

Quality Uncompromised

**ROTEL**

# Technical Manual

## STEREO CONTROL AMPLIFIER **RC-971**

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### Specification

Total Harmonic Distortion (20-20 kHz)	≤ 0.004%.
Intermodulation Distortion (60 Hz: 7 kHz = 4:1)	≤ 0.004%.
Usable Headphone Impedance	8- 2,000 ohms
Input Sensitivity / Impedance	50 mV / 24 kohms
Output Sensitivity / Impedance	1.0 Volt / 100 ohms
Frequency Response	4 Hz-100 kHz + 0, -3 dB
Bass	± 6 dB (100 Hz)
Treble	± 6 dB (10 kHz)
Signal to Noise Ratio (IHF, A Network)	95 dB
Power Requirement	115 Volts 60 Hz or 230 Volts 50 Hz
Power Consumption	10 Watts
Dimensions (overall W, H, D)	440 x 72 x 286 mm 17.37 x 2.87 x 11.25"
Net Weight	3.0 kg / 6.6 lb.

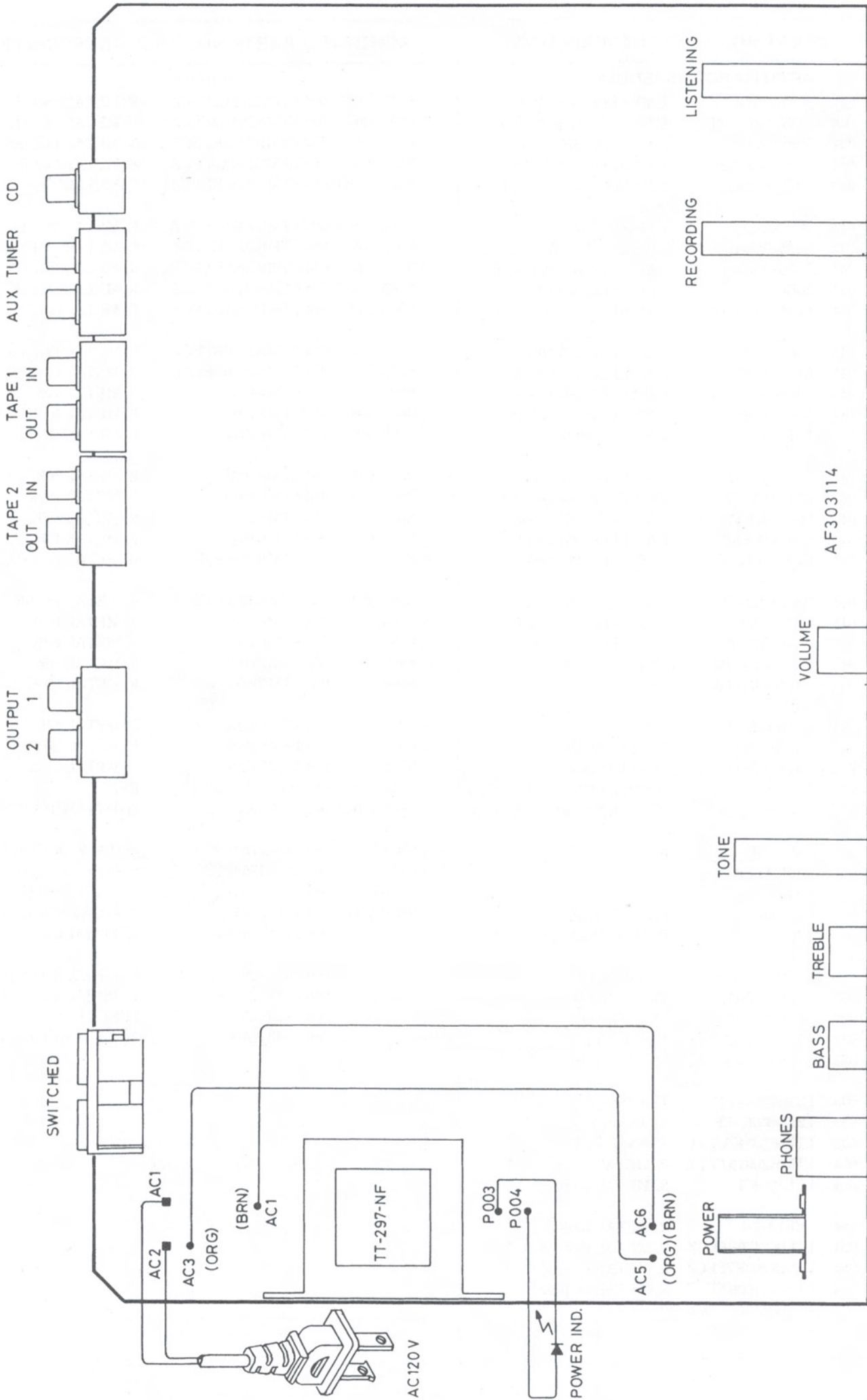
**THE ROTEL CO., LTD**

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

Serial. NO.  
Beginning

Y-306A-98011M/S-S

# Wiring Diagram



# Parts List

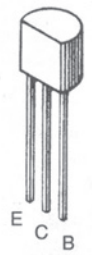
SYMBOL	PARTS NO.	DESCRIPTION
<b>AF303114 PCB ASSEMBLY</b>		
C501, 502	041 50BGF10M	CAP, ELEC. 50V10UF
C503, 504	044 LFSC160V470H	CAP, STYROL 160V47PF
C505, 506	041 50BGF10M	CAP, ELEC. 50V10UF
C509, 510	041 ECEAIEFS221	CAP, ELEC. 25V220UF
C511, 512	042 LTP50V104J	CAP, MYLAR 50V0.1UF
C513, 514	044 50MSA124J	CAP, FILM 50V0.12UF
C515, 516	042 LTP50V104J	CAP, MYLAR 50V0.1UF
C517, 518	044 LS50V1500PJ	CAP, STYROL 50V1500PF
C519, 520	041 50BGF10M	CAP, ELEC. 50V10UF
C521, 522	044 LFSC160V470H	CAP, STYROL 160V47PF
C523, 524	041 50BGF10M	CAP, ELEC. 50V10UF
