

Quality Uncompromised.

ROTEL®

Technical Manual

STEREO MAIN AMPLIFIER RB-880

Table of Contents

Specifications	1
Adjustment	2
Parts List	3
Wiring Diagram	4 ~ 6
Schematic Diagram	7, 8

Specifications

Continuous Power Output	100 watts* per channel, min. RMS both channels driven into 8 ohms from 20 to 20,000 Hz with no more than 0.03% total harmonic distortion.
Power Output (BTL)	300 watts (mono) min. RMS driven into 8 ohms from 20 to 20,000 Hz with no more than 0.03% total harmonic distortion.
Total Harmonic Distortion (20 to 20,000 Hz)	No more than 0.03% (continuous rated power output) No more than 0.03% (continuous 1/2 rated power output) No more than 0.03% (1 watt per channel power output, 8 ohms)
Intermodulation Distortion (60 Hz : 7 kHz = 4:1)	No more than 0.03% (continuous rated power output) No more than 0.03% (continuous 1/2 rated power output) No more than 0.03% (1 watt per channel power output, 8 ohms)

Output: Speaker	8-16 ohms
Damping Factor	100 (20 to 20,000 Hz, 8 ohms)
Input Sensitivity/Impedance	1.0V/25 kohms
Frequency Response	4 to 100,000 Hz, +0 dB, -3.0 dB
Signal-to-Noise Ratio (IHF, A network)	120 dB
Power Requirement	120V/60 Hz, 220V/50 Hz, 240V/50 Hz, or 120, 220, 240V/50-60 Hz (depending on destinations)
Power Consumption	900 watts
Dimensions (overall)	430(W) x 119(H) x 430(D) mm 16-15/16" x 4-11/16" x 16-15/16"
Weight (net)	18.4 kg/40.48 lbs.

- Specifications and design subject to possible modification without notice.
- *Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Claims for Amplifiers (applicable to the U.S.A. only).

Serial No.
Beginning

THE ROTEL CO., LTD.
ROTEL ELECTRONICS CO., LTD.

1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN
3RD FLOOR, ROTEL BLDG., NO. 35 FUSHING, NORTH
ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA

Adjustment

1. Power Supply Voltage Adjustment

Instruments: DC voltmeter

Step	Coupling		Location	Adjust	Adjust for
	Plus Lead	Minus Lead			
1	TP3	TP4	016E-1029 PCB	VR901	DC voltmeter reads +50V
2	TP5	TP4		VR903	DC voltmeter reads -50V
3	TP3	TP4	016E-1028 PCB	VR902	DC voltmeter reads +50V
4	TP5	TP4		VR904	DC voltmeter reads -50V

