Set using ISO screws

STR-6045

USA and CANADA Model

SONY®

SERVICE MANUAL

TABLE OF CONTENTS

SECTION 1
TECHNICAL DESCRIPTION

1-1. TECHNICAL SPECIFICATIONS

Technical specifications for the STR6045 are given in Table 1-1.

TABLE 1-1. TECHNICAL SPECIFICATIONS

Fm Tuner Section

Antenna	300 ohms balanced
Intermediate frequency	10.7 MHz
Tuning range	87.5 to 108 MHz
Sensitivity	2.6 μV (IHF usable sensitivity) 2.2 μV (S/N, 30 dB)
S/N ratio	70 dB
Capture ratio	1.5 dB
Selectivity	80 dB
Image rejection	75 dB
I-f rejection	90 dB
Suprious rejection	100 dB
A-m suppression	65 dB
Frequency response	20 Hz to 15 kHz $\pm^{0}_{3}$ dB
Stereo separation	35 dB at 400 Hz
Harmonic distortion	Mono : 0.4 % IHF (400 Hz 100 % Mod.) Stereo : 0.8 % IHF (400 Hz 100% Mod.)
19 kHz, 38 kHz suppression	50 dB

A-m Tuner Section

Antenna	Built-in ferrite bar antenna with external antenna terminal
Tuning range	530 kHz to 1605 kHz
Sensitivity	50 dB/m, built-in antenna (S/N : 20 dB) 30 μV, external antenna
I-f rejection	41 dB at 1000 kHz
Harmonic distortion	0.8%
Image rejection	45 dB at 1000 kHz

Audio Amplifier Section

Dynamic power output (IHF constant supply method)	75 watts (8 ohms), both channels operating 84 watts (4 ohms), both channels operating
Continuous RMS power	25 watts (8 ohms) per channel both channels operating
20 Hz to 20 kHz power	20 watts (8 ohms) both channels operating
Power bandwidth	10 Hz to 30 kHz, IHF
Harmonic distortion	Less than 0.5 % at 1 kHz at rated continuous RMS power output Less than 0.5 % at 1 watt output
IM distortion	Less than 0.5 % at rated continuous RMS power output
Frequency response	PHONO : RIAA curve ±1 dB TAPE, AUX : 10 Hz to 50 kHz $\pm^{0}_{3}$ dB
Input sensitivity and impedance	PHONO : 2.5 mV, 47 k TAPE, AUX : 250 mV, 100 k
Signal output and impedance	REC OUT : 250 mV, 15 k
S/N ratio	PHONO : greater than 65 dB (weighting network "B") TAPE : greater than 90 dB (weighting network "A") AUX : greater than 70 dB (weighting network "A")
Tone controls	BASS : ±10 dB at 100 Hz TREBLE : ±10 dB at 10 kHz
Filters	HIGH 6 dB/oct. above 5 kHz
Loudness control	+8 dB at 50 Hz +4 dB at 10 kHz (with 30 dB attenuation)

General

Power consumption	95 watts
Power requirement	120 volts, 50/60 Hz ac
Dimensions	400 mm (width) X 145 mm (height) X 310 mm (depth) 15 3/4" (width) X 5 3/4" (height) X 12 1/4" (depth)
Net weight	8.3 kg (18 lbs 5 oz)
Shipping weight	11.4 kg (25 lbs 2 oz)

1-2. DETAILED CIRCUIT ANALYSIS

The following describes the function or operation of all stages and controls. The text sequence follows signal paths. Stages are listed by transistor reference designation at the left margin; major components are also listed in a similar manner.
Refer to the block diagram on pages 9 to 10 and the schematic diagram on pages 39 to 42.

Stage/Control	*Function*
FM Front End	
Passive rf circuit	A triple-tuned circuit is employed between the antenna and mixer transistor. This passive coupling circuit contains no active amplifiers, so it is perfectly linear and cannot produce distortion and overload components. Thus, the factors that contribute to spurious responses are eliminated ahead of the mixer.
Local oscillator Q102	Supplies heterodying voltage to the mixer via L104. The circuit is a modified Hartley type with feedback applied to the emitter from the tap on L104.
Mixer Q101	Rf signals and local oscillator voltage are heterodyned in the gate-source junction of mixer Q101 to produce 10.7 MHz i-f output signal. IFT101 is a tuned transformer for 10.7 MHz and its low impedance output winding supplies link coupling to i-f preamplifier Q103.
I-f preamplifier Q103	The i-f signal coupled to the base of i-f preamplifier Q103 by the secondary winding of IFT101 is amplified to achieve a favorable signal-to-noise ratio before application to the filters in the i-f strip.

Stage/Control	*Function*
Fm I-f Section	
I-f amplifiers Q201 to Q206	These i-f stages are basically RC coupled amplifiers that provide essentially flat response.
CF201 to CF206	The selectivity of this section is determined by the solid-state filters in the interstage coupling paths. These ceramic filters are made up of two individual sections that operate in a "trapped-energy" mode. The filters provide extremely sharp skirt selectivity and flat response inside the pass band. These filters determine overall selectivity in the tuner.
TUNER INPUT meter M D210, D211	I-f signal from the collector of Q204 is coupled through C206 to a rectifier-doubler consisting of diodes D210 and D211. At this point in the circuit, the i-f signal is proportional to the r-f signal strength for all but very-strong input signals. Therefore, the filtered dc output voltage of the rectifier-doubler is proportional to the r-f signal strength, and is used to drive TUNER INPUT meter M.
D209	D209 is shunted across the meter to protect it from overload.
I-f output Q206	Signal at the base of Q206 has had all amplitude variations removed by the preceding limiters, and only selected signals have been passed by ceramic filters. Q206 provides power to drive the ratio detector.
Diode limiters D201 to D206	Limiting is accomplished by diode pairs, connected in parallel and poled in opposite directions. The diodes conduct when the signal across them exceeds the barrier potential of about 0.6

Stage/Control	*Function*
	volts in the forward direction. Thus the signal is limited in both directions to 1.2 volts peak-to-peak. The diodes provide symmetrical limiting.
Ratio detector D207, D208	T201 and diodes D207 and D208 form a balanced ratio detector that transforms the frequency-modulated signal into an audio signal. Output appears across C215.
MPX Decoder	
SCA trap L301, C302	The composite signal containing monaural information from 0 to 15 kHz, the 19 kHz pilot carrier, and the fm stereo signal at 38 kHz, is fed to Q301 through trap L301 -C302. This trap removes the unwanted SCA signals to feed a clean composite signal to the base of Q301 (the 19 kHz amplifier).
19 kHz amplifier Q301	This stage serves two functions. It extracts the 19 kHz pilot signal by means of a tuned circuit at its collector, and provides a low-impedance source of composite stereo signal (without the pilot carrier) at its emitter. A series-resonant circuit in the emitter circuit eliminates the 19 kHz pilot signal in the composite stereo signal.
Frequency doubler D301, D302	Signals developed at the collector of Q301 are transformer coupled to a fullwave rectifier consisting of D301 and D302. The output of this rectifier is not filtered, resulting in two positive pulses for each input cycle. Thus, the 19 kHz pilot-carrier frequency is effectively doubled by D301 and D302. However, the waveform is not sinusoidal at the base of Q302.

Stage/Control	*Function*
Stereo-mono automatic switching circuit Q304, D303, D304 D305, D306.	This prevents noisy stereo reception by automatically switching the MPX decoder's operation into the monaural mode. Noise signals above 19 kHz are extracted from the emitter circuit of Q301 and applied to the base of Q304 through a high-pass filter (L302, C306). The coupling capacitor C307 filters out audio components so that the input signal is primarily high-frequency noise. This noise signal is amplified by Q304 to drive voltage doubler D304 and D306. D305 provides positive fixed bias for Q304 through D306 and D304. When a weak stereo signal or interstation noise is received the output of D304 is fed back to the base of Q304, and drives Q304 into conduction. This in turn shorts the frequency doubler output to ground through R315, preventing amplification of the incoming signal, and therefore operation of the 38 kHz amplifier and stereo indicator circuit, Q302 and Q303. When a stereo signal is received, the signal-to-noise ratio increases, reducing the noise signal at the base of Q304. Therefore Q304 turns off and enables the stereo demodulator circuit to operate.
38 kHz amplifier Q302	The 38 kHz pulses produced by D301 and D302 are amplified by Q302. The tank circuit at the collector of Q302 is tuned to 38 kHz to restore these pulses to a sinusoidal waveform. This signal is transformer coupled to the bridge type demodulator to supply sampling drive for the demodulator.
STEREO lamp circuit Q303	The STEREO indicator lights when the FUNCTION switch is set to the FM AUTO STEREO

Stage/Control	*Function*
	position and an fm stereo signal is received. The emitter of Q302 is connected to the base of Q303 which is normally cut off. The circuit operates as follows: When a composite stereo signal is applied to the multiplex decoder, the 38 kHz pulses produced at the output of the frequency doubler yield a higher average current flow through Q302. This forces Q303 into conduction, lighting STEREO indicator lamp PL901.
Multiplex demodulator D307, D308 D309, D310	The demodulator circuit employs four diodes in a balanced-bridge arrangement. This system has the advantage of cancelling residual rf components (38 kHz signal, some 19 kHz signal, and higher order harmonics of these frequencies.) "L" and "R" components are developed at each side of the bridge as the result of demodulation, when the receiver is operated in the stereo mode. (See Fig. 1-1.)

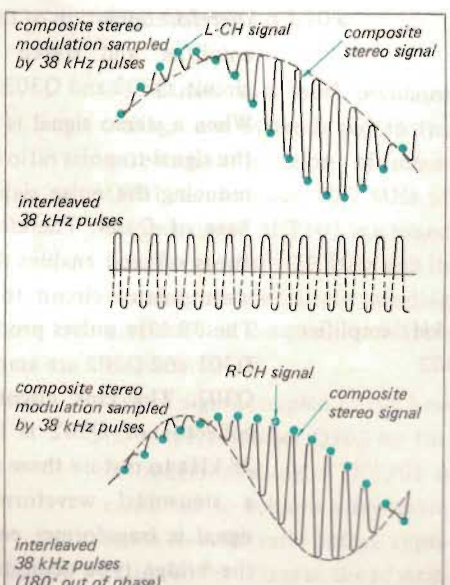


Fig. 1-1 Stereo demodulation operation

Stage/Control	*Function*
	In the monaural mode, diodes D307 and D310 are forward biased by supply voltage through R316, the STEREO indicator lamp, R318, R323, and R322, so these diodes merely act as small resistances. Under this condition, the monaural signal is applied to both "L" and "R" audio amplifiers.
Twin-T filter R330, R332, R329 R331, R333, R328 C324, C328, C327 C325, C329, C326	This filter eliminates the 38 kHz carrier and residual rf components, thereby preventing carrier leak.
A-m Tuner	
Antenna circuit	A-m signals are received by the antenna tank circuit formed by L901, C401, L402, CV40l, CT401, C402 and C403. C40l is selected not for its effect upon tuning, but to reduce spurious radiation by the local oscillator.
Low-pass filter L401	The low pass filter (L401 - C401) reduces the spurious radiation caused by local oscillator which may interfere another receiver or communication system through the external antenna.
Local oscillator Q405	This stage supplies the injection voltage necessary to receive a-m signals. In this modified Hartley oscillator circuit, feedback is applied to the emitter of Q405 from aa low-impedance winding on oscillator coil L404.
S2 FUNCTION (2) switch	S2 is a rotary-slide switch which is interconnected with rotary switch's shaft to perform proper changeover of tuner operation.
Mixer Q401	Incoming rf signal is fed to the base of Q401, while the local oscillator voltage is injected to the emitter circuit of Q401. These two signals are heterodyned in

Stage/Control	Function
	the base-emitter junction of Q401 to produce the 455-kHz output. This stage functions as the gain control element of the agc system due to Q402 in the emitter circuit, as will be explained later.
CFT401	CFT401 is a combination unit which contains a double-tuned circuit and one ceramic filter tuned to 455 kHz. It deveolps the i-f signal, and determines the selectivity inside the passband. It also provides link coupling to i-f amplifier Q403.
AGC circuit	There are two feedback loops which provide proper agc operation. One is the minor loop applying AGC to the i-f amplifier Q404's base circuit. The other is the major feedback loop applying dc from the emitter circuit of Q404 to the emitter circuit of Q401 through Q402. The minor feedback loop consists of D401, R418, R438, C431 and R415. The a-m i-f signal is extracted from the collector circuit of Q404 through C413 and rectified by diode D401. The output of the diode D401 is a positive dc voltage roughly proportional (not exactly due to agc action) to the carrier levels of input signal and fed to the base of Q402 through a filter circuit. Thus the output of diode D401 controls the current flow in Q404 and its emitter voltage as well. Major feedback is produced by the emitter circuit of Q404, R416, C429, C427, R433 and Q402. The emitter voltage of Q404 is applied to the base of Q402 through the filter circuit, determining the positive bias on Q402. As the Q402 shunts the emitter resistor of mixer Q401, it controls the operation of Q401 as a forward agc element. When the strong signal is received, Q402 is forced into conduction, shorting Q401's emitter to ground through R405. As a result, current flow in the Q401 (mixer) increase, reducing its current gain and allowing stable operation in a strong field-strength area.
I-f amplifer Q403	This stage is basically an RC-coupled amplifier and amplifies the i-f signal to the proper level required by the following stages.
I-f amplifier Q404	Q404 and IFT401 from a tuned amplifier cifcuit which provides amplifier circuit which provides power to drive diode detector D402.
Detector D402	The i-f signal from the secondary side of IFT401 is rectified by diode D402. The i-f components of the output signal are filtered by C416, R422 and C417, and then cleaned audio signal is fed to the audio preamplifier through FUNCTION switch S2.
TUNER INPUT Meter M	The detector's (D402) output is also fed to TUNER INPUT meter M as the dc component in the rectified a-m signal is roughly proportional to the input signal level (not exactly for strong signals due to agc action).

Stage/Control	*Function*
Audio Preamplifier Section	
Equalizer/ Preamplifier Q501, Q502	This direct-coupled two stage amplifier amplifies the small signal produced by the tuner, phono cartridge, tape recorder, or signal applied to the AUX input jacks, to the level required at the input of the following tone-control buffer amplifier.
Bias circuit	Dc bias voltage for Q501 is extracted from R511 in the emitter circuit of Q502 through R505 and R504. This dc negative feedback technique provides stable operation during temperature changes.
Equalization circuit	RIAA equalization is achieved by the negative-feedback loop containing R516, R517, R518, C511 and C512 when the FUNCTION switch is set to PHONO.
De-emphasis circuit	The proper de-emphasis operation is achieved by the negative-feedback loop containing R513, R514, C509 and C513. Specified de-emphasis time constant is 75 micro-seconds in USA and CANADA, 50 micro-seconds in Europe. The de-emphasis circuit operates even in the a-m reception mode, but it has no effect upon these operation because the a-m signal frequency response is so inferior to that of an fm signal. In addition, the channel separation control circuit works at the same time when FUNCTION switch S1 is set to TUNER position.
Separation control RT551	The network that connects the emitters of Q501 and Q551 provides a form of negative feedback between left and right channels for fm stereo signals. Any residual "R" signal in the "L" channel (which is about 180° out of phase) is cancelled out by the "R" signal from the "R" channel. The same is true of residual "L" signal in the "R" channel. RT551 is therefore set for maximum separation. In the AUX position of the FUNCTION switch, feedback is applied thorugh R515 and C510 to provide a flat response in the equalizer/preamplifier. Singals applied to the AUX input jack are attenuated about 40 dB by R501 and R502. This allows the STR-6045 to accept signals at about 250 mV and amplify them without distortion.
VOLUME control RV901	The equalized phono signsl and signals applied to the other input terminals are fed to the VOLUME control through the MONITOR and MODE switches. The level of the signal applied to the following tone-control amplifier is determined by the setting of RV601.
LOUDNESS switch S6	This switch and R601, R602, C601, and C602 compensate for the characteristics of the human ear which vary according to the loudness of the sound being head. When this switch is set to ON and the VOLUME control is set for 30 dB attenuation, the overall frequency response is increased +8 dB at 50 Hz and +4 dB at 10 kHz with reference to the level at 1 kHz.
Buffer amplifier Q601	This amplifier provides +14 dB voltage gain to compensate for the tone-control insertion loss and isolates the volume control and tone control to eliminate mutual interference.
TREBLE control RV602	This control has a range of ±10 dB at 10 kHz.
BASS control RV603	This control has a range of ±10 dB at 100 Hz.

Stage/Control	*Function*
HIGH filter switch S5	The high-cut off filter (R611 and C609) eliminates unwanted high-frequency components (5 kHz and higher) from the input signal when this switch is ON.

Power Amplifier Section

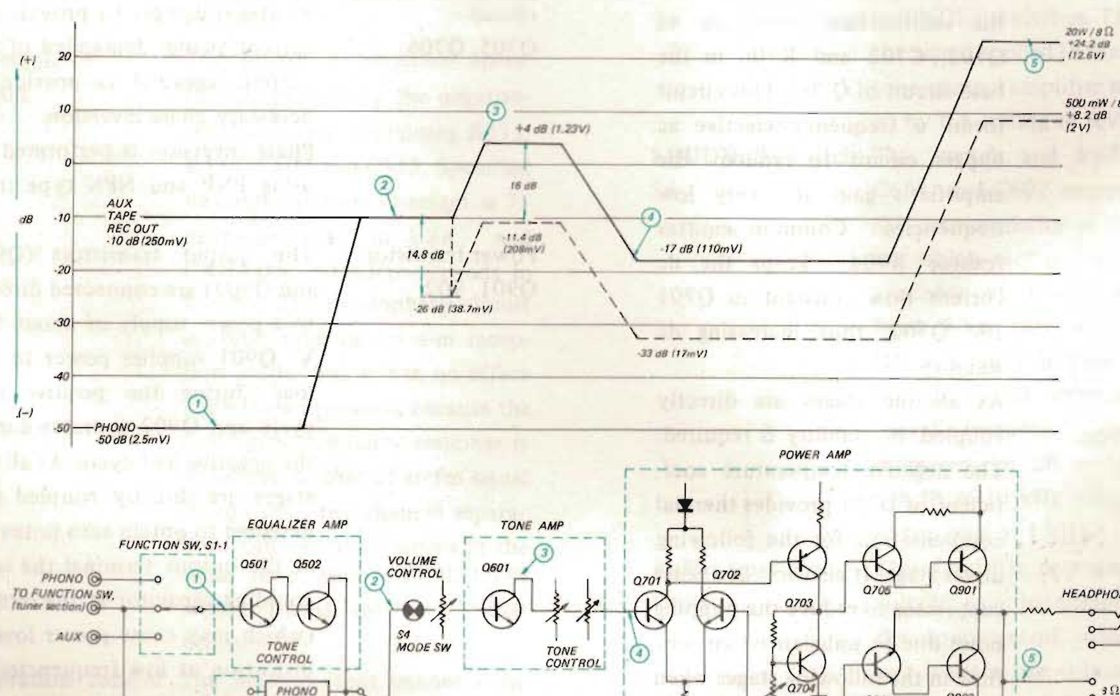
Stage/Control	*Function*
Preamplifier Q701, Q702	Q701 and Q702 form a paraphase amplifier but signal output is extracted from the collector circuit of Q701. This circuit has various advantages in direct coupling systems. One is high stability despite temperature variations and another is high input impedance without reducing the amplifier's gain. The ac output appears across load resistor R703 in the collector circuit of Q701. An emitter decoupling circuit is formed by the emitter-base resistance of Q702, C702 and R706 in the base circuit of Q702. This circuit forms a frequency-selective ac bypass circuit to reduce the amplifier's gain at very low frequencies. Common emitter resistor R704 keeps the dc current flow constant in Q701 and Q702, thus increasing dc stability.
Thermal compensation and noise suppressor D701	As all the stages are directly coupled, dc stability is required. The negative temperature coefficient of D701 provides thermal compensation for the following driver stage. It also acts as a noise suppressor to reduce the popping noise due to unbalanced current flow in the following stages when the power switch is turned off.
Driver Q703	Though this stage is a conventional flat amplifier, it determines the output voltage swings because the following stages are basically emitter-followers. The ac load resistor for this stage is R710 (5.6k).
Dc bias adj. (idling current) Q704, RT701	Q704 is forced to conduct and operates as a small resistance providing the necessary forward bias on the two cascaded emitter-followers. RT701 controls the base bias of Q704, determining the impedance between the emitter and collector of Q704, and thereby controls the dc bias voltage for the following complementary circuit.
Thermal compensator for dc bias D702	The negative temperature coefficient of D702 provides thermal compensation for the complementary and power transistor circuits. D702 is attached to the power transistor's heat sink to detect temperature increases in the power transistor.
Complementary circuit Q705, Q706	These transistors operate as emitter-followers to provide the current swings demanded of the output stages and also provide the necessary phase inversion. Phase inversion is performed by using PNP and NPN type transistors.
Power transistor Q901, 902	The output transistors (Q901 and Q902) are connected directly to a power supply of about ±36 V. Q901 supplies power to the load during the positive half cycle and Q902 operates during the negative half cycle. As all the stages are directly coupled and designed to obtain zero potential at the output terminal, the large coupling capacitor at the output (which may cause power loss or distortion at low frequencies) is eliminated.

Power Supply

Stage/Control	*Function*
Rectifier D802, D803 D804, D805	A full-wave bridge rectifier provides a positive and a negative dc power supply for the power amplifier.

