

SERVICE MANUAL

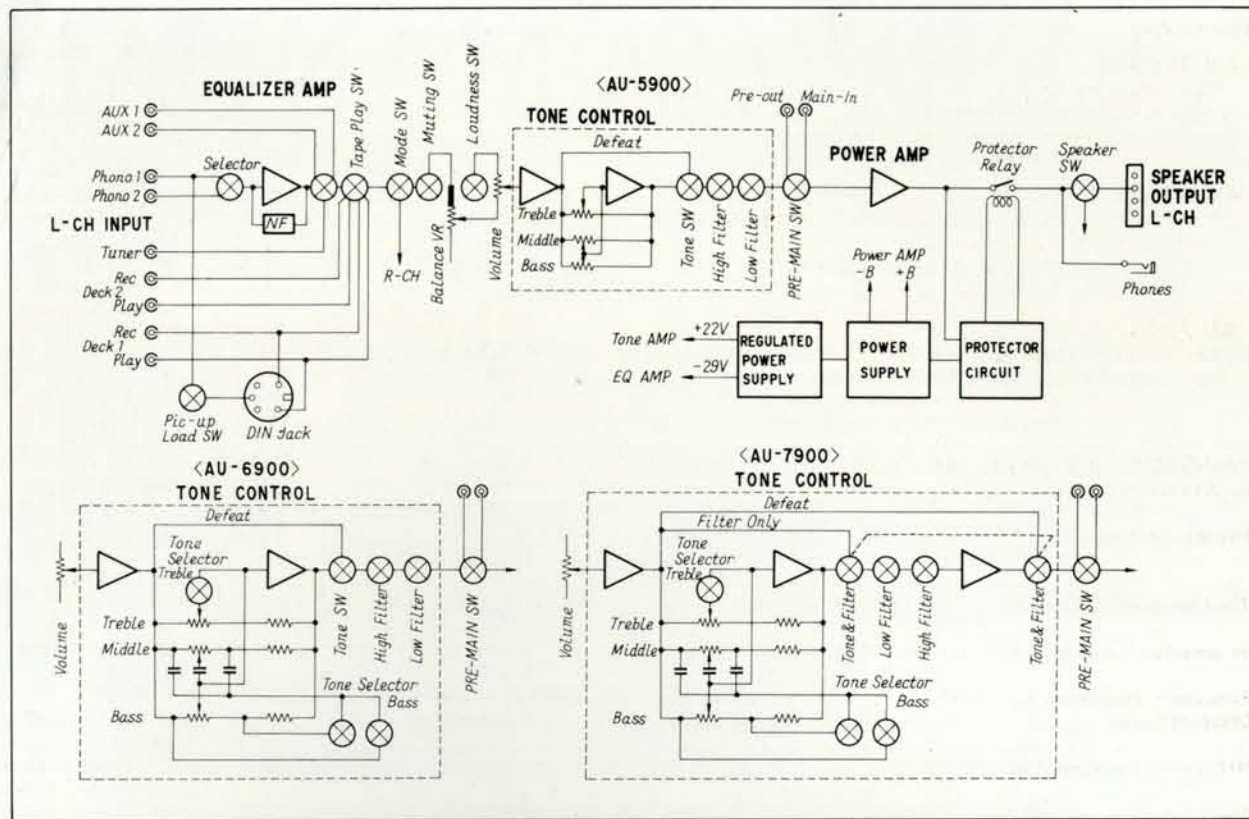
STEREO AMPLIFIER
SANSUI AU-5900
AU-6900
AU-7900



Sansui

SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM



◆ LIST OF CIRCUIT BOARD

FUNCTION OF CIRCUIT BOARD	AU-5900	AU-6900	AU-7900
Equalizer & Regulated Power Supply Circuit Board	F-2599	F-2599	F-2599
Switching Circuit Board between Pre- and Main-Amp.	F-2600	F-2600	F-2600
Switching Circuit Board for Pick-up Load	F-2601	F-2601	F-2601
Lever Switch Circuit Board	F-2602	F-2602	F-2609
Volume & Balance Volume Circuit Board	F-2603	F-2603	F-2608
Tone Control Circuit Board	F-2604	F-2606	F-2610
Filter Unit Circuit Board	F-2605	F-2607	F-2611
Power Amplifier Circuit Board	F-2596	F-2596	F-2596
Earth Circuit Board	F-2598	F-2598	F-2598

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1. SPECIFICATIONS

Power output

<AU-5900>
 Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.1% total harmonic distortion
 45 watts per channel into 8 ohms
 45 watts per channel into 4 ohms

<AU-6900>
 Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.1% total harmonic distortion
 60 watts per channel into 8 ohms
 60 watts per channel into 4 ohms

<AU-7900>
 Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.1% total harmonic distortion
 75 watts per channel into 8 ohms
 75 watts per channel into 4 ohms

<AU-5900> <AU-6900> <AU-7900>
Load impedance 4, 8 ohms (SYSTEM-A or B)
 8 ohms (SYSTEM A + B)

Power bandwidth 20 to 20,000 Hz at or below rated min. RMS power output and total harmonic distortion less than 0.1% at or below rated min. RMS power output

Total harmonic distortion less than 0.1%

Intermodulation distortion (70 Hz : 7 kHz = 4 : 1 SMPTE method) less than 0.1%

Frequency response (at 1 watt) 10 to 50,000 Hz ±1,5 dB

Damping factor approximately 80 at 8 ohm load

RIAA curve deviation (PHONO) +0.3dB, -0.3dB (30 Hz to 15 kHz)

Input sensitivity and impedance (1 kHz, for rated power output)
 PHONO-1 2.5 mV/30, 50 100 kilo-ohms

PHONO-2 2.5 mV/50 kilo-ohms
 (Max. input capability: 250 mV at 1 kHz, less than 0.1% total harmonic distortion)

TUNER 130 mV/50 kilo-ohms
 AUX-1, 2 130 mV/50 kilo-ohms

TAPE-1, 2 PLAY (pin jacks) 130 mV/50 kilo-ohms
 TAPE-1 REC/PLAY (DIN socket) 130 mV

MAIN IN 700 mV/50 kilo-ohms

Output level (1,000 Hz)
 TAPE-1, 2 REC (pin jacks) 130 mV
 TAPE-1 REC/PLAY (DIN socket) 30 mV
 PRE OUT 700 mV

Channel separation (1 kHz, at rated power output)
 PHONO-1, 2 better than 50dB
 TUNER better than 55dB
 AUX-1, 2 better than 55dB
 TAPE-1, 2 PLAY better than 55dB
 MAIN IN better than 60dB

Hum and noise (IHF)
 PHONO-1, 2 better than 75dB
 TUNER better than 90dB
 AUX-1, 2 better than 90dB
 TAPE-1, 2 PLAY better than 90dB
 MAIN IN better than 100dB

<AU-5900>
Controls
 BASS ±13dB (50 Hz)
 MIDRANGE ±5dB (1.5 kHz)
 TREBLE ±13dB (15 kHz)
 LOUDNESS (Volume Control : -30dB)

LOW BOOST +10dB (50 Hz)
 HIGH & LOW BOOST +8dB (10 kHz)
 +10dB (50 Hz)

LOW FILTER -3dB (20, 60 Hz), 12dB/oct.
 HIGH FILTER -3dB (7 kHz), 6dB/oct.

MUTING 0, -15, -30dB

Power requirements
 Power voltage 100, 120, 220, 240 V
 50/60 Hz
 120 V (Usable 110-130 V)
 60 Hz (for U.S.A. & Canada only)

Power consumption 176 watts (rated)
 490 watts, 576 VA (max.)

Dimensions 430 mm (16-15/16") W
 132 mm (5-1/4") H
 340 mm (13-7/16") D

Weight 14.2 kg (31.3 lbs) net
 16.1 kg (35.5 lbs) packed

<AU-6900>
Controls
 BASS ±13dB (50 Hz)
 MIDRANGE ±5dB (1.5 kHz)
 TREBLE ±13dB (15 kHz)
 LOUDNESS (Volume Control : -30dB)

LOW BOOST +10dB (50 Hz)
 HIGH & LOW BOOST +8dB (10 kHz)
 +10dB (50 Hz)

LOW FILTER -3dB (70 Hz), 6dB/oct.
 HIGH FILTER -3dB (7 kHz), 6dB/oct.

MUTING 0, -20dB

Power requirements

Power voltage 100, 120, 220, 240 V
 50/60 Hz
 120 V (Usable 110-130 V)
 60 Hz (for U.S.A. & Canada only)

Power consumption 106 watts (rated)
 300 watts, 362 VA (max.)

Dimensions 430 mm (16-15/16") W
 132 mm (5-1/4") H
 312 mm (12-5/16") D

Weight 11.5 kg (25.4 lbs) net
 13.2 kg (29.1 lbs) packed

<AU-6900>

Controls
 BASS ±13dB (50 Hz)
 Tone selector (turnover frequency) 300, 600 Hz

MIDRANGE ±5dB (1.5 kHz)
 TREBLE ±13dB (15 kHz)

Tone selector (turnover frequency) 2, 4 kHz

LOUDNESS (Volume Control : -30dB)
 LOW BOOST +10dB (50 Hz)
 HIGH & LOW BOOST +8dB (10 kHz)
 +10dB (50 Hz)

LOW FILTER -3dB (70 Hz), 6dB/oct.
 HIGH FILTER -3dB (7 kHz), 6dB/oct.

MUTING 0, -20dB

Power requirements
 Power voltage 100, 120, 220, 240 V
 50/60 Hz
 120 V (Usable 110-130 V)
 60 Hz (for U.S.A. & Canada only)

Power consumption 132 watts (rated)
 370 watts, 435 VA (max.)