2. Power Amplifier Bias Adjustment

Instruments : DC milli-voltmeter

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

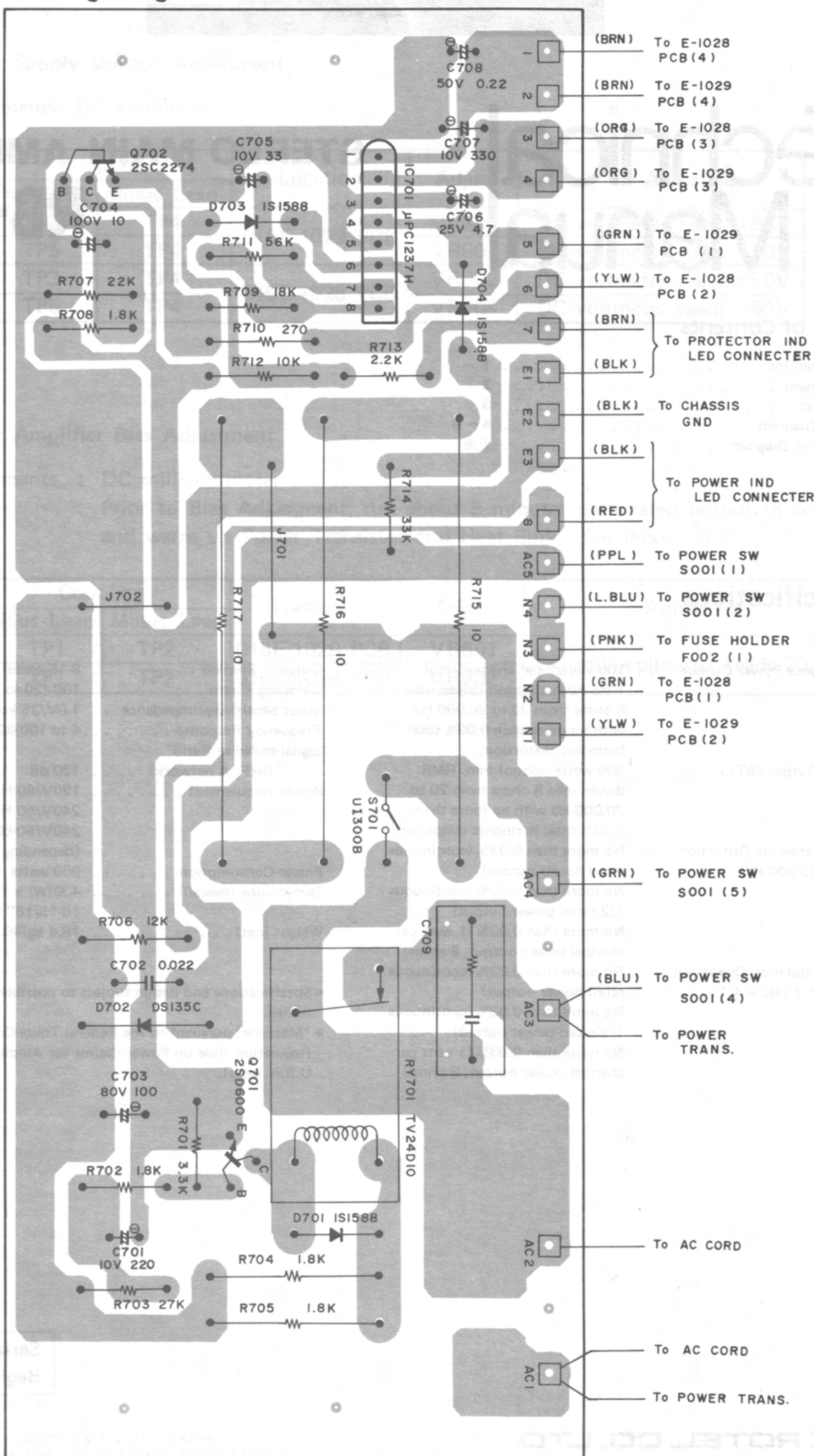
Step	Coupling		Location	Adjust	Adjust for
	Plus Lead	Minus Lead			
1	TP1	TP2	016E-1029 PCB	VR601	DC milli-voltmeter reads 20 mV
2	TP1	TP2	016E-1028 PCB	VR602	

