



Technical Manual

STEREO POWER AMPLIFIER RB-991

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Specification

Continuous Power Output	(20-20 kHz, $\leq 0.03\%$, 8 ohms) (20-20 kHz, $\leq 0.05\%$, 4 ohms)	200 watts/ch. 300 watts/ch.
Total Harmonic Distortion	(20 Hz-20 kHz, 8 ohms)	$\leq 0.03\%$
Intermodulation Distortion	(60 Hz: 7 kHz, 4:1)	$\leq 0.03\%$
Frequency Response		≥ 10 -100,000 Hz, ± 1 dB
Damping Factor	(20-20,000 Hz, 8 ohms)	≥ 500
Speaker Impedance		4-16 ohms
Signal to Noise Ratio	(IHF A network)	120 dB
Input Impedance/Sensitivity	(RCA Inputs)	33 k Ohms/1.0 volt
(XLR Inputs)		33k Ohms/1.0 volt
Power Requirements		115 Volts, 60 Hz or 230 Volts, 50 Hz
Power Consumption		550 Watts
Dimensions (W, H, D)		440 x 127 x 385 mm 17.38 x 4.76 x 15.16"
Weight (net)		16.7 kg., 36.74 lb.

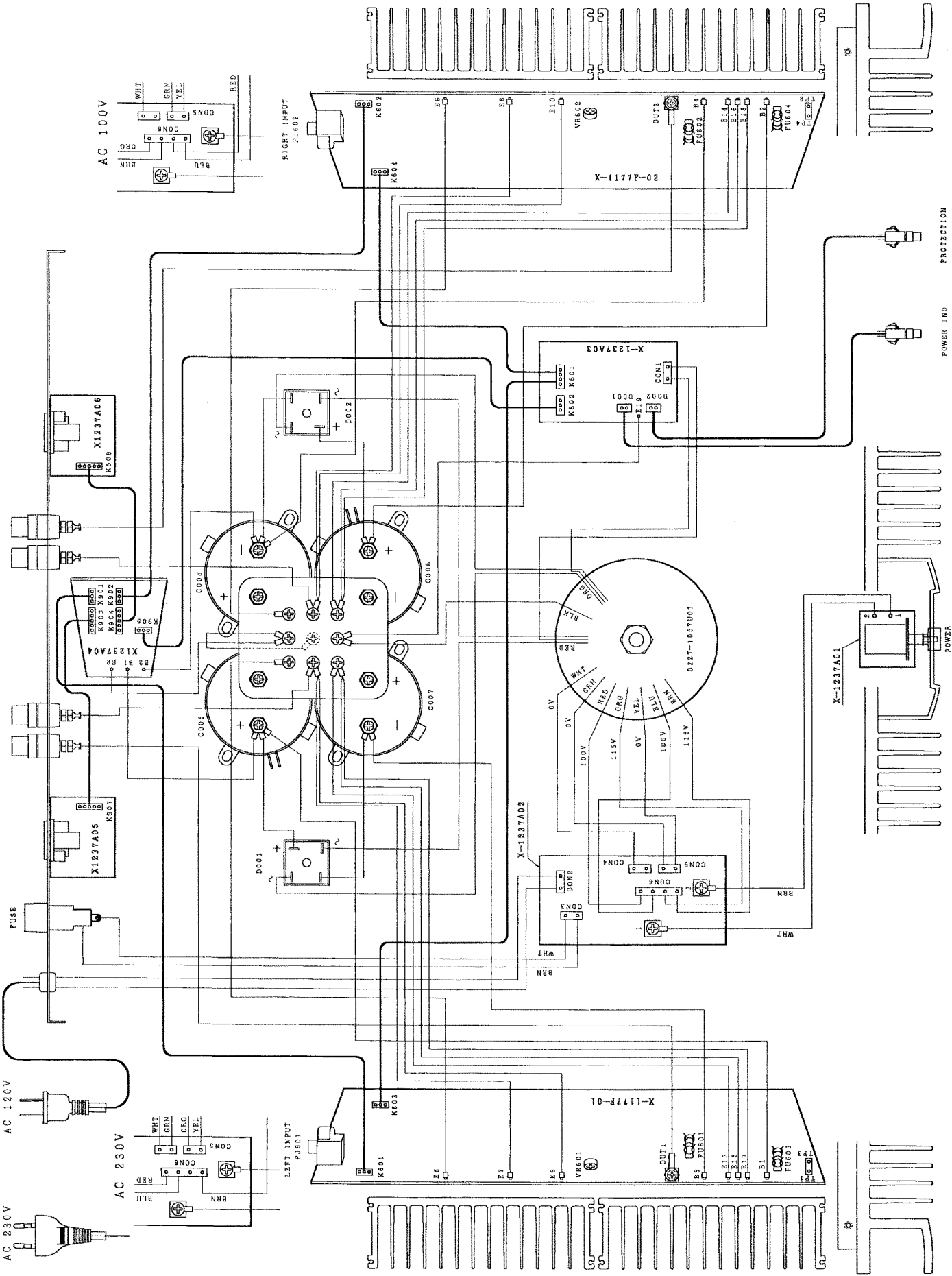
THE ROTEL CO., LTD

BUNZAN-SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO.
Beginning

Y-310A-98061M/S-S

Wiring Diagram



Parts List

SYMBOL	PARTS NO.	DESCRIPTION
X-1177-01,02 PCB ASSEMBLY		
C601,602	041 50BGF4R7M	CAP,ELEC.50V4.7UF
C603,604	044 TFKP2-100V681H	CAP,FILM 100V680PF
C607,608	041 25BGF100M	CAP,ELEC.25V100UF
C609,610	044 LFSC160V331H	CAP,STYROL 160V330PF
C611,612	041 50BGF10M	CAP,ELEC.50V10UF
C613-616	044 LFSC160V561H	CAP,STYROL 160V560PF
C623-626	041 UVX2A102MRAY	CAP,ELEC.100V1000UF
C627,628	044 LFSC160V471H	CAP,STYROL 160V470PF
D601-608	034 LT1N4148-86	DIODE
D609-612	034 LT1N4003-TB	DIODE
