

DB-700OUT/JT

D-BASS AMPLIFIER

SERVICE NOTES

First Edition

Issued by RJA

Different point between
the DB-700UT and DB-700JT

Please refer to the followings

1. Nameplate
Please confirm the Nameplate (Rear side of DB-700 unit)

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SPECIFICATIONS

- Rated Power Output
250 W
- Nominal Input Level (1KHz)
INPUT HIGH : -30 dBm/1 M ohms
INPUT LOW : -20 dBm/300 k ohms
(AMP TYPE: SOLID STATE)
INSERT RETURN : +4 dBm
- Nominal Output Level
BALANCED DI : +4 dBm
INSERT SEND : +4 dBm
LINE OUT (XLR) : +4 dBm
LINE OUT (PHONE) : +4 dBm
* 0 dBm=0.775 Vrms
- Speakers
38 cm (15 inches) x 1
Horn Tweeter x 1
- Memory
A, B (2 memories)
- Controls
AMPLIFIER
 - TYPE Switch (3 types)
 - GAIN Knob
 - VOLUME Knob
 - COMPRESSION KnobSHAPE Switch
EQUALIZER
 - BASS Knob
 - MIDDLE LEVEL Knob
 - MIDDLE FREQUENCY Knob
 - TREBLE KnobD-CHORUS
 - INTENSITY Knob (with Switch)MASTER Knob
PROGRAM
 - MANUAL Button
 - A Button
 - B Button
 - WRITE ButtonPOWER Switch
GND LIFT Switch
- Indicators
POWER INJECTION (2 colors)
D-CHORUS
POWER
- Connectors
INPUT Jacks (HIGH, LOW)
PHONES Jack
BALANCED DI Connector
INSERT Jacks (SEND, RETURN)
LINE OUT Jacks
(XLR type balanced, 1/4" TRS Phone type balanced)
FOOT SWITCH Jacks
(TIP: A/B RING:MANUAL, CHORUS)
- Power Supply
AC 117 V, 230 V or 240 V
- Power Consumption
290 W (117 V, 230 V, 240 V)
- Dimensions
578(W) x 407 (D) x 598 (H) mm
22-13/16 (W) x 16-1/16 (D) x 23-9/16 (H) inches
(include casters)
578(W) x 407 (D) x 559 (H) mm
22-13/16 (W) x 16-1/16 (D) x 22-1/16 (H) inches
(not include casters)
- Weights
34.0 kg / 75 lbs
- Accessories
Owner's Manual English(02235123)
Japanese(02235112)
Caster (00677923)
- Options
Foot Switch FS-5L (BOSS)

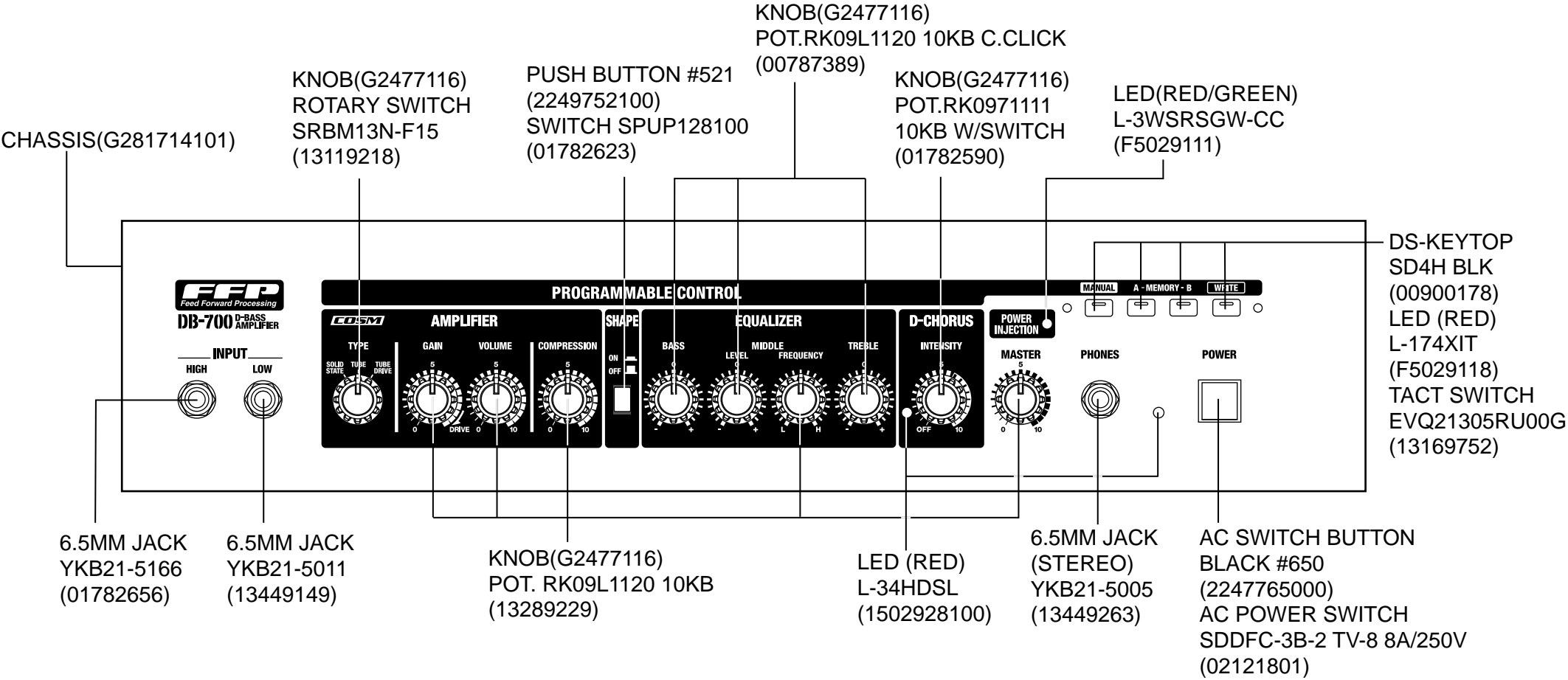
* In the interest of product improvement,the specifications and/or appearance of this unit are subject to change without prior notice.

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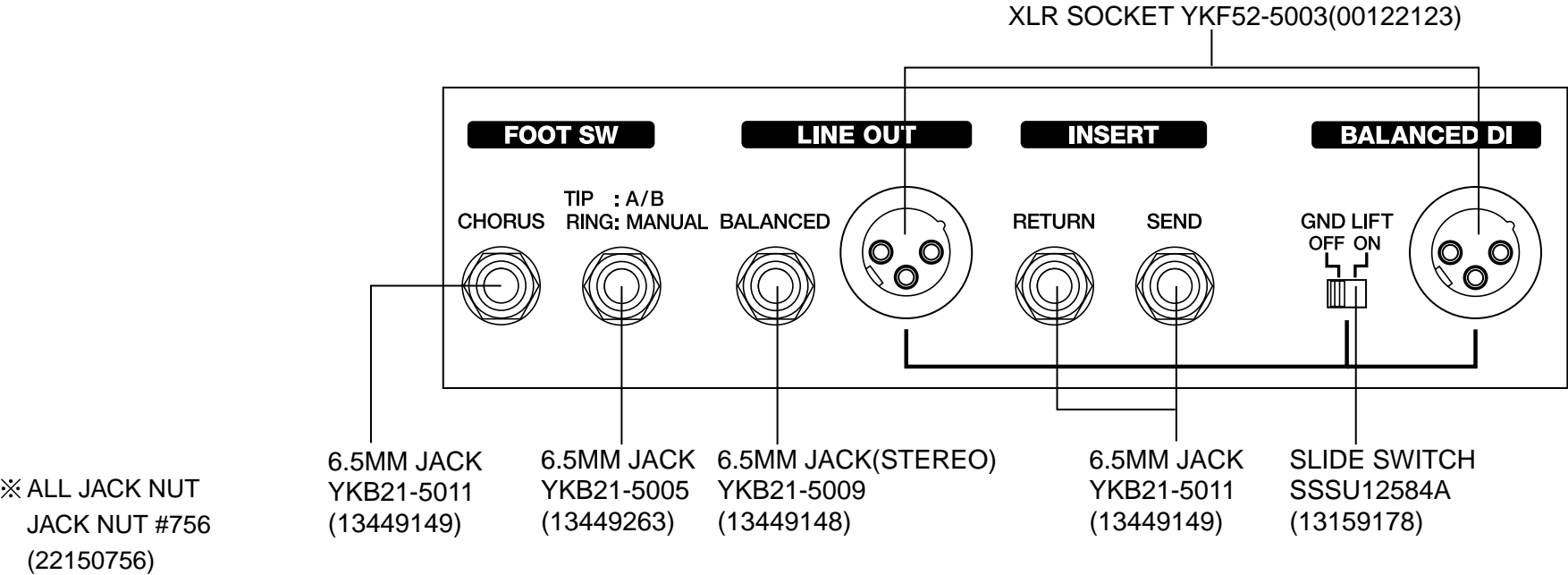
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LOCATION OF CONTROLS

(FRONT VIEW)



(REAR VIEW)



