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P12	I/O	Port 1	23	P32/INTP2/CPT2	I/O	Port 3/External interrupt input/Capture edge input
2	P11	I/O		24	P31/INTP1	I/O	Port 3/External interrupt input
3	P10	I/O		25	P30/INTP0	I/O	
4	P47/KR7	I/O	Port 4/Key return signal detection input	26	P22/RXD/SIO	I/O	Port 2/Asynchronous serial interface serial data input/Serial interface serial data input
5	P46/KR6	I/O		27	P21/TXD/SO0	I/O	Port 2/Asynchronous serial interface serial data output/Serial interface serial data output
6	P45/KR5	I/O		28	P20/ASCKI/SCK0	I/O	Port 2/Asynchronous serial interface serial clock input/Serial interface serial clock
7	P44/KR4	I/O		29	P07	I/O	Port 0
8	P43/KR3	I/O		30	P06	I/O	
9	P42/KR2	I/O		31	P05	I/O	
10	P41/KR1	I/O		32	P04	I/O	
11	P40/KR0	I/O		33	P03	I/O	
12	NC		34	P02	I/O		
13	IC		35	P01	I/O	Power supply Ground	
14	X2		36	P00	I/O		
15	X1	I	37	NC		Power supply Ground	
16	VSS0		38	VDD1			
17	VDD0		39	VSS1		Port 1	
18	/RESET	I	40	P17	I/O		
19	P53	I/O	41	P16	I/O		
20	P52	I/O	42	P15	I/O		
21	P51/TO2	I/O	43	P14	I/O		
22	P50/TIO/TO0	I/O	44	P13	I/O		
			Internally connected (N.C.)				
			Clock				
			Ground				
			Power supply				
			System reset				
			Port 5				
			Port 5/16-bit timer output				
			Port 5/External count clock input to 8-bit timer/8-bit timer output				

● **S1D13700F01A100 (X5422A00) LCD CONTROLLER**

DM: IC4

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VSS		Ground	33	VSS		Ground
2	AB12	I	Address bus	34	XCD1	O	Drain output
3	AB11	I		35	XCG1	I	Gate input
4	AB10	I		36	RESET#	I	Reset
5	AB9	I		37	SCANEN	I	Test mode set up input
6	AB8	I		38	TESTEN	I	
7	HIOVDD		Power supply	39	CLKI	I	Externally sourced system clock
8	AB7	I	Address bus	40	COREVDD		Power supply
9	AB6	I		41	RD#	I	Read strobe
10	AB5	I		42	WR#	I	Write strobe
11	AB4	I		43	CS#	I	Chip select
12	COREVDD		Power supply	44	DB7	I/O	Data bus
13	AB3	I	45	DB6	I/O		
14	AB2	I	46	DB5	I/O		
15	AB1	I	47	DB4	I/O		
16	AB0	I	Address bus	48	HIOVDD		Power supply
17	VSS			49	DB3	I/O	Data bus
18	FPDAT3	O	50	DB2	I/O		
19	FPDAT2	O	51	DB1	I/O		
20	FPDAT1	O	52	DB0	I/O		
21	FPDAT0	O	Data bus	53	VSS		Ground
22	NIOVDD			54	WAIT#	O	Wait output
23	FPSHIFT	O	Shift clock	55	HIOVDD		Power supply
24	XECL	O	X driver enable chain clock	56	CNF0	I	Input pin for S1D 13700 setting
25	COREVDD		Power supply	57	CNF1	I	
26	FPLINE	O	Latch pulse	58	CNF2	I	
27	MOD	O	Frame signal	59	CNF3	I	
28	VSS		Ground	60	CNF4	I	Address strobe
29	YSCL	O	Scan shift clock	61	AS#	I	
30	FPFRAME	O	Scan start pulse	62	AB15	I	Address bus
31	YDIS	O	LCD power-down output	63	AB14	I	
32	NIOVDD		Power supply	64	AB13	I	

● R8A02032BG (X8810A00) CPU (SWX02)

DM: IC7

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
1	A1	VSS	-	Ground	80	D20	VSSPLL	-	PLL analog ground
2	A2	AN2	I	ADC analog input 2	81	E1	MD6	I/O	Wave memory data bus 6
3	A3	AN1	I	ADC analog input 1	82	E2	MD7	I/O	Wave memory data bus 7
4	A4	VSS	-	Ground	83	E3	MD8	I/O	Wave memory data bus 8
5	A5	RxD1	I	Serial input 1	84	E4	MD9	I/O	Wave memory data bus 9
6	A6	SCK1	I	External sync. clock input 1	85	E5	VDD	-	Power supply +1.2 V
7	A7	UCLK	I	USB external clock input (48 MHz)	86	E6	VDD	-	
8	A8	VSS	-	Ground	87	E7	VSS	-	Ground
9	A9	FUNC_DM	I/O	USB function data -	88	E8	VCCQ	-	Power supply +3.3 V
10	A10	VSS	-	Ground	89	E9	VSS	-	Ground
11	A11	HOST_DM	I/O	USB host data -	90	E10	VCCQ	-	Power supply +3.3 V
12	A12	POWER_ENB	O	USB voltage enable	91	E11	VCCQ	-	
13	A13	XTAL	O	Crystal oscillator output	92	E12	VSS	-	Ground
14	A14	EXTAL	I	Crystal oscillator input (16.9344 MHz)	93	E13	VCCQ	-	Power supply +3.3 V
15	A15	VSS	-	Ground	94	E14	VSS	-	Ground
16	A16	CS7N/PJ6	O	SH2A-CPU chip select 7	95	E15	VDD	-	Power supply +1.2 V
17	A17	TRSTN	I	JTAG test reset input	96	E16	VDD	-	
18	A18	TDI	I	JTAG test data input	97	E17	D31/PF7	I/O	SH2A-CPU data bus 31
19	A19	TCK	I	JTAG test clock input	98	E18	D30/PF6	I/O	SH2A-CPU data bus 30
20	A20	VCCQ	-	Power supply +3.3 V	99	E19	D29/PF5	I/O	SH2A-CPU data bus 29
21	B1	MD15	I/O	Wave memory data bus 15	100	E20	D28/PF4	I/O	SH2A-CPU data bus 28
22	B2	VSS	-	Ground	101	F1	MD2	I/O	Wave memory data bus 2
23	B3	AN3	I	ADC analog input 3	102	F2	MD3	I/O	Wave memory data bus 3
24	B4	AN0	I	ADC analog input 0	103	F3	MD4	I/O	Wave memory data bus 4
25	B5	VSS	-	Ground	104	F4	MD5	I/O	Wave memory data bus 5
26	B6	TxD1	O	Serial output 1	105	F5	VDD	-	Power supply +1.2 V
27	B7	TxD0	O	Serial output 0	106	F16	VDD	-	
28	B8	VSS	-	Ground	107	F17	D27/PF3	I/O	SH2A-CPU data bus 27
29	B9	FUNC_DP	I/O	USB function data +	108	F18	D26/PF2	I/O	SH2A-CPU data bus 26
30	B10	VSS	-	Ground	109	F19	D25/PF1	I/O	SH2A-CPU data bus 25
31	B11	HOST_DP	I/O	USB host data +	110	F20	D24/PF0	I/O	SH2A-CPU data bus 24
32	B12	SCL	I/O	E bus (I2C) clock input/output (5V compatible)	111	G1	MA2	O	Wave memory address bus 2
33	B13	VSS	-	Ground	112	G2	MA1	O	Wave memory address bus 1
34	B14	VSS	-						
35	B15	CS4N/PJ3	O	SH2A-CPU chip select 4	113	G3	MD0	I/O	Wave memory data bus 0
36	B16	TIOCOA/PJ7	O	PWM output	114	G4	MD1	I/O	Wave memory data bus 1
37	B17	TESTN	I	Test input	115	G5	VSS	-	Ground
38	B18	TMS	I	JTAG test mode select input	116	G16	VSS	-	
39	B19	VCCQ	-	Power supply +3.3 V	117	G17	D23/PE7	I/O	SH2A-CPU data bus 23
40	B20	VCCQ	-						
41	C1	MD13	I/O	Wave memory data bus 13	118	G18	D22/PE6	I/O	SH2A-CPU data bus 22
42	C2	MD14	I/O	Wave memory data bus 14	119	G19	D21/PE5	I/O	SH2A-CPU data bus 21
43	C3	VSS	-	Ground	120	G20	D20/PE4	I/O	SH2A-CPU data bus 20
44	C4	VREFADC	-	ADC reference power supply +3.3 V	121	H1	MA6	O	Wave memory address bus 6
45	C5	VSSADC	-	ADC analog ground	122	H2	MA5	O	Wave memory address bus 5
46	C6	VSS	-	Ground	123	H3	MA4	O	Wave memory address bus 4
47	C7	RxD0	I	Serial input 0	124	H4	MA3	O	Wave memory address bus 3
48	C8	VSS	-	Ground	125	H5	VCCQ	-	Power supply +3.3 V
49	C9	VBUS	I	USB cable connection monitor (5V compatible)	126	H16	VCCQ	-	
50	C10	VSS	-	Ground	127	H17	D19/PE3	I/O	SH2A-CPU data bus 19
51	C11	OVER_CURRENT_N	I	USB overcurrent detection (5V compatible)	128	H18	D18/PE2	I/O	SH2A-CPU data bus 18
52	C12	SDA	I/O	E bus (I2C) data input/output (5V compatible)	129	H19	VCCQ	-	Power supply +3.3 V
53	C13	CS0N	O	SH2A-CPU chip select 0	130	H20	VCCQ	-	
54	C14	CS2N/PJ1	O	SH2A-CPU chip select 2	131	J1	MA10	O	Wave memory address bus 10
55	C15	CS5N/PJ4	O	SH2A-CPU chip select 5	132	J2	MA9	O	Wave memory address bus 9
56	C16	ASEMDN	O	Debug mode configuration	133	J3	MA8	O	Wave memory address bus 8
57	C17	TDO	O	JTAG test data output	134	J4	MA7	O	Wave memory address bus 7
58	C18	VCCQ	-	Power supply +3.3 V	135	J5	VSS	-	Ground
59	C19	VDDPLL	-						
60	C20	VDDPLL	-	PLL analog power supply +1.2 V	136	J9	VSS	-	
61	D1	MD10	I/O	Wave memory data bus 10	137	J10	VSS	-	
62	D2	MD11	I/O	Wave memory data bus 11	138	J11	VSS	-	
63	D3	MD12	I/O	Wave memory data bus 12	139	J12	VSS	-	
64	D4	VSS	-	Ground	140	J16	VSS	-	
65	D5	VCCADC	-	ADC analog power supply +3.3 V	141	J17	D17/PE1	I/O	SH2A-CPU data bus 17
66	D6	VSS	-	Ground	142	J18	D16/PE0	I/O	SH2A-CPU data bus 16
67	D7	RESN	I	Hardware reset	143	J19	CKOEN	I	Clock output control for SDRAM
68	D8	VCCQ	-	Power supply +3.3 V	144	J20	CKIO	O	Clock output for SDRAM
69	D9	PULLUP_ENB	O	USB pull-up enable	145	K1	MA14	O	Wave memory address bus 14
70	D10	VCCQ	-	Power supply +3.3 V	146	K2	MA13	O	Wave memory address bus 13
71	D11	UCTL	I	USB output control	147	K3	MA12	O	Wave memory address bus 12
72	D12	EICN	O	E bus reset output	148	K4	MA11	O	Wave memory address bus 11
73	D13	CS1N/PJ0	O	SH2A-CPU chip select 1	149	K5	VDD	-	Power supply +1.2 V
74	D14	CS3N/PJ2	O	SH2A-CPU chip select 3	150	K9	VSS	-	Ground
75	D15	CS6N/PJ5	O	SH2A-CPU chip select 6	151	K10	VSS	-	
76	D16	ASEBRKAKN	I/O	Emulator break	152	K11	VSS	-	
77	D17	VCCQ	-	Power supply +3.3 V	153	K12	VSS	-	
78	D18	VCCQ	-						
79	D19	VSSPLL	-	PLL analog ground	154	K16	VDD	-	Power supply +1.2 V
					155	K17	CKE	O	Clock enable for SDRAM
					156	K18	D15	I/O	SH2A-CPU data bus 15
					157	K19	VSS	-	Ground
					158	K20	VSS	-	

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	
159	L1	MA15	O	Wave memory address bus 15	238	U2	PA6	I/O	Parallel port A6	
160	L2	MA16	O	Wave memory address bus 16	239	U3	PA7	I/O	Parallel port A7	
161	L3	MA17	O	Wave memory address bus 17	240	U4	VCCQ	-	Power supply +3.3 V	
162	L4	MA18	O	Wave memory address bus 18	241	U5	ED1/PC1	I/O	External CPU data bus 1	
163	L5	VDD	-	Power supply +1.2 V	242	U6	ED5/PC5	I/O	External CPU data bus 5	
164	L9	VSS	-	Ground	243	U7	ED9/PD1	I/O	External CPU data bus 9	
165	L10	VSS	-		244	U8	ED13/PD5	I/O	External CPU data bus 13	
166	L11	VSS	-		245	U9	EA2/PK1	I	External CPU address bus 2	
167	L12	VSS	-		246	U10	ECSN	I	External CPU chip select	
168	L16	VDD	-	Power supply +1.2 V	247	U11	BCLK	O	Bit clock output	
169	L17	D11	I/O	SH2A-CPU data bus 11	248	U12	IRQ0	I	Interrupt input 0	
170	L18	D12	I/O	SH2A-CPU data bus 12	249	U13	A25	O	SH2A-CPU address bus 25	
171	L19	D13	I/O	SH2A-CPU data bus 13	250	U14	A21	O	SH2A-CPU address bus 21	
172	L20	D14	I/O	SH2A-CPU data bus 14	251	U15	A17	O	SH2A-CPU address bus 17	
173	M1	MA19	O	Wave memory address bus 19	252	U16	A13	O	SH2A-CPU address bus 13	
174	M2	MA20	O	Wave memory address bus 20	253	U17	VCCQ	-	Power supply +3.3 V	
175	M3	MA21	O	Wave memory address bus 21	254	U18	A3	O	SH2A-CPU address bus 3	
176	M4	MA22	O	Wave memory address bus 22	255	U19	A2	O	SH2A-CPU address bus 2	
177	M5	VSS	-	Ground	256	U20	A1	O	SH2A-CPU address bus 1	
178	M9	VSS	-		257	V1	PB0	I/O	Parallel port B0	
179	M10	VSS	-		258	V2	PB1	I/O	Parallel port B1	
180	M11	VSS	-		259	V3	VCCQ	-	Power supply +3.3 V	
181	M12	VSS	-	260	V4	PB6	I/O	Parallel port B6		
182	M16	VSS	-	261	V5	ED2/PC2	I/O	External CPU data bus 2		
183	M17	D7	I/O	SH2A-CPU data bus 7	262	V6	ED6/PC6	I/O	External CPU data bus 6	
184	M18	D8	I/O	SH2A-CPU data bus 8	263	V7	ED10/PD2	I/O	External CPU data bus 10	
185	M19	D9	I/O	SH2A-CPU data bus 9	264	V8	ED14/PD6	I/O	External CPU data bus 14	
186	M20	D10	I/O	SH2A-CPU data bus 10	265	V9	EA3/PK2	I	External CPU address bus 3	
187	N1	MA23/PG4	O	Wave memory address bus 23	266	V10	SD10/PK5	I	Serial audio input 0	
188	N2	MA24/PG5	O	Wave memory address bus 24	267	V11	WCLK2/SDO2	O	Word clock output 2/Serial audio output 2	
189	N3	MA25/PG6	O	Wave memory address bus 25	268	V12	IRQ1	I	Interrupt input 1	
190	N4	MA26/PG7	O	Wave memory address bus 26	269	V13	BW_MD0	I	SH2A-CPU data bus width configuration	
191	N5	VCCQ	-	Power supply +3.3 V	270	V14	A22/PH5	O	SH2A-CPU address bus 22	
192	N16	VCCQ	-		271	V15	A18	O	SH2A-CPU address bus 18	
193	N17	D3	I/O		SH2A-CPU data bus 3	272	V16	A14	O	SH2A-CPU address bus 14
194	N18	D4	I/O		SH2A-CPU data bus 4	273	V17	A10	O	SH2A-CPU address bus 10
195	N19	D5	I/O	SH2A-CPU data bus 5	274	V18	VCCQ	-	Power supply +3.3 V	
196	N20	D6	I/O	SH2A-CPU data bus 6	275	V19	A5	O	SH2A-CPU address bus 5	
197	P1	MCS3N/PG3	O	Wave memory chip select 3	276	V20	A4	O	SH2A-CPU address bus 4	
198	P2	MCS2N/PG2	O	Wave memory chip select 2	277	W1	PB2	I/O	Parallel port B2	
199	P3	MCS1N/PG1	O	Wave memory chip select 1	278	W2	VCCQ	-	Power supply +3.3 V	
200	P4	MWRN/PG0	O	Wave memory write enable	279	W3	PB4	I/O	Parallel port B4	
201	P5	VSS	-	Ground	280	W4	PB7	I/O	Parallel port B7	
202	P16	VSS	-		281	W5	ED3/PC3	I/O	External CPU data bus 3	
203	P17	RD/WRN	O		SH2A-CPU read/write enable	282	W6	ED7/PC7	I/O	External CPU data bus 7
204	P18	D0	I/O		SH2A-CPU data bus 0	283	W7	ED11/PD3	I/O	External CPU data bus 11
205	P19	D1	I/O	SH2A-CPU data bus 1	284	W8	ED15/PD7	I/O	External CPU data bus 15	
206	P20	D2	I/O	SH2A-CPU data bus 2	285	W9	ERDN/PK3	I	External CPU read enable	
207	R1	MCS0N	O	Wave memory chip select 0	286	W10	SD11/PK6	I	Serial audio input 1	
208	R2	MRDN	O	Wave memory read enable	287	W11	WCLK	O	Word clock output	
209	R3	BTCHG	I	BOOT ROM switching control	288	W12	SYSCLK2	O	Clock output 2	
210	R4	PA0	I/O	Parallel port A0	289	W13	WAITN/PK7	I	External wait input	
211	R5	VDD	-	Power supply +1.2 V	290	W14	A23/PH6	O	SH2A-CPU address bus 23	
212	R16	VDD	-		291	W15	A19	O	SH2A-CPU address bus 19	
213	R17	WE1NDQMULUPH3	O		Writing byte of D31 - D24/Selecting D31 - D24 in case of SDRAM	292	W16	A15	O	SH2A-CPU address bus 15
214	R18	RASLN	O		RAS output for SDRAM	293	W17	A11	O	SH2A-CPU address bus 11
215	R19	CASLN	O	CAS output for SDRAM	294	W18	A8	O	SH2A-CPU address bus 8	
216	R20	RDN	O	SH2A-CPU read enable	295	W19	VCCQ	-	Power supply +3.3 V	
217	T1	PA1	I/O	Parallel port A1	296	W20	A6	O	SH2A-CPU address bus 6	
218	T2	PA2	I/O	Parallel port A2	297	Y1	VCCQ	-	Power supply +3.3 V	
219	T3	PA3	I/O	Parallel port A3	298	Y2	PB3	I/O	Parallel port B3	
220	T4	PA4	I/O	Parallel port A4	299	Y3	PB5	I/O	Parallel port B5	
221	T5	VDD	-	Power supply +1.2 V	300	Y4	ED0/PC0	I/O	External CPU data bus 0	
222	T6	VDD	-		301	Y5	ED4/PC4	I/O	External CPU data bus 4	
223	T7	VSS	-		302	Y6	ED8/PD0	I/O	External CPU data bus 8	
224	T8	VCCQ	-		Power supply +3.3 V	303	Y7	ED12/PD4	I/O	External CPU data bus 12
225	T9	VSS	-	Ground	304	Y8	EA1/PK0	I	External CPU address bus 1	
226	T10	VCCQ	-		305	Y9	EWLN/PK4	I	External CPU write enable	
227	T11	VCCQ	-		Power supply +3.3 V	306	Y10	SDO0	O	Serial audio output 0
228	T12	VSS	-		Ground	307	Y11	SDO1	O	Serial audio output 1
229	T13	VCCQ	-	Power supply +3.3 V	308	Y12	SYSCLK	O	Clock output	
230	T14	VSS	-	Ground	309	Y13	SYI	I	Sync. input from external device	
231	T15	VDD	-		310	Y14	A24/PH7	O	SH2A-CPU address bus 24	
232	T16	VDD	-		Power supply +1.2 V	311	Y15	A20	O	SH2A-CPU address bus 20
233	T17	A0/PH4	O		SH2A-CPU address bus 0	312	Y16	A16	O	SH2A-CPU address bus 16
234	T18	WE0NDQMLLPH0	O	Writing byte of D7 - D0/Selecting D7 - D0 in case of SDRAM	313	Y17	A12	O	SH2A-CPU address bus 12	
235	T19	WE1NDQMLLUPH1	O	Writing byte of D15 - D8/Selecting D15 - D8 in case of SDRAM	314	Y18	A9	O	SH2A-CPU address bus 9	
236	T20	WE2NDQMLLUPH2	O	Writing byte of D23 - D16/Selecting D23 - D16 in case of SDRAM	315	Y19	A7	O	SH2A-CPU address bus 7	
237	U1	PA5	I/O	Parallel port A5	316	Y20	VCCQ	-	Power supply +3.3 V	

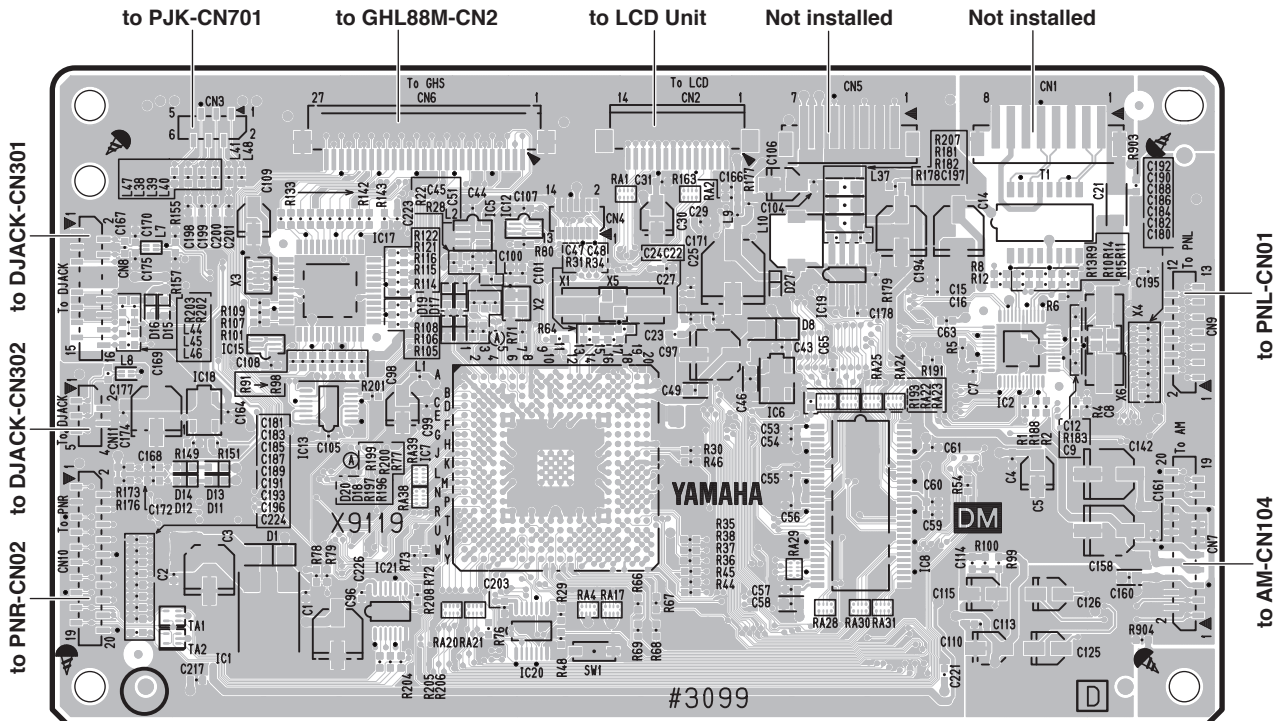
■ CIRCUIT BOARDS

CONTENTS

• AM Circuit Board (YC254D0)	26
• DJACK Circuit Board (YC254D0).....	26
• DM Circuit Board (X9119D0).....	25
• ENC Circuit Board (YC253C0).....	27
• GHL88H Circuit Board (X6246D0).....	30
• GHL88L Circuit Board (X6244D0).....	31
• GHL88M Circuit Board (X6245G0)	32
• MKO Circuit Board (YC253C0)	27
• MVR Circuit Board (YC253C0)	27
• PB Circuit Board (YC254D0)	27
• PJK Circuit Board (YC253C0).....	27
• PNL Circuit Board (YC253C0).....	28
• PNR Circuit Board (YC253C0).....	29
• PSW Circuit Board (YC253C0)	27
• TW Circuit Board (YC254D0).....	27
• USB Circuit Board (YC254D0).....	26

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

• DM Circuit Board



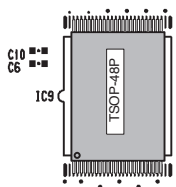
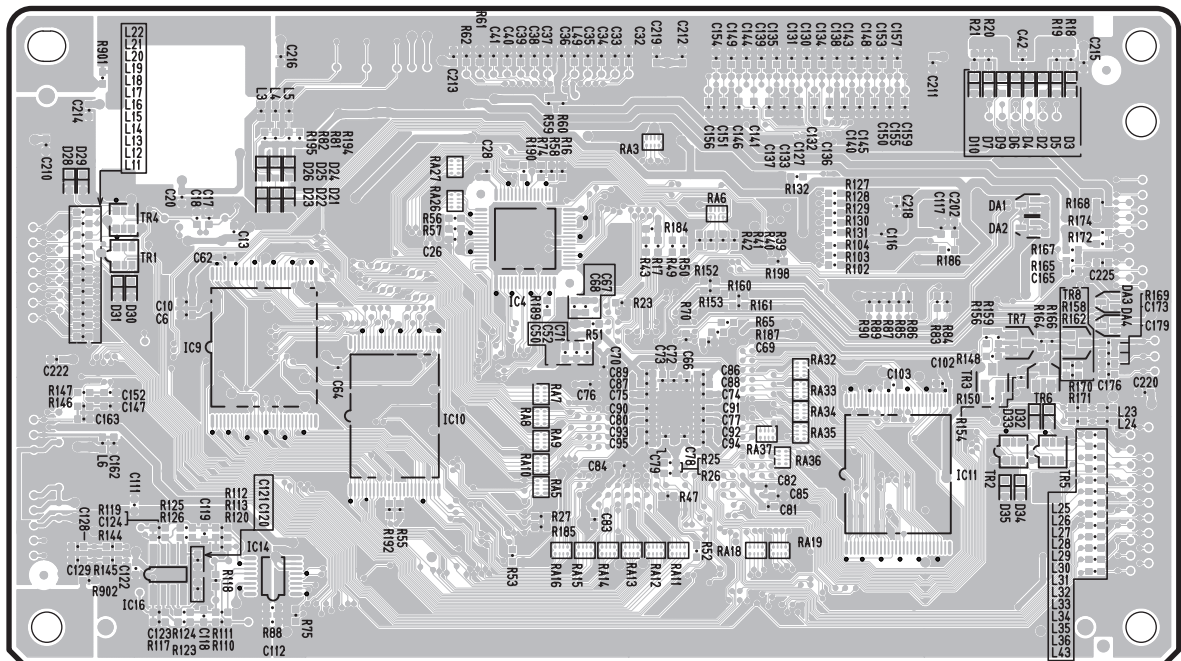
to PNR-CN02 to DJACK-CN302 to DJACK-CN301

to PJK-CN701 to GHL88M-CN2 to LCD Unit Not installed Not installed

to PNL-CN01 to AM-CN104

- CN7,8,9 and 10 must be mounted on the basis of the position of 1pin, although connectors fewer than the number of circuits shown by silk printing are mounted.

