

Clavinova[®]

CLP-170/CLP-170M/ CLP-170C/CLP-170PE

SERVICE MANUAL



CLP-170

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This document is printed on chlorine free (ECF) paper with soy ink.

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 : CHEMICAL CONTENT NOTICE !

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/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 main lead are coloured in accordance with the following code:

BLUE: NEUTRAL

BROWN: LIVE


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

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

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

Be certain that neither core is connected to the earth terminal of the three pin plug.

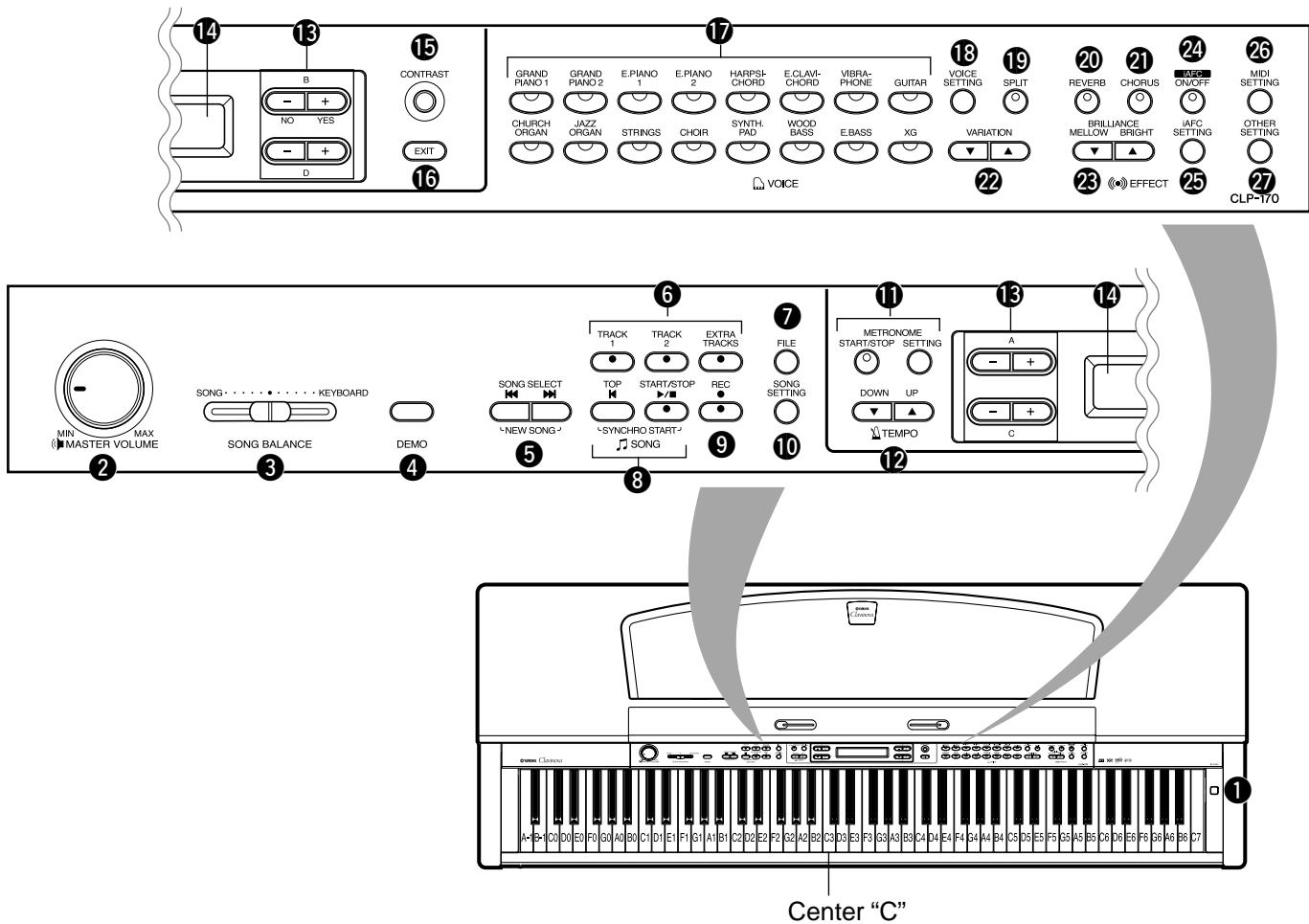
■ WARNING

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

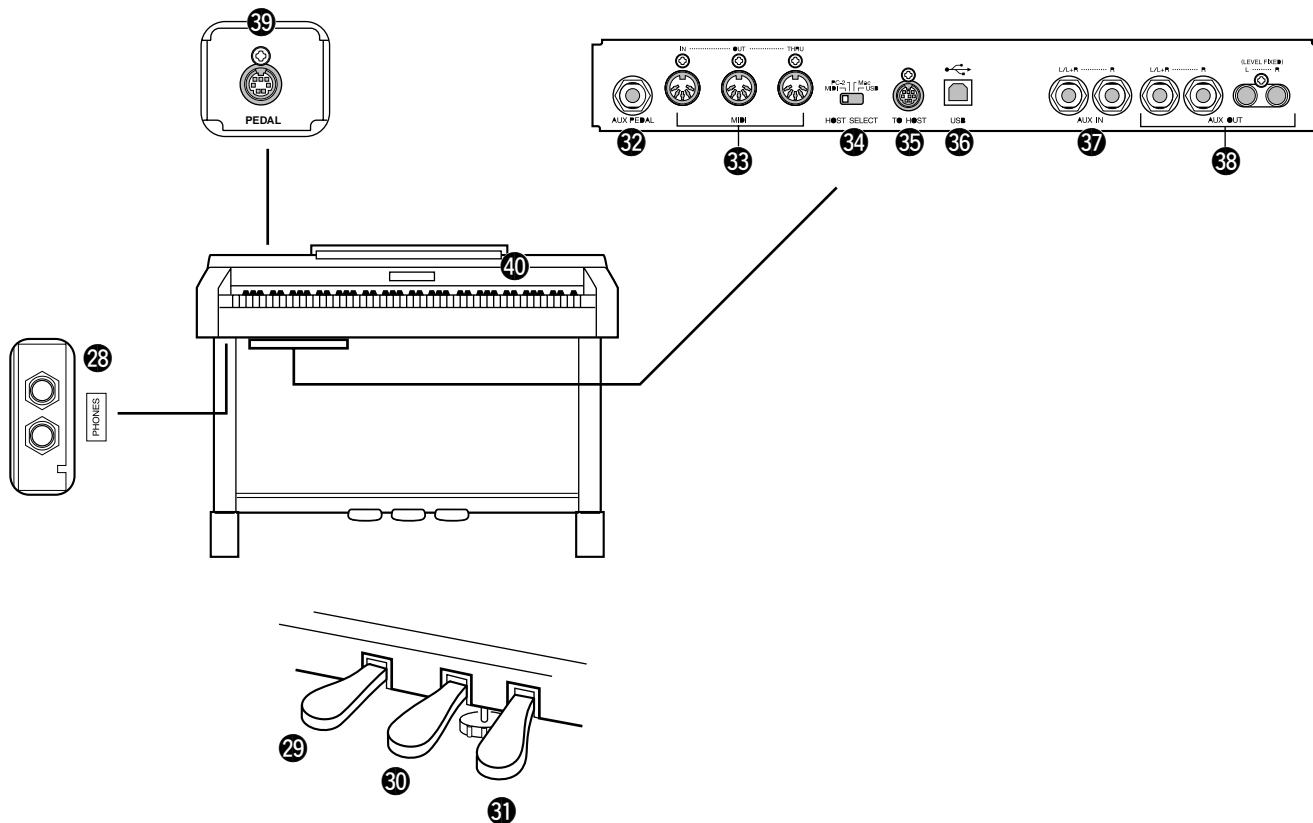
■ SPECIFICATIONS

Keyboard	88 keys (A-1-C7)
Sound Source	AWM Dynamic Stereo Sampling
Polyphony	max. 128 voices
Voice Selection	Panel preset for manual performance: 38 voices, XG voices: 480 voices + 12 drum kits
Effect	Reverb, Chorus, Brilliance, Variation effect, Insertion effect x 3, iAFC
Controls	Dual, Split
Display	LCD
Recording/Playback	16-track recording/playback, tempo adjustment
Disk Drive	3.5-inch floppy diskdrive (2DD and 2HD compatible)
Pedal	Damper, Sostenuto, Soft
Demo Songs	16 voice demo songs, 50 preset songs
Jacks/Connectors	MIDI (IN/OUT/THRU), PHONES X2, AUX IN, AUX OUT(L/L+R,R), AUX OUT (LEVEL FIXED)(L,R), TO HOST, USB, AUX PEDAL
Main Amplifiers	60W x 2 + 20W x 2
Speakers	16cm x 2, 10cm x 2, 3cm (DOME) x 2
Dimensions (W x D x H) (with music stand)	1381mm x 513mm x 857mm [54-3/8" x 20-3/16" x 33-3/4"] (1381mm x 513mm x 1026mm [54-3/8" x 20-3/16" x 40-3/8"])
Weight	84 kg, 185lbs., 3oz
Attachment	Keyboard Cover, Music Stand
Accessories	Owner's Manual, Reference Booklet, "50 Greats for the Piano" Score Collection, Recording Disk

■ PANEL LAYOUT



- ① [POWER] switch
- ② [MASTER VOLUME] knob
- ③ [SONG BALANCE] knob
- ④ [DEMO] button
- ⑤ SONG SELECT [◀◀] [▶▶] buttons
- ⑥ [TRACK1] [TRACK2] [EXTRA TRACKS] buttons
- ⑦ [FILE] button
- ⑧ SONG [TOP]/[START/STOP] buttons
- ⑨ [REC] button
- ⑩ [SONG SETTING] button
- ⑪ METRONOME [START/STOP]/[SETTING] buttons
- ⑫ TEMPO [DOWN] [UP] buttons
- ⑬ LCD buttons
- A [-] [+]/B [- (NO)] [+ (YES)]/C [-] [+]/D [-] [+]
- ⑭ LCD screen
- ⑮ [CONTRAST] knob
- ⑯ [EXIT] button
- ⑰ Voice group buttons
- ⑱ [VOICE SETTING] button
- ⑲ [SPLIT] button
- ⑳ [REVERB] button
- ㉑ [CHORUS] button
- ㉒ VARIATION [▼] [▲] buttons
- ㉓ BRILLIANCE [MELLOW] [BRIGHT] buttons
- ㉔ iAFC [ON/OFF] button
- ㉕ [iAFC SETTING] button
- ㉖ [MIDI SETTING] button
- ㉗ [OTHER SETTING] button



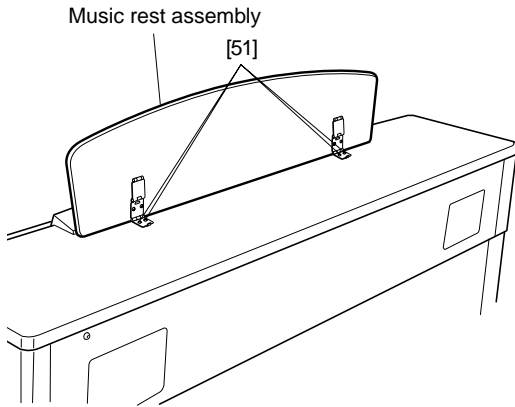
- ②⑧ [PHONES] jacks
- ②⑨ Soft pedal
- ③① Sostenuto pedal
- ③② [AUX PEDAL] jack
- ③③ MIDI [IN] [OUT] [THRU] connectors
- ③④ [HOST SELECT] switch
- ③⑤ [TO HOST] connector
- ③⑥ [USB] connector
- ③⑦ AUX IN [L/L+R] [R] jacks
- ③⑧ AUX OUT [L/L+R] [R]/ (LEVEL FIXED) [L] [R] jacks
- ③⑨ [PEDAL] connector
- ④① Flopy disk drive

■ DISASSEMBLE PROCEDURE

1. Music Rest Assembly

(Time required : About 3 minutes)

Remove the four (4) screws marked [51]. The music rest assembly can then be removed. (Fig. 1)



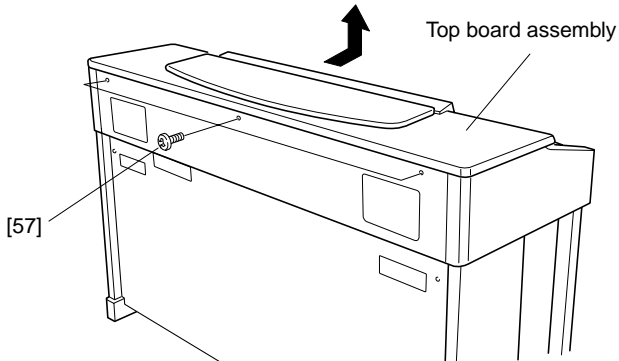
[51]: Bind Head Tapping Screw-1 3.0x16 MFZN2BL (EP030310)

(Fig. 1)

2. Top Board Assembly

(Time required : About 3 minutes)

- 2-1 Close the key cover.
- 2-2 Remove the three (3) screws marked [57].
- 2-3 Move the top board assembly forward, lift it. (Fig. 2)



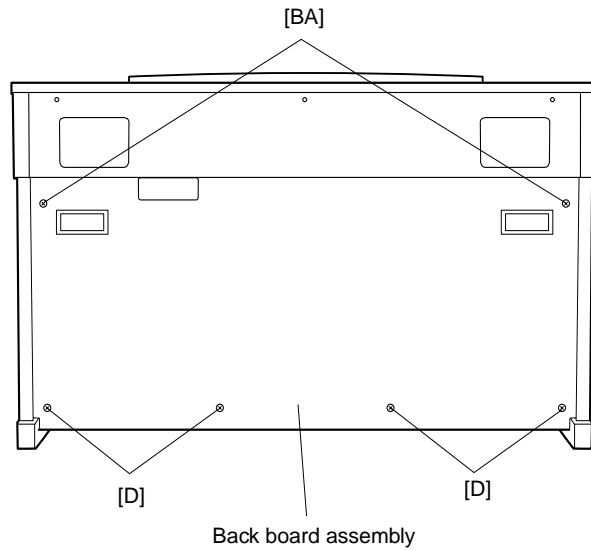
CLP-170/170M/170PE
 [57]: Truss Head Screw 4.0x20 MFZN2BL (VB934000)
 CLP-170C
 [57]: Truss Head Screw 4.0x20 MFC2 (V6141100)

(Fig. 2)

3. Back Board Assembly

(Time required : About 3 minutes)

Remove the two (2) screws marked [BA] and the four (4) screws marked [D]. The back board assembly can then be removed. (Fig. 3)



CLP-170/170M/170PE

[BA]: Truss Head Screw 4.0x14 MFZN2BL (VB931700)

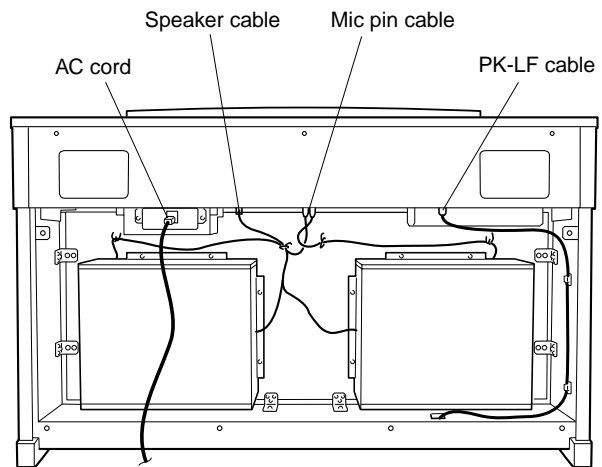
[D]: Truss Head Tapping Screw-1 4.0x20 MFZN2BL (03747290)

CLP-170C

[BA]: Truss Head Screw 4.0x12 MFC2 (V6135000)

[D]: Truss Head Tapping Screw-1 4.0x20 MFC2 (VB164600)

(Fig. 3)



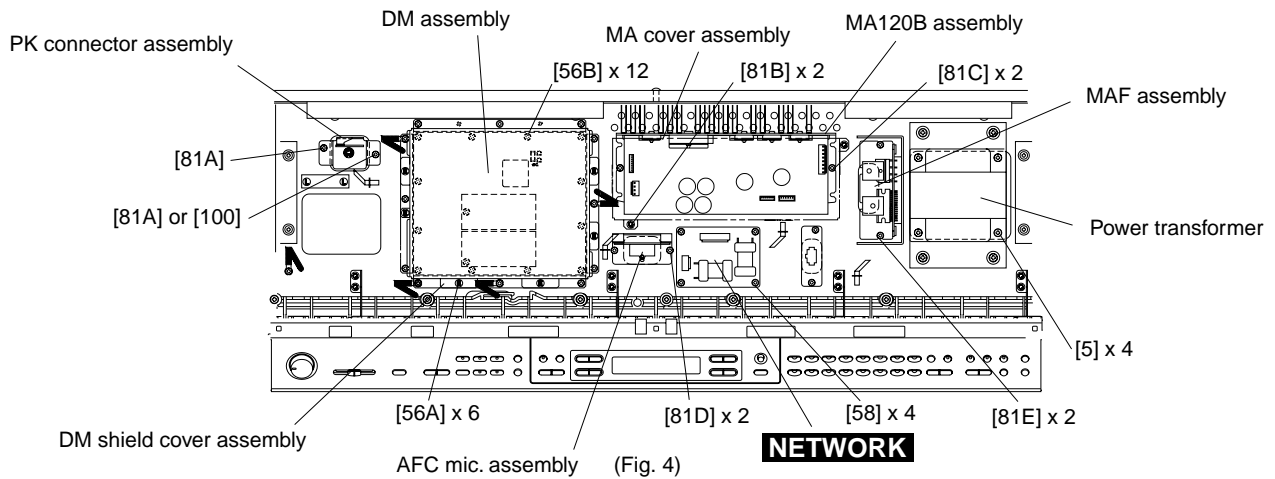
(Fig. 3-1)

4. Circuit Boards & Assemblies Inside of Main Unit

(Time required : About 10 minutes each)

- 4-1 Remove the top board assembly. (See procedure 2)
- 4-2 Each circuit board and assembly can be removed by removing its fixing screws as listed below.

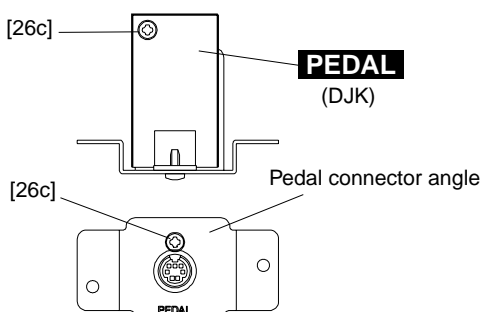
Circuit board and Assembly	Ref. No.	Screw	QTY	Fig.
PK Connector Assembly (British, European and General export models)	81A	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	2	4
PK Connector Assembly (U.S.A. model)	81A	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	1	4
	100	Truss Head Tapping Screw-1 3.5x14 MFZN2Y (EN630230)	1	4
DM Shield Cover Assembly (U.S.A. model only)	56A	Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)	6	4
DM Assembly	56B	Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)	12	4
MA Cover Assembly (U.S.A. model only)	81B	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	2	4
MA120B Assembly	81C	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	2	4
AFC Mic. Assembly	81D	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	2	4
Network Circuit Board	58	Bind Head Tapping Screw-1 3.5x20 MFZN2Y (EP030470)	4	4
MAF Assembly	81E	Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)	2	4
Power Transformer	5	Bind Head Screw 4.0x20 MFZN2Y (EG340410)	4	4



5. PEDAL Circuit Board

(Time required : About 10 minutes)

- 5-1 Remove the top board assembly. (See procedure 2)
- 5-2 Remove the back board assembly. (See procedure 3)
- 5-3 Disconnect the PK-LF cable. (Fig. 3-1)
- 5-4 Remove the PK connector assembly. (See procedure 4)
- 5-5 Remove the two (2) screws marked [26c]. The pedal connector angle can then be removed from the PEDAL (DJK) circuit board. (Fig. 5)



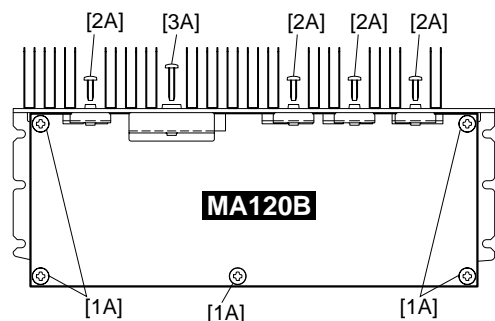
[26c]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

(Fig. 5)

6. MA120B Circuit Board

(Time required : About 15 minutes)

- 6-1 Remove the top board assembly. (See procedure 2)
- 6-2 Remove the MA120B assembly. (See procedure 4)
- 6-3 Remove the five (5) screws marked [1A], the four (4) screws marked [2A] and the screw marked [3A]. The MA120B circuit board can then be removed. (Fig. 6)



[1A]: Bind Head Tapping Screw-B 4.0x8 MFZN2Y (EP640410)

[2A]: Bind Head Tapping Screw-B 3.0x10 MFZN2Y (EP600220)

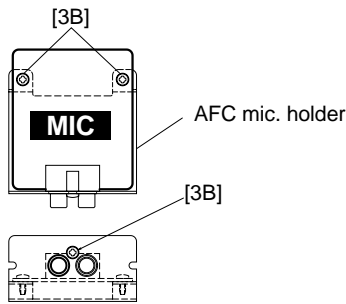
[3A]: Bind Head Tapping Screw-B 3.0x16 MFZN2Y (EP600390)

(Fig. 6)

7. MIC Circuit Board

(Time required : About 15 minutes)

- 7-1 Remove the top board assembly. (See procedure 2)
- 7-2 Remove the back board assembly. (See procedure 3)
- 7-3 Disconnect the mic pin cable. (Fig. 3-1)
- 7-4 Remove the AFC mic. assembly. (See procedure 4)
- 7-5 Remove the three (3) screws marked [3B]. The AFC mic. holder can then be removed from the MIC circuit board. (Fig. 7)



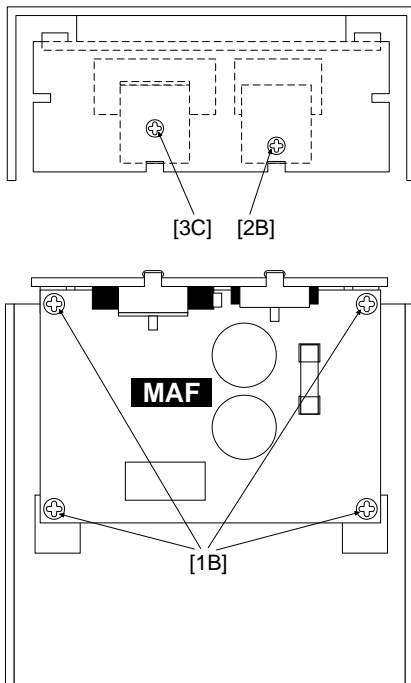
[3B]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

(Fig. 7)

8. MAF Circuit Board

(Time required : About 15 minutes)

- 8-1 Remove the top board assembly. (See procedure 2)
- 8-2 Remove the MAF assembly. (See procedure 4)
- 8-3 Remove the four (4) screws marked [1B], the screw marked [2B] and the screw marked [3C]. The MAF circuit board can then be removed. (Fig. 8)



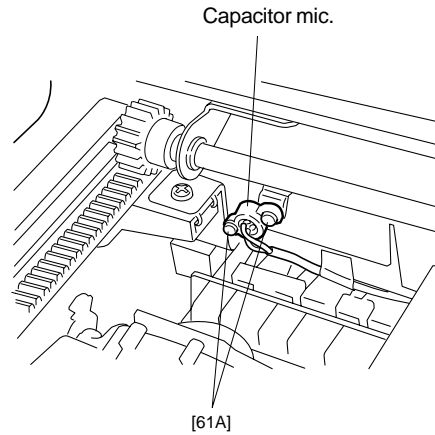
[1B]: Bind Head Tapping Screw-B 4.0x8 MFZN2Y (EP640410)
 [2B]: Bind Head Tapping Screw-B 3.0x10 MFZN2Y (EP600220)
 [3C]: Bind Head Tapping Screw-B 3.0x16 MFZN2Y (EP600390)

(Fig. 8)

9. Capacitor Mic.

(Time required : About 10 minutes)

- 9-1 Remove the top board assembly. (See procedure 2)
- 9-2 Remove the two (2) plastic rivets marked [61A]. The capacitor mic. can then be removed. (Fig. 9)
- * **The left and right capacitor mic. each can then be removed in the same manner.**
- * **For disconnection of the capacitor mic. connected to the speaker box assembly located under the main unit, refer to procedure 29.**



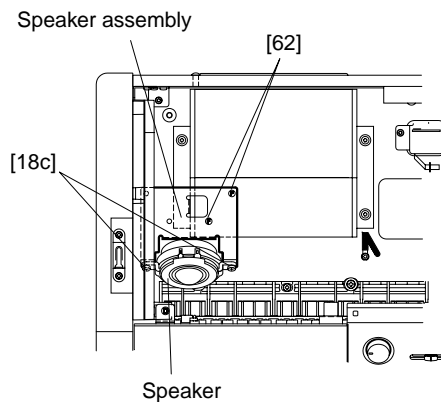
[61A]: Plastic Rivet P3065B (V9240700)

(Fig. 9)

10. Speaker Assembly, Speaker

(Time required : About 10 minutes)

- 10-1 Remove the top board assembly. (See procedure 2)
- 10-2 Remove the two (2) screws marked [62]. The speaker assembly can then be removed. (Fig. 10)
- * **The left and right speaker assembly each can then be removed in the same manner.**
- 10-3 Remove the two (2) screws marked [18c]. The speaker can then be removed. (Fig. 10)



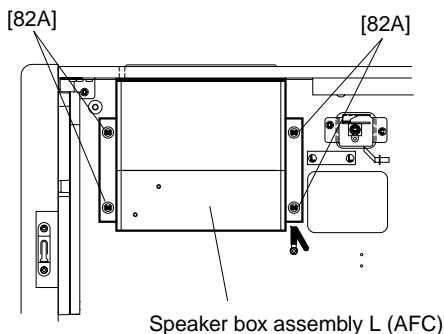
[62]: Bind Head Screw 4.0x14 MFZN2Y (EG340210)

[18c]: Bind Head Tapping Screw-B 4.0x8 MFZN2Y (EP640410)

(Fig. 10)

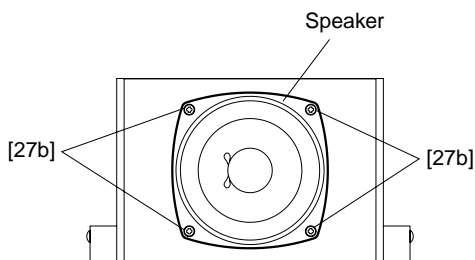
11. Speaker Box Assembly L (AFC), Speaker
(Time required : About 15 minutes)

- 11-1 Remove the top board assembly. (See procedure 2)
- 11-2 Remove the speaker assembly L. (See procedure 10)
- 11-3 Remove the four (4) screws marked [82A]. The speaker box assembly L (AFC) can then be removed. (Fig. 11)
- 11-4 Remove the four (4) screws marked [27b]. The speaker can then be removed. (Fig. 11-1)



[82A]: Truss Head Tapping Screw-1 3.5x30 MFZN2Y (VA076400)

(Fig. 11)

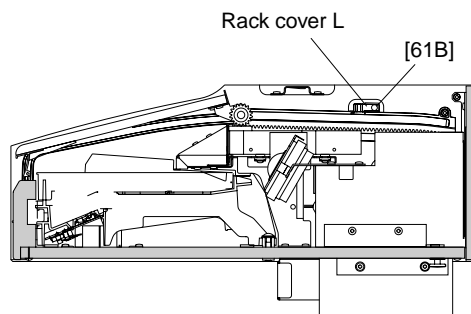


[27b]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)

(Fig. 11-1)

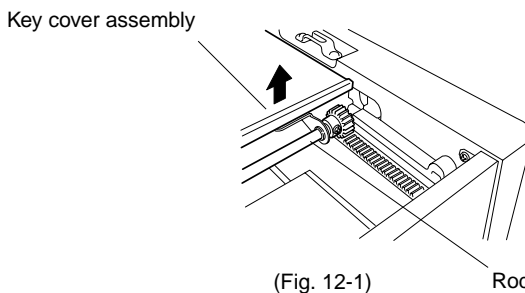
12. Key Cover Assembly
(Time required : About 10 minutes)

- 12-1 Close the key cover.
- 12-2 Remove the top board assembly. (See procedure 2)
- 12-3 Remove the screw marked [61B]. The rack cover L can then be removed. (Fig. 12)
- * **The rack cover R can then be removed in the same manner.**
- 12-4 Set the left end of the rod at the slits of the guide and then lift the rear key cover assembly. (Fig. 12-1)
- 12-5 Lean slightly the key cover assembly so that the guide pin can be removed from the guide rail. (Fig. 12-2)
- * **When removing, be sure not to make scratches on the side cover.**
- * **When reinstalling the key cover assembly, apply a masking shield tape around the guide rail to prevent from making scratches on the assembly.**

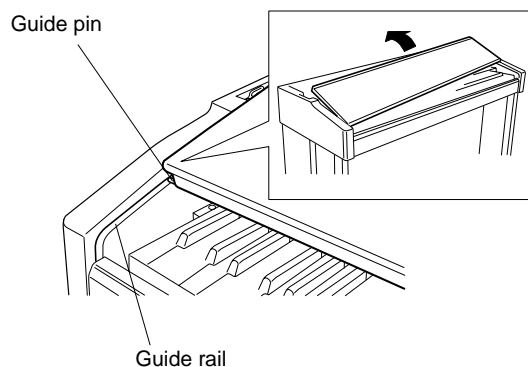


[61B]: Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)

(Fig. 12)



(Fig. 12-1)

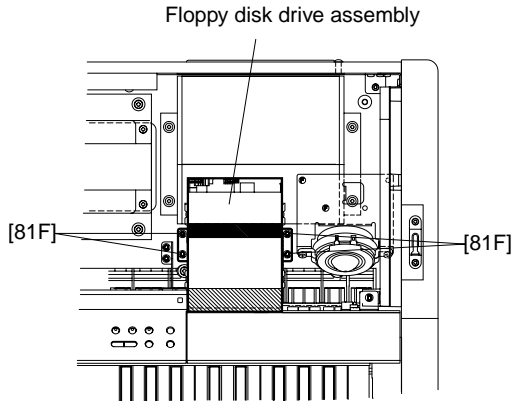


(Fig. 12-2)

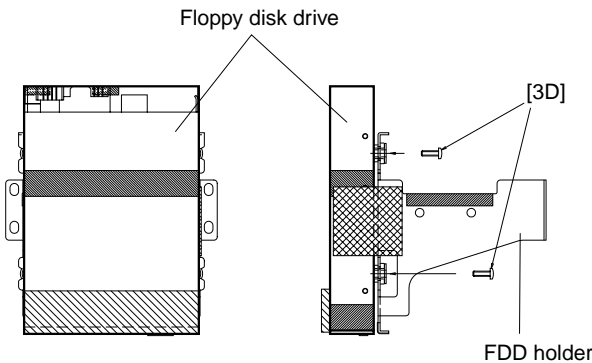
13. Floppy Disk Drive

(Time required : About 15 minutes)

- 13-1 Remove the top board assembly. (See procedure 2)
- 13-2 Remove the key cover assembly. (See procedure 12)
- 13-3 Remove the four (4) screws marked [81F]. The floppy disk drive assembly can then be removed. (Fig. 13)
- 13-4 Remove the four (4) screws marked [3D]. The FDD holder can then be removed from the floppy disk drive. (Fig. 13-1)



[81F]: Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)
(Fig. 13)

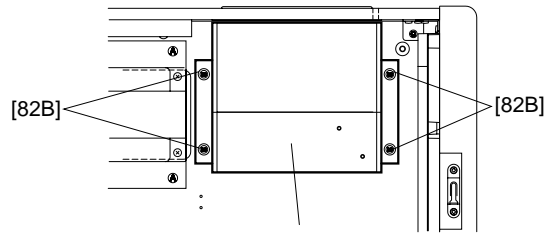


[3D]: Bind Head Screw 3.0x10 MFZN2BL (EG330380)
(Fig. 13-1)

14. Speaker Box Assembly R (AFC), Speaker

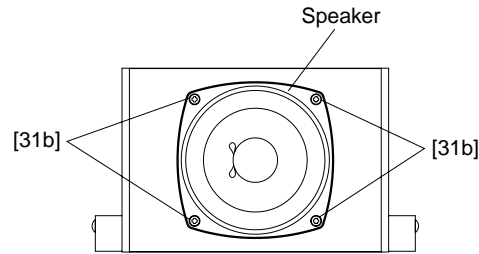
(Time required : About 20 minutes)

- 14-1 Remove the top board assembly. (See procedure 2)
- 14-2 Remove the speaker assembly R. (See procedure 10)
- 14-3 Remove the key cover assembly. (See procedure 12)
- 14-4 Remove the floppy disk drive assembly. (See procedure 13)
- 14-5 Remove the four (4) screws marked [82B]. The speaker box assembly R (AFC) can then be removed. (Fig. 14)
- 14-6 Remove the four (4) screws marked [31b]. The speaker can then be removed. (Fig. 14-1)



Speaker box assembly R (AFC)

[82B]: Truss Head Tapping Screw-1 3.5x30 MFZN2Y (VA076400)
(Fig. 14)



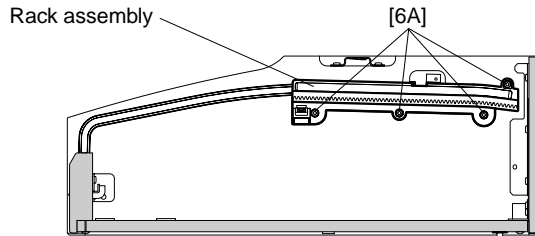
[31b]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)
(Fig. 14-1)

15. Rack Assembly

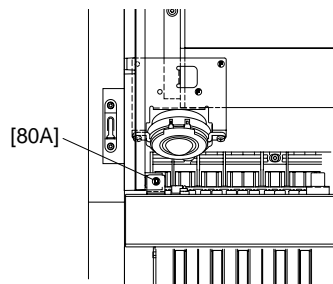
(Time required : About 15 minutes)

- 15-1 Remove the top board assembly. (See procedure 2)
- 15-2 Remove the speaker assembly R. (See procedure 10)
- 15-3 Remove the key cover assembly. (See procedure 12)
- 15-4 Remove the floppy disk drive assembly. (See procedure 13)
- 15-5 Remove the speaker box assembly R (AFC). (See procedure 14)
- 15-6 Remove the four (4) screws marked [6A] and the screw marked [80A]. The rack assembly can then be removed. (Fig. 15-1, Fig. 15-2)

* The left and right rack assembly each can then be removed in the same manner.



[6A]: Bind Head Tapping Screw-1 3.5x16 MFZN2BL (EP030260)
(Fig. 15-1)

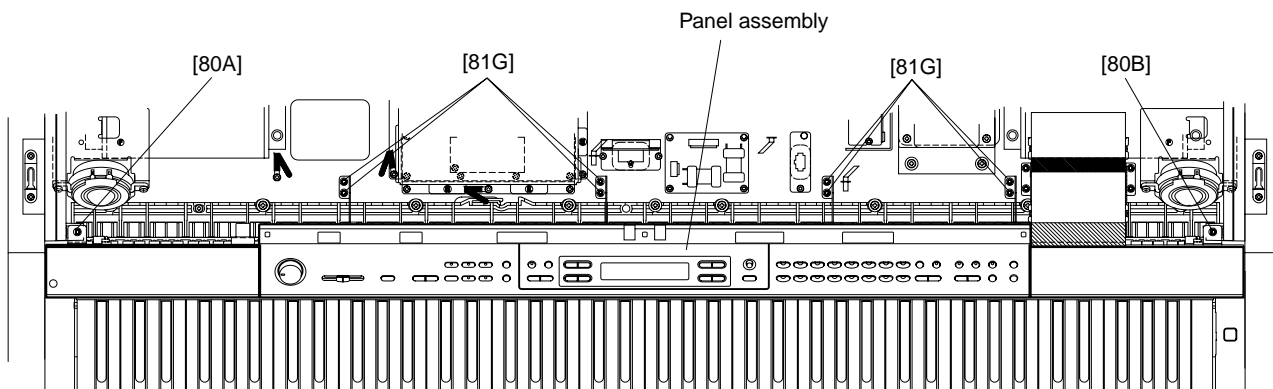


[80A]: Bind Head Tapping Screw-B 4.0x10 MFZN2BL (EP600240)
(Fig. 15-2)

16. Panel Assembly

(Time required : About 20 minutes)

- 16-1 Remove the top board assembly. (See procedure 2)
- 16-2 Remove the key cover assembly. (See procedure 12)
- 16-3 Remove the floppy disk drive assembly.
(See procedure 13)
- 16-4 Remove the screw marked [80A], the screw marked [80B] and the eight (8) screws marked [81G]. The panel assembly can then be removed. (Fig. 16)



[80]: Bind Head Tapping Screw-B 4.0x10 MFZN2BL (EP600240)

[81G]: Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)

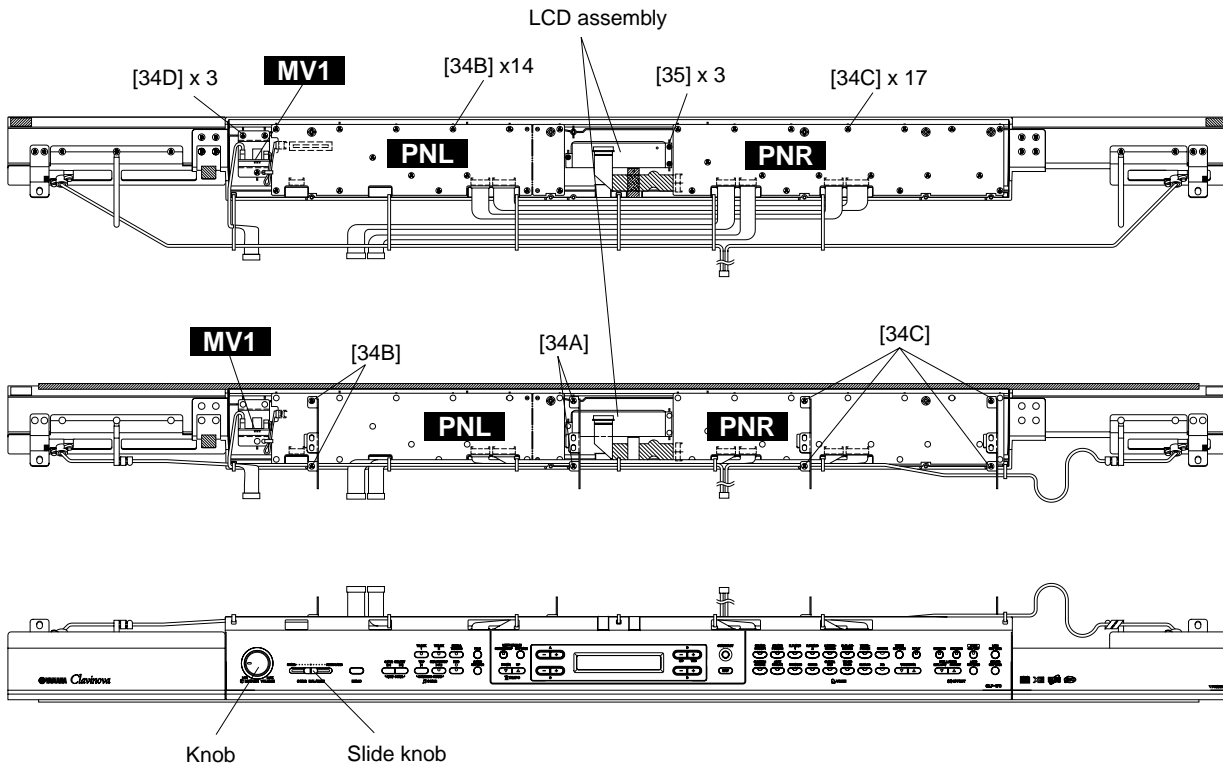
(Fig. 16)

17. Circuit Boards & Assemblies of Panel Assembly

(Time required : About 25 minutes)

- 17-1 Remove the top board assembly. (See procedure 2)
- 17-2 Remove the key cover assembly. (See procedure 12)
- 17-3 Remove the floppy disk drive assembly.
(See procedure 13)
- 17-4 Remove the panel assembly. (See procedure 16)
- 17-5 Each circuit board and assembly can be removed by removing its fixing screws as listed below.

Circuit board and Assembly	Ref. No.	Screw	QTY	Fig.
LCD Assembly	34A	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	2	17
	35	Bind Head Tapping Screw-B 2.6x10 MFZN2Y (VD791000)	3	17
PNL Circuit Board		Slide knob	1	17
	34B	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	16	17
PNR Circuit Board	34C	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	21	17
MV1 Circuit Board		Knob	1	17
	34D	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	3	17



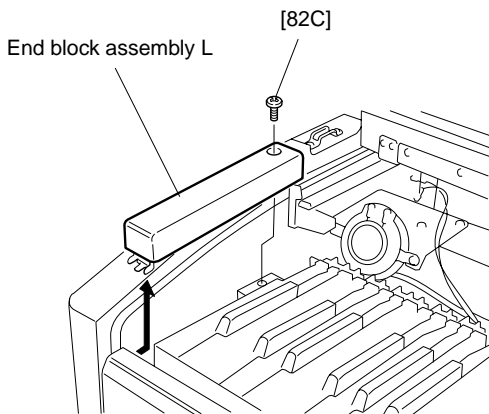
(Fig. 17)

18. End Block Assembly

(Time required : About 25 minutes)

- 18-1 Remove the top board assembly. (See procedure 2)
- 18-2 Remove the key cover assembly. (See procedure 12)
- 18-3 Remove the floppy disk drive assembly. (See procedure 13)
- 18-4 Remove the panel assembly. (See procedure 16)
- 18-5 Remove the screw marked [82C]. The end block assembly L can then be removed. (Fig. 18)

* The end block assembly R can then be removed in the same manner.



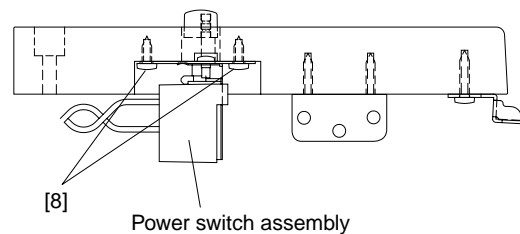
[82C]: Truss Head Tapping Screw-1 3.5x30 MFZN2Y (VA076400)

(Fig. 18)

19. Power Switch Assembly

(Time required : About 25 minutes)

- 19-1 Remove the top board assembly. (See procedure 2)
- 19-2 Remove the key cover assembly. (See procedure 12)
- 19-3 Remove the floppy disk drive assembly. (See procedure 13)
- 19-4 Remove the panel assembly. (See procedure 16)
- 19-5 Remove the end block assembly R. (See procedure 18)
- 19-6 Remove the two (2) screws marked [8]. The power switch assembly can then be removed. (Fig. 19)



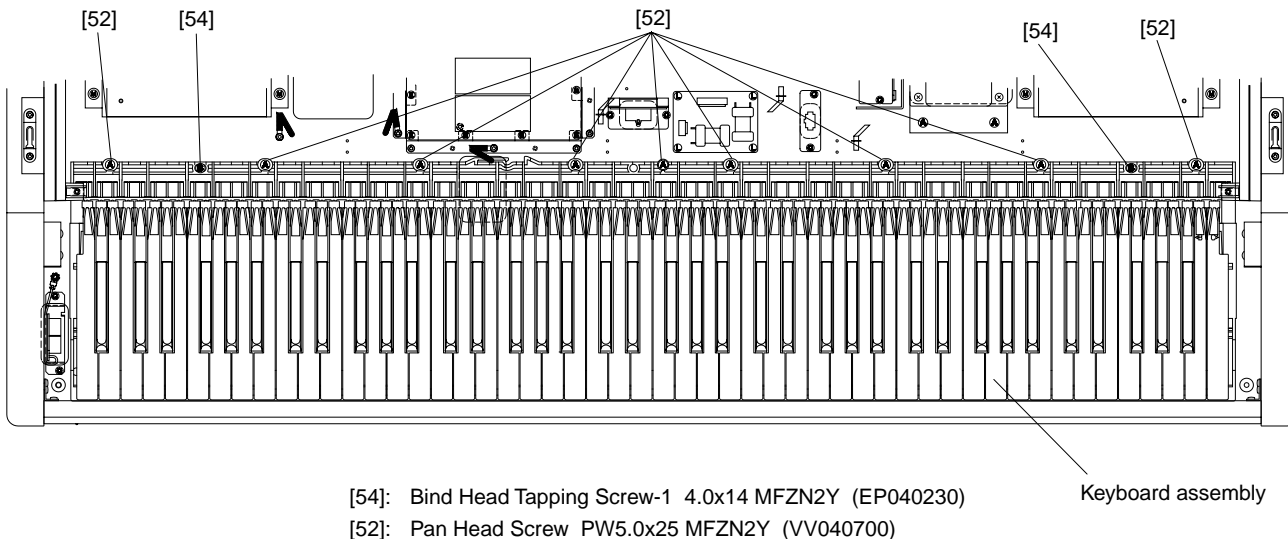
[8]: Bind Head Tapping Screw-1 3.5x10 MFZN2BL (EP030320)

(Fig. 19)

20. Keyboard Assembly

(Time required : About 30 minutes)

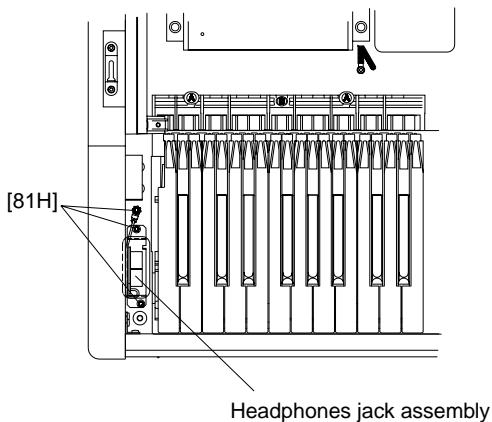
- 20-1 Remove the top board assembly. (See procedure 2)
- 20-2 Remove the speaker assembly L and R. (See procedure 10)
- 20-3 Remove the key cover assembly. (See procedure 12)
- 20-4 Remove the floppy disk drive assembly. (See procedure 13)
- 20-5 Remove the panel assembly. (See procedure 16)
- 20-6 Remove the end block assembly L and R. (See procedure 18)
- 20-7 Remove the two (2) screws marked [54] and the nine (9) screws marked [52]. The keyboard assembly can then be removed. (Fig. 20)



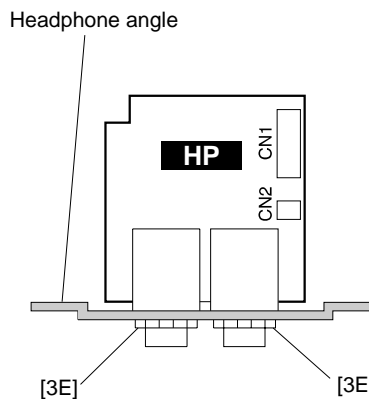
(Fig. 20)

21. Headphones Jack Assembly, HP Circuit Board
 (Time required : About 30 minutes)

- 21-1 Remove the top board assembly. (See procedure 2)
- 21-2 Remove the key cover assembly. (See procedure 12)
- 21-3 Remove the floppy disk drive assembly. (See procedure 13)
- 21-4 Remove the panel assembly. (See procedure 16)
- 21-5 Remove the end block assembly L. (See procedure 18)
- 21-6 Remove the three (3) screws marked [81H]. The headphones jack assembly can then be removed. (Fig. 21)
- 21-7 Remove the two (2) hexagonal nuts marked [3E]. The headphone angle can then be removed from the HP circuit board. (Fig. 21-1)



[81H]: Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)
 (Fig. 21)

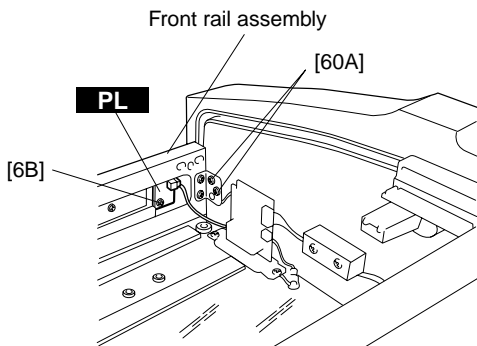


[3E]: Hexagonal Nut 12.0 14x2 MFZN2BL (VB508600)
 (Fig. 21-1)

22. PL Circuit Board

(Time required : About 30 minutes)

- 22-1 Remove the top board assembly. (See procedure 2)
- 22-2 Remove the speaker assembly L and R. (See procedure 10)
- 22-3 Remove the key cover assembly. (See procedure 12)
- 22-4 Remove the floppy disk drive assembly. (See procedure 13)
- 22-5 Remove the panel assembly. (See procedure 16)
- 22-6 Remove the end block assembly L and R. (See procedure 18)
- 22-7 Remove the keyboard assembly. (See procedure 20)
- 22-8 Remove the screw marked [6B]. The PL circuit board can then be removed. (Fig. 22)



[6B]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)

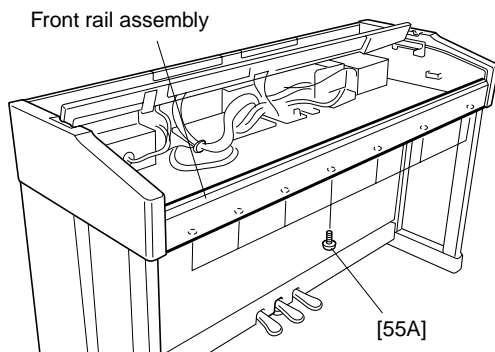
[60A]: Bind Head Tapping Screw-1 3.5x16 MFZN2Y (EP030190)

(Fig. 22)

23. Front Rail Assembly

(Time required : About 40 minutes)

- 23-1 Remove the top board assembly. (See procedure 2)
- 23-2 Remove the speaker assembly L and R. (See procedure 10)
- 23-3 Remove the key cover assembly. (See procedure 12)
- 23-4 Remove the floppy disk drive assembly. (See procedure 13)
- 23-5 Remove the panel assembly. (See procedure 16)
- 23-6 Remove the end block assembly L and R. (See procedure 18)
- 23-7 Remove the keyboard assembly. (See procedure 20)
- 23-8 Remove the two (2) screws marked [60A] from both sides of the assembly. (Fig. 22)
- 23-9 Remove the seven (7) screws marked [55A]. The front rail assembly can then be removed. (Fig. 23)



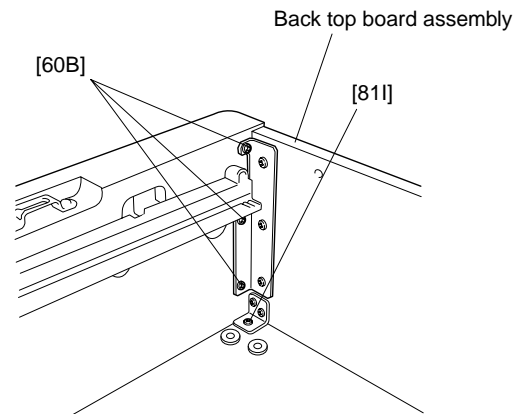
[55A]: Truss Head Tapping Screw-1 3.5x30 MFZN2BL (VU952600)

(Fig. 23)

24. Back Top Board Assembly

(Time required : About 40 minutes)

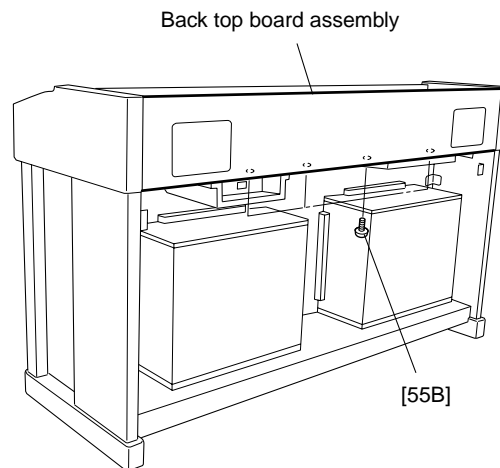
- 24-1 Remove the top board assembly. (See procedure 2)
- 24-2 Remove the back board assembly. (See procedure 3)
- 24-3 Remove the speaker assembly L and R. (See procedure 10)
- 24-4 Remove the speaker box assembly L (AFC). (See procedure 11)
- 24-5 Remove the key cover assembly. (See procedure 12)
- 24-6 Remove the floppy disk drive assembly. (See procedure 13)
- 24-7 Remove the speaker box assembly R (AFC). (See procedure 14)
- 24-8 Remove the three (3) screws marked [60B] and the screw marked [81I] from both sides of the assembly. (Fig. 24-1)
- 24-9 Remove the four (4) screws marked [55B]. The back top board assembly can then be removed. (Fig. 24-2)



[60B]: Bind Head Tapping Screw-1 3.5x16 MFZN2Y (EP030190)

[81I]: Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)

(Fig. 24-1)



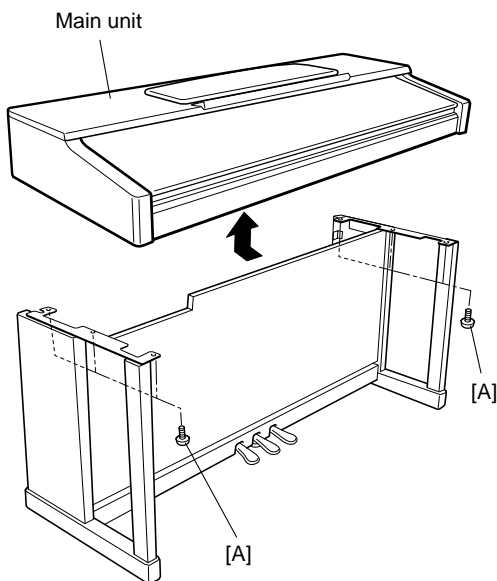
[55B]: Truss Head Tapping Screw-1 3.5x30 MFZN2BL (VU952600)

(Fig. 24-2)

25. Main Unit (Time required : About 15 minutes)

- 25-1 Remove the back board assembly. (See procedure 3)
- 25-2 Disconnect the AC cord, the speaker cable, the PK-LF cable and the mic pin cable. (Fig. 3-1)
- 25-3 Spread a soft cloth like a blanket on the floor where the main unit is to be placed in advance.
- 25-4 Remove the six (6) screws marked [A]. (Fig. 25)
- 25-5 Move the main unit rearward, lift it and place it on the cloth gently.

* **For safety, this work should be done by two persons.**
 * **When removing the main unit from the stand, use care not to have your finger caught.**



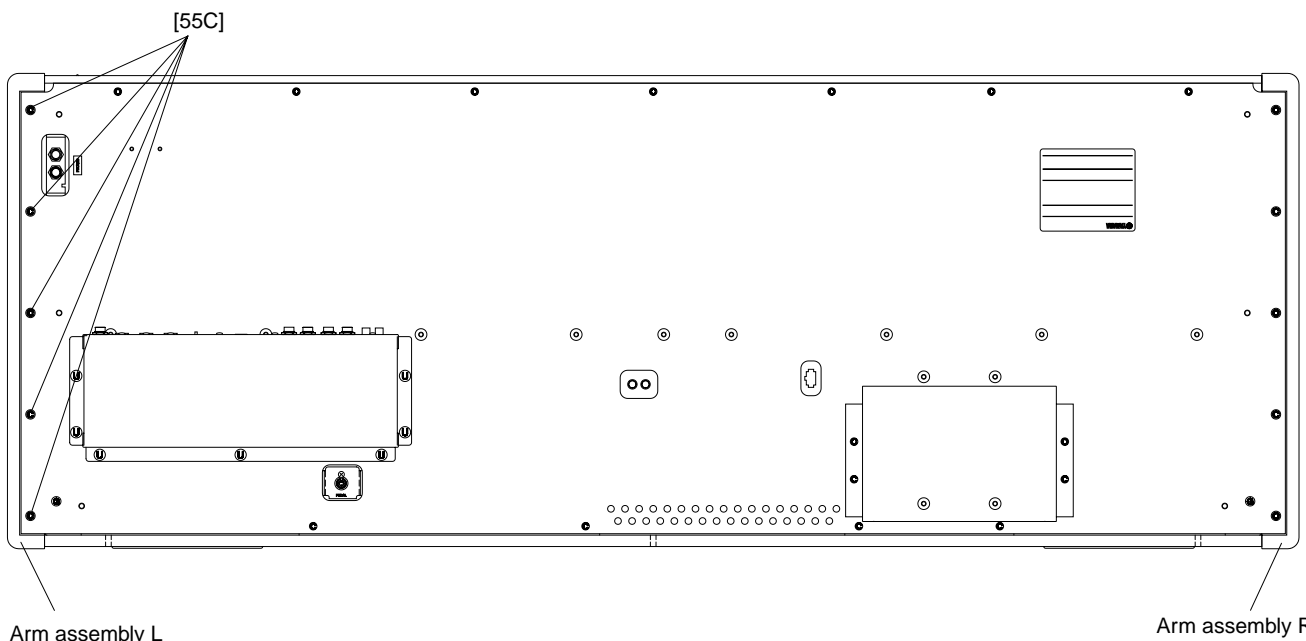
[A]: Bind Head Screw 6.0x16 MFZN2BL (EG360020)

(Fig. 25)

26. Arm Assembly (Time required : About 40 minutes)

- 26-1 Remove the top board assembly. (See procedure 2)
- 26-2 Remove the back board assembly. (See procedure 3)
- 26-3 Remove the speaker assembly L and R. (See procedure 10)
- 26-4 Remove the speaker box assembly L (AFC). (See procedure 11)
- 26-5 Remove the key cover assembly. (See procedure 12)
- 26-6 Remove the floppy disk drive assembly. (See procedure 13)
- 26-7 Remove the speaker box assembly R (AFC). (See procedure 14)
- 26-8 Remove the panel assembly. (See procedure 16)
- 26-9 Remove the end block assembly L and R. (See procedure 18)
- 26-10 Remove the keyboard assembly. (See procedure 20)
- 26-11 Remove the main unit. (See procedure 25)
- 26-12 Remove the two (2) screws marked [60A]. (Fig. 22)
- 26-13 Remove the three (3) screws marked [60B]. (Fig. 24-1)
- 26-14 Remove the five (5) screws marked [55C]. The arm assembly can then be removed. (Fig. 26)

* **The left and right arm assembly each can then be removed in the same manner.**



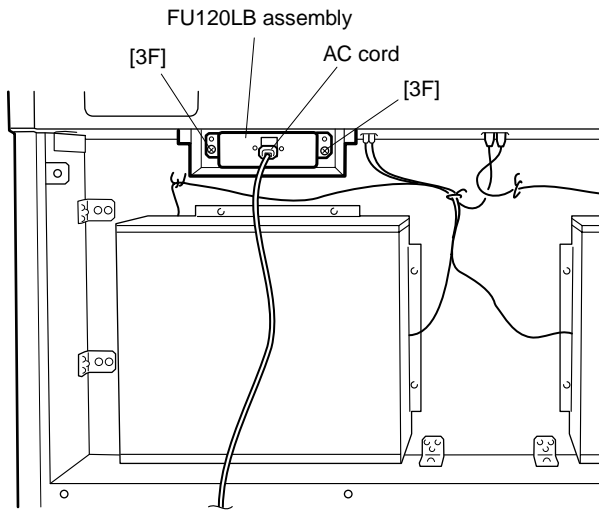
Arm assembly L

Arm assembly R

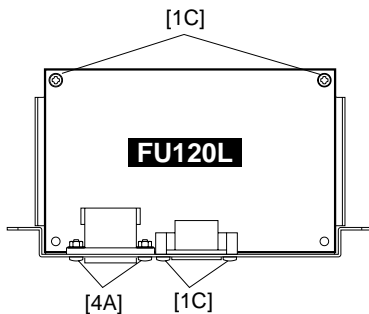
[55C]: Truss Head Tapping Screw-1 3.5x30 MFZN2BL (VU952600)
 (Fig. 26)

27. FU120LB Assembly, FU120L Circuit Board
(Time required : About 10 minutes)

- 27-1 Remove the back board assembly. (See procedure 3)
- 27-2 Disconnect the AC cord. (Fig. 27)
- 27-3 Remove the two (2) screws marked [3F]. The FU120LB assembly can then be removed. (Fig. 27)
- 27-4 Remove the four (4) screws marked [1C]. The FU120L circuit board can then be removed. (Fig. 27-1)
- 27-5 Remove the two (2) screws marked [4A]. (Fig. 27-1)
 (General export model only)



[3F]: Bind Head Tapping Screw-1 3.5x16 MFZN2BL (EP030260)
 (Fig. 27)

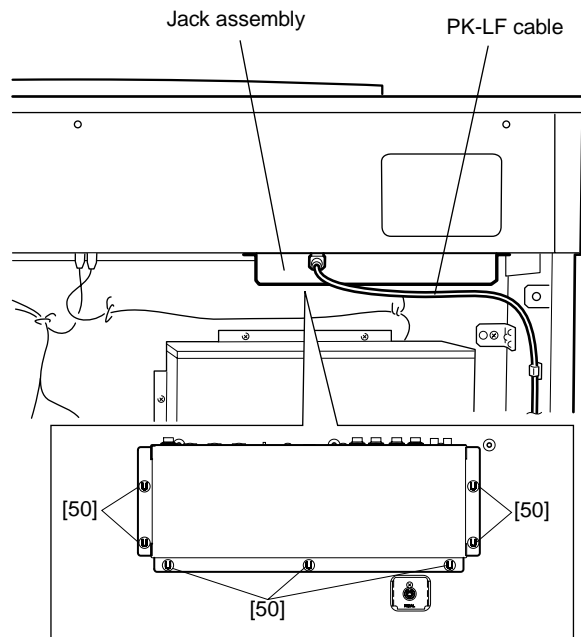


[1C]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)
 [4A]: Bind Head Screw 3.0x10 MFZN2BL (EG330380)

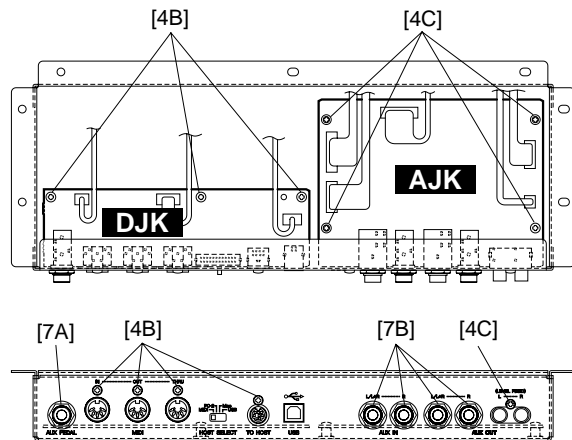
(Fig. 27-1)

28. Jack Assembly, DJK Circuit Board, AJK Circuit Board
(Time required : About 15 minutes)

- 28-1 Remove the back board assembly. (See procedure 3)
- 28-2 Disconnect the PK-LF cable. (Fig. 28)
- 28-3 Remove the seven (7) screws marked [50]. The jack assembly can then be removed. (Fig. 28)
- 28-4 Remove the seven (7) screws marked [4B] and the hexagonal nut marked [7A]. The DJK circuit board can then be removed. (Fig. 28-1)
- 28-5 Remove the five (5) screws marked [4C] and the four (4) hexagonal nuts marked [7B]. The AJK circuit board can then be removed. (Fig. 28-1)



[50]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)
 (Fig. 28)

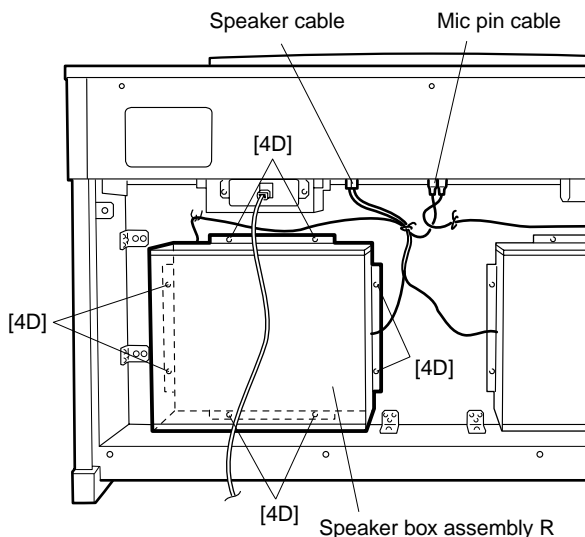


[4]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)
 [7]: Hexagonal Nut 12.0 14x2 MFZN2BL (VB508600)
 (Fig. 28-1)

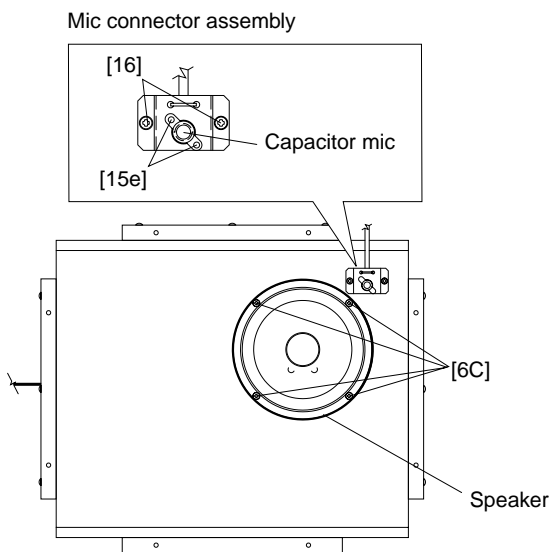
29. Speaker Box Assembly, Speaker, Mic Connector Assembly

(Time required : About 15 minutes)

- 29-1 Remove the back board assembly. (See procedure 3)
- 29-2 Disconnect the speaker cable and the mic pin cable. (Fig. 29)
- 29-3 Remove the eight (8) screws marked [4D]. The speaker box assembly can then be removed. (Fig. 29)
- * **The left and right speaker box assembly each can then be removed in the same manner.**
- 29-4 Remove the four (4) screws marked [6C]. The speaker can then be removed. (Fig. 29-1)
- 29-5 Remove the two (2) screws marked [16]. The mic connector assembly can then be removed. (Fig. 29-1)
- 29-6 Remove the two (2) nylon rivet marked [15e]. The capacitor mic. can then be removed. (Fig. 29-1)
- * **The left and right capacitor mic. each can then be removed in the same manner.**



[4D]: Truss Head Screw 4.0x30 MFZN2Y (V5877100)
(Fig. 29)



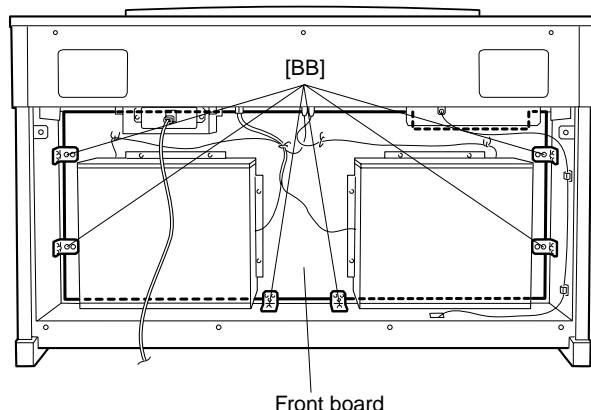
[6C]: Bind Head Tapping Screw-1 4.0x16 MFZN2BL (EP040250)
[16]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)
[15e]: Nylon Rivet (V9240700)

(Fig. 29-1)

30. Front Board Assembly

(Time required : About 15 minutes)

- 30-1 Remove the back board assembly. (See procedure 3)
- 30-2 Disconnect the speaker cable and the mic pin cable. (Fig. 29)
- 30-3 Remove the six (6) screws marked [BB]. The front board can then be removed. (Fig. 30)

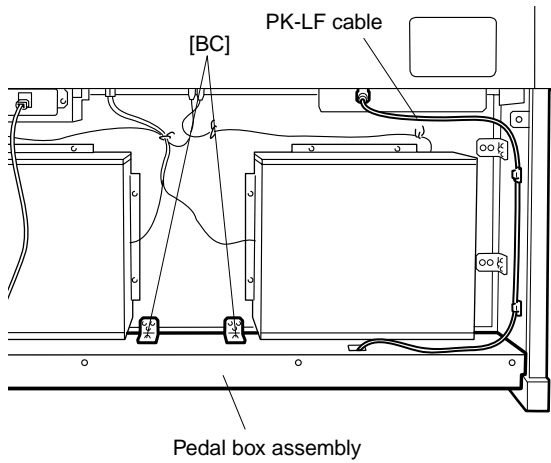


CLP-170/170M/170PE
[BB]: Truss Head Screw 4.0x14 MFZN2BL (VB931700)
CLP-170C
[BB]: Truss Head Screw 4.0x12 MFC2 (V6135000)
(Fig. 30)

31. Pedal Box Assembly, Pedal Assembly

(Time required : About 15 minutes)

- 31-1 Remove the back board assembly. (See procedure 3)
- 31-2 Disconnect the PK-LF cable. (Fig. 31)
- 31-3 Remove the two (2) screws marked [BC]. (Fig. 31)
- 31-4 With a soft cloth like a blanket placed on the floor, place the main unit on its back board gently. (Fig. 31-1)
- * **For safety, this work should be done by two persons.**
- 31-5 Remove the four (4) screws marked [CA]. The pedal box assembly can then be removed. (Fig. 31-1)
- 31-6 Remove the eight (8) screws marked [6D] and the screw marked [7C]. The pedal assembly can then be removed. (Fig. 31-2)



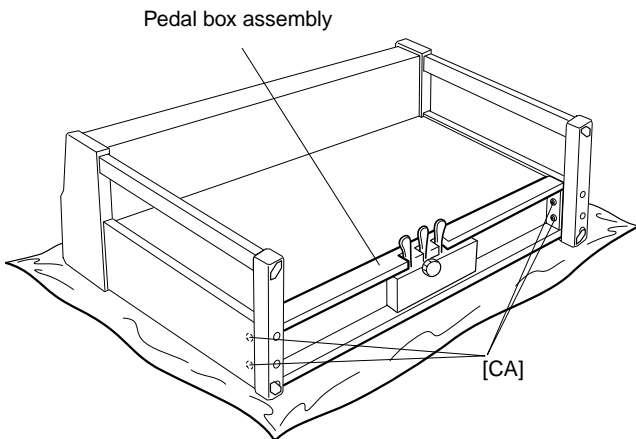
CLP-170/170M/170PE

[BC]: Truss Head Screw 4.0x14 MFZN2BL (VB931700)

CLP-170C

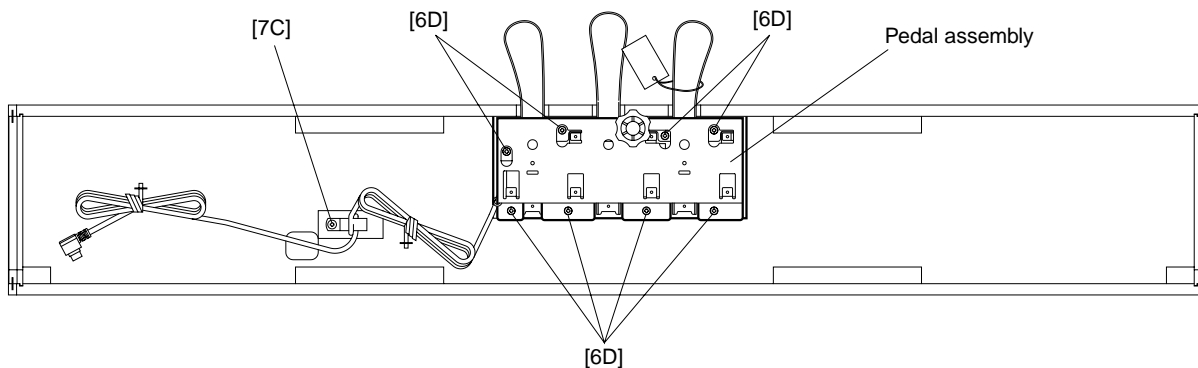
[BC]: Truss Head Screw 4.0x12 MFC2 (V6135000)

(Fig. 31)



[CA]: Truss Head Screw 6.0x25 MFZN2BL (VQ448400)

(Fig. 31-1)



[6D]: Bind Head Tapping Screw-1 4.0x14 MFZN2Y (EP040230)

[7C]: Truss Head Tapping Screw-1 3.5x20 MFZN2Y (EN630260)

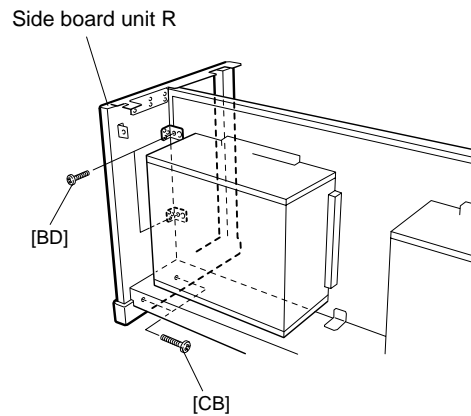
(Fig. 31-2)

32. Side Board Unit

(Time required : About 30 minutes)

- 32-1 Remove the back board assembly. (See procedure 3)
- 32-2 Remove the main unit. (See procedure 25)
- 32-3 Remove the two (2) screws marked [BD] and the two (2) screws marked [CB]. The side board unit can then be removed. (Fig. 32)

* The left and right side board unit each can then be removed in the same manner.