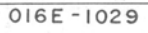
Parts List

Schematic Location	Computer No.	Description
TRANSISTORS, DIODES AND IC'S		
Q601	0322SA1016-FG	
Q602	0322SA1016-FG	
Q603	0322SA1016-FG	
Q604	0322SA1016-FG	
Q605	0322SA1016-FG	
Q606	0322SA1016-FG	
Q607	0322SB631K-EF	
Q608	0322SB631K-EF	
Q609	0322SD600-EF	
Q610	0322SD600-EF	
Q611	0322SC1941-KL	
Q612	0322SC1941-KL	
Q613	0322SC1941-KL	
Q614	0322SC1941-KL	
Q615	0332SC2344-DE	
Q616	0332SC2344-DE	
Q617	0332SA1011-DE	
Q618	0332SA1011-DE	
Q619	0332SC2837-OY	
Q620	0332SC2837-OY	
Q621	0332SA1186-OY	
Q622	0332SA1186-OY	
Q623	0332SC2837-OY	
Q624	0332SC2837-OY	
Q625	0332SA1186-OY	
Q626	0332SA1186-OY	
Q627	0332SC2837-OY	
Q628	0332SC2837-OY	
Q629	0332SA1186-OY	
Q630	0332SA1186-OY	
Q631	0322SC2362K-FG	
Q632	0322SC2362K-FG	
Q633	0322SA1016-FG	
Q634	0322SA1016-FG	
Q635	0322SA1016-FG	
Q636	0322SA1016-FG	
Q701	0322SD600-EF	
Q702	0322SC2274-EF	
Q901	0332SC2921-OY	
Q902	0332SC2921-OY	
Q903	0332SA1215-OY	
Q904	0332SA1215-OY	
Q905	0332SC2921-OY	
Q906	0332SC2921-OY	
Q907	0332SA1215-OY	
Q908	0332SA1215-OY	
Q909	0322SD600-EF	
Q910	0322SD600-EF	
Q911	0322SB631-EF	
Q912	0322SB631-EF	
Q913	0322SA1016-FG	
Q914	0322SA1016-FG	
Q915	0322SC2362-FG	
Q916	0322SC2362-FG	
Q917	0322SC2362-FG	
Q918	0322SC2362-FG	
Q919	0322SC2362-FG	
Q920	0322SC2362-FG	
Q921	0322SA1016-FG	
Q922	0322SA1016-FG	
Q923	0322SA1016-FG	
Q924	0322SA1016-FG	