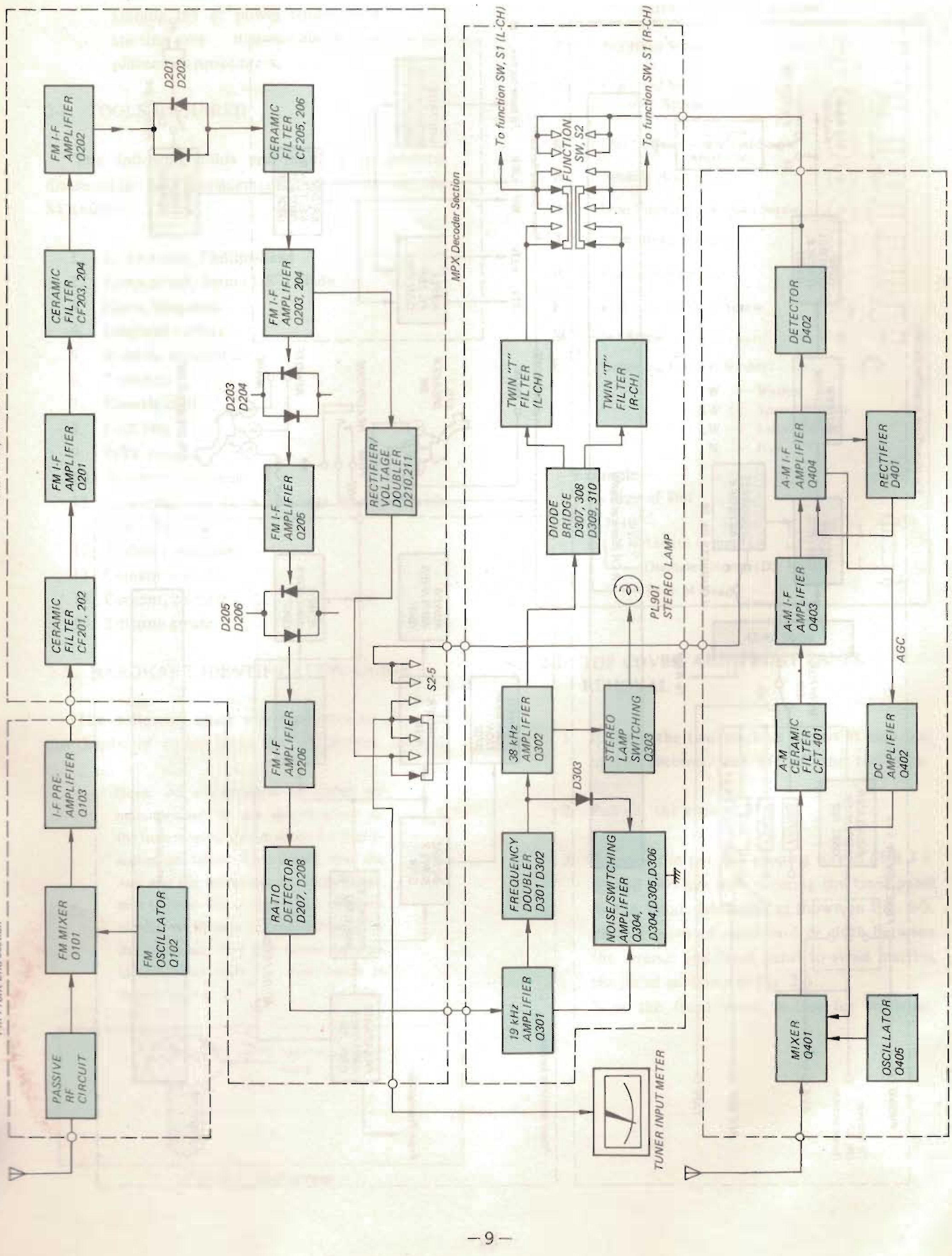
Stage/Control	Function
Ripple filter Q707 R724, R725 C707, C708	These components reduce the ripple voltages in the dc power supply for the preamplifier and driver stages of power amplifier section to an extremely low value. Q707 and Q757 serve as an electronic filter to supply well filtered dc of about ±33 V to each stage.
Voltage regulator Q801, Q802 D801	Dc output from the bridge rectifier is filtered by C902 and applied to series regulator Q801. Q802 compares a sample of the output voltage picked off across R805 with reference voltage supplied by voltage stabilizer D801. A change in output voltage is detected at the base of Q802 and therefore alters its collector voltage. Since the collector of Q802 is directly coupled to the base of Q801, the change in output voltage alters the conduction of Q801 by the amount necessary to maintain the output voltage constant. An increase in output voltage causes an increase in the impedance (decrease in conduction) of Q801, and vice versa. The dc output voltage supplied to the tuner section is therefore extermely stable.

1-3. LEVEL DIAGRAM

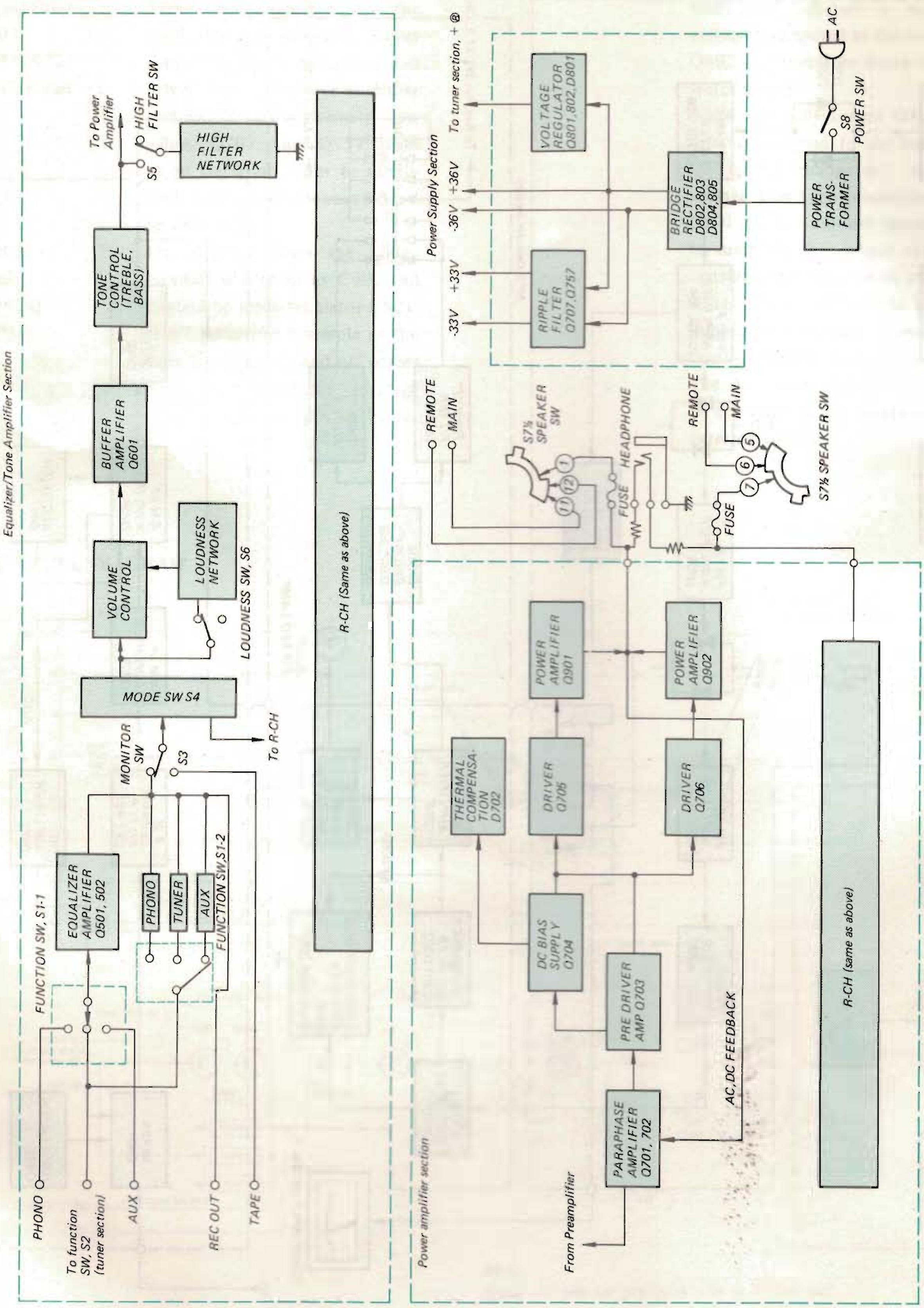


Note :
Signal voltages are measured with ac VTVM and expressed in dB referred to 0.775V, 1kHz.

1-4. BLOCK DIAGRAM–Tuner Section



1-5. BLOCK DIAGRAM–Audio Section



SECTION 2
DISASSEMBLY AND REPLACEMENT PROCEDURES

WARNING

Unplug the ac power cord before starting any disassembly or replacement procedures.

2-1. TOOLS REQUIRED

The following tools are required to perform disassembly and replacement procedures on the STR6045.

1. Screwdriver, Phillips-head
2. Screwdriver, 3mm (1/8") blade
3. Pliers, long-nose
4. Diagonal cutters
5. Wrench, adjustable
6. Tweezers
7. Electric drill
8. Drill bits
9. Prick punch
10. Hammer, ball-peen
11. Soldering iron, 40 to 50 watts, equipped with solder sucker
12. Solder, rosin core
13. Cement solvent
14. Cement, contact
15. Silicone grease

2-2. HARDWARE IDENTIFICATION GUIDE

The following chart will help you to decipher the hardware codes given in this service manual.

Note: All screws in the STR-6045 are manufactured to the specifications of the International Organization for Standardization (ISO). This means that the new and old screws are not interchangeable because ISO screws have a different number of threads per mm compared to the old ones. The ISO screws have an identification mark on their heads as shown in Fig. 2-1.

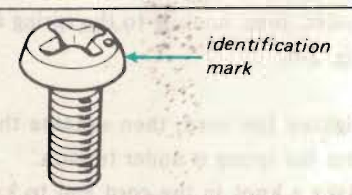


Fig. 2-1 ISO screw

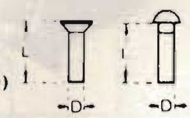
— Hardware Nomenclature —

P	Pan Head Screw
PS	Pan Head Screw with Spring Washer
K	Flat Countersunk Head Screw
B	Binding Head Screw
RK	Oval Countersunk Head Screw
T	Truss Head Screw
R	Round Head Screw
F	Flat Fillister Head Screw
SC	Set Screw
E	Retaining Ring (E Washer)
W	Washer
SW	Spring Washer
LW	Lock Washer
N	Nut

– Example –

⊕ P 3x10

- Type of Slot
- Length in mm (L)
- Diameter in mm (D)
- Type of Head



2-3. TOP COVER AND FRONT PANEL REMOVAL

1. Remove the two machine screws at each side of the receiver, and lift off the top cover.
2. Pull all the knobs off.
3. Remove the two self-tapping screws (⊕B 3 X 6) and two hex nuts securing the front panel to the front subchassis as shown in Fig. 2-2. Place a piece of cardboard or cloth between the wrench and front panel to avoid marring the panel as shown in Fig. 2-3.
   Now the front panel is free for servicing.

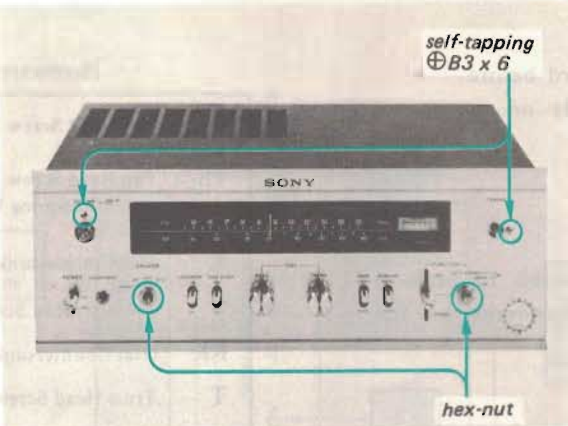


Fig. 2-2 Front panel removal

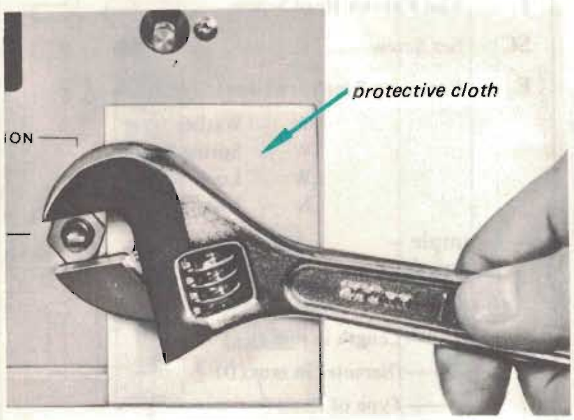


Fig. 2-3 Hex nut removal

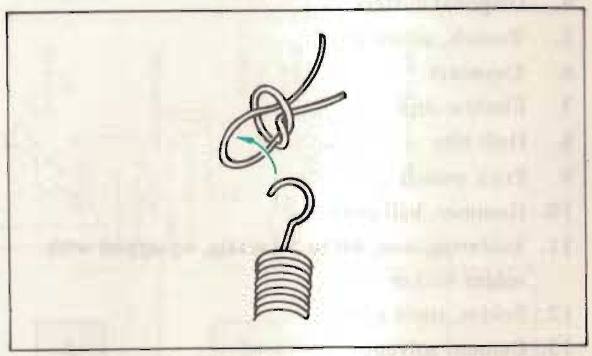


Fig. 2-4 Tieing a square knot to the coil spring

2-4. DIAL–CORD RESTRINGING

Preparation

1. Remove the top cover as described in Procedure 2-3.
2. Cut a 1500 mm (59") length of dial cord.
3. Tie the end of the cord to a spring as shown in Fig. 2-4.
4. Rotate the tuning-capacitor drive drum fully clockwise (minimum capacitance position).

Procedure

While referring to Fig. 2-5, proceed as follows:

1. Hook the spring to one hole of the drive drum as shown in Fig. 2-6.
2. Run the cord through the slot in the rim of the drum and wrap a half clockwise turn in the inner side groove.
3. Run the cord over pulley "A", and then wrap two counterclockwise turns around the tuning shaft.
4. Run the cord over pulleys "B", "C" and "D" then wrap two clockwise turns around the drum from outer groove to inner groove as shown in Fig. 2-7.
5. Pass the doubled end of the cord through the eyelet, then hook it to the spring as shown in Fig. 2-8.
6. Tighten the cord, then squeeze the eyelet so that the spring is under tension. Make a knot in the cord end to keep it from slipping out of the eyelet.

7. After completing the dial-cord stringing, make sure that the tuning system works properly. Apply a drop of contact cement to the finish point.

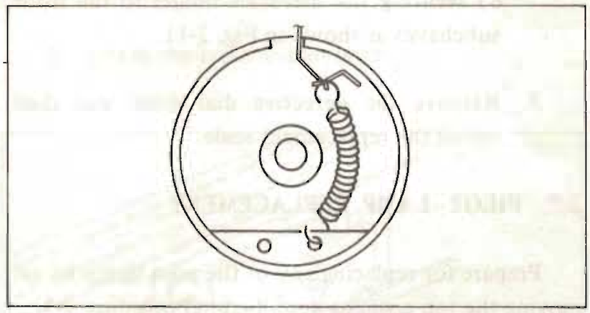


Fig. 2-6 Coil spring installation

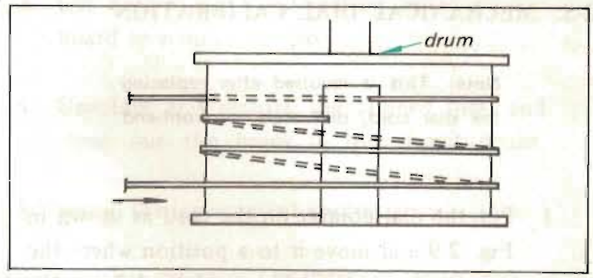


Fig. 2-7 Wrapping the dial cord

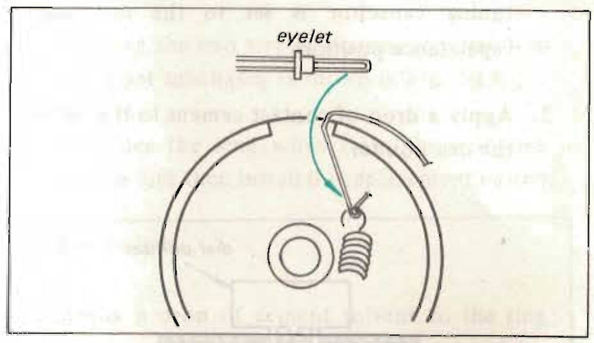


Fig. 2-8 Finishing dial cord stringing

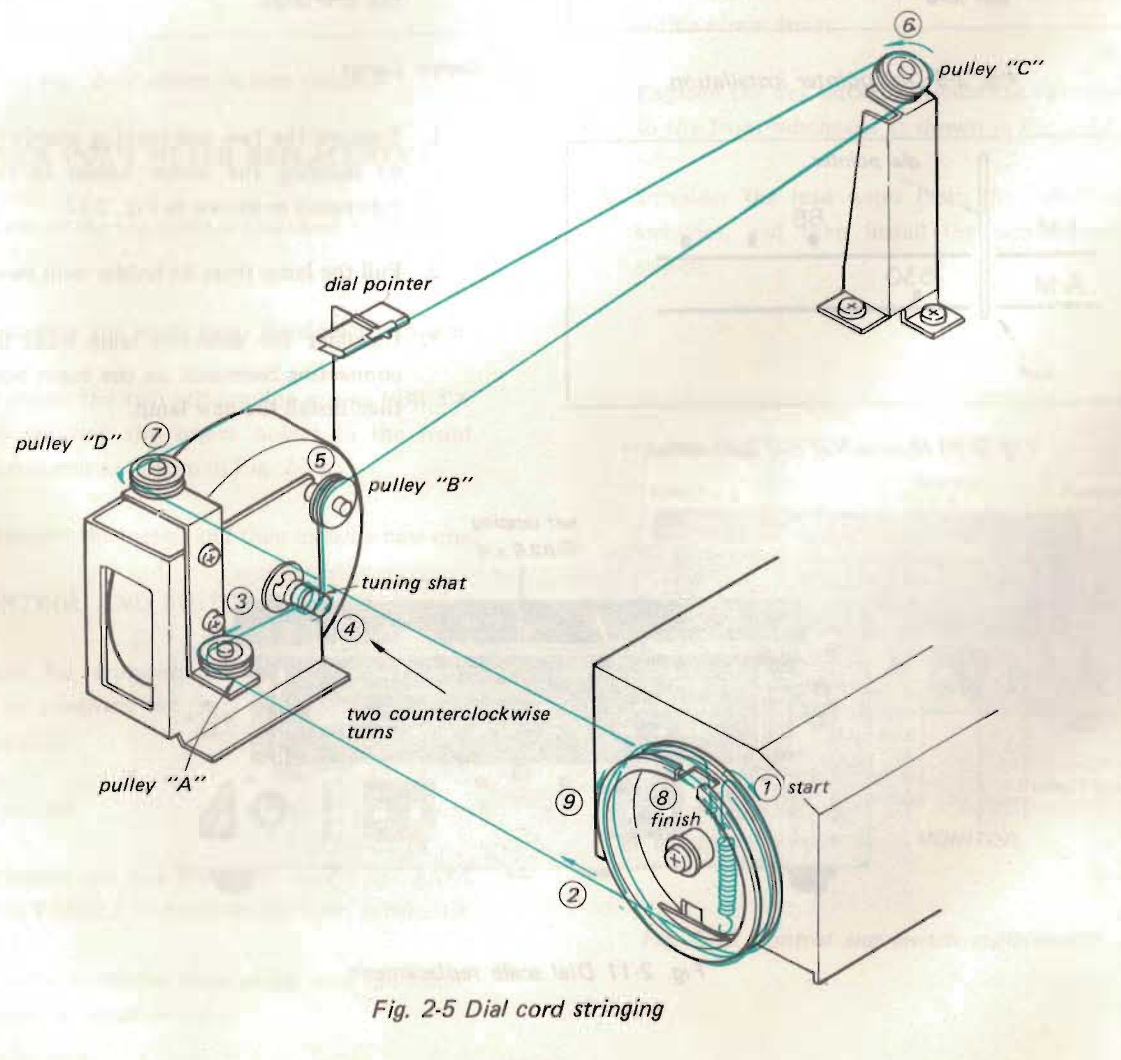


Fig. 2-5 Dial cord stringing

2-5. MECHANICAL DIAL CALIBRATION

Note: This is required after replacing the dial cord, dial scale or front-end assembly.

1. Put the dial pointer on the cord as shown in Fig. 2-9 and move it to a position where the pointer coincides with the left slot on the dial scale as shown in Fig. 2-10, when the tuning capacitor is set to the maximum capacitance position.

2. Apply a drop of contact cement to the tab of the dial pointer.

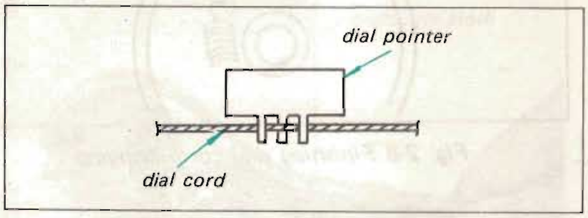


Fig. 2-9 Dial pointer installation

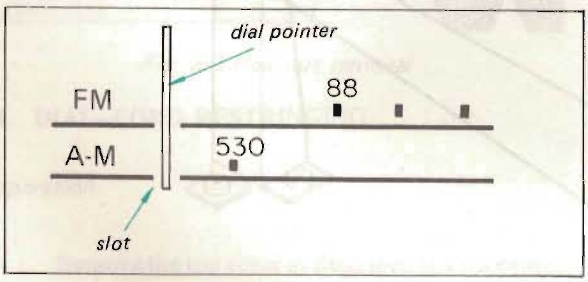


Fig. 2-10 Mechanical dial calibration

2-6. DIAL SCALE REPLACEMENT

1. Remove the top cover and front panel as described in Procedure 2-3.

2. Remove the two self-tapping screws (⊕B 2.6 × 6) securing the dial-scale holder to the front subchassis as shown in Fig. 2-11.

