

SERVICE MANUAL

INTEGRATED STEREO AMPLIFIER

SANSUI AU-719



SPECIFICATIONS

Power output

Min. RMS, both channels driven, from 10 to 20,000 Hz, with no more than 0.015 % total harmonic distortion
90 watts per channel into 8 ohms

Load impedance 8 ohms

Total harmonic distortion

. less than 0.015 % at or below rated min. RMS power output

Intermodulation distortion (70 Hz : 7 kHz = 4:1 SMPTE method)

. less than 0.015 % at or below rated min. RMS power output

Rise time 0.5 μ sec

Slew rate ± 170 V/ μ sec

Frequency response (at 1 watt)

. DC to 400,000 Hz, +0 dB, -3 dB

Damping factor (1 kHz, both channels driven)

. 110 into 8 ohms

RIAA curve deviation (PHONO, 20 Hz to 20 kHz)

. +0.2 dB, -0.2 dB

Input sensitivity and impedance (1 kHz, for rated power output)

PHONO-1, 2 2.5 mV/47 kilohms
(Max. input capability; 230 mV at 1 kHz, less than 0.01 % total harmonic distortion)

AUX, TUNER, TAPE PLAY

. 200 mV/47 kilohms

Output level and impedance (1,000 Hz)

TAPE REC 200 mV into 47 kilohms/600 ohms

Channel separation (1 kHz, at rated power output)

PHONO-1, 2 65 dB

AUX, TUNER, TAPE PLAY

. 70 dB

Hum and noise (short-circuit, A-network)

PHONO-1, 2 88 dB

AUX, TUNER, TAPE PLAY

. 100 dB

Controls

BASS ± 10 dB (50 Hz)

Tone selector 150 Hz, 300 Hz

TREBLE ± 10 dB (15 kHz)

Tone selector 3 kHz, 6 kHz

SUBSONIC -3 dB (16 Hz), 6 dB/oct

MUTING -20 dB

LOUDNESS (VOLUME control: -30 dB position)

. 10 dB at 50 Hz

. 6 dB at 10 kHz

Power requirements

Power voltage 100, 120, 220, 240 V (50/60 Hz)

For U.S.A. & Canada

. 120 V (60 Hz)

Power consumption

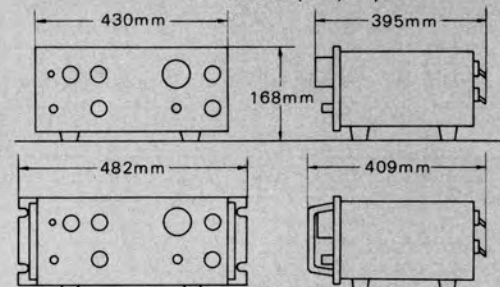
Rated consumption

. 450 watts 530 VA

Dimensions 430 mm (16-15/16") W

168 mm (6-5/8") H

395 mm (15-9/16") D



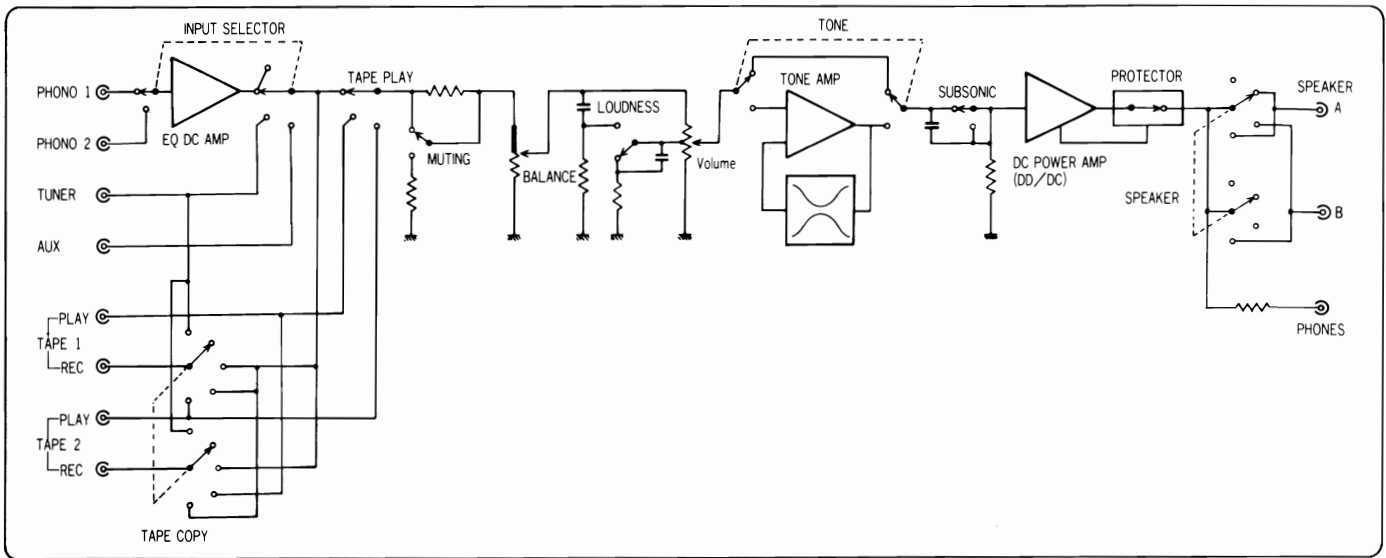
Weight 16.0 kg (35.3 lbs) net
17.7 kg (39.0 lbs) packed

* Design and specifications subject to changes without notice for improvements.
* In order to simplify the explanation illustrations may sometimes differ from the originals.

