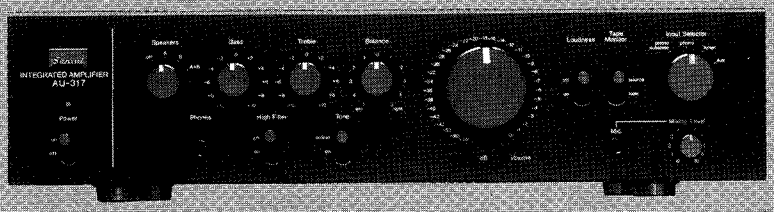
SERVICE MANUAL

INTEGRATED STEREO AMPLIFIER

SANSUI AU-317



Sansui

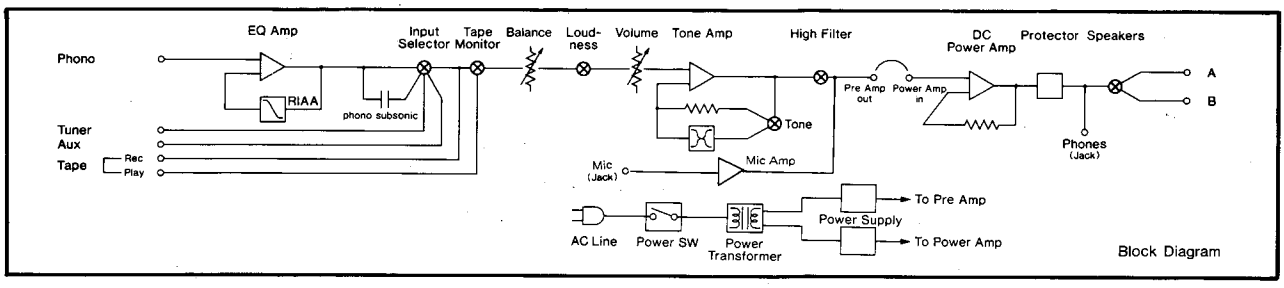
SANSUI ELECTRIC CO., LTD.

SPECIFICATIONS

Power output
Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.03% total harmonic distortion
50 watts per channel into 8 ohms
Load impedance . . . . . 8 ohms
Power bandwidth . . . . . 20 to 20,000 Hz at or below rated min. RMS power output and total harmonic distortion
Total harmonic distortion
. . . . . less than 0.03% at or below rated min. RMS power output
Intermodulation distortion (70 Hz: 7 kHz = 4:1 SMPTE method)
. . . . . less than 0.03%
Frequency response (at 1 watt) (POWER AMP IN)
. . . . . DC to 200,000 Hz +0 dB −2.5 dB
Damping factor . . . . . approximately 70 at 8 ohms load
RIAA curve deviation (PHONO)
. . . . . +0.2 dB −0.2 dB (20 to 20,000 Hz)
Input sensitivity and impedance (1 kHz, for rated power output)
PHONO . . . . . 2.5 mV/47 kilohms
(Max. input capability 200 mV at 1 kHz, less than 0.008% total harmonic distortion)
MIC . . . . . 8 mV/47 kilohms
AUX, TAPE PLAY . . . 150 mV/47 kilohms
POWER AMP IN . . . 1 V/47 kilohms
Output level (1,000 Hz)
TAPE REC . . . . . 150 mV
PRE OUT . . . . . 1 V
Channel separation (1 kHz, at rated power output)
PHONO . . . . . better than 65 dB
AUX . . . . . better than 73 dB
Hum and noise (short-circuit, A-network)
PHONO . . . . . 77 dB
AUX . . . . . 100 dB
Controls
BASS . . . . . ±11 dB (50 Hz)
TREBLE . . . . . ±10 dB (15 kHz)
PHONO SUBSONIC . −3 dB (13 Hz), 6 dB/oct
HIGH FILTER . . . . . −3 dB (7 kHz), 6 dB/oct
LOUDNESS (VOLUME control: −30 dB)
. . . . . 9 dB at 50 Hz
7 dB at 10 kHz
Power requirements
Power voltage . . . . . 100, 120, 220, 240V (50/60 Hz)
For U.S.A. & Canada
. . . . . 120 V (60 Hz)
Power consumption
Maximum consumption
. . . . . 365 watts
Rated consumption
. . . . . 215 watts 265 VA
Dimensions . . . . . 430 mm (16-15/16") W
110 mm (4-3/8") H
340 mm (13-3/8") D
Weight . . . . . 9.7 kg (21.4 lbs) net
11.0 kg (24.3 lbs) packed

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

1. BLOCK DIAGRAM



2. ADJUSTMENTS

1. Driver Circuit Board Adjustments
(Refer to Fig. 2-1 below)

Note: 1. Master Volume . . . . . Minimum
2. Room Temperature . . . . . 18°C ~ 28°C (65°F ~ 83°F)
3. For adjustment, run the unit for more than 3 minutes after the power is switched on.

1. DC 0 V adjustment

	MEASURE OUTPUT	ADJUST	ADJUST FOR
L-CH	Speaker Terminal between (+) and (–)	F-2754 VR03, VR01	DC 0 V
R-CH	Speaker Terminal between (+) and (–)	F-2754 VR04, VR02	DC 0 V

