

Service Manual



GM-7100M/XU/EW

ORDER NO.
CRT3371

MONO POWER AMPLIFIER

GM-7100M

/XU/EW

GM-7100M/XU/UC

GM-7100M/XU/ES

GM-7100M/XU/CN

GM-7150M/XU/UC



For details, refer to "Important check points for good servicing".

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SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.

Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

● Service Precaution



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

A

CONTENTS

B

C

D

E

F

SAFETY INFORMATION2

1. SPECIFICATIONS5

2. EXPLODED VIEWS AND PARTS LIST6

 2.1 PACKING6

 2.2 EXTERIOR8

3. SCHEMATIC DIAGRAM.....12

 3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)12

 3.2 REMOTE CONTROL UNIT18

4. PCB CONNECTION DIAGRAM.....20

 4.1 AMP UNIT20

 4.2 REMOTE CONTROL UNIT24

5. ELECTRICAL PARTS LIST25

6. ADJUSTMENT28

7. GENERAL INFORMATION.....29

 7.1 DIAGNOSIS29

 7.1.1 DISASSEMBLY29

 7.1.2 CONNECTOR FUNCTION DESCRIPTION31

8. OPERATIONS32

1. SPECIFICATIONS

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	33.0 A (at continuous power, 4 Ω)
Backup current	3 mA or less
Average current drawn*	9.0 A (4 Ω for one channel) 16.0 A (2 Ω for one channel)
Fuse	30 A × 2
Dimensions	300 (W) × 60 (H) × 327 (D) mm
Weight	4.7 kg (Leads for wiring not included)
Maximum power output	500 W × 1 (4 Ω) / 800 W × 1 (2 Ω)
Continuous power output	250 W × 1 (at 14.4 V, 4 Ω, 20 — 240 Hz 0.5% THD) 360 W × 1 (at 14.4 V, 2 Ω, 20 — 240 Hz 0.8% THD)
Continuous power output (DIN power)	380 W × 1 (4 Ω) (DIN45324, +B=14.4 V)
Load impedance	4 Ω (2 — 8 Ω allowable)
Frequency response	10 — 240 Hz (+0 dB, -3 dB)
Signal-to-noise ratio	100 dB (IEC-A network)
Distortion	0.03 % (10 W, 120 Hz)
Low pass filter	Cut off frequency: 40 — 240 Hz Cut off slope: -12 dB/oct
Bass Boost	Frequency: 50 Hz Level: 0/6/9/12 dB
Gain control	RCA: 200 mV — 6.5 V Speaker: 0.8 — 26 V
Maximum input level / impedance	RCA: 6.5 V / 22 kΩ Speaker: 26 V / 40 kΩ

Note:

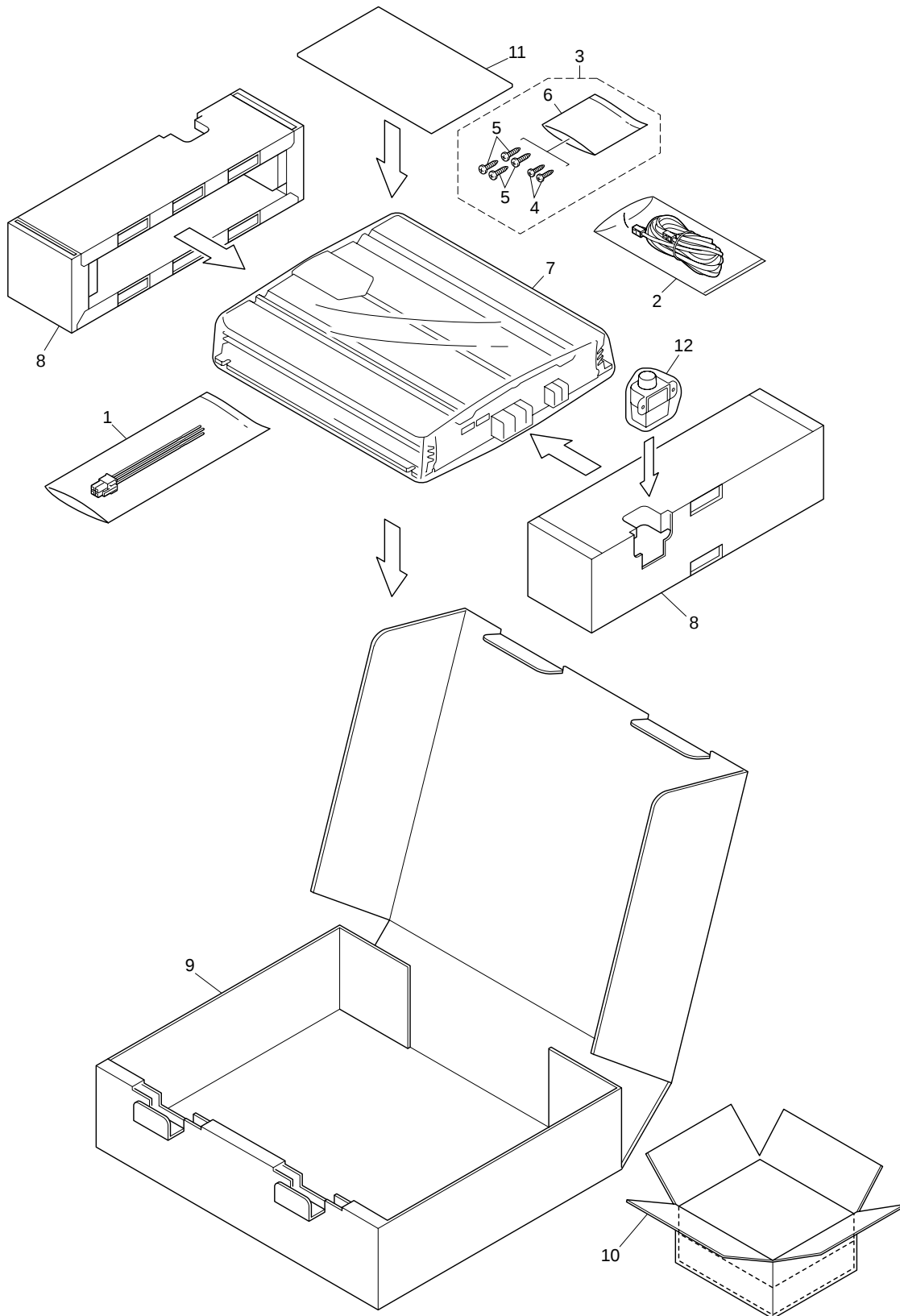
- Specifications and the design are subject to possible modification without notice due to improvements.

*Average current drawn

- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to ∇ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

● PACKING SECTION PARTS LIST

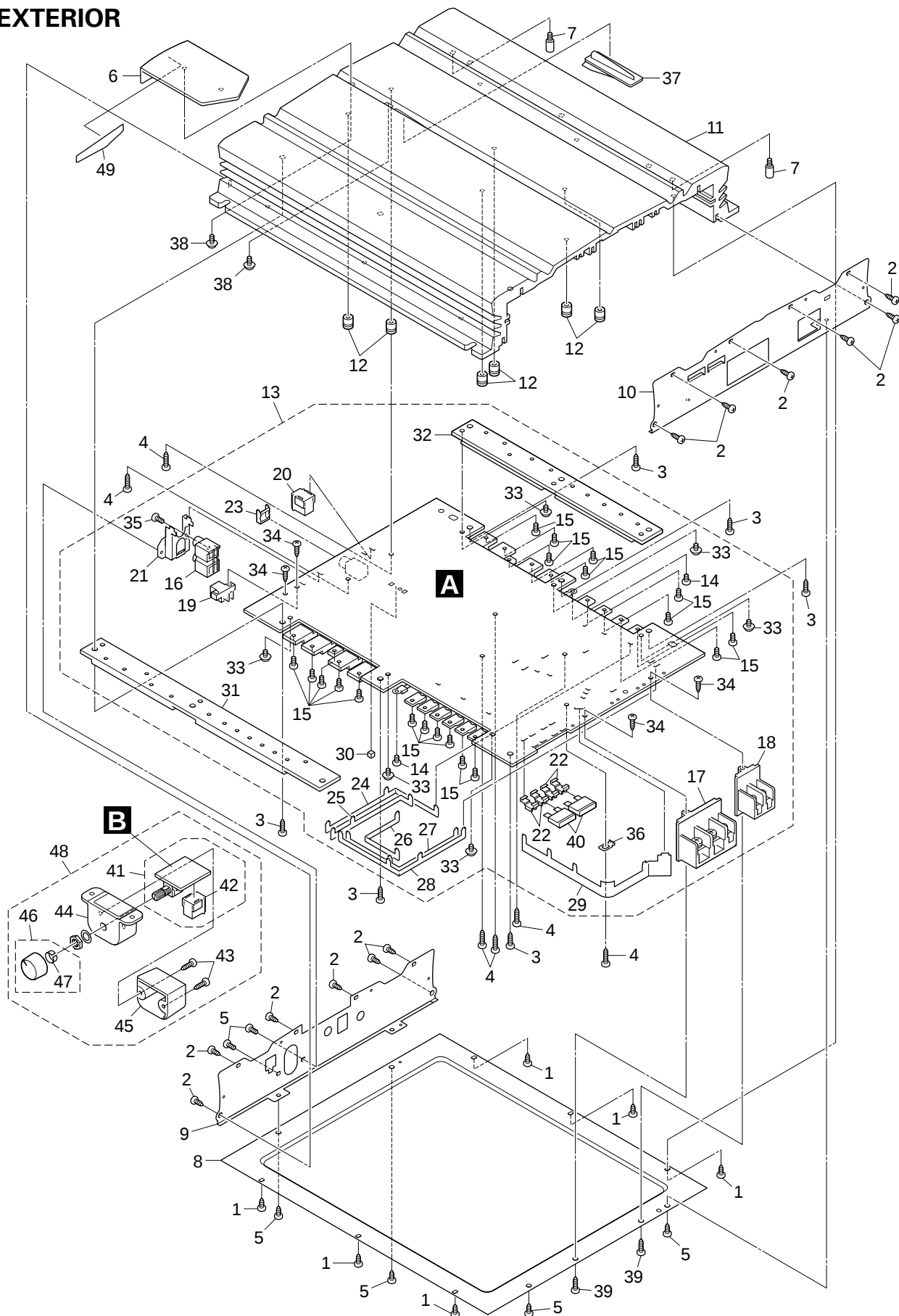
Mark No. Description	Part No.			
	GM-7100M/XU/EW	GM-7100M/XU/UC	GM-7100M/XU/ES	GM-7100M/XU/CN
1 Cord Assy	CDE7736	CDE7736	CDE7736	CDE7736
2 Cord Assy	CDE7804	Not used	Not used	Not used
3 Screw Assy	CEA4836	CEA4835	CEA4835	CEA4835
4 Screw	BYC30P100FZK	Not used	Not used	Not used
5 Screw	BYC40P180FZK	BYC40P180FZK	BYC40P180FZK	BYC40P180FZK
* 6 Polyethylene Sheet	CNM4338	CNM4338	CNM4338	CNM4338
7 Polyethylene Bag	CEG1317	CEG1351	CEG1317	CEG1317
8 Protector	CHP2911	CHP2911	CHP2911	CHP2911
9 Carton	CHG5364	CHG5366	CHG5365	CHG5466
10 Contain Box	CHL5364	CHL5366	CHL5365	CHL5466
11-1 Polyethylene Bag	CEG1116	CEG1116	CEG1116	CEG1116
11-2 Owner's Manual	CRD3920	CRD3922	CRD3923	CRB2042
* 11-3 Warranty Card	CRY1157	Not used	Not used	ARY7046
* 11-4 Card	Not used	ARY1048	Not used	Not used
11-5 Owner's Manual	Not used	Not used	CRD3924	Not used
12 Remote Control Assy	CXC4064	Not used	Not used	Not used

