

SERV. 33 580

AU-217

SERVICE MANUAL

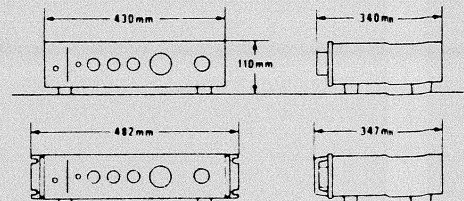
INTEGRATED STEREO AMPLIFIER

SANSUI AU-217



SPECIFICATIONS

- Power output**
 - Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.06% total harmonic distortion
 - 30 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 0.06% at or below rated min. RMS power output
- Intermodulation distortion** (70 Hz: 7 kHz = 4:1 SMPTE method) less than 0.06%
- Frequency response** (at 1 watt) 10 to 50,000 Hz +0.5 dB -1.5 dB
- Damping factor** approximately 80 at 8 ohms load
- RIAA curve deviation** (PHONO) +0.5 dB - 0.5 dB (30 to 15,000 Hz)
- Input sensitivity and impedance** (1 kHz, for rated power output)
 - PHONO 2.5 mV/47 kilohms (Max. input capability; 180 mV at 1 kHz, less than 0.05% total harmonic distortion)
 - AUX, TAPE 150 mV/47 kilohms
- Output level** (1,000 Hz)
 - TAPE REC (pin jack) 150 mV
- Channel separation** (1 kHz, at rated power output)
 - PHONO better than 65 dB
 - AUX better than 68 dB
- Hum and noise** (short-circuit A-network)
 - PHONO 76 dB
 - AUX 94 dB
- Controls**
 - BASS ±12 dB (50 Hz)
 - TREBLE ±11 dB (15 kHz)
 - PHONO SUBSONIC -3 dB (13 Hz), 6 dB/oct
 - HIGH FILTER -3 dB (7 kHz), 6 dB/oct
 - LOUDNESS (-30 dB) 8 dB at 50 Hz 6 dB at 10 kHz
- Power requirements**
 - Power voltage 100, 120, 220, 240V (50/60 Hz) 120V (Usable 110 - 130V) 60 Hz (for U.S.A. for Canada only)
- Power consumption**
 - Maximum consumption 280 watts
 - Rated consumption 145 watts 180 VA
- Dimensions** 430 mm (16-15/16") W 110 mm (4-3/8") H 340 mm (13-3/8") D
- Weight** 8.6 kg (19.0 lbs) net 9.8 kg (21.6 lbs) packed