3. Remove the defective dial scale, and then install the replacement scale.

2-7. PILOT–LAMP REPLACEMENT

Prepare for replacing any of the pilot lamps by removing the top cover as described in Procedure 2-3.

Meter Lamp

1. Pull out the meter-lamp socket, and then unscrew the lamp from the socket and install the new lamp.

Stereo Lamp

1. Remove the two self-tapping screws (⊕B 3 × 6) securing the meter holder to the front subchassis as shown in Fig. 2-12.

2. Pull the lamp from its holder with tweezers.

3. Unsolder the defective lamp leads from the connecting terminals on the tuner board, and then install the new lamp.

Fig. 2-11 Dial scale replacement

Dial Lamp

1. Remove the front panel as described in Procedure 2-3.

2. Pry out the fiber lamp shade, and then remove the lamp.

3. Install the replacement lamp.

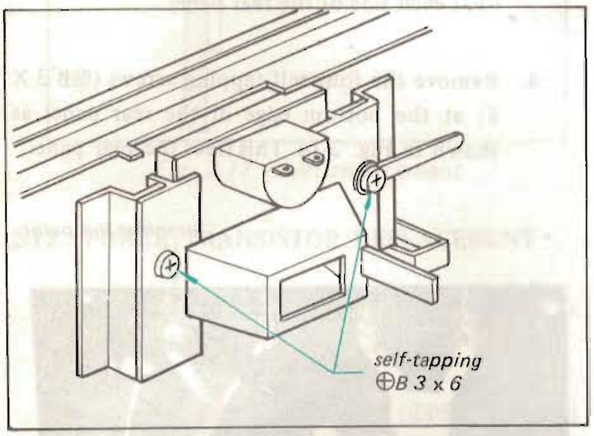


Fig. 2-12 Meter holder removal

2-8. TUNER INPUT METER REPLACEMENT

1. Remove the top cover as described in Procedure 2-3.

2. Unsolder the leads from the defective meter.

3. Remove the two self-tapping screws (⊕B 3 X 6) securing the meter holder to the front subchassis as shown in Fig. 2-12.

4. Remove the meter, and then install a new one.

2-9. CONTROL AND SWITCH REPLACEMENT

Prepare for replacing any of the controls or switches by removing the front panel as described in Procedure 2-3.

TONE Controls

1. Remove the hex nuts that secure the BASS and TREBLE controls to the front subchassis.

2. Carefully remove them along with the tone control circuit board.

3. Cut each lug of the defective control on the board to remove the part.

4. Unsolder and remove the clipped lugs, and clean out the holes in the circuit board.

5. Install the replacement control.

POWER, HIGH FILTER, LOUDNESS, MONITOR, MODE FUNCTION (1) Switches

1. Remove the two screws securing the switch to the front subchassis as shown in Fig. 2-13.

2. Unsolder the lead wires from the defective switch, and then install the replacement switch.

SPEAKER Switch

1. Apply a drop of cement solvent to the ring spacer on the switches. Wait a few second for the cement to dissolve, and pry out the spacer with a screw driver.

2. Remove the hex nuts that secure the switches to the front-subchassis as shown in Fig. 2-13.

3. Unsolder the lead wires from the defective switches, and then install the replacement switch.

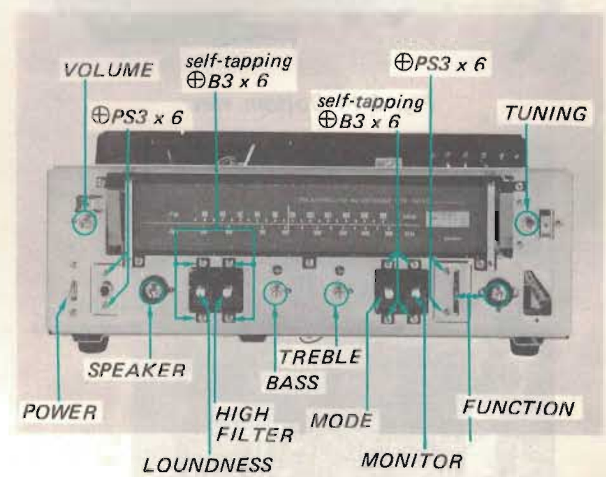


Fig. 2-13 Control and switch replacement

FUNCTION (2) switch (slide/rotary switch) REPLACEMENT

1. Apply a drop of cement solvent to the ring spacer on the switch. Wait a few second for the cement to dissolve and pry out the spaeer with a screw driver.
2. Remove the six self-tapping screws (⊕B 3 X 6) securing bottom masking plate as shown in Fig. 2-14 and then remove the mask.
3. Remove the hex nut securing the switch to the front subchassis.
4. With a soldering-iron having a solder-sucking tip, clean the solder from each lug of the defective switch and the printed board, as shown in Fig. 2-15. This frees the switch.
5. Install the replacement switch.

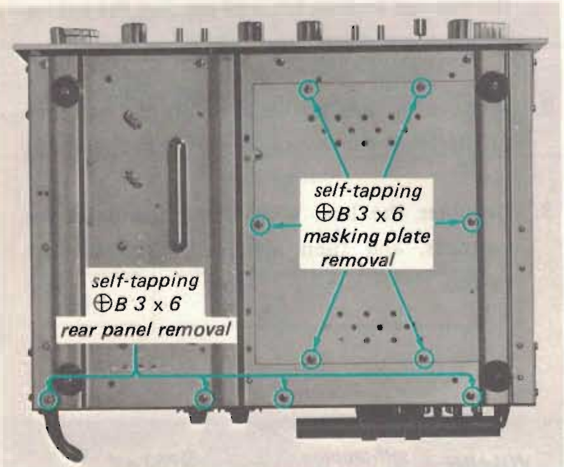


Fig. 2-14 Bottom view

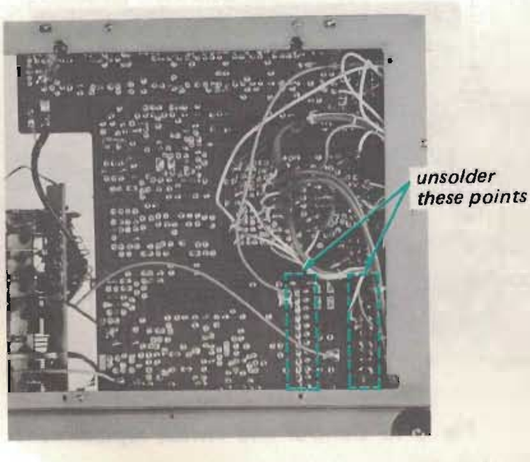


Fig. 2-15 FUNCTION (2) switch removal

2-10. REAR PANEL REMOVAL

1. Remove the top cover and bottom plate as described in Procedure 2-3.
2. Unsolder the braided wire connecting between the ground terminal and chassis as shown in Fig. 2-16.
3. Remove the two self-tapping screws (⊕B 3 X 6) at each side of the rear panel.
4. Remove the four self-tapping screws (⊕B 3 X 6) at the bottom edge of the rear panel as shown in Fig. 2-14. This frees the rear panel.

Fig. 2-16 Preparation for rear panel removal

2-11. REPLACEMENT OF COMPONENTS SECURED TO THE REAR PANEL BY RIVETS

1. Remove the rear panel as described in Procedure 2-10.
2. Bore out the rivets using a drill bit slightly larger in diameter than the rivet. See Fig. 2-17.
3. Punch out the remainder of the rivet with a nail set or prick punch.
4. Remove the defective component, and then install a new one.
5. Secure the new component with a suitable screw and nut, or a repair rivet screw (part number 3-701-402).

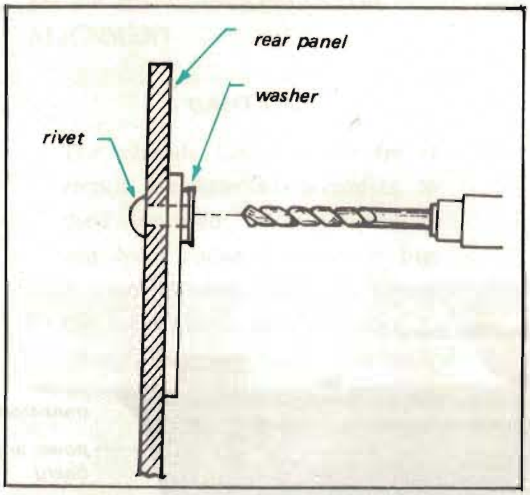


Fig. 2-17 Rivet replacement

2-12. POWER TRANSISTOR REPLACEMENT

1. Remove the top cover as described in Procedure 2-3.

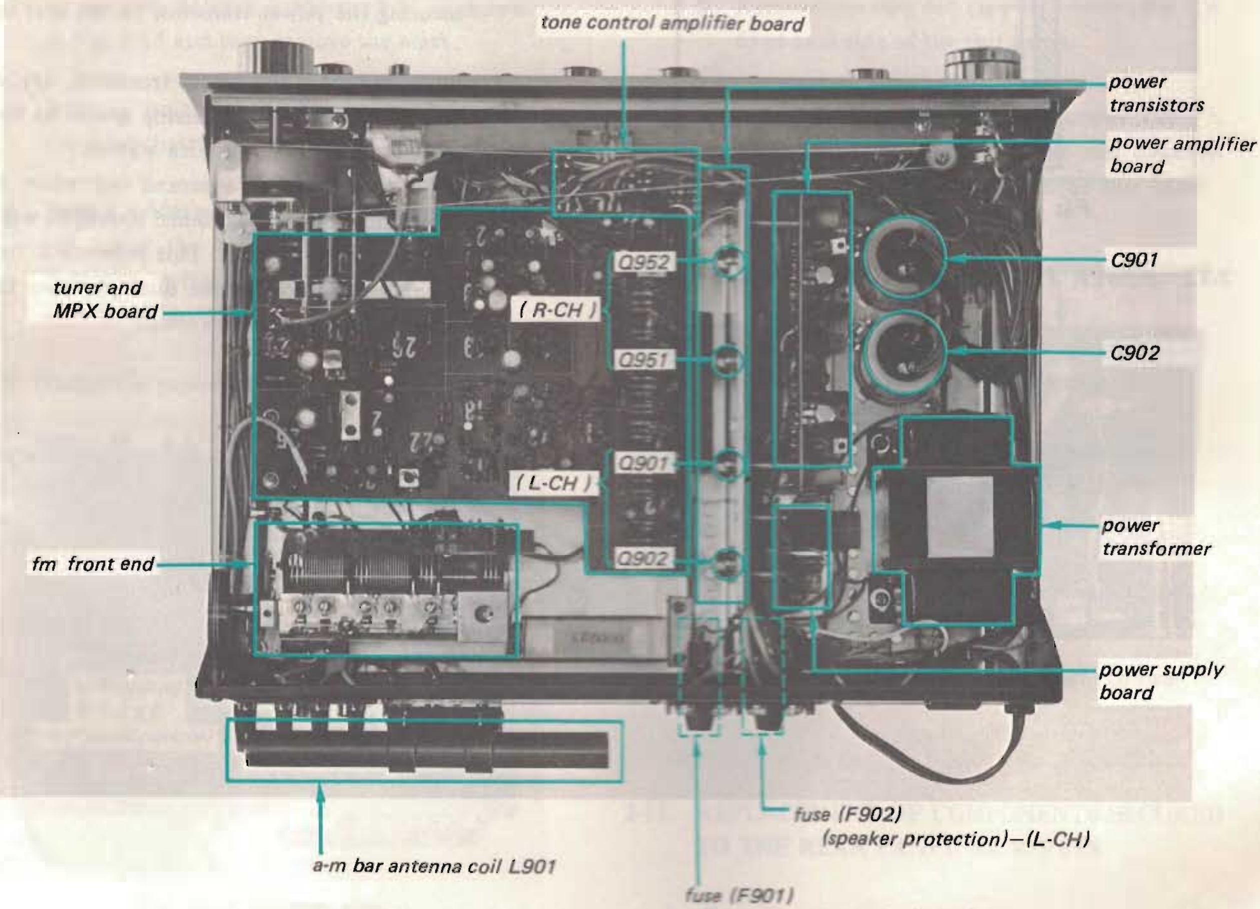
2. Remove the four screws (⊕PSW 3 X 6) securing the power supply board and power amplifier board to the heat sink.

3. Remove the four self-tapping screws (⊕B 3 X 6) securing heat sink to the chassis. Cut the emitter and base leads of the defective power transistor with a diagonal cutter. This prevents a eventual mica washer damage when removing the defective power transistor.

4. Carefully pull out the heat sink, and then remove the two screws (⊕B 3 X 12) and nuts securing the power transistor to the heat sink.

5. When replacing the power transistor, apply a coating of a heat-transferring grease to both sides of the insulating mica washer.
   Any excess grease squeezed out when the mounting bolts are tightened should be wiped off with a clean cloth. This prevents it from accumulating conductive dust particles that might eventually cause a short.

2-13. CHASSIS LAYOUT



SECTION 3
ALIGNMENT AND ADJUSTMENT PROCEDURES

3-1. FM I-F AND DISCRIMINATOR ALIGNMENT

CAUTION

The ceramic filters in the fm i-f circuit are selected according to their specified center frequencies and color coded as shown in Fig. 3-1 and listed in Table 3-1. Check the color code of the filters to identify the same center frequency when replacing any of these filters.

TABLE 3-1.
FM I-F CERAMIC FILTERS

Part No.	*Color*	*Specified Center Freq.*
1-403-562-11	red	10.70 MHz
1-403-562-12	black	10.66 MHz
1-403-562-31	white	10.74 MHz
1-403-562-41	green	10.62 MHz
1-403-562-51	yellow	10.78 MHz

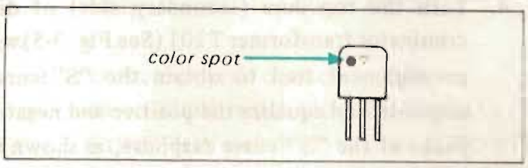


Fig. 3-1 Fm i-f ceramic filter

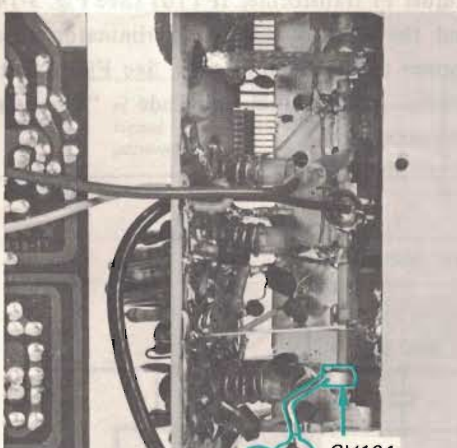


Fig. 3-2 Interruption of fm local oscillator operation

Note: Two methods of i-f discriminator alignment are available, sweep generator alignment and signal generator alignment. You can use either of them. In either case, the local oscillator should be killed. To stop the local oscillator's operation, remove the masking plate at the bottom of the chassis, and then shunt the oscillator capacitor with a 0.02µF capacitor. See Fig. 3-2.

Sweep Generator Alignment

Test Equipment Required

1. 10.7 MHz sweep generator
2. Oscilloscope
3. Ceramic capacitor 0.02 µF
4. Alignment tools

Preparation

1. Remove the top cover and masking plate at the bottom.
2. Solder a 0.02 µF capacitor across C215, and then connect the input cable of the oscilloscope with alligator clips to it as shown in Fig. 3-3.
3. Connect the output cable of the sweep generator across CV103. Use alligator clips and make the connection through a 0.02 µF coupling capacitor as shown in Fig. 3-4.

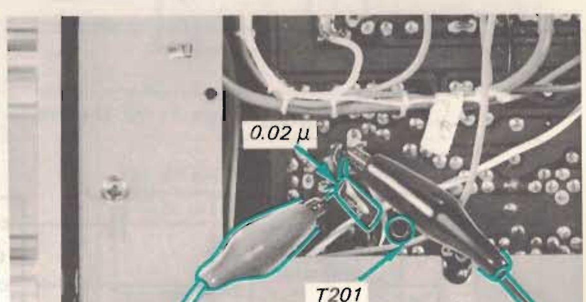


Fig. 3-3 Fm discriminator output connection

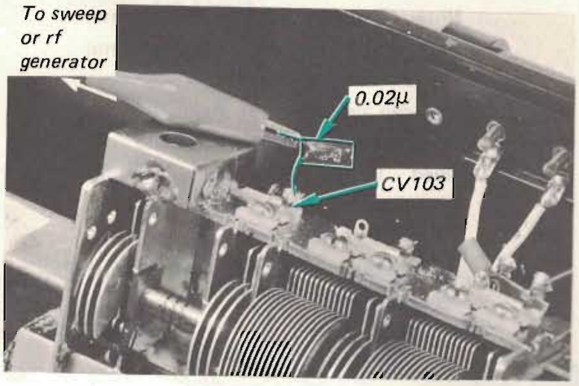


Fig. 3-4 Fm i-f signal injection

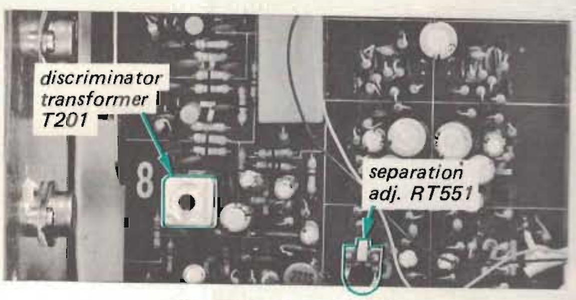


Fig. 3-5 Parts location

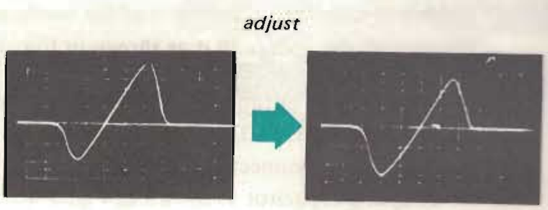


Fig. 3-7 "S" curve response

Procedure

1. With the equipment connected as shown in Fig. 3-6, set the sweep generator's controls as follows:
   Center frequency . . Specified frequency of ceramic filter, see table 3-1.
   Sweep width . . . . . . 1 MHz

2. Set the tuner's controls as follows:
   FUNCTION switch (1) . . . FUNCTION (2)
   FUNCTION switch (2) . . . FM AUTO STEREO

3. Adjust the oscilloscope controls to provide a visible indication.

   Note: Two or three traces will be observed on the oscilloscope as the center frequency of the sweep generator varies. The trace you are looking for has the largest amplitude. Once you get it, decrease the sweep generator output low enough to obtain rather noisy output.

4. Turn the top core (secondary side) of discriminator transformer T201 (See Fig. 3-5) with an alignment tool to obtain the "S" curve response, and equalize the positive and negative peaks of the "S" curve response, as shown in Fig. 3-7.

5. Adjust i-f transformer IFT101 (See Fig. 3-14) and the primary side of discriminator transformer (T201 bottom core, See Fig. 3-3) to obtain a maximum-amplitude "S" curve response.

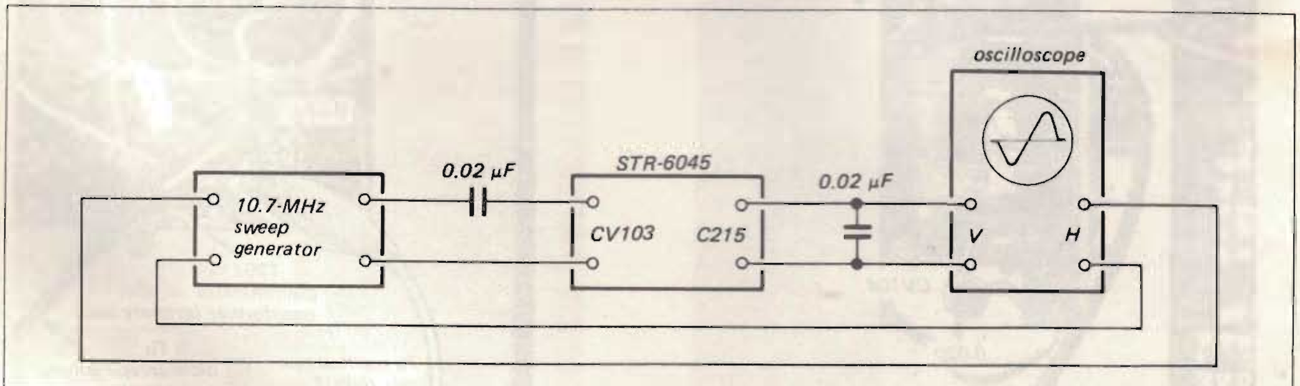


Fig. 3-6 Test setup for discriminator alignment by sweep generator

Signal Generator Alignment

Test Equipment Required

1. Standard signal generator which can generate a 10.7-MHz a-m/fm signal.
2. Oscilloscope
   Vertical sensitivity . . . . . . 100 mV/cm minimum
3. Alignment tools

Preparation

Same as described for the sweep generator method.