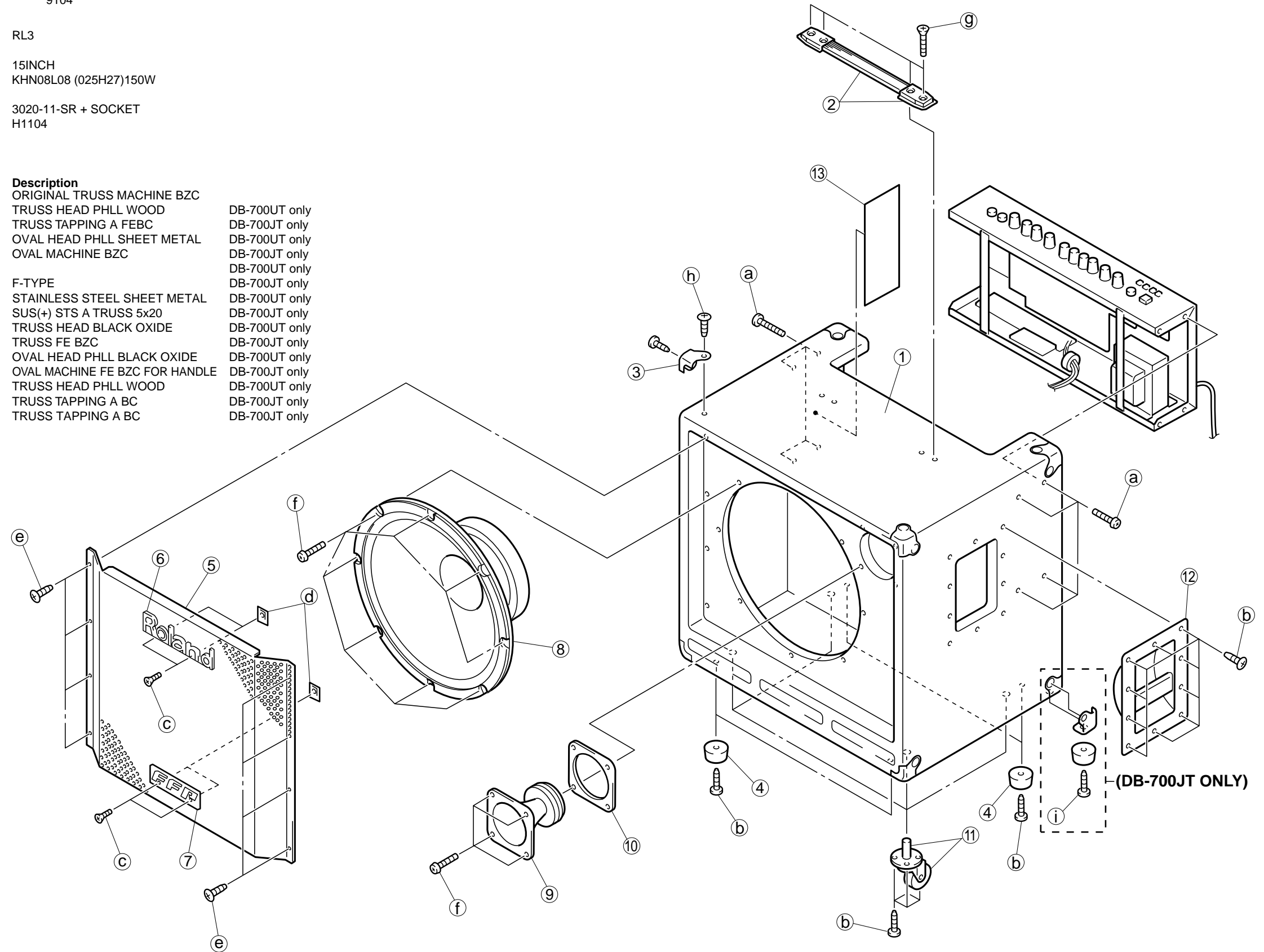
EXPLODED VIEW

[Parts List]

NO.	Part Code	Part Name	Description	
①	17055153	CABINET ASSY		DB-700UT only
	TE000031	CABINET ASSY		DB-700JT only
CABINET ASSY include the following parts.				
②	22310207	HANDLE (H40)	231-207 W/ESCUCHEON (2 HOLES)	
③	17055035	2-LEG METAL CORNER BLACK		
④	17055154	RUBBER FOOT	9104	
⑤	17055193	CHROME GRILL		
⑥	17055146	ROLAND SILVER LOGO	RL3	
⑦	17055166	FFP SILVER LOGO		
⑧	17055194	SPEAKER	15INCH	
⑨	17055062	SPEAKER HORN TWEETER	KHN08L08 (025H27)150W	
⑩	17055067	TWEETER GASKET		
⑪	00677923	CASTER	3020-11-SR + SOCKET	
⑫	17055140	HANDLE W/ROLAND LOGO	H1104	
⑬	17055207	EMI SHEILD PAPER		

[Screw]

NO.	Part Code	Part Name	Description	
a	40010601	SCREW M5X35	ORIGINAL TRUSS MACHINE BZC	
b	17055168	SCREW #8X3/4"	TRUSS HEAD PHLL WOOD	DB-700UT only
	TE930136	SCREW 3.5X12	TRUSS TAPPING A FEBC	DB-700JT only
c	17055175	SCREW #4X1/2"	OVAL HEAD PHLL SHEET METAL	DB-700UT only
	40230789	SCREW M3X10	OVAL MACHINE BZC	DB-700JT only
d	17055021	TINNERMAN FAST NUT #4		DB-700UT only
	40011689	SPEED NUT M3	F-TYPE	DB-700JT only
e	17055176	SCREW #10X1/2" TRUSS HEAD PHLL	STAINLESS STEEL SHEET METAL	DB-700UT only
	40348112	SCREW 5x20	SUS(+) STS A TRUSS 5x20	DB-700JT only
f	17055068	SCREW #8-32X1"	TRUSS HEAD BLACK OXIDE	DB-700UT only
	40010145	SCREW M4X25	TRUSS FE BZC	DB-700JT only
g	17055070	SCREW #10-32X1"	OVAL HEAD PHLL BLACK OXIDE	DB-700UT only
	40010478	SCREW M5X25	OVAL MACHINE FE BZC FOR HANDLE	DB-700JT only
h	17055069	SCREW #8X1/2"	TRUSS HEAD PHLL WOOD	DB-700UT only
	TE930136	SCREW 3.5X12	TRUSS TAPPING A BC	DB-700JT only
i	40010690	SCREW 4X30	TRUSS TAPPING A BC	DB-700JT only

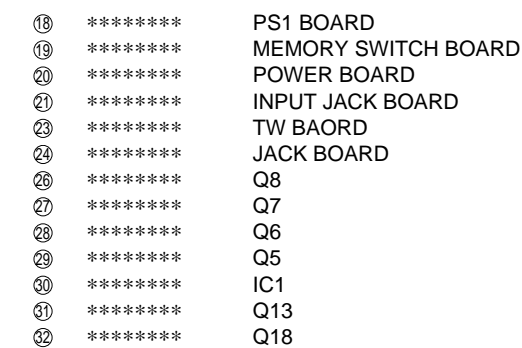


[Parts List]

[Screw]

Description
 BINDING MACHINE BZC
 TRUSS BC
 PAN MACHINE W/SW BZC
 BINDING MACHINE FE BZC
 BINDING MACHINE FE BZC
 BINDING TAPTITE P FE BZC
 ZC
)
 PAN MACHINE W/SW+PW FE BZC
 M3 L=40
 FECM
 FECM
 PIN MACHINE W/SW+PW ZC
 BINDING TAPTITE S FE BZC
 L=60
 L=12