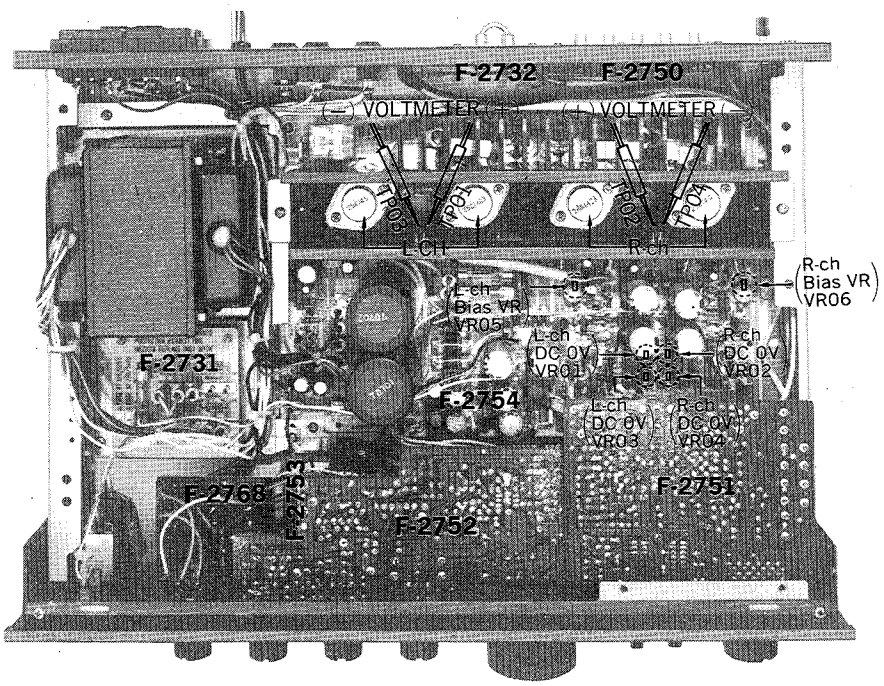
Note: At first, set VR01, VR03 for L-CH and VR02, VR04 for R-CH to center position, then make the rough adjustment by VR03, VR04 and fine adjust by VR01, VR02.

2. Bias Current adjustment

	MEASURE OUTPUT	ADJUST	ADJUST FOR
L-CH	Between TP01 (+) and TP03 (–)	F-2754 VR05	DC 10 mV
R-CH	Between TP02 (+) and TP04 (–)	F-2754 VR06	DC 10 mV

Note: 1. By turning adjustment volumes, VR05 and VR06, counterclockwise, the bias current is decreased.
2. In case of adjusting or confirming bias current, avoid such a measurement that the power transistors are heated.

Fig. 2-1

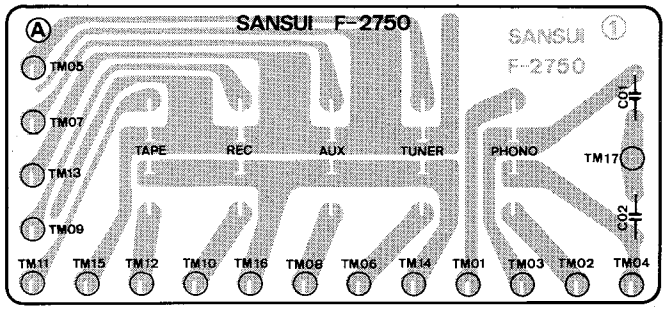


3. PARTS LOCATION & PARTS LIST

Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.

1) F-2750 Input Terminal Circuit Board (Stock No. 7595701)

Conductor Side

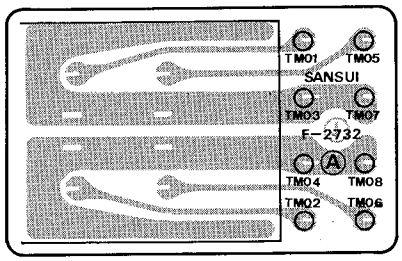


Parts List

Parts No.	Stock No.	Description
	2200510	10P Input Terminal

2) F-2732 Pre-Main Connection Circuit Board (Stock No. 7595991)

Conductor Side

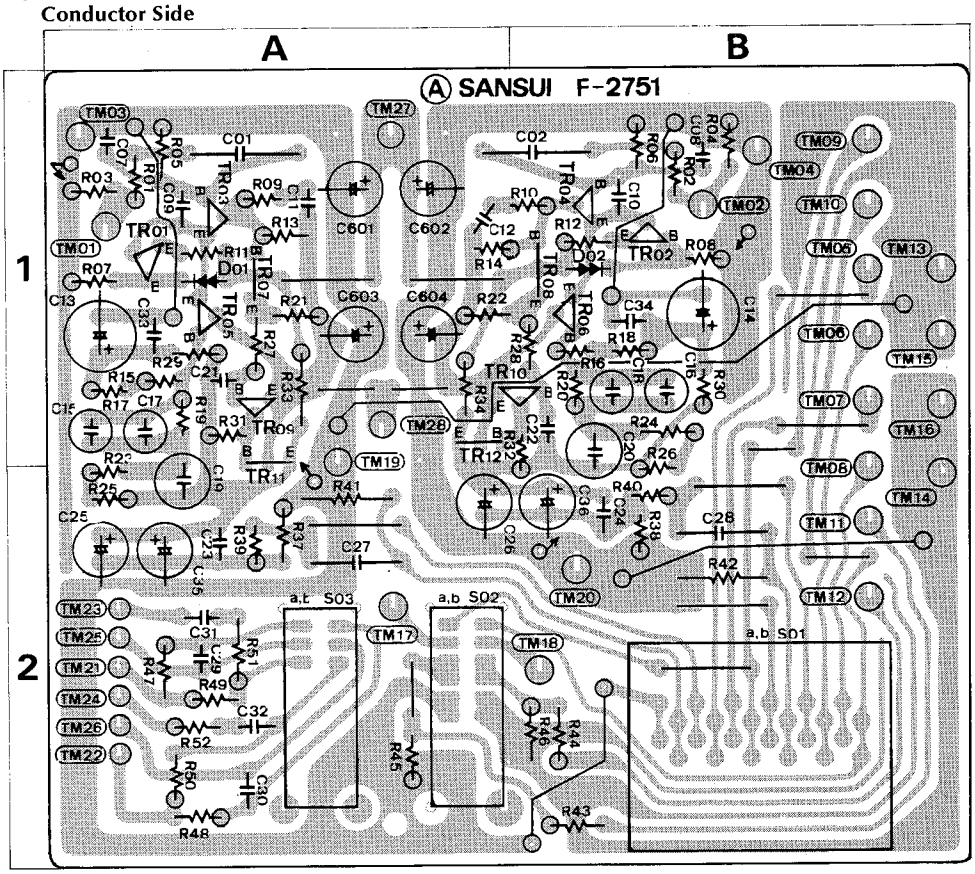


Parts List

Parts No.	Stock No.	Description
	2200500	4P Input Terminal

3) F-2751 Equalizer Circuit Board (Stock No. 7551201)