Procedure

1. With the equipment connected as shown in Fig. 3-8, set the signal-generator's controls as follows:
   Frequency . . . Specified frequency of ceramic filter. See Table 3-1.
   Modulation . . Fm, 400 Hz, 100%
   Output level . . 10,000 μV (80 dB)
2. Set the receiver's controls as follows:
   FUNCTION switch (1) . . . FUNCTION (2)
   FUNCTION switch (2) . . . FM AUTO STEREO
3. Adjust the signal generator's frequency slightly to obtain a maximum output, and then change the signal generator's modulation to a-m, 400 Hz 30%.
4. If the discriminator transformer is not aligned correctly, 400-Hz ripple will be observed as shown in Fig. 3-9.
5. Turn the top core of transformer T201 with an alignment tool to obtain a minimum indication on the oscilloscope as shown in Fig. 3-9.

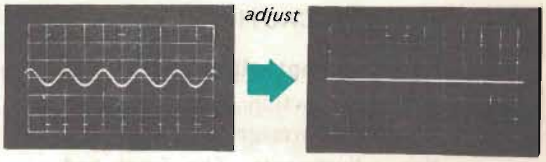


Fig. 3-9 Fm discriminator alignment output response

Note: Turn the core carefully and slowly because the output appearing on the oscilloscope jumps up and down when turning the core. This might cause difficulty in determining the point of minimum output.
Also, at both extreme positions of the top core, decreased output will be observed. The real null point should be obtained in the middle of the core thread length, and maximum output occurs at each side of the true null point.

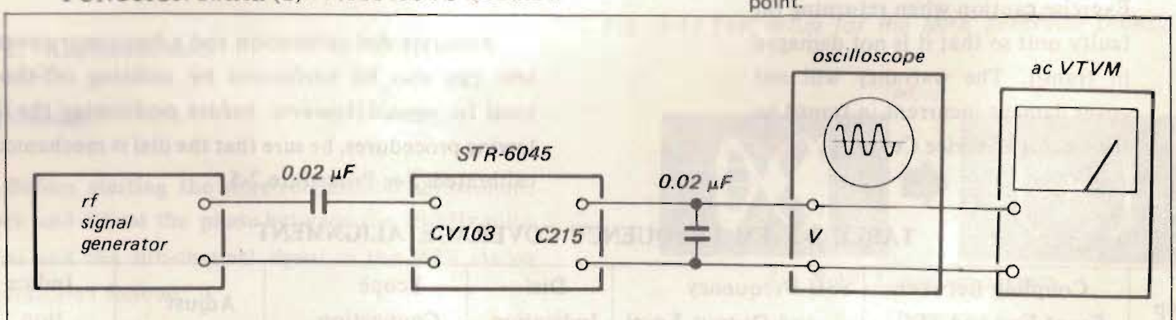


Fig. 3-8 Test setup for fm discriminator alignment by rf signal generator

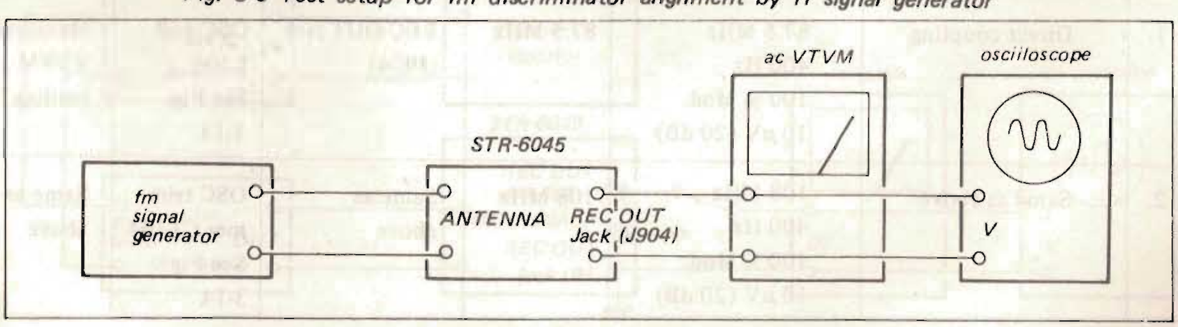


Fig. 3-10 Fm frequency coverage and tracking alignment test setup

6. Change the signal generator's modulation to fm, 400 Hz 100%.

7. Turn the core of fm IFT 101 and bottom core of T201 (See Fig. 3-3 and Fig. 3-14), to obtain the maximum output.

8. Repeat the above mentioned procedures two or three times.

3-2. FM FREQUENCY COVERAGE ALIGNMENT

CAUTION

Never attempt alignment of the front-end section except for the frequency-coverage and dial-calibration adjustments. The front end section of the tuner has been carefully adjusted at the factory, so very little adjustment is necessary in the field. Alignment need not be performed when the front-end FET is replaced since changes in FET parameters have little effect upon tuning. If an rf-stage adjustment is required, ask your nearest SONY Service Station to send your unit to the Factory Service Center for a complete front-end alignment. Exercise caution when returning the faulty unit so that it is not damaged in transit. The warranty will not cover damage incurrent in transit to the Factory Service Center.

Note: Before starting this alignment, the discriminator transformer alignment should be performed.

Test Equipment Required

1. Standard fm signal generator
2. Ac VTVM
3. Alignment tools

Preparation

1. Remove the top cover as described in Procedure 2-3.
2. Connect the equipment as shown in Fig. 3-10.
3. Set the receiver's controls as follows:
   FUNCTION (1) switch . . . FUNCTION (2)
   FUNCTION (2) switch . . . FM AUTO STEREO

Generator Alignment

Follow the procedures given in Table 3-2 when performing this alignment with an fm signal generator. Be sure that the dial is mechanically calibrated.

Off-the-Air Alignment

Accurate dial calibration and a frequency-coverage test can also be performed by utilizing off-the-air local fm signals.However, before performing the following procedures, be sure that the dial is mechanically calibrated. See Procedure 2-5.

TABLE 3-2. FM FREQUENCY COVERAGE ALIGNMENT

Step	Coupling Between Front End and SSG	SSG Frequency and Output Level	Dial Indication	Scope Connection	Adjust	Indication
1.	Direct coupling	87.5 MHz 400 Hz 100 % Mod. 10 μV (20 dB)	87.5 MHz	REC OUT jack (J904)	OSC coil L104 See Fig. 3-14.	Maximum VTVM reading
2.	Same as above	108 MHz 400 Hz 100 % Mod. 10 μV (20 dB)	108 MHz	Same as above	OSC trimmer CT104 See Fig. 3-14	Same as above

Procedure

1. Tune the set to the lowest-frequency station.

2. Check the dial scale for a calibration accuracy of ±300 kHz from the carrier frequency of the station. If the dial-accuracy deviation exceeds this limit, turn the local-oscillator coil L104 (as shown in Fig. 3-14) slighlty until optimum calibration is obtained.

3. Tune the set to the highest-frequency station in your locality. If the dial-calibration error is excessive, adjust local-oscillator trimmer CT104 to obtain maximum calibration accuracy. See Fig. 3-14.

3-3. FM STEREO SEPARATION ADJUSTMENT

Test Equipment Required

1. MPX generator
2. Fm signal generator
3. Audio oscillator
4. Ac VTVM
5. Oscilloscope
6. Alignment tools

Preparation

Before starting the stereo-separation adjustment, check and adjust the phase between the 19-kHz pilot signal and the sub-channel signal in the MPX stereo generator as follows:

(1) With the equipment connected as shown in Fig. 3-11, set the MPX and audio oscillator's controls as follows:
MAIN CHANNEL . . . . . . .OFF
SUB CHANNEL . . . . ON
PILOT (19 kHz) . . . . OFF
AUDIO OSCILLATOR
OUTPUT . . . . 400 Hz, 250 mV

(2) Adjust the oscilloscope controls to obtain a visible indication. Be sure the scope's horizontal display switch is set for external input.

(3) Turn the pilot-signal (19 kHz) phase control to obtain an in-phase and stable lissajous pattern as shown in Fig. 3-12.

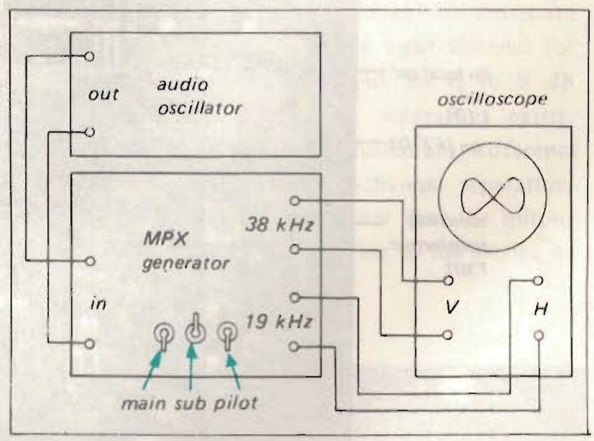


Fig. 3-11 Test setup for the MPX generator preadjustment

Fig. 3-12 Lissajous pattern

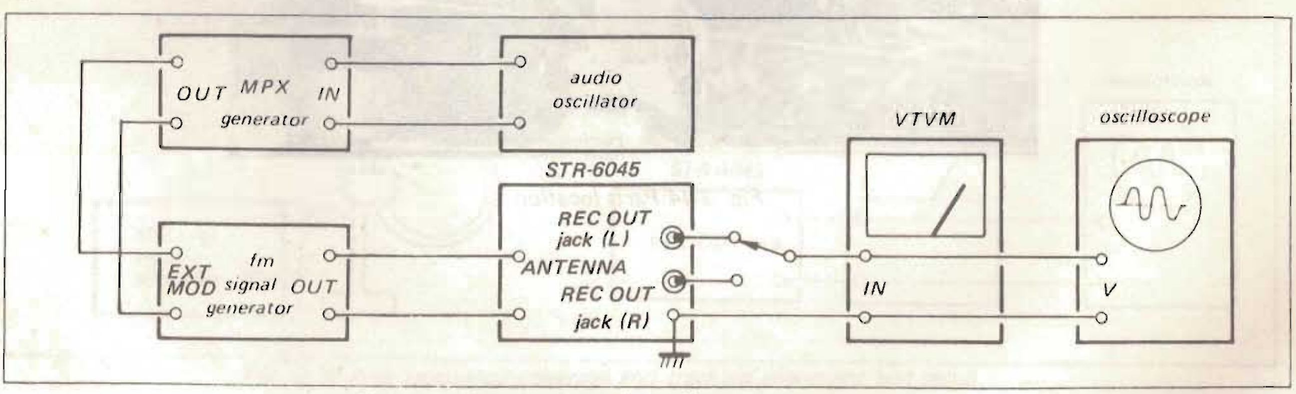


Fig. 3-13 Stereo separation adjustment test setup

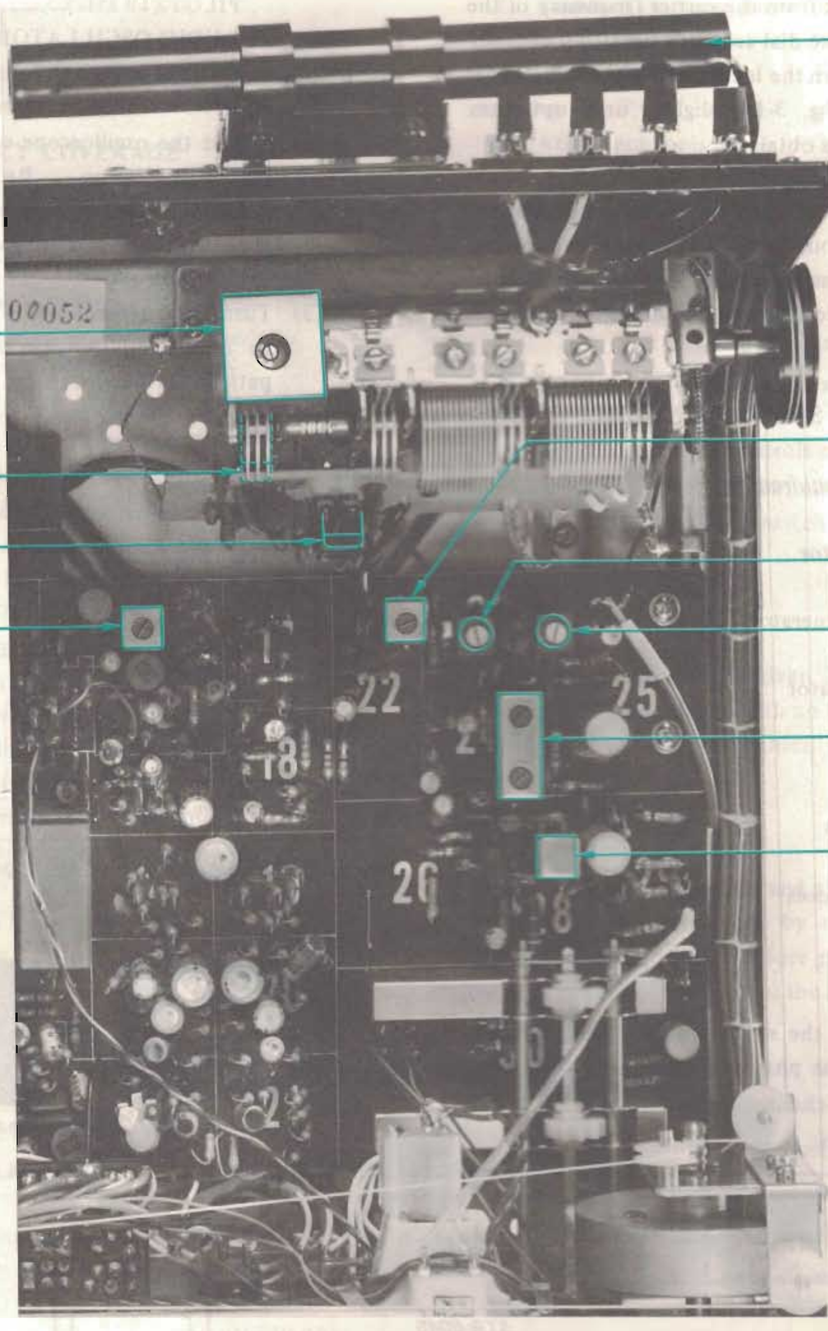


Fig. 3-14 Parts location

Procedure

1. Connect the equipment as shown in Fig. 3-13. Set the fm signal-generator's control as follows:
   Carrier frequency . . . . 98 MHz
   Output level . . . . 1,000μV (60 dB)

   Modulation:
   Main channel (400 Hz) . . . 33.75 kHz (45%)
   Sub channel (38 kHz) . . . . 33.75 kHz (45%)
   Pilot (19 kHz) . . . . 7.5 kHz (10%)

The above mentioned modulation levels can be set as follows:

(a) With the equipment connected as shown in Fig 3-13 set the MPX stereo generator controls as follows:
   MAIN CHANNEL . . . . . . OFF
   SUB CHANNEL . . . . OFF
   PILOT (19 kHz) . . . . ON

(b) Adjust the 19-kHz signal level to obtain a 7.5-kHz deviation on the FM SSG modulation indicator.

(c) Reset the MPX stereo-generator's controls as follows:
   MAIN CHANNEL . . . . ON
   SUB CHANNEL . . . . OFF
   PILOT (19 kHz) . . . . OFF
   INPUT SELECTOR . . . . . L-CH

(d) Adjust the audio-oscillator output (400 Hz) to obtain a 33.75-kHz deviation on the FM SSG modulation indicator.

(e) Set all controls to their ON position.

2. Precisely tune the set to the SSG's carrier frequency, then turn the top core of switching transformer T301 to obtain maximum output at the left channel. See Fig. 3-14. Note that this adjustment has a close relationship with stereo distortion.

3. Record the output level of the left channel when the MPX generator's input selector is set to the left channel.

4. Switch the input selector to the right channel and read the residual signal level in the left channel.

5. The output-level to residual-level ratio represents the separation. Adjust separation adj. control RT551 (See Fig. 3-15) for minimum residual level. Check the right channel for separation. Usually, about an 8 to 9 dB difference in channel separation exists. Readjust RT551 for minimum difference between left-and right-channel separation. While doing this, remember that the output level also changes according to the setting of RT551.

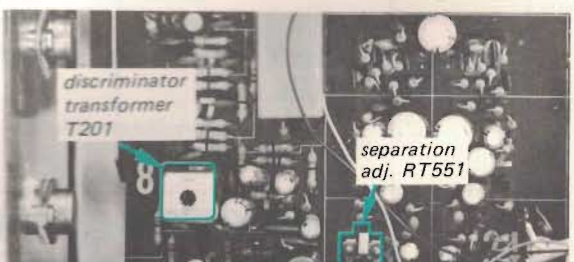


Fig. 3-15 Parts location

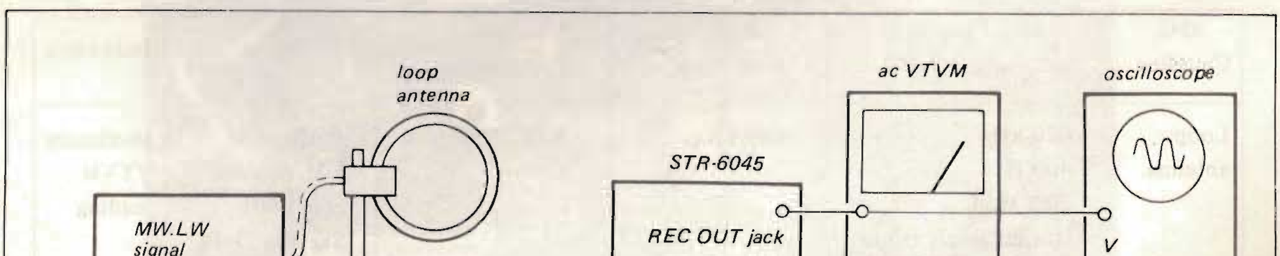


Fig. 3-16 A-m frequency coverage and tracking alignment test setup

3-4. A-M I-F STRIP ALIGNMENT

Note: The i-f transformers (CFT-401 and IFT-401) in the a-m i-f circuit are adjusted at the factory, so very little adjustment is necessary in the field. There is no need for alignment when replacing any of these i-f transformers.

3-5. FREQUENCY COVERAGE AND TRACKING ALIGNMENT

Preparation

Remove the top cover as described in Procedure 2-3. Then, set the receiver's FUNCTION switch to AM.

Signal generator Method

Test Equipment Required

1. Signal generator
2. Loop antenna
3. Ac VTVM

Procedure

With the equipment connected as shown in Fig. 3-16, follow the procedures given in Table 3-3 and 3-4 when performing this alignment with an a-m signal generator.

Off-the-Air Signal Method

Accurate dial calibration, and a frequency-coverage and tracking test can also be performed by utilizing off-the-air local a-m signals. However, before performing the following procedure, be sure that the dial is mechanically calibrated. See Procedure 2-5.

TABLE 3-3. A-M FREQUENCY COVERAGE ALIGNMENT

SSG Coupling	SSG Frequency and Output Level	Dial Indication	Scope Connection	Adjust	Indication
Loop antenna	530 kHz 400 Hz 30% Mod. 10,000μV (80 dB)	530 kHz	REC OUT jack (J904)	A-M OSC coil L404 See Fig. 3-14	Maximum VTVM reading
Loop Antenna	1,600 kHz Same as above	1,600 kHz	Same as above	A-M OSC trimmer CT402 See Fig. 3-14	Same as above

TABLE 3-4. A-M TRACKING ALIGNMENT

SSG Coupling	SSG Frequency and Output Level	Dial Indication	Scope Connection	Adjust	Indication
Loop antenna	620 kHz 400 Hz 30% Mod Output level; as low as possible	620 kHz	REC OUT jack (J904)	Position of A-M antenna coil L901 See Fig. 3-14	Maximum VTVM reading
Loop antenna	1,400 kHz Same as above	1,400 kHz	Same as above	A-M antenna trimmer CT401 See Fig. 3-14	Same as above

Frequency Coverage Alignment

1. Tune the receiver to the lowest-frequency station in your locality. If the dial-calibration error is excessive, turn the local oscillator-coil L404 (see Fig. 3-14) slightly until optimum dial calibration is obtained.

2. Tune the receiver to the highest-frequency station in your locality. If the dial-calibration error is excessive, adjust local-oscillator trimmer-capacitor CT404 (see Fig. 3-14) to obtain maximum calibration accuracy.

Tracking Alignment

1. Tune the set to the station whose carrier frequency is closest to 620 kHz and adjust the position of antenna coil L402 as shown in Fig. 3-14 to obtain maximum output.

2. Tune the set to the station whose carrier frequency is closest to 1,400 kHz and adjust antenna trimmer CT402 to obtain maximum output. See Fig. 3-14.

3. Repeat the above steps two or three times.

3-6. POWER AMPLIFIER ADJUSTMENT

Note: This adjustment should be performed after replacing any of the power transistors.

Dc–Bias Adjustment

Serious deficiencies in performance, such as thermal runaway of power transistors, will result if this adjustment is improperly set.

CAUTION

To avoid accidental power transistor damage, increase the ac line voltage gradually, using a variable transformer, while measuring the voltage across emitter resistors R722 (R772) of power transistors alternately as shown in Fig. 3-17); Check to see that the reading does not exceed 25 mV. If it does, turn off the power as soon as possible, then check ansd repair the trouble in the power-amplifier board.