CLP-170/170M/170PE

[BD]: Truss Head Screw 4.0x14 MFZN2BL (VB931700)

[CB]: Truss Head Screw 6.0x25 MFZN2BL (VQ448400)

CLP-170C

[BD]: Truss Head Screw 4.0x12 MFC2 (V6135000)

[CB]: Truss Head Screw 6.0x25 MFZN2BL (VQ448400)

(Fig. 32)

33. Disassembling the Keyboard

(Time required : About 15 minutes)

- * After inserting a round stick (Rod: TX000670) between the frame and the keys, remove the circuit boards. (Fig. 33)

33-1 GH3 EBUS L Circuit Board

Remove the five (5) screws marked [260A] and the screw marked [262A]. The GH3 EBUS L circuit board can then be removed. (Fig. 34)

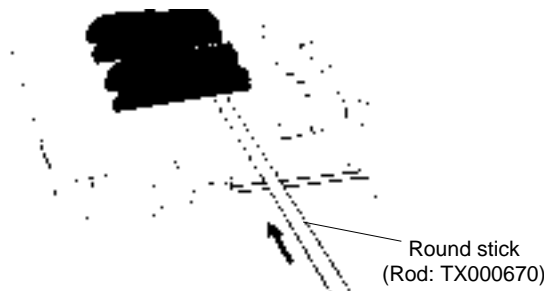
33-2 GH3 EBUS M Circuit Board

Remove the four (4) screws marked [260B], the screw marked [262A] and the screw marked [262B]. The GH3 EBUS M circuit board can then be removed. (Fig. 34)

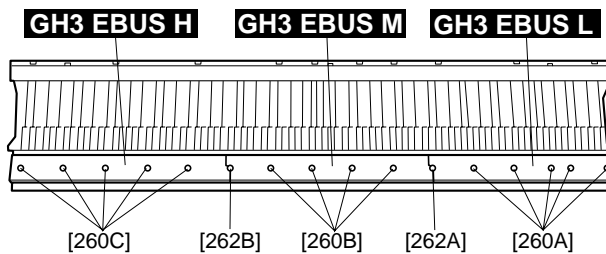
33-3 GH3 EBUS H Circuit Board

Remove the five (5) screws marked [260C] and the screw marked [262B]. The GH3 EBUS H circuit board can then be removed. (Fig. 34)

- * Keys can be removed without removing the circuit boards.
- * After removing the GH3 EBUS L, GH3 EBUS M and GH3 EBUS H circuit boards, and the rubbers can then be removed.

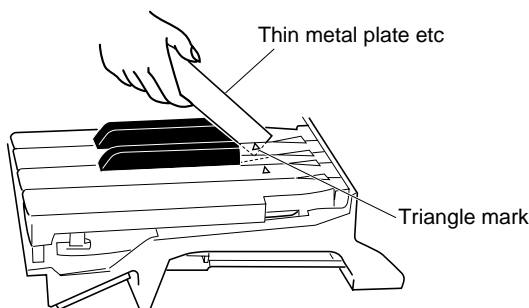


(Fig. 33)



[260]: Bind Head Tapping Screw-P 3.0x10 MFZN2 (VT413400)
 [262]: PW Head Tapping Screw-P 3.0x10-10 MFC2BL (V8833200)

(Fig. 34)



(Fig. 35)

33-4 White key

Insert a thin plate between the white keys, near the triangle mark around the fulcrum of the key, and press down the stopper marked [A] to remove the key. (Fig. 35, Fig. 36)

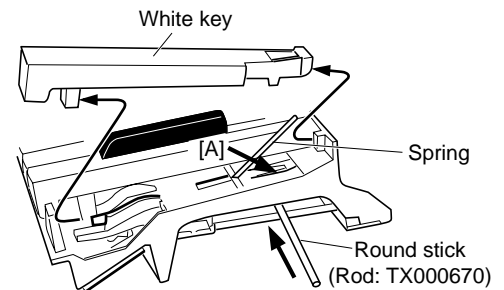
- * Take care not to damage the key spring when removing a key.
- * A black key can be removed after the white keys on either side have been removed.

33-5 Hammer, White Key

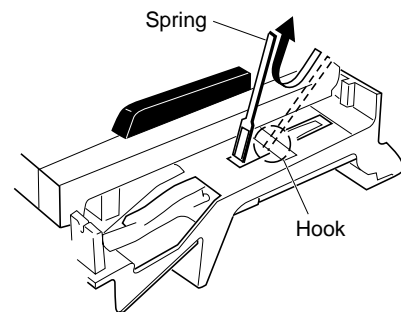
After a key has been removed, push a key spring down once to take it out of the hook. (Fig. 37)

Place the keyboard assembly upside-down and peel the stopper away. The hammer of the white key can then be removed. (Fig. 38)

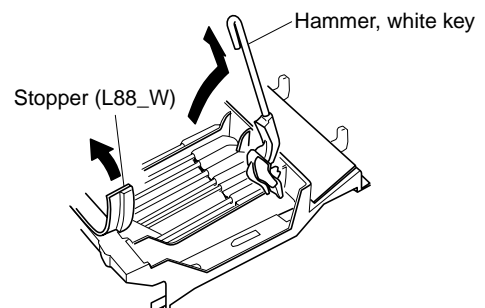
- * The hammer of the black key can then be removed in the same manner.



(Fig. 36)



(Fig. 37)



(Fig. 38)

34. Assembling the Keyboard

(Time required : About 15 minutes)

34-1 Hammer, White Key (Hammer, Black Key)

Place the keyboard assembly upside-down, insert a hammer assembly into the frame, and put the stopper (L88_W) on. (Fig. 39)

* There are four (4) kinds of hammers that differ in weight.

34-2 Spring

Place the keyboard assembly rightside up. Fix key springs on the frame by setting one at each slit and pushing down once on each key spring. (Fig. 40)

* Be careful of the direction of the spring.

34-3 White Key (Black Key)

After a key has been fit to part [C] and key guide, make sure that the spring is fixed to the key and then press down part [B] of the key. (Fig. 41)

34-4 GH3 EBUS L Circuit Board

Tighten the five (5) screws marked [260A] and the screw marked [262A] to fix the GH3 EBUS L circuit board. (Fig. 34)

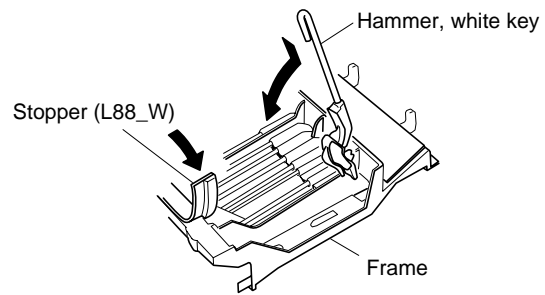
34-5 GH3 EBUS M Circuit Board

Tighten the four (4) screws marked [260B], the screw marked [262A] and the screw marked [262B] to fix the GH3 EBUS M circuit board. (Fig. 34)

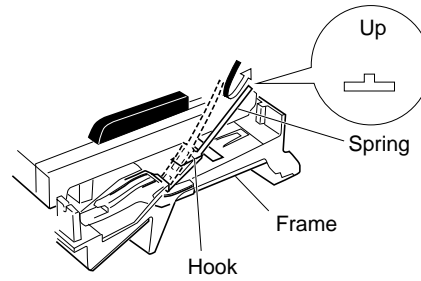
* Install the circuit boards in the keyboard assembly so that the hooks hold it as shown in figure 42.

34-6 GH3 EBUS H Circuit Board

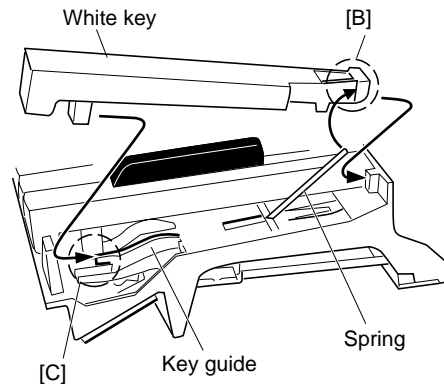
Tighten the five (5) screws marked [260C] and the screw marked [262B] to fix the GH3 EBUS H circuit board. (Fig. 34)



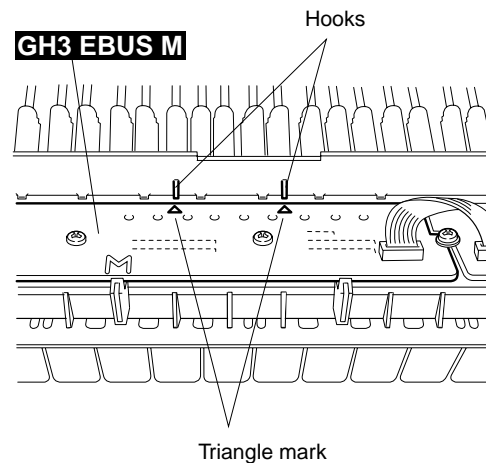
(Fig. 39)



(Fig. 40)



(Fig. 41)



(Fig. 42)

■ LSI PIN DESCRIPTION

AK4393-VF-E2 (XW029A00) **DAC** (Digital to Analog Converter) 25

HD63266F (XI939A00) **FDC** (Floppy Disk Controller) 21

HD6417709SHF200 (X2687A00) **CPU** (SH3) 24

M66291GP (X2156A00) **USB Controller** 25

PCM1730E-1/2K (X2077A00) **DAC** (Digital to Analog Converter) 25

PCM1800E/2K (XU770A00) **ADC** (Analog to Digital Converter) 26

T8F02TB-0102 (X0060A00) **SWP50** (Tone Generator) 22

μPD780031AYGK-N01-9ET (XZ916100) **LED DRIVER/SWITCH SCAN E-PNS2a** 26

μPD780031AYGK-N03-9ET (X2599100) **E-TKS** 26

● HD63266F (XI939A00) FDC (Floppy Disk Controller)

DM: IC001

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION			
1	8"/5"	I	Data transmission speed	33	/TRKO	I	Track 00 signal			
2	XTALSET	I	Clock select	34	/INDEX	I	Index signal			
3	/RESET	I	Rest	35	/RDATA	I	Read data input from FDD			
4	E//RD	I	Enable/Read	36	XTAL2	}	Clock			
5	RW//WR	I	Read/write/Write	37	EXTAL2					
6	/CS	I	Chip select	38	NC	}	Clock			
7	/DACK	I	DMA acknowledge	39	XTAL1					
8	RS0	I	Register select	40	EXTAL1	}	Ground			
9	RS1	I								
10	VSS1	}	Ground	41	VSS4	}	Ground			
11	VSS2			42	VSS5					
12	D0			I/O	43			NC		
13	D1	I/O	Data bus	44	VCC2	}	Power supply			
14	D2	I/O		45	VCC3					
15	D3	I/O		46	VCC4					
16	D4	I/O		47	/WGATE			O	Write control	
17	D5	I/O		48	/WDATA	O	Writ data to FDD			
18	D6	I/O		49	VSS6	}	Ground			
19	D7	I/O		50	/STEP			O	Step signal to control head of FDD	
20	/DREQ	O		DMA request	51	/HDIR	O	Direction		
21	/IRQ	O	Interrupt request	52	/HLOAD	O	Head load			
22	/DEND	I	Data end	53	/HSEL	O	Head select			
23	VSS3	}	Ground	54	VSS7	}	Ground			
24	1/2 EX1			Power supply	55			/DS0	}	Drive select
25	VCC1				56			/DS1		
26	NUM1	I	57		/DS2					
27	NUM3	I	58	/DS3	O	}	Ground			
28	IFS	I	59	VSS8						
29	SFORM	I	Host interface select	60	/MON0			O		
30	/INP	I	Format data	61	/MON1	O	}	Motor on		
31	/READY	I	Index pulse	62	/MON2	O				
32	/WPRT	I	Ready from FDD	63	/MON3	O				
			Write control signal	64	VSS9		Ground			

● T8F02TB-0102 (X0060A00) SWP50 (Tone Generator)

DM: IC012

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION		
1	E5	VSS2	-	Ground	106	E22	VSS2	-	Ground		
2	D4	VDDC	-	Power supply +1.5 V	107	D23	VDDC	-	Power supply +1.5 V		
3	C3	CD15	I/O	Data bus of internal register	108	C24	HMA15	O	Wave memory address bus		
4	B2	CD13	I/O		109	B25	HMA16	O			
5	A1	CD14	I/O		110	A26	HMA22	O			
6	D5	CD6	I/O		111	E23	HMA25	O			
7	E6	CD2	I/O	112	F22	VDDS	-	Power supply +3 V			
8	C4	CD9	I/O	113	D24	HMA27	O	Wave memory address bus			
9	B3	CD11	I/O	114	C25	HMA0	O				
10	A2	CD12	I/O	115	B26	HMA23	O				
11	A3	CD10	I/O	116	C26	HMA24	O				
12	D6	CD1	I/O	117	F23	VDDS	-	Power supply +3 V			
13	E7	VSS	-	Ground	118	G22	HMA26	O	Wave memory address bus		
14	C5	CD5	I/O	119	E24	HMA30	O				
15	B4	CD8	I/O	120	D25	HMA28	O				
16	A4	CD7	I/O	121	D26	HMA29	O				
17	D7	VSS2	-	Ground	122	G23	LMA17	O	Wave memory address bus (Lower data memory)		
18	C6	CD0	I/O	123	F24	LMA19	O				
19	E8	VSS	-	Ground	124	H22	VSS	-		Ground	
20	D8	VDDS	-	Power supply +3 V	125	H23	VDDS	-		Power supply +3 V	
21	B5	CD4	I/O	Data bus of internal register	126	E25	LMA20	O	Wave memory address bus (Lower data memory)		
22	A5	CD3	I/O		127	E26	LMA21	O			
23	C7	CA2	I		128	G24	LMA9	O			
24	B6	CA0	I		129	F25	LMA18	O			
25	E9	CA8	I	Address bus of internal register	130	J22	LMA12	O	Wave memory address bus (Lower data memory)		
26	D9	CA9	I		131	J23	LMA4	O			
27	C8	CA5	I		132	H24	LMA6	O			
28	A6	CA1	I		133	F26	LMA8	O			
29	B7	CA3	I	134	G25	LMA7	O	Ground			
30	A7	CA4	I	135	G26	LMA10	O				
31	E10	VSS2	-	Ground	136	K22	VSS2		-	Ground	
32	D10	VDDC	-	Power supply +1.5 V	137	K23	VDDC		-	Power supply +1.5 V	
33	C9	CA10	I	Address bus of internal register	138	J24	LMA13	O	Wave memory address bus (Lower data memory)		
34	B8	CA6	I		139	H25	LMA11	O			
35	A8	CA7	I		140	H26	LMA5	O			
36	E9	CA11	I		141	J25	LMA3	O			
37	E11	CA14	I	142	L22	LMA16	O	Wave memory address bus (Lower data memory)			
38	D11	CA15	I	143	L23	LMA0	O				
39	C10	CA13	I	144	K24	LMA2	O				
40	A9	CA12	I	145	J26	LMA14	O				
41	B10	CSN0	I	Chip select	146	K25	LMA15	O	Ground		
42	A10	CSN1	I		147	K26	LMA1	O		Power supply +3 V	
43	E12	VSS	-		148	M22	VSS	-			Ground
44	D12	VDDS	-		149	M23	VDDS	-			Power supply +3 V
45	C11	WRN	I	150	L24	LMA22	O	Wave memory address bus (Lower data memory)			
46	B11	RDN	I	151	L25	LMA23	O		Wave memory address bus (Lower data memory)		
47	A11	WAIT0	O	152	L26	LMA24	O			Wave memory address bus (Lower data memory)	
48	C12	IRQ0	O	153	M24	LMA27	O				Wave memory address bus (Lower data memory)
49	B12	DREQ0	O	154	M25	LMA28	O	Wave memory address bus (Lower data memory)			
50	E13	TCK	I	155	N22	LMA25	O		Wave memory address bus (Lower data memory)		
51	D13	TRST	I	156	N23	LMA26	O			Wave memory address bus (Lower data memory)	
52	C13	VSS	-	157	N24	LMA30	O				Wave memory address bus (Lower data memory)
53	A12	XO	O	158	M26	LMA29	O	Wave memory address bus (Lower data memory)			
54	B13	XI	I	159	N25	MOEN	O		Wave memory address bus (Lower data memory)		
55	A13	VDDS	-	160	N26	MWEN	O			Wave memory address bus (Lower data memory)	
56	A14	SLAVE	I	161	P26	LMD15	I/O				Wave memory address bus (Lower data memory)
57	E14	TMS	I	162	P22	VSS	-	Wave memory address bus (Lower data memory)			
58	D14	TDO	O	163	P23	VDDS	-		Wave memory address bus (Lower data memory)		
59	C14	ICN	I	164	P24	LMD13	I/O			Wave memory address bus (Lower data memory)	
60	B14	RFCLK0	I	165	P25	LMD14	I/O				Wave memory address bus (Lower data memory)
61	B15	PLL_TSTN	I	166	R25	LMD11	I/O	Wave memory address bus (Lower data memory)			
62	C15	PLL_BP	I	167	R24	LMD10	I/O		Wave memory address bus (Lower data memory)		
63	D15	VDDS	-	168	R23	VDDS	-			Wave memory address bus (Lower data memory)	
64	E15	VSS	-	169	R22	VSS	-				Wave memory address bus (Lower data memory)
65	A15	RFCLK1	I	170	R26	LMD12	I/O	Wave memory address bus (Lower data memory)			
66	A16	VDDC	-	171	T26	LMD9	I/O		Wave memory address bus (Lower data memory)		
67	B16	TMODE	I	172	T25	LMD8	I/O			Wave memory address bus (Lower data memory)	
68	C16	PLL_AVD	I	173	T24	LMD7	I/O				Wave memory address bus (Lower data memory)
69	D16	NC	-	174	T23	VSS2	-	Wave memory address bus (Lower data memory)			
70	E16	NC	-	175	T22	VSS	-		Wave memory address bus (Lower data memory)		
71	A17	PLL_AVS	I	176	U26	LMD6	I/O			Wave memory address bus (Lower data memory)	
72	B17	TEST1	I	177	U25	LMD5	I/O				Wave memory address bus (Lower data memory)
73	A18	VSS	-	178	V26	LMD3	I/O	Wave memory address bus (Lower data memory)			
74	C17	SY1	I	179	U24	LMD4	I/O		Wave memory address bus (Lower data memory)		
75	D17	VDDC	-	180	U23	VDDC	-			Wave memory address bus (Lower data memory)	
76	E17	VSS2	-	181	U22	VSS2	-				Wave memory address bus (Lower data memory)
77	B18	KONTRG0	O	182	V25	LMD2	I/O	Wave memory address bus (Lower data memory)			
78	A19	KONTRG1	O	183	W26	LMD0	I/O		Wave memory address bus (Lower data memory)		
79	C18	CK512	O	184	V24	LMD1	I/O			Wave memory address bus (Lower data memory)	
80	B19	CK128	O	185	W25	DCSL0	O				Wave memory address bus (Lower data memory)
81	D18	BCLK	O	186	V23	VDDS	-	Wave memory address bus (Lower data memory)			
82	E18	SY0	O	187	V22	VDDC	-		Wave memory address bus (Lower data memory)		
83	C19	HMA20	O	188	W24	DCSL1	O			Wave memory address bus (Lower data memory)	
84	A20	HMA21	O	189	Y26	DQML3	O				Wave memory address bus (Lower data memory)
85	B20	HMA19	O	190	Y25	DQML1	O	Wave memory address bus (Lower data memory)			
86	C20	HMA18	O	191	Y24	DMAL14	O		Wave memory address bus (Lower data memory)		
87	D19	VDDS	-	192	W23	VDDS	-			Wave memory address bus (Lower data memory)	
88	E19	VSS	-	193	W22	VSS	-				Wave memory address bus (Lower data memory)
89	A21	HMA9	O	194	AA26	DMAL13	O	Wave memory address bus (Lower data memory)			
90	B21	HMA7	O	195	AA25	DMAL12	O		Wave memory address bus (Lower data memory)		
91	A22	HMA6	O	196	AB26	DMAL9	O			Wave memory address bus (Lower data memory)	
92	D20	HMA8	O	197	Y23	VSS	-				Wave memory address bus (Lower data memory)
93	C21	HMA10	O	198	AA24	DMAL11	O	Wave memory address bus (Lower data memory)			
94	E20	HMA17	O	199	Y22	VSS	-		Wave memory address bus (Lower data memory)		
95	D21	VDDS	-	200	AA23	DMAL10	O			Wave memory address bus (Lower data memory)	
96	B22	HMA11	O	201	AB25	DMAL8	O				Wave memory address bus (Lower data memory)
97	A23	HMA4	O	202	AC26	DMAL6	O	Wave memory address bus (Lower data memory)			
98	C22	HMA5	O	203	AB24	DMAL7	O		Wave memory address bus (Lower data memory)		
99	B23	HMA13	O	204	AC25	DMAL5	O			Wave memory address bus (Lower data memory)	
100	E21	VSS	-	205	AA22	VSS2	-				Wave memory address bus (Lower data memory)
101	D22	HMA12	O	206	AB23	VSS	-	Wave memory address bus (Lower data memory)			
102	C23	HMA3	O	207	AC24	DMAL4	O		Wave memory address bus (Lower data memory)		
103	A24	HMA14	O	208	AD26	DMAL3	O			Wave memory address bus (Lower data memory)	
104	B24	HMA2	O	209	AD25	DMAL2	O				Wave memory address bus (Lower data memory)
105	A25	HMA1	O	210	AE26	DMAL0	O	Wave memory address bus (Lower data memory)			

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
211	AB22	VSS2	-	Ground	316	AB5	VSS2	-	Ground
212	AC23	VDDC	-	Power supply +1.5 V	317	AC4	VDDC	-	Power supply +1.5 V
213	AD24	DMAL1	I	Address bus (DIMM, SDRAM)	318	AD3	MELI6	I	MEL wave data input
214	AE25	DCSL2	I		319	AE2	MELI7	I	
215	AF26	DRAS0	O	Power supply +3 V	320	AF1	ADLR	O	Power supply +3 V
216	AC22	DCAS0	O		321	AB4	DITO	O	
217	AB21	VDD5	-	Power supply +3 V	322	AA5	VSS	-	Ground
218	AD23	DCLKIN	I/O	MASK signal	323	AC3	AFRM	I/O	
219	AE24	DQML2	I/O		324	AD2	ACLK	I/O	
220	AF25	DCSL3	O	MASK signal	325	AE1	ADIR	O	
221	AF24	DQML0	O		326	AD1	ADAT0	I/O	
222	AC21	VDD5	-	Power supply +3 V	327	AA4	VDD5	-	Power supply +3 V
223	AB20	VSS	-	Ground	328	Y5	ADAT9	I/O	
224	AD22	DWEN0	O	Wave memory data bus (Upper data memory)	329	AB3	ADAT3	I/O	
225	AE23	DCLK0	O		330	AC2	ADAT1	I/O	
226	AF23	DCLK1	O	Wave memory data bus (Upper data memory)	331	AC1	ADAT2	I/O	
227	AC20	DCLKE	O		332	Y4	ADAT10	I/O	
228	AD21	HMD13	I/O	Wave memory data bus (Upper data memory)	333	AA3	ADAT6	I/O	
229	AB19	VSS	-		Ground	334	W5	VSS	-
230	AC19	VDD5	-	Power supply +3 V	335	W4	VDD5	-	Power supply +3 V
231	AE22	HMD15	I/O	Wave memory data bus (Upper data memory)	336	AB2	ADAT4	I/O	
232	AF22	HMD14	I/O		337	AB1	ADAT5	I/O	
233	AD20	HMD10	I/O	Power supply +1.5 V	338	Y3	ADAT11	I/O	
234	AE21	HMD12	I/O		339	AA2	ADAT7	I/O	
235	AB18	VDDC	-	Power supply +1.5 V	340	V5	ADAT14	I/O	
236	AC18	VDD5	-	Power supply +3 V	341	V4	ADAT15	I/O	
237	AD19	HMD7	I/O	Wave memory data bus (Upper data memory)	342	W3	ADAT13	I/O	
238	AF21	HMD11	I/O		343	AA1	ADAT8	I/O	
239	AE20	HMD9	I/O	Wave memory data bus (Upper data memory)	344	Y2	ADAT12	I/O	
240	AF20	HMD8	I/O		345	Y1	TDI	I	
241	AB17	VSS2	-	Ground	346	U5	VSS2	-	Ground
242	AC17	VDDC	-	Power supply +1.5 V	347	U4	VDDC	-	Power supply +1.5 V
243	AD18	HMD4	I/O	Wave memory data bus (Upper data memory)	348	V3	HRD13	I/O	
244	AE19	HMD6	I/O		349	W2	HRD15	I/O	
245	AF19	HMD5	I/O	Ground	350	W1	HRD14	I/O	
246	AE18	HMD3	I/O		351	V2	HRD12	I/O	
247	AB16	VSS	-	Ground	352	T5	HRD7	I/O	
248	AC16	VSS2	-	Ground	353	T4	HRD6	I/O	
249	AD17	HMD1	I/O	Wave memory data bus (Upper data memory)	354	U3	HRD10	I/O	
250	AF18	HMD2	I/O		355	V1	HRD11	I/O	
251	AE17	HMD0	I/O	Ground	356	U2	HRD9	I/O	
252	AF17	DCSH0	O		357	U1	HRD8	I/O	
253	AB15	VSS	-	Ground	358	R5	VSS	-	Ground
254	AC15	VDD5	-	Power supply +3 V	359	R4	VDD5	-	Power supply +3 V
255	AD16	DCSH1	O	MASK signal	360	T3	HRD5	I/O	
256	AE16	DQMH3	O		361	T2	HRD4	I/O	
257	AF16	DQMH1	O	Address bus (DIMM, SDRAM)	362	T1	HRD3	I/O	
258	AD15	DMAH14	O		363	R3	HRD2	I/O	
259	AE15	DMAH13	O	Ground	364	R2	HRD1	I/O	
260	AB14	VSS	-		Ground	365	P5	VDD5	-
261	AC14	VSS2	-	Ground	366	P4	HRD0	I/O	DRAM data bus
262	AD14	DMAH11	O	Address bus (DIMM, SDRAM)	367	P3	RWEN	O	DRAM write enable
263	AF15	DMAH12	O		368	R1	RQML	O	
264	AE14	DMAH10	O	Power supply +3 V	369	P2	RCAS	O	DRAM column address strobe (RAS signal)
265	AF14	DMAH9	O		370	P1	RRAS	O	DRAM row address strobe (RAS signal)
266	AF13	DMAH8	O	Power supply +3 V	371	N1	RA13	O	DRAM address bus
267	AB13	VDD5	-		Power supply +3 V	372	N5	VDD5	-
268	AC13	VDD5	-	Power supply +3 V	373	N4	VDD5	-	Power supply +3 V
269	AD13	DMAH6	O	Address bus (DIMM, SDRAM)	374	N3	RA10	O	
270	AE13	DMAH7	O		375	N2	RA12	O	
271	AE12	DMAH4	O	Power supply +1.5 V	376	M2	RA1	O	
272	AD12	DMAH3	O		377	M3	RA2	O	
273	AC12	VDD5	-	Power supply +1.5 V	378	M4	VDD5	-	Power supply +3 V
274	AB12	VSS	-	Ground	379	M5	VSS	-	Ground
275	AF12	DMAH5	O	Address bus (DIMM, SDRAM)	380	M1	RA0	O	
276	AF11	DMAH2	O		381	L1	RA3	O	
277	AE11	DMAH1	O	Ground	382	L2	RA4	O	
278	AD11	DMAH0	O		383	L3	RA5	O	
279	AC11	VSS	-	Ground	384	L4	VSS2	-	Ground
280	AB11	VSS	-	Ground	385	L5	VSS	-	Ground
281	AF10	DRAS1	O	MASK signal	386	K1	RA6	O	
282	AE10	DCSH2	O		387	K2	RA7	O	
283	AF9	DQMH2	O	Power supply +1.5 V	388	J1	RA9	O	
284	AD10	DCSH3	O		389	K3	RA8	O	
285	AC10	VDDC	-	Power supply +1.5 V	390	K4	VDDC	-	Power supply +1.5 V
286	AB10	VSS2	-	Ground	391	K5	VSS2	-	Ground
287	AE9	DQMH0	O	MASK signal	392	J2	RA11	O	DRAM address bus
288	AF8	DWEN1	O	Power supply +3 V	393	H1	RCLK	O	
289	AD9	DCAS1	O		394	J3	RCLK	O	
290	AE8	DCLK2	I	Power supply +1.5 V	395	H2	RCLKIN	I	
291	AC9	VDD5	-		Power supply +3 V	396	J4	VDD5	-
292	AB9	VDDC	-	Power supply +1.5 V	397	J5	VDDC	-	Power supply +1.5 V
293	AD8	DCLK3	O	MEL wave data output	398	H3	RQMH	O	
294	AF7	MELO0	I/O		399	G1	LRD15	I/O	
295	AE7	MELO1	I/O	Ground	400	G2	LRD14	I/O	
296	AD7	MELO2	I/O		401	G3	LRD13	I/O	
297	AC8	VDD5	-	Power supply +3 V	402	H4	VDD5	-	Power supply +3 V
298	AB8	VSS	-	Ground	403	H5	VSS	-	Ground
299	AF6	MELO3	I/O	MEL wave data output	404	F1	LRD12	I/O	
300	AE6	MELO4	I/O		405	F2	LRD11	I/O	
301	AF5	MELO5	I/O	Ground	406	E1	LRD8	I/O	
302	AC7	MELO6	-		407	G4	VDD5	-	Ground
303	AD6	MELO7	O	For DAC LR clock	408	F3	LRD10	I/O	
304	AB7	WCLK0	O		409	G5	VDD5	-	Ground
305	AC6	WCLK1	O	Ground	410	F4	LRD9	I/O	
306	AE5	EIRQ	O		411	E2	LRD7	I/O	
307	AF4	EICN	I/O	DRAM data bus (Lower data)	412	D1	LRD5	I/O	
308	AD5	ESDA	I/O		413	E3	LRD6	I/O	
309	AE4	ESCL	I/O	Ground	414	D2	LRD4	I/O	
310	AB6	MELI0	-		415	F5	VSS2	-	Ground
311	AC5	MELI1	-	416	E4	VSS	-	Ground	
312	AD4	MELI2	I/O	MEL wave data input	417	D3	LRD3	I/O	
303	AF3	MELI3	I/O		418	C1	LRD2	I/O	
314	AE3	MELI4	I/O	DRAM data bus (Lower data)	419	C2	LRD1	I/O	
315	AF2	MELI5	I/O		420	B1	LRD0	I/O	

● HD6417709SHF200 (X2687A00) CPU (SH3)

DM: IC014

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION	
1	MD1	I	Mode control	105	CKE/PTK5	I/O	CK enable / Port K	
2	MD2	I		106	RAS3L/PTJ0	I/O	RAS address bus / Port J	
3	Vcc(RTC)	-	Power supply +1.8 V	107	PTJ1	I/O	Port J	
4	XTAL2	O	Crystal oscillator	108	CASL/PTJ2	I/O	CAS address bus / Port J	
5	EXTAL2	I		109	VssQ	-	Ground	
6	Vss(RTC)	-	Ground	110	CASU/PTJ3	I/O	CAS address bus / Port J	
7	NMI	I	Non-maskable interrupt request	111	VccQ	-	Power supply +3.3 V	
8	IRQ0/IRL0/PTH0	I	Interrupt request / Port H	112	PTJ4	I/O	Port J	
9	IRQ1/IRL1/PTH1	I		113	PTJ5	I/O	Port J	
10	IRQ2/IRL2/PTH2	I		114	DACK0/PTD5	I/O	DMA acknowledge / Port D	
11	IRQ3/IRL3/PTH3	I		115	DACK1/PTD7	I/O		
12	IRQ4/PTH4	I		116	PTE6	I/O	Port E	
13	D31/PTB7	I/O	Data bus / Port B	117	PTE3	I/O	RAS address bus / Port E	
14	D30/PTB6	I/O		118	RAS3U/PTE2	I/O		
15	D29/PTB5	I/O		119	PTE1	I/O		
16	D28/PTB4	I/O		120	TDO/PTE0	I/O		Test data / Port E
17	D27/PTB3	I/O		121	BACK	O		Bus acknowledge
18	D26/PTB2	I/O	Ground	122	BREQ	I	Bus request	
19	VssQ	-	Ground	123	WAIT	I	Hardware wait request	
20	D25/PTB1	I/O	Data bus / Port B	124	RESETM	I	Manual reset	
21	VccQ	-	Power supply +3.3 V	125	ADTRG/PTH5	I	Analog trigger / Port H	
22	D24/PTB0	I/O	Data bus / Port B	126	IOIS16/PTG7	I	Write protect / Port G	
23	D23/PTA7	I/O	Data bus / Port A	127	ASEMD0/PTG6	I	ASE mode / Port G	
24	D22/PTA6	I/O		128	ASEBRKAK/PTG5	I/O	ASE break acknowledge / Port G	
25	D21/PTA5	I/O		129	PTG4/CKIO2	I/O	Port G / Clock output	
26	D20/PTA4	I/O		130	AUDATA3/PTG3	I/O	AUD data / Port G	
27	Vss	-		Ground	131	AUDATA2/PTG2		I/O
28	D19/PTA3	I/O	Data bus / Port A	132	Vss	-	Ground	
29	Vcc	-	Power supply +1.8 V	133	AUDATA1/PTG1	I/O	AUD data / Port G	
30	D18/PTA2	I/O	Data bus / Port A	134	Vcc	-	Power supply +1.8 V	
31	D17/PTA1	I/O		135	AUDATA0/PTG0	I/O	AUD data / Port G	
32	D16/PTA0	I/O		136	TRST/PTF/PINT15	I	Test reset / Port F / Port interruption	
33	VssQ	-		Ground	137	TMS/PTF6/PINT14	I	Test mode switch / Port F / Port interruption
34	D15	I/O		Data bus	138	TDI/PTF5/PINT13	I	Test data / Port F / Port interruption
35	VccQ	-	Power supply +3.3 V	139	TCK/PTF4/PINT12	I	Test clock / Port F / Port interruption	
36	D14	I/O	Data bus	140	IRL3/PTF3/PINT11	I	Interrupt request / Port F / Port interruption	
37	D13	I/O		141	IRL2/PTF2/PINT10	I		
38	D12	I/O		142	IRL1/PTF1/PINT9	I		
39	D11	I/O		143	IRL0/PTF0/PINT8	I		
40	D10	I/O		144	MD0	I		Mode control
41	D9	I/O	Data bus	145	Vcc(PLL1)	-	Power supply +1.8 V	
42	D8	I/O		146	CAP1	-	Capacitor	
43	D7	I/O		147	Vss(PLL1)	-	Ground	
44	D6	I/O		148	Vss(PLL2)	-	Ground	
45	VssQ	-		Ground	149	CAP2	-	Capacitor
46	D5	I/O	Data bus	150	VCC(PLL2)	-	Power supply +1.8 V	
47	VccQ	-	Power supply +3.3 V	151	AUDCK/PTH6	I	AUD clock / Port H	
48	D4	I/O	Data bus	152	Vss	-	Ground	
49	D3	I/O		153	Vss	-	Ground	
50	D2	I/O		154	Vcc	-	Power supply +1.8 V	
51	D1	I/O		155	XTAL1	O	Crystal oscillator	
52	D0	I/O		156	EXTAL1	I		
53	A0	O	Address bus	157	STATUS/PTJ6	I/O	Processor status / Port J	
54	A1	O		158	STATUS1/PTJ7	I/O		
55	A2	O		159	TCLK/PTH7	I/O	Timer clock / Port H	
56	A3	O		160	/IRQOUT	O	Interrupt request output	
57	VssQ	-		Ground	161	VssQ	-	Ground
58	A4	O	Address bus	162	CKIO	I/O	System clock input / output	
59	VccQ	-	Power supply +3.3 V	163	VccQ	-	Power supply +3.3 V	
60	A5	O	Address bus	164	TXD0/SCPT0	O	Data transmission / SCI port	
61	A6	O		165	SCK0/SCPT1	I/O	Serial clock / SCI port	
62	A7	O		166	TXD1/SCPT2	O	Data transmission / SCI port	
63	A8	O		167	SCK1/SCPT3	I/O	Serial clock / SCI port	
64	A9	O		168	TXD2/SCPT4	O	Data transmission / SCI port	
65	A10	O		169	SCK2/SCPT5	I/O	Serial clock / SCI port	
66	A11	O		170	RTS2/SCPT6	I/O	Transmit request / SCI port	
67	A12	O		Data reception / SCI port	171	RXD0/SCPT0	I	
68	A13	O			172	RXD1/SCPT2	I	
69	VssQ	-		Ground	173	Vss	-	Ground
70	A14	O	Address bus	174	RXD2/SCPT4	I	Data reception / SCI port	
71	VccQ	-	Power supply +3.3 V	175	Vcc	-	Power supply +1.8 V	
72	A15	O	Address bus	176	CTS2/IRQ5/SCPT7	I/O	Transmit clear / Interrupt request / SCI port	
73	A16	O		177	MCS7/PTC7/PINT	I/O		
74	A17	O		178	MCS6/PTC6/PINT	I/O	Mask ROM chip select / Port C / Port interruption	
75	A18	O		179	MCS5/PTC5/PINT	I/O		
76	A19	O		Ground	180	MCS4/PTC4/PINT	I/O	Standby mode Interrupt request output / Port D
77	A20	O			181	MCS3/PTC3/PINT	I/O	
78	A21	O		Address bus	182	MCS2/PTC2/PINT	I/O	Reset output / Port D
79	Vss	-		Ground	183	MCS1/PTC1/PINT	I/O	Mask ROM chip select / Port C / Port interruption
80	A22	O	Address bus	184	VccQ	-	Power supply +3.3 V	
81	Vcc	-	Power supply +1.8 V	185	WAKEUP/PTD3	I/O	Mask ROM chip select / Port C / Port interruption	
82	A23	O	Address bus	186	VccQ	-		Power supply +3.3 V
83	VssQ	-	Ground	187	RESETOUT/PTD2	I/O	DMA acknowledge / Port D	
84	A24	O	Address bus	188	MCS3/PTC3/PINT	I/O		
85	VccQ	-	Power supply +3.3 V	189	MCS2/PTC2/PINT	I/O	DMA request / Port D	
86	A25	O	Address bus	190	MCS1/PTC1/PINT	I/O		
87	BS/PTK4	I/O	Bus cycle / Port K	191	CA	I	Power on reset	
88	RD	O	Read strobe	192	CA	I		Chip active
89	WE0/DQMLL	O	Select signal (D7-D0) / D QM (SDRAM)	193	MCS0/PTC0/PINT	I/O	Mode control	
90	WE1/DQMLL/WE	O	Select signal (D15-D8) / D QM (SDRAM) / Write enable	194	DRAK0/PTD1	I		Analog ground
91	WE1/DQMLL/WE	O	Select signal (D15-D8) / D QM (SDRAM) / Write enable	195	DRAK1/PTD0	I	Analog ground	
92	WE2/DQMLL/WE	O	Select signal (D23-D16) / D QM (SDRAM) / I/O read / Port K	196	DREQ0/PTD4	I		Analog input / Port L
93	WE2/DQMLL/WE	O	Select signal (D31-D24) / D QM (SDRAM) / I/O write / Port K	197	DREQ1/PTD6	I	Analog input / Analog output / Port L	
94	RD/WR	O	Read / Write	200	RESETP	I		Analog ground
95	AUDSY/NC/PTTE7	I/O	AUD cycle / Port E	201	CA	I	Analog power supply +3.3 V	
96	VssQ	-	Ground	202	MD3	-		Analog input / Analog output / Port L
97	CS0/MCS0	O	Chip select / Mask ROM chip select	203	MD4	-	Analog ground	
98	VccQ	-	Power supply +3.3V	204	MD5	-		Analog power supply +3.3 V
99	CS2/PTK0	I/O	Chip select / Port K	205	AVSS	I/O	Analog input / Analog output / Port L	
100	CS3/PTK1	I/O		206	AN0/PTL0	I/O		Analog ground
101	CS4/PTK2	I/O		207	AN1/PTL1	I/O		
102	CS5/CE1A/PTK3	I/O	Chip select / Chip enable / Port K	208		-		
103	CS6/CE1B	O	Chip select / Chip enable					
104	CE2A/PTE4	I/O	Chip enable / Port E					
	CE2B/PTE5	I/O						

● M66291GP (X2156A00) USB Controller

DM: IC002

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Core Vcc		Core power supply	25	D2	I/O	Data bus
2	GND		Ground	26	D3	I/O	
3	D-	I/O	USB data (-)	27	D4	I/O	
4	D+	I/O	USB data (+)	28	D5	I/O	
5	Vbus	I	V bus input	29	D6	I/O	
6	Tr ON	O	Tr ON output	30	D7	I/O	
7	TEST	I	TEST input	31	D8/P0	I/O	
8	/Dack1	I	DMA reception signal 1	32	D9/P1	I/O	I/O power supply
9	/Dreq1	O	DMA request 1	33	D10/P2	I/O	
10	/TC1	I	TC input	34	D11/P3	I/O	
11	/INT1//SOF	O	Interrupt 1/SOF output	35	IOVcc		Ground
12	IOVcc		I/O power supply	36	GND		
13	Xout	O	Output for oscillation	37	D12/P4	I/O	Data bus
14	Xin	I	Input for oscillation	38	D13/P5	I/O	
15	GND		Ground	39	D14/P6	I/O	
16	Core Vcc		Core power supply	40	D15/A0	I/O	Highlight strobe/bus width select
17	A1	I	Address bus	41	/HWR//BYTE	I	
18	A2	I					
19	A3	I					
20	A4	I					
21	A5	I					
22	A6	I	Data bus	42	/INT0	O	Interrupt 0
23	D0	I/O		43	/RD	I	Read strobe
24	D1	I/O		44	/LWR	I	Low write strobe
				45	/CS	I	Chip select
				46	/RST	I	Reset signal
				47	/Dreq0	O	DMA request 0
				48	/Dack0	I	DMA reception signal 0

● AK4393-VF-E2 (XW029A00) DAC (Digital to Analog Converter)

DM: IC027

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DVSS	-	Digital ground	15	BVSS	-	Substrate ground
2	DVDD	-	Digital power supply	16	VREFL	I	Low level voltage reference
3	MCLK	I	Master clock	17	VREFH	I	High level voltage reference
4	/PD	I	Power down mode	18	AVDD	-	Analog power supply +5 V
5	BICK	I	Audio serial data clock	19	AVSS	-	Analog ground
6	SDATA	I	Audio serial data input	20	AOUTR-	O	Rch negative analog output
7	LRCK	I	L/R clock	21	AOUTR+	O	Rch positive analog output
8	SMUTE//CS	I	Soft mute	22	AOUTL-	O	Lch negative analog output
9	DFS	I	Double speed sampling mode	23	AOUTL+	O	Lch positive analog output
10	DEMO/CCLK	I	De-emphasis enable	24	VCOM	O	Common voltage output
11	DEM1/CDTI	I					
12	DIF0	I	Digital input format	25	P//S	I	Parallel/serial select
13	DIF1	I					
14	DIF2	I					
				26	CKS0	I	Master clock select
				27	CKS1	I	
				28	CKS2	I	

● PCM1730E-1/2K (X2077A00) DAC (Digital to Analog Converter)

DM: IC029

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	/RST	I	Reset	15	MUTE	I	Analog output mute control
2	ZEROL	O	Zero flag for L-channel	16	IOUTR-	O	R-channel analog current output -
3	ZEROR	O	Zero flag for R-channel	17	IOUTR+	O	R-channel analog current output +
4	LRCK	I	Left and right clock	18	AGND1	-	Analog ground
5	DATA	I	Serial audio data input	19	VCOM1	-	Internal bias de-coupling pin
6	BCK	I	Bit clock input	20	VCOM2	-	Common voltage for I/V
7	SCKI	I	System clock input	21	IREF	-	Output current reference bias pin
8	DGND	-	Digital ground	22	VCOM3	-	Internal bias de-coupling pin
9	VDD	-	Digital supply, +3.3V	23	VCC1	-	Analog supply, +5 V
10	DEPMP0	I	De-emphasis control	24	VCC2	-	Analog supply, +5 V
11	DEMP1	I					
12	FMT0	I	Audio data format select	25	IOUTL+	O	L-channel analog current output +
13	FMT1	I					
14	FMT2	I					
				26	IOUTL-	O	L-channel analog current output -
				27	AGND2	I	Analog ground
				28	VCC3	I	Analog power supply, +5 V

● **PCM1800E/2K (XU770A00) ADC (Analog to Digital Converter)**

DM: IC028

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VINL	I	Analog input (L ch.)	13	LRCK	I/O	Sampling clock input/output
2	VREF1	I	Reference 1 decoupling cap.	14	BCK	I/O	Bit clock input/output
3	REFCOM	I	Reference decoupling common	15	DOUT	O	Audio data output
4	VREF2	I	Reference 2 decoupling cap.	16	SYSCK	I	System clock input
5	VINR	I	Analog input (R ch.)	17	DGND	I	Digital ground
6	RSTB	I	Reset input active "L"	18	Vdd	I	Power supply +5V
7	BYPAS	I	LCF bypass control	19	CINNR	I	Anti-aliasing filter cap. (-) R ch.
8	FMT0	I	Audio data format 0	20	CINPR	I	Anti-aliasing filter cap. (+) R ch.
9	FMT1	I	Audio data format 1	21	CINNL	I	Anti-aliasing filter cap. (-) L ch.
10	MODE0	I	Master/Slave mode selection 0	22	CINPL	I	Anti-aliasing filter cap. (+) L ch.
11	MODE1	I	Master/Slave mode selection 1	23	Vcc	I	Analog power supply
12	FSYNC	I/O	Frame sync. input/output	24	AGND	I	Analog ground

● **μPD780031AYGK-N01-9ET (XZ916100) LED DRIVER/SWITCH SCAN E-PNS2a**

PNL: IC010

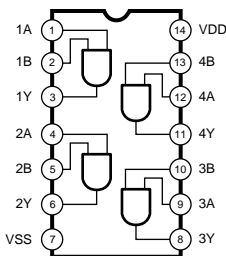
● **μPD780031AYGK-N03-9ET (X2599100) E-TKS**

GH3 EBUS H/GH3 EBUS M/GH3 EBUS L: IC001

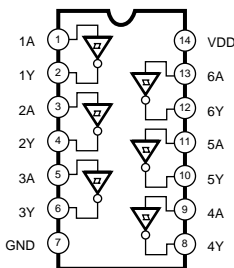
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P50/A8	I/O	Port 5 / Higher address bus	33	P10/ANIO	I	Port 1 / A/D converter analog input
2	P51/A9	I/O		34	AVREF	I	A/D converter reference voltage input
3	P51/A10	I/O		35	AVDD	-	Analog power supply
4	P53/A11	I/O		36	RESET	I	System reset input
5	P54/A12	I/O		37	XT2	-	Subsystem clock oscillation
6	P55/A13	I/O		38	XT1	I	
7	P56/A14	I/O		39	IC	-	Internally connected
8	P57/A15	I/O		40	X2	-	Main system clock oscillation
9	Vss0	-	41	X1	I		
10	VDD0	-	42	Vss1	-	Ground	
11	P30	I/O	Port 3	43	P00/INTP0	I/O	Port 0 / External interrupt request input
12	P31	I/O		44	P01/INTP1	I/O	
13	P32/SDA0	I/O	Port 3 / Serial data input/output	45	P02/INTP2	I/O	Port 0 / External interrupt request input / Trigger signal input
14	P33/SCL0	I/O	Port 3 / Serial clock input/output	46	P03/INTP3/ADTRG	I/O	
15	P34	I/O	Port 3	47	P70/TI00/TO0	I/O	Port 7 / External count clock input / 16-bit timer/event counter 0 output
16	P35	I/O		48	P71/TI01	I/O	Port 7 / Capture trigger input
17	P36	I/O		49	P72/TI50/TO50	I/O	Port 7 / External count clock input / 8-bit timer/event counter 50 output
18	P20/SI30	I/O	Port 2 / Serial data input	50	P73/TI51/TO51	I/O	Port 7 / External count clock input / 8-bit timer/event counter 51 output
19	P21/SO30	I/O	Port 2 / Serial data output	51	P74/PCL	I/O	Port 7 / Clock output
20	P22/SCK30	I/O	Port 2 / Serial clock input/output	52	P75/BUZ	I/O	Port 7 / Buzzer output
21	P23RxD0	I/O	Port 2 / Serial data input	53	P64/RD	I/O	Port 6 / Strobe signal output for reading
22	P24/TxD0	I/O	Port 2 / Serial data output	54	P65/WR	I/O	Port 6 / Strobe signal output for writing
23	P25/ASCK0	I/O	Port 2 / Serial clock input/output	55	P66/WAIT	I/O	Port 6 / Wait insertion
24	VDD1	-	Power supply	56	P67/ASTB	I/O	Port 6 / Strobe output
25	AVss	-	Ground	57	P40/AD0	I/O	Port 4 / Lower address/data bus
26	P17/ANI7	I	Port 1 / A/D converter analog input	58	P41/AD1	I/O	
27	P16/ANI6	I		59	P42/AD2	I/O	
28	P15/ANI5	I		60	P43/AD3	I/O	
29	P14/ANI4	I		61	P44/AD4	I/O	
30	P13/ANI3	I		62	P45/AD5	I/O	
31	P12/ANI2	I		63	P46/AD6	I/O	
32	P11/ANI1	I		64	A47/AD7	I/O	

■ IC BLOCK DIAGRAM

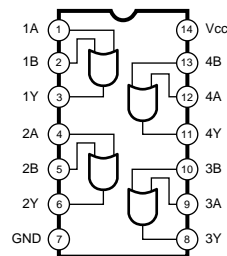
- **HD74LS09FPEL** (XP642A00)
Quad 2 Input AND
DM: IC004



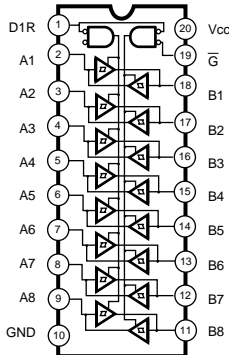
- **TC74VHC14FT** (XV890A00)
Hex Inverter
DM: IC006



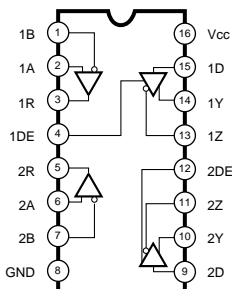
- **TC74VHC32FT** (XY945A00)
74VHC32MTCX (X0299A00)
Quad 2 Input OR
DM: IC007



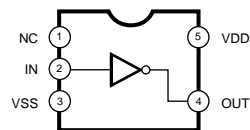
- **HD74LVC245ATELL** (XW148A00)
74LVC245APW (XZ286A00)
TC74VHC245AFT (XT744A00)
74VHCT245AMTCX (X0295A00)
Octal 3-State Bus Transceiver
DM: IC005, 009, 010, 011



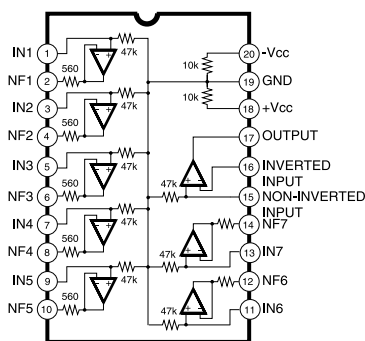
- **SN75C1168NSR** (XU073A00)
Line Driver / Receiver
DJK: IC002



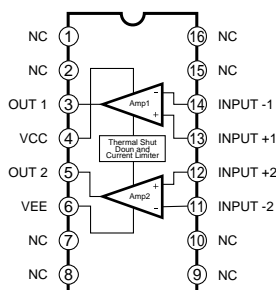
- **SC7SU04FEL** (XI348A00)
TC7SU04F (XY447A00)
Inverter Gate
DJK: IC001



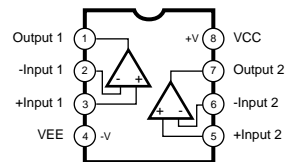
- **M5229FP** (XY487A00)
7 Band Graphic Equalizer
AJK: IC300, 400



- **LA6517M-TE-R** (XT131A00)
Dual Low Voltage Power Amplifier
AJK: IC200



- **μPC4570G2** (XF291A00)
Dual Operational Amplifier
DM: IC017, 33-35
AJK: IC100
MAF: IC10-13
PNL: IC073

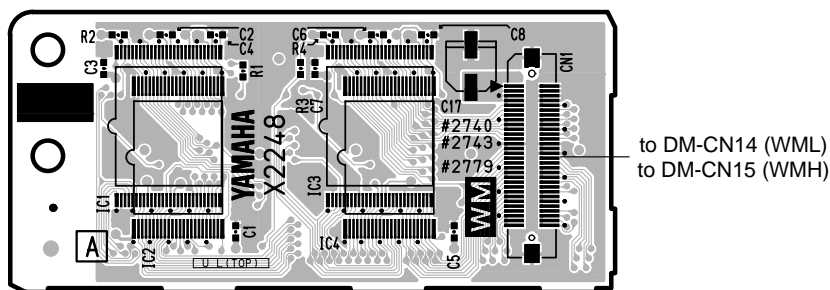


■ CIRCUIT BOARDS

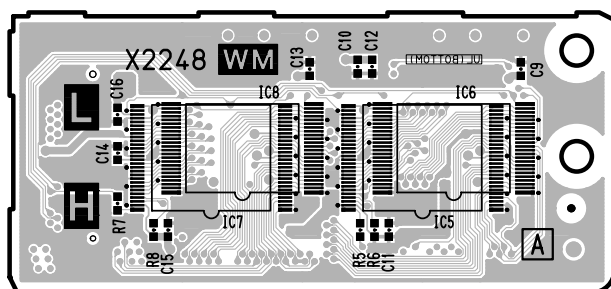
AJK (X2246B0)	29	MV1 (X2244B0)	36
DJK (X2245C0)	32	NETWORK (XV011A0)	38
DM (XZ592H0)	30/31	PEDAL (DJK) (X2245C0)	32
FU120L (XS882A0)	38	PEDAL (SW) (X0193A0)	40
GH3 EBUS H (X2179C0)	41/42	PL (XR898A0)	37
GH3 EBUS L (X2177C0)	45/46	PNL (X2243D0)	34/35
GH3 EBUS M (X2178D0)	43/44	PNR (X2244B0)	36/37
HP (XQ390A0)	37	VCN (X2247C0)	36
MA120B (XZ588D0)	39	WML (X2248A0)	28
MAF (X2247C0)	33	WMH (X2248A0)	28
MIC (X2247C0)	33		

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

- WML Circuit Board
- WMH Circuit Board

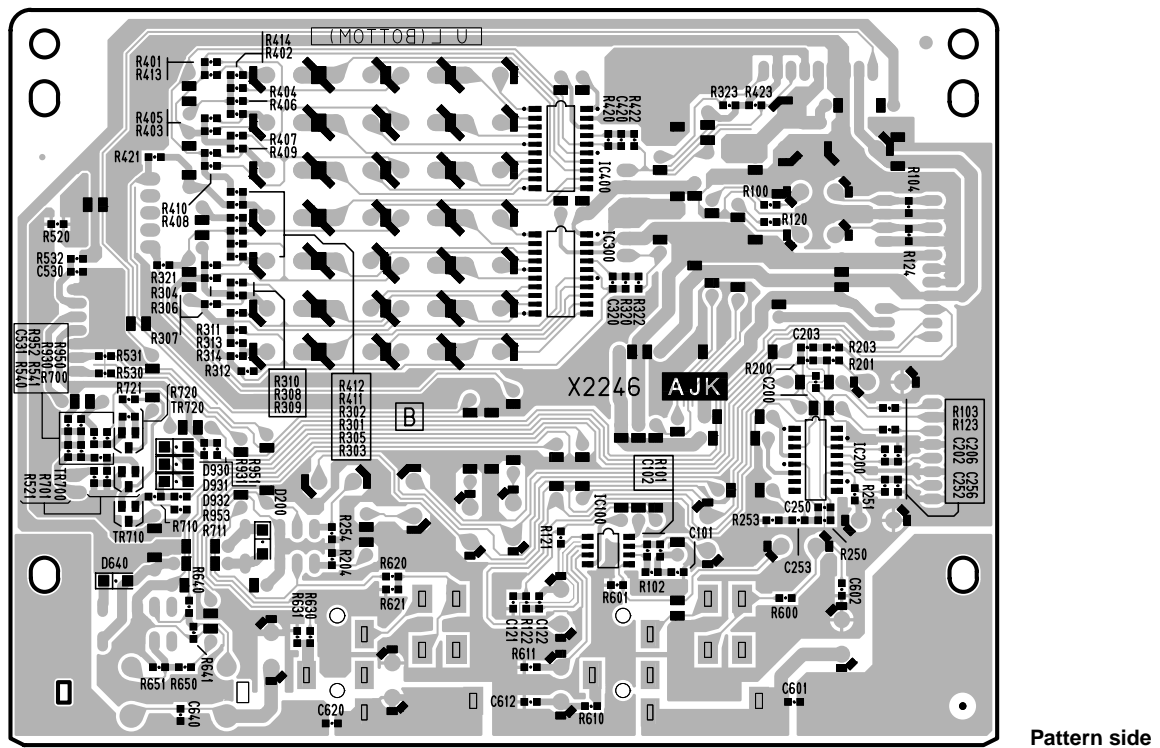
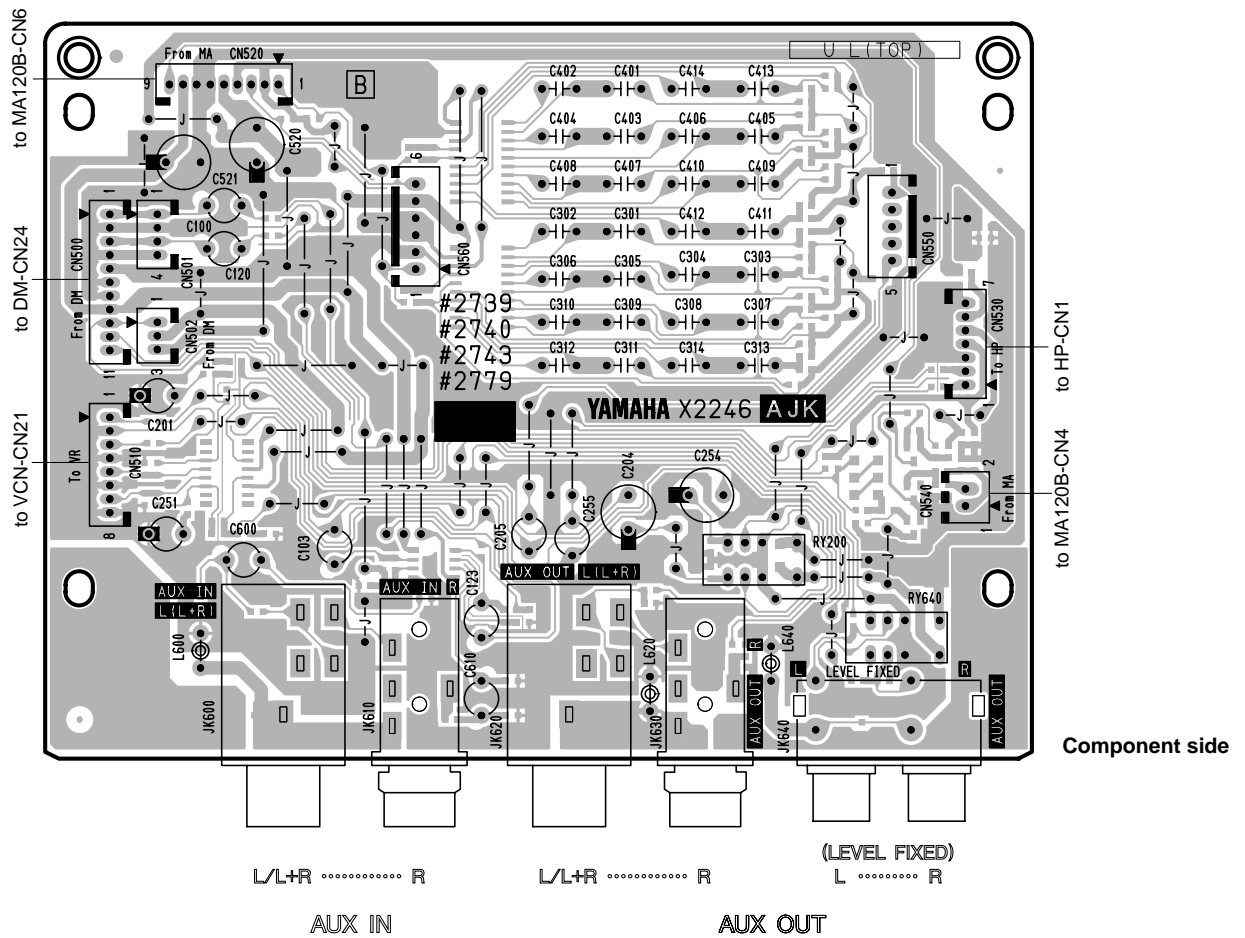


