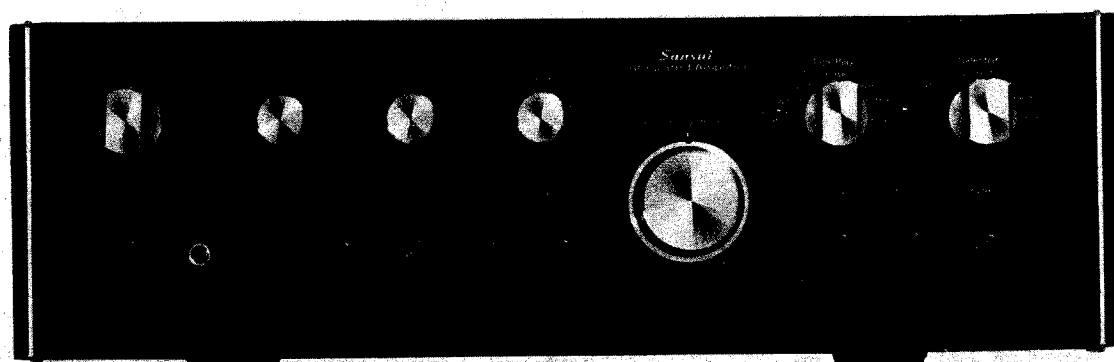




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# SERVICE MANUAL

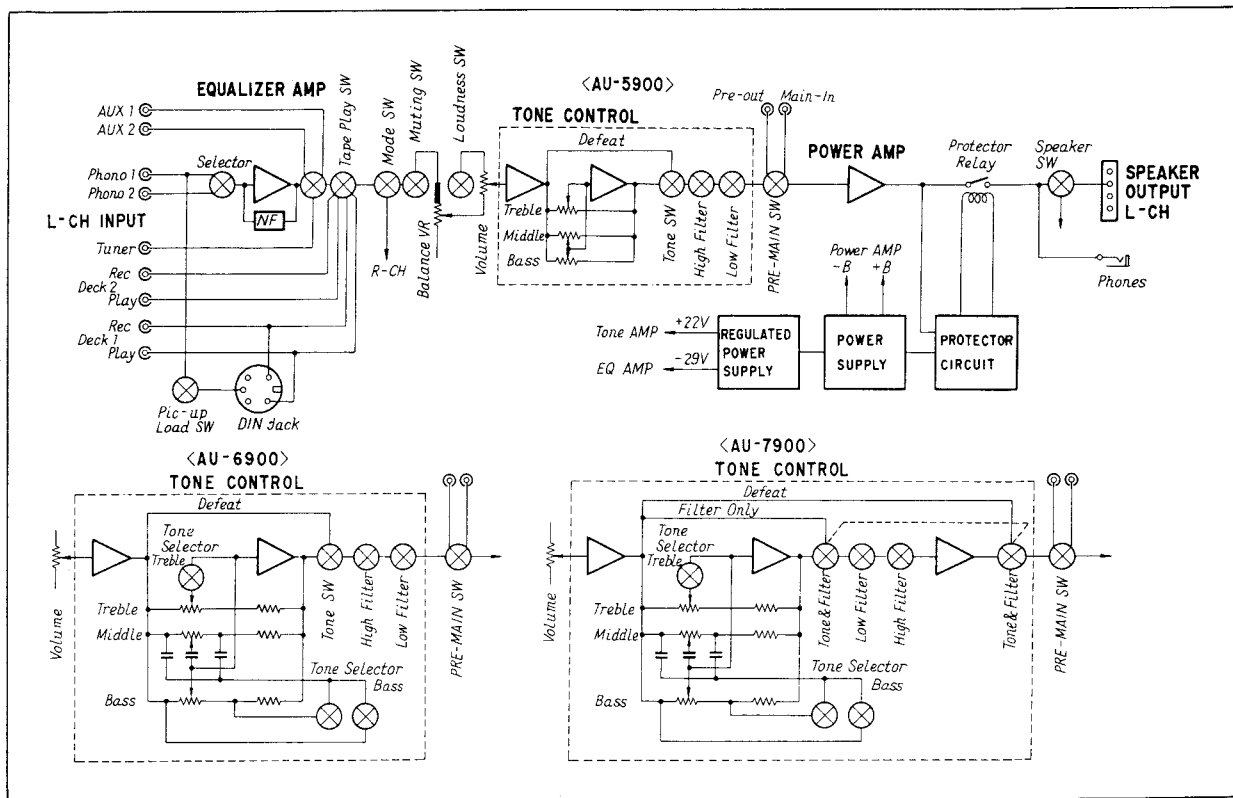
STEREO AMPLIFIER  
**SANSUI AU-5900**  
**AU-6900**  
**AU-7900**



**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>

<b>Load impedance</b>	4, 8 ohms (SYSTEM-A or B) 8 ohms (SYSTEM A + B)
<b>Power bandwidth</b>	20 to 20,000 Hz at or below rated min. RMS power output and total harmonic distortion
<b>Total harmonic distortion</b>	less than 0.1% at or below rated min. RMS power output
<b>Intermodulation distortion</b> (70 Hz : 7 kHz = 4 : 1 SMPTE method)	less than 0.1%
<b>Frequency response</b> (at 1 watt)	10 to 50,000 Hz $\pm 1.5$ dB
<b>Damping factor</b>	approximately 80 at 8 ohm load
<b>RIAA curve deviation</b> (PHONO)	+0.3dB, -0.3dB (30 Hz to 15 kHz)
<b>Input sensitivity and impedance</b> (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
<b>Output level</b> (1,000 Hz)	
TAPE-1, 2 REC (pin jacks)	130 mV
TAPE-1 REC/PLAY (DIN socket)	30 mV
PRE OUT	700 mV
<b>Channel separation</b> (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
<b>Hum and noise</b> (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>

<b>Controls</b>	
BASS	$\pm 13$ dB (50 Hz)
MIDRANGE	$\pm 5$ dB (1.5 kHz)
TREBLE	$\pm 13$ dB (15 kHz)
LOUDNESS (Volume Control : -30dB)	
	+10dB (50 Hz)
	+8dB (10 kHz)
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.)
<b>Dimensions</b>	430 mm (16-15/16") W 132 mm (5-1/4") H 312 mm (12-5/16") D
<b>Weight</b>	11.5 kg (25.4 lbs) net 13.2 kg (29.1 lbs) packed

### <AU-6900>

<b>Controls</b>	
BASS	$\pm 13$ dB (50 Hz)
Tone selector (turnover frequency)	300, 600 Hz
MIDRANGE	$\pm 5$ dB (1.5 kHz)
TREBLE	$\pm 13$ dB (15 kHz)
Tone selector (turnover frequency)	2, 4 kHz
LOUDNESS (Volume Control : -30dB)	
	+10dB (50 Hz)
	+8dB (10 kHz)
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.)
<b>Dimensions</b>	430 mm (16-15/16") W 132 mm (5-1/4") H 340 mm (13-7/16") D
<b>Weight</b>	12.9 kg (28.4 lbs) net 14.8 kg (32.6 lbs) packed

### <AU-7900>

<b>Controls</b>	
BASS	$\pm 13$ dB (50 Hz)
Tone selector (turnover frequency)	150, 300, 600 Hz
MIDRANGE	$\pm 5$ dB (1.5 kHz)
TREBLE	$\pm 13$ dB (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. -3dB (12 kHz), 12dB/oct.
MUTING	0, -15, -30dB