Test Equipment Required

1. Dc millivoltmeter : Capable of measuring dc voltage of 100 mV or less.
2. Variable transformer

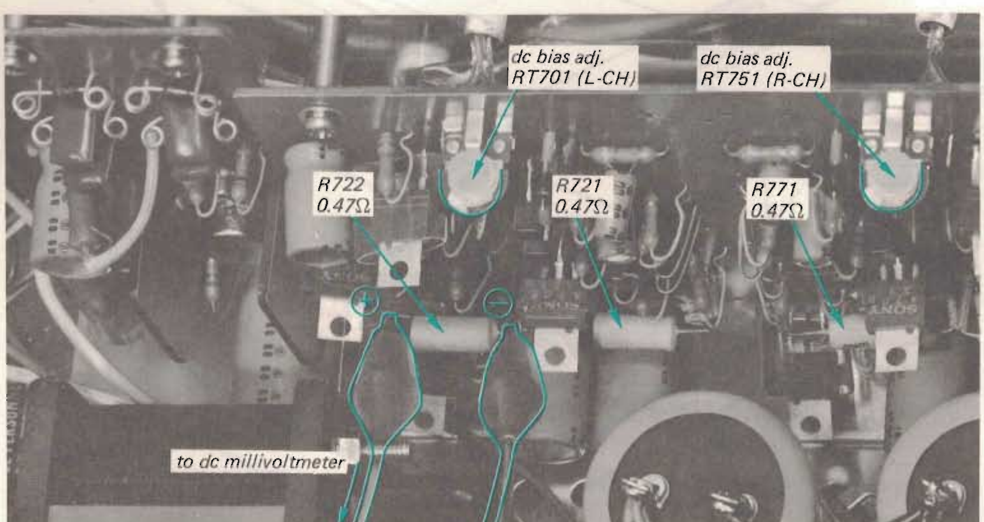


Fig. 3-17 Dc millivoltmeter connection

3. Screwdriver with 3 mm (1/8") blade

Preparation

1. Remove the top cover as described in Procedure 2-3.

2. Connect the dc millivoltmeter across emitter resistor R722 of power transistor Q901 as shown in Fig. 3-17.

Procedure

1. Apply a drop of cement solvent to the semifixed resistors on the power amplifier board, and then set the semifixed resistors (see Fig. 3-17) on the power amplifier board as follows:

   RT701 (L-CH, dc-bias) . . . . . fully clockwise

   RT751 (R-CH, dc-bias) . . . . . fully counterclockwise

2. Set the variable transformer for minimum output.

3. Turn the POWER switch to ON, and then increase the line voltage up to the rated value.

4. Adjust RT701 and RT751 to obtain a 25 mV reading on the meter.

SECTION 4
REPACKING

The STR-6045 original shipping carton and packing materials are the ideal containers for shipping the unit. However to secure the maximum protection, the STR-6045 must be repacked in these materials precisely as before. The proper repacking procedures are shown in Fig. 4-1.

