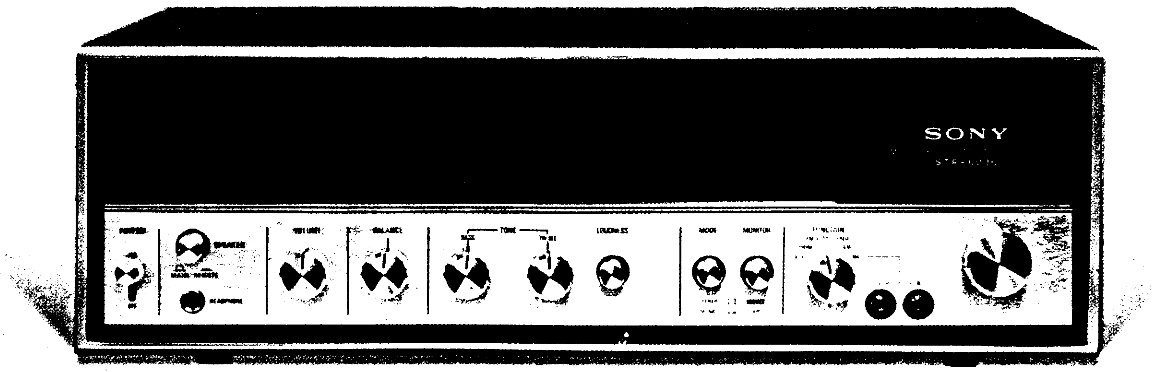
STR-6036

Set using ISO screws

USA and AEP Model



SONY®

SERVICE MANUAL

TABLE OF CONTENTS

SECTION 1
TECHNICAL DESCRIPTION

1-1. TECHNICAL SPECIFICATIONS

Technical specifications for the STR-6036 are listed in Table 1-1.

TABLE 1-1.
STR-6036 TECHNICAL SPECIFICATIONS

Fm-Tuner Section

Frequency range:	87.5 to 108 MHz
Intermediate frequency:	10.7 MHz
Usable sensitivity:	2.0μV (S/N = 30 dB) 1.4μV (S/N = 20 dB)
Signal-to-noise ratio:	65 dB, IHF
Capture ratio:	1.6 dB, IHF
Selectivity:	55 dB, IHF
Image rejection:	50 dB
I-f rejection:	82 dB
Spurious signal rejection:	78 dB
A-m suppression:	50 dB
Frequency response:	30 to 15,000 Hz $\pm^{0}_{2}$ dB
Antenna:	300 ohms balanced
Harmonic distortion:	Mono: 0.3% at 400 Hz Stereo: 0.8% at 400 Hz
Fm-stereo separation:	Greater than 35 dB at 400 Hz
19-kHz, 38-kHz suppression:	50 dB

A-m Tuner Section

Frequency range:	530 to 1,605 kHz
Intermediate frequency:	455 kHz
Sensitivity:	48 dB/m, built-in ant. 30μV, external ant.
Signal-to-noise ratio:	50 dB
Image rejection:	56 dB at 1,000 kHz
I-f rejection:	40 dB at 1,000 kHz
Harmonic distortion:	0.8%

Audio-Amplifier Section

Dynamic power output (IHF):	44 watts, both channels operating, 8 ohms, 0.5% THD
Rated output: (1 kHz)	14 watts, per channel, both channels operating, 8 ohms
Rated output: (40 Hz ~ 12.5 kHz)	12 watts, per channel, both channels operating, 8 ohms
Power band width:	40 Hz ~ 20 kHz (IHF)
Harmonic distortion:	Less than 0.8% at 1 kHz at rated output Less than 0.1% at 1 watt output
Frequency response:	TAPE, AUX, MIC: 30 to 40 kHz ($\pm^{0}_{3}$ dB)
Input sensitivity and impedance:	PHONO: 2.5 mV, 47k ohms TAPE: 250 mV, 100k ohms AUX: 250 mV, 100k ohms MIC: 2 mV, 47k ohms REC/PB: 250 mV, 100k ohms
Signal output:	REC OUT: 250 mV, 10 k ohms REC/PB: 30 mV, 82 k ohms
Signal-to-noise ratio:	PHONO: greater than 60 dB MIC: greater than 60 dB AUX: greater than 70 dB TAPE: greater than 80 dB REC/PB: greater than 80 dB
Tone controls:	BASS: ± 10 dB at 100 Hz TREBLE: ± 10 dB at 10 kHz
Loudness:	6 dB up at 50 Hz 4 dB up at 10 kHz (VOLUME-control attenuation: 30 dB)
Residual noise:	Less than 0.08μ watts

General

Power consumption:	100 watts
Power requirements:	120V 60 Hz, ac (USA Model) 100, 120, 220, 240V 50/60 Hz, ac (AEP Model)
Dimensions:	17 1/8" (width) × 5 11/16" (height) × 13 9/16" (depth) 434 mm (width) × 144 mm (height) × 345 mm (depth)
Net weight:	18 lb 11 oz (8.5 kg)
Shipping weight:	25 lb 7 oz (11.5 kg)

1-2. CIRCUIT ANALYSIS DIGEST

The following describes the functions of newly adapted circuit or complicated circuit which might help your repair work.

Since stages are listed by transistor reference designation, refer to the schematic diagram on page 27 to 28.

Fm Mixer: Q102

Rf signals and local-oscillator voltage are heterodyned in the base-eimitter junction of mixer to produce 10.7 MHz i-f output signal. Transformer IFT101, C105 and C106 form a high "C" pi-network bandpass filter, which passes the i-f output and provides a path to ground for the other heterodyne products and oscillator harmonics.

Fm I-f Amplifiers: Q201 to Q205

The i-f amplifier stages consist of two pairs of direct-coupled amplifiers that provide essentially flat response. The selectivity of this section is determined by two-pairs of filters (CF201, CF202, CF203 and CF204) in the inter-stage-coupling path.

STEREO Lamp Circuit: Q304, Q305

The STEREO lamp lights when an fm-stereo signal is received. The emitter of Q305 is connected to the base of Q304, which is normally cut off.

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 Q305. This forces Q304 into conduction, lighting STEREO lamp PL905.

Multiplex Demodulator: L302, D303, D304, D305 and D306

L302 (switching transformer) and four diodes form 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). Notice that the 38-kHz switching signal is transformer-coupled to the diode bridge to supply while a composite stereo signal is applied to the sampling drive for the demodulator center tap of the secondary winding of L302.

"L" and "R" components are developed at each side of the bridge as the result of demodulation, see Fig. 1-1.

In the monaural mode, diodes D303 and D304 are forward biased by supply voltage through R324, STEREO lamp, R321, R326 and R327 so these diodes merely act as small resistances. Under this condition, the monaural signal is applied to both "L" and "R" audio amplifiers.

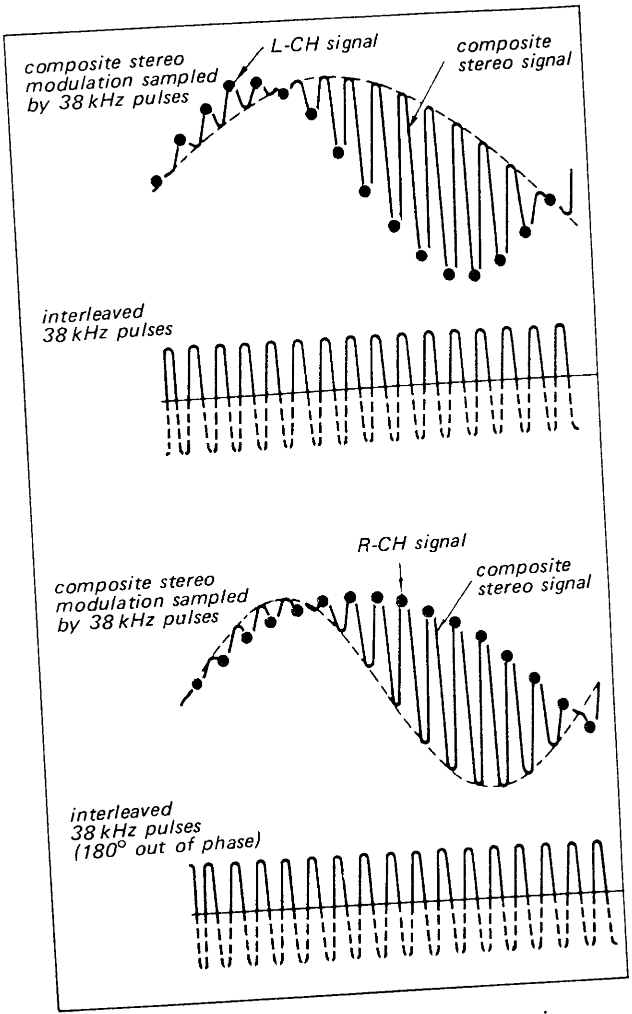


Fig. 1-1. Stereo demodulation operation

A-m AGC: D402, Q403, Q401

There are two feedback loops ensuring proper agc operation. (See Fig. 1-2.) The a-m i-f signal is detected by D402 at the secondary winding of IFT402.