Dimensions 430 mm (16-15/16") W
 132 mm (5-1/4") H
 340 mm (13-7/16") D

Weight 12.9 kg (28.4 lbs) net
 14.8 kg (32.6 lbs) packed

<AU-7900>
Controls
 BASS ±13dB (50 Hz)
 Tone selector (turnover frequency) 150, 300, 600 Hz

MIDRANGE ±5dB (1.5 kHz)
 TREBLE ±13dB (15 kHz)

Tone selector (turnover frequency) 2, 4, 8 kHz

LOUDNESS (Volume Control : -30dB)
 LOW BOOST +10dB (50 Hz)
 HIGH & LOW BOOST +8dB (10 kHz)
 +10dB (50 Hz)

LOW FILTER -3dB (20, 60 Hz), 12dB/oct.
 HIGH FILTER -3dB (7 kHz), 6dB/oct.

MUTING 0, -15, -30dB

Power requirements
 Power voltage 100, 120, 220, 240 V
 50/60 Hz
 120 V (Usable 110-130 V)
 60 Hz (for U.S.A. & Canada only)

Power consumption 176 watts (rated)
 490 watts, 576 VA (max.)

Dimensions 430 mm (16-15/16") W
 132 mm (5-1/4") H
 340 mm (13-7/16") D

Weight 14.2 kg (31.3 lbs) net
 16.1 kg (35.5 lbs) packed

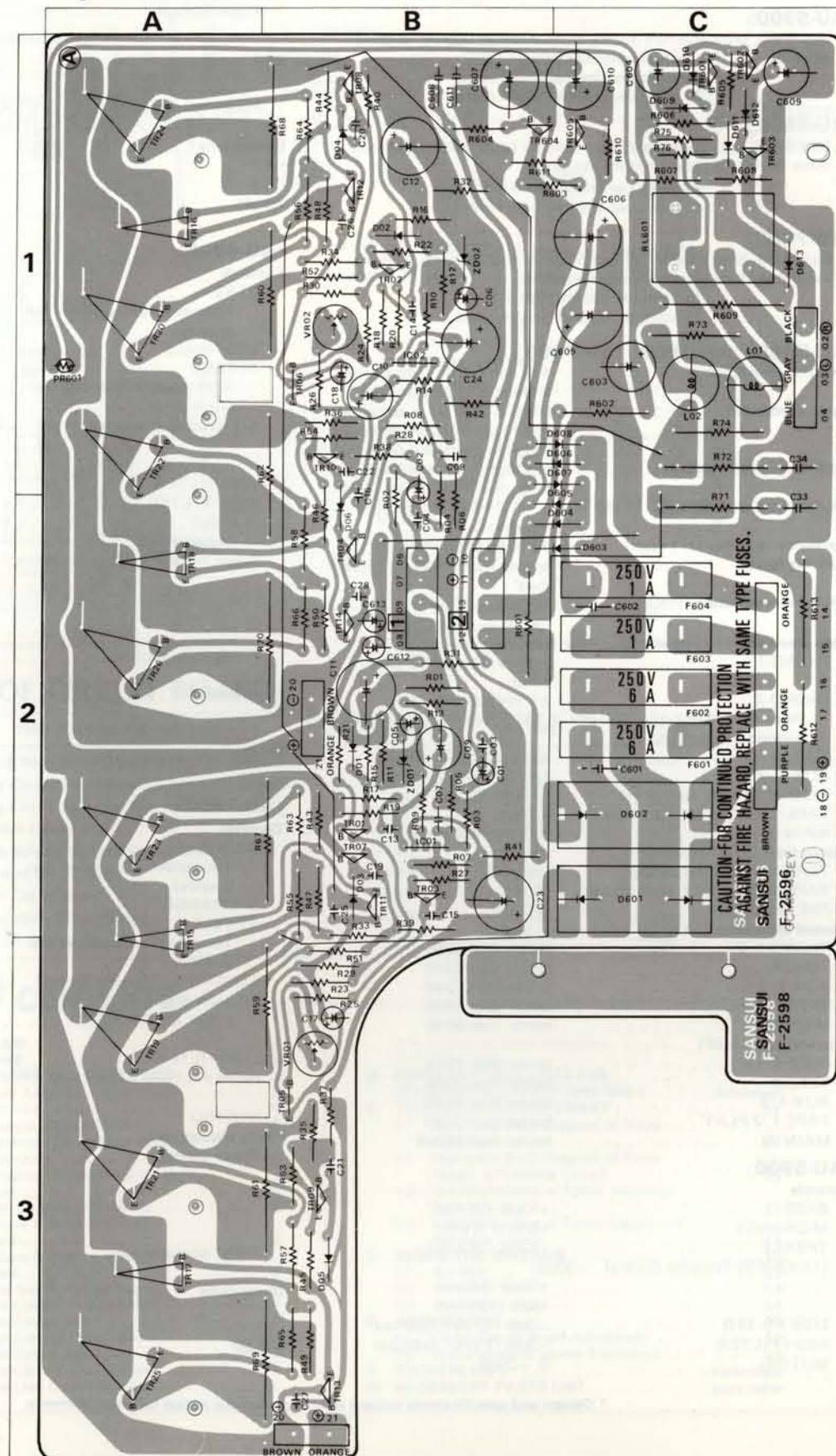
* Design and specifications subject to change without notice for improvements.

3. PARTS LOCATION AND PARTS LIST

*Value and Stock No. of most Resistors and Capacitors are shown in Common Parts List attached.

3-1. F-2596 Power Amplifier Circuit Board

Conductor Side



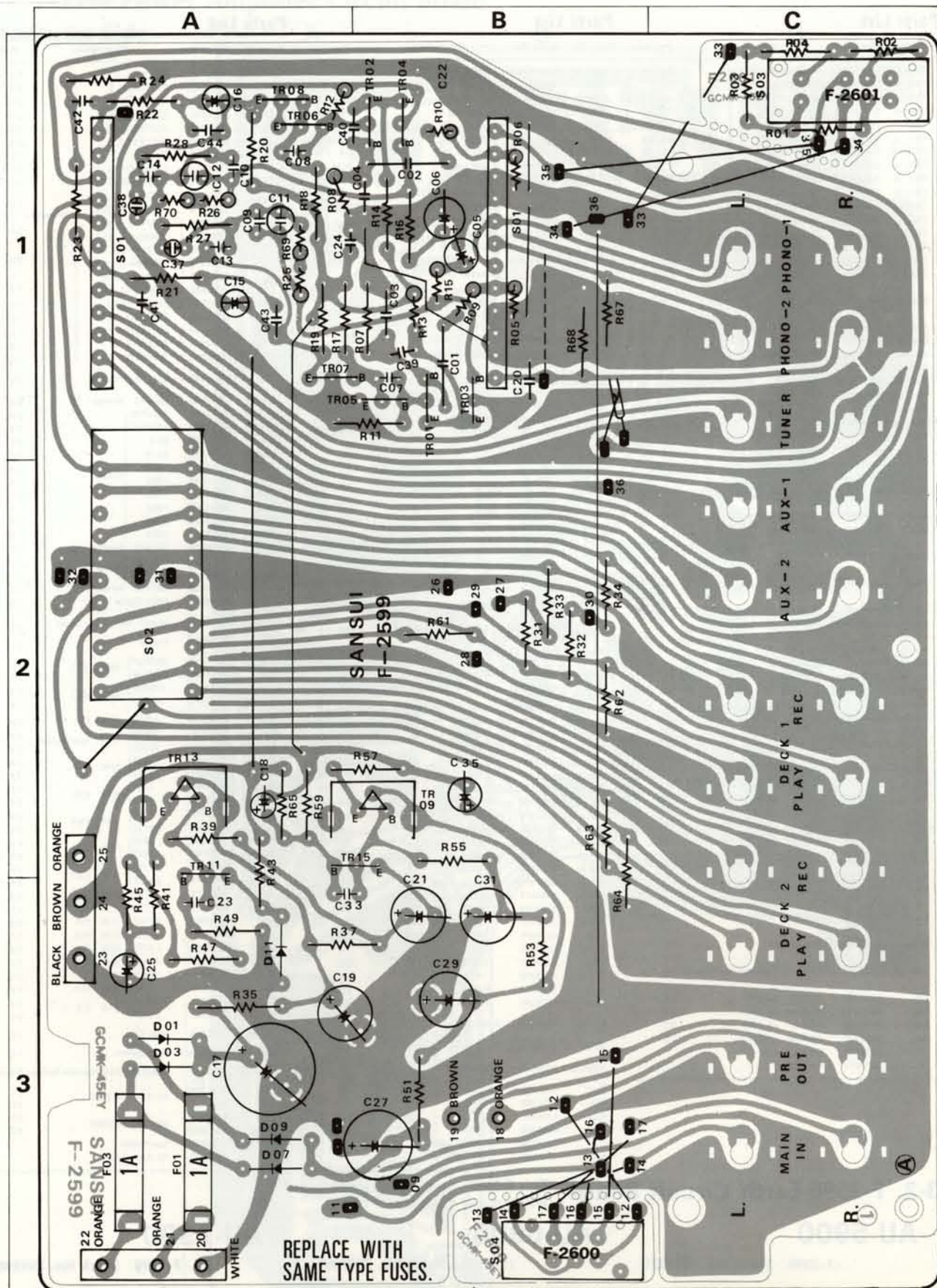
◇AU-5900

(F-2596: Stock No. 7571361)