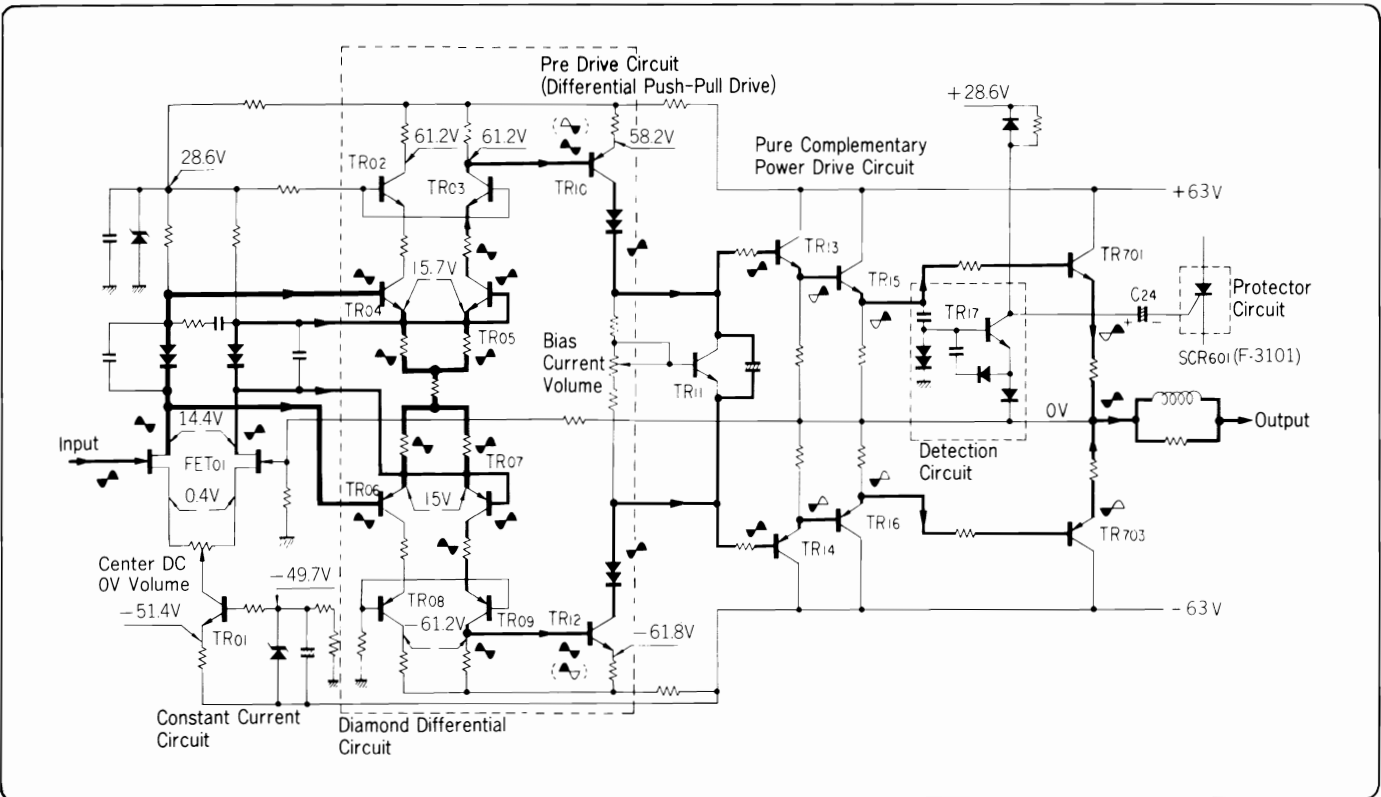


SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM



2. OPERATION BLOCK DIAGRAM OF DRIVER STAGE



3. ADJUSTMENTS

- Notes: 1. Master Volume Minimum
 2. Room Temperature 18°C ~ 28°C
 (65°F ~ 83°F)
3. When replacing some parts or circuit board, refer to description in REMARKS.
 4. For this adjustment, run the unit for more than 3 minutes after the power is switched ON.

3-1. Driver Circuit (F-2926, F-2927) Adjustment (See Fig. 3-1 & 3-2)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V Adj. L-ch	Speaker terminal (L-ch)	VR01 (L-ch) F-2926	DC 0V ± 5 mV	Before turning ON power switch, set VR01 to center position.
2.	DC 0V Adj. R-ch	Speaker terminal (R-ch)	VR01 (R-ch) F-2927		
3.	Bias current Adj. L-ch	Between emitters of power transistors, TR701 & TR703 (See Fig. 3-1)	VR02 (L-ch) F-2926	DC 23 mV ± 1 mV	• Before turning ON power switch, turn VR02 fully counterclockwise. This bias current adjustment converts current value into voltage by Ohm's law.
4.	Bias current Adj. R-ch	Between emitters of power transistors, TR702 & TR704 (See Fig. 3-1)	VR02 (R-ch) F-2927		

3-2. Equalizer (F-3095) Adjustment (See Fig. 3-3)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V Adj. L-ch	Between GND & TP	VR01 (L-ch) F-3095	DC 0V ± 50 mV	Before turning ON power switch, set VR01 & VR02 to center position.
2.	DC 0V Adj. R-ch	Between GND & TP	VR02 (R-ch) F-3095		

Fig. 3-1 Driver Circuit Board (F-2926, F-2927)

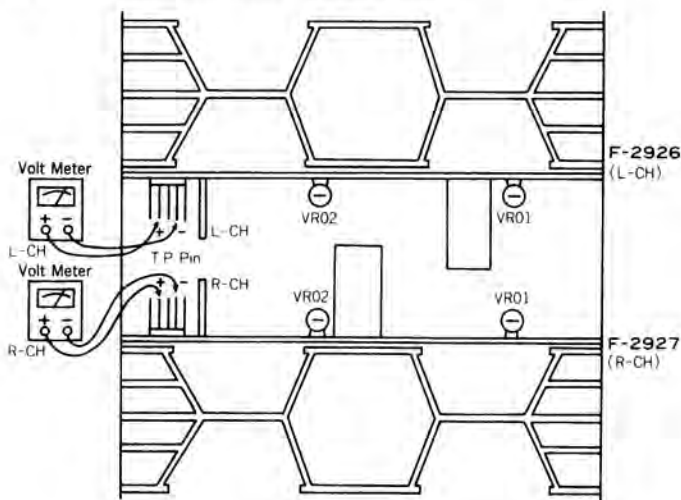


Fig. 3-3 Equalizer Circuit Board (F-3095)

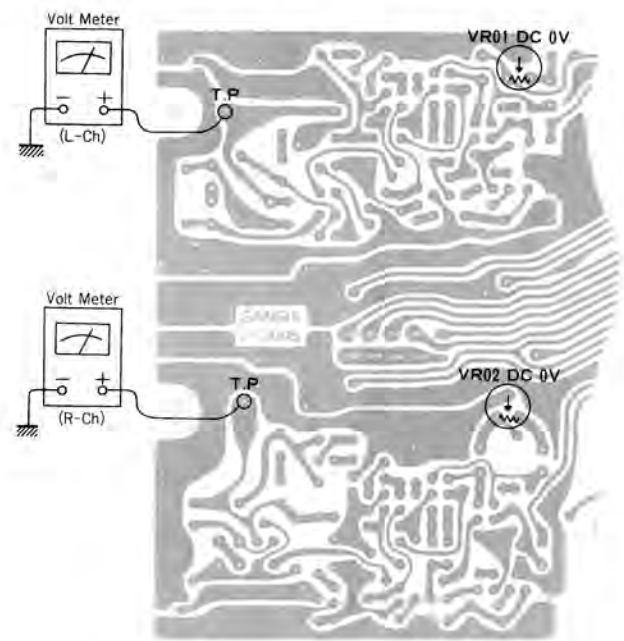
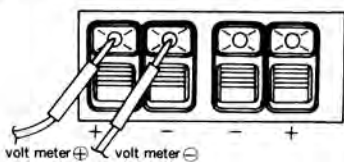