The output of the diode D402 is a positive dc voltage roughly proportional (not exactly due to agc action) to the carrier levels of input signal. This is fed to the base of Q403 through filter circuit consist of C426, R428 and C425, controlling bias current of Q403 thereby its emitter voltage.

Emitter voltage of Q403 is fed back to the base circuit of Q401 (mixer) through filter circuit R427, C422 and C421. Q401 acts as forward agc element by utilizing the relationship between transistor's current gain (hfe) and collector-emitter voltage (Vce) as illustrated in Fig. 1-3. Agc operates as follows:

When strong signal is received, current flow in Q401 and Q403 increases due to agc circuit.

Since relatively large resistor is inserted in the collector circuit of Q401, higher current flow causes decrease of collector-emitter voltage (Vce) thereby reducing its gain to maintain stable operation.

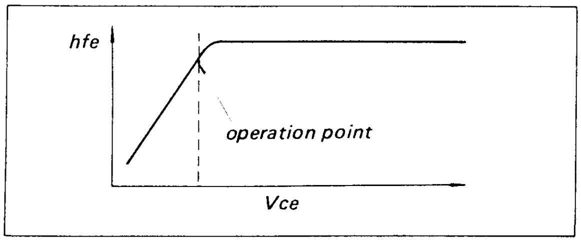


Fig. 1-3. hfe-Vce relationship

Audio Section

Tone Control Circuit: Q504

Fig. 1-4 shows a partial schematic diagram of tone control circuit. This circuit is a modified negative-feedback type tone-control. Note that the output generated at the collector circuit of Q504 is fed back to the base circuit of Q504 through the treble and bass control circuit.

Separation Adjustment Circuit: Q501, Q551, RT501

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" channel. The same is true of residual "L" signal in the "R" channel. RT501 is therefore set for maximum separation.

Dc Bias Power Supply: Q603 (power amplifier)

Q603 is forced to conduct and operates as a small resistance providing the necessary forward bias on the two cascaded emitter-followers (complementary and power amplifier stages). R609 and R608 determines the impedance between the emitter and collector of Q603, and thereby determines the dc bias voltage for the following complementary circuit.

This circuit has the advantage of compensating a lack of idling current at high output power.

Power Amplifier: Q606, Q607, D601, D602

The output transistors Q606 and Q607 are cascaded supplying power to the speaker system.

Q606 supplies power to the load during the positive half cycle and Q607 operates during the negative half cycle. Output is coupled to the speakers through C608.

Notice that diodes D601 and D602 are paralleled across resistors, R616 and R617 to increase the output power which is restricted by R616 and R617 without reducing stability of power amplier.

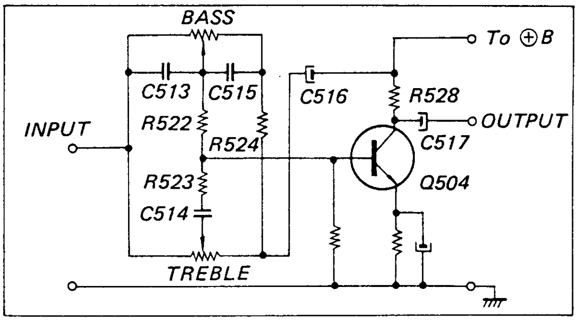


Fig. 1-4. Tone control circuit

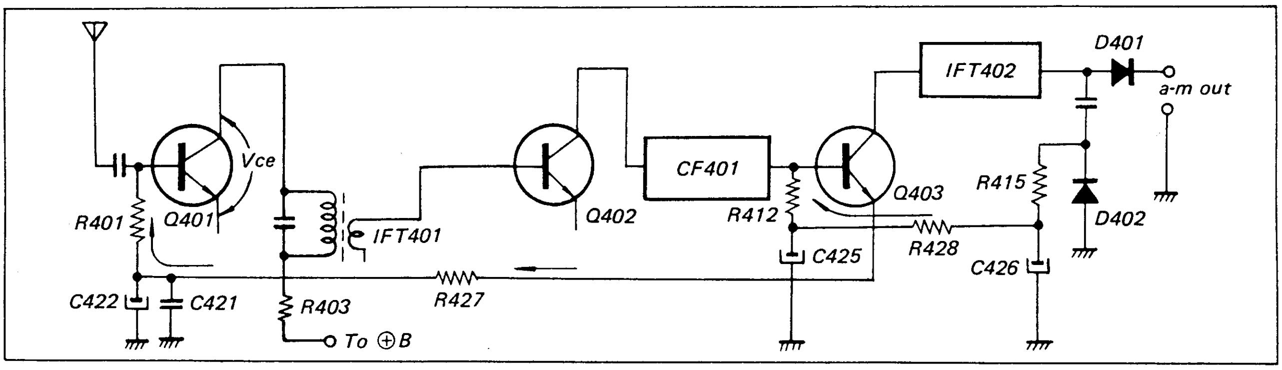
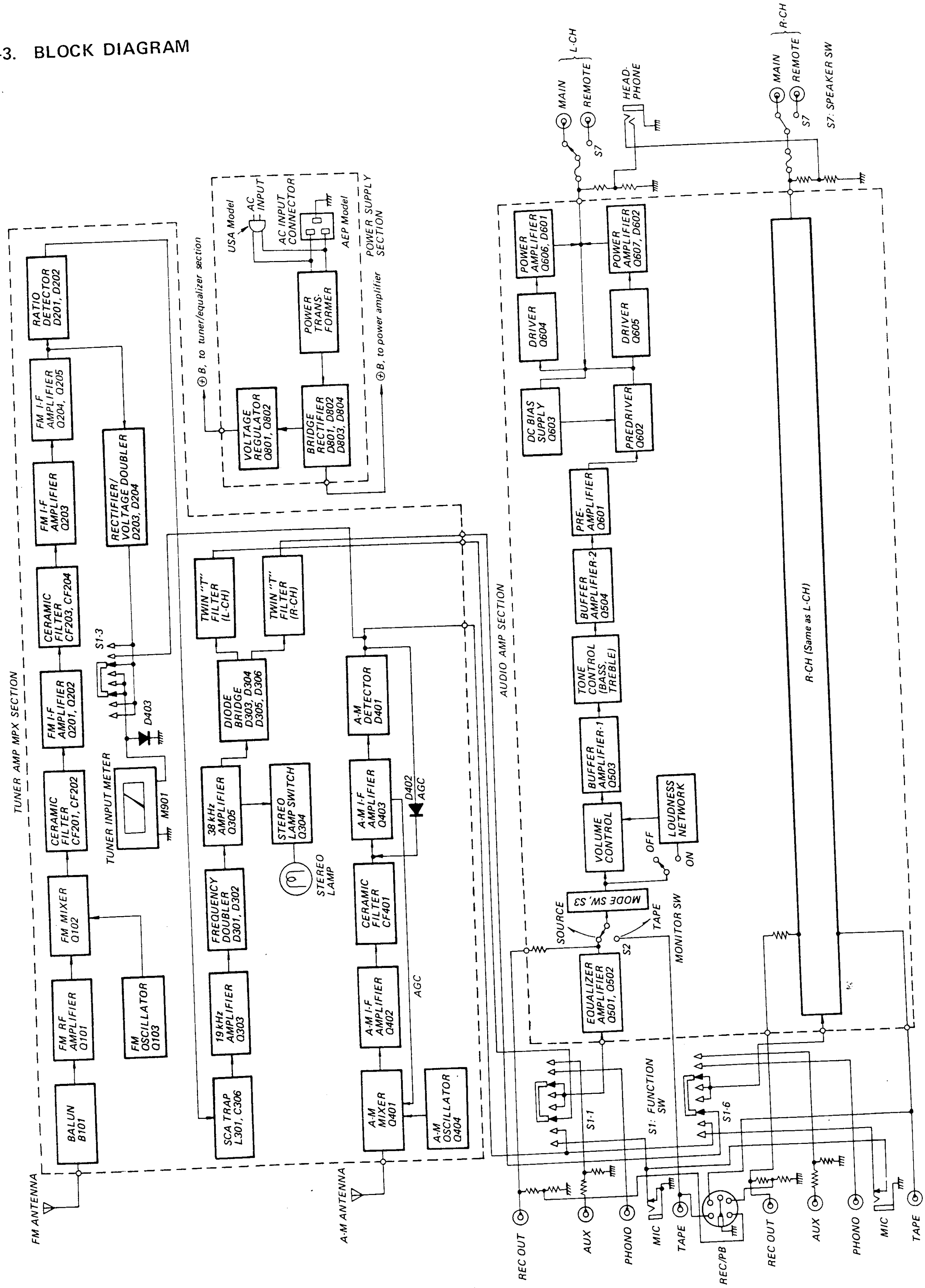
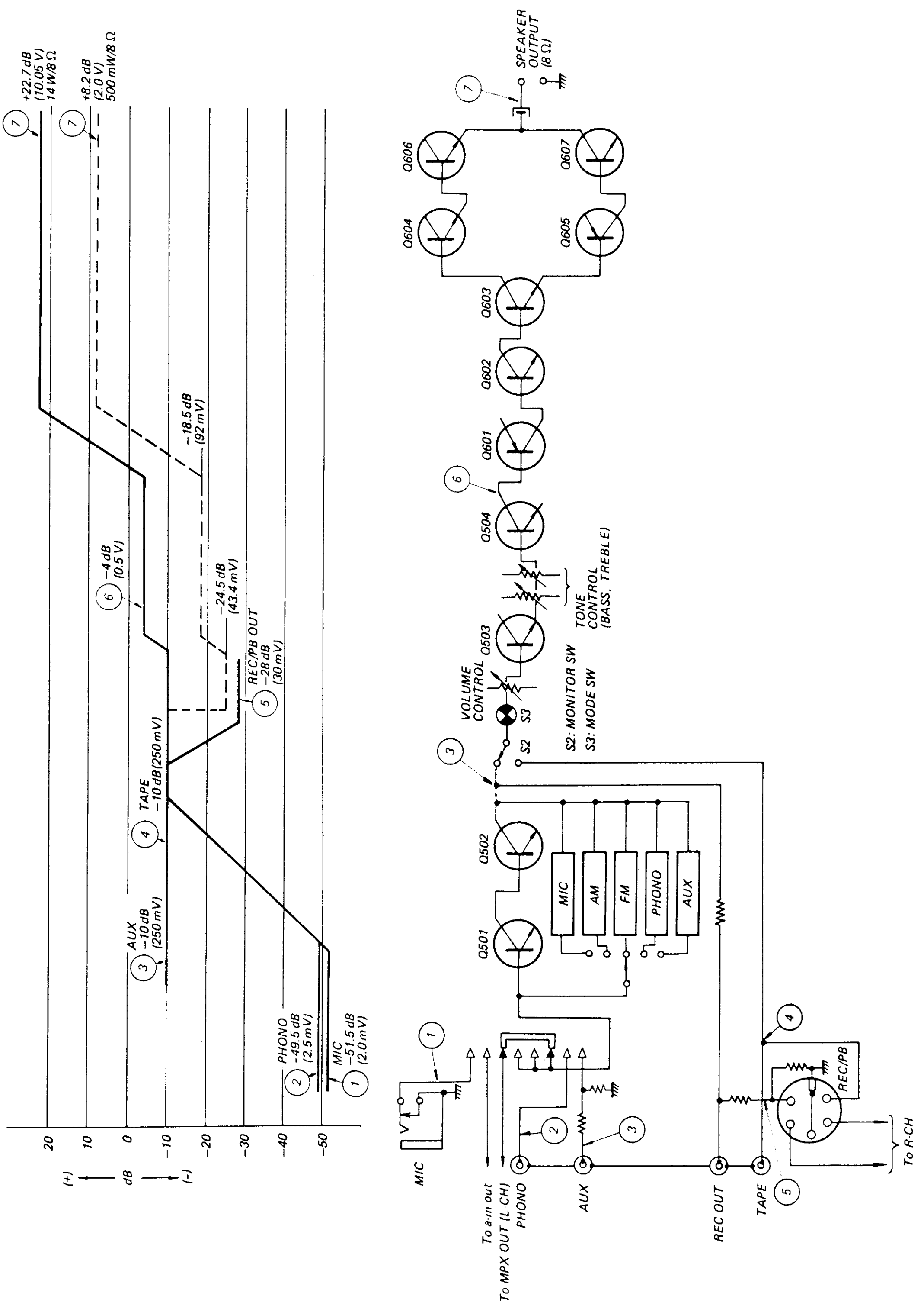