Conductor Side



Parts List

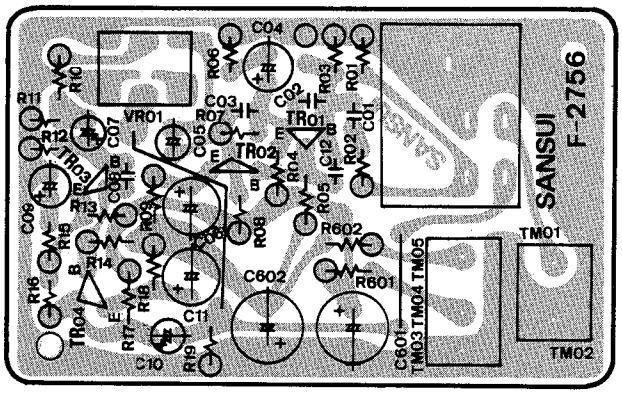
Parts No.	Stock No.	Description	Position
TR01, 02	0300931	2SA872 E	1A,1B
TR03 ~ 06	0300900, 1	2SA906 G, H (Transistor)	1A,1B
TR07 ~ 10	0306550	2SC1775 E	1A,1B
TR11, 12	0300760, 1	2SA917 1, 2	1A
D 01, 02	0340120	VD1212 Varistor	1A,1B
C 01, 02	0602109	1μF 100V M.C.	1A,1B
C 07, 08	0620101	100pF 50V P.C.	1A,1B

Parts No.	Stock No.	Description	Position
C 11, 12	0620101	100pF	1A
C 15, 16	0620151	150pF (50V P.C.)	1A,1B
C 17, 18	0625272	2700pF (50V P.C.)	1A,1B
C 19, 20	0625103	10000pF (50V P.C.)	2A,1B
R 15, 16	0231561	560Ω	1A,1B
R 17, 18	0231220	22Ω (½W M.R.)	1A,1B
R 19, 20	0231273	27kΩ (½W M.R.)	1A,1B

Parts No.	Stock No.	Description	Position
R 23, 24	0231304	300kΩ (½W M.R.)	2A,1B
R 25, 26	0231153	15kΩ (½W M.R.)	2A,2B
R 33, 34	0103392	3.9kΩ ½W C.R.	1A
S 01	1102740	Rotary Switch, input selector	2B
S 02	1171030	Lever Switch, tape monitor	2A
S 03	1171020	Lever Switch, loudness	2A

4) F-2756 Mic Amp Circuit Board (Stock No. 7610191)

Conductor Side

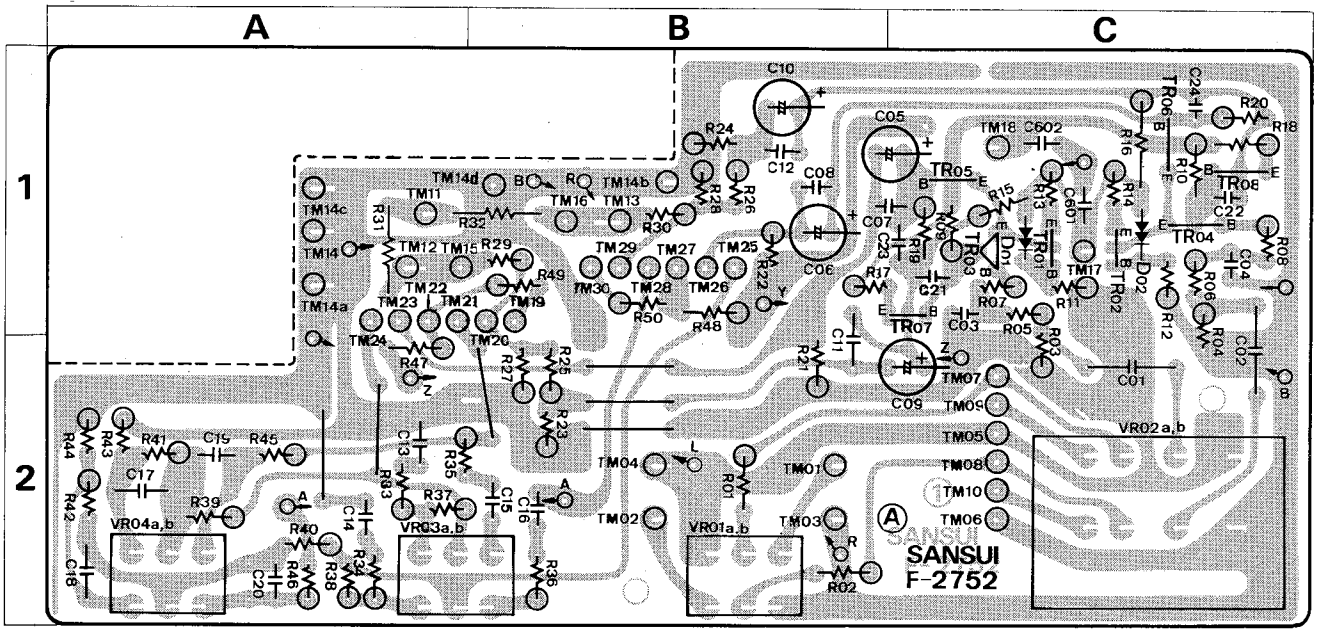


Parts List

Parts No.	Stock No.	Description
TR01	0300931	2SA872E
TR02	0306550	2SC1775E
TR03	0300931	2SA872E
TR04	0306550	2SC1775E
R 601, 602	0200121	120Ω ½W N.I.R.
VR01	1090270	20kΩ (A) Volume, mixing level
J 01	2430330	Jack, mic

