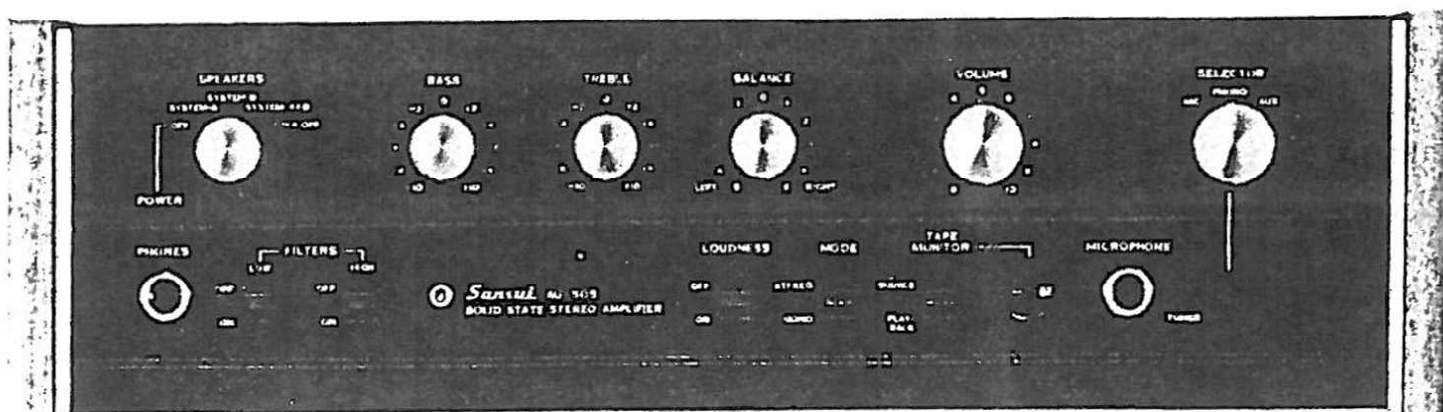


OPERATING INSTRUCTIONS & SERVICE MANUAL

SOLID-STATE STEREO AMPLIFIER

SANSUI AU-505



SANSUI ELECTRIC CO., LTD.

OPERATIONS

Congratulations on joining the thousands of proud, satisfied owners of quality stereo components from Sansui, the audio specialist.

The AU-505 is a 90-watt integrated amplifier loaded with many state-of-the-art features and distinctively styled with its sophisticated satin-black front panel, walnut-finished side panels and rational layout of controls and switches. Among which are such convenience features as a Tuner Selector to let you instantly switch to radio reception, a Mode Switch to select between stereo and mono playback, high and low filters, and provisions for connecting and selecting two pairs of speaker systems.

Beyond and above these features, the AU-505's tonal quality, like that of all other Sansui AU series amplifiers, has been perfected and proven not only by precision electronic measuring instruments, but through repeated listening tests in a wide variety of acoustic environments. This manual and the enclosed reference sheet have been prepared to guide you in operating and caring for your AU-505 correctly. Please read them once carefully, and retain for future reference.

TO PLAY RECORDS

1. Set the Selector Control to 'PHONO.'
2. Start the turntable, and adjust it for the right speed.
3. Start playing the record.
4. Adjust the amplifier for optimum sound volume and channel balance.
5. Use the tone controls and other switches and controls according to your personal preference and room acoustics.

TO RECEIVE BROADCASTS

1. Set the Tuner Selector to 'TUNER.'
2. Adjust controls on the tuner to suit your needs.
3. Use the amplifier's other controls and switches according to your personal preference and room acoustics.

TO USE A MICROPHONE

Use a high-impedance dynamic microphone for best results.

1. Set the Selector Control to 'MIC.'
2. Use other controls and switches according to your personal preference and room acoustics.

Note: When using a microphone, same sound will be delivered by both left and right speaker systems whether the Mode Switch is set to 'STEREO' or 'MONO.'

RECORDING AND PLAYBACK ON A TAPE DECK

To Record into a Tape Deck

1. Use the Selector Control or Tuner Selector to select the program source you want to record.
2. Start the tape deck in the recording mode.
3. To monitor the sound being recorded, set the Tape Monitor Switch to 'PLAYBACK.'

Note: Monitoring is possible only if the tape deck is equipped with separate heads for recording and playback.

To Reproduce Recorded Tape

1. Set the Tape Monitor Switch to 'PLAYBACK.'
2. Start the tape deck in the playback mode.
3. Use the amplifier's other controls and switches according to your personal preference and room acoustics.

SIMPLE MAINTENANCE HINTS

REAR-PANEL AC OUTLETS

Of the two AC outlets provided on the rear panel, the one marked 'SWITCHED' is controlled by the front-panel Power/Speakers Switch. The other, marked 'UNSWITCHED,' is always 'live' and independent of the Power/Speakers Switch. The voltage delivered at these AC outlets is the same as the power supply voltage used.

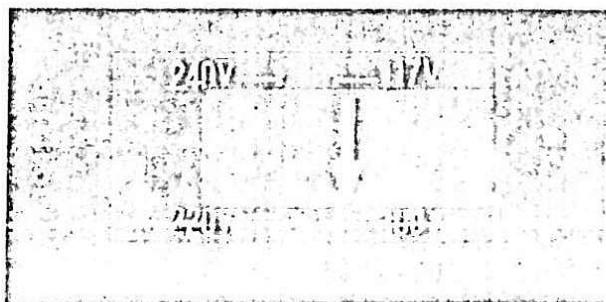
Each outlet has a power capacity of 150VA. Before you connect any appliance to them, be sure that it is adjusted for use at the same power supply voltage, and that its power consumption is below 150VA.

VOLTAGE ADJUSTMENT

Your AU-505 is adjusted to operate at the correct power supply voltage of your area prior to shipment from our factory.