Fig. 3-2 Speaker Terminal

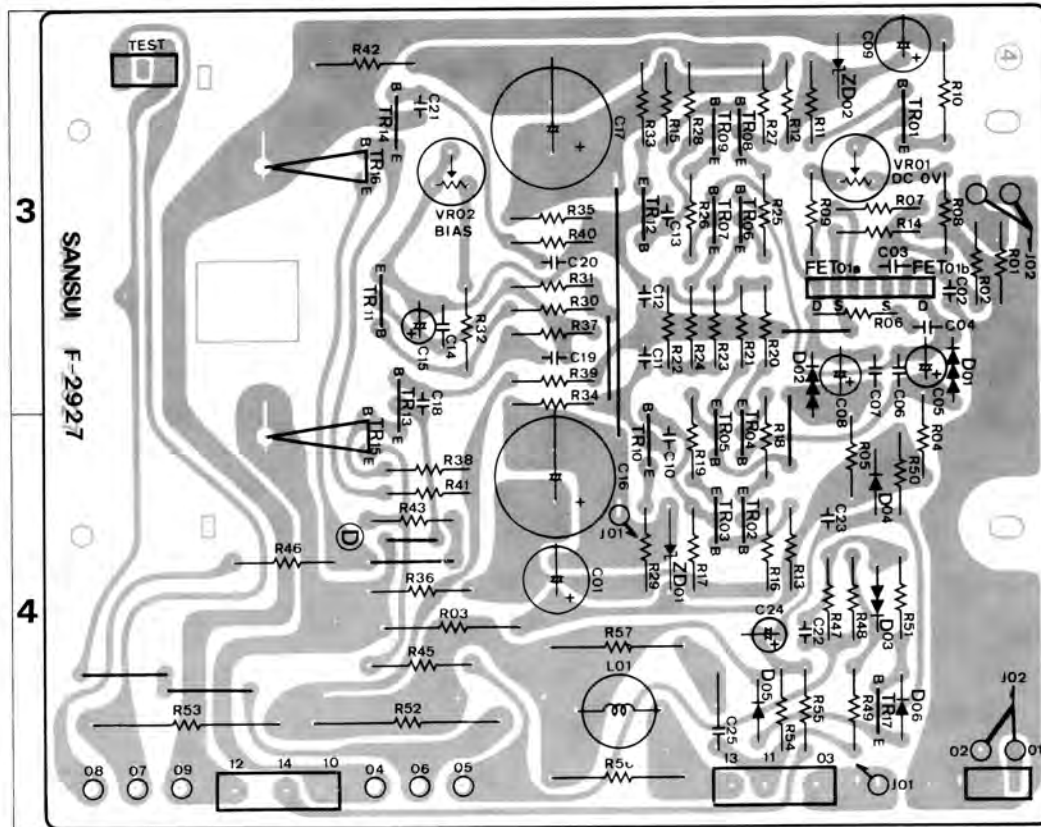
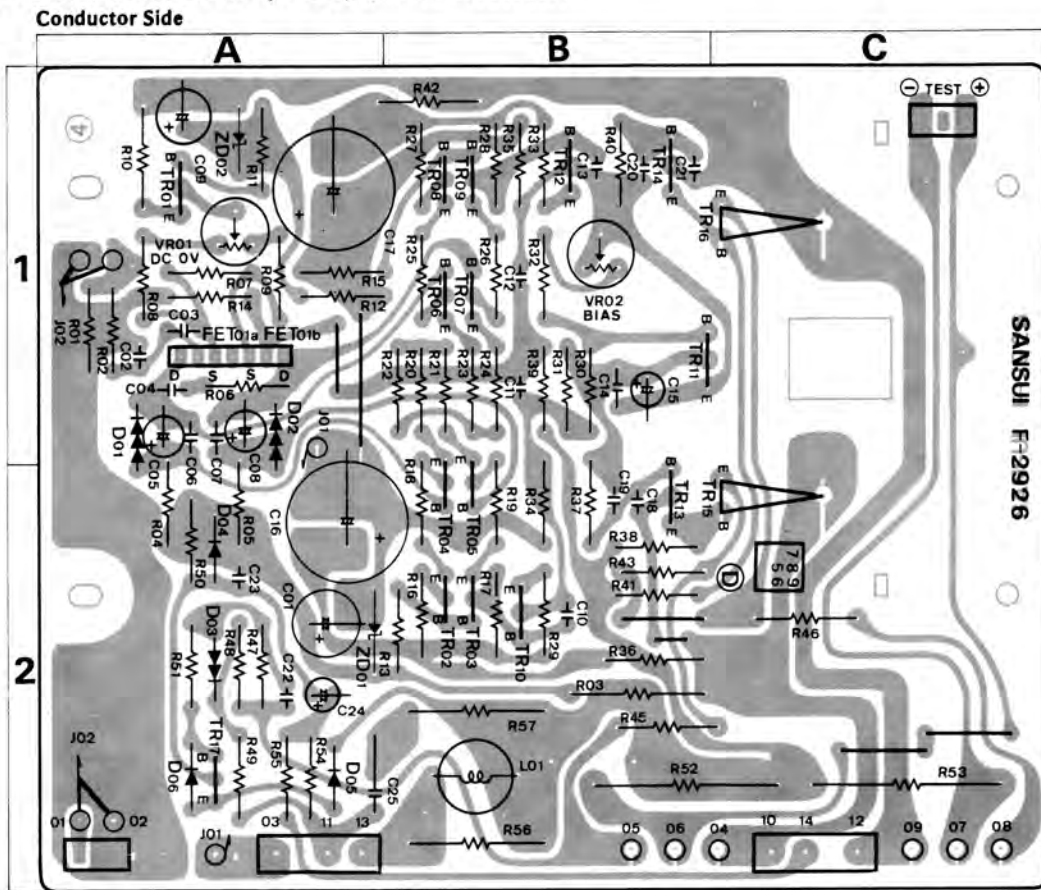


4. PARTS LOCATION & PARTS LIST

4-1. F-2926 Driver Circuit Board (L-CH) (Stock No. 7572351)

4-2. F-2927 Driver Circuit Board (R-CH) (Stock No. 7572361)