## Power requirements

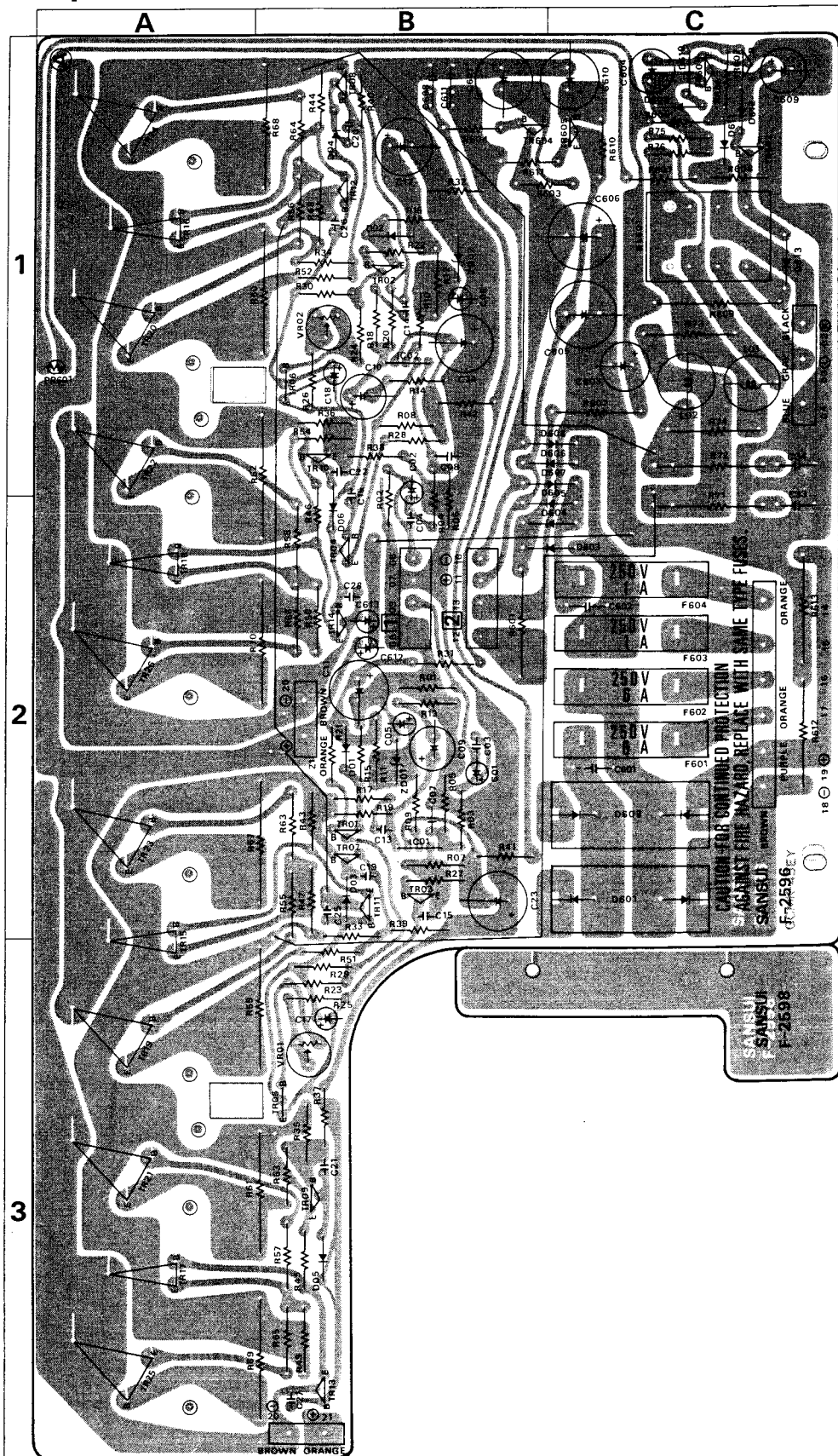
Power voltage	100, 120, 220, 240 V 50/60 Hz 120 V (Usable 110-130 V) 60 Hz (for U.S.A. & Canada only)
Power consumption	176 watts (rated) 490 watts, 576 VA (max.)
<b>Dimensions</b>	430 mm (16-15/16") W 132 mm (5-1/4") H 340 mm (13-7/16") D
<b>Weight</b>	14.2 kg (31.3 lbs) net 16.1 kg (35.5 lbs) packed

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

### 3. PARTS LOCATION AND PARTS LIST

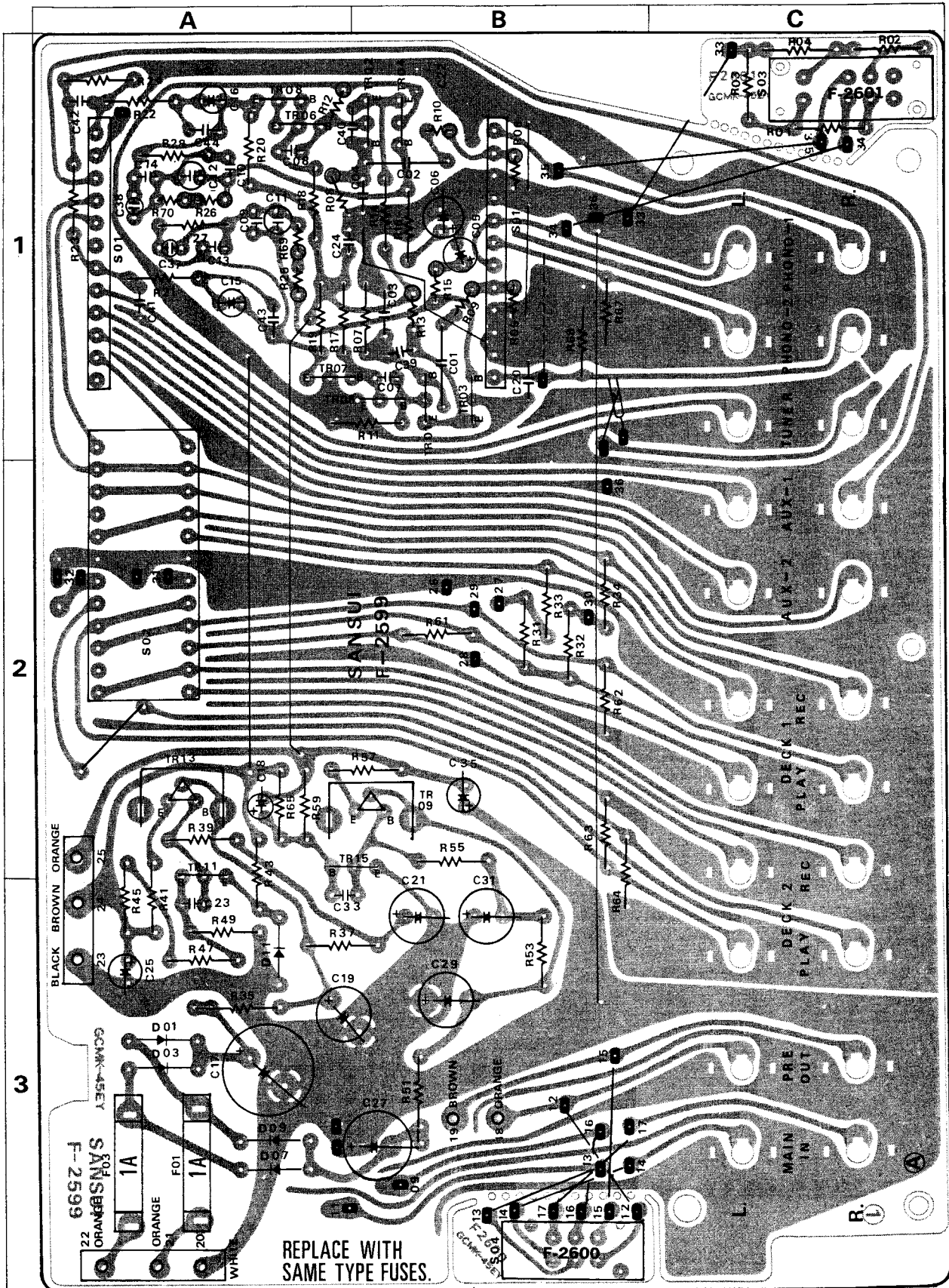
\*Value and Stock No. of most Resistors and Capacitors are shown in Common Parts List attached.

#### 3-1. F-2596 Power Amplifier Circuit Board Conductor Side





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)	Transistor
TR03,04	0306010,1	2SC1222 (U, E)	
TR05,06	0300470,1	2SA726 (F, G)	
TR07,08	0306071,2	2SC1313 (G, H)	
TR09	0303280-2	2SB526 (C, D, E)	
TR11	0306071,2	2SC1313 (G, H)	
TR13	0308450-2	2SD356 (C, D, E)	
TR15	0300470,1	2SA726 (F, G)	
D11	0316310	RD-13E B Zener Diode	
C01,02	0602109	1.0μF 100V M.C.	
C11,12	0620102	1000pF 50V P.C.	
C37,38	0620101	1000pF	
R35	0201181	180Ω	
R51	0201271	270Ω	
S01	1102550,1	Rotary Switch	
S02	1102560,1	Rotary Switch	
	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)	Transistor
TR03,04	0306010,1	2SC1222 (U, E)	
TR05,06	0300470,1	2SA726 (W) (F, G)	
TR07,08	0306071,2	2SC1313 (G, H)	
TR09	0303280-2	2SB526 (C, D, E)	
TR11	0306071,2	2SC1313 (G, H)	
TR13	0308450-2	2SD356 (C, D, E)	
TR15	0300470,1	2SA726 (W) (F, G)	
D11	0315970	EQA01-13R Zener Diode	
C01,02	0602109	1.0μF 100V M.C.	
C11,12	0620102	1000pF 50V P.C.	
C37,38	0620101	100pF	
R35	0201181	180Ω	
R51	0201271	270Ω	
S01	1102550,1	Rotary Switch	
S02	1102560,1	Rotary Switch	
	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)	Transistor
TR03,04	0306010,1	2SC1222 (U, E)	
TR05,06	0300470,1	2SA726(W)(F,G)	
TR07,08	0306071,2	2SC1313 (G, H)	
TR09	0303280-2	2SB526 (C, D, E)	
TR11	0306071,2	2SC1313 (G, H)	
TR13	0308450-2	2SD356 (C, D, E)	
TR15	0300470,1	2SA726(W)(F,G)	
D11	0315970	EQA01-13R Zener diode	
C01,02	0602109	1.0μF 100V M.C.	
C11,12	0620102	1000pF 50V P.C.	
C37,38	0620101	100pF	
R35	0201271	270Ω	
R51	0201391	390Ω	
S01	1102550,1	Rotary Switch	
S02	1102560,1	Rotary Switch	