5) F-2752 Tone Control Circuit Board (Stock No. 7562021)

Conductor Side



Parts List

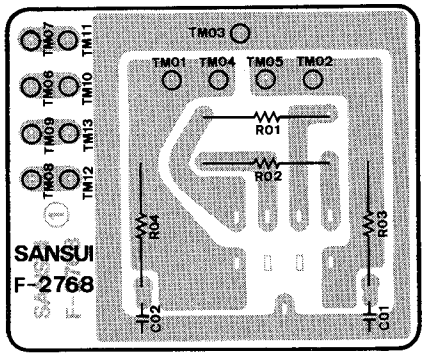
Parts No.	Stock No.	Description	Position
TR01, 02	0300931	2SA872 E	1C
TR03～06	0300900, 1	2SA906 G, H (Transistor)	1C
TR07, 08	0306550	2SC1775 E	1C
D 01, 02	0340120	VD1212 Varistor	1C
VR01	1015320, 1	250kΩ (M.N) x 2 Balance Volume	2B
VR02	1090290	250kΩ x 2 Volume	2C
VR03	1015310, 1	100kΩ (C) x 2 Treble Volume	2A
VR04	1015310, 1	100kΩ (C) x 2 Bass Volume	2A

Abbreviations

C.R.	: Carbon Resistor	**N.I.R.**	: Non-Inflammable Resistor	**C.C.**	: Ceramic Capacitor
S.R.	: Solid Resistor			**Mi.C.**	: Mica Capacitor
Ce.R.	: Cement Resistor	**M.C.**	: Mylar Capacitor	**O.C.**	: Oil Capacitor
M.R.	: Metal Film Resistor	**E.C.**	: Electrolytic Capacitor	**P.C.**	: Polystyrene Capacitor
F.R.	: Fusing Resistor	**BP.E.C.**	: Bi-Polar Electrolytic Capacitor	**T.C.**	: Tantalum Capacitor

6) F-2768 Output Connection Circuit Board (Stock No. 7595711)

Conductor Side

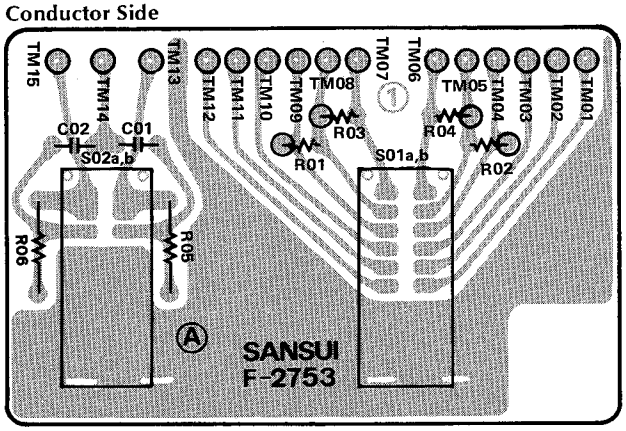


Parts List

Parts No.	Stock No.	Description
R 01, 02	0202221	220Ω 2W N.I.R.
R 03, 04	0105100	10Ω 2W C.R.
J 01	2430350	Jack, headphone

7) F-2753 Filter Circuit Board (Stock No. 7562031)

Conductor Side

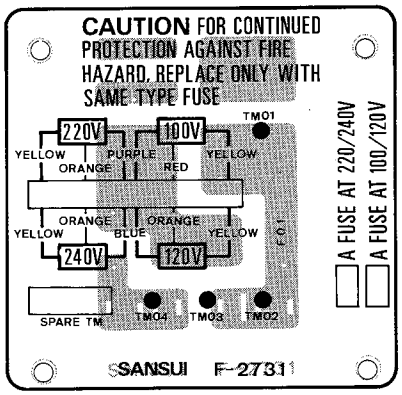


Parts List

Parts No.	Stock No.	Description
S 01	1171040	Lever Switch, tone defeat
S 02	1171030	Lever Switch, tape monitor

8) F-2731 Voltage Selector Circuit Board (Stock No. 7595721)

Conductor Side



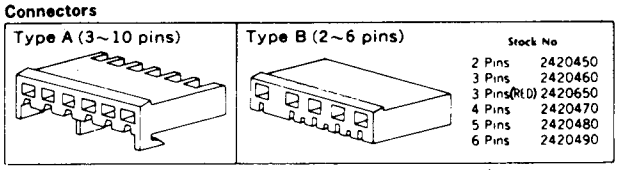
Parts List

Parts No.	Stock No.	Description
F 601	0432290	5A 125V AC Fuse
	2310220	Fuse Holder

