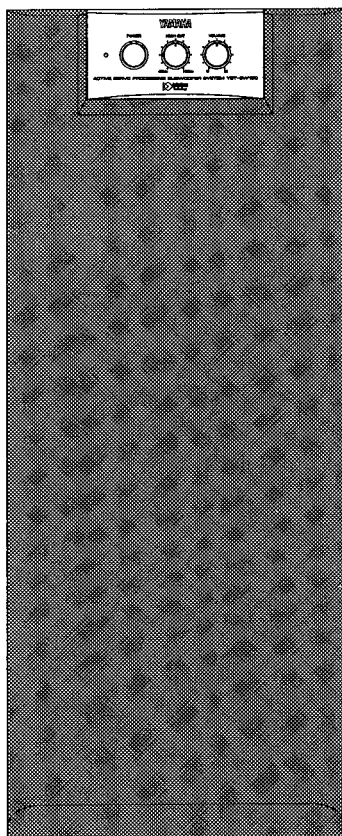


ACTIVE SERVO PROCESSING SUBWOOFER SYSTEM YST-SW150

SERVICE MANUAL



■ CONTENTS

TO SERVICE PERSONNEL	1
INTERNAL VIEW	1
REAR PANELS	2
SPECIFICATIONS	2
DISASSEMBLY PROCEDURES	3
ADJUSTMENTS	3

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 any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-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 specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

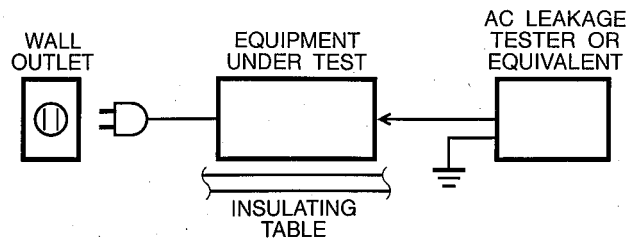
WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

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

BLOCK DIAGRAM	4
IC BLOCKS	5
PRINTED CIRCUIT BOARD	6~9
SCHEMATIC DIAGRAM	10
PARTS LIST	11~17

■ TO SERVICE PERSONNEL

1. Critical Components Information.
Components having special characteristics are marked and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Models Only).
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



WARNING: CHEMICAL CONTENT NOTICE!

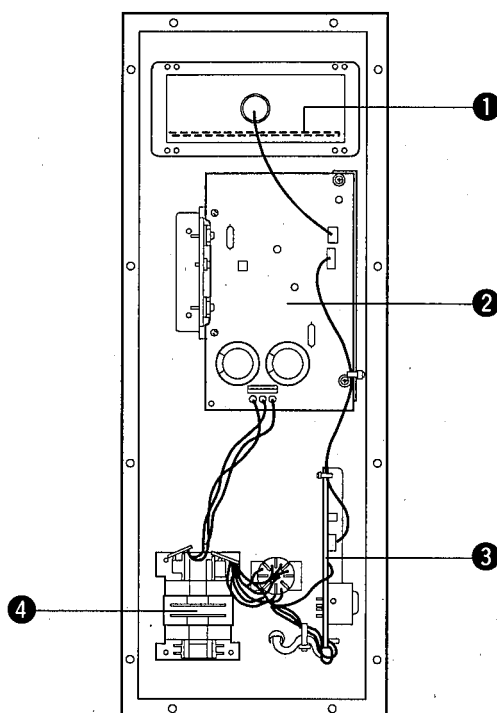
The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

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

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

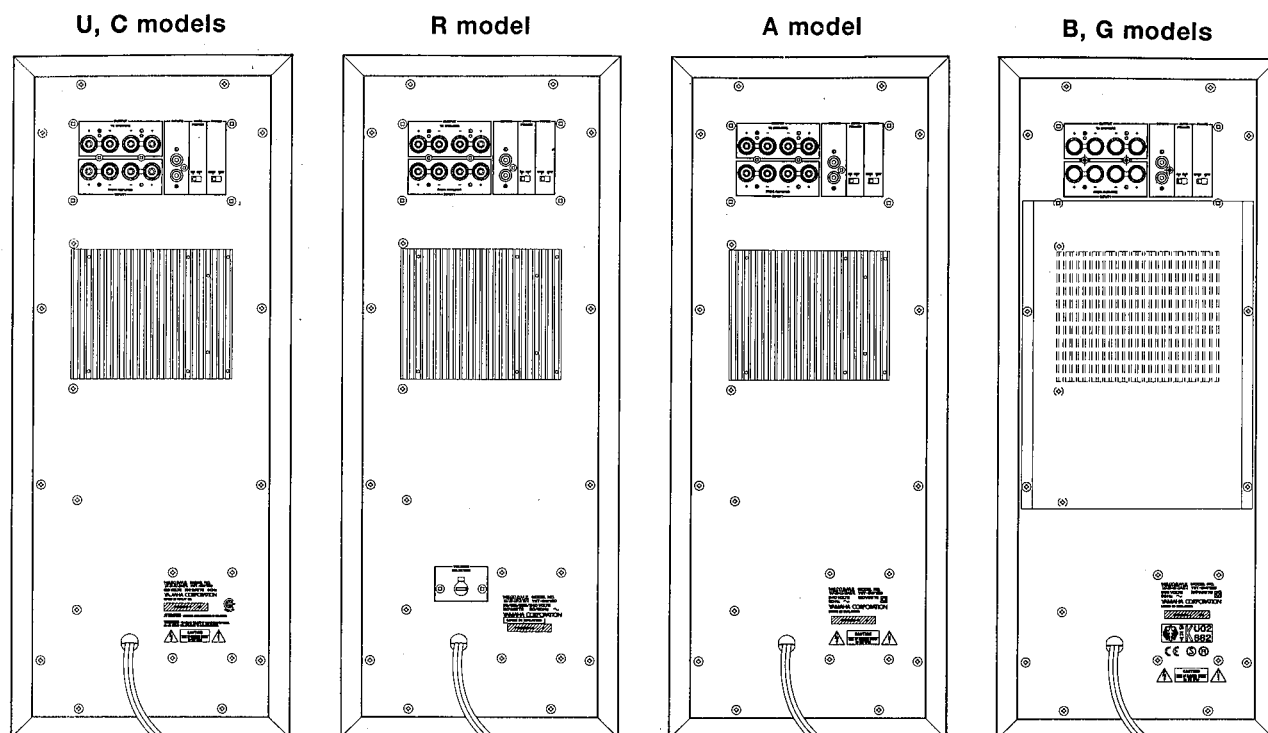
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ INTERNAL VIEW