Mark No. Description	Part No.
	GM-7150M/XU/UC
1 Cord Assy	CDE7736
2 Cord Assy	CDE7804
3 Screw Assy	CEA4836
4 Screw	BYC30P100FZK
5 Screw	BYC40P180FZK
* 6 Polyethylene Sheet	CNM4338
7 Polyethylene Bag	CEG1351
8 Protector	CHP2911
9 Carton	CHG5367
10 Contain Box	CHL5367
11-1 Polyethylene Bag	CEG1116
11-2 Owner's Manual	CRD3921
* 11-3 Warranty Card	CRY1070
* 11-4 Card	Not used
11-5 Owner's Manual	Not used
12 Remote Control Assy	CXC4064

● Owner's Manual

Part No.	Language
CRD3920	English, Spanish, German, French, Italian, Dutch
CRD3921	English, French, Spanish
CRD3922	English, French, Spanish
CRD3923	English, Spanish
CRD3924	Arabic, Portuguese(B)
CRB2042	Traditional Chinese

2.2 EXTERIOR



● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BBZ30P060FTC	26	Buss Bar	CND2469
2	Screw	BBZ30P080FZK	27	Buss Bar	CND2471
3	Screw	BBZ30P100FZK	28	Buss Bar	CND2472
4	Screw	BBZ30P120FTC	29	Buss Bar	CND2729
5	Screw	BSZ30P050FZK	30	Spacer	CNM9570
*	6 Badge	See Contrast table(2)	31	Sub Heat Sink	CNR1778
	7 Screw	CBA1810	32	Sub Heat Sink	CNR1779
	8 Case	CNB3072	33	Screw	IMS30P050FZK
	9 Panel	See Contrast table(2)	34	Screw	PPZ30P100FSN
	10 Panel	See Contrast table(2)	35	Screw	PPZ30P100FZK
	11 Heat Sink	See Contrast table(2)	36	Terminal(CN850)	VNF1084
	12 Spacer	CNV8256	37	Lighting Conductor Unit	CXC4334
	13 Amp Unit	See Contrast table(2)	38	Screw	IBZ30P060FTC
	14 Screw	BBZ30P060FZK	39	Screw	PPZ30P100FZK
	15 Screw	BBZ30P080FZK	⚠ 40	Fuse(FU100,101)(30A)	CEK1330
	16 Pin Jack(CN111)	See Contrast table(2)	41	Remote Control Unit	See Contrast table(2)
	17 Terminal(CN853)	See Contrast table(2)	42	Connector(CN1351)	See Contrast table(2)
	18 Terminal(CN855)	See Contrast table(2)	43	Screw	See Contrast table(2)
	19 Socket(CN801)	CKM1463	44	Grille	See Contrast table(2)
	20 Connector(CN701)	See Contrast table(2)	45	Cover	See Contrast table(2)
	21 Holder	CND2456	46	Knob Unit	See Contrast table(2)
	22 Terminal	CND2458	47	Spring	See Contrast table(2)
	23 Holder	CND2466	48	Remote Control Assy	See Contrast table(2)
	24 Buss Bar	CND2467	49	Sheet	CNM9571
	25 Buss Bar	CND2468			

(2) CONTRAST TABLE

GM-7100M/XU/EW, GM-7100M/XU/UC, GM-7100M/XU/ES, GM-7100M/XU/CN and GM-7150M/XU/UC are constructed the same except for the following:

Mark No.	Description	Part No.			
		GM-7100M/XU/EW	GM-7100M/XU/UC	GM-7100M/XU/ES	GM-7100M/XU/CN
*	6 Badge	CAH1919	CAH1919	CAH1916	CAH1916
	9 Panel	CNB3057	CNB3059	CNB3060	CNB3060
	10 Panel	CNB3125	CNB3061	CNB3124	CNB3124
	11 Heat Sink	CNR1765	CNR1765	CNR1766	CNR1766
	13 Amp Unit	CWH1270	CWH1271	CWH1271	CWH1271
	16 Pin Jack(CN111)	CKB1069	CKB1068	CKB1068	CKB1068
	17 Terminal(CN853)	CKE1054	CKE1055	CKE1055	CKE1055
	18 Terminal(CN855)	CKE1056	CKE1057	CKE1057	CKE1057
	20 Connector(CN701)	CKS4962	Not used	Not used	Not used
	41 Remote Control Unit	CWM9848	Not used	Not used	Not used
	42 Connector(CN1351)	CKS4962	Not used	Not used	Not used
	43 Screw	BPZ20P100FZK	Not used	Not used	Not used
	44 Grille	CNS8140	Not used	Not used	Not used
	45 Cover	CNS8141	Not used	Not used	Not used
	46 Knob Unit	CXC4335	Not used	Not used	Not used
	47 Spring	CBL1692	Not used	Not used	Not used
	48 Remote Control Assy	CXC4064	Not used	Not used	Not used

Mark No.	Description	Part No.
		GM-7150M/XU/UC
*	6 Badge	CAH1917
	9 Panel	CNB3058
	10 Panel	CNB3114
	11 Heat Sink	CNR1792
	13 Amp Unit	CWH1270
	16 Pin Jack(CN111)	CKB1069
	17 Terminal(CN853)	CKE1054
	18 Terminal(CN855)	CKE1056
	20 Connector(CN701)	CKS4962
	41 Remote Control Unit	CWM9848
	42 Connector(CN1351)	CKS4962
	43 Screw	BPZ20P100FZK
	44 Grille	CNS8140
	45 Cover	CNS8141
	46 Knob Unit	CXC4335
	47 Spring	CBL1692
	48 Remote Control Assy	CXC4064



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GM-7100M/XU/EW



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3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

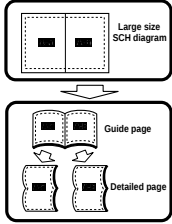
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