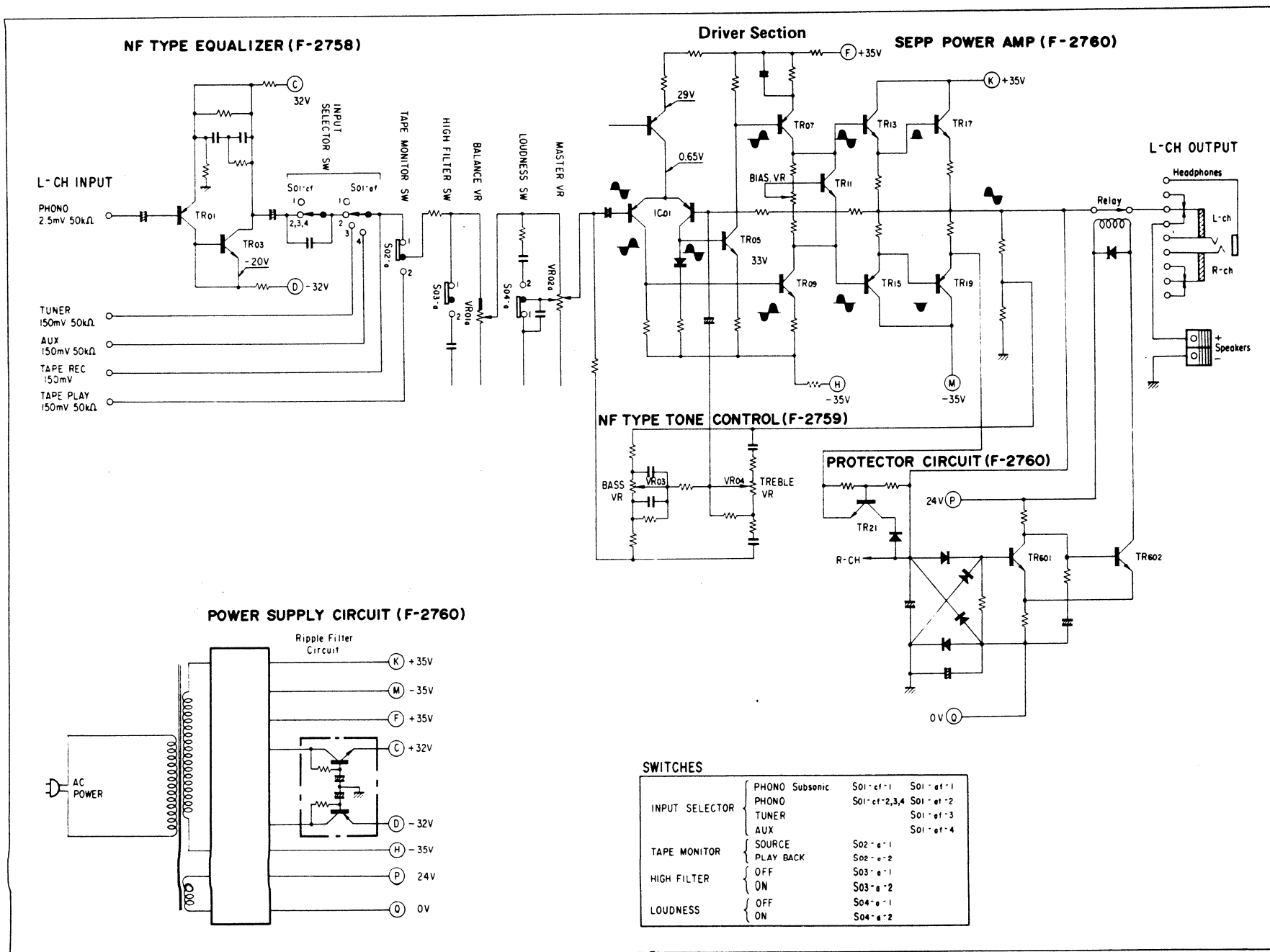


* Design and specifications subject to changes without notice for improvements.



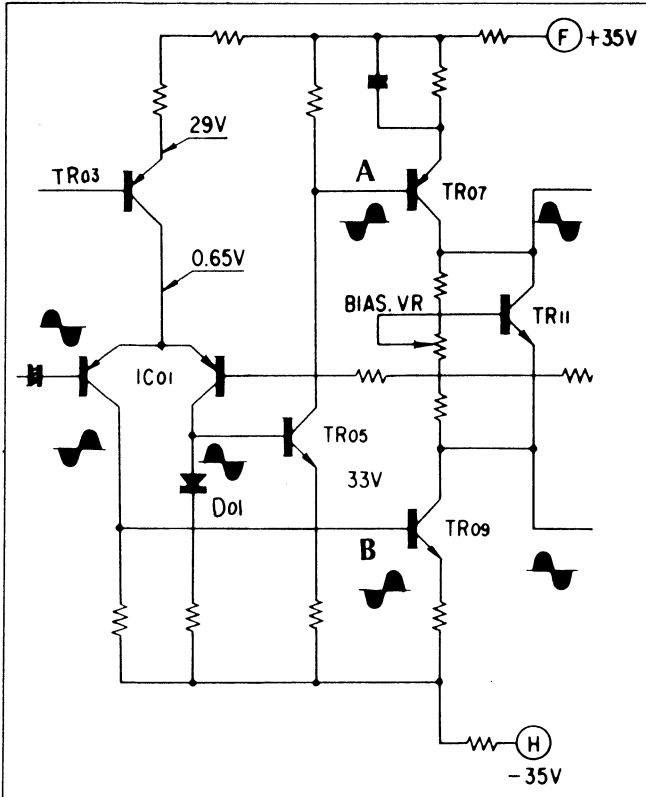
SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM



2. OPERATION OF DRIVER SECTION

Fig. 2-1 Driver Section



◇The first stage on driver section employs a differential amplifier circuit, therefore one of two output signals from IC01 on the driver section is supplied to base of TR05 and the other is added to base of TR09.

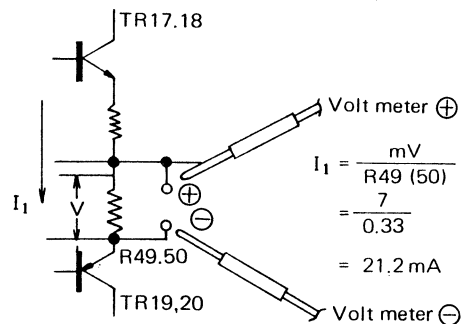
The input phase of the current mirror circuit including TR05 and D01 is inverted by TR05 and its inverted signal is added to base of TR07. Since the input signals, A & B, as Fig. 2-1, of TR07 and TR09 are in same level and inphase, the function of this section is complete push-pull operation by which even harmonic distortion is extremely decreased.

3. ADJUSTMENT

1) Bias Current Adjustment (See the Picture of Top View on page 7)

- Note:**
1. Confirm the AC Power Supply voltage.
 2. Master Volume Minimum
 3. Room Temperature 18° C ~ 28° C (65° F ~ 83° F)
 4. For this adjustment, run the unit for more than 3 minutes after power is switched ON.
 5. Before this adjustment, turn VR01 and VR02 fully counterclockwise.