### 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)

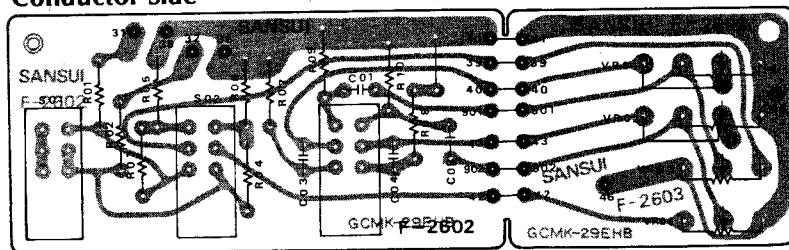
#### Parts List

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	Lever Switch
S02	1170390	
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

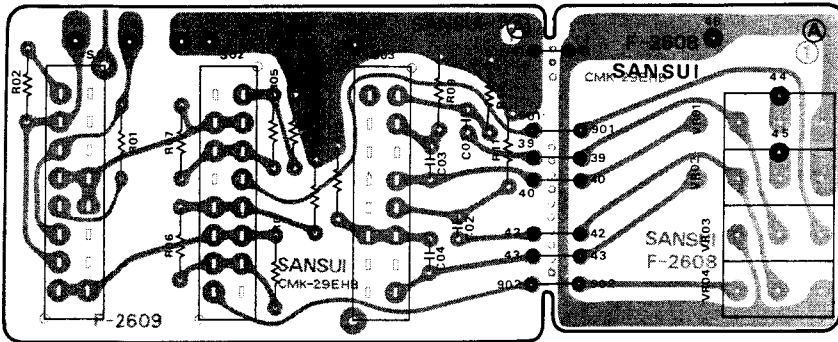


◇AU-7900

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	1040320.1	Master, Balance Volume 250M,N 250KB x 2

F-2609 Parts List

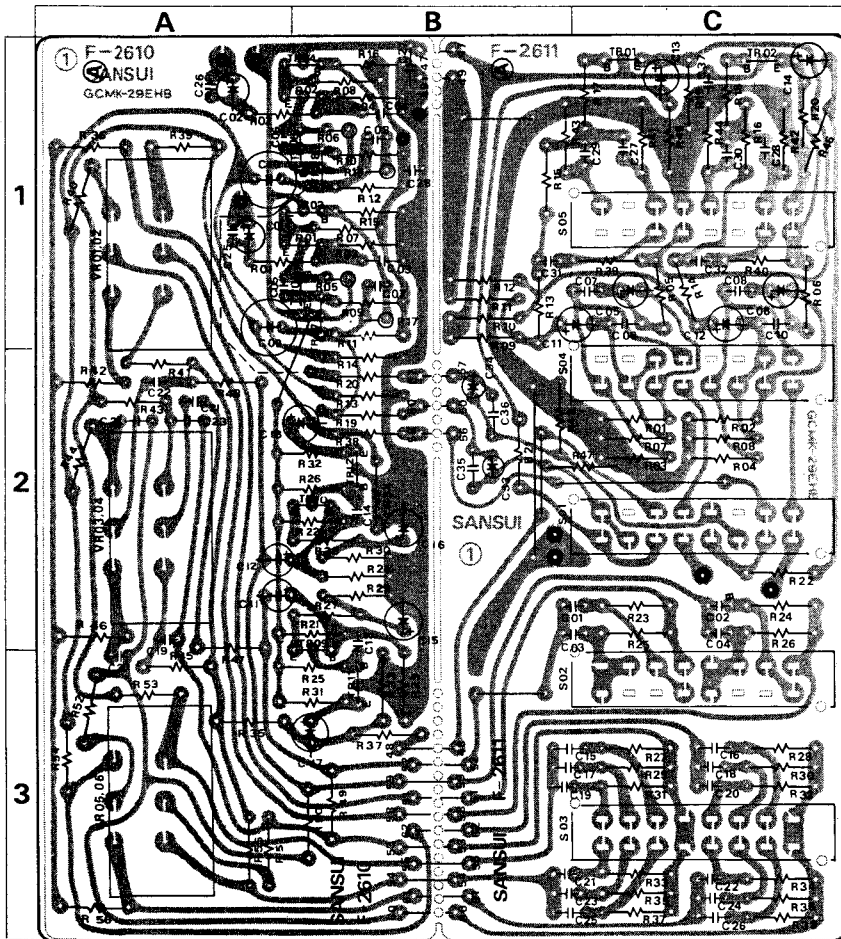
Parts No.	Stock No.	Description
S01	1170500	Lever Switch
S02	1170490	Lever Switch
S03	1170490	Lever Switch

◇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	2SC1313 (G, H)	Transistor
TR03.04	0306071.2	2SC1313 (G, H)	
TR05.06	0300470.1	2SA726(W) (F, G)	
TR07.08	0306071.2	2SC1313 (G, H)	
TR09.10	0306071.2	2SC1313 (G, H)	
TR11.12	0300470.1	2SA726(W) (F, G)	
VR01	1090060.1	50KΩ x 2	Tone Control
VR03	1090060.1	50KΩ x 2	Volume
VR05	1099060.1	50KΩ x 2	Volume

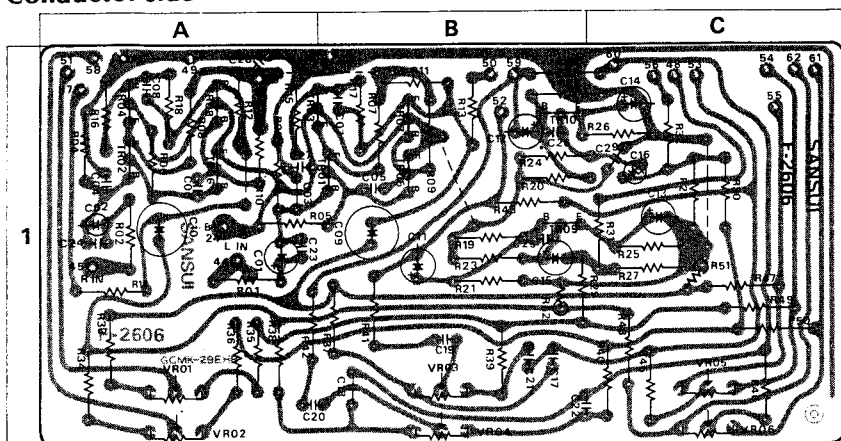
F-2611 Parts List

Parts No.	Stock No.	Description	Position
TR01.02	0306071.2	2SC1313 (G, H) Transistor	1 C
C01.02	0621821	820 pF 50V P.C.	3C, B, 2B
C05.06	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



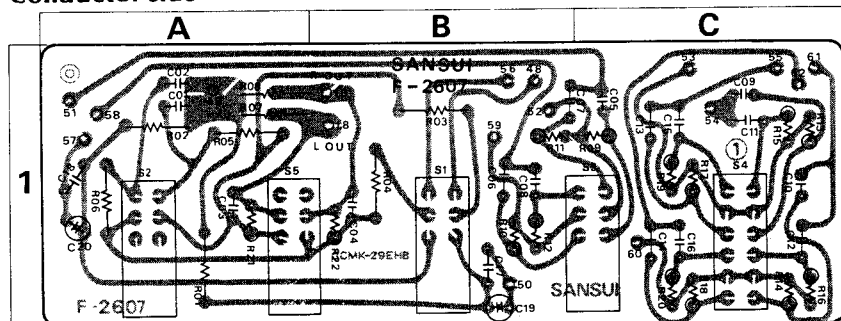
Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306071, 2	25C1313 (G, H)	} Transistor 1 B, A
TR03, 04	0306071, 2	25C1313 (G, H)	
TR05, 06	0300470, 1	2SA726(W)(F, G)	
TR07, 08	0306071, 2	25C1313 (G, H)	
TR09, 10	0306071, 2	25C1313 (G, H)	
VR01-06	1015110, 1	50kΩ(B) × 2 Tone Control Volume	2C, 8, A

◆AU-6900

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

Conductor Side



Parts List

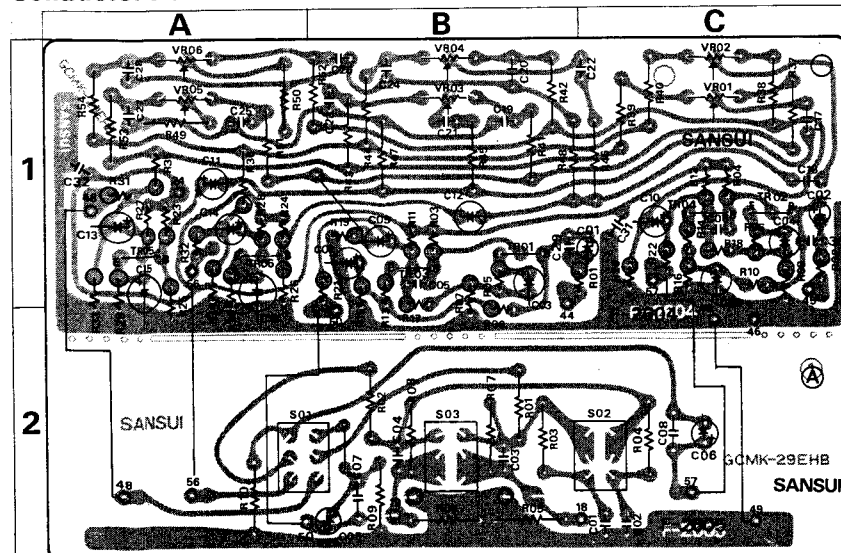
Parts No.	Stock No.	Description	Position
S01	1170340	Tone Switch	1 B
S02	1170340	High Filter Switch	1 A
S03	1170340	Tone Selector (Treble)	1 C
S04	1170360	Tone Selector (Bass)	1 C
S05	1170340	Low Filter Switch	1 A