PAN MACHINE W/SW BZC
L=15



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A BLOCK & WIRING DIAGRAM

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

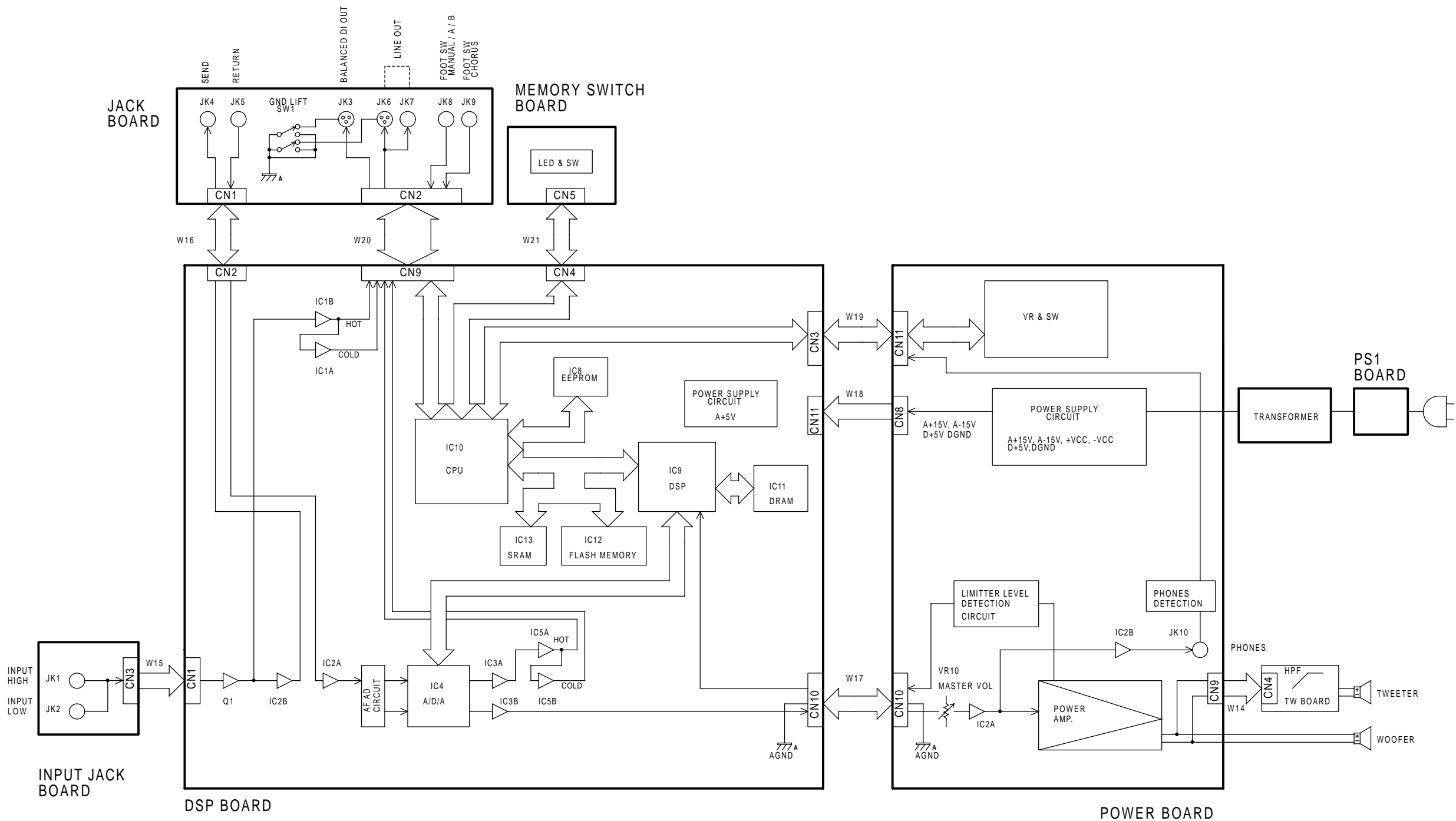
Q

R

S


T

U




PARTS LIST

SAFETY PRECAUTIONS:

The parts marked  have safety-related characteristics.
Use only listed parts for replacement.

SAFETY PRECAUTIONS:

The parts marked  have safety-related characteristics. Use only listed parts for replacement.

	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex.	10	22575241	Sharp Key	C-20/50
	15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

NOTE: The parts marked # are new (initial parts).

CASING				Q'ty
#	17055153	CABINET ASSY	FOR DB-700UT ONLY	1
#	TE000031	CABINET ASSY	FOR DB-700JT ONLY	
	NOTE : 'CABINET ASSY' includes the following parts.			
	17055035	2-LEG METAL CORNER BLACK		8
	17055140	HANDLE W/ROLAND LOGO	H1104	2
	22310207	HANDLE (H40)	231-207 W/ESCUCHEON (2 HOLES)	1
	17055154	RUBBER FOOT	9104	4
#	17055207	EMI SHEILD PAPER		1
		SOUND CARPET		1
#	17055193	CHROME GRILL		1
	17055166	FFP SILVER LOGO		1
	17055146	ROLAND SILVER LOGO	RL3	1
CHASSIS				Q't
#	G281714101	CHASSIS		1
KNOB, BUTTON				Q't
	2247765000	AC SWITCH BUTTON	BLACK #650	1
	00900178	D S-KEYTOP	SD4H BLK	1
	G2477116	KNOB		10
	2249752100	PUSH BUTTON	BLACK #521	1
SWITCH				Q't
	13169752	EVQ 213 05R(100G)	TACT SWITCH	4
	01782623	SPUP128100	PUSH SWITCH	1
	13119218	SRBM13N-F15	ROTARY SWITCH	1
	13159178	SSSU12584A	SLIDE SWITCH	1
#	△ 02121801	SDDFC-3B-2 TV-8 8A/250V	POWER SWITCH	1
			on MSB SW2, SW3, SW4, SW5	
			on PB SW7	
			on PB SW8	
			on JB SW1	
			on PS1B SW6	
JACK, SOCKET				Q'ty
	13449263	YKB21-5005 W/SWICH	6.5MM JACK	2
	13449148	YKB21-5009	JACK	1
	13449149	YKB21-5011	JACK	4
	01782656	YKB21-5166	JACK 6.5MM	1
	00122123	YKF52-5003	XLR SOCKET	2
			on JB JK8, PB JK10	
			on JB JK7	
			on JB JK4, JK5, JK9,on IJB JK2	
			on IJB JK1	
			on JB JK3, JK6	
SPEAKER, BUZZER				Q'ty
△	17055062	KHN08L08 (025H27)150W	SPEAKER HORN TWEETER	1
#	△ 17055194	SPEAKER	15INCH 8ohm WOOFER	1
	17055067	TWEETER GASKET		1
PWB ASSY				Q'ty
#	02233356	DSP BOARD ASSY	(EXG)	1
#	02128523	POWER BOARD ASSY 100V/117V		1
#	02128534	POWER BOARD ASSY 230V/240V		1

IC				Q'ty	
	01453078	HD6433042B83F V1.00	IC (CPU MASK)	on DSB IC10	1
	F5179601	HT24C02 SOP	IC	on DSB IC8	1
	15289123	M51953AFP-600C	IC (RESET)	on DSB IC14	1
	15189261	M5218AFP-600E	IC (BIPOLAR OP AMP)	on DSB IC1, IC2, IC3, IC5	4
	15189251	M5218AP	IC (BIPOLAR OP AMP)	on PB IC2, IC3	2
	01900490	MBM29F040C-70	IC (FLASH MEMORY)	on DSB IC12	1
△	15199207	TA7805S	IC(V.RGL)	on PB IC1,on DSB IC6	2
	00892556	TC170C140AF-003 (ESP2)	IC (CUSTOM)	on DSB IC9	1
	15169596	TC74HC4051AP	IC (CMOS)	on PB IC4	1
	01126767	UDA1309H	IC (A/D D/A)	on DSB IC4	1
	F5279510	V53C16256H-50	IC (DRAM 4M)	on DSB IC11	1
	F5289602	V62C5181024-70	IC (SRAM)	on DSB IC13	1
TRANSISTOR				Q'ty	
	15119113	2SA1015-GR	TRANSISTOR	on MSB Q10, Q12, on Q21, Q30, Q33	5
△	15119160	2SA1349-GR	TRANSISTOR	on PB Q19	1
△	01782612	2SA1494	POWER TRANSISTOR	on PB Q7, Q8	2
△	15119723	2SA1837	TRANSISTOR	on PB Q16, Q26	2
	15119158	2SA970-GR	TRANSISTOR	on PB Q14, Q15	2
	15129151	2SC1815-GR(TPE2)	TRANSISTOR	on MSB Q9, Q11, on PB Q22, Q24, Q28, Q35, Q36	7
	15129192	2SC2240-GR(TPE2)	TRANSISTOR	on PB Q31, Q32	2
	15129152	2SC2878-A(TPE2)	TRANSISTOR	on JB Q1, Q2, Q3, Q4, on PB Q23, Q27, Q34	7
△	15129209	2SC3381-GR	TRANSISTOR	on PB Q20	1
△	01782601	2SC3858	POWER TRANSISTOR	on PB Q5, Q6	2
△	15129732	2SC4793	TRANSISTOR	on PB Q17, Q25	2
	15139103	2SK30ATM-GR	FET TRANSISTOR	on PB Q29	1
# △	02126367	2SB1016AY	TRANSISTOR	on PB Q18	1
# △	02126378	2SD1407AY	TRANSISTOR	on PB Q13	1
DIODE				Q'ty	
	F5019203	1N4004	DIODE	on PB D9	1
	15019126	1SS133 T-77	SWITCHING DIODE	on PB D7, D11, D12, D13, D15, D17, D18, D19, D20, D21, D22, D23, D24, D25	14
	15339119T0	1SS352(TPH3)	SWITCHING DIODE	on DSB D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12	12
#	F5019404	MTZJ16B	DIODE	on PB D10, D14, D16, D26	4
	F5029118	L-174XIT	DIODE	on MSB D1, D2, D3, D4	4
	1502928100	L-34HDSL	LED	on PB D27, D28	2
	F5029111	L-3WSRSGW-CC	LED (RED/GREEN)	on MSB D5	1
△	F5039112DG	PBPC803	DIODE	on PB D6	1
△	F5039118	W04G	DIODE	on PB D8	1
RESISTOR				Q'ty	
△	F3839181	0.33 OHM 5W	CEMENT RESISTOR	on PB R56, R62, R66, R78	4
△	F3839186	100 OHM 5W	CEMENT RESISTOR	on PB R46, R63, R109, R110	4
△	F3749113	100 OHM 1/2W	CARBON RESISTOR	on DSB R1	1
△	F3819905	27 OHM 1/2W	METAL OXIDE RESISTOR	on PB R100	1
△	F3819907	33 OHM 1/4W	METAL OXIDE RESISTOR	on PB R40	1
△	F3819908	47 OHM 1/4W	METAL OXIDE RESISTOR	on PB R108	1
# △	02127090	ERQ14AJ221	FUSE RESISTER	on PB R48, R86	2
# △	02127089	ERQ16NK2R2E	FUSE RESISTER	on PB R44, R45, R94, R98	4
	15399917	MNR34J5ABJ103	RESISTOR ARRAY	on DSB RA1, RA2, RA4, RA5, RA6, RA7	6
# △	F3839604	5.1 OHM 5W	CEMENT RESISTOR	on PB R30, R31, R32	3
POTENTIOMETER				Q'ty	
	13299265	EVN-D8AA03B14 10KB	TRIMMER POTENTIOMETER	on PB VR1	1
	01782590	RK0971111 10KB W/SW	9M/M ROTARY POTENTIOMETER	on PB VR9	1
	13289229	RK09L1120 10KB	9M/M ROTARY POTENTIOMETER	on PB VR2, VR3, VR4, VR7, VR10	5
	00787389	RK09L1120 10KB CC	9M/M ROTARY POTENTIOMETER	on PB VR5, VR6, VR8	3
CAPACITOR				Q'ty	
△	F3639141	3300UF/16V	ELECTROLYTIC CAPACITOR	on PB C40	1
△	13639548	33UF/16	ELECTROLYTIC CAPACITOR	on DSB C43	1
△	F3639553	470UF/16V	ELECTROLYTIC CAPACITOR	on PB C32	1
#	F3659257	4700UF/100V	ELECTROLYTIC CAPACITOR	on PB C42, C59	2
# △	F3639241	470UF/100V	ELECTROLYTIC CAPACITOR	on PB C25, C58	2
# △	F3639162	470UF/25V	ELECTROLYTIC CAPACITOR	on PB C45, C46, C49, C50	4
# △	02127056	ECQE2224KF	POLYEST. CAPACITOR	on PB C23	1
△	F3519502	EC8472MH	CERAMIC CAPACITOR	on PB C31	1
△	01563789	ECQE1335KF	POLYEST. CAPACITOR	on TWB C21, TWB C22	2
△	F3519501	PY17FY472MLO 472/250V	CERAMIC CAPACITOR	on PS1B C35	1