FU601-604	036 5ST6.3	MINI FUSE 250V6.3A
Q601-606	033 LT2SC2362KAA-FG	TRANSISTOR
Q607-612	033 LT2SA1016KAA-FG	TRANSISTOR
Q613,614	033 2SA1142-EPQ	TRANSISTOR
Q615,616	033 2SC2682-EPQ	TRANSISTOR
Q619,620	033 LT2SC2910AE-RST	TRANSISTOR
Q621,622	033 LT2SA1208AE-RST	TRANSISTOR
R601,602	054 LEE10-102	R,METAL 1K
R603,604	054 LEE10-333	R,METAL 33K
R605,606	054 LEE10-471	R,METAL 470R
R607-610	054 LTMK201K5FECZ	R,METAL 1% 1.5K
R611,612	054 LTMK2220RFECZ	R,METAL 1% 220R
R613,614	054 LTMF1/4-5600F	R,MRS25 560R
R615-618	054 LTMK201K5FECZ	R,METAL 1% 1.5K
R619,620	054 LTMK2220RFECZ	R,METAL 1% 220R
R621,622	054 LTMK2047KFECZ	R,METAL 1% 47K
R623,624	054 LTMK2100RFECZ	R,METAL 1% 100R
R625,626	054 LTMF1/4-6801F	R,MRS25 6.8K
R627,628	054 LTMF1/4-3901F	R,MRS25 3.9K
R629,630	054 LTMK2100RFECZ	R,METAL 1% 100R
R631,632	054 LTMK2001KFECZ	R,METAL 1% 1K
R633,634	054 LTMK2047RFECZ	R,METAL 1% 47R
R635-654	054 MPC78-0.22F	R,PLATE 2W 0.22R
R657,658	054 LTMK2022KFECZ	R,METAL 1% 22K
R659-662	054 2WS6.8KJF	R,METAL 2W 6.8K
R663,664	054 LTMK2010RFECZ	R,METAL 1% 10R
R665,666	054 LTMF3300	R,METAL 330R
R667-670	054 LTMK2220RFECZ	R,METAL 1% 220R
TH601,602	034 TTC-503	THERMISTOR
VR601,602	051 LVM6CKPH1S2.2K	SEMI-FIXED RESISTOR
	017 C-4378A01	HEAT SINKER
	019 TO-126	INSULATION SHEET
	066 L4TR-2487#7	1P PINJACK(RED)
	066 L4TR-2487#8	1P PINJACK(WHT)
	068 L4TR-2787#3	CONNECTOR BASE
	068 LC-4349A04	3P CONNECTOR WIRE
	069 C-3417A	FUSE CLIP
	069 C-4446A00	SCREW TERMINAL