(Measure output on both channel)



$$I_1 = \frac{\text{mV}}{R49 (50)} = \frac{7}{0.33} = 21.2 \text{ mA}$$

(L-CH...R49 and R-CH...R50)

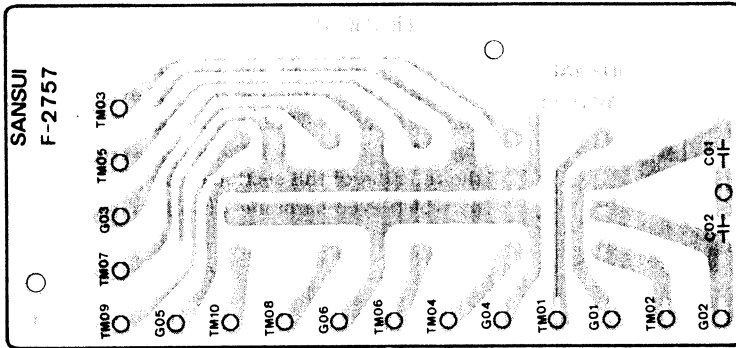
(L-CH...TR17, TR19 and R-CH...TR18, TR20)

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
1	Bias Current L-CH	DC Volt Meter	TP Terminal (+)(-) of F-2760	F-2760 VR01	DC 7mV ±0.5mV
2	Bias Current R-CH	DC Volt Meter	TP Terminal (+)(-) of F-2760	F-2760 VR02	DC 7mV ±0.5mV

4. PARTS LOCATION & PARTS LIST

1) F-2757 Input Terminal Circuit Board (Stock No. 7595461)

Conductor Side



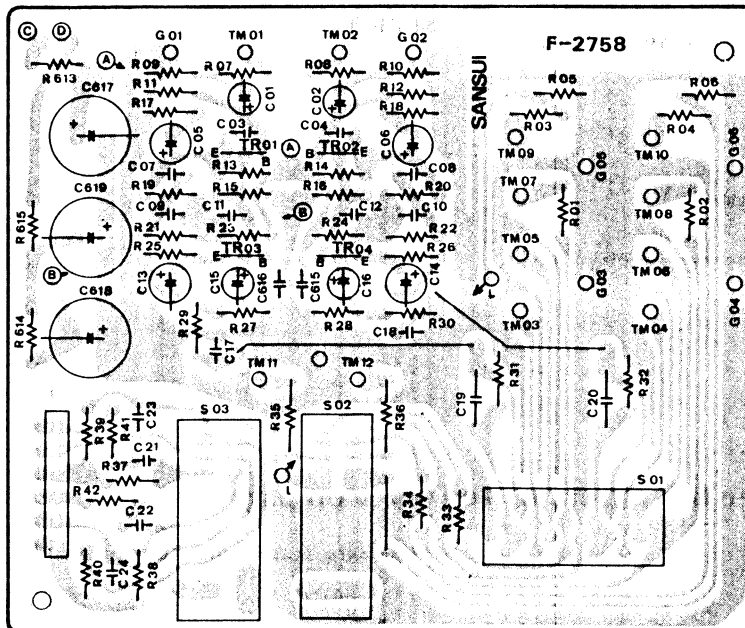
Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the common parts list for capacitors & resistors which was appended previously to each Sansui Manual.

Parts List

Parts No.	Stock No.	Description
C 01, 02	0657473	47000 pF 50V C.C.
	2200510	10P Input Terminal

2) F-2758 Equalizer Circuit Board (Stock No. 7551191)

Conductor Side

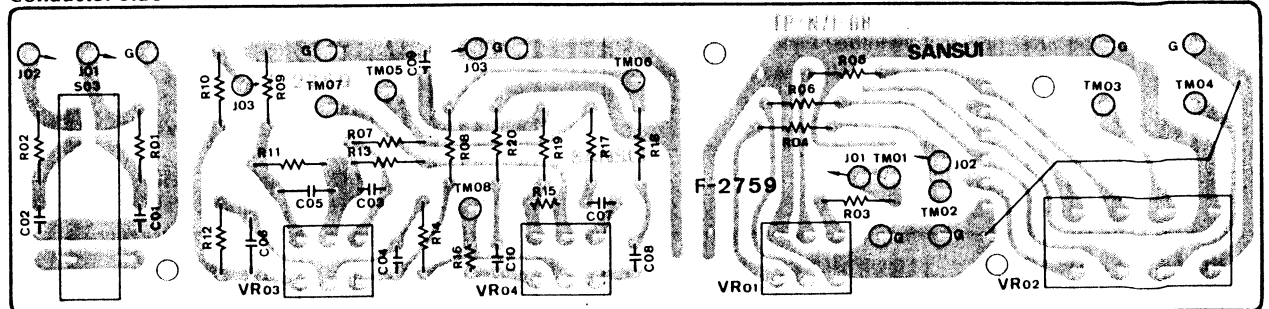


Parts List

Parts No.	Stock No.	Description
TR01, 02	0300920, 1	2SA726 F.G. Transistor
TR03, 04	0306070, 1	2SC1313 F.G. Transistor
C 17, 18	0620621	620 pF 50V P.C.
C 21, 22	0620391	390 pF 50V P.C.
S 01	1102740	Rotary Switch, input selector
S 02	1171050	Lever Switch, tape monitor
S 03	1171020	Lever Switch, high filter