INDUCTOR, COIL, FILTER				Q'ty
#	△ F2449212	CHOKE TRANS	230V ONLY	1
#	F2449211	COIL	0.18MH on TWB L8	1
	12449347	EXC ELDR35V	FERRITE-BEAD on PB L1, L2, L3, L4, L5, L6, L7, L9, L10, L11, on DSB L1,L2	10
	01893423	TFCK-23-11-14	FERRITE CORE	1
CRYSTAL, RESONATOR				Q'ty
	00894034	MA-406 16.000MHZ TE24	CRYSTAL on DSB X2	1
	01453167	SG-8002DC 67.7376MHZ PHC	OSCILLATOR on DSB X1	1
FUSE, FUSE HOLDER				Q'ty
△	F2559107	5ST T125L/250V	FUSE on PB F3, F4	2
△	F2559109	5ST T800L/250V	FUSE on PB F2	1
#	F2559110	5TT 8A/125V SB TYPE (100V/117V)	FUSE on PS1B F1	1
#	△ F2559111	5ST T4AL/250V (230V/240V)	FUSE on PS1B F1	1
△	12199550RT	HTF-015	FUSE HOLDER on PS1B F1, on PB F2, F3, F4	8
CONNECTOR				Q'ty
	13369565	B11B-PH-K-S JST	CONNECTOR on DSB CN9	1
	13369564	B12B-PH-K-S JST	CONNECTOR on DSB CN4	1
	13369567	B4B-PH-K-S JST (4P)	CONNECTOR on DSB CN10	1
	13369515	B5B-PH-K-S JST	CONNECTOR on DSB CN11	1
	13369566	B6B-PH-K-S JST(6P)	CONNECTOR on DSB CN6	1
	13369516	B9B-PH-KS JST	CONNECTOR on DSB CN11	1
	13369568	B3B-PH-K-S JST	CONNECTOR on IJB CN3, on JB CN1, on DSB CN1, CN2	4
WIRING, CABLE				Q'ty
#	△ G3467157	WIRING	GREEN 230V/240V GND on PS1B T11 to CHASSIS	1
#	H4009776	WIRING	W1 RED on PB W2 to Q5 W2, PB W8 to Q6 W8, PB W5 to Q7 W5, PB W11 to Q8 W11	4
	G3467137	WIRING	W10 BROWN on PB SP4 to TWEETER-	1
#	G3467155	WIRING	W11 GREEN on PB G4 to CHASSIS, PB G3 to CHASSIS	2
#	G3467156	WIRING	W12 GREEN on PB G6 to CHASSIS, IJB G2 to CHASSIS, IJB G1 to CHASSIS	3
#	G3467153	WIRING	W13 on PB CN3 to IC1 CN6	1
#	G3467154	WIRING	W14 on PB CN9 to TWB CN4	1
#	G3487148	WIRING	W15 on DSB CN1 to IJB CN3	1
#	G3487149	WIRING	W16 on DSB CN2 to JB CN1	1
#	G3467151	WIRING	W17 on DSB CN10 to PB CN10	1
#	G3467152	WIRING	W18 on DSB CN11 to PB CN8	1
#	G3467149	WIRING	W19 on DSB CN3 to PB CN11	1
#	H4009755	WIRING	W2 BROWN on PB TW to TWB, PB W1 to Q5 W1, PB W7 to Q6 W7, PB W4 to Q7 W4, PB W10 to Q8 W10	5
#	G3467150	WIRING	W20 on DSB CN9 to JB CN2	1
#	G3467148	WIRING	W21 on DSB CN4 to MSB CN5	1
#	H4009797	WIRING	W3 ORANGE on PB TW to TWB, PB W3 to Q5 W3, PB W9 to Q6 W9, PB W6 to Q7 W6, PB W12 to Q8 W12	5
#	H4009777	WIRING	W4 RED on PB W14 to Q13 C, PB W17 to Q18 C	2
#	H4009756	WIRING	W5 BROWN on PB W15 to Q13 E, PB W18 to Q18 E	2
#	H4009798	WIRING	W6 ORANGE on PB W13 to Q13 B, PB W16 to Q18 B	2
#	G3467158	WIRING	W7 RED on PB SP1 to WOOFER+	1
#	G3467159	WIRING	W8 BLACK on PB SP2 to WOOFER-	1
	G3467139	WIRING	W9 ORANGE on PB SP3 to TWEETER+	1
TRANSFORMER				Q'ty
#	△ G2457149	TRANSFORMER 100V/117V		1
#	△ G2457150	TRANSFORMER 230V/240V		1
AC CORD ASSY (Installed)				Q'ty
△	G349712801	230VE	AC CORD ASSY	1
△	G349712601	FC-305 240VA	AC CORD ASSY	1
△	G349712402	SJT 117V	AC CORD ASSY	1
△	G349712501	SY010 230VD	AC CORD ASSY	1
△	G349712301	VCTF 100V	AC CORD ASSY	1
SCREWS				Q'ty
	40011889	EXTERNAL TOOTH WASHER M4	FECM	14
	40011756	FLANGE HEX NUT M3	ZC	3
	40011767	FRANGE HEX NUT M4	FECM	3
	40128923	HEX NUT M7		2
	17055070	SCREW #10-32X1	OVAL HEAD PHLL BLACK OXIDE for H-40 HANDLE (DB-700UT ONLY)	4
	40010478	SCREW M5X25	OVAL MACHINE FE BZC FOR HANDLEfor H-40 HANDLE (DB-700JT ONLY)	4
	17055176	SCREW #10X1/2INCH	SHT MTL OVAL HD PHIL BRT NKL for PUNCHING GRILL (DB-700UT ONLY)	8
#	40348112	SUS(+) STS A TRUSS 5x20	for PUNCHING GRILL (DB-700JT ONLY)	8
	17055175	SCREW #4X1/2	OVAL HEAD PHLL SHEET METAL for BADGE ROLAND, FFP (DB-700UT ONLY)	4
	40230789	SCREW M3X10	OVAL MACHINE SCREW BZC for BADGE ROLAND, FFP (DB-700JT ONLY)	4
	17055068	SCREW #8-32X1	TRUSS HEAD BLACK OXIDE for WOOFER. TWEETER (DB-700UT ONLY)	12