Should you move after purchasing the amplifier or send it to someone as a gift, it may be necessary to adjust the Voltage Selector.

1. Remove the two screws securing the name plate on the unit's rear panel, then remove the name plate.
2. Unplug the Voltage Selector once, and reset it so that the arrow mark on it faces the correct voltage indication.
3. Change the power fuse as well whenever the power supply voltage has changed. For 100/117 volt operation, use a 2.5-ampere glass-tubed fuse. For 220/240 volt operation, use a 1.5-ampere one.
4. Where the power supply voltage considerably fluctuates, the Voltage Selector may be reset to avoid unpleasant side effects of such fluctuation. Reset it to the voltage immediately higher than the peak of the fluctuation.



SHOULD THE POWER FUSE BLOW

If the Power Indicator should fail to glow and your AU-505 remains dead when you turn on the Power/Speakers Switch, it is possible that its power fuse has blown.

If this happens, disconnect the power cord from the AC outlet and examine the power fuse on the unit's rear panel. If you find it blown, replace the blown fuse with a new glass-tubed fuse of the rated capacity (2.5-ampere for 100/117 volts, 1.5-ampere for 220/240 volts).

Never use a fuse of a different capacity or a piece of wire, even as a stopgap measure, or serious danger could result.

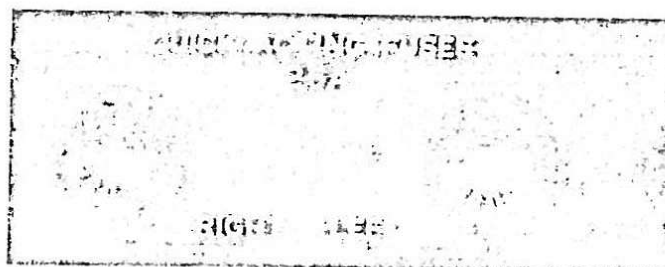


ABOUT THE QUICK-ACTING FUSES

If the Power Indicator illuminates but no sound is heard from both or either of the speaker systems, examine their connections and your operating procedure once. If nothing is wrong with them, it is possible that both or either of the quick-acting fuses protecting the power transistors has blown.

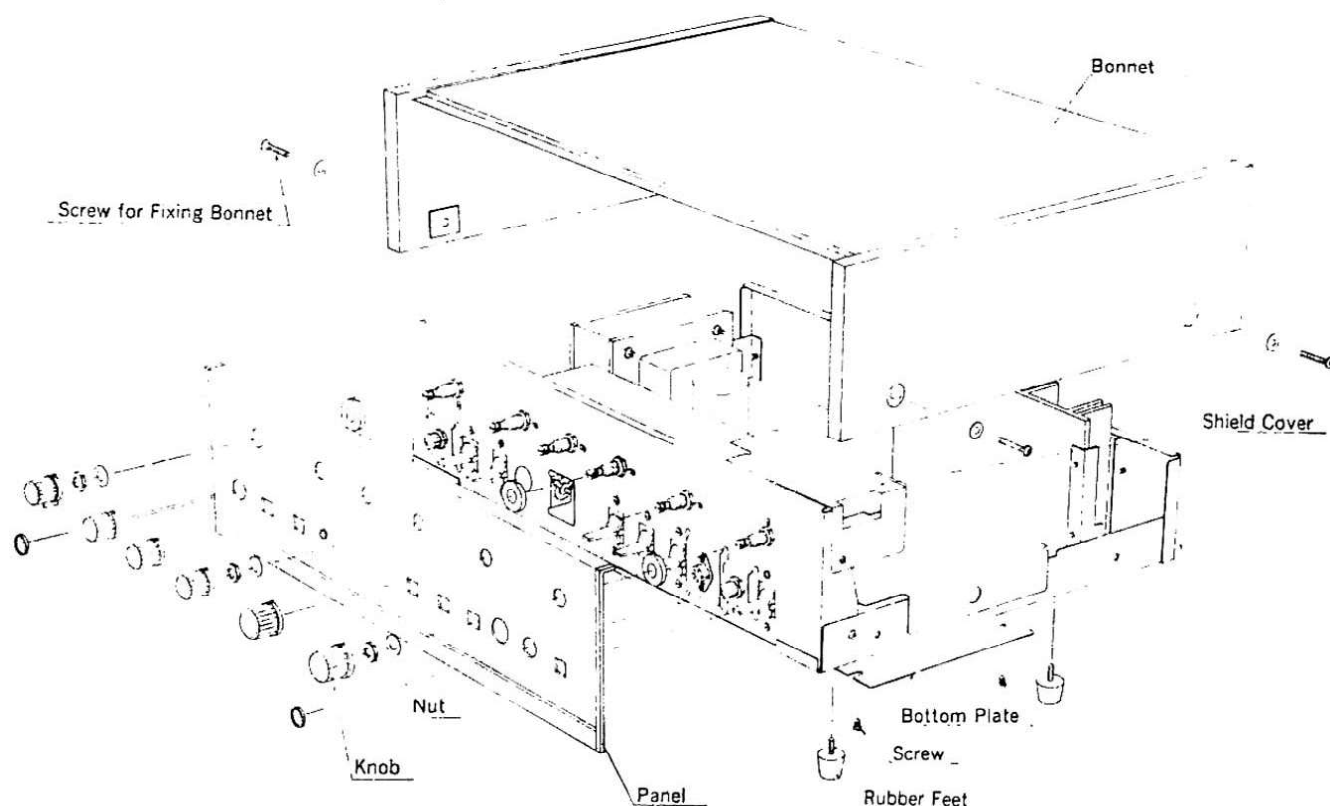
If this happens, disconnect the power cord from the AC outlet and check the two quick-acting fuses on the unit's rear panel.

If you find both or either of them blown, discover and eliminate the cause of the blowout, then replace it with a new 2.5-ampere quick-acting fuse supplied. Probable causes of the blowout include excessively large input signals and a short-circuit at the speaker terminals.