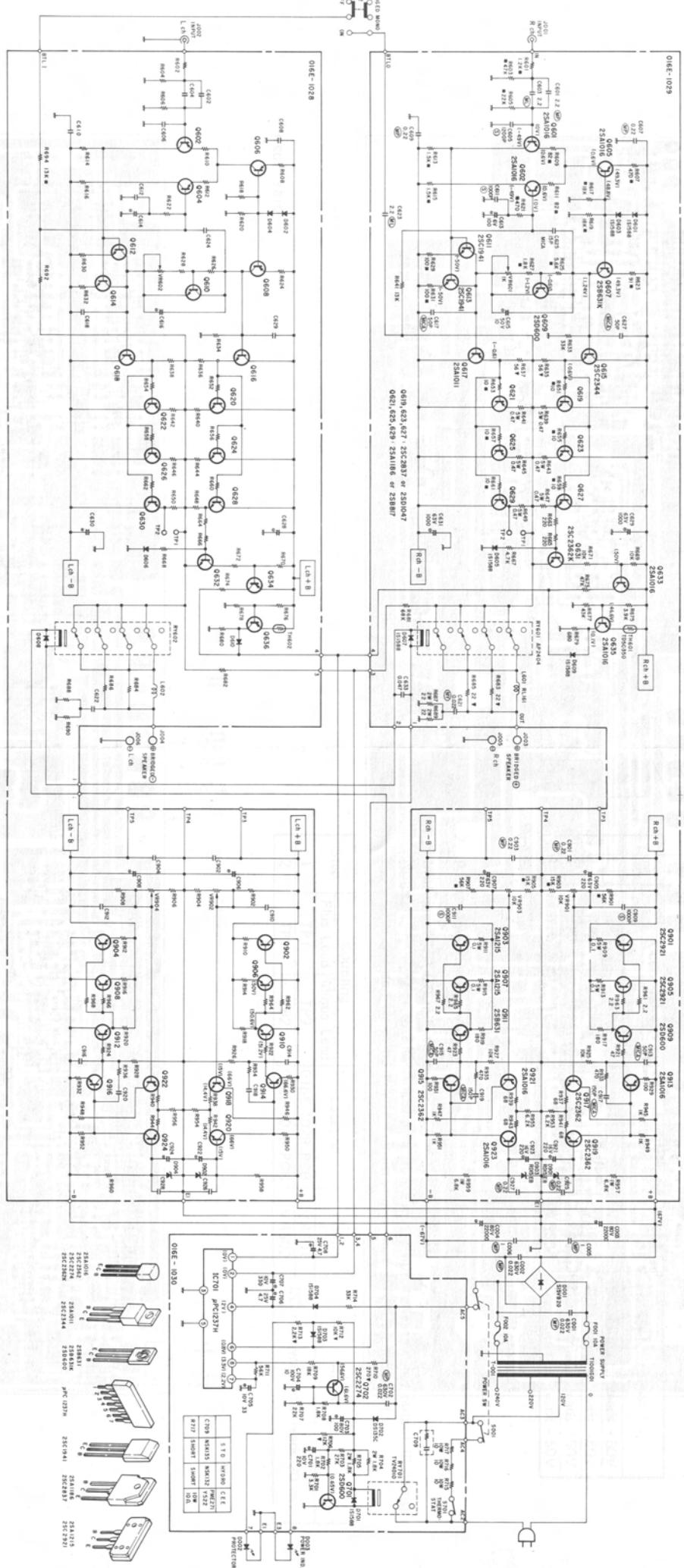
Schematic Location	Computer No.	Description
D601	0341S1588	
D602	0341S1588	
D603	0341S1588	
D604	0341S1588	
D605	0341S1588	
D606	0341S1588	
D607	0341S1588	
D608	0341S1588	
D609	0341S1588	
D610	0341S1588	
D701	0341S1588	
D702	034DS135C	
D703	0341S1588	
D704	0341S1588	
D901	034RD15EB	Zener Diode
D902	034RD15EB	Zener Diode
D903	034RD15EB	Zener Diode
D904	034RD15EB	Zener Diode
D001	03415VB20	Power Diode
D002	034SEL1124R	LED IND. Protection
D003	034SEL1124R	LED IND. Power
IC701	031MPC1237H	Protection Circuit
COILS AND VARIABLE RESISTORS		
L601	021RL-161	SPKR Coil
L602	021RL-161	SPKR Coil
VR601	051H0622AIK	Idle Current Adj.
VR602	051H0622AIK	Idle Current Adj.
VR901	051H0622A10K	Voltage Adj.
VR902	051H0622A10K	Voltage Adj.
VR903	051H0622A10K	Voltage Adj.
VR904	051H0622A10K	Voltage Adj.
OTHERS		
TH601	034TD5C350D	Thermister
TH602	034TD5C350D	Thermister
RY601	063AP24D4	Relay, Protection
RY602	063AP24D4	Relay, Protection
RY701	063TV24D10	Relay. Power Supply
S701	063UI300B	Switch, Thermo-stat
S001	061C-4233A01	Switch, Power
S002	061C-4173A04	Slide Switch Bridged Mono
T001	022T-1001G01	Power Transformer
C709	044NSK135	Spark Killer for STD
	044PME265MB522	Spark Killer for CEE
	044NSK132	Spark Killer for Hydro
F001	036L250U10A	Long Fuse
F002	036L250V10A	Long Fuse
J001	062C-4232A01	Pin Jack 1P INPUT
J002	062C-4232A01	Pin Jack 1P INPUT
J003	062C-4234A01	Output Terminal
J004	062C-4234A01	Output Terminal
J005	062C-4234A02	Output Terminal
J006	062C-4234A02	Output Terminal
	062C-4245A00	Fuse Holder
	013C-4252A01	Heat Sink
	011NV2-01A00	Front Panel
	014NV2-08A00	Upper Cover

Wiring Diagram





Schematic Diagram



- (RESISTORS)
5% TOLERANCE UNLESS OTHERWISE NOTED.
K KILO OHM
M MEG OHM
N NON FLAMMABLE CARBON FILM RESISTORS 1/2 WATT
F FIXED PRECISION METAL FILM RESISTORS (F): 1% (G): 2%
NON MARK LOW NOISE TYPE CARBON RESISTORS 1/4 WATT
- (CAPACITORS)
S POLYSTYRENE FILM CAPACITORS
M MYLAR FILM CAPACITORS
MP METALIZED POLYESTER FILM CAPACITORS
E ELECTROLYTIC CAPACITORS
MC MICA CAPACITORS
ML MULTI LAYER CAPACITOR
C CERAMIC CAPACITORS

- UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITANCE VALUES ARE EXPRESSED IN MFD.
- VOLTAGE READING WITH VTVM FROM THE POINT SHOWN TO THE CHASSIS GROUND. (LINE VOLTAGE 120 VOLTS)
- VOLTAGE READING MAY $\pm 20\%$