Fig. 1-2. Simplified agc circuit

1-3. BLOCK DIAGRAM



1-4. LEVEL DIAGRAM



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 STR-6036.

Screwdriver, Phillips-head
Screwdriver, 4-inch cabinet
Wrench, 6-inch adjustable
Cardboard, 3-inch-square
Protective pad
Cellophane tape
Soldering iron, 40 to 150 watts
Cement, contact
Cement solvent
Diagonal cutters
Pliers, long-nose
Soldering tool, wire-brush end
Tweezers, 6-inch
Tape, electrical
Silicone grease
Nutdriver, 3-mm
Solder, rosin-core
Electric drill
Drill bits
Prick punch

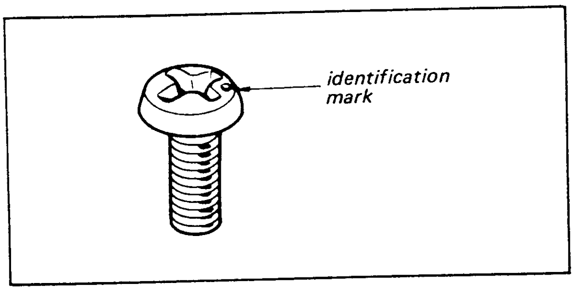


Fig. 2-1. ISO screw

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-6036 are manufactured to the specifications of 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.

– 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
- P – Type of Head
- 3 – Diameter in mm (D)
- 10 – Length in mm (L)

2-3. WOODEN CASE REMOVAL

1. Remove the six screws at the bottom of the wooden case as shown in Fig. 2-2.

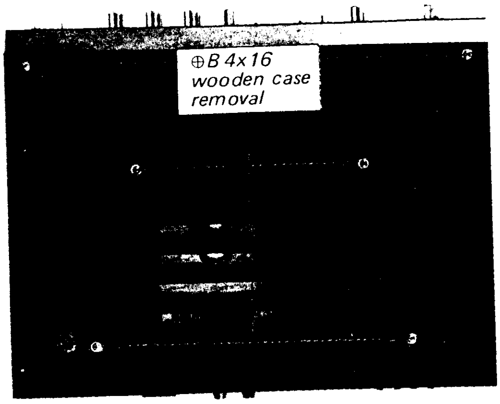


Fig. 2-2. Wooden case removal

2-4. FRONT PANEL REMOVAL

1. Remove the wooden case as described in Procedure 2-3.
2. Remove all the control knobs, except tuning knob by pulling them off.
3. Remove the tuning knob by loosening the two set screws.
4. Remove the three hex nuts securing FUNCTION switch and VOLUME, TREBLE control to the control panel.
   Place a piece of cardboard between the wrench and control panel to avoid marring the panel. See Fig. 2-3. This frees the control panel.
5. Remove the four screws securing the front panel to the front subchassis as shown in Fig. 2-4. This frees the front panel.

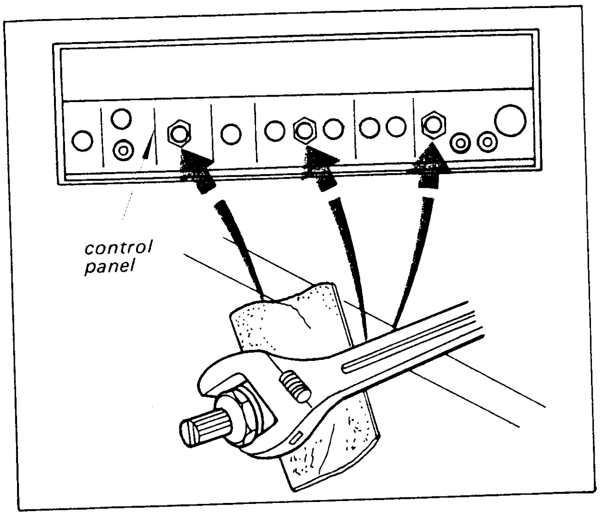


Fig. 2-3. Hex nut removal

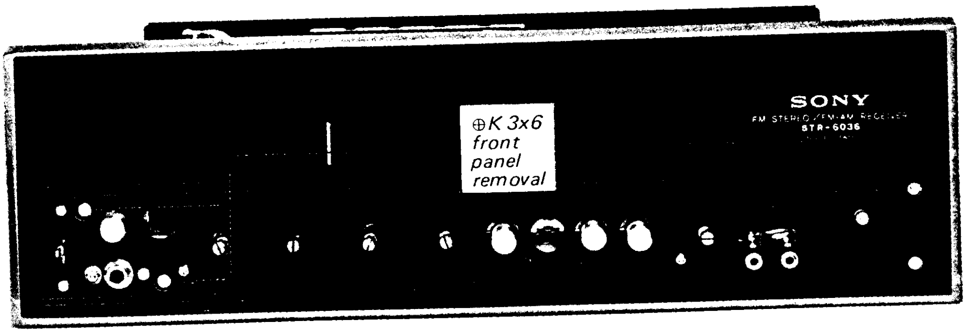


Fig. 2-4. Front panel removal

2-5. DIAL CORD RESTRINGING

Preparation

1. Remove the wooden case as described in Procedure 2-3.
2. Cut a 70-inch (1,700 mm) length of 1/64-inch (0.3 mm) diameter dial cord.
3. Tie the end of the cord to a spring as shown in Fig. 2-5.
4. Rotate the tuning-capacitor drive drum fully counterclockwise (minimum capacitance position).