DISASSEMBLY PROCEDURE/SPECIFICATIONS

REMOVING THE FRONT PANEL, BONNET AND BOTTOM PLATE



SPECIFICATIONS

POWER OUTPUT

IHF MUSIC POWER: 90W (4Ω) at 1,000Hz
70W (8Ω) at 1,000Hz

CONTINUOUS RMS POWER (each channel driven):
35/35W (4Ω) at 1,000Hz
25/25W (8Ω) at 1,000Hz

CONTINUOUS RMS POWER (both channels driven):
23 + 23W (8Ω) at 1,000Hz
CONTINUOUS RMS POWER (both channels driven
at rated distortion, 20 to 20,000Hz):
12W $\times$ 2 (8Ω)

TOTAL HARMONIC DISTORTION (including
preamplifier): less than 0.5% at rated output

INTERMODULATION DISTORTION (60Hz: 7,000Hz
=4:1 SMPTE method, including preamplifier):
less than 0.5% at rated output

IHF POWER BANDWIDTH (each channel driven
at 8Ω): 25 to 40,000Hz

FREQUENCY RESPONSE (at normal listening level)

OVER-ALL (from AUX): 20 to 60,000Hz $\pm$ 2dB

PHONO EQUALIZATION: RIAA CURVE

LOAD IMPEDANCE: 4 to 16Ω

DAMPING FACTOR: approximately 50 at 8Ω load

INPUT SENSITIVITY AND IMPEDANCE (at 1,000Hz)

PHONO: 3mV ($50k\Omega$)

MIC: 4mV ($50k\Omega$)

TUNER: 200mV ($50k\Omega$)

AUX: 200mV ($50k\Omega$)

TAPE MONITOR (Pin): 200mV ($50k\Omega$)
(DIN): 200mV ($50k\Omega$)

RECORDING OUTPUT VOLTAGE
(at rated input, 1,000Hz)

TAPE REC (Pin): 200mV
(DIN): 30mV

CROSSTALK (at rated output, 1,000Hz)

PHONO: better than 50dB

AUX: better than 50dB

IHF HUM AND NOISE

PHONO: better than 70dB

MIC: better than 70dB

AUX: better than 75dB

CONTROLS AND SWITCHES

BASS: +13dB, -13dB at 50Hz

TREBLE: +10dB, -10dB at 10kHz

LOUDNESS: +10dB at 50Hz, +8dB at 10,000Hz
(volume control at -30dB)

LOW FILTER: OFF, ON -10dB at 50Hz (6dB/oct)

HIGH FILTER: OFF, ON -10dB at 10kHz (6dB/oct)

SEMICONDUCTORS: Transistors: 23 Diodes: 2

POWER REQUIREMENTS

POWER VOLTAGE: 100, 117, 220, 240V 50/60Hz

POWER CONSUMPTION: 120W (max.) 70W (rated)

DIMENSIONS: 115mm($4\frac{1}{2}$ "H), 407mm(16"W),
278mm($10\frac{5}{16}$ "D)

WEIGHT: 8.0kg (17.7 lbs.)

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

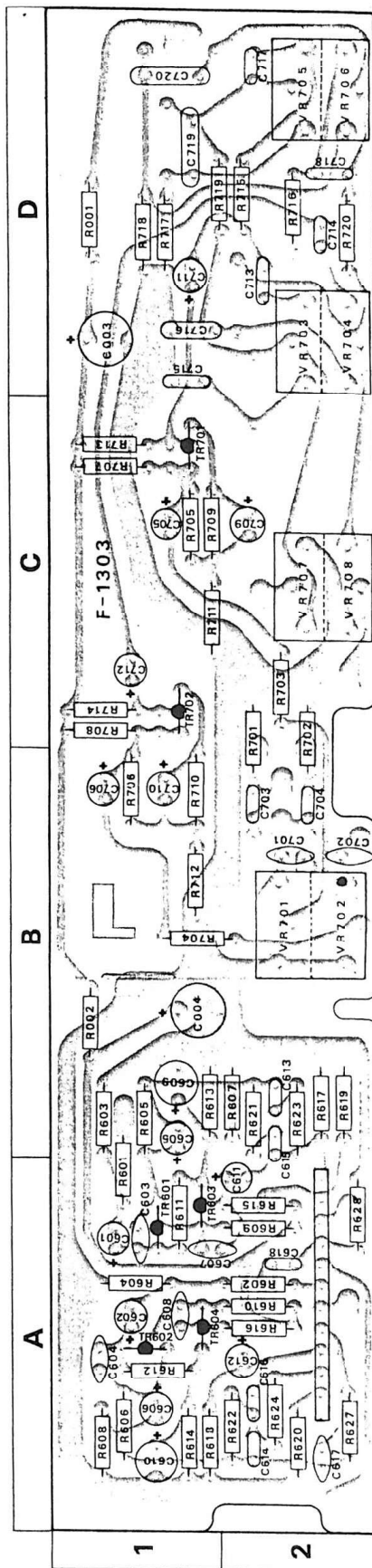
Stock No. 7560530

W	X	Y	Z
R001	1.5kΩ	0111152	1D
R002	1.5kΩ	0111152	1B
R601	2.2kΩ	0107222	1A, B
R602	2.2kΩ	0107222	2A
R603	56kΩ	0101563	1B
R604	56kΩ	0101563	1A
R605	3.9kΩ	0101392	1B
R606	3.9kΩ	0101392	1A
R607	330Ω	0101331	2B
R608	330Ω	0101331	1A
R609	180kΩ	0101184	2A
R610	180kΩ	0101184	2A
R611	390kΩ	0101394	1A
R612	390kΩ	0101394	1A
R613	680Ω	0101681	2B
R614	680Ω	0101681	2A
R615	6.8kΩ	0101682	2A
R616	6.8kΩ	0101682	2A
R617	100kΩ	0101104	2B
R618	100kΩ	0101104	1A
R619	470kΩ	0101474	2B
R620	470kΩ	0101474	2A
R621	330kΩ	0101334	2B
R622	330kΩ	0101334	2A
R623	18kΩ	0101183	2B
R624	18kΩ	0101183	2A
R625	18kΩ	0101183	2A
R626	470kΩ	0101474	2A