Component side

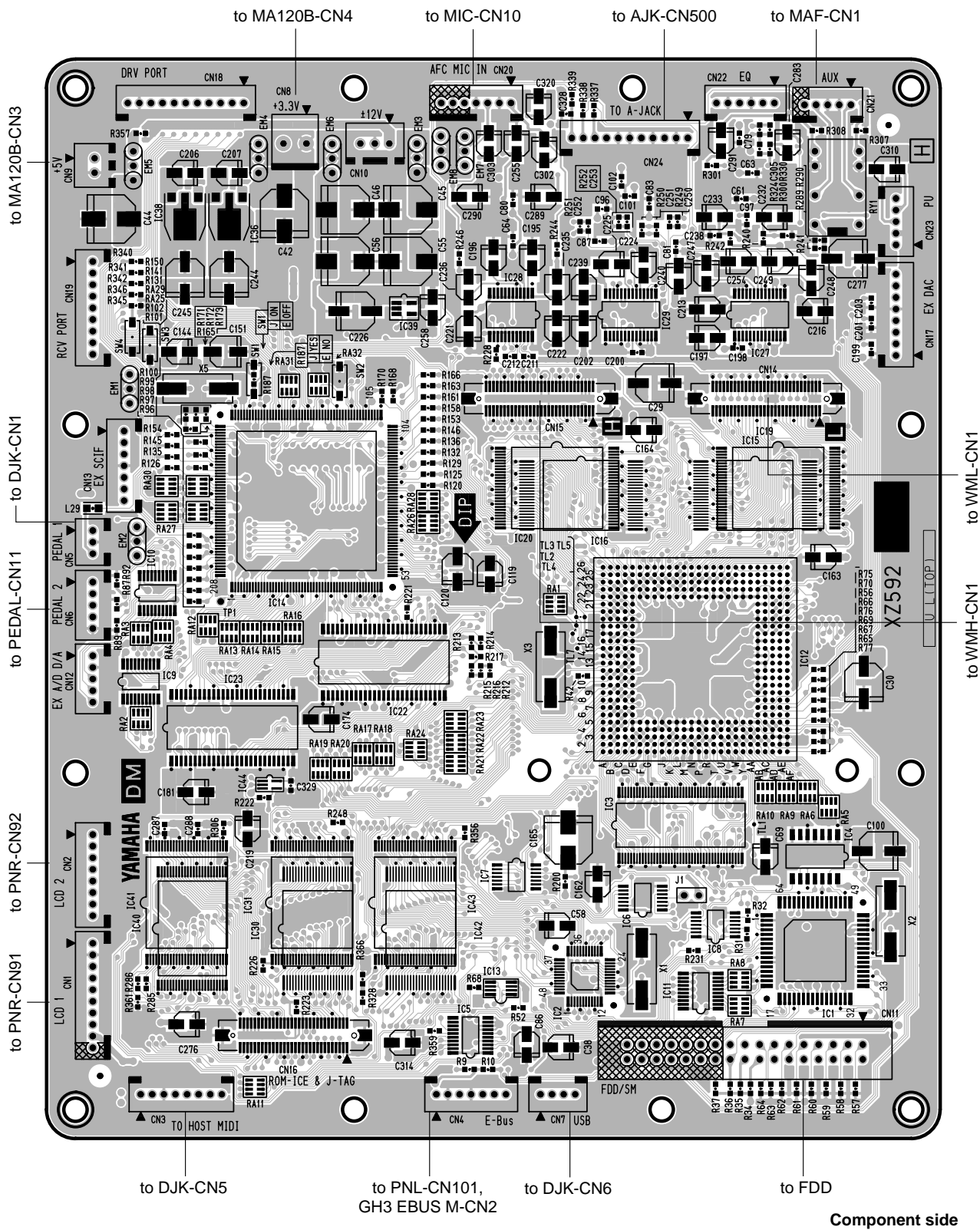


Pattern side

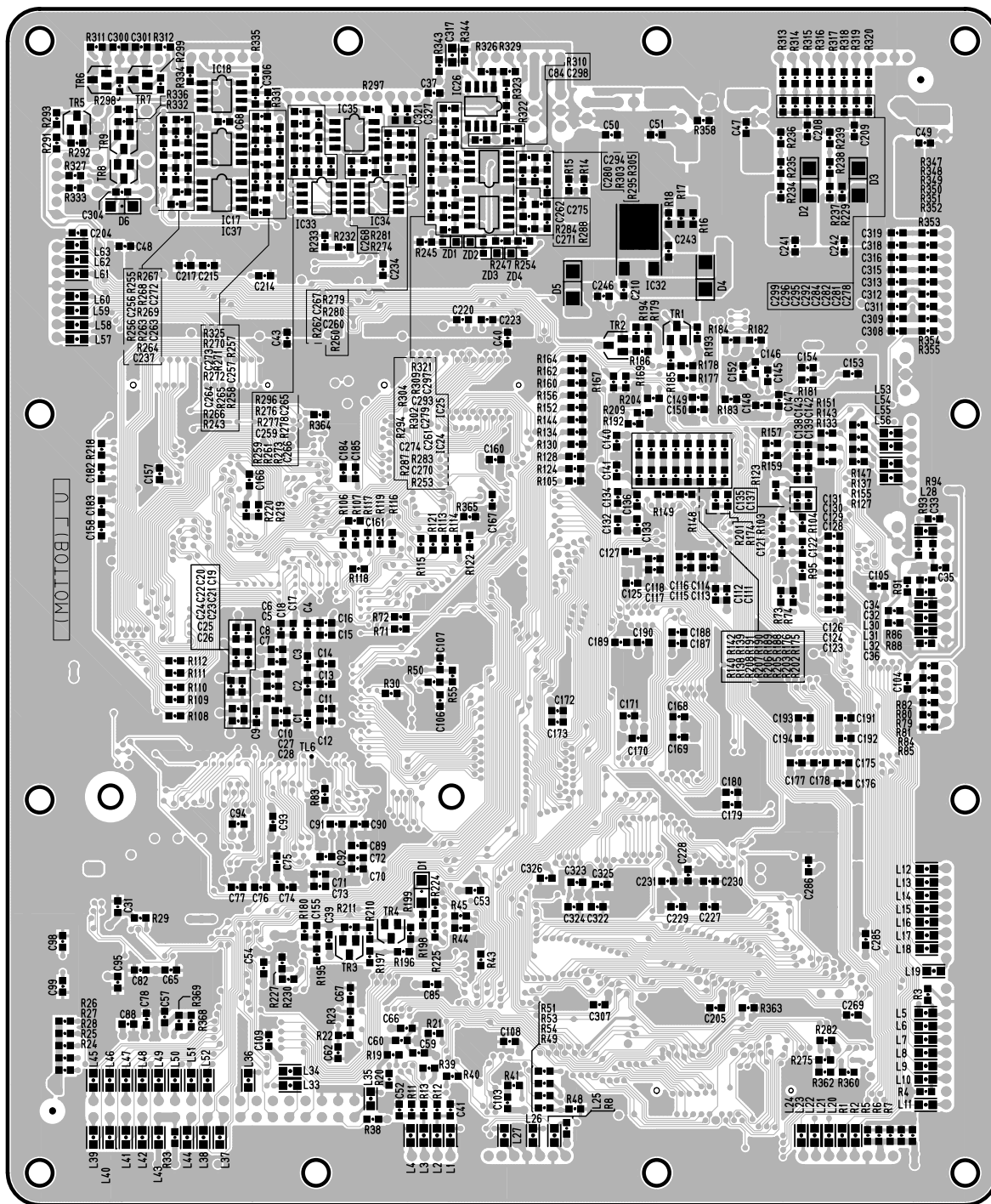
● AJK Circuit Board



● DM Circuit Board

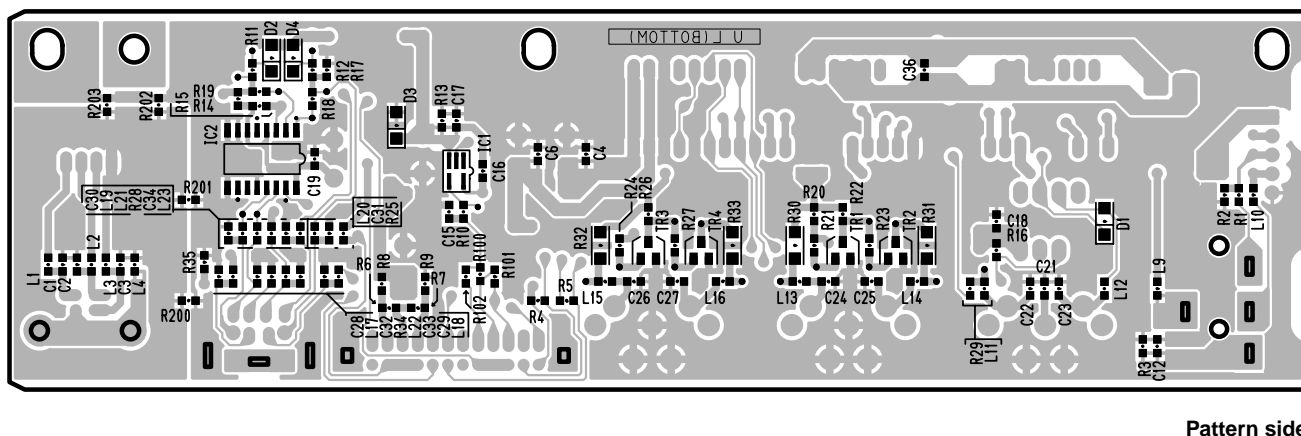
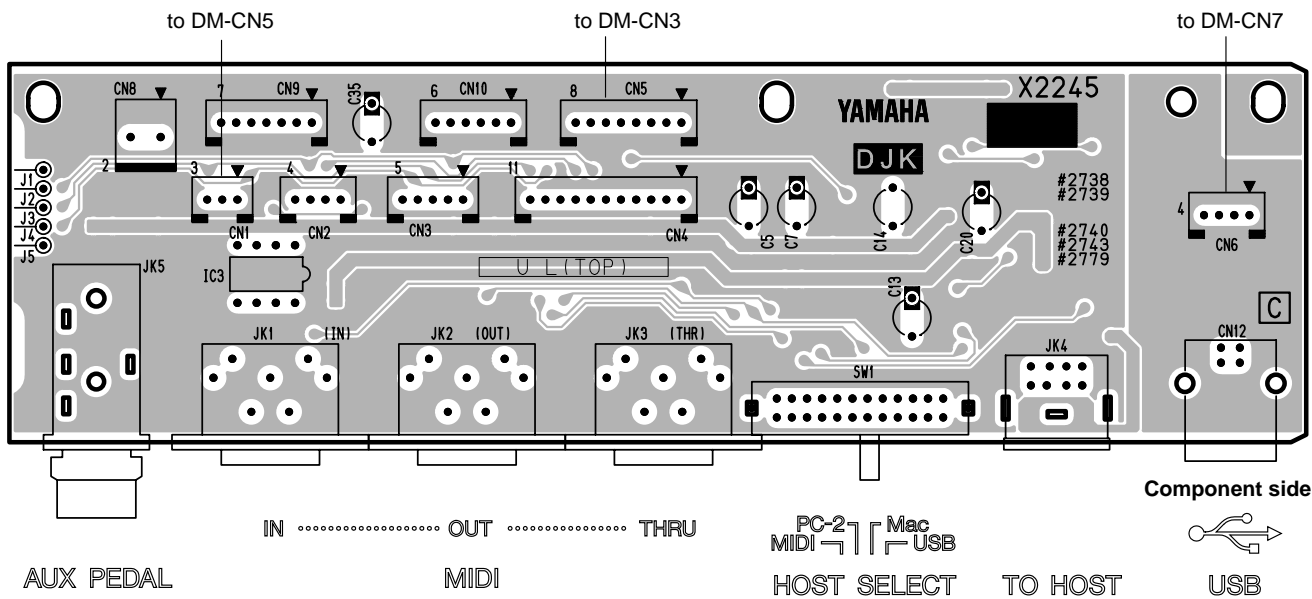


● DM Circuit Board

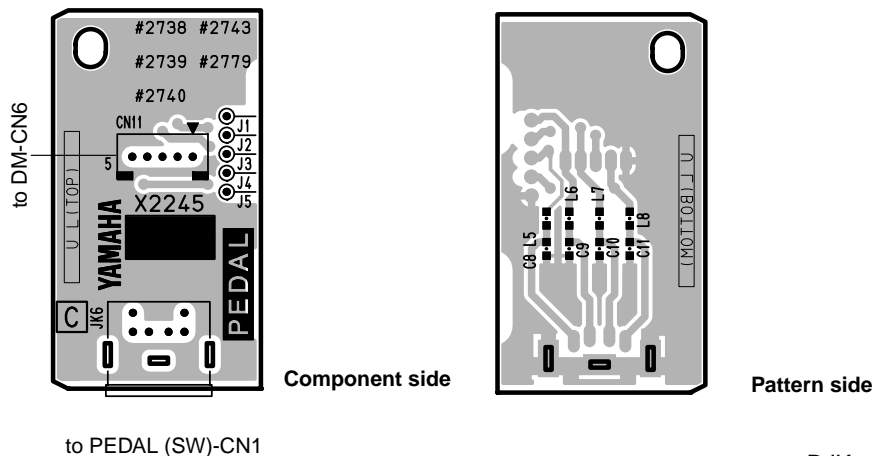


Pattern side

● DJK Circuit Board



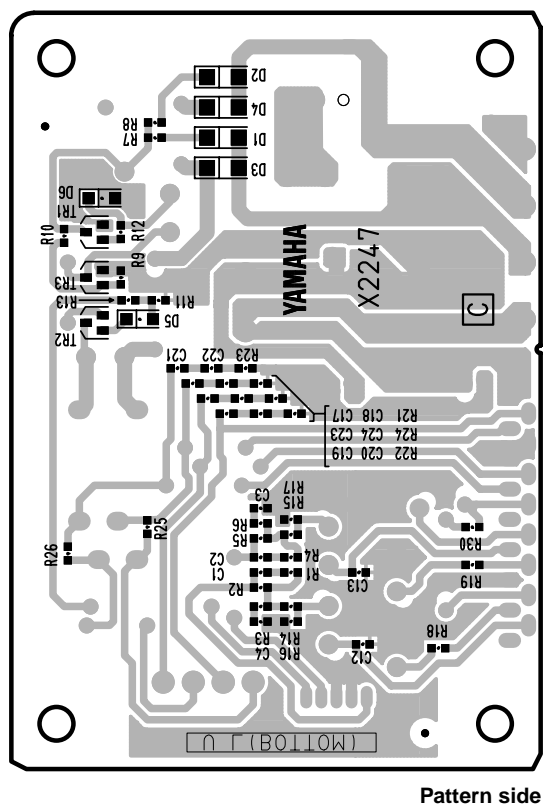
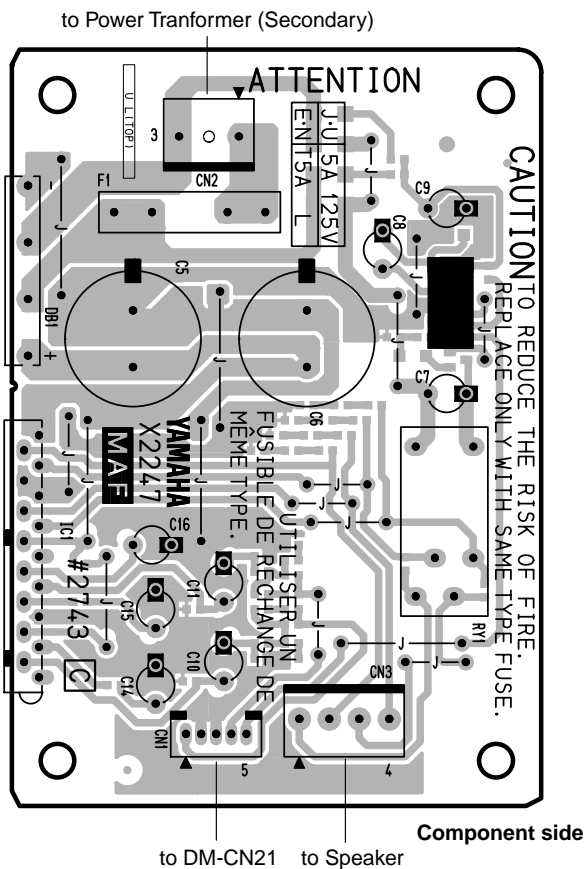
● PEDAL (DJK) Circuit Board



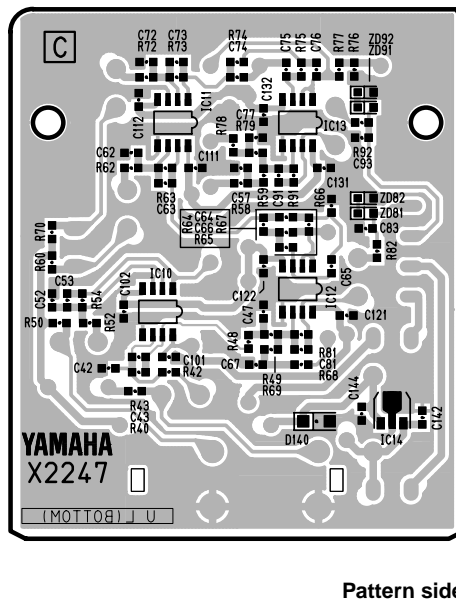
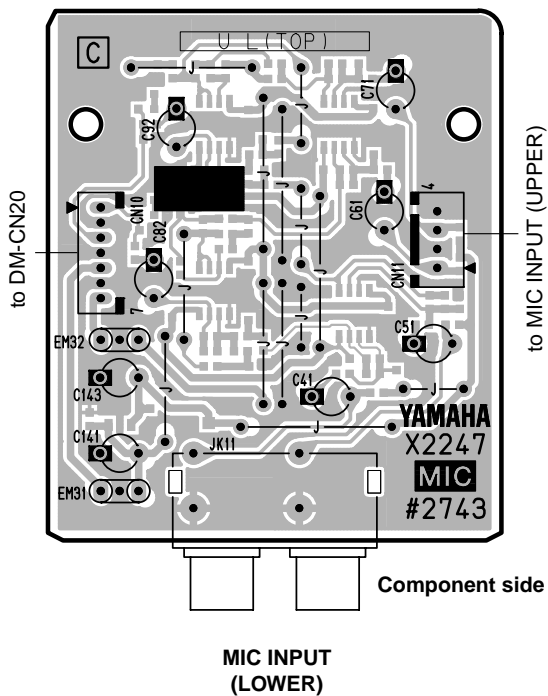
DJK: 2NA-V849640

PEDAL (DJK): 2NA-V849640

● MAF Circuit Board



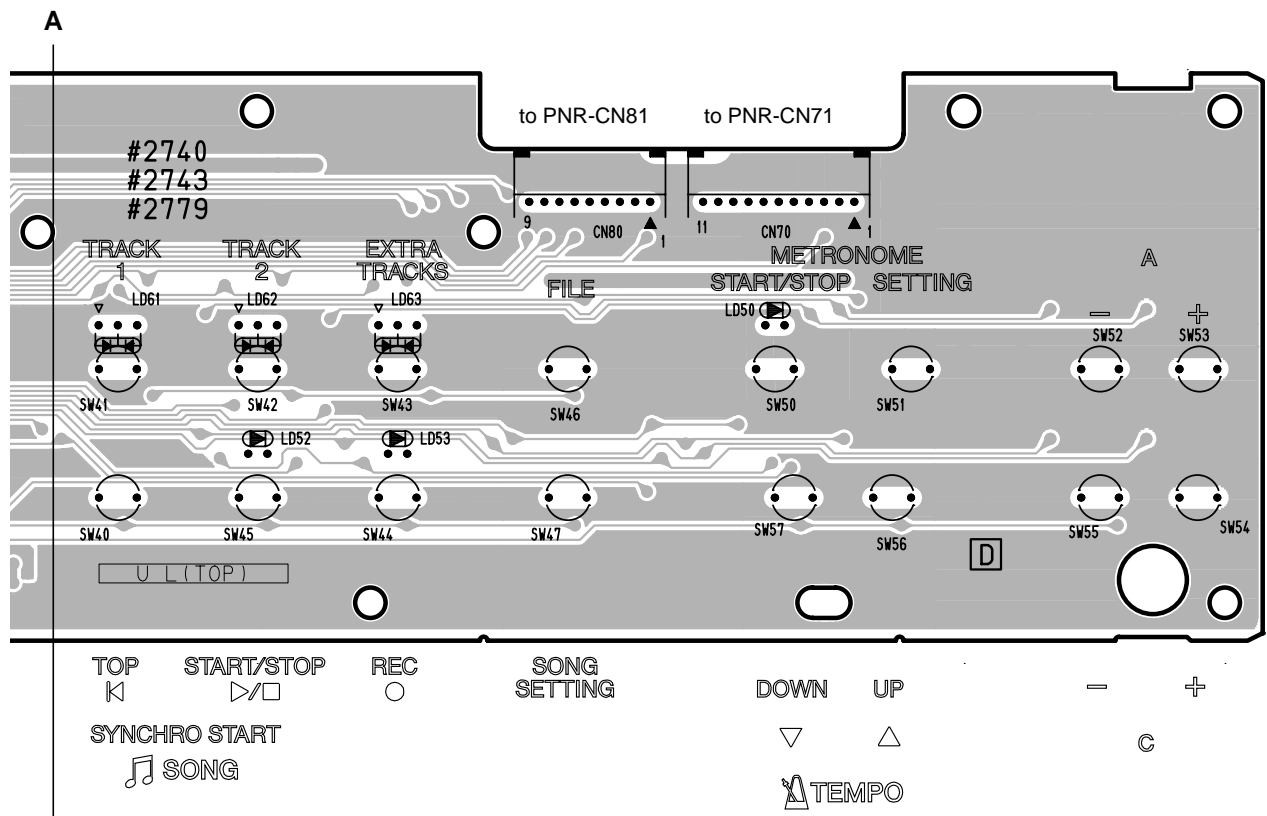
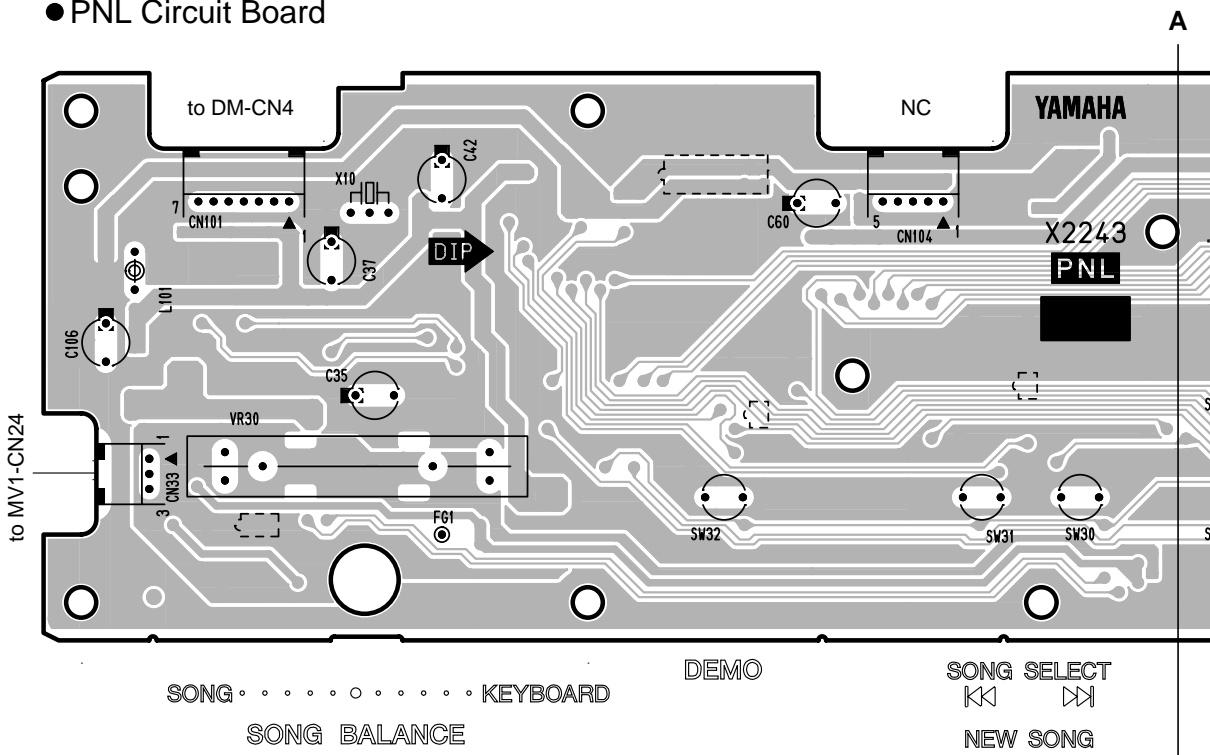
● MIC Circuit Board



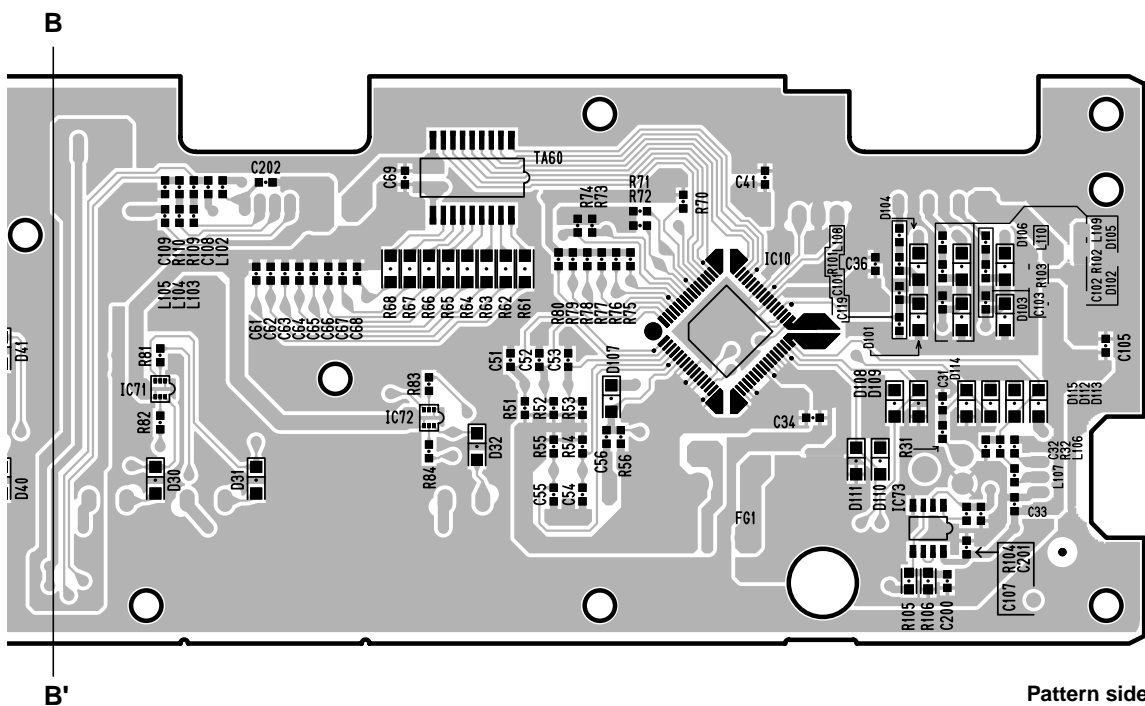
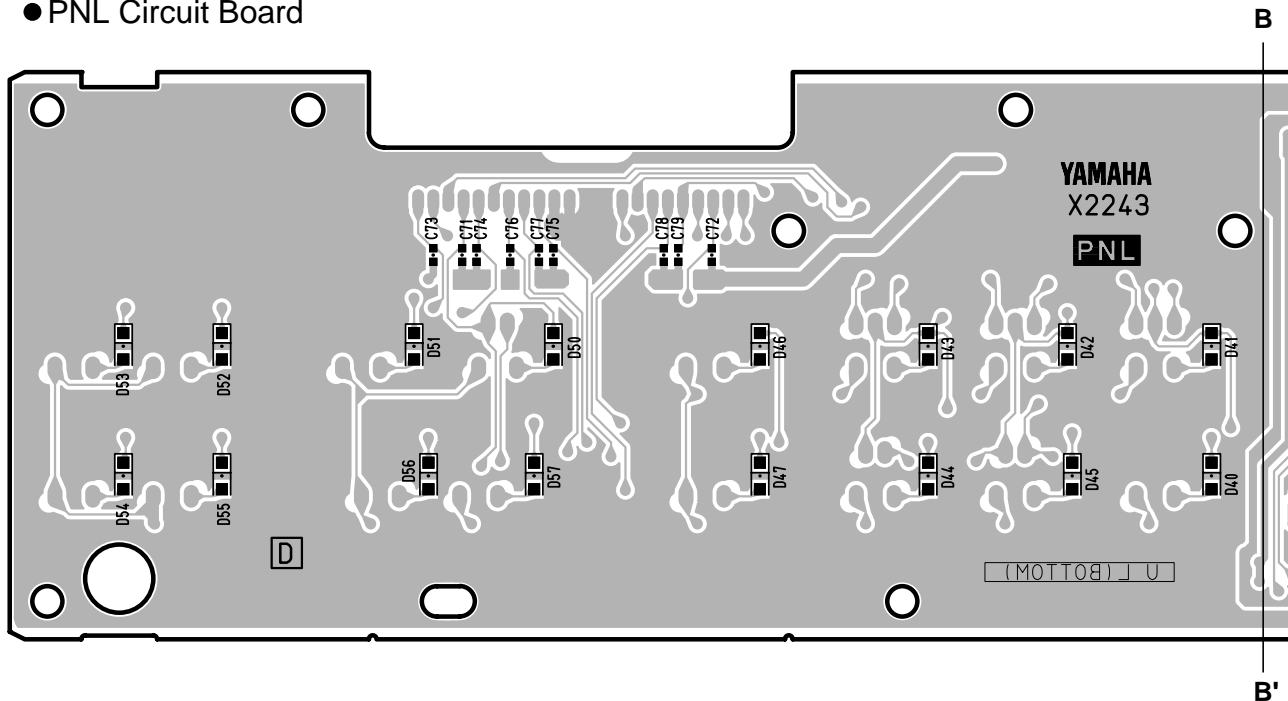
MAF: 2NA-V880430
 MIC: 2NA-V880430



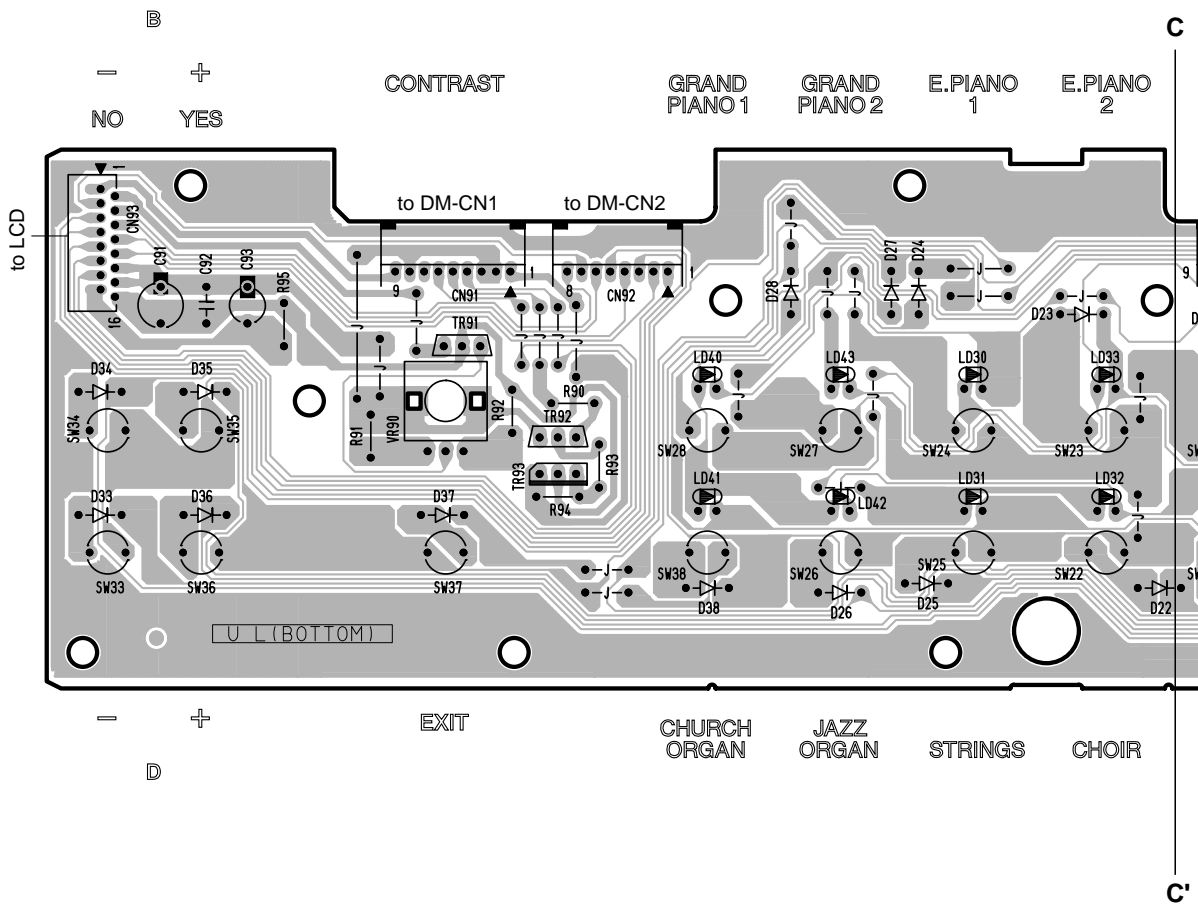
● PNL Circuit Board



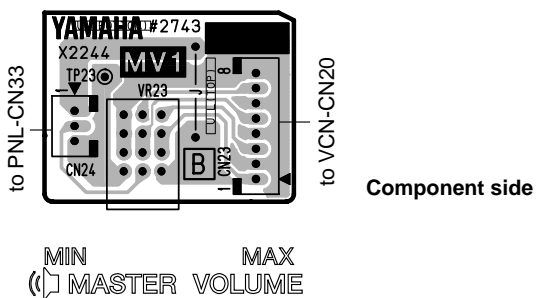
● PNL Circuit Board



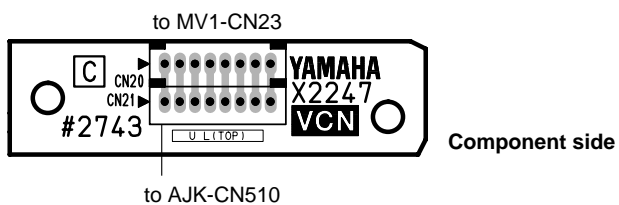
● PNR Circuit Board



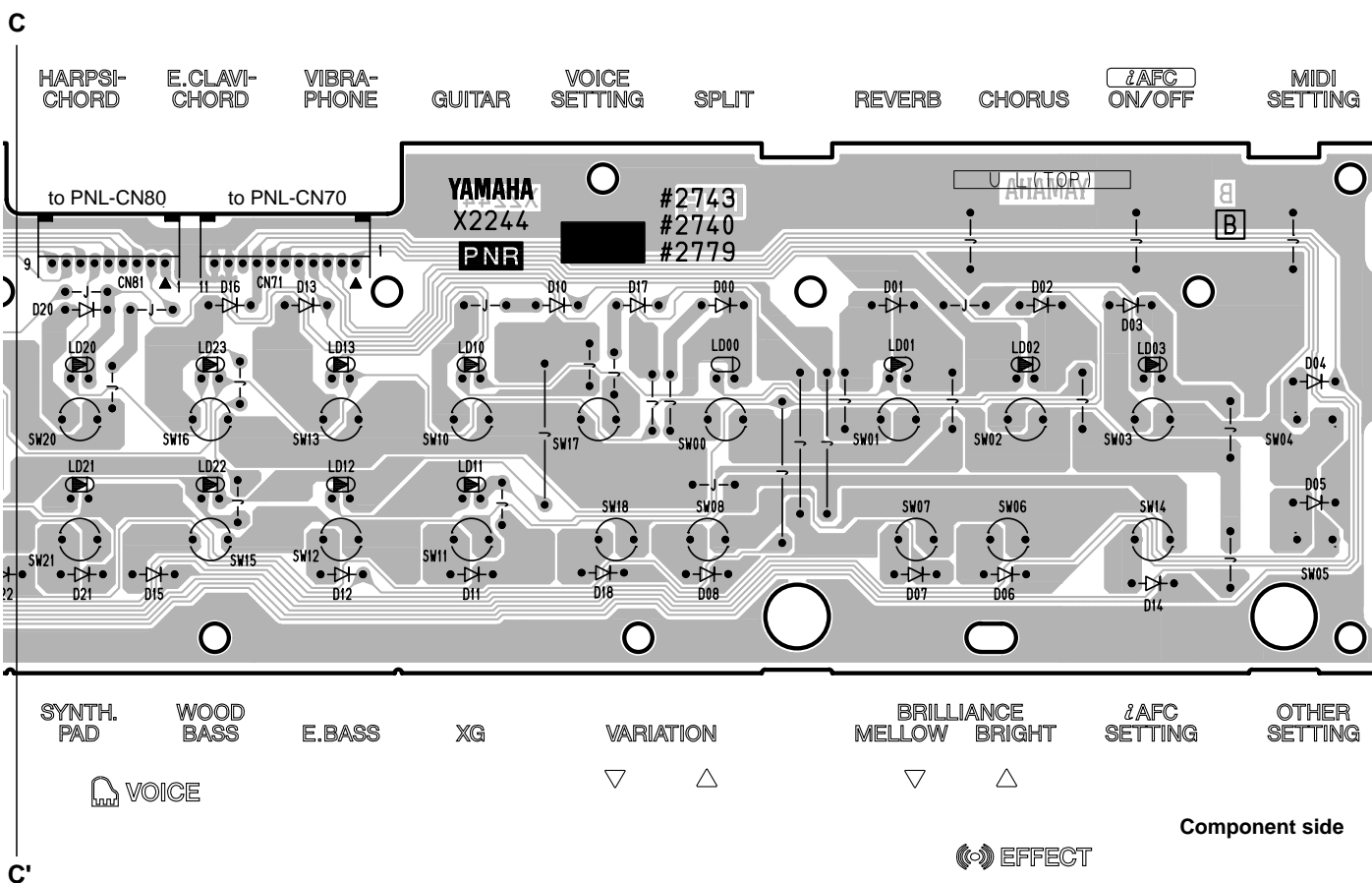
● MV1 Circuit Board



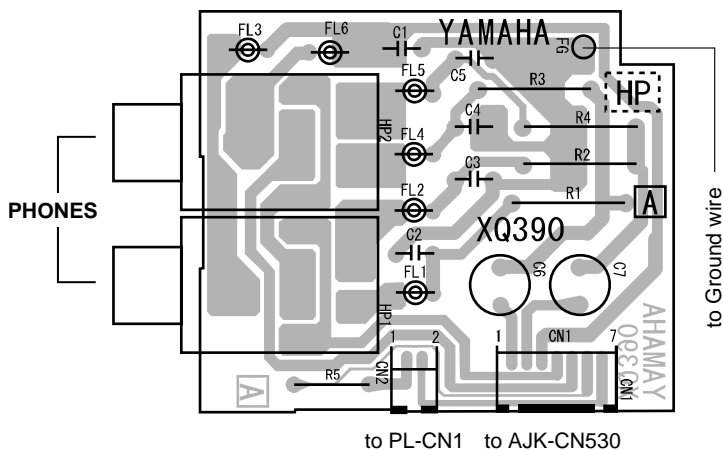
● VCN Circuit Board



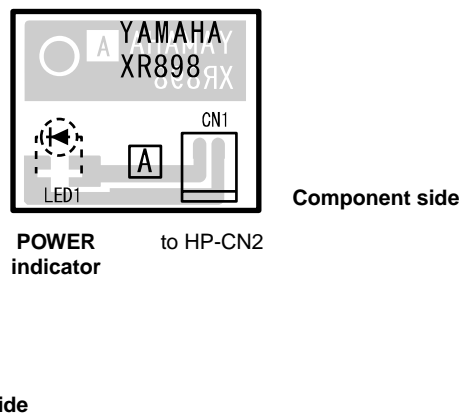
- PNR: 2NA-V845520
- MV1: 2NA-V845520
- VCN: 2NA-V849640



● HP Circuit Board

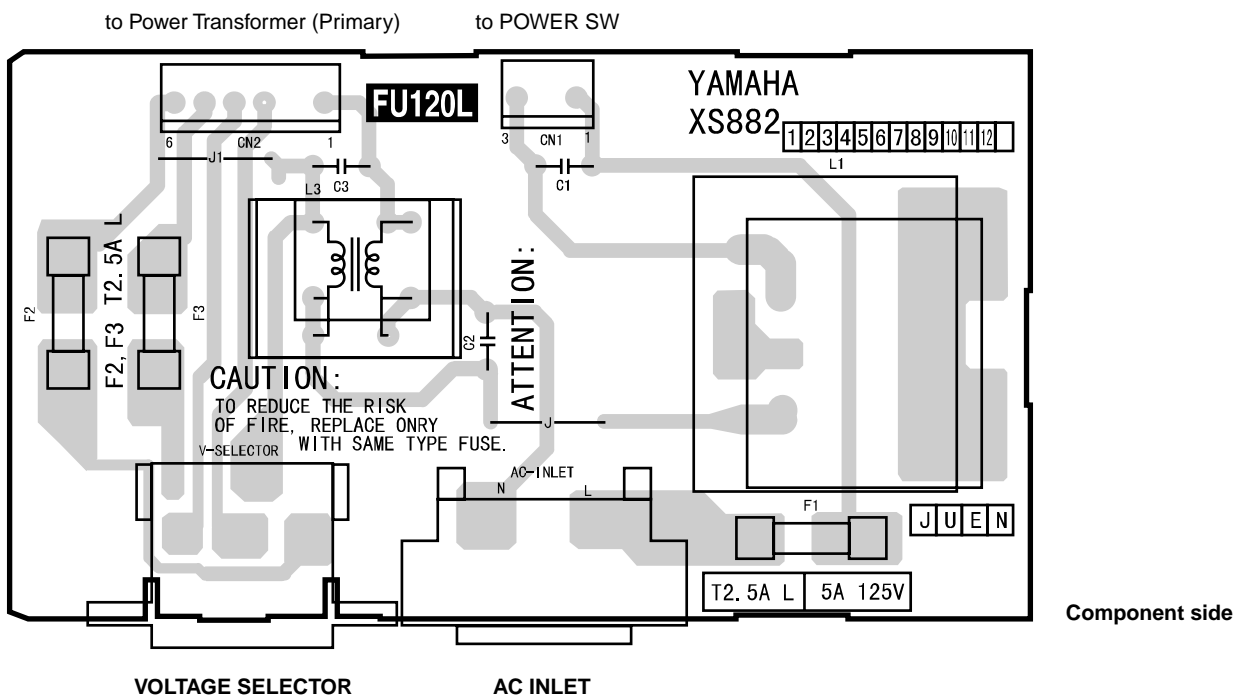


● PL Circuit Board

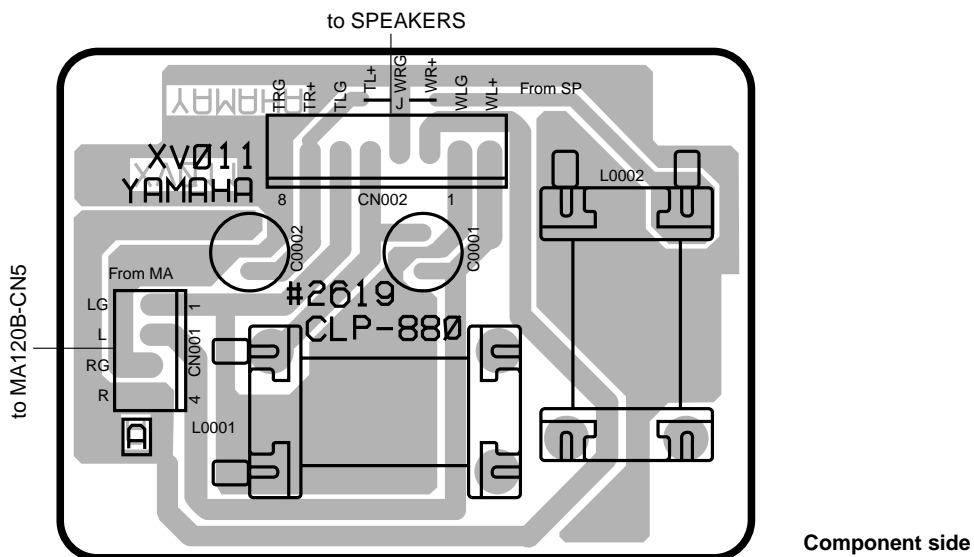




- PNR: 2NA-V845520 Δ 1
- HP: 2NA-V004770 Δ 4
- PL: 2NA-VN63740

●FU120L Circuit Board

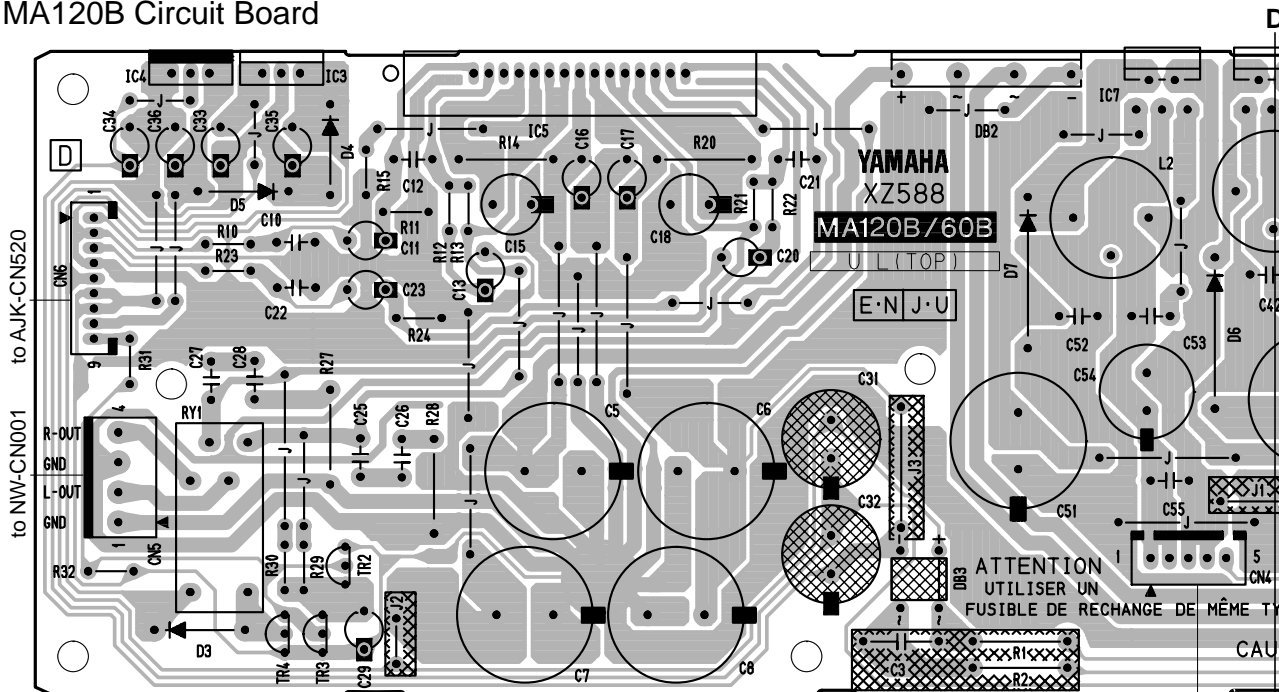


●NETWORK Circuit Board

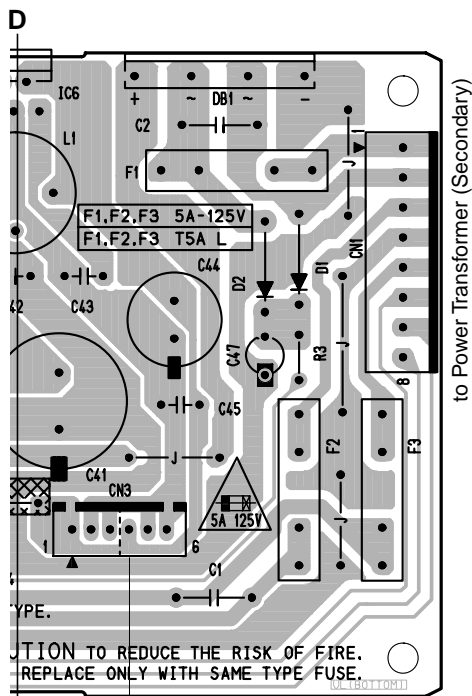


FU120L: 2NA-VV65070 
 NETWORK: 2NA-V245500 

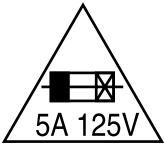
● MA120B Circuit Board



to DM-CN8,
AJK-CN540




to FDD (Power supply), DM-CN9

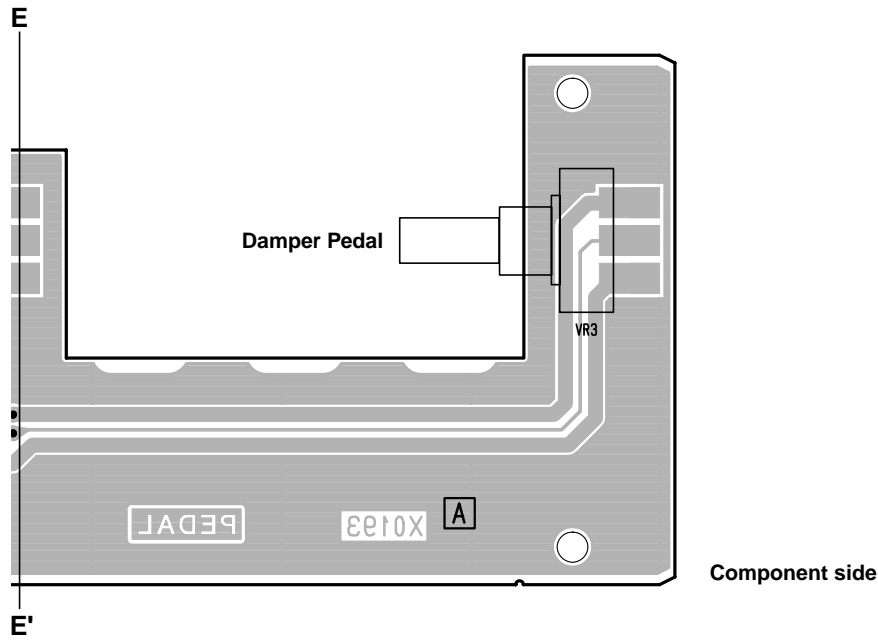
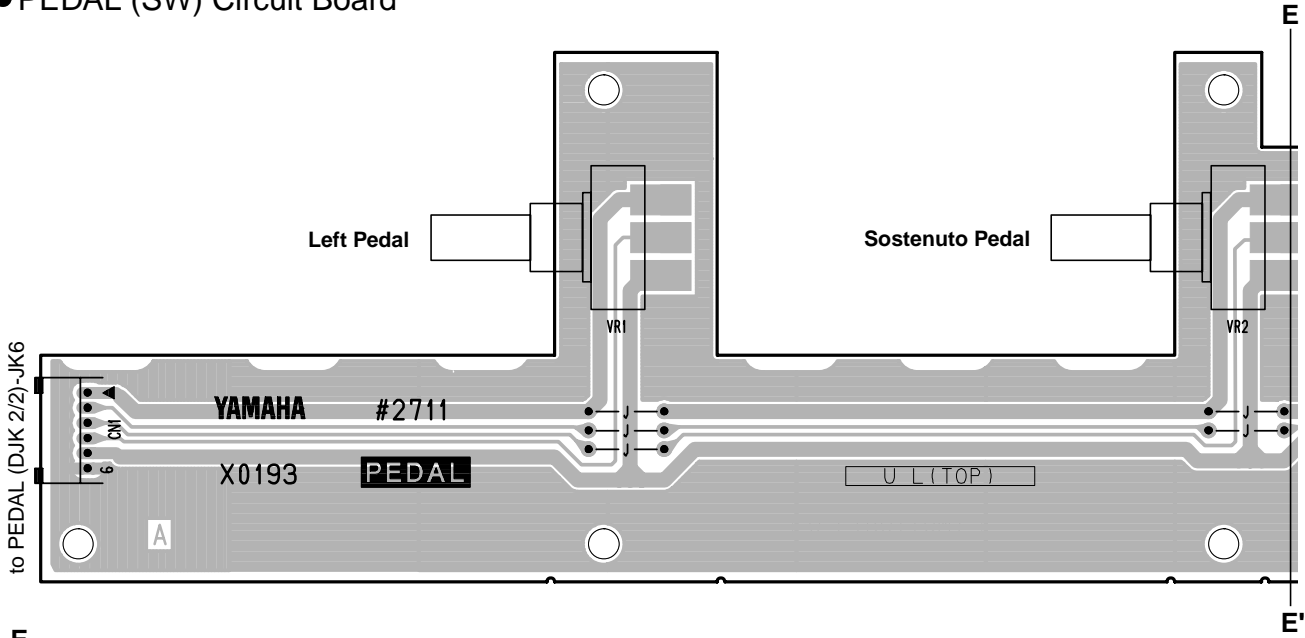


CAUTION: REPLACE WITH SAME TYPE
5A 125V FUSE.

ATTENTION: UTILISER UN FUSIBLE DE
RECHANGE DE MEME TYPE DE 5A 125V.

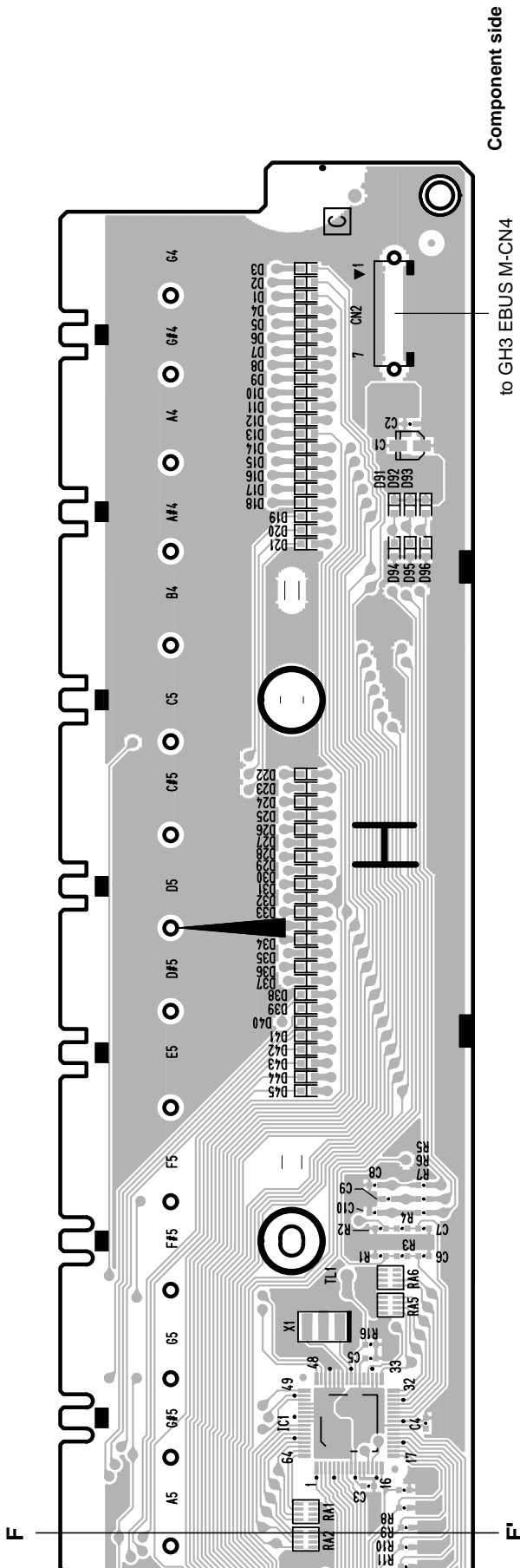
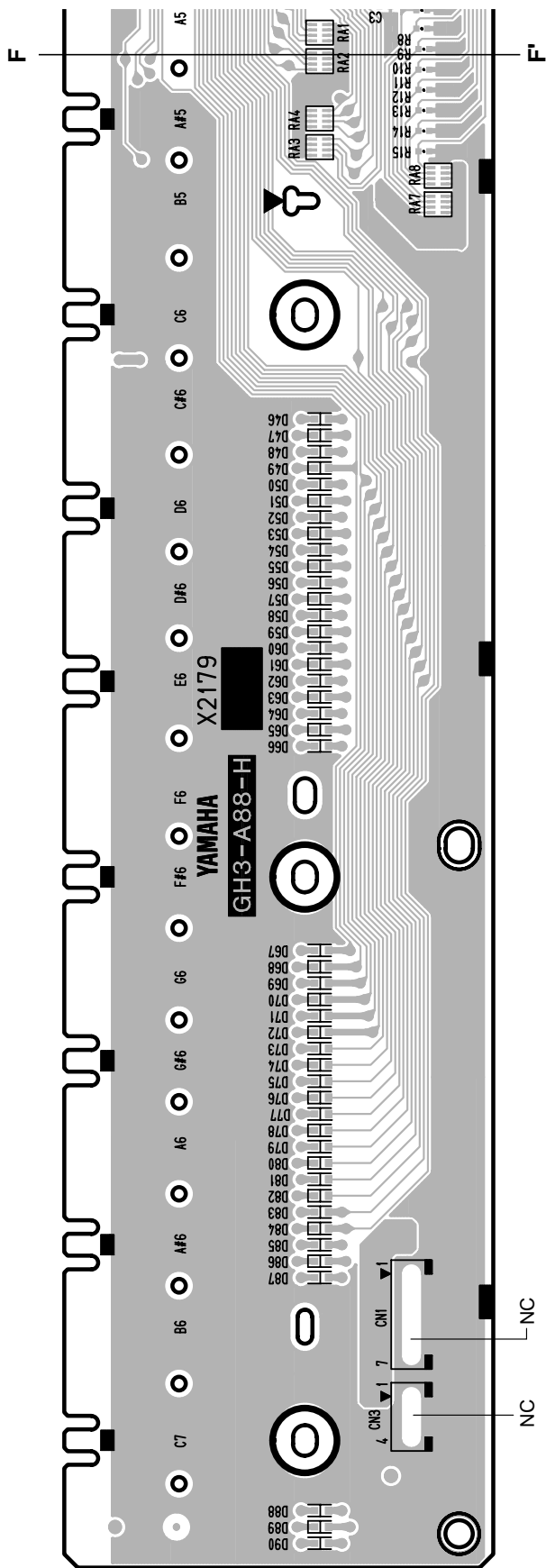
NOTE : The symbol () shows Slow operating fuse.