40010145	SCREW M4X25	TRUSS FE BZC	for WOOFER. TWEETER (DB-700JT ONLY)	12
17055069	SCREW #8X1/2	TRUSS HEAD PHLL WOOD	for CORNER PROTECTOR (DB-700UT ONLY)	16
TE930136	SCREW 3.5X12	TRUSS TAPPING A FEBC	for CORNER PROTECTOR (DB-700JT ONLY)	12
40010690	SCREW 4X30	TRUSS TAPPING A FEBC	for CORNER PROTECTOR to RUBBER FOOT (DB-700JT ONLY)	4
40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	for JB	4
40010678	SCREW 4X20	TRUSS TAPPING A1 FE BZC	for SIDE HANDLE (H1104) (DB-700JT ONLY)	20
40340812	SCREW M3X10	PAN MACHINE W/SW BZC	for HEATSINK DB-700 to Tr.	11
40010301	SCREW M3X20	BINDING MACHINE BZC	for AC CORD	2
40012534	SCREW M3X6	BINDING TAPTITE S FE BZC	for CHASSIS to CHASSIS HOLDER	4
40011490	SCREW M3X6	PAN MACHINE W/SW BZC	for CHOKE TRANS (230V ONLY)	2
40011501	SCREW M3X8	PAN MACHINE W/SW+PW FE BZC	for MSB	2
40012867	SCREW M3X8	PIN MACHINE W/SW+PW ZC		16
40010345	SCREW M4X10	BINDING MACHINE FE BZC	for HEATSINK DB-700	12
40010323	SCREW M4X6	BINDING MACHINE FE BZC	for JB	2
40010601	SCREW M5X35	ORIGINAL TRUSS MACHINE FE BZC	for CHASSIS	8
40128689	SCREW M5X8	TRUSS BC	for TRANSFORMER	6
17055021	TINNERMAN FAST NUT #4		for BADGE ROLAND, FFP (DB-700UT)	4
40011689	SPEED NUT M3	F-TYPE	for BADGE ROLAND, FFP (DB-700JT)	4
40011801	SPRING WASHER M3 ZC	SRA-260/540/800		2
22157513	STAND OFF	L=12	for on MSB	2
G2157510	STAND OFF	L=15	for on TWB, DSB	10
G2157509	STAND OFF	L=60	for on PB	3
22157503	STAND OFF	M3 L=40	for on PS1B	4
17048630	VR ACCESSORY NUT M9			8
17048651	VR ACCESSORY WASHER M7			2
17048631	VR ACCESSORY WASHER M9			8
17055168	SCREW #8X3/4	TRUSS HEAD PHLL WOOD	for (RUBBER FOOT) CASTER SIDE HANDLE) DB-700UT ONLY	40
17055205	SCREW #8X3/4	TRUSS HEAD WOOD BLACK OX/DE	DB-700UT ONLY	

PACKING				Q'ty
#	17055203	PACKING BOX OUTER	DB-700UT ONLY	1
#	02238945	PACKING CASE	DB-700JT ONLY	1
#	17055204	PACKING INSERT	DB-700UT ONLY	1
#	02238956	PAD UPPER	DB-700JT ONLY	1
#	02238967	PAD LOWER	DB-700JT ONLY	1
#	02341256	CENTER PAD	DB-700JT ONLY	1

MISCELLANEOUS					Q'ty
	△	12369410RT	AC CORD HOLDER	1702B	2
		40124690	CAUTION SEAL	FUSE	2
		40013812	CAUTION SEAL	IEC(100V/117 ONLY) #142	1
#		G2207106	CHASSIS HOLDER		2
		G2467110	HEATSINK	for on DSB IC9	1
#	△	G2467413	HEATSINK		2
	△	40016634	INSULATING SHEET	BFG-20 E-2	4
	△	H5319105	INSULOK TIE	YJ-368	1
		22150756	JACK NUT	#756 PLASTIC BLACK	8
#	△	02128701	POLYSWITCH RXE010	on TWB R29	1
	△	H5039705	TERMINAL	1741BS-2 187	12

ACCESSORIES (Standard)				Q'ty
	00677923	CASTER	3020-11-SR + SOCKET	4
#	02235123	OWNER'S MANUAL	ENGLISH	1
#	02235112	OWNER'S MANUAL	JAPANESE	1
	40232534		JAPAN ONLY	

TEST MODE

◆ Tools required

- Foot switch:FS-5L 3 units (used in Test 3)
- Connection cable for FS-5L:standard (to CHORUS), 2-mono/1-stereo (to TIP & RING) (used in Test 3)
- Standard plug:1 (to PHONES, used in Test 4)

◆ Setting for test

Panel controls
AMPLIFIER TYPE: SOLID STATE
Other control knobs: Full counterclockwise
SHAPE: OFF
Connect foot switches:
to TIP: A/B - set POLARITY switch on the FS-5L to the Jack side. FS-5L should light its LED when it is off.
to RING: MANUAL - set POLARITY switch on the FS-5L to the Jack side. FS-5L should light its LED when it is off.
to CHORUS - set POLARITY switch on the FS-5L to the side opposite to Jack. FS-5L should light its LED when it is on.

◆ Function of LEDs in the test mode

The following LEDs express numbers.

LED				
Figure	MANUAL	A	B	WRITE
0	●	●	●	●
1	●	●	●	○
2	●	●	○	●
3	●	●	○	○
4	●	○	●	●
5	●	○	●	○
6	●	○	○	●
7	●	○	○	○
8	○	●	●	●
9	○	●	●	○
10	○	●	○	●
11	○	●	○	○
12	○	○	●	●
13	○	○	●	○
14	○	○	○	●
15	○	○	○	○

○ : on
● : off

The POWER INJECTION LED shows the test results:
OK - lights in green (except in test 1.3)
NG - lights in red

◆ Entering the test mode

While holding down the buttons MANUAL, (MEMORY) A and B, press the POWER button.
Upon entering the test mode, all LEDs blink.

1 LED, program version, bus

1.1 LED

Press the MANUAL button, the LEDs MANUAL, A (MEMORY), B, WRITE and CHORUS turn on and off in that order and repeat the cycle.

1.2 Program version

Press the WRITE button. The following LEDs show the program version number.When Ver.1, for example, the WRITE LED lights, as shown in the table below.

LEDs showing Ver.1			
LED			
MANUAL	A	B	WRITE
●	●	●	○

1.3 CPU bus & DSP bus

Press the MANUAL button. The LEDs MANUAL, A, B and WRITE blink in that order indicating that the CPU bus and then DSP bus are being tested. When these LEDs are all blinking, test is completed and the following LEDs show the test result.

OK: POWER INJECTION LED lights in red and WRITE LED lights
NG: POWER INJECTION LED lights in red. The defective device is indicated by the lighting LED as shown in the table right.

NG	Lighting LEDA^LEDi_ii
SRAM	MANUAL
DSP	A
EEPROM	B

1.4 POWER INJECTION LED

Repeatedly press the WRITE button and verify that the POWER INJECTION LED changes its color.
Orange → Red → Green
Press the WRITE button to proceed to the next test.

2 Tact switches

The LEDs shown right indicate the test number.
Test No.2

LED			
MANUAL	A	B	WRITE
●	●	○	●

Press the WRITE button when skipping this test. Otherwise, press the MANUAL button to start the test.

Press the MANUAL, A, B and WRITE buttons in that order and verify that the LED on the button lights.

Upon pressing the WRITE button, POWER INJECTION LED should light in green.
Press the WRITE button to proceed to the next test.

3 Foot switches

The LEDs shown right indicate the test number.
Test No.3

LED			
MANUAL	A	B	WRITE
●	●	○	○

Press the WRITE button when skipping this test. Otherwise, press the MANUAL button to start the test.

MANUAL → A/B → A CHORUS

Depress the foot switches connected to MANUAL, A/B and CHORUS sockets in that order. Observe the following LEDs that should light upon depressing the corresponding foot switch.

Foot switch	LED
MANUAL	MANUAL
A/B	A
CHORUS	B

Upon depressing the CHORUS, the POWER INJECTION LED should light in green to show that the all foot switches operate correctly.
Press the WRITE button to proceed to the next test.

4 Controls

The LEDs shown right indicate the test number.
Test No.4

LED			
MANUAL	A	B	WRITE
●	○	●	●

Press the WRITE button when skipping this test. Otherwise, press the MANUAL button to start the test.

- 4.1 Rotate the AMPLIFIER TYPE (rotary switch) knob from SOLID STATE to TUBE and then to TUBE DRIVE. Observe the following LEDs that should light to show the switch position.

Switch position	LED
SOLID STATE	MANUAL
TUBE	A
TUBE DRIVE	B

When all switch positions are read, the POWER INJECTION LED lights in green.
Press the WRITE button or depress the A/B foot switch to proceed to the next test step.

- 4.2 Start with the leftmost control.
Potentiometer: from full-counterclockwise (FCCW) position to full-clockwise (FCW) position
As the knob travels, the LED corresponding to the scale will light:

Scale	LED
0-4	MANUAL
4-6	A
6-10	B

(These values are just as a guide.)

When all travel ranges of the potentiometer has been sensed, the POWER INJECTION LED lights in green.
The unlit LED is a sign of NG.
Press the WRITE button or depress the A/B foot switch to proceed to the next control test.
When the next item to be test is a potentiometer, repeat the step.

SHAPE switch: turn it on and then off. The green POWER INJECTION LED indicates that the switch's on and off states are correctly detected.

Turn on CHORUS switch and verify lighting CHORUS LED. Then, test the potentionmeter.

PHONES socket: insert the standard plug into the socket and then withdraw.
The POWER INJECTION LED lights in green indicating that open/close of socket contacts are correctly detected.

Press the WRITE button to proceed to the next test.

5 DSP

The LEDs shown right indicate the test number.
Test No.5

LED			
MANUAL	A	B	WRITE
●	○	●	○

Press the MANUL button.
The bus between the DSP and DRAM is tested.

The POWER INJECTION LED lights in green when the bus is intact.
The POWER INJECTION LED lights in red to show NG bus.

