



Technical Manual

STEREO MAIN AMPLIFIER RB-870

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Specifications

Continuous Power Output 60 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.

DIN Output 118 watts per channel (1 kHz,
 4 ohms, 1% THD)

Power Output (BTL) 120 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 No more than 0.03% (continuous
 20 to 20,000 Hz)
 No more than 0.03% (continuous
 1/2 rated power output)
 No more than 0.05% (1 watt per
 channel power output, 8 ohms)

Intermodulation Distortion No more than 0.05% (continuous
 60 Hz : 7 kHz = 4 : 1)
 No more than 0.05% (continuous
 1/2 rated power output)
 No more than 0.05% (1 watt per
 channel power output, 8 ohms)

Output: Speaker 8-16 ohms
 Damping Factor 280 (20 to 20,000 Hz, 8 ohms)
 Input Sensitivity/Impedance 1.0 V/25 kohms
 Frequency Response 15 to 120,000 Hz, +0 dB, -1.0 dB
 Signal-to-Noise Ratio
 (IHF, A network) 116 dB
 Power Requirement 120V/60 Hz, 220V/50 Hz, 240V/50 Hz,
 or 120, 220, 240V/50-60 Hz (switchable)
 (depending on destinations)
 Power Consumption 500 watts
 Dimensions (overall) 430 (W) x 91 (H) x 315 (D) mm
 16-15/16" x 3-9/16" x 12-13/32"
 Weight (net) 9.4 kg/20.68 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**

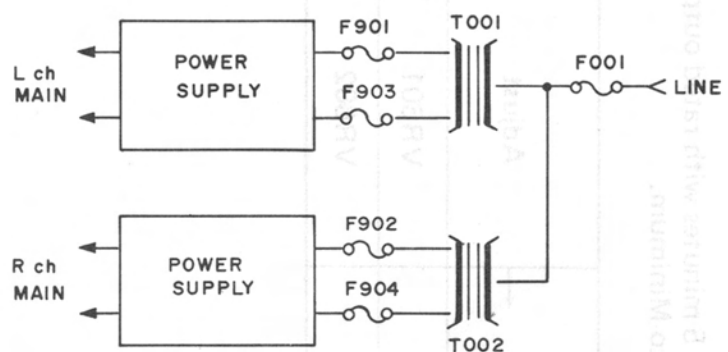
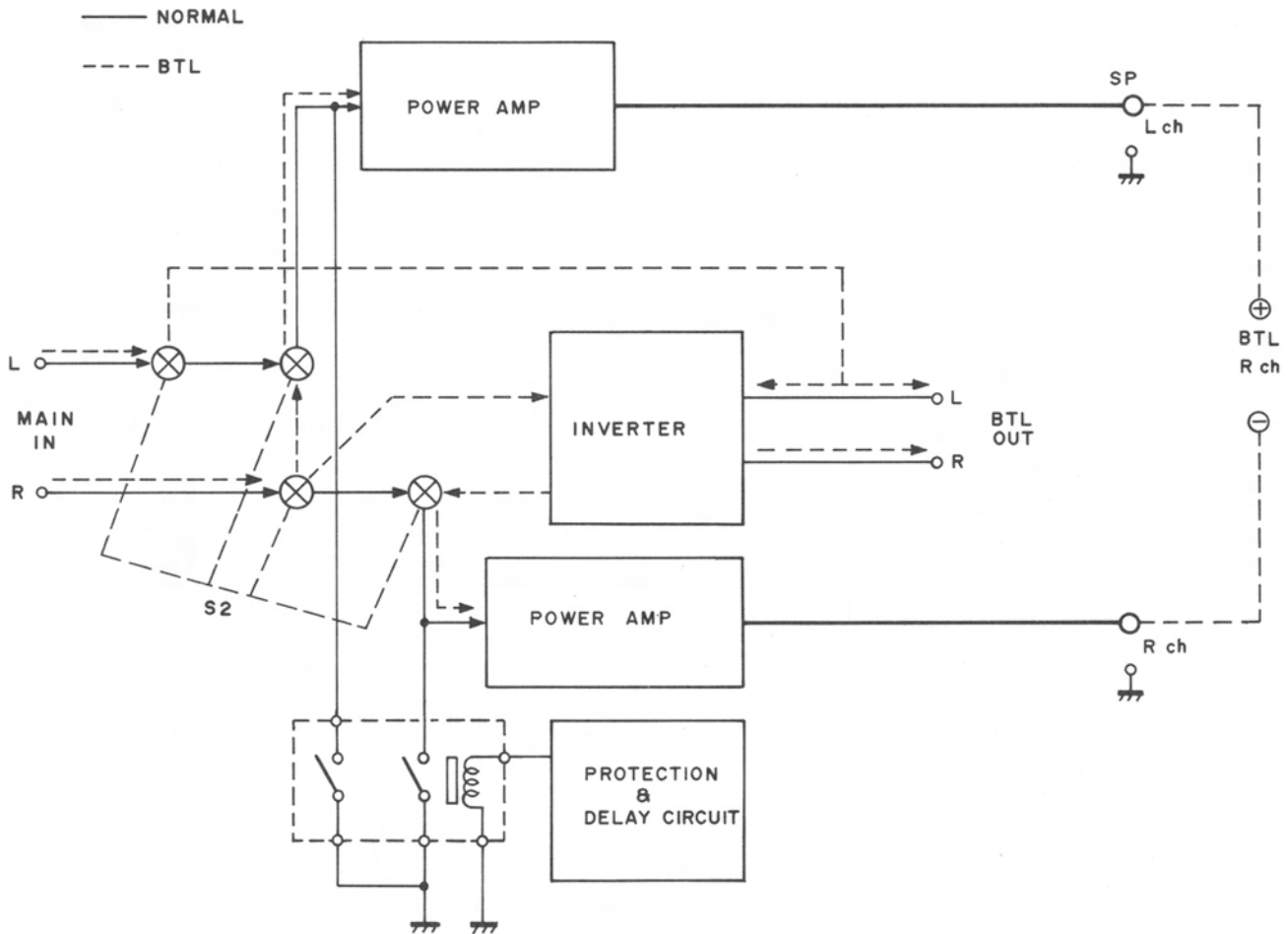
Power Amplifier Bias Adjustment