● Figures

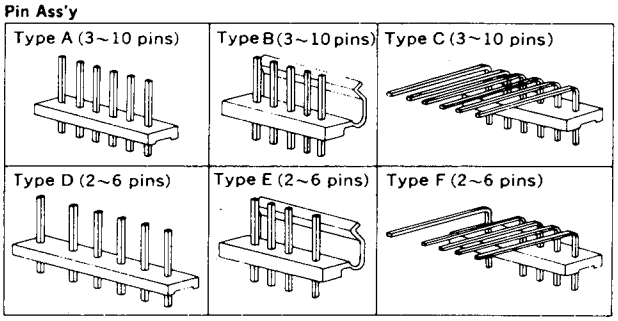
Connectors & Pin Ass'y

Connectors



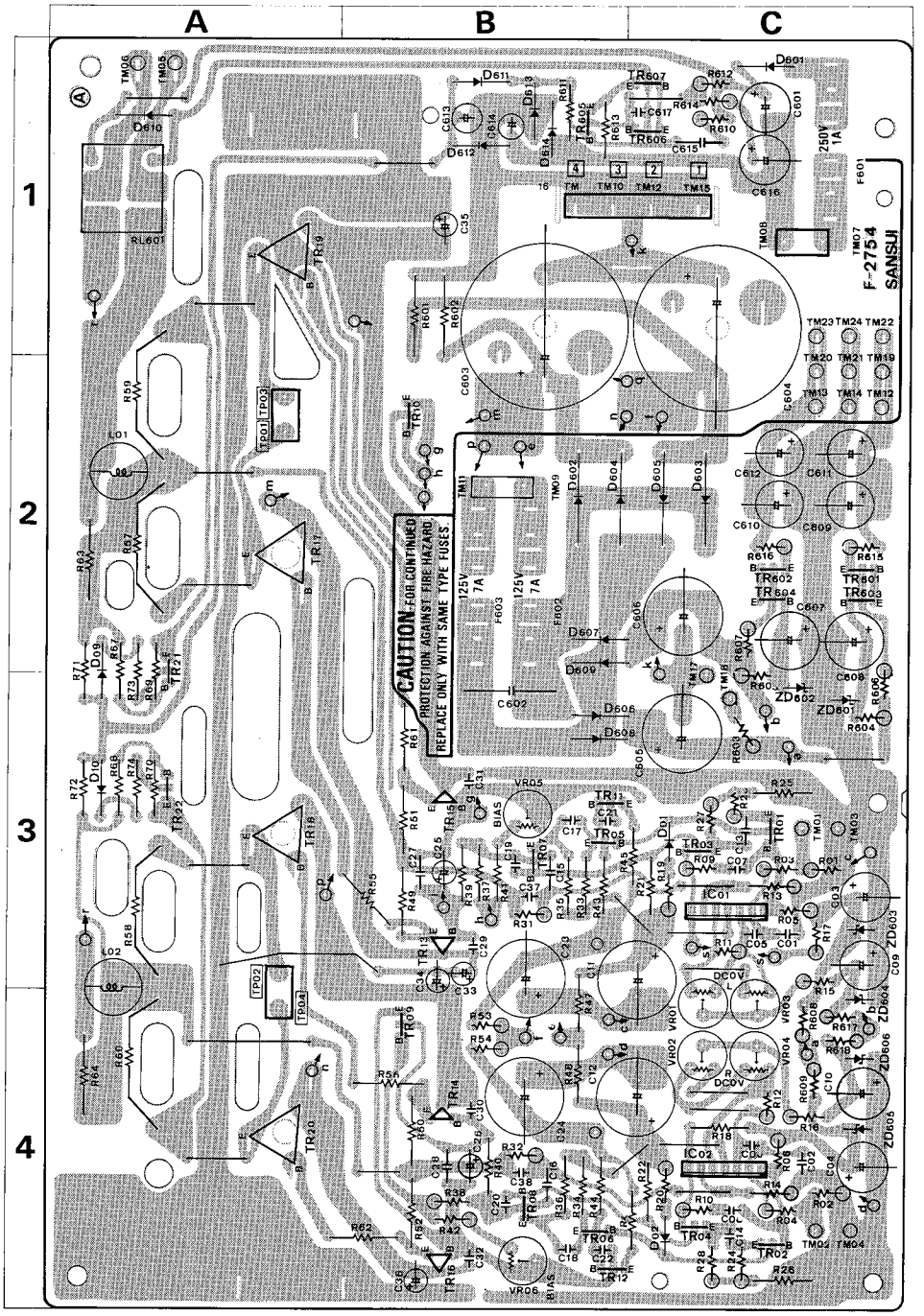
NOTE: Since stock number of famale connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

Pin Ass'y



9) F-2754 Power Amplifier Circuit Board (Stock No. 7571801)