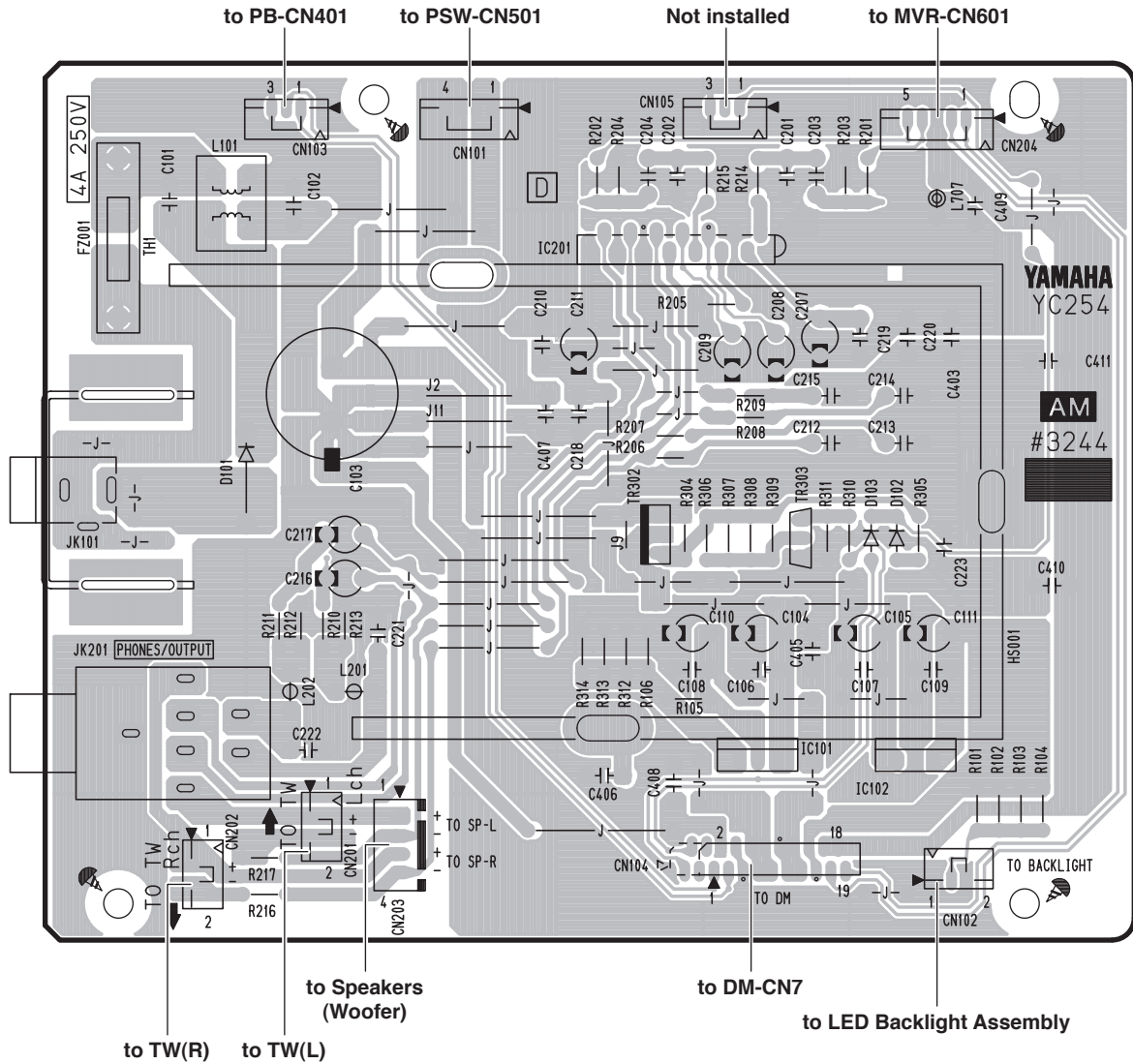
Component Side



- When you mount 48pin-TSOP in the location IC9, 1pin of 48P-TSOP must be mounted on the basis of the position of 3pin of silk printing of 56pin-TSOP.

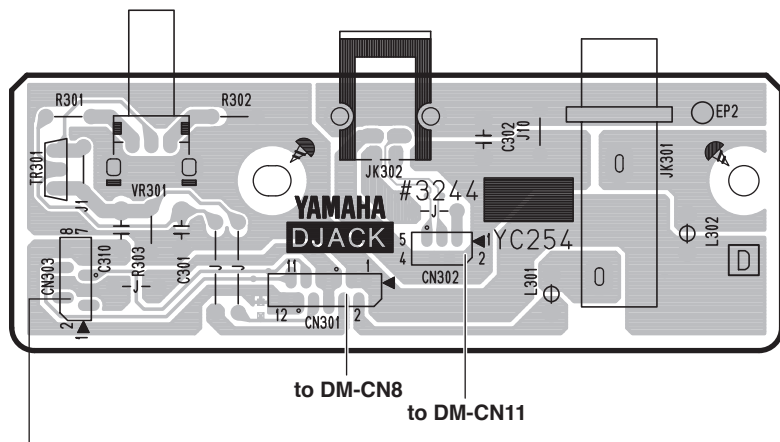
Pattern Side

•AM Circuit Board



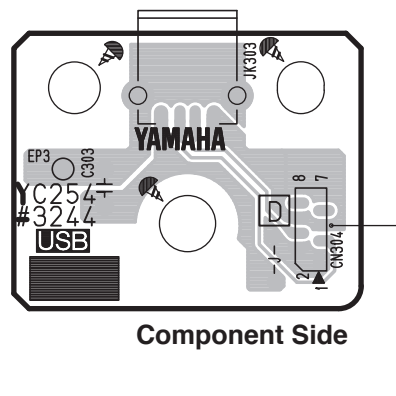
Component Side

•DJACK Circuit Board



Component Side

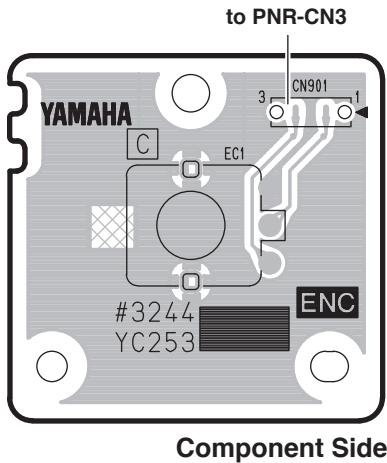
•USB Circuit Board



Component Side

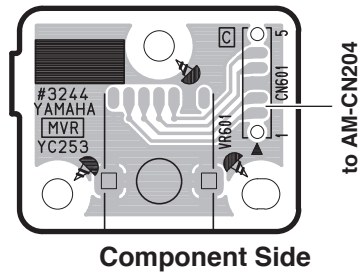
- AM : 2NA-WT73170
- DJACK : 2NA-WT73170
- USB : 2NA-WT73170

•ENC Circuit Board



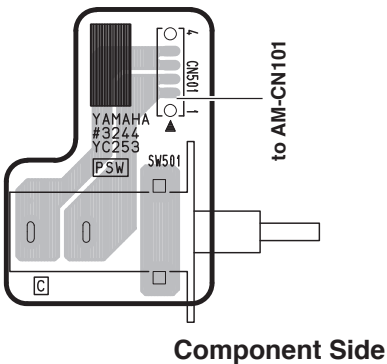
Component Side

•MVR Circuit Board



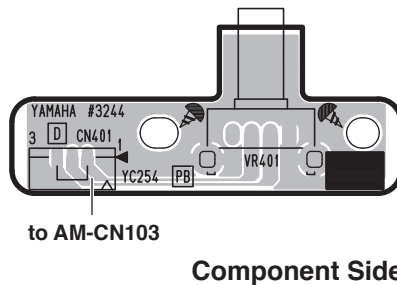
Component Side

•PSW Circuit Board



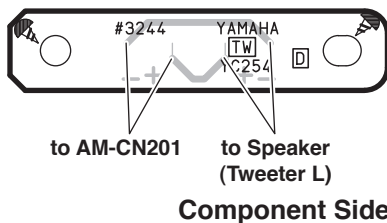
Component Side

•PB Circuit Board



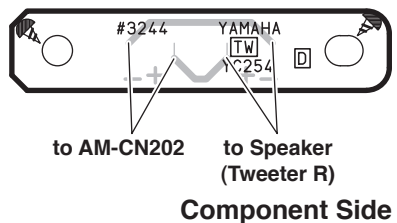
Component Side

•TW(L) Circuit Board



Component Side

•TW(R) Circuit Board



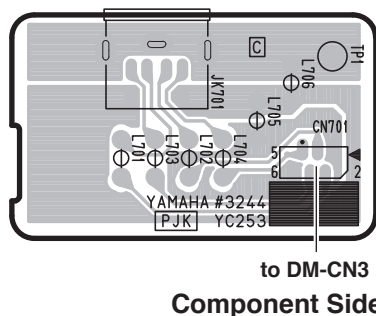
Component Side

•MKO Circuit Board



Component Side

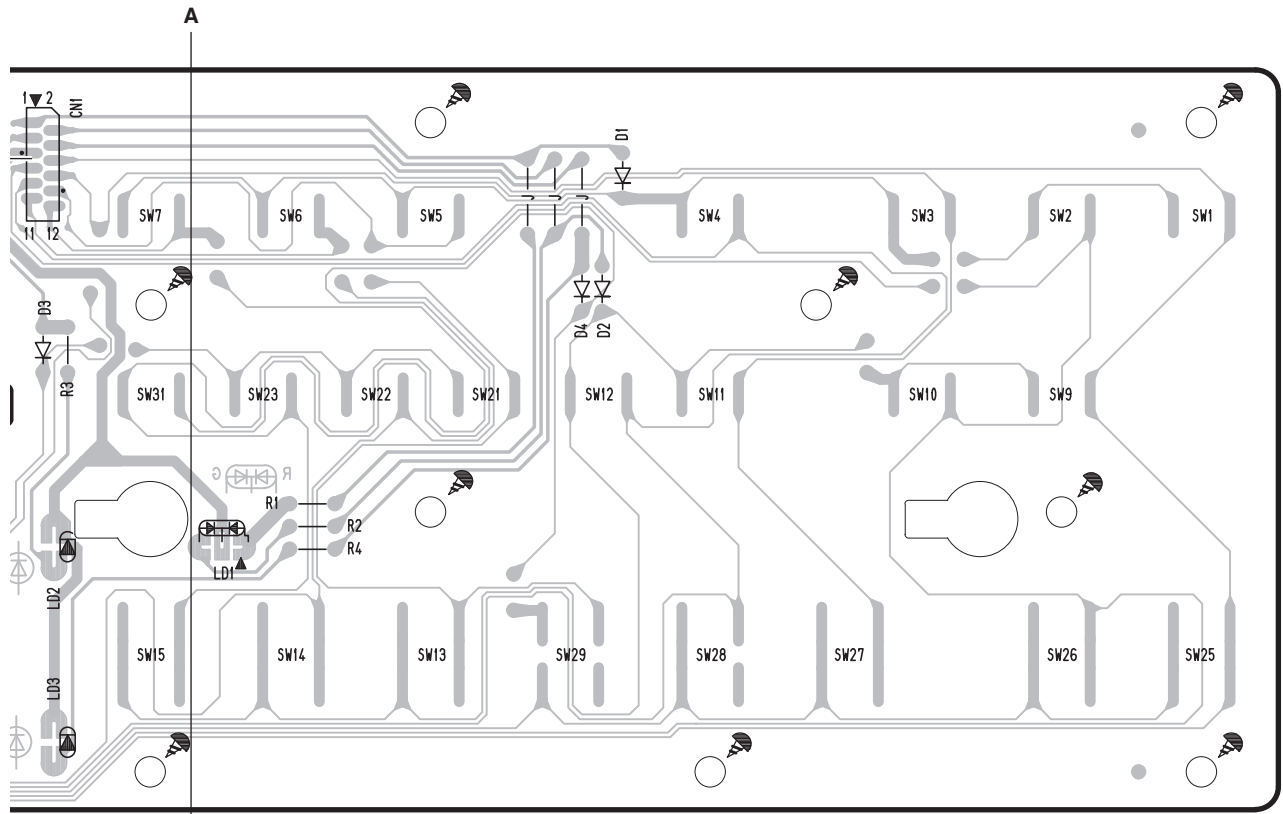
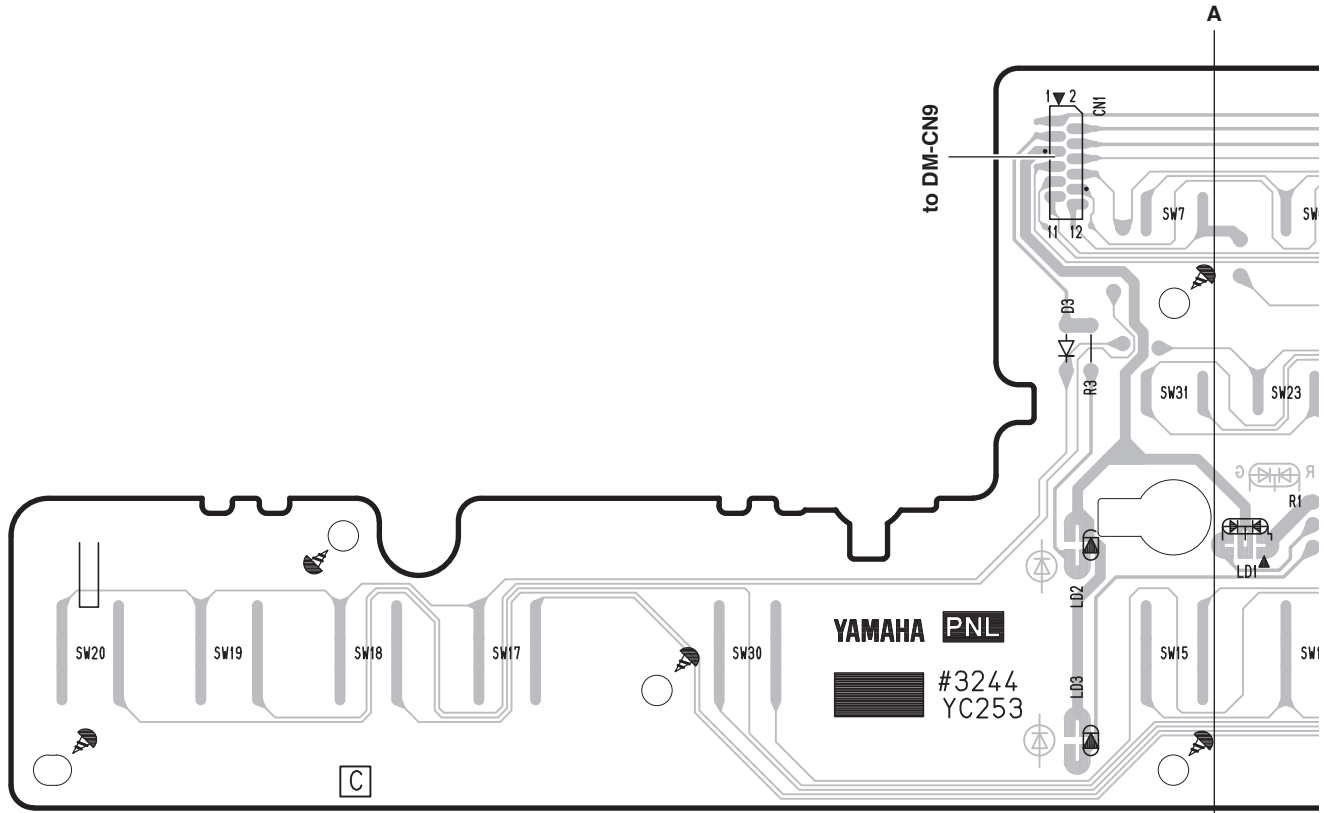
•PJK Circuit Board



Component Side

- ENC : 2NA-WT73160
- PSW : 2NA-WT73160
- TW : 2N-AWT73170
- PJK : 2NA-WT73160
- MVR : 2NA-WT73160
- PB : 2NA-WT73170
- MKO : 2NA-WT73160

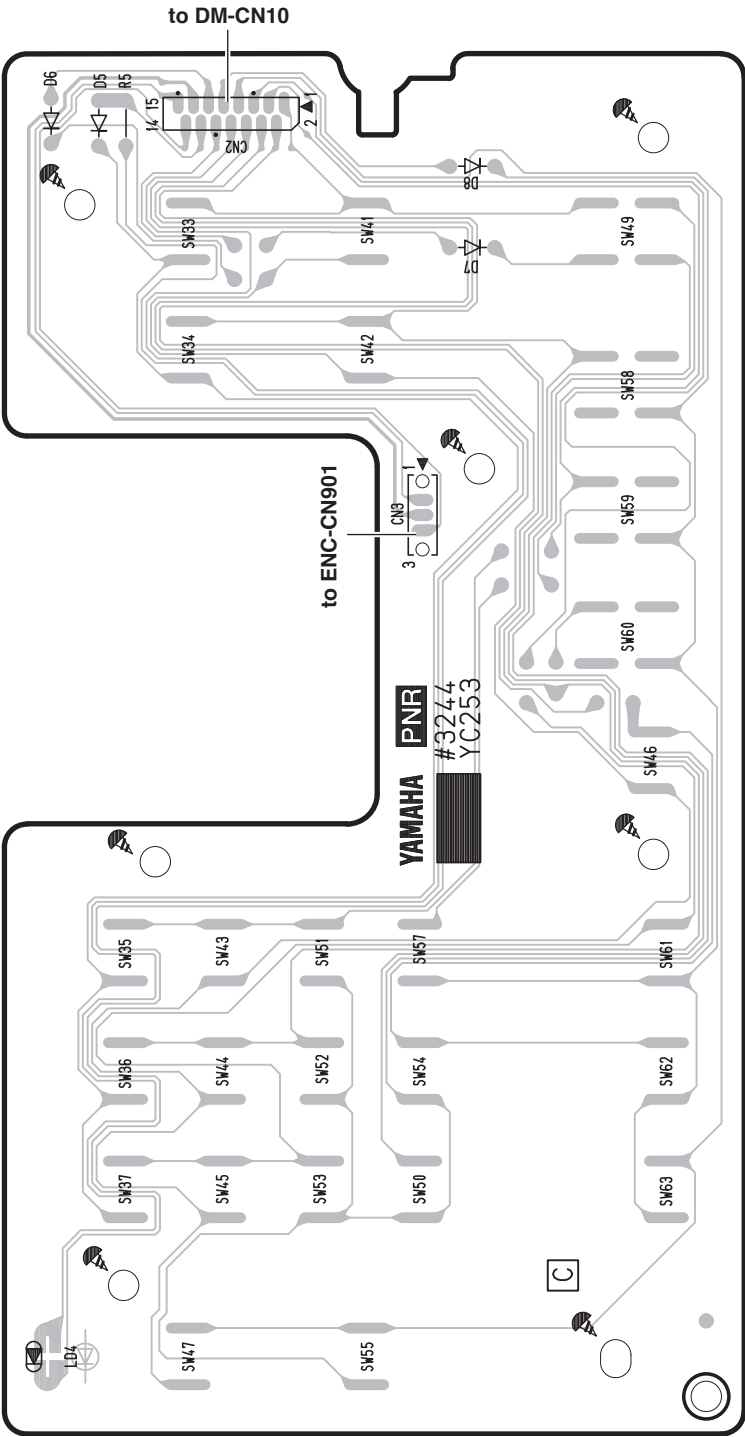
•PNL Circuit Board



Component Side

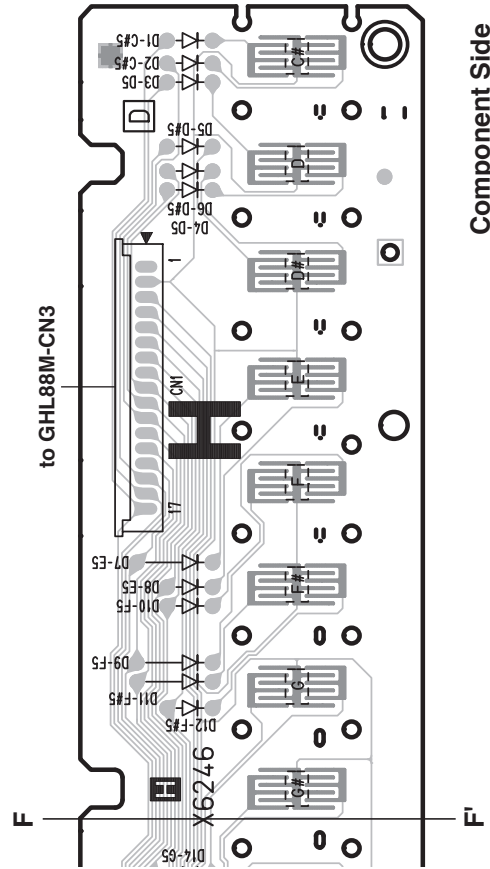
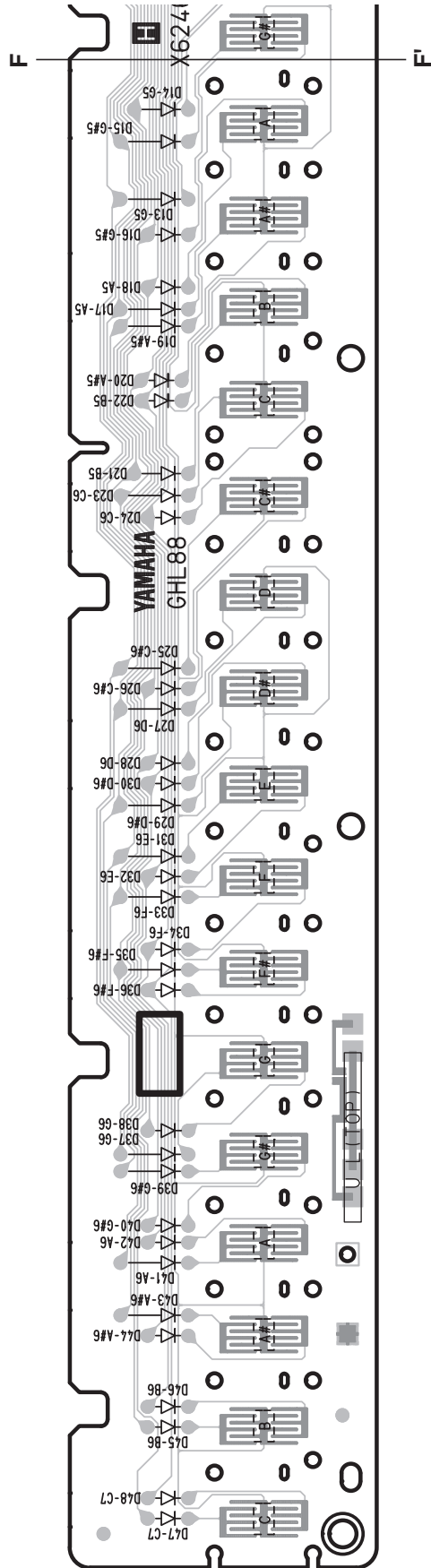
2NA-WT73160