instruments: DC milli-voltmeter

Notes: Prior to Bias Adjustment, run about 5 minutes with rated output (8 ohm) and warm up Power Transistor and Heat Sink. Set volume Control to Minimum.

Step	Coupling		Adjust	Adjust for
	Plus Lead	Minus Lead		
1	TP1	TP3	VR601	DC milli-voltmeter reads 5mV.
2	TP2	TP4	VR602	

Block Diagram



Parts List

Schematic Location Computer No. Description

TRANSISTORS, DIODES AND IC'S

Q601	0322SA1016-FG	Differential AMP
Q602	0322SA1016-FG	Differential AMP
Q603	0322SA1016-FG	Constant Current
Q604	0322SA1016-FG	Constant Current
Q605	0322SA1016-FG	Differential AMP
Q606	0322SA1016-FG	Differential AMP
Q607	0322SC1941-KL	Pre-Driver
Q608	0322SC1941-KL	Pre-Driver
Q609	0322SB605-KL	Main AMP Bias
Q610	0322SB605-KL	Main AMP Bias
Q611	0322SB631K-EF	Main AMP Bias
Q612	0332SB631K-EF	Main AMP Bias
Q613	0332SD600K-EF	Idling Driver
Q614	0332SD600K-EF	Idling Driver
Q615	0332SD600K-EF	Driver
Q616	0332SD600K-EF	Driver
Q617	0332SB631K-EF	Driver
Q618	0332SB631K-EF	Driver
Q619	0332SD1047-DE	Power Driver
Q620	0332SD1047-DE	Power Driver
Q621	0332SB817-DE	Power Driver
Q622	0332SB817-DE	Power Driver
Q623	0332SD1047-DE	Power Driver
Q624	0332SD1047-DE	Power Driver
Q625	0332SB817-DE	Power Driver
Q626	0332SB817-DE	Power Driver
Q801	0322SC536SP-F	Protection
Q802	0322SC536SP-FG	Protection
Q803	0322SC536-FG	Protection
Q902	0322SD600K-EF	Stabilizer
Q904	0322SB631K-EF	Stabilizer
Q905	0322SD600K-EF	Stabilizer