● PEDAL (SW) Circuit Board

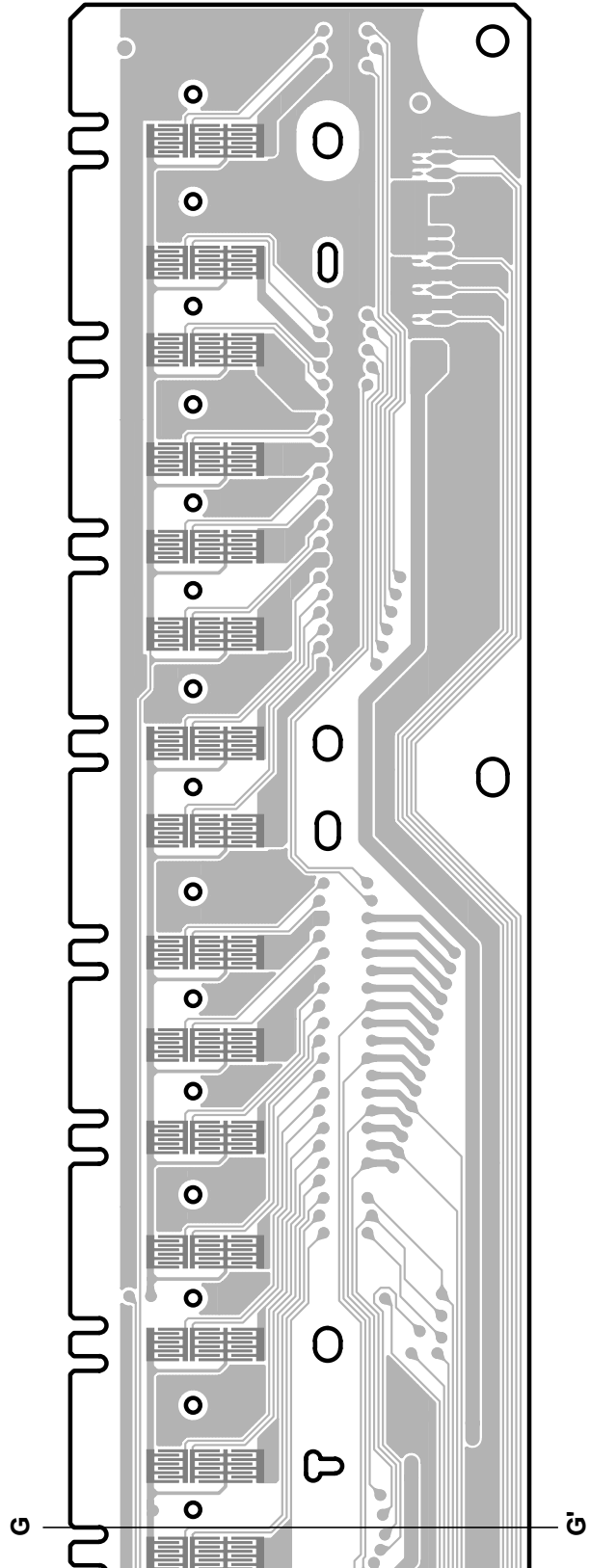
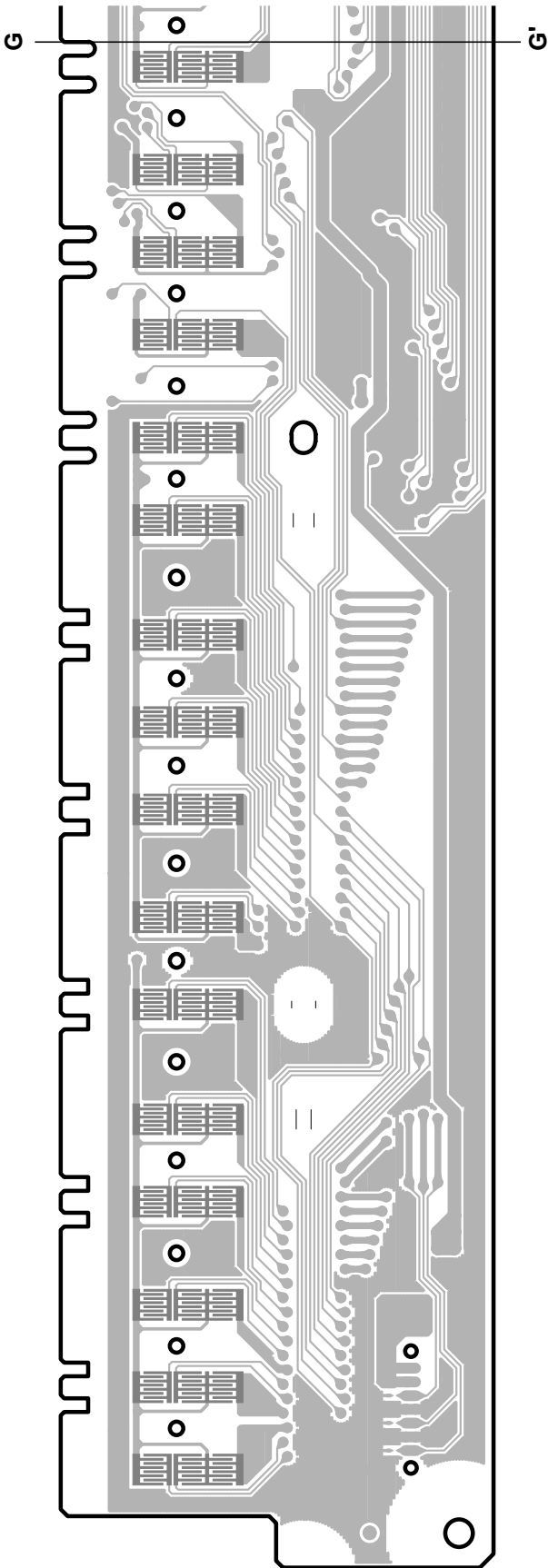


Component side

● GH3 EBUS H Circuit Board



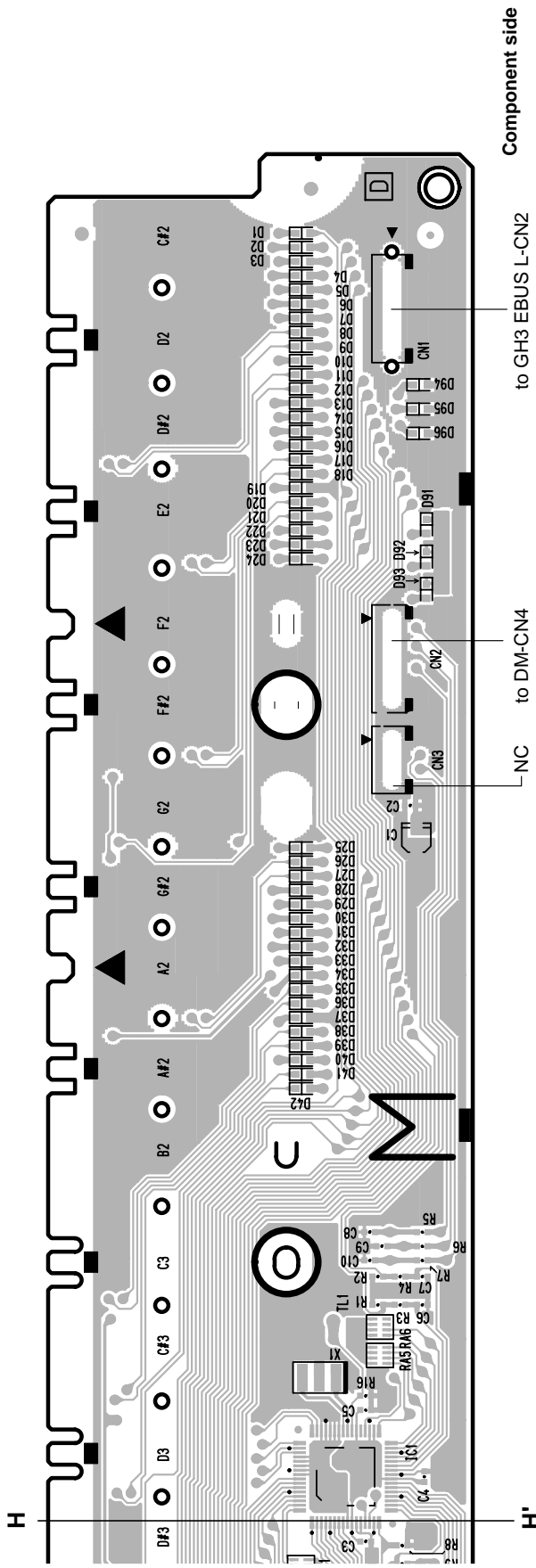
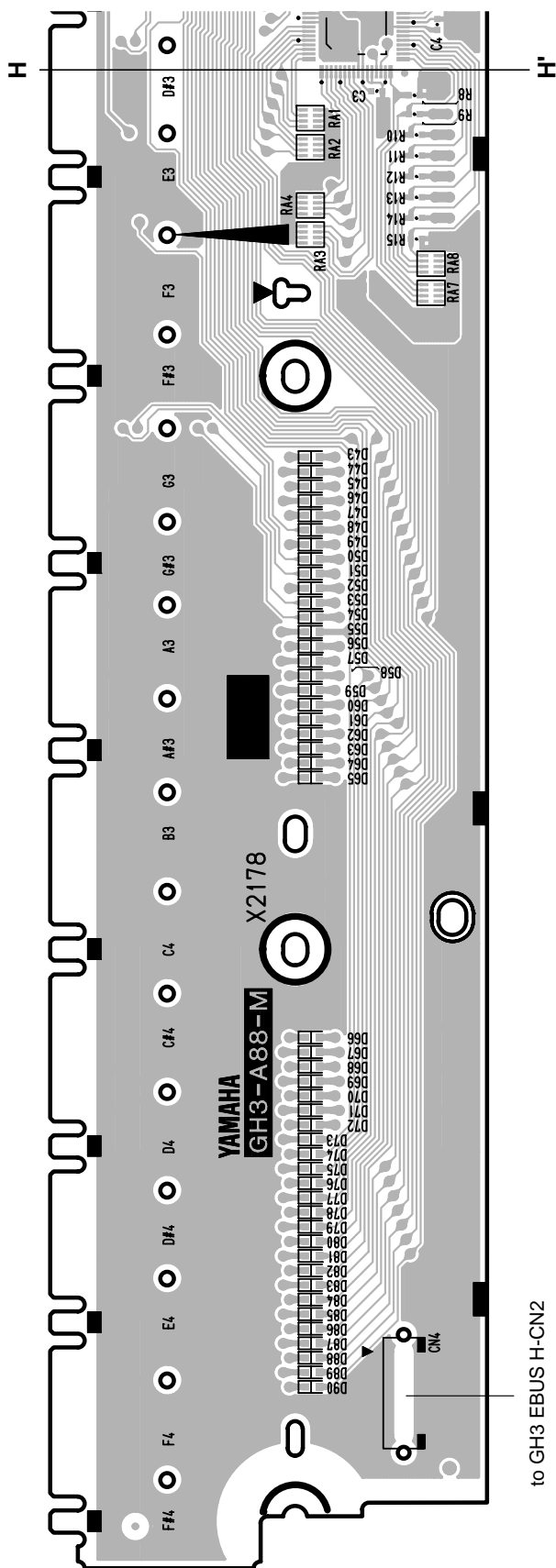
● GH3 EBUS H Circuit Board



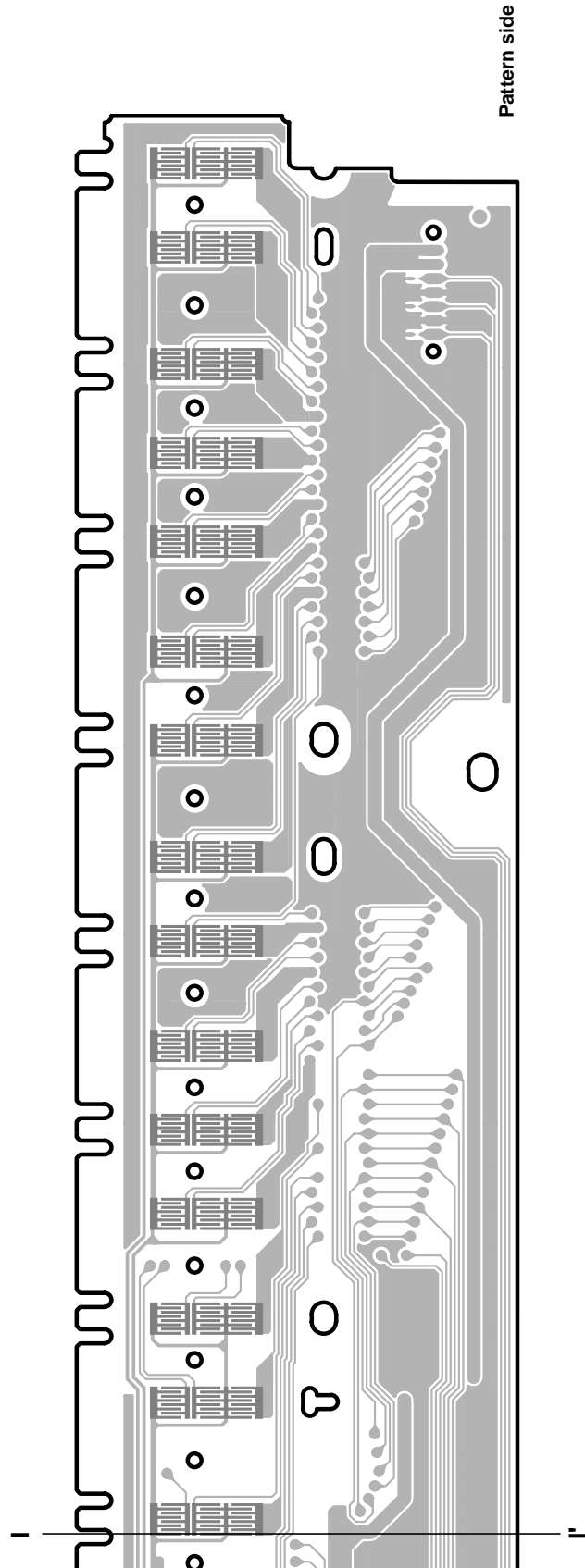
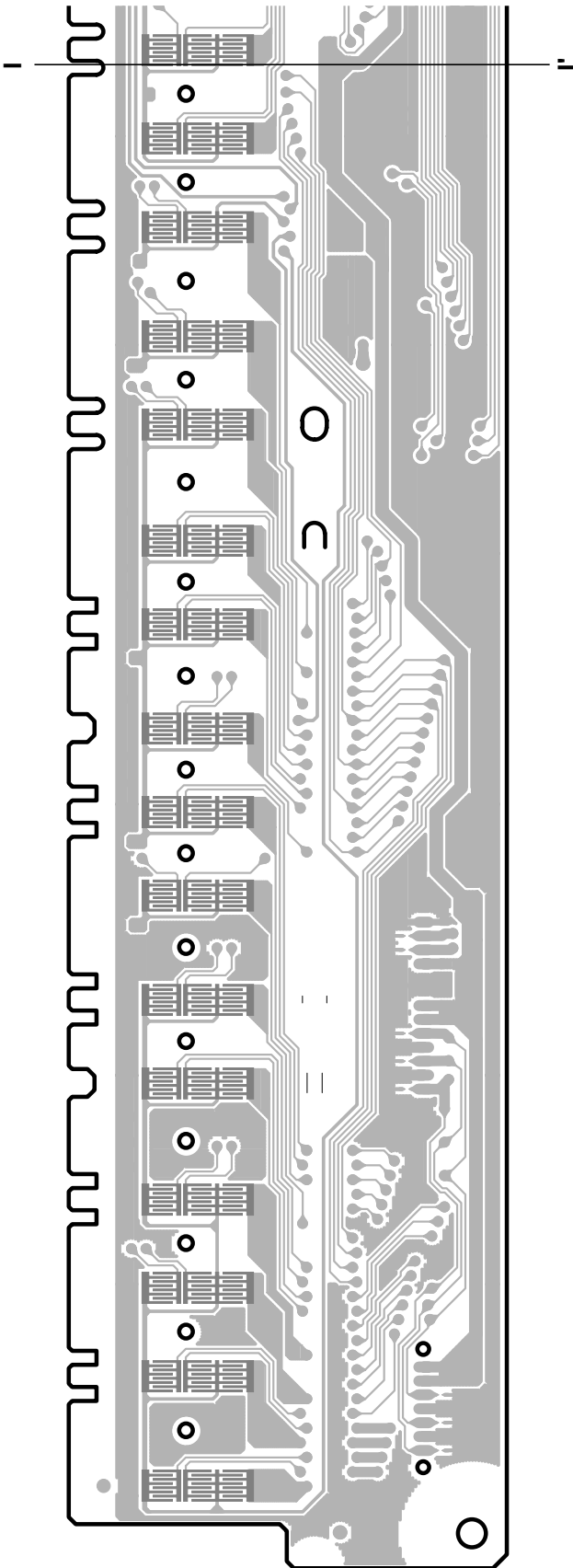
Pattern side



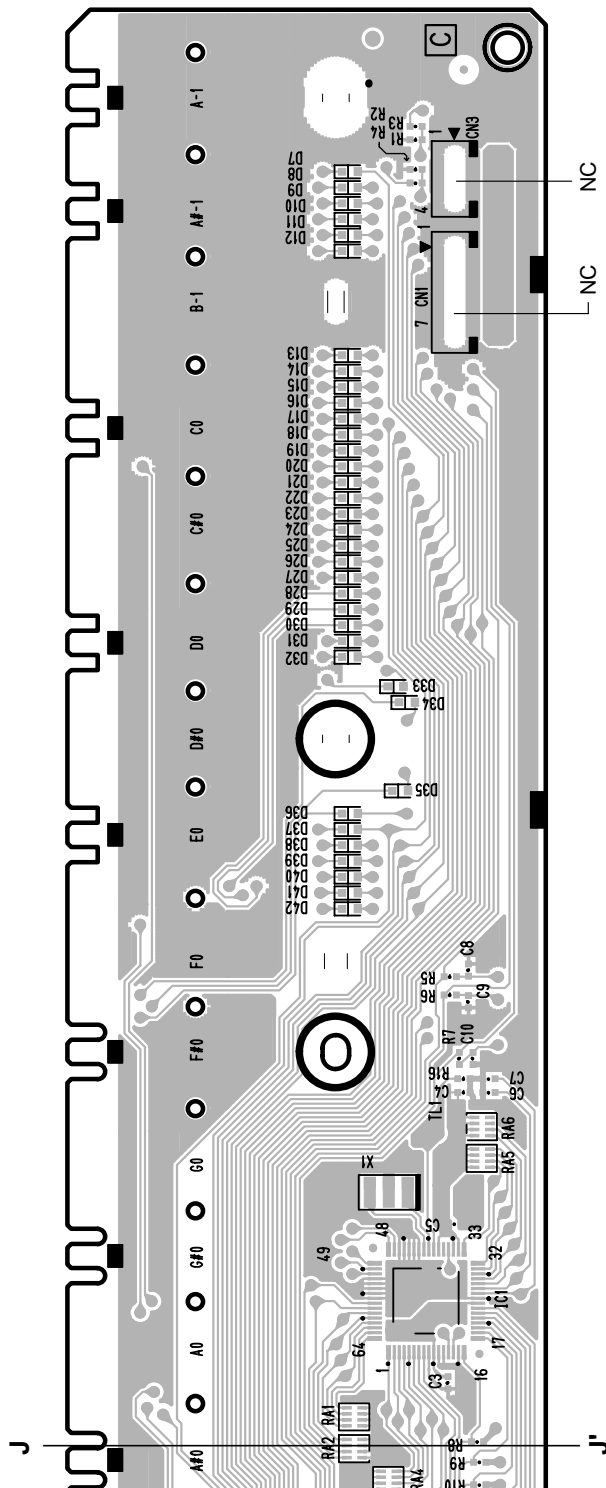
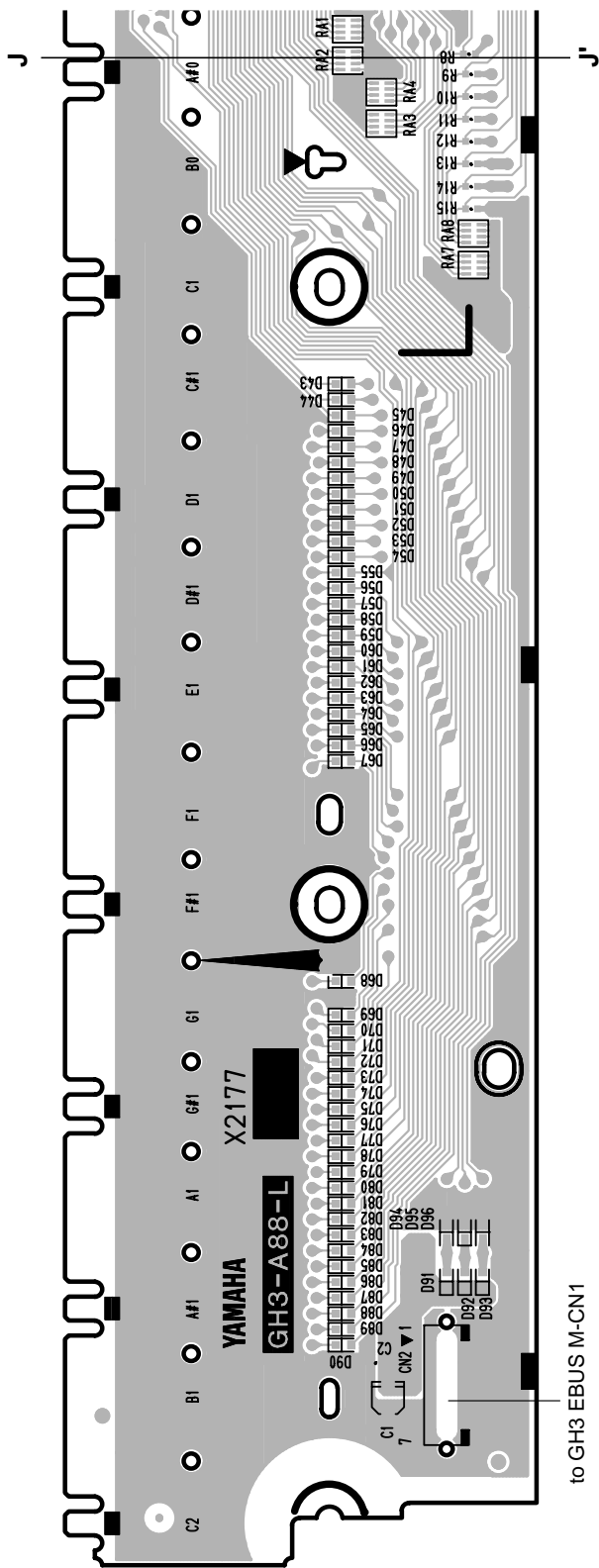
● GH3 EBUS M Circuit Board



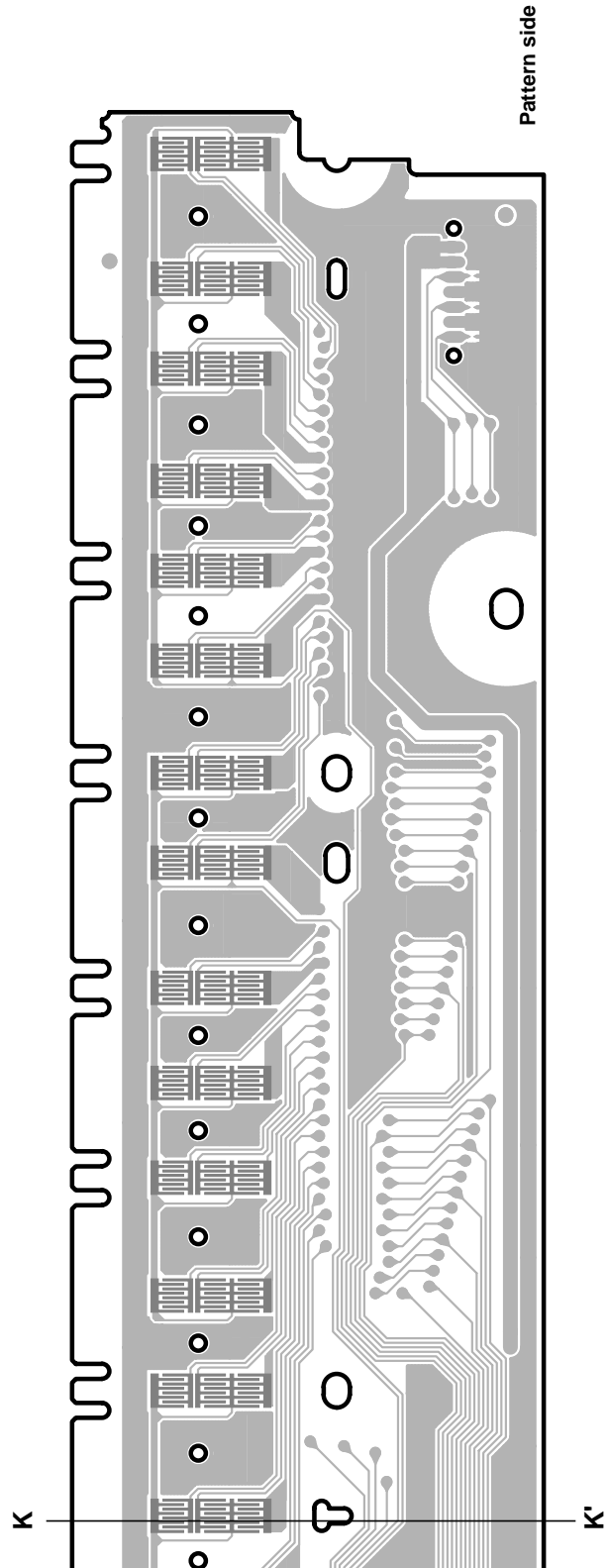
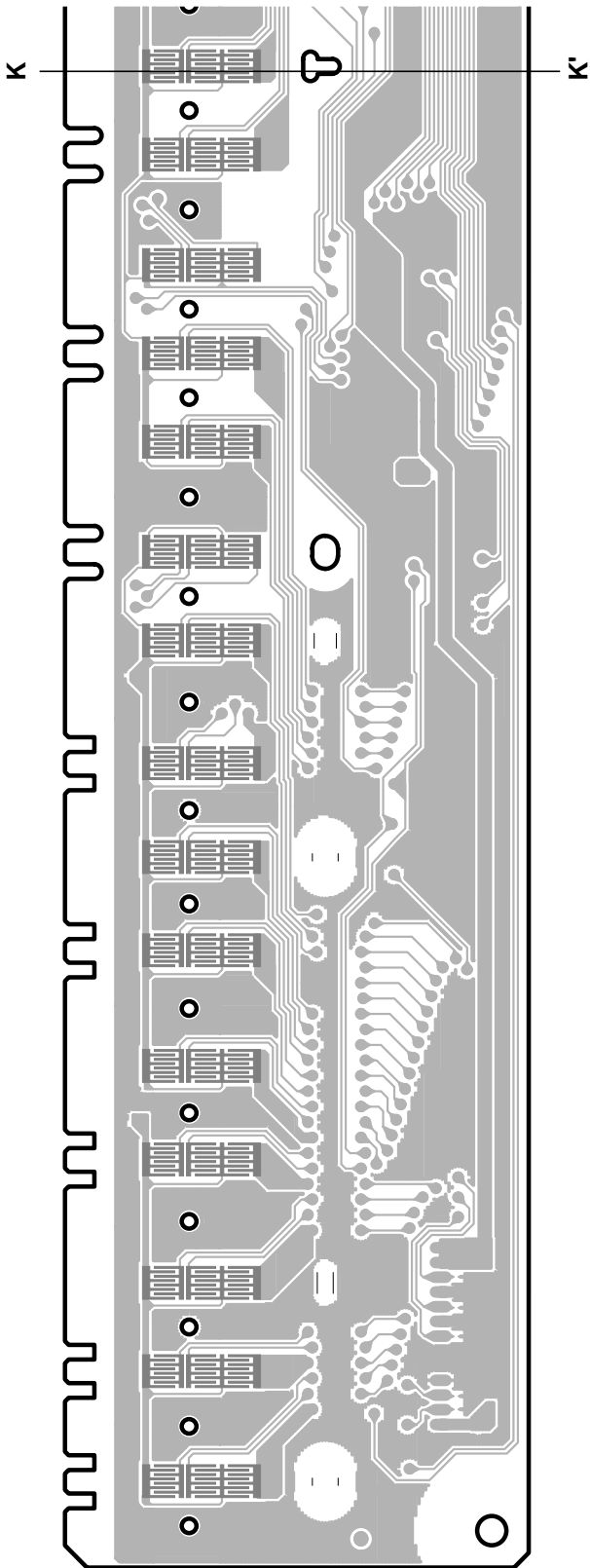
● GH3 EBUS M Circuit Board



● GH3 EBUS L Circuit Board



● GH3 EBUS L Circuit Board



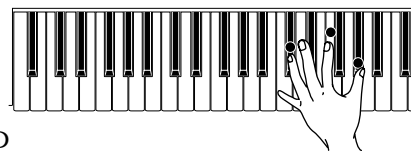
■ TEST PROGRAM

1. Preparation

- 1) Measuring instruments: Frequency counter, level meter (with JIS-C filter)
Note) [PHONES] jack: 33Ω load, [AUX OUT] jack: 10kΩ load
- 2) Jigs: Foot volume (FC-7), MIDI cable, floppy disks (2HD & 2DD, one each), USB cable
- 3) Personal computer: DOS/V type

2. How to enter the Test Program

While pressing the [C#2], [F2] and [G#2] keys, turn on the [POWER] switch.



3. Proceeding through the Test Program

When the test program is activated, the sign “TEST CLP 170” appears on the LCD display.

Select the test program item by pressing the [UP] or [DOWN] button of [TEMPO].

Press the [START/STOP] button of [METRONOME] to execute testing.

When the test result is OK, press the [START/STOP] button of [METRONOME] to return to the screen of test items for selection. Select the next test item by pressing the [UP] or [DOWN] button of [TEMPO]. When the test result is OK, an asterisk (*) is added in front of its item name on display.

When the test result is NG, press the [DEMO] button to return to the screen of test items for selection and then turn off the [POWER] switch to end the test program.

4. Test program list

No.	LCD	Function and judgment criteria
1	001: Main Version	Displays the Main ROM version. The ROM (Program) version is displayed.
2	002: Wave Version	Displays the Wave ROM version. The Wave ROM version is displayed.
3	003: Main Rom Chk1	Checks ROMs that are connected to the CPU bus. Outputs the C4 sine wave when the check result is OK and “Main Rom Chk1 OK” is displayed on the LCD display.
4	004: Main Ram Chk1	Checks RAMs that are connected to the CPU bus. Outputs the C4 sine wave when the check result is OK and “Main Ram Chk1 OK” is displayed on the LCD display.
5	005: FlashRom Chk1	Checks Flash Memories that are connected to the CPU bus. Outputs the C4 sine wave when the check result is OK and “Flash Chk1 OK” is displayed on the LCD display.
6	006: WaveRom Chk1	Checks Wave ROMs. Outputs the C4 sine wave when the check result is OK and “WaveRom Chk1 OK” is displayed on the LCD display.
7	007: FDD Chk	Checks the floppy disk drive unit. Insert 2HD and 2DD floppy disks one by one into the floppy disk drive unit. The test will be executed immediately if a floppy disk is loaded in the drive unit. Make sure to check both 2DD and 2HD types by replacing one with the other. Displays “FDD TEST OK” when the test result is OK. Displays “NO FD” and stands by for a floppy disk loading if the inserted floppy disk is removed before completion of the test. Displays “PROTECT” when a write-protected floppy disk is inserted. A floppy disk in such state cannot be used for testing. Displays “UNFORMAT” when a non-formatatted floppy disk is inserted. Such a floppy disk cannot be used for testing.

No.	LCD	Function and judgment criteria
8	008: EffectRam Chk	Checks the effect RAM. Outputs the sine wave (C4) when the check result is OK and displays “effectRam Chk OK” is displayed on the LCD display.
9	009: TG Chk	Checks the Sound Source (Autoscale). Sequentially outputs the sine wave by changing the tone of the sound source from the low keys (from C2 to G4). Check by hearing that the produced sound is free from noise and abnormal sound.
10	010: Pitch Chk	Checks the pitch. Connect the frequency counter to the [PHONES] jack. Outputs the sine wave at $440.5 \pm 0.2\text{Hz}$ (PAN = Center) when the test is executed. Connect the level meter (with a JIS-C filter) to the [PHONES] jack. Set the [MASTER VOLUME] at the MIN. position and check the output level. PHONES L, R: -90.0dBm or less
11	011: Output R	Checks the R channel output. Connect the level meter (with a JIS-C filter) to each output terminal. Set the [MASTER VOLUME] at the MAX. position and check the output level of the R channel. (1kHz sine wave, PAN = R) PHONES L: -40.0dBm or less PHONES R: +2.0dBm \pm 2dB AUX OUT L/L+R: -50dBm or less AUX OUT R: -1.5dBm \pm 2dB AUX OUT (LEVEL FIXED)L: -50dBm or less AUX OUT (LEVEL FIXED)R: -2.0dBm \pm 2dB
12	012: Output L	Checks the L channel output. Connect the level meter (with a JIS-C filter) to each terminal. Set the [MASTER VOLUME] at the MAX. position and check the output level of the L channel. (1kHz sine wave, PAN = R) PHONES L: +2.0dBm \pm 2dB PHONES R: -40dBm or less AUX OUT L/L+R: -1.5dBm \pm 2dB AUX OUT R: -50dBm or less AUX OUT (LEVEL FIXED)L: -2.0dBm \pm 2dB AUX OUT (LEVEL FIXED)R: -50dBm or less
13	013: EQ Low	Checks the EQ-LOW frequency. Check that 65.4Hz (C1) sine wave is output. (PAN = Center)
14	014: EQ Mid	Checks the EQ-MID frequency. Check that 523Hz (C4) sine wave is output. (PAN = Center)
15	015: EQ High	Checks the EQ-HIGH frequency. Check that 4186Hz (C7) sine wave is output. (PAN = Center)
16	016: D/A Noise	This test item is included in the factory inspection.
17	017: SW, LED Chk	Checks the switches on the panel and LED. Press the switches as their names are indicated on the LCD. When each switch is pressed, its pre-assigned note is output. (See Table 1 on p. 50.) When the switch with LED is pressed, that LED will light up at the same time. Upon completion of checking all switches, “SW. LED Chk OK” is displayed on the LED display.
18	018: All LED On	Check that all LEDs light up.
19	019: Red LED On	Check that all red LEDs light up.
20	020: Green LED On	Check that all green LEDs light up.
21	021: All LCD On	Check that all LCD dots light up.
22	022: All LCD Off	Check that all LCD dots go off.
23	023: SoftPedal Chk	Checks the soft pedal. Check that the C3 note is output when the test is executed and the soft pedal is depressed and the C4 note is output when it is released. For the check result, check that “Soft Test OK” is displayed on the LCD display.

No.	LCD	Function and judgment criteria
24	024: SostenutoPedalChk	Checks the sostenute pedal. Check that the C3 note is output when the test is executed and the sostenute pedal is depressed and the C4 note is output when it is released. For the check result, check that "Sostenute Test OK" is displayed on the LCD display.
25	025: DamperPedalChk	Checks the damper pedal. Check that the C3 note is output when the damper pedal is depressed and the C4 note is output when it is released. For the check result, check that "Damper Test OK" is displayed on the LCD display.
26	026: ExpPedalChk	Connect the foot volume (FC-7) to the [AUX PEDAL] jack. Check that the C3 note is output when the pedal is depressed fully to the back (DOWN) and the C4 note is output when it is depressed fully to the front (UP). For the check result, check that "Aux Pedal OK" is displayed on the LCD display.
27	027: Song Balance Chk	Checks the song balance. When the [SONG BALANCE] control is set to the "SONG" position, the C3 note is output and "SONG BAL MIN" is displayed on the LCD display, when it is set to the "KEYBOARD" position, the G3 note is output and "SONG BAL MAX" is displayed and when it is set back to the "CENTER" position, the C4 note is output and the check result is displayed on the LCD display. Check that "SONG BAL OK" is displayed.
28	028: Main Vol Chk	Checks the main volume. When the [MASTER VOLUME] control is set to the "MIN" position, "MAIN VOL MIN" is displayed on the LCD display and when it is set to the "MAX" position, the check result is displayed. Check that "MAIN VOL OK" is displayed.
29	029: Midi Chk	After connecting the [MIDI in] jack and the [MIDI OUT] jack with a MIDI cable, execute the test. (Keep the [HOST SELECT] switch at the MIDI position.) Then the C4 tone is output and the check result is displayed on the LCD display. Check that "Midi Chk OK" is displayed.
30	030: To Host Chk	Short-circuit between pins 3 and 5, pins 6 and 8 of the [TO HOST] terminal and execute the test. Change the [HOST SELECT] switch position according to the LCD indication and check that the following tone is output at each position. (C3 at USB, C4 at PC and C5 at MAC). For the check result, check that "To Host Chk OK" is displayed on the LCD display.
31	031: USB Chk	Checks the USB jack. Connect the [USB] jack and the personal computer with a USB cable and set the [HOST SELECT] switch to the USB position. When the test is executed, "USB Chk In" is displayed on the LCD display. When the cable is disconnected, "USB Chk Out" is displayed on the LCD display. For the check result, check that the C4 tone is output and "USB Chk OK" is displayed. (Set to the Thru On position on the computer side.)
32	032: Keyboard Type Chk	Checks the keyboard type. When the test is executed, the C4 tone is output and check result is displayed on the LCD display. Check that "Keyboard Type Chk OK" is displayed.
33	033: MakePosition Chk	Execute the test and press the key. The corresponding note is output and the note No. and the No. being made are displayed on the LCD display. For the check result, check that "Make Position Chk OK" is displayed on the LCD display.
34	034: GH3 Chk1	Execute the test and press the key. The corresponding note is output and the note No. and the velocity being 1-2 made are displayed on the LCD display. For the check result, check that "GH3 Chk1 OK" is displayed on the LCD display.
35	035: GH3 Chk2	Execute the test and press the key. The corresponding note is output and the note No. and the velocity being 2-3 made are displayed on the LCD display. For the check result, check that "GH3 Chk2 OK" is displayed on the LCD display.
36	036: Afc Chk	This test item is included in the factory inspection.
37	037: Main Rom Chk2	Checks all the ROMs that are connected to the CPU bus. For the check result, check that "Main Rom Chk2 OK" is displayed on the LCD display.

No.	LCD	Function and judgment criteria
38	038: Main Ram Chk2	Checks all the RAMs that are connected to the CPU bus. For the check result, check that “Main Ram Chk2 OK” is displayed on the LCD display.
39	039: Flash Rom Chk2	Checks all the flash memories that are connected to the CPU bus. For the check result, check that “Flash Chk2 OK” is displayed on the LCD display. It takes about 50 seconds.
40	040: WaveRom Chk2	Checks the WAVE ROMs. For the check result, check that “Wave Rom Chk2 OK” is displayed on the LCD display. It takes about 30 seconds.
41	041: EffectRam Chk2	Checks the Effect ROMs. For the check result, check that “Effect Ram Chk2 OK” is displayed on the LCD display. It takes about 10 seconds.
42	042: Factory Set	When this test is executed, the factory preset data will be set in the Flash ROMs when the power is turned on the next time. Check that “Factory Set OK” is displayed on the LCD display. It takes about 20 seconds.
43	043: Test Exit	When the test is executed, the test program will exit and the play mode will be set.

* 0 dBm = 0.775 V

Table 1

Order	Switch Name	Note	Order	Switch Name	Note
1	DEMO	G1	31	VIBRAPHONE	C#4
2	SONG SELECT ◀◀	G#1	32	GUITAR	D4
3	SONG SELECT ▶▶	A1	33	CHURCH ORGAN	D#4
4	SONG TRACK 1	A#1	34	JAZZ ORGAN	E4
5	SONG TRACK 2	B1	35	STRINGS	F4
6	SONG EXTRA TRACKS	C2	36	CHOIR	F#4
7	SONG TOP	C#2	37	SYNTH. PAD	G4
8	SONG START/STOP	D2	38	WOOD BASS	G#4
9	SONG REC	D#2	39	E. BASS	A4
10	FILE	E2	40	XG	A#4
11	SONG SETTING	F2	41	VOICE SETTING	B4
12	METRONOME START/STOP	F#2	42	SPLIT	C5
13	METRONOME SETTING	G2	43	REVERB	C#5
14	TEMPO DOWN	G#2	44	CHORUS	D5
15	TEMPO UP	A2	45	VARIATION DOWN	D#5
16	LCD A -	A#2	46	VARIATION UP	E5
17	LCD A +	B2	47	BRILLIANCE MELLOW	F5
18	LCD C -	C3	48	BRILLIANCE BRIGHT	F#5
19	LCD C +	C#3	49	IAFC ON/OFF	G5
20	LCD B -	D3	50	IAFC SETTING	G#5
21	LCD B +	D#3	51	MIDI SETTING	A5
22	LCD D -	E3	52	OTHER SETTING	A#5
23	LCD D +	F3			
24	EXIT	F#3			
25	GRAND PIANO1	G3			
26	GRAND PIANO2	G#3			
27	E.PIANO1	A3			
28	E.PIANO2	A#3			
29	HARPSICHORD	B3			
30	E.CLAVICHORD	C4			

● Initialization

The system will be initialized and the factory preset state will be restored when the [POWER] switch is pressed while pressing the highest (rightmost) white key on the keyboard.

■ MIDI IMPLEMENTATION CHART

YAMAHA [Clavinova]
Model: CLP-170/150

MIDI Implementation Chart

Date : 25 Dec 2001
Version : 1.0

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1-16	1-16	
	Changed	1-16	1-16	
Mode	Default	3	3	
	Messages	x	x	
	Altered	*****	x	
Note Number:	True voice	0-127 *****	0-127 0-127	
Velocity	Note ON	o 9nH , v = 1-127	o 9nH , v = 1-127	
	Note OFF	x 9nH , v = 0	x	
After Touch	Key's	x	x	
	Ch's	x	o	
Pitch Bend		o	o0-24 semi	
Control Change	0, 32	o	o	Bank Select
	1	x	o	Modulation
	5	x	o	Portament Time
	7, 10, 11	o	o	
	6, 38	o	o	Data Entry
	64, 66, 67	o	o	
	65	x	o	Portament
	71 , 74	o	o	Sound Controller
	72 , 73	x	o	Sound Controller
	84	x	o	Portament Control
	91, 93	o	o	Effect Depth
	94	x	o	Effect Depth
	96-97	x	o	RPN Inc,Dec
	98-99	x	o	NRPN LSB,MSB
100-101	o	o	RPN LSB,MSB	
120	x	o	All Sound Off	
Prog Change:	True #	o 0-127 *****	o 0-127	
System Exclusive		o	o	
Common	: Song Pos.	x	x	
	: Song Sel.	x	x	
	: Tune	x	x	
System Real Time	: Clock	o	x	
	: Commands	o	o	
Aux Messages	: Local ON/OFF	x	x	
	: All Notes OFF	x	o	
	: Active Sense	o	o	
	: Reset	x	x	

Notes:

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO

o : Yes
x : No

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers. Hexadecimal numbers may include the letter "H" as a suffix.

Also, "n" can freely be defined as any whole number. To enter data/values, refer to the table below.

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

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

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

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

- Except the table above, for example 144-159(decimal)/9nH/1001 0000-1001 1111(binary) denotes the Note On Message for each channel (1-16). 176-191/BnH/1011 0000-1011 1111 denotes the Control Change Message for each channel (1-16). 192-207/CnH/1100 0000-1100 1111 denotes the Program Change Message for each channel (1-16). 240/FOH/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.
- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

MIDI CHANNEL MESSAGE (1)

○: available

MIDI Events	Status byte		1st Data byte		2nd Data byte		MIDI Reception (respond/ignore)			MIDI Transmission (generated data)			PLAY		REC	
	Status	(n:Channel Number)	Data (HEX)	Parameter	Data (HEX)	Parameter	Song	Main Layer Left Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel	
Key Off	8nH	(n:Channel Number)	kk	Key no. (0-127)	vv	Velocity(0-127)	○	○	○	×	○	×	○	×	×	
Key On	9nH	(n:Channel Number)	kk	Key no. (0-127)	vv	Key On :vv=1-127 Key Off :vv=0	○	○	○	○ (Keyboard)	○	×	○	×	○	
Control Change	BnH		0 (00H)	Bank Select MSB	0 (00H) 64 (40H) 126 (7EH) 127 (7FH)	Normal SFX voice SFX kit Drum kit	○	○	×	○ (Voice)	○	×	○	○	○	
			1 (01H)	Modulation	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	×	○	×	○	○	×	
			5 (05H)	Portamento Time	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	×	○	×	○	○	×	
			6 (06H)	Data Entry MSB	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○	
			7 (07H)	Main Volume	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○	
			10 (0AH)	Panpot	0-127 (00H...7FH)	L64	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○	
			11 (0BH)	Expression	0-127 (00H...7FH)	Data	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○	
			32 (20H)	Bank Select LSB	0-127 (00H...7FH)	Data	○	○	○	×	○ (Voice)	○	×	○	○	○
			38 (26H)	Data Entry LSB	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	×	○
			64 (40H)	Sustain(Damper)	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○
			65 (41H)	Portamento	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○	○ (All manually played parts)	×	○	×	○	○	×
			66 (42H)	Sostenuto	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○
			67 (43H)	Soft Pedal	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	○	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○
			71 (47H)	Harmonic Content	0-127 (00H...7FH)	-64...0...+63	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○
			72 (48H)	Release Time	0-127 (00H...7FH)	-64...0...+63	○	○	○	○ (All manually played parts)	×	○	×	○	○	×
			73 (49H)	Attack Time	0-127 (00H...7FH)	-64...0...+63	○	○	○	○ (All manually played parts)	×	○	×	○	○	×
			74 (4AH)	Brightness	0-127 (00H...7FH)	-64...0...+63	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○
			84 (54H)	Portamento Control	0-127 (00H...7FH)	Key no. (0-127)	○	○	○	×	×	○	×	○	×	×
			91 (5BH)	Effect1 Depth (Reverb Send Level)	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○
			93 (5DH)	Effect3 Depth (Chorus Send Level)	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○
			94 (5EH)	Effect4 Depth (Variation Send Level)	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	×	○	×	○	○	×
96 (60H)	RPN Increment	-	-	*	○	○	×	×	○	×	○	×	×			
97 (61H)	RPN Decrement	-	-	*	○	○	×	×	○	×	○	×	×			
98 (62H)	NRPN LSB	0-127 (00H...7FH)	Data	○	○	○	×	×	○	×	○	○	×			
99 (63H)	NRPN MSB	0-127 (00H...7FH)	Data	○	○	○	×	×	○	×	○	○	×			
100 (64H)	RPN LSB	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○			
101 (65H)	RPN MSB	0-127 (00H...7FH)	Data	○	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○			
Mode Message	BnH	(n:Channel Number)	120 (78H)	All Sound Off	0 (00H)	Data	○	○	○ (All manually played parts)	×	○	×	○	×	×	
			121 (79H)	Reset All Controllers	0 (00H)	Data	○	×	×	×	○	×	○	×	×	
			123 (7BH)	All Note Off	0 (00H)	Data	○	○	○ (All manually played parts)	×	○	×	○	×	×	
			124 (7CH)	Omn Off	0 (00H)	Data	○	×	×	×	×	×	×	×	×	
			125 (7DH)	Omn On	0 (00H)	Data	○	×	×	×	×	×	×	×	×	
			126 (7EH)	Mono	0-16 (00H...10H)	Data	○	×	×	×	×	○	×	○	×	×
			127 (7FH)	Poly	0 (00H)	Data	○	×	×	×	×	○	×	○	×	×
Program Change	CnH	(n:Channel Number)	pp (00H...7FH)	Voice number (0-127)	-	-	-	○	○	×	○ (Voice)	○	×	○	○	
Channel After Touch	DnH	(n:Channel Number)	vv (00H...7FH)	Data	-	-	-	○	○	○ (All manually played parts)	×	○	×	○	×	
Polyphonic After Touch	AnH	(n:Channel Number)	kk (00H...7FH)	Key no. (0-127)	vv (00H...7FH)	Data	○	×	×	×	○	×	○	×	×	
Pitch Bend Change	EnH	(n:Channel Number)	cc (00H...7FH)	LSB	dd (00H...7FH)	MSB	○	○	○ (All manually played parts)	○ (Pedal)	○	×	○	○	○	
Realtime Message	F8H	MIDI Clock	-	-	-	-	-	-	×	○	-	-	-	×		
	FAH	Start	-	-	-	-	-	-	○	○	-	-	-	×		
	FBH	Continue	-	-	-	-	-	-	×	×	-	-	-	×		
	FCH	Stop	-	-	-	-	-	-	○	○	-	-	-	×		
	FEH	Active Sens	-	-	-	-	-	-	○	○	-	-	-	×		
	FFH	System Reset	-	-	-	-	-	-	×	×	-	-	-	×		

* The data byte is ignored.

MIDI CHANNEL MESSAGE (2)

Parameters controlled by NRPN (Non-Registered Parameter Numbers)

NRPN		Data Entry		Parameter	Data Range	MIDI Reception (respond/ignore)			MIDI Transmission (generated data)			PLAY		REC
MSB	LSB	MSB	LSB			Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
01H	08H	mmH	--	Vibrato Rate	mm : 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×
01H	09H	mmH	--	Vibrato Depth	mm : 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×
01H	0AH	mmH	--	Vibrato Delay	mm : 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×
01H	20H	mmH	--	Low Pass Filter Cutoff Frequency	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
01H	21H	mmH	--	Low Pass Filter Resonance	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
01H	30H	mmH	--	EQ BASS	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
01H	31H	mmH	--	EQ TREBLE	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
01H	34H	mmH	--	EQ BASS Frequency	mm : 04H-28H (32...2.0k [Hz])	○	×	×	×	○	×	○	○	×
01H	35H	mmH	--	EQ TREBLE Frequency	mm : 1CH-3AH (500...16.0k [Hz])	○	×	×	×	○	×	○	○	×
01H	63H	mmH	--	EG Attack Time	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
01H	64H	mmH	--	EG Decay Time	mm : 00H-40H-7FH (-64...0...+63)	○	○	×	×	○	×	○	○	×
01H	66H	mmH	--	EG Release	mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	○	×
14H	rrH	mmH	--	Drum Low Pass Filter Cutoff Frequency	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
15H	rrH	mmH	--	Drum Low Pass Filter Resonance	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
16H	rrH	mmH	--	Drum EG Attack Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
17H	rrH	mmH	--	Drum EG Decay Rate	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
18H	rrH	mmH	--	Drum Pitch Coarse	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
19H	rrH	mmH	--	Drum Pitch Fine	rr : drum instrument note number mm : 00H-40H-7FH (-64...0...+63)	○	×	×	×	○	×	○	×	×
1AH	rrH	mmH	--	Drum Level	rr : drum instrument note number mm : 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×
1CH	rrH	mmH	--	Drum Pan	rr : drum instrument note number mm : 00H, 01H-40H-7FH (RND, L63...C...R63)	○	×	×	×	○	×	○	×	×
1DH	rrH	mmH	--	Drum Reverb Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×
1EH	rrH	mmH	--	Drum Chorus Send Level	rr : drum instrument note number mm : 00H-7FH (0...127)	○	×	×	×	○	×	○	×	×
1FH	rrH	mmH	--	Drum Variation Send Level	rr : drum instrument note number mm : 00H-7FH (0...127) (Variation Connection = SYSTEM) mm : 00H, 01H-7FH (OFF, ON) (Variation Connection = INSERTION)	○	×	×	×	○	×	○	×	×

NRPN MSB: 14H-1FH (for drums) message is accepted as long as the channel is set with a drum voice.

Data Entry LSB: Ignored.

Parameters controlled by RPN (Registered Parameter Numbers)

NRPN		Data Entry		Parameter	Data Range	MIDI Reception (respond/ignore)			MIDI Transmission (generated data)			PLAY		REC
MSB	LSB	MSB	LSB			Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
00H	00H	mmH	--	Pitch Bend Sensitivity	mm : 00H-18H (0...+24 [semitones])	○	○	○ (All manually played parts)	○ (Other Setting)	○	×	○	○	○
00H	01H	mmH	llH	Fine Tune	mm ll : 00H 00H -100 [cent] ... mm ll : 40H 00H 0 [cent] ... mm ll : 7FH 7FH 100 [cent]	○	○	○ (All manually played parts)	○ (Voice Setting)	○	×	○	○	○
00H	02H	mmH	--	Coarse Tune	mm : 28H-40H-58H (-24...0...+24 [semitones])	○	○	○ (All manually played parts)	×	○	×	○	○	×
7FH	7FH	--	--	Null	-	○	○	○ (All manually played parts)	×	○	×	○	×	×

MIDI PARAMETER CHANGE TABLE

* Not Received when Receive Parameter SysEx is set to off.

* Not transmitted when Transmit Parameter SysEx is set to on.

MIDI Parameter Change table (XG SYSTEM)

○: available

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC		
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel		
00	00	00 01 02 03	4	00-0F 00-0F 00-0F 00-0F	MASTER TUNE	-102.4...0...+102.3 [cent] 1st bit3-0 → bit15-12 2nd bit3-0 → bit11-8 3rd bit3-0 → bit7-4 4th bit3-0 → bit3-0	* Panel setting value	○	×	×	×	○	×	○	×	×
		04	1	00-7F	MASTER VOLUME	0...127	7F	○	×	×	×	○	×	○	×	×
		05	1	00-7F	MASTER ATTENUATOR	0...127	00	×	×	×	×	×	×	×	×	×
		06	1	28-58	TRANSCOPE	-24...0...+24 [semitones]	40	○	×	×	×	○	×	○	○	×
		7D	1	N	DRUM SETUP RESET	N:Drum setup number	-	○	×	×	×	○	×	○	×	×
		7E	1	00	XG SYSTEM ON	00=XG system ON	-	○	×	×	×	○	×	○	×	○
		7F	1	00	ALL PARAMETER RESET	00=ON	-	○	×	×	×	○	×	○	×	×

TOTAL SIZE 07

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

MIDI Parameter Change table (SYSTEM INFORMATION)

Address (H)	Size (H)	Data (H)	Parameter	Description	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC
					Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
01	00	00...0D	Model Name 1 ... Model Name 14	32...127(ASCII CHARACTER) ... 32...127(ASCII CHARACTER)	-	-	-	×	×	○	×	×	×
		0E	NOT USED										
		0F	NOT USED										

TOTAL SIZE 10

Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
02	01	00	REVERB TYPE MSB REVERB TYPE LSB	Refer to Effect Parameter List *	01(=HALL1) 00		○		○(Voice Setting)	○	×	○	○	○
		02	REVERB PARAMETER 1	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		03	REVERB PARAMETER 2	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		04	REVERB PARAMETER 3	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		05	REVERB PARAMETER 4	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		06	REVERB PARAMETER 5	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		07	REVERB PARAMETER 6	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		08	REVERB PARAMETER 7	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		09	REVERB PARAMETER 8	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		0A	REVERB PARAMETER 9	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		0B	REVERB PARAMETER 10	"	Depends on Reverb Type	○ (* Depends on Reverb Type)			×	○	×	○	○	×
		0C	REVERB RETURN	-->dB...0dB...+6dB(0...96...127)	40		○		×	○	×	○	○	×
		0D	REVERB PAN	L63...C...R63	40		○		×	○	×	○	○	×

TOTAL SIZE 0E

02	01	10	1	00-7F	REVERB PARAMETER 11	Refer to Effect Parameter List	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×
		11	1	00-7F	REVERB PARAMETER 12	"	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×
		12	1	00-7F	REVERB PARAMETER 13	"	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×
		13	1	00-7F	REVERB PARAMETER 14	"	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×
		14	1	00-7F	REVERB PARAMETER 15	"	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×
		15	1	00-7F	REVERB PARAMETER 16	"	Depends on Reverb Type	○ (* Depends on Reverb Type)		×	○	×	○	○	×

TOTAL SIZE 06

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC	
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel	
02	01	20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List *	41(=CHORUS1) 00		○		○(Voice Setting)	○	×	○	○
		22	1	00-7F	CHORUS PARAMETER 1	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		23	1	00-7F	CHORUS PARAMETER 2	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		24	1	00-7F	CHORUS PARAMETER 3	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		25	1	00-7F	CHORUS PARAMETER 4	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		26	1	00-7F	CHORUS PARAMETER 5	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		27	1	00-7F	CHORUS PARAMETER 6	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		28	1	00-7F	CHORUS PARAMETER 7	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		29	1	00-7F	CHORUS PARAMETER 8	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		2A	1	00-7F	CHORUS PARAMETER 9	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		2B	1	00-7F	CHORUS PARAMETER 10	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		2C	1	00-7F	CHORUS RETURN	-->dB...0dB...+6dB(0...96...127)	40		○		×	○	×	○	×
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40		○		×	○	×	○	×
		2E	1	00-7F	SEND CHORUS TO REVERB	-->dB...0dB...+6dB(0...96...127)	00		○		×	○	×	○	×

TOTAL SIZE 0F

02	01	30	1	00-7F	CHORUS PARAMETER 11	Refer to Effect Parameter List	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		31	1	00-7F	CHORUS PARAMETER 12	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		32	1	00-7F	CHORUS PARAMETER 13	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		33	1	00-7F	CHORUS PARAMETER 14	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		34	1	00-7F	CHORUS PARAMETER 15	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×
		35	1	00-7F	CHORUS PARAMETER 16	"	Depends on Chorus Type	○ (* Depends on Chorus Type)		×	○	×	○	○	×

TOTAL SIZE 06

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC	
								Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel	
02	01	40	2	00-7F	VARIATION TYPE MSB	Refer to Effect Parameter List	05(=DELAY L,C,R)										
				00-7F	VARIATION TYPE LSB	*	00										
		42	2	00-7F	VARIATION PARAMETER 1 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 1 LSB	*											
		44	2	00-7F	VARIATION PARAMETER 2 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 2 LSB	*											
		46	2	00-7F	VARIATION PARAMETER 3 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 3 LSB	*											
		48	2	00-7F	VARIATION PARAMETER 4 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 4 LSB	*											
		4A	2	00-7F	VARIATION PARAMETER 5 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 5 LSB	*											
		4C	2	00-7F	VARIATION PARAMETER 6 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 6 LSB	*											
		4E	2	00-7F	VARIATION PARAMETER 7 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 7 LSB	*											
		50	2	00-7F	VARIATION PARAMETER 8 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 8 LSB	*											
		52	2	00-7F	VARIATION PARAMETER 9 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 9 LSB	*											
		54	2	00-7F	VARIATION PARAMETER 10 MSB	*	Depends on Variation Type										
				00-7F	VARIATION PARAMETER 10 LSB	*											
		56	1	00-7F	VARIATION RETURN	--dB...0dB...+6dB(0...96...127)	40										
		57	1	01-7F	VARIATION PAN	L63...C...R63	40										
		58	1	00-7F	SEND VARIATION TO REVERB	--dB...0dB...+6dB(0...96...127)	00										
		59	1	00-7F	SEND VARIATION TO CHORUS	--dB...0dB...+6dB(0...96...127)	00										
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00										
		5B	1	00-7F	VARIATION PART NUMBER	Reception: Part1...16(0...15) Transmission: Part1...16(0...15) AD(64) OFF(127)	7F										
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40										
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40										
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40										
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40										
		60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40										

TOTAL SIZE 21

02	01	70	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type										
		71	1	00-7F	VARIATION PARAMETER 12	*	Depends on Variation Type										
		72	1	00-7F	VARIATION PARAMETER 13	*	Depends on Variation Type										
		73	1	00-7F	VARIATION PARAMETER 14	*	Depends on Variation Type										
		74	1	00-7F	VARIATION PARAMETER 15	*	Depends on Variation Type										
		75	1	00-7F	VARIATION PARAMETER 16	*	Depends on Variation Type										

TOTAL SIZE 06

MIDI Parameter Change table (EFFECT2)

Address (H)	Size (H)	Data (H)	Parameter	Description	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC
					Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Refer to Effect Parameter List "			○ (Voice Setting)			○	○
		02	1	00-7F	INSERTION EFFECT PARAMETER 1	○ (* Depends on Insertion Type)			○ (Voice Setting)			○	○
		03	1	00-7F	INSERTION EFFECT PARAMETER 2	○ (* Depends on Insertion Type)			×			○	○
		04	1	00-7F	INSERTION EFFECT PARAMETER 3	○ (* Depends on Insertion Type)			○ (Voice Setting)			○	○
		05	1	00-7F	INSERTION EFFECT PARAMETER 4	○ (* Depends on Insertion Type)			×			○	○
		06	1	00-7F	INSERTION EFFECT PARAMETER 5	○ (* Depends on Insertion Type)			×			○	○
		07	1	00-7F	INSERTION EFFECT PARAMETER 6	○ (* Depends on Insertion Type)			×			○	○
		08	1	00-7F	INSERTION EFFECT PARAMETER 7	○ (* Depends on Insertion Type)			×			○	○
		09	1	00-7F	INSERTION EFFECT PARAMETER 8	○ (* Depends on Insertion Type)			×			○	○
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9	○ (* Depends on Insertion Type)			×			○	○
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	○ (* Depends on Insertion Type)			○ (Voice Setting)			○	○
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception: Part1...16(0...15) Transmission: Part1...16(0...15) AD(64) OFF(127)			○ (Voice)			○	○
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63			○			×	○
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63			○			×	○
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63			○			×	○
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63			○			×	○
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63			○			×	○
TOTAL SIZE		12											

		20	1	00-7F	INSERTION EFFECT PARAMETER 11	Refer to Effect Parameter List			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		21	1	00-7F	INSERTION EFFECT PARAMETER 12	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		22	1	00-7F	INSERTION EFFECT PARAMETER 13	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		23	1	00-7F	INSERTION EFFECT PARAMETER 14	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		24	1	00-7F	INSERTION EFFECT PARAMETER 15	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		25	1	00-7F	INSERTION EFFECT PARAMETER 16	"			○ (* Depends on Insertion Type)			○ (Voice Setting)			○	○	○
TOTAL SIZE		6															

		30	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 1 MSB INSERTION EFFECT PARAMETER 1 LSB	Refer to Effect Parameter List			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		32	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 2 MSB INSERTION EFFECT PARAMETER 2 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		34	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 3 MSB INSERTION EFFECT PARAMETER 3 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		36	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 4 MSB INSERTION EFFECT PARAMETER 4 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		38	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 5 MSB INSERTION EFFECT PARAMETER 5 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		3A	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 6 MSB INSERTION EFFECT PARAMETER 6 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		3C	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 7 MSB INSERTION EFFECT PARAMETER 7 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		3E	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 8 MSB INSERTION EFFECT PARAMETER 8 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		40	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 9 MSB INSERTION EFFECT PARAMETER 9 LSB	"			○ (* Depends on Insertion Type)			×	○	○	○	○	×
		42	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 10 MSB INSERTION EFFECT PARAMETER 10 LSB	"			○ (* Depends on Insertion Type)			○ (Voice Setting)			○	○	○
TOTAL SIZE		14															

The EFFECT2 Parameter cannot be reset to its factory setting with XG SYSTEM ON.

The second byte of the address is considered as an Insertion effect number.

n : insertion effect number

For effect types that do not require MSB, the Parameters for Address 02-0B will be received and the Parameters for Address 30-42 will not be received.

For effect types that require MSB, the Parameters for Address 30-42 will be received and the Parameters for Address 02-0B will not be received. When Bulk Dumps that include Effect Type data are transmitted, the Parameters for Address 02-0B will always be transmitted. But, effects that require MSB, when the bulk dump is received the Parameters for Address 02-0B will not be received.

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

MIDI Parameter Change table (MULTI PART)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC Recorded from panel				
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW					
08	nn	00	1	00-20	NOT USED		×	×	×	×	×	×	×	×	×	×	×	
		01	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts=00	○	○	×	×	○	×	○	○	×	×	
		02	1	00-7F	BANK SELECT LSB	0...127	00	○	○	×	×	○	×	○	○	×	×	
		03	1	00-7F	PROGRAM NUMBER	1...128	00	○	○	×	×	○	×	○	○	×	×	
		04	1	00-0F, 7F	Rcv CHANNEL	1...16, OFF	Part No.	○	×	×	×	○	×	○	×	×	×	
		05	1	00-01	MONO/POLY MODE	MONO, POLY	01	○	×	×	×	○	×	○	×	×	×	
		06	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST(for Drum)	01	○	×	×	×	○	×	○	×	×	×	
		07	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	○	×	×	○ (Drum Voice)	○	×	○	×	○	○	
		08	1	28-58	NOTE SHIFT	-24...0...+24 [semitones]	40	○	○	×	×	○	×	○	○	×	×	
		09	0A	2	00-0F 00-0F	DETUNE	-12.8...0...+12.7 [Hz]	08 00	○	○	×	×	○	×	○	×	×	
						1st bit3-0 → bit7-4												
						2nd bit3-0 → bit3-0												
		0B	1	00-7F	VOLUME	0...127	64	○	○	×	×	○	×	○	○	×	×	
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	○	○	×	○ (Voice Setting)	○	×	○	○	○	○	
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	○	○	×	○ (Voice Setting)	○	×	○	○	○	○	
		0E	1	00-7F	PAN	RND.L63...C...R63	40	○	○	×	×	○	×	○	○	×	×	
		0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	○	○	×	×	○	×	○	×	×	×	
		10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	○	○	×	×	○	×	○	×	×	×	
		11	1	00-7F	DRY LEVEL	0...127	7F	○	○	×	×	○	×	○	×	○	×	
		12	1	00-7F	CHORUS SEND	0...127	00	○	○	×	×	○	×	○	○	×	×	
		13	1	00-7F	REVERB SEND	0...127	28	○	○	×	×	○	×	○	○	×	×	
		14	1	00-7F	VARIATION SEND	0...127	00	○	○	×	×	○	×	○	○	×	×	
		15	1	00-7F	VIBRATO RATE	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	○	○	×	×	○	×	○	○	×	×	
		1D	1	28-58	MW PITCH CONTROL	-24...0...+24 [semitones]	40	○	○	×	×	○	×	○	×	×	×	
		1E	1	00-7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	○	×	×	○	×	○	×	×	×	
		1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	○	×	×	○	×	○	×	×	×	
		20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	○	○	×	×	○	×	○	×	×	×	
		21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		23	1	28-58	BEND PITCH CONTROL	-24...0...+24 [semitones]	42	○	○	×	×	○	×	○	×	×	×	
		24	1	00-7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	○	×	×	○	×	○	×	×	×	
		25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	○	×	×	○	×	○	×	×	×	
		26	1	00-7F	BEND LFO PMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		27	1	00-7F	BEND LFO FMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		28	1	00-7F	BEND LFO AMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
TOTAL SIZE				29														
		30	1	00-01	Rcv PITCH BEND	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		31	1	00-01	Rcv CH AFTER TOUCH(CAT)	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		34	1	00-01	Rcv POLY AFTER TOUCH(PAT)	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		36	1	00-01	Rcv RPN	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		37	1	00-01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00	○	×	×	×	○	×	○	×	×	×	
		38	1	00-01	Rcv MODULATION	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		39	1	00-01	Rcv VOLUME	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3A	1	00-01	Rcv PAN	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3C	1	00-01	Rcv HOLD1	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		40	1	00-01	Rcv BANK SELECT	OFF, ON	01	○	×	×	×	○	×	○	×	×	×	
		41	1	00-7F	SCALE TUNING C	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		42	1	00-7F	SCALE TUNING C#	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		43	1	00-7F	SCALE TUNING D	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		44	1	00-7F	SCALE TUNING D#	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		45	1	00-7F	SCALE TUNING E	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		46	1	00-7F	SCALE TUNING F	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		47	1	00-7F	SCALE TUNING F#	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		48	1	00-7F	SCALE TUNING G	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		49	1	00-7F	SCALE TUNING G#	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		4A	1	00-7F	SCALE TUNING A	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		4B	1	00-7F	SCALE TUNING A#	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		4C	1	00-7F	SCALE TUNING B	-63...0...+63 [cent]	40	○	○	×	○ (Other Setting)	○	×	○	×	○	○	
		4D	1	28-58	CAT PITCH CONTROL	-24...0...+24 [semitones]	40	○	○	×	×	○	×	○	×	×	×	
		4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	○	×	×	○	×	○	×	×	×	
		4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	○	×	×	○	×	○	×	×	×	
		50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	○	○	×	×	○	×	○	×	×	×	
		53	1	28-58	PAT PITCH CONTROL	-24...0...+24 [semitones]	40	○	×	×	×	○	×	○	×	×	×	
		54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	×	×	×	○	×	○	×	×	×	

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC	
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel	
	55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	×	×	×	○	×	○	×	×
	56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	○	×	×	×	○	×	○	×	×
	5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24 [semitones]	40	○	×	×	×	○	×	○	×	×
	5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	×	×	×	○	×	○	×	×
	5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	×	×	×	○	×	○	×	×
	5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	○	×	×	×	○	×	○	×	×
	61	1	28-58	AC2 PITCH CONTROL	-24...0...+24 [semitones]	40	○	×	×	×	○	×	○	×	×
	62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450 [cent]	40	○	×	×	×	○	×	○	×	×
	63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100 [%]	40	○	×	×	×	○	×	○	×	×
	64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	○	×	×	×	○	×	○	×	×
	67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	○	○	×	×	○	×	○	○	×
	68	1	00-7F	PORTAMENTO TIME	0...127	00	○	○	×	×	○	×	○	○	×
	69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40	○	×	×	×	○	×	○	×	×
	6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	○	×	×	×	○	×	○	×	×
	6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F	○	×	×	×	○	×	○	×	×

TOTAL SIZE 3F

	70	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	71	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	○	○	×	○ (Voice Setting)	○	×	○	○	○
	73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	○	○	×	○ (Voice Setting)	○	×	○	○	○

TOTAL SIZE 04

	74	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	75	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	76	1	04-28	EQ BASS FREQUENCY	32...2.0k [Hz]	0C	○	○	×	○ (Voice Setting)	○	×	○	○	○
	77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k [Hz]	36	○	○	×	○ (Voice Setting)	○	×	○	○	○
	78	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	79	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7A	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7B	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7C	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7D	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7E	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--
	7F	1		NOT USED	--	--	--	--	--	--	--	--	--	--	--

TOTAL SIZE 0C

nn = PART NUMBER

If there is a Drum Voice assigned to the part, the following parameters are ineffective.

- BANK SELECT LSB
- MONO/POLY MODE
- SCALE TUNING
- PORTAMENTO
- PITCH EG
- FILTER MODULATION DEPTH (FMOD DEPTH)
- AMPLITUDE MODULATION DEPTH (AMOD DEPTH)

MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

MIDI Parameter Change table (DRUM SETUP)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	MIDI Reception (effective or not for each part)			MIDI Transmission (generated data)			PLAY		REC			
						Song	Main Layer Left Left-Layer	Keyboard	Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel			
3n	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
		01	1	00-7F	PITCH FINE	-64...0...+63 [cent]	40	○	×	×	×	○	×	○	×	×	
		02	1	00-7F	LEVEL	0...127	Depends on the note	○	×	×	×	○	×	○	×	×	
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note	○	×	×	×	○	×	○	×	×	
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note	○	×	×	×	○	×	○	×	×	
		05	1	00-7F	REVERB SEND	0...127	Depends on the note	○	×	×	×	○	×	○	×	×	
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note	○	×	×	×	○	×	○	×	×	
		07	1	00-7F	VARIATION SEND	0...127	7F	○	×	×	×	○	×	○	×	×	
		08	1	00-01	KEY ASSIGN	SINGLE, MULTI	00	○	×	×	×	○	×	○	×	×	
		09	1	00-01	Rcv NOTE OFF	OFF, ON	Depends on the note	○	×	×	×	○	×	○	×	×	
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	○	×	×	×	○	×	○	×	×	
		0B	1	00-7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
		0C	1	00-7F	LOW PASS FILTER RESONANCE	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	○	×	×	×	○	×	○	×	×	
TOTAL SIZE		10															

		20	1	00-7F	EQ BASS GAIN	-12...+12 [dB]	40	○	×	×	×	○	×	○	×	×	
		21	1	00-7F	EQ TREBLE GAIN	-12...+12 [dB]	40	○	×	×	×	○	×	○	×	×	
		22	1		NOT USED			-	-	-	-	-	-	-	-	-	
		23	1		NOT USED			-	-	-	-	-	-	-	-	-	
		24	1	04-28	EQ BASS FREQUENCY	32...2.0k [Hz]	0C	○	×	×	×	○	×	○	×	×	
		25	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k [Hz]	36	○	×	×	×	○	×	○	×	×	
		26	1		NOT USED			-	-	-	-	-	-	-	-	-	
		27	1		NOT USED			-	-	-	-	-	-	-	-	-	
		28	1		NOT USED			-	-	-	-	-	-	-	-	-	
		29	1		NOT USED			-	-	-	-	-	-	-	-	-	
		2A	1		NOT USED			-	-	-	-	-	-	-	-	-	
		2B	1		NOT USED			-	-	-	-	-	-	-	-	-	
		2C	1		NOT USED			-	-	-	-	-	-	-	-	-	
		2D	1		NOT USED			-	-	-	-	-	-	-	-	-	
TOTAL SIZE		0E															

n: Drum Setup Number (0-1)

rr: note number (0D-5B)

In the following cases, the Clavinova will initialize all Drum Setups.

XG SYSTEM ON received

GM SYSTEM ON received

DRUM SETUP RESET received (only when in XG mode)

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

System Exclusive Messages (1)

* Not Received when Receive Parameter SysEx is set to off.

* Not transmitted when Transmit Parameter SysEx is set to on.

System Exclusive Messages (Universal Realtime messages)

○: available

MIDI Event	Data Format	MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)			PLAY		REC
		Song	Main Layer Left Left-Layer	Keyboard		Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
Master Volume	F0 7F XN 04 01 SS TT F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored 00000100 04 = Sub-ID #1=Device Control Message 00000001 01 = Sub-ID #2=Master Volume 0sssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	○	×	×	×	×	×	×	○	○	×

System Exclusive Messages (Universal Non Realtime messages)

MIDI Event	Data Format	MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)			PLAY		REC
		Song	Main Layer Left Left-Layer	Keyboard		Panel (main generation method)	Song	Midi	PLAY	REW	Recorded from panel
GM1 System On	F0 7E XN 09 01 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000001 01 = Sub-ID #2=General MIDI On 11110111 F7 = End of Exclusive	○	×	×	○ (Voice Setting Reverb Type Chorus Type)	×	○	×	○	×	○

System Exclusive Messages (2)

* Not received when the Receive Parameter SysEx is set to off.

* Not transmitted when the Transmit Parameter SysEx is set to on.

System Exclusive Messages (Preset voice)

MIDI Event	Data Format		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)		
			Song	Main Layer Left Left-Layer	Keyboard		Panel (main generation method)	Song	Midi
String Resonance Depth	F0	43 73 01 50 11 0n 02 dd F7							
		11110000 F0 = Exclusive status							
		01000011 43 = YAMAHA ID							
		01110011 73 = Clavinova ID							
		00000001 01 = Model ID (Clavinova common ID)							
		01010000 50 = SubID	○	○	×	○ (Other Setting)	○ (Other Setting)	○	×
		00010001 11 = SubID							
		0000nnnn 0n = Channel (00-0F)							
		00000010 02 = SubID(String Resonance Depth)							
	0ddddd dd = Depth(00-48)								
	11110111 F7 = End of Exclusive								
Sustain Sample Depth	F0	43 73 01 50 11 0n 03 dd F7							
		11110000 F0 = Exclusive status							
		01000011 43 = YAMAHA ID							
		01110011 73 = Clavinova ID							
		00000001 01 = Model ID (Clavinova common ID)							
		01010000 50 = SubID	○	○	×	○ (Other Setting)	○ (Other Setting)	○	×
		00010001 11 = SubID							
		0000nnnn 0n = Channel (00-0F)							
		00000011 03 = SubID(Sustain Sample Depth)							
	0ddddd dd = Depth(00-48)								
	11110111 F7 = End of Exclusive								
Key Off Sampling Depth	F0	43 73 01 50 11 0n 04 dd F7							
		11110000 F0 = Exclusive status							
		01000011 43 = YAMAHA ID							
		01110011 73 = Clavinova ID							
		00000001 01 = Model ID (Clavinova common ID)							
		01010000 50 = SubID	○	○	×	○ (Other Setting)	○ (Other Setting)	○	×
		00010001 11 = SubID							
		0000nnnn 0n = Channel (00-0F)							
		0000100 04 = SubID(Key Off Sampling Depth)							
	0ddddd dd = Depth(00-50)								
	11110111 F7 = End of Exclusive								
Soft Pedal Depth	F0	43 73 01 50 11 0n 05 dd F7							
		11110000 F0 = Exclusive status							
		01000011 43 = YAMAHA ID							
		01110011 73 = Clavinova ID							
		00000001 01 = Model ID (Clavinova common ID)							
		01010000 50 = SubID	○	○	×	○ (Other Setting)	○ (Other Setting)	○	×
		00010001 11 = SubID							
		0000nnnn 0n = Channel (00-0F)							
		0000101 05 = SubID(Soft Pedal Depth)							
	0ddddd dd = Depth(00-7F)								
	11110111 F7 = End of Exclusive								

* For each Depth value, the reset value is 40H = voice parameter.