Parts List

Parts No.	Stock No.	Description	Position
TR01.02	0300760.1	2SA917-1, 2	2B.1B
TR03.04	0306360.1	2SC1951-1, 2	2B
TR05.06	0305732	2SC711 (F)	3B.1B
TR07.08	0305951.2	2SC945 (Q, P)	2B.1B
TR09.10	0300510.1	2SA733 (P, Q)	3B.1B
TR11.12	0306360.1	2SC1951-1, 2	2B.1B
TR13.14	0300760.1	2SA917-1, 2	3B.2B
TR15.16	0308501.2	2SD357 (D, E)	2.3A.1A
TR17.18	0303371.2	2SB527 (D, E)	3A.2A
TR19.20	0306211.2	2SC1619A (R, O)	3A.1A
TR21.22	0308560.1	2SB545A (1) (S, R)	3A.1A
TR23.24	0306211.2	2SC1619A (R, O)	1C
TR25.26	030631.2	2SA808A (R, O)	3A.2A
IC01.02	0360290.1	2SA798 (F, G) IC	2B.1B
D01.02	0340120	VD1212 Varistor	2B.1B
D03.04	0311160	152473D	2B.1B
D05.06	0311160	152473D	3B.2B
D07	0311290	SS-3	2C
D09	0311300	SS-3R	2C
D11	0310350	10D2	2B.1B
D13	0310350	10D2	2B.1B
D15	0310350	10D2	1B.1C
D17	0310350	10D2	1B.1C
D19	0340120	VD1212 Varistor	1C
D21	0311160	152473D	1C
D23	0311160	152473D	1C
D25	0340120	VD1212 Varistor	1C
D27	0310340	10D1 Diode	1C
ZD01.02	0315970	EQA01-13R Zener Diode	2B.1B
PR601	0320120	Posistor	1A
C601	0655103	10000pF	2C
C602	0655103	10000pF	2C
R11.12	0103392	3.9kΩ 1/2W C.R.	2B.1B
R13.32	0191221	220Ω 1/2W Fuse Resistor	2B.1B
R15.42	0191221	220Ω 1/2W Fuse Resistor	2B.1B
R17.48	0103820	82Ω 1/2W C.R.	2B.1B
R19.56	0103689	6.8kΩ 1/2W C.R.	3B.2B
R21.56	0103689	6.8kΩ 1/2W C.R.	3B.2B
R23.58	0103689	6.8kΩ 1/2W C.R.	3B.2B
R25.60	0103689	6.8kΩ 1/2W C.R.	3B.2B
R27.60	0103689	6.8kΩ 1/2W C.R.	3B.2B
R29.60	0103689	6.8kΩ 1/2W C.R.	3B.2B
R31.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R33.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R35.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R37.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R39.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R41.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R43.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R45.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R47.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R49.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R51.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R53.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R55.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R57.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R59.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R61.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R63.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R65.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R67.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R69.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R71.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R73.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R75.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R77.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R79.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R81.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R83.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R85.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R87.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R89.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R91.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R93.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R95.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R97.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R99.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R101.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R103.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R105.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R107.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R109.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R111.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R113.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R115.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R117.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R119.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R121.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R123.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R125.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R127.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R129.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R131.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R133.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R135.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R137.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R139.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R141.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R143.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R145.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R147.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R149.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R151.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R153.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R155.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R157.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R159.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R161.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R163.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R165.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R167.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R169.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R171.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R173.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R175.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R177.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R179.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R181.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R183.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R185.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R187.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R189.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R191.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R193.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R195.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R197.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R199.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R201.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R203.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R205.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R207.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R209.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R211.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R213.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R215.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R217.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R219.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R221.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R223.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R225.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R227.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R229.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R231.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R233.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R235.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R237.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R239.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R241.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R243.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R245.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R247.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R249.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R251.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R253.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R255.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R257.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R259.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R261.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R263.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R265.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R267.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R269.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R271.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R273.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R275.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R277.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R279.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R281.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R283.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R285.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R287.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R289.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R291.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R293.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R295.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R297.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R299.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R301.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R303.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R305.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R307.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R309.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R311.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R313.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R315.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R317.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R319.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R321.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R323.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R325.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R327.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R329.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R331.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R333.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R335.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R337.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R339.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R341.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R343.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R345.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R347.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R349.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R351.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R353.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R355.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R357.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R359.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R361.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R363.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R365.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R367.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R369.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R371.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R373.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R375.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R377.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R379.62	0103689	6.8kΩ 1/2W C.R.	3B.2B
R381.6			

3-3. F-2599 Equalizer Circuit Board
Conductor Side



◇AU-5900

(F-2599: Stock No. 7550901)

Parts List

Parts No.	Stock No.	Description	Position
TR01.02	0306010.1	2SC1222 (U, E)	1 B
TR03.04	0306010.1	2SC1222 (U, E)	1 B
TR05.06	0300470.1	2SA726 (W) (F, G)	1 A
TR07.08	0306071.2	2SC1313 (G, H)	1 A
TR09	0303280-2	2SB526 (C, D, E)	2 B
TR11	0306071.2	2SC1313 (G, H)	2 A
TR13	0308450-2	2SD356 (C, D, E)	2 A
TR15	0300470.1	2SA726 (W) (F, G)	2 B, A
D11	0316310	RD-13E B Zener Diode	3 A
C01.02	0602109	1.0µF 100V M.C.	1 B
C11.12	0620102	1000pF	1 A
C37.38	0620101	1000pF	1 A
R35	0201181	180Ω	3 A
R51	0201271	270Ω	3 B
S01	1102550.1	Rotary Switch	1 A
S02	1102560.1	Rotary Switch	2 A
	2430250	1P Pin Jack	

◇AU-6900

(F-2599: Stock No. 7550861)

Parts List

Parts No.	Stock No.	Description	Position
TR01.02	0306010.1	2SC1222 (U, E)	1 B
TR03.04	0306010.1	2SC1222 (U, E)	1 B
TR05.06	0300470.1	2SA726 (W) (F, G)	1 A
TR07.08	0306071.2	2SC1313 (G, H)	1 A
TR09	0303280-2	2SB526 (C, D, E)	2 B
TR11	0306071.2	2SC1313 (G, H)	2 A
TR13	0308450-2	2SD356 (C, D, E)	2 A
TR15	0300470.1	2SA726 (W) (F, G)	2 B, A
D11	0315970	EQA01-13R Zener Diode	3 A
C01.02	0602109	1.0µF 100V M.C.	1 B
C11.12	0620102	1000pF	1 A
C37.38	0620101	100pF	1 A
R35	0201181	180Ω	3 A
R51	0201271	270Ω	3 B
S01	1102550.1	Rotary Switch	1 A
S02	1102560.1	Rotary Switch	2 A
	2430250	1P Pin Jack	

◇AU-7900

(F-2599: Stock No. 7550881)

Parts List

Parts No.	Stock No.	Description	Position
TR01.02	0306010.1	2SC1222 (U, E)	1 B
TR03.04	0306010.1	2SC1222 (U, E)	1 B
TR05.06	0300470.1	2SA726 (W) (F, G)	1 A
TR07.08	0306071.2	2SC1313 (G, H)	1 A
TR09	0303280-2	2SB526 (C, D, E)	2 B
TR11	0306071.2	2SC1313 (G, H)	2 A
TR13	0308450-2	2SD356 (C, D, E)	2 A
TR15	0300470.1	2SA726 (W) (F, G)	2 B, A
D11	0315970	EQA01-13R Zener diode	3 A
C01.02	0602109	1.0µF 100V M.C.	1 B
C11.12	0620102	1000pF	1 A
C37.38	0620101	100pF	1 A
R35	0201271	270Ω	3 A
R51	0201391	390Ω	3 B
S01	1102550.1	Rotary Switch	1 A
S02	1102560.1	Rotary Switch	2 A

3-4. F-2600 Switching Circuit Board between Pre and Main Amp.

◇AU-5900

(F-2600: Stock No. 7594011)

Parts List

Parts No.	Stock No.	Description
S04	1110280	Slide Switch

◇AU-6900

(F-2600: Stock No. 7593951)

Parts List

Parts No.	Stock No.	Description
S04	1110280	Slide Switch

◇AU-7900

(F-2600: Stock No. 7593971)

Parts List

Parts No.	Stock No.	Description
S04	1110280	Slide Switch

3-5. F-2601 Switching Circuit Board for Pick-up Load

◇AU-5900

(F-2601: Stock No. 7550911)

Parts List

Parts No.	Stock No.	Description
S03	1110290	Slide Switch

◇AU-6900

(F-2601: Stock No. 7550871)

Parts List

Parts No.	Stock No.	Description
S03	1110290	Slide Switch

◇AU-7900

(F-2601: Stock No. 7550891)

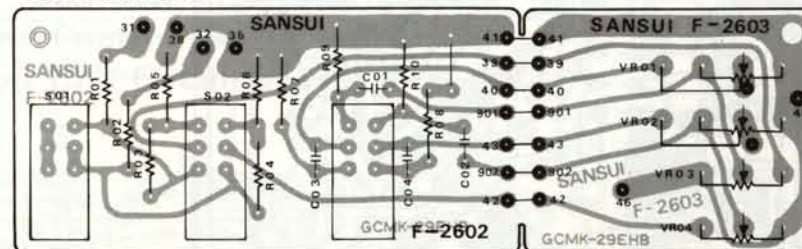
Parts List

Parts No.	Stock No.	Description
S03	1110290	Slide Switch

3-6. F-2602 Lever Switch Circuit Board

3-7. F-2603 Volume & Balance Volume Circuit Board

Conductor Side



◇AU-5900

(F-2602: Stock No. 7594001)

Parts List

Parts No.	Stock No.	Description
S01	1170340	
S02	1170390	Lever Switch
S03	1170390	

◇AU-6900

(F-2602: Stock No. 7593941)

Parts List

Parts No.	Stock No.	Description
S01	1170340	Mode Switch
S02	1170340	Muting Switch

◇AU-5900

(F-2603: Stock No. 7561401)

Parts List

Parts No.	Stock No.	Description
VR01	1060320.1	250kΩ (M, N) × 4 Variable Resistor