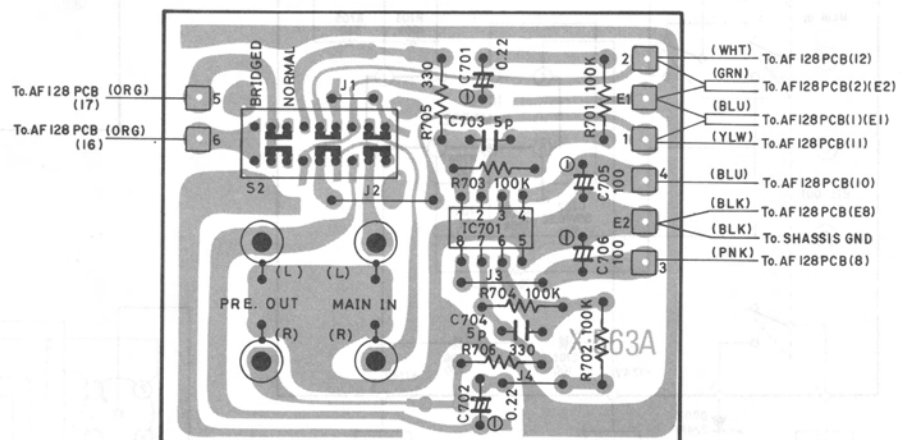
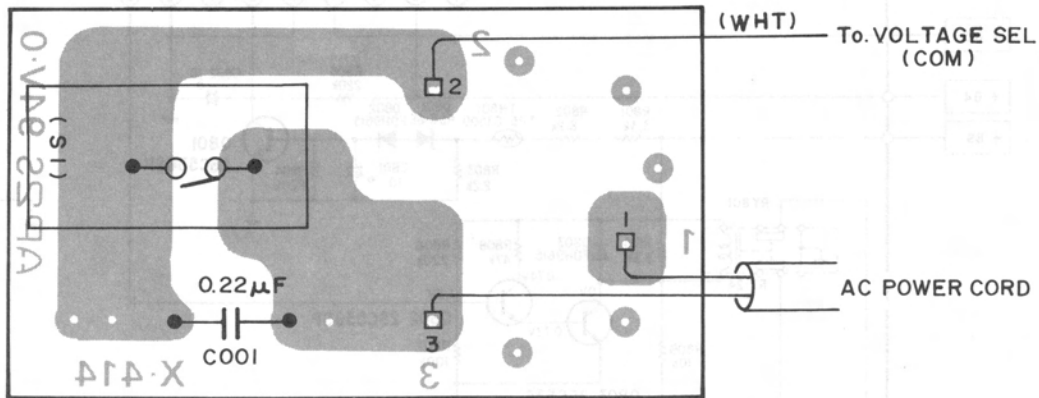