Remove the foot switches.
This completes the test. When proceed to "Loading factory presets" shown below, press the WRITE button. Otherwise, turn off the POWER switch.

6 Loading factory presets

When this procedure is following the test 5 above, the LEDs A, B and WRITE are blinking (standby). Press the WRITE button to start loading.
While loading, the WRITE LED blinks and at the end of loading the LED A will light.
Turn off the POWER switch.

CAUTION:The following procedure will erase user data.

◆ Checking input/output level, noise level and power limiter

Connect 8Ω load to speaker out WOOFER and TWEETER.
To check power limiter, connect a 680Ω load to the hot and cold terminal of LINE OUT BALANCED socket, respectively.

1. Entering the checking mode

- 1.1 Set AMPLIFIER TYPE switch to SOLID STATE.
- 1.2 Set MASTER knob to 10.
- 1.3 Set GND LIFT switch to OFF.
- 1.4 While pressing MANUAL and WRITE buttons, turn on POWER switch.
- 1.5 LEDs "A" and "B" light. Press MANUAL button and the LEDs turn off. Now the unit is in the checking mode.

2. Checking input and output levels

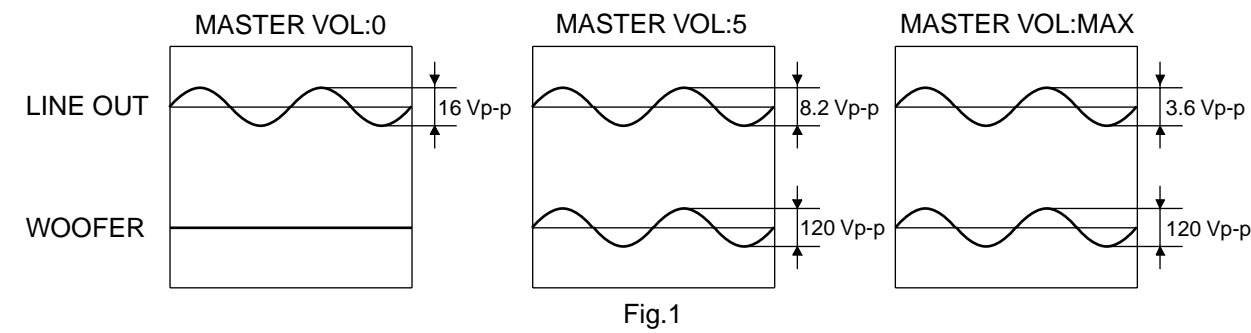
- 2.1 Set the following controls:
AMPLIFIER TYPE switch: SOLID STATE
MASTER knob: 10
Other controls: Don't care
- 2.2 Check input and output levels:
Apply 1 kHz, sine wave signal to INPUT. Check level at various points by referring to the corresponding level denoted on the circuit diagram.

3. Checking noise level

- 3.1 Set the following controls:
AMPLIFIER TYPE switch: TUBE
MASTER knob: 10
Other controls: Don't care
- 3.2 Check noise levels:
Leave INPUT sockets disconnected.
 - 3.2.1 With panel settings as mentioned 3.1 above:
Measuring point: Speaker output WOOFER (8Ω)
Noise level: -32.0 dBm (IHF-A)

4. Checking power limiter

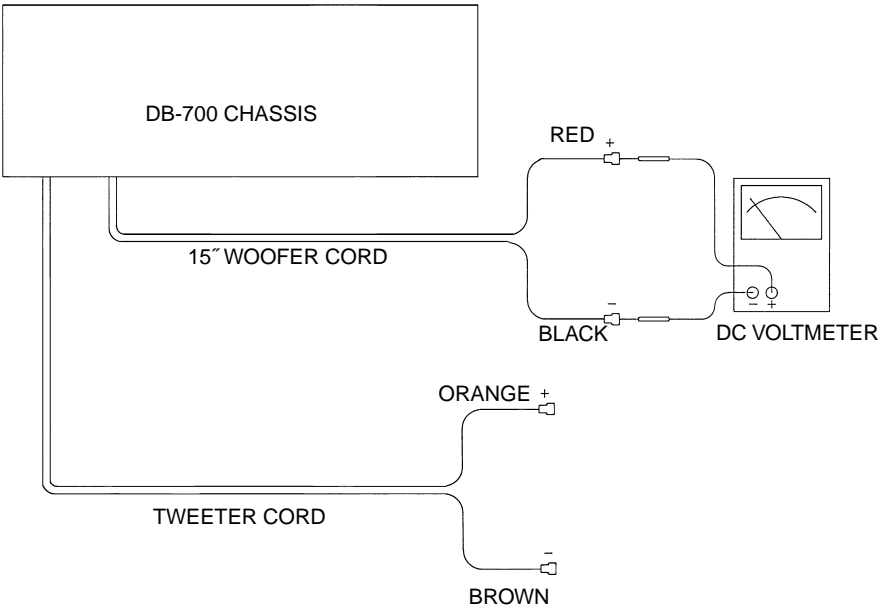
- 4.1 Set the following controls:
MASTER knob: 0
AMPLIFIER TYPE switch: TUBE DRIVE
The DSP internal generator outputs 1 kHz, sine test signal.
Other controls: Don't care
- 4.2 Check power limiter:
Leave INPUT sockets disconnected.
Connect a 680Ω load to the hot and cold terminal of LINE OUT BALANCED socket, respectively.
Turning MASTER knob from 0 to 10, check changes in sound from WOOFER and LINEOUT. (See Fig.1.)



ADJUATMENT

◆ DC OFFSET ADJ
Setting

1. Connect the probes of the DC voltmeter to the plus (RED) and minus (BLACK) sides of the 15" WOOFER CORD. (At no load.)
2. Adjust VR1 (on POWER BOARD) so that the DC offset is at 0V±50mV.



NOTES IN INSTALLING THE DSP BOARD

Be sure to clamp the DSP BOARD with the cable tie (H5319105).



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A **CIRCUIT BOARD**
DSP BOARD ASSY (02233356)

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

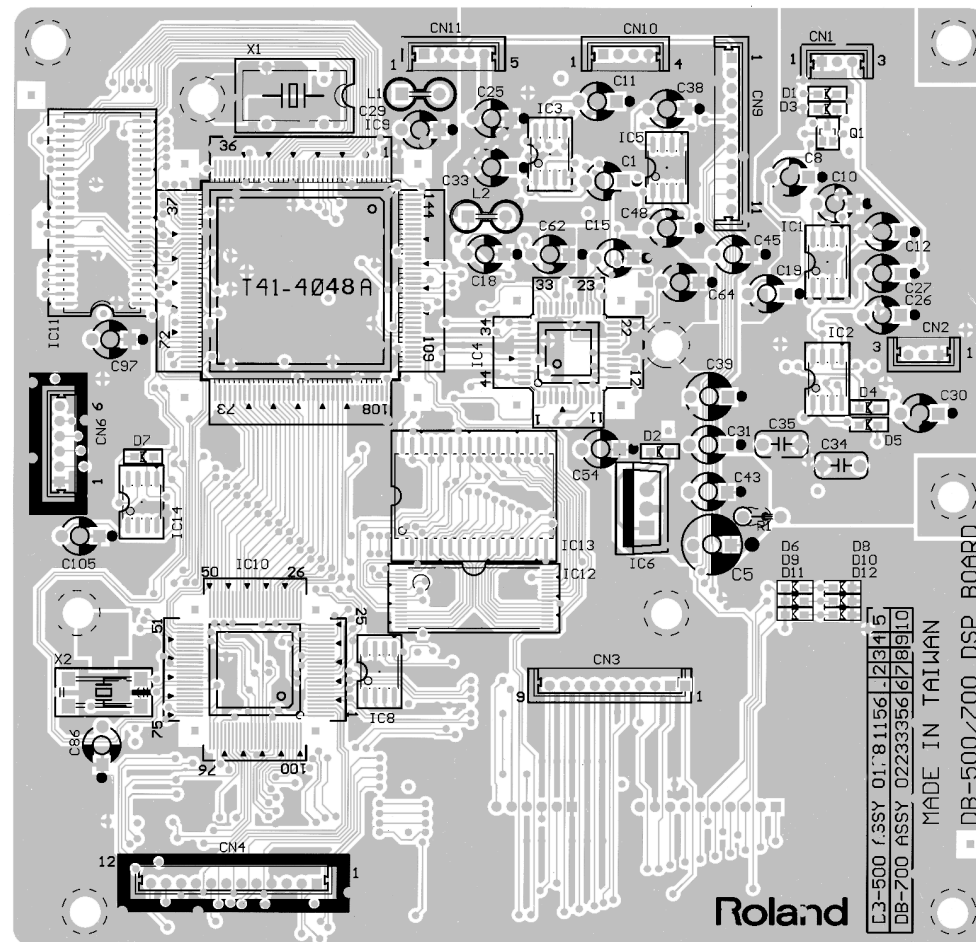
U

View from component side.