System Exclusive Messages (Others)

MIDI Event	Data Format		MIDI Reception (effective or not for each part)			MIDI Reception (affecting the panel)	MIDI Transmission (generated data)		
			Song	Main Layer Left Left-Layer	Keyboard		Panel (main generation method)	Song	Midi
MIDI Master Tuning	F0	43 1n 27 30 00 00 mm ll cc F7							
		11110000 F0 = Exclusive status							
		01000011 43 = YAMAHA ID							
		0001nnnn 1n n= always 0(when transmit), n=0-F(when receive)							
		00100111 27 = Model ID of TG100							
		00110000 30 = Address High		○		○ (Other Setting)			
		00000000 00 = Address Mid							
		00000000 00 = Address Low							
		0000mmmm 0m = Master Tune MSB							
		0000llll 0l = Master Tune LSB							
		0ccccccc cc = don't care							
	11110111 F7 = End of Exclusive								

Clavinova®

CLP-170/CLP-170M/ CLP-170C/CLP-170PE PARTS LIST

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Notes : DESTINATION ABBREVIATIONS

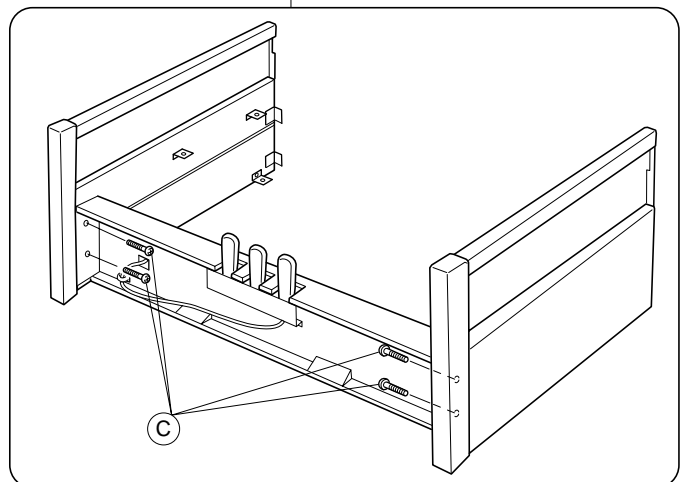
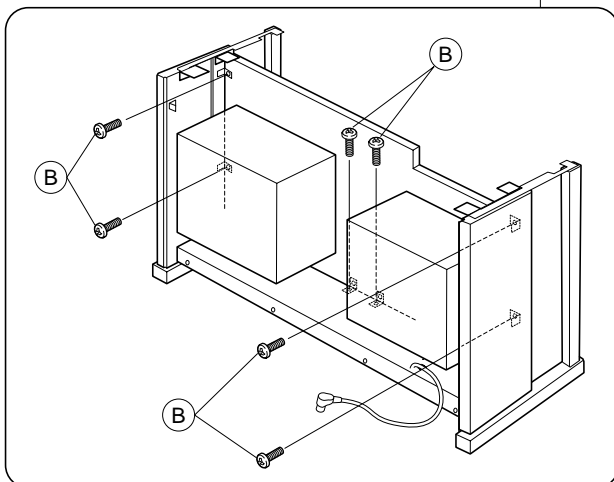
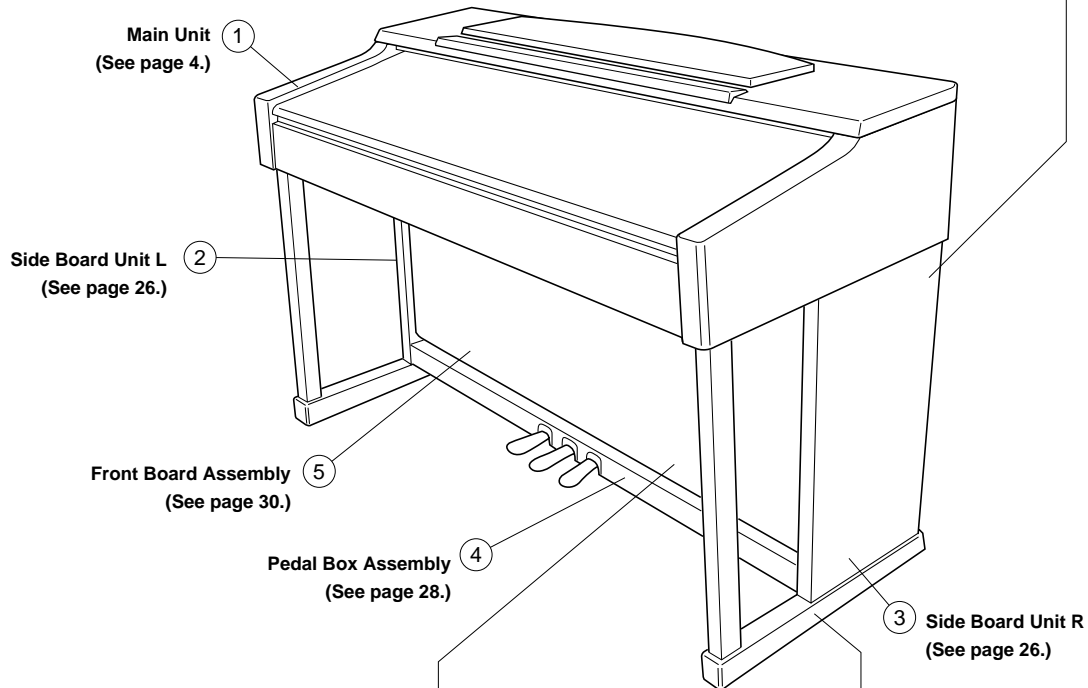
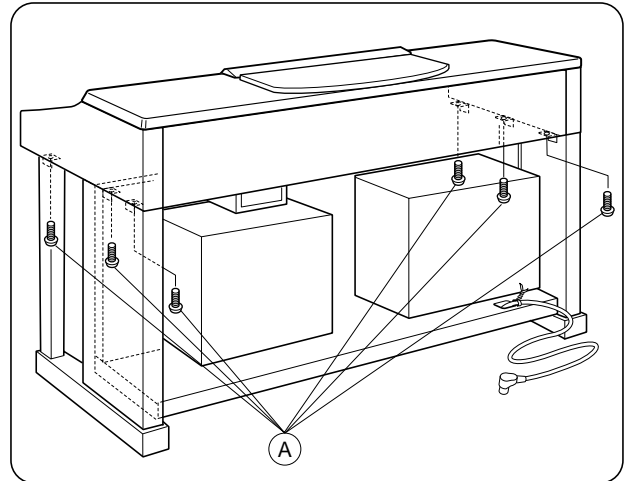
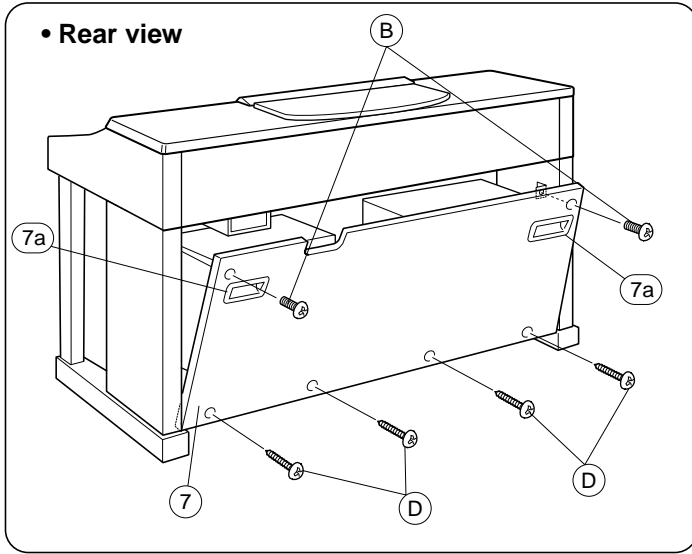
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W : General export model (220)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

■ WARNING

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

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

OVERALL ASSEMBLY



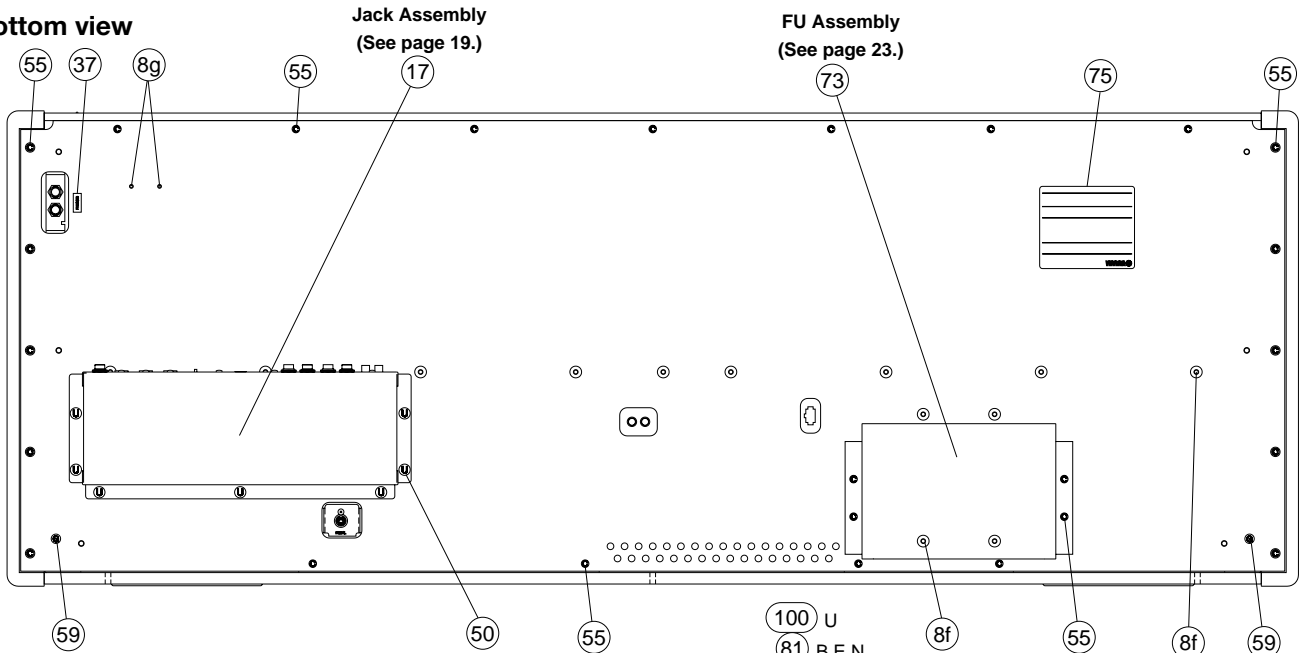
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		OVERALL ASSEMBLY		CLP-170/170M/170C/170PE		
1	--	Main Unit		CLP-170 U (V828070)		
1	--	Main Unit		CLP-170M U (V854290)		
1	--	Main Unit		CLP-170C U (V854330)		
1	--	Main Unit		CLP-170PE U (V883730)		
1	--	Main Unit		CLP-170 B,E (V828080)		
1	--	Main Unit		CLP-170M B,E (V854300)		
1	--	Main Unit		CLP-170C B,E (V854340)		
1	--	Main Unit		CLP-170PE B,E (V883740)		
1	--	Main Unit		CLP-170 N (V828130)		
1	--	Main Unit		CLP-170M N (V854310)		
1	--	Main Unit		CLP-170C N (V854350)		
1	--	Main Unit		CLP-170PE N (V883750)		
* 2	V8283600	Side Board Unit L	LEFT	CLP-170		
* 2	V8550800	Side Board Unit L	LEFT	CLP-170M		
* 2	V8551400	Side Board Unit L	LEFT	CLP-170C		
* 2	V8848600	Side Board Unit L	LEFT	CLP-170PE		
* 3	V8283700	Side Board Unit R	RIGHT	CLP-170		
* 3	V8550900	Side Board Unit R	RIGHT	CLP-170M		
* 3	V8551500	Side Board Unit R	RIGHT	CLP-170C		
* 3	V8848700	Side Board Unit R	RIGHT	CLP-170PE		
4	--	Pedal Box Assembly		CLP-170 (V828380)		
4	--	Pedal Box Assembly		CLP-170M (V854830)		
4	--	Pedal Box Assembly		CLP-170C (V854870)		
4	--	Pedal Box Assembly		CLP-170PE (V907770)		
5	--	Front Board Assembly		CLP170/170M/170PE(V838680)		
5	--	Front Board Assembly		CLP-170C (V855780)		
* 7	V8388100	Back Board Assembly		CLP-170		
* 7	V8554900	Back Board Assembly		CLP-170M		
* 7	V8555200	Back Board Assembly		CLP-170C		
* 7	V9105100	Back Board Assembly		CLP-170PE		
* 7a	V8901600	Handle Black		CLP-170/170M/170PE	2	
* 7a	V8901700	Handle	YMMA CHERRY	CLP-170C	2	
		ACCESSORIES				
△	VT015800	AC Cord Set	U 2P 2.44m 7A	U		06
△	VT016000	AC Cord Set	B 2P 2.5m	B		08
△	VT015900	AC Cord Set	E 2P 2.5m	E,N		05
△	VK726100	Connector	CCT5902	N		03
	--	Bench	BC-200PE	CLP-170PE U,N (V756440)		
	--	Bench	BC-102DR	CLP-170 U (V756390)		
	--	Bench	BC-102MH	CLP-170M U (V756400)		
	--	Bench	BC-102CH	CLP-170C U (V887870)		
	--	Bench	BC-100DR	CLP-170 N (V553140)		
	--	Bench	BC-100MH	CLP-170M N (V553150)		
	--	Bench	BC-100CH	CLP-170C N (V553160)		
*	V2384100	Floppy Disk	3.50inch 2000K			03
*	X2547A00	Floppy Disk	MUSIC DISK			
*	V8740600	Headphone Hanger Set				
*	V9140200	Screw Set		CLP-170/170M/170PE		
*	V9205000	Screw Set		CLP-170C		
*	X2568A00	CD-ROM	12cm			
*	V9140200	Screw Set		CLP-170/170M/170PE		
*	V9205000	Screw Set		CLP-170C		
A	EG360020	Bind Head Screw	6.0X16 MFZN2BL		6	01
B	VB931700	Truss Head Screw	4.0X14 MFZN2BL	CLP-170/170M/170PE	8	01
B	V6135000	Truss Head Screw	4.0X12 MFC2	CLP-170C	8	
C	VQ448400	Truss Head Screw	6.0X25 MFZN2BL		4	01
D	Q3747290	Truss Head Tapping Screw-1	4.0X20 MFZN2BL	CLP-170/170M/170PE	4	01
D	VB164600	Truss Head Tapping Screw-1	4.0X20 MFC2	CLP-170C	4	
E	VR410300	Cord Clamp Set				03
		JIGS				
	TX000670	Rod				

*: New Parts

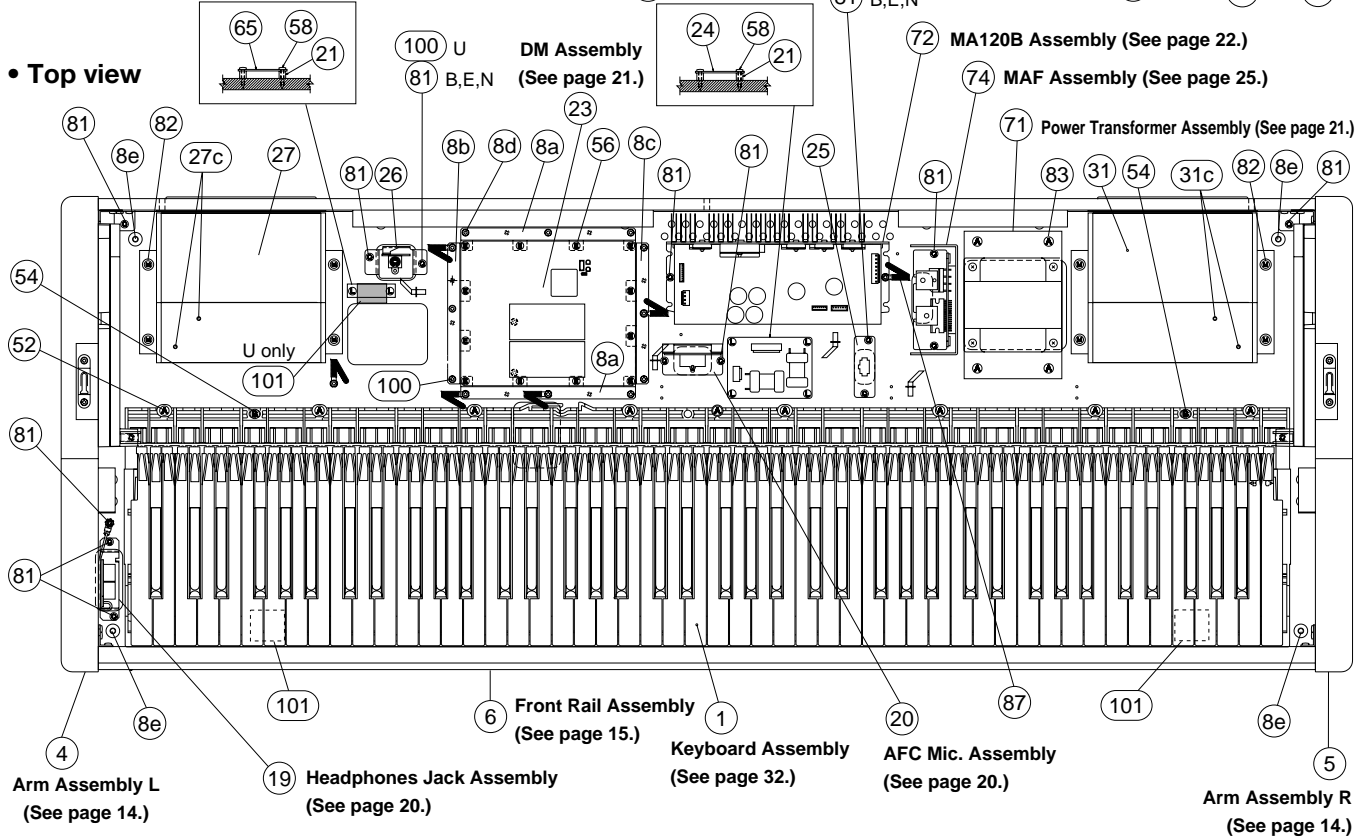
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MAIN UNIT

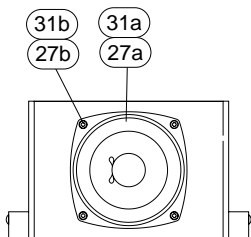
Bottom view



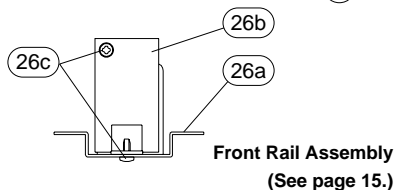
Top view



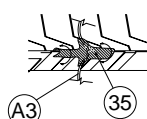
Speaker Box Assembly (AFC)



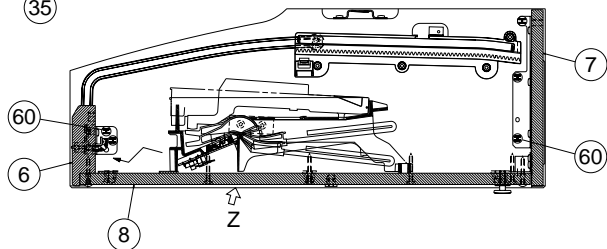
PK Connector



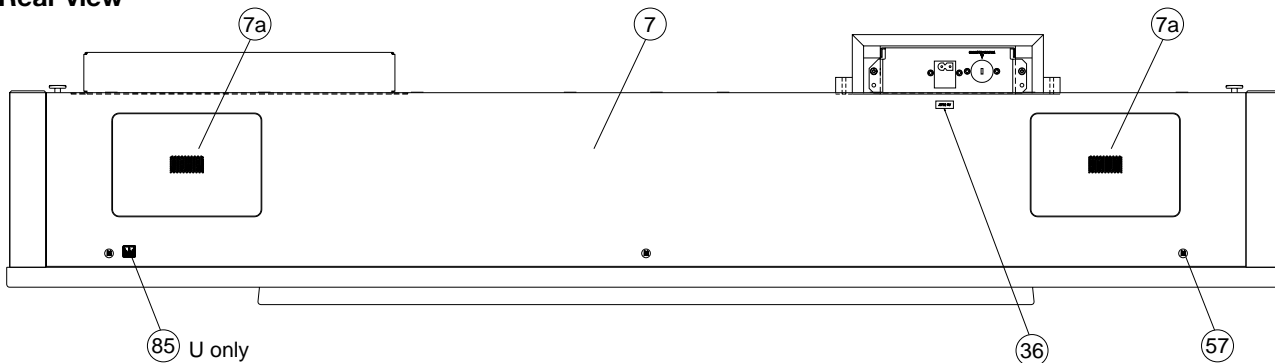
See Z



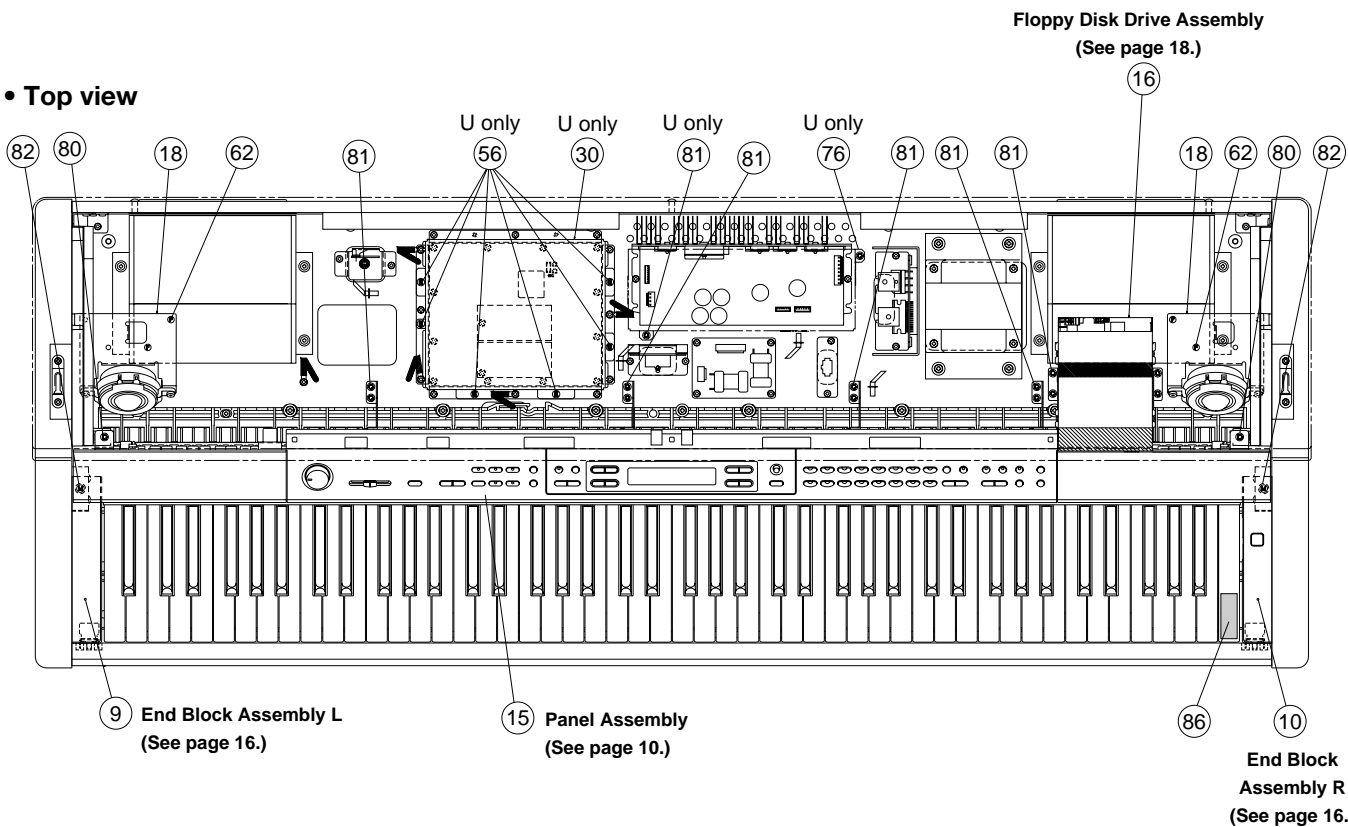
Side view



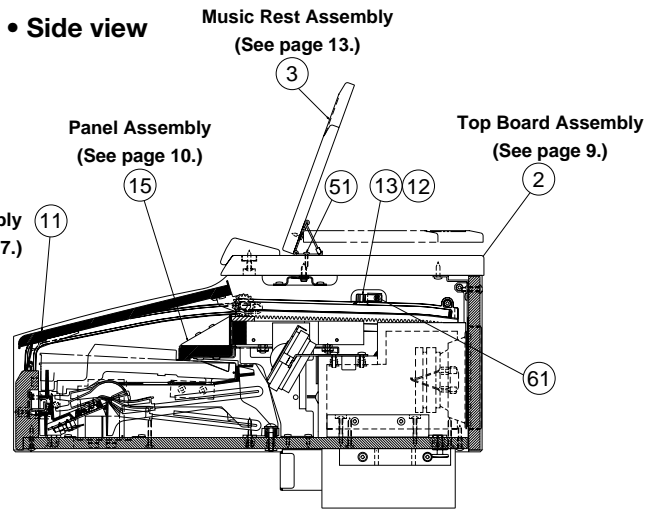
• Rear view



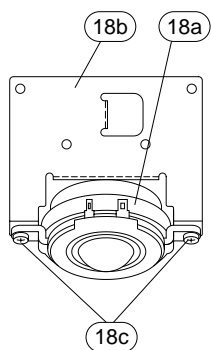
• Top view



• Side view



• 18 Speaker Assembly (tweeter)



CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		MAIN UNIT		CLP-170/170M/170C/170PE		
	--	Main Unit		CLP-170 U (V828070)		
	--	Main Unit		CLP-170M U (V854290)		
	--	Main Unit		CLP-170C U (V854330)		
	--	Main Unit		CLP-170PE U (V883730)		
	--	Main Unit		CLP-170 B,E (V828080)		
	--	Main Unit		CLP-170M B,E (V854300)		
	--	Main Unit		CLP-170C B,E (V854340)		
	--	Main Unit		CLP-170PE B,E (V883740)		
	--	Main Unit		CLP-170 N (V828130)		
	--	Main Unit		CLP-170M N (V854310)		
	--	Main Unit		CLP-170C N (V854350)		
	--	Main Unit		CLP-170PE N (V883750)		
17	--	Jack Assembly		U (V963860)		
17	--	Jack Assembly		B,E,N (V862550)		
30	--	DM Shield Cover Assembly		U (V787810)		
56	EP600130	Bind Head Tapping Screw-B	3.0X6 MFZN2Y	U	6	01
70	--	Main Unit Sub Assembly		CLP-170 (V828140)		
70	--	Main Unit Sub Assembly		CLP-170M (V854470)		
70	--	Main Unit Sub Assembly		CLP-170C (V854480)		
70	--	Main Unit Sub Assembly		CLP-170PE (V883760)		
71	--	Power Transformer Assembly		U,B,E (V888770)		
71	--	Power Transformer Assembly		N (V888780)		
* 72	V8595400	MA120B Assembly		U		
* 72	V8596000	MA120B Assembly		B,E,N		
73	--	FU Assembly		U (V888630)		
73	--	FU Assembly		B,E (V888640)		
73	--	FU Assembly		N (V888650)		
* 74	V8608200	MAF Assembly		U		
* 74	V8804200	MAF Assembly		B,E,N		
75	--	Name Plate	YMMA	CLP-170 U (V867170)		
75	--	Name Plate	YMMA	CLP-170M U (V867220)		
75	--	Name Plate	YMMA	CLP-170C U (V867270)		
75	--	Name Plate	YMMA	CLP-170PE U (V867320)		
75	--	Name Plate	YMMA	CLP-170 B,E (V867190)		
75	--	Name Plate	YMMA	CLP-170M B,E (V867240)		
75	--	Name Plate	YMMA	CLP-170C B,E (V867290)		
75	--	Name Plate	YMMA	CLP-170PE B,E (V867340)		
75	--	Name Plate	YMMA	CLP-170 N (V867200)		
75	--	Name Plate	YMMA	CLP-170M N (V867250)		
75	--	Name Plate	YMMA	CLP-170C N (V867300)		
75	--	Name Plate	YMMA	CLP-170PE N (V867350)		
76	--	MA Cover Assembly		U (V766590)		
80	EP600240	Bind Head Tapping Screw-B	4.0X10 MFZN2BL		2	01
81	EP030240	Bind Head Tapping Screw-1	3.5X12 MFZN2Y	U	26	01
81	EP030240	Bind Head Tapping Screw-1	3.5X12 MFZN2Y	B,E,N	28	01
82	VA076400	Truss Head Tapping Screw-1	3.5X30 MFZN2Y		10	01
83	VV040700	Pan Head Screw	PW5.0X25 MFZN2Y		4	01
85	--	Graphic Mark		U (V846210)		
86	--	Label	GH3	(V933980)		
87	CB817510	Cord Binder	S-14B			03
100	EN630230	Truss Head Tapping Screw-1	3.5X14 MFZN2Y	U	3	
100	EN630230	Truss Head Tapping Screw-1	3.5X14 MFZN2Y	B,E,N		
A6	--	Connector Assembly	MAF-LF 5P&7P	U (V962350)		
A6	--	Connector Assembly	KRD-KRD 7P-150	B,E,N (VK10110)		
A7	--	Connector Assembly	KRD-KRD 5P-400	B,E,N (VK10950)		
A12	--	Connector Assembly	SP-LF VH 8P	U (V962390)		
A12	--	Connector Assembly	SP VH 8P	B,E,N (V875960)		
	--	Main Unit Sub Assembly		CLP-170 (V828140)		
	--	Main Unit Sub Assembly		CLP-170M (V854470)		
	--	Main Unit Sub Assembly		CLP-170C (V854480)		
	--	Main Unit Sub Assembly		CLP-170PE (V883760)		
* 1	V8278600	Keyboard Assembly	GH3 A88 K6	CLP-170		
* 2	V8339400	Top Board Assembly		CLP-170M		
* 2	V8553200	Top Board Assembly		CLP-170C		
* 2	V8553700	Top Board Assembly		CLP-170PE		
* 2	V8850000	Top Board Assembly		CLP-170		
* 3	V8388000	Music Rest Assembly		CLP-170M		
* 3	V8558200	Music Rest Assembly				

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
* 3	V8558500	Music Rest Assembly		CLP-170C		
* 3	V8860600	Music Rest Assembly		CLP-170PE		
* 4	V8281900	Arm Assembly L	LEFT	CLP-170		
* 4	V8545100	Arm Assembly L	LEFT	CLP-170M		
* 4	V8546000	Arm Assembly L	LEFT	CLP-170C		
* 4	V8837800	Arm Assembly L	LEFT	CLP-170PE		
* 5	V8282000	Arm Assembly R	RIGHT	CLP-170		
* 5	V8545200	Arm Assembly R	RIGHT	CLP-170M		
* 5	V8546100	Arm Assembly R	RIGHT	CLP-170C		
* 5	V8837900	Arm Assembly R	RIGHT	CLP-170PE		
6	--	Front Rail Assembly		CLP-170 (V821910)		
6	--	Front Rail Assembly		CLP-170M (V854950)		
6	--	Front Rail Assembly		CLP-170C (V854990)		
6	--	Front Rail Assembly		CLP-170PE (V884230)		
6	--	Front Rail Assembly	DR Wrapping	CLP-170 (V900090)		
6	--	Front Rail Assembly	DR Wrapping	CLP-170M (V900100)		
6	--	Front Rail Assembly	DR Wrapping	CLP-170C (V900120)		
* 7	V8281800	Back Top Panel Assembly		CLP-170		
* 7	V8546900	Back Top Panel Assembly		CLP-170M		
* 7	V8547200	Back Top Panel Assembly		CLP-170C		
* 7	V8841700	Back Top Board Assembly		CLP-170PE		
* 7a	V8339100	Speaker Grille		CLP-170/170M/170PE	2	
* 7a	V8557600	Speaker Grille		CLP-170C	2	
* 8	V8346200	Keybed Assembly		CLP-170/170M/170PE		
* 8	V8893900	Keybed Assembly		CLP-170C		
8a	--	Holder, DM		(V787780)	2	
8b	--	Holder, DM L	LEFT	(V787790)		
8c	--	Holder, DM R	RIGHT	(V787800)		
8d	EP030240	Bind Head Tapping Screw-1	3.5X12 MFZN2Y		11	01
8e	V6008700	Nut	B 6.0X12.5 MFZN2BL		8	01
8f	VA127400	Nut	B 5.0X12 MFZN2BL		13	01
* 8g	V9001100	Nut	TYPE I M4XL12.5		2	
9	--	End Block Assembly L	LEFT	CLP-170 (V925890)		
9	--	End Block Assembly L	LEFT	CLP-170M (V925920)		
9	--	End Block Assembly L	LEFT	CLP-170C (V925940)		
* 9	V8849300	End Block Assembly L	LEFT	CLP-170PE		
10	--	End Block Assembly R	RIGHT	CLP-170 (V863330)		
10	--	End Block Assembly R	RIGHT	CLP-170M (V863360)		
10	--	End Block Assembly R	RIGHT	CLP-170C (V863370)		
10	--	End Block Assembly R	RIGHT	CLP-170PE (V884940)		
* 11	V8607500	Key Cover Assembly		CLP-170		
* 11	V8607600	Key Cover Assembly		CLP-170M		
* 11	V8607700	Key Cover Assembly		CLP-170C		
* 11	V8861000	Key Cover Assembly		CLP-170PE		
12	VS312100	Rack Cover L	LEFT			03
13	VS312200	Rack Cover R	RIGHT			03
15	--	Panel Assembly		CLP170 (V829770)		
15	--	Panel Assembly		CLP-170M (V829780)		
15	--	Panel Assembly		CLP-170C (V829790)		
15	--	Panel Assembly		CLP-170PE (V907790)		
16	--	Floppy Disk Drive Assembly		(V833570)		
18	--	Speaker Assembly		(V833630)	2	
18a	XU755A00	Speaker	3.0cm 8 ohm 60W	TWEETER	2	10
18b	--	Speaker Holder	TW	(V829760)	2	
18c	EP640410	Bind Head Tapping Screw-B	4.0X8 MFZN2Y		4	01
19	--	Headphones Jack Assembly		(V878160)		
20	--	AFC Mic. Assembly		(V892740)		
21	CB040950	Spacer		(V878660)	6	03
23	--	DM Assembly		(V878660)		
24	V7674700	Circuit Board	NETWORK			
25	VN891200	Connector Panel				03
26	--	PK Connector		(V879350)		
26a	V7585400	Angle, PK Connector				05
* 26b	V8496600	Circuit Board	PEDAL (DJK)			
26c	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL		2	01
27	--	Speaker Box Assembly L	LEFT	(V845290)		
* 27a	X2556A00	Speaker	10cm 4 ohm 25W	WOOFER		
27b	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		4	01
27c	ET200070	Nut	B 4.0X9.5 MFZN2Y		2	01
31	--	Speaker Box Assembly R	RIGHT	(V855800)		

*: New Parts

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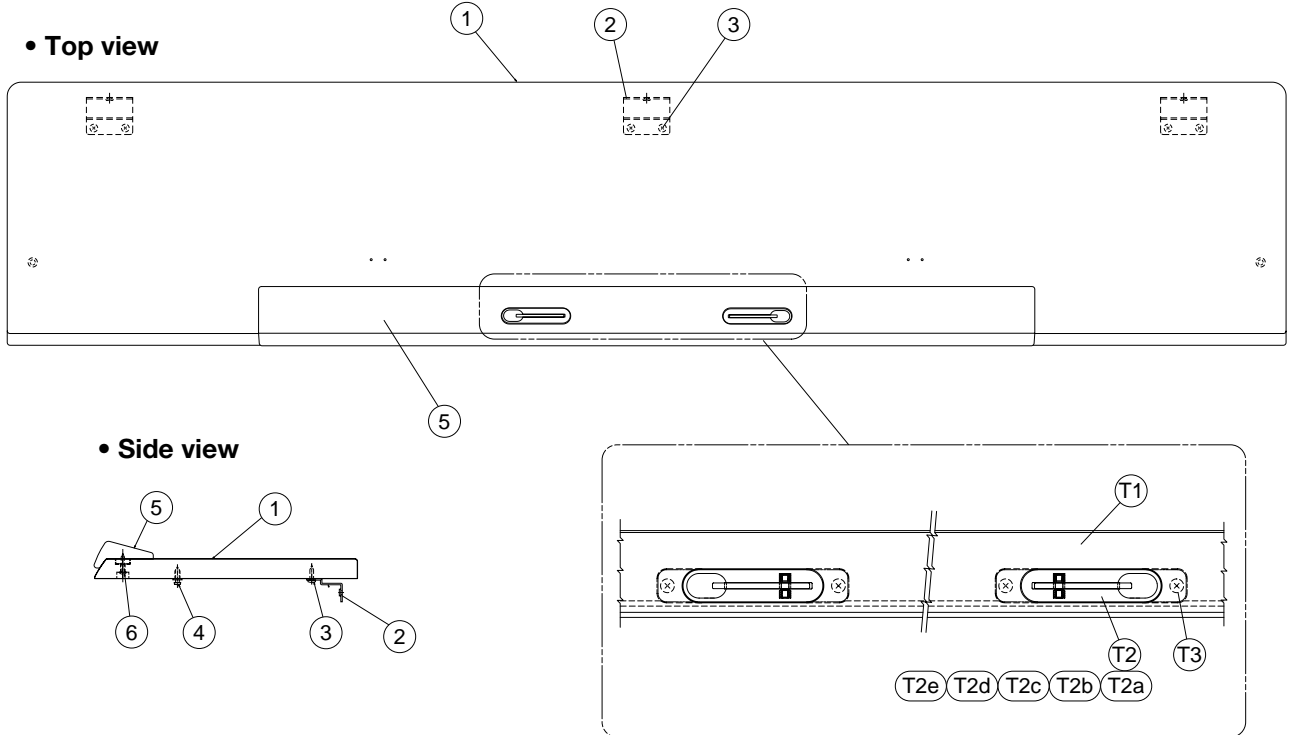
CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
* 31a	X2556A00	Speaker	10cm 4 ohm 25W	WOOFER		
31b	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		4	01
31c	ET200070	Nut	B 4.0X9.5 MFZN2Y		2	01
35	VP834600	Adhesive Tape	12X50		4	02
36	VT501000	Label	AC IN			03
37	--	Label, PHONES		(VS47810)		
50	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		7	01
51	EP030310	Bind Head Tapping Screw-1	3.0X16 MFZN2BL		4	01
52	VV040700	Pan Head Screw	PW5.0X25 MFZN2Y		9	01
54	EP040230	Bind Head Tapping Screw-1	4.0X14 MFZN2Y		2	01
55	VU952600	Truss Head Tapping Screw-1	3.5X30 MFZN2BL		21	01
56	EP600130	Bind Head Tapping Screw-B	3.0X6 MFZN2Y		12	01
57	VB934000	Truss Head Screw	4.0X20 MFZN2BL	CLP-170/170M/170PE	3	01
57	V6141100	Truss Head Screw	4.0X20 MFC2	CLP-170C	3	
58	EP030470	Bind Head Tapping Screw-1	3.5X20 MFZN2Y		6	01
59	VN887900	Guide Screw	6.0X14		2	03
60	EP030190	Bind Head Tapping Screw-1	3.5X16 MFZN2Y		10	01
61	EP600250	Bind Head Tapping Screw-B	3.0X8 MFZN2Y		2	01
62	EG340210	Bind Head Screw	4.0X14 MFZN2Y		4	01
64	CB069250	Cord Holder	BK-1		12	01
65	V9379500	Circuit Board	VCN			
101	--	Electrical Adhesive Tape	40X20m	(V604530)		
A2	--	Connector Assembly	5F XH 6P	(V875870)		
* A3	V9289200	Connector Assembly	EBUS-LF KRD 7P-900			
A4	--	Connector Assembly	KRD-KRD 5P-200	(VK10250)		
* A5	V8758900	Connector Assembly	FDD 34P FLAT CABLE			
A8	--	Connector Assembly	NW VH 4P	(V875910)		
A10	--	Connector Assembly	AFC1 VH 4P	(V875930)		

*: New Parts

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TOP BOARD ASSEMBLY



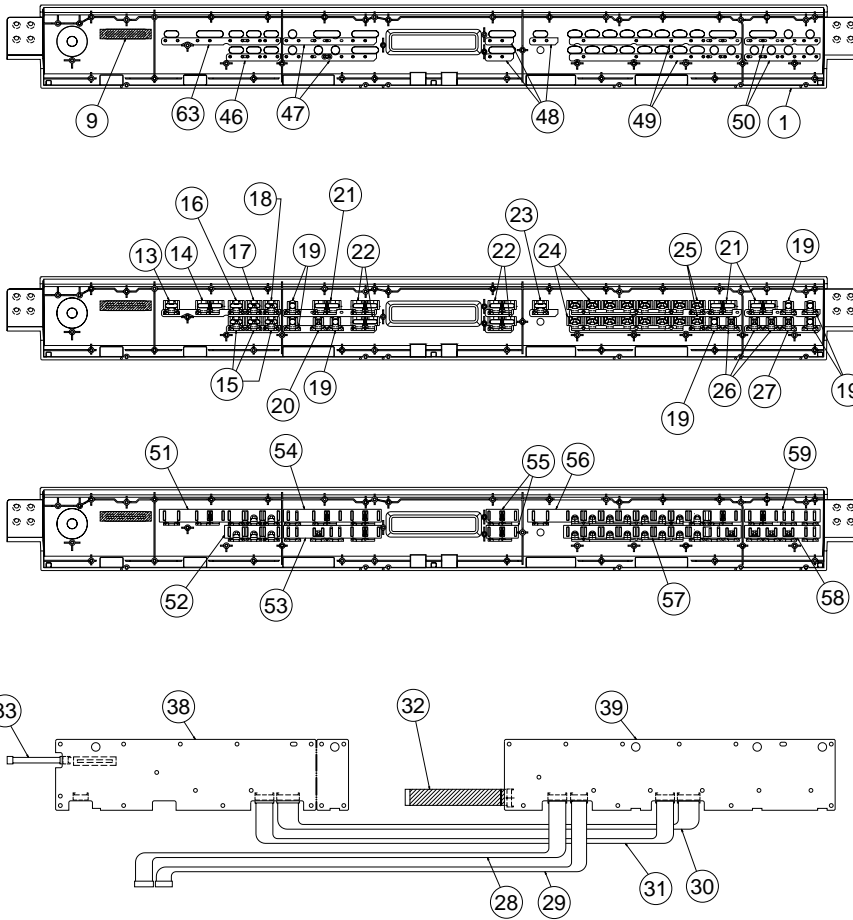
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		TOP BOARD ASSEMBLY		CLP-170/170M/170C/170PE		
*	V8339400	Top Board Assembly		CLP-170		
*	V8553200	Top Board Assembly		CLP-170M		
*	V8553700	Top Board Assembly		CLP-170C		
*	V8850000	Top Board Assembly		CLP-170PE		
1	--	Top Board		CLP-170 (V828780)		
1	--	Top Board		CLP-170M (V855330)		
1	--	Top Board		CLP-170C (V855380)		
1	--	Top Board		CLP-170PE (V885020)		
2	VQ485800	Holder, Top Board			3	05
3	EP040170	Bind Head Tapping Screw-1	4.0X16 MFZN2Y		6	01
4	VV444100	Strap Screw			2	03
5	--	Score Support Assembly		CLP-170 (V829300)		
5	--	Score Support Assembly		CLP-170M (V855430)		
5	--	Score Support Assembly		CLP-170C (V855460)		
5	--	Score Support Assembly		CLP-170PE (V885890)		
6	EN630260	Truss Head Tapping Screw-1	3.5X20 MFZN2Y		5	01
	--	Score Support Assembly		CLP-170 (V829300)		
	--	Score Support Assembly		CLP-170M (V855430)		
	--	Score Support Assembly		CLP-170C (V855460)		
	--	Score Support Assembly		CLP-170PE (V885890)		
T1	--	Score Support		CLP-170 (V829330)		
T1	--	Score Support		CLP-170M (V855440)		
T1	--	Score Support		CLP-170C (V855470)		
T1	--	Score Support		CLP-170PE (V885940)		
T2	V7114400	Music Stopper Assembly		CLP-170	2	
T2	V7567500	Music Stopper Assembly		CLP-170M	2	
*	V8902200	Music Stopper Assembly		CLP-170C	2	
*	V9508700	Music Stopper Assembly		CLP-170PE	2	
T2a	--	Case, Music Stopper	A	CLP170/170C/170PE (V711320)	2	
T2a	--	Case, Music Stopper	A	CLP-170M (V756710)	2	
T2b	--	Case, Music Stopper	B	CLP-170 (V756730)	2	
T2b	--	Case, Music Stopper	B	CLP-170M (V756740)	2	
T2b	--	Case, Music Stopper	B	CLP-170C (V890200)	2	
T2b	--	Case, Music Stopper	B	CLP-170PE (V950880)	2	
T2c	V7113700	Music Stopper Assembly	BRASS		2	05
T2d	V7113400	Bushing			4	
T2e	EP600250	Bind Head Tapping Screw-B	3.0X8 MFZN2Y		2	01
T3	EP030320	Bind Head Tapping Screw-1	3.5X10 MFZN2BL		4	01

*: New Parts

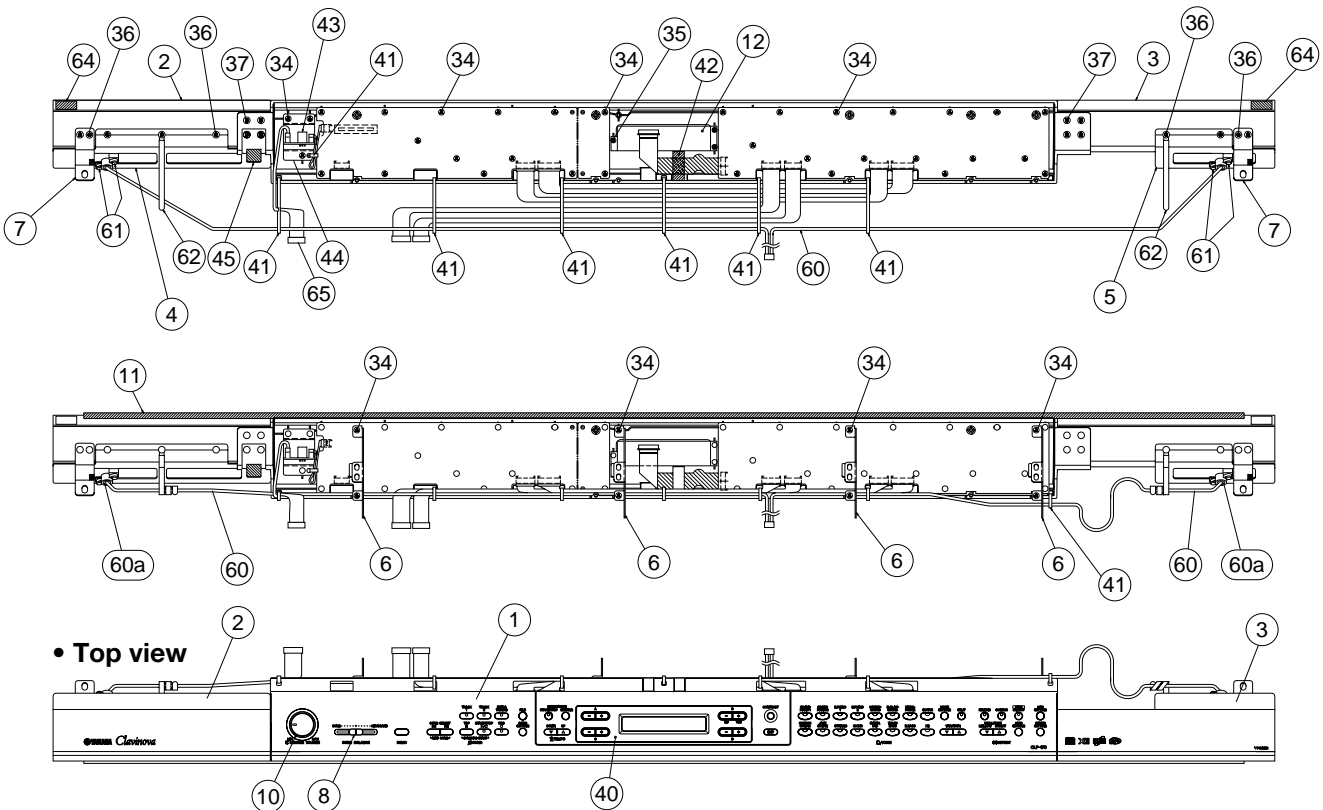
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■ PANEL ASSEMBLY

• Bottom view



• Bottom view



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	PANEL ASSEMBLY		CLP-170/170M/170C/170PE		
	--	Panel Assembly		CLP170 (V829770)		
	--	Panel Assembly		CLP-170M (V829780)		
	--	Panel Assembly		CLP-170C (V829790)		
	--	Panel Assembly		CLP-170PE (V907790)		
* 1	V8298800	Control Panel		CLP-170/170M/170PE		
* 1	V8298900	Control Panel		CLP-170C		
* 2	V8298300	Panel L	LEFT	CLP-170		
* 2	V8298400	Panel L	LEFT	CLP-170M		
* 2	V8298500	Panel L	LEFT	CLP-170C		
* 2	V9081100	Panel L	LEFT	CLP-170PE		
* 3	V8829000	Panel R	RIGHT	CLP-170		
* 3	V8829100	Panel R	RIGHT	CLP-170M		
* 3	V8829200	Panel R	RIGHT	CLP-170C		
* 3	V9081300	Panel R	RIGHT	CLP-170PE		
* 4	V8832200	Grille Assembly	A	CLP-170/170M/170PE		
* 4	V8832400	Grille Assembly	A	CLP-170C		
* 5	V8832300	Grille Assembly	B	CLP-170/170M/170PE		
* 5	V8832500	Grille Assembly	B	CLP-170C		
6	--	Control Panel Holder		(V829560)	4	
7	--	Control Panel Holder A		(V907460)	2	
8	V8085100	Slide Knob		SONG BALANCE		01
9	V5911300	Dust Proof Cloth	54X10X0.25			01
10	VU432400	Knob Black		MASTER VOLUME		01
11	VU638700	Felt	MK			05
* 12	V8811300	LCD	SCLCMDYAMS0049			
* 13	V8670000	Button Brown	B	DEMO		
* 14	V8064400	Button Gray	A1 x2	SONG SELECT		
15	V8065500	Button Dark Gray	B1 LENS	TRACK 1/2, EXTRA TRACKS	3	05
16	V8065100	Button Dark Gray	B1	TOP		04
* 17	V8670300	Button Green	B LENS(GREEN)	SONG START/STOP		
* 18	V8670200	Button Dark Gray	B LENS(RED)	REC		
19	V8066000	Button Dark Gray	D1	FILE, SETTING(SONG, AFC, METRONOME, MIDI, OTHER, VOICE)	7	04
* 20	V8671400	Button Green	D LENS(GREEN)	METRONOME START/STOP		
21	V8064900	Button Gray	A1 x2	TEMPO, VARIATION, BRILLIANCE	3	05
* 22	V8671200	Button Gray	A1b x2	LCD A/B/C/D	4	
* 23	V8670700	Button Gray	B1a x1	EDIT		
24	V8065800	Button Dark Gray	C1 x7	GRAND PIANO 1/2, E.PIANO 1/2, HARPSICHORD, E.CLAVICHORD, VIBRAPHONE, CHURCH ORGAN, JAZZ ORGAN, STRINGS, CHOIR, E.BASS, WOOD BASS, SYNTH.PAD	2	06
* 25	V8465000	Button Dark Gray	E x1	GUITAR, XG	2	
26	V8066100	Button Dark Gray	D1	SPRIT, REVERB, CHORUS	3	05
* 27	V8670400	Button Blue	D LENS(BLUE)	AFC ON/OFF		
28	--	Connector Assembly	KRD-KRD 9P-700	(VK11840)		
29	--	Connector Assembly	KRD-KRD 8P-750	(VK11990)		
30	VK110000	Connector Assembly	KRD-KRD 11P-400			06
31	--	Connector Assembly	KRD-KRD 9P-400	(VK10990)		
* 32	V9384800	FFC Cable	16P 110mm			
33	VK097200	Connector Assembly	KRD-KRD 3P-100			03
34	EP600250	Bind Head Tapping Screw-B	3.0X8 MFZN2Y		42	01
35	VD791000	Bind Head Tapping Screw-B	2.6X10 MFZN2Y		3	01
36	EP030230	Bind Head Tapping Screw-1	3.5X10 MFZN2Y		9	01
37	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		8	01
* 38	V8454900	Circuit Board	PNL (PNL1+PNL2)			
* 39	V8455300	Circuit Board	PNR			
* 40	V8345900	LCD Cover		CLP-170/170M/170PE		
* 40	V8691100	LCD Cover		CLP-170C		
41	CB069250	Cord Holder	BK-1		8	01
42	VP834600	Adhesive Tape	12X50			02
* 43	V8562700	Circuit Board	MV1			
44	--	RV Stay	1.2	(V861300)		
45	--	Control Panel Holder	Z	(V884220)		
46	--	Nonwoven Fabric Cloth	11 57.4X7.5X0.5	(V889010)		
47	--	Nonwoven Fabric Cloth	12 99X7.5X0.5	(V889020)	2	

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

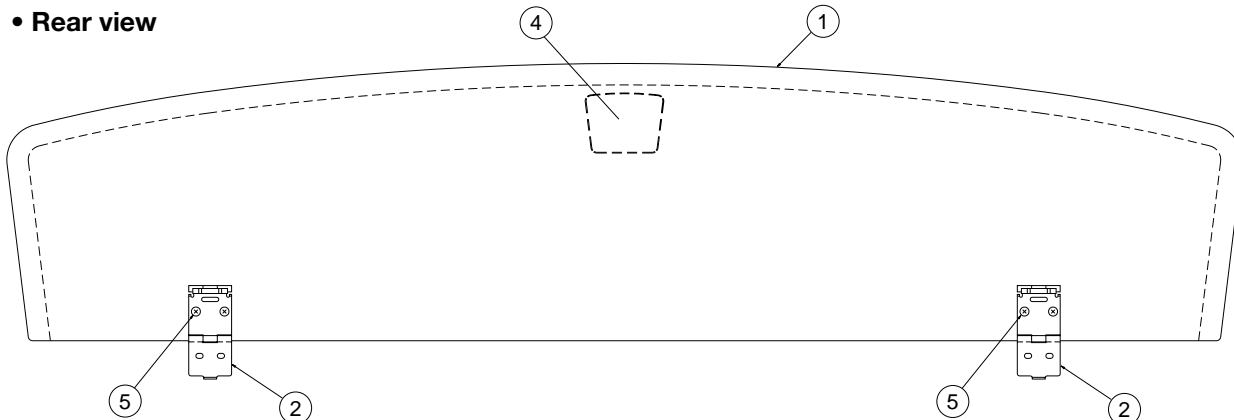
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
48	--	Nonwoven Fabric Cloth	13 30X7.5X0.5	(V889030)	3	
49	--	Nonwoven Fabric Cloth	14 182X7.5X0.5	(V889040)	2	
50	--	Nonwoven Fabric Cloth	15 80X7.5X0.5	(V889050)	2	
51	--	Nonwoven Fabric Cloth	21 129.3X13.5X0.5	(V889060)		
52	--	Nonwoven Fabric Cloth	22 60.3X13.5X0.5	(V889070)		
53	--	Nonwoven Fabric Cloth	23 103.5X13.5X0.5	(V889080)		
54	--	Nonwoven Fabric Cloth	24 103.5X13.5X0.5	(V889090)		
55	--	Nonwoven Fabric Cloth	H	(V860690)	2	
56	--	Nonwoven Fabric Cloth	25 226X13.5X0.5	(V889100)		
57	--	Nonwoven Fabric Cloth	26 188X13.5X0.5	(V889110)		
58	--	Nonwoven Fabric Cloth	27 80X13.5X0.5	(V889120)		
59	--	Nonwoven Fabric Cloth	28 80X13.5X0.5	(V889130)		
* 60	V8759000	Connector Assembly	MIC3 XH 4P			
60a	JE000270	Capacitor Mic.	WM-034C		2	03
61	V9240700	Plastic Rivet	P3065B		4	
62	CB817510	Cord Binder	S-14B		2	03
63	--	Nonwoven Fabric Cloth	126X7.5X0.5	(V889140)		
64	--	Nonwoven Fabric Cloth	22X10X0.35	(V257670)	2	
65	--	Connector Assembly	VOL1 PH-8P	(V875920)	2	

*: New Parts

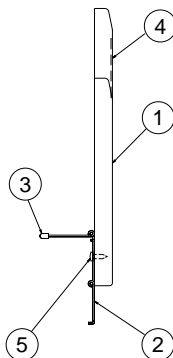
RANK: Japan only

■ MUSIC REST ASSEMBLY

• Rear view



• Side view

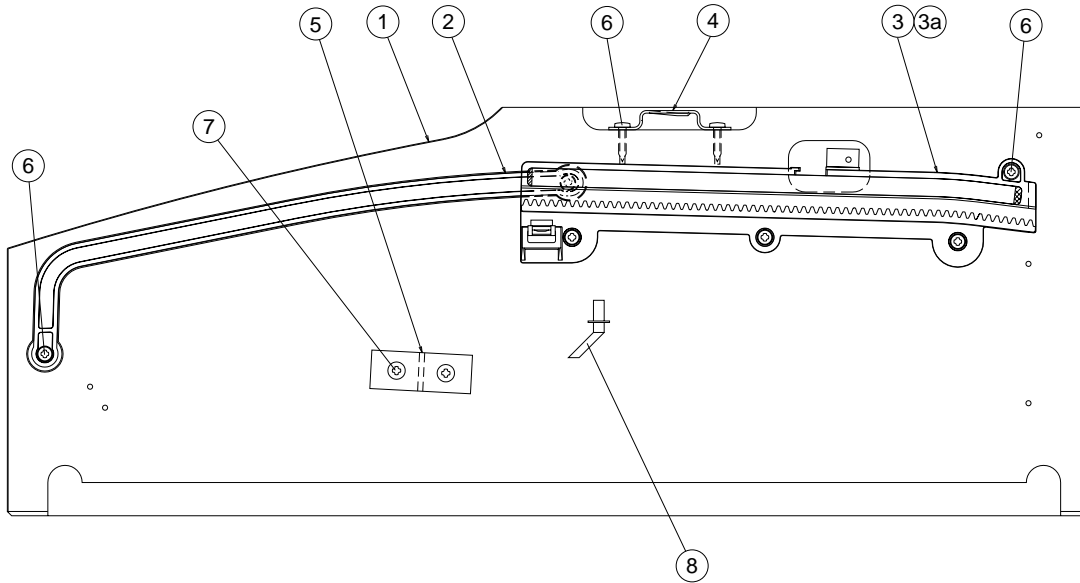


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*		MUSIC REST ASSEMBLY		CLP-170/170M/170C/170PE		
*	V8388000	Music Rest Assembly		CLP-170		
*	V8558200	Music Rest Assembly		CLP-170M		
*	V8558500	Music Rest Assembly		CLP-170C		
*	V8860600	Music Rest Assembly		CLP-170PE		
1	--	Music Rest		CLP-170 (V842650)		
1	--	Music Rest		CLP-170M (V855680)		
1	--	Music Rest		CLP-170C (V855720)		
1	--	Music Rest		CLP-170PE (V886070)		
2	V8437600	Hinge	1STEP 1.6mm YMMA		2	
3	VV965900	Cap	T=1.6mm		2	03
4	V5782300	Badge	CLAVINOVA BRASS			05
5	20404200	Bind Head Tapping Screw-1	3.0X10 MFZN2BL		4	

*: New Parts

RANK: Japan only

ARM ASSEMBLY



● Arm Assembly L

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		ARM ASSEMBLY L	LEFT	CLP-170/170M/170C/170PE		
*	V8281900	Arm Assembly L	LEFT	CLP-170		
*	V8545100	Arm Assembly L	LEFT	CLP-170M		
*	V8546000	Arm Assembly L	LEFT	CLP-170C		
*	V8837800	Arm Assembly L	LEFT	CLP-170PE		
1	--	Side Cover L	LEFT	CLP-170 (V828950)		
1	--	Side Cover L	LEFT	CLP-170M (V854530)		
1	--	Side Cover L	LEFT	CLP-170C (V854620)		
1	--	Side Cover L	LEFT	CLP-170PE (V884120)		
2	V4949100	Guide Rail L	LEFT	CLP-170/170M/170PE		03
*	V6023800	Guide Rail L	LEFT	CLP-170C		
*	V8553000	Rack Assembly L	LEFT			
3a	VV435100	Nut	M4 WUSN-4039			01
4	VV444200	Holder, Top Board	1.20 BLACK			03
5	--	Crosspiece		(V861370)		
6	EP030260	Bind Head Tapping Screw-1	3.5X16 MFZN2BL		8	01
7	VU952600	Truss Head Tapping Screw-1	3.5X30 MFZN2BL		2	01
8	VU891300	Cord Holder Black	L80			03

*: New Parts

RANK: Japan only

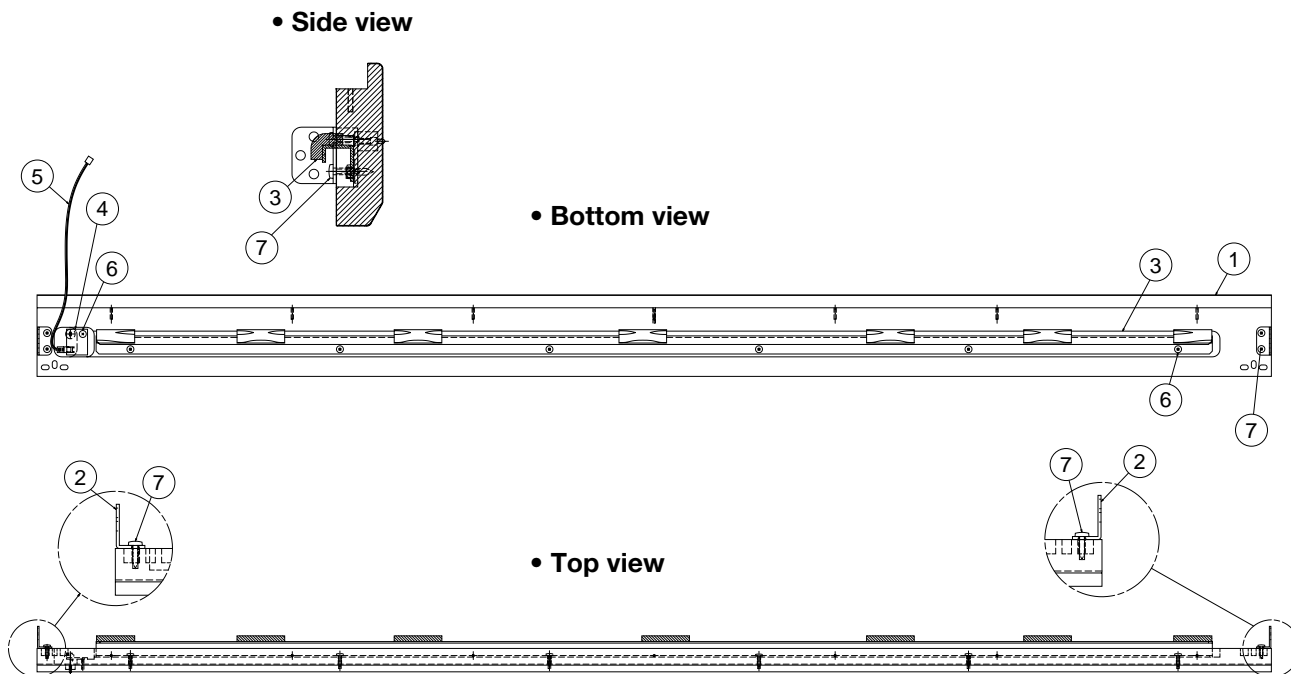
● Arm Assembly R

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		ARM ASSEMBLY R	RIGHT	CLP-170/170M/170C/170PE		
*	V8282000	Arm Assembly R	RIGHT	CLP-170		
*	V8545200	Arm Assembly R	RIGHT	CLP-170M		
*	V8546100	Arm Assembly R	RIGHT	CLP-170C		
*	V8837900	Arm Assembly R	RIGHT	CLP-170PE		
1	--	Side Cover R	RIGHT	CLP-170 (V828990)		
1	--	Side Cover R	RIGHT	CLP-170M (V854540)		
1	--	Side Cover R	RIGHT	CLP-170C (V854630)		
1	--	Side Cover R	RIGHT	CLP-170PE (V884130)		
2	V4949300	Guide Rail R	RIGHT	CLP-170/170M/170PE		03
*	V6024000	Guide Rail R	RIGHT	CLP-170C		
*	V8553100	Rack Assembly R	RIGHT			
3a	VV435100	Nut	M4 WUSN-4039			01
4	VV444200	Holder, Top Board	1.20 BLACK			03
5	--	Crosspiece		(V861370)		
6	EP030260	Bind Head Tapping Screw-1	3.5X16 MFZN2BL		8	01
7	VU952600	Truss Head Tapping Screw-1	3.5X30 MFZN2BL		2	01
11	CB817510	Cord Binder	S-14B			03

*: New Parts

RANK: Japan only

FRONT RAIL ASSEMBLY



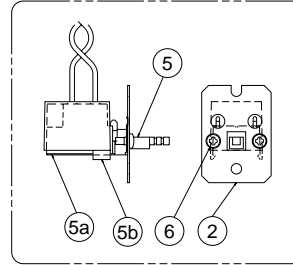
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		FRONT RAIL ASSEMBLY		CLP-170/170M/170C/170PE		
	--	Front Rail Assembly		CLP-170 (V821910)		
	--	Front Rail Assembly		CLP-170M (V854950)		
	--	Front Rail Assembly		CLP-170C (V854990)		
	--	Front Rail Assembly		CLP-170PE (V884230)		
	--	Front Rail Assembly	DR Wrapping	CLP-170 (V900090)		
	--	Front Rail Assembly	DR Wrapping	CLP-170M (V900100)		
	--	Front Rail Assembly	DR Wrapping	CLP-170C (V900120)		
* 1	V8243700	Front Rail		CLP-170		
* 1	V8559900	Front Rail		CLP-170M		
* 1	V8560500	Front Rail		CLP-170C		
* 1	V8842400	Front Rail		CLP-170PE		
2	--	Holder, Rail	1.6 L	(V526350)	2	
3	--	Holder Assembly, Keyboard		(V760310)		
4	VN637600	Circuit Board	PL (YCJ)			03
4	VU659100	Circuit Board	PL (YMMA)			03
5	VK099600	Connector Assembly	KRD-KRD 2P-150			02
6	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		7	01
7	EP030260	Bind Head Tapping Screw-1	3.5X16 MFZN2BL		4	01

*: New Parts

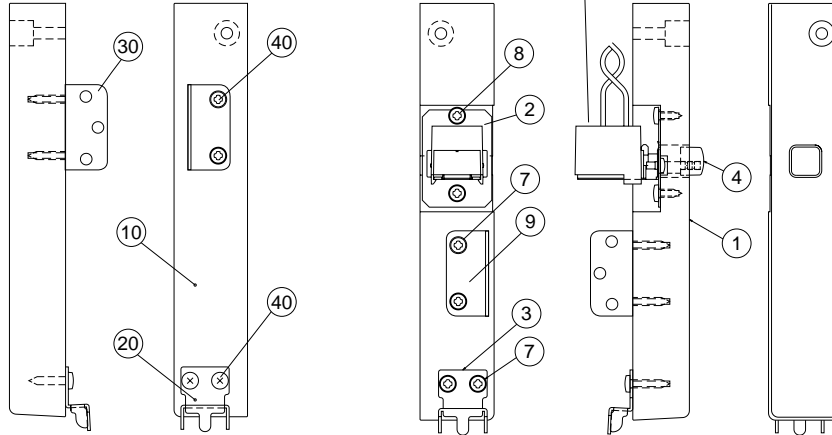
RANK: Japan only

■ END BLOCK ASSEMBLY

● End Block Assembly R



● End Block Assembly L



● End Block Assembly L

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	END BLOCK ASSEMBLY L	LEFT	CLP-170/170M/170C/170PE		
	--	End Block Assembly L	LEFT	CLP-170 (V925890)		
	--	End Block Assembly L	LEFT	CLP-170M (V925920)		
	--	End Block Assembly L	LEFT	CLP-170C (V925940)		
*	V8849300	End Block Assembly L	LEFT	CLP-170PE		
* 10	V9351000	End Block L	LEFT	CLP-170		
* 10	V9351100	End Block L	LEFT	CLP-170M		
* 10	V8605500	End Block L	LEFT	CLP-170C		
10	--	End Block L	LEFT	CLP-170PE (V884950)		
20	--	Angle H	1.2 L	(V533550)		
30	--	Angle K	1.6 L	(V526350)		
40	EP030190	Bind Head Tapping Screw-1	3.5X16 MFZN2Y		4	01