• PNR Circuit Board

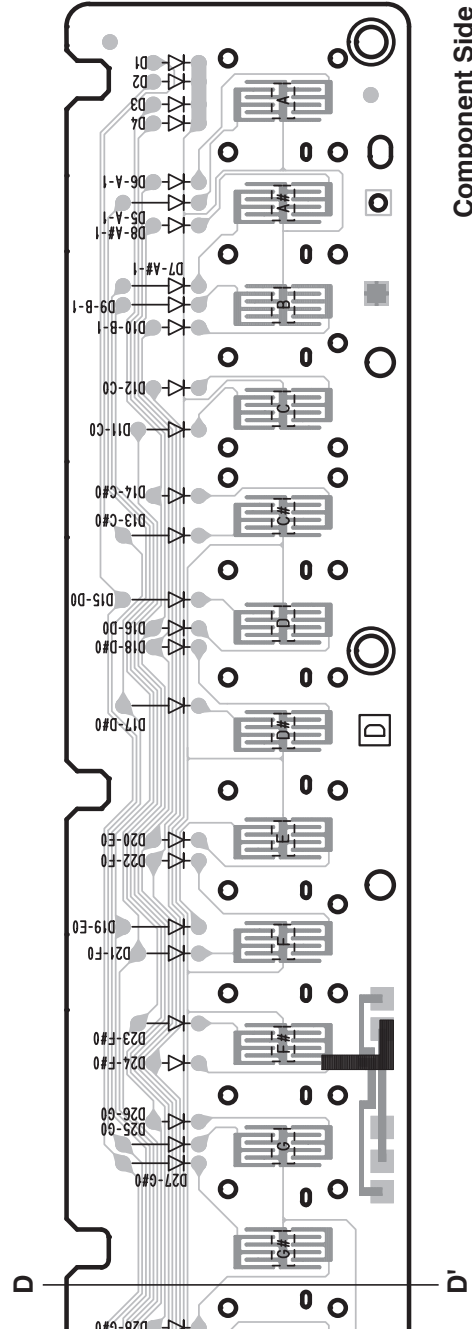
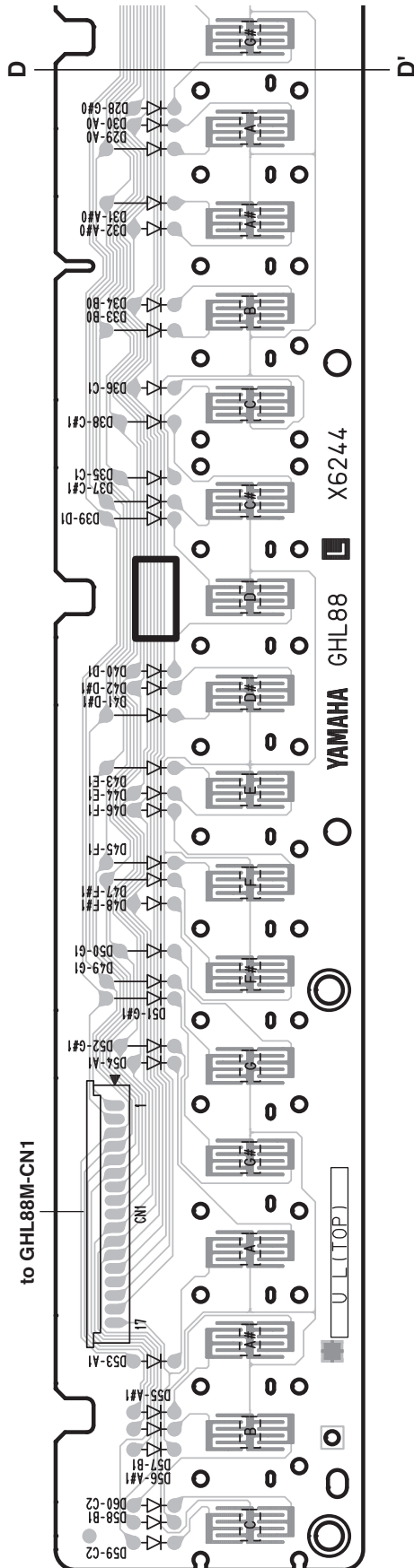


Component Side

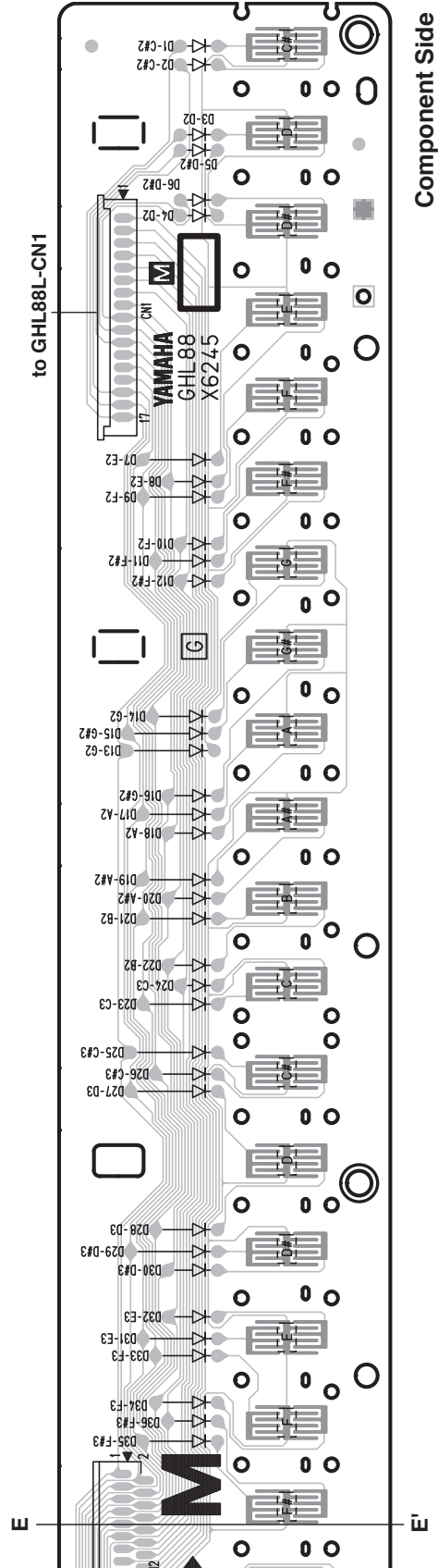
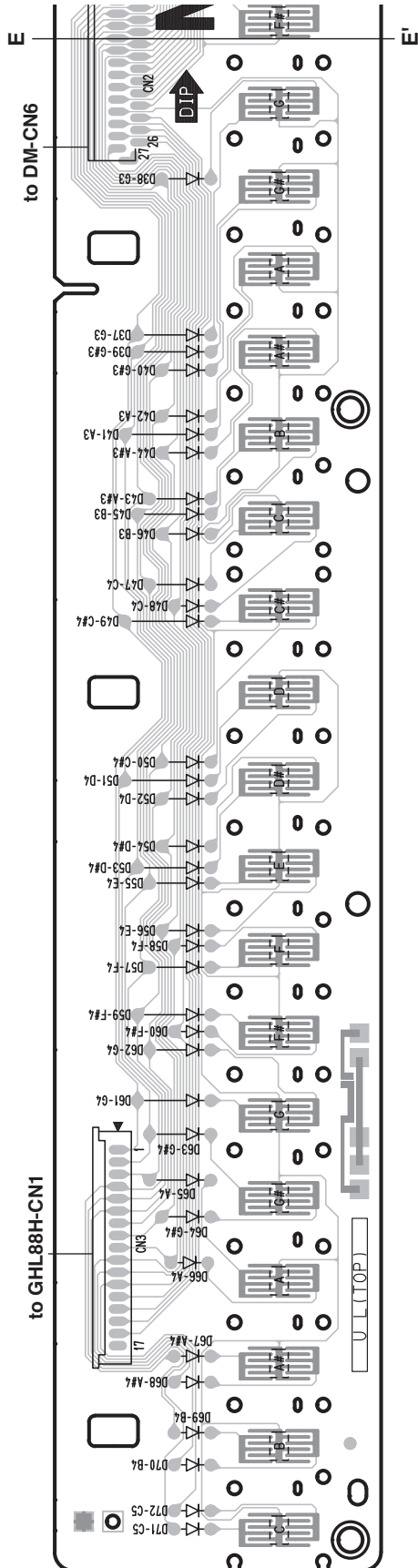
• GHL88H Circuit Board



• GHL88L Circuit Board



•GHL88M Circuit Board



■ TEST PROGRAM

* *If you execute the test No.52 (Factory Set), then the user's preset data may be lost.
Therefore, backup the user's data in advance.*

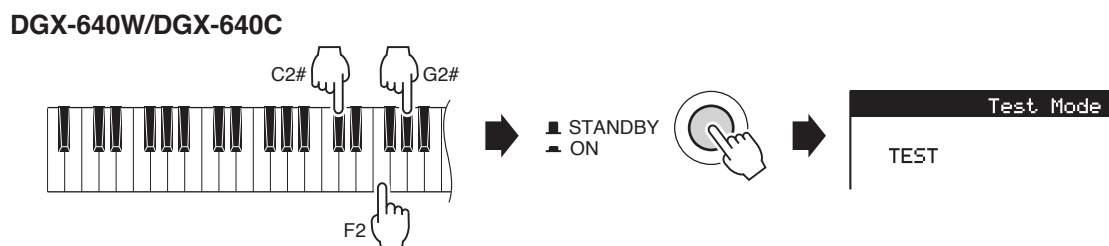
A. PREPARATION

- 1) PA-150 (AC adaptor) is used.
- 2) Measuring device: Frequency counter, which can detect thousandth value or more, Level meter (with JIS-C filter), Oscilloscope
Note: Use a stereo plug and connect a load resistor of 33Ω to the [PHONES/OUTPUT] jack for measurement unless otherwise specified. Input impedance of the measuring device should be $1\text{ M}\Omega$ or more.
- 3) Jigs: Pedal unit (LP-7A), Foot switch (FC-4 or FC-5), USB cable, USB flash memory, USB-MIDI driver (*1)
PC (Install a USB-MIDI driver(*1) in PC and finish the THROUGH setup.)

*1: Obtain the USB-MIDI driver from CD-ROM (YC238A00) for DGX-640W/DGX-640C or Yamaha official website.
(URL>><http://www.yamahapkclub.com>)

B. HOW TO ENTER THE TEST PROGRAM

While pressing the C2#, F2 and G2# keys, turn the [STANDBY/ON] switch on.



(Fig.1)

C. TEST PROCEDURE

- 1) When the test program is started, "TEST" will be displayed on the LCD.
- 2) Press the [-] or [+] button of the number buttons to select a test program item.
- 3) Press the [START/STOP] button to execute the test.

- * If the test result is OK, or the test item is completed, press the [START/STOP] button again to return to the test item selection display.
- * Press the [-] or [+] button of the number buttons to select the next test program item.
- * When the test result is OK, an asterisk (*) is added in front of its item name on display.
If the test result is NG, press the [DEMO] button or the lowest (leftmost) white key to return to the item selection display. Turn the power off to finish the test program.

D. TEST PROGRAM LIST

TEST No.	LCD Display	Test Descriptions, Judging Criteria
--	--	Contrast Check Set the contrast knob to the legible position of LCD. When the contrast knob is turned clockwise (or counterclockwise), the LCD becomes blue (or white).
1	001 Version	Displays ROM(Program) and ROM(Wave) versions. (In case of OK:"XXX" Prog / "XXX" Wave, NG:"Err" Prog / "Err" Wave)
2	002 Memory Chk1 ALL	Checks the ROM, RAM and FLASH ROM connected to the CPU bus. If result is OK, Test no. 3, 4, 5 test can be omitted. (OK:"Memory ALL OK", NG:"Rom NG/Ram NG/Flash Rom NG/Wave Rom NG") The test result appears on the LCD. Make sure that "Memory ALL OK" is displayed on the LCD.
3	003 Rom Chk1	Checks the ROM connected to the CPU bus. (OK:"Rom OK", NG:"Rom NG") The test result appears on the LCD. Make sure that "Rom OK" is displayed on the LCD.
4	004 Ram Chk1	Checks the RAM connected to the CPU bus. (OK:"Ram OK", NG:"Ram NG") The test result appears on the LCD. Make sure that "Ram OK" is displayed on the LCD.
5	005 Flash Rom Chk1	Checks the flash ROM connected to CPU bus. The test result appears on the LCD. Make sure that "Flash Ram OK" is displayed on the LCD. (OK:"Flash Rom OK", NG:"Flash Rom NG")
6	006 Wave Rom Chk1	Checks the wave ROM connected to the CPU bus. The test result appears on the LCD. Make sure that "Wave Rom OK" is displayed on the LCD. (OK:"Wave Rom OK", NG:"Wave Rom NG")
8	008 TG1 Chk	Outputs the sine wave by changing the channels in sequence from C2 to G4 (32 notes) twice. Check that there is no noise or abnormal sound. After auto-scaling is finished, individual keys can be played. (If playing two or more keys simultaneously, the first pressed key has priority to make a sound.)
9	009 Pit Chk	<ul style="list-style-type: none"> • Pitch Precision check Connect the frequency counter to the [PHONES/OUTPUT] terminal. (L or R) Sets PAN to Center and produces a signal at 441.0 Hz +/- 0.2 Hz. Check that the correct signal is produced. • Volume decline value Checks the volume decline value. Connect the level meter (with a JIS-C filter) to the [PHONES/OUTPUT] terminal. (L or R) Set the [MASTER VOLUME] to the minimum position. PHONES L/R : less than -70.0 dBu
10	010 Output R	Connect the level meter (with a JIS-C filter) to the [PHONES/OUTPUT] terminal. (33Ω load) Set the [MASTER VOLUME] at maximum and check the output level (1 kHz sine wave, PAN=R). PHONES L : less than -45.0 dBu PHONES R : -1.0 dBu +/- 2 dB
11	011 Output L	Connect the level meter (with a JIS-C filter) to the [PHONES/OUTPUT] terminal. (33Ω load) Set the [MASTER VOLUME] at maximum and check the output level (1 kHz sine wave, PAN=L). PHONES L : -1.0 dBu +/- 2 dB PHONES R : less than -45.0 dBu
21	021 SW Chk	Checks the switches on the panel. Press the switches on the LCD as instructed. A pre-assigned note is output when the switch is pressed. A rotary encoder is clockwise set up to UP and is counterclockwise set to DOWN. (See P.37 "Table 1".) The check result appears on the LCD when all the switches are pressed as instructed. Make sure that "SW OK" is displayed. Also, check that no key stick is existed. (To stop the switch test on the way, or to finish the switch test, and return to the test selection display, press the lowest (leftmost) white key.) (OK:"SW OK", NG:"SW NG", When multiple switches are pressed at the same time:"Over Two")
22	022 All LED Chk	Check that all the LEDs on the panel are on.
23	023 Red LED Chk	Check that all the red LEDs on the panel are on.

TEST No.	LCD Display	Test Descriptions, Judging Criteria
24	024 Green LED Chk	Check that all the green LEDs on the panel are on.
25	025 LCD On	Check that all LCD dots are on. (The whole screen becomes white.)
26	026 LCD Off	Check that all LCD dots are off. (The whole screen becomes blue.)
29	029 Pedal1 Chk	Checks the soft pedal (left pedal). Connect the pedal unit (LP-7A etc.) to the [PEDAL UNIT] terminal. Execute this test. The C3 note is output and "Pedal1 ON" is displayed on the LCD. Press the soft pedal. The C4 note is output and "Pedal1 OFF" is displayed. Release the pedal. The C4 sound stops. Make sure that "Pedal1 OK" is displayed. (OK:"Pedal1 OK", NG:"Pedal1 NG")
30	030 Pedal2 Chk	Checks the sostenuto pedal (center pedal). Connect the pedal unit (LP-7A etc.) to the [PEDAL UNIT] terminal. Execute this test. The C3 note is output and "Pedal2 ON" is displayed on the LCD. Press the sostenuto pedal. The C4 note is output and "Pedal2 OFF" is displayed. Release the pedal. The C4 note stops. Make sure that "Pedal2 OK" is displayed. (OK:"Pedal2 OK", NG:"Pedal2 NG")
31	031 Pedal3 Chk	Checks the damper pedal (right pedal). Connect the pedal unit (LP-7A etc.) to the [PEDAL UNIT] terminal. Execute this test. The C3 note is output and "Pedal3 Half" is displayed on the LCD. Press the damper pedal until the half position. The G4 note is output and "Pedal3 ON" is displayed. Press the damper pedal fully. The sine wave of C4 sounds and "Pedal3 OFF" is displayed. Release the pedal. The C4 note stops. Make sure that "Pedal3 OK" is displayed. (OK:"Pedal3 OK", NG:"Pedal3 NG")
32	032 Pedal4 Chk	Checks the pedal4 (Sustain pedal). Connect the foot pedal (FC-4 or FC-5) to the [SUSTAIN] terminal. Execute this test. The C3 note is output. Press the pedal. The C4 note is output. Release the pedal. The C4 note stops. Make sure that "Pedal4 OK" is displayed. (OK:"Pedal4 OK", NG:"Pedal4 NG")
33	033 Pitch Bend Chk	Checks the pitch bend wheel. First, it checks if the center position of the wheel is correct or not. The C3 note is output when rotating the [PITCH BEND] wheel to minimum and The C4 note is output when rotating it to maximum. Make sure that "Pitch Bend OK" is displayed on the LCD. (OK:"Pitch Bend OK", NG:"Pitch Bend NG", If the center position of the wheel is not correct:"Center NG")
35	035 MIDI Chk	Checks MIDI and USB. Connect the PC with a USB-MIDI driver installed and the [TO HOST] terminal using a USB cable, and execute the test. (As for the PC, install a USB-MIDI driver in the PC and finish the THROUGH setup, in advance.) Make sure that the C4 note is output and "MIDI OK" is displayed on the LCD. (OK:"MIDI OK", NG:"MIDI NG")
36	036 USB Connect Chk	Checks the USB connection. 1. Execute this test. "USB Connect1--" is displayed on the LCD. Connect the [TO DEVICE] and [TO HOST] terminals using a USB cable. Make sure that the LCD display changes to "USB Connect2--". 2. Remove the USB cable from the [TO DEVICE] terminal, and insert a USB flash memory into the [TO DEVICE] terminal. Make sure the C4 note is output and "USB Connect OK" is displayed on the LCD. (OK:"USB Connect OK", NG:"USB Connect NG")

TEST No.	LCD Display	Test Descriptions, Judging Criteria
37	037 USB Storage Chk	Checks USB. Connect a USB flash memory to the [TO DEVICE] terminal, and execute the test. Make sure that "USB Storage OK" is displayed on the LCD. (OK:"USB Storage OK", NG:"USB Storage NG")
47	047 Rom Chk2	Checks the ROM that is connected to the CPU bus (Full address). The test result appears on the LCD. Make sure that "Rom OK" is displayed on the LCD. It takes about 3 seconds. (OK:"Rom OK", NG:"Rom NG")
48	048 Ram Chk2	Check the RAM that is connected to the CPU bus (Full address). The test result appears on the LCD. Make sure that "Ram OK" is displayed on the LCD. (OK:"Ram OK", NG:"Ram NG")
49	049 Flash RomChk2	Checks the flash ROM that is connected to CPU bus (Full address). The test result appears on the LCD. Make sure that "Flash Ram OK" is displayed on the LCD. It takes about 45 seconds. (OK:"Flash Rom OK", NG:"Flash Rom NG")
50	050 Wave RomChk2	Checks the wave ROM that is connected to CPU bus. The test result appears on the LCD. Make sure that "Wave Rom OK" is displayed on the LCD. It takes about 55 seconds. (OK:"Wave Rom OK", NG:"Wave Rom NG")
52	052 Factory Set	All backup domains are initialized and it changes into a factory-shipments state when executing this test. It takes about 2 seconds.
53	053 Test Exit	Execute this to leave the test mode and change to the play mode. * Never turn off the power until the play mode screen appears.
--	--	Noise Level Check (in the normal mode) Connect the level meter(with a JIS-C filter) to the [PHONES/OUTPUT] jack. (33Ω load) Set the [MASTER VOLUME] at maximum and check that the noise level is within the range below. PHONES L/R : less than -74.0 dBu

Table 1

Order	Switch Name	LCD Display	Note No.
1	DIAL UP	Dial Up	C2
2	DIAL DOWN	Dial Down	C#2
3	DEMO/BGM	Demo	D2
4	SCOPE	Score	D#2
5	LYRICS	Lyrics	E2
6	SONG REC	Song REC	F2
7	LESSON WAITING	Lesson Waiting	F#2
8	LESSON YOUR TEMPO	Lesson Yourtemp	G2
9	LESSON MINUS ONE	Lesson Minus on	G#2
10	P.A.T. ON/OFF	P.A.T.	A2
11	EASY SONG ARRANGER	EasySongArrange	A#2
12	SONG R/1	Song 1	B2
13	SONG L/2	Song 2	C3
14	SONG 3	Song 3	C#3
15	SONG 4	Song 4	D3
16	SONG 5	Song 5	D#3
17	SONG A	Song A	E3
18	METRONOME ON/OFF	Metronome	F3
19	TEMPO/TAP	Tempo/TAP	F#3
20	ACMP	ACMP	G3
21	INTRO/ENDING	Intro	G#3
22	MAIN/AUTO FILL	Main/Fill	A3
23	SYNC STOP	Sync Stop	A#3
24	SYNC START	Sync Start	B3
25	START/STOP	Start/Stop	C4
26	BANK/MEMORY	Memory	C#4
27	REGIST1	Regist1	D4
28	REGIST2	Regist2	D#4
29	REGIST3	Regist3	E4
30	REGIST4	Regist4	F4
31	CATEGORY -	Category -	F#4
32	CATEGORY +	Category +	G4
33	EXIT	Exit	G#4
34	FUNCTION	Function	A4
35	PORTABLE GRAND	Portable Grand	A#4
36	SONG	Song	B4
37	STYLE	Style	C5
38	VOICE	Voice	C#5
39	MUSIC DATABASE	MusicDataBase	D5
40	TENKEY 1	Tenkey 1	D#5
41	TENKEY 2	Tenkey 2	E5
42	TENKEY 3	Tenkey 3	F5
43	TENKEY 4	Tenkey 4	F#5
44	TENKEY 5	Tenkey 5	G5
45	TENKEY 6	Tenkey 6	G#5
46	TENKEY 7	Tenkey 7	A5
47	TENKEY 8	Tenkey 8	A#5
48	TENKEY 9	Tenkey 9	B5
49	TENKEY -	Tenkey -	C6
50	TENKEY 0	Tenkey 0	C#6
51	TENKEY +	Tenkey +	D6
52	FILE CONTROL	File Menu	D#6
53	EXCUTE	File Excute	E6
54	SPLIT ON/OFF	Split	F6
55	DUAL ON/OFF	Dual	F#6
56	HARMONY ON/OFF	Harmony	G6

■ BACKUP and INITIALIZATION

Backup

The following settings are always backed up, and are maintained even when the power is turned off. If you want to initialize the settings, use the Initialize operation “Backup Clear” as explained below.

The Backup Parameters

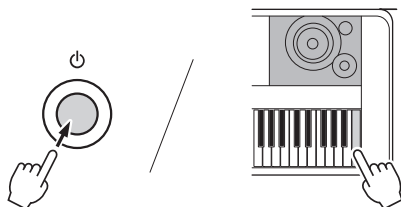
- Registration Memory
- FUNCTION Settings: Tuning, Split Point, Touch Sensitivity, Style Volume, Song Volume, Metronome Volume, Grade, Demo Cancel, Demo Group, Demo Play Mode, Language Selection, Panel Sustain, Master EQ type, Chord Fingering

Initialization

This function erases all backup data in the instrument’s flash memory and restores the initial default settings. The following initialization procedures are provided.

Backup Clear

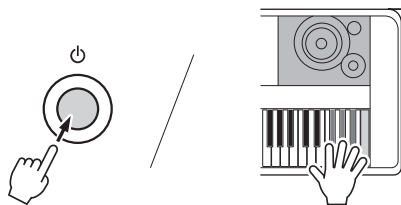
To clear data backed up to the internal flash memory—panel user setting, registration memory—turn the power on by pressing the [⏻] (Standby/On) switch while holding the highest white key on the keyboard. The backed up data will be erased and the default values restored.



Initialization does not delete the files transferred from the computer. If you want to delete the files, see “Deleting Files” below.

Deleting Files

To clear Song, Style, and Music Database files that have been transferred to the internal flash memory from a computer, turn the power on by pressing the [⏻] (Standby/On) switch while simultaneously holding the highest white key on the keyboard and the three highest black keys.



NOTICE

- *When you execute the Flash Clear operation, data you have purchased will also be cleared. Be sure to save data you want to keep to a computer.*

■ USER DATA BACKUP

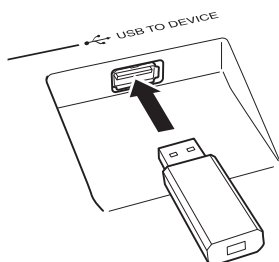
USB flash memory is a memory medium used for storing data.

When a USB flash memory is inserted in this instrument's USB TO DEVICE terminal, registered settings can be saved from or loaded into the instrument.

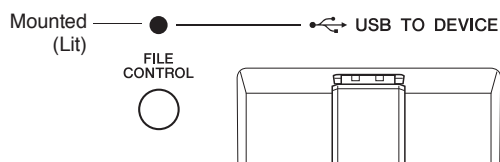
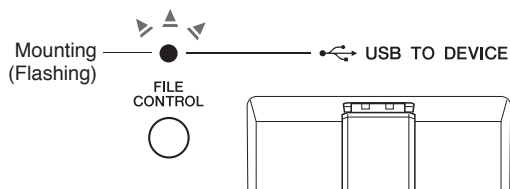
In this section we'll look at the procedures for setting up and formatting USB flash memory devices, as well as for saving and loading data to and from them.

Connecting a USB Flash Memory

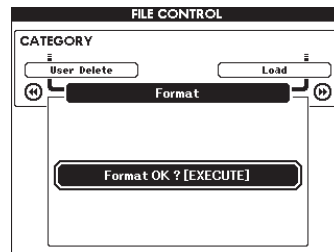
- 1 Connect a USB flash memory to the USB TO DEVICE terminal, being careful to insert it with the proper orientation.



- 2 Wait for confirmation that the USB flash memory has been properly mounted.



- 3 Press the [FILE CONTROL] button to call up the FILE CONTROL display.



You can access file operations listed below by pressing the category [◀◀] and [▶▶] buttons from FILE CONTROL display.

Menu	Reference page
Format	40
User File Save	41
User Song Save	42
Load	43
USB Delete	44
User Delete	44

If you press the [FILE CONTROL] button while an unformatted USB flash memory is connected to the instrument, the “Format” function will automatically be selected.