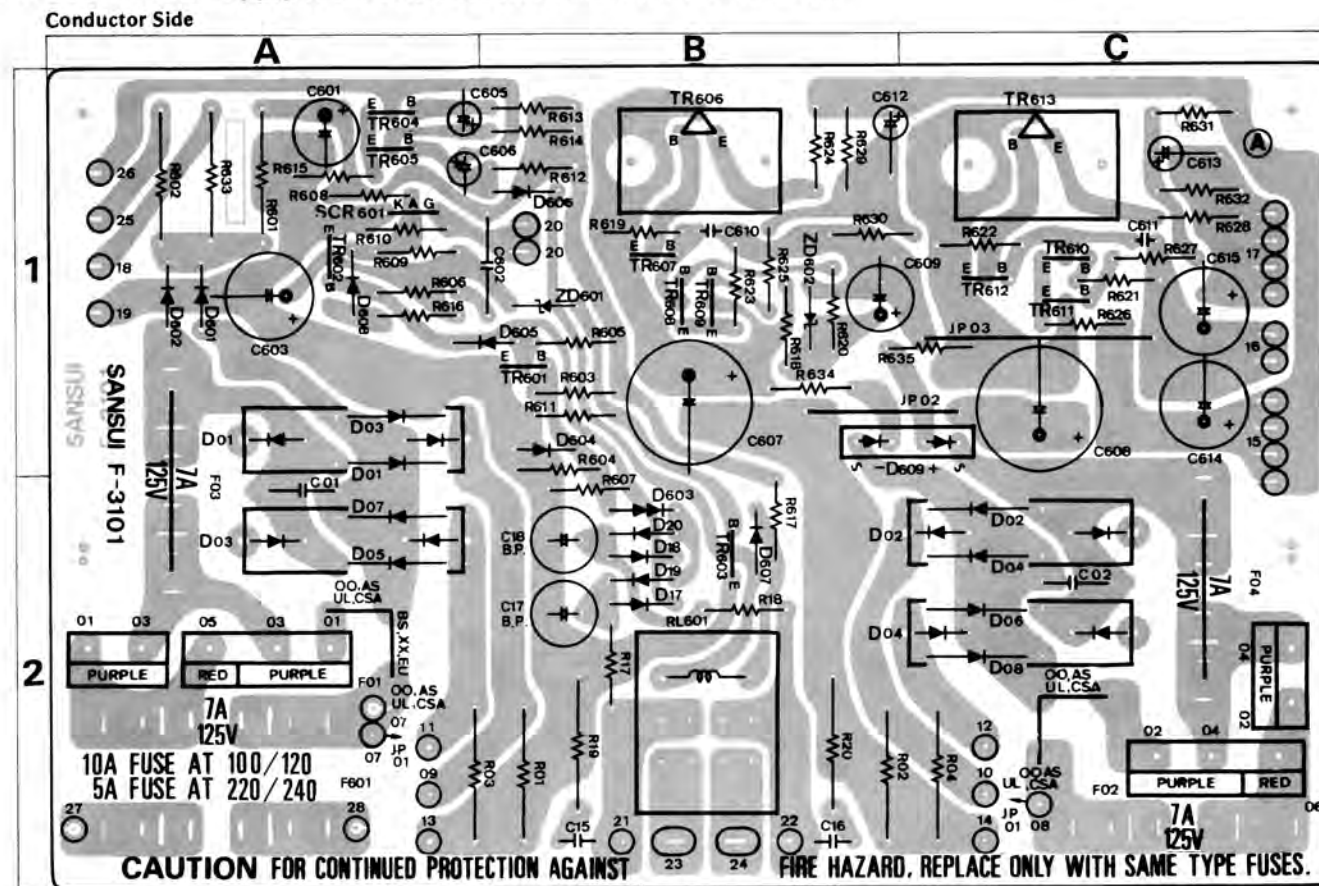
• Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.



Parts List <F-2926, F-2927>

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
•Transistor				•Diode				•Zener Diode			
TR01	0306680,1	2SC2071 B,V	F-2926 F-2927	D 01,02	0340170	MV-103	F-2926 F-2927	ZD01	0317190	RD-27F (B)	2A 4B
TR02 ~ 05	0306740,1	2SC1845 F,E	1A 3C	D 03	0340150	MV-12	2A 4C	ZD02	0316310	RD13E B	1A 3C
TR06 ~ 09	0301090,1	2SA992 F,E	2B 4B,C	D 04	0310400	1N34A	2A 4C	C 02	0622101	100pF 125V P.C.	1A 3C
TR10	0301030,1	2SA939 B,V	1B 3B,C	D 05,06	0311160	1S2473D	1A 4C	C 03	0623220	22pF 125V P.C.	1A 3C
TR11	0305951,2	2SC945 O,P	1B 3A	•FET				C 04	0622102	1000pF 125V P.C.	1A 3C
TR12,13	0306680,1	2SC2071 B,V	1B,2B 3B	FET01	0370361 ~ 4	μPA68H-L1, L2, M1, M2	1A 3C	C 10,13	0669503	3pF 50V C.T.	2B,1B 4B,3B
TR14	0301030,1	2SA939 B,V	1B 3B	C 25	0681014	0.047μF 400V F.C.	2A 4B,C				
TR15	0308441,2	2SD382 M,L	2C 4A								
TR16	0303271,2	2SB537 M,L	1C 3A								
TR17	0306740,1	2SC1845 F,E	2A 4C								

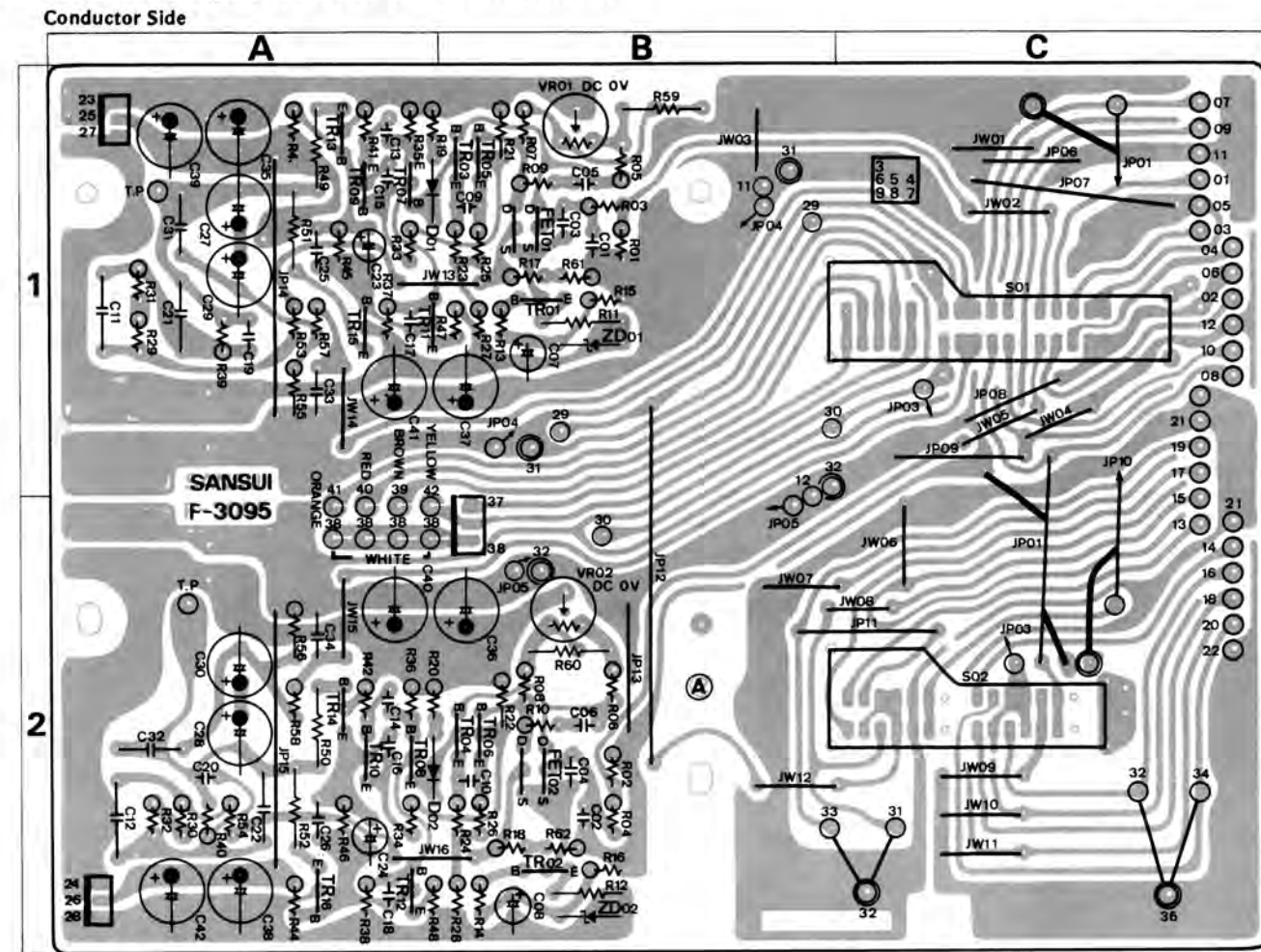
4-3. F-3101 Power Supply & Protector Circuit Board (Stock No. 7503471)



Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
•Transistor				•Diode				•Zener Diode			
TR601 ~ 05	0305951,2	2SC945 Q,P	1A,B,2B	D 17 ~ 20	0311160	1S2473D	2B	ZD601	0316390	RD6.2E B	1B
TR606	0308451,2	2SD356 D,E	1B	D 601,602	0310350	10D2 (1S2227)	1A	ZD602	0316310	RD13E B	1B
TR607	0308611,2	2SD357 D,E	1B	D 603	0340150	MV-12	2B	•FET			
TR608,609	0306071,2	2SA726 F,G	1B	D 604 ~ 06	0311160	1S2473D	1B	FET01	0370311,2	2SK129A L,M	1,2B
TR610,611	0300470,1	2SA726 F,G	1B	D 607	0310340	10D1 (1S2226)	2B				
TR612	0306071,2	2SC1313 G,H	1B	D 608	0311160	1S2473D	1A				
TR613	0303281,2	2SB526 D,E	1C	D 609	0311700	RB-152	1B,C				
TR614	0303441,2	2SB527 D,E	1C	•Relay							
				RL601	1150480	Relay	2B				
				•Fuses							
				F 01	0432290	5A 125V AC Fuse	2A				
					0432290	7A 125V AC Fuse					
					0434060	10A 250V AC Fuse					

4-4. F-3095 Head Amp. Circuit Board (Stock No. 7551561)

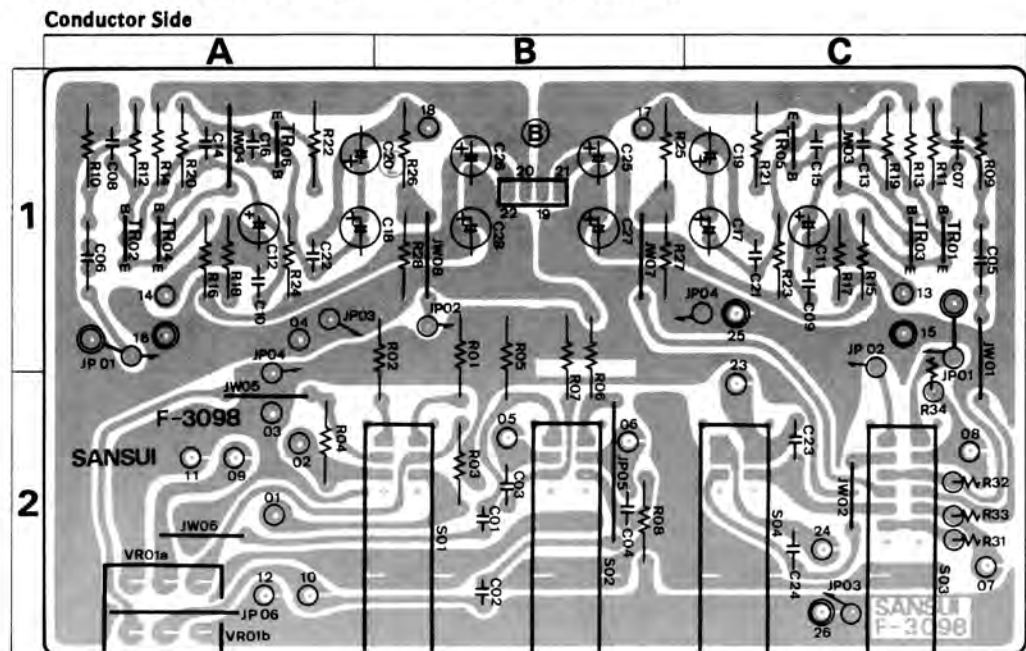


Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
•Transistor				•Diode				•Zener Diode			
TR01,02	0306740,1	2SC1845 F,E	1,2B	D 01,02	0311160	1S2473D	1,2A	ZD01,02	0316320	RD13E C	1B,2B
TR03 ~ 06	0306071	2SC1313 G,H	1,2B	•FET							
TR07 ~ 10	0301090,1	2SA992 F,E	1,2A	FET01,02	0370311,2	2SK129A L,M	1,2B				
TR11,12	0306740,1	2SC1845 F,E	1,2A								
TR13,14	0308521,2	2SD438 E,F	1,2A								
TR15,16	0303361,2	2SB560MP E,F	1,2A								
				•Volume Controls							
				VR01,02	1033570	Volume 100Ω B DC 0V	1B				
				VR02	1035290	Volume 470Ω B Bias	3B				

- Abbreviations
- C.R. Carbon Resistor
 - S.R. Solid Resistor
 - Ce.R. Cement Resistor
 - M.R. Metal Film Resistor
 - F.R. Fusing Resistor
 - N.I.R. Non-Inflammable Resistor
 - C.C. Ceramic Capacitor
 - C.T. Ceramic Capacitor, Temperature Compensation
 - E.C. Electrolytic Capacitor
 - E.L. Low Leak Electrolytic Capacitor
 - E.B. Bi-Polar Electrolytic Capacitor
 - E.BL. Low Leak Bi-Polar Electrolytic Capacitor
 - Ta.C. Tantalum Capacitor
 - F.C. Film Capacitor
 - M.P. Metalized Paper Capacitor
 - P.C. Polystyrene Capacitor
 - G.C. Gimmic Capacitor

4-5. F-3098 Tone Control Circuit Board (Stock No. 7562941)

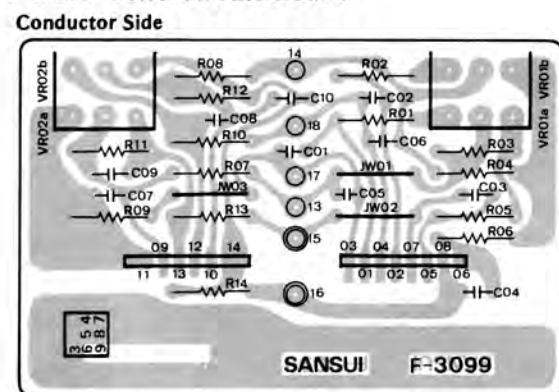


Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
• Transistor							
TR01 ~ 04	0306071	2SC1313 G, H	1A.1C	S 01	1171770	Lever Switch, muting	2B
TR05, 06	0301090, 1	2SA992 F, E	1A.1C	S 02	1171770	Lever Switch, loudness	2B
C 01, 02	0622511	510pF 125V P.C.	2B	S 03	1171800	Lever Switch, tone	2C
VR01	1015320, 1	Volume 250kΩ, balance	2A	S 04	1171770	Lever Switch, subsonic	2C

• The circuit boards, F-3099, F-3100, F-3094 & F-3096 are not supplied as the assembled, the individual parts on the circuit boards, however are provided for orders.