SYMBOL	PARTS NO.	DESCRIPTION
X-1237-01 PCB ASSEMBLY		
C001	044 DE7150F472M	SPARK KILLER
S001	061 C-4176A07	POWER SWITCH
X-1237-02 PCB ASSEMBLY		
	069 C-4370A00	SCREW TERMINAL
X-1237-03 PCB ASSEMBLY		
C801	041 GS100V220-B	CAP,ELEC.100V22UF
C802	041 GS25V101-B	CAP,ELEC.25V100UF
C803	041 GS100V221-D	CAP,ELEC.100V220UF
C804	041 GS100V220-B	CAP,ELEC.100V22UF
D801	034 LT1N4148-86	DIODE
D802	034 RD10EB	ZENER DIODE
D803-806	034 LT1N4003-TB	DIODE
D807,808	034 LT1N4148-86	DIODE
Q801-803	032 LT2SC2362KAA-FG	TRANSISTOR
R801	054 1WS5.6KJF	R,METAL 1W 5.6K
R803	053 CR14-104J-A	R,CARBON 100K
R804	053 CR14-224J-A	R,CARBON 220K
R805	053 CR14-104J-A	R,CARBON 100K
R806	053 CR14-333J-A	R,CARBON 33K
R807	053 CR14-104J-A	R,CARBON 100K
R809,810	054 1WS6.8KJF	R,METAL 1W 6.8K
R811,812	053 CR14-104J-A	R,CARBON 100K
R813,814	053 CR14-183J-A	R,CARBON 18K
R815,816	053 CR14-332J-A	R,CARBON 3.3K
R817,818	053 CR14-273J-A	R,CARBON 27K
	068 L4TR-2787#3	CONNECTOR BASE
X-1237-04 PCB ASSEMBLY		
C901,902	041 25BGF470M	CAP,ELEC.25V470UF
D901,902	054 RD16EB	ZENER DIODE
Q901	033 L2SD600K-EF	TRANSISTOR
Q902	033 L2SB631K-EF	TRANSISTOR
R901,902	054 1WS2.2KJF	R,METAL 1W 2.2K
R903,904	054 1WS5.6KJF	R,METAL 1W 5.6K
RY901	063 EG2-24NU	RELAY
S901	064 4TR-2341	SLIDE SWITCH
	017 C-4401A01	HEAT SINKER
	019 TO-126	INSULATION SHEET
X-1237-05,06 PCB ASSEMBLY		
C501,502	044 LS50V100PJ	CAP,STYROL 50V100PF
C505-508	041 25BGF100M	CAP,ELEC.25V100UF
IC501,502	031 AD711JN	IC
R501-504	054 LTMK2022KFECZ	R,METAL 1% 22K
R505-508	054 LTMK2010KFECZ	R,METAL 1% 10K
R509,510	054 LTMK2001KFECZ	R,METAL 1% 1K
	066 C-4575A01	CANNON CONNECTOR
	068 L4TR-2787#5	CONNECTOR BASE

Parts List

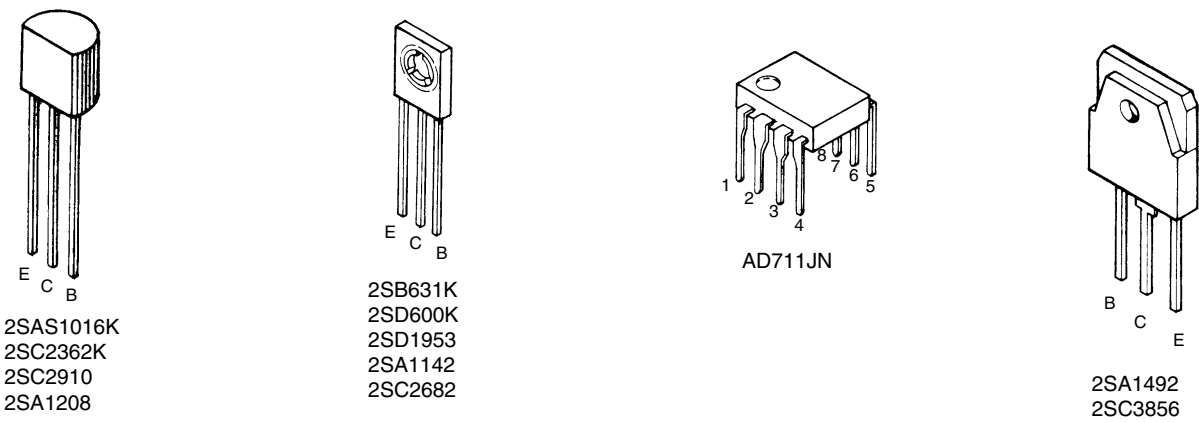
SYMBOL	PARTS NO.	DESCRIPTION
HEAT SINKER ASSEMBLY		
Q617,618	032 L2SD1953	TRANSISTOR
Q623-632	033 2SA1492-OPY	POWER TRANSISTOR
Q633,634	033 L2SB817-DE	DRIVER TRANSISTOR
Q635,636	033 L2SD1047-DE	DRIVER TRANSISTOR
Q637-646	033 2SC3856-OPY	POWER TRANSISTOR
	017 LPX4-06A00	HEAT SINKER
	019 TO-3P	INSULATION SHEET
	011 FP-472	SUB PANEL ASSY
	011 RV4-02A02	H/S FRONT PANEL
	012 RV4-09A00	PUSH KNOB 14F
	014 RV3-07A00	UPPER COVER
	015 RP-341	REAR CHASSIS
	019 L4TSH-19#2	PLASTIC FOOT
	022 T-1037W02	POWER TRANSFORMER
	034 LBR154	POWER DIODE
	036 3AG125V12A	LONG FUSE for STD
	036 5ST6.3	MINI FUSE for CEE
	041 ALS20S1024XX	CAP,ELEC.80V15000UF