◇AU-6900

(F-2603: Stock No. 7561341)

Parts List

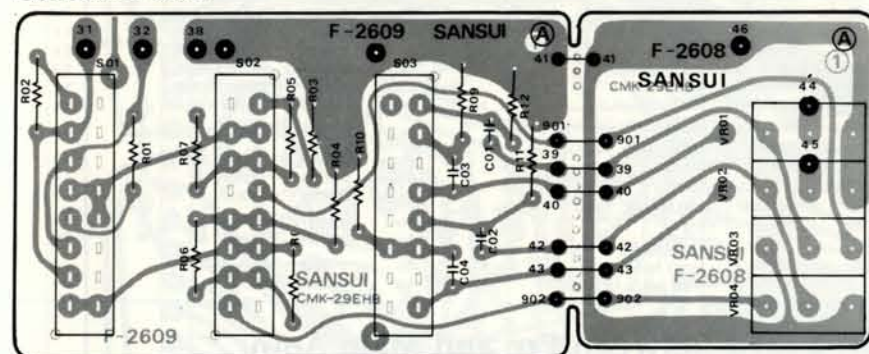
Parts No.	Stock No.	Description
VR01	1060320.1	250kΩ × 4 (M, N) Variable Resistor

◇AU-7900

3-8. F-2608 Volume & Balance Volume Circuit Board (Stock No. 7561371)

3-9. F-2609 Lever Switch Circuit Board (Stock No. 7593991)

Conductor Side



F-2608 Parts List

Parts No.	Stock No.	Description
VR01	1060320, 1	Master, Balance Volume 250M, N 250KB x 2

F-2609 Parts List

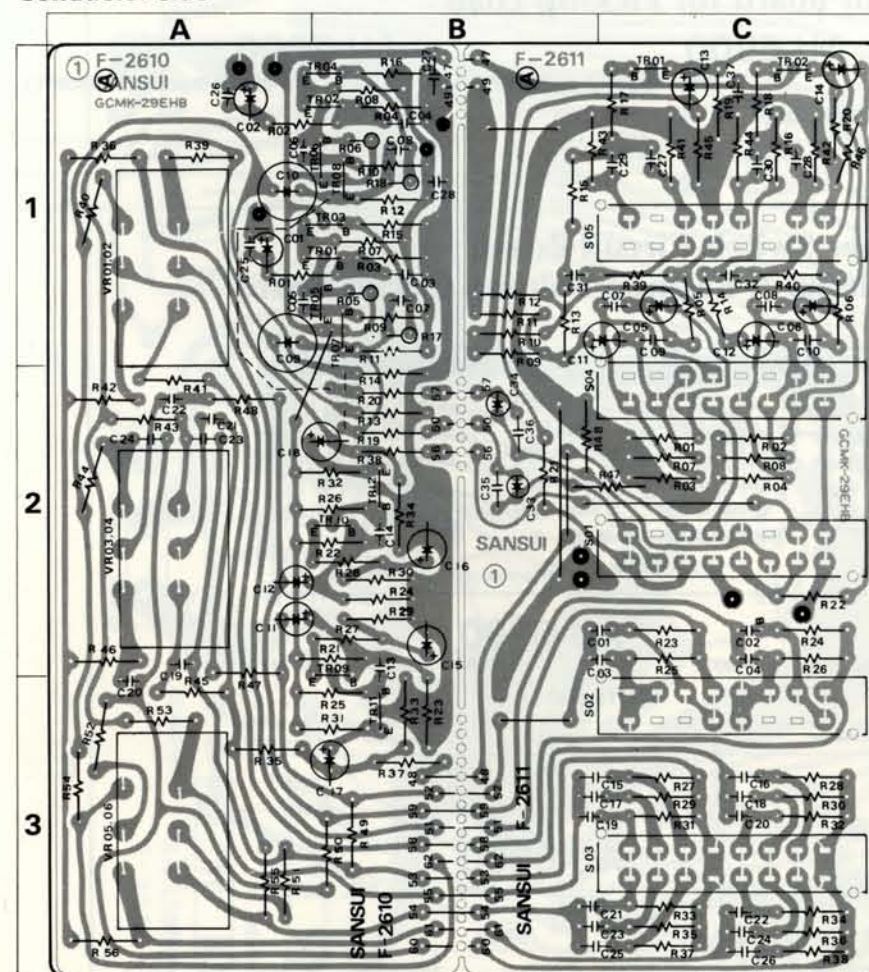
Parts No.	Stock No.	Description
S01	1170500	Lever Switch
S02	1170490	Lever Switch
S03	1170490	Lever Switch

◇AU-7900

3-10. F-2610 Tone Control Circuit Board (Stock No. 7561381)

3-11. F-2611 Filter Circuit Board (Stock No. 7561391)

Conductor Side



F-2610 Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071, 2	25C1313 (G, H)	1 B
TR03, 04	0306071, 2	25C1313 (G, H)	1 B
TR05, 06	0300470, 1	25A726(W)(F, G)	1 B
TR07, 08	0306071, 2	25C1313 (G, H)	1 B
TR09, 10	0306071, 2	25C1313 (G, H)	2 B
TR11, 12	0300470, 1	25A726(W)(F, G)	2 B
VR01	1090060, 1	50KΩ x 2	1 A
VR02	1090060, 1	50KΩ x 2	2 A
VR03	1099060, 1	50KΩ x 2	3 A

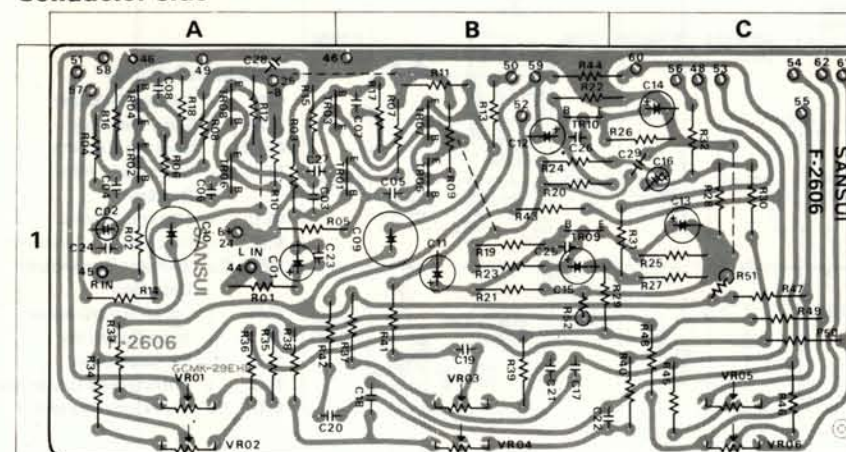
F-2611 Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071, 2	25C1313 (G, H) Transistor	1 C
C01, 02	0621821	820 pF 50V P.C.	3C, B, 28
C03, 04	0573228	0.22 μF 35V T.C.	2 C
S01	1170500	Tone & Filter Switch	2 C
S02	1170490	Tone Selector, Treble	3 C
S03	1170490	Tone Selector, Bass	3 C
S04	1170490	Low Filter Switch	2 C
S05	1170490	High Filter Switch	1 C

◇AU-6900

3-12. F-2606 Tone Control Circuit Board (Stock No. 7561351)

Conductor Side



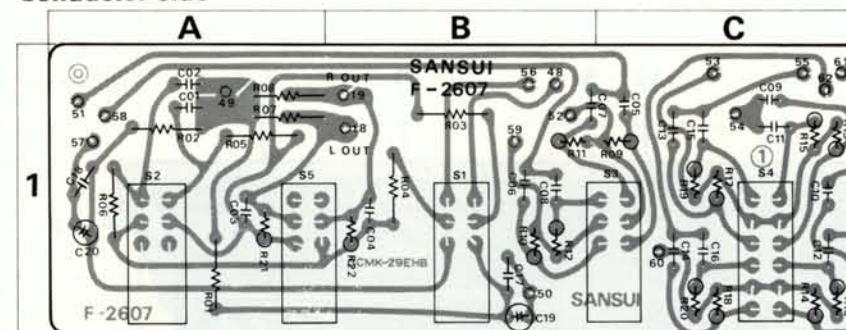
Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071, 2	25C1313 (G, H)	1 B, A
TR03, 04	0306071, 2	25C1313 (G, H)	1 B, A
TR05, 06	0300470, 1	25A726(W)(F, G) Transistor	1 B, A
TR07, 08	0306071, 2	25C1313 (G, H)	1 B, A
TR09, 10	0306071, 2	25C1313 (G, H)	1 B
VR01-04	1015110, 1	50kΩ(B) x 2 Tone Control Volume	2C, B, A

◇AU-6900

3-13. F-2607 Filter Circuit Board (Stock No. 7561361)

Conductor Side



Parts List

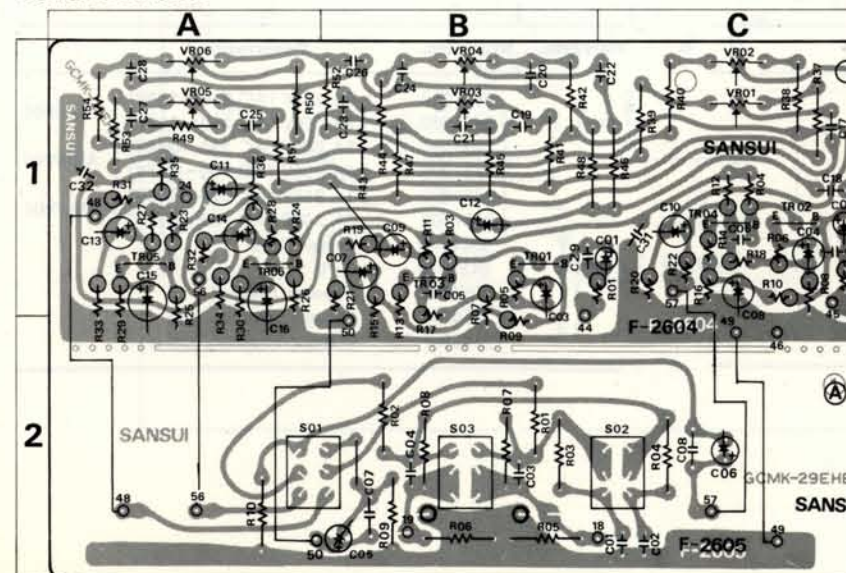
Parts No.	Stock No.	Description	Position
S01	1170340	Tone Switch	1 B
S02	1170340	High Filter Switch	1 A
S03	1170340	Tone Selector (Treble)	1 C
S04	1170360	Tone Selector (Bass)	1 C
S05	1170340	Low Filter Switch	1 A