◆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)	} Transistor 1 B, C
TR03, 04	0306071, 2	25C1313 (G, H)	
TR05, 06	0306071, 2	25C1313 (G, H)	
VR01	1015110, 1	50kΩ (B) × 2	} Variable Resistor 1 C
VR03	1015110, 1	50kΩ (B) × 2	
VR05	1015110, 1	50kΩ (B) × 2	

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

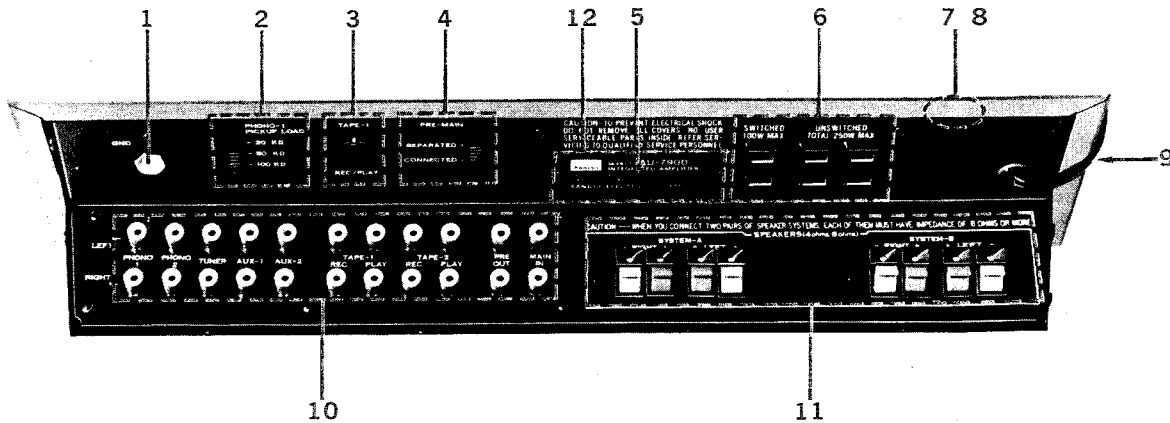
SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD	SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
2SA733 2SA917 2SB560 2SC945 2SC12222 2SC1364 2SC1951 2SD438	F-2596 F-2599	2SB527 2SB537 2SD356 2SD357 2SD358	F-2596 F-2599	10D1 10D2	F-2596	SS3 SS5	F-2596
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
- Co.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)



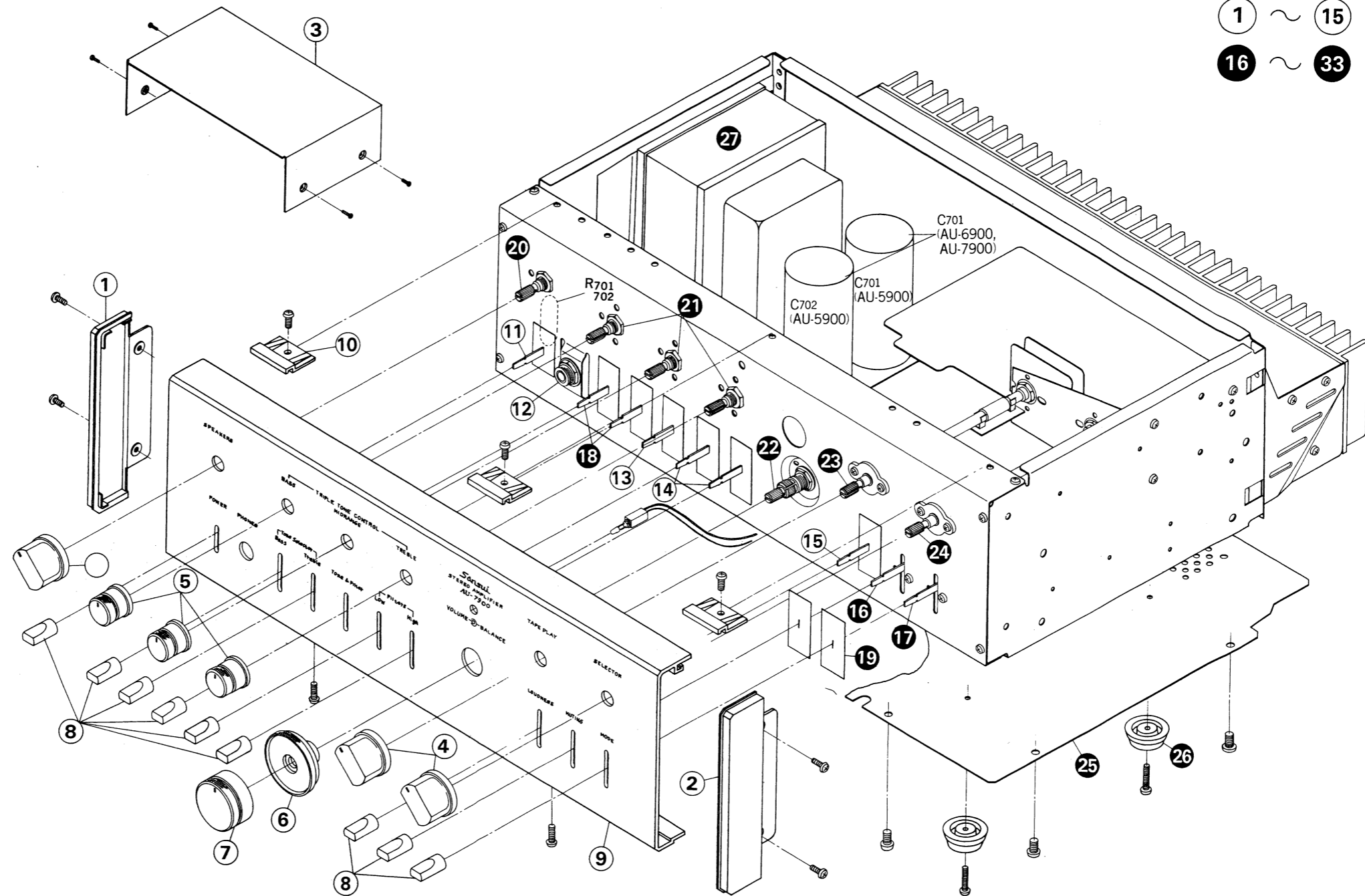
#### Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	2230051	Ground Terminal	0431260	3A 250V (AC 220~240V)	AU-5900
2	1110290	Pick-up Load Switch	0431280	5A 250V (AC 100~117V)	
3	2090040	DIN Jack	0431260	3A 250V (AC 220~240V)	AU-6900
4	1110280	PRE-MAIN Switch	0431290	6A 250V (AC 100~117V)	
5	5388680	Name Plate	0431270	4A 250V (AC 220~240V)	AU-7900
	5388700		0431300	7A 250V (AC 100~117V)	
	5388720				
6	2450060	AC Outlet	9	3800330	Power Cord
7	2300060	Fuse Holder (Power Fuse)	10	2430250	1 Pin Jack
8		Power Fuse	11	2290160	Speaker Terminal
			12	2410091	Voltage Selector, Plug
				2410081	Voltage Selector, Socket