3) F-2759 Tone Control Circuit Board (Stock No. 7561971)

Conductor Side



Parts List

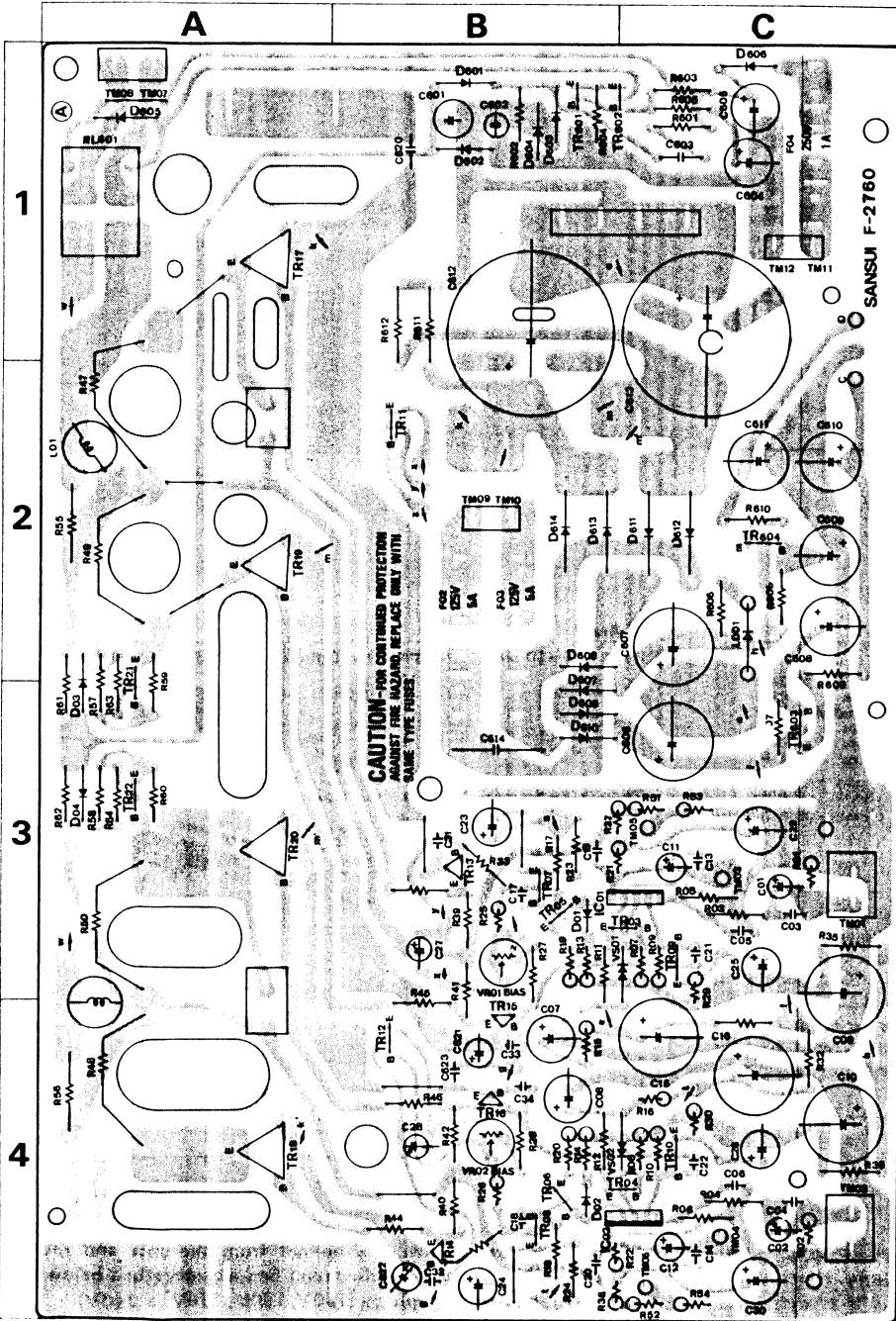
Parts No.	Stock No.	Description
VR01	1015270, 1	250 kΩ (M, N) x 2 Balance Volume
VR02	1011120, 1	250 kΩ (A) x 2 Main Volume

Parts No.	Stock No.	Description
VR03, 04	1015260, 1	100 kΩ (C) x 2 Bass, Treble Volume

Parts No.	Stock No.	Description
S 04	1171020	Lever Switch, loudness

4) F-2760 Power Amplifier Circuit Board (Stock No. 7571791)