To exit from the FILE CONTROL display press the [EXIT] button.

NOTE

- No sound will be produced if you play the keyboard while the FILE CONTROL display is showing. Also, in this state only buttons related to file functions will be active.

NOTE

- The FILE CONTROL display will not appear in any of the following cases:
 - During style or song playback.
 - During a lesson.
 - While data is being loaded from a USB flash memory.

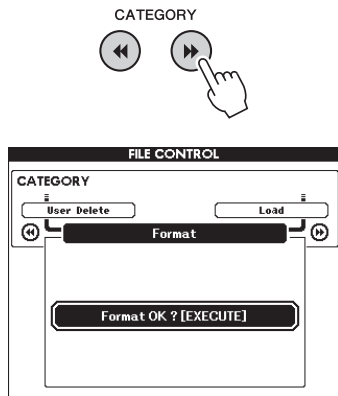
Formatting USB Flash Memory

New USB flash memory must be formatted before they can be used by this instrument.

NOTICE

• If a USB flash memory that contains data is formatted as described below, the data will be erased. Make sure that a USB flash memory to be formatted contains no important data before carrying out the formatting procedure.

- 1 Use the CATEGORY [◀] and [▶] buttons to select the Format item. The display prompts you for confirmation.



- 2 Press the [EXECUTE] button and the display prompts you for confirmation. You can press the [-] button at this point to cancel the operation.
- 3 Press the [EXECUTE] button again, or the [+] button, and the format operation will begin.

NOTICE

• Once the format-in-progress message appears on the display the format operation cannot be canceled. Never turn off the power or remove the USB flash memory during this operation.

- 4 A message will appear on the display to inform you that the operation has finished. Press the [EXIT] button to return to the MAIN display.

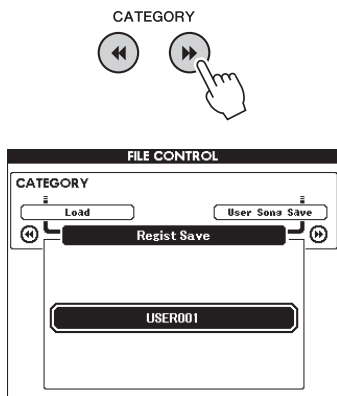
NOTE

• If the USB flash memory has been write-protected, an appropriate message will appear on the display and you will not be able to execute the operation.

Saving User Files (Registration Memory) to USB Flash Memory

This operation saves a “User File” containing the registration memory data to a USB flash memory device. The User File name will have a “.usr” extension which will not appear in the instrument’s display.

- 1 Use the CATEGORY [◀] and [▶] buttons to locate the Regist Save item. A default file name will automatically be created.



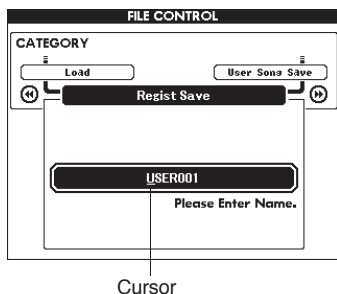
To Overwrite an Existing File

If you want to overwrite a file that already exists on the USB flash memory, use the dial or the [+] and [-] buttons to select the file, then skip ahead to step 4.

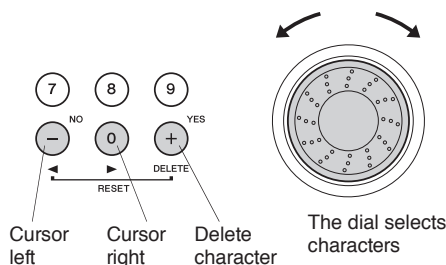
NOTE

• Up to 100 user files can be saved to a single USB flash memory.

- 2 Press the [EXECUTE] button. A cursor will appear below the first character in the file name.



- 3 Change the file name as necessary.
 - The [-] button moves the cursor to the left, and the [0] button moves it to the right.
 - Use the dial to select a character for the current cursor location.
 - The [+] button deletes the character at the cursor location.



- 4 Press the [EXECUTE] button. The display prompts you for confirmation. You can cancel the save operation at this point by pressing the [-] button.

- 5 Press the [EXECUTE] button again, or the [+] button, and the save operation will begin.

User file will be saved in a folder labeled “USER FILES” which will automatically be created on the USB flash memory.

NOTICE

• Once the save-in-progress message appears on the display the operation cannot be canceled. Never turn off the power or remove the USB flash memory during this operation.

- 6 A message will appear on the display to inform you that the operation has finished.

Press the [EXIT] button to return to the MAIN display.

NOTE

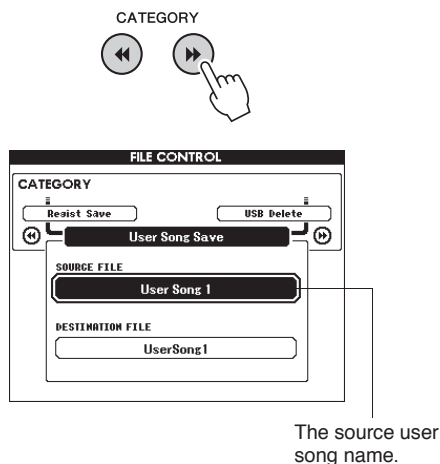
• If an existing filename is specified the display prompts you for confirmation. Press [EXECUTE] or [+] if it is OK to overwrite the file, or [-] to cancel.

• The amount of time it will take to perform the save operation will depend on the condition of the USB flash memory.

Save a User Song to USB Flash Memory

This operation saves a user song (song numbers 031–035) to USB flash memory.

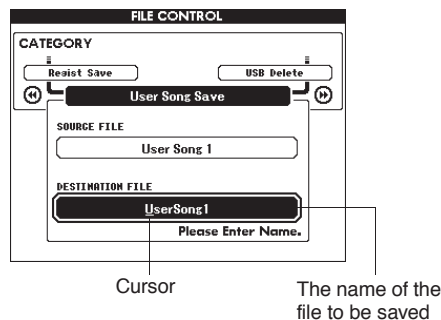
- 1 Use the CATEGORY [◀] and [▶] buttons to locate the User Song Save item. The SOURCE FILE—a user song name—will be highlighted.



- 2 Select the source user song. You can press the [+] and [-] buttons simultaneously to select the first user song.
- 3 Press the [EXECUTE] button. The DESTINATION SONG will be highlighted, and a default name will automatically be created.

To Overwrite an Existing File
 If you want to overwrite a file that already exists on the USB flash memory, use the dial or the [+] and [-] buttons to select the file, then skip ahead to step 6.

- 4 Press the [EXECUTE] button. A cursor will appear below the first character in the file name.



- 5 Change the file name as necessary. Refer to “Saving User Files (Registration Memory) to USB Flash Memory” on page 41 for file-name entry.
- 6 Press the [EXECUTE] button. The display prompts you for confirmation. You can cancel the save operation at this point by pressing the [-] button.
- 7 Press the [EXECUTE] button again, or the [+] button, and the save operation will begin. User song will be saved in a folder labeled “USER FILES” which will automatically be created on the USB flash memory.

NOTICE

• Once the save-in-progress message appears on the display the operation cannot be canceled. Never turn off the power or remove the USB flash memory during this operation.

- 8 A message will appear on the display to inform you that the operation has finished. Press the [EXIT] button to return to the MAIN display.

NOTE

• If an existing filename is specified the display prompts you for confirmation. Press [EXECUTE] or [+] if it is OK to overwrite the file, or [-] to cancel.

• The amount of time it will take to perform the save operation will depend on the condition of the USB flash memory.

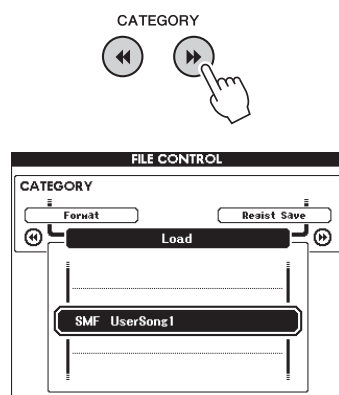
Loading Files from a USB Flash Memory

User files as well as Style, Song, and Music Database files residing on a USB flash memory can be loaded into the instrument.

NOTICE

• If you load a User File registration memory data will be overwritten by the newly loaded data. Save important data to a USB flash memory before loading data that will overwrite it.

- 1 Use the CATEGORY [◀] and [▶] buttons to locate the Load item.



- 2 Use the dial to select the file you want to load.
All user files in the USB flash memory will be displayed first, followed by the style files, song files and music database files.
Files must be located in the “User Files” folder in the USB flash memory. Files located outside of that folder will not be recognized.
- 3 Press the [EXECUTE] button. The display prompts you for confirmation.
You can cancel the load operation at this point by pressing the [-] button.
- 4 Press the [EXECUTE] button again, or the [+] button, and the load operation will begin.

NOTICE

• Once the load-in-progress message appears on the display the operation cannot be canceled. Never turn off the power or remove the USB flash memory during this operation.

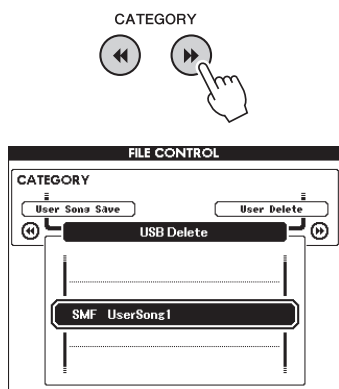
- 5 A message will appear on the display to inform you that the operation has finished.

Press the [EXIT] button to return to the MAIN display.

Deleting Data from a USB Flash Memory

This procedure deletes User, Style and Music Database files and Song files that were created on this instrument from a USB flash memory.

- 1 Use the CATEGORY [◀] and [▶] buttons to locate the USB Delete item.



- 2 Use the dial to select the file you want to delete.

All User files in the USB flash memory will be displayed first, followed by the style files, song files and music database files.

Files must be located in the “User Files” folder in the USB flash memory. Files located outside of that folder will not be recognized.

- 3 Press the [EXECUTE] button. The display prompts you for confirmation. You can cancel the delete operation at this point by pressing the [-] button.
- 4 Press the [EXECUTE] button again, or the [+] button, and the delete operation will begin.

NOTICE

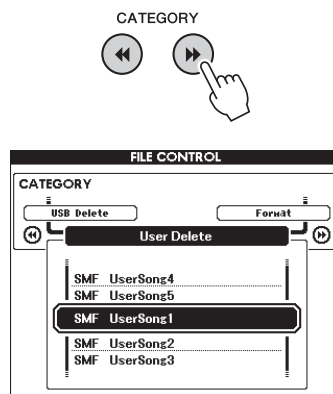
• Once the delete-in-progress message appears on the display the operation cannot be canceled. Never turn off the power or remove the USB flash memory during this operation.

- 5 A message will appear on the display to inform you that the operation has finished. Press the [EXIT] button to return to the MAIN display.

Delete User Data from the Instrument

This procedure deletes the User Song as well as Style, Song, and Music Database files transferred from an external device such as a computer. This operation does not erase the preset data.

- 1 Use the CATEGORY [◀] and [▶] buttons to locate the User Delete item. Only “User Delete” can be selected if no USB flash memory is connected to the instrument.



- 2 Use the dial to select the file you want to delete.

All user songs will be displayed first, followed by the song, style and music database files.

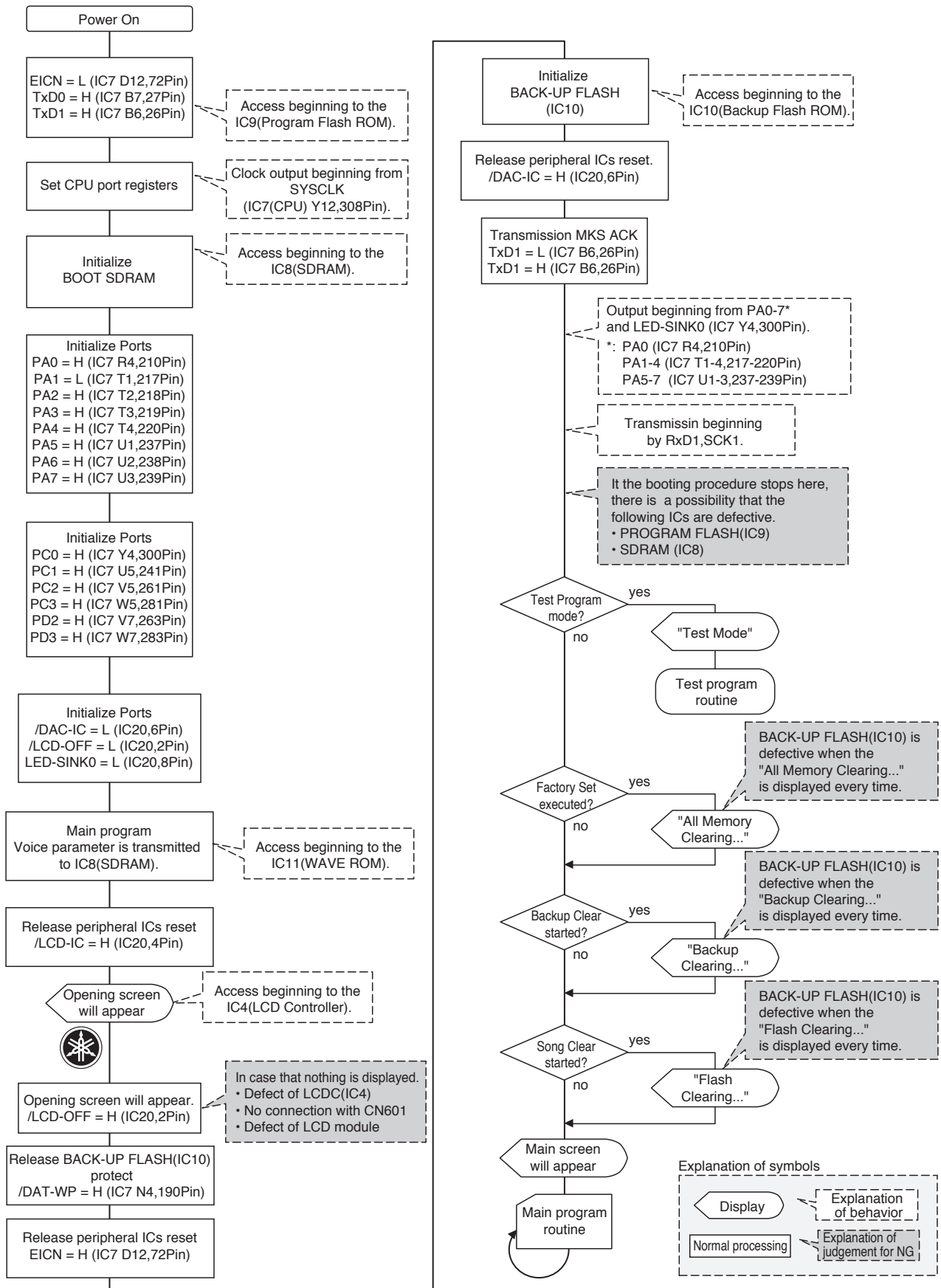
- 3 Press the [EXECUTE] button. The display prompts you for confirmation. You can cancel the delete operation at this point by pressing the [-] button.
- 4 Press the [EXECUTE] button again, or the [+] button, and the delete operation will begin.

NOTICE

• Once the delete-in-progress message appears on the display the operation cannot be canceled.

- 5 A message will appear on the display to inform you that the operation has finished. Press the [EXIT] button to return to the MAIN display.

SYSTEM BOOTING FLOW CHART



* "Factory Set" refers to the condition of turning on the power after executing "Factory Set" in the Test Program.

PortableGrand

DGX-640W/DGX-640C

PARTS LIST


■ CONTENTS

OVERALL ASSEMBLY	2
UPPER CASE ASSEMBLY	5
BOTTOM BOARD ASSEMBLY.....	6
FOOT PEDAL.....	7
KEYBOARD ASSEMBLY.....	8
STAND ASSEMBLY.....	10
ELECTRICAL PARTS.....	12

Note) DESTINATION ABBREVIATIONS

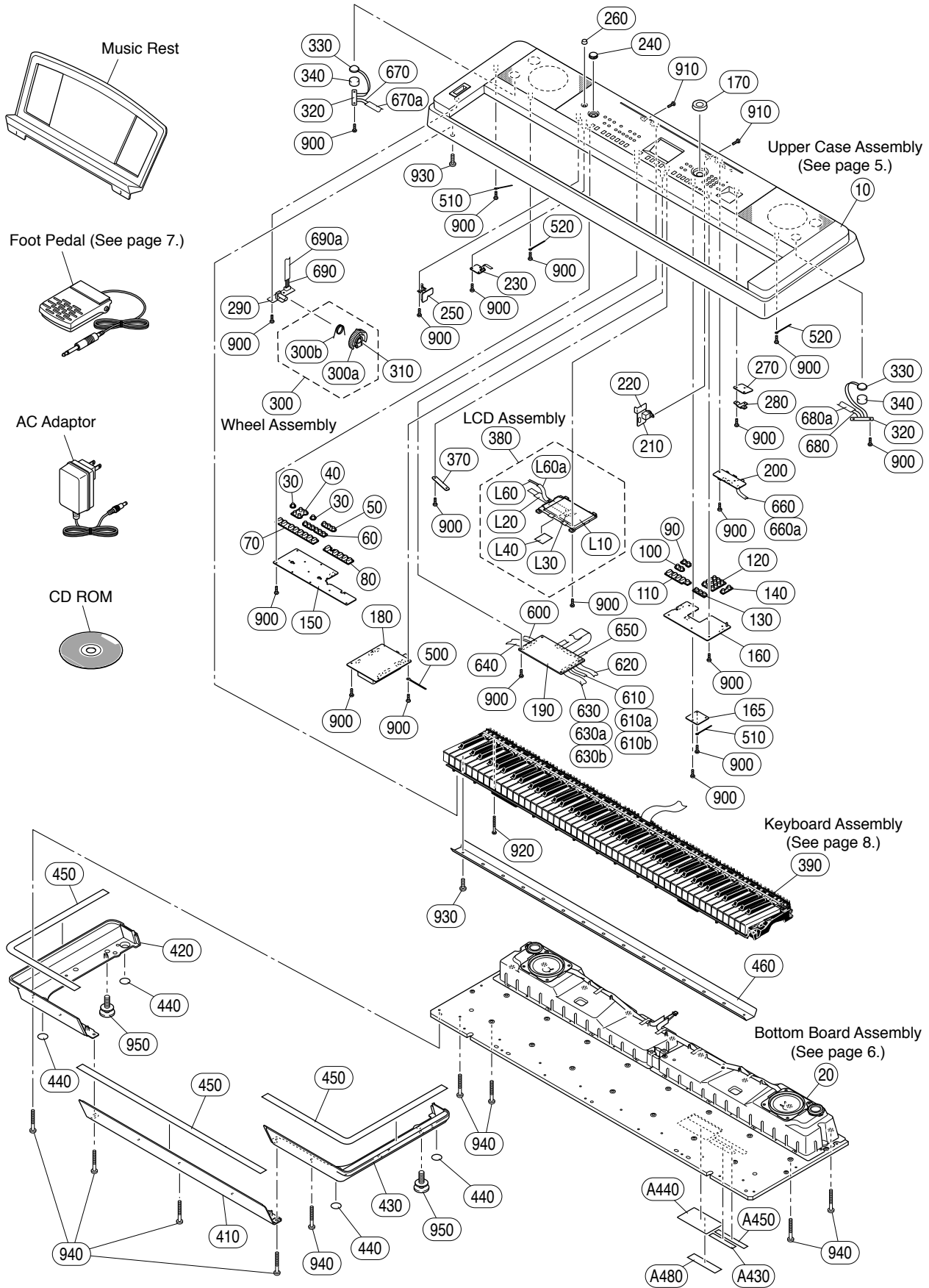
A: Australian model	O: Chinese model
B: British model	Q: South-east Asia model
C: Canadian model	T: Taiwan model
D: German model	U: U.S.A. model
E: European model	V: General export model (110V)
F: French model	W: General export model (220V)
H: North European model	N,X: General export model
I: Indonesian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

■ WARNING

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

- The numbers in "QTY" shows quantities for each unit.
- The parts with "--" in "Part No." are not available as spare parts.
- The second letter of the shaded () part number is I, not one.
- The second letter of the shaded () part number is O, not zero.

OVERALL ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
	--	OVERALL ASSEMBLY		総 組 立	DGX-640W/DGX-640C		
	--	FINAL ASSEMBLY		総 組 立	DGX-640W (WT98200)		
	--	FINAL ASSEMBLY		総 組 立	DGX-640C (WT98210)		
	--	UPPER CASE ASSEMBLY		上 ケー ス A s s ' y	DGX-640W (WT98870)		
	--	UPPER CASE ASSEMBLY		上 ケー ス A s s ' y	DGX-640C (WT98880)		
* 20	WT984500	BOTTOM BOARD ASSEMBLY		底 板 A s s ' y			
* 30	WT853600	PN_SWITCH	X1 WHITE	P N ス イ ッ チ	DEMO/BGM, REC	2	
* 40	WT853700	PN_SWITCH	X4 LIGHT GRAY	P N ス イ ッ チ	SCORE, LYRICS		
* 50	WT853800	PN_SWITCH	X3 LIGHT GRAY	P N ス イ ッ チ	WAITING, YOUR TEMPO, MINUS ONE		
* 60	WT853900	PN_SWITCH_PRINTED	X6 LIGHT GRAY	P N ス イ ッ チ 印 刷 品	R/1,L/2,3,4,5,A		
* 70	WT854100	PN_SWITCH	X8 DARK GRAY	P N ス イ ッ チ	METRONOME ON/OFF,REW,FF, TEMPO/TAP,REPEAT&LEARN, A-B REPEAT,START/STOP, PAUSE,TIME SIGNATURE, ACMP ON/OFF,SYNC START, SYNC STOP,MAIN/AUTO FILL, INTRO/ENDING/rit.		
* 80	WT854200	PN_SWITCH	X5 DARK GRAY	P N ス イ ッ チ	REGIST MEMORY,BANK,1-4		
* 90	WT854300	PN_SWITCH_PRINTED	X2 WHITE	P N ス イ ッ チ 印 刷 品	CATERORY(<<>>)		
* 100	WT854500	PN_SWITCH	X2 LIGHT GRAY	P N ス イ ッ チ	EXIT,FUNCTION		
* 110	WT854600	PN_SWITCH	X5 DARK GRAY	P N ス イ ッ チ	PORTABLE GRAND,STYLE, SONG,VOICE,MUSIC DATABASE		
* 120	WT854700	PN_SWITCH_PRINTED	X12 WHITE	P N ス イ ッ チ 印 刷 品	DATA ENTRY,0-9,-/NO,+/YES <>,DELETE		
* 130	WT854900	PN_SWITCH	X3 LIGHT GRAY	P N ス イ ッ チ	SPLIT ON/OFF,DUAL ON/OFF, HARMONY ON/OFF		
* 140	WT855000	PN_SWITCH	X2 DARK GRAY	P N ス イ ッ チ	FILE CONTROL,EXECUTE		
* 150	WT969700	CIRCUIT BOARD	PNL	P N L シ ー ト			
* 160	WT969800	CIRCUIT BOARD	PNR	P N R シ ー ト			
* 165	WT969600	CIRCUIT BOARD	ENC	E N C シ ー ト			
* 170	V8866501	ENCODER KNOB	GRAY	エ ン コ ー ダ ツ マ ミ	DATA ENTRY		01
* 180	WT968700	CIRCUIT BOARD	AM	A M シ ー ト			
* 190	WU178500	CIRCUIT BOARD	DM	D M シ ー ト			
* 200	WT968800	CIRCUIT BOARD	DJACK	D J A C K シ ー ト			
* 210	WT969500	CIRCUIT BOARD	PJK	P J K シ ー ト			
* 220	WT983000	NONWOVEN CLOTH		不 織 布			
* 230	WT969100	CIRCUIT BOARD	MVR	M V R シ ー ト			
* 240	V836130R	V-KNOB	GRAY	V ツ マ ミ	MASTER VOLUME		01
* 250	WT969000	CIRCUIT BOARD	PSW	P S W シ ー ト			
* 260	V715120R	PUSH KNOB	BLACK	プ ッ シ ュ ツ マ ミ ク ロ	STANDBY/ON		01
* 270	WT969300	CIRCUIT BOARD	USB	U S B シ ー ト			
* 280	WT788700	BRACKET		ブ ラ ケ ッ ト			
* 290	WT968900	CIRCUIT BOARD	PB	P B シ ー ト			
* 300	VY79310R	WHEEL ASSEMBLY		ホ イ ー ル A s s ' y	} PITCH BEND		04
* 300a	VY75080R	WHEEL		ホ イ ー ル			03
* 300a	VY750810	WHEEL		ホ イ ー ル			
* 300b	VT44010R	SPRING		ホ イ ー ル バ ネ			03
* 310	VE968501	GREASE PK G31KA (1KG)	G-31KA	グ リ ス			38
* 320	WT969200	CIRCUIT BOARD	TW	T W シ ー ト		2	
* 330	X0159A0R	SPEAKER	3.0cm	ス ピ ー カ	Tweeter	2	01
* 340	WD365700	SPONGE		ス ポ ン ジ		2	01
* 370	WT969400	CIRCUIT BOARD	MKO	M K O シ ー ト			
* 380	--	LCD ASSEMBLY		液 晶 A s s ' y	(WT98310)		
* 390	WT853200	GHL KEYBOARD TEXTURE	GHL A88 K6	G H L 鍵 盤 黒 シ ボ C			
* 410	WT787800	LOWER CASE F MOLDING		下 ケ ー ス F 成 形 品			
* 420	WT787400	LOWER CASE L MOLDING		下 ケ ー ス L 成 形 品			
* 430	WT787500	LOWER CASE R MOLDING		下 ケ ー ス R 成 形 品			
* 440	V928180R	FOOT	T1.6	ゴ ム 脚		4	01
* 450	WT983300	CUSHION	730X17X2	ク ッ シ ョ ン		3	
* 460	WU174900	REINFORCING PLATE	2.0	補 強 金 具			
* 500	CB81751R	CLIP, WIRE	S-14B-E,S-14	束 線 止 め			03
* 510	CB829850	CORD HOLDER	S-34B-E	束 線 止 め		2	03
* 520	CB836200	CORD CLAMP	S-70B-E	束 線 止 め		2	02
* 600	WT969900	FFC CABLE	FFC 12P 80mm P=1.0	F F C ケ ー ブ ル			
* 610	WP070500	FFC CABLE	FFC 5P 120mm	F F C A s s ' y			04
* 610a	--	FERRITE CORE	FSRC140200RXB00T	フ ェ ラ イ ト コ ア	(WP04360)		
* 610b	--	SPONGE10		防 振 ス ポ ン ジ 1 0	(WJ46240)	2	