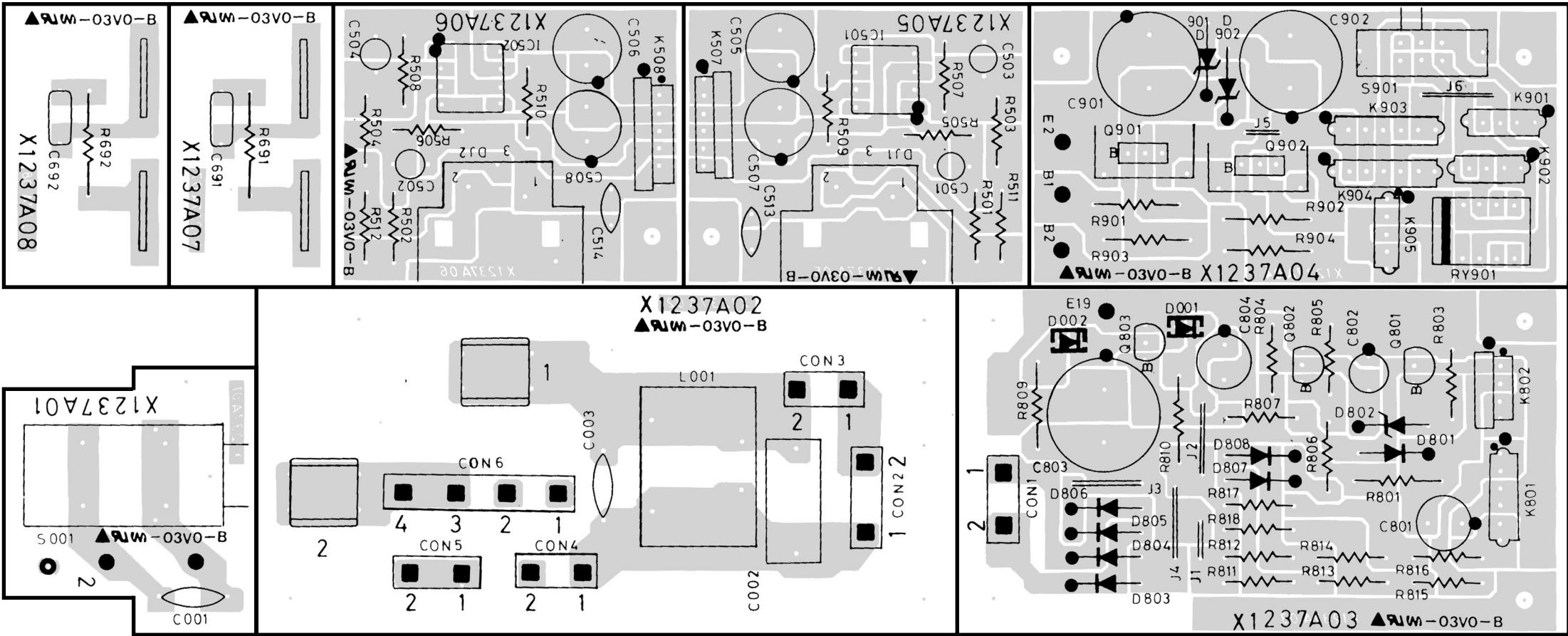
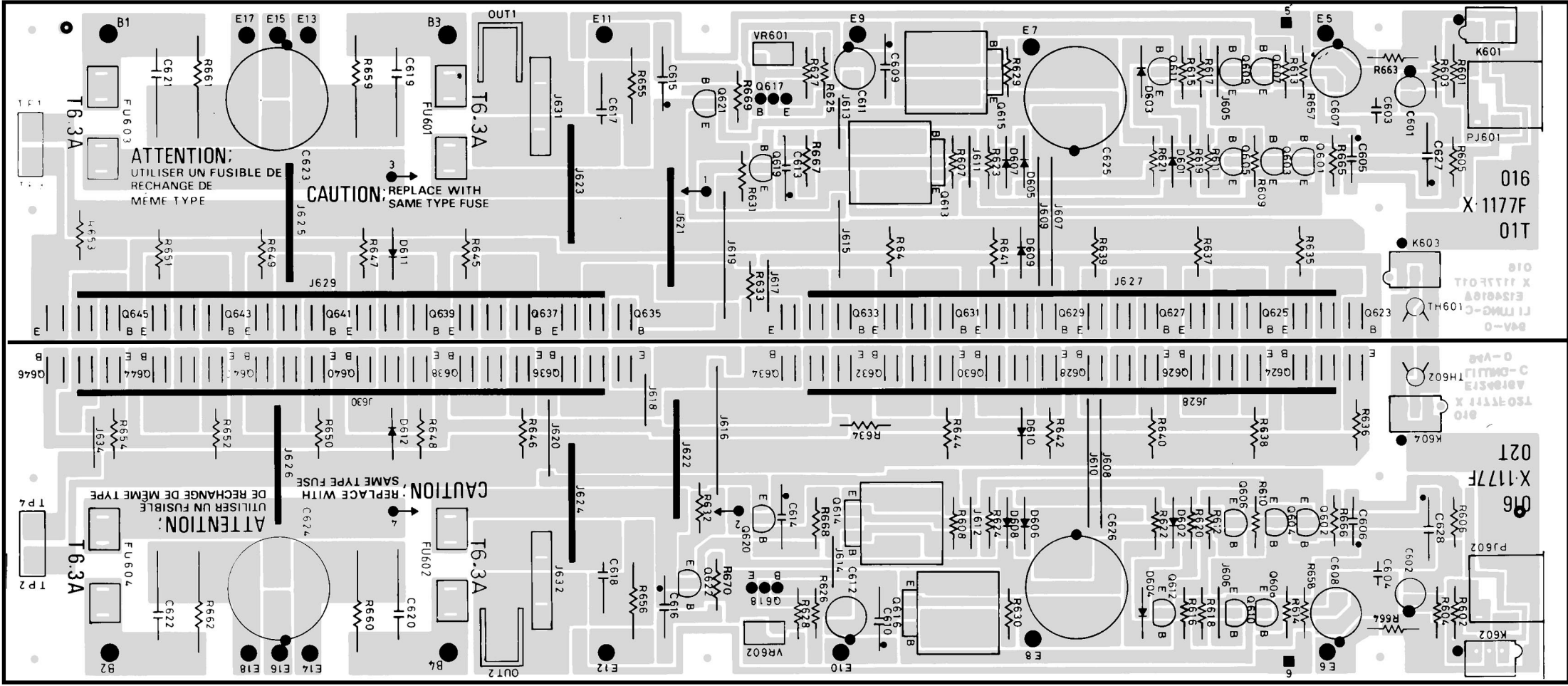
SYMBOL	PARTS NO.	DESCRIPTION
	044 MKT18-100V104K	CAP,FILM 100V0.1UF
	054 2WS10JF	R,METAL 2W 10R
	067 L4TR-2744#1	SPEAKER TERMINAL(RED)
	067 L4TR-2744#2	SPEAKER TERMINAL(BLK)
	069 C-1575	MINI MFUSE HOLDER
	069 C-4200A01	LONG FUSE HOLDER
	071 LEL4	EGG LUG
	072 L4TR-670#5	AC CORD for STD
	072 LC-3763	AC CORD for AUSTRALIA
	072 C-4572A01	AC CORD for UK
	072 C-4573A01	AC CORD for CEE
	081 RV4-15A00	INSIDE CARTON
	081 Z-200	STYROL SIDE MOULDING

Adjustment

- Instruments : DC milli–voltmeter
- Notes : Prior to Bias Adjustment, run about 5minutes with rated output(8ohms) and warm up Power Transistor and Heat Sink. Set input off.

Step	Coupling		Location	Adjust	Adjust for
	Plus Lead	Minus Lead			
1	TP 3	TP 1	X-1177-01 PCB	VR601	DC milli–voltmeter reads 7mV
2	TP 4	TP 2	X-1177-02 PCB	VR602	





Schematic Diagram