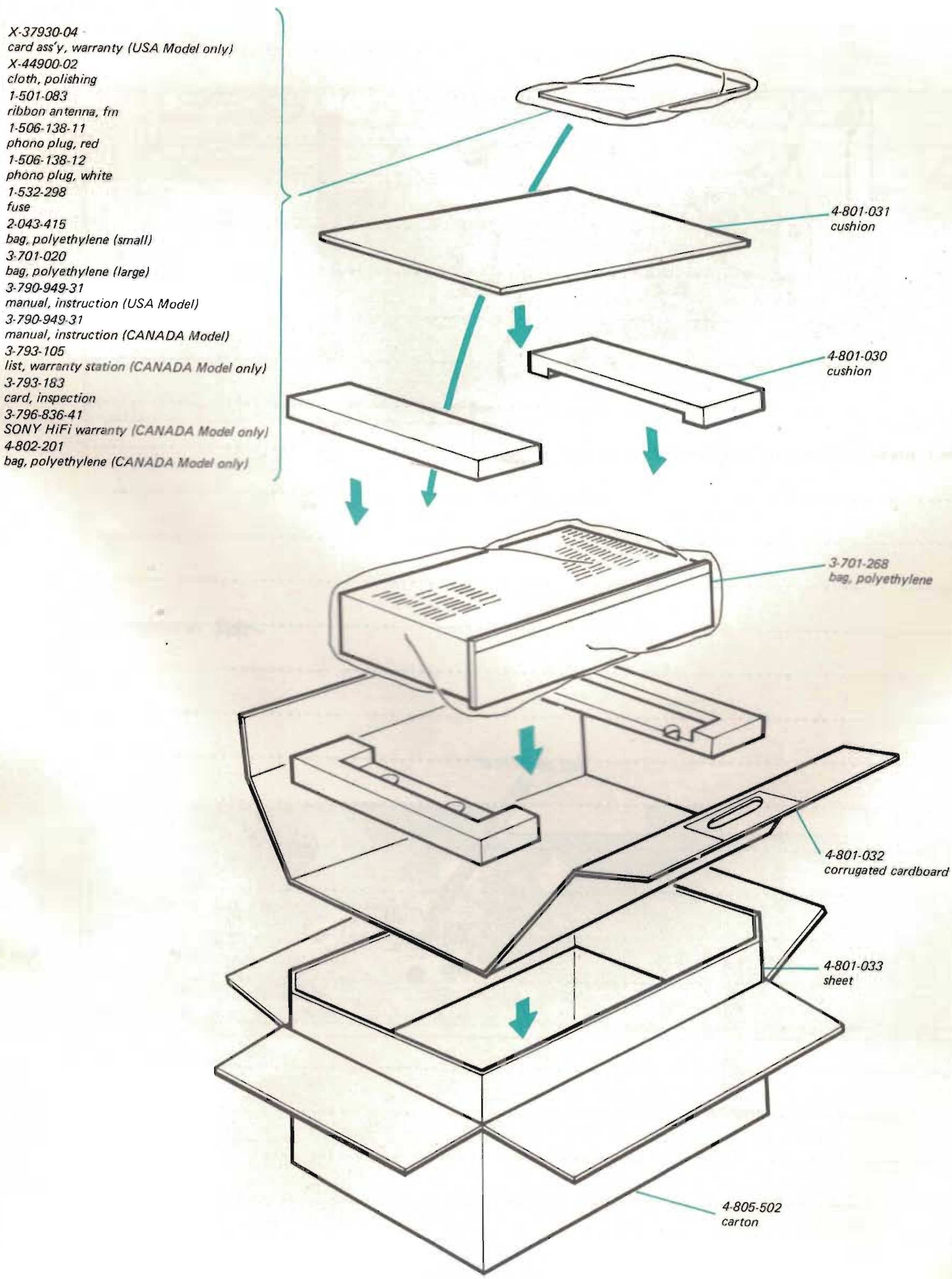


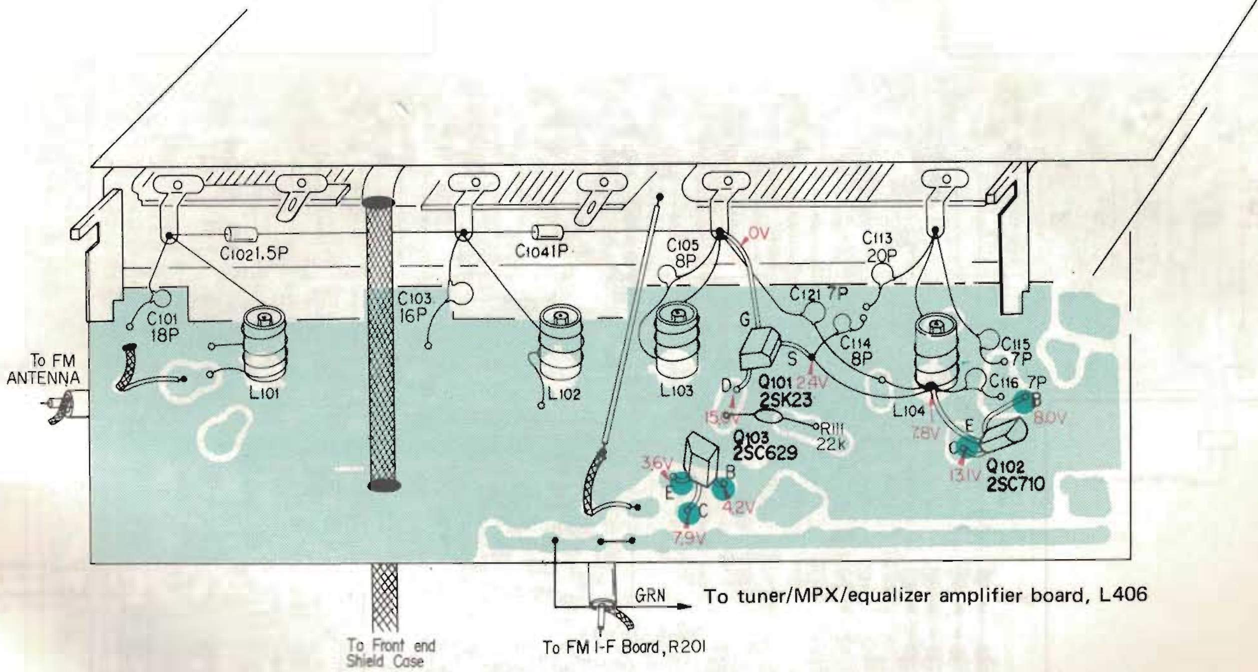
Fig. 4-1 Repacking

MEMO

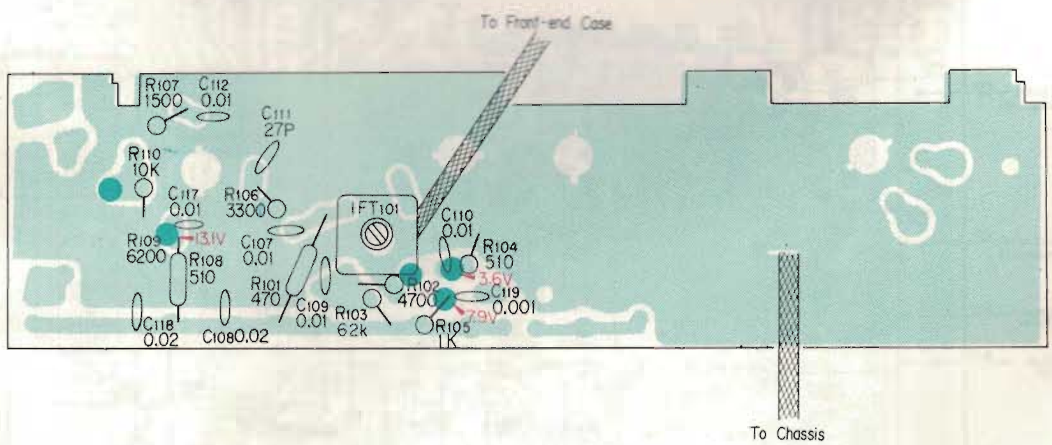
SECTION 5
DIAGRAMS

5-1. MOUNTING DIAGRAM–Fm Front End

–Conductor Side–

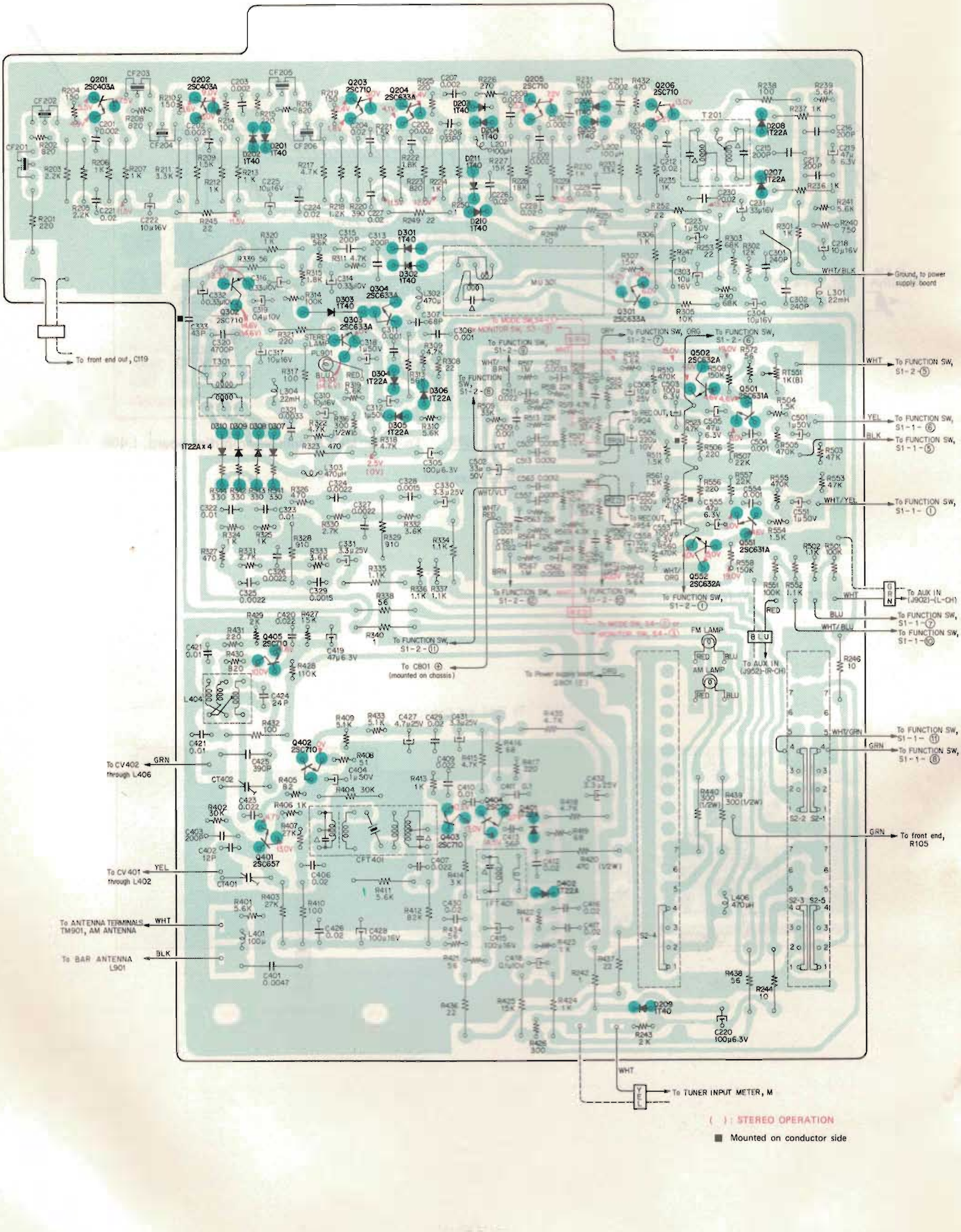


–Component Side–



5-2. MOUNTING DIAGRAM–Tuner/MPX/Equalizer Amplifier Board

–Conductor Side–

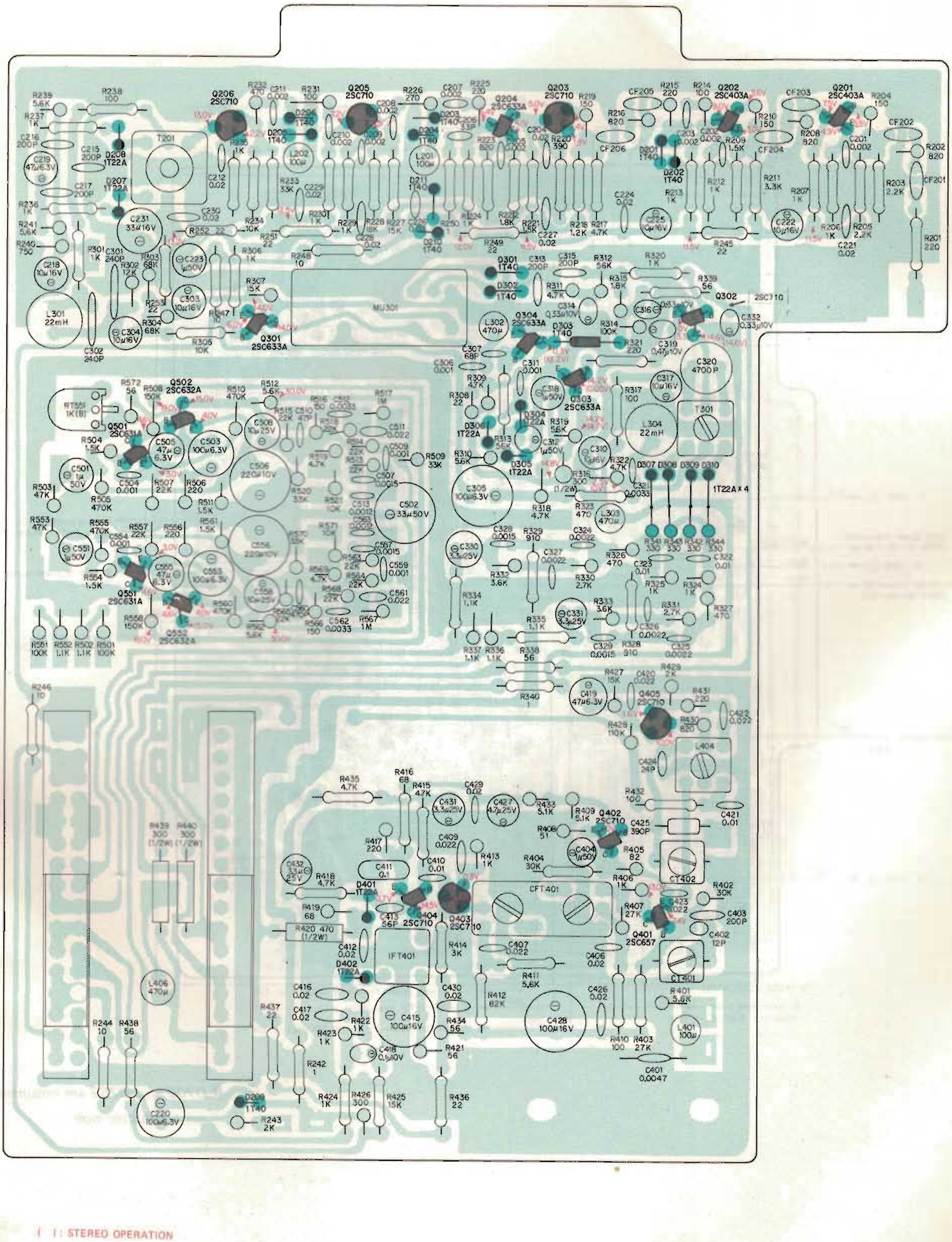


( ): STEREO OPERATION

■ Mounted on conductor side

5-2. MOUNTING DIAGRAM–Tuner/MPX/Equalizer Amplifier Board

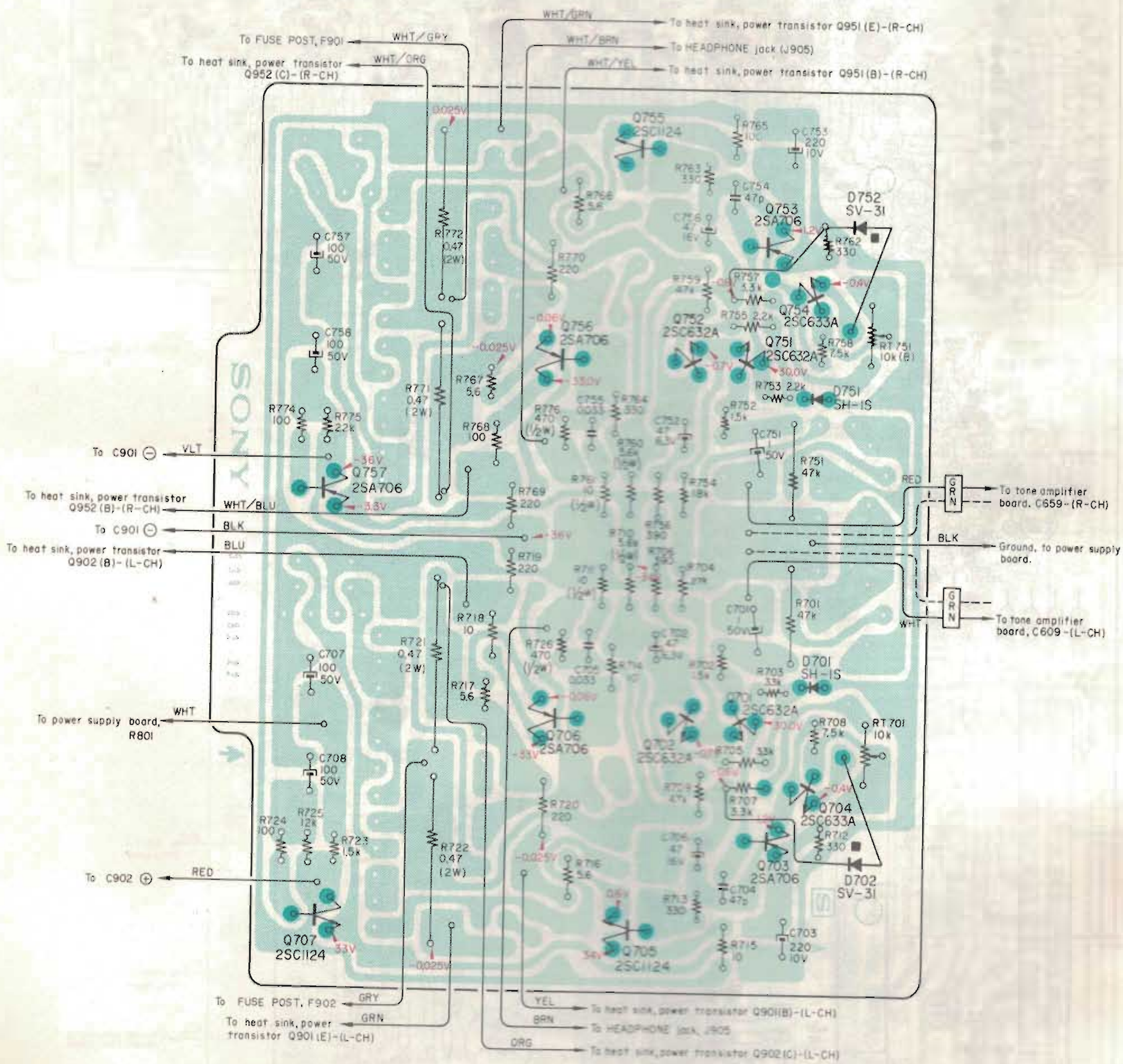
–Component Side–



[ ]: STEREO OPERATION

5-3. MOUNTING DIAGRAM–Power Amplifier Section

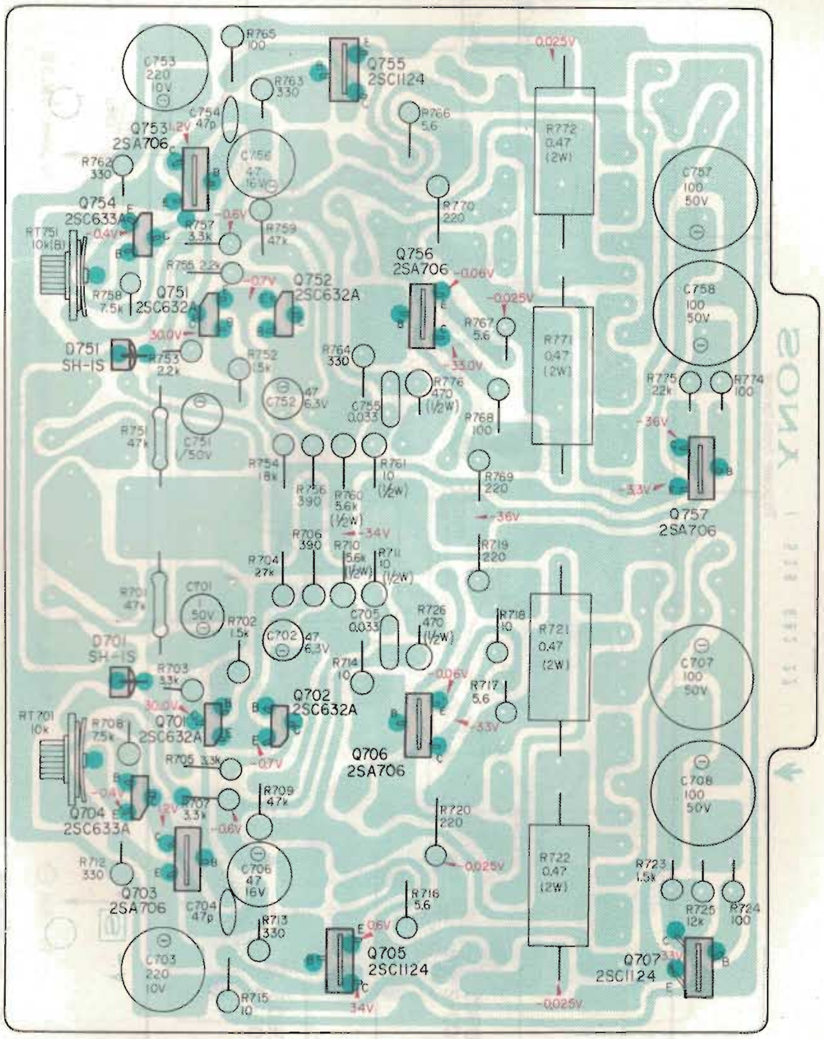
–Conductor Side–



■ D702 and D752 are mounted on conductor side

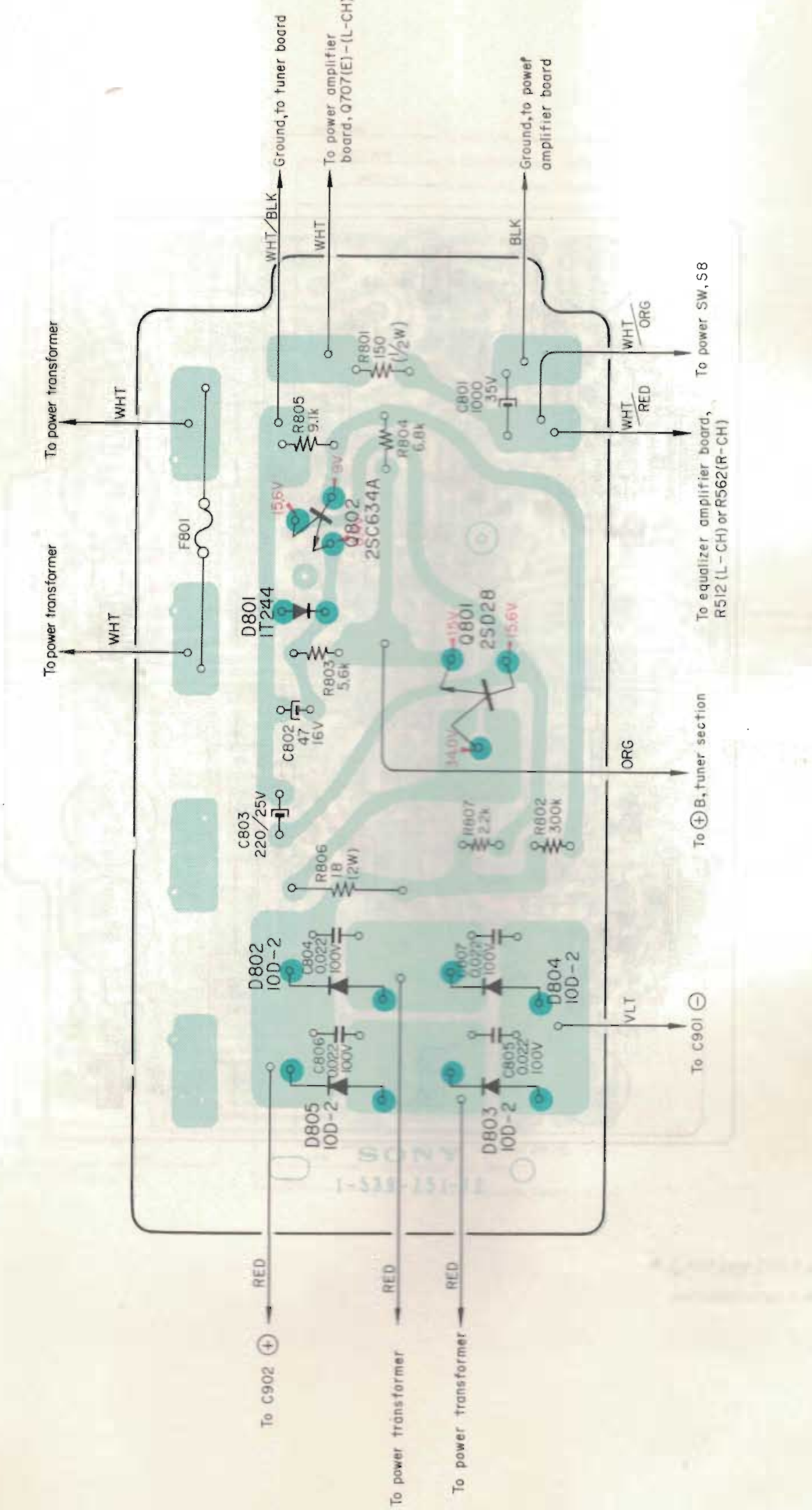
5-3. MOUNTING DIAGRAM–Power Amplifier Section

–Component Side–



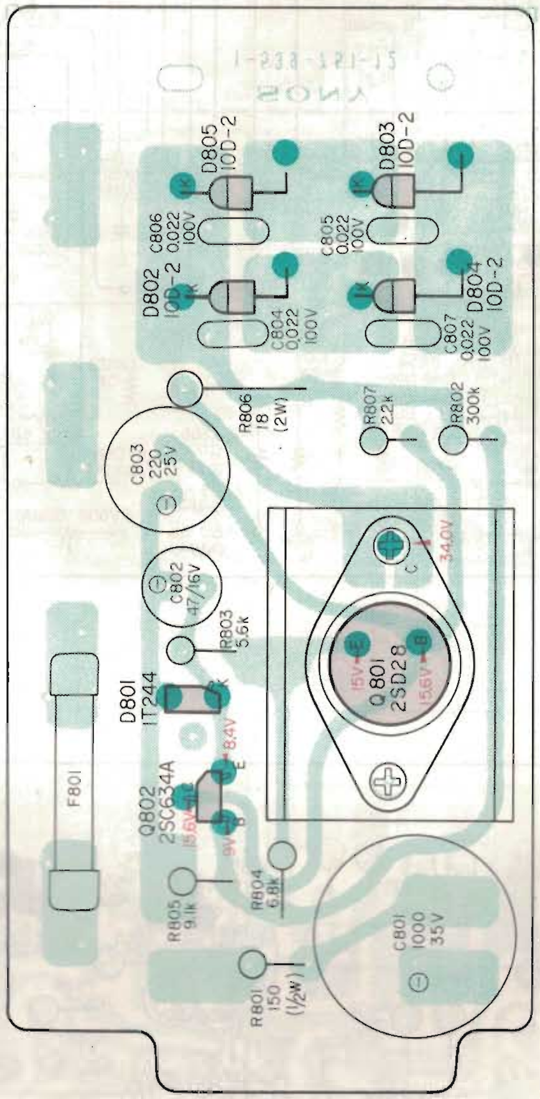
5-4. MOUNTING DIAGRAM–Power Supply Board

–Conductor Side–



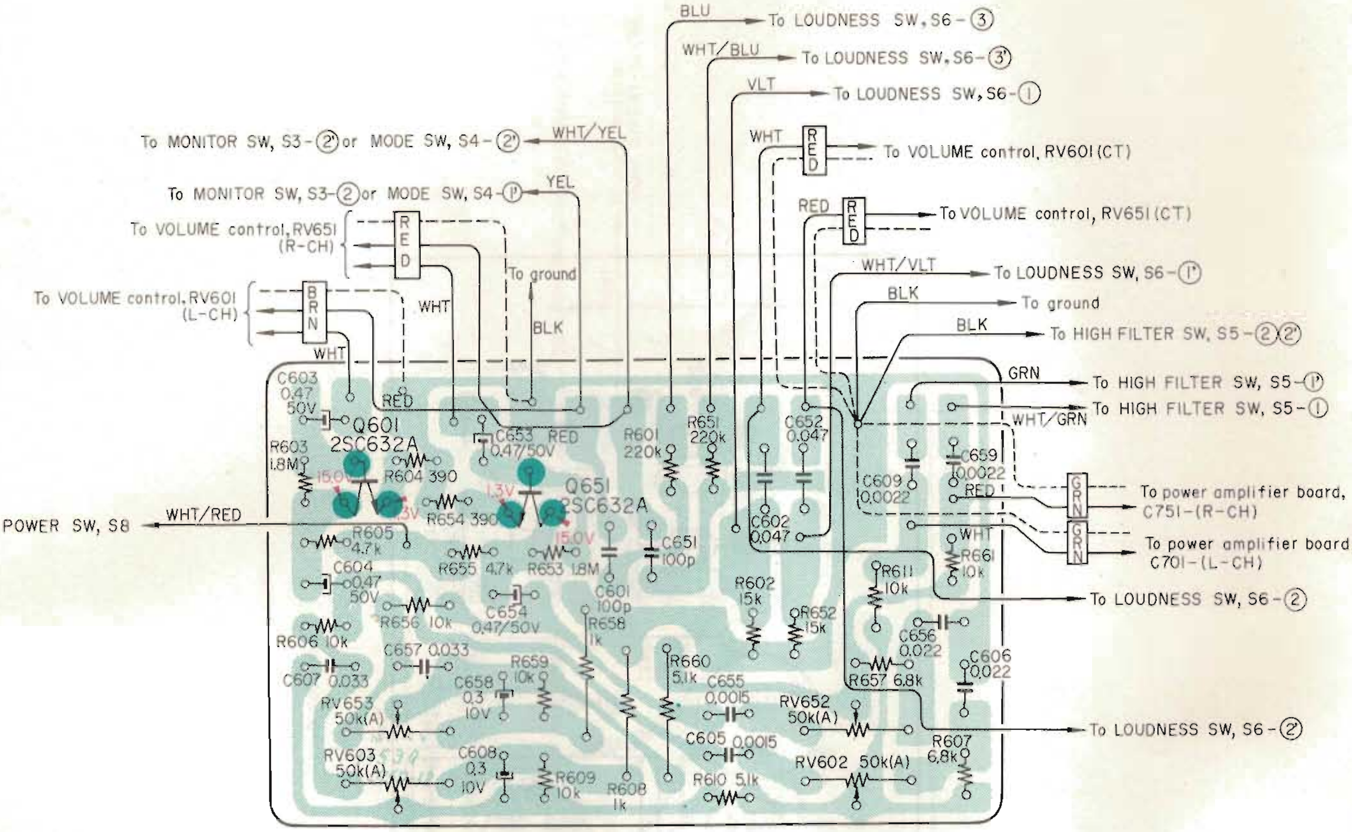
5-4. MOUNTING DIAGRAM–Power Supply Board

–Component Side–

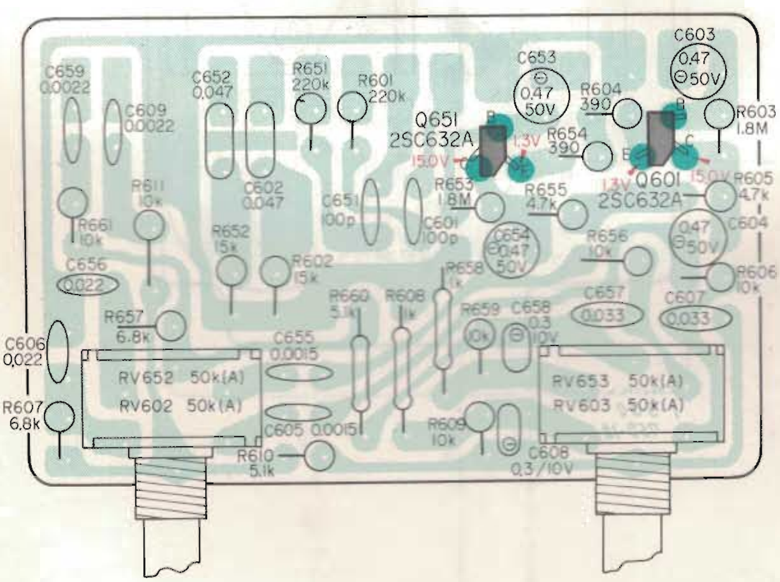


5-5. MOUNTING DIAGRAM–Tone Control Board

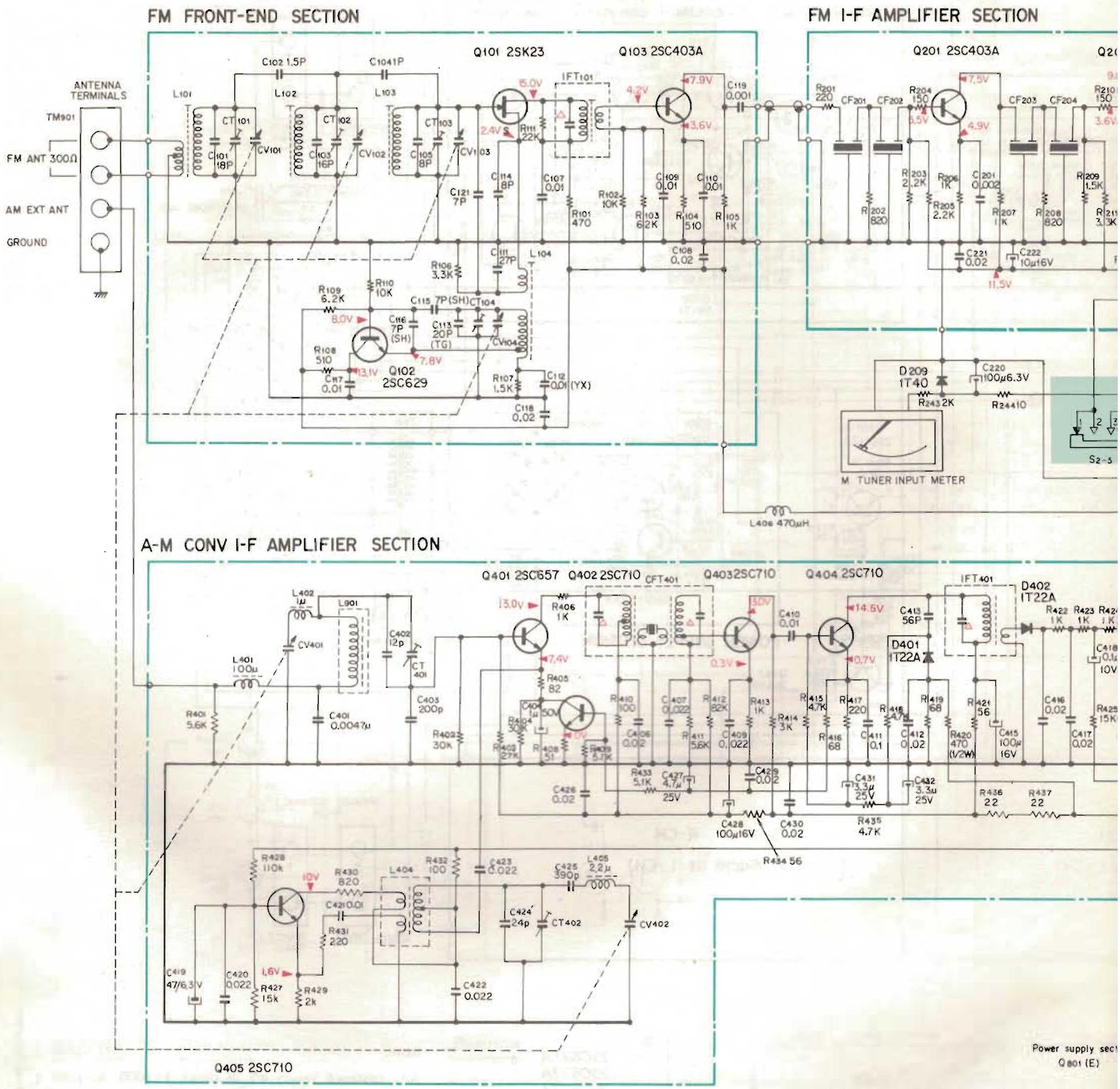
–Conductor Side–



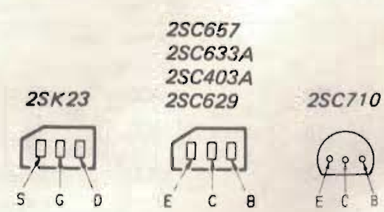
–Component Side–

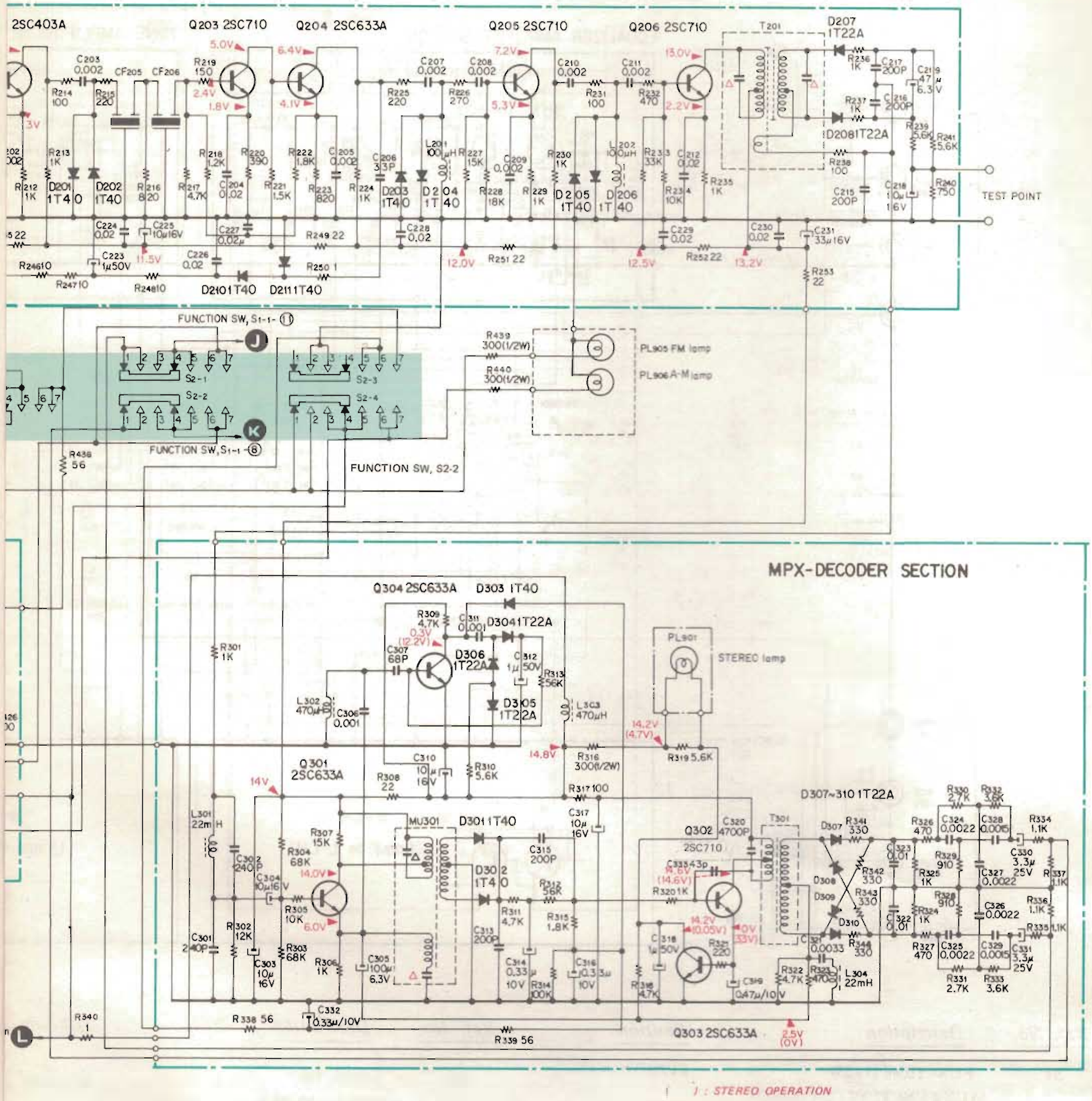


5-6. SCHEMATIC DIAGRAM–Tuner Section



Ref. No.	*Description*	*Position*
S1	FUNCTION (1) SW (AUX-FUNCTION (2)-PHONO)	FUNCTION (2)
S2	FUNCTION (2) SW (FM AUTO STEREO-FM MONO-AM)	FM AUTO STEREO





Note:

All resistance values are in ohms. k=1000, M=1000 k

All capacitance values are in μF except as indicated with p, which means $\mu\mu F$.