Conductor Side

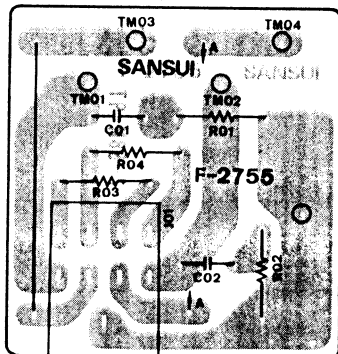


Parts List

Parts No.	Stock No.	Description
TR03, 04	0300470, 1	2SA726 (W) F.G
TR05, 06	0306270, 1	2SC1708 F.G
TR07, 08	0300890, 1	2SA750 (3) E.U
TR09, 10	0306290, 1	2SC1400 (II) E.U
TR11, 12	0305731	2SC711 E
TR13, 14	0308481, 2	2SD358 D.E
TR15, 16	0303311, 2	2SB528 D.E
TR17, 18	0308541, 2	2SD188A R.Q
TR19, 20	0303381, 2	2SB545A R.Q
TR21, 22	0305731, 2	2SC711 E.F
TR601, 602	0306131, 2	2SC1364 6.7
TR603	0308520, 1	2SD438 D.E
TR604	0303360, 1	2SB560 D.E
IC 01, 02	0360290, 1	2SA798 IC
D 01 ~ 04	0311160	1S2473D
D 601 ~ 604	0310400	1N34A
D 605 ~ 610	0310340	10D1
D 611 ~ 614	0311530	30D2
VS01, 02	0340120	VD1212 Varistor
C 05, 06	0621101	100pF 50V P.C.
C 612, 613	0549111	6800µF 50V E.C.
C 614	0603227	0.022µF 125V M.C.
R 31, 32	0210820	82Ω ½W N.I.R.
R 35, 36	0210820	82Ω ½W N.I.R.
R 39 ~ 42	0191221	220Ω ½W F.R.
R 43 ~ 46	0191689	68Ω ½W F.R.
R 47 ~ 50	0132338	0.33Ω 2W Ce.R.
R 51, 52	0231302	3kΩ ½W M.R.
R 53, 54	0231271	270Ω ½W M.H
R 55, 56	0103479	4.7Ω ½W C.R.
R 606	0211222	2.2kΩ 1W N.I.R.
R 609, 610	0210101	100Ω ½W N.I.R.
R 611, 612	0103562	5.6kΩ ½W C.R.
L 01, 02	4210290	RF Coil 1.5µH
RL601	1150400	Relay
VH01, 02	1035050	470Ω B Bias Volume
F 02, 03	0432290	5A 125V AC Fuse
F 04	0432220	1A 250V AC Fuse
	2030050	Transistor Socket
	2310220	Fuse Holder (Large)
	2410650	2P Pin Ass'y TYPE D
	2410910	2P Pin Ass'y TYPE E
	2410650	2P Pin Ass'y TYPE D

5) F-2755 Output Connection Circuit Board (Stock No. 7595471)

Conductor Side

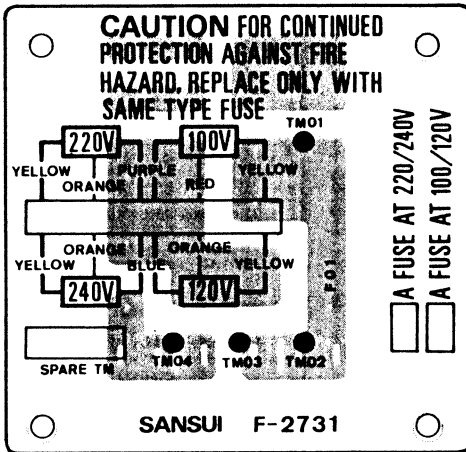


Parts List

Parts No.	Stock No.	Description
R 01, 02	0103100	10Ω ½W C.R.
R 03, 04	0211221	220Ω 1W N.I.R.
J 01	2430350	Jack, headphone

6) F-2731 Voltage Selector Circuit Board (Stock No. 7595481)

Conductor Side



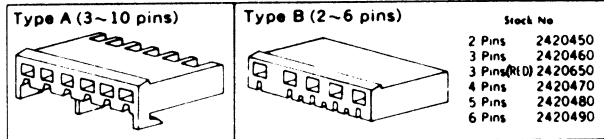
Parts List

Parts No.	Stock No.	Description
F 01	0432260	3A 250V AC Fuse
	2310220	Fuse Holder (Large)

● Figures

Connectors & Pin Ass'y

Connectors

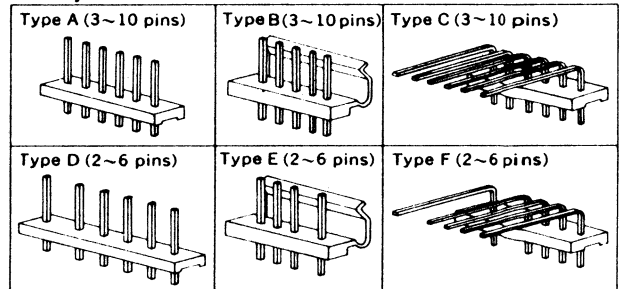


NOTE: Since stock number of female connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