A-a

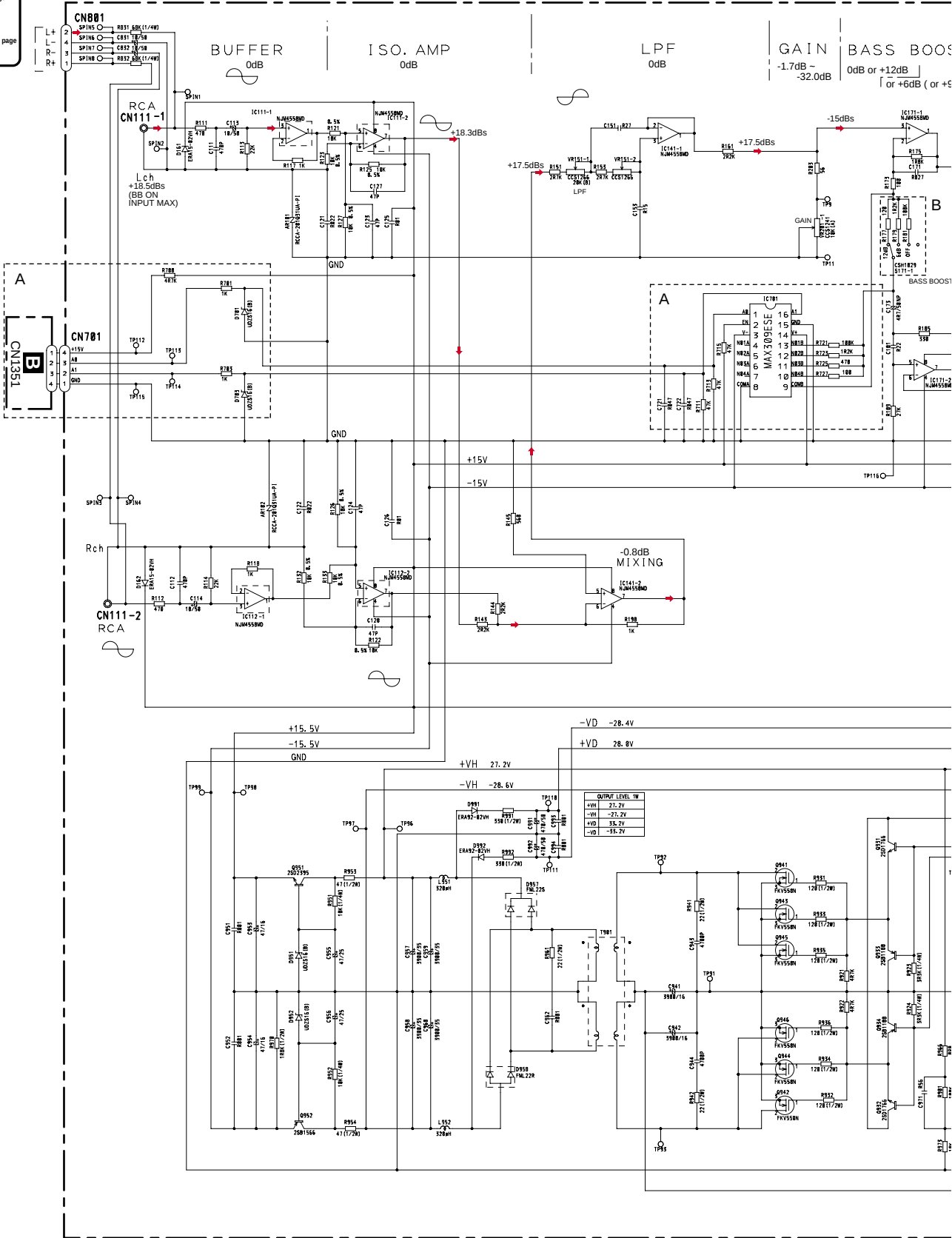
NOTE :
—□— Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
—||— Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

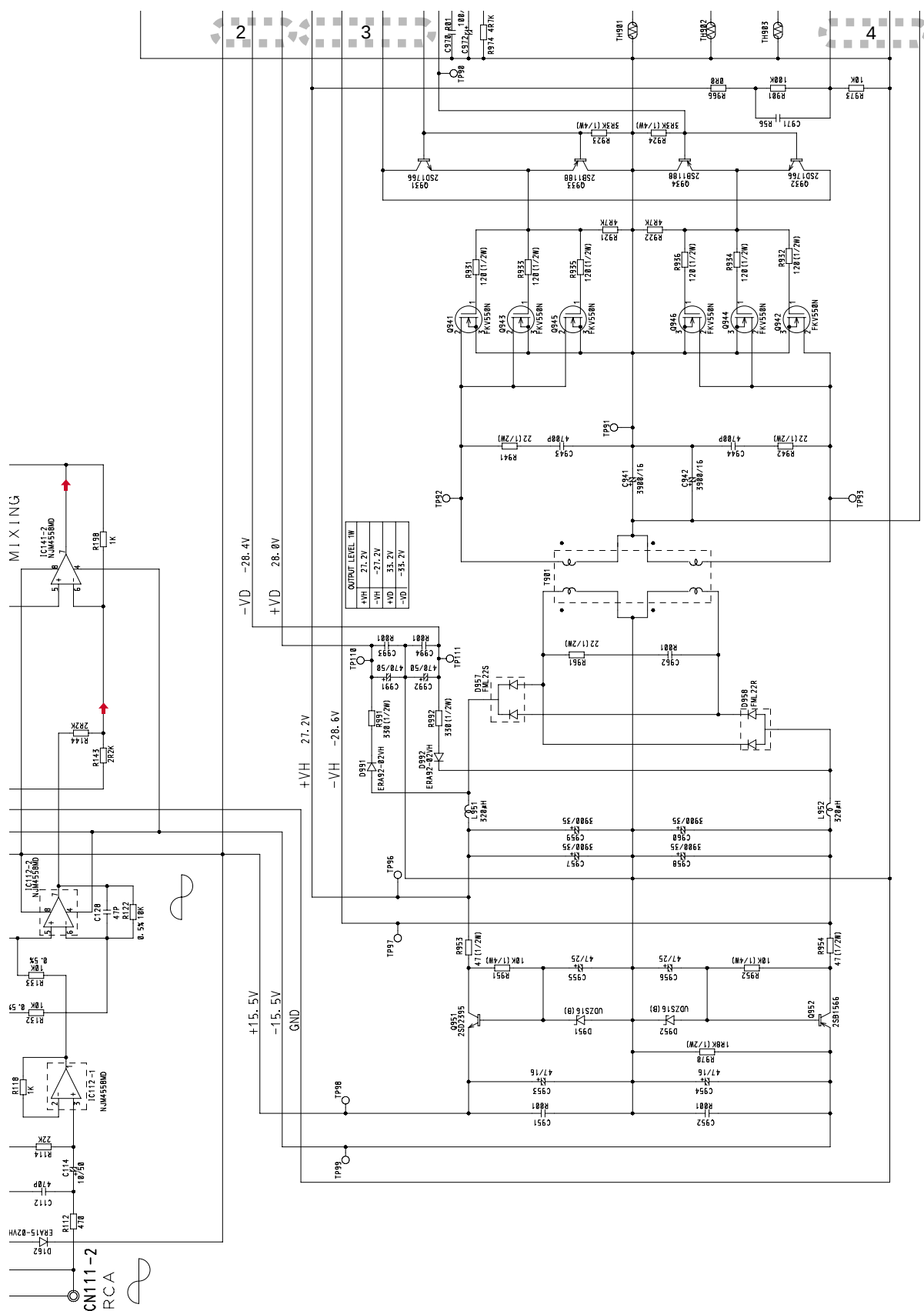
Decimal points for resistor and capacitor fixed values are expressed as :
2.2 → 2R2
0.022 → R022

The Δ mark found on some component parts indicate the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



SPEAKER LEVEL INPUT





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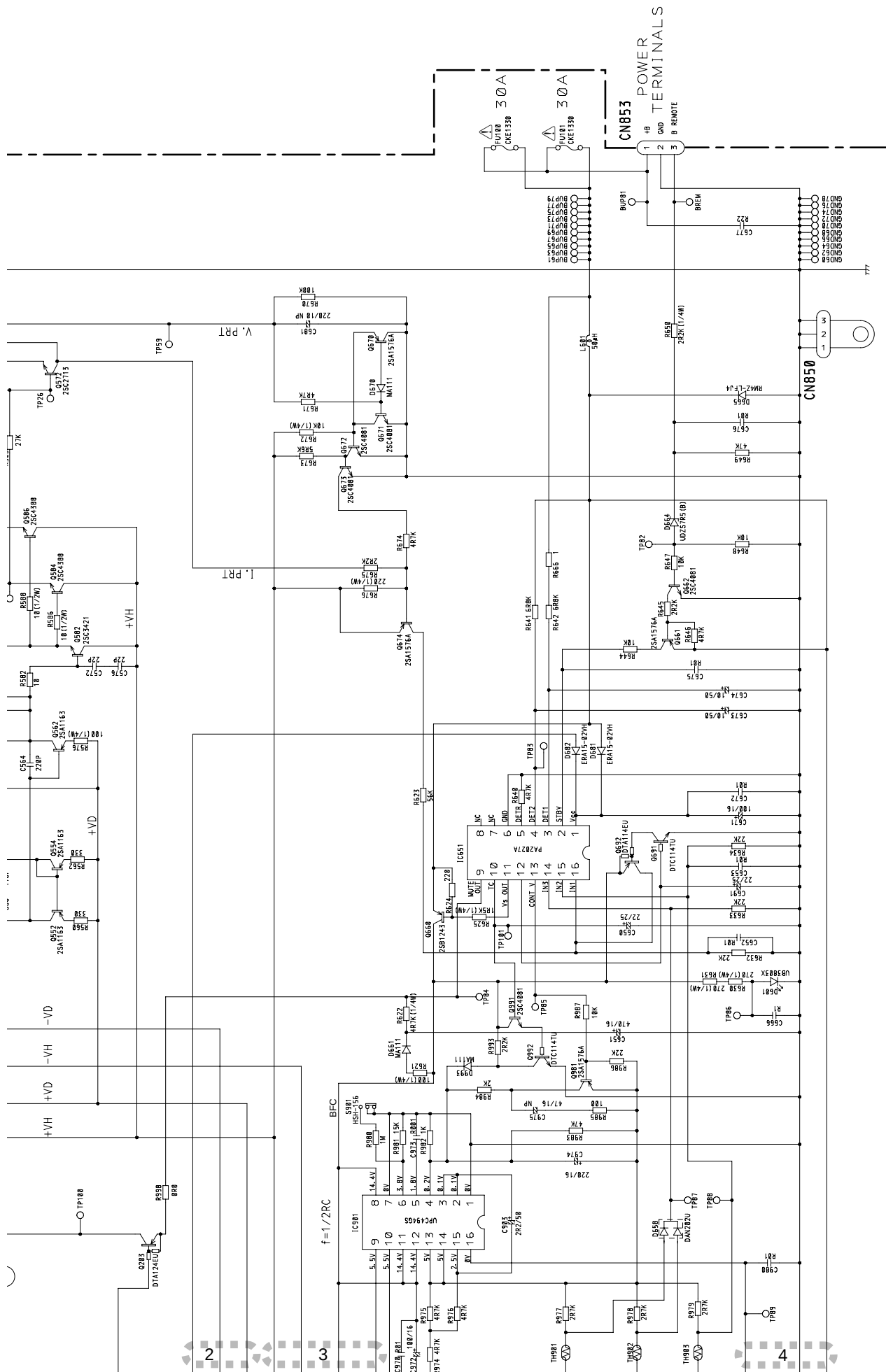
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A-a	A-b
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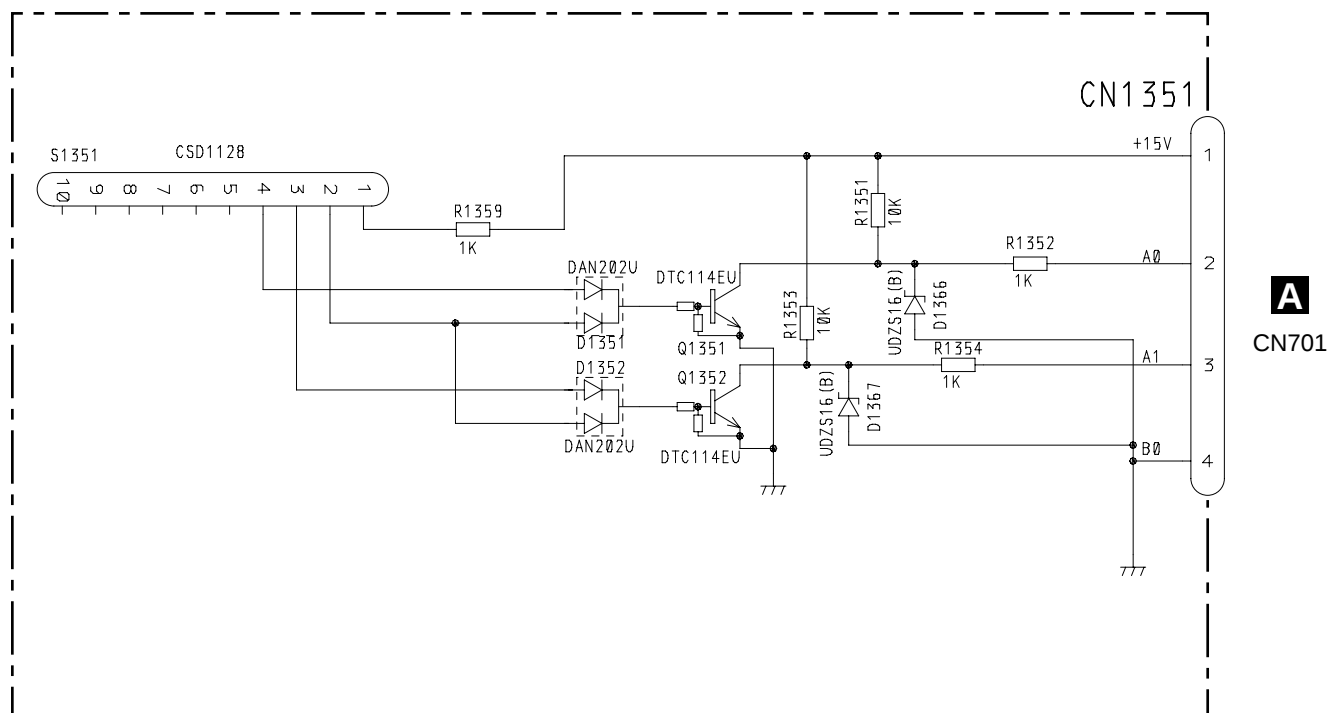
A-a