◇AU-5900

3-14. F-2604 Tone Control Circuit Board (Stock No. 7561411)

3-15. F-2605 Filter Unit Circuit Board (Stock No. 7561421)

Conductor Side



F-2604 Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071	25C1313 (G, H)	1 B, C
TR03, 04	0306071, 2	25C1313 (G, H) Transistor	1 B, C
TR05, 06	0306071, 2	25C1313 (G, H)	1 A
VR01	1015110, 1	50kΩ (B) x 2	1 C
VR03	1015110, 1	50kΩ (B) x 2	1 B
VR05	1015110, 1	50kΩ (B) x 2	1 A

F-2605 Parts List

Parts No.	Stock No.	Description	Position
S01	1170340	Lever Switch	1 A
S02	1170340		1 C
S03	1170340		1 B

3-16. Figures of Semiconductors

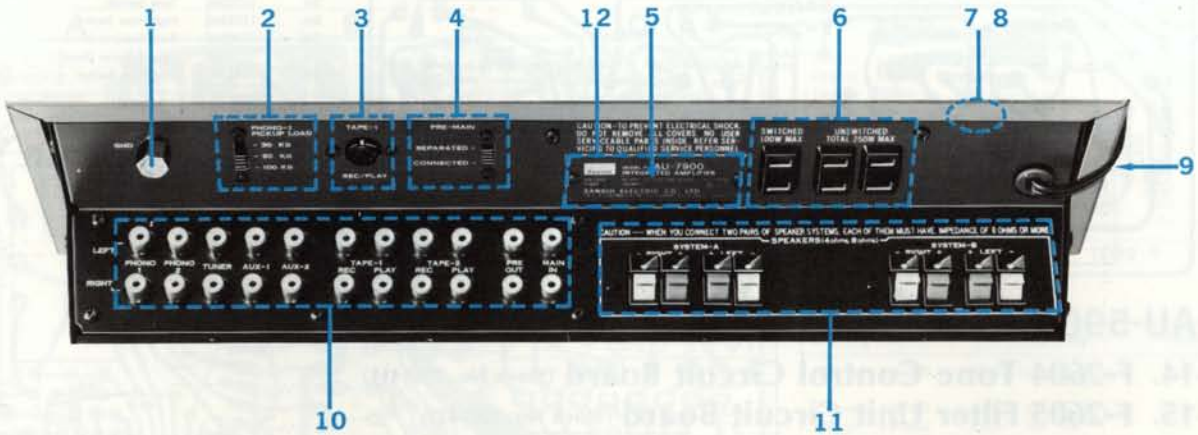
SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
2SA733 2SA917 2SB560 2SC945 2SC12222 2SC1364 2SC1951 2SD438	F-2596 F-2599	2SB527 2SB537 2SD356 2SD357 2SD358	F-2596 F-2599	10D1 10D2	F-2596	SS3 SS5	F-2596
2SA726 2SC711 2SC1313	F-2596 F-2599 F-2606 F-2610 F-2611	2SA745 2SA808A 2SB541 2SB545 2SC1403 2SC1619A 2SD188A 2SD388A	F-2596 F-2599	VD1212	F-2596	SS3R SS5R	F-2596
2SB526	F-2599	2SA798	F-2596		F-2596	EQA01-13R RD-13E	F-2596 F-2599

● Abbreviations

- C.R. : Carbon Resistor
- S.R. : Solid Resistor
- Ce.R. : Cement Resistor
- M.R. : Metallized Film Resistor
- M.C. : Mylar Capacitor
- E.C. : Electrolytic Capacitor
- BP.E.C.: Bi-Polar Electrolytic Capacitor
- C.C. : Ceramic Capacitor
- Mi.C. : Mica Capacitor
- O.C. : Oil Capacitor
- P.C. : Polystyrene Capacitor
- E.C. : Tantalum Capacitor

3-17. Other Parts

(Back Side)



Parts List

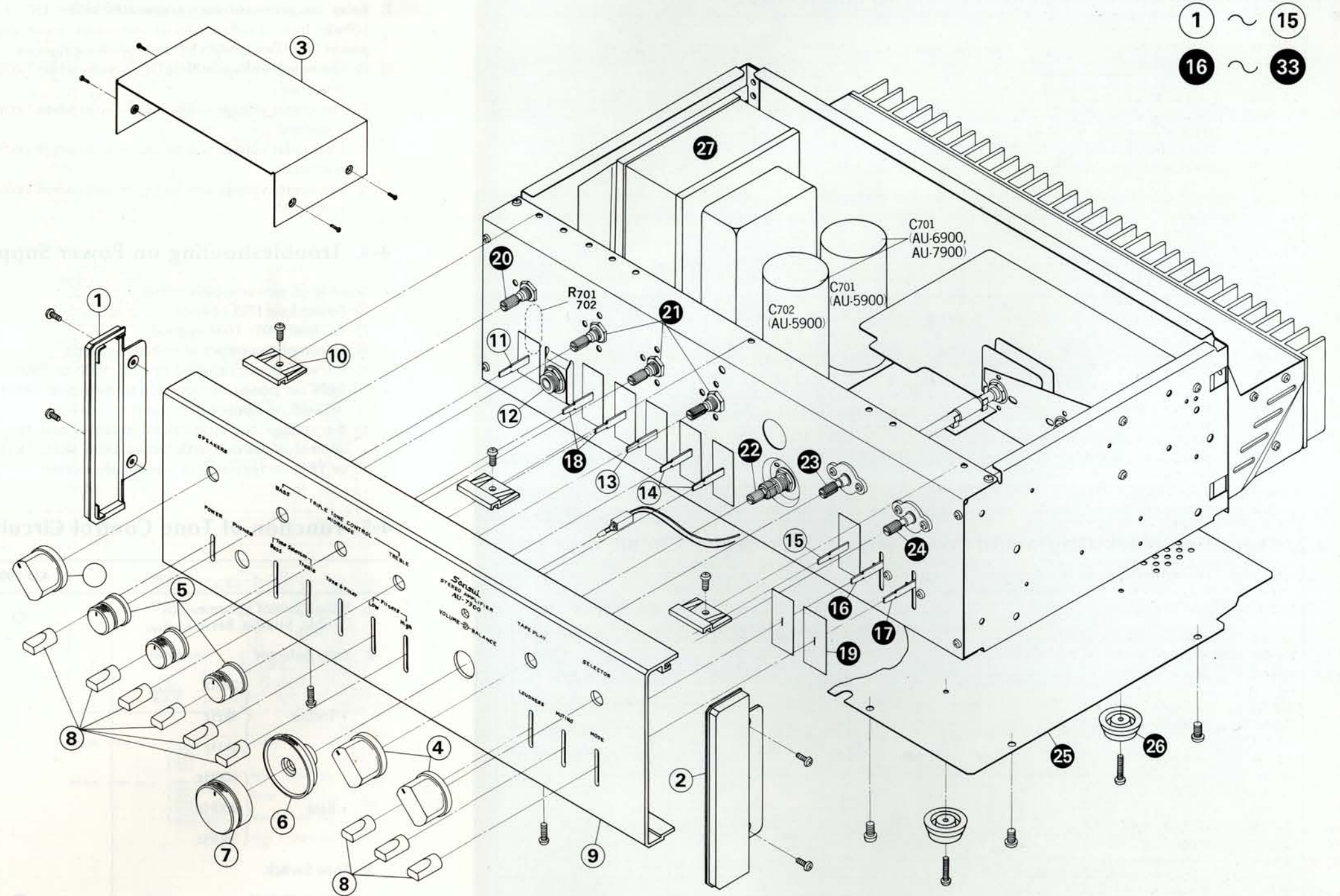
Parts No.	Stock No.	Description
1	2230051	Ground Terminal
2	1110290	Pick-up Load Switch
3	2090040	DIN Jack
4	1110280	PRE-MAIN Switch
5	{ 5388680 }	Name Plate
	{ 5388700 }	
	{ 5388720 }	
6	2450060	AC Outlet
7	2300060	Fuse Holder (Power Fuse)
8		Power Fuse

Parts No.	Stock No.	Description
	{ 0431260 }	3A 250V (AC 220~240V)
	{ 0431280 }	
	{ 0431260 }	
	{ 0431290 }	
	{ 0431270 }	
	{ 0431300 }	7A 250V (AC 100~117V)
	{ 0431300 }	
9	3800330	Power Cord
10	2430250	1 Pin Jack
11	2290160	Speaker Terminal
12	{ 2410091 }	Voltage Selector, Plug
	{ 2410081 }	