- ① P.C.B. MAIN (3)
- ② P.C.B. MAIN (1)
- ③ P.C.B. MAIN (2)
- ④ POWER TRANSFORMER

REAR PANELS



SPECIFICATIONS

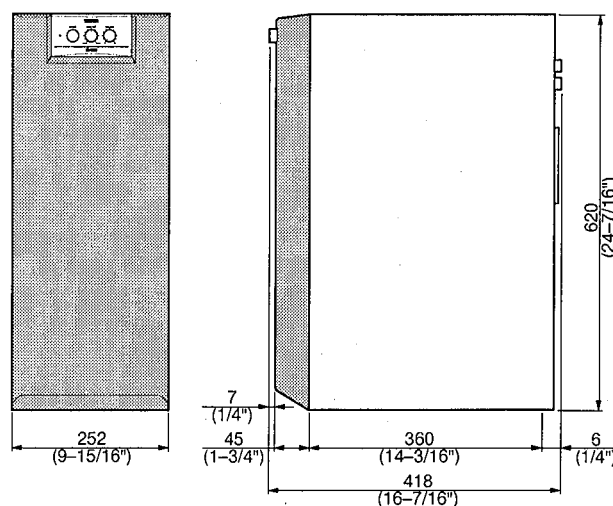
Speaker Unit	20cm (7-7/8") woofer (JA2156) magnetic-shielded type x 2
Amplifier Output	120W/5 ohms
High-Cut Filter	40Hz—140Hz (–24dB/oct), variable
Frequency Response	20Hz—160Hz (–10dB)
Power Supply	
U.S.A and Canadian models	AC120V, 60Hz
European and British models	AC230V, 50Hz
Australian model	AC240V, 50Hz
General model	AC110/120/220/240V, 50/60Hz
Power Consumption	130W
Dimensions (W x H x D)	252mm x 620mm x 418mm (9-15/16" x 24-7/16" x 16-7/16")
Weight	18kg (39 lbs. 11oz)

* Specifications subject to change without notice.

U U.S.A. model
C Canadian model
A Australian model

B British model
G European model
R General model

DIMENSIONS



Units : mm (inch)

■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

1. Removal of Front Grille

The front grille is fixed to the cabinet with dowels at 6 locations.

- * As a screwdriver (for slotted head screw) is used for removal, use special care not to cause damage to the cabinet.
- a. Using the screwdriver inserted in the gap between the front grille and the cabinet (bottom side first), push up the front grille.
- b. Remove the front grille by lifting it up.

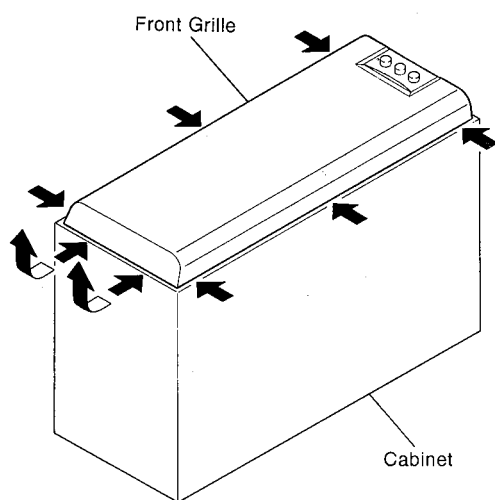


Fig. 1

2. Removal of Speakers

- a. Remove 4 screws for each speaker (①) in Fig. 2.
- b. Remove the cable cord.

3. Removal of Front Panel

- a. Remove 4 screws (②) in Fig. 2, and remove the Front Panel with the P.C.B. Main (4) and (5).
- b. Remove 1 connector. (#3)

4. Removal of Rear Panel

Remove 12 screws (③) in Fig. 2.