Conductor Side

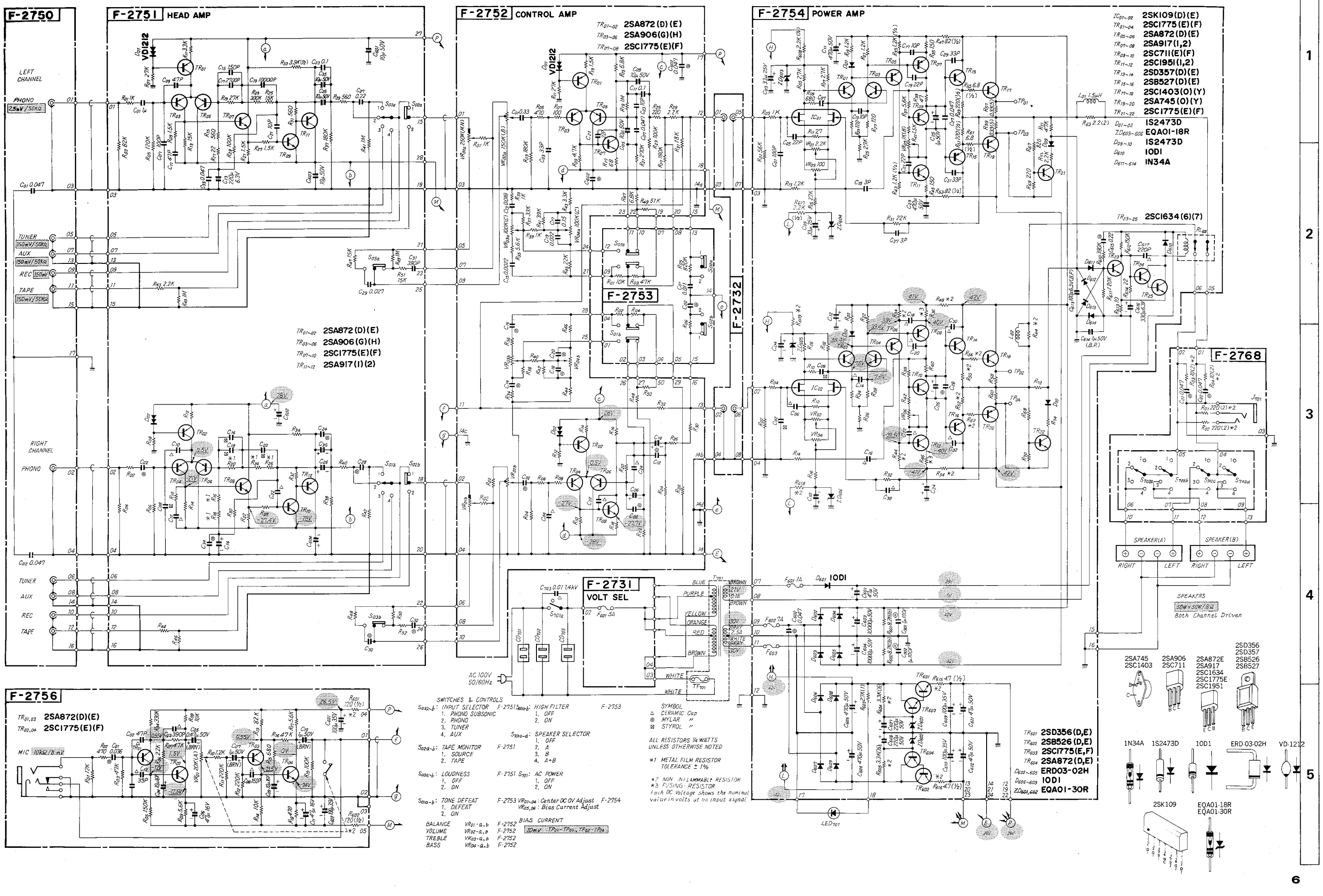


Parts List

Parts No.	Stock No.	Description	Position
TR01 ~04	0306550	2SC1775 E.	3C,4C
TR05, 06	0300931	2SA872 E.	3B,4B
TR07, 08	0300760, 1	2SA917 1,2	3B,4B
TR09, 10	0305731, 2	2SC711 E,F.	4B,2B
TR11, 12	0306360, 1	2SC1951 1,2	3B,4B
TR13, 14	0308611, 2	2SD357 D,E.	3B,4B
TR15, 16	0303441, 2	2SB527 D,E.	3B,4B
TR17, 18	0306181, 2	2SC1403 O,Y. (Transistor)	2A,3A
TR19, 20	0300611, 2	2SA745 O,Y.	1A,4A
TR21, 22	0306550	2SC1775 E.	2A,3A
TR23 ~25	0306581, 2	2SC1634 6,7	
TR601	0308451, 2	2SD356 D,E.	2C
TR602	0303281, 2	2SB526 D,E.	2C
TR603	0306550	2SC1775 E.	2C
TR604	0300931	2SA872 E.	2C
IC 01, 02	0370281, 2	2SK109 D,E. (IC)	3C,4C
D 01, 02	0311160	1S2473D (Diode)	3C,4C
D 09, 10	0311160	1S2473D (Diode)	2A,3A
D 601	0310340	10D1 (Diode)	1C
D 602 ~605	0311570	ERD03-02H (Diode)	2B,2C
D 606 ~610	0310340	10D1 (Diode)	3A,2B
D 611 ~614	0310400	1N34A	1B
ZD601, 602	0316110	EQA01-30R (Zener Diode)	3C
ZD603 ~606	0316020	EQA01-18R (Zener Diode)	4C,3C
C 01, 02	0620101	100pF 50V (P.C.)	3C,4C
C 07, 08	0620271	270pF 50V (P.C.)	3C,4C
C 602	0605477	0.047μF 250V M.C.	3B
C 603, 604	0549114	10000μF 50V E.C.	2B,2C
C 901, 902	0602109	1μF 100V M.C.	
R 47, 48	0200820	82Ω (½W N.I.R.)	4B
R 49 ~52	0200221	220Ω (½W N.I.R.)	4B
R 53, 54	0200820	82Ω (½W N.I.R.)	4B
R 55, 56	0200689	6.8Ω (½W N.I.R.)	3B,4B
R 57 ~60	0135338	0.33Ω 5W Ce,R.	2~4A
R 61, 62	0200689	6.8Ω ½W N.I.R.	3B,4B
R 63, 64	0202229	2.2Ω 2W N.I.R.	2A,4A
R 601, 602	0103822	8.2kΩ ½W C.R.	1B
R 603	0105272	2.7kΩ 2W C.R.	3C
R 604, 605	0200332	3.3kΩ (½W N.I.R.)	3C
R 606, 607	0200470	47Ω (½W N.I.R.)	2C,3C
R 608, 609	0200222	2.2kΩ (½W N.I.R.)	4C
R 615, 616	0200479	4.7Ω (½W N.I.R.)	2C
R 617, 618	0200222	2.2kΩ (½W N.I.R.)	4C
L 01, 02	4210290	RF Coil 1.5μH	2A,3A
RL01	1150400	Relay	
VR01, 02	1034230	2.2kΩ (B)	4C
VR03, 04	1034150	100Ω (B)	4C
VR05, 06	1035070	1kΩ (B)	3B,4B
F 601	0432220	1A250V AC Fuse	1C
F 602,603	0432500	7A125V AC Fuse	2B
	2030050	Transistor Socket	
	2310220	Fuse Holder (Large)	
	2410650	2P Pin Ass'y Type D	

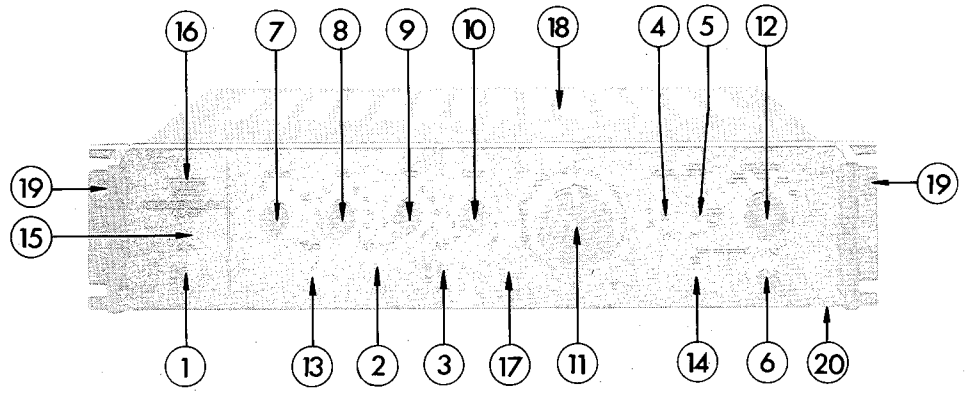
* La presentation et les specifications sont susceptibles d'éter modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specifications subject to change without notice for improvements.