Parts List

Parts No.	Stock No.	Description
1	5304450	Side Panel (left)
2	5304460	Side Panel (right)
3	5006550	Bonnet
4	5318650	Selector Knob, E-11 Type
5	5318640	Tone Control Knob, S-12 Type
6	5318670	Balance Volume Knob, W0-9 Type
7	8318660	Volume Knob, WIE-2
8	5326520	Lever Switch Knob, E-3 Type
9	7007290	Front Panel <AU-5900>
	7007280	
	7007270	
9	0319090	Light Emitted Diode
	5286731	
	5286741	Lever Guide 2
10	5269880	Panel Stopper
11	1170330	Power Switch
12	2430190	Head Phone Jack
13	1170340	Tone Switch <AU-5900> <AU-6900>
	1170500	
14	1170340	Filters Switch <AU-5900> <AU-6900>
	1170490	
15	1170340	Loudness Switch <AU-5900> <AU-6900>
	1170490	
16	1170340	Muting Switch <AU-5900> <AU-6900>
	1170490	
17	1170340	Mode Switch <AU-5900> <AU-6900>
	1170500	
18	1170360	Tone Selector Switch <AU-6900>
	1170490	
19	5047460	Masking, Lever Switch <AU-5900> <AU-6900>
	5047470	
20	1101560, 1	Speaker Switch
21	1015110, 1	Tone Control Volume <AU-5900> <AU-6900>
	1090060, 1	
22	1060321	Volume/Balance Volume, 250KM, NB x 2
23	1102560, 1	Tape Play Switch
24	1102550, 1	Selector Switch
25	5058221	Bottom Plate <AU-5900>
	5058241	
26	5516940	Leg
27	4002140	Power Transformer <AU-5900>
	4002110	
	4002390	
C701	0559370	10000μF 50V E.C. } <AU-5900>
C702	0559370	10000μF 50V E.C. }
C701(702)	0559516	15000μF x 2 63V E.C. (One set as a pair of C701, and C702) <AU-6900> <AU-7900>
R701, 702	0155221	220Ω 2W C.R. <AU-5900> <AU-6900>
R701, 702	0163221	220Ω 3W Ce.R. <AU-7900>

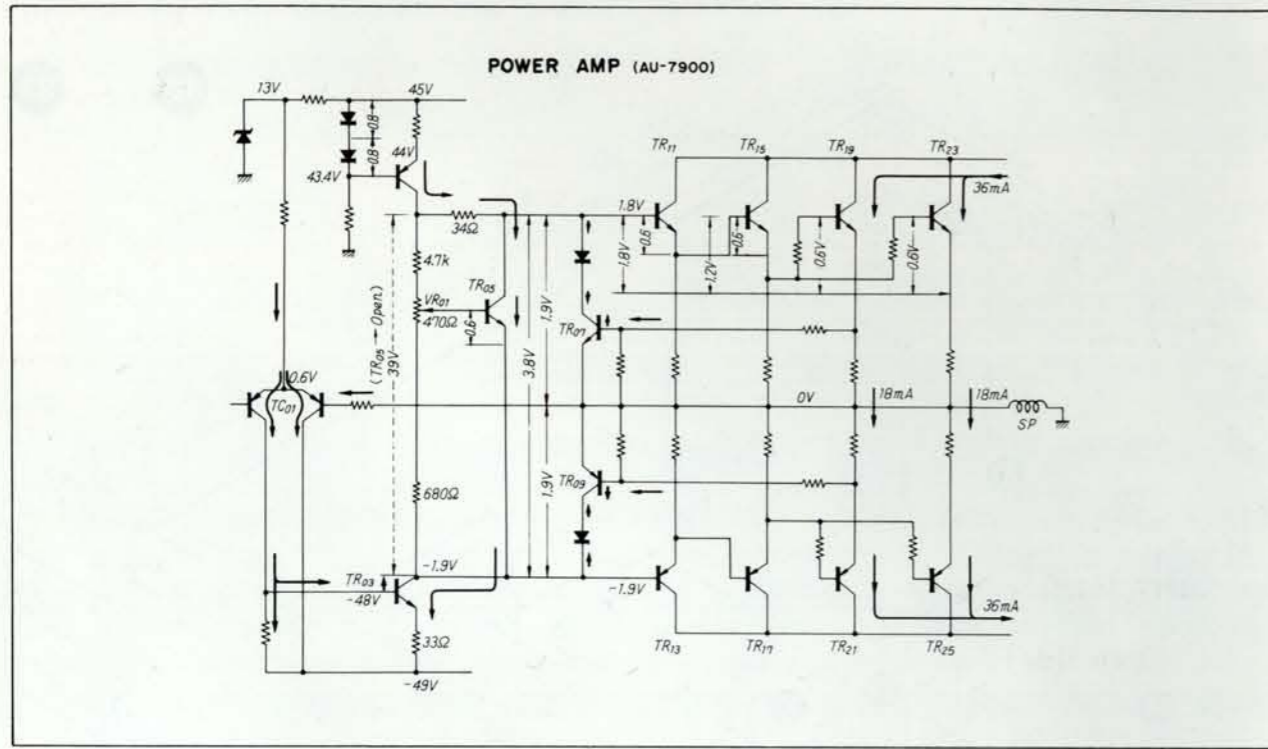
(Exploded View)



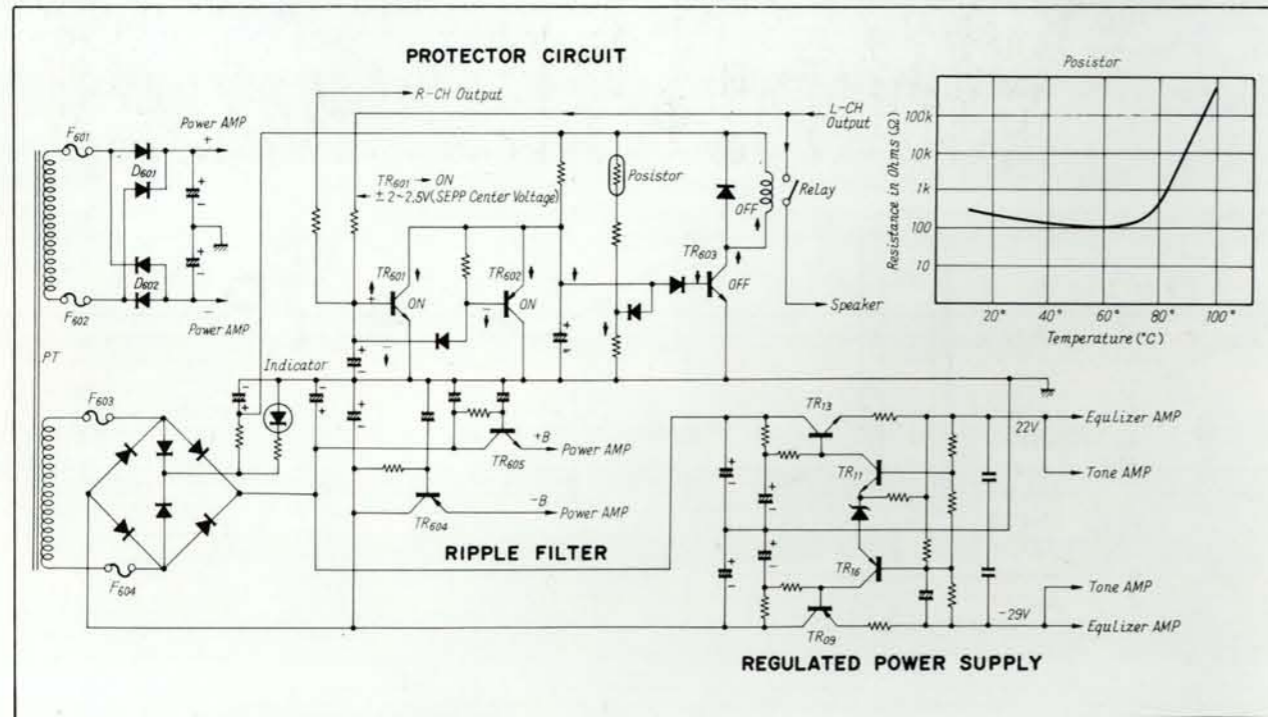
1 ~ 15
16 ~ 33

4. TROUBLESHOOTING CHART

4-1. Operation Block Diagram of Power Amplifier Fig.4-1



4-2. Operation Block Diagram of Power Supply & Protector Circuit Fig.4-2



4-3. Troubleshooting on Power Amplifier Section (See Fig. 4-1)

- Noise occurs due to defective IC01.
- Relay on protector circuit operates when DC \pm voltage from 0 volt occurs at the center point on power amplifier section by the following reasons.
 - The center voltage will be DC + volts when TR01 is shorted.
 - The center voltage will be DC - volts when TR01 is opened.
 - The center voltage will be DC - volts when TR03 is shorted.
 - The center voltage will be DC + volts when TR03 is opened.
- Bias voltage not supplied due to TR05 shorted.
- Bias voltages of TR11 and TR13 are close to $\pm 20V$ due to TR05 opened, then TR11~TR25 will be shorted.
- Power fuse blown out or relay operates due to TR11~TR25 shorted.
- TR06 or TR08 would be shorted due to TR11~TR25 shorted.
- Output signal waveform would be distorted due to unstable characteristics of TR06 or TR08 even if it is not shorted.