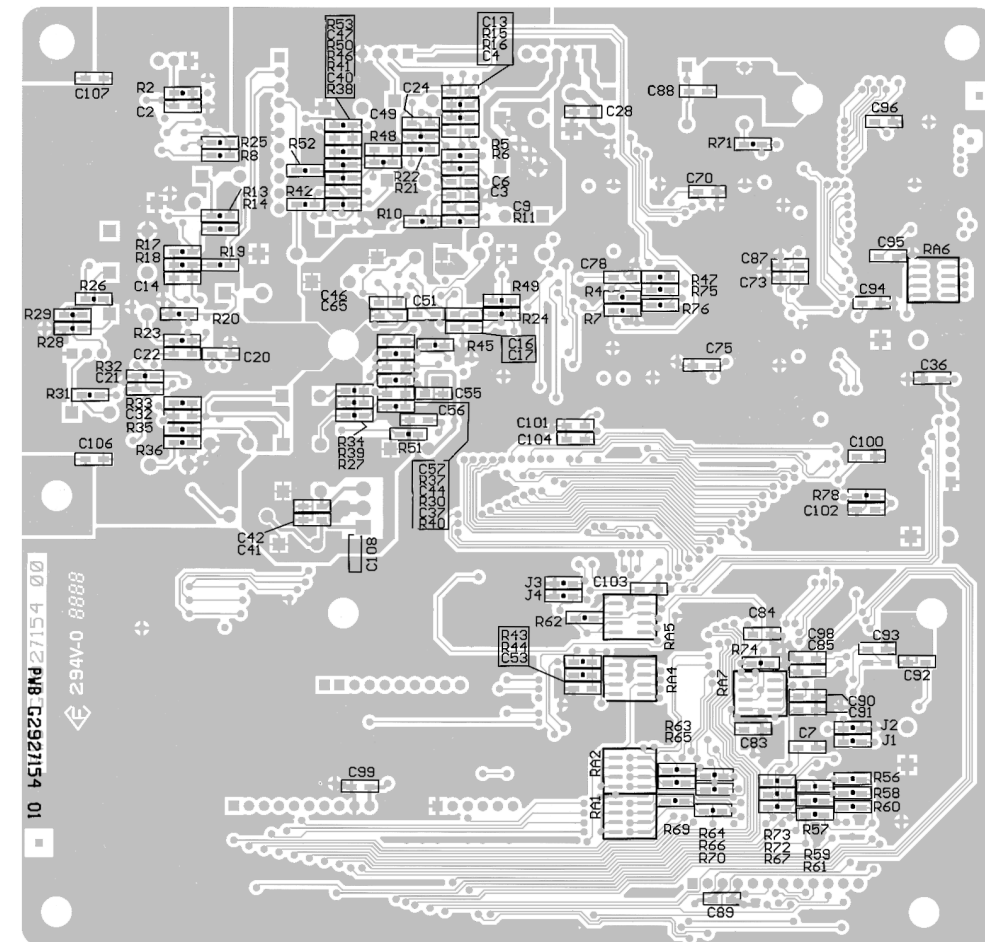
View from foil side.

A **CIRCUIT BOARD**
DSP BOARD ASSY (02233356)

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View from component side.

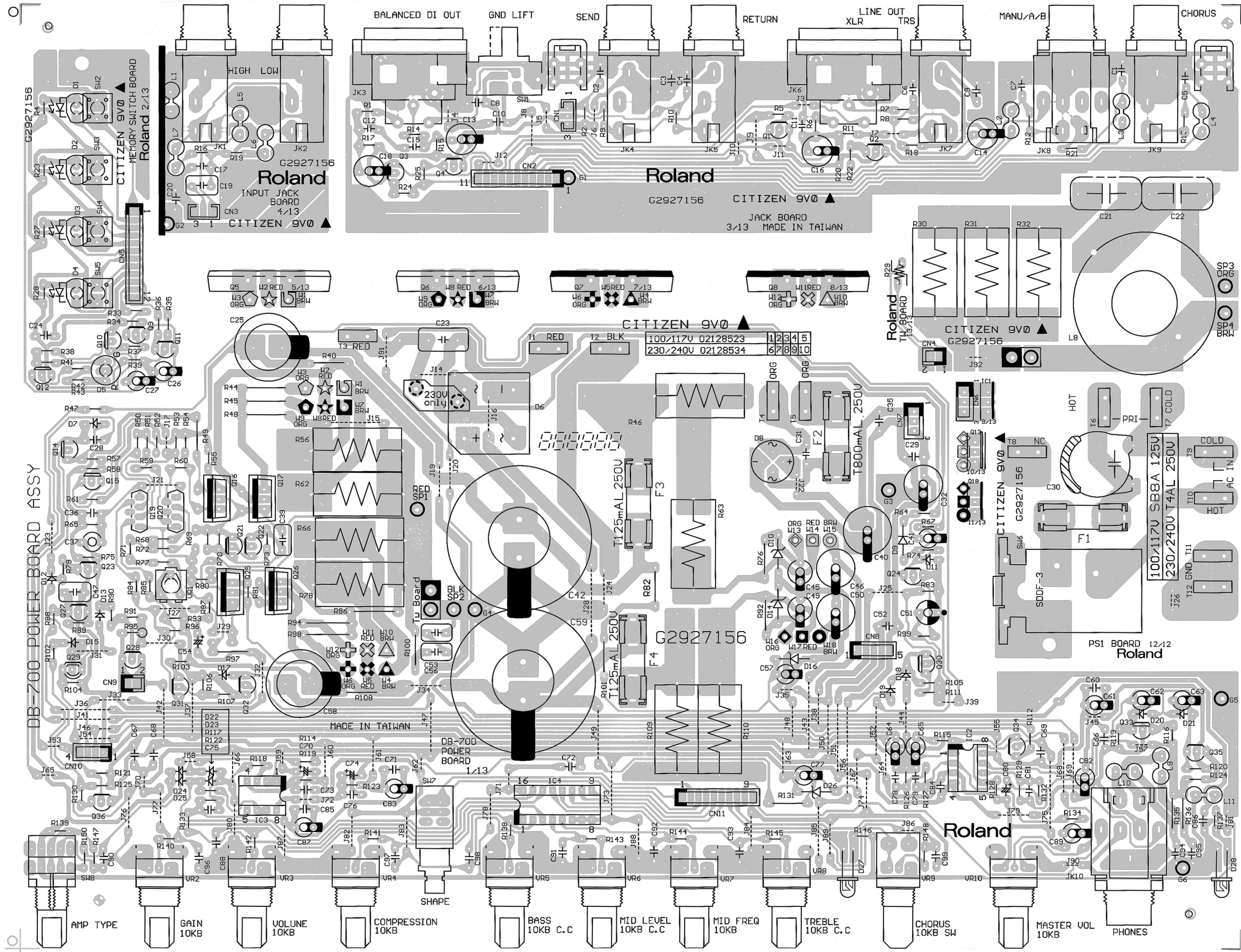


View from foil side.

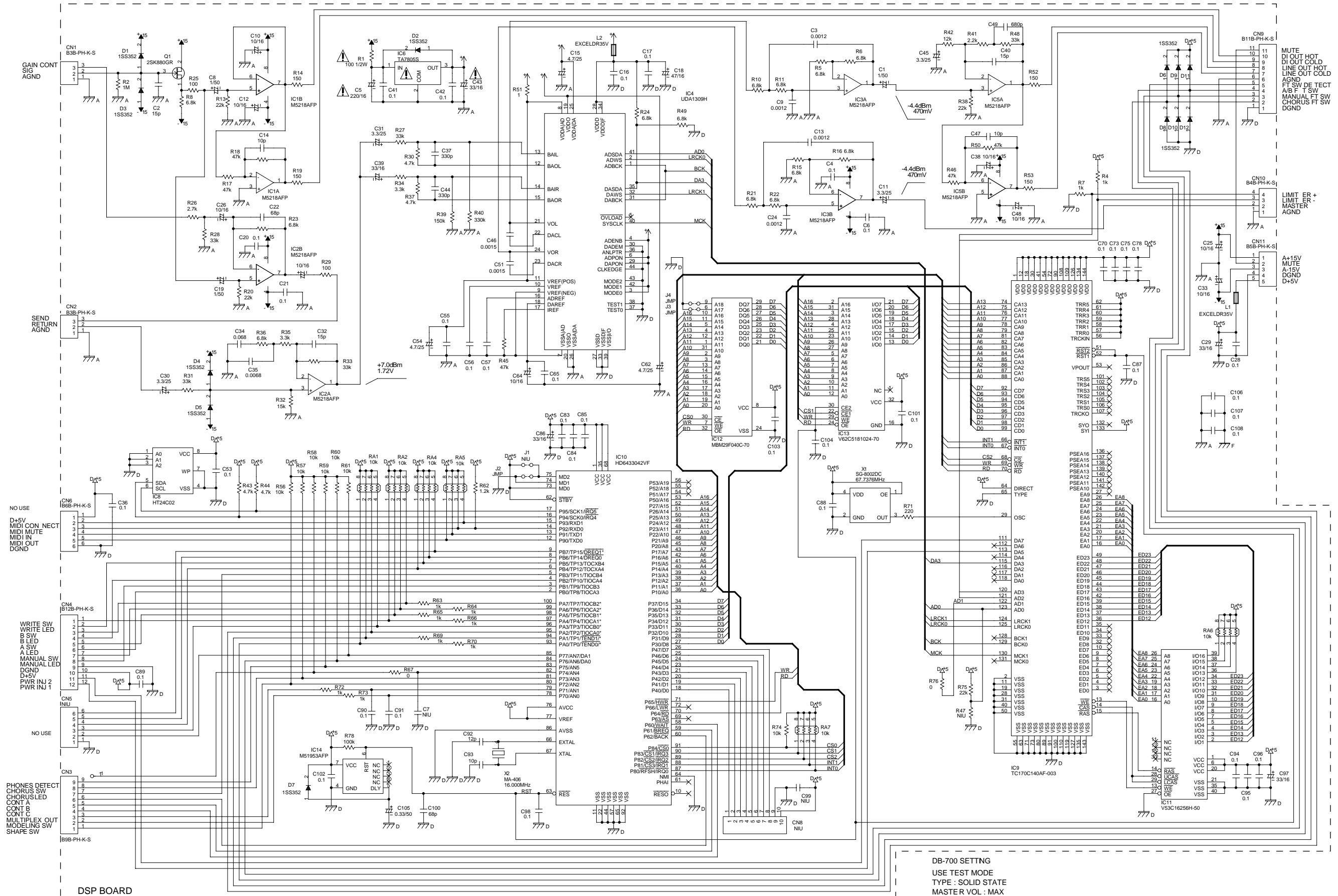
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A POWER BOARD ASSY 230V/240V (02128534)