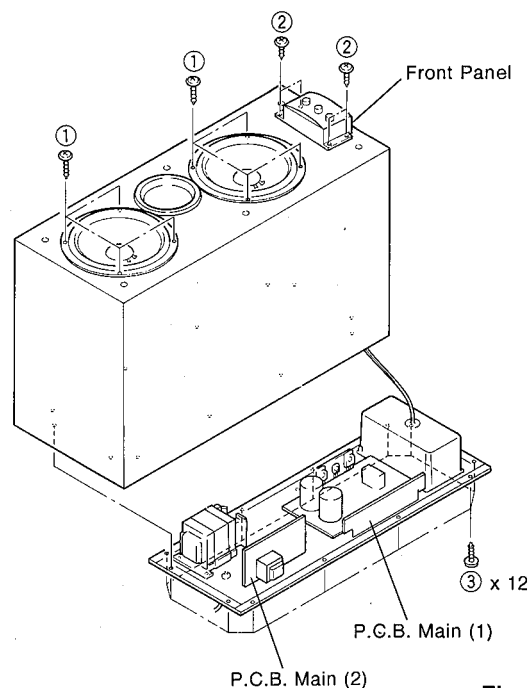


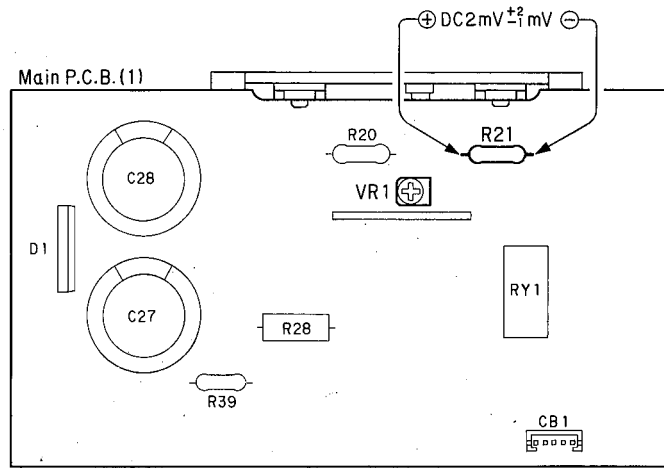
Fig. 2

■ ADJUSTMENTS

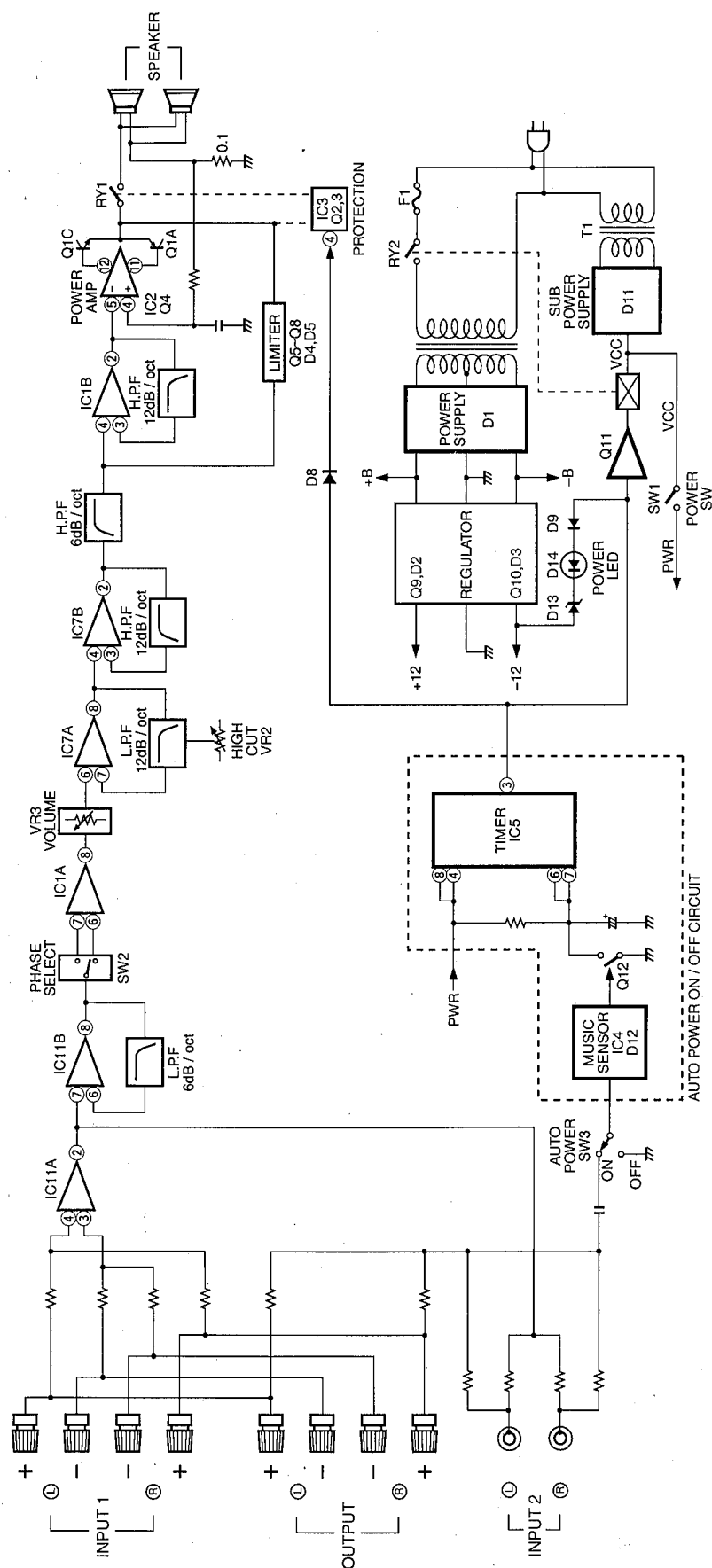
● Idling Adjustment

To stabilize operation of the amplifier, turn ON the power in the no-signal state and wait for 1 or 2 minutes before the adjustment.

Adjust VR1 so that the voltage at both ends of R21 (0.15Ω) becomes DC 2mV ± 1 mV.

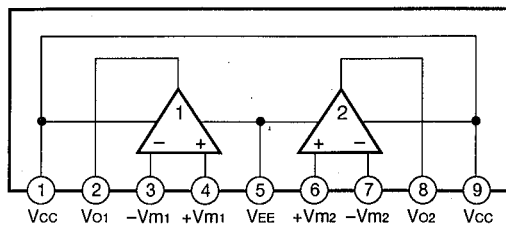


BLOCK DIAGRAM

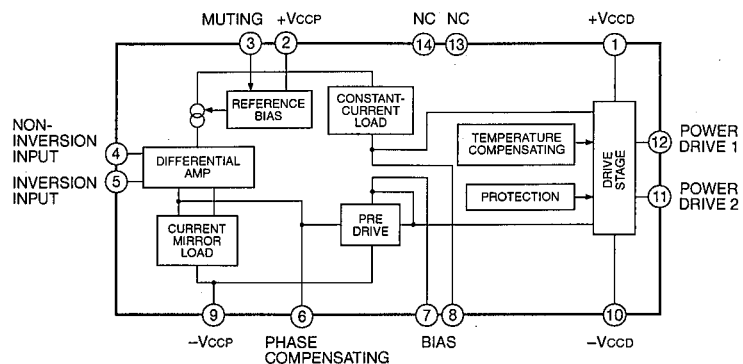


IC BLOCKS

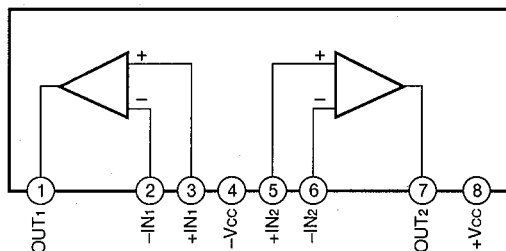
IC1, 4, 7 : μ PC4570HA
Dual OP-Amp



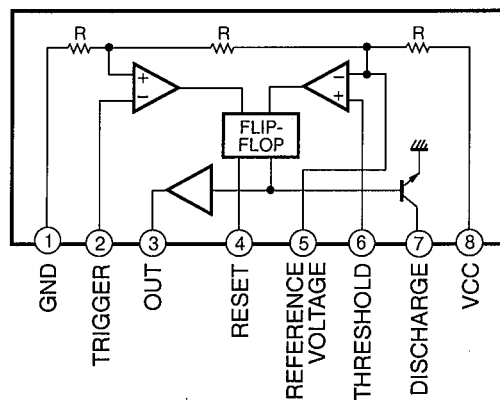
IC2 : μ PC1298V
50~80W Power Amplifier Driver