C525, 526	041 ECEA1EFS221	CAP, ELEC. 25V220UF
C601, 602	041 GS50V4R7-B	CAP, ELEC. 50V4.7UF
C603, 604	044 LS50V47PJ	CAP, STYROL 50V47PF
C605, 606	042 LTP50V103J	CAP, MYLAR 50V0.01UF
C607, 608	041 GS25V101-B	CAP, ELEC. 25V100UF
C901-904	043 LTC500V103	CAP, CERA. 500V0.01UF
C905, 906	041 50RSP4700A	CAP, ELEC. 50V4700UF
C909, 910	041 ECEA1EF102	CAP, ELEC. 25V1000UF
C911, 912	041 ECEA1EFS101	CAP, ELEC. 25V100UF
C913	041 GS35V221-D	CAP, ELEC. 35V220UF
C914	041 GS50V2R2-B	CAP, ELEC. 50V2.2UF
C915	041 GS25V470-B	CAP, ELEC. 25V47UF
C918	044 DE7150F472M	SPARK KILLER
D901-906	034 LT1N4003-TB	DIODE
D907-910	034 LT1N4148-86	DIODE
D912, 913	034 TRD18JST1	ZENER DIODE
D914	034 TRD9.1JST1	ZENER DIODE
F901, 902	036 5TT500	MINIFUSE 125V500mA for STD
	036 5ST500	MINIFUSE 250V500mA for CEE
IC501	031 OP275GP	IC
IC502	031 NJM2114D	IC
IC601	031 LNJM4556AD	IC
JK001	065 C-3399#3	PHONE JACK
PT001	022 TT-297-NF	POWER TRANSFORMER
Q601	033 LT2SC3708AA-ST	TRANSISTOR
Q602	033 LT2SA1450AA-ST	TRANSISTOR
Q901	032 LT2SA608KAA-FG	TRANSISTOR
Q902, 903	032 LT2SC536KAA-FG	TRANSISTOR
Q904	032 LT2SA608KAA-FG	TRANSISTOR
Q905	033 L2SB631K-EF	TRANSISTOR
Q906	033 L2SD600K-EF	TRANSISTOR
Q907, 908	032 LT2SC536KAA-FG	TRANSISTOR
R501-504	054 LTMK2001KFECZ	R, METAL 1% 1K
R505, 506	054 LEE10-471	R, METAL 470R
R507, 508	054 LEE10-104	R, METAL 100K
R509, 510	054 LTMK2470RFECZ	R, METAL 1% 470R
R511, 512	054 LTMK202K7FECZ	R, METAL 1% 2.7K
R513, 514	054 LTMK2100KFECZ	R, METAL 1% 100K
R515, 516	054 LTMK2100RFECZ	R, METAL 1% 100R