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D
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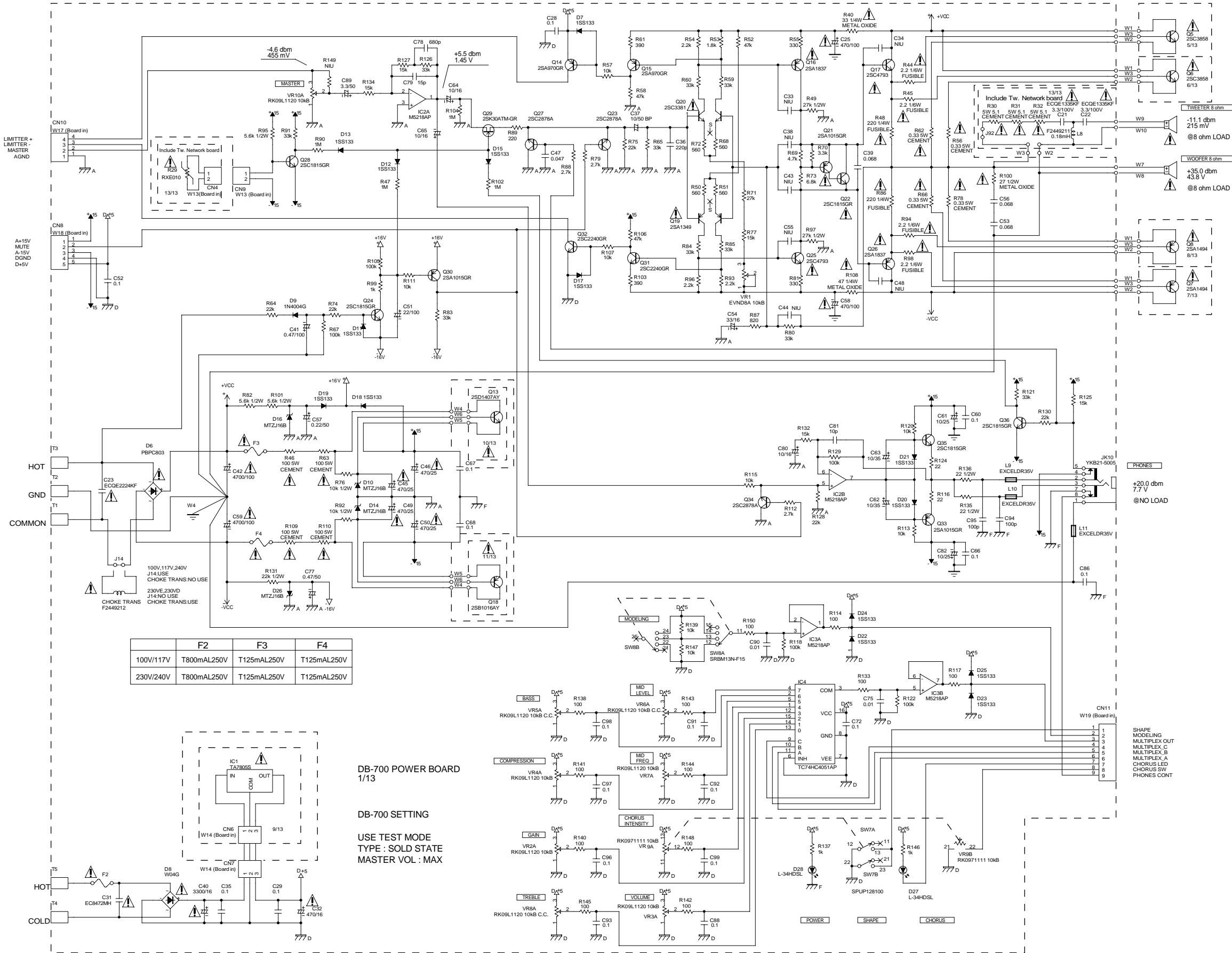
CIRCUIT DIAGRAM **DSP BOARD ASSY (02233356)**



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A POWER BOARD ASSY 230V/240V (02128534)

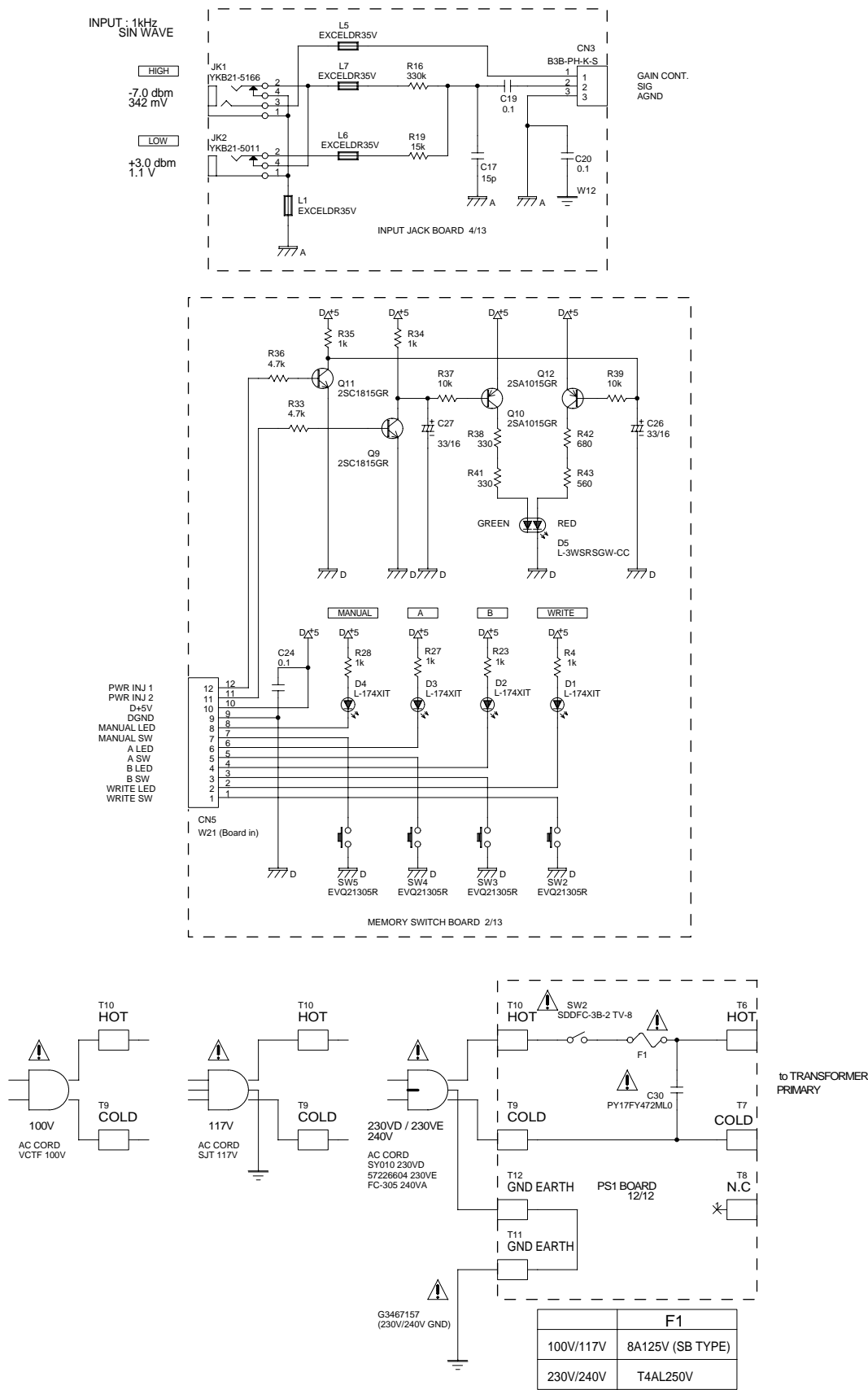
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A POWER BOARD ASSY 230V/240V (02128534)

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DB-700 SETTING
USE TEST MODE
TYPE : SOLD STATE
MASTER VOL : MAX