Parts List

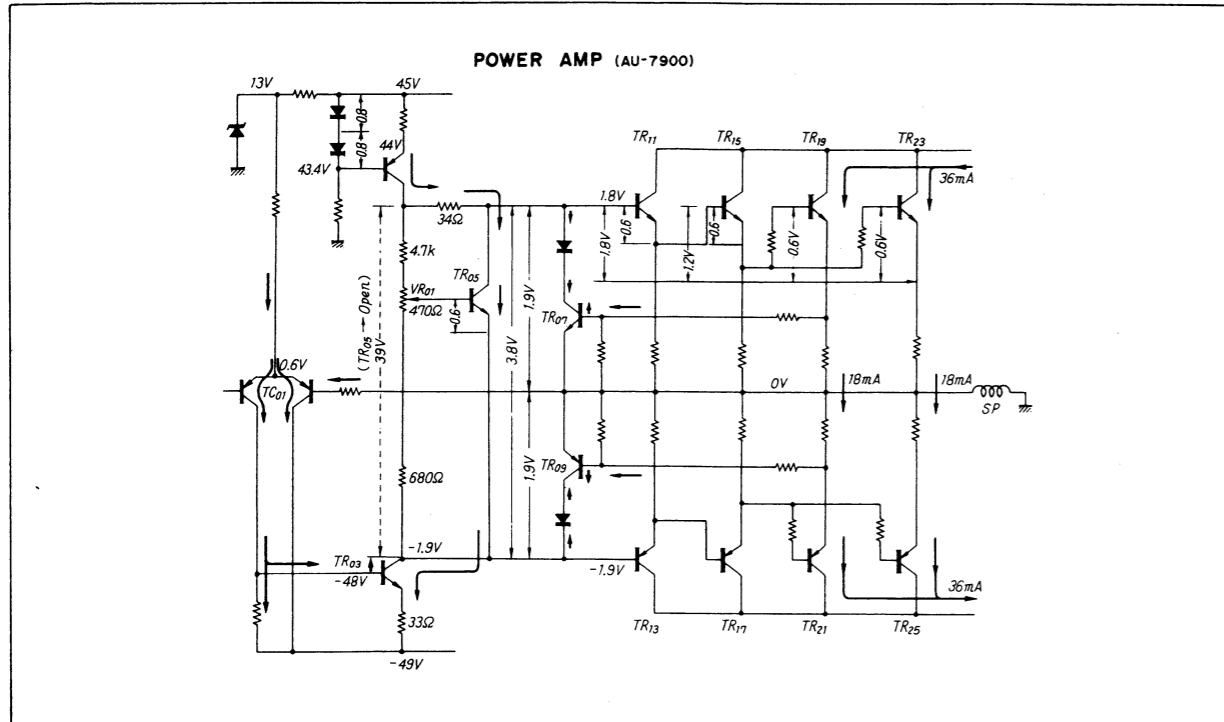
(Exploded View)

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
	7007290	<AU-5900>
	7007280	<AU-6900>
	7007270	<AU-7900>
9	0319090	Light Emitted Diode
	5286731	Lever Guide 1
	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	Tone & Filter Switch <AU-7900>
14	1170340	Filters Switch <AU-5900> <AU-6900>
	1170490	Filters Switch <AU-7900>
15	1170340	Loudness Switch <AU-5900> <AU-6900>
	1170490	Loudness Switch <AU-7900>
16	1170340	Muting Switch <AU-5900> <AU-6900>
	1170490	Muting Switch <AU-7900>
17	1170340	Mode Switch <AU-5900> <AU-6900>
	1170500	Mode Switch <AU-7900>
18	1170360	Tone Selector Switch <AU-6900>
	1170490	Tone Selector Switch <AU-7900>
19	5047460	Masking, Lever Switch <AU-5900>
		<AU-6900>
	5047470	Masking, Lever Switch <AU-7900>
20	1101560, 1	Speaker Switch
	1015110, 1	Tone Control Volume <AU-5900>
		<AU-6900>
21	1090060, 1	Tone Control Volume <AU-7900>
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	Bottom Plate <AU-6900> <AU-7900>
26	5516940	Leg
	4002140	<AU-5900>
	4002110	<AU-6900>
	4002390	<AU-7900>
		Power Transformer
C701	0559370	10000 $\mu$ F 50V E.C. } <AU-5900>
	0559370	10000 $\mu$ F 50V E.C. }
C702	0559370	10000 $\mu$ F 50V E.C. }
C701(702)	0559516	15000 $\mu$ F x 2 63V E.C.
		(One set as a pair of C701, and C702) <AU-6900> <AU-7900>
R701, 702	0155221	220 $\Omega$ 2W C.R. <AU-5900> <AU-6900>
R701, 702	0163221	220 $\Omega$ 3W Ce.R. <AU-7900>

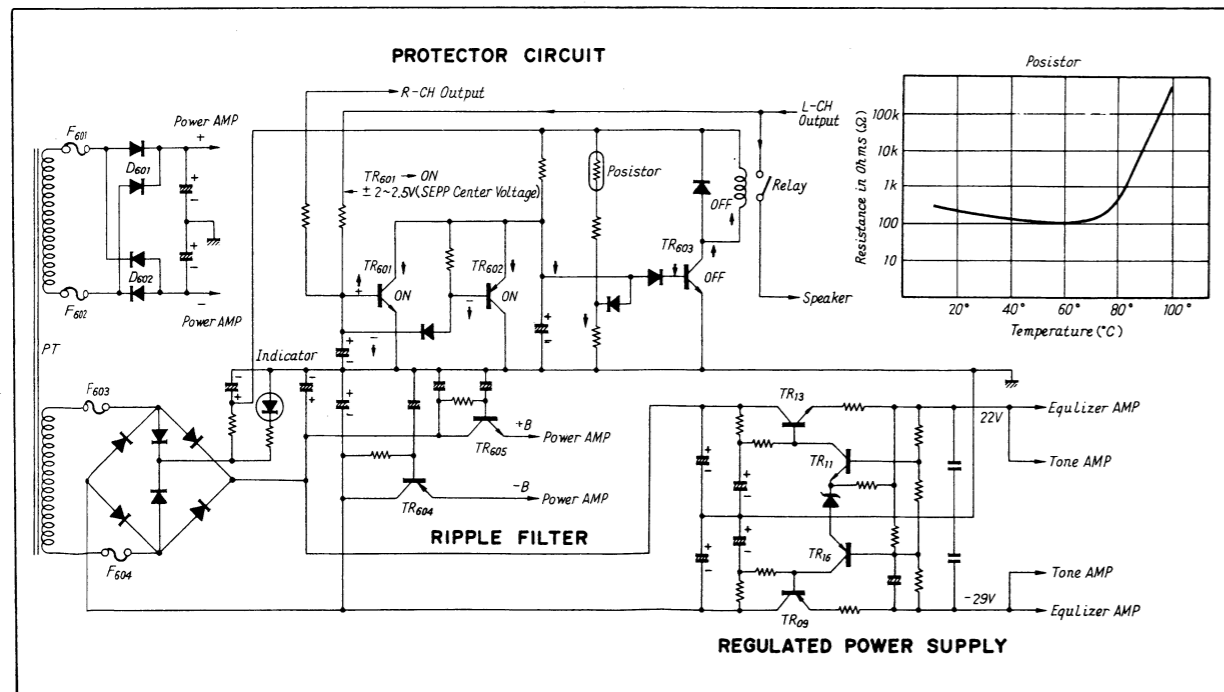


## 4. TROUBLESHOOTING CHART

### 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)

1. Noise occurs due to defective IC01.
2. 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.
  - 1) The center voltage will be DC + volts when TR01 is shorted.
  - 2) The center voltage will be DC - volts when TR01 is opened.
  - 3) The center voltage will be DC - volts when TR03 is shorted.
  - 4) The center voltage will be DC + volts when TR03 is opened.
3. Bias voltage not supplied due to TR05 shorted.
4. Bias voltages of TR11 and TR13 are close to  $\pm 20V$  due to TR05 opened, then TR11~TR25 will be shorted.
5. Power fuse blown out or relay operates due to TR11~TR25 shorted.
6. TR06 or TR08 would be shorted due to TR11~TR25 shorted.
7. 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)