All voltages represent an average value and should hold within ±20%.

All voltages are dc measured with a VOM which has an input impedance of 20 k ohms/volt. No signal in.

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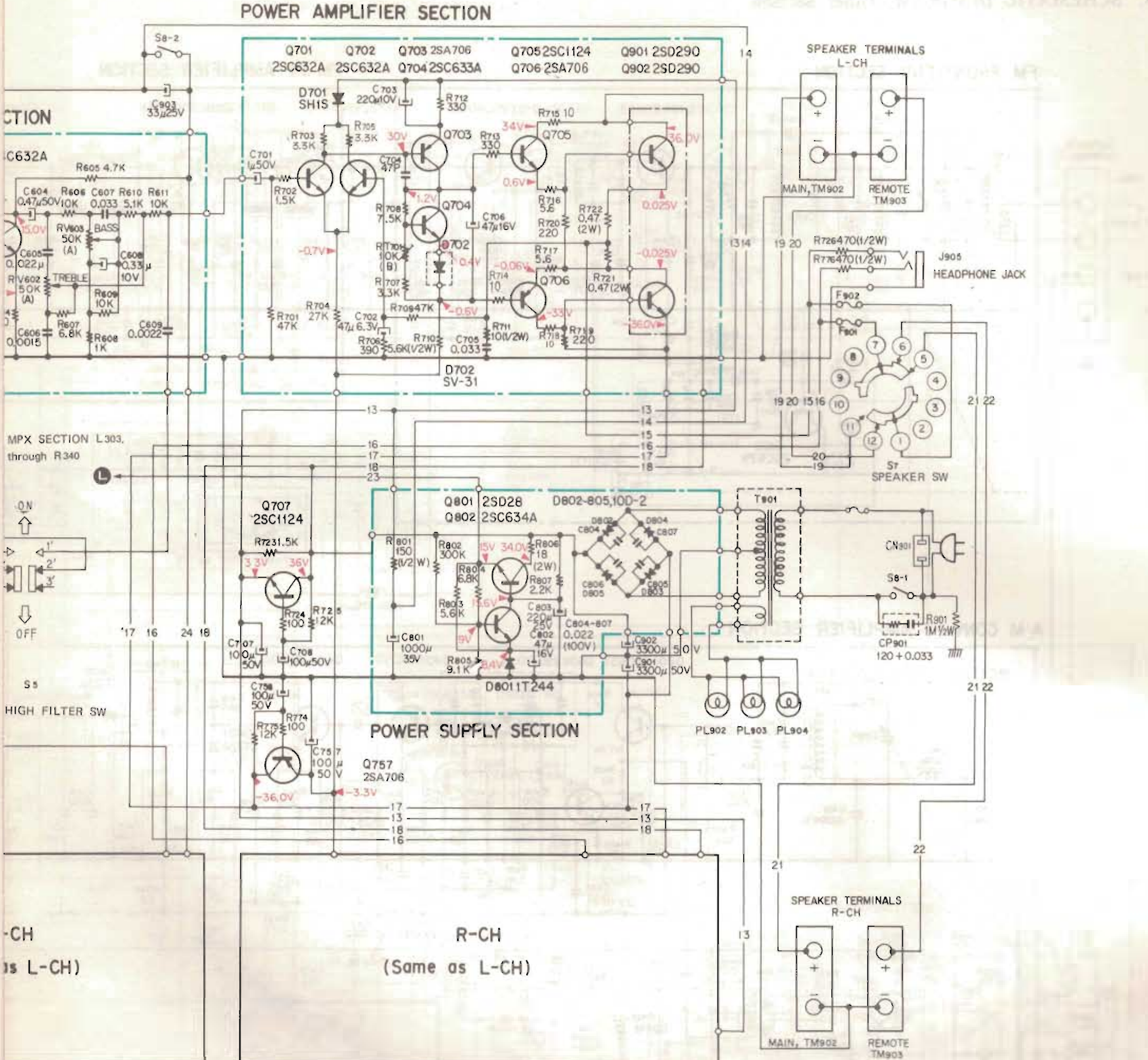

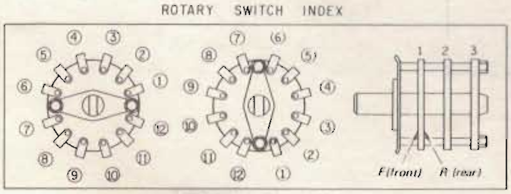

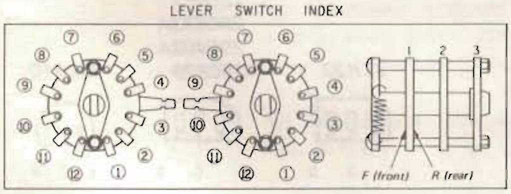

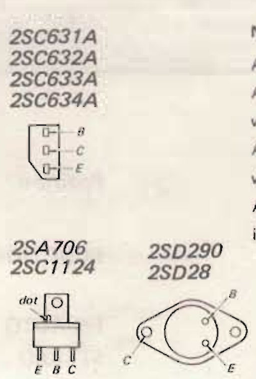

Note:

All resistance values are in ohms. k=1000, M=1000 k

All capacitance values are in μF except as indicated with p, which means $\mu\mu$F.

All voltages represent an average value and should hold within ±20%.

All voltages are dc measured with a VOM which has an input impedance of 20 k ohms/volt. No signal in.

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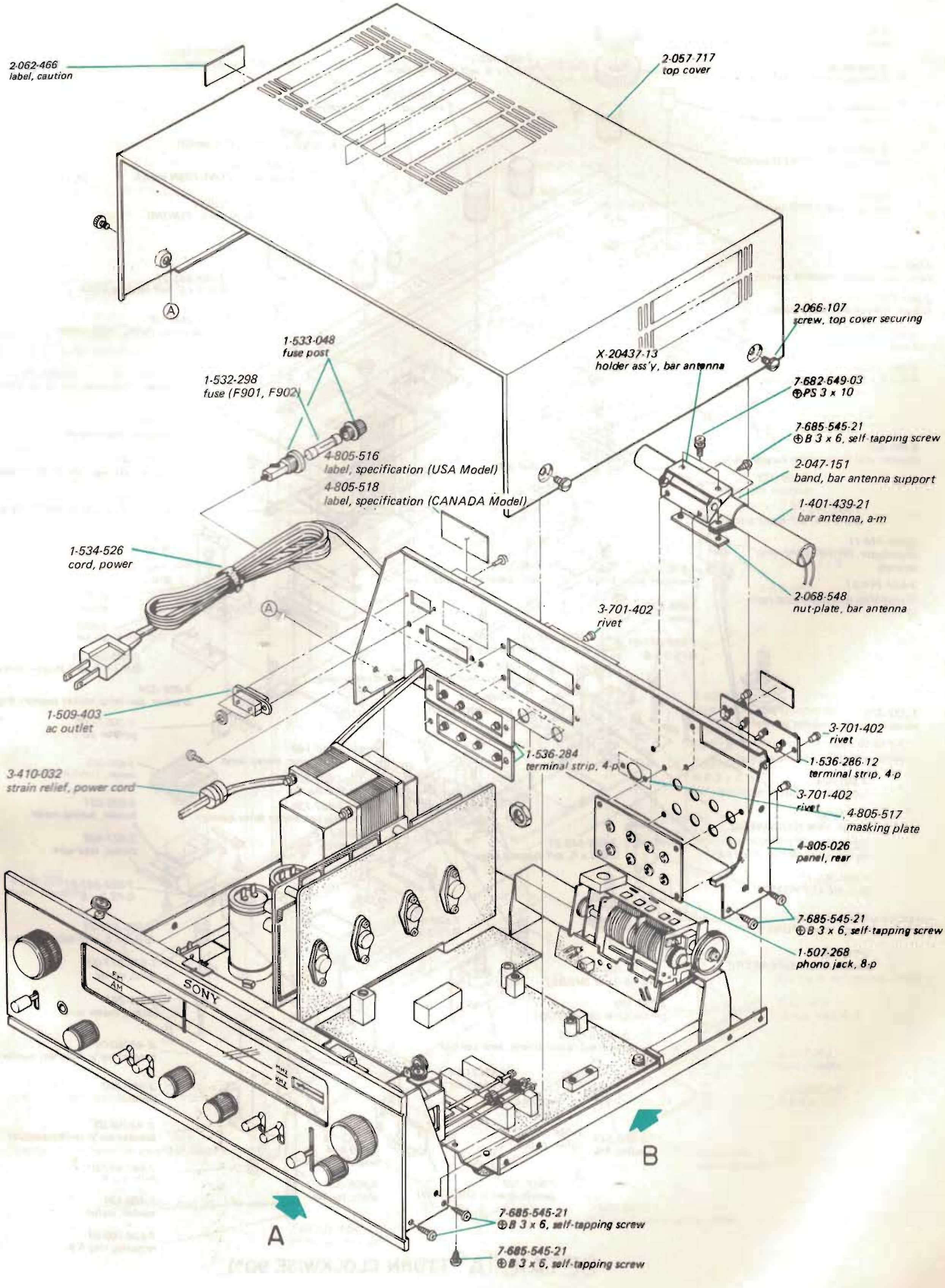
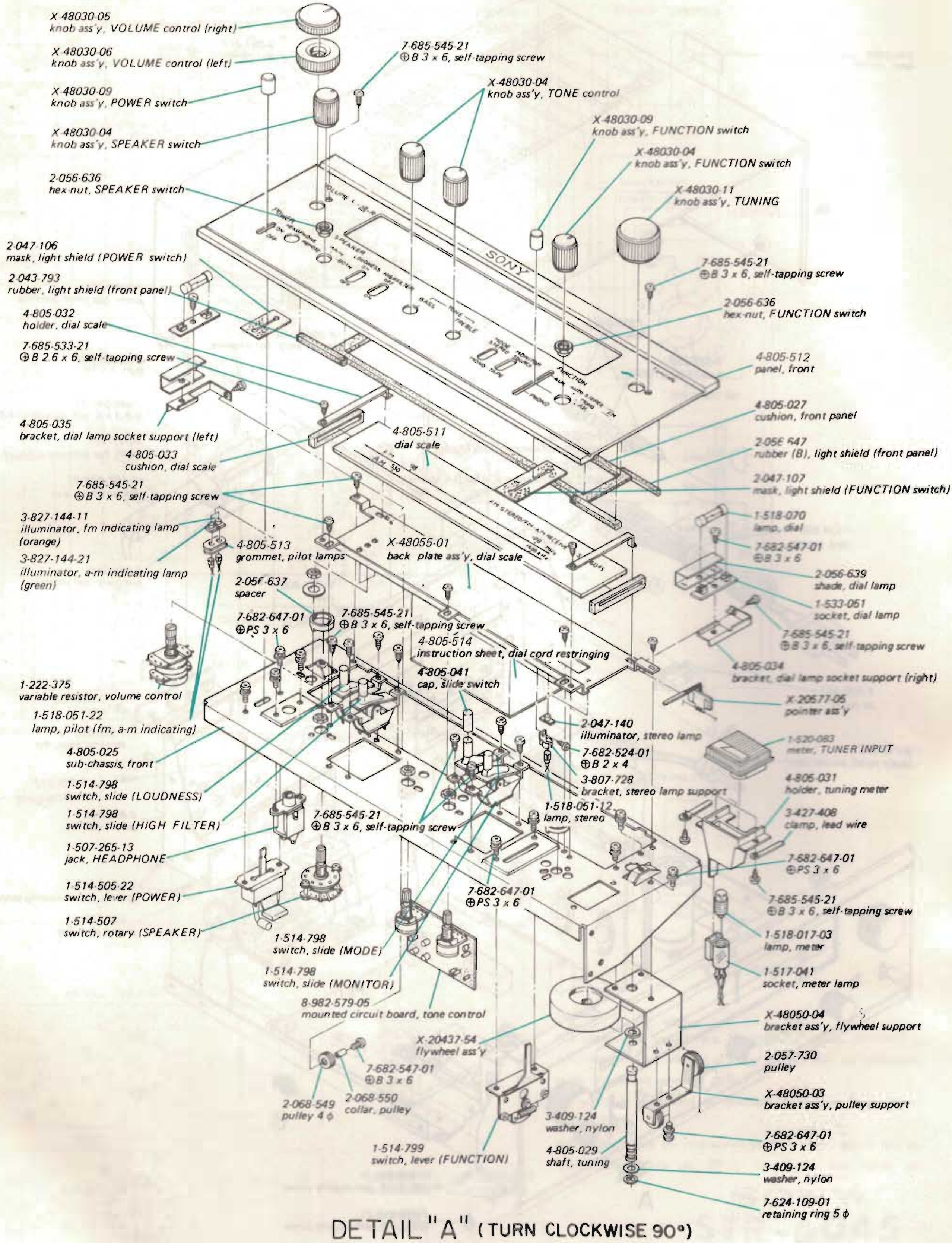
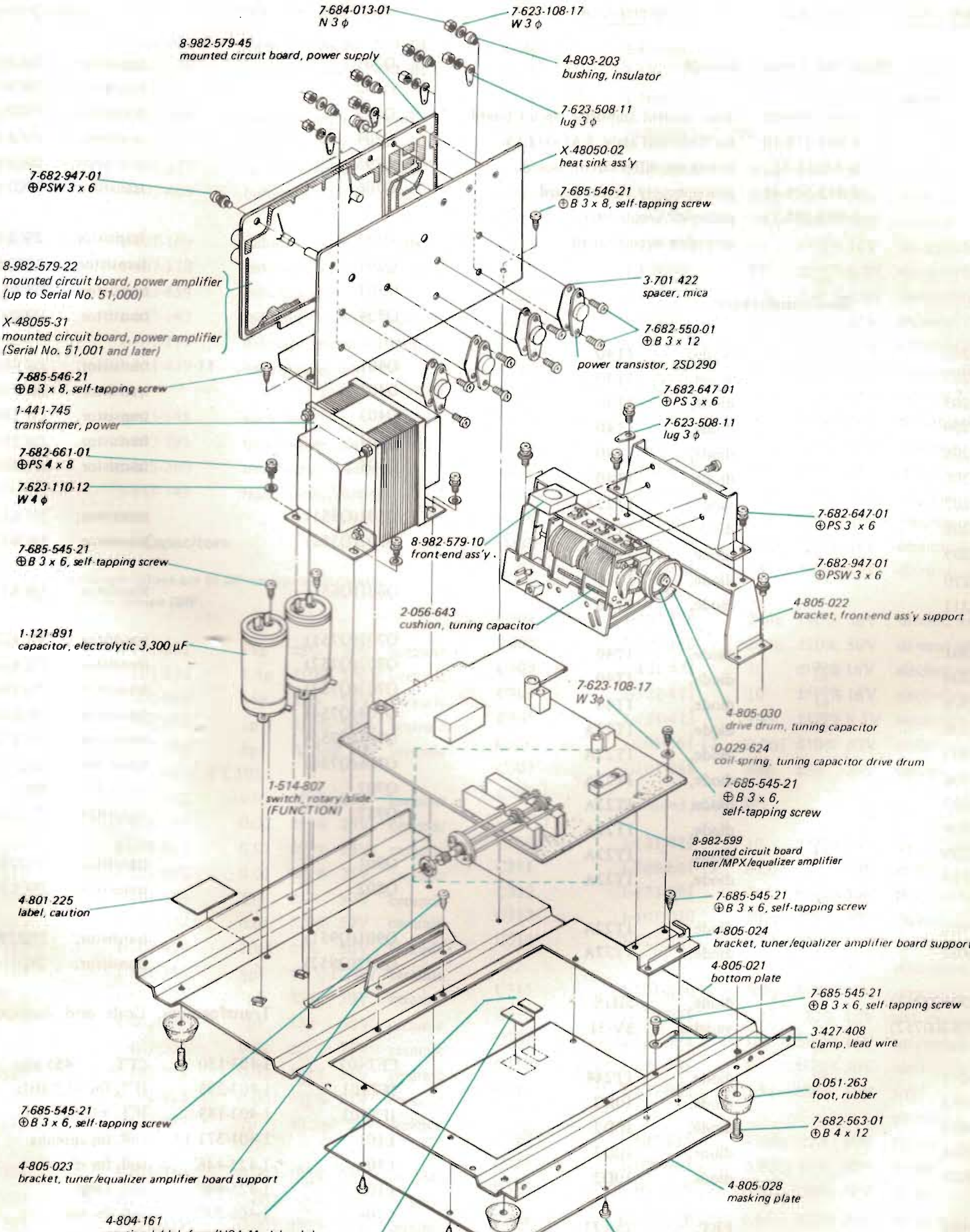
SECTION 6
EXPLODED VIEW





DETAIL "A" (TURN CLOCKWISE 90°)


7-684-013-01
N 3 φ
7-623-108-17
W 3 φ
8-982-579-45
mounted circuit board, power supply
4-803-203
bushing, insulator
7-623-508-11
lug 3 φ
X-48050-02
heat sink ass'y
7-682-947-01
⊕PSW 3 x 6
7-685-546-21
⊕B 3 x 8, self-tapping screw
8-982-579-22
mounted circuit board, power amplifier
(up to Serial No. 51,000)
X-48055-31
mounted circuit board, power amplifier
(Serial No. 51,001 and later)
3-701 422
spacer, mica
7-682-550-01
⊕B 3 x 12
power transistor, 2SD290
7-685-546-21
⊕B 3 x 8, self-tapping screw
1-441-745
transformer, power
7-682-647 01
⊕PS 3 x 6
7-623-508-11
lug 3 φ
7-682-661-01
⊕PS 4 x 8
7-623-110-12
W 4 φ
7-682-647-01
⊕PS 3 x 6
8-982-579-10
front-end ass'y.
7-682-947 01
⊕PSW 3 x 6
7-685-545-21
⊕B 3 x 6, self-tapping screw
4-805-022
bracket, front-end ass'y support
2-056-643
cushion, tuning capacitor
1-121-891
capacitor, electrolytic 3,300 μF
7-623-108-17
W 3φ
4-805-030
drive drum, tuning capacitor
0-029 624
coil spring, tuning capacitor drive drum
7-685-545-21
⊕B 3 x 6,
self-tapping screw
1-514-807
switch, rotary/slide
(FUNCTION)
8-982-599
mounted circuit board
tuner/MPX/equalizer amplifier
4-801-225
label, caution
7-685-545 21
⊕B 3 x 6, self-tapping screw
4-805-024
bracket, tuner/equalizer amplifier board support
4-805-021
bottom plate
7-685 545-21
⊕B 3 x 6, self tapping screw
3-427-408
clamp, lead wire
0-051-263
foot, rubber
7-685-545-21
⊕B 3 x 6, self-tapping screw
7-682-563 01
⊕B 4 x 12
4-805-023
bracket, tuner/equalizer amplifier board support
4-805-028
masking plate
4-804-161
caution lablel, fuse (USA Model only)
7-685-545-21
⊕B 3 x 6, self-tapping screw
3-422-204-04
lablel, caution (B)

DETAIL "B"

SECTION 7
ELECTRICAL PARTS LIST

Ref. No.	*Part No.*	*Description*	
Mounted Circuit Boards			
	8-982-579-05	tone control amplifier circuit board	
	8-982-579-10	fm front-end ass'y, FAF-011AW	
	X-48055-31	power amplifier circuit board	
	8-982-579-45	power supply circuit board	
	8-982-598-11	tuner/MPX/equalizer amplifier circuit board	
Semiconductors			
D201		diode,	1T40
D202		diode,	1T40
D203		diode,	1T40
D204		diode,	1T40
D205		diode,	1T40
D206		diode,	1T40
D207		diode,	1T22A
D208		diode,	1T22A
D209		diode,	1T40
D210		diode,	1T40
D211		diode,	1T40
D301		diode,	1T40
D302		diode,	1T40
D303		diode,	1T40
D304		diode,	1T22A
D305		diode,	1T22A
D306		diode,	1T22A
D307		diode,	1T22A
D308		diode,	1T22A
D309		diode,	1T22A
D310		diode,	1T22A
D401		diode,	1T22A
D402		diode,	1T22A
D701(D751)		diode,	SH1S
D702(D752)		varistor,	SV-31
D801		diode,	1T244
D802		diode,	10D2
D803		diode,	10D2
D804		diode,	10D2
D805		diode,	10D2
Q101		FET,	2SK23
Q102		transistor,	2SC629
Q103		transistor,	2SC403A

Ref. No.	*Part No.*	*Description*	
Q201		transistor,	2SC403A
Q202		transistor,	2SC403A
Q203		transistor,	2SC710
Q204		transistor,	2SC633A
Q205		transistor,	2SC710
Q206		transistor,	2SC710
Q301		transistor,	2SC633A
Q302		transistor,	2SC710
Q303		transistor,	2SC633A
Q304		transistor,	2SC633A
Q401		transistor,	2SC657
Q402		transistor,	2SC710
Q403		transistor,	2SC710
Q404		transistor,	2SC710
Q405		transistor,	2SC710
Q501(Q551)		transistor,	2SC631A
Q502(Q552)		transistor,	2SC632A
Q601(Q651)		transistor,	2SC632A
Q701(Q751)		transistor,	2SC632A
Q702(Q752)		transistor,	2SC632A
Q703(Q753)		transistor,	2SA706
Q704(Q754)		transistor,	2SC633A
Q705(Q755)		transistor,	2SC1124
Q706(Q756)		transistor,	2SA706
Q707		transistor,	2SC1124
Q757		transistor,	2SA706
Q801		transistor,	2SD28
Q802		transistor,	2SC634A
Q901(Q951)		transistor,	2SD290
Q902(Q952)		transistor,	2SD290
Transformers, Coils and Inductors			
CFT401	1-403-150	CFT,	455 kHz
IFT101	1-403-295	IFT, fm 10.7 MHz	
IFT401	1-403-149	IFT, a-m 455 kHz	
L101	1-401-371-12	coil, fm antenna	
L102	1-425-446	coil, fm rf	
L103	1-425-446	coil, fm rf	
L104	1-405-377	coil, fm osc	

Ref. No.	*Part No.*	*Description*
L201	1-407-169	inductor, micro 100 μH
L202	1-407-169	inductor, micro 100 μH
L301	1-407-408	inductor, micro 22 mH
L302	1-407-177	inductor, micro 470 μH
L303	1-407-177	inductor, micro 470 μH
L304	1-407-408	inductor, micro 22 mH
L401	1-407-169	inductor, micro 100 μH
L402	1-407-178	inductor, micro 1 μH
L404	1-405-459	coil, a-m osc
L405	1-407-182	inductor, micro 2.2 μH
L406	1-407-177	inductor, micro 470 μH
L901	1-401-439-11	bar antenna, a-m
MU301	1-425-548	MPX unit
T201	1-403-291	transformer, discriminator
T301	1-425-260	transformer, switching
T901	1-441-745	transformer, power

Capacitors

All capacitance values are in μF except as indicated with P, which means μμF.