A-b

3.2 REMOTE CONTROL UNIT (GM-7100M/XU/EW, GM-7150M/XU/UC)

B REMOTE CONTROL UNIT





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GM-7100M/XU/EW



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SIDE A

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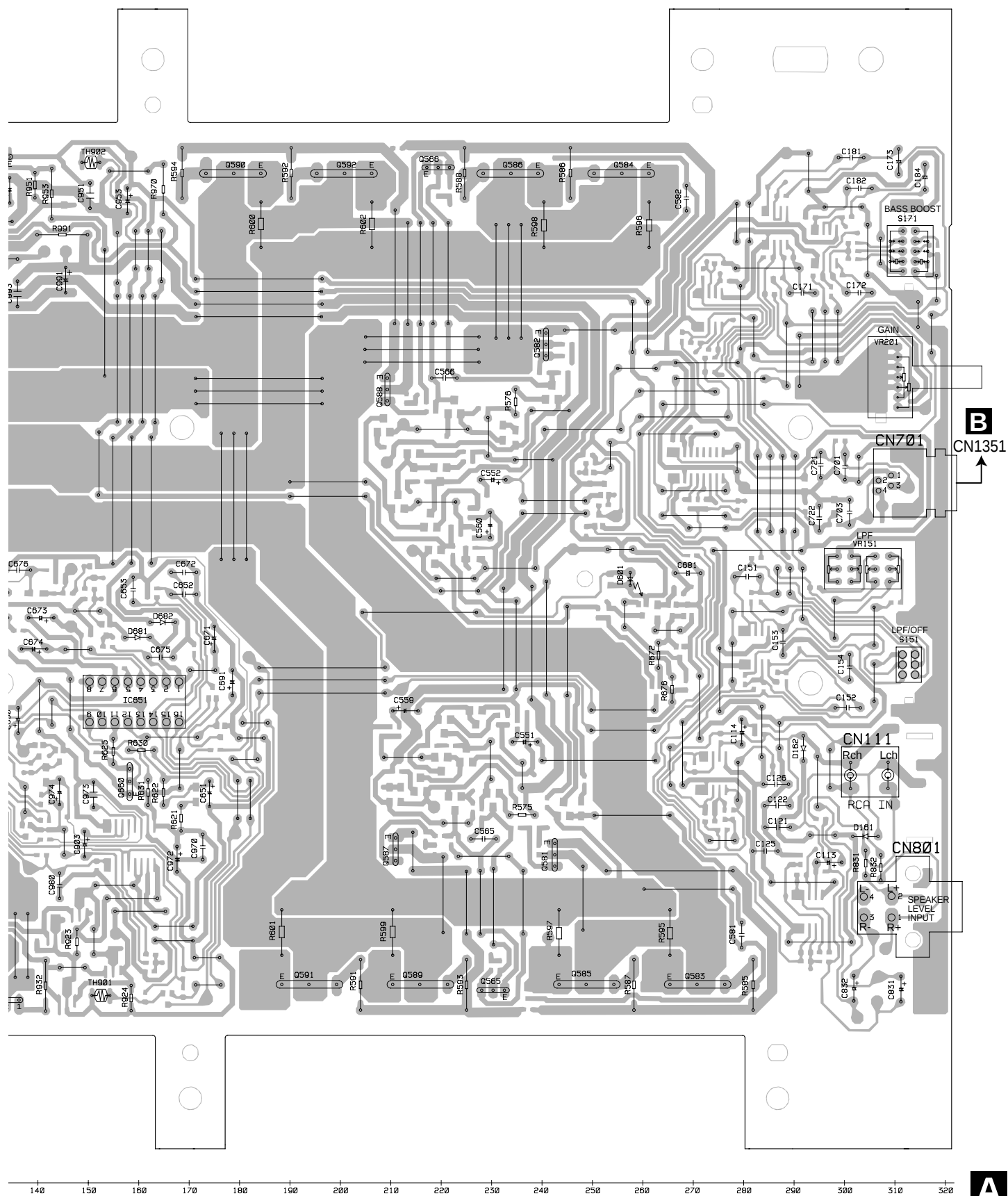
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SIDE B

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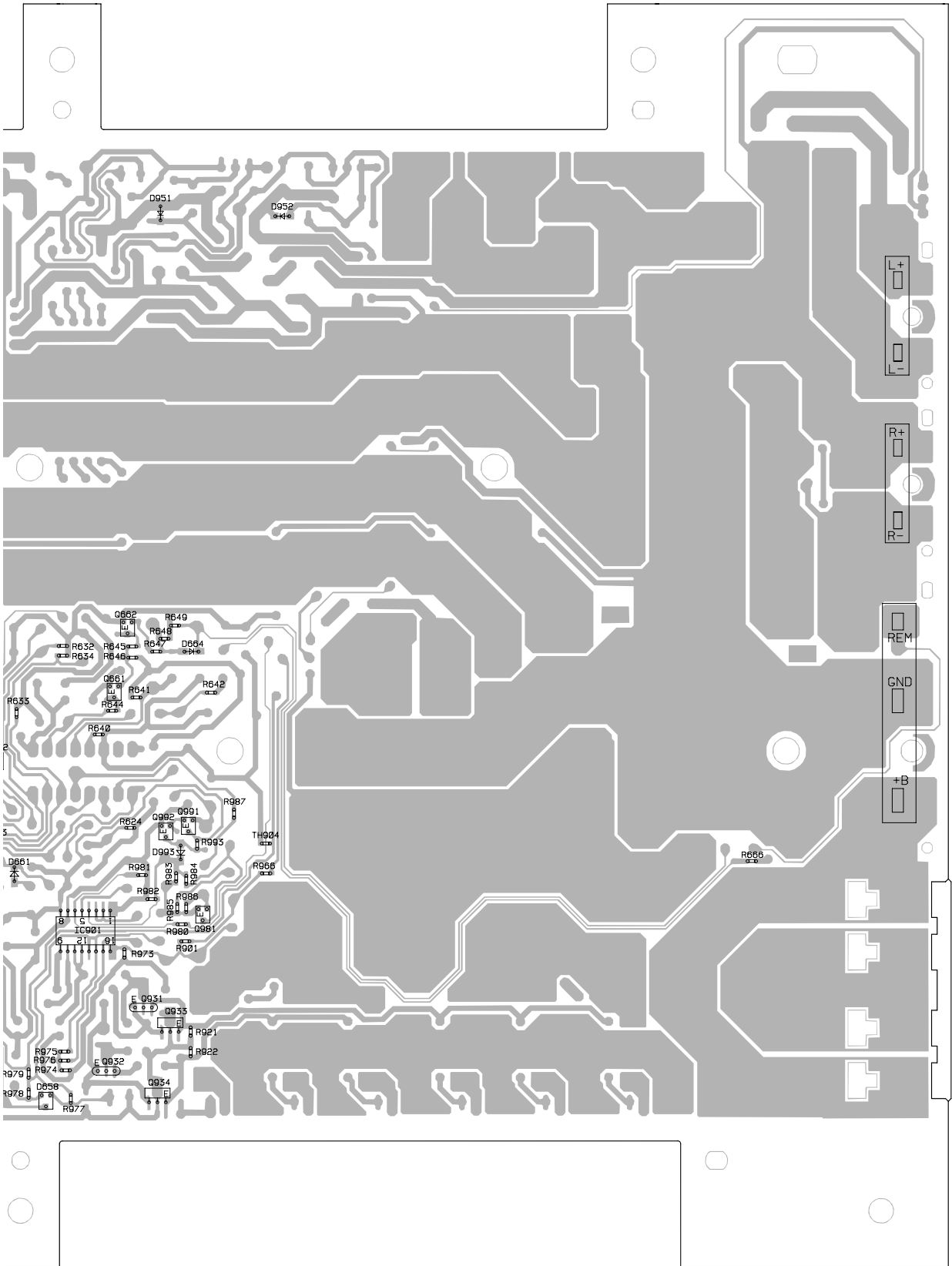
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170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
X