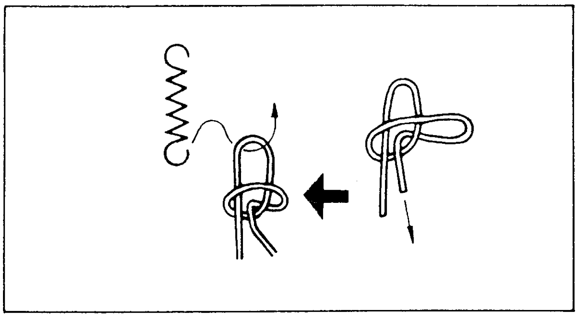


Fig. 2-5. Tying square knot in the coil spring

Procedure

While referring to Fig. 2-6, proceed as follows:

1. Hook the spring to one hole of the drive drum, and then squeeze it as shown in Fig. 2-7.
2. Run the cord through the slot in the rim of the drum and wrap a clockwise turn in the inner side groove. See Fig. 2-8.
3. Run the cord over pulley "A", and then wrap two clockwise turns around the tuning shaft.
4. Run the cord over pulleys "B", "C" and "D" then wrap one clockwise turn around the drum from outer groove to inner groove as shown in Fig. 2-8.
5. Pass the doubled end of the cord through the eyelet (See Fig. 2-9), then hook it to the spring as shown in Fig. 2-10.
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. See Fig. 2-9.
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, and then follow the mechanical dial calibration.

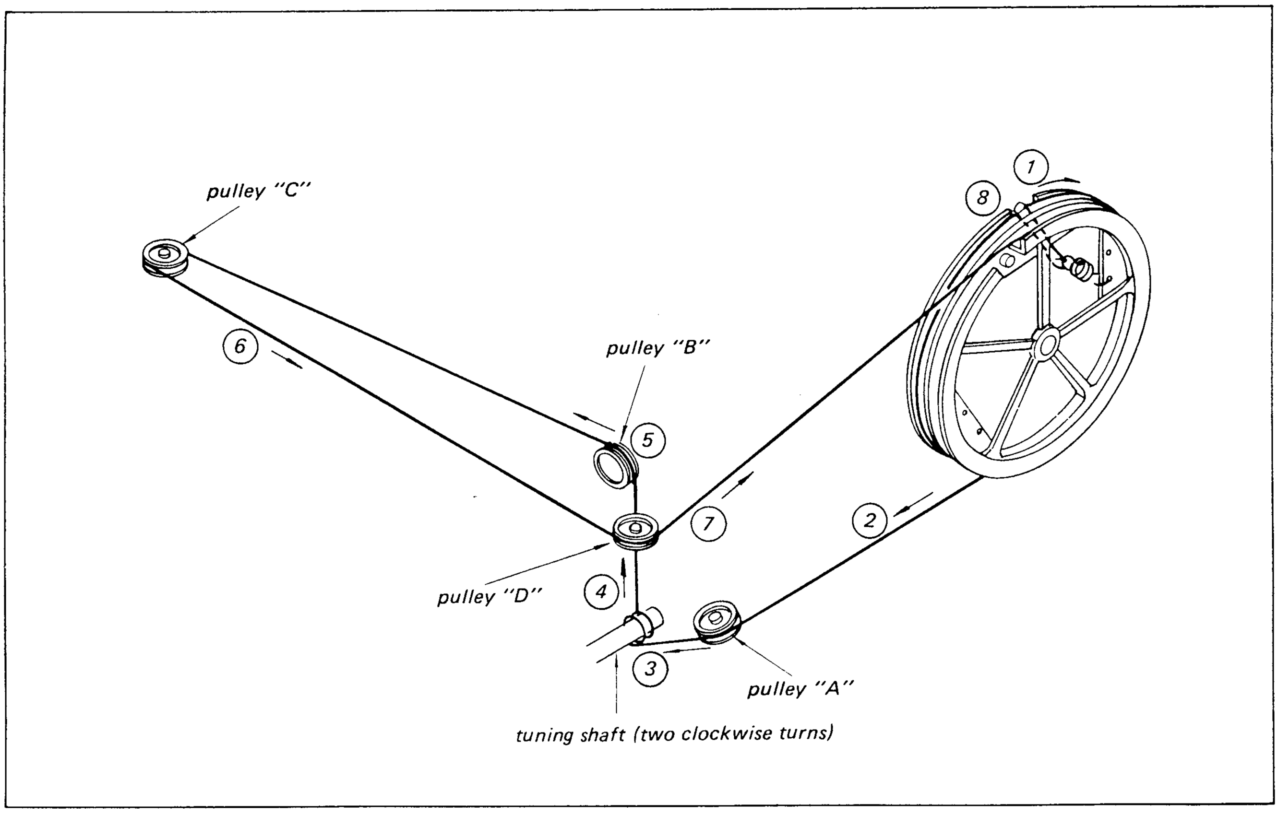


Fig. 2-6. Dial cord stringing

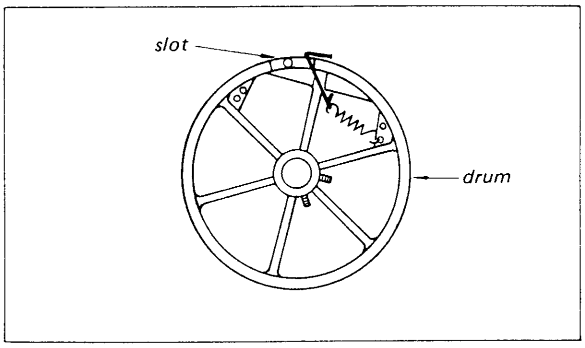


Fig. 2-7. Coil spring installation

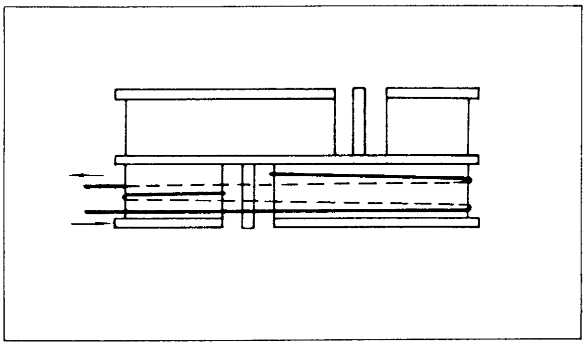


Fig. 2-8. Wrapping the dial cord

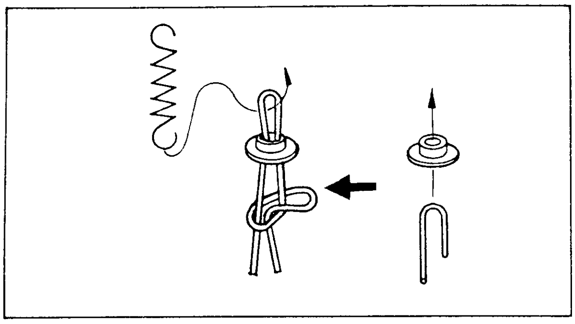


Fig. 2-9. Detail of dial cord finish

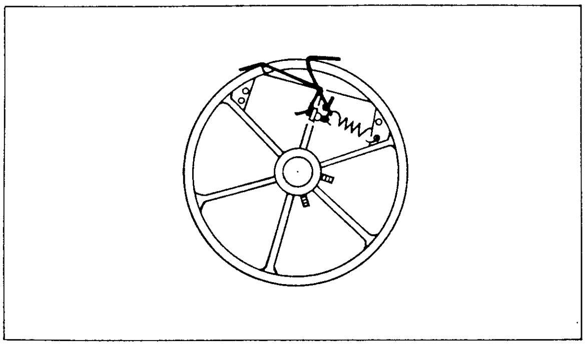


Fig. 2-10. End of dial cord stringing

2-6. MECHANICAL DIAL CALIBRATION

Note: This is a temporary dial pointer calibration, thereby the dial pointer should be fixed firmly after completing frequency coverage adjustment as described in Procedure 3-2.

1. Put the dial pointer on the cord as shown in Fig. 2-11 and move it to a position where the pointer comes to 5 mm right from the left edge of the dial scale as shown in Fig. 2-12.