W	X	Y	Z
R701	22k Ω	0101223	2B, C
R702	22k Ω	0101223	2B, C
R703	2.2k Ω	0101222	2C
R704	2.2k Ω	0101222	1,2 B
R705	56k Ω	0101563	1C
R706	54k Ω	0101563	1B
R707	470k Ω	0101474	1C
R708	470k Ω	0101474	1C
R709	820 Ω	0101821	1C
R710	820 Ω	0101821	1B
R711	330k Ω	0101331	1C
R712	330k Ω	0101331	1B
R713	5.4k Ω	-0101562	1C
R714	5.4k Ω	-0101562	1C
R715	12k Ω	0101123	2D
R716	12k Ω	0101123	2D
R717	1.8k Ω	0101182	1D
R718	1.8k Ω	0101182	1D
R719	2.7k Ω	0101272	1,2 D
R720	2.7k Ω	0101272	1,2 D
VR707/702	250k Ω (B) $\times$ 2 Volume Control	1010610	2B
VR703/704	100k Ω (A) $\times$ 2 Treble Control	1010600	2D
VR705/706	100k Ω (A) $\times$ 2 Bass Control	1010600	2D
VR707/708	100k Ω (HB) Balance Control	1010590	2C
C603	470 μ F	0514471	1D
C604	470 μ F	0514471	1,2 B

W	X	Y	Z
C601	1 μ F	0515109	1 A
C602	1 μ F	0515109	1 A
C603	68pF	0640680	1 A
C604	68pF	0640680	1 A
C605	10 μ F	0511100	1 A, B
C606	10 μ F	0511100	1 A, B
C607	68pF	0640680	1, 2 A
C608	68pF	0640680	1 A
C609	10 μ F	0511100	1 B
C610	10 μ F	0511100	1 A
C611	1 μ F	0515109	1, 2 A
C612	1 μ F	0515109	2 A
C613	0.012 μ F	0601127	2 B
C614	0.012 μ F	0601127	2 A, B
C615	0.004 μ F	0601406	2 A
C616	0.004 μ F	0601406	2 A
C617	220pF	0640621	2 A
C618	0.033 μ F	0601337	2 A
C619	0.033 μ F	0601337	50 V CC.
C701	330pF	06640331	2 B
C702	330pF	06640331	2 B
C703	0.02 μ F	0601207	2 B
C704	0.02 μ F	0601207	2 B
C705	1 μ F	0515109	1 C
C706	1 μ F	0515109	1 B
C709	100 μ F	0510101	2 C
C710	100 μ F	0510101	2 C
C711	1 μ F	0515109	1 D
C712	1 μ F	0515109	1 C

W	X	Y	Z
C713	0.002 μ F	0601206	2 D
C714	0.002 μ F	0601206	2 D
C715	0.002 μ F	0601207	1 D
C716	0.002 μ F	0601207	1 D
C717	0.0022 μ F	0601227	2 D
C718	0.0022 μ F	0601227	2 D
C719	0.0022 μ F	0601228	1 D
C720	0.0022 μ F	0601228	1 D
TR601	25C871R (E, F)	0305474, 5	1 A
TR602	25C871R (E, F)	0305474, 5	1 A
TR603	25C871 (E, F)	0305471, 2	1 A
TR604	25C871 (E, F)	0305471, 2	1 A
TR701	25C871R (E, F)	0305474, 5	1 C
TR702	25C871R (E, F)	0305474, 5	1 C
S1(6~4)	Selector Control 1-4-3	1101240	2 A
	F-1303 Printed Circuit Board	2560310	



- Abbreviations—
CR : Carbon Resistor
SR : Solid Resistor
CaR: Cement Resistor
MMC: Mylar Capacitor
EEC: Electrolytic Capacitor
CC : Ceramic Capacitor
TC : Tantalum Capacitor

PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No Z: Position of Parts

FILTER BLOCK <F-2001>

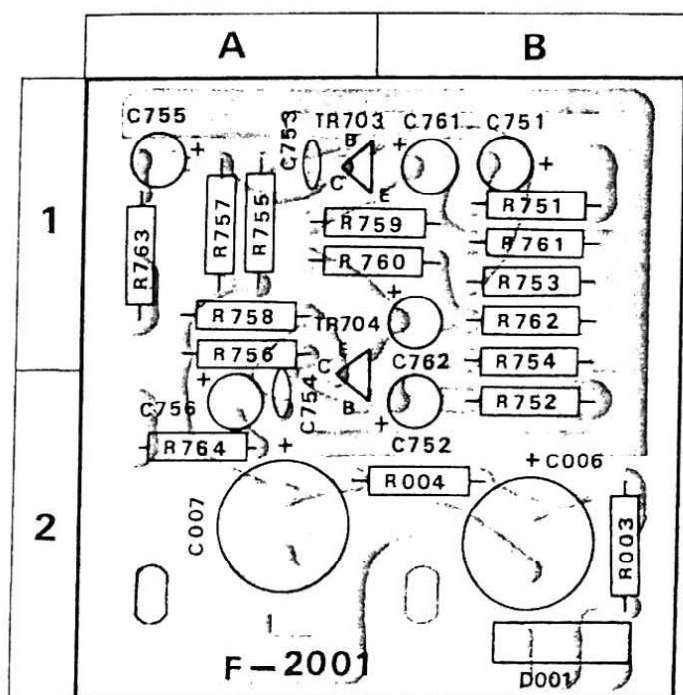
Stock No. 7590920

W	X	Y	Z
R003	1k Ω	0111102	2 B
R004	8.2k Ω	0111822	2 B
R751	2.2k Ω	0101222	1 B
R752	2.2k Ω	0101222	1 B
R753	82k Ω	0101823	1 B
R754	82k Ω	0101823	1 B
R755	330k Ω	0101334	1 B
R756	330k Ω	0101334	1 A
R757	3.3k Ω	0101332	1 A
R758	3.3k Ω	0101332	1 A
R759	1k Ω	0101102	1 A, B
R760	1k Ω	0101102	1 A, B
R761	1.5k Ω	0101152	1 B
R762	1.5k Ω	0101152	1 B
R763	2.2k Ω	0101222	1 A
R764	2.2k Ω	0101222	2 A
C006	100 μ F	0515101	2 B
C007	220 μ F	0513221	2 A
C751	1 μ F	0515109	1 B
C752	1 μ F	0515109	2 B
C753	47pF	0660470	1 A
C754	47pF	0660470	2 A
C755	1 μ F	0573109	1 A
C756	1 μ F	0573109	2 A
C761	47 μ F	0510470	1 B
C762	47 μ F	0510470	1 B
TR703	2SC871R (E, F)	0305474, 5	1 A
TR704	2SC871R (E, F)	0305474, 5	1 A
D001	10DC-1	0310680	2 B
F-2001	Printed Circuit Board	2591130	

POWER AMP. BLOCK <F-1266A>

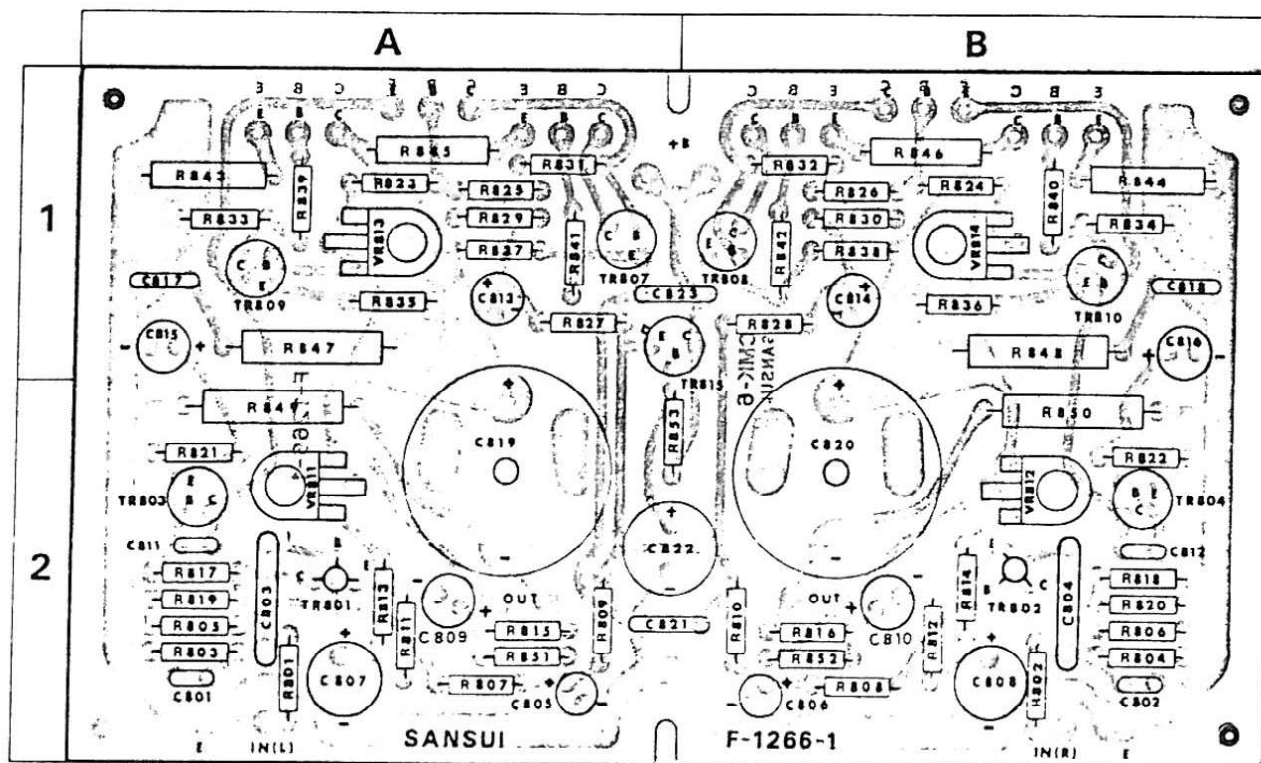
Stock No. 7570640

W	X	Y	Z
R801	10k Ω	0101103	2 A
R802	10k Ω	0101103	2 C
R803	470k Ω	0101474	2 A
R804	470k Ω	0101474	2 B
R805	150k Ω	0101154	2 A
R806	150k Ω	0101154	2 B
R807	560k Ω	0101564	2 A
R808	560k Ω	0101564	2 B
R809	560k Ω	0101564	2 A
R810	560k Ω	0101564	2 B
R811	150 Ω	0101151	2 A
R812	150 Ω	0101151	2 B
R813	4.7k Ω	0101472	2 A
R814	4.7k Ω	0101472	2 B
R815	12k Ω	0101123	2 A
R816	12k Ω	0101123	2 B
R817	1k Ω	0101102	2 A
R818	1k Ω	0101102	2 B
R819	1k Ω	0101102	2 A
R820	1k Ω	0101102	2 B
R821	220 Ω	0101221	2 A
R822	220 Ω	0101221	2 B
R823	1k Ω	0101102	1 A
R824	1k Ω	0101102	1 B
R825	3.3k Ω	0101332	1 A
R826	3.3k Ω	0101332	1 B
R827	1k Ω	0101102	1 A
R828	1k Ω	0101102	1 B
R829	3.9k Ω	0101392	1 A
R830	3.9k Ω	0101392	1 B