*: New Parts

RANK: Japan only

● End Block Assembly R

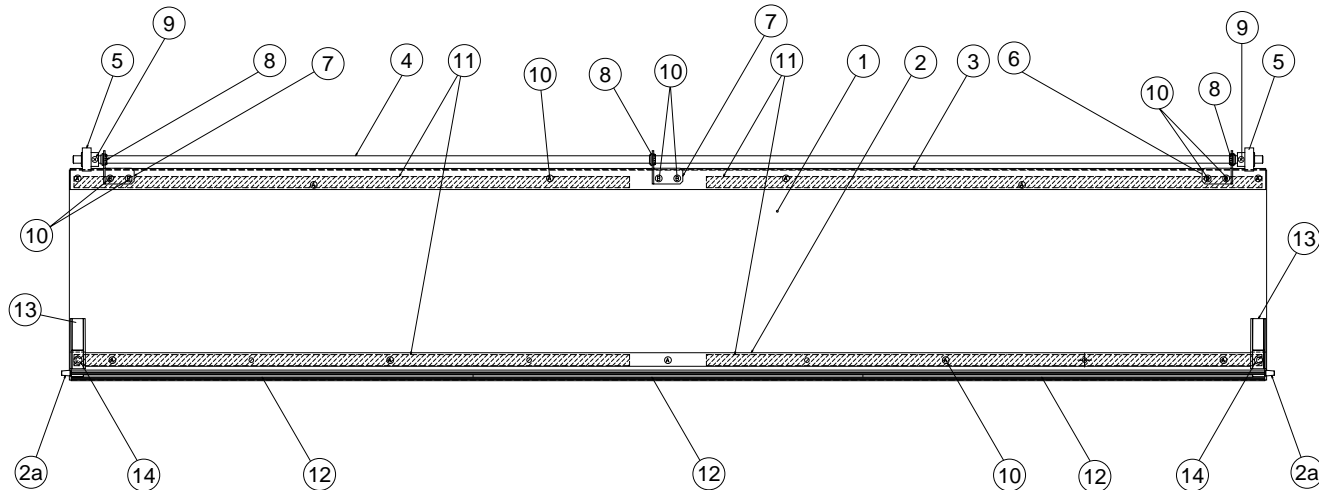
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	END BLOCK ASSEMBLY R	RIGHT	CLP-170/170M/170C/170PE		
	--	End Block Assembly R	RIGHT	CLP-170 (V863330)		
	--	End Block Assembly R	RIGHT	CLP-170M (V863360)		
	--	End Block Assembly R	RIGHT	CLP-170C (V863370)		
	--	End Block Assembly R	RIGHT	CLP-170PE (V884940)		
* 1	V8604900	End Block R	RIGHT	CLP-170		
* 1	V8605700	End Block R	RIGHT	CLP-170M		
* 1	V8606000	End Block R	RIGHT	CLP-170C		
* 1	V8849600	End Block R	RIGHT	CLP-170PE		
2	--	Holder, Power Switch	0.8	(V862530)		
3	--	Angle H	1.2 L	(V533550)		
4	VF663400	Knob Black		CLP-170/170M/170PE POWER		02
4	V6250700	Knob Brown		CLP-170C POWER		01
* 5	V8759500	Power Switch Assembly	PSW			
* 5a	V8625100	Push Switch	SY17-23-2(U1S1)/T	POWER		
* 5b	V8625200	Switch Cover Ivory/Black				
6	EP600230	Bind Head Tapping Screw-B	3.0X6 MFZN2BL		2	01
7	EP030190	Bind Head Tapping Screw-1	3.5X16 MFZN2Y		4	01
8	EP030320	Bind Head Tapping Screw-1	3.5X10 MFZN2BL		2	01
9	--	Angle K	1.6 L	(V526350)		

*: New Parts

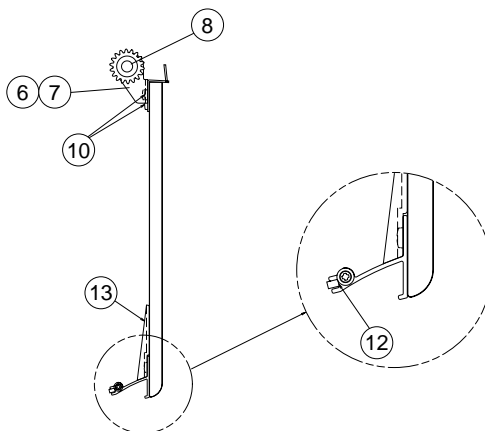
RANK: Japan only

KEY COVER ASSEMBLY

• Bottom view



• Side view



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		KEY COVER ASSEMBLY		CLP-170/170M/170C/170PE		
*	V8607500	Key Cover Assembly		CLP-170		
*	V8607600	Key Cover Assembly		CLP-170M		
*	V8607700	Key Cover Assembly		CLP-170C		
*	V8861000	Key Cover Assembly		CLP-170PE		
1	--	Key Cover		CLP-170 (V844670)		
1	--	Key Cover		CLP-170M (V856100)		
1	--	Key Cover		CLP-170C (V856130)		
1	--	Key Cover		CLP-170PE (V886110)		
2	V4961900	Sash Assembly	FRONT			10
2a	V4964400	Guide Pin			2	
3	--	Sash	REAR	(V664750)		
4	--	Rod		(V496240)		
5	VT190400	Gear			2	03
6	VV285600	Holder, Rod L	LEFT			03
7	VV285700	Holder, Rod R	RIGHT		2	03
8	VS368500	Bushing			3	03
9	EG330060	Bind Head Screw	3.0X10 MFZN2Y		2	01
10	VN920900	Bind Head Tapping Screw-1	3.5X8 MFZN2BL		17	01
11	--	Adhesive Tape	#500 600X12	(VO02370)	4	
12	--	Cushion	426X2.5XT4	(V946540)	3	
13	V5902900	Block			2	02
14	EP030230	Bind Head Tapping Screw-1	3.5X10 MFZN2Y		2	01

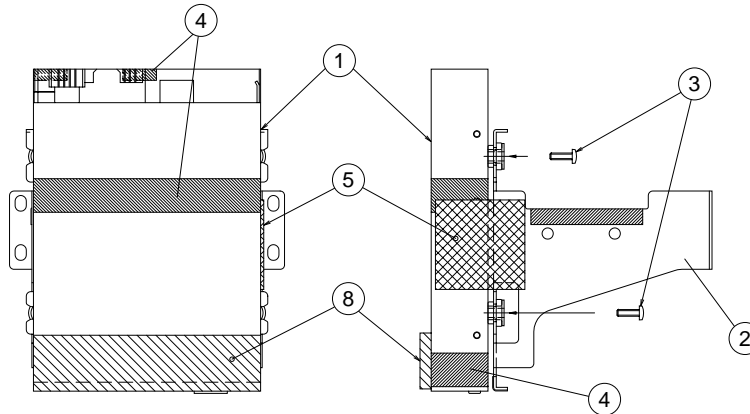
*: New Parts

RANK: Japan only

■ FLOPPY DISK DRIVE ASSEMBLY

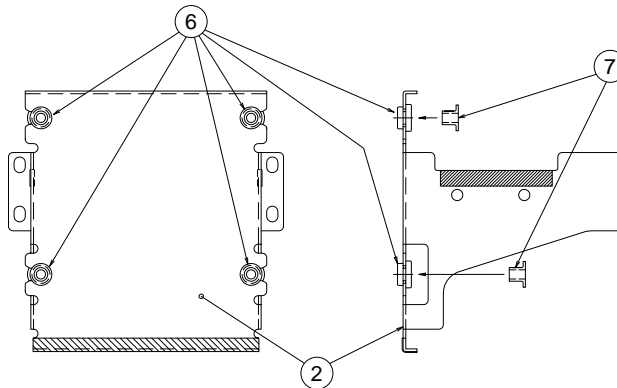
• Top view

• Side view



● Holder, FDD
(Top view)

● Holder, FDD
(Side view)



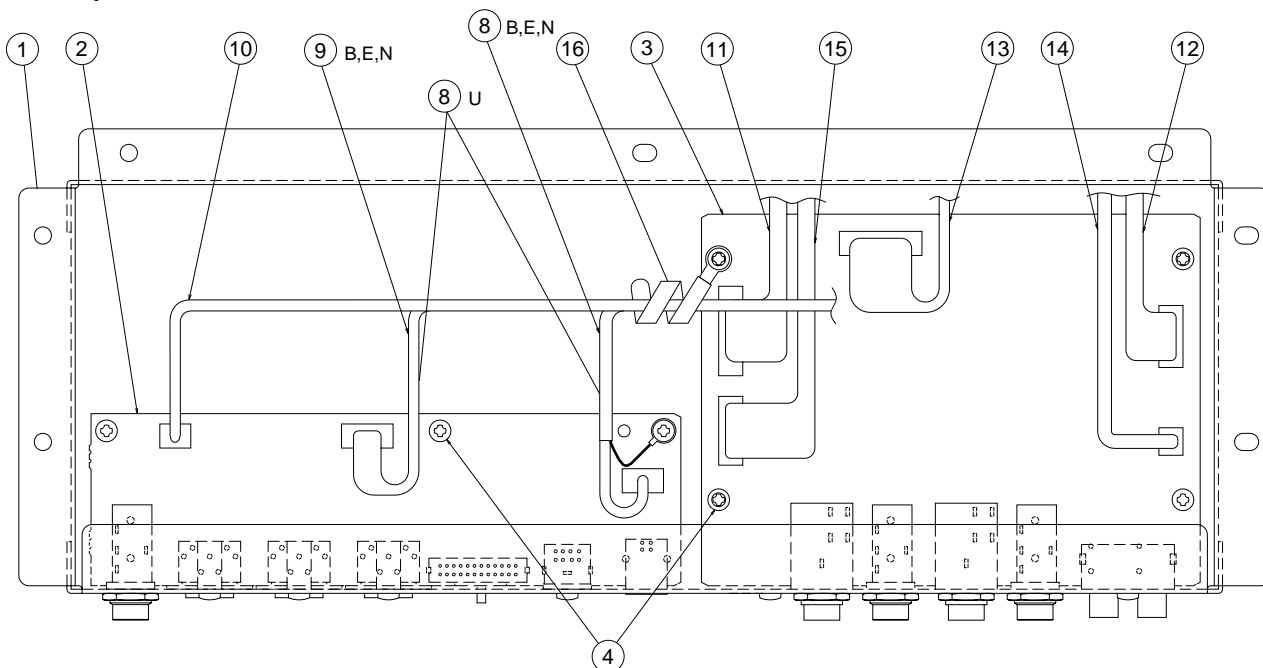
REF. NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	FLOPPY DISK DRIVE ASSEMBLY		CLP-170/170M/170C/170PE		
1	V6492300	Floppy Disk Drive Assembly		(V833570)		
2	--	Floppy Disk Drive	ALPS DF354H			13
3	EG330380	Holder, FDD		(V833580)	4	01
4	--	Bind Head Screw	3.0X10 MFZN2BL			
5	--	Adhesive Tape Black	#5 15X30m	(V256440)		
6	--	Electrical Adhesive Tape	NO.7701 40X20m	(V604530)		
6	VA121600	Bushing			4	01
7	VK431100	FDD Spacer			4	01
7	VA121400	Spacer			4	02
8	--	Spacer Rubber		(V886250)		

*: New Parts

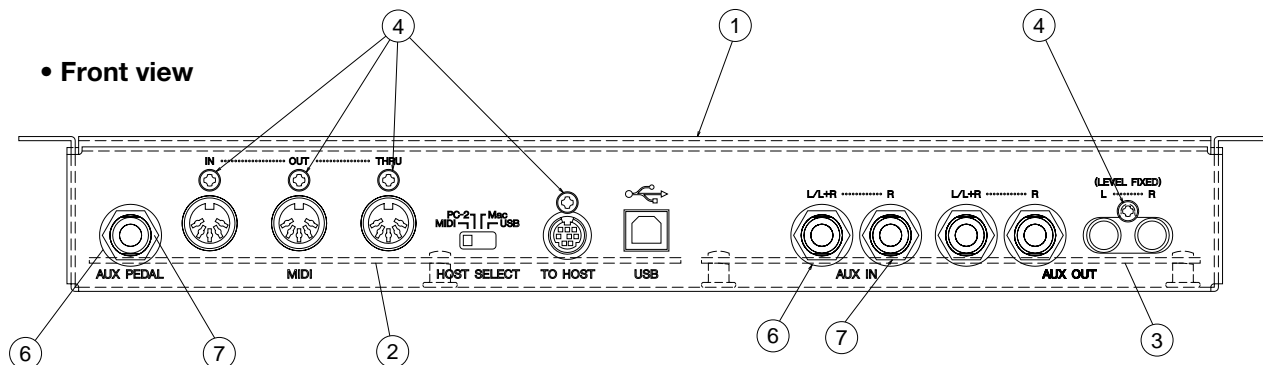
RANK: Japan only

JACK ASSEMBLY

• Top view



• Front view

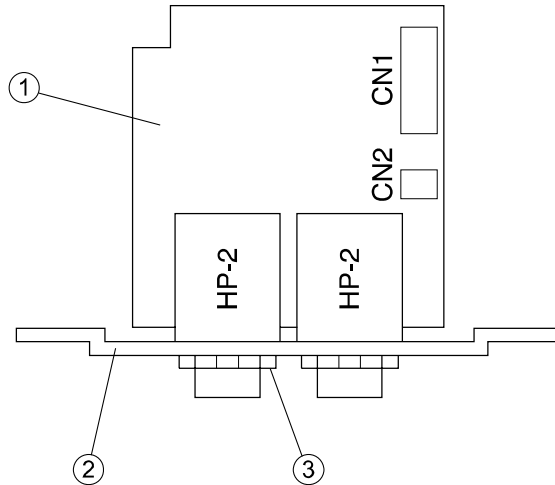


REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
		JACK ASSEMBLY	CLP-170/170M/170C/170PE		
	--	Jack Assembly	U (V963860)		
	--	Jack Assembly	B,E,N (V862550)		
1	--	Angle, Jack	(V862560)		
* 2	V8496500	Circuit Board	DJK		
* 3	V8500100	Circuit Board	AJK		
4	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL	12	01
6	VJ869400	Washer Black		5	02
7	VB508600	Hexagonal Nut	12.0 14X2 MFZN2BL	5	01
8	--	Connector Assembly	DJK-LF PH-8P		
8	--	USB Cable	U (V962370)		
9	--	Connector Assembly	DJK PH-8P		
10	--	Connector Assembly	KRD-KRD 3P-500		
11	--	Connector Assembly	KRD-KRD 11P-500		
12	--	Connector Assembly	KRD-KRD 7P-550		
13	--	Connector Assembly	KRD-KRD 9P-600		
14	--	Connector Assembly	PS3B XH 5P		
15	--	Connector Assembly	VOL3 PH-8P		
16	CB817510	Cord Binder	S-14B		03

*: New Parts

RANK: Japan only

■ HEADPHONES JACK ASSEMBLY

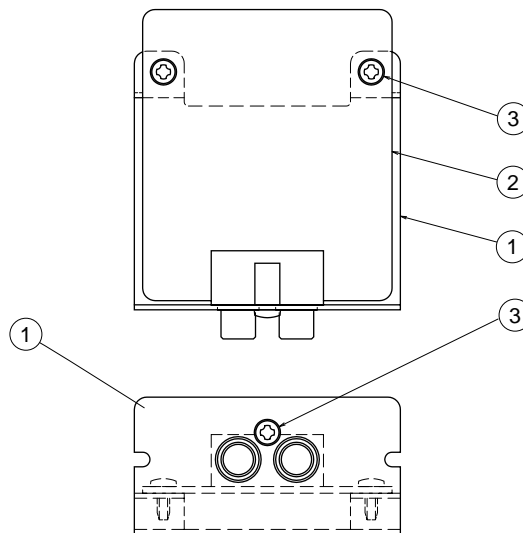


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	HEADPHONES JACK ASSEMBLY		CLP-170/170M/170C/170PE		
* 1	V8781900	Headphones Jack Assembly	HP	(V878160)		
2	VN631800	Circuit Board				04
3	VB508600	Angle, Headphone	12.0 14X2 MFZN2BL		2	01
		Hexagonal Nut				

*: New Parts

RANK: Japan only

■ AFC MIC. ASSEMBLY

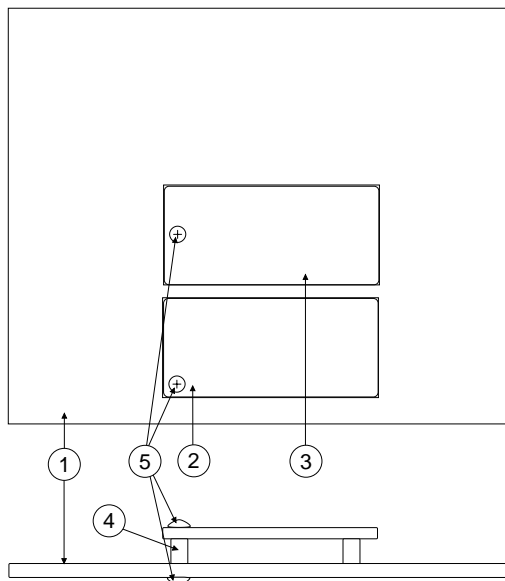


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	AFC MIC. ASSEMBLY		CLP-170/170M/170C/170PE		
* 1	V8626200	AFC Mic. Assembly	MIC	(V892740)		
* 2	V8804400	Holder, AFC Mic.				
3	EP600190	Circuit Board	3.0X8 MFZN2BL		3	01
		Bind Head Tapping Screw-B				

*: New Parts

RANK: Japan only

DM ASSEMBLY

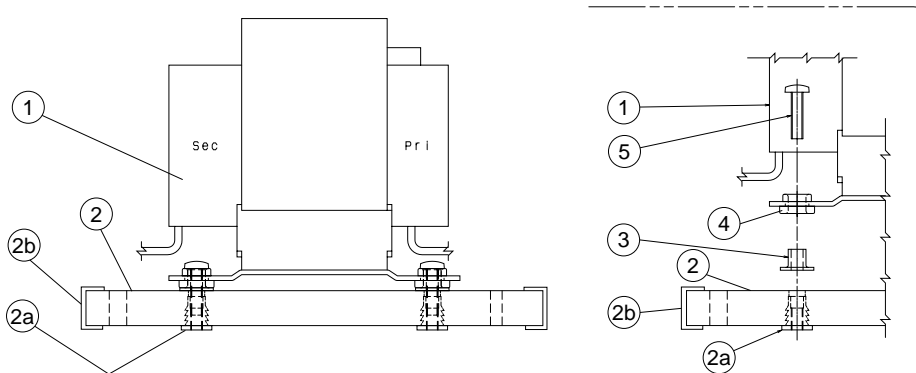


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	DM ASSEMBLY		CLP-170/170M/170C/170PE		
	--	DM Assembly		(V878660)		
* 1	V8562900	Circuit Board	DM			
* 2	V8563100	Circuit Board	WML			
* 3	V8563200	Circuit Board	WMH			
* 4	V8868000	Spacer			2	
5	EG330040	Bind Head Screw	3.0X6 MFZN2Y		4	01

*: New Parts

RANK: Japan only

POWER TRANSFORMER ASSEMBLY



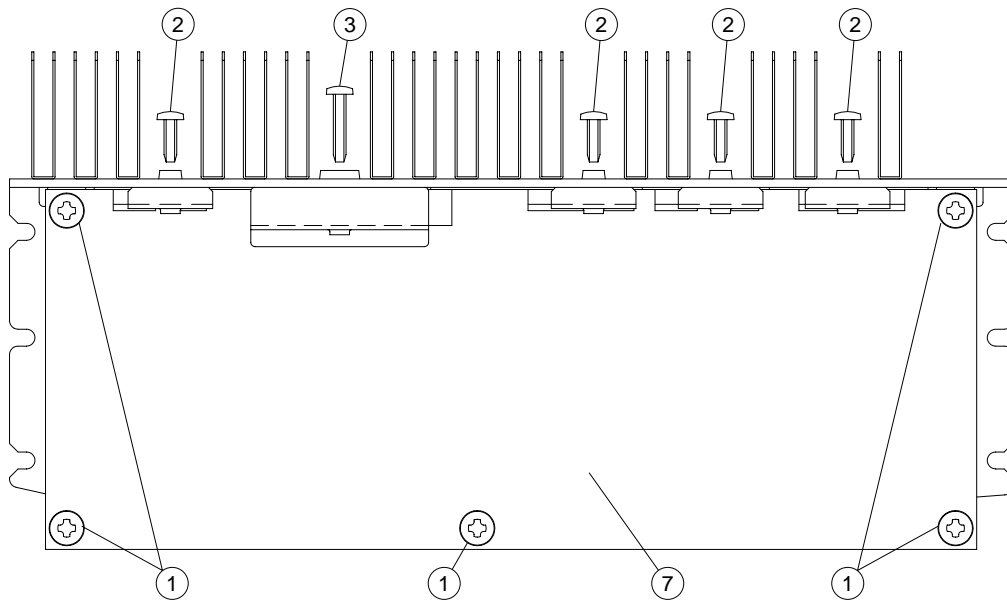
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	POWER TRANSFORMER ASSEMBLY		CLP-170/170M/170C/170PE		
	--	Power Transformer Assembly		U,B,E (V888770)		
	--	Power Transformer Assembly		N (V888780)		
* 1	X2402A00	Power Transformer	IEC/EN60691 E UL/C			
* 1	X2403A00	Power Transformer	IEC/EN60691 E			
2	--	Holder, Power Transformer		(V888850)		
2a	VA789400	Nut	B 4.0X11.5 MFZN2BL		4	01
2b	--	Electrica Adhesive Tape		(V4095200)		
3	VA121400	Spacer			4	02
4	VA121600	Bushing			4	01
5	EG340410	Bind Head Screw	4.0X20 MFZN2Y		4	01

*: New Parts

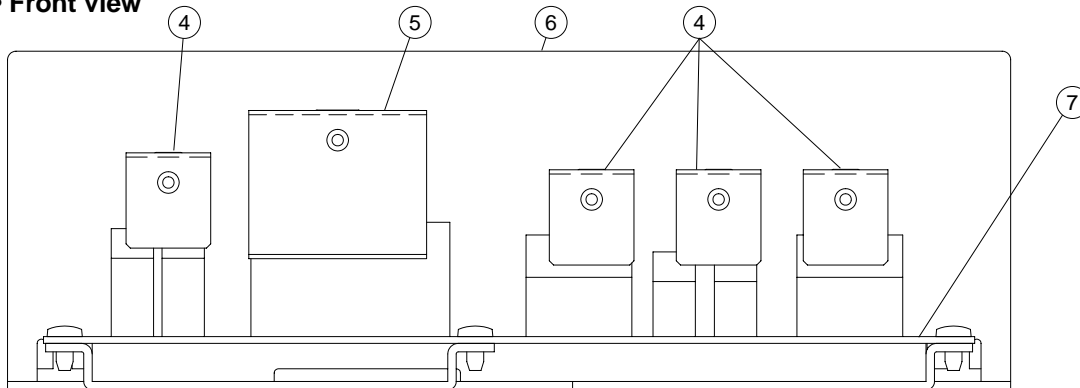
RANK: Japan only

MA120B ASSEMBLY

• Top view



• Front view

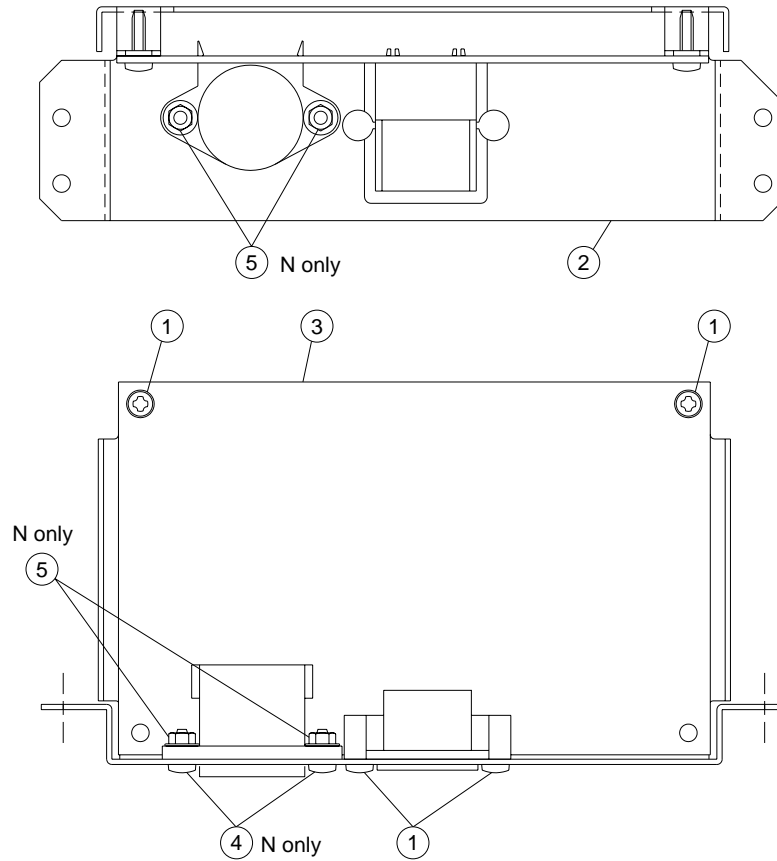


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		MA120B ASSEMBLY		CLP-170/170M/170C/170PE		
*	V8595400	MA120B Assembly		U		
*	V8596000	MA120B Assembly		B,E,N		
1	EP640410	Bind Head Tapping Screw-B	4.0X8 MFZN2Y		5	01
2	EP600220	Bind Head Tapping Screw-B	3.0X10 MFZN2Y		4	01
3	EP600390	Bind Head Tapping Screw-B	3.0X16 MFZN2Y			01
4	VT461100	Transistor Holder	A		4	03
5	VT461200	Transistor Holder	B			03
6	--	Heat Sink		(V761610)		
7	--	Circuit Board	MA120B	U (V859630)		
7	--	Circuit Board	MA120B	B,E,N (V859640)		

*: New Parts

RANK: Japan only

■ FU120LB ASSEMBLY

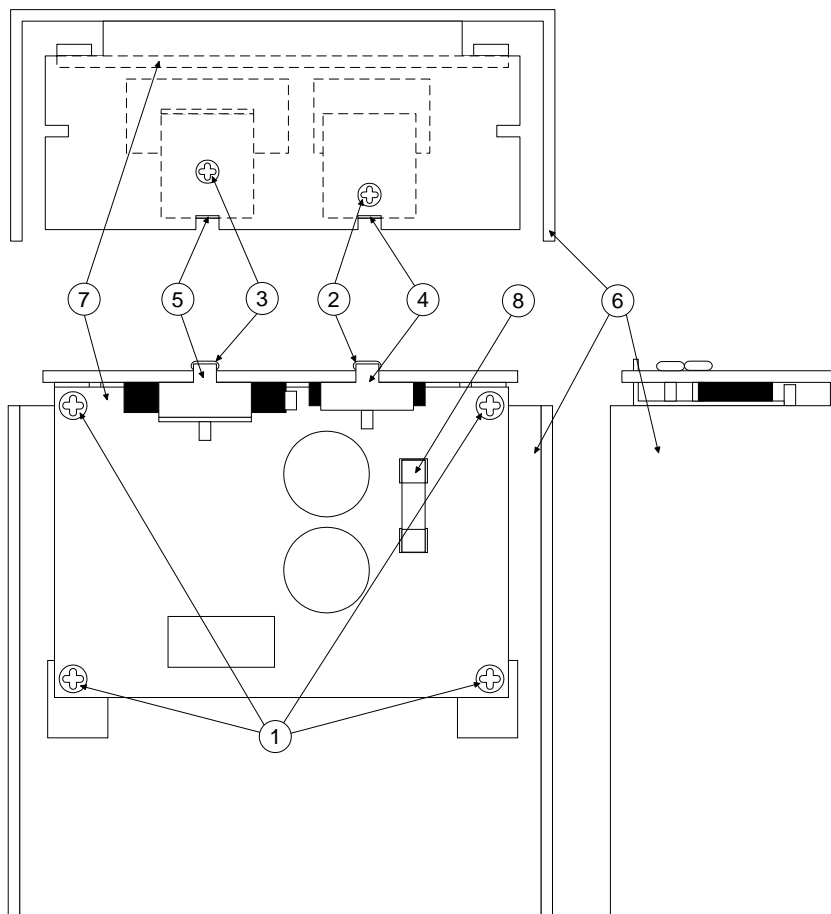


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		FU120LB ASSEMBLY		CLP-170/170M/170C/170PE		
	V7631500	FU120LB Assembly		U		
	V7631600	FU120LB Assembly		B,E		
	V7631700	FU120LB Assembly		N		
1	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL		4	01
2	V7585500	Panel, AC Inlet		U,B,E		06
2	V7585600	Panel, AC Inlet		N		06
3	V7712500	Circuit Board	FU120BL	U		
3	V7601300	Circuit Board	FU120BL	B,E		
3	VV650500	Circuit Board	FU120L	N		08
4	EG330380	Bind Head Screw	3.0X10 MFZN2BL	N	2	01
5	VA211900	Hexagonal Nut	3.0 MFZN2Y	N	2	01

*: New Parts

RANK: Japan only

MAF ASSEMBLY



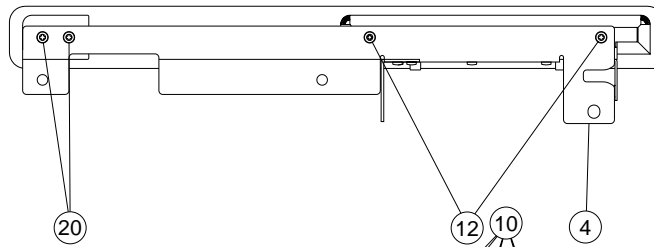
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		MAF ASSEMBLY		CLP-170/170M/170C/170PE		
*	V8608200	MAF Assembly		U		
*	V8804200	MAF Assembly		B,E,N		
1	EP640410	Bind Head Tapping Screw-B	4.0X8 MFZN2Y		4	01
2	EP600220	Bind Head Tapping Screw-B	3.0X10 MFZN2Y			01
3	EP600390	Bind Head Tapping Screw-B	3.0X16 MFZN2Y			01
4	VT461100	Transistor Holder	A			03
*	V5184100	Holder, Power Amplifier	A			
6	--	Chassis, AFC AMP		(V862540)		
*	7	V8492500	Circuit Board	MAF		
△	8	KB003630	Fuse	5.00A JU		01
△	8	KB003240	Fuse	5.00A S		01

*: New Parts

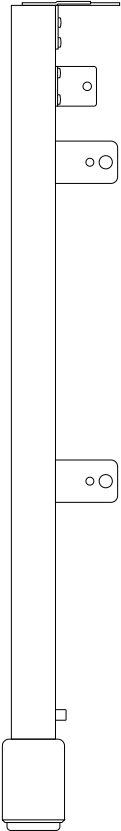
RANK: Japan only

■ SIDE BOARD UNIT

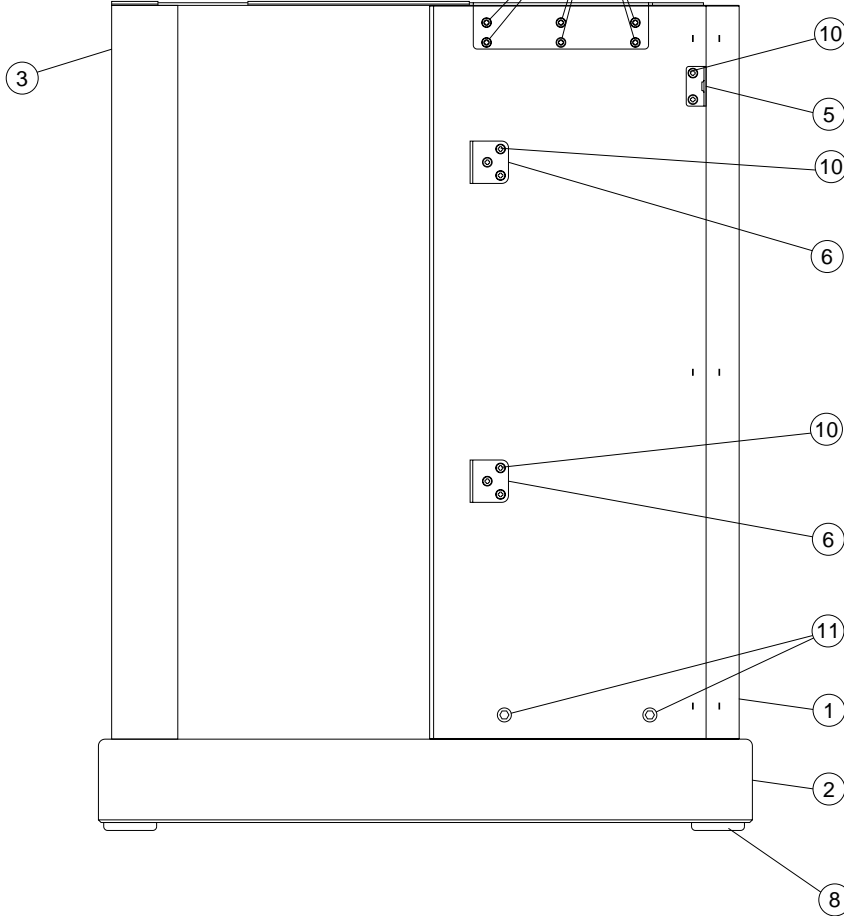
• Top view



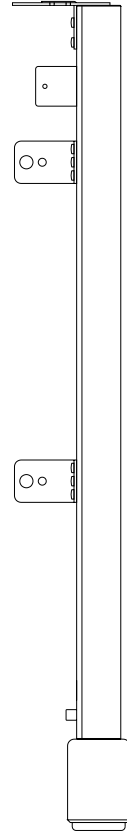
• Front view



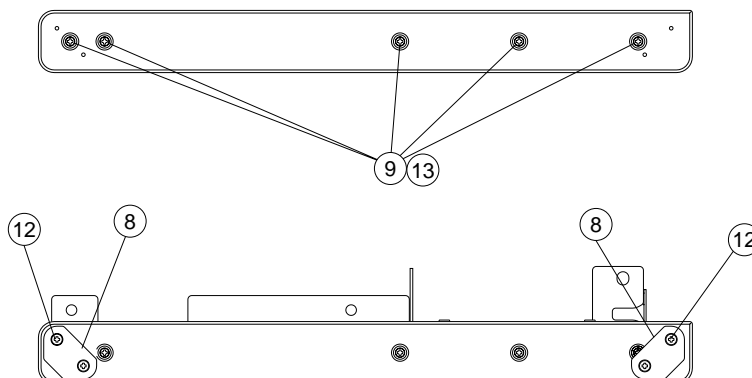
• Side view



• Rear view



• Bottom view



● Side Board Unit L

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*		SIDE BOARD UNIT L	LEFT	CLP-170/170M/170C/170PE		
*	V8283600	Side Board Unit L	LEFT	CLP-170		
*	V8550800	Side Board Unit L	LEFT	CLP-170M		
*	V8551400	Side Board Unit L	LEFT	CLP-170C		
*	V8848600	Side Board Unit L	LEFT	CLP-170PE		
1	--	Side Board L	LEFT	CLP-170 (V829160)		
1	--	Side Board L	LEFT	CLP-170M (V855100)		
1	--	Side Board L	LEFT	CLP-170C (V855160)		
1	--	Side Board L	LEFT	CLP-170PE (V884880)		
2	--	Stand Base L	LEFT ROSE	CLP-170 (V828400)		
2	--	Stand Base L	LEFT MAHOGANY	CLP-170M (V855000)		
2	--	Stand Base L	LEFT CHERRY	CLP-170C (V855040)		
2	--	Stand Base		CLP-170PE (V884630)		
3	--	Leg		CLP-170 (V834960)		
3	--	Leg		CLP-170M (V855550)		
3	--	Leg		CLP-170C (V855570)		
3	--	Leg		CLP-170PE (V886030)		
4	--	Holder, Stand	LEFT	(V834670)		
5	VQ958300	Holder, Back Board				05
6	VZ972000	Stand Angle Bracket	A		2	04
8	CB006650	Foot C Black			2	03
9	VV444000	Pan Head Tapping Screw-1	4.0X65 MFZN2Y		5	01
10	EP030580	Bind Head Tapping Screw-1	3.5X20 MFZN2BL		14	01
11	V5251600	Nut	TYPE M M6XL33		2	01
12	EM040020	Flat Head Tapping Screw-1	4.0X20 MFZN2BL		6	01
13	ET500040	Flat Washer	4.0X10X0.8 MFZN2BL		5	01
20	EM040040	Flat Head Tapping Screw-1	4.0X30 MFZN2BL		2	01

*: New Parts

RANK: Japan only

● Side Board Unit R

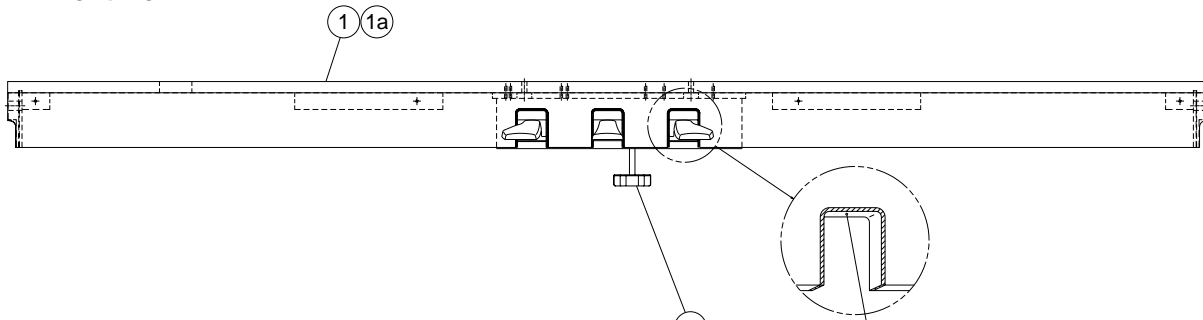
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*		SIDE BOARD UNIT R	RIGHT	CLP-170/170M/170C/170PE		
*	V8283700	Side Board Unit R	RIGHT	CLP-170		
*	V8550900	Side Board Unit R	RIGHT	CLP-170M		
*	V8551500	Side Board Unit R	RIGHT	CLP-170C		
*	V8848700	Side Board Unit R	RIGHT	CLP-170PE		
1	--	Side Board R	RIGHT	CLP-170 (V829210)		
1	--	Side Board R	RIGHT	CLP-170M (V855110)		
1	--	Side Board R	RIGHT	CLP-170C (V855170)		
1	--	Side Board R	RIGHT	CLP-170PE (V884890)		
2	--	Stand Base R	RIGHT ROSE	CLP-170 (V828410)		
2	--	Stand Base R	RIGHT MAHOGANY	CLP-170M (V855010)		
2	--	Stand Base R	RIGHT CHERRY	CLP-170C (V855050)		
2	--	Stand Base		CLP-170PE (V884630)		
3	--	Leg		CLP-170 (V834960)		
3	--	Leg		CLP-170M (V855550)		
3	--	Leg		CLP-170C (V855570)		
3	--	Leg		CLP-170PE (V886030)		
4	--	Holder, Stand	RIGHT	(V834680)		
5	VQ958300	Holder, Back Board				05
6	VZ972000	Stand Angle Bracket	A		2	04
8	CB006650	Foot C Black			2	03
9	VV444000	Pan Head Tapping Screw-1	4.0X65 MFZN2Y		5	01
10	EP030580	Bind Head Tapping Screw-1	3.5X20 MFZN2BL		14	01
11	V5251600	Nut	TYPE M M6XL33		2	01
12	EM040020	Flat Head Tapping Screw-1	4.0X20 MFZN2BL		6	01
13	ET500040	Flat Washer	4.0X10X0.8 MFZN2BL		5	01
20	EM040040	Flat Head Tapping Screw-1	4.0X30 MFZN2BL		2	01

*: New Parts

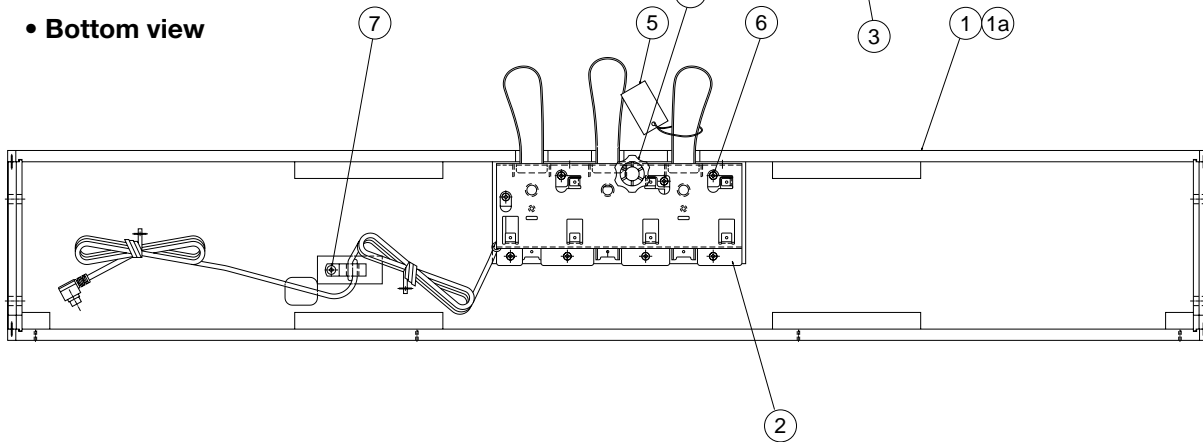
RANK: Japan only

■ PEDAL BOX ASSEMBLY

• Front view



• Bottom view



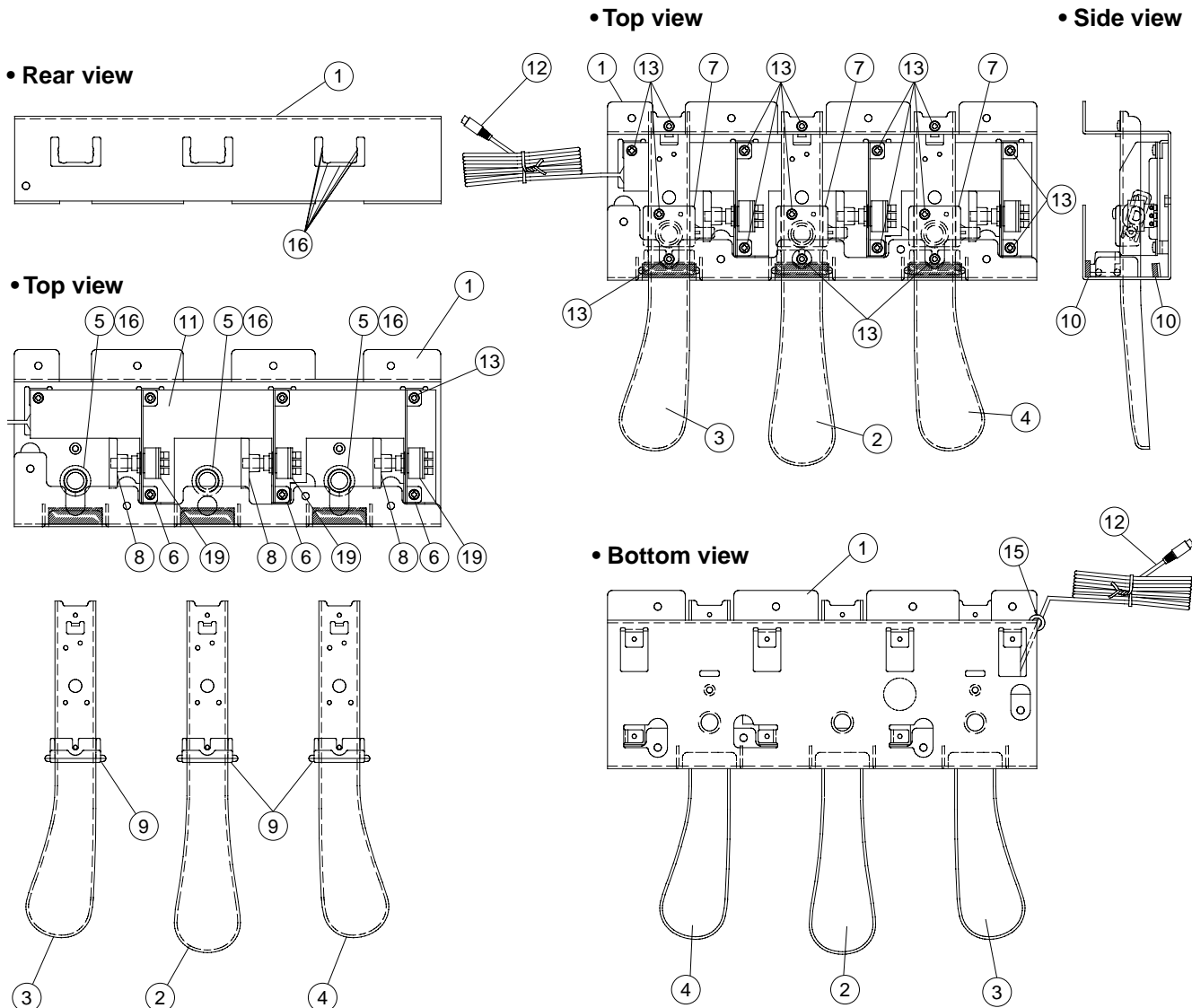
Pedal Assembly
(See page 29.)

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
	--	PEDAL BOX ASSEMBLY	CLP-170/170M/170C/170PE		
	--	Pedal Box Assembly	CLP-170 (V828380)		
	--	Pedal Box Assembly	CLP-170M (V854830)		
	--	Pedal Box Assembly	CLP-170C (V854870)		
	--	Pedal Box Assembly	CLP-170PE (V907770)		
* 1	V8292200	Pedal Box	CLP-170		
* 1	V8548400	Pedal Box	CLP-170M		
* 1	V8548800	Pedal Box	CLP-170C		
* 1	V9077800	Pedal Box	CLP-170PE		
1a	VA789400	Nut	B 4.0X11.5 MFZN2BL	2	01
* 2	V8613100	Pedal Assembly	O		
3	VU464300	Felt Red	115X12X2	3	03
4	VU379700	Adjuster			02
5	VD966100	Caution Label	Clavinova		03
6	EP040230	Bind Head Tapping Screw-1	4.0X14 MFZN2Y	8	01
7	EN630260	Truss Head Tapping Screw-1	3.5X20 MFZN2Y		01

*: New Parts

RANK: Japan only

■ PEDAL ASSEMBLY



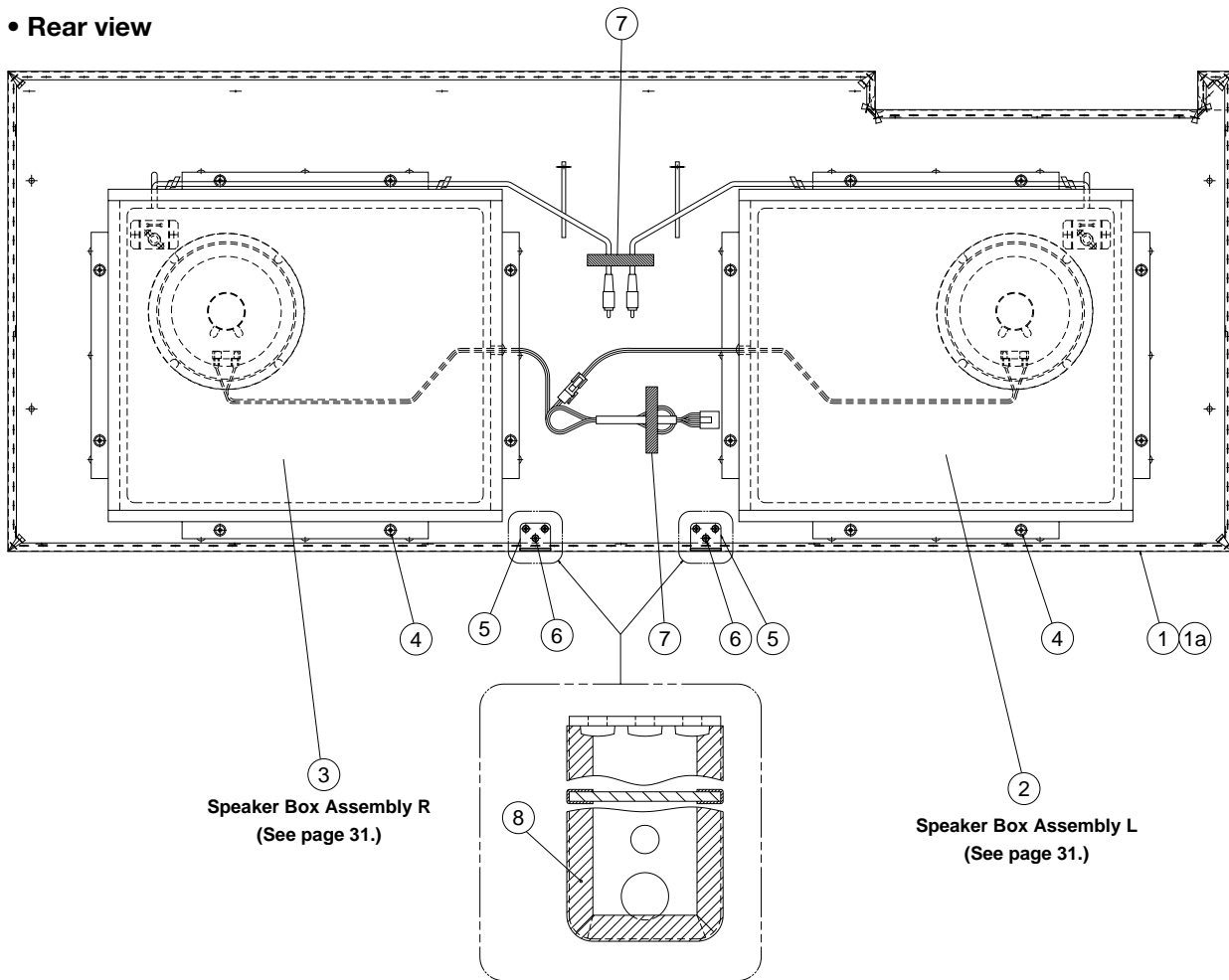
REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	V8613100	PEDAL ASSEMBLY	O	CLP-170/170M/170C/170PE		
1	V7511700	Pedal Frame				06
2	VU362000	Pedal Piece C	CENTER	Sostenuto pedal		08
3	VU362100	Pedal Piece L	LEFT	Left pedal		08
4	VU362200	Pedal Piece R	RIGHT	Damper pedal		08
5	VP348100	Pedal Spring			3	03
6	V7598000	Angle Bracket	3VR		3	
7	VV475800	Holder, VR	PEDAL		3	03
8	VV476000	Actuator, VR	PEDAL		3	03
9	VU339800	Shutter	PEDAL		3	03
10	VU346500	Felt Black	PA		6	03
11	V7675600	Circuit Board	PEDAL (SW)			07
12	V0044700	Connector Assembly	PK-LF			08
13	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL		16	01
15	CB069250	Cord Holder	BK-1			01
16	--	Grease	G-31KA	(VE96850)		
19	HS412520	Rotary Variable Resistor	K161SOZO1	PEDAL VOLUME	3	05

*: New Parts

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FRONT BOARD ASSEMBLY

• Rear view

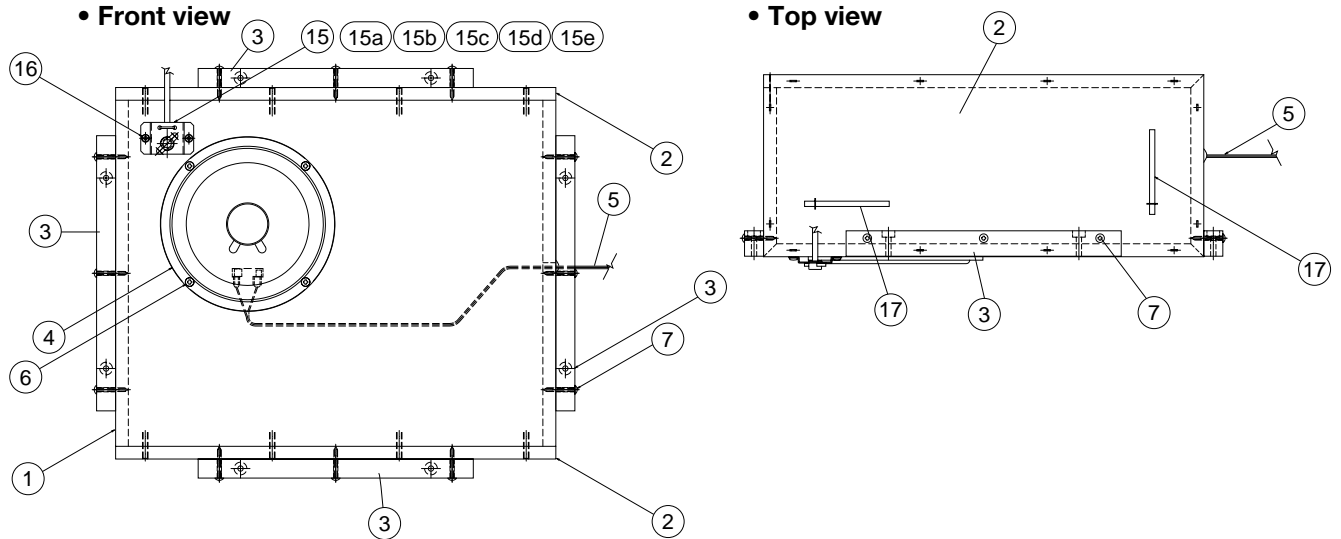


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	FRONT BOARD ASSEMBLY		CLP-170/170M/170C/170PE		
	--	Front Board Assembly		CLP-170/170M/170PE (V838680)		
	--	Front Board Assembly		CLP-170C (V855780)		
* 1	V8386900	Front Board		CLP-170/170M/170PE		
* 1	V8558300	Front Board Assembly		CLP-170C		
1a	VA789400	Nut	B 4.0X11.5 MFZN2BL		20	01
2	--	Speaker Box Assembly L	LEFT	(V860860)		
3	--	Speaker Box Assembly R	RIGHT	(V860870)		
4	V5877100	Truss Head Screw	4.0X30 MFZN2Y		16	
5	VZ972000	Stand Angle Bracket	A		2	04
6	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		6	01
7	--	Adhesive Tape	12X70	(V159810)	2	
8	--	Adhesive Tape	12X50m	(2276490)		

*: New Parts

RANK: Japan only

■ SPEAKER BOX ASSEMBLY



● Speaker Box Assembly L

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	V8608600	SPEAKER BOX ASSEMBLY L	LEFT	CLP-170/170M/170C/170PE		
1	--	Speaker Box L	LEFT	(V860880)		
2	--	Side Board, Speaker Box		(V860900)	2	
3	--	Crosspiece	A 18X260	(V570090)	4	
4	X0358A00	Speaker	16cm 8 ohm 60W	WOOFER		10
5	--	Connector Assembly	WF2 2P	(V875980)		
6	EP040250	Bind Head Tapping Screw-1	4.0X16 MFZN2BL		4	01
7	VU952600	Truss Head Tapping Screw-1	3.5X30 MFZN2BL		12	01
*	V8759900	Connector Assembly	MIC1			
15a	--	PIN Cable	WHITE	(V892790)		
15b	JE000270	Capacitor Mic.	WM-034C			03
15c	--	Holder Rubber	YPM-CH009	(V890340)		
15d	--	Angle Bracket, Mic.		(V892700)		
15e	V9240700	Nylon Rivet			2	
16	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		2	01
17	VU891300	Cord Holder Black	L80		2	03

*: New Parts

RANK: Japan only

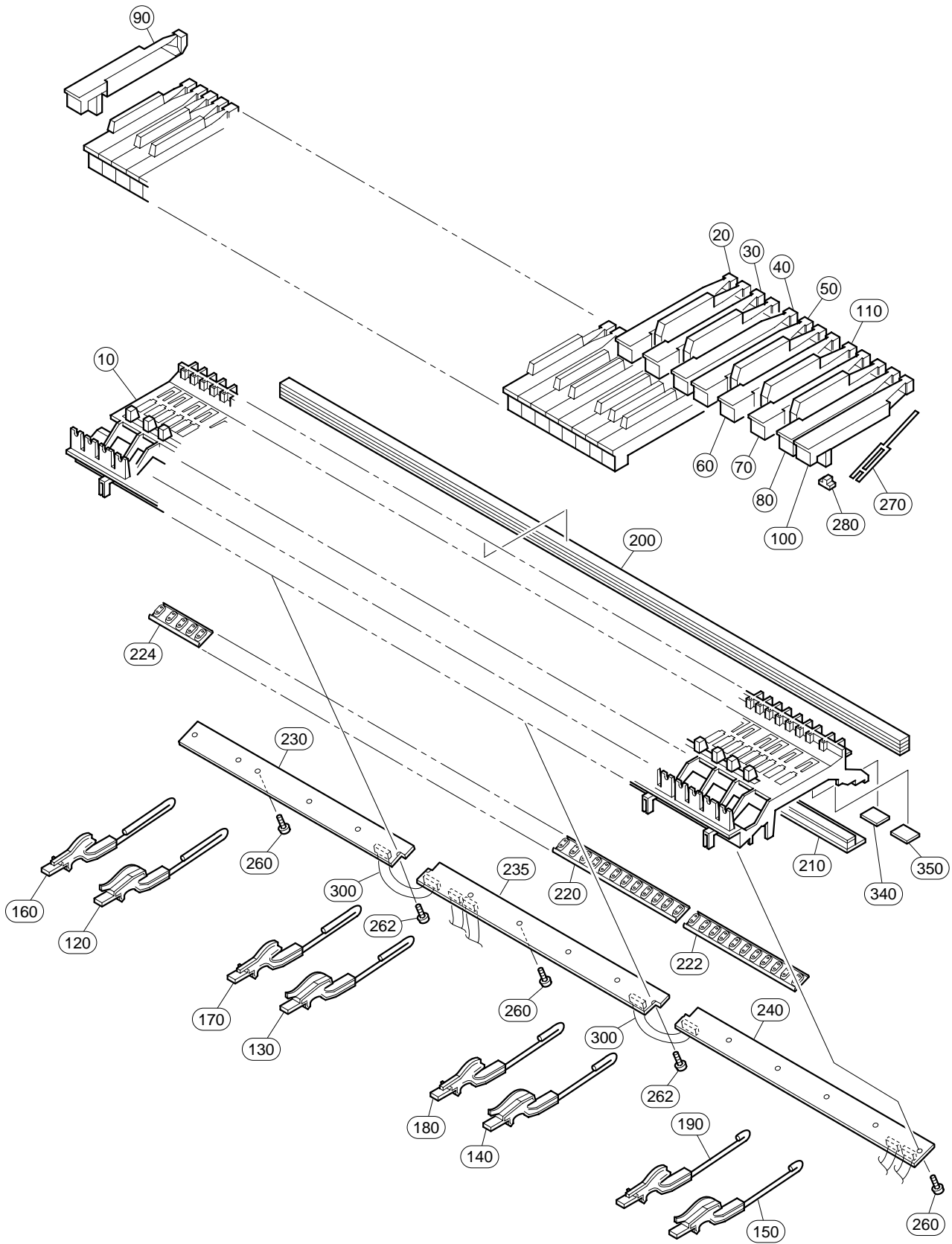
● Speaker Box Assembly R

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	V8608700	SPEAKER BOX ASSEMBLY R	RIGHT	CLP-170/170M/170C/170PE		
1	--	Speaker Box R	RIGHT	(V860890)		
2	--	Side Board, Speaker Box		(V860900)	2	
3	--	Crosspiece	A 18X260	(V570090)	4	
4	X0358A00	Speaker	16cm 8 ohm 60W	WOOFER		10
5	--	Connector Assembly	WF1 6P	(V875970)		
6	EP040250	Bind Head Tapping Screw-1	4.0X16 MFZN2BL		4	01
7	VU952600	Truss Head Tapping Screw-1	3.5X30 MFZN2BL		12	01
*	V8760000	Connector Assembly	MIC2			
15a	--	PIN Cable	RED	(V892800)		
15b	JE000270	Capacitor Mic.	WM-034C			03
15c	--	Holder Rubber	YPM-CH009	(V890340)		
15d	--	Angle Bracket, Mic.		(V892700)		
15e	V9240700	Nylon Rivet			2	
16	EP030340	Bind Head Tapping Screw-1	3.5X12 MFZN2BL		2	01
17	VU891300	Cord Holder	L80		2	03

*: New Parts

RANK: Japan only

■ KEYBOARD ASSEMBLY

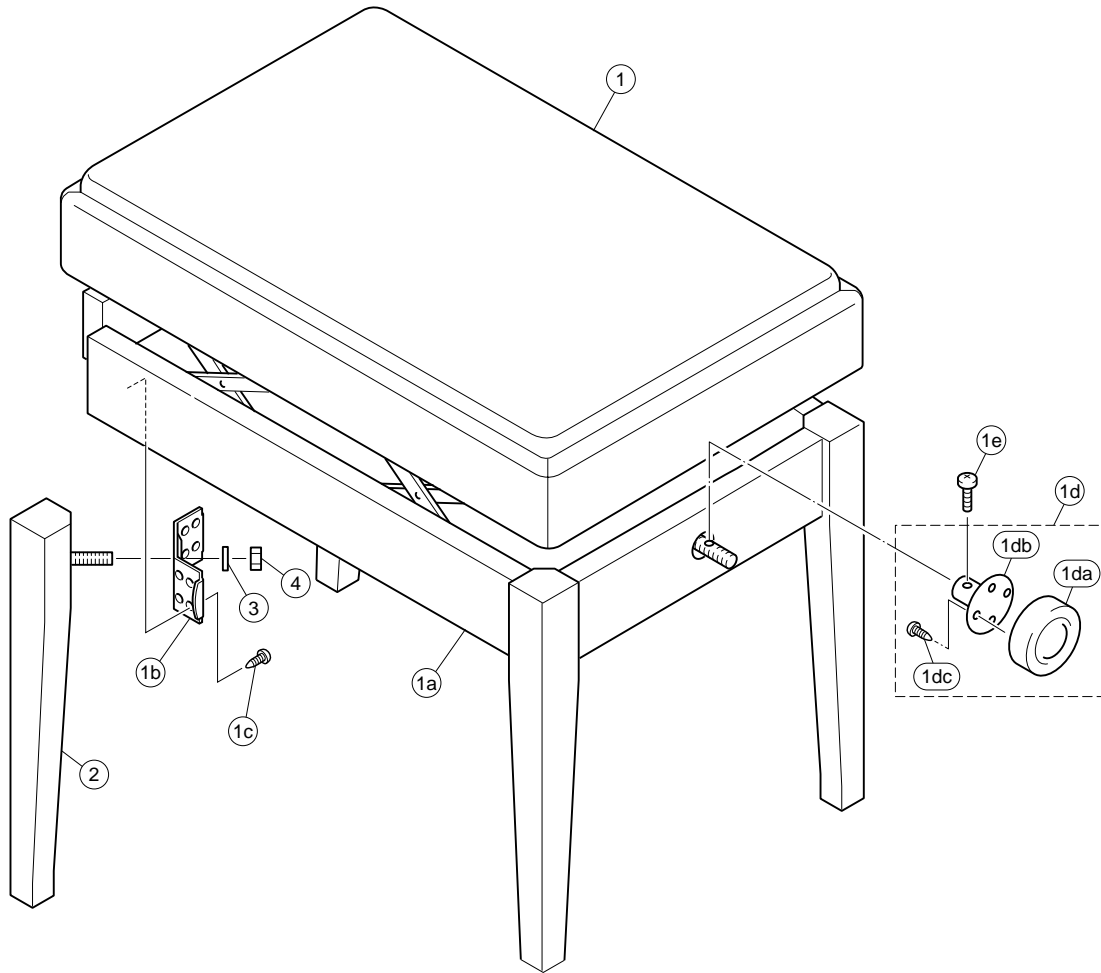


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	V8278600	KEYBOARD ASSEMBLY	GH3 A88 K6	CLP-170/170M/170C/170PE (VU42210)		
10	--	MK Frame				
20	VU101000	White Key	C		7	05
30	VU101100	White Key	D		7	05
40	VU101200	White Key	E		7	05
50	VU101300	White Key	F		7	05
60	VU101400	White Key	G		7	05
70	VU101500	White Key	A		7	05
80	VU101600	White Key	B		8	05
90	VU101700	White Key	A'			05
100	VU101800	White Key	C'			05
110	VU102100	Black Key			36	05
120	VY828500	Hammer Assembly, White Key	W1 A1-F1		13	05
130	VY828600	Hammer Assembly, White Key	W2 G3-E3		13	05
140	VY828700	Hammer Assembly, White Key	W3 F3-D5		13	05
150	VY828800	Hammer Assembly, White Key	W4 E5-C7		13	05
160	VY828900	Hammer Assembly, Black Key	B1 A#1-F#1		9	05
170	VY829000	Hammer Assembly, Black Key	B2 G#1-D#3		9	05
180	VY829100	Hammer Assembly, Black Key	B3 F#3-C#5		9	05
190	VY829200	Hammer Assembly, Black Key	B4 D#5-A#6		9	05
*	V8468200	Stopper Felt	U88_S			
210	V7640100	Stopper Felt	1239.5X28X10.1T			07
*	V8286600	Rubber Contact	OCTAVE 12KEYS D-C#		6	
*	V8286800	Rubber Contact	OCTAVE 11KEYS A-C#			
*	V8286700	Rubber Contact	OCTAVE 5KEYS D-C			
*	V8904600	Circuit Board	GH3_EBUS L			
*	V8904700	Circuit Board	GH3_EBUS M			
*	V8904800	Circuit Board	GH3_EBUS H			
260	VT413400	Bind Head Tapping Screw-P	3.0X10 MFZN2		14	01
*	V8833200	PW Head Tapping Screw-P	3X10-10 MFC2BL		2	
270	VZ417900	Spring	R WHITE/BLACK	}	88	03
270	V2798500	Spring	R WHITE/BLACK		88	
280	VU237500	Rubber			88	03
280	V2211300	Rubber	2		88	03
290	--	Grease	G-1006Y			(V627430)
300	--	Cable	7P L=86 P=2		2	(V846810)
340	VV467900	Stopper Support	A 35.5X20		7	03
350	VV468100	Stopper Support	B 24X20		12	03
		JIGS				
	TX000670	Rod				

*: New Parts

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■ BENCH (BC-200PE)