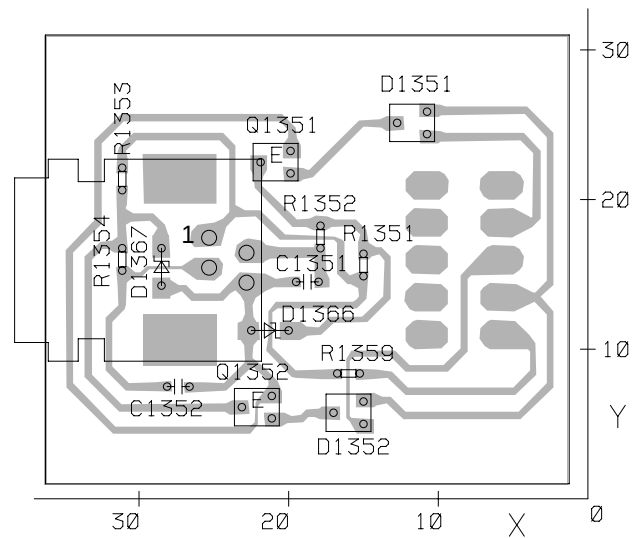
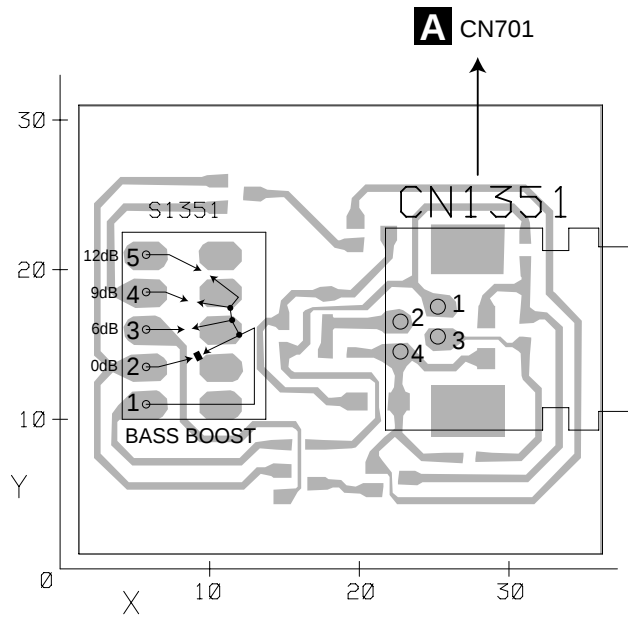
4.2 REMOTE CONTROL UNIT (GM-7100M/XU/EW, GM-7150M/XU/UC)

B REMOTE CONTROL UNIT

SIDE A

B REMOTE CONTROL UNIT

SIDE B



5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- The Δ mark found on some component parts indicates the importance of the safety factor of the part.
- Therefore, when replacing, be sure to use parts of identical designation.

Meaning of the figures and others in the parentheses in the parts list.

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
A Unit Number : CWH1270(EW,7150M/UC)		Q 671 (B,266,113) Transistor	2SC4081
Unit Number : CWH1271(UC,ES,CN)		Q 672 (B,267,105) Transistor	2SC4081
Unit Name : Amp Unit		Q 673 (B,260,114) Transistor	2SC4081
		Q 674 (B,263,97) Transistor	2SA1576A
		Q 691 (B,176,89) Transistor	DTC114TU
MISCELLANEOUS		Q 692 (B,175,97) Transistor	DTA114EU
IC 111 (B,294,54) IC	NJM4558MD	Q 931 (B,148,55) Transistor	2SD1766
IC 112 (B,275,81) IC	NJM4558MD	Q 932 (B,155,44) Transistor	2SD1766
IC 141 (B,283,106) IC	NJM4558MD	Q 933 (B,143,50) Transistor	2SB1188
IC 171 (B,287,189) IC	NJM4558MD	Q 934 (B,146,38) Transistor	2SB1188
IC 191 (B,274,173) IC	NJM4558MD	Q 941 (A,91,36) Transistor	FKV550N
IC 651 (A,168,99) IC	PA2027A	Q 942 (A,136,36) Transistor	FKV550N
IC 701 (B,271,142) IC(EW,7150M/UC)	MAX309ESE	Q 943 (A,76,36) Transistor	FKV550N
IC 901 (B,159,67) IC	UPC494GS	Q 944 (A,121,36) Transistor	FKV550N
Q 201 (B,249,140) Transistor	2SC4081	Q 945 (A,61,36) Transistor	FKV550N
Q 202 (B,252,137) Transistor	2SC4081	Q 946 (A,106,36) Transistor	FKV550N
Q 203 (B,251,131) Transistor	DTA124EU	Q 951 (A,129,203) Transistor	2SD2395
Q 551 (B,221,90) Transistor	2SA1163	Q 952 (A,109,203) Transistor	2SB1566
Q 552 (B,220,140) Transistor	2SA1163	Q 981 (B,138,70) Transistor	2SA1576A
Q 553 (B,227,92) Transistor	2SA1163	Q 991 (B,140,86) Transistor	2SC4081
Q 554 (B,215,143) Transistor	2SA1163	Q 992 (B,144,85) Transistor	DTC114TU
Q 555 (B,225,85) Transistor	2SC2713	D 161 (A,307,69) Diode	ERA15-02VH
Q 556 (B,218,131) Transistor	2SC2713	D 162 (A,292,89) Diode	ERA15-02VH
Q 557 (B,220,83) Transistor	2SC2713	D 553 (B,212,77) Diode	MA111
Q 558 (B,211,135) Transistor	2SC2713	D 554 (B,232,149) Diode	MA111
Q 559 (B,216,79) Transistor	2SC2713	D 555 (B,210,77) Diode	MA111
Q 560 (B,209,150) Transistor	2SC2713	D 556 (B,235,148) Diode	MA111
Q 561 (B,230,76) Transistor	2SA1163	D 557 (B,248,74) Diode	MA111
Q 562 (B,242,157) Transistor	2SA1163	D 558 (B,226,124) Diode	MA111
Q 563 (B,223,75) Transistor	2SC2713	D 601 (A,258,121) LED	UB3803X
Q 564 (B,223,154) Transistor	2SC2713	D 658 (B,166,36) Diode	DAN202U
Q 565 (A,230,38) Transistor	2SD1684	D 661 (B,171,77) Diode	MA111
Q 566 (A,219,201) Transistor	2SD1684	D 664 (B,140,117) Diode	UDZS7R5(B)
Q 571 (B,244,74) Transistor	2SC2713	D 665 (A,48,102) Diode	RM4Z-LFJ4
Q 572 (B,219,124) Transistor	2SC2713	D 670 (B,263,113) Diode	MA111
Q 581 (A,243,65) Transistor	2SC3421	D 681 (A,157,108) Diode	ERA15-02VH
Q 582 (A,241,166) Transistor	2SC3421	D 682 (A,162,111) Diode	ERA15-02VH
Q 583 (A,276,39) Transistor	2SC4388	D 701 (B,292,138) Diode(EW,7150M/UC)	UDZS16(B)
Q 584 (A,250,200) Transistor	2SC4388	D 703 (B,298,134) Diode(EW,7150M/UC)	UDZS16(B)
Q 585 (A,254,39) Transistor	2SC4388	D 951 (B,145,195) Diode	UDZS16(B)
Q 586 (A,228,200) Transistor	2SC4388	D 952 (B,123,195) Diode	UDZS16(B)
Q 587 (A,211,66) Transistor	2SA1358	D 957 (A,89,203) Diode	FML22S
Q 588 (A,209,157) Transistor	2SA1358	D 958 (A,70,203) Diode	FML22R
Q 589 (A,221,39) Transistor	2SA1673	D 991 (A,125,187) Diode	ERA92-02VH
Q 590 (A,173,200) Transistor	2SA1673	D 992 (A,122,186) Diode	ERA92-02VH
Q 591 (A,199,39) Transistor	2SA1673	D 993 (B,142,81) Diode	MA111
Q 592 (A,195,200) Transistor	2SA1673	L 601 (A,60,72) Choke Coil 50μH	CTH1323
Q 660 (A,158,77) Transistor	2SB1243	L 951 (A,69,166) Choke Coil 320μH	CTH1326
Q 661 (B,154,110) Transistor	2SA1576A	L 952 (A,41,166) Choke Coil 320μH	CTH1326
Q 662 (B,151,121) Transistor	2SC4081	T 901 (A,101,86) Transformer	CTT1123
Q 670 (B,269,113) Transistor	2SA1576A		