Abbreviations

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

Pin Ass'y

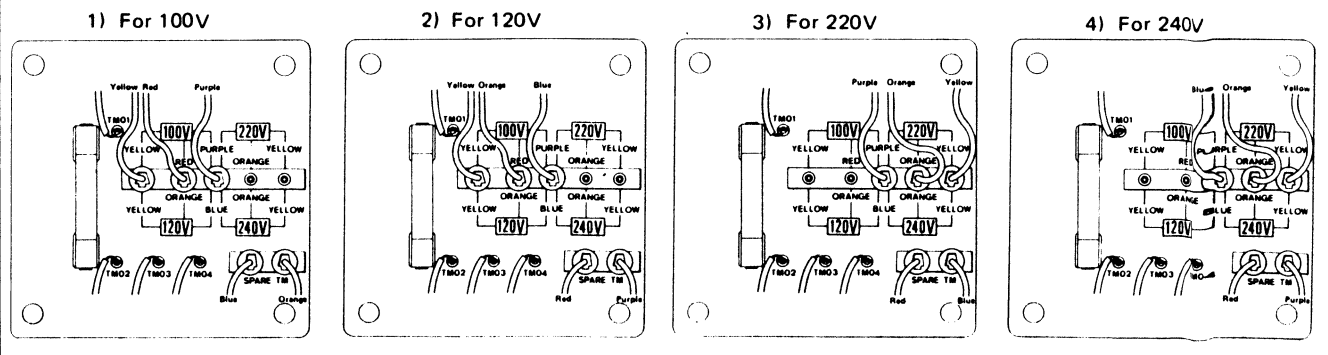


NOTE:

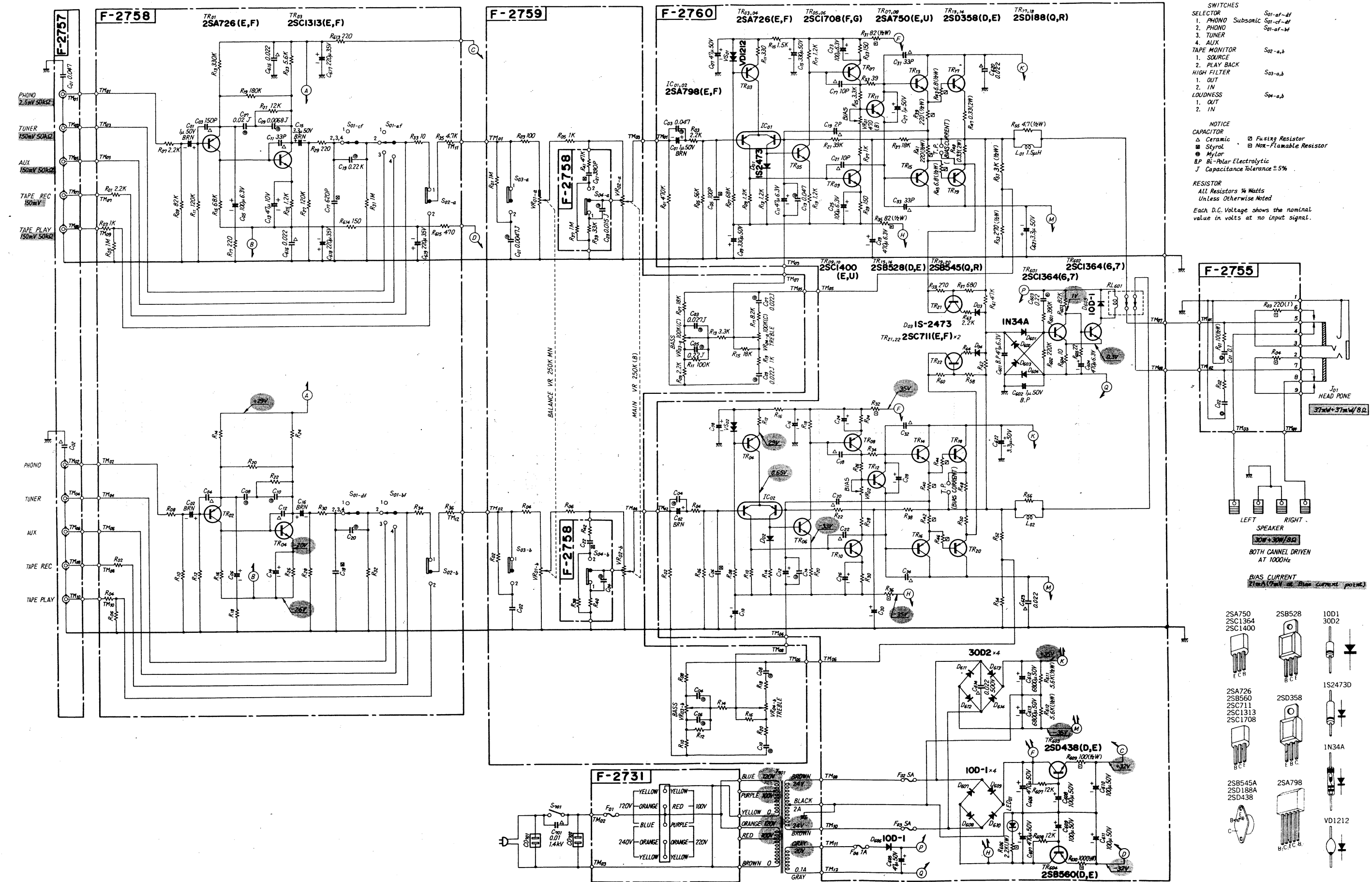
◇ **Changing Power Supply Voltage:**

Your unit is adjusted to operate at the correct power supply voltage of your area prior to shipment from our factory. If you move to an outside country after purchasing it or send it as a gift to a friend living in an area where the voltage is different, it may be necessary to operate at the correct power supply voltage.