W	X	Y	Z
R831	39 Ω	0101390	1 A
R832	39 Ω	0101390	1 B
R833	150 Ω	0101151	1 A
R834	150 Ω	0101151	1 B
R835	27 Ω	0101270	1 A
R836	27 Ω	0101270	1 B
R837	150 Ω	0101151	1 A
R838	150 Ω	0101151	1 B
R839	6.8 Ω	0101689	1 A
R840	6.8 Ω	0101689	1 B
R841	6.8 Ω	0101689	1 A
R842	6.8 Ω	0101689	1 B
R843	0.47 Ω	0132478	1 A
R844	0.47 Ω	0132478	1 B
R845	0.47 Ω	0132478	1 A
R846	0.47 Ω	0132478	1 B
R847	6.8 Ω	0133689	1 A
R848	6.8 Ω	0133689	1 B
R849	150 Ω	0185151	2 A
R850	150 Ω	0185151	2 B
R851	12k Ω	0101123	2 A
R852	12k Ω	0101123	2 B
R853	15k Ω	0101153	2 A, B
VR811	20k Ω (B)	1030462	2 A
VR812	20k Ω (B)	1030462	2 B
VR813	1k Ω (B)	1030590	1 A
VR814	1k Ω (B)	1030590	1 B
C801	47pF	0660470	2 A
C802	47pF	0660470	2 B
C803	0.47 μ F	0601478	2 A
C804	0.47 μ F	0601478	2 B

W	X	Y	Z
C805	1 μ F	0515109	2 A
C806	1 μ F	0515109	2 B
C807	470 μ F	0512471	2 A
C808	470 μ F	0512471	2 B
C809	33 μ F	0512330	2 A
C810	33 μ F	0512330	2 B
C811	47pF	0660470	2 A
C812	47pF	0660470	2 B
C813	47 μ F	0515470	1 A
C814	47 μ F	0515470	1 B
C815	220 μ F	0510221	1 A
C816	220 μ F	0510221	1 B
C817	0.1 μ F	0601108	1 A
C818	0.1 μ F	0601108	1 B
C819	1500 μ F	0549204	1, 2 A
C820	1500 μ F	0549204	1, 2 B
C821	0.01 μ F	0659011	2 A, B
C822	220 μ F	0519302	2 A, B
TR801	2SA640 (L, M)	0300301, 2	2 A
TR802	2SA640 (L, M)	0300301, 2	2 B
TR803	2SC875-3 (F)	0305982	2 A
TR804	2SC875-3 (F)	0305982	2 B
TR805	2SC281 (B)	0305121	1 A
TR806	2SC281 (B)	0305121	1 B
TR807	2SC875-3 (D, E)	0305980, 1	1 A
TR808	2SC875-3 (D, E)	0305980, 1	1 B
TR809	2SA532-3 (D, E)	0300370, 1	1 A
TR810	2SA532-3 (D, E)	0300370, 1	1 B
TR815	2SC959 (L, M)	0305741, 2	1 A, B
F-1266-1 Printed Circuit Board		2570271	



OTHER PARTS AND THEIR POSITIONS ON CHASSIS

W: Parts No. X: Parts Name Y: Stock No

OTHER PARTS

W	X	Y
R625	470k Ω	0101474
R626	470k Ω	0101474
R629	330k Ω	0101334
R630	330k Ω	0101334
R631	100k Ω	0101104
R632	100k Ω	0101104
R633	10k Ω	0101103
R634	10k Ω	0101103
R765	2.2k Ω	0101222
R766	2.2k Ω	0101222
R767	100k Ω	0101104
R768	100k Ω	0101104
R769	470k Ω	0101474
R770	470k Ω	0101474
R861	470 Ω	0105471
R862	470 Ω	0105471
C001	2200 μ F 63 V EC.	0559504
C002	0.01 μ F 500V CC.	0659011
C005	0.01 μ F 1.4kV CC.	0659801
C757	0.01 μ F	0601107
C758	0.01 μ F	0601107
C759	0.01 μ F	0601107
C760	0.01 μ F	0601107
TR811	2SD188 (L, M)	0308301, 2
TR812		0308301, 2
TR813		0308301, 2
TR814		0308301, 2
	Power Transistor Socket (× 4)	2030020
S2	Tape Monitor Switch	1170060
S3	Loudness Switch	1170060
S4	Tuner Selector	1170060
S5	Mode Switch	1170060
S6	High Filter Switch	1170060
S7	Low Filter Switch	1101410
S8	Power/Speakers Switch Y-1-4-5	1170060
T001	Power Transformer 400-A1040XX	4001100
J601	DIN Connector Socket	2430050
J602	MIC Jack	2430100
J801	Headphones Jack	2430110
PU001	Voltage Selector Plug	2410090
	Voltage Selector Socket	2410080
CO001,2	AC Outlet (× 2)	2450010
F001	2.5A Power Fuse (100/117V)	0431252
	1.5A Power Fuse (220/240V)	0431232
	Power Fuse Holder	2300060
F002,003	2.5A Quick-Acting Fuse (× 2)	0433240, 2
	Quick-Acting Fuse Holder (× 2)	2300020
F004	3A Wired in Fuse	0431850