A	====Circuit Symbol and No.===Part Name			Part No.	====Circuit Symbol and No.===Part Name			Part No.
	TH	901	(A,151,37) Thermistor	CCX1013	R	560	(B,225,143)	RS1/16S331J
	TH	902	(A,149,202) Thermistor	CCX1013	R	561	(B,233,92)	RS1/16S331J
	TH	903	(A,128,105) Thermistor	CCX1064	R	562	(B,225,145)	RS1/16S331J
	S	171	(A,314,181) Switch	CSH1029	R	563	(B,222,87)	RS1/16S681J
			(UC,ES,CN)(BASS BOOST)		R	564	(B,216,139)	RS1/16S681J
	S	901	(A,9,200) Switch(BFC)	HSH-156	R	565	(B,212,89)	RS1/16S361J
	VR	151	(A,309,119) Volume 20kΩ(E)(LPF)	CCS1266	R	566	(B,226,129)	RS1/16S361J
	VR	201	(A,311,154) Volume 10kΩ(A)(GAIN)	CCS1241	R	567	(B,210,89)	RS1/16S223J
	FU	100	(A,20,45) Fuse 30A	CEK1330	R	568	(B,223,129)	RS1/16S223J
	FU	101	(A,20,68) Fuse 30A	CEK1330	R	569	(B,211,82)	RS1/16S681J
	AR	101	(B,315,81) Surge Protector	RCCA-201Q31UA-PI	R	570	(B,210,146)	RS1/16S681J
	AR	102	(B,310,92) Surge Protector	RCCA-201Q31UA-PI	R	571	(B,236,75)	RS1/16S223J
B	RESISTORS				R	572	(B,228,154)	RS1/16S223J
	R	111	(B,295,72)	RS1/16S471J	R	573	(B,232,43)	RS1/16S121J
	R	112	(B,283,91)	RS1/16S471J	R	574	(B,219,197)	RS1/16S121J
	R	113	(B,295,62)	RS1/16S223J	R	575	(A,234,73)	RD1/4PU101J
	R	114	(B,275,88)	RS1/16S223J	R	576	(A,235,157)	RD1/4PU101J
	R	117	(B,292,61)	RS1/16S102J	R	577	(B,222,68)	RS1/16S681J
					R	578	(B,218,155)	RS1/16S681J
	R	118	(B,270,82)	RS1/16S102J	R	579	(B,226,74)	RS1/16S181J
	R	121	(B,296,46)	RS1/16S1002D	R	580	(B,221,147)	RS1/16S181J
	R	122	(B,273,73)	RS1/16S1002D	R	581	(B,235,70)	RS1/16S100J
	R	123	(B,296,44)	RS1/16S1002D	R	582	(B,240,161)	RS1/16S100J
	R	125	(B,292,44)	RS1/16S1002D	R	583	(B,220,69)	RS1/16S100J
					R	584	(B,218,153)	RS1/16S100J
C	R	126	(B,287,83)	RS1/16S1002D	R	585	(A,282,34)	RD1/2PM100J
	R	127	(B,291,64)	RS1/16S1002D	R	586	(A,246,205)	RD1/2PM100J
	R	132	(B,273,72)	RS1/16S1002D	R	587	(A,258,34)	RD1/2PM100J
	R	133	(B,278,73)	RS1/16S1002D	R	588	(A,225,205)	RD1/2PM100J
	R	143	(B,282,99)	RS1/16S222J	R	589	(B,237,34)	RS1/16S221J
	R	144	(B,284,98)	RS1/16S222J	R	590	(B,211,205)	RS1/16S221J
	R	145	(B,291,107)	RS1/16S561J	R	591	(A,204,34)	RD1/2PM100J
	R	151	(B,310,115)	RS1/16S272J	R	592	(A,190,205)	RD1/2PM100J
	R	153	(B,294,118)	RS1/16S272J	R	593	(A,225,34)	RD1/2PM100J
	R	161	(B,283,124)	RS1/16S222J	R	594	(A,169,205)	RD1/2PM100J
	R	173	(B,287,179)	RS1/16S101J	R	595	(A,265,54) 1Ω	CCN1151
	R	175	(B,289,184)	RS1/16S182J	R	596	(A,261,195) 1Ω	CCN1151
	R	177	(B,316,181) (UC,ES,CN)	RS1/16S121J	R	597	(A,243,54) 1Ω	CCN1151
	R	179	(B,317,185) (UC,ES,CN)	RS1/16S122J	R	598	(A,240,195) 1Ω	CCN1151
	R	181	(B,318,185) (UC,ES,CN)	RS1/16S104J	R	599	(A,210,45) 1Ω	CCN1151
D	R	185	(B,288,196)	RS1/16S331J	R	600	(A,184,186) 1Ω	CCN1151
	R	189	(B,284,198)	RS1/16S273J	R	601	(A,188,45) 1Ω	CCN1151
	R	191	(B,275,182)	RS1/16S222J	R	602	(A,206,186) 1Ω	CCN1151
	R	192	(B,274,165)	RS1/16S222J	R	621	(A,168,70)	RD1/4PU101J
	R	193	(B,272,180)	RS1/16S222J	R	622	(A,165,75)	RD1/4PU472J
	R	194	(B,270,167)	RS1/16S222J	R	623	(B,175,86)	RS1/16S563J
	R	195	(B,276,179)	RS1/16S122J	R	624	(B,151,85)	RS1/16S221J
	R	198	(B,280,100)	RS1/16S102J	R	625	(A,155,88)	RD1/4PU152J
	R	201	(B,250,143)	RS1/16S472J	R	630	(A,163,86)	RD1/4PU271J
	R	202	(B,252,134)	RS1/16S472J	R	631	(A,162,80)	RD1/4PU271J
	R	203	(B,285,176)	RS1/16S560J	R	632	(B,163,118)	RS1/16S223J
	R	205	(B,273,161)	RS1/16S222J	R	633	(B,171,106)	RS1/16S223J
	R	206	(B,268,168)	RS1/16S222J	R	634	(B,163,116)	RS1/16S223J
E	R	505	(B,260,38)	RS1/16S273J	R	640	(B,156,102)	RS1/16S472J
	R	506	(B,265,202)	RS1/16S273J	R	641	(B,150,109)	RS1/16S682J
	R	507	(B,237,38)	RS1/16S273J	R	642	(B,136,110)	RS1/16S682J
	R	508	(B,243,202)	RS1/16S273J	R	644	(B,154,106)	RS1/16S103J
	R	509	(B,248,80)	RS1/16S564J	R	645	(B,150,118)	RS1/16S222J
	R	510	(B,226,126)	RS1/16S564J	R	646	(B,150,116)	RS1/16S472J
	R	511	(B,241,75)	RS1/16S473J	R	647	(B,146,117)	RS1/16S103J
	R	512	(B,222,125)	RS1/16S473J	R	648	(B,145,119)	RS1/16S103J
	R	513	(A,13,204)	RD1/2PM100J	R	649	(B,143,122)	RS1/16S473J
	R	514	(A,27,143)	RD1/2PM100J	R	650	(A,44,82)	RD1/4PU222J
	R	551	(B,230,43)	RS1/16S182J	R	666	(B,39,79)	RS1/16S1R0J
	R	552	(B,222,197)	RS1/16S182J	R	670	(B,270,118)	RS1/16S104J
F	R	555	(B,236,90)	RS1/16S103J				
	R	556	(B,228,136)	RS1/16S103J				
	R	557	(B,236,92)	RS1/16S473J				
	R	558	(B,226,133)	RS1/16S473J				
	R	559	(B,231,92)	RS1/16S331J				