* : New Parts

RANK : Japan only

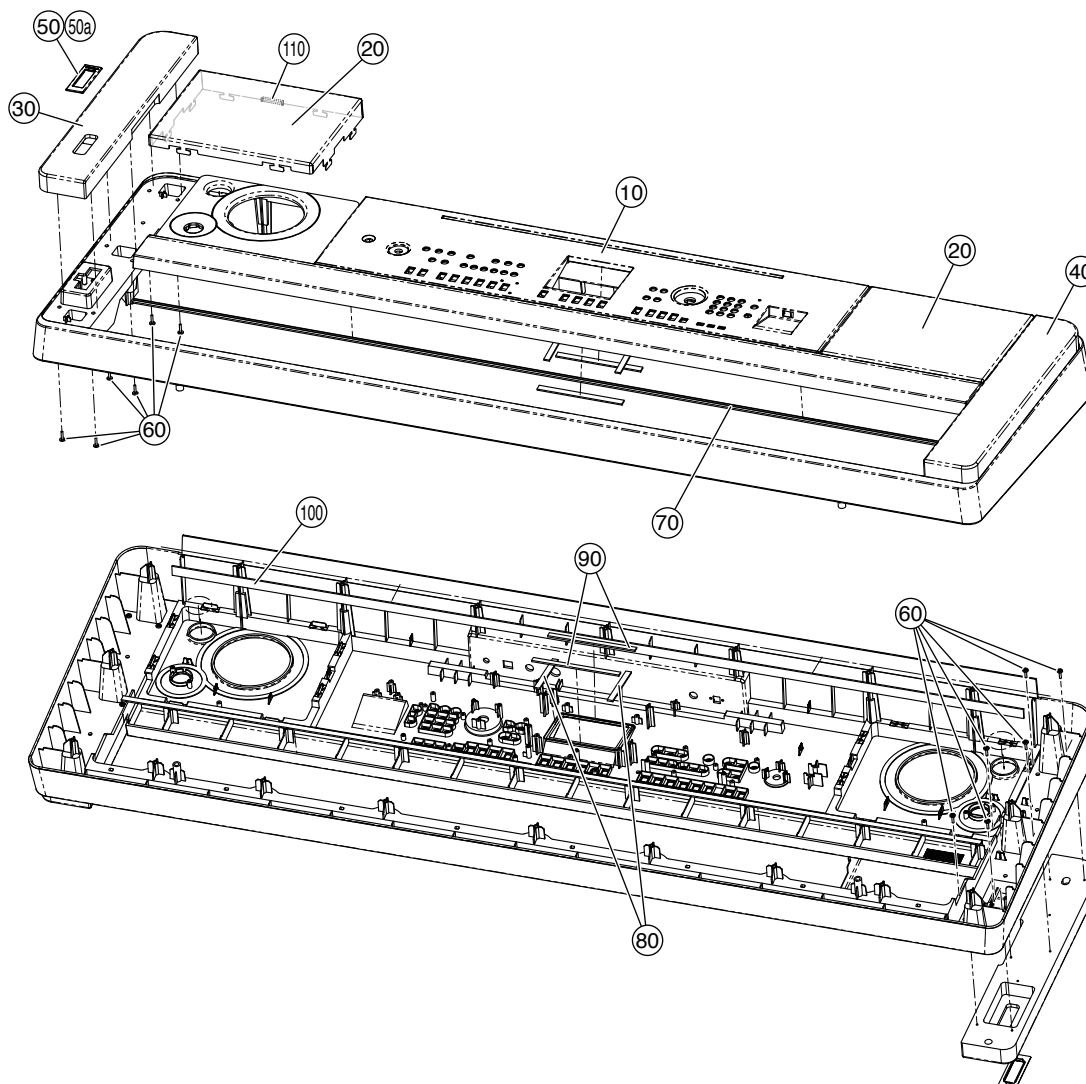
DGX-640W/DGX-640C

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
620	WN827900	FFC CABLE	FFC 12P 120mm P=1.0	F F C ケーブル		02
630	--	WIRING ASSEMBLY	FFC 2 W/SPONGE+LF	F F C A s s ' y 2	(WT97000)	
630a	WH376400	FERRITE CORE	FSRC222090RX000T	フェライトコア		
630b	WH413700	SPONGE12		防振スポンジ12		01
640	WT970100	FFC CABLE	FFC 19P 70mm P=1.0	F F C ケーブル		
650	WT970200	FFC CABLE	FFC 6P 80mm P=1.0	F F C ケーブル		
660	--	WIRING ASSEMBLY	FFC3 8P 130mm	F F C A s s ' y 3	(WU39370)	
660a	--	SPONGE20		防振スポンジ20	(WU39360)	2
670	--	WIRING ASSEMBLY	TWL 2P WITH SPONGE	T W L 束線	(WT97210)	
670a	--	SPONGE19		防振スポンジ19	(WU38560)	2
680	--	WIRING ASSEMBLY	TWR 2P WITH SPONGE	T W R 束線	(WT97230)	
680a	--	SPONGE14		防振スポンジ14	(WU17730)	2
690	--	WIRING ASSEMBLY	PB 3P WITH SPONGE	P B 束線	(WT97240)	
690a	--	SPONGE15		防振スポンジ15	(WU17740)	2
900	WE774301	BIND HEAD TAPPING SCREW-B	3.0X8 MFZN2W3	Bタイト+BIND		55 01
910	WE983600	BIND HEAD SCREW 3X8	3.0X8 MFZN2B3	小ネジ+BIND		3 01
920	WF47340R	BIND HEAD TAPPING SCREW-B	3.0X25 MFZN2W3	Bタイト+BIND		8 01
930	WE98120R	BIND HEAD TAPPING SCREW-B	4.0X12 MFZN2W3	Bタイト+BIND		10 01
940	WJ011400	BIND HEAD TAPPING SCREW-B	4.0X25 MFZN2W3	Bタイト+BIND		43 01
950	WF74240R	GUIDE SCREW 6X20	6.0X20. 3-14	ガイドスクリュー		2 02
A430	--	FORM REGULATION LABEL	U	ホルム規制ラベル	U (WT84920)	2
A440	--	NAME PLATE LABEL		銘板ラベル	U,C,E,B,Y,K (WU17440)	
A440	--	NAME PLATE	CHN	銘板ラベル	O (WT88920)	
A450	--	LABEL FCC NO APPROVE		F C C 未承認ラベル	(V279410)	
A480	WG319700	DUST PROOF CLOTH	128X31X0.5	不織布		01
L10	--	LCD ASSEMBLY		液晶 A s s ' y	(WT98310)	
L10	WN744800	LCD UNIT	CL	液晶ユニット		19
L20	WN969700	SPONGE		防振スポンジ		01
L30	WH376400	FERRITE CORE	FSRC222090RX000T	フェライトコア		
L40	--	ADHESIVE TAPE	#500 25X35	両面粘着テープ	(WP10900)	
L60	WB092100	CONNECTOR ASSEMBLY	BL 2P	B L 束線		01
L60a	WB097800	SPONGE 1		防振スポンジ1		2
	WG073800	ACCESSORIES		付属品		
	YC238A00	MUSIC REST		譜面板		05
	WU089600	CD-ROM	CDROM 12cm	C D - R O M		
	WK014700	FOOT PEDAL		フットペダル		
	WR527000	AC ADAPTOR	PA-150U U	A C アダプター	U,C	08
	WR527100	AC ADAPTOR	PA-150A E	A C アダプター	E	10
	WR527100	AC ADAPTOR	PA-150A B	A C アダプター	B	11
	WR527200	AC ADAPTOR	PA-150A CHN	A C アダプター	O	
	--	CHINESE SHEET SET		中文シート袋入り	(WT98470)	

* : New Parts

RANK : Japan only

■ UPPER CASE ASSEMBLY

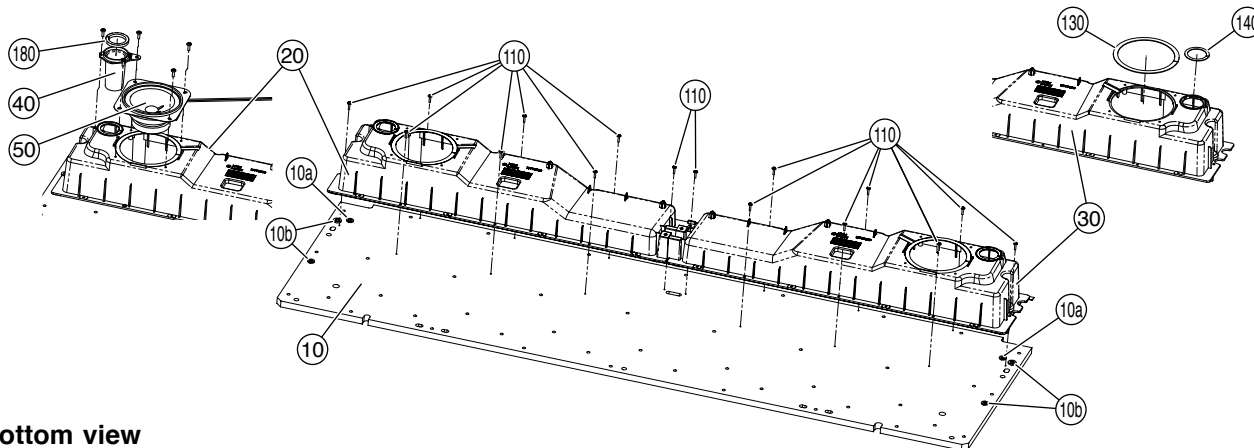


REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
	--	UPPER CASE ASSEMBLY		上 ケー ス A s s ' y	DGX-640W/DGX-640C		
	--	UPPER CASE ASSEMBLY		上 ケー ス A s s ' y	DGX-640W (WT98870)		
	--	UPPER CASE ASSEMBLY		上 ケー ス A s s ' y	DGX-640C (WT98880)		
* 10	WT853300	UPPER CASE FINISHED		上 ケー ス 塗 装 印 刷 品			
* 20	WT853400	SP GRILLE		S P グ リ ル 塗 装 品		2	
* 30	WT660400	KEY BLOCK L	LEFT	拍 子 木 L	DGX-640W		
* 30	WT660600	KEY BLOCK L	LEFT	拍 子 木 L	DGX-640C		
* 40	WT660500	KEY BLOCK R	RIGHT	拍 子 木 R	DGX-640W		
* 40	WT660700	KEY BLOCK R	RIGHT	拍 子 木 R	DGX-640C		
* 50	WG332800	PB ESCUTCHEON ASSEMBLY		P B エ ス カ A s s ' y			
* 50a	WH220300	ADHESIVE TAPE	#500 67X24	両 面 粘 着 テ ー プ			
* 60	WE95460R	BIND HEAD TAPPING SCREW-1	3.5X14 MFZN2W3	T P # 1 + B I N D		12	01
* 70	WG297300	FELT	88KEY	フ ェ ル ト			03
* 80	WH390100	CUSHION(PE)	80X8X2	ク ッ シ ョ ン (P E)		2	
* 90	WH390200	CUSHION(PE)	125X8X2	ク ッ シ ョ ン (P E)		2	
* 100	WT981400	CUSHION	1220X15X2	ク ッ シ ョ ン			
* 110	WN939000	NONWOVEN CLOTH	30X6X0.35	不 織 布		2	

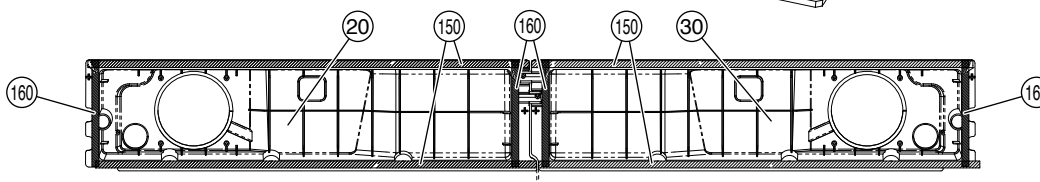
* : New Parts

RANK : Japan only

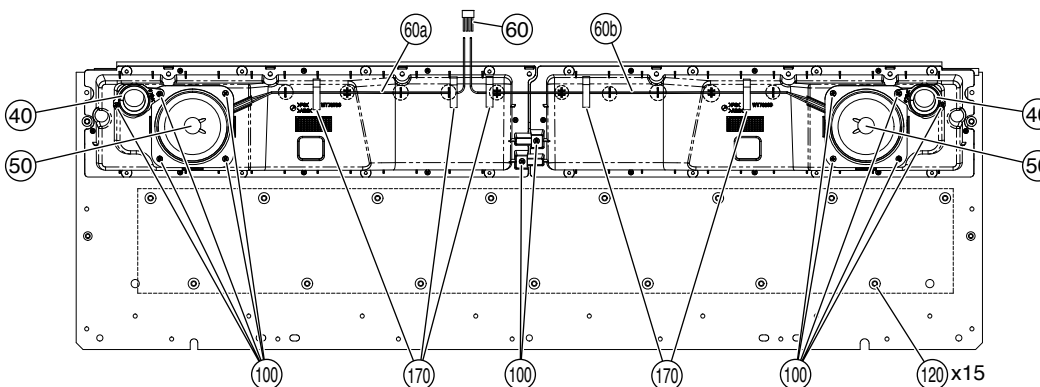
■ BOTTOM BOARD ASSEMBLY



● Bottom view



● Top view

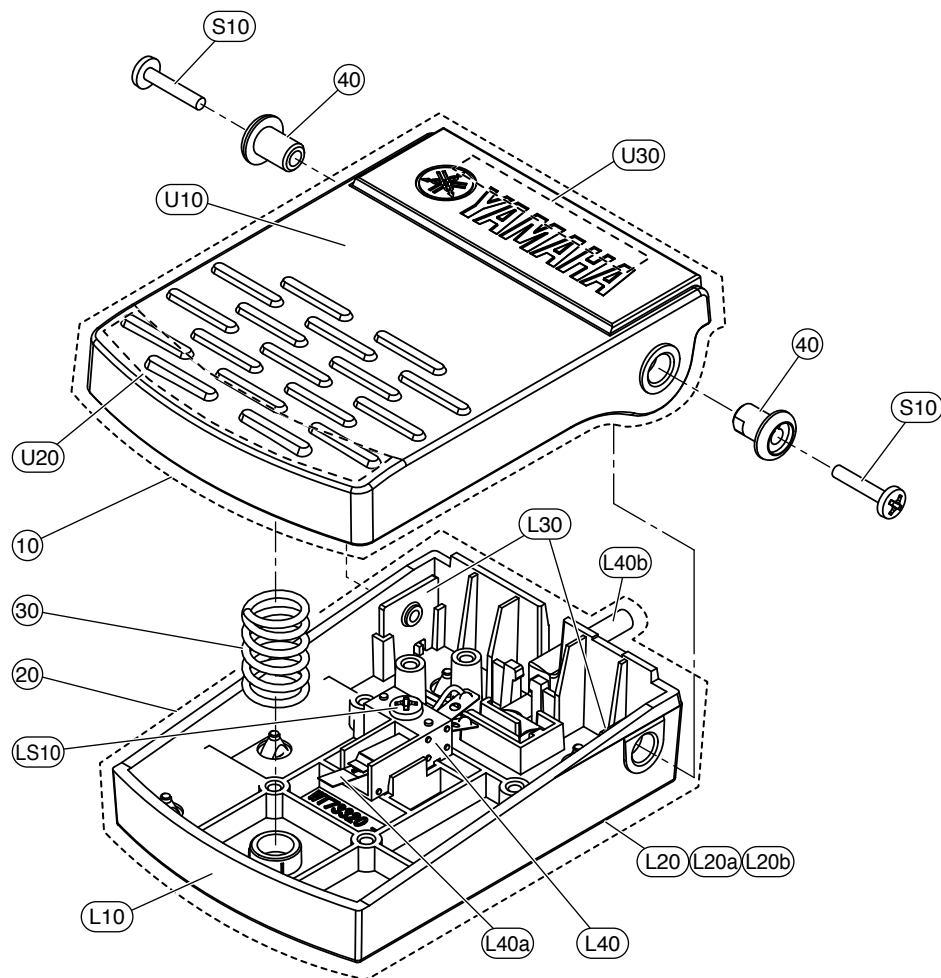


REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
*		BOTTOM BOARD ASSEMBLY		底 板 A s s ' y	DGX-640W/DGX-640C		
	WT984500	BOTTOM BOARD ASSEMBLY		底 板 A s s ' y			
10	--	BOTTOM SUB ASSEMBLY		底 板 木 部 集 成	(WT66030)		
10a	WF58240R	NUT 6.0X12.5B MFZN2W3	6.0X12.5 B	ナ ッ ト オ ニ メ		2	01
10b	WF73830R	NUT B5.0X12	B 5.0X12 MFZN2W3	ナ ッ ト オ ニ メ		4	01
20	--	SPEAKER BOX L	LEFT	ス ピ ー カ ー ボ ッ ク ス L	(WT78790)		
30	--	SPEAKER BOX R	RIGHT	ス ピ ー カ ー ボ ッ ク ス R	(WT78800)		
40	--	SPEAKER PORT		ス ピ ー カ ー ポ ー ト	(WT78820)	2	
* 50	YC594A00	LOUD SPEAKER	12.0cm 4 ohm 10W	ス ピ ー カ ー	Woofers	2	
60	--	WIRING ASSEMBLY	SP XH4P WITH SPONGE	S P 束 線	(WT97280)		
60a	--	SPONGE17		防 振 ス ポ ン ジ 1 7	(WU17820)		
60b	--	SPONGE18		防 振 ス ポ ン ジ 1 8	(WU17830)		
100	WE98120R	BIND HEAD TAPPING SCREW-B	4.0X12 MFZN2W3	B タ イ ト + B I N D		12	01
110	WE95460R	BIND HEAD TAPPING SCREW-1	3.5X14 MFZN2W3	T P # 1 + B I N D		16	01
120	--	SPACER		ス ペ ー サ	(WU17530)	15	
130	--	SEALING TAPE SP	395X8X1	シ ー ル テ ー プ S P	(WG31740)	2	
140	--	CUSHION(PE)	140X8X1	ク ッ シ ョ ン (P E)	(WT98170)	2	
150	--	CUSHION(PE)	640X10X1	ク ッ シ ョ ン (P E)	(WT98180)	4	
160	--	CUSHION(PE)	160X10X1	ク ッ シ ョ ン (P E)	(WT98190)	4	
170	VM722700	FILAMENT TAPE	12X60	粘 着 テ ー プ		5	
170	WB793900	PET TAPE	MY7# 12X70	P E T テ ー プ		5	
180	--	CUSHION	130X5X5	ク ッ シ ョ ン	(WU17520)	2	

* : New Parts

RANK : Japan only

■ FOOT PEDAL

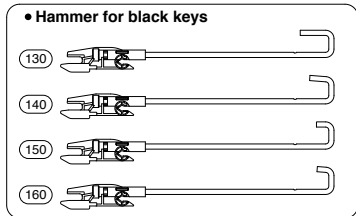
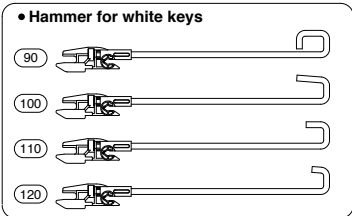
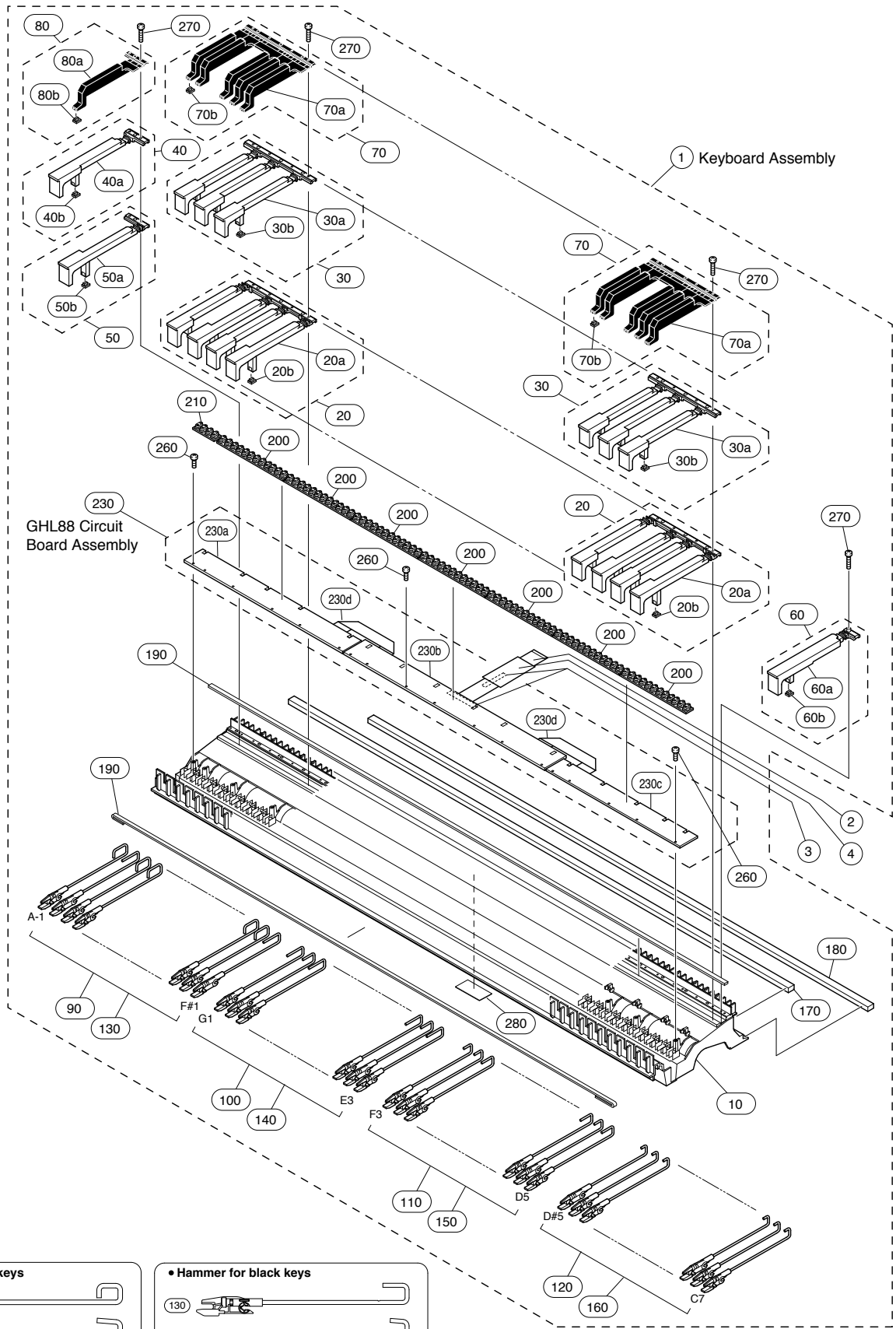


REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
*	WU089600	FOOT PEDAL	フットペダル	DGX-640W/DGX-640C		
	--	FOOT PEDAL	フットペダル			
	--	PEDAL FINAL ASSEMBLY	ペダル総組立	(WT73300)		
10	--	UPPER CASE ASSEMBLY	上ケース Ass'y	(WT75570)		
20	--	LOWER CASE ASSEMBLY	下ケース Ass'y	(WT75580)		
30	--	PEDAL SPRING	ペダルばね	(WT97780)		
40	--	SHAFT BUSH	回転軸ブッシュ	(WT97820)	2	
S10	WF303500	BIND HEAD SCREW 3X14	小ネジ+ B I N D		2	
	--	UPPER CASE ASSEMBLY	上ケース Ass'y	(WT75570)		
U10	--	UPPER CASE	上 ケ ー ス	(WT73310)		
U20	--	PEDAL FELT(1)	ペダルフェルト(1)	(WT97790)		
U30	--	PEDAL FELT(2)	ペダルフェルト(2)	(WT99170)		
	--	LOWER CASE ASSEMBLY	下ケース Ass'y	(WT75580)		
L10	--	LOWER CASE	下 ケ ー ス	(WT73320)		
L20	--	RUBBER SHEET ASSEMBLY	ゴム底 Ass'y	(WU00640)		
L20a	--	RUBBER BOTTOM SHEET	ゴム底シート	(WT75590)		
L20b	--	ADHESIVE TAPE	粘着テープ	(WU05470)		
L30	--	FIXED ANGLE	固定金具	(WT97800)	2	
L40	--	LEAF SWITCH ASSEMBLY	リーフスイッチ Ass'y	(WT97810)		
L40a	WK233100	LEAF SWITCH	リーフスイッチ			05
L40b	--	WIRE ASSEMBLY	ケーブル加工品	(WU01670)		
LS10	--	BIND HEAD TAPPING SCREW-B	B タイト+ B I N D	(WR90130)		