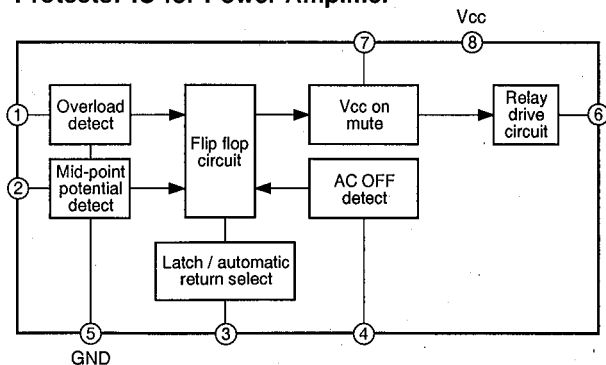
IC11 : NJM4558L
Dual OP-Amp



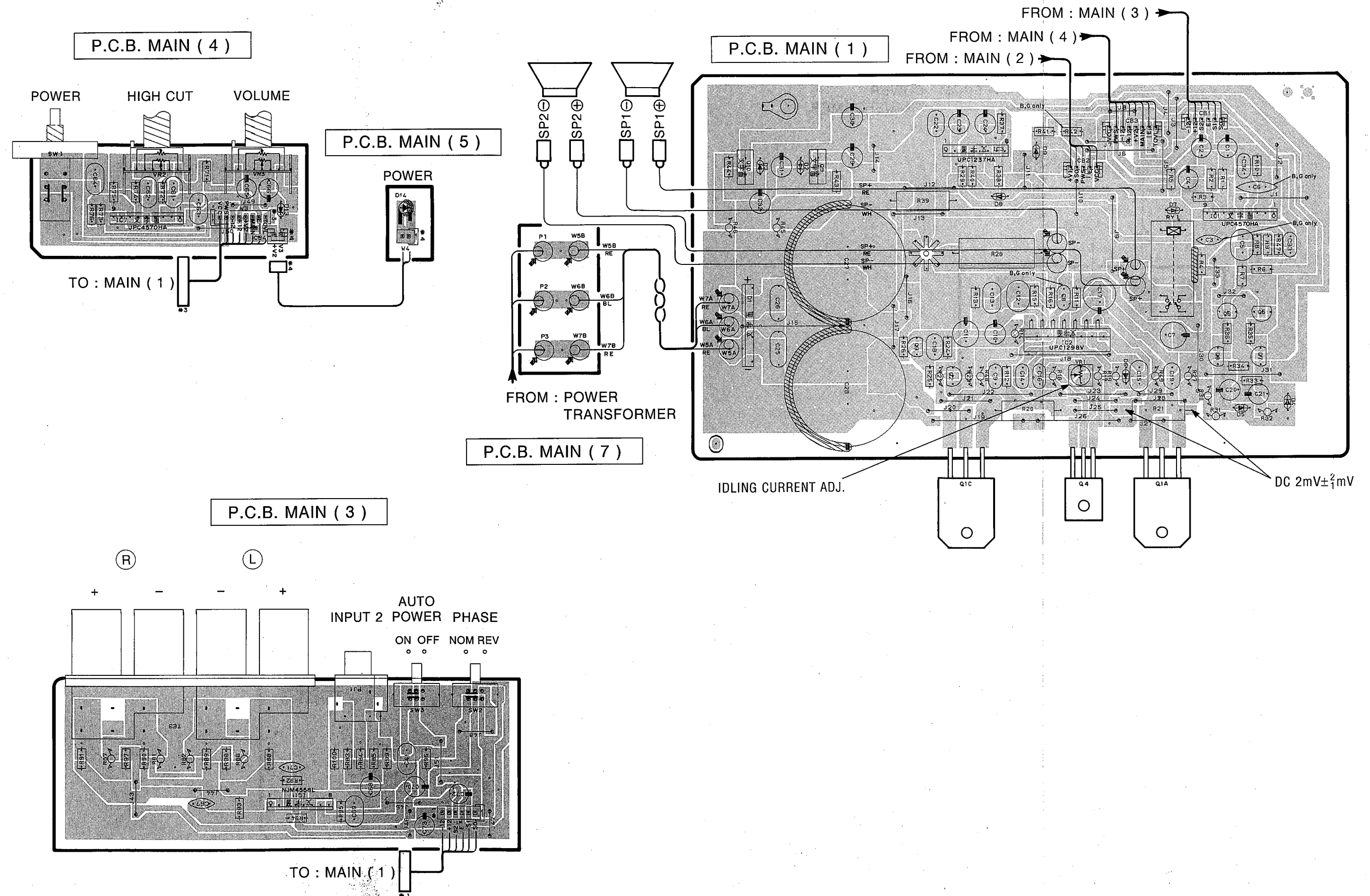
IC5 : M51848L
CR Timer



IC3 : μ PC1237HA
Protector IC for Power Amplifier



PRINTED CIRCUIT BOARD (Foil Side)

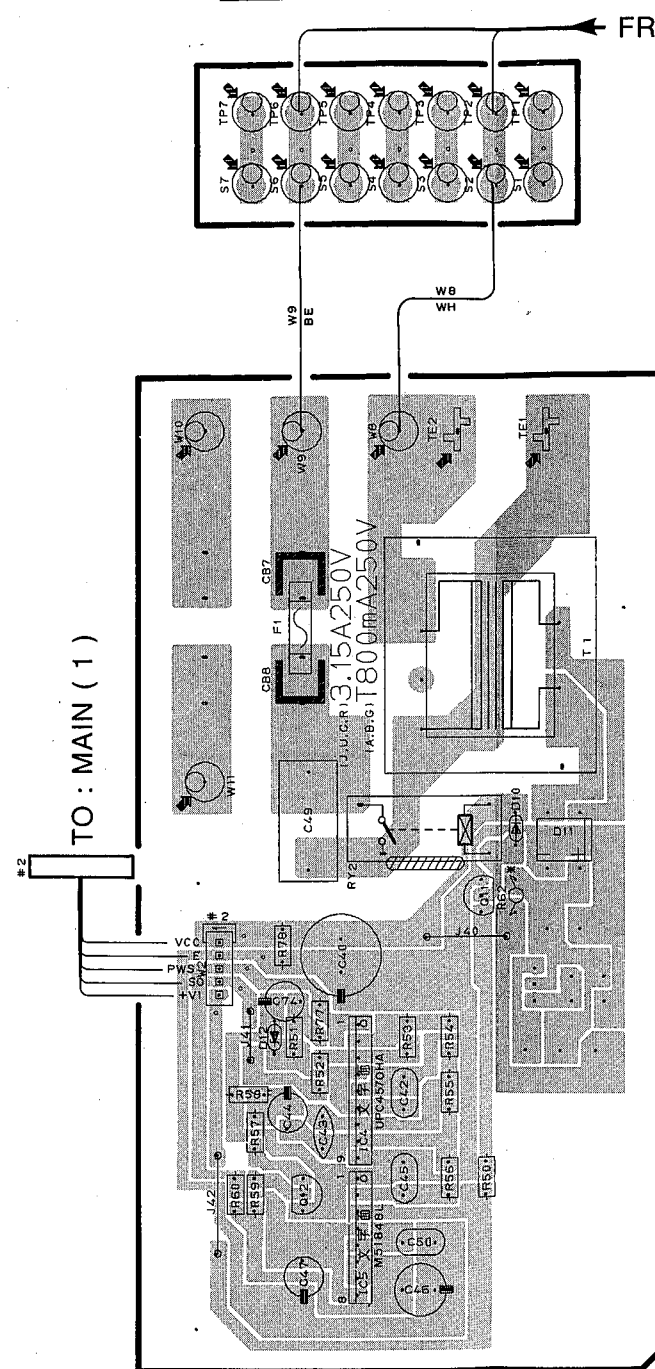


PRINTED CIRCUIT BOARD (Foil Side)

● U,C,A,B,G models

P.C.B. MAIN (6)