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.	A
R 671 (B,267,117)	RS1/16S472J	C 122 (A,284,75)	CFTNA223J50	
R 672 (A,263,107)	RD1/4PU103J	C 123 (B,290,64)	CCSRCH470J50	
R 673 (B,269,99)	RS1/16S562J	C 124 (B,287,81)	CCSRCH470J50	
R 674 (B,253,113)	RS1/16S472J	C 125 (A,287,66)	CFTNA103J50	
R 675 (B,251,113)	RS1/16S222J	C 126 (A,284,79)	CFTNA103J50	
R 676 (A,266,100)	RD1/4PU221J	C 127 (B,292,46)	CCSRCH470J50	
R 700 (B,307,130) (EW,7150M/UC)	RS1/16S472J	C 128 (B,273,75)	CCSRCH470J50	
R 701 (B,299,147) (EW,7150M/UC)	RS1/16S102J	C 151 (A,283,120)	CFTNA274J50	
R 703 (B,298,130) (EW,7150M/UC)	RS1/16S102J	C 153 (A,288,105)	CFTNA154J50	
R 711 (B,292,134) (EW,7150M/UC)	RS1/16S473J	C 171 (A,289,176)	CFTNA273J50	
R 713 (B,298,142) (EW,7150M/UC)	RS1/16S473J	C 173 (A,311,205)	CEANP4R7M50	
R 715 (B,267,147) (EW,7150M/UC)	RS1/16S473J	C 181 (A,299,203)	CFTNA224J50	
R 721 (B,269,135) (EW,7150M/UC)	RS1/16S104J	C 551 (A,239,87)	CEAT100M50	
R 723 (B,271,135) (EW,7150M/UC)	RS1/16S122J	C 552 (A,233,139)	CEAT100M50	
R 725 (B,273,135) (EW,7150M/UC)	RS1/16S471J	C 553 (B,236,93)	CKSRYB153K50	
R 727 (B,279,134) (EW,7150M/UC)	RS1/16S101J	C 554 (B,227,133)	CKSRYB153K50	
R 831 (A,304,66)	RD1/4PU683J	C 555 (B,218,87)	CKSRYB471K50	
R 832 (A,307,65)	RD1/4PU683J	C 556 (B,212,139)	CKSRYB471K50	
R 901 (B,141,65)	RS1/16S104J	C 559 (A,210,94)	CEAT221M10	
R 921 (B,140,49)	RS1/16S472J	C 560 (A,230,128)	CEAT221M10	
R 922 (B,140,45)	RS1/16S472J	C 561 (B,208,89)	CCSRCH150J50	
R 923 (A,148,50)	RD1/4PU332J	C 562 (B,223,130)	CCSRCH150J50	
R 924 (A,159,34)	RD1/4PU332J	C 563 (B,228,73)	CCSRCH221J50	
R 931 (A,95,41)	RD1/2PM121J	C 564 (B,244,161)	CCSRCH221J50	
R 932 (A,142,34)	RD1/2PM121J	C 565 (A,231,68)	CFTNA223J50	
R 933 (A,81,41)	RD1/2PM121J	C 566 (A,218,160)	CFTNA223J50	
R 934 (A,125,41)	RD1/2PM121J	C 567 (A,38,206)	CFTNA333J50	
R 935 (A,65,41)	RD1/2PM121J	C 568 (A,27,158)	CFTNA333J50	
R 936 (A,112,41)	RD1/2PM121J	C 569 (A,32,209)	CQHA102J2A	
R 941 (A,73,68)	RD1/2PM220J	C 570 (A,27,147)	CQHA102J2A	
R 942 (A,125,57)	RD1/2PM220J	C 571 (B,239,70)	CCSRCH220J50	
R 951 (A,139,200)	RD1/4PU103J	C 572 (B,245,164)	CCSRCH220J50	
R 952 (A,112,193)	RD1/4PU103J	C 573 (B,217,69)	CCSRCH220J50	
R 953 (A,143,201)	RD1/2PM470J	C 574 (B,215,154)	CCSRCH220J50	
R 954 (A,119,204)	RD1/2PM470J	C 575 (B,239,66)	CCSRCH220J50	
R 961 (A,116,112)	RD1/2PM220J	C 576 (B,245,166)	CCSRCH220J50	
R 966 (B,126,77)	RS1/16S0R0J	C 577 (B,219,66)	CCSRCH220J50	
R 970 (A,165,202)	RD1/2PM182J	C 578 (B,213,156)	CCSRCH220J50	
R 973 (B,152,63)	RS1/16S103J	C 650 (A,136,89)	CEAT220M25	
R 974 (B,162,42)	RS1/16S472J	C 651 (A,174,80)	CEAT471M16	
R 975 (B,162,45)	RS1/16S472J	C 652 (A,171,117)	CFTNA103J50	
R 976 (B,162,44)	RS1/16S472J	C 653 (A,159,120)	CFTNA103J50	
R 977 (B,161,37)	RS1/16S272J	C 666 (B,254,120)	CKSQYB104K50	
R 978 (B,169,38)	RS1/16S272J	C 671 (A,175,105)	CEAT101M16	
R 979 (B,169,41)	RS1/16S272J	C 672 (A,171,121)	CFTNA103J50	
R 980 (B,141,68)	RS1/16S105J	C 673 (A,143,112)	CEAT100M50	
R 981 (B,149,77)	RS1/16S153J	C 674 (A,142,106)	CEAT100M50	
R 982 (B,147,73)	RS1/16S102J	C 675 (A,167,104)	CFTNA103J50	
R 983 (B,142,76)	RS1/16S473J	C 676 (A,134,122)	CFTNA103J50	
R 984 (B,141,76)	RS1/16S202J	C 677 (A,26,89)	CFTNA224J50	
R 985 (B,142,71)	RS1/16S101J	C 681 (A,271,121)	CEANP221M10	
R 986 (B,141,71)	RS1/16S223J	C 691 (A,179,97)	CEAT220M25	
R 987 (B,132,88)	RS1/16S103J	C 721 (A,295,145) (EW,7150M/UC)	CFTNA473J50	
R 991 (A,140,188)	RD1/2PM331J	C 722 (A,295,129) (EW,7150M/UC)	CFTNA473J50	
R 992 (A,126,183)	RD1/2PM331J	C 831 (A,311,41)	CEAT100M50	
R 993 (B,139,82)	RS1/16S222J	C 832 (A,302,41)	CEAT100M50	
R 998 (B,270,124)	RS1/16S0R0J	C 903 (A,149,70)	CEAT2R2M50	
CAPACITORS		C 941 (A,67,101) 3900μF/16V	CCH1644(P35)	
C 111 (B,297,65)	CKSRYB471K50	C 942 (A,67,84) 3900μF/16V	CCH1644(P35)	
C 112 (B,283,89)	CKSRYB471K50	C 943 (A,70,53)	CQHA472J2A	
C 113 (A,299,64)	CEAT100M50	C 944 (A,129,52)	CQHA472J2A	
C 114 (A,280,92)	CEAT100M50	C 951 (A,150,196)	CQHA102J2A	
C 121 (A,284,71)	CFTNA223J50	C 952 (A,123,202)	CQHA102J2A	
		C 953 (A,158,197)	CEAT470M16	
		C 954 (A,128,194)	CEAT470M16	

A

====Circuit Symbol and No.===Part Name			Part No.
C	955	(A,134,194)	CEAT470M25
C	956	(A,114,198)	CEAT470M25
C	957	(A,63,135) 3900μF/35V	CCH1645(P35)
C	958	(A,43,135) 3900μF/35V	CCH1645(P35)
C	959	(A,63,156) 3900μF/35V	CCH1645(P35)
C	960	(A,43,155) 3900μF/35V	CCH1645(P35)
C	962	(A,110,125)	CQHA102J2A
C	970	(A,173,64)	CFTNA103J50
C	971	(A,132,67)	CFTNA564J50
C	972	(A,168,67)	CEAT101M16
C	973	(A,151,77)	CQHA102J2A
C	974	(A,144,75)	CEAT221M16
C	975	(A,133,77)	CEANP470M16
C	980	(A,144,56)	CFTNA103J50
C	991	(A,146,182)	CEAT471M50(P45)
C	992	(A,121,180)	CEAT471M50(P45)
C	993	(A,136,176)	CQHA102J2A
C	994	(A,130,176)	CQHA102J2A

B

B

B Unit Number : CWM9848(EW,7150M/UC)
Unit Name : Remote Control Unit

MISCELLANEOUS

C

Q	1351	(B,21,23) Transistor	DTC114EU
Q	1352	(B,22,6) Transistor	DTC114EU
D	1351	(B,12,25) Diode	DAN202U
D	1352	(B,16,6) Diode	DAN202U
D	1366	(B,21,11) Diode	UDZS16(B)
D	1367	(B,29,16) Diode	UDZS16(B)
S	1351	(A,6,11) Switch(BASS BOOST)	CSD1128

RESISTORS

R

R	1351	(B,15,16)	RS1/16S103J
R	1352	(B,18,18)	RS1/16S102J
R	1353	(B,31,21)	RS1/16S103J
R	1354	(B,31,16)	RS1/16S102J
R	1359	(B,16,8)	RS1/16S102J

D

6. ADJUSTMENT

I

There is no information to be shown in this chapter.

E

I

F

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Case (Fig. 1)

- 1** Remove two black screws (M3 x 10).
- 2** Remove six white screws (M3 x 6).
- 3** Remove four black screws (M3 x 5).

Caution)

When you disassemble/re-assemble the Product with it placed upside down, take care not to damage the top surface.

The Product uses several different types of screws. Take care not to confuse them during re-assembly.

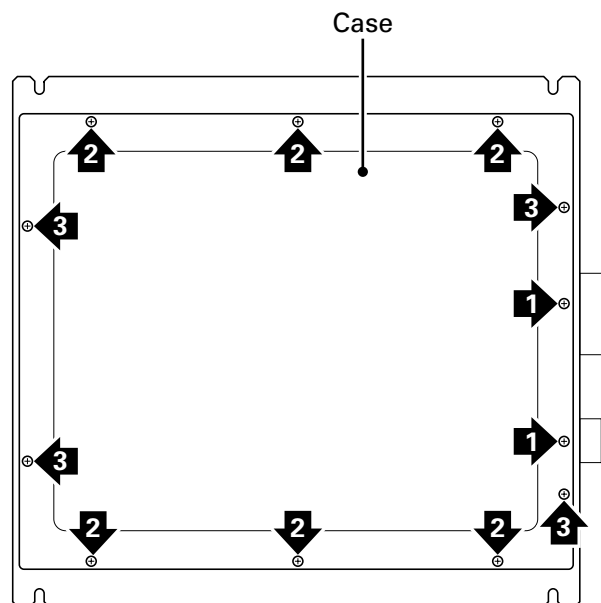


Fig. 1

● Removing the Panel (Fig. 2)

Panels are used for two sides individually, one for the RCA side and the other for the Power Terminal side.

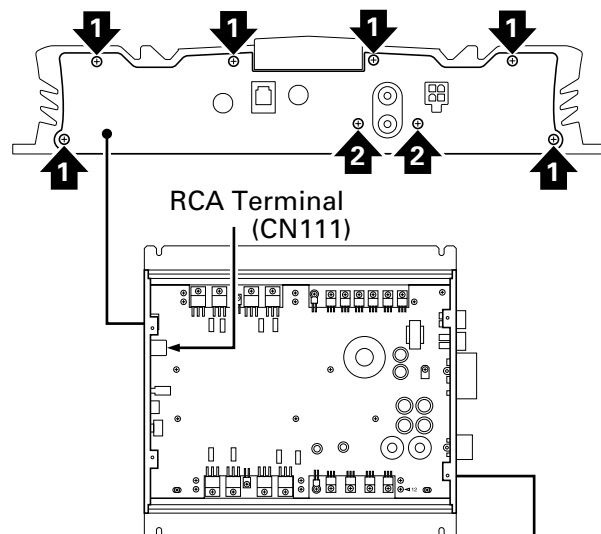
Panel for the RCA side

- 1** Remove six black screws (M3 x 8).
- 2** Remove two black screws (M3 x 5). (They are used to secure the RCA Holder.)