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

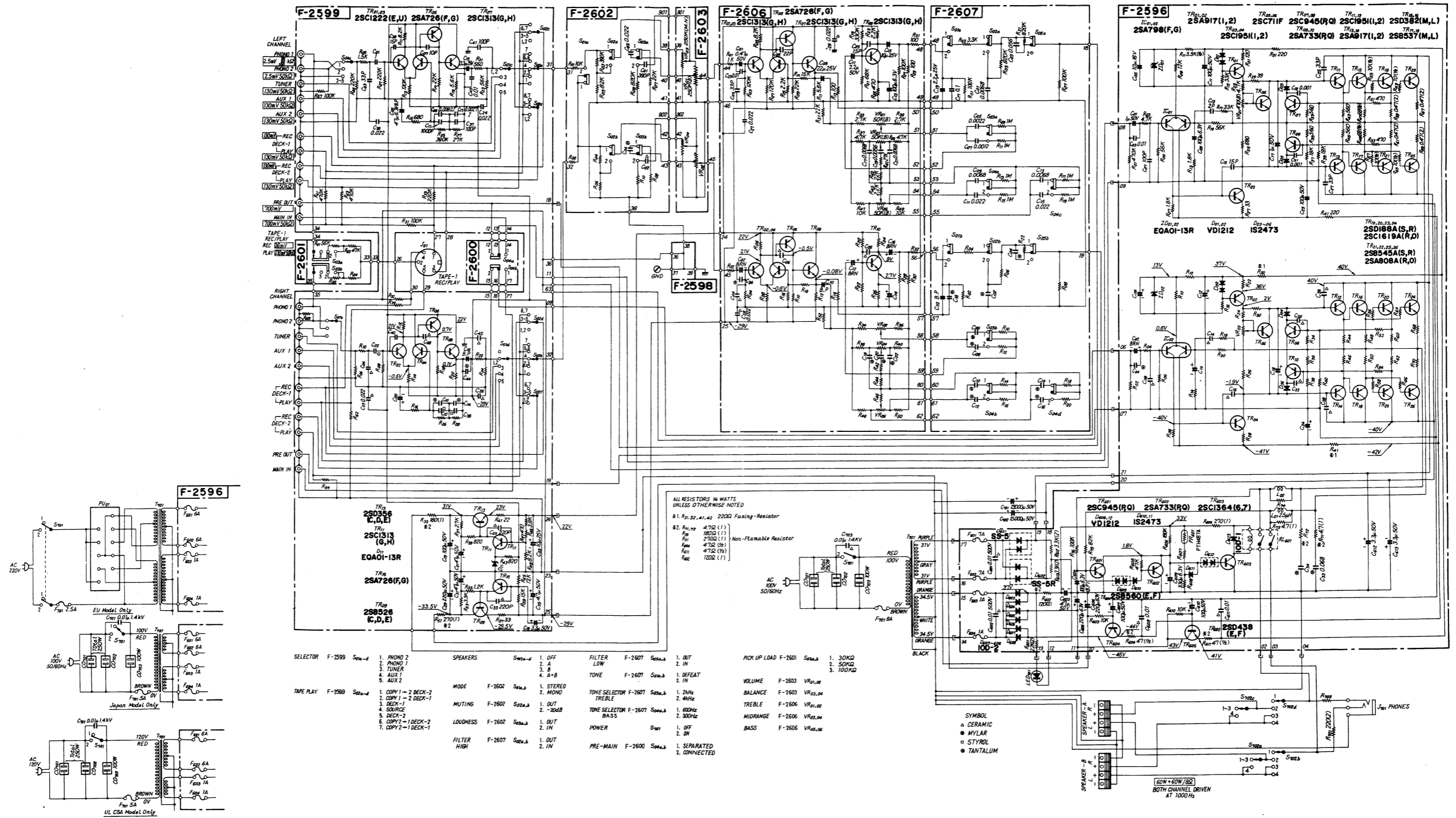
### 4-5. Function of Tone Control Circuit

	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.	○	○	○



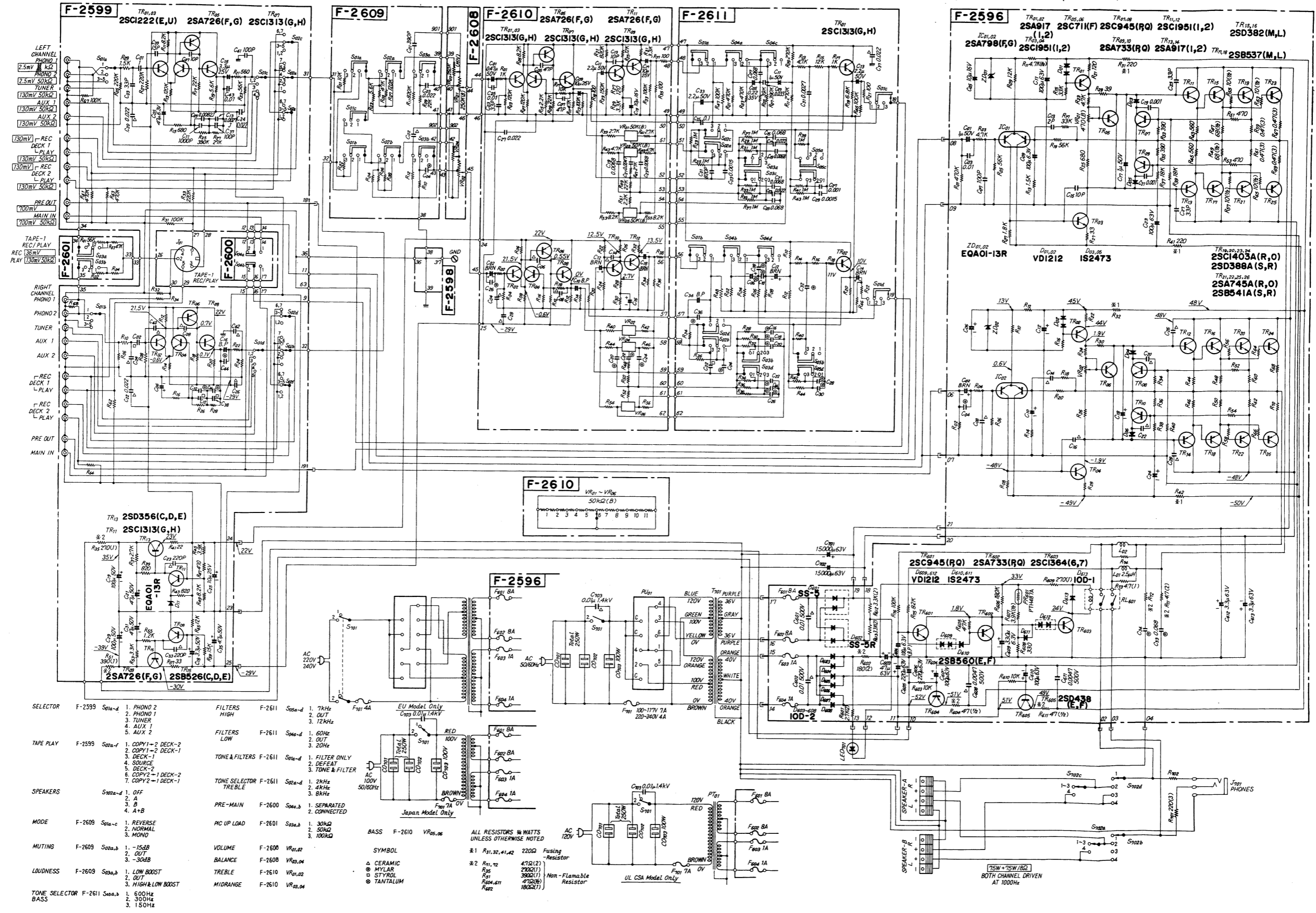
5-2. AU-6900

\* 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.



5-3. AU-7900

\* 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.



- SELECTOR** F-2599 S01a-d
- PHONO 2
  - PHONO 1
  - TUNER
  - AUX 1
  - AUX 2
- TAPE PLAY** F-2599 S02a-f
- COPY1-2 DECK-2
  - COPY1-2 DECK-1
  - DECK-1
  - SOURCE
  - DECK-2
  - COPY2-1 DECK-2
  - COPY2-1 DECK-1
- SPEAKERS** S022a-d
- OFF
  - A
  - B
  - A+B
- MODE** F-2609 S01a-c
- REVERSE
  - NORMAL
  - MONO
- MUTING** F-2609 S022a,b
- 15dB
  - OUT
  - 30dB
- LOUDNESS** F-2609 S03a,b
- LOW BOOST
  - OUT
  - HIGH & LOW BOOST
- TONE SELECTOR** F-2611 S01a,b
- 600Hz
  - 300Hz
  - 150Hz

- FILTERS** F-2611 S01a-d
- 7kHz
  - OUT
  - 12kHz
  - 20kHz
- FILTERS** F-2611 S01a-d
- 60Hz
  - OUT
  - 20Hz
- TONE & FILTERS** F-2611 S01a-d
- FILTER ONLY
  - DEFEAT
  - TONE & FILTER
- TONE SELECTOR** F-2611 S02a-d
1. 2kHz
  - 4kHz
  - 8kHz
- PRE-MAIN** F-2600 S01a,b
- SEPARATED
  - CONNECTED
- AC UP LOAD** F-2601 S01a,b
- 30kΩ
  - 50kΩ
  - 100kΩ
- VOLUME** F-2609 VR01,02
- BALANCE** F-2609 VR03,04
- TREBLE** F-2610 VR01,02
- MIDRANGE** F-2610 VR03,04

**BASS** F-2610 VR05,06

**SYMBOL**

- △ CERAMIC
- ⊙ MYLAR
- STYROL
- ⊙ TANTALUM

**ALL RESISTORS IN WATTS UNLESS OTHERWISE NOTED**

\*1 R31,32,41,42 220Ω Fusing Resistor

\*2 R11,12 47Ω(2) 2KΩ(1) 3KΩ(1) 470Ω(2) 18KΩ(1)