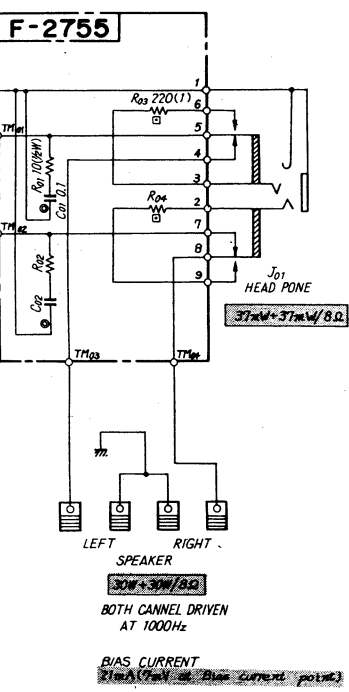
◇ When necessary, remove the bonnet from the unit and reconnect leads from power supply circuit board as described below according to the required voltage (100V, 120V, 220V or 240V).



5. SCHEMATIC DIAGRAM



- SWITCHES**
- SELECTOR
 - 1. PHONO Subsonic S_{01-af}-df
 - 2. PHONO S_{01-cf}-df
 - 3. TUNER S_{01-af}-af
 - 4. AUX
 - TAPE MONITOR S_{02-a,b}
 - 1. SOURCE
 - 2. PLAY BACK S_{03-a,b}
 - HIGH FILTER
 - 1. OUT
 - 2. IN S_{04-a,b}
 - LOUDNESS
 - 1. OUT
 - 2. IN
- NOTICE**
- CAPACITOR**
- △ Ceramic □ Fixing Resistor
 - Styrol □ Non-Flammable Resistor
 - Mylar
 - BP Bi-Polar Electrolytic
 - J Capacitance tolerance ±5%
- RESISTOR**
- ALL Resistors 1/4 Watts Unless Otherwise Noted
- Each D.C. Voltage shows the nominal value in volts at no input signal.

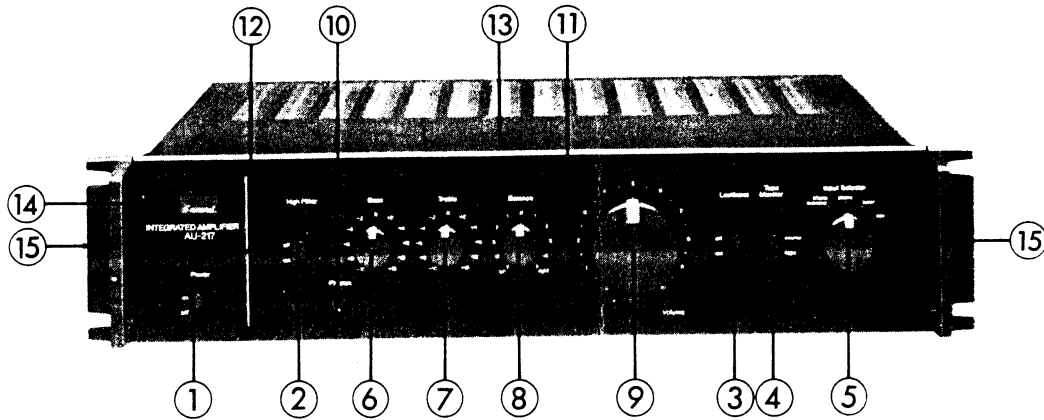


- 2SA750
- 2SC1364
- 2SC1400
- 2SA750
- 2SC1364
- 2SC1400
- 10D1
- 30D2
- 1S2473D
- IN34A
- 2SB545A
- 2SD188A
- 2SD438
- 2SA798
- VD1212