FROM : POWER
TRANSFORMER

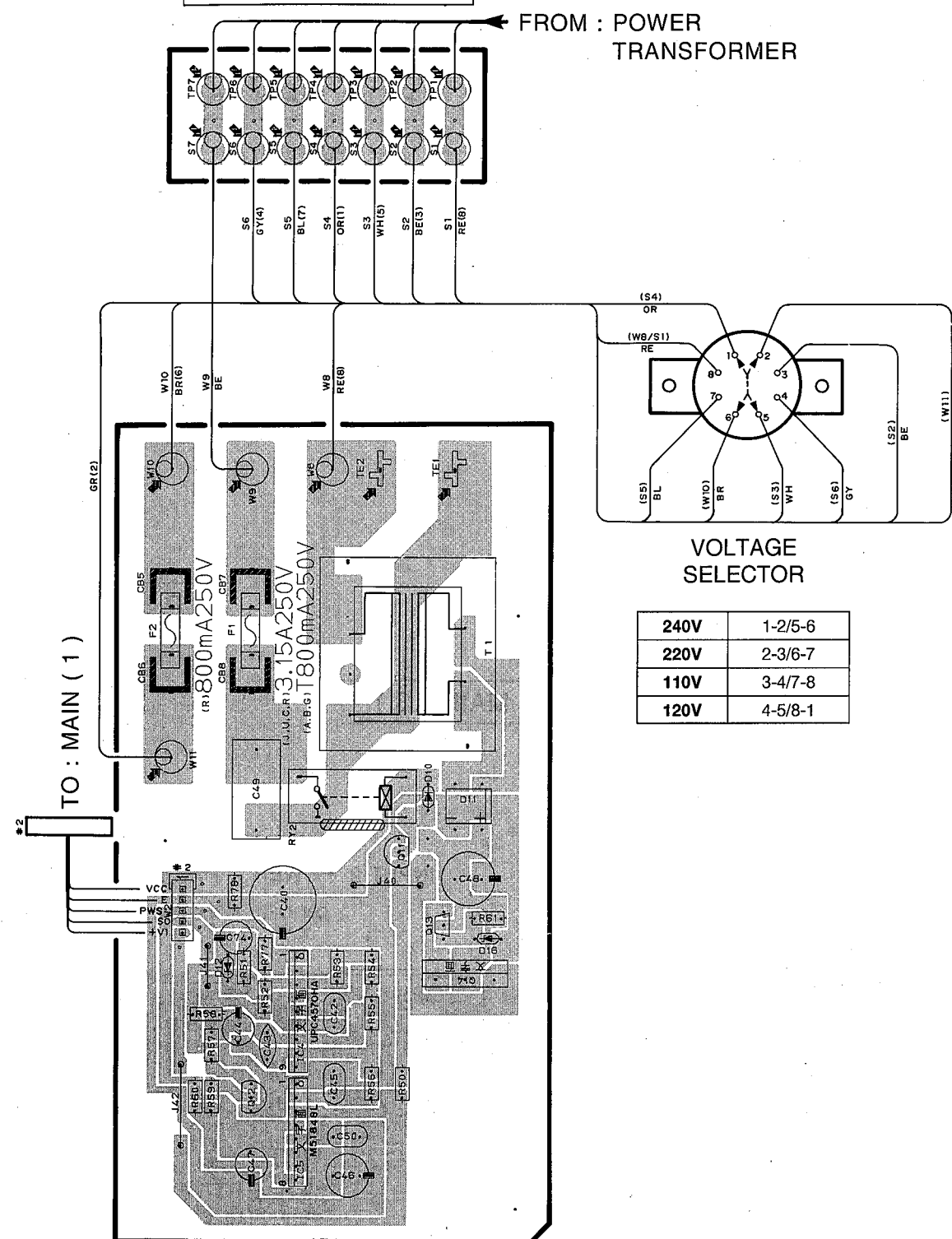


P.C.B. MAIN (2)

● R model

P.C.B. MAIN (6)

FROM : POWER
TRANSFORMER



VOLTAGE
SELECTOR

240V	1-2/5-6
220V	2-3/6-7
110V	3-4/7-8
120V	4-5/8-1

P.C.B. MAIN (2)

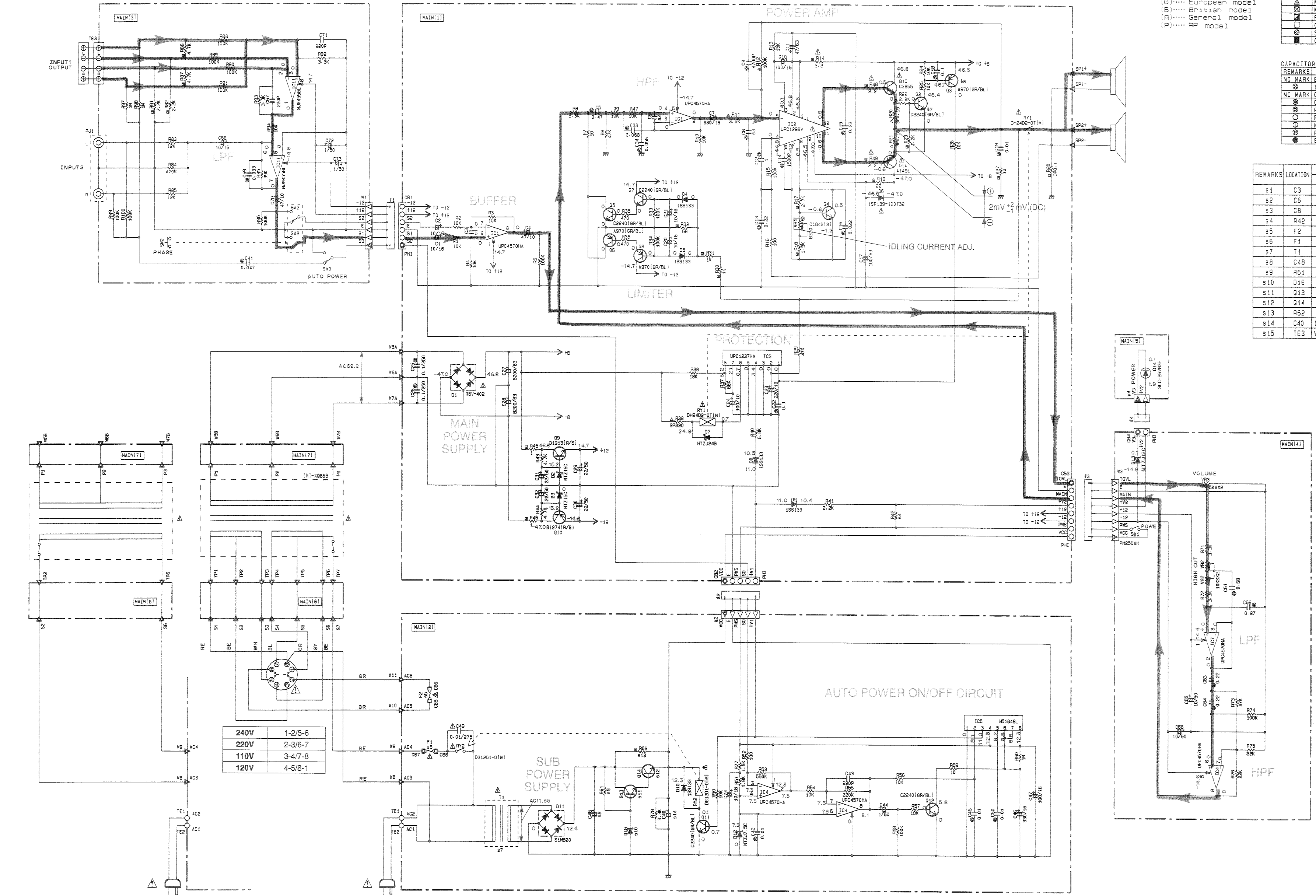
SCHEMATIC DIAGRAM

NOTICE
(J)..... Japanese model
(U)..... U.S.A model
(C)..... Canadian model
(A)..... Australian model
(E)..... European model
(B)..... British model
(R)..... General model
(P)..... PP model

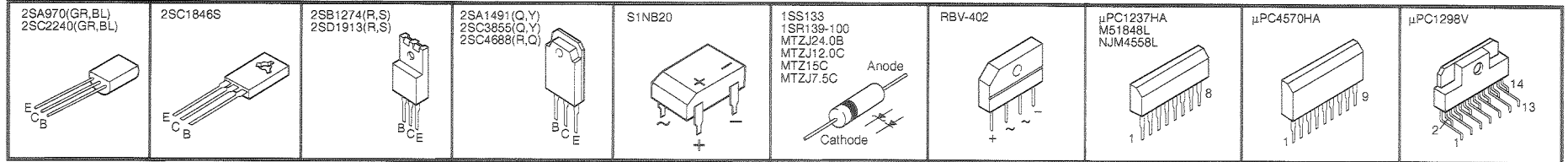
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
■	METAL PLATE RESISTOR
⊠	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊙	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
○	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
○	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

REMARKS	LOCATION	DESTINATION
		J U C R A B G
S1	C3	X X X X 22PCH
S2	C6	X X X X 220PCH
S3	C8	X X X X 1000P
S4	R42	X X X X 47K
S5	F2	X X TERNAL250V
S6	F1	3.15A250V 3.15A250V TERNAL250V TERNAL250V
S7	T1	XQ842 XQ843 XQ844 XQ845 XQ846
S8	C48	X X 100/53 X X
S9	R61	X X 5.6K X X
S10	D16	X X MTJ212C X X
S11	Q13	X X C22401(GR/BL) X X
S12	Q14	X X C46881(R/D) X X
S13	R62	2.2 2.2 X 2.2 2.2
S14	C40	1000/25X1000/25 10/25 1000/25 1000/25
S15	TE3	VC31370 VC31370 VC31370 VC31370 VK50620



PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.