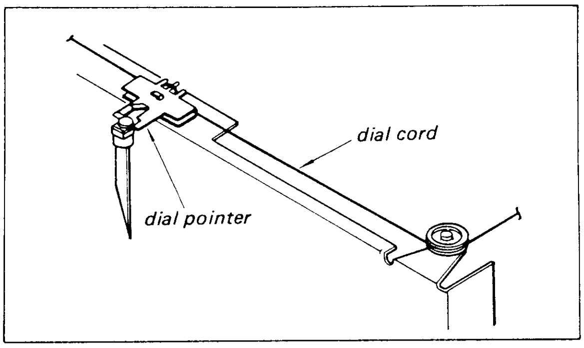


Fig. 2-11. Dial pointer installation

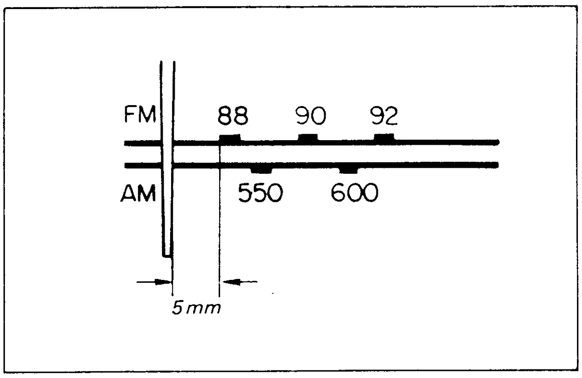


Fig. 2-12. Mechanical dial calibration

2-7. PILOT LAMP REPLACEMENT

Stereo Lamp

1. Pull the lamp from its rubber holder.
2. Unsolder the defective lamp lead from the connecting terminals on the tuner and MPX board, and then install the new lamp.

Dial Lamp

1. Remove the one self-tapping screw as illustrated in Fig. 2-13, and then install the replacement lamp.

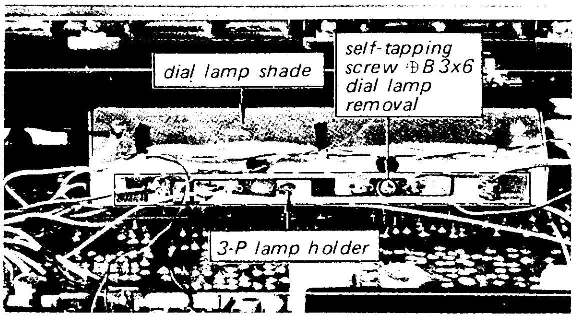


Fig. 2-13. Dial lamp replacement

Meter Lamp

1. Remove the flat spring as illustrated in Fig. 2-14, and then install the replacement lamp.

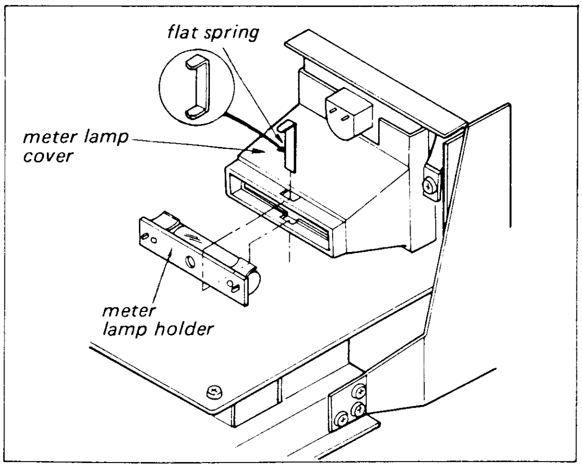


Fig. 2-14. Meter lamp replacement

2-8. SWITCH AND CONTROL REPLACEMENT

Preparation

1. Remove the front panel as described in Procedure 2-4.
2. Fasten the dial cord to the drum or pulleys with cellophane tape.

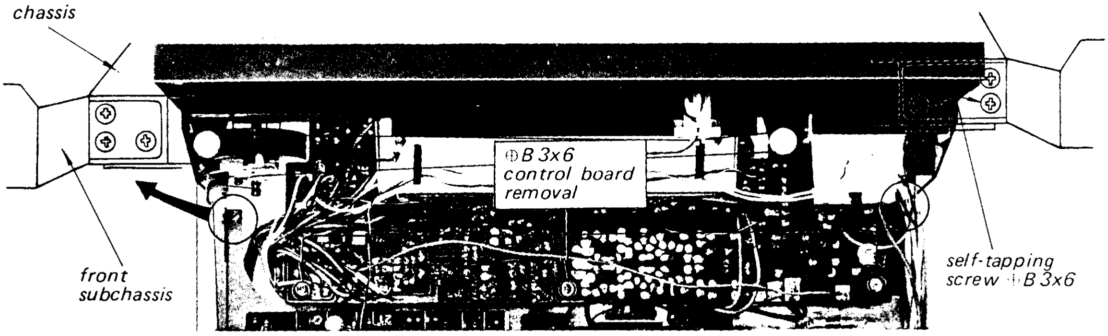


Fig. 2-15. Front subchassis removal (1)

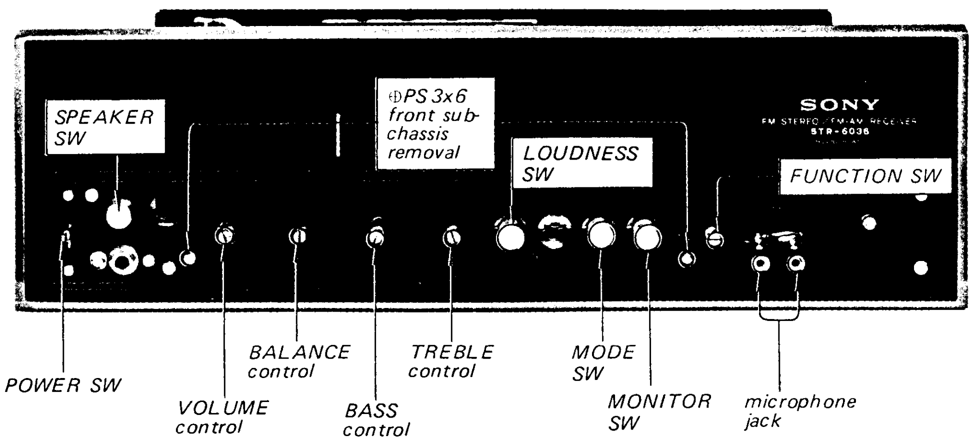


Fig. 2-16. Front subchassis removal (2)

Procedure

1. Remove the three screws securing the control board to the chassis as shown in Fig. 2-15.
2. Remove the three self-tapping screws at each side of front subchassis securing it to the chassis as shown in Fig. 2-15.
3. Remove the two screws securing the front subchassis to the control bracket and two microphone jacks as shown in Fig. 2-16. This frees control board.
4. Remove the five hex nuts and five screws securing all the controls and switches to the control bracket as shown in Fig. 2-17.
5. Remove the three screws securing the control bracket to the control board as shown in Fig. 2-17. This frees control bracket.
6. With a soldering iron having a solder-sucking tip, clean the solder from each lug of the defective switches or controls and the printed circuit board.
7. Remove the defective component and then install a new one.

2-9. POWER TRANSISTOR REPLACEMENT

1. Remove the wooden case as described in Procedure 2-3.
2. Remove the two self-tapping screws securing heat sink bracket to the chassis as shown in Fig. 2-18.
3. Unsolder the leads of power transistor, and then install the new one.
4. 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 screws are tightened should be wiped off with a clean cloth.
   This prevents it from accumulating conductive dust particles that might eventually cause a short.

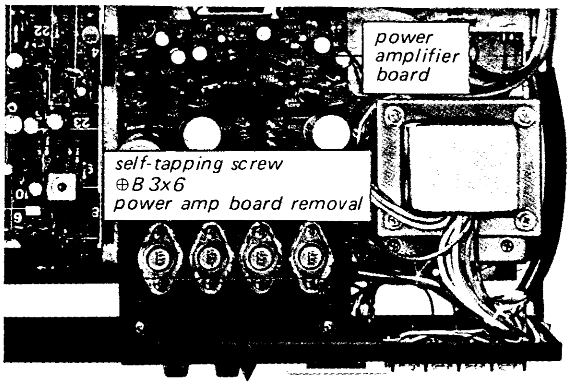


Fig. 2-18. Power amplifier board removal

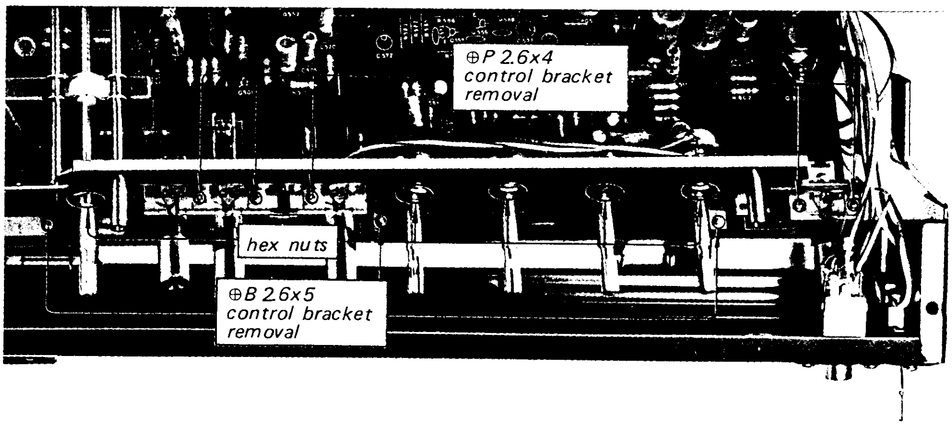


Fig. 2-17. Control bracket removal

2-10. REAR PANEL REMOVAL

1. Remove the power amplifier PCB as described in Procedure 2-9.
2. Remove the two self-tapping screws at each side of the rear panel securing it to the chassis as shown in Fig. 2-19.