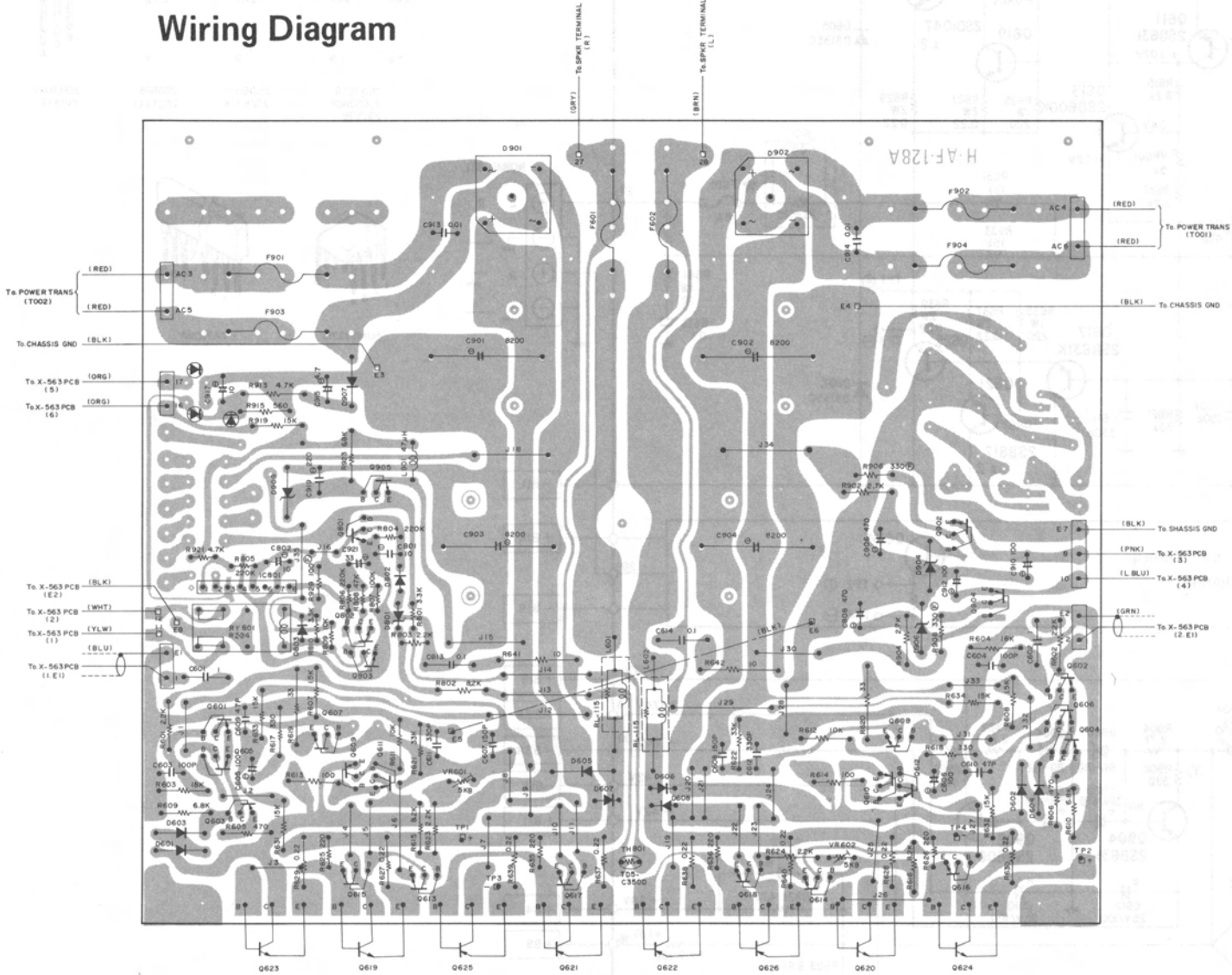
Schematic Location Computer No. Description