* The voltage at the collector of Q12 and No.6 and No.7 pins of IC5 varies when AUTO POWER OFF is detected after the power is turned ON.

* All voltage are measured with a 10MΩ/V DC electric volt meter.
* Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

PARTS LIST

ELECTRICAL PARTS

WARNING

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

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FLAT	: CONNECTOR, FLAT CABLE	SUPRT.PCB	: SUPPORT, P.C.B.
CN.POST	: CONNECTOR, BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL, AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.VAR	: VARACTOR DIODE	SW.SLIDE	: SLIDE SWITCH
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.ZENR	: ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DSCR.CE	: CERAMIC DISCRIMINATOR	THRMST.CHP	: CHIP THERMISTOR
FER.BEAD	: FERRITE BEADS	TR.CHP	: CHIP TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT	: DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS	: TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PULS	: PULSE TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.LC.RF	: LC FILTER ,EMI	TUNER.AM	: TUNER PACK, AM
GND.MTL	: GROUND PLATE	TUNER.FM	: TUNER PACK, FM
GND.TERM	: GROUND TERMINAL	TUNER.PK	: FRONT-END TUNER PACK
HOLDER.FUS	: FUSE HOLDER	VR	: ROTARY POTENTIOMETER
IC.PRTCT	: IC PROTECTOR	VR.MTR	: POTENTIOMETER WITH MOTOR
JUMPER.CN	: JUMPER CONNECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.TST	: JUMPER, TEST POINT	VR.SLIDE	: SLIDE POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

Note) Those parts marked with "#" are not included in the P.C.B. ass'y.

Schm Ref.	PART NO.	Description
*	VT405300	P. C. B. MAIN(UC)
*	VT405400	P. C. B. MAIN(R)
*	VT405500	P. C. B. MAIN(A)
*	VT405600	P. C. B. MAIN(BG)
CB1	VD004900	CN. BS. PIN 6P
CB2	VD004800	CN. BS. PIN 5P
CB3	VD005100	CN. BS. PIN 8P
CB4	VD004500	CN. BS. PIN 2P
* CB5	VT658200	HOLDER. FUS PC-FH1 (R)
* CB6	VT658200	HOLDER. FUS PC-FH1 (R)
* CB7	VT658200	HOLDER. FUS PC-FH1
* CB8	VT658200	HOLDER. FUS PC-FH1
C1	VJ836900	C. EL 10uF 16V
C2	VJ836900	C. EL 10uF 16V
C3	VA761000	C. CE 22pF 50V(BG)
C4	Vi531900	C. EL 47uF 10V
C5	UA655470	C. MYLAR 0.47uF 50V
C6	FG212220	C. CE 220pF 50V(BG)
C7	UJ638330	C. EL 330uF 16V
C8	UA653100	C. MYLAR 1000pF 50V(BG)
C9	UA253470	C. MYLAR 4700pF 50V
C10	VF964800	C. EL 100uF 16V
C11	Ui377470	C. EL 47uF 63V
C12	UA656100	C. MYLAR 1uF 50V
C13	UA655220	C. MYLAR 0.22uF 50V
C14	UA653150	C. MYLAR 1500pF 50V
C15	UA655220	C. MYLAR 0.22uF 50V
C16	UA654220	C. MYLAR 0.022uF 50V
C17	UH178100	C. EL 100uF 63V
C18	UA655100	C. MYLAR 0.1uF 50V
C19	UA654100	C. MYLAR 0.01uF 50V
C20	VJ836900	C. EL 10uF 16V
C21	VJ836900	C. EL 10uF 16V
C22	UA655100	C. MYLAR 0.1uF 50V
C23	VE117600	C. EL 220uF 10V
C24	VF760000	C. EL 100uF 10V
C25	VT857900	C. POL 0.1uF 250V
C26	VT857900	C. POL 0.1uF 250V
* C27	VT544500	C. EL 8200uF 63V
* C28	VT544500	C. EL 8200uF 63V
C29	Ui367220	C. EL 22uF 50V
C30	Ui367220	C. EL 22uF 50V
C31	Ui367220	C. EL 22uF 50V
C32	Ui367220	C. EL 22uF 50V
C33	UA654680	C. MYLAR 0.068uF 50V
C34	UA654560	C. MYLAR 0.056uF 50V
C40	VF606700	C. EL 1000uF 25V(UCABG)
C40	VH620500	C. EL 10uF 25V(R)
C41	UA654470	C. MYLAR 0.047uF 50V
C42	UA654100	C. MYLAR 0.01uF 50V
C43	FG212220	C. CE 220pF 50V
C44	VJ839100	C. EL 1uF 50V
C45	UA654100	C. MYLAR 0.01uF 50V

* New Parts

Schm Ref.	PART NO.	Description
C46	UJ638330	C. EL 330uF 16V
C47	VF964800	C. EL 100uF 16V
C48	UH178100	C. EL 100uF 63V(R)
△ C49	VS741700	C. CE. SAFTY 0.01uF 275V
C50	UA654100	C. MYLAR 0.01uF 50V
C61	UA655680	C. MYLAR 0.68uF 50V
C62	UA655270	C. MYLAR 0.27uF 50V
C63	UA655220	C. MYLAR 0.22uF 50V
C64	UA655220	C. MYLAR 0.22uF 50V
C65	UM417100	C. EL 10uF 50V
C66	UM417100	C. EL 10uF 50V
C67	FG212220	C. CE 220pF 50V
C68	VJ836900	C. EL 10uF 16V
C69	UA254330	C. MYLAR 0.033uF 50V
C70	Vi531900	C. EL 47uF 10V
C71	FG212220	C. CE 220pF 50V
C72	VJ839100	C. EL 1uF 50V
C73	VJ839100	C. EL 1uF 50V
C74	VJ836900	C. EL 10uF 16V
△ D1	VC971500	DIODE. BRG RBV-402 4.0A 200V
D2	iF008920	DIODE. ZENR MTZ15C 15V
D3	iF008920	DIODE. ZENR MTZ15C 15V
D4	iF004600	DIODE 1SS133
D5	iF004600	DIODE 1SS133
△ D6	VH770800	DIODE 1SR139-100
D7	VG442500	DIODE. ZENR MTZJ24B 24V
D8	iF004600	DIODE 1SS133
D9	iF004600	DIODE 1SS133
D10	iF004600	DIODE 1SS133
D11	VR253700	DIODE. BRG S1NB20 1.0A 200V
D12	VG438700	DIODE. ZENR MTZJ7.5C 7.5V
D13	VG440300	DIODE. ZENR MTZJ12C 12V
D14	VM550600	LED(re) SLC-26VR3F
D16	VG440300	DIODE. ZENR MTZJ12C 12V(R)
△ * F1	VT756500	FUSE TL3. 15A 250V(UCR)
△ F2	KB002610	FUSE T800mA 250V(RABG)
△ IC1	XB247301	IC uPC4570HA
△ IC2	Xi115A00	IC uPC1298V
IC3	XF663A00	IC uPC1237HA
IC4	XB247301	IC uPC4570HA
IC5	XP741A00	IC M51848L
IC7	XB247301	IC uPC4570HA
IC11	XM922A00	IC NJM4558L
* PJ1	VT666100	JACK. PIN 2P
△ # Q1A	iX620970	TR 2SA1491 O, P, Y
△ # Q1C	iX620980	TR 2SC3855 O, P, Y
Q2	iC224030	TR 2SC2240 GR, BL
Q3	iA097000	TR 2SA970 GR, BL
# Q4	VC398100	TR 2SC1846 S
Q5	iC224030	TR 2SC2240 GR, BL
Q6	iA097000	TR 2SA970 GR, BL
Q7	iC224030	TR 2SC2240 GR, BL
Q8	iA097000	TR 2SA970 GR, BL