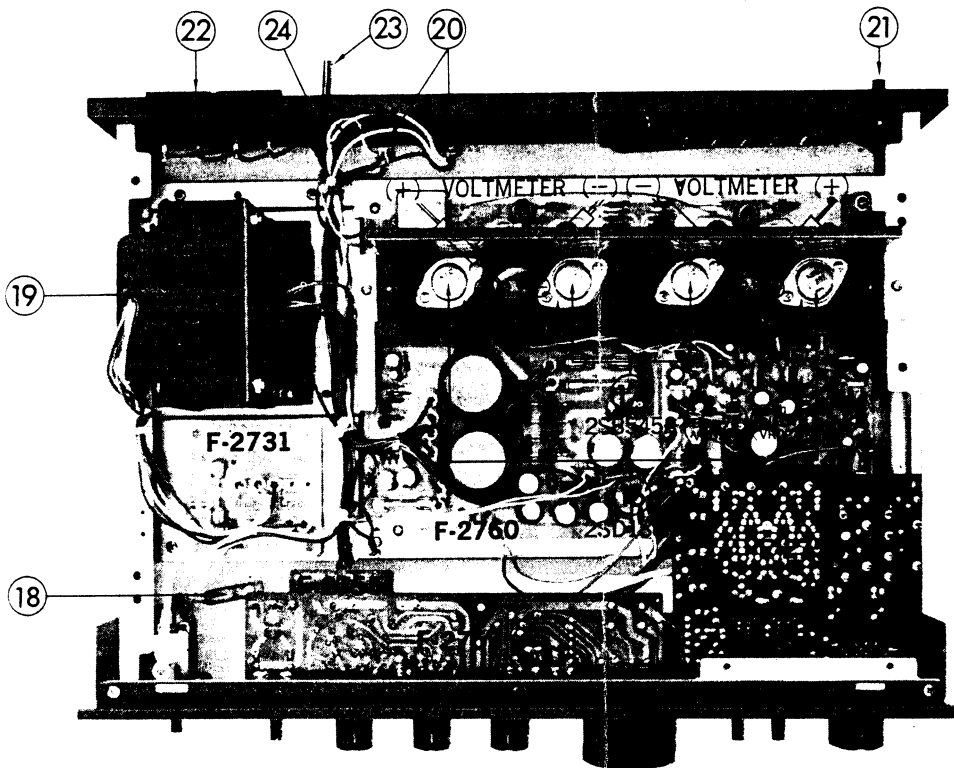
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6. OTHER PARTS

Front View



Top View

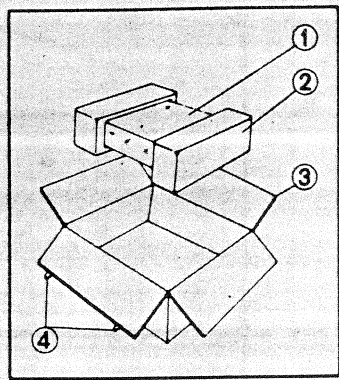


Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5326611	Lever Switch Knob, power		5048020	Masking Sheet (D)	17	0303381,2	2SB545A (R, Q) Transistor
	1171643	Lever Switch, power		5289230	Plate (M7), volume	18	0659801	0.01 μ F 150V C.C.
2	5326611	Lever Switch Knob, high filter	8	5318930	S-14 TY Knob, balance volume	19	4002680	Power Transformer
	1171020	Lever Switch, high filter		1015270, 1	250 k Ω (MN) x 2 Balance Volume	20	2450060	AC Outlet
3	6326611	Lever Switch Knob, loudness		5048020	Masking Sheet (D)		5626172	AC Outlet Insulation Sheet
	1171020	Lever Switch, loudness		5289230	Plate (M7), volume	21	2230150	Ground Terminal
4	5326611	Lever Switch Knob, tape monitor	9	5318910	Volume Knob	22	2290190	Speaker Terminal
	1171050	Lever Switch, tape monitor		1011120, 1	250 k Ω x 2 Volume	23	3800010	Power cord
5	531892C	M-10 TY Knob, input selector		5048050	Masking Sheet (A)		3800014	Power cord
	110274C	Rotary Switch, input selector		5288960	Plate (M8), volume	24	3910600	Strain Relief (5.2 ϕ)
	5048040	Masking Sheet (B)	10	2430350	Head Phone Jack		5058770	Bottom Plate
6	5318930	S-14 TY Knob, bass volume	11	7007670	Front Panel Ass'y		5507070	Leg
	1015260, 1	100 k Ω (C) x 2 Bass Volume	12	0319120	LED		5109928	B TYPE Screw M4 x 18 (Black)
	5048020	Masking Sheet (D)	13	5006690	Bonnet		5109929	W TYPE Screw M4 x 8
	5289230	Plate (M7), volume	14	5336680	Sansui Mark		5120561	P TYPE Washer M4 x 0.8 (Black)
7	5318930	S-14 TY Knob, treble volume	15	5396350	Lock-mount Adaptor (each)		5288721	Plate, TR11, TR12 on F-2760
	1015260, 1	100k Ω (C) x 2 Treble Volume	16	0308541, 2	2SD188A (R, Q) Transistor			

7. PACKING LIST

Parts No.	Stock No.	Description
1	9116153	Vinyl Cover (Small)
2	9028080	Stylofoam Packing
3	9009780	Carton Case
4	5996080	Curli Stopper



8. ACCESSORY PARTS LIST

Parts No.	Stock No.	Description
	9203120	Operating Instructions
	9237610	Schematic Diagram
	5396350	Rack-mounting Adaptor (each)
	9116730	Vinyl Bag For Rack-mount-Adaptor
	5192082	Hexagon Wrench (1.5 mm)
	9116580	Vinyl Bag For Wrench

MEMO



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