SYMBOL	PARTS NO.	DESCRIPTION
R517, 518	054 LTMK202K2FECZ	R, METAL 1% 2.2K
R519, 520	054 LTMK201K8FECZ	R, METAL 1% 1.8K
R521, 522	054 LTMK2022KFECZ	R, METAL 1% 22K
R523, 524	054 LTMK201K5FECZ	R, METAL 1% 1.5K
R525, 526	054 LTMK2010KFECZ	R, METAL 1% 10K
R527, 528	054 LTMK201K5FECZ	R, METAL 1% 1.5K
R529, 530	054 LTMK2470RFECZ	R, METAL 1% 470R
R531, 532	054 LTMK2100KFECZ	R, METAL 1% 100K
R533, 534	054 LTMK201K2FECZ	R, METAL 1% 1.2K
R535, 536	054 LTMK202K2FECZ	R, METAL 1% 2.2K
R537, 538	054 LTMK2100KFECZ	R, METAL 1% 100K
R539, 540	054 LTMK2100RFECZ	R, METAL 1% 100R
R601, 602	054 LTMF4702	R, METAL 47K
R603, 604	054 LTMF1003	R, METAL 100K
R605, 606	054 LTMF1001	R, METAL 1K
R607, 608	054 LTMF1002	R, METAL 10K
R609, 610	054 LTMF1500	R, METAL 150R
R611, 612	054 LTMF2701	R, METAL 2.7K
R613, 614	054 LTMF1502	R, METAL 15K
R901, 902	054 LTMK2100RFECZ	R, METAL 1% 100R
R903, 904	054 LTMK2010KFECZ	R, METAL 1% 10K
R905	054 LTMF1003	R, METAL 100K
R906	054 LTMF4701	R, METAL 4.7K
R907	054 LTMF1002	R, METAL 10K
R908	054 LTMF1503	R, METAL 150K
R909	054 LTMF47R0	R, METAL 47R
R910	054 LTMF2200	R, METAL 220R
R911	054 LTMF3301	R, METAL 3.3K
RY501	063 OVR-SH-224L	RELAY
SW001, 002	062 4TR-2928	ROTALY SWITCH(FUNC, MONI,)
SW003	062 4TR-2780	ROTALY SWITCH(TONE)
SW1	061 LC-4176A01T	POWER SWITCH
VR501	051 C-4170A17	VARIABLE RESISTOR(VOLUME)
VR502, 503	051 4TR-2774	VARIABLE RESISTOR(TONE)
	066 L4TR-2166#4	2P PINJACK(CD)
	066 L4TR-2672#1	4P PINJACK (AUX, TUNER, TAPE)
	066 L4TR-2672#3	4P PINJACK (OUTPUT)
	069 C-3417A	FUSE CLIP
	069 C-4372A00	AC OUTLET for STD

# Parts List

SYMBOL	PARTS NO.	DESCRIPTION
<b>OTHERS</b>		
011	TFP-807	FRONT PANEL ASSY
012	L4TQF-15	POWER BUTTON 14x14
012	L4TQF-18	KNOB 13F
012	L4TQF-19	KNOB 24F
012	L4TQF-20	KNOB 33F WR
012	L4TQF-21	KNOB 33F WF
014	C-4550A02	UPPER COVER
014	L4TR-2797#1	ORNAMENT SIDE BOARD
014	4TQN-12B#3	BOTTM BOARD
015	RP-338	REAR CHASSIS

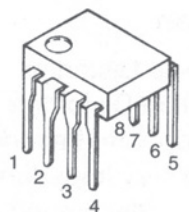
SYMBOL	PARTS NO.	DESCRIPTION
019	L4TSH-19#2	PLASTIC FOOT 50F
072	L4TR-670#4	AC CORD for STD
072	LC-3763	AC CORD for AUSTRALIA
072	C-4572A01	AC CORD for UK
072	L4TR-1037	AC CORD for CEE
081	RS4-03A00	INSIDE CARTON
081	TZ-164-1	STYROL SIDE MOULDING