Ref. No.	*Part No.*	*Description*
C101	1-101-862	18p ±5% 50V ceramic
C102	1-101-938	1.5p ±10% 500V ceramic
C103	1-102-952	16p ±5% 50V ceramic
C104	1-101-937	1p ±10% 500V ceramic
C105	1-101-958	8p ±0.5pF 50V ceramic
C106	Included in IFT 101	
C107	1-101-072	0.01 $^{+80}_{-20}$% 25V ceramic
C108	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C109	1-101-072	0.01 $^{+80}_{-20}$% 25V ceramic
C110	1-101-072	0.01 $^{+80}_{-20}$% 25V ceramic
C111	1-101-869	27p ±5% 50V ceramic
C112	1-102-077	0.01 ±20% 50V ceramic
C113	1-102-899	20pF ±5% 50V ceramic
C114	1-101-958	8pF ±0.5pF 50V ceramic
C115	1-102-875	7pF ±5% 50V ceramic
C116	1-102-875	7pF ±5% 50V ceramic
C117	1-101-072	0.01 $^{+80}_{-20}$% 25V ceramic
C118	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C119	1-101-918	0.001 $^{+80}_{-20}$% 25V ceramic
C121	1-101-957	7p ±0.5pF 50V ceramic
C201	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C202	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C203	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C204	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C205	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C206	1-101-872	33p ±5% 50V ceramic
C207	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C208	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C209	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic

Ref. No.	*Part No.*	*Description*
C210	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C211	1-101-919	0.002 $^{+80}_{-20}$% 25V ceramic
C212	1-101-073	0.02 $^{+80}_{-20}$% 50V ceramic
C213, C214	Included in T 201	
C215	1-101-030	200p ±5% 50V ceramic
C216	1-101-030	200p ±5% 50V ceramic
C217	1-101-030	200p ±5% 50V ceramic
C218	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C219	1-121-487	47 $^{+100}_{-10}$% 6.3V electrolytic
C220	1-121-413	100 $^{+100}_{-10}$% 6.3V electrolytic
C221	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C222	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C223	1-121-391	1 $^{+150}_{-10}$% 50V electrolytic
C224	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C225	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C226	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C227	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C228	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C229	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C230	1-101-073	0.02 $^{+80}_{-20}$% 25V ceramic
C231	1-121-403	33 $^{+100}_{-10}$% 16V electrolytic
C301	1-107-140	240p ±10% 50V silvered mica
C302	1-107-140	240p ±10% 50V silvered mica
C303	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C304	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C305	1-121-413	100 $^{+100}_{-10}$% 6.3V electrolytic
C306	1-105-661-12	0.001 ±10% 50V mylar
C307	1-101-888	68p ±5% 50V ceramic
C308, C309	Included in MU 301	
C310	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C311	1-105-661-12	0.001 ±10% 50V mylar
C312	1-121-391	1 $^{+150}_{-10}$% 50V electrolytic
C313	1-101-030	200p ±5% 50V ceramic
C314	1-127-021	0.33 ±20% 10V solid, aluminum
C315	1-101-030	200p ±5% 50V ceramic
C316	1-127-021	0.33 ±20% 10V solid, aluminum
C317	1-121-471	10 $^{+100}_{-10}$% 16V electrolytic
C318	1-121-391	1 $^{+150}_{-10}$% 50V electrolytic
C319	1-127-022	0.47 ±20% 10V solid, aluminum
C320	1-103-575	4700p ±5% 50V styrol
C321	1-106-013-12	0.0033 ±5% 50V mylar
C322	1-105-673-12	0.01 ±10% 50V myalr
C323	1-105-673-12	0.01 ±10% 50V mylar
C324	1-105-665-12	0.0022 ±10% 50V mylar
C325	1-105-665-12	0.0022 ±10% 50V mylar
C326	1-105-665-12	0.0022 ±10% 50V mylar
C327	1-105-665-12	0.0022 ±10% 50V mylar
C328	1-105-663-12	0.0015 ±10% 50V mylar
C329	1-105-663-12	0.0015 ±10% 50V myalr

Ref. No.	Part No.	Description			
C330	1-121-392	3.3	$\pm^{150}_{10}\%$	25V	electrolytic
C331	1-121-392	3.3	$\pm^{150}_{10}\%$	25V	electrolytic
C332	1-127-021	0.33	±20%	10V	solid, aluminum
C333	1-102-966	43p	±5%	50V	ceramic
C401	1-103-575	4700p	± 5 %	50V	styrol
C402	1-101-949	12p	±5%	50V	ceramic
C403	1-101-030	200p	±5%	50V	ceramic
C404	1-121-391	1	$\pm^{150}_{10}\%$	50V	electrolytic
C405	Included in CFT 401				
C406	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C407	1-105-677-12	0.022	±10%	50V	mylar
C408	Included in CFT 401				
C409	1-105-677-12	0.022	±10%	50V	mylar
C410	1-105-673-12	0.01	±10%	50V	mylar
C411	1-105-685-12	0.1	±10%	50V	mylar
C412	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C413	1-101-884	56p	±5%	50V	ceramic
C414	Included in IFT 401				
C415	1-121-415	100	$\pm^{100}_{10}\%$	16V	electrolytic
C416	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C417	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C418	1-127-019	0.1	±20%	10V	solid, aluminum
C419	1-121-487	47	$\pm^{100}_{10}\%$	6.3V	electrolytic
C420	1-105-677-12	0.022	±10%	50V	mylar
C421	1-105-673-12	0.01	±10%	50V	mylar
C422	1-105-677-12	0.022	±10%	50V	mylar
C423	1-105-677-12	0.022	±10%	50V	mylar
C424	1-101-867	24p	±5%	50V	ceramic
C425	1-103-615	390p	±5%	50V	styrol
C426	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C427	1-121-395	4.7	$\pm^{150}_{10}\%$	25V	electrolytic
C428	1-121-415	100	$\pm^{100}_{10}\%$	16V	electrolytic
C429	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C430	1-101-073	0.02	$\pm^{80}_{20}\%$	25V	ceramic
C431	1-121-392	3.3	$\pm^{150}_{10}\%$	25V	electrolytic
C432	1-121-392	3.3	$\pm^{150}_{10}\%$	25V	electrolytic
C501(C551)	1-121-391	1	$\pm^{150}_{10}\%$	50V	electrolytic
C502	1-121-405	33	$\pm^{100}_{10}\%$	50V	electrolytic
C503(C553)	1-121-413	100	$\pm^{100}_{10}\%$	6.3V	electrolytic
C504(C554)	1-105-661-12	0.001	±10%	50V	mylar
C505(C555)	1-121-487	47	$\pm^{100}_{10}\%$	6.3V	electrolytic
C506(C556)	1-121-420	220	$\pm^{100}_{10}\%$	10V	electrolytic
C507(C557)	1-105-666-12	0.0027	±10%	50V	mylar
C508(C558)	1-121-398	10	$\pm^{100}_{10}\%$	25V	electrolytic
C509(C559)	1-105-661-12	0.001	±10%	50V	mylar
C510(C560)	1-101-880	47p	±5%	50V	ceramic
C511(C561)	1-106-027-12	0.022	±5%	50V	mylar
C512(C562)	1-106-013-12	0.0033	±5%	50V	mylar

Ref. No.	Part No.	Description			
C601(C651)	1-102-975	100p	±10%	50V	ceramic
C602(C652)	1-105-681-12	0.047	±10%	50V	mylar
C603(C653)	1-121-726	0.47	$\pm^{150}_{10}\%$	50V	electrolytic
C604(C654)	1-121-726	0.47	$\pm^{150}_{10}\%$	50V	electrolytic
C605(C655)	1-105-663-12	0.0015	±10%	50V	mylar
C606(C656)	1-105-677-12	0.022	±10%	50V	mylar
C607(C657)	1-105-679-12	0.033	±10%	50V	mylar
C608(C658)	1-127-021	0.33	±20%	10V	solid, aluminum
C609(C659)	1-105-665-12	0.0022	±10%	50V	mylar
C701(C751)	1-121-391	1	$\pm^{150}_{10}\%$	50V	electrolytic
C702(C752)	1-121-487	47	$\pm^{100}_{10}\%$	6.3V	electrolytic
C703(C753)	1-121-420	220	$\pm^{100}_{10}\%$	10V	electrolytic
C704(C754)	1-101-881	47p	±10%	50V	ceramic
C705(C755)	1-105-679-12	0.033	±10%	50V	mylar
C706(C756)	1-121-409	47	$\pm^{100}_{10}\%$	16V	electrolytic
C707(C757)	1-121-417	100	$\pm^{100}_{10}\%$	50V	electrolytic
C708(C758)	1-121-417	100	$\pm^{100}_{10}\%$	50V	electrolytic
C801	1-121-388	1000	$\pm^{100}_{10}\%$	35V	electrolytic
C802	1-121-409	47	$\pm^{100}_{10}\%$	16V	electrolytic
C803	1-121-422	220	$\pm^{100}_{10}\%$	25V	electrolytic
C804	1-105-717-12	0.022	±10%	100V	mylar
C805	1-105-717-12	0.022	±10%	100V	mylar
C806	1-105-717-12	0.022	±10%	100V	mylar
C807	1-105-717-12	0.022	±10%	100V	mylar
C901	1-121-891	3300	$\pm^{100}_{10}\%$	50V	electrolytic
C902	1-121-891	3300	$\pm^{100}_{10}\%$	50V	electrolytic
C903	1-121-404	33	$\pm^{100}_{10}\%$	25V	electrolytic
CT401	1-141-097	trimmer capacitor			
CT402	1-141-097	trimmer capacitor			
CV101, CV102, CV103, CV104, CV301, CV302	1-151-191	capacitor, tuning			
CT101, CT102, CT103, CT104	1-151-191	capacitor, tuning			

Resistors

All resistance values are in ohms, ±5%, 1/4 watts and carbon type unless otherwise indicated.

Ref. No.	Part No.	Description
R101	1-244-665	470
R102	1-244-697	10K

Ref. No.	Part No.	Description
R103	1-244-716	62K
R104	1-244-666	510
R105	1-244-673	1K
R106	1-244-685	3.3K
R107	1-244-675	1.5K
R108	1-244-666	510
R109	1-244-692	6.2K
R110	1-244-697	10K
R111	1-244-705	22K
R201	1-244-657	220
R202	1-242-671	820
R203	1-244-681	2.2K
R204	1-242-653	150
R205	1-244-681	2.2K
R206	1-244-673	1K
R207	1-244-673	1K
R208	1-242-671	820
R209	1-244-677	1.5K
R210	1-242-653	150
R211	1-244-685	3.3K
R212	1-244-673	1K
R213	1-244-673	1K
R214	1-242-649	100
R215	1-242-657	220
R216	1-242-671	820
R217	1-244-689	4.7K
R218	1-244-675	1.2K
R219	1-242-653	150
R220	1-244-663	390
R221	1-244-677	1.5K
R222	1-244-679	1.8K
R223	1-244-671	820
R224	1-244-673	1K
R225	1-242-657	220
R226	1-242-659	270
R227	1-244-701	15K
R228	1-244-703	18K
R229	1-244-673	1K
R230	1-244-673	1K
R231	1-242-649	100
R232	1-242-665	470
R233	1-244-709	33K
R234	1-244-697	10K
R235	1-244-673	1K
R236	1-244-673	1K
R237	1-244-673	1K
R238	1-244-649	100
R239	1-242-691	5.6K
R240	1-242-670	750
R241	1-242-691	5.6K
R242	1-244-601	1
R243	1-242-680	2K
R244	1-244-625	10
R245	1-244-633	22

Ref. No.	Part No.	Description
R246	1-244-625	10
R247	1-244-625	10
R248	1-244-625	10
R249	1-244-633	22
R250	1-244-601	1
R251	1-244-633	22
R252	1-244-633	22
R253	1-244-633	22
R301	1-244-673	1K
R302	1-242-699	12K
R303	1-242-717	68K
R304	1-242-717	68K
R305	1-244-697	10K
R306	1-244-673	1K
R307	1-242-701	15K
R308	1-242-633	22
R309	1-242-689	4.7K
R310	1-242-691	5.6K
R311	1-242-689	4.7K
R312	1-242-715	56K
R313	1-244-715	56K
R314	1-242-721	100K
R315	1-242-679	1.8K
R316	1-202-560	300 ±10% 1/2W composition
R317	1-244-649	100
R318	1-242-689	4.7K
R319	1-242-691	5.6K
R320	1-244-673	1K
R321	1-244-657	220
R322	1-242-689	4.7K
R323	1-244-665	470
R324	1-242-673	1K
R325	1-242-673	1K
R326	1-242-665	470
R327	1-242-665	470
R328	1-244-672	910
R329	1-244-672	910
R330	1-242-683	2.7K
R331	1-242-683	2.7K
R332	1-242-686	3.6K
R333	1-242-686	3.6K
R334	1-244-674	1.1K
R335	1-244-674	1.1K
R336	1-242-674	1.1K
R337	1-242-674	1.1K
R338	1-244-643	56
R339	1-244-643	56
R340	1-244-601	1
R341	1-244-661	330
R342	1-244-661	330
R343	1-244-661	330
R344	1-244-661	330

Ref. No.	Part No.	Description
R401	1-242-691	5.6K
R402	1-244-708	30K
R403	1-242-707	27K
R404	1-242-708	30K
R405	1-242-647	82
R406	1-242-673	1K
R407	1-242-707	27K
R408	1-242-642	51
R409	1-242-690	5.1K
R410	1-244-649	100
R411	1-242-691	5.6K
R412	1-244-719	82K
R413	1-242-673	1K
R414	1-244-684	3K
R415	1-242-689	4.7K
R416	1-242-645	68
R417	1-242-657-09	220
R418	1-242-689	4.7K
R419	1-242-645	68
R420	1-202-565	470 ±10% 1/2W composition
R421	1-244-643	56
R422	1-242-673	1K
R423	1-242-673	1K
R424	1-242-673	1K
R425	1-242-701	15K
R426	1-242-660	300
R427	1-242-701	15K
R428	1-242-722	110K
R429	1-242-680	2K
R430	1-242-671	820
R431	1-242-657	220
R432	1-244-649	100
R433	1-242-690	5.1K
R434	1-242-643	56
R435	1-244-689	4.7K
R436	1-244-633	22
R437	1-244-633	22
R438	1-244-643	56
R439	1-202-560	300 ±10% 1/2W composition
R440	1-202-560	300 ±10% 1/2W composition
R501(R551)	1-242-721	100K
R502(R552)	1-242-674	1.1K
R503(R553)	1-242-713	47K
R504(R554)	1-242-677	1.5K
R505(R555)	1-242-737	470K
R506(R556)	1-242-657-09	220
R507(R557)	1-242-705	22K
R508(R558)	1-242-725	150K
R509	1-242-709	33K
R510(R560)	1-242-737	470K
R511(R561)	1-242-677	1.5K
R512(R562)	1-242-691	5.6K
R513(R563)	1-242-705	22K
R514(R564)	1-242-705	22K

Ref. No.	Part No.	Description
R515(R565)	1-242-705	22K
R516(R566)	1-242-653	150
R517(R567)	1-242-945	1M
R518(R568)	1-242-705	22K
R519(R569)	1-242-689	4.7K
R520(R570)	1-242-709	33K
R521(R571)	1-242-697	10K
R572	1-242-643	56
R523(R573)	1-244-689	4.7K
R601(R651)	1-242-729	220K
R602(R652)	1-242-701	15K
R603(R653)	1-242-751	1.8M
R604(R654)	1-242-663	390
R605(R655)	1-242-689	4.7K
R606(R656)	1-242-697	10K
R607(R657)	1-242-693	6.8K
R608(R658)	1-244-673	1K
R609(R659)	1-242-697	10K
R610	1-242-690	5.1K
R611(R661)	1-242-697	10K
R660	1-244-690	5.1K
R701(R751)	1-244-713	47K
R702(R752)	1-242-677	1.5K
R703(R753)	1-242-685	3.3K
R704(R754)	1-242-707	27K
R705(R755)	1-242-685	3.3K
R706(R756)	1-242-663	390
R707(R757)	1-242-685	3.3K
R708(R758)	1-242-694	7.5K
R709(R759)	1-242-713	47K
R710(R760)	1-202-591	5.6K ±10% 1/2W composition
R711(R761)	1-202-525	10 ±10% 1/2W composition
R712(R762)	1-242-661	330
R713(R763)	1-242-661	330
R714(R764)	1-242-625	10
R715(R765)	1-242-625	10
R716(R766)	1-242-619	5.6
R717(R767)	1-242-619	5.6
R718(R768)	1-242-625	10
R719(R769)	1-242-657	220
R720(R770)	1-242-657	220
R721(R771)	1-205-802	0.47 ±10% 2W wire-wound
R722(R772)	1-205-802	0.47 ±10% 2W wire-wound
R723	1-242-677	1.5K
R724(R774)	1-242-649	100
R725(R775)	1-242-699	12K
R726(R776)	1-202-565	470 ±10% 1/2W composition
R801	1-202-553	150 ±10% 1/2W composition
R802	1-242-732	300K
R803	1-242-691	5.6K
R804	1-242-693	6.8K
R805	1-242-696	9.1K

Ref. No.	Part No.	Description
R806	1-206-117	18 ±10% 2W metal-oxide
R807	1-242-681	2.2K
R901	1-202-645	1M ±10% 1/2W composition
RT551	1-222-945	1K(B), semi-fixed
RT701(751)	1-222-981	10K(B), semi-fixed
RV601(RV651)	1-222-375	250K (S), variable (volume control)
RV602(RV652)	1-222-382	50K (A), variable (tone control)
RV603(RV653)	1-222-382	50K (A), variable (tone control)

Switches

Ref. No.	Part No.	Description
S1	1-514-799	switch, lever (FUNCTION 1)
S2	1-514-807	switch, rotary/slide (FUNCTION 2)
S3	1-514-798	switch, slide (MONITOR)
S4	1-514-798	switch, slide (MODE)
S5	1-514-798	switch, slide (HIGH FILTER)
S6	1-514-798	switch, slide (LOUDNESS)
S7	1-514-507	switch, rotary (SPEAKER)
S8	1-514-505	switch, lever (POWER)

Filters

FM I-F CERAMIC FILTERS

Ref. No.	Part No.	Color	Specified Center Freq.
CF201, CF202, CF203, CF204, CF205, CF206	1-403-562-11	red	10.70 MHz
	1-403-562-12	black	10.66 MHz
	1-403-562-31	white	10.74 MHz
	1-403-562-41	green	10.62 MHz
	1-403-562-51	yellow	10.78 MHz

Miscellaneous

Ref. No.	Part No.	Description
F801	1-532-268	fuse 2A
F901,902	1-532-298	fuse 2A
PL901	1-518-051-12	lamp, stereo 4.5V 40mA
PL902,903	1-518-070	lamp, dial 8V 0.3mA
PL904	1-518-017-03	lamp, meter 8V 0.15A
PL905,906	1-518-051-22	lamp, fm, a-m indicating 4.5V 40mA
	1-231-057-12	encapsulated component, 120Ω + 0.033 μF
	1-507-265-13	jack, HEADPHONE
	1-507-268	PHONO jack, 8-p
	1-509-403	AC outlet
	1-517-021	socket, meter lamp
	1-520-083	meter, tuning
	1-533-048	fuse post
	1-533-051	socket, dial lamp
	1-534-526	cord, power
	1-536-177	terminal strip, L1 (C)
	1-536-189	terminal strip, 1L1 (B)
	1-536-248	pin, connecting
	1-536-284	terminal strip, 4-p
	1-536-286	terminal strip, 4-p

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