4. SCHEMATIC DIAGRAM

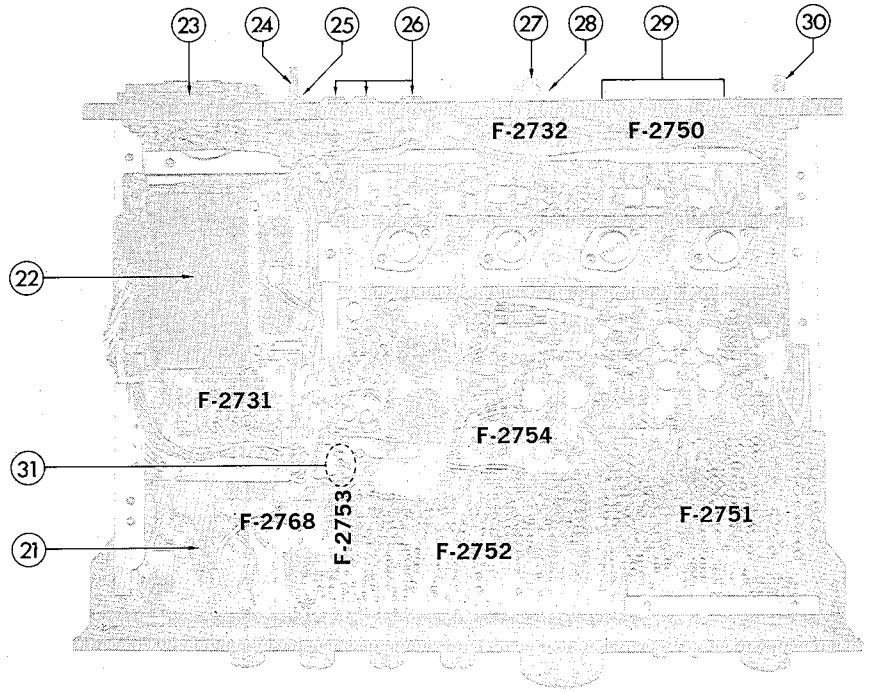


5. OTHER PARTS

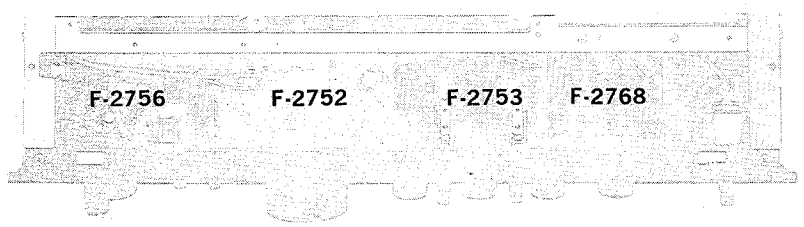
Front View



Top View



Bottom View
<Front Side>



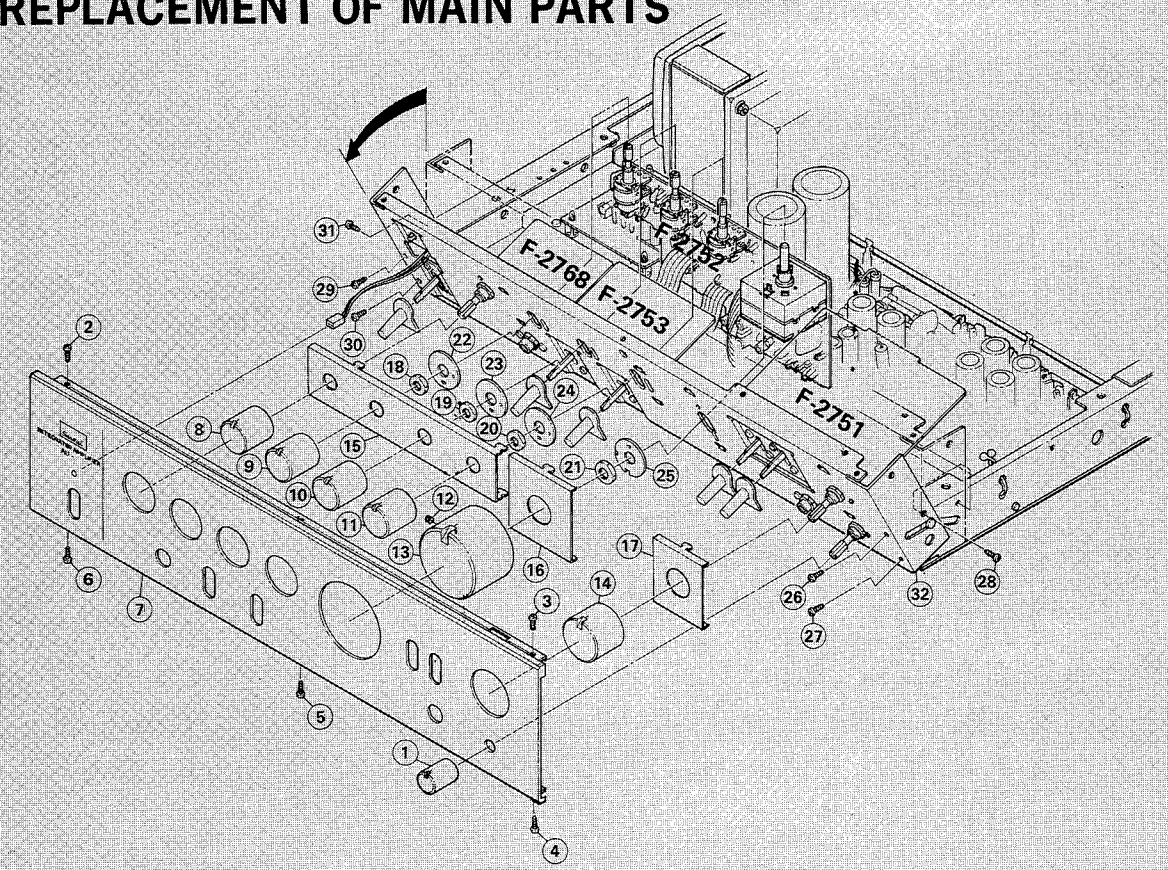
Parts List

Parts No.	Stock No.	Description
1	5326611	Lever Switch Knob, power
	1171640	Lever Switch, power
2	5326611	Lever Switch Knob, high filter
	1171020	Lever Switch, high filter
3	5326611	Lever Switch Knob, tone defeat
	1171040	Lever Switch, tone defeat
4	5326611	Lever Switch Knob, loudness
	1171020	Lever Switch, loudness
5	5326611	Lever Switch Knob, tape monitor
	1171030	Lever Switch, tape monitor
6	5318940	E-18 TY Knob, mixing volume
	1090270	20kΩ (A) Mixing Level Volume
7	5318930	S-14TY Knob, speakers
	1101560, 1	Rotary Switch, speakers
	5048030	Masking Sheet (C)
8	5318930	S-14 TY Knob, bass volume
	1015310, 1	100kΩ (C) x 2 Bass Volume
	5048030	Masking Sheet (C)
	5289231	Plate (M7), bass volume
9	5318930	S-14 TY Knob, treble volume

Parts No.	Stock No.	Description
	1015310, 1	100kΩ (C) x 2 Treble Volume
	5048030	Masking Sheet (C)
	5289231	Plate (M7), treble volume
10	5318930	S-14 TY Knob, balance volume
	1015320, 1	250kΩ (M, NI) x 2 Balance Volume
	5048030	Masking Sheet (C)
	5289231	Plate (M7), balance volume
11	5318910	Volume Knob
	1090290	150kΩ x 2 Volume
	5048050	Masking Sheet (A)
	5236740	Plate (M9), volume
12	5318920	M-10 TY Knob, input selector
	1102740	Rotary Switch, input selector
	5048040	Masking Sheet (B)
13	2430350	Jack, headphone
14	2430330	Jack, mic
15	0319120	Light Emitted Diode
16	5336680	Sansui Badge
17	7007701	Front Panel Ass'y
18	5006691	Bonnet

Parts No.	Stock No.	Description
19	5396350	Rack-mounting Adapter (each)
20	5058760	Bottom Plate
	5507070	Leg
21	0659801	0.01 μF 150V C.C.
22	4002720	Power Transformer
23	2290190	Speaker Terminal