2SC536K  
2SA608K  
2SA1450  
2SC3708

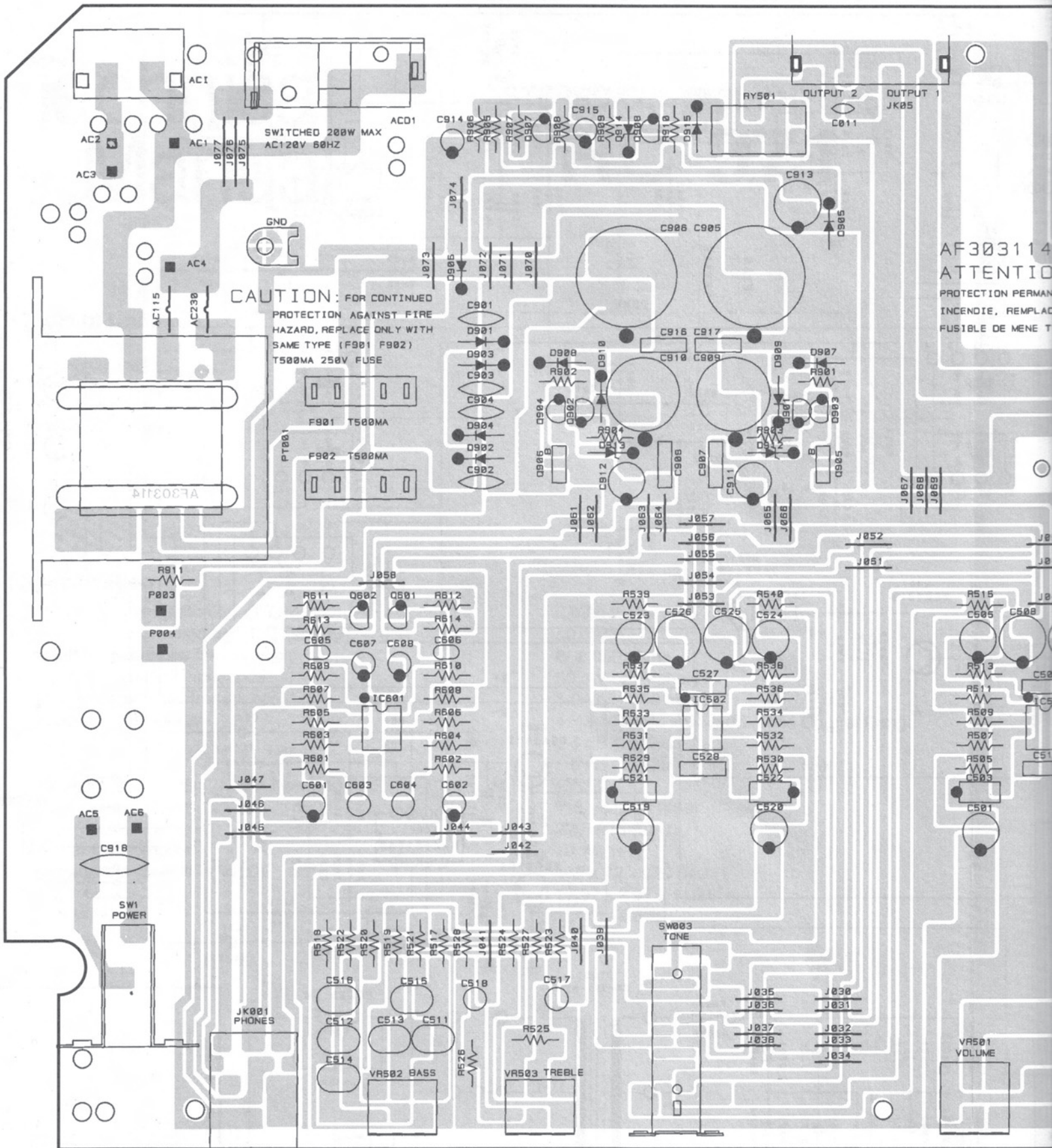


2SB631K  
2SD600K



OP275GP  
NJM2114D  
NJM4556AD

# PCB Assembly



AF303114  
 ATTENTION  
 PROTECTION PERMANENTE  
 INCENDIE, REMPLACER  
 FUSIBLE DE MEME TYPE

OUTPUT 1  
JK05

TAPE 2 OUT  
JK04

TAPE 2 IN  
JK04

TAPE 1 OUT  
JK03

TAPE 1 IN  
JK03

AUX

TUNER  
JK02

CD  
JK01

C001

AF303114 ▲  
ATTENTION: AFIN D' ASSURER UNE  
PROTECTION PERMANETE CONTRE LES RISQUES D'  
INCENDIE, REMPLACER UNIQUEMENT PAR UN  
FUSIBLE DE MENE TYPE, (F901 F902) T500MA 250V