* New Parts

Schm Ref.	PART NO.	Description
Q9	VC407900	TR 2SD1913 R, S
Q10	VC614000	TR 2SB1274 Q, R, S
Q11	iC224030	TR 2SC2240 GR, BL
Q12	iC224030	TR 2SC2240 GR, BL
Q13	iC224030	TR 2SC2240 GR, BL(R)
Q14	VK801200	TR 2SC4688 R, O(R)
R11	HU576360	R. MTL. FLM 3.6K Ω 1/4W
R12	HU578100	R. MTL. FLM 100K Ω 1/4W
△ R14	HV453220	R. CAR. FP 2.2 Ω 1/4W
R17	HV456270	R. CAR. FP 2.7K Ω 1/4W
R18	HV456150	R. CAR. FP 1.5K Ω 1/4W
R19	HV454220	R. CAR. FP 22 Ω 1/4W
R20	VG730500	R. MTL. OXD 0.15 Ω 3W
R21	VG730500	R. MTL. OXD 0.15 Ω 3W
R22	HV456220	R. CAR. FP 2.2K Ω 1/4W
R23	HV456120	R. CAR. FP 1.2K Ω 1/4W
R27	HV454100	R. CAR. FP 10 Ω 1/4W
R28	VH930000	R. WW 0.1 Ω 3W
R30	HV456100	R. CAR. FP 1K Ω 1/4W
R31	HV456100	R. CAR. FP 1K Ω 1/4W
R32	HV454680	R. CAR. FP 68 Ω 1/4W
R39	HL425820	R. MTL. OXD 820 Ω 2W
R45	HV453100	R. CAR. FP 1 Ω 1/4W
R46	HV453100	R. CAR. FP 1 Ω 1/4W
△ R48	HV453220	R. CAR. FP 2.2 Ω 1/4W
△ R49	HV453220	R. CAR. FP 2.2 Ω 1/4W
R62	HV453220	R. CAR. FP 2.2 Ω 1/4W(UCABG)
R81	HV456220	R. CAR. FP 2.2K Ω 1/4W
R82	HV456220	R. CAR. FP 2.2K Ω 1/4W
R86	HV456470	R. CAR. FP 4.7K Ω 1/4W
R87	HV456470	R. CAR. FP 4.7K Ω 1/4W
△ RY1	VK438300	RELAY DH24D2-OTM-II
△ RY2	VD506000	RELAY AC DG12D1-OM
* SW1	VT666000	SW. PUSH SPUN12-2N-W
SW2	VL012000	SW. SLIDE SSSF12
SW3	VL012000	SW. SLIDE SSSF12
△ * T1	XQ843A00	TRANS. PWR (UC)
△ * T1	XQ844A00	TRANS. PWR (R)
△ * T1	XQ845A00	TRANS. PWR (A)
△ T1	XQ846B00	TRANS. PWR (BG)
* TE1	VT658100	TERM. WRAP 352-TX119
* TE2	VT658100	TERM. WRAP 352-TX119
TE3	VC313700	TERM. SP 8P(UCRA)
TE3	VK506200	TERM. SP 8P(BG)
VR1	VJ692700	VR. TRIM B330 Ω
VR2	VQ419100	VR 10K Ω
VR3	VQ419000	VR A5K Ω
* VT662700	HOLDER. LED	LE56208-0A
VN774800	GND. WSHR	MEP1866 #11102
BB070700	GND. MTL	
* VT535100	HEAT. SINK	
Ei330086	SCR. BND. HD	3x8 FCRM3-BL