* : New Parts

RANK : Japan only

KEYBOARD ASSEMBLY

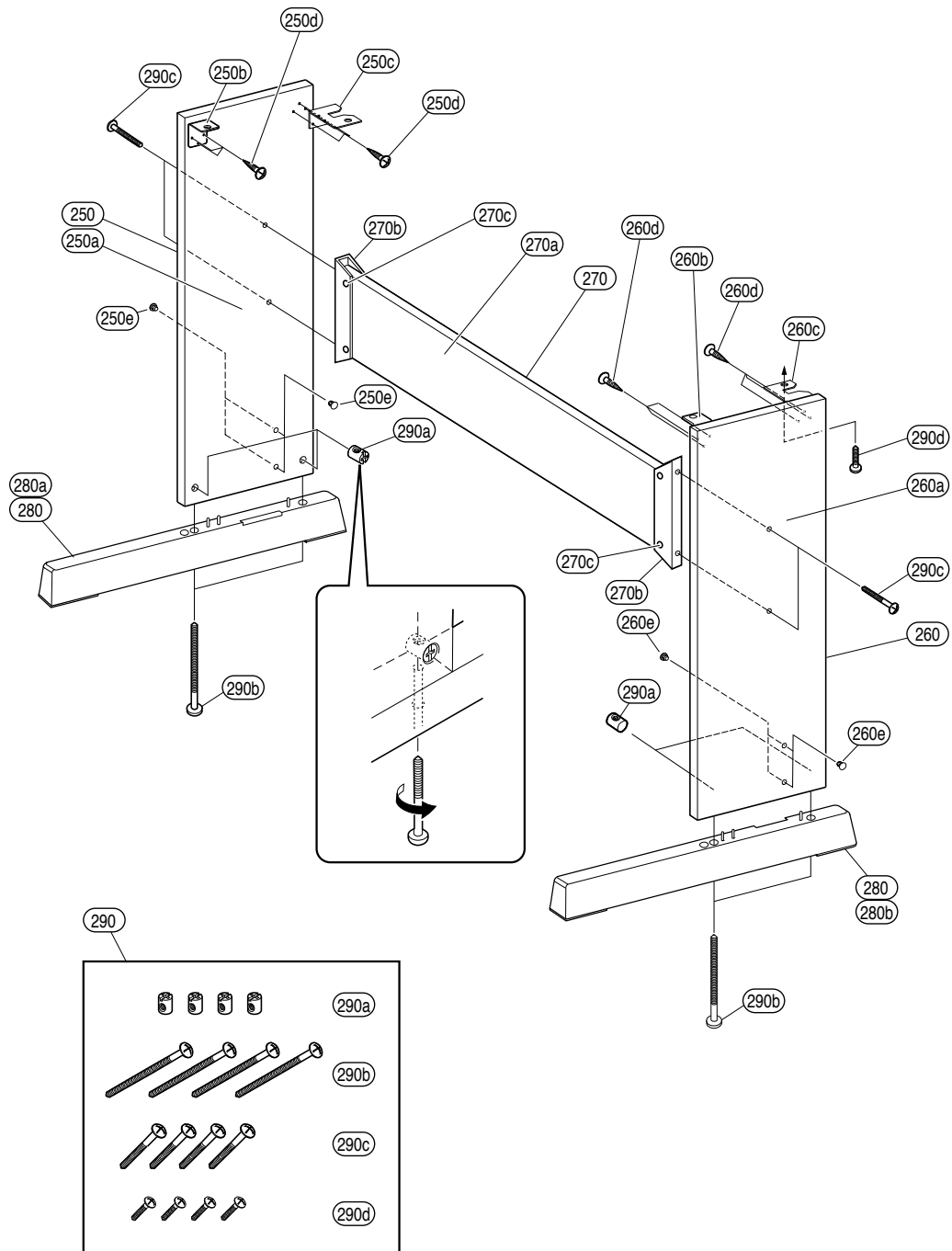


REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
* 1	WT853200	KEYBOARD ASSEMBLY	GHL A88 K6	G H L 鍵盤 A s s ' y	DGX-640W/DGX-640C		
	--	GHL KEYBOARD TEXTURE	GHL A88 K6	G H L 鍵盤 黒 シボ C			
* 2	WT973500	GHL B TEXTURE ASSEMBLY	GHL A88 K6	G H L 黒 シボ T A s s ' y	(WT87670)		
3	--	FLEXIBLE FLAT CABLE	27P L=350	カ ー ド 電 線			
4	--	FILAMENT TAPE	FILAMENT 12mmX50mm	フ ィ ラ メ ン ト テ ー プ	(WG47940)	2	
	--	SPONGE13	13	防 振 ス ポ ン ジ 1 3	(WK89530)		
10	--	GHL B TEXTURE ASSEMBLY	GHL A88 K6	G H L 黒 シボ T A s s ' y	(WT87670)		
20	--	KEYBOARD FRAME	GHL A88	フ レ ー ム 8 8 改	(WJ02700)		
	WJ029600	WHITE KEY ASSEMBLY		C E G B 白 鍵 A s s ' y 改		7	04
20a	--	WHITE KEYS	CEGB	白 鍵 C E G B 改	(WJ02730)		
20a	--	WHITE KEY	GHL CEGB	白 鍵 C E G B 改 2	(WN20830)		
20b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		4	01
20b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		4	01
30	WJ029700	WHITE KEY ASSEMBLY		D F A 白 鍵 A s s ' y 改		7	03
30a	--	WHITE KEYS	DFA	白 鍵 D F A 改	(WJ02740)		
30a	--	WHITE KEY	GHL DFA	白 鍵 D F A 改 2	(WN20840)		
30b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		3	01
30b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		3	01
40	WJ029900	WHITE KEY ASSEMBLY		A 白 鍵 A s s ' y 改			02
40a	--	WHITE KEY	A	白 鍵 A 改	(WJ02750)		
40a	--	WHITE KEY	GHL A	白 鍵 A 改 2	(WN20860)		
40b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
40b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
50	WJ030000	WHITE KEY ASSEMBLY		B 白 鍵 A s s ' y 改			02
50a	--	WHITE KEY	B	白 鍵 B 改	(WJ02760)		
50a	--	WHITE KEY	GHL B	白 鍵 B 改 2	(WN20870)		
50b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
50b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
60	WJ030100	WHITE KEY ASSEMBLY		C 白 鍵 A s s ' y 改			02
60a	--	WHITE KEY	C	白 鍵 C 改	(WJ02770)		
60a	--	WHITE KEY	GHL C	白 鍵 C 改 2	(WN20880)		
60b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
60b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
70	WN045200	B KEY TEXTURE		黒 鍵 シボ A s s ' y		7	05
70a	--	BLACK KEY TEXTURE		黒 鍵 シボ	(WM81240)		
70b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		5	01
70b	WN742300	ACTUATE RUBBER	GHL	駆 動 ラ バ ー		5	01
80	WN045300	A# B KEY TEXTURE		A # 黒 鍵 シボ A s s ' y			03
80a	--	BLACK KEY TEXTURE A#	A#	黒 鍵 シボ A #	(WN04510)		
80b	WG43760R	ACTUATE RUBBER	GHL	駆 動 ラ バ ー			01
90	WF15140R	HAMMER ASSEMBLY, WHITE KEY	W1 A-1 - F1	ハ ン マ ー W 1		13	02
100	WF15150R	HAMMER ASSEMBLY, WHITE KEY	W2 G1 - E3	ハ ン マ ー W 2		13	02
110	WF15160R	HAMMER ASSEMBLY, WHITE KEY	W3 F3 - D5	ハ ン マ ー W 3		13	02
120	WF15170R	HAMMER ASSEMBLY, WHITE KEY	W4 E5 - C7	ハ ン マ ー W 4		13	02
130	WF15180R	HAMMER ASSEMBLY, BLACK KEY	B1 A#-1 - F#1	ハ ン マ ー B 1		9	02
140	WF15190R	HAMMER ASSEMBLY, BLACK KEY	B2 G#1 - D#3	ハ ン マ ー B 2		9	02
150	WF15200R	HAMMER ASSEMBLY, BLACK KEY	B3 F#3 - C#5	ハ ン マ ー B 3		9	02
160	WF15210R	HAMMER ASSEMBLY, BLACK KEY	B4 D#5 - A#6	ハ ン マ ー B 4		9	02
170	WF21200R	STOPPER U88		ス ト ッ パ ー U 8 8			07
180	WK688700	STOPPER L88		ス ト ッ パ ー L 8 8			07
190	WF211900	LIMIT STOPPER	88	リ ミ ッ ト ス ト ッ パ ー		2	02
200	WF212202	RUBBER CONTACT	GHL OCT 2M	接 点 ゴ ム O C T	C#0-C1,C#1-C2,C#2-C3,C#3-C4, C#4-C5,C#5-C6,C#6-C7	7	05
210	WF212402	RUBBER CONTACT	GHL A-C 2M	接 点 ゴ ム A - C	A-1-C0		05
230	WG317500	CIRCUIT BOARD	GHL88	G H L 8 8 シ ー ト			
230a	WF21250R	CIRCUIT BOARD	GHL88L	G H L 8 8 シ ー ト L			13
230b	WF21260R	CIRCUIT BOARD	GHL88M	G H L 8 8 シ ー ト M			13
230c	WF21280R	CIRCUIT BOARD	GHL88H	G H L 8 8 シ ー ト H			12
230d	WF212900	CONNECTOR ASSEMBLY	17P	中 継 束 線		2	03
260	WF267300	BIND HEAD P-TIGHT SCREW	2.6X8 MFZN2W3	P タ イ ト + B I N D		18	01
270	WE97300R	BIND HEAD TAPPING SCREW-P	3.0X16 MFZN2W3	P タ イ ト + B I N D		31	01
280	WH711300	SPONGE GHS	GHS	防 振 ス ポ ン ジ G H S			
290	WC771500	GREASE	G-1030Y	グ リ ス			
290	WM498600	GREASE_BLUE	G-1066Y 16KG	グ リ ス 青			23

* : New Parts

RANK : Japan only

STAND ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
* 250	WT983400	STAND ASSEMBLY	スタンド A s s ' y	DGX-640W		
250a	--	SIDE BOARD L ASSEMBLY	側板 L A s s ' y	DGX-640W		
250b	VN973101	SIDE BOARD L	側板 L	DGX-640W (WT65540)		
250c	--	ANGLE BRACKET	S T. ア ン グ ル	DGX-640W		
250d	WE95510R	ST.ANGLE L L	S T. 受 け 金 具 L	DGX-640W (VS29550)		02
250e	--	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640W	6	01
260	WT983500	CAP BLACK	キャップ ブラック	DGX-640W (WN45580)	4	
260a	--	SIDE BOARD R ASSEMBLY	側板 R A s s ' y	DGX-640W		
260b	VN973101	SIDE BOARD R	側板 R	DGX-640W (WT65550)		
260c	--	ANGLE BRACKET, ST	S T. ア ン グ ル	DGX-640W		
260d	VS295601	ST ANGLE R	S T. 受 け 金 具 R	DGX-640W		02
260e	WE95510R	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640W	6	01
270	--	CAP	キャップ ブラック	DGX-640W (WN45580)	4	
270a	WT984100	STAND RAIL ASSEMBLY	框 A s s ' y	DGX-640W		
270b	--	STAND RAIL	スタンド 框	DGX-640W (WT65370)		
270c	WE95510R	ANGLE BRACKET	框 補 強 金 具	DGX-640W (WA69460)	2	
270d	--	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640W	8	01
270e	--	TOE BLOCK BAG UP	妻 土 台 袋 入	(WT98430)		
280a	WT788300	TOE BLOCK L	妻 土 台 L			
280b	WT788400	TOE BLOCK R	妻 土 台 R			
290	WN055000	SCREW SET	ネ ジ セ ッ ト			06
290a	WF55910R	JOINT CONNECTOR	ナ ッ ト 特 殊		4	01
290b	WF49230R	TRUSS HEAD SCREW	特 注 ネ ジ + T R U S		4	01
290c	WH287000	TRUSS HEAD SCREW	特 注 ネ ジ + T R U S		4	01
290d	WF49240R	TRUSS HEAD SCREW	小 ネ ジ + T R U S		4	01
* 250	WT983600	STAND ASSEMBLY	スタンド A s s ' y	DGX-640C		
250a	--	SIDE BOARD L ASSEMBLY	側板 L A s s ' y	DGX-640C		
250b	V8390100	SIDE BOARD L	側板 L	DGX-640C (WT65560)		
250c	--	ANGLE BRACKET, ST	S T. ア ン グ ル	DGX-640C		02
250d	WE97070R	ST.ANGLE L	S T. 受 け 金 具 L	DGX-640C (WU17420)		
250e	WN455700	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640C	6	01
260	WT983700	CAP	キャップ グレー	DGX-640C	4	01
260a	--	SIDE BOARD R ASSEMBLY	側板 R A s s ' y	DGX-640C		
260b	V8390100	SIDE BOARD R	側板 R	DGX-640C (WT65570)		
260c	--	ANGLE BRACKET, ST	S T. ア ン グ ル	DGX-640C		02
260d	WE97070R	ST ANGLE R	S T. 受 け 金 具 R	DGX-640C (WU17430)		
260e	WN455700	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640C	6	01
270	WG295100	CAP	キャップ グレー	DGX-640C	4	01
270a	--	STAND RAIL ASSEMBLY	框 A s s ' y	DGX-640C		13
270b	WA69480R	STAND RAIL	スタンド 框	DGX-640C (WT99680)		
270c	WE97070R	ANGLE BRACKET	框 補 強 金 具	DGX-640C	2	04
280	--	BIND HEAD TAPPING SCREW-1	T P # 1 + B I N D	DGX-640C	8	01
280a	WT788300	TOE BLOCK BAG UP	妻 土 台 袋 入	(WT98430)		
280b	WT788400	TOE BLOCK L	妻 土 台 L			
280c	WT788400	TOE BLOCK R	妻 土 台 R			
290	WN055000	SCREW SET	ネ ジ セ ッ ト			06
290a	WF55910R	JOINT CONNECTOR	ナ ッ ト 特 殊		4	01
290b	WF49230R	TRUSS HEAD SCREW	特 注 ネ ジ + T R U S		4	01
290c	WH287000	TRUSS HEAD SCREW	特 注 ネ ジ + T R U S		4	01
290d	WF49240R	TRUSS HEAD SCREW	小 ネ ジ + T R U S		4	01

* : New Parts

RANK : Japan only

■ ELECTRICAL PARTS AM, DJACK, PB, TW, USB

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
		ELECTRICAL PARTS	電 気 部 品	DGX-640W/DGX-640C		
*	WT968700	CIRCUIT BOARD	A M シ ー ト	(WT73170)(YC254D0)		
*	WT968800	CIRCUIT BOARD	D J A C K シ ー ト	(WT73170)(YC254D0)		
*	WT968900	CIRCUIT BOARD	P B シ ー ト	(WT73170)(YC254D0)		
*	WT969200	CIRCUIT BOARD	T W シ ー ト	(WT73170)(YC254D0)		
*	WT969300	CIRCUIT BOARD	U S B シ ー ト	(WT73170)(YC254D0)		
*	WU178500	CIRCUIT BOARD	D M シ ー ト	(WU17840)(X9119D0)		
*	WF21250R	CIRCUIT BOARD	G H L 8 8 シ ー ト L	(WF46230)(X6244D0)		13
*	WF21260R	CIRCUIT BOARD	G H L 8 8 シ ー ト M	(WF46240)(X6245G0)		13
*	WF21280R	CIRCUIT BOARD	G H L 8 8 シ ー ト H	(WF46250)(X6246D0)		12
*	WT969700	CIRCUIT BOARD	P N L シ ー ト	(WT73160)(YC253C0)		
*	WT969800	CIRCUIT BOARD	P N R シ ー ト	(WT73160)(YC253C0)		
*	WT969600	CIRCUIT BOARD	E N C シ ー ト	(WT73160)(YC253C0)		
*	WT969400	CIRCUIT BOARD	M K O シ ー ト	(WT73160)(YC253C0)		
*	WT969100	CIRCUIT BOARD	M V R シ ー ト	(WT73160)(YC253C0)		
*	WT969500	CIRCUIT BOARD	P J K シ ー ト	(WT73160)(YC253C0)		
*	WT969000	CIRCUIT BOARD	P S W シ ー ト	(WT73160)(YC253C0)		
*	WT968700	CIRCUIT BOARD	A M シ ー ト	(WT73170)(YC254D0)		
*	WT968800	CIRCUIT BOARD	D J A C K シ ー ト	(WT73170)(YC254D0)		
*	WT968900	CIRCUIT BOARD	P B シ ー ト	(WT73170)(YC254D0)		
*	WT969200	CIRCUIT BOARD	T W シ ー ト	(WT73170)(YC254D0)		
*	WT969300	CIRCUIT BOARD	U S B シ ー ト	(WT73170)(YC254D0)		
60	WE774301	SCREW TP #B +BIND	B タ イ ト + B I N D		4	01
70	04121250	SILICON GREASE	シ リ コ ン グ リ ス			
70	VA798100	SILICON GREASE	シ リ コ ン グ リ ス			
80	V4724500	NONWOVEN CLOTH	不 織 布		2	
90	WH219600	NONWOVEN FABRIC	不 織 布			
100	--	JUMPER CABLE	ジ ャ ン パ ー 線	(VA07890)	38	
110	WT982900	REINFORCEMENT FRAME	取 付 金 具			
C101	UA354470	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C101	VS884200	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C102	UA354470	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C102	VS884200	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C103	UR749680	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			03
C103	V3773200	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C104	UR867100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C104	V3512300	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C105	UR867100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C105	V3512300	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C106	VC69480R	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン			01
C106	VM902400	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン 天 津			01
-109	VC69480R	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン			01
-109	VM902400	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン 天 津			01
C110	WF40500R	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C110	WF448900	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C111	WF40500R	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C111	WF448900	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C201	FG613100	CERAMIC CAPACITOR	セ ラ コ ン (B)			01
C201	VR02620R	CERAMIC CAPACITOR	セ ラ コ ン 2 B 天 津 製			
C202	FG613100	CERAMIC CAPACITOR	セ ラ コ ン (B)			01
C202	VR02620R	CERAMIC CAPACITOR	セ ラ コ ン 2 B 天 津 製			
C203	V5515100	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C203	VE325700	MONOLITHIC POLYESTER F. CAP.	積 層 マ イ ラ ー コ ン			
C204	V5515100	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C204	VE325700	MONOLITHIC POLYESTER F. CAP.	積 層 マ イ ラ ー コ ン			
C207	UR838100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C207	V350850R	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C208	UR838100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C208	V350850R	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C209	UR867100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C209	V3512300	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C210	VC69480R	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン			01
C210	VM902400	SEMICONDUCTOR CERAMIC CAP.	半 導 体 セ ラ コ ン 天 津			01
C211	UR867100	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			01
C211	V3512300	ELECTROLYTIC CAPACITOR	ケ ミ コ ン			
C212	UA355100	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			01
C212	V5515400	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			
C212	VR168300	MONOLITHIC POLYESTER F. CAP.	積 層 マ イ ラ ー コ ン			01
-215	UA355100	POLYESTER FILM CAPACITOR	マ イ ラ ー コ ン			01

* : New Parts

RANK : Japan only

AM, DJACK, PB, TW, USB

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
-215	V5515400	POLYESTER FILM CAPACITOR	0.1000 50V J	マ イ ラ ー コ ン		
-215	VR168300	MONOLITHIC POLYESTER F. CAP.	ECQ-V1H104JL3	積 層 マ イ ラ ー コ ン		01
C216	UR837330	ELECTROLYTIC CAPACITOR	33.00 16.0V RX TP	ケ ミ コ ン		01
C216	V3508300	ELECTROLYTIC CAPACITOR	33.00 16.0V TP	ケ ミ コ ン		
C217	UR837330	ELECTROLYTIC CAPACITOR	33.00 16.0V RX TP	ケ ミ コ ン		01
C217	V3508300	ELECTROLYTIC CAPACITOR	33.00 16.0V TP	ケ ミ コ ン		
C218	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
C218	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
-220	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
-220	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
C302	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
C302	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
C303	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
C303	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
C403	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
C403	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
C405	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
C405	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
-408	VC69480R	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z	半 導 体 セ ラ コ ン		01
-408	VM902400	SEMICONDUCTOR CERAMIC CAP.	0.1000 25V Z FORM.	半 導 体 セ ラ コ ン 天 津		01
CN101	VK024800	CONNECTOR	52147 4P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN102	VK024600	CONNECTOR	52147 2P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN103	VK024700	CONNECTOR	52147 3P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN104	WD36990R	CONNECTOR	52806-1910 19PIN	F F C コ ネ ク タ		01
CN201	VK024600	CONNECTOR	52147 2P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN202	VK024600	CONNECTOR	52147 2P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN203	VL844800	CONNECTOR	XH 4P TE	ベ ー ス ツ キ ポ ス ト		01
CN204	VK024900	CONNECTOR	52147 5P TE	ワ イ ヤ ー ト ラ ッ プ		01
CN301	V492820R	CONNECTOR	52806-1210 12P TE	F F C コ ネ ク タ		01
CN302	WA780300	CONNECTOR	52806 5P TE	F F C コ ネ ク タ		01
CN303	WB121200	CONNECTOR	52806 8P TE	F F C コ ネ ク タ		01
CN304	WB121200	CONNECTOR	52806 8P TE	F F C コ ネ ク タ		01
CN401	VK024700	CONNECTOR	52147 3P TE	ワ イ ヤ ー ト ラ ッ プ		01
D101	VV73140R	DIODE	2A02-05 X0	ダ イ オ ー ド		01
D101	WV008800	DIODE	2A02-A0	ダ イ オ ー ド		01
FZ001	WD15800R	FUSE TSD 4A 250V (P)	4.00A	ヒ ュ ー ズ 2 5 0 V		01
HS001	WG299400	HEAT SINK		放 熱 板		
IC101	X5525A00	IC	NJM317F	レギュレーター	REGULATOR ADJUSTABLE	
IC102	XJ607A00	IC	NJM7805FA 5V	レギュレーター	REGULATOR +5V	02
IC201	XY209A0R	IC	LA4625-E 13.5W	パワーアンプ	POWER AMP 13.5W	05
J9	-	JUMPER CABLE	0.55 TIIN	ジ ャ ン パ ー 線	(VA07890)	
JK101	LB302260	CONNECTOR	HEC0470-01-630	電 源 コ ネ ク タ	DC IN 12V	02
JK101	V655760R	CONNECTOR	HTJ-020-05AZ	電 源 コ ネ ク タ		04
JK201	LB101870	CONNECTOR	YKB21-5006	ホ ー ン コ ネ ク タ	PHONES/OUTPUT	03
JK201	VV943300	CONNECTOR	HTJ064-04A	ホ ー ン コ ネ ク タ		02
JK301	VC68750R	CONNECTOR	YKB21-5014 BLACK	ホ ー ン コ ネ ク タ (黒)	SUSTAIN	01
JK301	WE24520R	CONNECTOR	JY-6314-01-020 BLACK	ホ ー ン コ ネ ク タ (黒)		
JK302	V6802600	CONNECTOR	USB 4P SE	U S B ジ ャ ッ ク	USB TO HOST	02
JK302	WR890200	CONNECTOR	KM13200074 4P SE	U S B コ ネ ク タ		
JK303	WH382500	CONNECTOR	UAR27 4P SE	U S B コ ネ ク タ		
JK303	WK450700	CONNECTOR	YKF45-0033N 4P SE	U S B コ ネ ク タ	USB TO DEVICE	
JK303	WQ353300	CONNECTOR	KM13200073 4P SE	U S B コ ネ ク タ		
L101	V679560R	LINE FILTER	BDL40-01	ラ イ ン フ ィ ル タ ー		
L101	VQ88400R	COIL	CM08RB01 RX	ラ イ ン フ ィ ル タ ー		03
L201	VB835000	COIL 20U FL5R200QNT	FL05RD200AT	コ イ ル 2 0 U		01
L201	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津		01
L202	VB835000	COIL 20U FL5R200QNT	FL05RD200AT	コ イ ル 2 0 U		01
L202	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津		01
L301	VB835000	COIL 20U FL5R200QNT	FL05RD200AT	コ イ ル 2 0 U		01
L301	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津		01
L302	VB835000	COIL 20U FL5R200QNT	FL05RD200AT	コ イ ル 2 0 U		01
L302	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津		01
L707	GE300670	FERRIT	BL02RN2R1P1A T	フ ェ ラ イ ト ビ ー ズ		02
R101	HF45510R	CARBON RESISTOR	100.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R101	V254800R	CARBON RESISTOR	100.0 1/6J 26TP	カ ー ボ ン 抵 抗		01
-104	HF45510R	CARBON RESISTOR	100.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
-104	V254800R	CARBON RESISTOR	100.0 1/6J 26TP	カ ー ボ ン 抵 抗		01
R105	HF455120	CARBON RESISTOR	120.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R105	V2548100	CARBON RESISTOR	120.0 1/6J 26TP	カ ー ボ ン 抵 抗		01
R106	HF455390	CARBON RESISTOR	390.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01