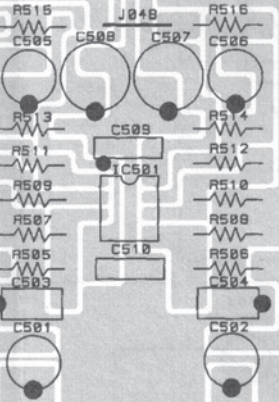


J060  
J059

J067  
J068  
J069

J050

J049



J028

J027

J026

J025

SW002  
RECORDING

J013

J012

J011

J010

J009

SW001  
LISTENING

J004

J003

J002

J001

VR501  
VOLUME

J029

J017

J016

J015

J014

J013

J012

J011

J010

J009

J023

J024

J019

J018

J017

J016

J015

J014

J013

J012

J011

J010

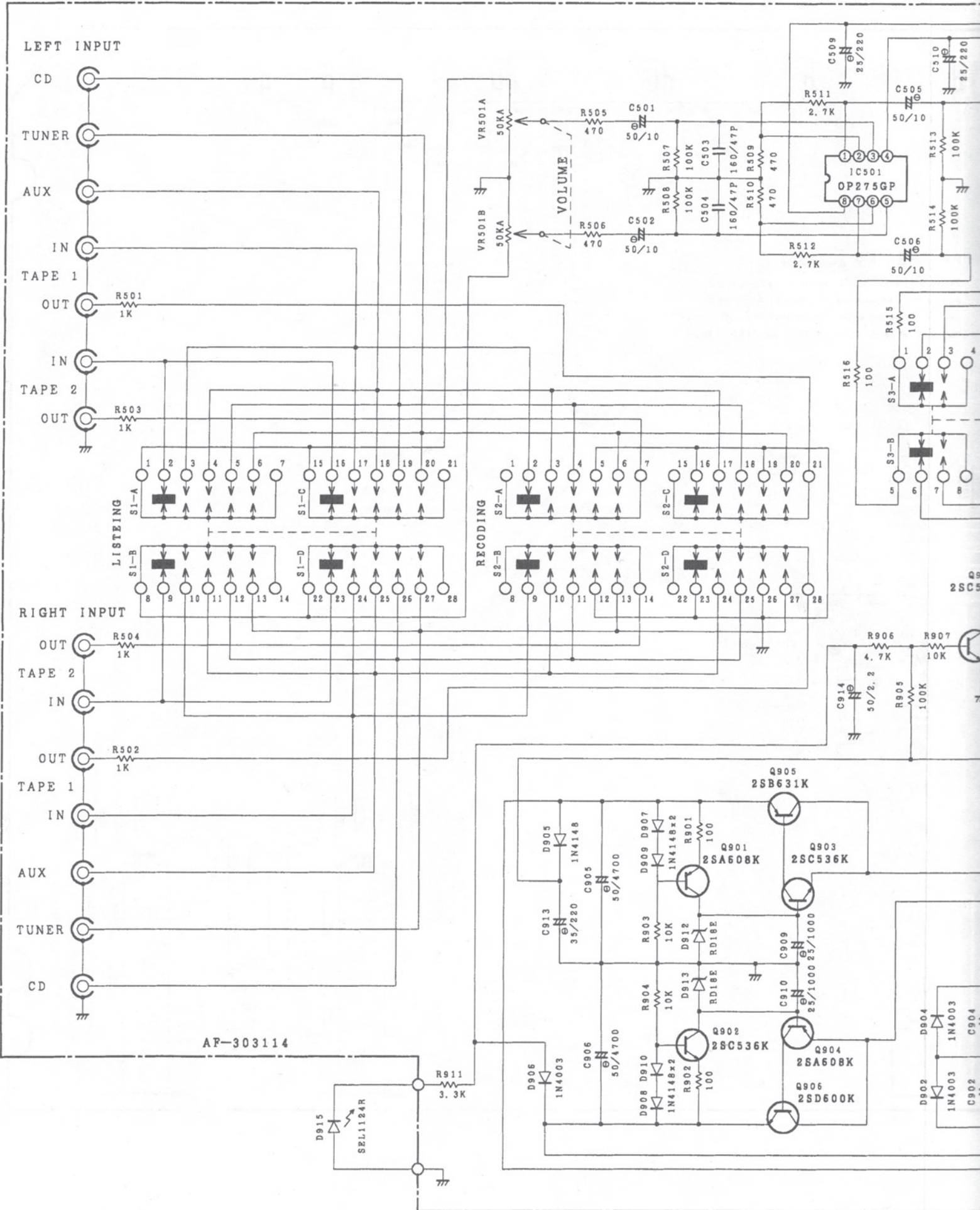
J009

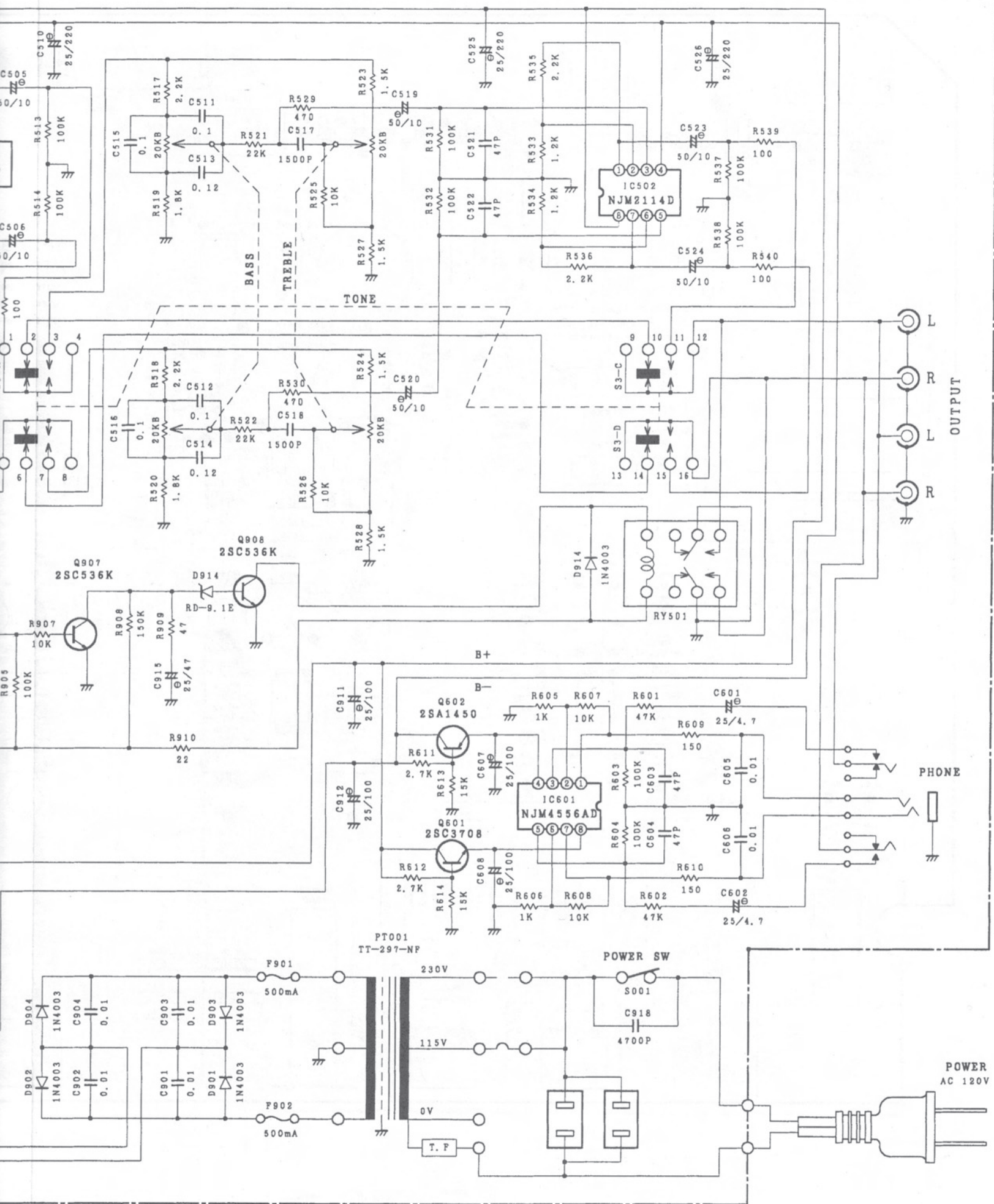
J008

J007

# Schematic Diagram

## SCHEMATIC DIAGRAM MODEL RC-971





OUTPUT

PHONE

POWER  
AC 120V