4-4. Troubleshooting on Power Supply and Protector Circuit (See Fig. 4-1)

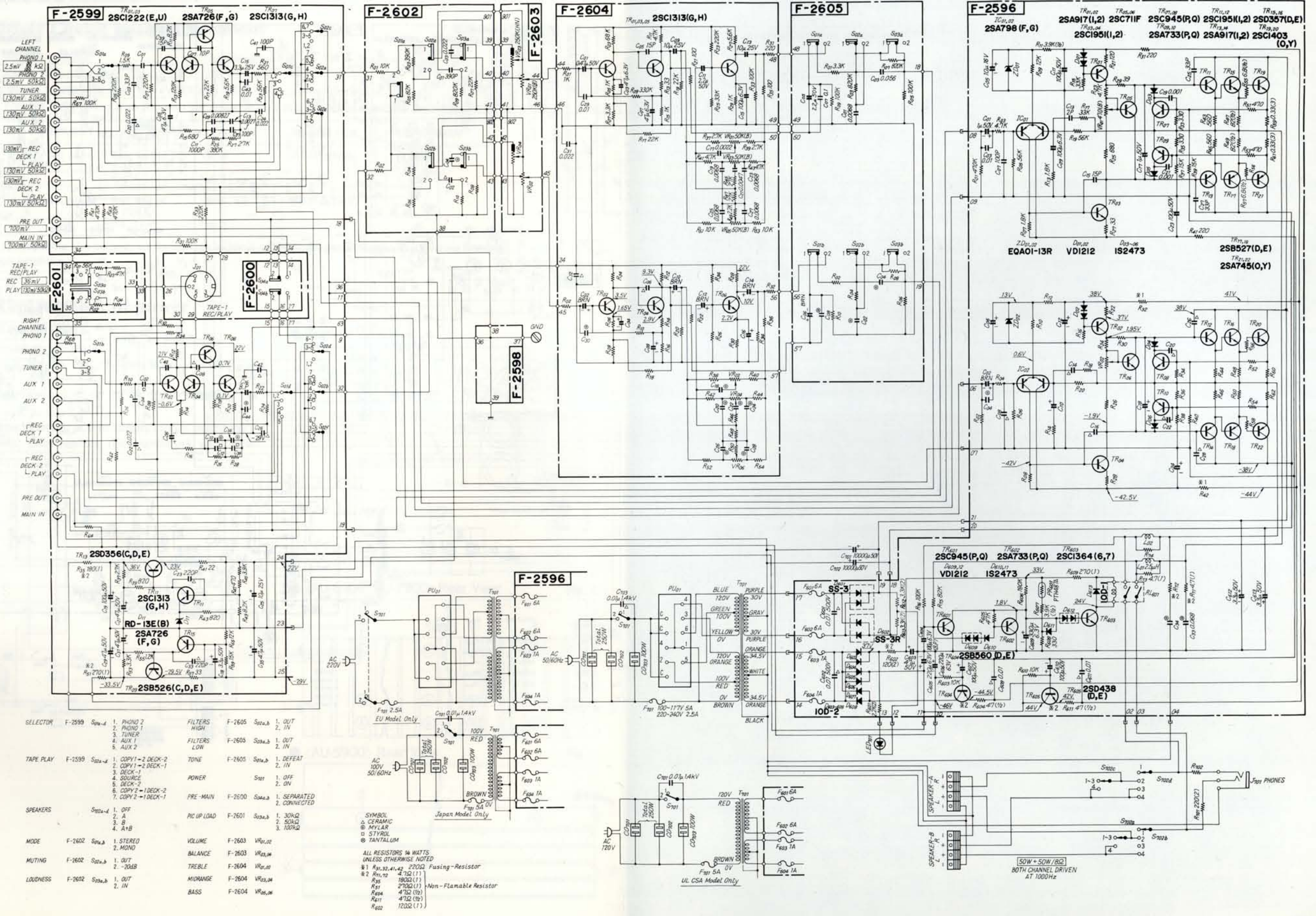
- Trouble on power supply circuit.
 - Power fuse F701 opened.
 - AC fuse F601~F604 opened.
 - Uncomplete contact of voltage selector.
 - B+ voltage not supplied to IC01, IC02 or TR01~TR04 on power section due to defective TR604~TR605 on ripple filter circuit.
 - B+ voltage not supplied to equalizer and tone control circuit due to defective TR09, TR11, TR13 or TR16 on regulated power supply section.
- B+ voltage not supplied to TR11~TR25 on power amplifier section due to defective D601 or D602.
- Troubles on protector circuit.
 - Relay, RL601, is not switched ON due to uncomplete contact of its point.
 - The relay does not operate even if DC voltage ($\pm 2 \sim \pm 2.5V$) occurs at center point on power amplifier section due to defective TR601~TR603.
 - The relay does not operate even if power transistors get heat due to defective posistor.

4-5. Function of Tone Control Circuit

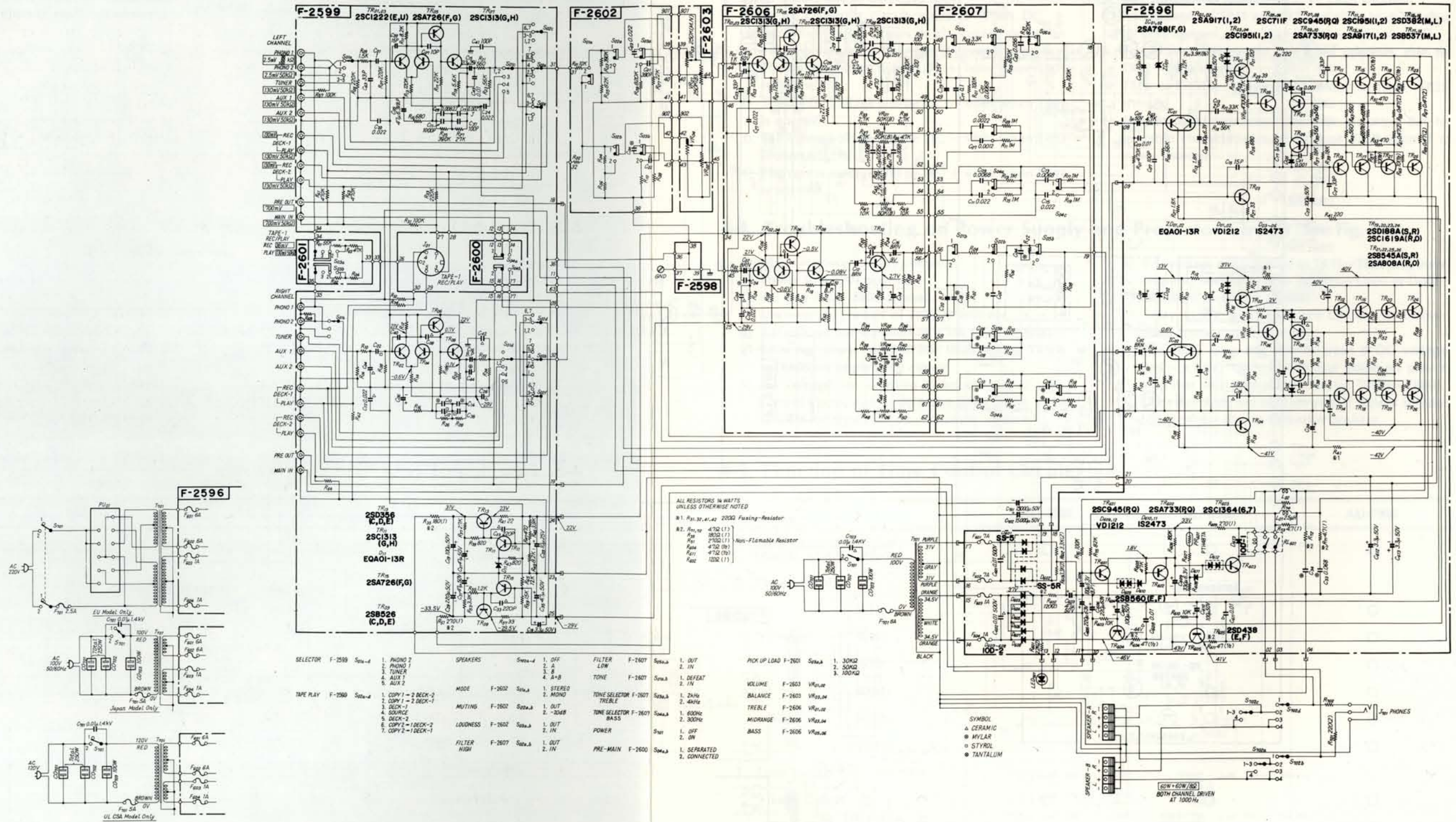
	AU-5900	AU-6900	AU-7900
1. Tone Control Volumes (Treble, Middle, Bass)	○	○	○
2. Tone Selector			
• Treble		○	○
• Bass		○	○
3. Tone Switch			
• Tone Defeat	○	○	○
• Filter Only			○
4. Low Filter	○	○	○
5. High Filter	○	○	○
6. Buffer AMP.			○

5. SCHEMATIC DIAGRAM/5-1. AU-5900

* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suite d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specification subject to change without notice for improvements.