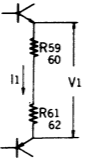
UL CSA Model Only



## 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.

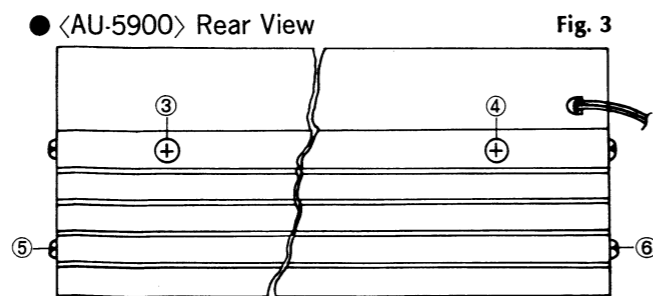
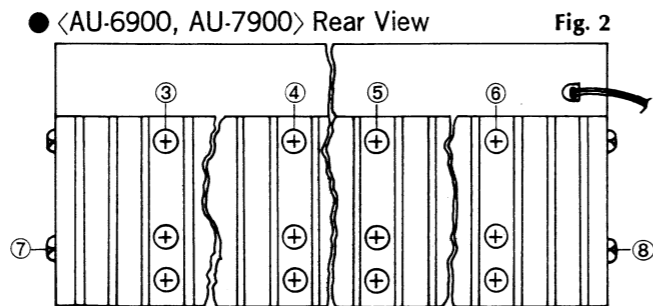
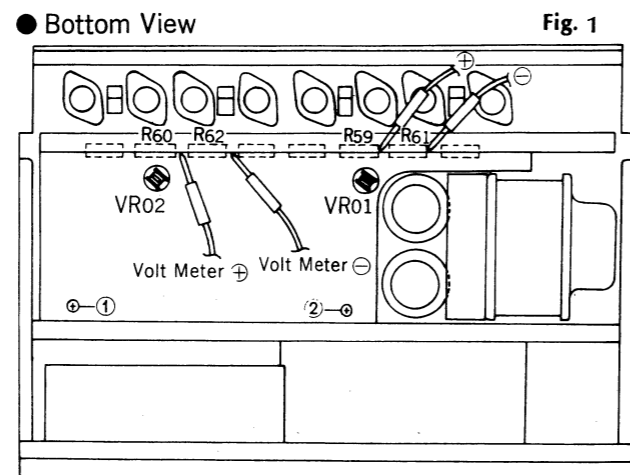
STEP	EQUIPMENT	MESURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
L-CH Bias Current	DC Volt Merer	R59, R61 of F-2596 Fig. 1	VR01 Fig. 1	18mV ±1mV	
R-CH Bias Current	DC Volt Meter	R60, R62 of F-2596 Fig. 1	VR02 Fig. 1	18mV ±1mV	

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

$$I_1 = \frac{V_1}{R59+R61}$$

### 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.

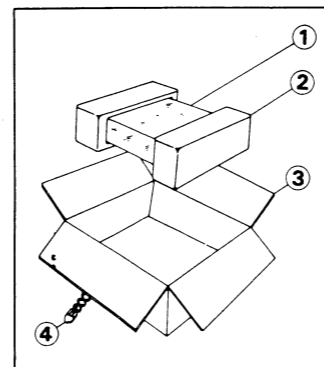


## 7. PACKING LIST

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



# SANSUI

## COMMON PARTS LISTS FOR RESISTORS & CAPACITORS ONLY

Replacement Parts, most resistors & capacitors are common to Sansui models unless specified otherwise, therefore these resistors and capacitors in this list are not shown in parts lists of Service Manual. When replacing these parts, confirm the value, wattage (or capacity) and tolerance referring to this list and Schematic Diagram for easier check. When ordering parts, use the parts name and Stock No. referring to Parts Lists.

### ◇ TYPES OF COMMON RESISTORS & CAPACITORS

#### [Resistors]

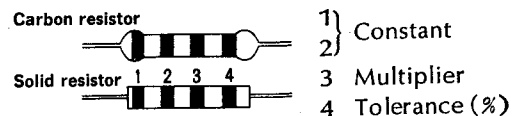
- Carbon resistor  $\frac{1}{4}W$
- Solid resistor  $\frac{1}{4}W$

#### [Capacitors]

- Ceramic capacitor
  - 1) 50V Standard type
  - 2) 50V Temperature compensation type
- Mylar capacitor (50V)
- Electrolytic capacitor (Vertical type)
  - 1) Non-polar type (6.3V~80V)
  - 2) Polar type (6.3V~80V)
  - 3) Polar type (25V & 50V) (low noise)

### ◇ Resistors

#### — How to read color cord —



For example:

- 1. Brown    2. Red
- 3. Orange    4. Silver

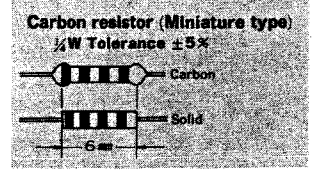
$12 \times 10^3 (\Omega) \pm 10\%$   
 $12k\Omega \pm 10\%$

Color	1	2	3	4
Black	0	0	$10^0$	
Brown	1	1	$10^1$	
Red	2	2	$10^2$	
Orange	3	3	$10^3$	
Yellow	4	4	$10^4$	
Green	5	5	$10^5$	
Blue	6	6	$10^6$	
Purple	7	7	—	
Gray	8	8	—	
White	9	9	—	
Gold	—	—	$10^{-1}$	$\pm 5\%$
Silver	—	—	$10^{-2}$	$\pm 10\%$
Colorless	—	—	—	$\pm 20\%$

► RESISTORS

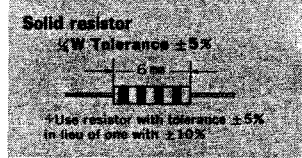
Value [Ω]	Stock No.
1.5	0107159
1.8	0107189
2.2	0107229
2.7	0107279
3.3	0107339
3.9	0107399
4.7	0107479
5.6	0107569
6.8	0107689
8.2	0107829
10.0	0107100
12.0	0107120
15.0	0107150
18.0	0107180
22.0	0107220
27.0	0107270
33.0	0107330
39.0	0107390
47.0	0107470
56.0	0107560
68.0	0107680
82.0	0107820
100.0	0107101
120.0	0107121
150.0	0107151
180.0	0107181
220.0	0107221
270.0	0107271
330.0	0107331
390.0	0107391
470.0	0107471
560.0	0107561
680.0	0107681
820.0	0107821
1.0K	0107102
1.5K	0107152
1.8K	0107182
2.2K	0107222
2.7K	0107272
3.3K	0107332
3.9K	0107392
4.7K	0107472
5.6K	0107562
6.8K	0107682
8.2K	0107822
10.0K	0107103
12.0K	0107123
15.0K	0107153
18.0K	0107183
22.0K	0107223
27.0K	0107273
33.0K	0107333
39.0K	0107393
47.0K	0107473
56.0K	0107563

Value [Ω]	Stock No.
68.0K	0107683
82.0K	0107823
100.0K	0107104
120.0K	0107124
150.0K	0107154
180.0K	0107184
220.0K	2107224
270.0K	0107274
330.0K	0107334
390.0K	0107394
470.0K	0107474
560.0K	0107564
680.0K	0107684
820.0K	0107824
1.0M	0107105



4.7	0240479
5.6	0240569
6.8	0240689
8.2	0240829
10.0	0240100
12.0	0240120
15.0	0240150
18.0	0240180
22.0	0240220
27.0	0240270
33.0	0240330
39.0	0240390
47.0	0240470
56.0	0240560
68.0	0240680
82.0	0240820
100.0	0240101
120.0	0240121
150.0	0240151
180.0	0240181
220.0	0240221
270.0	0240271
330.0	0240331
390.0	0240391
470.0	0240471
560.0	0240561
680.0	0240681
820.0	0240821
1.0K	0240102
1.2K	0240122
1.5K	0240152
1.8K	0240182
2.2K	0240222
2.7K	0240272
3.3K	0240332
3.9K	0240392
4.7K	0240472
5.6K	0240562
6.8K	0240682

Value [Ω]	Stock No.
8.2K	0240822
10.0K	0240103
12.0K	0240123
15.0K	0240153
18.0K	0240183
22.0K	0240223
27.0K	0240273
33.0K	0240333
39.0K	0240393
47.0K	0240473
56.0K	0240563
68.0K	0240683
82.0K	0240823
100.0K	0240104
120.0K	0240124
150.0K	0240154
180.0K	0240184
220.0K	0240224
270.0K	0240274
330.0K	0240334
390.0K	0240394
470.0K	0240474
560.0K	0240564
680.0K	0240684
820.0K	0240824
1.0M	0240105



2.2	0113229
2.7	0113279
3.3	0113339
3.9	0113399
4.7	0113479
5.6	0113569
6.8	0113689
8.2	0113829
10.0	0113100
12.0	0113120
15.0	0113150
18.0	0113180
22.0	0113220
27.0	0113270
33.0	0113330
39.0	0113390
47.0	0113470
56.0	0113560
68.0	0113680
82.0	0113820
100.0	0113101
120.0	0113121
150.0	0113151
180.0	0113181
220.0	0113221
270.0	0113271
330.0	0113331
390.0	0113391
470.0	0113471

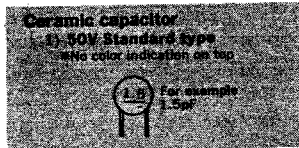
Value [Ω]	Stock No.
560.0	0113561
680.0	0113681
820.0	0113821
1.0K	0113102
1.2K	0113122
1.5K	0113152
1.8K	0113182
2.2K	0113222
2.7K	0113272
3.3K	0113332
3.9K	0113392
4.7K	0113472
5.6K	0113562
6.8K	0113682
8.2K	0113822
10.0K	0113103
12.0K	0113123
15.0K	0113153
18.0K	0113183
22.0K	0113223
27.0K	0113273
33.0K	0113333
39.0K	0113393
47.0K	0113473
56.0K	0113563
68.0K	0113683
82.0K	0113823
100.0K	0113104
120.0K	0113124
150.0K	0113154
180.0K	0113184
220.0K	0113224
270.0K	0113274
330.0K	0113334
390.0K	0113394
470.0K	0113474
560.0K	0113564
680.0K	0113684
820.0K	0113824
1.0M	0113105
1.2M	0113125
1.5M	0113155
1.8M	0113185
2.2M	0113225
2.7M	0113275
3.3M	0113335
3.9M	0113395
4.7M	0113475
5.6M	0113565