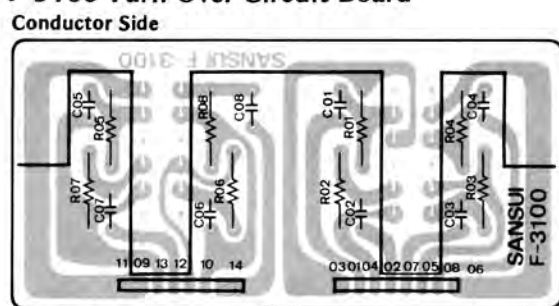
4-6. F-3099 Tone Circuit Board



Parts List

Parts No.	Stock No.	Description
VR01, 02	1015380, 1	Volume 100kΩ C, bass & treble

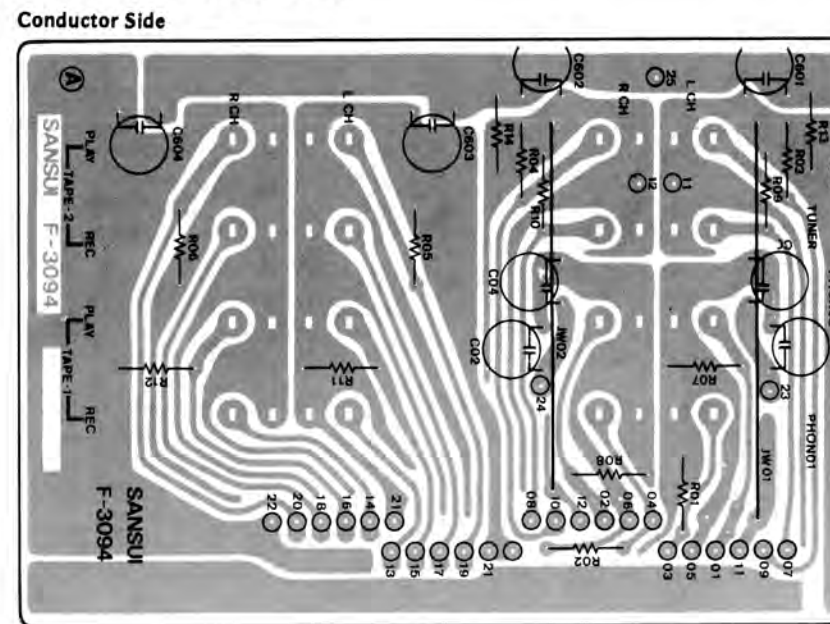
4-7. F-3100 Turn Over Circuit Board



Parts List

Parts No.	Stock No.	Description
S 01	1131410	Push Switch, turn over

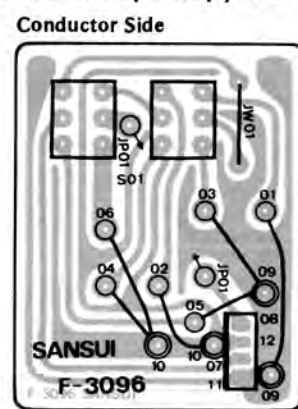
4-8. F-3094 Input Circuit Board



Parts List

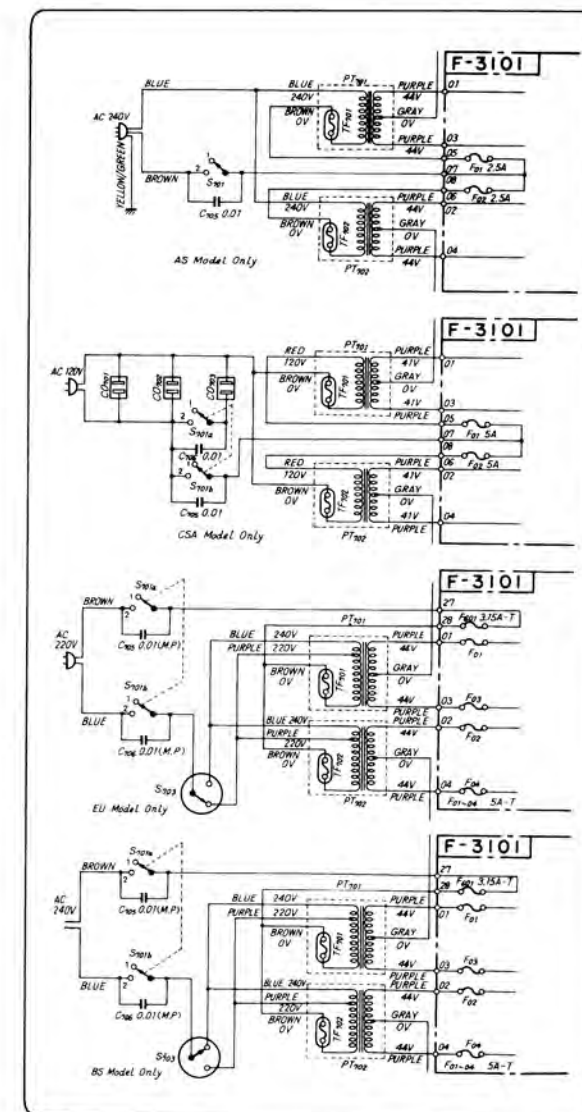
Parts No.	Stock No.	Description
	2200580	4P Input Terminal, tape
	2200620	4P Input Terminal, phone tuner, aux