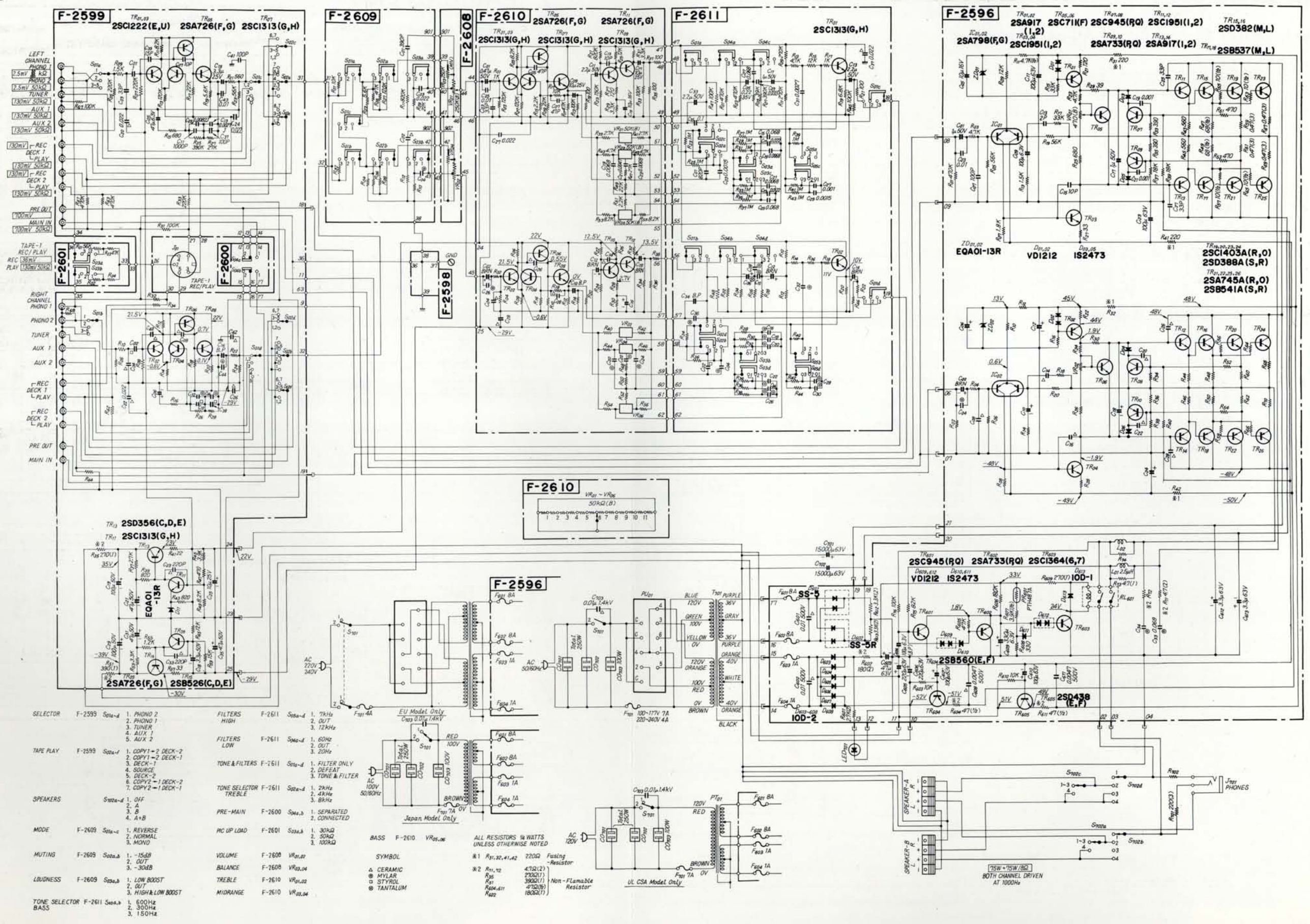


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5-3. AU-7900

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 * Design and specification subject to change without notice for improvements.



- SELECTOR F-2599 Seta-d
1. PHONO 2
 2. PHONO 1
 3. TUNER
 4. AUX 1
 5. AUX 2
- TAPE PLAY F-2599 Seta-d
1. COPY 1 - 2 DECK - 2
 2. COPY 1 - 2 DECK - 1
 3. DECK - 1
 4. SOURCE
 5. DECK - 2
 6. COPY 2 - 1 DECK - 2
 7. COPY 2 - 1 DECK - 1
- SPEAKERS Seta-d
1. OFF
 2. A
 3. B
 4. A+B
- MODE F-2609 Seta-c
1. REVERSE
 2. NORMAL
 3. MONO
- MUTING F-2609 Seta-b
1. -15dB
 2. OUT
 3. -30dB
- LOUDNESS F-2609 Seta-b
1. LOW BOOST
 2. OUT
 3. HIGH & LOW BOOST
- tone selector F-2611 Seta-b
1. 600Hz
 2. 300Hz
 3. 150Hz

- FILTERS HIGH F-2611 Seta-d
1. 1KHz
 2. OUT
 3. 12KHz
- FILTERS LOW F-2611 Seta-d
1. 60Hz
 2. OUT
 3. 20Hz
- tone & filters F-2611 Seta-d
1. FILTER ONLY
 2. DEFEAT
 3. TONE & FILTER
- tone selector F-2611 Seta-d
1. 2KHz
 2. 4KHz
 3. 8KHz
- PRE-MAIN F-2600 Seta-b
1. SEPARATED
 2. CONNECTED
- PC UP LOAD F-2601 Seta-b
1. 30KΩ
 2. 50KΩ
 3. 100KΩ
- VOLUME F-2608 VR01.02
- BALANCE F-2608 VR03.04
- TREBLE F-2610 VR01.02
- MIDRANGE F-2610 VR02.04

BASS F-2610 VR01.02

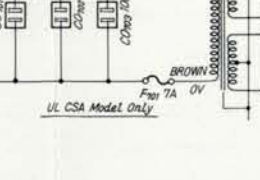
ALL RESISTORS IN WATTS UNLESS OTHERWISE NOTED

*1 R31,32,41,42 220Ω Fusing Resistor

*2 R11,12 47Ω(2) 270Ω(1) 390Ω(1) 470Ω(3) 180Ω(1)

Non-Flammable Resistor

UL CSA Model Only



6. ADJUSTMENT

6-1. Driver Circuit Board Adjustment

- Note:** 1. Master Volume.....Minimum
 2. Room Temperature.....18°C~28°C
 3. Before this adjustment, turn VR01 and VR02 fully counterclockwise.
 4. For this adjustment, run the unit for more than 3 minutes after power is switched ON.

STEP	EQUIPMENT	MESURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
L-CH Bias Current	DC Volt Merer	R59, R61 of F-2596 Fig. 1	VR01 Fig. 1	18mV ±1mV	
R-CH Bias Current	DC Volt Meter	R60, R62 of F-2596 Fig. 1	VR02 Fig. 1	18mV ±1mV	

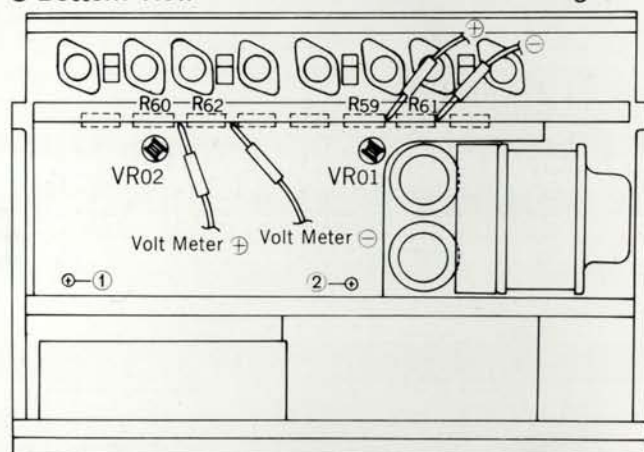
* Instead of measuring bias current, set the voltage to 18mV as Fig. 1, since there are no quick acting fuses on the power amplifier.

$$I_1 = \frac{V_1}{R_{59} + R_{61}}$$

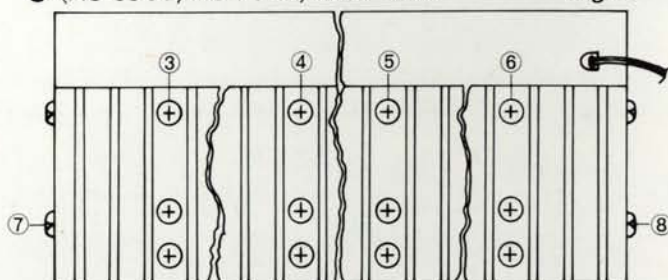
6-2. Replacement of power Transistors

1. Remove bottom plate.
2. Remove screws, ①, ② installing on F-2596 as Fig. 1.
3. Remove screws, ③, ④, ⑤, ⑥, ⑦, ⑧ installing on heat sink as Fig. 2 or Fig. 3.
4. Remove driver & power supply circuit board ass'y (F-2596), then replace the transistors with new ones.

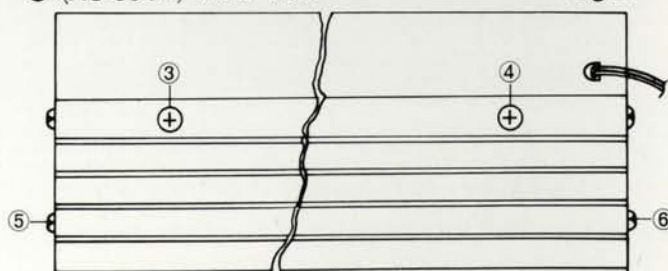
● Bottom View Fig. 1



● <AU-6900, AU-7900> Rear View Fig. 2

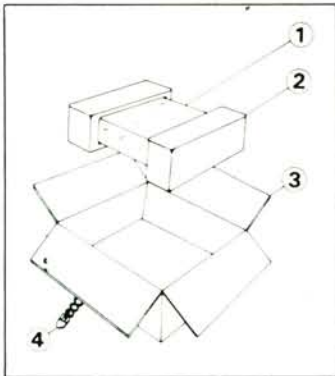


● <AU-5900> Rear View Fig. 3



7. PACKING LIST

Parts No.	Stock No.	Description
1	9116153	Vinyl Cover <AU-5900> <AU-6900>, <AU-7900>
	9116143	
2	9027810	Stylofoam Packing <AU-5900> <AU-6900>, <AU-7900>
	9027970	
3	9009140	Carton Case <AU-5900> <AU-6900> <AU-7900>
	9009080	
	9009160	
4	5996080	Carl Stopper



8. ACCESSORY PARTS LIST

Stock No.	Description
AU-5900 9209600	Operating Instruction
AU-6900 9209630	
AU-7900 9209580	
AU-5900 9237330	SD
AU-6900 9237360	
AU-7900 9237320	
5066250	Input Pin Cover
2410560	Pin Plug



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