◇CAPACITORS

TOLERANCE (%)

G	J	K	L	M
±2	±5	±10	±15	±20

Value [pF] Stock No. Indication



1 (±0.5pF)	0657109	1
1.5	0657159	1.5
2	0657209	2
3	0657309	3
4	0657409	4
5	0657509	5
6	0657609	6
7	0657709	7
8	0657809	8
9	0657909	9
10	0657100	10
12 (±10%)	0657120	12
15	0657150	15
18	0657108	18
22	0657220	22
27	0657270	27
33	0657330	33
39	0657390	39
47	0657470	47 pF
56	0657560	56 pF
68	0657680	68 pF
82	0657820	82 pF
100	0657101	100 pF
120	0657121	120 pF
150	0657151	150 pF
180	0657181	180 pF
220	0657221	220 pF
270	0657271	270 pF
330	0657331	330 pF
390	0657391	390 pF
470	0657471	470 pF
1000 (+80%/-20%)	0657102	0.001 μF
2200	0657222	0.0022 μF
4700	0657472	0.0047 μF
10000	0657103	0.01 μF
22000	0657223	0.022 μF
47000	0657473	0.047 μF

2) 50V Temperature Compensation type



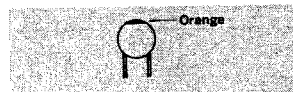
1.0	0669014	1
1.5	0669021	1.5
2.2	0669003	2.2
2.7	0669203	2.7
3.9	0669002	3.9
4.7	0669020	4.7
6.8	0669018	6.8
8.2	0669005	8.2
10.0	0661100	10
12.0	0661120	12
15.0	0661150	15
18.0	0661180	18
22.0	0661220	22
25.0	0661250	25 J

Value [pF] Stock No. Indication

27.0	0661270	27 J
33.0	0661330	33 J
39.0	0661390	39 CM J
47.0	0661470	47 CM J
56.0	0661560	56 CM J
68.0	0661680	68 CM J
82.0	0661820	82 CM J
100.0	0661101	101 CM J



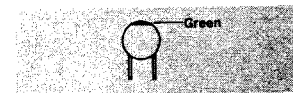
6.8	0669006	6.8
16.0	0662160	16
17.0	0662170	17
19.0	0669279	19
20.0	0662200	20
27.0	0669282	27 J



16.0	0663160	16
17.0	0663170	17
20.0	0669305	20
22.0	0669306	22



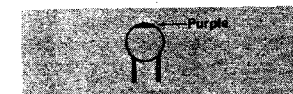
10.0	0664100	10
12.0	0669322	12



6.8	0669343	6.8
12.0	0666347	12
17.0	0669352	17
18.0	0669019	18

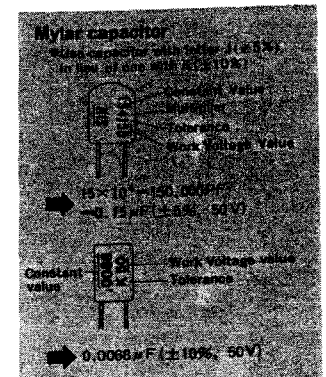


6.8	0669368	6.8
10.0	0669370	10
12.0	0669382	12
15.0	0669383	15



6.8	0669393	6.8
8.2	0669015	8
10.0	0669016	10
33.0	0669408	33
39.0	0669407	39

Value [μF] Stock No. W.V.



0.001	0600106	50V
0.01	0600107	
0.1	0600108	
0.001	0600116	
0.011	0600117	
0.11	0600118	
0.0012	0600126	
0.012	0600127	
0.12	0600128	
0.0013	0600136	
0.013	0600137	
0.13	0600138	
0.0015	0600156	
0.015	0600157	
0.15	0600158	
0.0016	0600166	
0.016	0600167	
0.16	0600168	
0.0018	0600186	
0.018	0600187	
0.18	0600188	
0.002	0600206	
0.02	0600207	
0.2	0600208	
0.002	0600226	
0.022	0600227	
0.22	0600228	
0.0024	0600246	
0.024	0600247	
0.0027	0600276	
0.027	0600277	
0.27	0600278	
0.003	0600306	
0.03	0600307	
0.0033	0600336	
0.033	0600337	
0.33	0600338	
0.0036	0600366	
0.036	0600367	
0.0039	0600396	
0.039	0600397	
0.39	0600398	
0.004	0600406	
0.04	0600407	
0.0043	0600436	
0.043	0600437	
0.0047	0600476	
0.047	0600477	

► **CAPACITORS**

Value [µF]	Stock No.	W.V.
0.47	0600478	50 V
0.0005	0600505	
0.005	0600506	
0.05	0600507	
0.0051	0600516	
0.051	0600517	
0.0056	0600566	
0.056	0600567	
0.006	0600606	
0.06	0600607	
0.0062	0600626	
0.062	0600627	
0.0068	0600686	
0.068	0600687	
0.0075	0600756	
0.075	0600757	
0.008	0600806	
0.08	0600807	
0.00082	0600825	
0.0082	0600826	
0.082	0600827	
0.00091	0600915	
0.0091	0600916	
0.091	0600917	

Value [µF]	Stock No.	W.V.
10.0	0533100	25 V
100.0	0533101	
22.0	0533220	
220.0	0533221	
2.2	0533229	
33.0	0533330	
3.3	0533339	
47.0	0533470	
4.7	0533479	
68.0	0533680	
10.0	0535100	50 V
100.0	0535101	
1.0	0535109	
22.0	0535220	
2.2	0535229	
33.0	0535330	
3.3	0535339	
47.0	0535470	
0.47	0535478	
4.7	0535479	
68.0	0535680	
4.7	0539001	80 V

Value [µF]	Stock No.	W.V.
4.7	0513479	25 V
100.0	0514101	35 V
1000.0	0514102	
220.0	0514221	
2200.0	0514222	
330.0	0514331	
3.3	0514339	
470.0	0514471	
10.0	0515100	50 V
100.0	0515101	
1000.0	0515102	
1.0	0515109	
220.0	0515221	
2.2	0515229	
33.0	0515330	
330.0	0515331	
3.3	0515339	
47.0	0515470	
470.0	0515471	
4.7	0515479	
100.0	0516101	63 V
22.0	0516220	
220.0	0516221	
330.0	0516331	
3.3	0516339	
47.0	0516470	
4.7	0516479	
100.0	0519301	75 V
220.0	0519302	
22.0	0529401	100 V
100.0	0519402	
2.2	0519403	
10.0	0519404	
2200.0	0519901	18 V
47.0	0519902	80 V
100.0	0519903	
220.0	0519904	

Value [µF]	Stock No.	W.V.
0.68	0519111	50 V

**Electrolytic capacitor (Vertical type)**

1) Non-polar type

\*There are indication of BB, BI, POLAR or NP

\*There are three kinds of color, Gray, Blue or Black around it.

10.0	0530100	6.3 V
100.0	0530101	
1000.0	0530102	
22.0	0530220	
220.0	0530221	
33.0	0530330	
330.0	0530331	
47.0	0530470	
470.0	0530471	
100.0	0531101	10 V
22.0	0531220	
220.0	0531221	
33.0	0531330	
330.0	0531331	
3.3	0531339	
47.0	0531470	
470.0	0531471	
68.0	0531680	
10.0	0532100	16 V
100.0	0532101	
22.0	0532220	
220.0	0532221	
33.0	0532330	
330.0	0532331	
3.3	0532339	
47.0	0532470	
470.0	0532471	
4.7	0532479	
68.0	0532680	

2) Polar type

\*There are three kinds of color, Blue, Gray or Black around it.

100.0	0510101	6.3 V
1000.0	0510102	
220.0	0510221	
330.0	0510331	
47.0	0510470	
470.0	0510471	
100.0	0511101	10 V
1000.0	0511102	
220.0	0511221	
33.0	0511330	
330.0	0511331	
47.0	0511470	
10.0	0512100	16 V
100.0	0512101	
1000.0	0512102	
220.0	0512221	
33.0	0512330	
330.0	0512331	
47.0	0512470	
470.0	0512471	
10.0	0513100	25 V
100.0	0513101	
1000.0	0513102	
220.0	0513221	
33.0	0513330	
330.0	0513331	
47.0	0513470	
470.0	0513471	

3) Polar type (Low voltage)

10.0	0519001	25 V
3.3	0519002	
1.0	0519101	50 V
3.3	0519102	
0.47	0519103	
1.5	0519104	
2.2	0519105	
4.7	0519106	
6.8	0519107	
10.0	0519108	
0.22	0519109	
0.33	0519110	