4-9. F-3096 Tape Copy Circuit Board



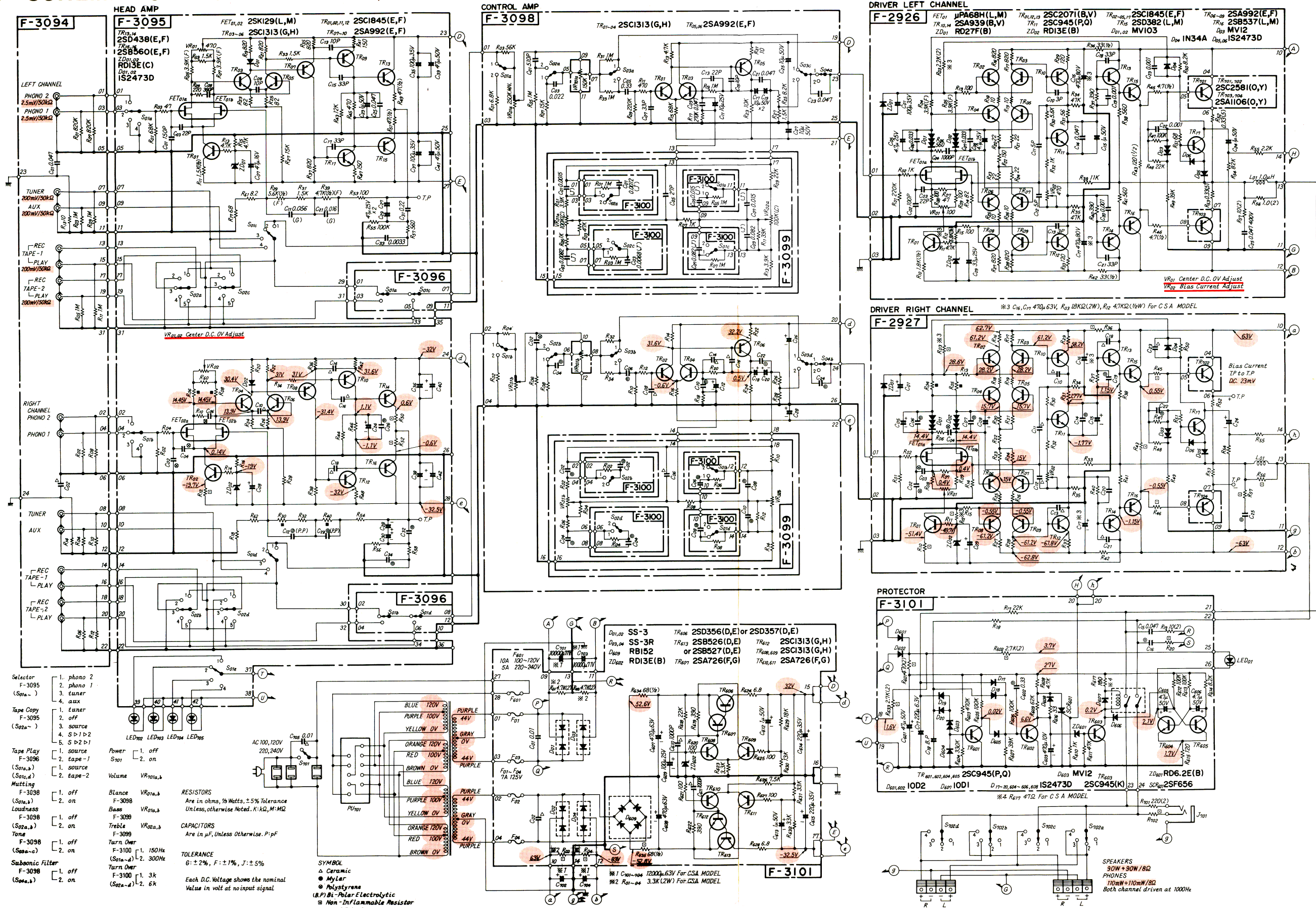
Parts List

Parts No.	Stock No.	Description
S 01	1131400	Push Switch, tape play



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

6. SCHEMATIC DIAGRAM



- | | |
|---------|-------------|
| 2SD438 | μ PA68H |
| 2SB560 | |
| 2SC1845 | |
| 2SA992 | |
| 2SC945 | |
| 2SD356 | |
| 2SD357 | |
| 2SB526 | |
| 2SB527 | |
| 2SA726 | |
| 2SC1313 | |
| 2SA939 | |
| 2SC2071 | |
| 2SA1106 | |
| 2SC2581 | |
| 2SD382 | |
| 2SK129 | |
| 2SB537 | |
| 2SF656 | 1N34A |
| MV12 | |
| MV103 | |
| RD6.2E | |
| RD13 | |
| RD27F | |
| IS2473D | |
| RB152 | |
| SS3 | |
| SS3R | |

- Selector F-3095 (S01a-)
- phono 2
 - phono 1
 - tuner
 - aux
- Tape Copy F-3095 (S02a-)
- tuner
 - off
 - source
 - S > I > 2
 - S > 2 > I
- Tape Play F-3096 (S01a,)
- source
 - tape-1
 - source
 - tape-2
- Muting F-3098 (S01a,)
- off
 - on
- Loudness F-3098 (S02a,)
- off
 - on
- Tone F-3098 (S03a-)
- off
 - on
- Subsonic Filter F-3098 (S04a,)
- off
 - on

- Power S01 1. off 2. on
- Volume VR01a,b
- Balance VR01a,b
- Base VR01a,b
- Treble VR02a,b
- Turn Over F-3100 1. 150Hz 2. 300Hz
- Turn Over F-3100 (S01a-)
1. 3k
 2. 6k

- RESISTORS**
 Are in ohms, $\frac{1}{2}$ Watts, $\pm 5\%$ Tolerance Unless, otherwise Noted. K: k Ω , M: M Ω
- CAPACITORS**
 Are in μ F, Unless Otherwise, P: pF
- TOLERANCE**
 G: $\pm 2\%$, F: $\pm 1\%$, J: $\pm 5\%$
- SYMBOL**
 (C) Ceramic
 (M) Mylar
 (P) Polystyrene
 (B,P) Bi-Polar Electrolytic
 (N) Non-Flammable Resistor
 (M) Metal Film Resistor

- LEDs: LED01, LED02, LED03, LED04
- AC 100, 120V 220, 240V
- Power Transformer: 10A 100-120V 5A 220-240V
- Diodes: RB152, SS-3, SS-3R, RB152, RD13E(B), RD13E(B), RD27F(B), RD27F(B)
- Capacitors: C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100

- Resistors: R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100

- Capacitors: C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100

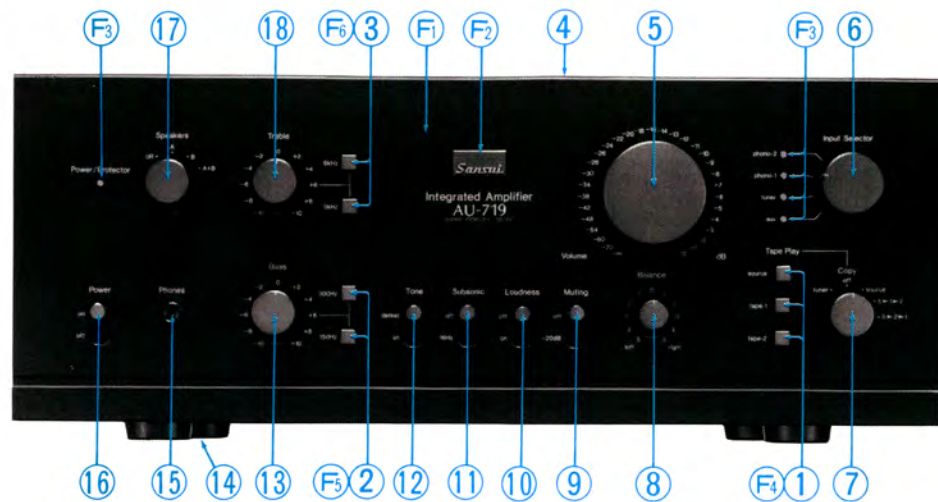
- Diodes: ZD01, ZD02, ZD03, ZD04, ZD05, ZD06, ZD07, ZD08, ZD09, ZD10, ZD11, ZD12, ZD13, ZD14, ZD15, ZD16, ZD17, ZD18, ZD19, ZD20, ZD21, ZD22, ZD23, ZD24, ZD25, ZD26, ZD27, ZD28, ZD29, ZD30, ZD31, ZD32, ZD33, ZD34, ZD35, ZD36, ZD37, ZD38, ZD39, ZD40, ZD41, ZD42, ZD43, ZD44, ZD45, ZD46, ZD47, ZD48, ZD49, ZD50, ZD51, ZD52, ZD53, ZD54, ZD55, ZD56, ZD57, ZD58, ZD59, ZD60, ZD61, ZD62, ZD63, ZD64, ZD65, ZD66, ZD67, ZD68, ZD69, ZD70, ZD71, ZD72, ZD73, ZD74, ZD75, ZD76, ZD77, ZD78, ZD79, ZD80, ZD81, ZD82, ZD83, ZD84, ZD85, ZD86, ZD87, ZD88, ZD89, ZD90, ZD91, ZD92, ZD93, ZD94, ZD95, ZD96, ZD97, ZD98, ZD99, ZD100