* : New Parts

RANK : Japan only

AM, DJACK, PB, TW, USB, DM

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
* R106	V2548700	CARBON RESISTOR	390.0 1/6J 26TP	カ ー ボ ン 抵 抗		
R201	HF456390	CARBON RESISTOR	3.9K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R201	V2549900	CARBON RESISTOR	3.9K 1/6 J 26TP	カ ー ボ ン 抵 抗		
-204	HF456390	CARBON RESISTOR	3.9K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
-204	V2549900	CARBON RESISTOR	3.9K 1/6 J 26TP	カ ー ボ ン 抵 抗		
R205	HF45727R	CARBON RESISTOR	27.0K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R205	V2550900	CARBON RESISTOR	27.0K 1/6J 26TP	カ ー ボ ン 抵 抗		
R206	WD55670R	FLAME PROOF CARBON RESISTOR	2.2 1/4 J TE-26	不 燃 化 カ ー ボ ン 抵 抗		01
-209	WD55670R	FLAME PROOF CARBON RESISTOR	2.2 1/4 J TE-26	不 燃 化 カ ー ボ ン 抵 抗		01
R210	HF45468R	CARBON RESISTOR	68.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R210	V2547800	CARBON RESISTOR	68.0 1/6J 26TP	カ ー ボ ン 抵 抗		
R211	HF45468R	CARBON RESISTOR	68.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R211	V2547800	CARBON RESISTOR	68.0 1/6J 26TP	カ ー ボ ン 抵 抗		
R212	HF455330	CARBON RESISTOR	330.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R212	V254860R	CARBON RESISTOR	330.0 1/6J 26TP	カ ー ボ ン 抵 抗		
R213	HF455330	CARBON RESISTOR	330.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R213	V254860R	CARBON RESISTOR	330.0 1/6J 26TP	カ ー ボ ン 抵 抗		
R214	HF456470	CARBON RESISTOR	4.7K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R214	V255000R	CARBON RESISTOR	4.7K 1/6 J 26TP	カ ー ボ ン 抵 抗		
R215	HF456470	CARBON RESISTOR	4.7K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R215	V255000R	CARBON RESISTOR	4.7K 1/6 J 26TP	カ ー ボ ン 抵 抗		
R216	HF454100	CARBON RESISTOR	10.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R217	HF454100	CARBON RESISTOR	10.0 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R301	HF456180	CARBON RESISTOR	1.8K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R301	V2549500	CARBON RESISTOR	1.8K 1/6 J 26TP	カ ー ボ ン 抵 抗		
R302	HF457330	CARBON RESISTOR	33.0K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R302	V2551000	CARBON RESISTOR	33.0K 1/6J 26TP	カ ー ボ ン 抵 抗		
R303	HF456470	CARBON RESISTOR	4.7K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R303	V255000R	CARBON RESISTOR	4.7K 1/6 J 26TP	カ ー ボ ン 抵 抗		
R312	HF45727R	CARBON RESISTOR	27.0K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
R312	V2550900	CARBON RESISTOR	27.0K 1/6J 26TP	カ ー ボ ン 抵 抗		
-314	HF45727R	CARBON RESISTOR	27.0K 1/4 J AX TP	カ ー ボ ン 抵 抗		01
-314	V2550900	CARBON RESISTOR	27.0K 1/6J 26TP	カ ー ボ ン 抵 抗		
TR301	WH336700	TRANSISTOR	2SC2062STP 10000 T	ト ラ ン ジ ス タ 2 S C		01
TR301	WH376600	TRANSISTOR	2SC982TM(TPE2,F)	ト ラ ン ジ ス タ 2 S C		
VR301	VV04910R	ROTARY VARIABLE RESISTOR	B 10K RK09K1110	ロ ー タ リ ー V R	CONTRAST	01
VR401	VZ48630R	ROTARY VR	B10K EVJ05DF20B14	ロ ー タ リ ー V R	PITCH BEND	03
* C1	WU178500	CIRCUIT BOARD	DM	D M シ ー ト	(WU17840)(X9119D0)	
C1	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C2	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C3	UF03810R	CAPACITOR	100 16V	チ ッ プ ケ ミ コ ン		01
C22	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
-29	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C30	UF037100	CAPACITOR	10 16V	チ ッ プ ケ ミ コ ン		01
C31	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C32	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
-41	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C42	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C43	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C44	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C45	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C46	WG888300	MONOLITHIC CERAMIC CAP(CHIP)	10.0 6.3V K TP	チ ッ プ 積 層 セ ラ コ ン		01
C47	US061220	CERAMIC CAPACITOR (CHIP)	22P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C48	US061220	CERAMIC CAPACITOR (CHIP)	22P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C49	WG888300	MONOLITHIC CERAMIC CAP(CHIP)	10.0 6.3V K TP	チ ッ プ 積 層 セ ラ コ ン		01
C50	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C51	US063100	CERAMIC CAPACITOR (CHIP)	1000P 50V K RECT.	チ ッ プ セ ラ (B)		01
C52	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
-57	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C58	WG888300	MONOLITHIC CERAMIC CAP(CHIP)	10.0 6.3V K TP	チ ッ プ 積 層 セ ラ コ ン		01
C59	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
-66	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C67	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C68	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C69	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C70	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C71	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C72	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C73	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チ ッ プ セ ラ (S L)		01

* : New Parts

RANK : Japan only

DM

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
C74	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C75	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C76	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C77	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C78	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C79	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C80	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C81	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C82	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C83	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C84	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C85	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C86	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C87	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C88	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C89	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C90	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C91	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C92	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C93	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C94	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C95	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C96	UF03810R	CAPACITOR	100 16V	チップケミコン			01
C97	UF03810R	CAPACITOR	100 16V	チップケミコン			01
C98	UF037100	CAPACITOR	10 16V	チップケミコン			01
C99	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C100	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C101	US062470	CERAMIC CAPACITOR (CHIP)	470P 50V J RECT.	チップセラ (S L)			01
C102	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C103	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C105	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C107	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C108	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C109	UF037100	CAPACITOR	10 16V	チップケミコン			01
C110	UF037100	CAPACITOR	10 16V	チップケミコン			01
C111	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
-113	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C114	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チップセラ (F)			01
C115	UF037100	CAPACITOR	10 16V	チップケミコン			01
C116	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
-119	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チップセラ (B)			01
C120	US063270	CERAMIC CAPACITOR (CHIP)	2700P 50V K RECT.	チップセラ (B)			01
C121	US063270	CERAMIC CAPACITOR (CHIP)	2700P 50V K RECT.	チップセラ (B)			01
C122	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チップセラ (F)			01
C123	US063270	CERAMIC CAPACITOR (CHIP)	2700P 50V K RECT.	チップセラ (B)			01
C124	US063270	CERAMIC CAPACITOR (CHIP)	2700P 50V K RECT.	チップセラ (B)			01
C125	UF06610R	CAPACITOR	1 50V	チップケミコン			01
C126	UF06610R	CAPACITOR	1 50V	チップケミコン			01
C127	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
-141	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C142	UF03810R	CAPACITOR	100 16V	チップケミコン			01
C143	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
-146	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C147	US063100	CERAMIC CAPACITOR (CHIP)	1000P 50V K RECT.	チップセラ (B)			01
C148	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
-151	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C153	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
-157	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C158	UF03810R	CAPACITOR	100 16V	チップケミコン			01
C159	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C160	WG888300	MONOLITHIC CERAMIC CAP(CHIP)	10.0 6.3V K TP	チップ積層セラコン			01
C161	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チップセラ (F)			01
C164	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チップセラ (F)			01
C165	US063100	CERAMIC CAPACITOR (CHIP)	1000P 50V K RECT.	チップセラ (B)			01
C166	US063100	CERAMIC CAPACITOR (CHIP)	1000P 50V K RECT.	チップセラ (B)			01
C167	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チップセラ (C H)			01
C168	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チップセラ (S L)			01
C169	UF03810R	CAPACITOR	100 16V	チップケミコン			01
C170	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チップセラ (C H)			01
C171	UF15810R	CAPACITOR	100 35V	チップケミコン			01

* : New Parts

RANK : Japan only

DM

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
C171	WB29110R	CAPACITOR	35V EEE1VA101UP	チ ッ プ ケ ミ コ ン		
C172	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C173	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C174	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C175	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C176	US14510R	CERAMIC CAPACITOR (CHIP)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)		01
C177	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C178	US062390	CERAMIC CAPACITOR (CHIP)	390P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C179	US06127R	CERAMIC CAPACITOR (CHIP)	27P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C180	US061470	CERAMIC CAPACITOR (CHIP)	47P 50V J RECT.	チ ッ プ セ ラ (C H)		01
-193	US061470	CERAMIC CAPACITOR (CHIP)	47P 50V J RECT.	チ ッ プ セ ラ (C H)		01
C194	UF03810R	CAPACITOR	100 16V	チ ッ プ ケ ミ コ ン		01
C197	US063100	CERAMIC CAPACITOR (CHIP)	1000P 50V K RECT.	チ ッ プ セ ラ (B)		01
C198	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
-202	US062100	CERAMIC CAPACITOR (CHIP)	100P 50V J RECT.	チ ッ プ セ ラ (S L)		01
C203	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
C210	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
-223	US064100	CERAMIC CAPACITOR (CHIP)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)		01
CN2	WK843000	CONNECTOR	52852 14P SE	F F C コ ネ ク タ ー		02
CN3	WC194500	CONNECTOR	52808 6P TE	F F C / F P C コ ネ ク		
CN6	WG468500	CONNECTOR	52852 27P SE	F F C コ ネ ク タ ー		
CN7	WC19940R	CONNECTOR	52808 19P TE	F F C / F P C コ ネ ク		01
CN8	WC19500R	CONNECTOR	52808 12P TE	F F C / F P C コ ネ ク		01
CN9	WC19500R	CONNECTOR	52808 12P TE	F F C / F P C コ ネ ク		01
CN10	WC195300	CONNECTOR	52808 15P TE	F F C / F P C コ ネ		01
CN11	WC194400	CONNECTOR	52808 5P TE	F F C / F P C コ ネ ク		01
D2	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		
D2	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
-7	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		01
-7	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
D9	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		01
D9	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
-18	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		01
-18	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
D27	V2376600	DIODE	RB500V-40 TAPING	シ ョ ッ ト キ ダイ オ ー ド		01
D27	WJ871600	DIODE	KDR357-RTK/P	シ ョ ッ ト キ ダイ オ ー ド		01
D28	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		01
D28	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
-35	VT332900	DIODE	1SS355 TE-17 TP	ダ イ オ ー ド		01
-35	WG139300	DIODE	KDS4148U-RTK/P TE	ダ イ オ ー ド		
DA1	V9424900	DIODE ARRAY	TE85L	ダ イ オ ー ド ア レ イ		01
-4	V9424900	DIODE ARRAY	TE85L	ダ イ オ ー ド ア レ イ		01
IC1	X5889A0R	IC	BA33BC0FP 3.3V	レギュレーター	REGULATOR +3.3V	03
IC1	YA325A00	IC	BD33KA5FP-E2 3.3V	レギュレーター		02
IC4	X5422A00	IC	S1D13700F01A100 LC	液晶コントローラ	LCD CONTROLLER	08
IC5	X4374A0R	IC	S-80136ANMC-JCVT2G	リセット	RESET	01
IC5	X5888A0R	IC	BD45365G	レギュレーター		01
IC6	X9292A00	IC	R1172H121D-T1-F 1	レギュレーター	REGULATOR +1.2V	01
IC7	X8810A00	IC	R8A02032BG	スイッチ	SWX02	09
IC8	X7753C00	IC	IS42S16400F-7TL	SDRAM	SDRAM 64M	04
IC8	XZ414E00	IC	W9864G6IH-7 SDRAM	SDRAM		04
IC9	YC436100	IC	MR27T6402L-3CTTN03	ROM	P2 ROM 64M(PROGRAM)	
IC10	X3042E00	IC	MX29LV160DBTI-70G	ROM	FLASH ROM 16M	03
IC10	X9600B00	IC	F49L160BA-70TG2N	ROM		
IC11	YC437100	IC	MR27V12852L-138TA0	ROM	P2 ROM 128M(WAVE)	
IC12	X0158A01	IC	SN74AHCT1G08DCKR A	AND	AND	01
IC13	X4463A00	IC	SN74LV08APWR	AND	AND	01
IC14	X6040A01	IC	AK4385ET	D/A CONVERTER	D/A CONVERTER	03
IC15	X0158A01	IC	SN74AHCT1G08DCKR A	AND	AND	01
IC16	YA326A00	IC	BA4580RF-E2 OPAMP	OPAMP	OPAMP	01
IC17	XZ56010R	IC	UPD789022GB-A15-8E	CPU	CPU	05
IC18	X7569A00	IC	R5520H001B-T1-F US	スイッチ	USB HIGH SIDE SWITCH	03
IC19	X7371A00	IC	MC34063EBD-TR DC-D	DC-DC CONVERTER	DC-DC CONVERTER	03
IC20	X6688A0R	IC	SN74LV14APWR INV	インバータ	INVERTER	01
L1	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ		01
L2	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ		01
L1	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ		
L2	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ		
L6	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ		01
L6	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ		

* : New Parts

RANK : Japan only

DM

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
L7	WE863900	COIL INDUCTANCE CHIP	DLP11SN900HL2L 1	コモンモードコイル			01
L8	WE863900	COIL INDUCTANCE CHIP	DLP11SN900HL2L 1	コモンモードコイル			01
L9	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L9	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
L10	V858970R	CHOKE COIL	330U SLF7045T-331M	チップインダクタ			02
L11	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L11	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
-21	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-21	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
L23	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L23	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
-35	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-35	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
L37	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L37	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
-41	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-41	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
L47	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
L47	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
-49	VY65720R	CHIP INDUCTANCE	600 BK1608HM601-T	チップインダクタ			01
-49	WG595200	CHIP INDUCTANCE	GZ1608D601 1608	チップインダクタ			01
R16	RD35747R	CARBON RESISTOR (CHIP)	47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R18	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
-22	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R25	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
-27	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R28	RD350001	CARBON RESISTOR (CHIP)	0 63M J RECT.	チ ッ プ 抵 抗			01
R29	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R30	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R31	RD350001	CARBON RESISTOR (CHIP)	0 63M J RECT.	チ ッ プ 抵 抗			01
R34	RD359100	CARBON RESISTOR (CHIP)	1.0M 63M J RECT.	チ ッ プ 抵 抗			01
R35	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
-42	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R44	RD354680	CARBON RESISTOR (CHIP)	68.0 63M J RECT.	チ ッ プ 抵 抗			01
R45	RD354680	CARBON RESISTOR (CHIP)	68.0 63M J RECT.	チ ッ プ 抵 抗			01
R46	RD35527R	CARBON RESISTOR (CHIP)	270.0 63M J RECT.	チ ッ プ 抵 抗			01
R47	RD356100	CARBON RESISTOR (CHIP)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R48	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R49	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R50	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R51	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R53	RD354680	CARBON RESISTOR (CHIP)	68.0 63M J RECT.	チ ッ プ 抵 抗			01
R54	RD350001	CARBON RESISTOR (CHIP)	0 63M J RECT.	チ ッ プ 抵 抗			01
R55	RD350001	CARBON RESISTOR (CHIP)	0 63M J RECT.	チ ッ プ 抵 抗			01
R56	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R57	RD356100	CARBON RESISTOR (CHIP)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R58	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R60	RD350001	CARBON RESISTOR (CHIP)	0 63M J RECT.	チ ッ プ 抵 抗			01
R61	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R62	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R64	RD355220	CARBON RESISTOR (CHIP)	220.0 63M J RECT.	チ ッ プ 抵 抗			01
R65	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R66	RD355150	CARBON RESISTOR (CHIP)	150.0 63M J RECT.	チ ッ プ 抵 抗			01
R67	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R68	RD355150	CARBON RESISTOR (CHIP)	150.0 63M J RECT.	チ ッ プ 抵 抗			01
R69	RD355150	CARBON RESISTOR (CHIP)	150.0 63M J RECT.	チ ッ プ 抵 抗			01
R70	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R71	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R73	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R74	RD35422R	CARBON RESISTOR (CHIP)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R75	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R77	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R78	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R80	RD354470	CARBON RESISTOR (CHIP)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R81	RD356220	CARBON RESISTOR (CHIP)	2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R82	RD356220	CARBON RESISTOR (CHIP)	2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R83	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R84	RD355100	CARBON RESISTOR (CHIP)	100.0 63M J RECT.	チ ッ プ 抵 抗			01
R85	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R86	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01

* : New Parts

RANK : Japan only

DM

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
R87	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R89	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R90	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R91	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
-95	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R96	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
-98	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R99	RD356120	CARBON RESISTOR (CHIP) 1.2K 63M J RECT.	チ ッ プ 抵 抗			01
R100	RD356150	CARBON RESISTOR (CHIP) 1.5K 63M J RECT.	チ ッ プ 抵 抗			01
R101	RD355150	CARBON RESISTOR (CHIP) 150.0 63M J RECT.	チ ッ プ 抵 抗			01
R102	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
-104	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R105	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R106	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R107	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R108	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R109	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R110	RD356470	CARBON RESISTOR (CHIP) 4.7K 63M J RECT.	チ ッ プ 抵 抗			01
-113	RD356470	CARBON RESISTOR (CHIP) 4.7K 63M J RECT.	チ ッ プ 抵 抗			01
R114	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
-116	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R117	RD356220	CARBON RESISTOR (CHIP) 2.2K 63M J RECT.	チ ッ プ 抵 抗			01
-120	RD356220	CARBON RESISTOR (CHIP) 2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R121	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R122	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R123	RD35518R	CARBON RESISTOR (CHIP) 180.0 63M J RECT.	チ ッ プ 抵 抗			01
-126	RD35518R	CARBON RESISTOR (CHIP) 180.0 63M J RECT.	チ ッ プ 抵 抗			01
R127	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
-132	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R133	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
-142	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R143	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R144	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R145	RD355100	CARBON RESISTOR (CHIP) 100.0 63M J RECT.	チ ッ プ 抵 抗			01
R146	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R148	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R149	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R150	RD35747R	CARBON RESISTOR (CHIP) 47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R151	RD357220	CARBON RESISTOR (CHIP) 22.0K 63M J RECT.	チ ッ プ 抵 抗			01
R152	RD35422R	CARBON RESISTOR (CHIP) 22.0 63M J RECT.	チ ッ プ 抵 抗			01
R153	RD35422R	CARBON RESISTOR (CHIP) 22.0 63M J RECT.	チ ッ プ 抵 抗			01
R154	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R155	RD357150	CARBON RESISTOR (CHIP) 15.0K 63M J RECT.	チ ッ プ 抵 抗			01
R156	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R157	RD357150	CARBON RESISTOR (CHIP) 15.0K 63M J RECT.	チ ッ プ 抵 抗			01
R158	RD35627R	CARBON RESISTOR (CHIP) 2.7K 63M J RECT.	チ ッ プ 抵 抗			01
R159	RD356120	CARBON RESISTOR (CHIP) 1.2K 63M J RECT.	チ ッ プ 抵 抗			01
R160	RD35422R	CARBON RESISTOR (CHIP) 22.0 63M J RECT.	チ ッ プ 抵 抗			01
R161	RD35422R	CARBON RESISTOR (CHIP) 22.0 63M J RECT.	チ ッ プ 抵 抗			01
R162	RD356220	CARBON RESISTOR (CHIP) 2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R164	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R165	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R166	RD35747R	CARBON RESISTOR (CHIP) 47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R167	RD35747R	CARBON RESISTOR (CHIP) 47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R169	RD356150	CARBON RESISTOR (CHIP) 1.5K 63M J RECT.	チ ッ プ 抵 抗			01
R170	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R171	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R173	RD35747R	CARBON RESISTOR (CHIP) 47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R174	RD350001	CARBON RESISTOR (CHIP) 0 63M J RECT.	チ ッ プ 抵 抗			01
R176	RD35747R	CARBON RESISTOR (CHIP) 47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R177	RF457220	CARBON RESISTOR (CHIP) 22.0K D RECT.	チ ッ プ 抵 抗			01
R178	RD355220	CARBON RESISTOR (CHIP) 220.0 63M J RECT.	チ ッ プ 抵 抗			01
R179	RF456100	CARBON RESISTOR (CHIP) 1.0K D RECT.	チ ッ プ 抵 抗			01
R181	RD15310R	CARBON RESISTOR (CHIP) 1.0 1/4 J TP	チ ッ プ 抵 抗			01
R182	RD15310R	CARBON RESISTOR (CHIP) 1.0 1/4 J TP	チ ッ プ 抵 抗			01
R184	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R185	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R186	RD356100	CARBON RESISTOR (CHIP) 1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R187	RD357100	CARBON RESISTOR (CHIP) 10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R189	RD35422R	CARBON RESISTOR (CHIP) 22.0 63M J RECT.	チ ッ プ 抵 抗			01

* : New Parts

RANK : Japan only

DM, GHL88L, GHL88M, GHL88H, PNL, PNR, ENC, MKO, MVR

REF. NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
-191	RD35422R	CARBON RESISTOR (CHIP)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R192	RD354680	CARBON RESISTOR (CHIP)	68.0 63M J RECT.	チ ッ プ 抵 抗			01
R193	RD354680	CARBON RESISTOR (CHIP)	68.0 63M J RECT.	チ ッ プ 抵 抗			01
R194	RD356220	CARBON RESISTOR (CHIP)	2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R195	RD356220	CARBON RESISTOR (CHIP)	2.2K 63M J RECT.	チ ッ プ 抵 抗			01
R196	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
-198	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R202	RD357100	CARBON RESISTOR (CHIP)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R207	RD15310R	CARBON RESISTOR (CHIP)	1.0 1/4 J TP	チ ッ プ 抵 抗			01
RA1	WH207000	RESISTOR ARRAY	100 X 4	抵 抗 ア レ イ			01
RA2	WH207000	RESISTOR ARRAY	100 X 4	抵 抗 ア レ イ			01
RA4	WH211800	RESISTOR ARRAY	10K X 4	抵 抗 ア レ イ			01
-6	WH211800	RESISTOR ARRAY	10K X 4	抵 抗 ア レ イ			01
RA7	WH206600	RESISTOR ARRAY	68 X 4	抵 抗 ア レ イ			01
-16	WH206600	RESISTOR ARRAY	68 X 4	抵 抗 ア レ イ			01
RA17	WH211800	RESISTOR ARRAY	10K X 4	抵 抗 ア レ イ			01
RA18	WH209400	RESISTOR ARRAY	1.0K X 4	抵 抗 ア レ イ			01
RA19	WH209400	RESISTOR ARRAY	1.0K X 4	抵 抗 ア レ イ			01
RA20	WH214200	RESISTOR ARRAY	100K X 4	抵 抗 ア レ イ			01
RA21	WH214200	RESISTOR ARRAY	100K X 4	抵 抗 ア レ イ			01
RA22	WH206200	RESISTOR ARRAY	47 X 4	抵 抗 ア レ イ			01
-27	WH206200	RESISTOR ARRAY	47 X 4	抵 抗 ア レ イ			01
RA28	WH205400	RESISTOR ARRAY	22 X 4	抵 抗 ア レ イ			01
-31	WH205400	RESISTOR ARRAY	22 X 4	抵 抗 ア レ イ			01
RA32	WH206200	RESISTOR ARRAY	47 X 4	抵 抗 ア レ イ			01
-39	WH206200	RESISTOR ARRAY	47 X 4	抵 抗 ア レ イ			01
TA1	WC66850R	DIGITAL TRANSISTOR	UMG5N	デ ジ タ ル ト ラ ン ジ ス タ			01
TR1	WB12320R	TRANSISTOR (ARRAY)	IMB10A T110	ト ラ ン ジ ス タ ア レ イ			05
TR2	WB12320R	TRANSISTOR (ARRAY)	IMB10A T110	ト ラ ン ジ ス タ ア レ イ			05
TR3	VV556500	TRANSISTOR	1037AK Q,R,S TP	ト ラ ン ジ ス タ 2 S A			01
TR4	WB12320R	TRANSISTOR (ARRAY)	IMB10A T110	ト ラ ン ジ ス タ ア レ イ			05
TR5	WB12320R	TRANSISTOR (ARRAY)	IMB10A T110	ト ラ ン ジ ス タ ア レ イ			05
TR6	VV556400	TRANSISTOR	2412K Q,R,S TP	ト ラ ン ジ ス タ 2 S C			01
TR7	VV556400	TRANSISTOR	2412K Q,R,S TP	ト ラ ン ジ ス タ 2 S C			01
TR8	VV556500	TRANSISTOR	1037AK Q,R,S TP	ト ラ ン ジ ス タ 2 S A			01
X1	WE19440R	QUARTZ CRYSTAL UNIT	16.9344M HC-49S-SM	水 晶 振 動 子			01
X2	WH521200	QUARTZ CRYSTAL UNIT 48MHZ	SG-310SCF 48M	水 晶 振 動 器			04
X3	WA78210R	CERAMIC RESONATOR 5M	5.000M	セ ラ ミ ッ ク 振 動 子			01
	WF21250R	CIRCUIT BOARD	GHL88L	G H L 8 8 シ ー ト L	(WF46230)(X6244D0)		13
CN1	WA61950R	CONNECTOR	52151 17P SE	ワ イ ヤ ー ト ラ ッ プ			01
D1	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	}		01
D1	WP977700	DIODE	HSS4148TA-E Q TE-	ダ イ オ ー ド			01
D5	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
D5	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
-60	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
-60	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
	WF21260R	CIRCUIT BOARD	GHL88M	G H L 8 8 シ ー ト M	(WF46240)(X6245G0)		13
CN1	WA61950R	CONNECTOR	52151 17P SE	ワ イ ヤ ー ト ラ ッ プ			01
CN2	WG01190R	CONNECTOR	52807 27P SE	F F C コ ネ ク タ			01
CN3	WA61950R	CONNECTOR	52151 17P SE	ワ イ ヤ ー ト ラ ッ プ			01
D1	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	}		01
D1	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
-72	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
-72	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
	WF21280R	CIRCUIT BOARD	GHL88H	G H L 8 8 シ ー ト H		(WF46250)(X6246D0)	
CN1	WA61950R	CONNECTOR	52151 17P SE	ワ イ ヤ ー ト ラ ッ プ			01
D1	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	}		01
D1	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
-48	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
-48	WP977700	DIODE	HSS4148TA-E Q TE	ダ イ オ ー ド			01
*	WT969700	CIRCUIT BOARD	PNL	P N L シ ー ト	(WT73160)(YC253C0)		
*	WT969800	CIRCUIT BOARD	PNR	P N R シ ー ト	(WT73160)(YC253C0)		
*	WT969600	CIRCUIT BOARD	ENC	E N C シ ー ト	(WT73160)(YC253C0)		
*	WT969400	CIRCUIT BOARD	MKO	M K O シ ー ト	(WT73160)(YC253C0)		
*	WT969100	CIRCUIT BOARD	MVR	M V R シ ー ト	(WT73160)(YC253C0)		
*	WT969500	CIRCUIT BOARD	PJK	P J K シ ー ト	(WT73160)(YC253C0)		