24	3800010, 4	Power Cord
25	3910600	Strain Relief
26	2450060	AC Outlet
	5626172	AC Outlet Insulation Sheet
27	2460010	PM Connector, pre-main connection pin
28	2200500	4P Input Terminal
29	2200510	10P Input Terminal
30	2230150	Ground Terminal
31	2120140	Ground Leg Terminal
	5109928	B Type Screw M4 x 16 (Black)
	5109929	WT Type Screw M4 x 8
	5120561	P Type Washer M4 x 10 x 0.8 (Black)
	5288721	Plate, TR09, TR10 on F-2754

6. REPLACEMENT OF MAIN PARTS

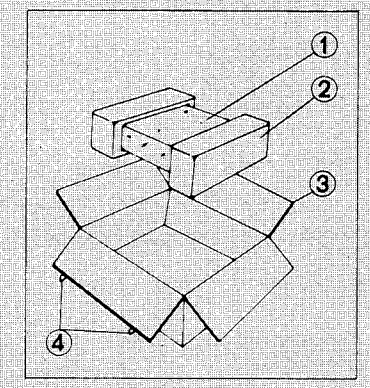


1) Replacement of parts on circuit board F-2753
By removing parts ① – ㉛ in Fig. above in numerical order and tilt back plate, ㉜, the circuit board F-2752 is removable that every parts on F-2753 is easy to replace.
2) Replacement of Bass, Treble, and Balance volumes.
Bass, Treble, and Balance volumes are fixed by using track-shape holes that these volumes are able to be taken off individually by removing the parts, ① – ⑦, ⑧ – ⑪, and ⑮ in numerical order and by unsoldering each volume.

* Each volume F-2752 can be replaced without being removed the circuit board F-2752 from back panel ㉜.
3) Replacement of Master (Level) volume.
Master volume is fixed by using track-shape hole and clasp, ㉕. By loosening a screw ⑫, and taking off knob ⑬ toward front, the plate ㉑ can be moved a bit (about 2 mm to 3 mm) so that the master volume can be plucked out after unsoldering three taps of the master volume.

7. PACKING LIST

Parts No.	Stock No.	Description
1	9116153	Vinyl Cover
2	9028080	Stylofoam Packing
3	9009830	Carton Case
4	5996080	Curl Stopper



8. ACCESSORY PARTS LIST

Stock No.	Description
9203140	Operating Instructions
5396350	Rack-mounting Adaptor (each)
9116730	Vinyl Bag for rack-mounting adaptor
5192082	Hexagon Wrench (1.5 mm)
9116580	Vinyl Bag For Wrench

Sansui

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