- Transistors: TR01, TR02, TR03, TR04, TR05, TR06, TR07, TR08, TR09, TR10, TR11, TR12, TR13, TR14, TR15, TR16, TR17, TR18, TR19, TR20, TR21, TR22, TR23, TR24, TR25, TR26, TR27, TR28, TR29, TR30, TR31, TR32, TR33, TR34, TR35, TR36, TR37, TR38, TR39, TR40, TR41, TR42, TR43, TR44, TR45, TR46, TR47, TR48, TR49, TR50, TR51, TR52, TR53, TR54, TR55, TR56, TR57, TR58, TR59, TR60, TR61, TR62, TR63, TR64, TR65, TR66, TR67, TR68, TR69, TR70, TR71, TR72, TR73, TR74, TR75, TR76, TR77, TR78, TR79, TR80, TR81, TR82, TR83, TR84, TR85, TR86, TR87, TR88, TR89, TR90, TR91, TR92, TR93, TR94, TR95, TR96, TR97, TR98, TR99, TR100

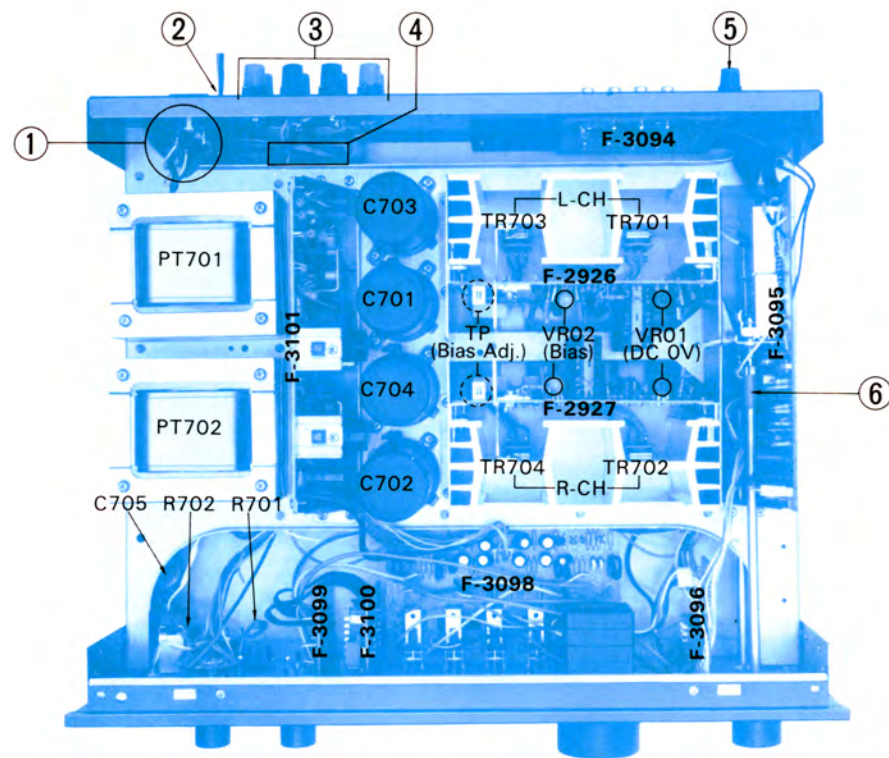
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5. OTHER PARTS

5-1. Front View



5-2. Top View



Parts List <Front View>

No.	Stock No.	Description
F 1	7008390	Front Panel Ass'y
	5457540	Front Panel
	5048221	Masking Sheet
	5506880	Rubber Packing
F 2	5330660	Sansui Badge
	5152210	CS Ring
F 3	0319190	LED
	5326620	Push Knob, tape play
F 4	8906480	Spring
	5286721	Knob Guide, tape play
F 5	1131400	Push Switch, tape play
	5326620	Push Switch, tape play
	8906480	Spring
	5286721	Knob Guide, bass turn
F 6	1131410	Push Switch, treble turn over
	5326620	Push Switch, treble turn over
3	8906480	Spring
	5286721	Knob Guide, treble turn over
4	1131410	Push Switch, treble turn over
	5006801	Bonnet
5	5318863	Knob, volume
	1090450	Volume 150kΩ
6	5319240	Knob, input selector
	1190420	Rotary Switch, input selector

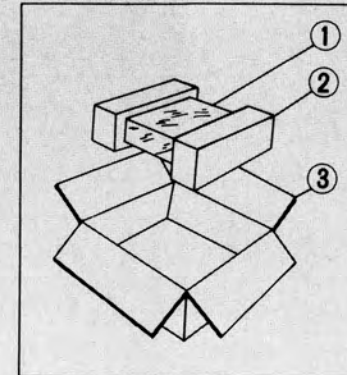
Parts List <Top View>

No.	Stock No.	Description
7	5319250	Knob, tape copy
	1190410	Rotary Switch, tape copy
8	5319260	Knob Balance Volume
	1015320, 1	Volume 250kΩ, balance
9	5326612	Knob, muting
	1171770	Lever Switch, muting
10	5326612	Knob, loudness
	1171770	Lever Switch, loudness
11	5326612	Knob, subsonic
	1171770	Lever Switch, subsonic
12	5326612	Knob, tone
	1171800	Lever Switch, tone
13	5319250	Knob, bass
	1015360, 1	Volume, 100kΩ C, bass
14	5507350	Leg
	2430290	Jack, phone
16	5326612	Knob, power switch
	1172000	Power Switch
17	5319250	Knob, Speakers
	1101930, 1	Rotary Switch, speakers
18	5319250	Knob, treble
	1015360, 1	Volume 100kΩ C, treble

Note: Parts numbered with F is included in Front panel Ass'y.

7. PACKING LIST

Stock No.	Description
9116790	Vinyl Cover
9028350	Styrofoam Packing
9002000	Carton Case



8. ACCESSORY PARTS LIST

Stock No.	Description
9238260	Schematic Diagram
9204490	Operating Instructions
5396340	Rack Mounting Adaptor

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