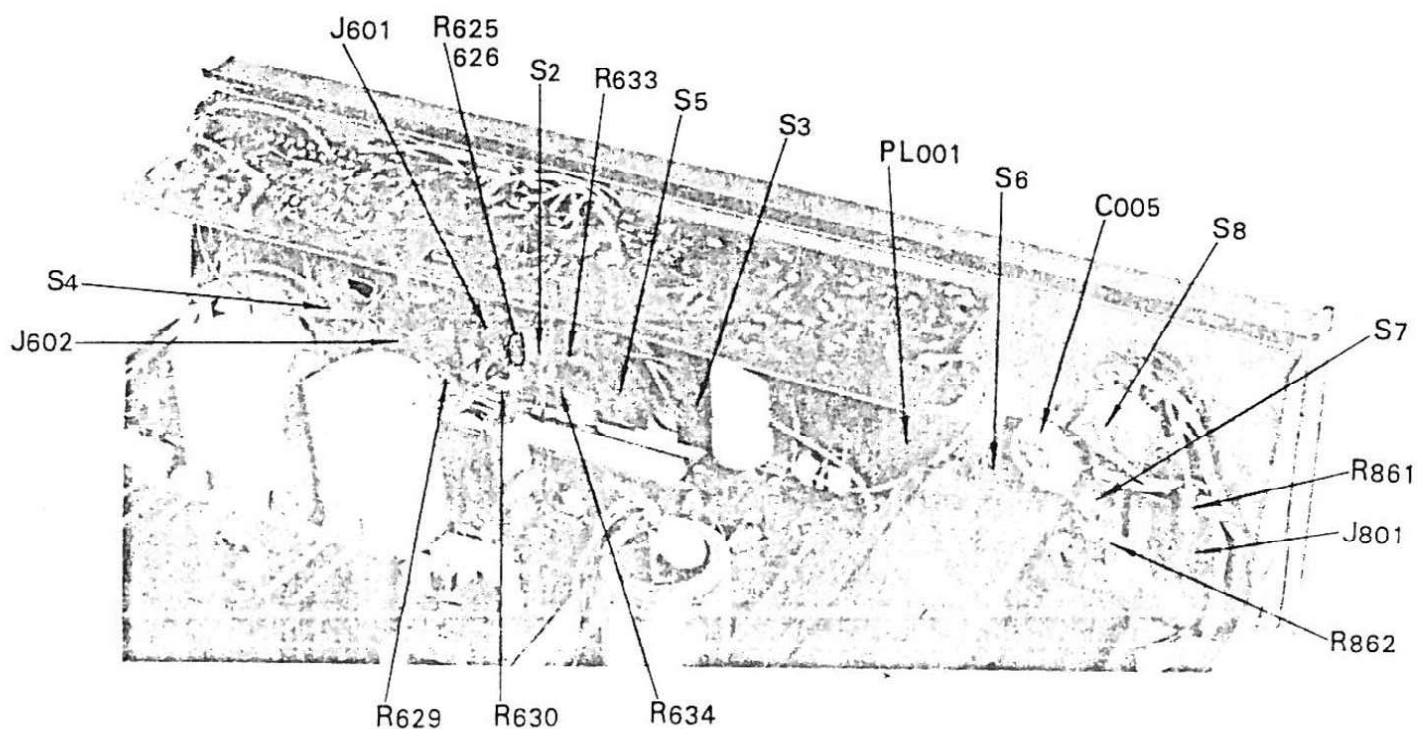
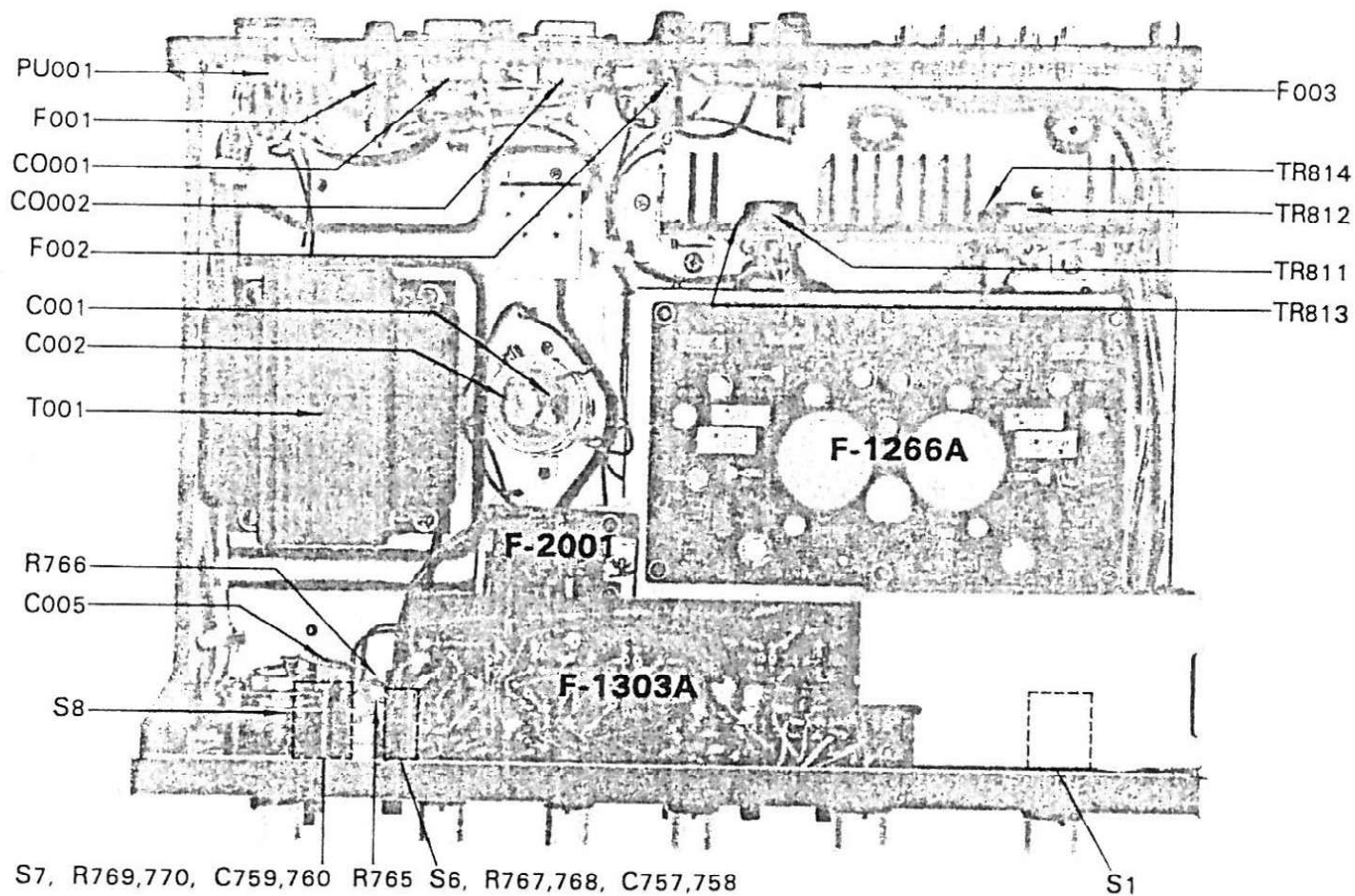
W	X	Y
PL001	6.3V 0.25A Power Indicator Lamp	0400090
	Lamp Socket	2320080
	Power Supply Cord	3800020
	F-1303A Equalizer Unit	7560530
	F-2001 Filter Unit	7590920
	F-1266A Power Amp. Unit	7570640