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. 2-20.
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 repair rivet screw (Part Number 3-701-402).

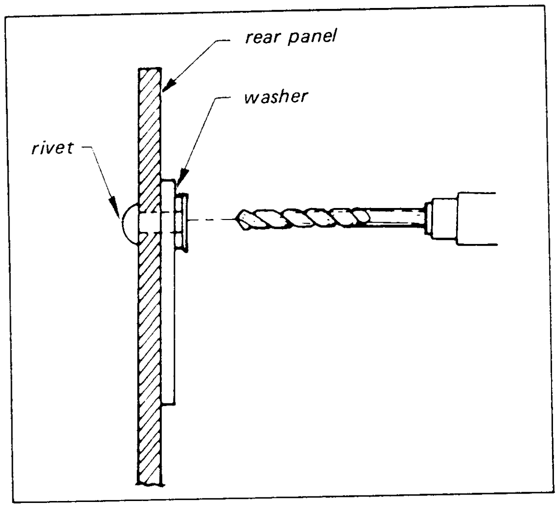


Fig. 2-20. Rivet removal

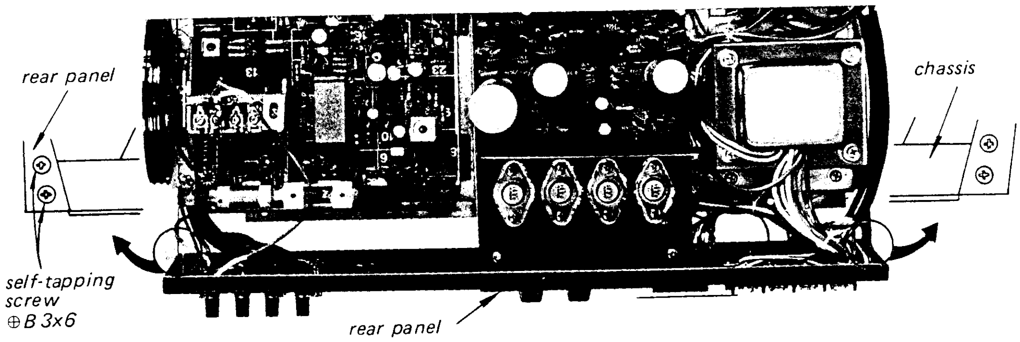
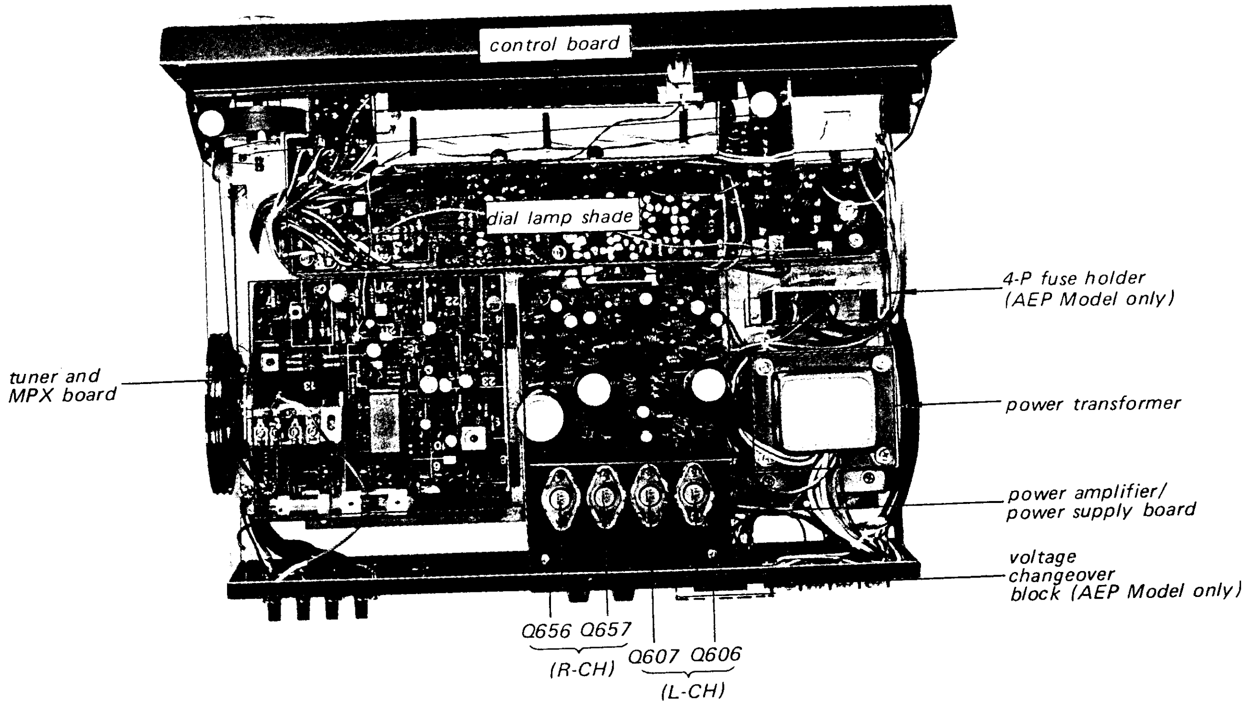


Fig. 2-19. Rear panel removal

2-12. 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.*
1-527-507-11	red	10.70 MHz
1-527-507-21	black	10.66 MHz
1-527-507-31	white	10.74 MHz
1-527-507-41	green	10.62 MHz
1-527-507-51	yellow	10.78 MHz

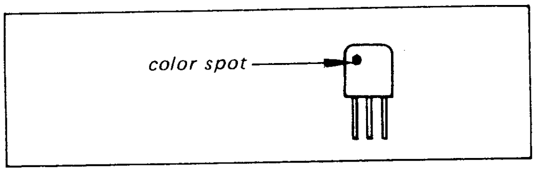


Fig. 3-1. Color dot on ceramic filter

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 shield cover over the local oscillator capacitor, if necessary, 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, 0.02μF
4. Alignment tools

Preparation

1. Connect the input cable of the oscilloscope with alligator clips to R221 and ground on the tuner and MPX board, and solder a 0.02μF capacitor across these clips, as shown in Fig. 3-3.
2. Connect the output cable of the sweep generator across CV102 on tuner and MPX board. Use alligator clips and make the connection through a 0.02μF coupling capacitor as shown in Fig. 3-4.