* New Parts

A

B

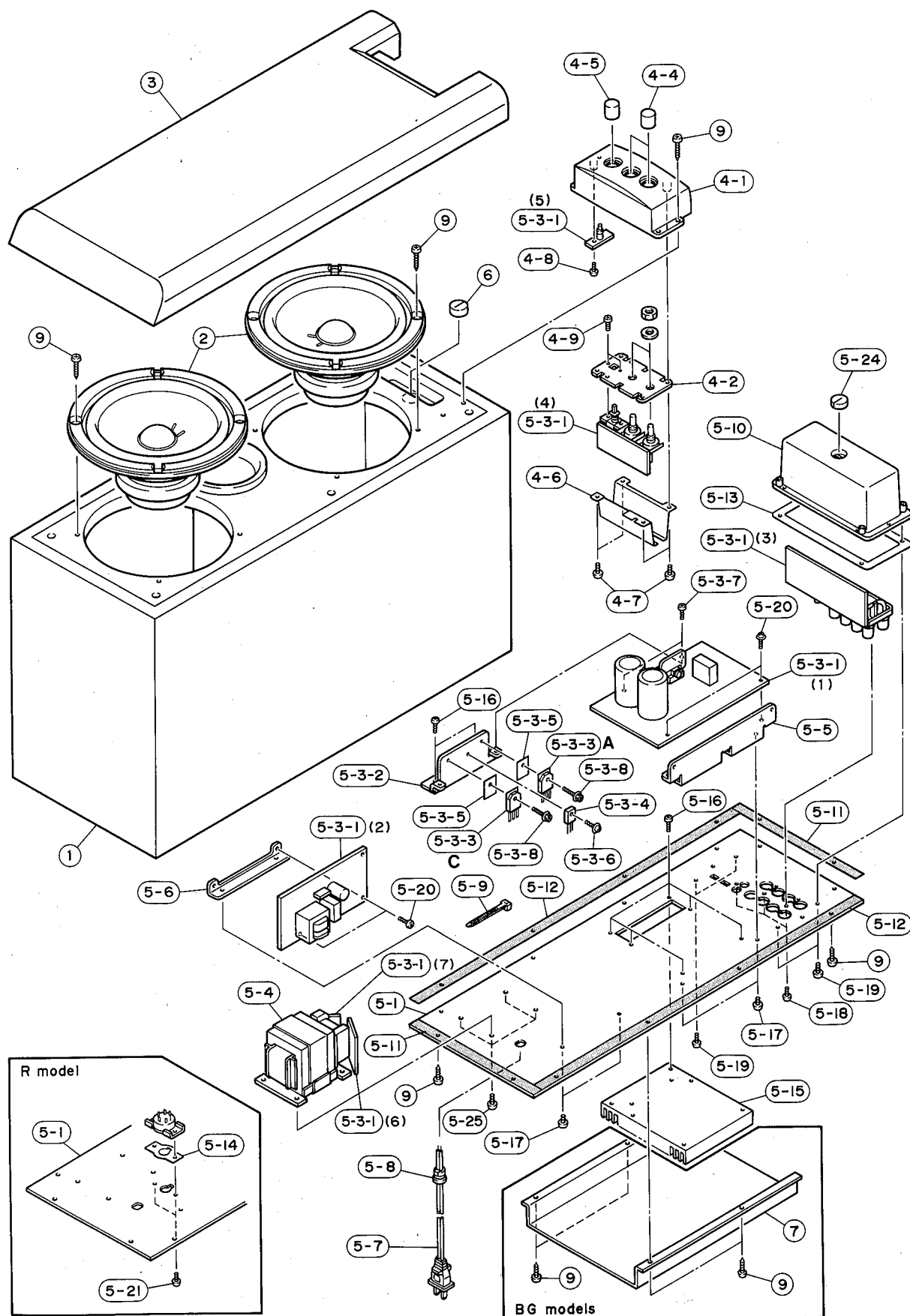
C

D

E

YST-SW150

EXPLODED VIEW



MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
* 1	VT537100	SPEAKER CABINET		(UCRAB)
* 1	VT537200	SPEAKER CABINET		(G)
* 2	XQ839A00	SPEAKER UNIT	JA2156	
* 3	VT540100	FRONT GRILLE ASS'Y		
* 4-1	VT538300	FRONT PANEL		
* 4-2	VT533600	SUB CHASSIS		
* 4-4	VT533700	VOLUME KNOB		
* 4-5	VT533800	SWITCH KNOB		
* 4-6	VT533900	SHIELD SHEET		
4-7	EP640400	BIND HEAD P-TITE SCREW	4x8 ZMC2-Y	
4-8	EP600290	BIND HEAD P-TITE SCREW	3x6 ZMC2-Y	
4-9	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL	
* 5-1	VT538800	REAR PANEL		(UC)
* 5-1	VT538900	REAR PANEL		(R)
* 5-1	VT539000	REAR PANEL		(A)
* 5-1	VT539100	REAR PANEL		(BG)
* 5-3-1	VT405300	P.C.B. ASS'Y	MAIN	(UC)
* 5-3-1	VT405400	P.C.B. ASS'Y	MAIN	(R)
* 5-3-1	VT405500	P.C.B. ASS'Y	MAIN	(A)
* 5-3-1	VT405600	P.C.B. ASS'Y	MAIN	(BG)
* 5-3-2	VT535000	RADIATOR A		
△ # 5-3-3	iX620970	TRANSISTOR	2SA1491 O,P,Y	Q1A
△ # 5-3-3	iX620980	TRANSISTOR	2SC3855 O,P,Y	Q1C
5-3-4	VC398100	TRANSISTOR	2SC1846 S	Q4
5-3-5	VK195900	SHEET	19x24	
5-3-6	EX600250	CUP B-TITE SCREW	3x10 FCRM3-BL	
5-3-7	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
5-3-8	VK173200	SCREW, TRANSISTOR	3x15 SP FCM3	
△ * 5-4	XQ853A00	POWER TRANSFORMER		(UC)
△ * 5-4	XQ855A00	POWER TRANSFORMER		(R)
△ * 5-4	XQ856A00	POWER TRANSFORMER		(A)
△ * 5-4	XQ857A00	POWER TRANSFORMER		(BG)
* 5-5	VT534100	PLATE B		
* 5-6	VT534200	PLATE C		
△ 5-7	VE370900	POWER CORD	10A 125V	(UC)
△ * 5-7	VE371200	POWER CORD	2.5A 250V 2.0m	(G)
△ 5-7	VL948500	POWER CORD	7A 250V 2.0m	(R)
△ 5-7	VQ790000	POWER CORD	5A 2.0m	(B)
△ * 5-7	VT666200	POWER CORD ASS'Y		(A)
* 5-8	VT665900	CORD STOPPER	SR-4K-4	
5-9	CB069250	BINDING TIE	BK-1	
* 5-10	VT534300	COVER		
* 5-11	VT534400	PACKING, A		
* 5-12	VT538200	PACKING, B		
* 5-13	VT534600	PACKING, C		
5-14	VS498200	GASKET F		(R)
* 5-15	VT540600	RADIATOR C		
5-16	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
5-17	Ei340086	BIND HEAD TAPPING SCREW	4x8 FCRM3-BL	
5-18	EX601360	BIND HEAD P-TITE SCREW	3x10 FCRM3-BL	
5-19	EX602740	BIND HEAD P-TITE SCREW	4x12 FCRM3-BL	
5-20	Vi924800	BW HEAD TAPPING SCREW	3x10-8 FCM3-CU	
5-21	ED330086	BIND HEAD SCREW	3x8 FCRM3-BL	(R)

* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
5-24	VS755300	BUSH, B		
5-25	EK396010	BIND HEAD S-TITE SCREW	4x8 FCRM3-BL	
6	VS755300	BUSH, B		
* 7	VT533500	REAR COVER		(BG)
9	Ei340206	BIND HEAD TAPPING SCREW	4x20 ZMC2-BL	

* New Parts

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 k Ω	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 k Ω	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 k Ω	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 k Ω	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 k Ω	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 k Ω	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 k Ω	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 k Ω	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 k Ω	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 k Ω	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 k Ω	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 k Ω	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 k Ω	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 k Ω	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 k Ω	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 k Ω	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 k Ω	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 k Ω	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 k Ω	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 k Ω	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 k Ω	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 k Ω	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 k Ω	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 k Ω	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 k Ω	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 k Ω	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 k Ω	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 k Ω	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 k Ω	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 k Ω	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 k Ω	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 k Ω	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 k Ω	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 k Ω	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 M Ω	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 M Ω	HJ35 9120	*
1.0 k Ω	HF45 6100	HF45 6100	1.5 M Ω	HJ35 9150	HF85 9150
1.2 k Ω	HF45 6120	HF45 6120	1.8 M Ω	HJ35 9180	HF85 9180
1.5 k Ω	HF45 6150	HF45 6150	2.2 M Ω	HJ35 9220	HF85 9220
1.8 k Ω	HF45 6180	HF45 6180	3.3 M Ω	HJ35 9330	HF85 9330
2.0 k Ω	HJ35 6200	HF85 6200	3.9 M Ω	HJ35 9390	*
2.2 k Ω	HF45 6220	HF45 6220	4.7 M Ω	HJ35 9470	HF85 9470
2.4 k Ω	HJ35 6240	HF85 6240			
2.7 k Ω	HF45 6270	HF45 6270			
3.0 k Ω	HF45 6300	HF45 6300			
3.3 k Ω	HF45 6330	HF45 6330			
3.6 k Ω	HJ35 6360	HF85 6360			
3.9 k Ω	HF45 6390	HF45 6390			
4.7 k Ω	HF45 6470	HF45 6470			
5.1 k Ω	HF45 6510	HF45 6510			
5.6 k Ω	HF45 6560	HF45 6560			
6.8 k Ω	HF45 6680	HF45 6680			
8.2 k Ω	HF45 6820	HF45 6820			
9.1 k Ω	HF45 6910	HF45 6910			

1/4W Type

10mm

1/6W Type

5mm

YST-SW150

YAMAHA