D601	034FDH9615	Bias Compensator
D602	034FDH9615	Bias Compensator
D603	034FDH9615	Bias Compensator
D604	034FDH9615	Bias Compensator
D605	034DS135C	Compensator
D606	034DS135C	Compensator
D607	034DS135C	Compensator
D608	034DS135C	Compensator
D801	034RD5.6EB	Zener Reg.
D802	034FDH9615	Compensator
D803	034FDH9615	Compensator
D901	034KBPC102	Rectifier
D902	034KBPC102	Rectifier
D904	034RD18EB	Zener Reg.
D906	034RD18EB	Zener Reg.
D907	034DS135C	Rectifier
D909	034RD24EB	Zener Reg.
D001	034LN224RP	Power Ind.
D002	034LN224RP	BTL Ind.
D003	034LN224RP	Protection Ind.
IC701	031NJM5532N	BTL
IC801	031TA7324P	Protection

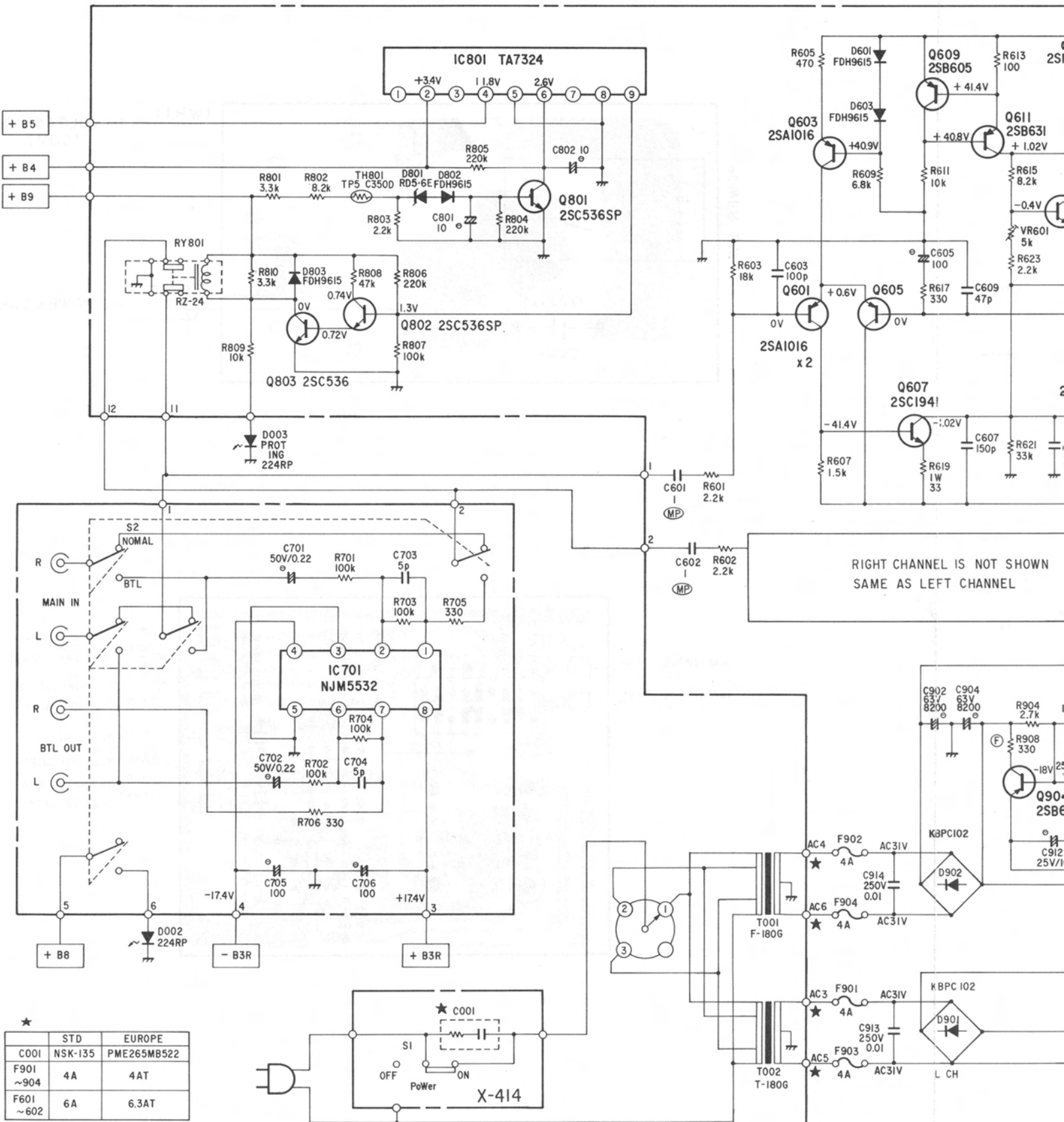
SWITCHES AND OTHERS

S1	061C-3600B	Power SW: SDL-1P
S2	061C-4107	BTL SW: SSA062
T001	022T-180G	Power Transformer
T002	022T-180G	Power Transformer
C001	044NSK135	Safety Capacitors (STD)
	044PME265MB522	Safety Capacitors (Europe)
RY801	063RZ24W	Protection Relay
TH801	034TD5C35OD	Temperature Compensator
VR601	051EVNJOA5K	Bias Adj.
VR602	051EVNJOA5K	Bias Adj.
R906	054ERD2FCG331	Fusible Resistors
R908	054ERD2FCG331	Fusible Resistors
R929	054ERD2FCG101	Fusible Resistors

Wiring Diagram



Schematic Diagram



RIGHT CHANNEL IS NOT SHOWN
SAME AS LEFT CHANNEL

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	STD	EUROPE
C001	NSK-135	PME265MB522
F901 ~904	4A	4AT
F601 ~602	6A	6.3AT