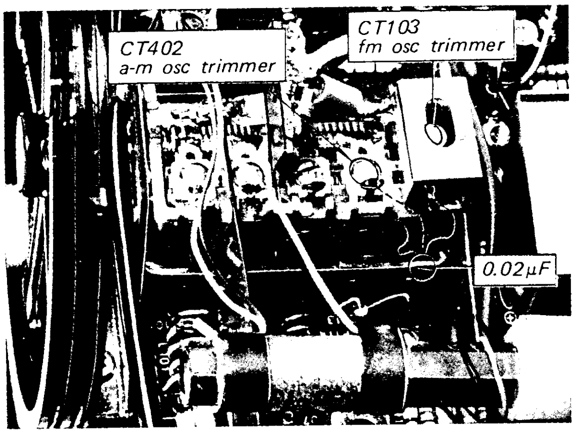


Fig. 3-2. Interruption of fm or a-m local oscillator

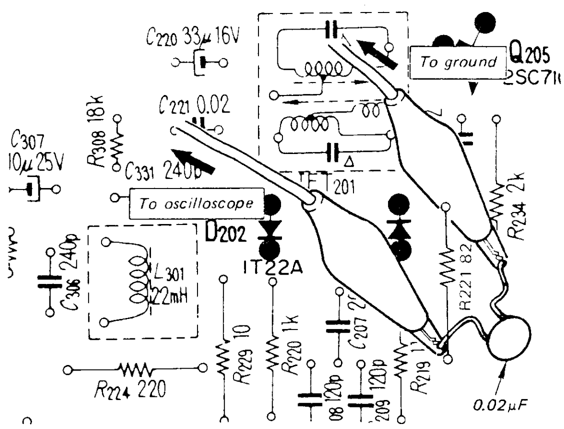


Fig. 3-3. Fm discriminator output connection

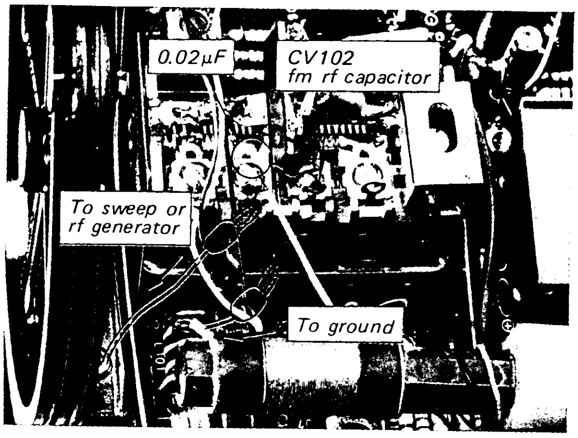


Fig. 3-4. 10.7 MHz signal injection

Procedure

1. With the equipment connected as shown in Fig. 3-5, 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 receiver's controls as follows:
   FUNCTION switch . . . FM AUTO STEREO
   VOLUME control . . . .Minimum
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 IFT201 (see Fig. 3-10) 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. 3-6.
5. Adjust i-f transformer IFT101 (see Fig. 3-10) and primary side of discriminator transformer (IFT201 bottom core) to obtain a maximum-amplitude "S" curve response.

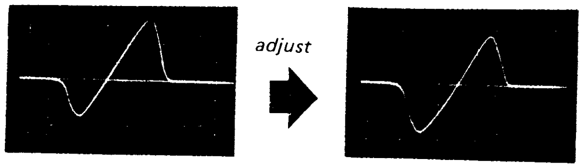


Fig. 3-6. "S" curve response

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 . . . . 100mV/cm minimum
3. Alignment tools

Preparation

Same as described for the sweep generator method.

Procedure

1. With the equipment connected as shown in Fig. 3-7, set the signal-generator's controls as follows:
   Frequency . . . . Specified frequency of ceramic filter. See Table 3-1.
   Modulation . . . . Fm, 400 Hz, 100% (75 kHz)
   Output level . . . . 10,000μV (80 dB)
2. Set the receiver's controls as follows:
   FUNCTION switch . . . FM AUTO STEREO
   VOLUME control . . . . Minimum

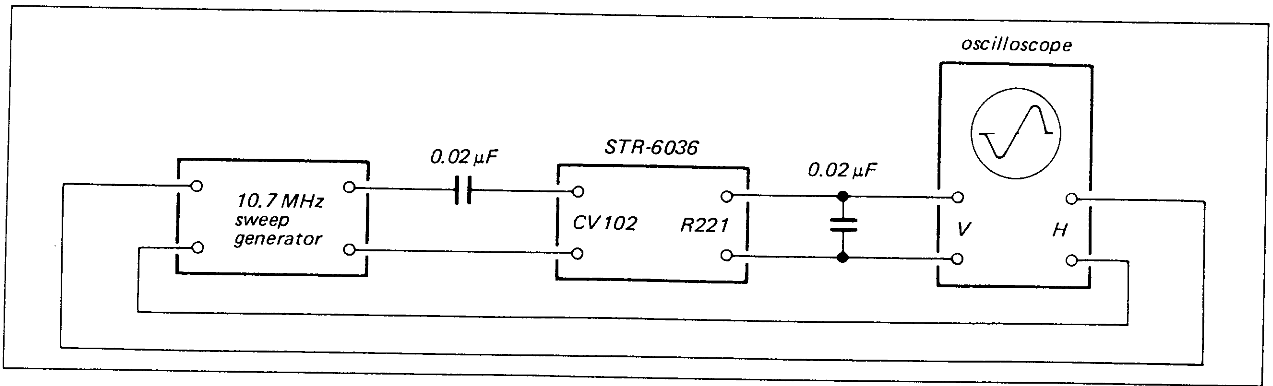


Fig. 3-5. Test setup for discriminator alignment by sweep generator

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 IFT201 (see Fig. 3-10) is not aligned correctly, 400-Hz ripple will be observed as shown in Fig. 3-8.
5. Turn the top core of discriminator transformer IFT201 with an alignment tool to obtain a minimum indication on the oscilloscope as shown in Fig. 3-8.

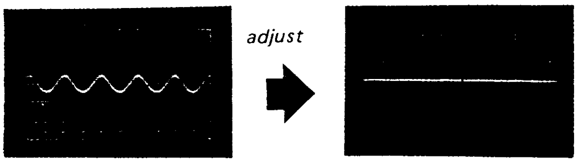


Fig. 3-8. Fm discriminator alignment output response

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.

6. Change the signal generator's modulation to fm, 400 Hz 100% (75 kHz).
7. Turn the core of fm IFT101 (see Fig. 3-10), and the primary side of discriminator transformer IFT201 to obtain the maximum output.

3-2. FM FREQUENCY COVERAGE AND TRACKING ALIGNMENT

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. Connect the equipment as shown in Fig. 3-9.
2. Set the receiver's controls as follows:

   FUNCTION switch...... FM AUTO STEREO
   VOLUME control .... Minimum

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 procedure, be sure that the dial is mechanically calibrated.

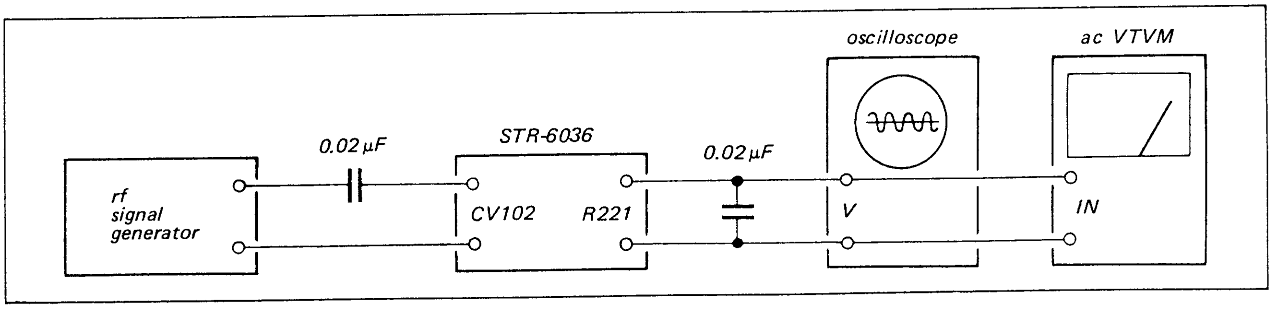


Fig. 3-7. Test setup for fm discriminator alignment by rf signal generator

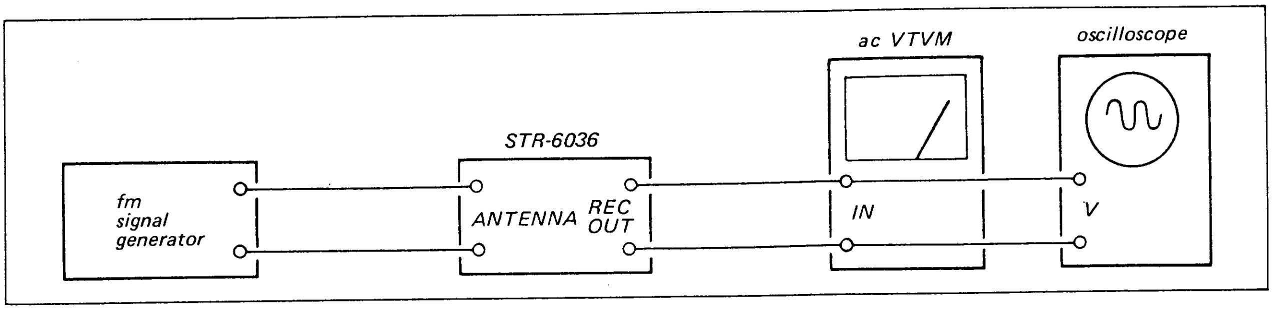


Fig. 3-9. Fm frequency coverage and tracking alignment test setup

TABLE 3-2. FM FREQUENCY COVERAGE AND TRACKING ALIGNMENT

Step	Coupling Between Receiver and SSG	SSG Frequency and Output Level	Tuner Dial Indication	Adjust	Indication
FREQUENCY COVERAGE ALIGNMENT					
1.	Direct coupling	87.5 MHz 400 Hz 100% mod. 10μV (20 dB)	lowest position	OSC coil L103 See Fig. 3-10	Maximum VTVM reading
2.	Same as above	108.4 MHz 400 Hz 100% mod. 10μV (20 dB)	highest position	OSC trimmer CT103 See Fig. 3-10	Same as above
TRACKING ALIGNMENT					
1.	Direct coupling	87.5 MHz 400 Hz 100% mod. 10μV (20 dB)	lowest position	Antenna coil L101 RF coil L102 See Fig. 3-10	Maximum VTVM reading
2.	Same as above	108.4 MHz 400 Hz 100% mod. 10μV (20 dB)	highest position	Antenna trimmer CT101 RF trimmer CT102 See Fig. 3-10	Same as above