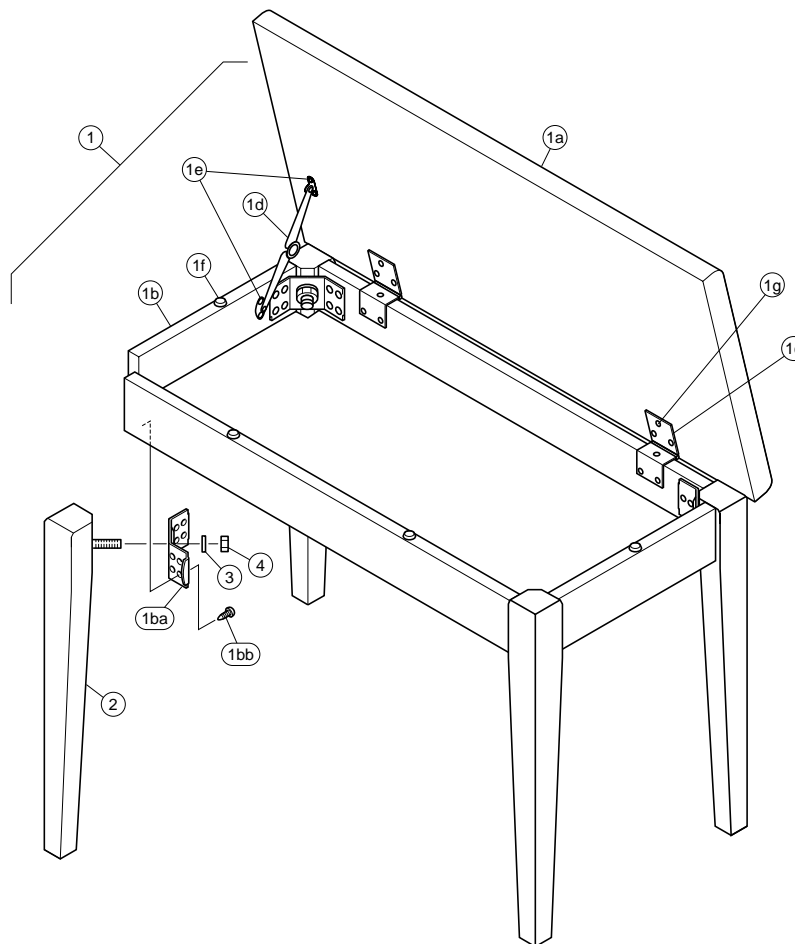


REF. NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	BENCH	BC-200	CLP-170/170M/170C/170PE		
	--	Bench	BC-200PE	CLP-170PE U,N (V756440)		
1	V7669400	Bench Board Assembly	PE			
* 1a	V7662500	Lift Assembly				
1b	V7396200	Holder, Leg			4	03
1c	EP030260	Bind Head Tapping Screw-1	3.5X16 MFZN2BL		32	01
1d	V7671200	Knob Assembly				
1da	--	Knob		(V767160)		
1db	V7662700	Angle				
1dc	EP040250	Bind Head Tapping Screw-1	4.0X16 MFZN2BL		4	01
1e	VR060200	Bind Head Tapping Screw-B	4.0X16 MFZN2BL			01
2	V7672200	Leg Assembly	PE		4	
3	V7678600	Spring Washer	10.0 MFZN2BL		4	
4	V7678700	Hexagonal Nut	10.0X1.25 MFZN2		4	
	--	ACCESSORIES				
	--	Wrench		(V688680)		

*: New Parts

RANK: Japan only

■ BENCH (BC-102DR/BC-102MH/BC-102CH)

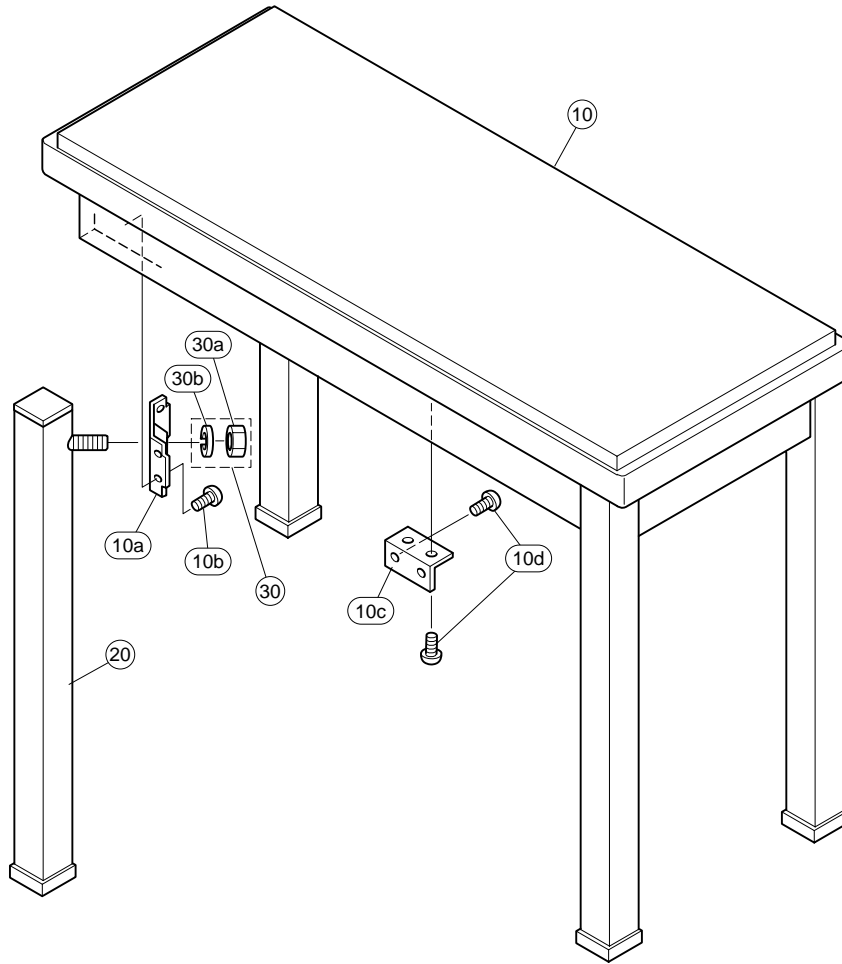


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		BENCH	BC-102	CLP-170/170M/170C/170PE		
	--	Bench	BC-102DR	CLP-170 U (V756390)		
	--	Bench	BC-102MH	CLP-170M U (V756400)		
	--	Bench	BC-102CH	CLP-170C U (V887870)		
1	V7695800	Bench Board Assembly	ROSE	CLP-170		
1	V7695900	Bench Board Assembly	MAHOGANY	CLP-170M		
* 1	V8899900	Bench Board Assembly	CHERRY	CLP-170C		
1a	--	Bench Board Assembly		CLP-170 (V769170)		
1a	--	Bench Board Assembly		CLP-170M (V769180)		
1a	--	Bench Board Assembly		CLP-170C (V890010)		
1b	--	Seat Support Assembly		CLP-170 (V769620)		
1b	--	Seat Support Assembly		CLP-170M (V769630)		
1b	--	Seat Support Assembly		CLP-170C (V890020)		
1ba	V7396200	Holder, Leg			4	03
1bb	EP030260	Bind Head Tapping Screw-1	3.5X16 MFZN2BL		32	01
1c	V7696900	Hinge	2.0 1 MFZN2BL		2	05
1d	VB896300	Stay	MFZN2BL			04
1e	EP030250	Bind Head Tapping Screw-1	3.5X14 MFZN2BL		4	01
1f	--	Spacer Felt	15X15X3T BLACK	(V792090)	4	
1g	EM030340	Flat Head Tapping Screw-1	3.5X14 MFZN2BL		12	01
2	V7692000	Leg Assembly	ROSE	CLP-170	4	
2	V7692100	Leg Assembly	MAHOGANY	CLP-170M	4	
* 2	V8900000	Leg Assembly	CHERRY	CLP-170C	4	
3	V7678600	Spring Washer	10.0 MFZN2BL		4	
4	V7678700	Hexagonal Nut	10.0X1.25 MFZN2		4	
	--	ACCESSORIES				
	--	Wrench		(V688680)		

*: New Parts

RANK: Japan only

■ BENCH (BC-100DR/BC100MH/BC-100CH)



REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
	--	BENCH	CLP-170/170M/170C/170PE		
	--	Bench	CLP-170 N (V553140)		
	--	Bench	CLP-170M N (V553150)		
	--	Bench	CLP-170C N (V553160)		
10	V5532900	Bench Board Assembly	CLP-170		16
10	V5533000	Bench Board Assembly	CLP-170M		15
10	V5533100	Bench Board Assembly	CLP-170C		16
10a	AA016480	Holder, Leg		4	02
10b	EP030190	Bind Head Tapping Screw-1	3.5X16 MFZN2Y	16	01
10c	VC969300	Holder, Bench Board		4	03
10d	EP030170	Bind Head Tapping Screw-1	3.5X14 MFZN2Y	16	01
20	V8176300	Leg Assembly	ROSE	4	
20	V8176400	Leg Assembly	MAHOGANY	4	
20	V8176500	Leg Assembly	CHERRY	4	
30	VS530500	Screw Set	BC-XX	4	03
30a	03761250	Hexagonal Nut	10.0X1.25 MFZN2	4	01
30b	03765820	Spring Washer	10.0 MFZN2Y	4	01
	--	ACCESSORIES			
	--	Wrench	(V688680)		

*: New Parts

RANK: Japan only

ELECTRICAL PARTS

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		ELECTRICAL PARTS		CLP-170/170M/170C/170PE		
*	V8500100	Circuit Board	AJK	(X2246B0)		
*	V8496500	Circuit Board	DJK	(V849640)(X2245C0)		
*	V8496600	Circuit Board	PEDAL (DJK)	(V849640)(X2245C0)		
*	V8562900	Circuit Board	DM	(XZ592H0)		
*	V7712500	Circuit Board	FU120BL	U (XS882A0)		
*	V7601300	Circuit Board	FU120BL	B,E (XS882A0)		
*	VV650500	Circuit Board	FU120L	N (XS882A0)		08
*	V8904800	Circuit Board	GH3_EBUS H	(X2179C0)		
*	V8904600	Circuit Board	GH3_EBUS L	(X2177C0)		
*	V8904700	Circuit Board	GH3_EBUS M	(X2178D0)		
*	V8781900	Circuit Board	HP	(XQ389A0,XQ390A0)		
	--	Circuit Board	MA120B	U (V859630)(XZ588D0)		
	--	Circuit Board	MA120B	B,E,N (V859640)(XZ588D0)		
*	V8492500	Circuit Board	MAF	(V880430)(X2247C0)		
*	V8804400	Circuit Board	MIC	(V880430)(X2247C0)		
*	V9379500	Circuit Board	VCN	(V880430)(X2247C0)		
*	V7674700	Circuit Board	NETWORK	(XV011A0)		
*	V7675600	Circuit Board	PEDAL (SW)	(X0193A0)		07
*	VN637600	Circuit Board	PL (YCJ)	(XL151B0,XR898A0)		03
*	VU659100	Circuit Board	PL (YMMA)	(XL151B0,XR898A0)		03
*	V8454900	Circuit Board	PNL (PNL1+PNL2)	(X2243D0)		
*	V8455300	Circuit Board	PNR	(V845520)(X2244B0)		
*	V8562700	Circuit Board	MV1	(V845520)(X2244B0)		
*	V8563100	Circuit Board	WML	(X2248A0)		
*	V8563200	Circuit Board	WMH	(X2248A0)		
*	V8500100	Circuit Board	AJK	(X2246B0)		
	--	Jumper Wire	0.55	(VA07890)		
C0100	UN866220	Electrolytic Cap.-BP	2.20 50.0V			01
C0101	US063330	Ceramic Capacitor-B (chip)	3300P 50V K			01
C0102	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0103	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0120	UN866220	Electrolytic Cap.-BP	2.20 50.0V			01
C0121	US063330	Ceramic Capacitor-B (chip)	3300P 50V K			01
C0122	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0123	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0200	US062150	Ceramic Capacitor-SL(chip)	150P 50V J			01
C0201	UR866470	Electrolytic Cap.	4.70 50.0V			01
C0202	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0203	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z			01
C0204	UN838100	Electrolytic Cap.	100.00 16.0V			01
C0205	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0206	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0250	US062150	Ceramic Capacitor-SL(chip)	150P 50V J			01
C0251	UR866470	Electrolytic Cap.	4.70 50.0V			01
C0252	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0253	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z			01
C0254	UN838100	Electrolytic Cap.	100.00 16.0V			01
C0255	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0256	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0301	VR168300	Polyester Multilay Cap.	ECQ-V1H104JL3			01
C0302	VR169400	Polyester Multilay Cap.	ECQ-V1H684JL3			01
C0303	UA354680	Polyester Film Capacitor	0.0680 50V J			01
C0304	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01
C0305	UA354820	Polyester Film Capacitor	0.0820 50V J			01
C0306	UA354820	Polyester Film Capacitor	0.0820 50V J			01
C0307	UA354560	Polyester Film Capacitor	0.0560 50V J			01
C0308	UA354330	Polyester Film Capacitor	0.0330 50V J			01
C0309	UA354220	Polyester Film Capacitor	0.0220 50V J			01
C0310	UA354270	Polyester Film Capacitor	0.0270 50V J			01
C0311	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01
C0312	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01
C0313	UA354560	Polyester Film Capacitor	0.0560 50V J			01
C0314	UA352100	Polyester Film Capacitor	100P 50V J			01
C0320	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0401	VR168300	Polyester Multilay Cap.	ECQ-V1H104JL3			01
C0402	VR169400	Polyester Multilay Cap.	ECQ-V1H684JL3			01
C0403	UA354680	Polyester Film Capacitor	0.0680 50V J			01
C0404	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0405	UA354820	Polyester Film Capacitor	0.0820 50V J			01
C0406	UA354820	Polyester Film Capacitor	0.0820 50V J			01
C0407	UA354560	Polyester Film Capacitor	0.0560 50V J			01
C0408	UA354330	Polyester Film Capacitor	0.0330 50V J			01
C0409	UA354220	Polyester Film Capacitor	0.0220 50V J			01
C0410	UA354270	Polyester Film Capacitor	0.0270 50V J			01
C0411	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01
C0412	VR169000	Polyester Multilay Cap.	ECQ-V1H334JL3			01
C0413	UA354560	Polyester Film Capacitor	0.0560 50V J			01
C0414	UA352100	Polyester Film Capacitor	100P 50V J			01
C0420	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0520	UR848220	Electrolytic Cap.	220.00 25.0V			01
C0521	UR848220	Electrolytic Cap.	220.00 25.0V			01
C0530	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0531	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0600	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0601	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0602	US063680	Ceramic Capacitor-B (chip)	6800P 50V K			01
C0610	UN866470	Electrolytic Cap.-BP	4.70 50.0V			01
C0612	US063680	Ceramic Capacitor-B (chip)	6800P 50V K			01
C0620	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0640	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
CN500	VB390700	Connector Base Post	PH 11P TE			01
CN510	VB390400	Connector Base Post	PH 8P TE			01
CN520	VB390500	Connector Base Post	PH 9P TE			03
CN530	VB390300	Connector Base Post	PH 7P TE			01
CN540	LB918020	Base Post Connector	XH 2P TE			01
CN550	LB918050	Base Post Connector	XH 5P TE			01
CN560	LB918060	Base Post Connector	XH 6P TE			01
D0200	VB493900	Diode	MA221			01
D0200	VV925900	Diode	RLS-73 TE-11			01
D0640	VB493900	Diode	MA221			01
D0640	VV925900	Diode	RLS-73 TE-11			01
IC100	XF291A00	IC	UPC4570G2	OP AMP		03
IC200	XT131A00	IC	LA6517M-TE-R	OP AMP		04
IC300	XY487A00	IC	M5229FP	EQUALIZER		03
IC400	XY487A00	IC	M5229FP	EQUALIZER		03
JK600	VL080500	Phone Jack	YKB21-5076	AUX IN (L/L+R)		02
JK610	VS115400	Phone Jack Black	LGR4609-7000	AUX IN (R)		01
JK620	VL080500	Phone Jack	YKB21-5076	AUX OUT (L/L+R)		02
JK630	VS115400	Phone Jack Black	LGR4609-7000	AUX OUT (R)		01
JK640	VP599300	Pin Jack	2P YKC21-3120	AUX OUT (LEVEL FIXED)		02
L0600	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L0620	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L0640	GE300670	Ferrite Bead	BL02RN2-R62T4			02
R0100	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0101	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0102	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0103	RD355100	Carbon Resistor (chip)	100 63M J			01
R0104	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0120	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0121	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0122	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0123	RD355100	Carbon Resistor (chip)	100 63M J			01
R0124	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0200	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0201	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0203	RD354330	Carbon Resistor (chip)	33 63M J			01
R0204	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0250	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0251	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0253	RD354330	Carbon Resistor (chip)	33 63M J			01
R0254	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0301	RD355470	Carbon Resistor (chip)	470 63M J			01
R0302	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0303	RD355680	Carbon Resistor (chip)	680 63M J			01
R0304	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0305	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
R0306	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0307	RD356150	Carbon Resistor (chip)	1.5K 63M J			01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0308	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0309	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
R0310	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0311	RD357150	Carbon Resistor (chip)	15K 63M J			01
R0312	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0313	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0314	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0320	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0321	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0322	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0323	RD356270	Carbon Resistor (chip)	2.7K 63M J			01
R0401	RD355470	Carbon Resistor (chip)	470 63M J			01
R0402	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0403	RD355680	Carbon Resistor (chip)	680 63M J			01
R0404	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0405	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
R0406	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0407	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
R0408	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0409	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
R0410	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0411	RD357150	Carbon Resistor (chip)	15K 63M J			01
R0412	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0413	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0414	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0420	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0421	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0422	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0423	RD356270	Carbon Resistor (chip)	2.7K 63M J			01
R0521	RD350000	Carbon Resistor (chip)	0 63M J			01
R0530	RD350000	Carbon Resistor (chip)	0 63M J			01
R0531	RD350000	Carbon Resistor (chip)	0 63M J			01
R0532	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0540	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0541	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0600	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0601	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0610	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0611	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0620	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
R0621	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0630	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
R0631	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0640	RD355680	Carbon Resistor (chip)	680 63M J			01
R0650	RD355680	Carbon Resistor (chip)	680 63M J			01
R0700	RD357180	Carbon Resistor (chip)	18K 63M J			01
R0701	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0710	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0711	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0720	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0721	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0950	RD350000	Carbon Resistor (chip)	0 63M J			01
R0951	RD350000	Carbon Resistor (chip)	0 63M J			01
R0952	RD350000	Carbon Resistor (chip)	0 63M J			01
R0953	RD350000	Carbon Resistor (chip)	0 63M J			01
* RY200	V8245600	Relay	DC ATX203 12V			
* RY640	V8245600	Relay	DC ATX203 12V			
TR700	VV556400	Transistor	2SC2412K Q,R,S			01
TR710	VV556400	Transistor	2SC2412K Q,R,S			01
TR720	VJ927200	Transistor	2SA1162 O,Y			01
TR720	VQ395600	Transistor	2SA1052 B,C			01
*	V8496500	Circuit Board	DJK	(V849640)(X2245C0)		
*	V8496600	Circuit Board	PEDAL (DJK)	(V849640)(X2245C0)		
C0004	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0005	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0006	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0007	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0009	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0012	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01

*: New Parts

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CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0013	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0014	UN817470	Electrolytic Cap.-BP	47.00 6.3V			01
C0016	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0017	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0018	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0019	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0020	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0021	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0035	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0036	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
CN001	VB389900	Connector Base Post	PH 3P TE			01
CN005	VB390400	Connector Base Post	PH 8P TE			01
CN006	VB390000	Connector Base Post	PH 4P TE			01
CN008	LB932020	Base Post Connector	VH 2P TE			01
CN010	VB390200	Connector Base Post	PH 6P TE			01
CN011	VB390100	Connector Base Post	PH 5P TE			01
CN012	V3671200	USB Jack	USB 4P TE	} USB		03
CN012	V6802600	USB Jack	USB 4P SE			02
D0001	VB493900	Diode	MA221	} INVERTER		01
-0004	VB493900	Diode	MA221			01
D0001	VV925900	Diode	RLS-73 TE-11	} INVERTER		01
-0004	VV925900	Diode	RLS-73 TE-11			01
IC001	XI348A00	IC	SC7SU04FEL	} LINE DRIVER/RECEIVER		01
IC001	XY447A00	IC	TC7SU04F			01
IC002	XU073A00	IC	SN75C1168NSR			05
IC003	VD473200	Photo Coupler	6N137			05
JK001	VT202500	DIN Connector	5P YKF51-50	MIDI IN		01
JK002	VT202500	DIN Connector	5P YKF51-50	MIDI OUT		01
JK003	VT202500	DIN Connector	5P YKF51-50	MIDI THRU		01
JK004	VV269500	DIN Connector	DIN 8P MD-S813	TO HOST		03
JK005	VS115400	Phone Jack Black	LGR4609-7000	AUX PEDAL		01
JK006	V4874800	DIN Connector	DIN 6P MD-S613	to Pedal assembly		02
L0001	RD350000	Carbon Resistor (chip)	0 63M J			01
-0004	RD350000	Carbon Resistor (chip)	0 63M J			01
L0005	VY657200	Chip Inductance	600 BK1608HM601			01
L0006	RD350000	Carbon Resistor (chip)	0 63M J			01
L0007	VY657200	Chip Inductance	600 BK1608HM601			01
-0023	VY657200	Chip Inductance	600 BK1608HM601			01
R0001	RD355220	Carbon Resistor (chip)	220 63M J			01
R0002	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0003	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0006	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0009	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0010	RD350000	Carbon Resistor (chip)	0 63M J			01
R0011	RD355100	Carbon Resistor (chip)	100 63M J			01
R0012	RD355100	Carbon Resistor (chip)	100 63M J			01
R0013	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0014	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0015	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0016	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0017	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0018	RD355220	Carbon Resistor (chip)	220 63M J			01
R0019	RD355220	Carbon Resistor (chip)	220 63M J			01
R0020	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0021	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0022	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0023	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
R0024	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0025	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0026	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0027	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
R0028	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0029	RD355220	Carbon Resistor (chip)	220 63M J			01
R0030	RD154470	Carbon Resistor (chip)	47.0 1/4 J			01
-0033	RD154470	Carbon Resistor (chip)	47.0 1/4 J			01
R0034	RD350000	Carbon Resistor (chip)	0 63M J			01
R0035	RD350000	Carbon Resistor (chip)	0 63M J			01
R0100	RD350000	Carbon Resistor (chip)	0 63M J			01
R0200	RD350000	Carbon Resistor (chip)	0 63M J			01
-0203	RD350000	Carbon Resistor (chip)	0 63M J			01

※: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
SW001	VQ665200	Slide Switch	SSSF144-S06N-0	HOST SELECT		03
TR001	VV556400	Transistor	2SC2412K Q,R,S			01
-004	VV556400	Transistor	2SC2412K Q,R,S			01
*	V8562900	Circuit Board	DM	(XZ592H0)		
C0001	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0002	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0003	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0004	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0005	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0006	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0007	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0008	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0009	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0010	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0011	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0012	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0013	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0014	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0015	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0016	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0017	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0018	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0019	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0020	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0021	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0022	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0023	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0024	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0025	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0026	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0027	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0028	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0029	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0030	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0031	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0032	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
-0036	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0037	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0038	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0039	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0040	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0042	UF118220	Electrolytic Cap. (chip)	220 6.3V UUR0J2			01
C0043	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0044	UF118220	Electrolytic Cap. (chip)	220 6.3V UUR0J2			01
C0045	UF138220	Electrolytic Cap. (chip)	220 16V UUR1C2			01
C0046	UF138220	Electrolytic Cap. (chip)	220 16V UUR1C2			01
C0047	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0053	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0055	UF138220	Electrolytic Cap. (chip)	220 16V UUR1C2			01
C0056	UF138220	Electrolytic Cap. (chip)	220 16V UUR1C2			01
C0057	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0058	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0059	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0060	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0061	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0062	US061270	Ceramic Capacitor-CH(chip)	27P 50V J			01
C0063	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0065	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0066	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0067	US061270	Ceramic Capacitor-CH(chip)	27P 50V J			01
C0069	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0070	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0071	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0072	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0073	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0074	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0075	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0076	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0077	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0078	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0081	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0083	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0085	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0086	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0087	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0088	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0089	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0090	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0091	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0092	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0093	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0094	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0095	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0096	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0098	US060600	Ceramic Capacitor-CH(chip)	6P 50V C			01
C0099	US060500	Ceramic Capacitor-CH(chip)	5P 50V D			01
C0100	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0101	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0105	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0106	US061330	Ceramic Capacitor-CH(chip)	33P 50V J			01
C0107	US061330	Ceramic Capacitor-CH(chip)	33P 50V J			01
C0109	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0111	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0112	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0113	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0114	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0115	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0116	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0117	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0118	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0119	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0120	UF008100	Electrolytic Cap. (chip)	100 4V			01
C0121	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0122	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0123	RD350000	Carbon Resistor (chip)	0 63M J			01
C0124	RD350000	Carbon Resistor (chip)	0 63M J			01
C0125	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0126	RD350000	Carbon Resistor (chip)	0 63M J			01
C0127	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0128	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0131	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0132	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0133	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0134	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0135	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0136	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0137	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0138	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0139	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0140	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0141	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0142	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0143	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0144	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0145	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0146	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0147	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0148	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0149	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0150	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0151	UF008100	Electrolytic Cap. (chip)	100 4V			01
C0152	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0153	US060300	Ceramic Capacitor-CH(chip)	3P 50V C			01
C0154	US061100	Ceramic Capacitor-CH(chip)	10P 50V J			01
C0155	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0162	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0165	UF118220	Electrolytic Cap. (chip)	220 6.3V UUR0J2			01
C0168	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0169	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0170	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0171	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0172	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0173	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0174	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0175	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0176	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0177	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0178	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0179	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0180	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0181	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0187	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0188	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0189	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0190	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0191	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0192	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0193	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0194	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0195	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0196	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0197	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0198	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0200	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0202	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0205	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0206	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0207	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0208	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0210	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0211	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0212	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0213	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0214	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0215	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0216	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0217	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0219	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0220	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0221	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0222	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0223	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0224	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0225	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0226	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0230	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0231	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0234	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0235	UE166100	Electrolytic Cap.-BP(chip)	1 50V RV2BP			01
C0236	UE166100	Electrolytic Cap.-BP(chip)	1 50V RV2BP			01
C0239	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0240	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0241	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0243	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0244	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0245	UF008220	Electrolytic Cap. (chip)	220 4V			01
C0246	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0247	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
-0249	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0250	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01
-0253	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01
C0254	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0256	US062820	Ceramic Capacitor-B (chip)	820P 50V K			01
C0257	US062820	Ceramic Capacitor-B (chip)	820P 50V K			01
C0258	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0259	US063820	Ceramic Capacitor-B (chip)	8200P 50V K			01
C0260	US063820	Ceramic Capacitor-B (chip)	8200P 50V K			01
C0263	US062180	Ceramic Capacitor-SL(chip)	180P 50V J			01
C0264	US062180	Ceramic Capacitor-SL(chip)	180P 50V J			01

*: New Parts

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CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0265	US063180	Ceramic Capacitor-B (chip)	1800P 50V K			01
-0268	US063180	Ceramic Capacitor-B (chip)	1800P 50V K			01
C0272	US062180	Ceramic Capacitor-SL(chip)	180P 50V J			01
C0273	US062180	Ceramic Capacitor-SL(chip)	180P 50V J			01
C0276	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0283	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0285	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0286	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0291	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0300	US063820	Ceramic Capacitor-B (chip)	8200P 50V K			01
C0301	US063820	Ceramic Capacitor-B (chip)	8200P 50V K			01
C0313	RD350000	Carbon Resistor (chip)	0 63M J			01
C0321	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0327	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0328	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
CN001	VB390500	Connector Base Post	PH 9P TE			03
CN002	VB390400	Connector Base Post	PH 8P TE			01
CN003	VB390400	Connector Base Post	PH 8P TE			01
CN004	VB390300	Connector Base Post	PH 7P TE			01
CN005	VB389900	Connector Base Post	PH 3P TE			01
CN006	VB390100	Connector Base Post	PH 5P TE			01
CN007	VB390000	Connector Base Post	PH 4P TE			01
CN008	LB932020	Base Post Connector	VH 2P TE			01
CN009	LB918020	Base Post Connector	XH 2P TE			01
CN011	VH343800	Connector Header	HIF3FC-34PA2.54DSA			03
* CN014	V8389000	Connector	55091 60P TE			
* CN015	V8389000	Connector	55091 60P TE			
CN020	VB390300	Connector Base Post	PH 7P TE			01
CN021	VB390100	Connector Base Post	PH 5P TE			01
CN024	VB390700	Connector Base Post	PH 11P TE			01
D0001	VV925900	Diode	RLS-73 TE-11			01
D0002	VS201100	Diode	D1F60			01
-0005	VS201100	Diode	D1F60			01
EM001	VD542700	LC Filter	DSS306-93F223Z1			01
EM002	VD542700	LC Filter	DSS306-93F223Z1			01
EM004	VD542700	LC Filter	DSS306-93F223Z1			01
EM005	VD542700	LC Filter	DSS306-93F223Z1			01
EM007	VD542700	LC Filter	DSS306-93F223Z1			01
EM008	VD542700	LC Filter	DSS306-93F223Z1			01
IC001	X1939A00	IC	HD63266F	FDC		09
* IC002	X2156A00	IC	M66291GP	USB CONTROLLER		
IC003	X0176A00	IC	W986432DH-7	} SDRAM 64M		15
IC003	X0493A00	IC	K4S643232E-TC60000	}		
IC004	XP642A00	IC	HD74LS09FPEL	AND		01
IC005	XW148A00	IC	HD74LVCA245ATELL	} TRANSCEIVER		02
IC005	XZ286A00	IC	74LVCA245APW	}		02
IC006	XV890A00	IC	TC74VHC14FT	INVERTER		02
IC007	XY945A00	IC	TC74VHC32FT	} OR		01
IC007	X0299A00	IC	74VHC32MTCX	}		01
IC009	XT744A00	IC	TC74VHCT245AFT	} TRANSCEIVER		07
IC009	X0295A00	IC	74VHCT245AMTCX	}		03
IC010	XT744A00	IC	TC74VHCT245AFT	} TRANSCEIVER		07
IC010	X0295A00	IC	74VHCT245AMTCX	}		03
IC011	XW148A00	IC	HD74LVCA245ATELL	TRANSCEIVER		02
* IC012	X0060A00	IC	T8F02TB-0102	SWP50		
* IC014	X2687A00	IC	HD6417709SHF200	CPU		
IC017	XF291A00	IC	UPC4570G2	OP AMP		03
IC022	XZ414B00	IC	W986416DH-7	DRAM 64M		
IC023	XZ414B00	IC	W986416DH-7	DRAM 64M		
IC027	XW029A00	IC	AK4393-VF-E2	DAC		07
IC028	XU770A00	IC	PCM1800E/2K	ADC		07
* IC029	X2077A00	IC	PCM1730E-1/2K	DAC		
* IC030	X2560200	IC	MX23L6410TC-12	MASK ROM 64M MAIN		
IC032	XV492A00	IC	UPC2905T-E1	} REGULATOR +5V		
IC032	XW674A00	IC	NJM7805DL1A(TE1)	}		
IC033	XF291A00	IC	UPC4570G2	OP AMP		03
-035	XF291A00	IC	UPC4570G2	OP AMP		03
* IC036	X0609A00	IC	LMS8117AMP-ADJ	REGULATOR		
* IC038	X0609A00	IC	LMS8117AMP-ADJ	REGULATOR		
IC039	XZ642A00	IC	TAR5S33	REGULATOR +3.3V		

*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
* IC040	XZ216A00	IC	MBM29LV160BE90TN-K	FLASH ROM 16M		
* L0001	V8901200	Chip Solid Inductance	BLM21PG221SN1D			
L0002	RD250000	Carbon Resistor (chip)	0.0 0.0 J			01
L0003	RD250000	Carbon Resistor (chip)	0.0 0.0 J			01
* L0004	V8901200	Chip Solid Inductance	BLM21PG221SN1D			
L0005	VR579900	Chip Inductance	BK2125HS601-T			01
-0009	VR579900	Chip Inductance	BK2125HS601-T			01
L0012	VR579900	Chip Inductance	BK2125HS601-T			01
-0035	VR579900	Chip Inductance	BK2125HS601-T			01
L0042	VR579900	Chip Inductance	BK2125HS601-T			01
R0003	RD350000	Carbon Resistor (chip)	0 63M J			01
R0004	RD350000	Carbon Resistor (chip)	0 63M J			01
R0005	RD354330	Carbon Resistor (chip)	33 63M J			01
-0007	RD354330	Carbon Resistor (chip)	33 63M J			01
R0008	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0009	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0010	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0011	RD356150	Carbon Resistor (chip)	1.5K 63M J			01
* R0012	RD354270	Carbon Resistor (chip)	27 63M J			
-0017	RD354270	Carbon Resistor (chip)	27 63M J			
R0019	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0021	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0022	RD356120	Carbon Resistor (chip)	1.2K 63M J			01
R0023	RD359100	Carbon Resistor (chip)	1.0M 63M J			01
R0024	RD355470	Carbon Resistor (chip)	470 63M J			01
-0028	RD355470	Carbon Resistor (chip)	470 63M J			01
R0029	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0030	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0033	RD355470	Carbon Resistor (chip)	470 63M J			01
-0038	RD355470	Carbon Resistor (chip)	470 63M J			01
* R0042	V2747000	Chip Inductance	BLM18PG600SN1			
R0043	RD354680	Carbon Resistor (chip)	68 63M J			01
R0044	RD354680	Carbon Resistor (chip)	68 63M J			01
R0048	RD350000	Carbon Resistor (chip)	0 63M J			01
R0050	RD359100	Carbon Resistor (chip)	1.0M 63M J			01
R0051	RD354680	Carbon Resistor (chip)	68 63M J			01
R0055	RD355560	Carbon Resistor (chip)	560 63M J			01
R0056	RD354680	Carbon Resistor (chip)	68 63M J			01
R0057	RD350000	Carbon Resistor (chip)	0 63M J			01
-0064	RD350000	Carbon Resistor (chip)	0 63M J			01
R0065	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0066	RD354680	Carbon Resistor (chip)	68 63M J			01
R0067	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0069	RD354680	Carbon Resistor (chip)	68 63M J			01
R0070	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0071	RD354680	Carbon Resistor (chip)	68 63M J			01
R0072	RD354680	Carbon Resistor (chip)	68 63M J			01
R0073	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0074	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0075	RD354680	Carbon Resistor (chip)	68 63M J			01
-0077	RD354680	Carbon Resistor (chip)	68 63M J			01
R0083	RD354680	Carbon Resistor (chip)	68 63M J			01
R0087	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0089	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0092	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0093	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0095	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0099	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0100	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
-0102	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0103	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0105	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0106	RD350000	Carbon Resistor (chip)	0 63M J			01
-0119	RD350000	Carbon Resistor (chip)	0 63M J			01
R0121	RD354680	Carbon Resistor (chip)	68 63M J			01
R0122	RD354680	Carbon Resistor (chip)	68 63M J			01
R0123	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0128	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0129	RD354680	Carbon Resistor (chip)	68 63M J			01
R0130	RD357100	Carbon Resistor (chip)	10K 63M J			01

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0131	RD354680	Carbon Resistor (chip)	68 63M J			01
R0132	RD354680	Carbon Resistor (chip)	68 63M J			01
R0133	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0134	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0136	RD354680	Carbon Resistor (chip)	68 63M J			01
R0138	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0139	RD354680	Carbon Resistor (chip)	68 63M J			01
R0140	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0141	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0142	RD354680	Carbon Resistor (chip)	68 63M J			01
R0143	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0144	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0146	RD354680	Carbon Resistor (chip)	68 63M J			01
R0148	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0149	RD354680	Carbon Resistor (chip)	68 63M J			01
R0150	RD354680	Carbon Resistor (chip)	68 63M J			01
R0151	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0152	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0153	RD354680	Carbon Resistor (chip)	68 63M J			01
R0156	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0157	RD354560	Carbon Resistor (chip)	56 63M J			01
R0158	RD354680	Carbon Resistor (chip)	68 63M J			01
R0159	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0160	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0161	RD354680	Carbon Resistor (chip)	68 63M J			01
R0162	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0163	RD354680	Carbon Resistor (chip)	68 63M J			01
R0164	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0165	RD354680	Carbon Resistor (chip)	68 63M J			01
R0166	RD354680	Carbon Resistor (chip)	68 63M J			01
R0167	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0168	RD354680	Carbon Resistor (chip)	68 63M J			01
R0169	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0170	RD354680	Carbon Resistor (chip)	68 63M J			01
R0171	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0173	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0174	RD355100	Carbon Resistor (chip)	100 63M J			01
-0176	RD355100	Carbon Resistor (chip)	100 63M J			01
R0177	RD355220	Carbon Resistor (chip)	220 63M J			01
R0178	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0179	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0180	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0181	RD355330	Carbon Resistor (chip)	330 63M J			01
R0182	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0183	RD358470	Carbon Resistor (chip)	470K 63M J			01
R0184	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0185	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0186	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0189	RD354680	Carbon Resistor (chip)	68 63M J			01
-0192	RD354680	Carbon Resistor (chip)	68 63M J			01
R0193	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0194	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0195	RD357220	Carbon Resistor (chip)	22K 63M J			01
R0196	RD358120	Carbon Resistor (chip)	120K 63M J			01
R0197	RD355100	Carbon Resistor (chip)	100 63M J			01
R0198	RD355100	Carbon Resistor (chip)	100 63M J			01
R0199	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0200	RD359100	Carbon Resistor (chip)	1.0M 63M J			01
R0201	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0204	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0206	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0211	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0216	RD350000	Carbon Resistor (chip)	0 63M J			01
R0217	RD350000	Carbon Resistor (chip)	0 63M J			01
R0223	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0224	RD350000	Carbon Resistor (chip)	0 63M J			01
R0226	RD350000	Carbon Resistor (chip)	0 63M J			01
R0228	RD354680	Carbon Resistor (chip)	68 63M J			01
R0230	RD354680	Carbon Resistor (chip)	68 63M J			01
R0232	RD356100	Carbon Resistor (chip)	1.0K 63M J			01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0233	RD357150	Carbon Resistor (chip)	15K 63M J			01
R0234	RD356820	Carbon Resistor (chip)	8.2K 63M J			01
R0235	RD355220	Carbon Resistor (chip)	220 63M J			01
R0236	RD356120	Carbon Resistor (chip)	1.2K 63M J			01
R0237	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0238	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0239	RD356270	Carbon Resistor (chip)	2.7K 63M J			01
R0244	RD350000	Carbon Resistor (chip)	0 63M J			01
R0246	RD350000	Carbon Resistor (chip)	0 63M J			01
R0249	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
-0252	RD356180	Carbon Resistor (chip)	1.8K 63M J			01
R0255	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
-0258	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0259	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
-0262	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0263	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0264	RD350000	Carbon Resistor (chip)	0 63M J			01
R0265	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0266	RD350000	Carbon Resistor (chip)	0 63M J			01
R0267	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0268	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0269	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0270	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0271	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0272	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0273	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0274	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0276	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0277	RD355390	Carbon Resistor (chip)	390 63M J			01
R0278	RD355390	Carbon Resistor (chip)	390 63M J			01
R0279	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0280	RD355390	Carbon Resistor (chip)	390 63M J			01
R0281	RD355390	Carbon Resistor (chip)	390 63M J			01
R0285	RD350000	Carbon Resistor (chip)	0 63M J			01
R0296	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0297	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0300	RD354470	Carbon Resistor (chip)	47 63M J			01
R0301	RD354470	Carbon Resistor (chip)	47 63M J			01
R0307	RD358100	Carbon Resistor (chip)	100K 63M J			01
R0308	RD358100	Carbon Resistor (chip)	100K 63M J			01
R0311	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0312	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0337	RD355100	Carbon Resistor (chip)	100 63M J			01
-0339	RD355100	Carbon Resistor (chip)	100 63M J			01
RA001	RE047100	Resistor Array	10KX4			01
RA002	RE044680	Resistor Array	68X4			01
-004	RE044680	Resistor Array	68X4			01
RA005	RE047100	Resistor Array	10KX4			01
RA006	RE047100	Resistor Array	10KX4			01
RA007	RE044680	Resistor Array	68X4			01
RA008	RE044680	Resistor Array	68X4			01
RA009	RE047100	Resistor Array	10KX4			01
RA010	RE047100	Resistor Array	10KX4			01
RA011	RE044680	Resistor Array	68X4			01
RA012	RE047100	Resistor Array	10KX4			01
RA013	RE044680	Resistor Array	68X4			01
-026	RE044680	Resistor Array	68X4			01
RA027	RE047100	Resistor Array	10KX4			01
RA028	RE044680	Resistor Array	68X4			01
RA029	RE044680	Resistor Array	68X4			01
RA030	RE047100	Resistor Array	10KX4			01
-032	RE047100	Resistor Array	10KX4			01
SW001	V3026900	Jumper Wire	CHS-01 TA1			02
TR001	VV925400	Transistor	2SC2SC2712 GR			01
-003	VV925400	Transistor	2SC2SC2712 GR			01
TR004	VJ927200	Transistor	2SA1162 O,Y			01
X0001	V4093500	Quartz Crystal Unit	6MHz SMD-49			03
X0002	VP864900	Quartz Crystal Unit	16MHz SMD-49			04
X0003	VP864800	Quartz Crystal Unit	11.2896M SMD-49			04
X0005	VP864900	Quartz Crystal Unit	16MHz SMD-49			04

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	V7712500	Circuit Board	FU120BL	U (XS882A0)		
*	V7601300	Circuit Board	FU120BL	B,E (XS882A0)		
	VV650500	Circuit Board	FU120L	N (XS882A0)		08
	--	Jumper Wire	0.55	(VD04170)		
△	VT308100	AC Inlet	2P CCT9302-0101M	B,E,N		02
△	VT308200	AC Inlet	CCT9302-0201	U		02
	VT139600	Voltage Selector	M1684-E	N		04
	LB201530	Fuse Holder	PC-FH1	U,B,E	2	01
	LB201530	Fuse Holder	PC-FH1	N	6	01
△	C0001	VY675000	Capacitor			01
△	C0002	VY675100	Capacitor			01
△	C0003	VY675100	Capacitor			01
	CN001	LB932030	Base Post Connector			01
	CN002	LB932060	Base Post Connector			01
△	F0001	KB003630	Fuse	U,N		01
△	F0001	KB003080	Fuse	B,E		01
△	F0002	KB003080	Fuse	N		01
△	F0003	KB003080	Fuse	N		01
	J0001	--	Jumper Wire	B,E (VD04170)		
	J0002	--	Jumper Wire	U (VD04170)		
	L0001	--	Jumper Wire	(VD04170)		
	L0003	VF790900	Coil			03
*	V8904800	Circuit Board	GH3_EBUS H	(X2179C0)		
	--	Nonwoven Fabric Cloth		(V847000)		
C0001	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0002	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0005	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0006	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0007	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0010	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
CN002	VK025100	Wire Trap	52147 7P TE			01
D0001	VT332900	Diode	1SS355 TE-17			01
-0096	VT332900	Diode	1SS355 TE-17			01
* IC001	X2599100	IC	UPD780031AYGK-N03-9ET	E-TKS		
R0001	RD350000	Carbon Resistor (chip)	0 63M J			01
R0002	RD350000	Carbon Resistor (chip)	0 63M J			01
R0003	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0004	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0005	RD354470	Carbon Resistor (chip)	47 63M J			01
R0006	RD354470	Carbon Resistor (chip)	47 63M J			01
R0007	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0008	RD350000	Carbon Resistor (chip)	0 63M J			01
-0010	RD350000	Carbon Resistor (chip)	0 63M J			01
R0012	RD350000	Carbon Resistor (chip)	0 63M J			01
-0015	RD350000	Carbon Resistor (chip)	0 63M J			01
R0016	RD357100	Carbon Resistor (chip)	10K 63M J			01
RA001	RE047100	Resistor Array	10KX4			01
-008	RE047100	Resistor Array	10KX4			01
X0001	V6150500	Ceramic Resonator	8.38MHz EFOS8384E5			01
*	V8904600	Circuit Board	GH3_EBUS L	(X2177C0)		
	--	Nonwoven Fabric Cloth		(V846980)		
C0001	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0002	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0005	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0006	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0007	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0010	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
CN002	VK025100	Wire Trap	52147 7P TE			01
D0007	VT332900	Diode	1SS355 TE-17			01
-0096	VT332900	Diode	1SS355 TE-17			01
* IC001	X2599100	IC	UPD780031AYGK-N03-9ET	E-TKS		
R0001	RD350000	Carbon Resistor (chip)	0 63M J			01
R0002	RD350000	Carbon Resistor (chip)	0 63M J			01
R0003	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0004	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0005	RD354470	Carbon Resistor (chip)	47 63M J			01
R0006	RD354470	Carbon Resistor (chip)	47 63M J			01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0007	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0008	RD350000	Carbon Resistor (chip)	0 63M J			01
-0015	RD350000	Carbon Resistor (chip)	0 63M J			01
R0016	RD357100	Carbon Resistor (chip)	10K 63M J			01
RA001	RE047100	Resistor Array	10KX4			01
-008	RE047100	Resistor Array	10KX4			01
X0001	V6150500	Ceramic Resonator	8.38MHz EFOS8384E5			01
*	V8904700	Circuit Board	GH3_EBUS M		(X2178D0)	
	--	Nonwoven Fabric Cloth			(V846990)	
C0001	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0002	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
-0005	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0006	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0007	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0010	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
CN001	VK025100	Wire Trap	52147 7P TE			01
CN002	VB390300	Connector Base Post	PH 7P TE			01
CN004	VK025100	Wire Trap	52147 7P TE			01
D0001	VT332900	Diode	1SS355 TE-17			01
-0096	VT332900	Diode	1SS355 TE-17			01
* IC001	X2599100	IC	UPD780031AYGK-N03-9ET	E-TKS		
R0001	RD350000	Carbon Resistor (chip)	0 63M J			01
R0002	RD350000	Carbon Resistor (chip)	0 63M J			01
R0003	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0004	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0005	RD354470	Carbon Resistor (chip)	47 63M J			01
R0006	RD354470	Carbon Resistor (chip)	47 63M J			01
R0007	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0008	RD350000	Carbon Resistor (chip)	0 63M J			01
R0009	RD350000	Carbon Resistor (chip)	0 63M J			01
R0011	RD350000	Carbon Resistor (chip)	0 63M J			01
-0015	RD350000	Carbon Resistor (chip)	0 63M J			01
R0016	RD357100	Carbon Resistor (chip)	10K 63M J			01
RA001	RE047100	Resistor Array	10KX4			01
-008	RE047100	Resistor Array	10KX4			01
X0001	V6150500	Ceramic Resonator	8.38MHz EFOS8384E5			01
*	V8781900	Circuit Board	HP		(XQ389A0,XQ390A0)	
C0001	FG644100	Ceramic Capacitor-B	0.01 50V Z			01
-0005	FG644100	Ceramic Capacitor-B	0.01 50V Z			01
C0006	--	Jumper Wire	0.55		(VD04170)	
C0007	--	Jumper Wire	0.55		(VD04170)	
CN001	VB858600	Connector Base Post	PH 7P SE			01
CN002	VB858100	Connector Base Post	PH 2P SE			01
FL001	VB971100	Coil	FL5R200QN 20uH			01
-006	VB971100	Coil	FL5R200QN 20uH			01
FL001	VB835000	Coil	FL5R200QNT 20uH			01
-006	VB835000	Coil	FL5R200QNT 20uH			01
HP001	LB101870	Phone Jack	YKB21-5006	PHONES		03
HP002	LB101870	Phone Jack	YKB21-5006	PHONES		03
R0001	V9295000	Carbon Resistor	33.0 1/2 J			
-0004	V9295000	Carbon Resistor	33.0 1/2 J			
R0005	--	Jumper Wire	0.55		(VD04170)	
WH001	VT890700	Earth Wire	L=150mm			01
	--	Circuit Board	MA120B	U	(V859630)(XZ588D0)	
	--	Circuit Board	MA120B	B,E,N	(V859640)(XZ588D0)	
	VT740000	Support, PCB	3T-9 T=9			2 03
	VJ834500	Insulation Sheet	#1000			03
	--	Jumper Wire	0.55		(VD04170)	
	KB003630	Fuse	5.00A JU	U		3 01
	KB003240	Fuse	5.00A S	B,E,N		3 01
C0001	VA302600	Ceramic Capacitor-E	0.0100 500V P			01
-0003	VA302600	Ceramic Capacitor-E	0.0100 500V P			01
C0005	VL232200	Electrolytic Cap.	3300 50.0V			04
-0008	VL232200	Electrolytic Cap.	3300 50.0V			04
C0010	FG613100	Ceramic Capacitor-B	1000P 50V K			01
C0011	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0012	FG612220	Ceramic Capacitor-B	220P 50V K			01

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0013	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0015	UR868100	Electrolytic Cap.	100.00 50.0V			01
C0016	UR867100	Electrolytic Cap.	10.00 50.0V			01
C0017	UR867100	Electrolytic Cap.	10.00 50.0V			01
C0018	UR868100	Electrolytic Cap.	100.00 50.0V			01
C0020	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0021	FG612220	Ceramic Capacitor-B	220P 50V K			01
C0022	FG613100	Ceramic Capacitor-B	1000P 50V K			01
C0023	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0025	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
-0028	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0029	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0031	VL232300	Electrolytic Cap.	2200 25.0V			03
C0032	VL232300	Electrolytic Cap.	2200 25.0V			03
C0033	UR866100	Electrolytic Cap.	1.00 50.0V			01
-0036	UR866100	Electrolytic Cap.	1.00 50.0V			01
* C0041	V8297300	Electrolytic Cap.	3900 35.0V			01
C0042	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0043	FG444100	Ceramic Capacitor-F	0.0100 50V Z			01
C0043	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
* C0044	V8297400	Electrolytic Cap.	1000 35.0V			01
C0045	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0047	UR866330	Electrolytic Cap.	3.30 50.0V			01
* C0051	V8297300	Electrolytic Cap.	3900 35.0V			01
C0052	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0053	FG444100	Ceramic Capacitor-F	0.0100 50V Z			01
C0053	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
* C0054	V8297400	Electrolytic Cap.	1000 35.0V			01
C0055	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
CN001	LB932080	Base Post Connector	VH 8P TE			01
CN003	LB918060	Base Post Connector	XH 6P TE			01
CN004	LB918050	Base Post Connector	XH 5P TE			01
CN005	LB932040	Base Post Connector	VH 4P TE			01
CN006	VB390500	Connector Base Post	PH 9P TE			03
D0001	VB481900	Diode	11ES4			01
-0005	VB481900	Diode	11ES4			01
D0001	V7803100	Diode	1T4-T/A52			01
-0005	V7803100	Diode	1T4-T/A52			01
D0001	V9362200	Diode	1T4-T/A26			01
-0005	V9362200	Diode	1T4-T/A26			01
D0006	V8107700	Diode	RK46			01
D0007	V8107700	Diode	RK46			01
△ DB001	VQ111500	Diode Stack	D3SBA20-4103 4.0A			03
△ DB002	VQ111500	Diode Stack	D3SBA20-4103 4.0A			03
△ DB003	VR253700	Diode Stack	S1NB20 1.0A 200V			02
F0001	VP206500	Fuse Holder	EYF-52BC		2	01
-0003	VP206500	Fuse Holder	EYF-52BC		2	01
IC003	XJ602A00	IC	NJM78M12FA	REGULATOR +12V 0.5A		02
IC004	XD343A00	IC	NJM79M12FA	REGULATOR -12V		03
IC005	X2192A00	IC	STK402-090	POWER AMP. 50W 2CH		03
IC006	XT442A00	IC	SI-8050S	REGULATOR +5V		05
* IC007	XZ274A00	IC	SI-8033S(LF1101)	REGULATOR +3.3V		05
L1	V6782600	Choke Coil	100U ELC15E101FN			05
L2	V6782600	Choke Coil	100U ELC15E101FN			05
R1	VU253100	Fuse Resistor	0.47 1/2 J			01
R2	VU253100	Fuse Resistor	0.47 1/2 J			01
R3	HF756100	Carbon Resistor	1.0K 1/4 J			01
R10	HF755560	Carbon Resistor	560.0 1/4 J			01
R11	HF757100	Carbon Resistor	10.0K 1/4 J			01
R12	HF755390	Carbon Resistor	390.0 1/4 J			01
R13	HF757100	Carbon Resistor	10.0K 1/4 J			01
R14	HW095100	Fuse Resistor	100.0 1/4 J			01
R15	HF757100	Carbon Resistor	10.0K 1/4 J			01
R20	HW095100	Fuse Resistor	100.0 1/4 J			01
R21	HF757100	Carbon Resistor	10.0K 1/4 J			01
R22	HF755390	Carbon Resistor	390.0 1/4 J			01
R23	HF755560	Carbon Resistor	560.0 1/4 J			01
R24	HF757100	Carbon Resistor	10.0K 1/4 J			01
R27	VC742500	Metal Oxide Film Resistor	10.0 1W J			01
R28	VC742500	Metal Oxide Film Resistor	10.0 1W J			01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R29	HF757100	Carbon Resistor	10.0K 1/4 J			01
R30	HF757100	Carbon Resistor	10.0K 1/4 J			01
R31	HF756330	Carbon Resistor	3.3K 1/4 J			01
R32	HF756330	Carbon Resistor	3.3K 1/4 J			01
RY001	VK881200	Relay	DC G5Z-2A-YA 12V			04
TR002	IC1815M0	Transistor	2SC1815 Y,GR			01
-004	IC1815M0	Transistor	2SC1815 Y,GR			01
* * *	V8492500 V8804400 V9379500	Circuit Board Circuit Board Circuit Board	MAF MIC VCN	(V880430)(X2247C0) (V880430)(X2247C0) (V880430)(X2247C0)		
	--	Jumper Wire	0.55	(VD04170)		
△ C0005	VK373000	Electrolytic Cap.	4700 25.0V			03
△ C0006	VK373000	Electrolytic Cap.	4700 25.0V			03
C0007	UI547100	Electrolytic Cap.	10.00 25.0V			01
C0008	UR837220	Electrolytic Cap.	22.00 16.0V			01
C0009	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0010	VE327200	Polyester Multtlay Cap.	1.00 50.0V J	}		02
C0010	VU838100	Polyester Multtlay Cap.	1.00 50.0V J			
C0011	VE327200	Polyester Multtlay Cap.	1.00 50.0V J			02
C0011	VU838100	Polyester Multtlay Cap.	1.00 50.0V J			
C0012	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0013	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0014	UR837220	Electrolytic Cap.	22.00 16.0V			01
C0015	UR837220	Electrolytic Cap.	22.00 16.0V			01
C0016	UR837470	Electrolytic Cap.	47.00 16.0V			01
C0017	US035100	Ceramic Capacitor-B (chip)	0.1000 16V K			01
-0024	US035100	Ceramic Capacitor-B (chip)	0.1000 16V K			01
C0041	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0042	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0043	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0047	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0051	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0052	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0053	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0057	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0061	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0062	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0063	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0064	US034390	Ceramic Capacitor-B (chip)	0.0390 16V K			01
C0065	US034390	Ceramic Capacitor-B (chip)	0.0390 16V K			01
* C0066	US034820	Ceramic Capacitor-B (chip)	0.0820 16V K			01
C0067	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0071	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0072	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0073	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0074	US034390	Ceramic Capacitor-B (chip)	0.0390 16V K			01
C0075	US034390	Ceramic Capacitor-B (chip)	0.0390 16V K			01
* C0076	US034820	Ceramic Capacitor-B (chip)	0.0820 16V K			01
C0077	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0081	US063100	Ceramic Capacitor-SL(chip)	1000P 50V J			01
C0082	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0083	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0091	US063100	Ceramic Capacitor-SL(chip)	1000P 50V J			01
C0092	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0093	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0101	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0102	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0111	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0112	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0121	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0122	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0131	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0132	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0141	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0142	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0143	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0144	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
CN001	VB390100	Connector Base Post	PH 5P TE			01
CN002	LB932030	Base Post Connector	VH 3P TE			01

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
CN003	LB932040	Base Post Connector	VH 4P TE			01
CN010	VB390300	Connector Base Post	PH 7P TE			01
CN011	LB918040	Base Post Connector	XH 4P TE			01
CN020	VB390400	Connector Base Post	PH 8P TE			01
CN021	VB390400	Connector Base Post	PH 8P TE			01
D0001	VS201100	Diode	D1F60			01
-0004	VS201100	Diode	D1F60			01
D0005	VV925900	Diode	RLS-73 TE-11			01
D0006	VV925900	Diode	RLS-73 TE-11			01
D0140	VB493900	Diode	MA221			01
DB001	VN011300	Diode Stack	D3SBA20 4.0A 200V			03
EM031	VD542700	LC Filter	DSS306-93F223Z1			01
EM032	VD542700	LC Filter	DSS306-93F223Z1			01
F0001	VP206500	Fuse Holder	EYF-52BC		2	01
IC001	XU131A00	IC	TA8233H	POWER AMP. 30Wx2		06
IC010	XF291A00	IC	UPC4570G2	OP AMP		03
-013	XF291A00	IC	UPC4570G2	OP AMP		03
IC014	XJ598A00	IC	NJM78L05UA	REGULATOR +5V		02
JK011	VP599300	Pin Jack	2P YKC21-3120			02
R0002	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0005	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0007	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0008	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0009	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0010	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0011	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0012	RD357270	Carbon Resistor (chip)	27K 63M J			01
R0013	RD356330	Carbon Resistor (chip)	3.3K 63M J			01
R0014	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0015	RD356560	Carbon Resistor (chip)	5.6K 63M J			01
R0016	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0017	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0018	RD355560	Carbon Resistor (chip)	560 63M J			01
R0019	RD355560	Carbon Resistor (chip)	560 63M J			01
R0021	RD354100	Carbon Resistor (chip)	10 63M J			01
-0024	RD354100	Carbon Resistor (chip)	10 63M J			01
R0030	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0040	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0042	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0043	RD356680	Carbon Resistor (chip)	6.8K 63M J			01
R0048	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0049	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0050	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0052	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0054	RD356680	Carbon Resistor (chip)	6.8K 63M J			01
R0058	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0059	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0060	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0062	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0063	RD356820	Carbon Resistor (chip)	8.2K 63M J			01
R0064	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0065	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0066	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0067	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0068	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0069	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0070	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0072	RD356220	Carbon Resistor (chip)	2.2K 63M J			01
R0073	RD356820	Carbon Resistor (chip)	8.2K 63M J			01
R0074	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0075	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0076	RD357330	Carbon Resistor (chip)	33K 63M J			01
R0077	RD357120	Carbon Resistor (chip)	12K 63M J			01
R0078	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0079	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0081	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0081	RD357470	Carbon Resistor (chip)	47K 63M J			01
R0082	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0091	RD356470	Carbon Resistor (chip)	4.7K 63M J			01
R0092	RD356100	Carbon Resistor (chip)	1.0K 63M J			01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
RY001	VK881200	Relay	DC G5Z-2A-YA 12V			04
TR001	VV556400	Transistor	2SC2412K Q,R,S			01
-R003	VV556400	Transistor	2SC2412K Q,R,S			01
* ZD081	V9312600	Zener Diode	HZU2.2B 2.2V			
* ZD082	V9312600	Zener Diode	HZU2.2B 2.2V			
* ZD091	V9312600	Zener Diode	HZU2.2B 2.2V			
* ZD092	V9312600	Zener Diode	HZU2.2B 2.2V			
	V7674700	Circuit Board	NETWORK	(XV011A0)		
	--	Jumper Wire	0.55	(VD04170)		
C0001	V5928800	Electrolytic Cap.-BP	4.70 63.0V			01
C0002	V5928800	Electrolytic Cap.-BP	4.70 63.0V			01
CN001	LB932040	Base Post Connector	VH 4P TE			01
CN002	LB932080	Base Post Connector	VH 8P TE			01
L0001	VB573700	Network Coil	0.26mH 0.8mm			05
L0002	VB573700	Network Coil	0.26mH 0.8mm			05
	V7675600	Circuit Board	PEDAL (SW)	(X0193A0)		07
CN001	VB858500	Connector Base Post	PH 6P SE			01
J	--	Jumper Wire	0.55	(VD04170)		
	VN637600	Circuit Board	PL (YCJ)	(XL151B0,XR898A0)		03
	VU659100	Circuit Board	PL (YMMMA)	(XL151B0,XR898A0)		03
	VB858100	Connector Base Post	PH 2P SE			01
	VD180000	LED Red	SLZ-190B-03	POWER indicator		01
* C0031	V8454900	Circuit Board	PNL (PNL1+PNL2)	(X2243D0)		01
-0034	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0035	UR828100	Electrolytic Cap.	100.00 10.0V			01
C0036	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0037	UR828100	Electrolytic Cap.	100.00 10.0V			01
C0041	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0042	UR828100	Electrolytic Cap.	100.00 10.0V			01
C0051	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
-0056	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0060	UR828220	Electrolytic Cap.	220.00 10.0V			01
C0061	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
-0068	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0069	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0071	RD358470	Ceramic Capacitor-SL(chip)	470K 63M J			01
-0074	RD358470	Ceramic Capacitor-SL(chip)	470K 63M J			01
C0102	US061680	Ceramic Capacitor-SL(chip)	68P 50V J			01
C0103	US061680	Ceramic Capacitor-SL(chip)	68P 50V J			01
C0105	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0106	UR828220	Electrolytic Cap.	220.00 10.0V			01
C0107	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0108	RD350000	Carbon Resistor (chip)	0 63M J			01
C0109	RD350000	Carbon Resistor (chip)	0 63M J			01
C0119	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0200	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0201	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
CN033	VB858200	Connector Base Post	PH 3P SE			01
CN070	VB389600	Connector Base Post	PH 11P SE			01
CN080	VB858800	Connector Base Post	PH 9P SE			01
CN101	VB858600	Connector Base Post	PH 7P SE			01
D0030	VB493900	Diode	MA221			01
-0032	VB493900	Diode	MA221			01
D0040	VB493900	Diode	MA221			01
-0047	VB493900	Diode	MA221			01
D0050	VB493900	Diode	MA221			01
D0051	VB493900	Diode	MA221			01
-0057	VB493900	Diode	MA221			01
D0101	VB493900	Diode	MA221			01
-0107	VB493900	Diode	MA221			01
D0112	VB493900	Diode	MA221			01
-0115	VB493900	Diode	MA221			01
IC010	XZ916100	IC	UPD780031AYGK-N01-9ET	LED DRIVER/SWITCH SCAN.		05
* IC071	V8074800	FET	MCH6616-TL			
* IC072	V8074800	FET	MCH6616-TL			

*: New Parts

RANK: Japan only

CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
IC073	XF291A00	IC	UPC4570G2	OP AMP		03
LD050	VU067800	LED	SEL6210S-TP5	METRONOME START/STOP		01
LD052	VU067800	LED	SEL6210S-TP5	SONG START/STOP		01
LD053	VU067800	LED	SEL6210S-TP5	REC		01
LD061	V8066800	LED	SML72423CTP15	TRACK 1		01
LD062	V8066800	LED	SML72423CTP15	TRACK 2		01
LD063	V8066800	LED	SML72423CTP15	EXTRA TRACKS		01
L0101	GE901870	Coil	SN3-205B 10uH			03
L0106	VY657200	Chip Inductance	600 BK1608HM601			01
-0110	VY657200	Chip Inductance	600 BK1608HM601			01
R0031	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0032	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0051	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0056	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0061	RD155100	Carbon Resistor (chip)	100.0 1/4 J			01
-0066	RD155100	Carbon Resistor (chip)	100.0 1/4 J			01
R0067	RD154470	Carbon Resistor (chip)	47.0 1/4 J			01
R0068	RD155100	Carbon Resistor (chip)	100.0 1/4 J			01
R0070	RD357100	Carbon Resistor (chip)	10K 63M J			01
-0080	RD357100	Carbon Resistor (chip)	10K 63M J			01
R0081	RD354470	Carbon Resistor (chip)	47 63M J			01
-0084	RD354470	Carbon Resistor (chip)	47 63M J			01
R0101	RD356100	Carbon Resistor (chip)	1.0K 63M J			01
R0102	RD354470	Carbon Resistor (chip)	47 63M J			01
R0103	RD354470	Carbon Resistor (chip)	47 63M J			01
R0104	RD355100	Carbon Resistor (chip)	100 63M J			01
R0105	VI197400	Metal Film Resistor (chip)	10.0K 1/10 D			01
R0106	VI197400	Metal Film Resistor (chip)	10.0K 1/10 D			01
SW030	VV439800	Tact Switch	SKQNAJ	SONG SELECT >>		01
SW031	VV439800	Tact Switch	SKQNAJ	SONG SELECT <<		01
SW032	VV439800	Tact Switch	SKQNAJ	DEMO		01
SW040	VV439800	Tact Switch	SKQNAJ	TOP		01
SW041	VV439800	Tact Switch	SKQNAJ	TRACK 1		01
SW042	VV439800	Tact Switch	SKQNAJ	TRACK 2		01
SW043	VV439800	Tact Switch	SKQNAJ	EXTRA TRACKS		01
SW044	VV439800	Tact Switch	SKQNAJ	REC		01
SW045	VV439800	Tact Switch	SKQNAJ	SONG START/STOP		01
SW046	VV439800	Tact Switch	SKQNAJ	FILE		01
SW047	VV439800	Tact Switch	SKQNAJ	SONG SETTING		01
SW050	VV439800	Tact Switch	SKQNAJ	METRONOME START/STOP		01
SW051	VV439800	Tact Switch	SKQNAJ	METRONOME SETTING		01
SW052	VV439800	Tact Switch	SKQNAJ	LCD A -		01
SW053	VV439800	Tact Switch	SKQNAJ	LCD A +		01
SW054	VV439800	Tact Switch	SKQNAJ	LCD C +		01
SW055	VV439800	Tact Switch	SKQNAJ	LCD C -		01
SW056	VV439800	Tact Switch	SKQNAJ	TEMPO UP		01
SW057	VV439800	Tact Switch	SKQNAJ	TEMPO DOWN		01
TA060	VT943400	Transistor Array	TD62785F(TP1)			04
* VR030	V8576200	Slide Variable Resistor	B10.0K RS30111D9	SONG BALANCE		01
X0010	V6091100	Ceramic Resonator	8.38M EFOMC8384T4			01
*	V8455300	Circuit Board	PNR	(V845520)(X2244B0)		
*	V8562700	Circuit Board	MV1	(V845520)(X2244B0)		
	--	Jumper Wire	0.55	(VD04170)		
C0091	UR828100	Electrolytic Cap.	100.00 10.0V			01
C0092	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0093	UR847100	Electrolytic Cap.	10.00 25.0V			01
CN023	VB390400	Connector Base Post	PH 8P TE			01
CN024	VB389900	Connector Base Post	PH 3P TE			01
CN071	VB389600	Connector Base Post	PH 11P SE			01
CN081	VB858800	Connector Base Post	PH 9P SE			01
CN091	VB858800	Connector Base Post	PH 9P SE			01
CN092	VB858700	Connector Base Post	PH 8P SE			01
CN093	V5492000	FFC Connector	52807 16P SE			01
D0000	VD631600	Diode	1SS133,176,HSS104			01
-0008	VD631600	Diode	1SS133,176,HSS104			01
D0010	VD631600	Diode	1SS133,176,HSS104			01
-0018	VD631600	Diode	1SS133,176,HSS104			01
D0020	VD631600	Diode	1SS133,176,HSS104			01
-0028	VD631600	Diode	1SS133,176,HSS104			01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
D0033	VD631600	Diode	1SS133,176,HSS104			01
-0038	VD631600	Diode	1SS133,176,HSS104			01
LD000	VU067800	LED	SEL6210S-TP5	SPLIT		01
LD001	VU067800	LED	SEL6210S-TP5	REVERB		01
LD002	VU067800	LED	SEL6210S-TP5	CHORUS		01
LD003	VU067800	LED	SEL6210S-TP5	AFC ON/OFF		01
LD010	VU067800	LED	SEL6210S-TP5	GUITAR		01
LD011	VU067800	LED	SEL6210S-TP5	XG		01
LD012	VU067800	LED	SEL6210S-TP5	E.BASS		01
LD013	VU067800	LED	SEL6210S-TP5	VIBRAPHONE		01
LD020	VU067800	LED	SEL6210S-TP5	HARPSICHORD		01
LD021	VU067800	LED	SEL6210S-TP5	SYNTH.PAD		01
LD022	VU067800	LED	SEL6210S-TP5	WOOD BASS		01
LD023	VU067800	LED	SEL6210S-TP5	E.CLAVICHORD		01
LD030	VU067800	LED	SEL6210S-TP5	E.PIANO 1		01
LD031	VU067800	LED	SEL6210S-TP5	STRINGS		01
LD032	VU067800	LED	SEL6210S-TP5	CHOIR		01
LD033	VU067800	LED	SEL6210S-TP5	E.PIANO 2		01
LD040	VU067800	LED	SEL6210S-TP5	GRAND PIANO 1		01
LD041	VU067800	LED	SEL6210S-TP5	CHURCH ORGAN		01
LD042	VU067800	LED	SEL6210S-TP5	JAZZ ORGAN		01
LD043	VU067800	LED	SEL6210S-TP5	GRAND PIANO 2		01
R0090	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0091	HF756820	Carbon Resistor	8.2K 1/4 J			01
R0092	HF757270	Carbon Resistor	27.0K 1/4 J			01
R0093	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0094	HF757270	Carbon Resistor	27.0K 1/4 J			01
R0095	HF756100	Carbon Resistor	1.0K 1/4 J			01
SW000	VV439800	Tact Switch	SKQNAJ	SPLIT		01
SW001	VV439800	Tact Switch	SKQNAJ	REVERB		01
SW002	VV439800	Tact Switch	SKQNAJ	CHORUS		01
SW003	VV439800	Tact Switch	SKQNAJ	AFC ON/OFF		01
SW004	VV439800	Tact Switch	SKQNAJ	MIDI SETTING		01
SW005	VV439800	Tact Switch	SKQNAJ	OTHER SETTING		01
SW006	VV439800	Tact Switch	SKQNAJ	BRILLIANCE BRIGHT		01
SW007	VV439800	Tact Switch	SKQNAJ	BRILLIANCE MELLOW		01
SW008	VV439800	Tact Switch	SKQNAJ	VARIATION UP		01
SW010	VV439800	Tact Switch	SKQNAJ	GUITAR		01
SW011	VV439800	Tact Switch	SKQNAJ	XG		01
SW012	VV439800	Tact Switch	SKQNAJ	E.BASS		01
SW013	VV439800	Tact Switch	SKQNAJ	VIBRAPHONE		01
SW014	VV439800	Tact Switch	SKQNAJ	AFC SETTING		01
SW015	VV439800	Tact Switch	SKQNAJ	WOOD BASS		01
SW016	VV439800	Tact Switch	SKQNAJ	E.CLAVICHORD		01
SW017	VV439800	Tact Switch	SKQNAJ	VOICE SETTING		01
SW018	VV439800	Tact Switch	SKQNAJ	VARIATION DOWN		01
SW020	VV439800	Tact Switch	SKQNAJ	HARPSICHORD		01
SW021	VV439800	Tact Switch	SKQNAJ	SYNTH.PAD		01
SW022	VV439800	Tact Switch	SKQNAJ	CHOIR		01
SW023	VV439800	Tact Switch	SKQNAJ	E.PIANO 2		01
SW024	VV439800	Tact Switch	SKQNAJ	E.PIANO 1		01
SW025	VV439800	Tact Switch	SKQNAJ	STRINGS		01
SW026	VV439800	Tact Switch	SKQNAJ	JAZZ ORGAN		01
SW027	VV439800	Tact Switch	SKQNAJ	GRAND PIANO 2		01
SW028	VV439800	Tact Switch	SKQNAJ	GRAND PIANO 1		01
SW033	VV439800	Tact Switch	SKQNAJ	LCD D -		01
SW034	VV439800	Tact Switch	SKQNAJ	LCD B -		01
SW035	VV439800	Tact Switch	SKQNAJ	LCD B +		01
SW036	VV439800	Tact Switch	SKQNAJ	LCD D +		01
SW037	VV439800	Tact Switch	SKQNAJ	EDIT		01
SW038	VV439800	Tact Switch	SKQNAJ	CHURCH ORGAN		01
TR091	IC174020	Transistor	2SC1740S R,S			01
TR092	IC174020	Transistor	2SC1740S R,S			01
TR093	VP872600	Transistor	2SA1708 S,T			01
* VR023	V8669400	Rotary Variable Resistor	B 10.0K XVB93GN	MASTER VOLUME		01
VR090	VS368200	Rotary Variable Resistor	B10K RK09K1130BN7A	CONTRAST		01
* C0001	V8563200	Circuit Board	WMH	(X2248A0)		01
C0001	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0003	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01