About Servicing

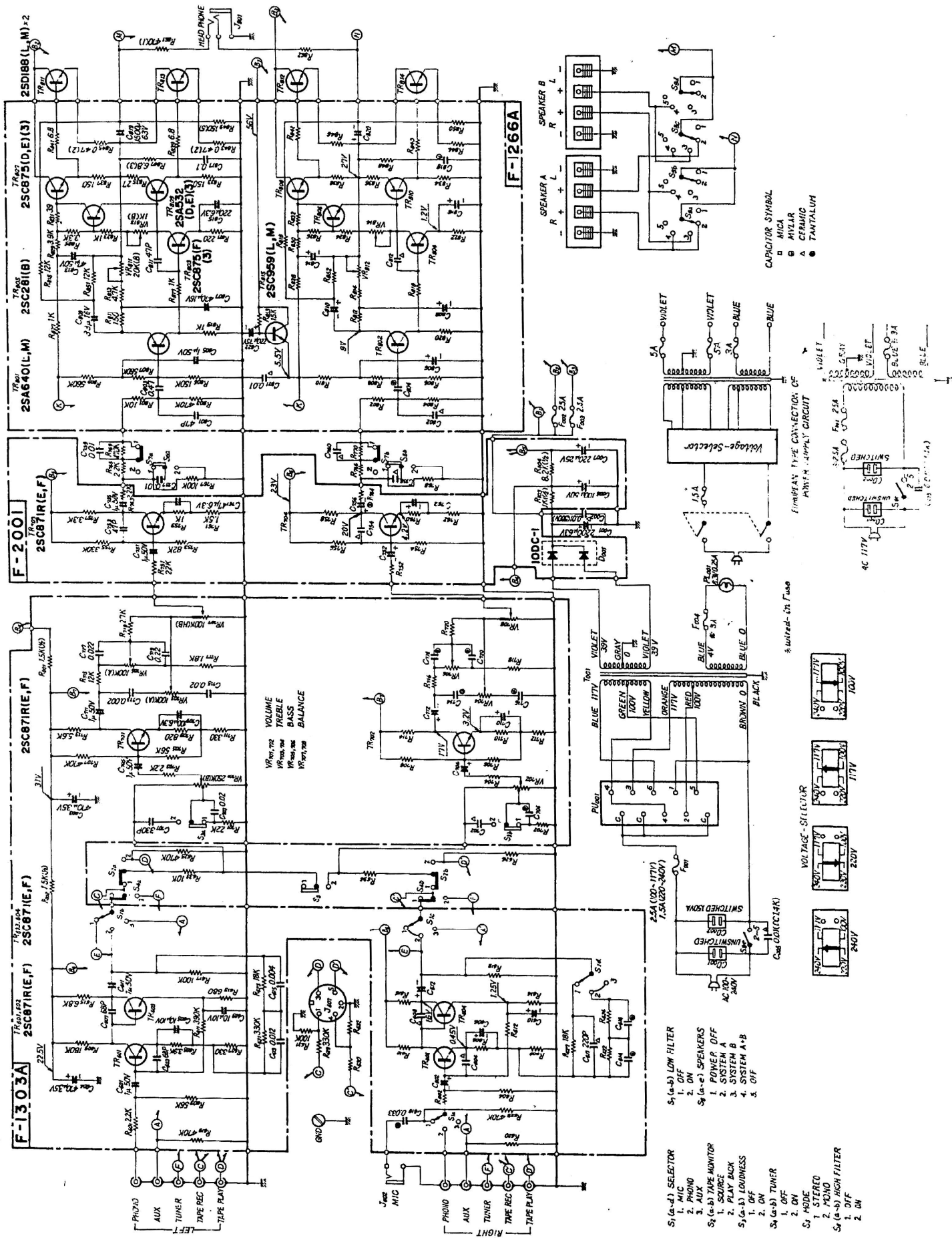
Should anything ever go wrong with your AU-505, or if you have any question about it, please contact the Sansui dealer from whom you purchased it or your nearest Authorized Sansui Service Station.

List of Accessories

1. PIN PLUGS 4
2. POLISHING CLOTH 1
3. QUICK-ACTING FUSES (2.5A)..... 2
4. OPERATING INSTRUCTIONS AND SERVICE MANUAL 1
5. OPERATING INSTRUCTIONS SHEET 1



SCHEMATIC DIAGRAM





SANSUI ELECTRIC CO., LTD.

14-1, 2-chome, Izumi, Suginamiku, Tokyo 168, Japan.
TELEPHONE: (03) 323-1111/TELEX: 232-2076

Stock No. 9206990

Printed in Japan (D2410M5)