* : New Parts

RANK : Japan only

PNL, PNR, ENC, MKO, MVR, PJK, PSW

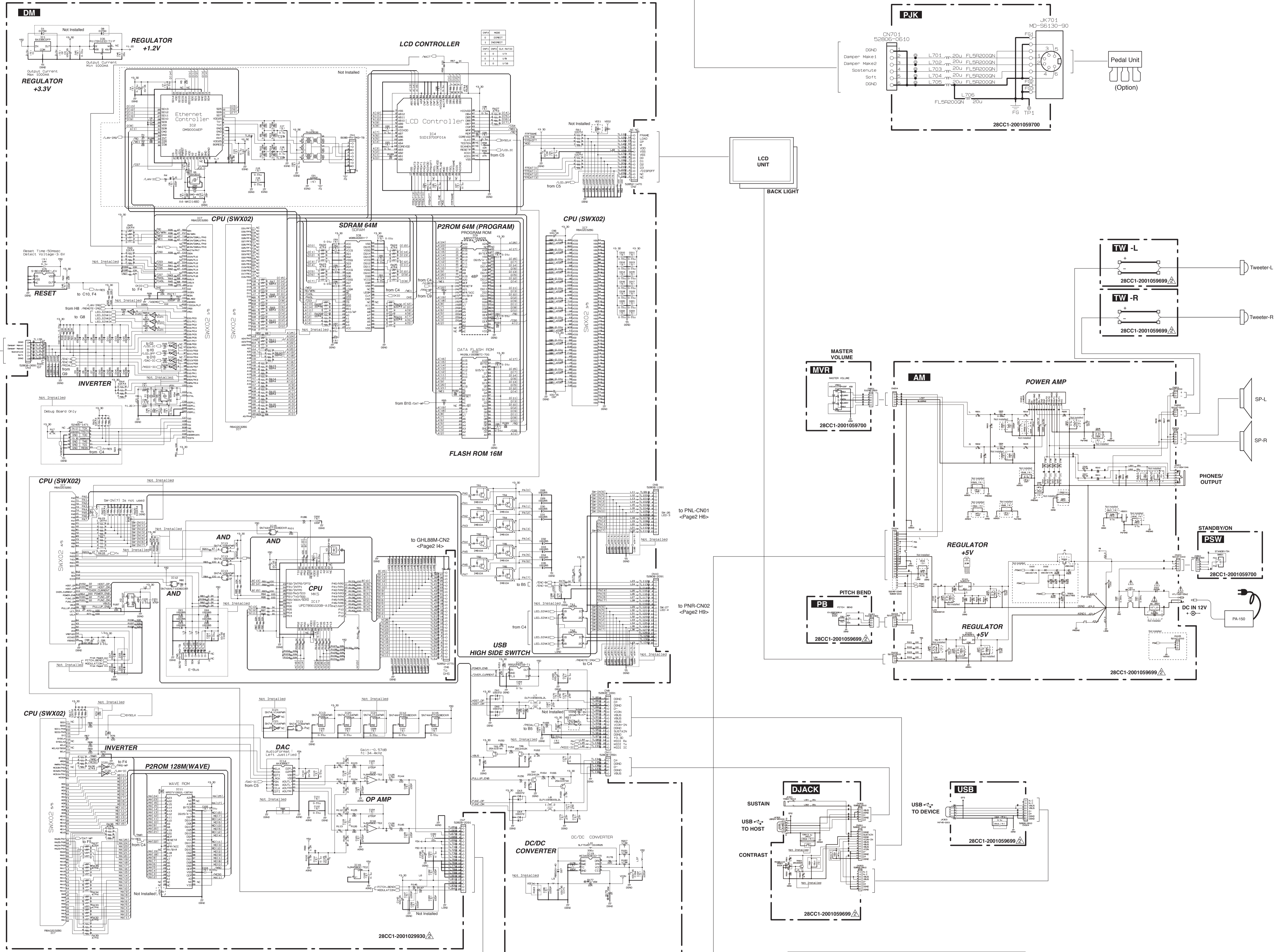
REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
*	50	WT969000	CIRCUIT BOARD	PSW	P S W シ ー ト	(WT73160)(YC253C0)	
	50	--	JUMPER CABLE	0.55 TIN	ジ ャ ン パ ー 線	(VA07890)	3
CN01	V492820R	CONNECTOR	52806-1210 12P TE	F F C コ ネ ク タ ー			01
CN02	WG033600	CONNECTOR	52806 15P TE	F F C コ ネ ク タ			
CN03	V1878100	CONNECTOR	51048 3P TE	ケ ー ブ ル ホ ル ダ ー			01
CN03	VZ34160R	CONNECTOR	51048 3P TE	ケ ー ブ ル ホ ル ダ ー 天 津			
CN501	V1878200	CONNECTOR	51048 4P TE	ケ ー ブ ル ホ ル ダ ー			01
CN501	VY668400	CONNECTOR	51048 4P TE	ケ ー ブ ル ホ ル ダ ー 天 津			
CN601	V1878300	CONNECTOR	51048 5P TE	ケ ー ブ ル ホ ル ダ ー			01
CN601	VZ34170R	CONNECTOR	51048 5P TE	ケ ー ブ ル ホ ル ダ ー 天 津			
CN701	WK843700	CONNECTOR	52806 6P TE	F F C コ ネ ク タ ー			
CN901	V1878100	CONNECTOR	51048 3P TE	ケ ー ブ ル ホ ル ダ ー			01
CN901	VZ34160R	CONNECTOR	51048 3P TE	ケ ー ブ ル ホ ル ダ ー 天 津			
D01	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
D01	VV43780R	DIODE	1N4148(DO-34)	ダ イ オ ー ド 天 津 製			01
-08	VB941200	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド			01
-08	VV43780R	DIODE	1N4148(DO-34)	ダ イ オ ー ド 天 津 製			01
EC901	VU48130R	ENCODER REB161-PVB-15FH1NA	REB161(9X5)PVB15FH	1 6 形 エ ン コ ー ダ	DATA ENTRY		03
JK701	V487480R	CONNECTOR	DINJACK6P MD-S6130	ミ ニ D I N コ ネ ク タ	PEDAL UNIT		02
L701	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津			01
-706	VT27920R	COIL FL5R200QN 20UH	DX001-20UH	コ イ ル 2 0 U 天 津			01
LD01	WG913200	LED	BL-BEG201-LC22-21	2 色 L E D	START/STOP		01
LD02	WU175600	LED	BL-B2141K-24F-FP7	L E D	SONG		
LD03	WU175600	LED	BL-B2141K-24F-FP7	L E D	STYLE		
LD04	WU175600	LED	BL-B2141K-24F-FP7	L E D	USB TO DEVICE		
R01	HF454270	CARBON RESISTOR	27.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
R01	V2547300	CARBON RESISTOR	27.0 1/6J 26TP	カ ー ボ ン 抵 抗			
R02	HF45418R	CARBON RESISTOR	18.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
R02	V2547100	CARBON RESISTOR	18.0 1/6J 26TP	カ ー ボ ン 抵 抗			
R03	HF45510R	CARBON RESISTOR	100.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
R03	V254800R	CARBON RESISTOR	100.0 1/6J 26TP	カ ー ボ ン 抵 抗			
-05	HF45510R	CARBON RESISTOR	100.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
-05	V254800R	CARBON RESISTOR	100.0 1/6J 26TP	カ ー ボ ン 抵 抗			
SW501	V966170R	PUSH SWITCH	SY16-32-4(U99S2)/T	プ ッ シ ュ S W	STANDBY/ON		03
VR601	WC70980R	ROTARY VARIABLE RESISTOR	A 5.0K XV014111YGP	二 連 ロ ー タ リ ー V R	MASTER VOLUME		02
WH501	--	WIRING ASSEMBLY PSW	PSW 4P WITH SPONGE	P S W 束 線	(WT97250)		
WH601	--	WIRING HARNESS MVR	MVR 5P WITH SPONGE	M V R 束 線	(WV45160)		
WH901	WT972700	ENC WIRE HARNESS	3P RIBBON CABLE	E N C 線 材			
	X0159A0R	SPEAKER	3.0cm	ス ピ ー カ	Tweeter		01
	YC594A00	LOUD SPEAKER	12.0cm 4 ohm 10W	ス ピ ー カ	Woofer		2
	WN744800	LCD UNIT	CL	液 晶 ユ ニ ッ ト			19
△	WK014700	AC ADAPTOR	PA-150U U	A C ア ダ プ タ ー	U,C		08
△	WR527000	AC ADAPTOR	PA-150A E	A C ア ダ プ タ ー	E		10
△	WR527100	AC ADAPTOR	PA-150A B	A C ア ダ プ タ ー	B		11
△	WR527200	AC ADAPTOR	PA-150A CHN	A C ア ダ プ タ ー	O		

* : New Parts

RANK : Japan only

■ CONTENTS

- AM 1
- DJACK 1
- DM 1
- ENC 2
- GHL88H 2
- GHL88L 2
- GHL88M 2
- MVR 1
- PB 1
- PJK 1
- PNL 2
- PNR 2
- PSW 1
- TW 1
- USB 1



Notation for Circuit Diagrams

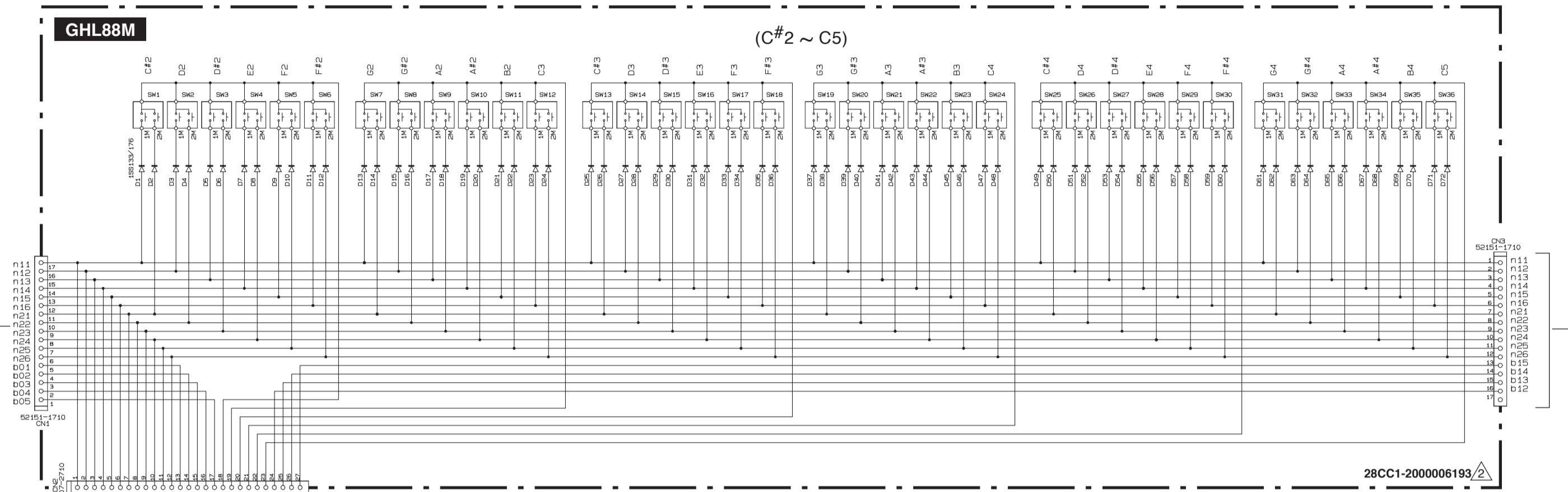
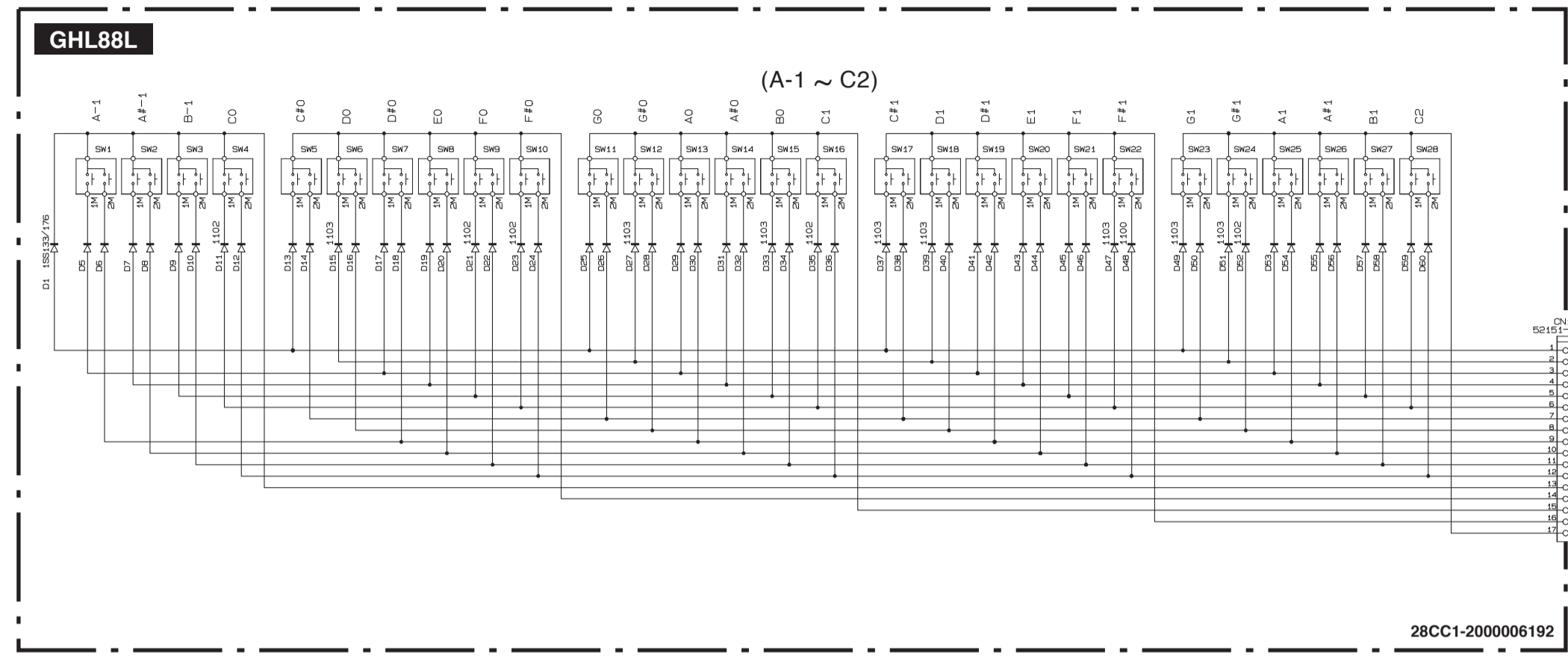
Signal name

This indicates the location of the counter inter-circuit connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)

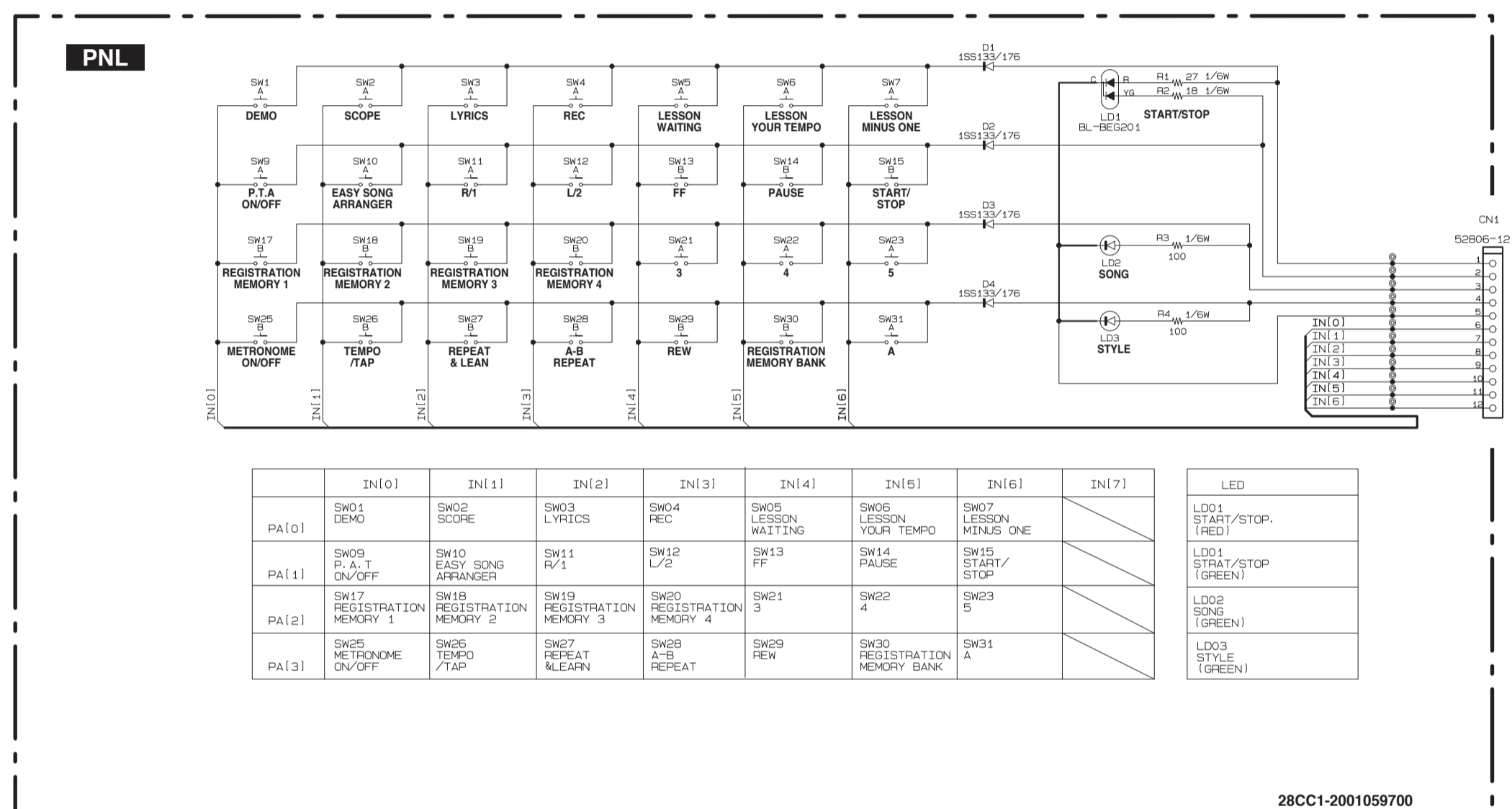
The number indicates the destination page.

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

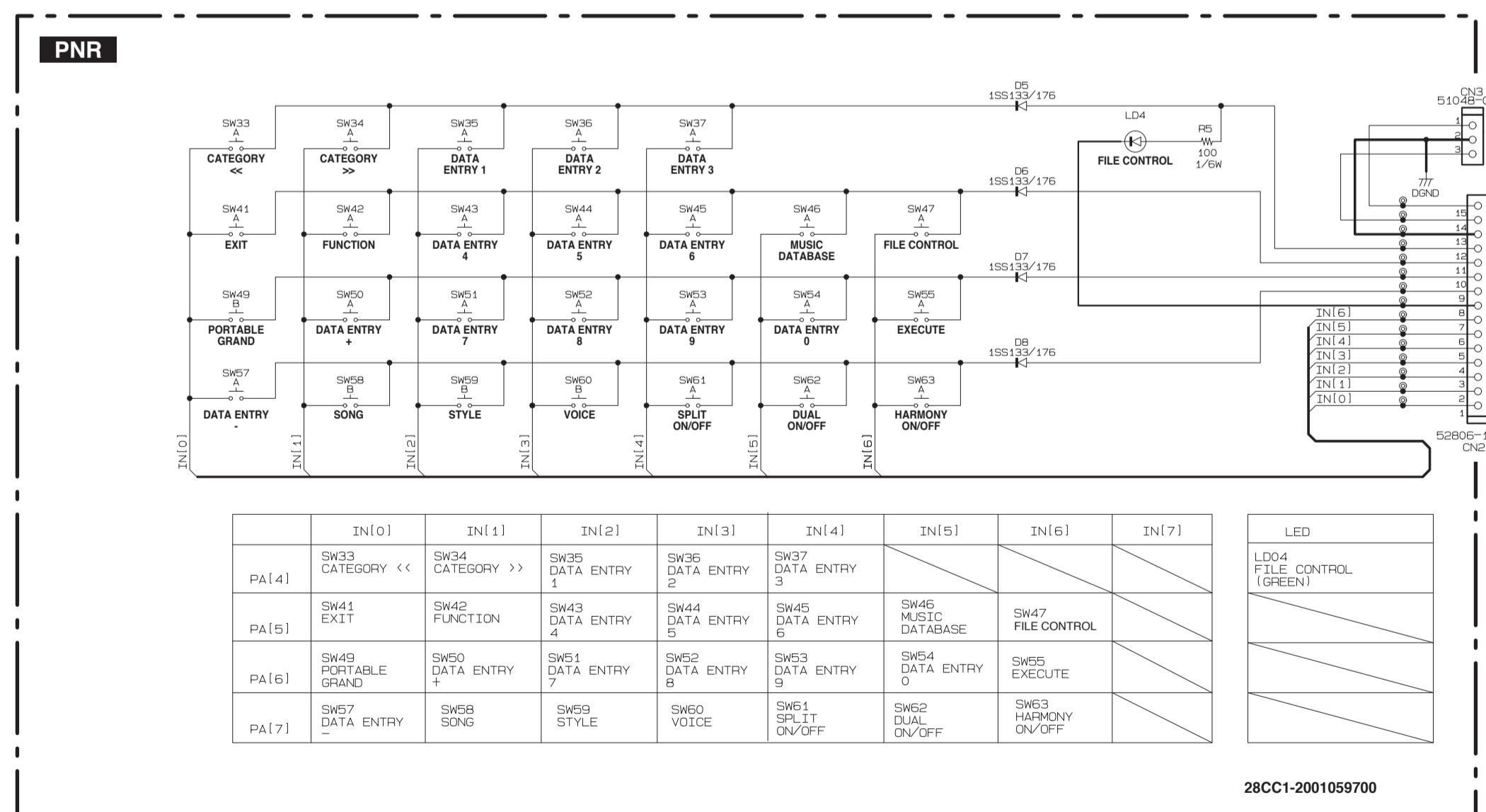
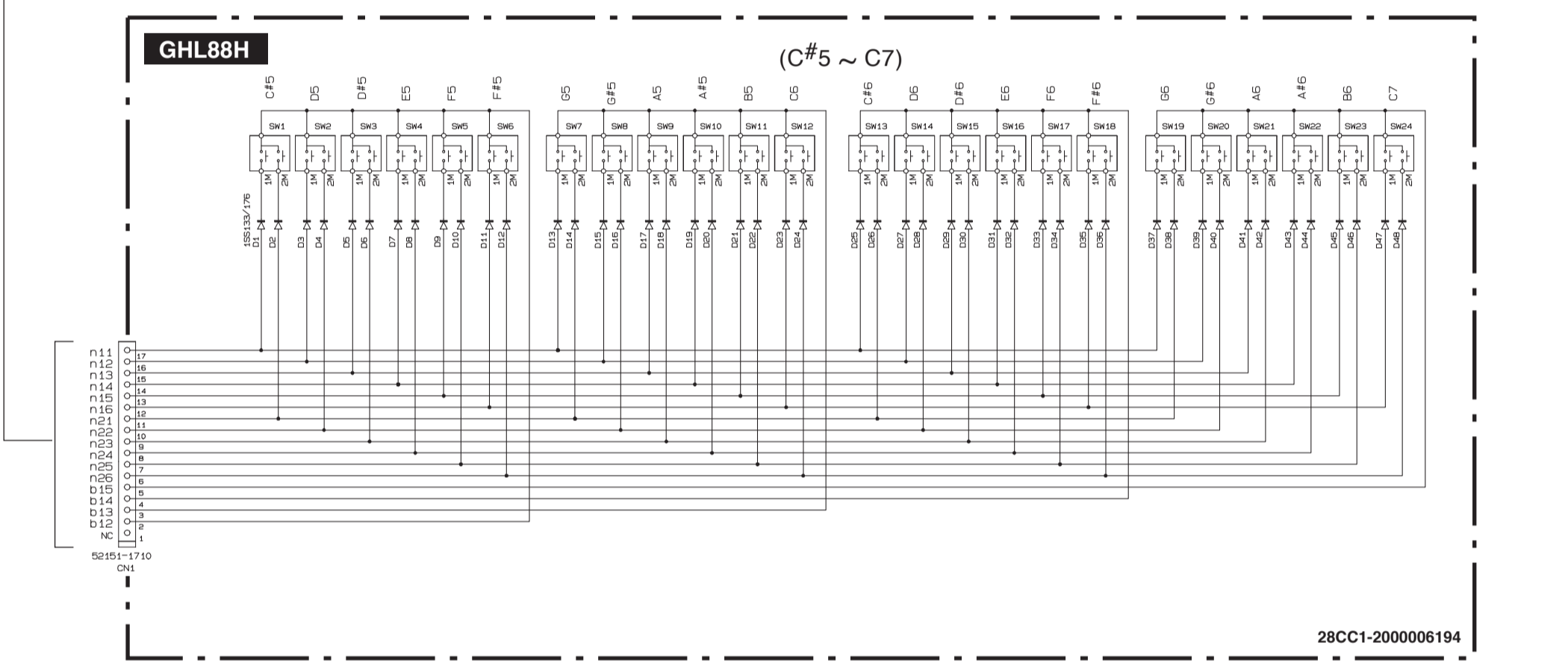
Note: See Parts list for details of circuit board component parts.



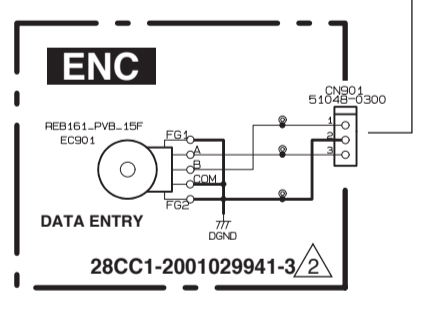
to DM-CN6
<Page1 FB>



to DM-CN9
<Page1 F7>



to DM-CN10
<Page1 IB>



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

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