*: New Parts

RANK: Japan only

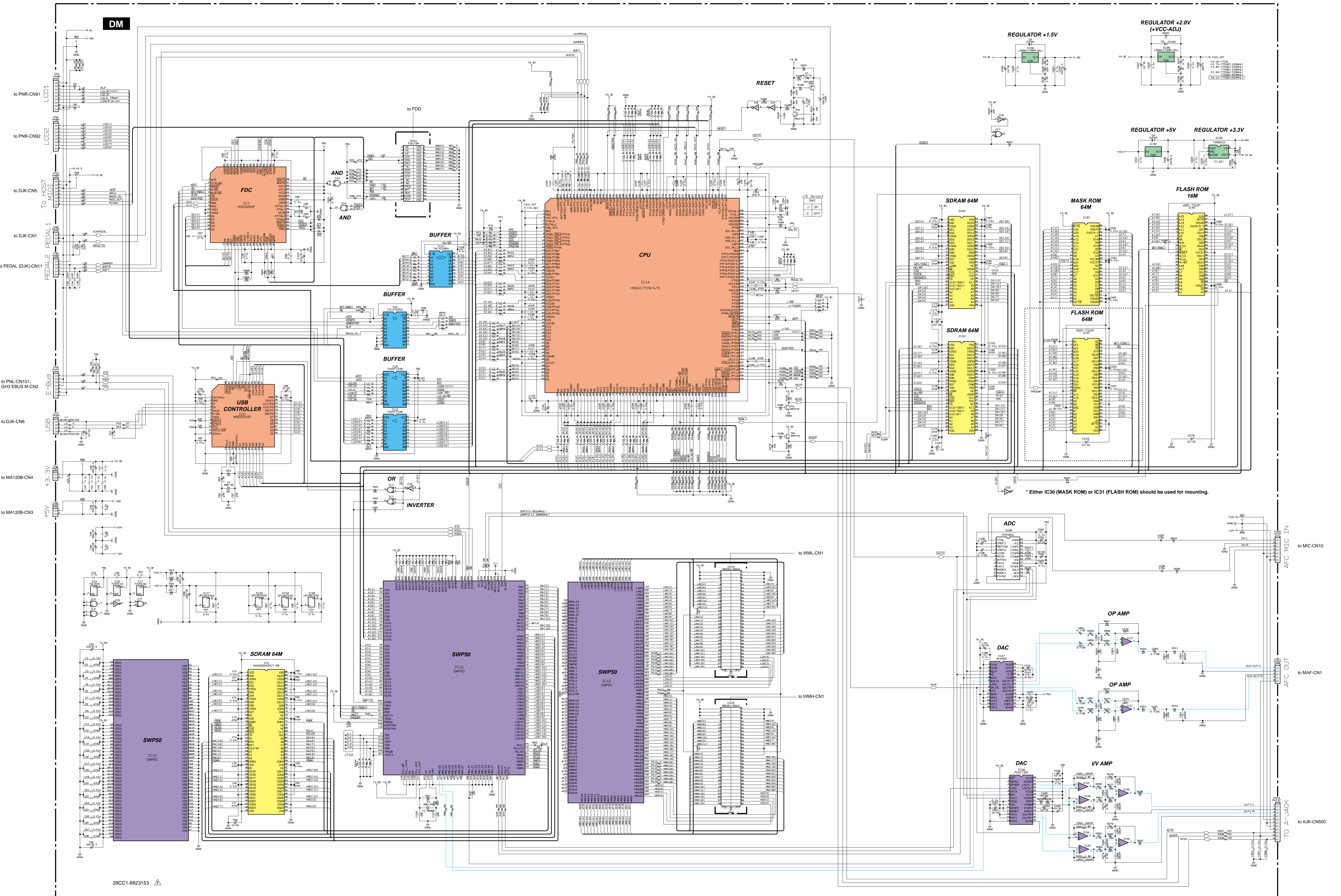
CLP-170/CLP-170M/CLP-170C/CLP-170PE

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0005	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0007	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0017	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
* CN001	V8389100	Connector	52901 60P TE			
* IC002	X2563100	IC		ROM 128M WAVE-H1		
* IC004	X2564100	IC		ROM 128M WAVE-H2		
*	V8563100	Circuit Board	WML	(X2248A0)		
C0001	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0003	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0005	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0007	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0017	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
* CN001	V8389100	Connector	52901 60P TE			
* IC002	X2561100	IC		ROM 128M WAVE-L1		
* IC004	X2562100	IC		ROM 128M WAVE-L2		
△	VT015800	AC Cord Set	U 2P 2.44m 7A	U		06
△	VT016000	AC Cord Set	B 2P 2.5m	B		08
△	VT015900	AC Cord Set	E 2P 2.5m	E,N		05
△	VK726100	Connector	CCT5902	N		03
△ *	X2402A00	Power Transformer	IEC/EN60691 E UL/C	U,B,E		
△ *	X2403A00	Power Transformer	IEC/EN60691 E	N		
*	V8811300	LCD	SCLCMDYAMS0049			
	V6492300	Floppy Disk Drive	ALPS DF354H			13
*	XU755A00	Speaker	3.0cm 8 ohm 60W	TWEETER	2	10
	X2556A00	Speaker	10cm 4 ohm 25W	WOOFER	2	
	X0358A00	Speaker	16cm 8 ohm 60W	WOOFER	2	10
	JE000270	Capacitor Mic.	WM-034C		4	03
△ *	V8625100	Push Switch	SY17-23-2(U1S1)/T	POWER		
	HS412520	Rotary Variable Resistor	K161SOZO1	PEDAL VOLUME	3	05

*: New Parts

RANK: Japan only

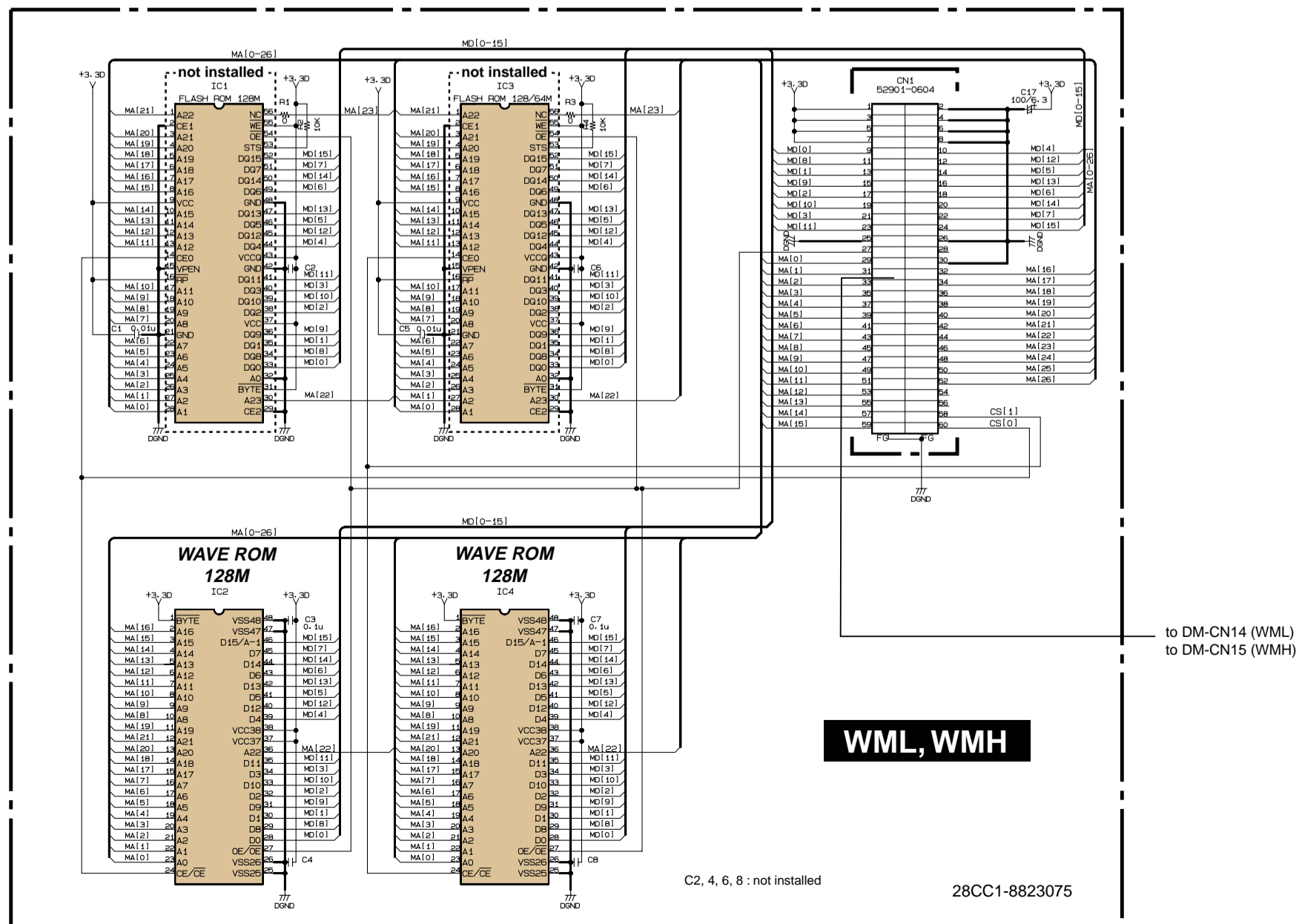
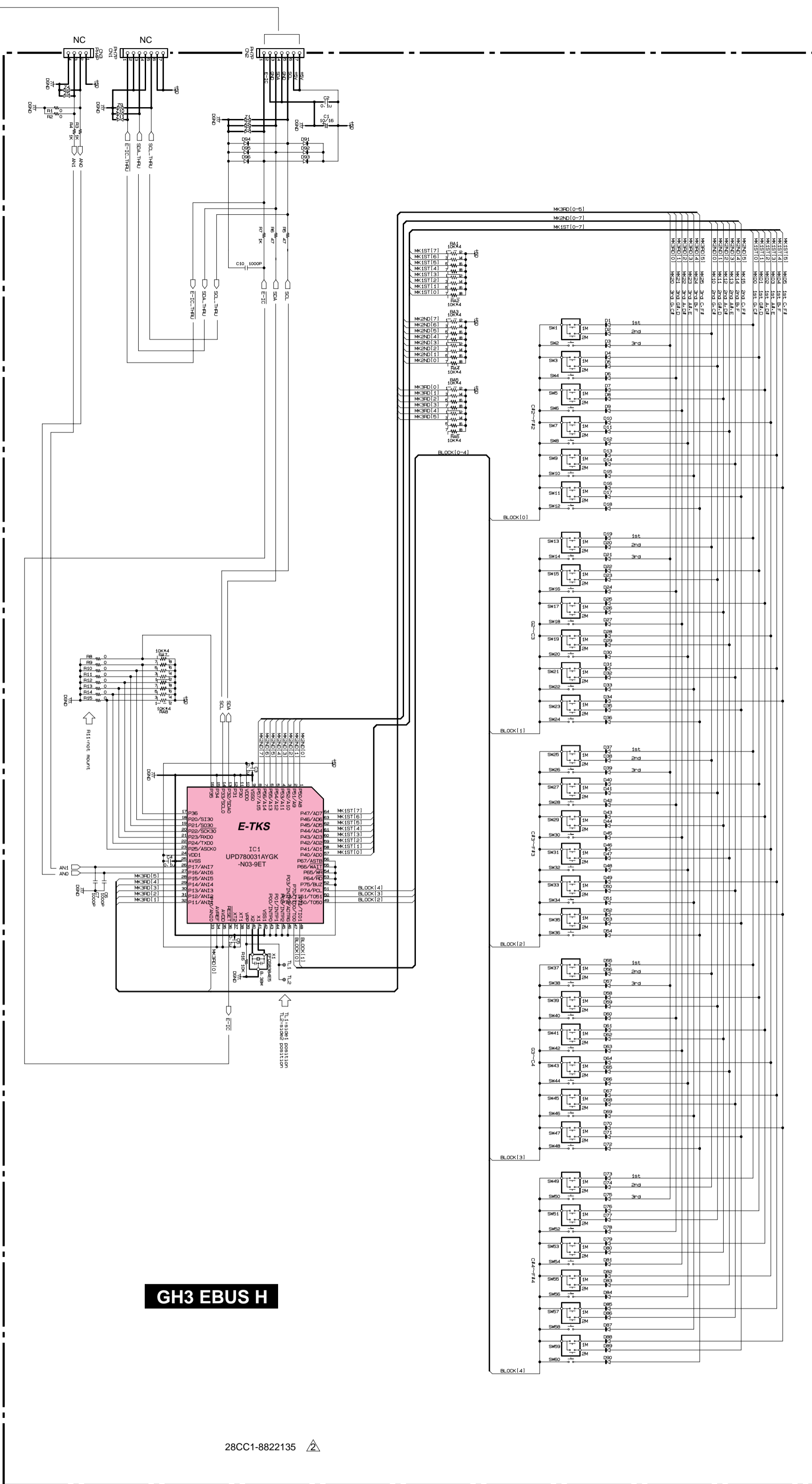
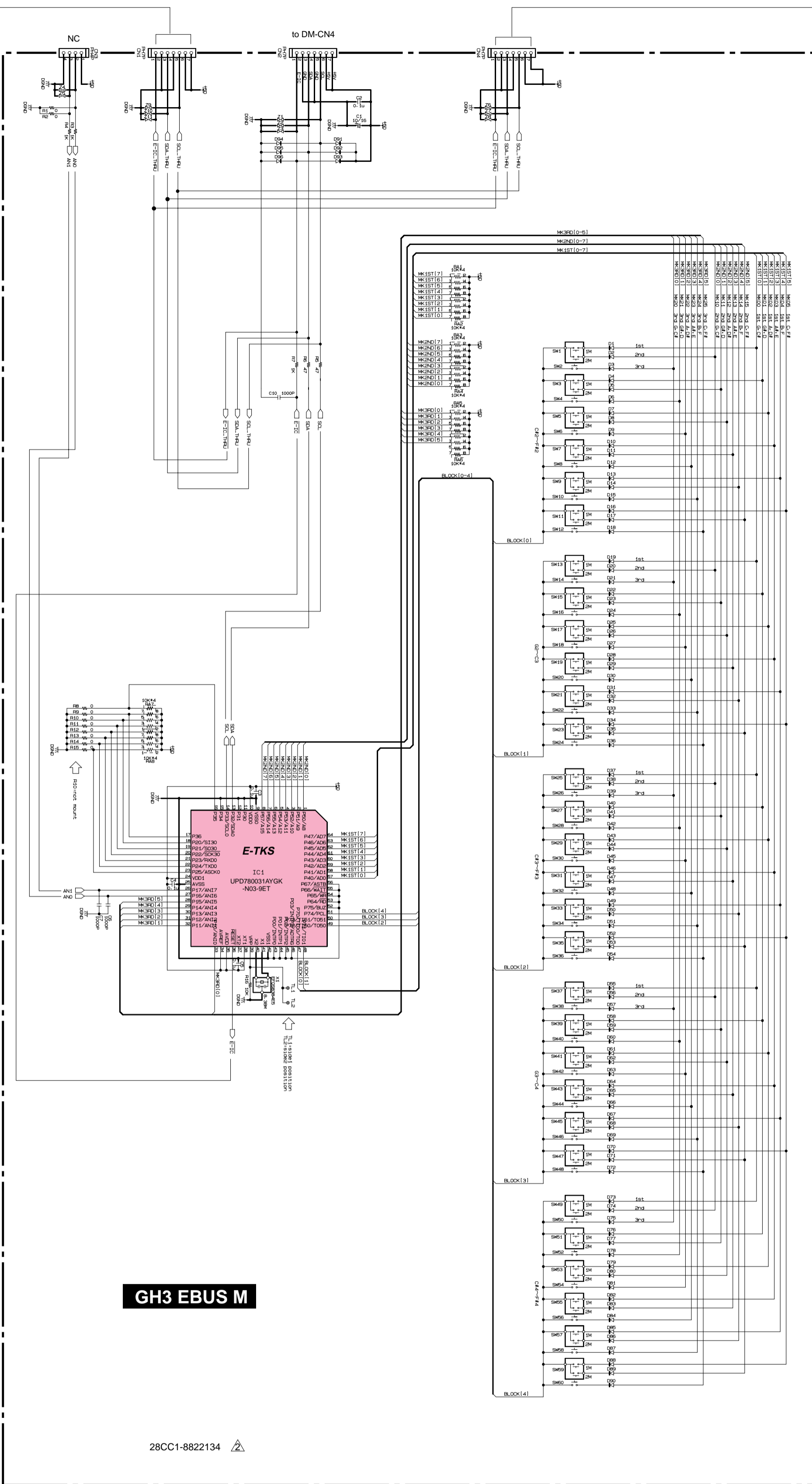
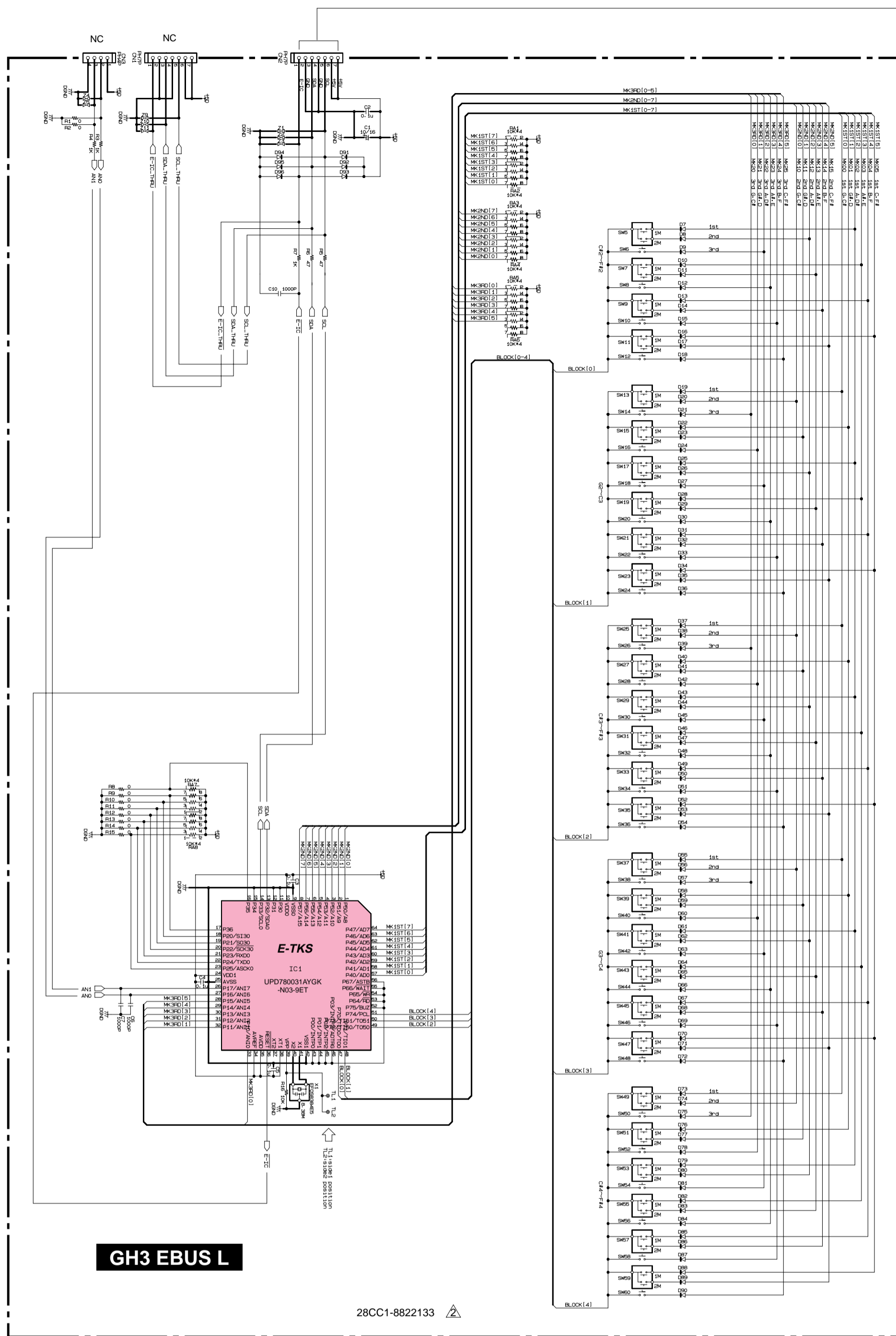
CLP-170/CLP-170M/CLP-170C/CLP-170PE OVERALL CIRCUIT BOARD 1/4 (DM)



28CC1-8823153

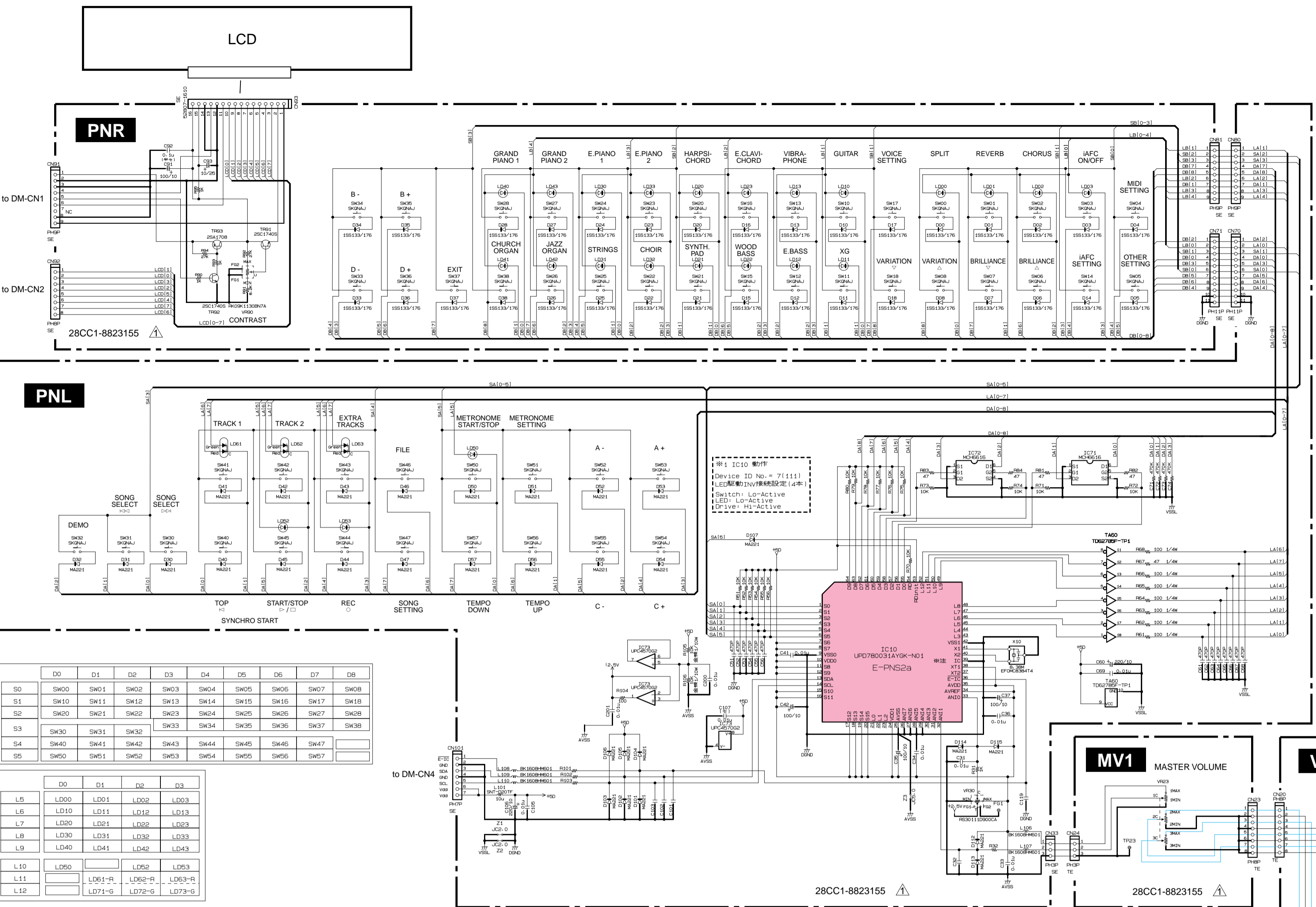
Note : See parts list for details of circuit board component parts.

CLP-170/CLP-170M/CLP-170C/CLP-170PE OVERALL CIRCUIT BOARD 2/4 (GH3 EBUS L, GH3 EBUS M, GH3 EBUS H, WML, WMH)



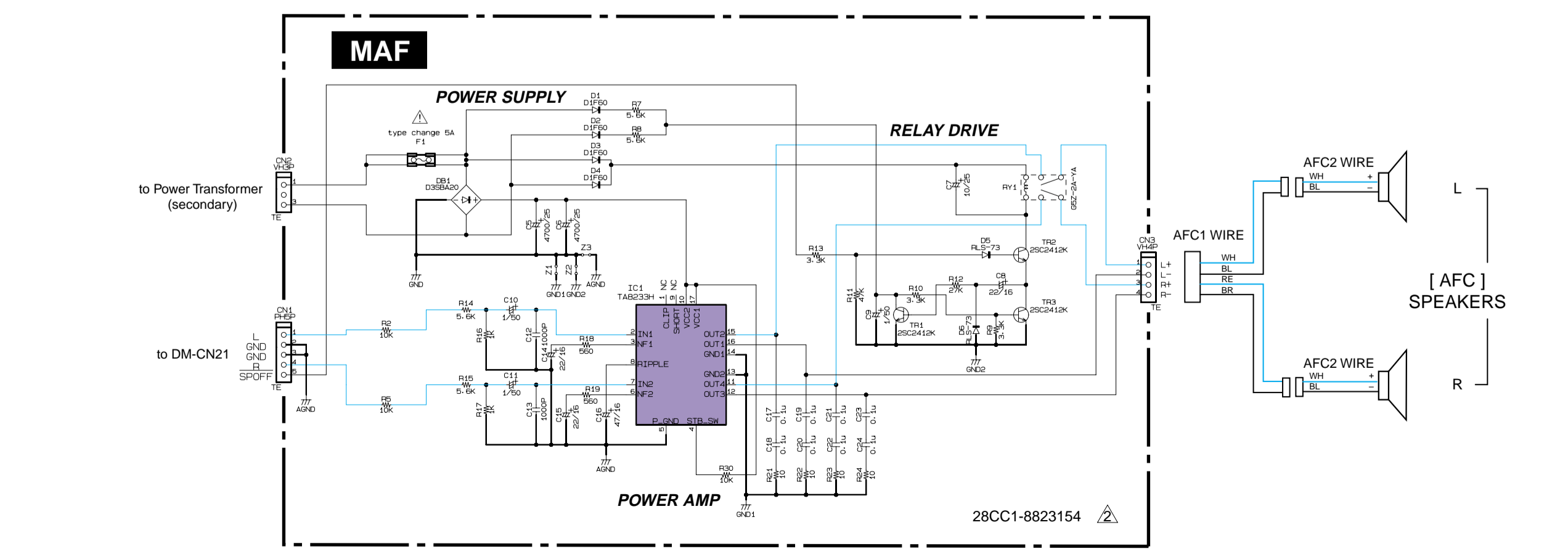
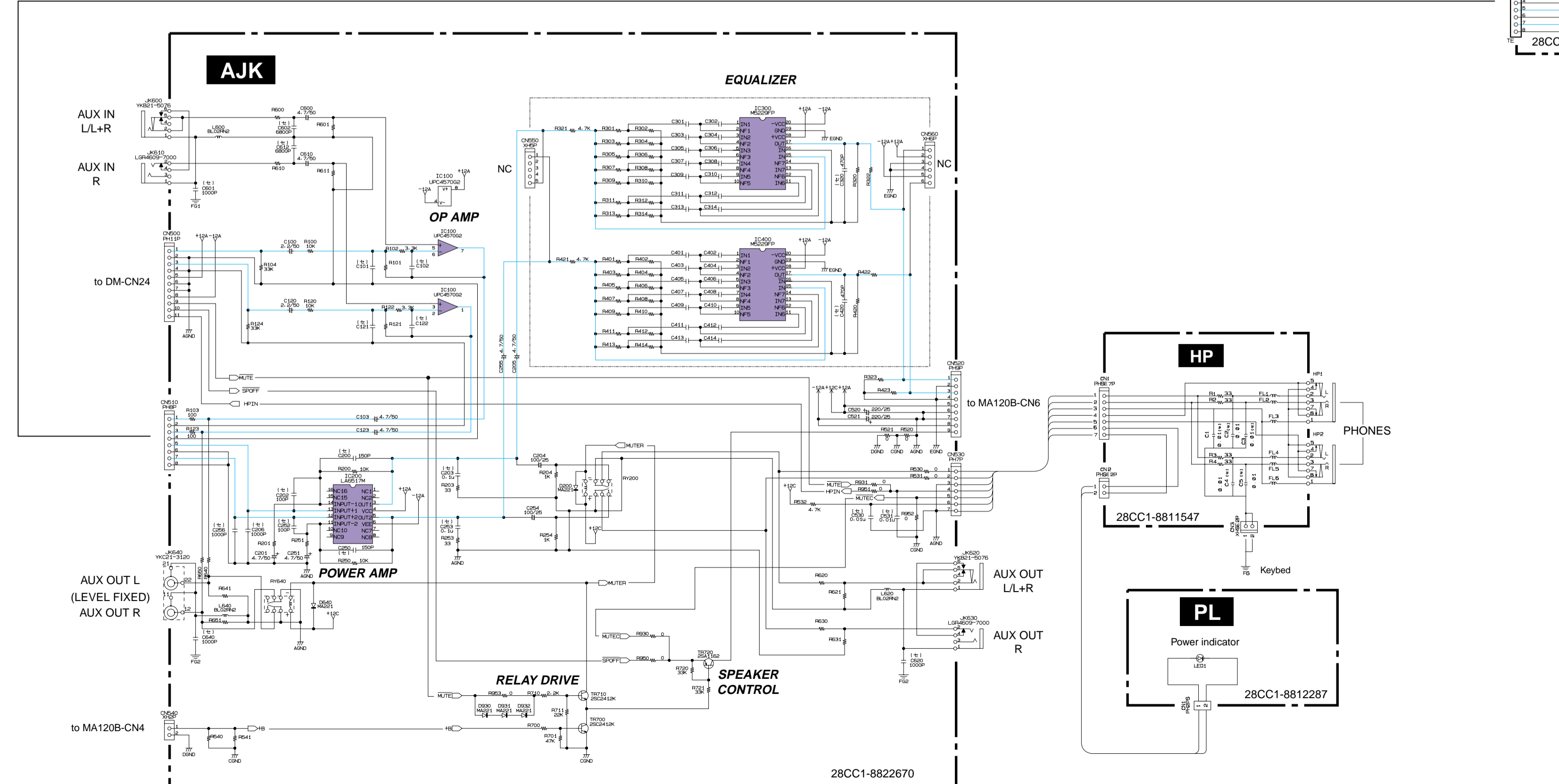
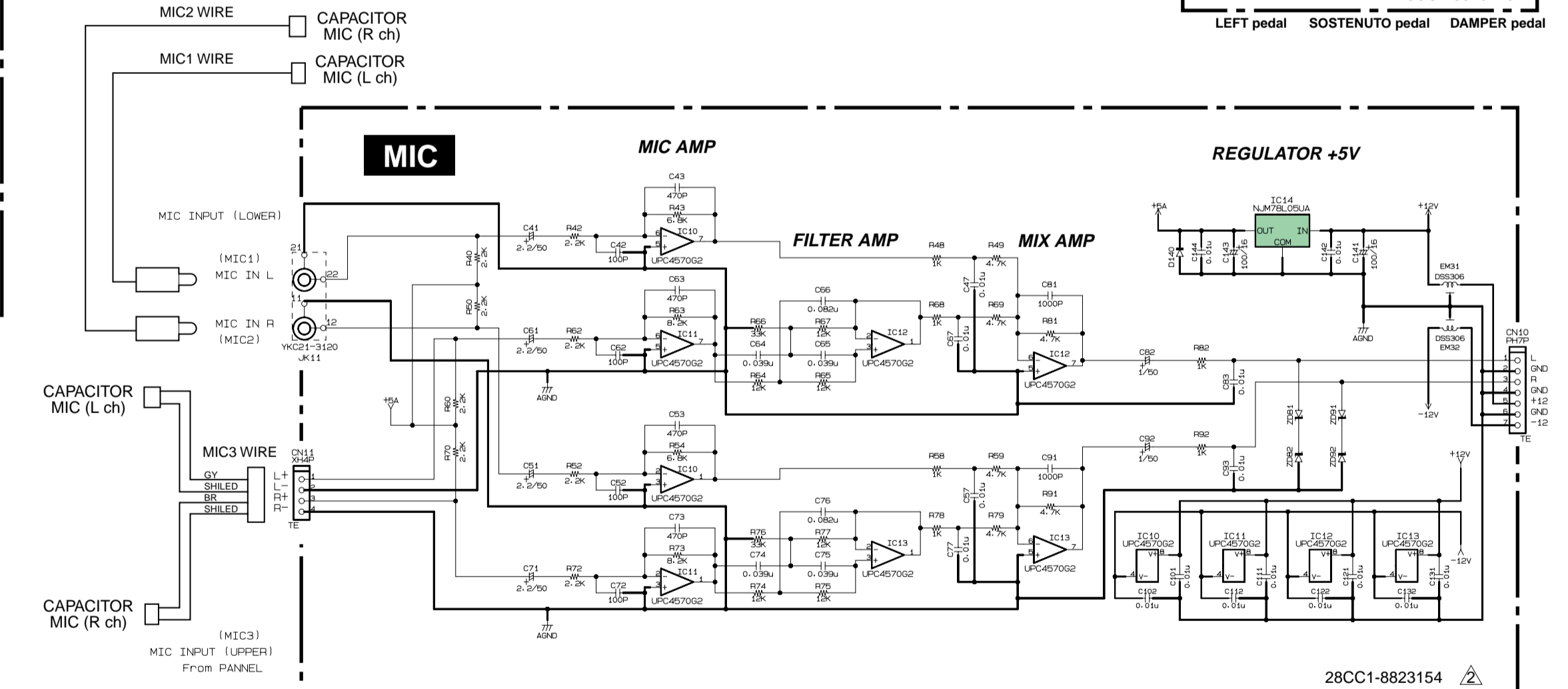
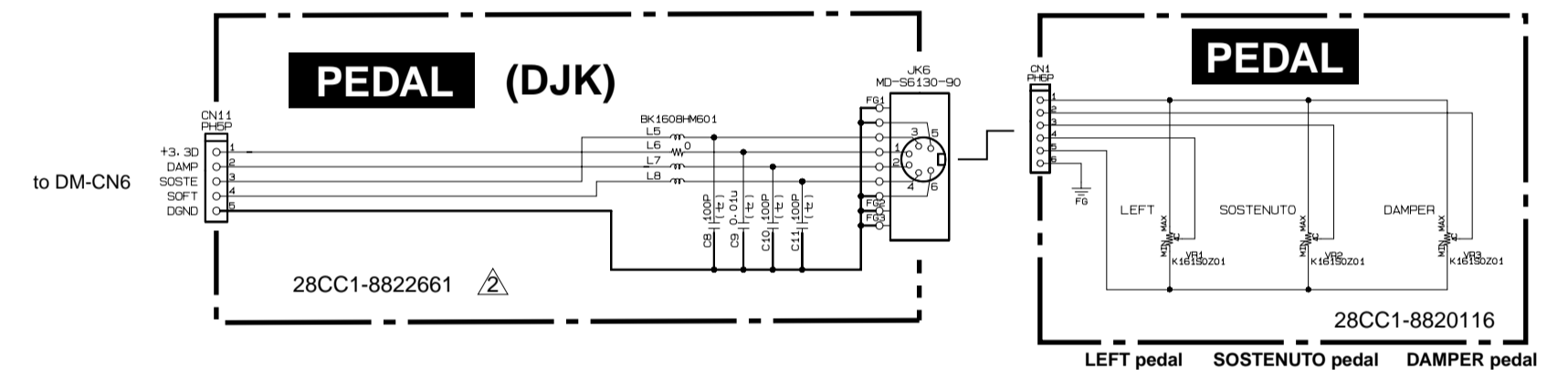
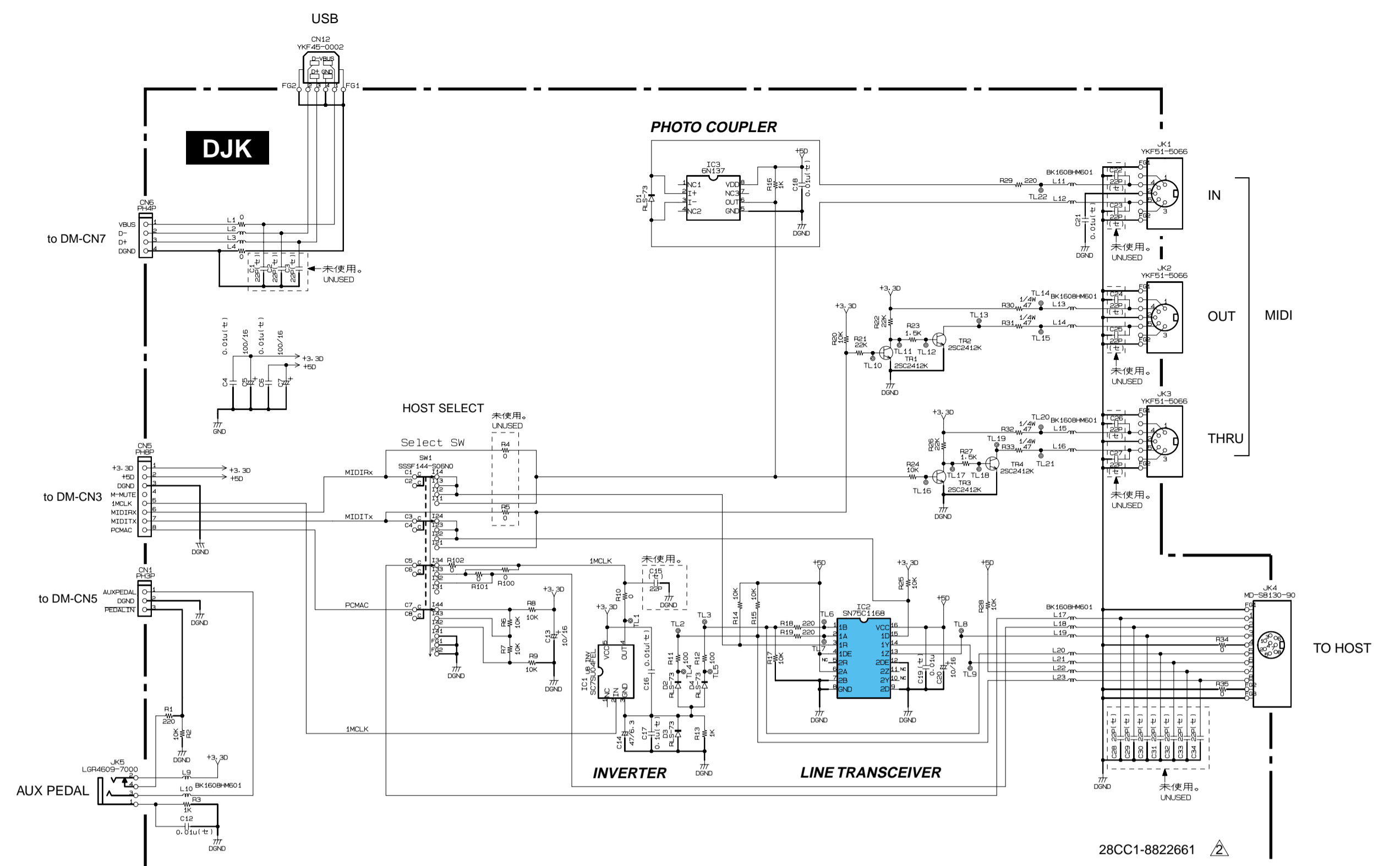
Note : See parts list for details of circuit board component parts.

CLP-170/CLP-170M/CLP-170C/CLP-170PE OVERALL CIRCUIT BOARD 3/4 (PNL, PNR, MV1, VCN, DJK, PEDAL(DJK), PEDAL(SW), AJK, HP, PL, MIC, MAF)



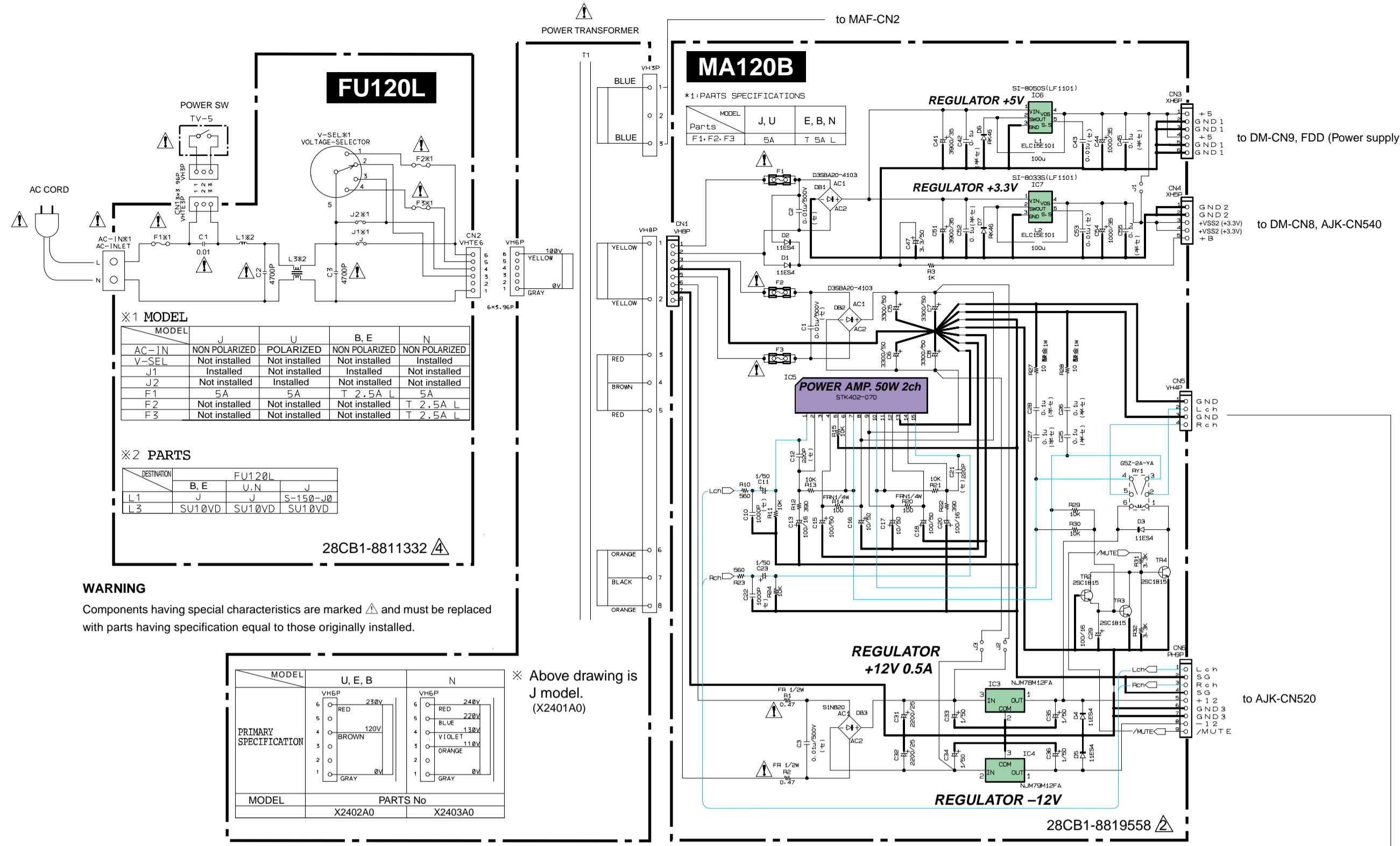
D0	D1	D2	D3	D4	D5	D6	D7	D8
S0	SW00	SW01	SW02	SW03	SW04	SW05	SW06	SW09
S1	SW10	SW11	SW12	SW13	SW14	SW15	SW17	SW18
S2	SW20	SW21	SW22	SW23	SW24	SW25	SW27	SW28
S3	SW30	SW31	SW32	SW33	SW34	SW35	SW36	SW37
S4	SW40	SW41	SW42	SW43	SW44	SW45	SW46	SW47
S5	SW50	SW51	SW52	SW53	SW54	SW55	SW56	SW57

D0	D1	D2	D3
L5	LD00	LD01	LD02
L6	LD10	LD11	LD12
L7	LD20	LD21	LD22
L8	LD30	LD31	LD32
L9	LD40	LD41	LD42
L10	LD50	LD51	LD52
L11	LD61	LD62	LD63
L12	LD71	LD72	LD73



(C) Ceramic Capacitor
Note: See parts list for details of circuit board component parts.

CLP-170/CLP-170M/CLP-170C/CLP-170PE OVERALL CIRCUIT BOARD 4/4 (FU120L, MA120B, NETWORK)



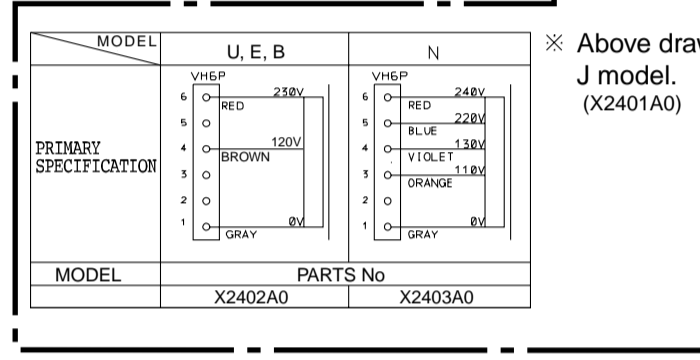
MODEL

MODEL	NON POLARIZED	POLARIZED	NON POLARIZED	NON POLARIZED	NON POLARIZED
V-C-E1	Not installed	Not installed	Not installed	Not installed	Installed
J1	Installed	Not installed	Installed	Not installed	Not installed
J2	Not installed	Installed	Not installed	Not installed	Not installed
F1	SA	SA	T, Z, SA, L	SA	
F2	Not installed	Not installed	Not installed	Not installed	Not installed
F3	Not installed	Not installed	Not installed	Not installed	Not installed

PARTS

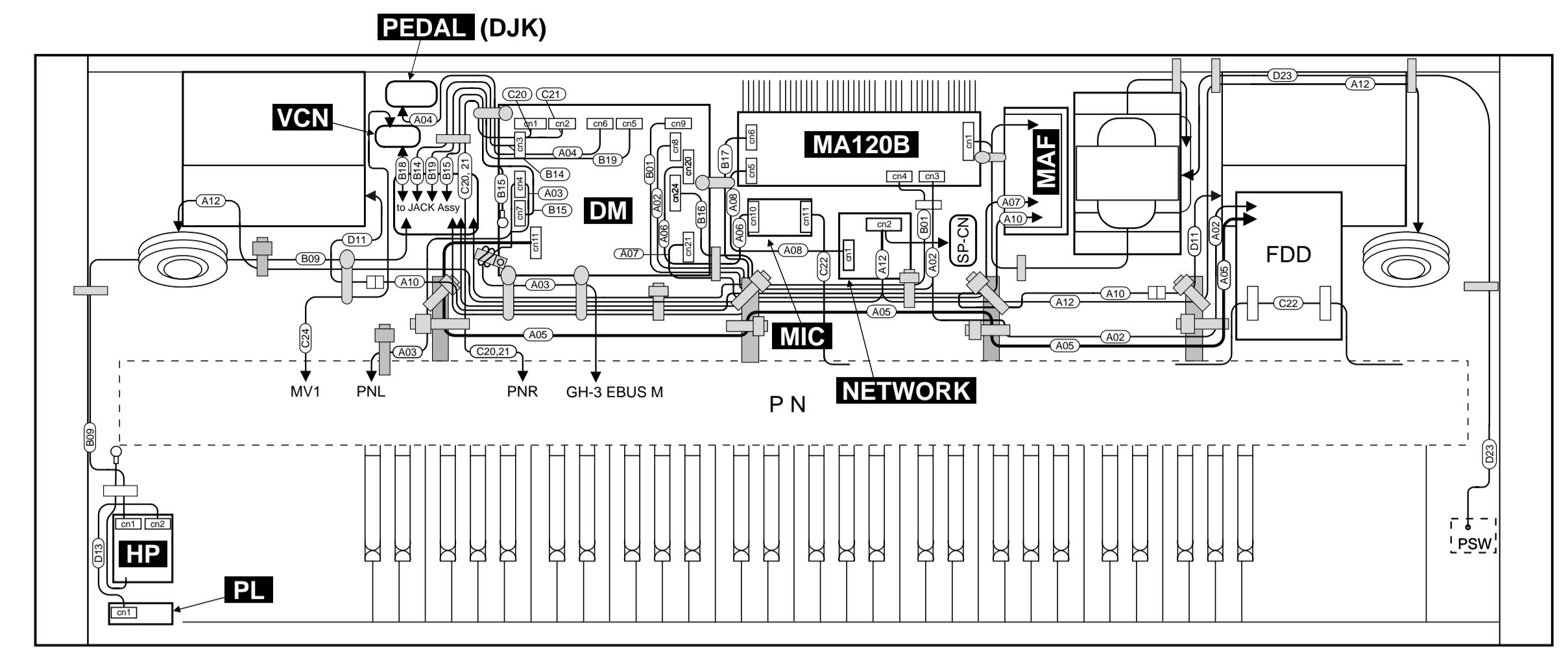
REF. NO.	QTY	DESCRIPTION
1.1	1	U, E, B
1.2	1	SU1 RVD
1.3	1	SU1 RVD

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



(C): Ceramic Capacitor
(S): Semiconductive Ceramic Capacitor
(R): Metal Oxide Film Resistor
Note: See parts list for details of circuit board component parts.

CLP-170/CLP-170M/CLP-170C/CLP-170PE CIRCUIT BOARD LAYOUT



NOTE1) The meaning of symbols.
 : Ferrite core
 : Cable holder
 : Cord Binder
 : Filament tape
 : Lug terminal
 : Insulation Lock Tie

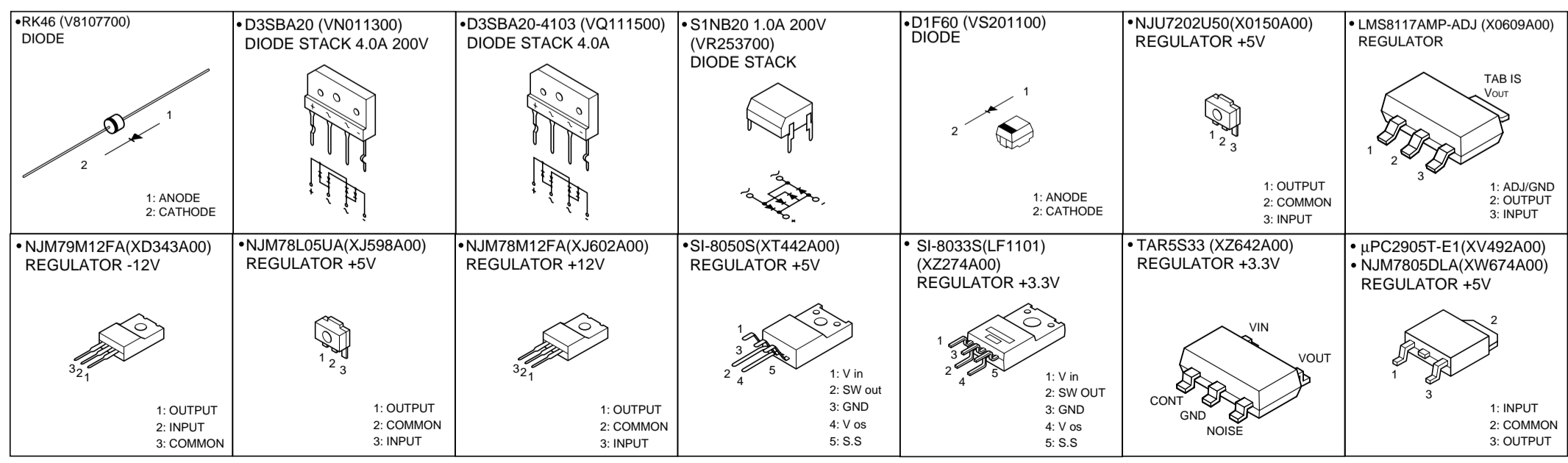
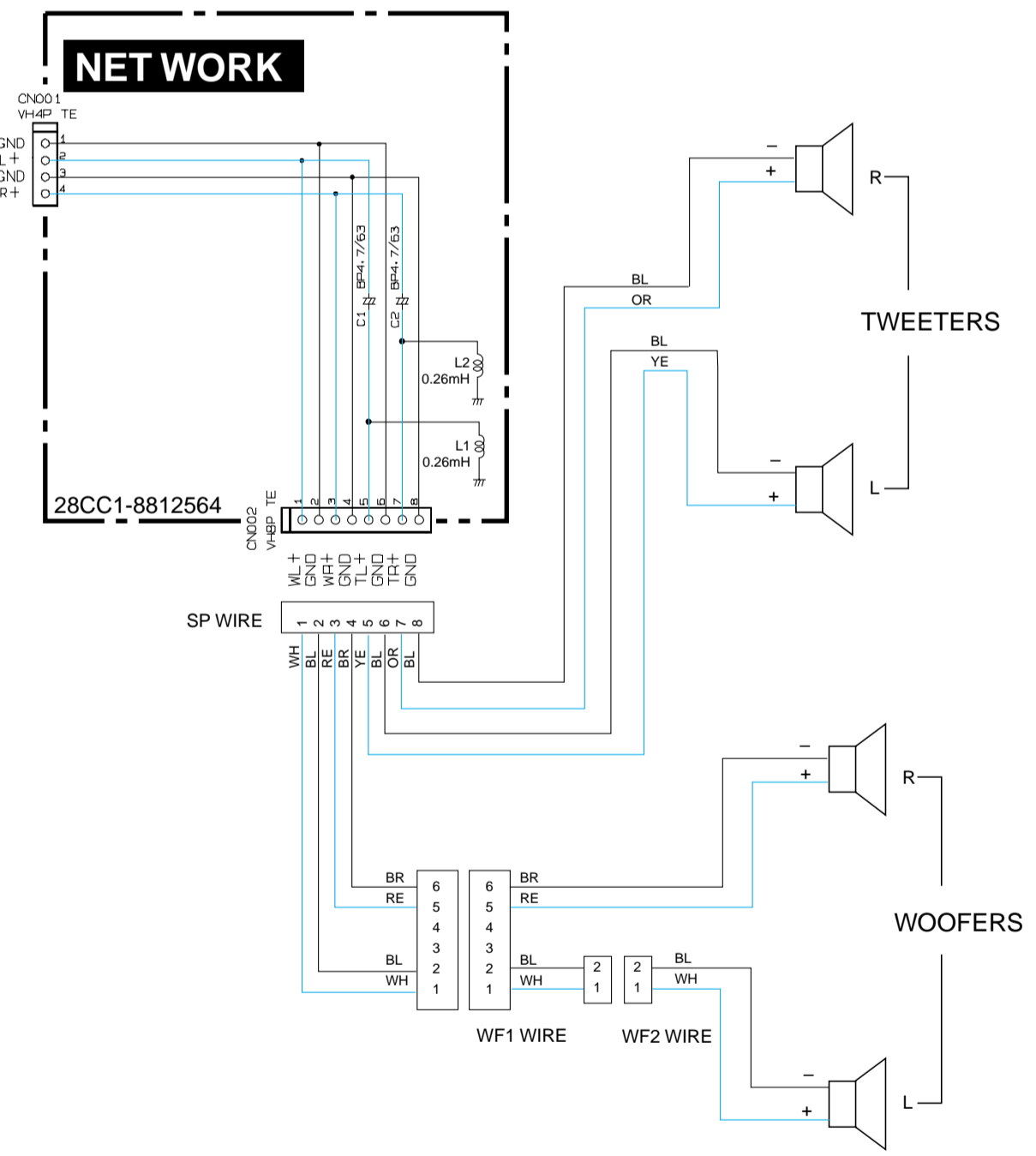
NOTE2) FDD Wire Harness shall be installed with its connector guide looks down.

 NOTE3) Install the lug terminal of USB cable (V933990) as follows.

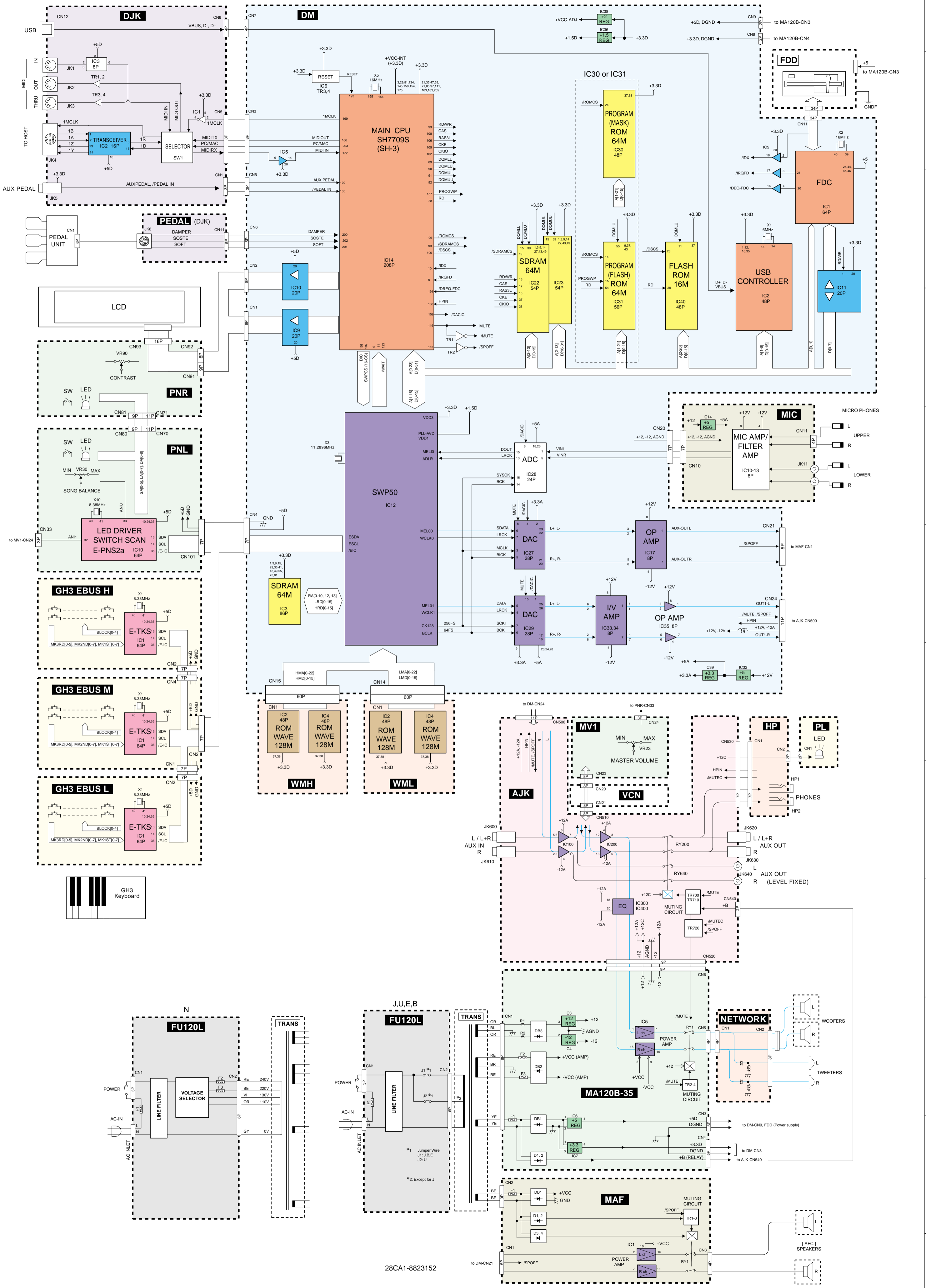
LOCATION	PART No.	PART NAME	DESTINATION
(B01)	(V875860)	3B POWER SUPPLY WIRE HARNESS	DM-CN8 - MA120B-CN4 - AJK-CN540
(A02)	(V875870)	5F POWER SUPPLY WIRE HARNESS	DM-CN9 - MA120B-CN3 - FDD
(A03)	V928920	EBUS-LF WIRE HARNESS	DM-CN4 - PNL-CN101 - GH3 EBUS M-CN2
(A04)	(VK10250)	KRD-KRD WIRE HARNESS (PDL2)	DM-CN6 - PEDAL-CN11
(A05)	V875890	FDD WIRE HARNESS	DM-CN11 - FDD
(A06)	(VK10110)	KRD-KRD WIRE HARNESS (ADI)	DM-CN20 - MIC-CN10
(A07)	(VK10950)	KRD-KRD WIRE HARNESS (MAF1)	MAF-CN1 - DM-CN21
(A08)	(V875910)	NW WIRE HARNESS	MA120B-CN5 - NETWORK-CN1
(B09)	(VK11370)	KRD-KRD WIRE HARNESS (HP)	AJK-CN530 - HP-CN1
(A10)	(V875930)	AFC1 WIRE HARNESS	AFC-CN_L - MAF-CN3 - AFC-CN_R
(D11)	V875940	AFC2 WIRE HARNESS	AFC-CN_L - BSP-L, AFC-CN_R - BSP-R
(A12)	(V875960)	SP WIRE HARNESS	NETWORK-CN2 - SP-CN - TW-L/R
(D13)	VK09960	KRD-KRD WIRE HARNESS (PL)	HP-CN2 - PL-CN1
(B14)	V937590	DJK WIRE HARNESS (THMD)	DM-CN3 - DJK-CN5
(B15)	(V933990)	USB CABLE	DM-CN7 - DJK-CN6
(B16)	(VK11260)	KRD-KRD WIRE HARNESS (ANA1)	DM-CN24 - AJK-CN500
(B17)	(VK11540)	KRD-KRD WIRE HARNESS (MAI)	MA120B-CN6 - AJK-CN520
(B18)	(V937850)	VOL3 WIRE HARNESS	AJK-CN510 - VCN-CN21
(B19)	(VK11200)	KRD-KRD WIRE HARNESS (PDL1)	DM-CN5 - DJK-CN1
(C20)	(VK11840)	KRD-KRD WIRE HARNESS (LCD1)	DM-CN1 - PNR-CN91
(C21)	(VK11990)	KRD-KRD WIRE HARNESS (LCD2)	DM-CN2 - PNR-CN92
(C22)	V875900	MIC3 WIRE HARNESS	MIC-CN11 - MIC-L/R
(D23)	V875950	PSW WIRE HARNESS	FU120L-CN1 - PSW
(C24)	(V875920)	VOL1 WIRE HARNESS	MV1-CN23 - VCN-CN20

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

2NC-V828060



CLP-170/CLP-170M/CLP-170C/CLP-170PE BLOCK DIAGRAM



28CA1-8823152