Panel for the Power Terminal side

- 3** Remove six black screws (M3 x 8).

Panel for the RCA side



Panel for the Power Terminal side

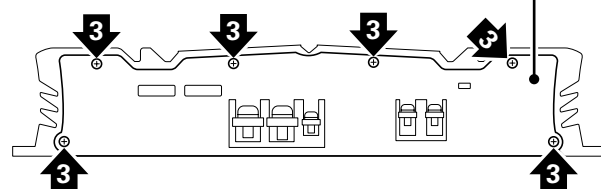


Fig. 2

● Removing the Amp Unit (Fig. 3)

1 Remove six black screws (M3 x 10).

2 Remove six white screws (M3 x 12).

A Screw holes in the PCB are printed with numbers 1 to 12.

Remove screws in numerical order.

Re-assembly takes the reverse order of disassembly.

Caution)

The Amp Unit is adhered on the Heat Sink with silicon grease. This means forcibly removing the Amp Unit from the Heat Sink may break the PCB.

3 Remove all of twelve screws. Then, remove the two black screws (M3 x 5). Tighten screws whose length is M3 x 8 or more into the two screw holes so as to raise the Amp Unit above the Heat Sink. Then, remove the Amp Unit.

(Since screw threads differ, **1** and **2** screws cannot be used.)

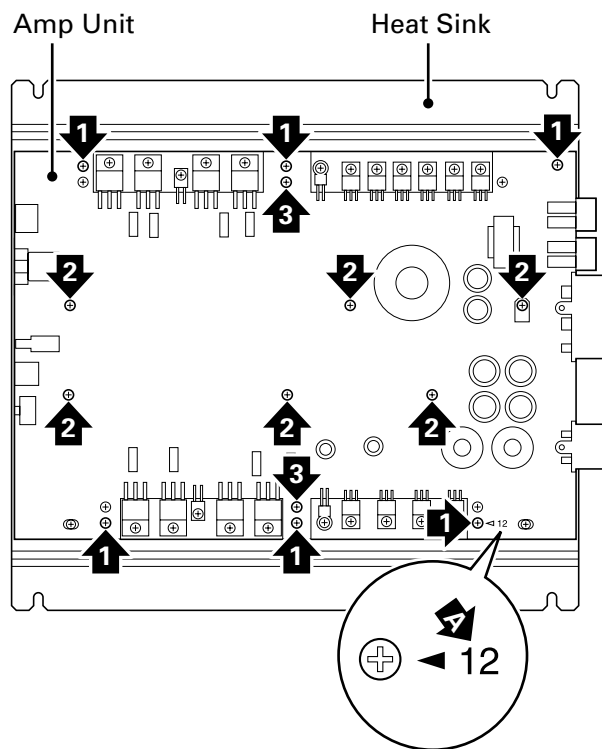


Fig. 3

● Caution when re-assembling the Amp Unit and the Heat Sink

Be aware that the RCA Terminal may break unless the Amp Unit and the Heat Sink are assembled following the correct procedures given below.

1) Secure the RCA-side Panel on the Heat Sink with screws. (Fig. 2)

2) Place the Amp Unit on the Heat Sink aligning with two studs. (Fig. 4)

3) Move the Amp Unit until the RCA Holder on the Amp Unit comes in contact with the inside of the Panel. (Fig. 4)

Caution in steps 2) and 3)

When you place the Amp Unit on the Heat Sink, you will find no positioning marks to determine the direction of two panels. To position them correctly, the Amp Unit needs to be moved to the place where it comes in contact with the RCA-side panel.

If you do not position them, an excessive force can be applied to the RCA Terminal. This may result in breakage.

4) Secure the RCA-side Panel and the RCA Holder with screws. (Fig. 2)

5) Secure the Amp Unit on the Heat Sink with screws. (Fig. 3)

6) Secure the Panel for the Power Terminal side in place with screws. (Fig. 2)

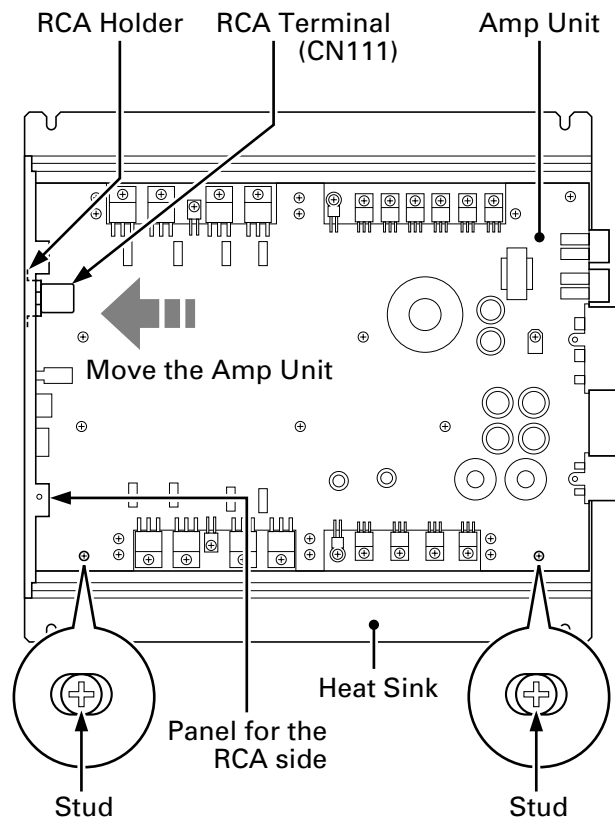
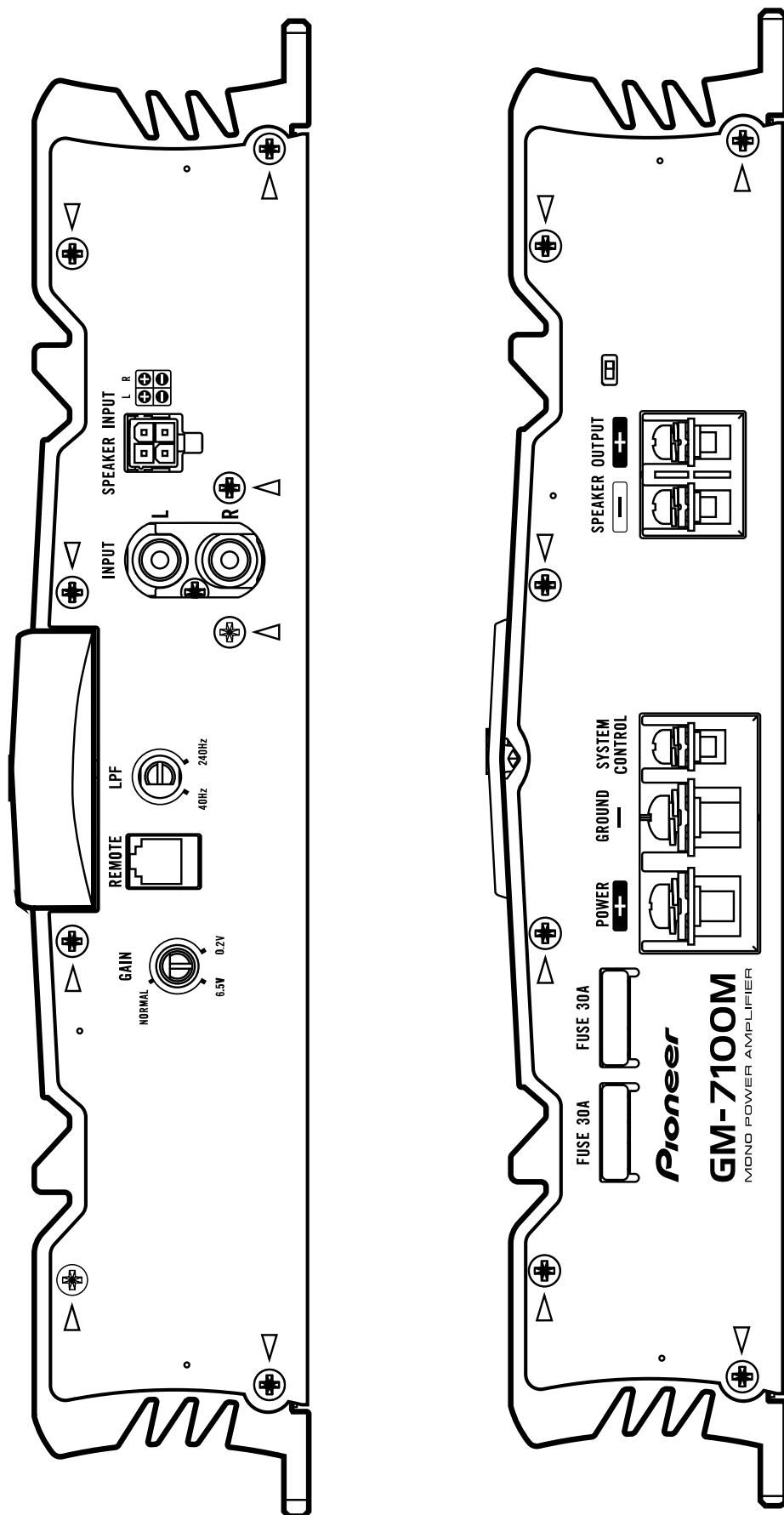


Fig. 4

7.1.2 CONNECTOR FUNCTION DESCRIPTION (GM-7100M/XU/EW)



A

8. OPERATIONS (GM-7100M/XU/EW)

B

C

D

E

F