Adjusting Parts Location

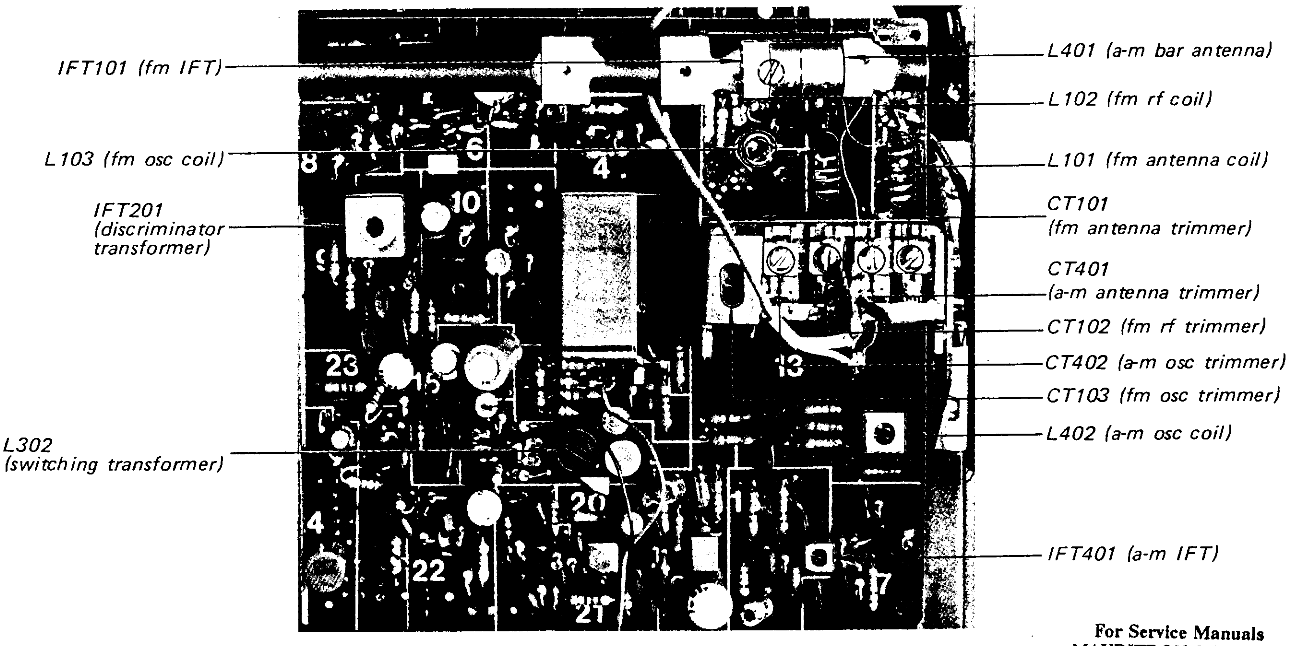


Fig. 3-10. Adjusting parts location

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

Preparation

Set the receiver's FUNCTION switch to AM.

Note: To perform this alignment, the local oscillator should be killed. To do this, shunt the local oscillator capacitor CV402 with a 0.02μF ceramic capacitor as shown in Fig. 3-2.

Sweep Generator Alignment

Test Equipment Required

1. Sweep generator, 455 kHz.
2. Oscilloscope
3. Alignment tools

Procedure

1. Connect the sweep generator's output directly to the AM EXT ANT terminal.
2. Connect the input cable of the oscilloscope with alligator clips to the connection point of R418 and R419 and ground on the tuner and MPX board as shown in Fig. 3-11.
3. Set the sweep generator's control as follows:

   Center frequency ....455 kHz
   Sweep width ....25 kHz
   Output ....as low as possible

4. With the equipment connected as shown in Fig. 3-12, adjust the oscilloscope controls and generator output to provide a visible indication.

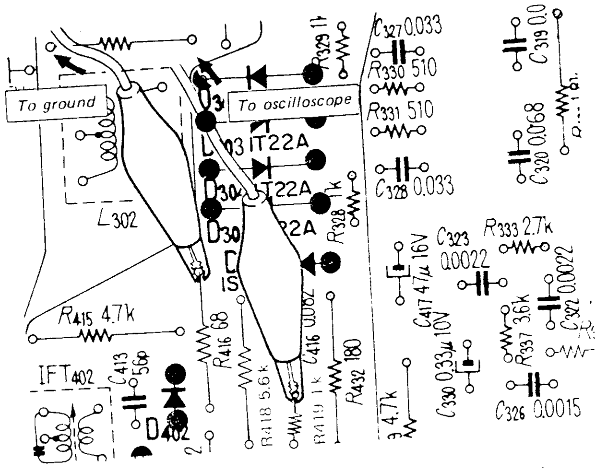


Fig. 3-11. A-m detector output connection

5. Turn the top core of a-m IFT401 (see Fig. 3-10) to obtain a maximum and symmetrical response as shown in Fig. 3-13.

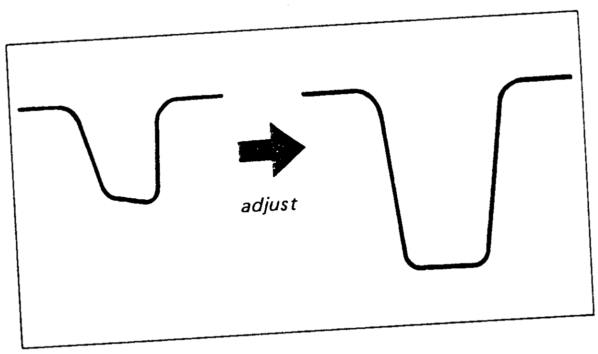


Fig. 3-13. A-m i-f response

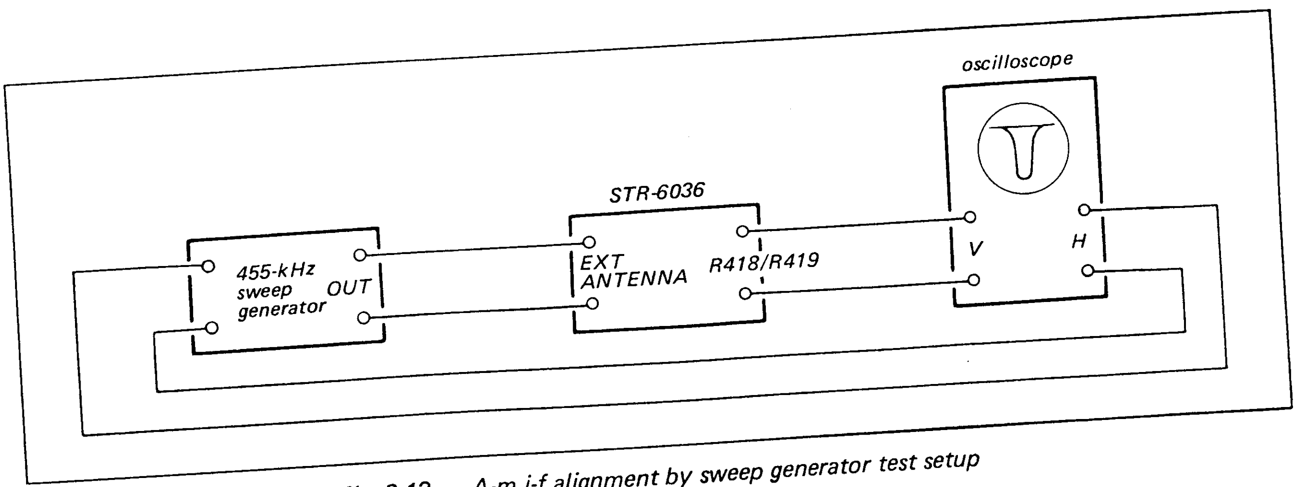


Fig. 3-12. A-m i-f alignment by sweep generator test setup

Rf Signal Generator Method

Test Equipment Required

1. Signal generator, a-m modulation
2. Oscilloscope
3. Alignment tools

Procedure

1. Set the rf signal generator's controls as follows:

   Modulation .... INTERNAL
   Frequency..................... 455 kHz
   OUTPUT level............. 1,000μV (60 dB)

2. Connect the rf signal-generator's output to the AM EXT ANT terminal.
3. With the equipment connected as shown in Fig. 3-14, turn the top core of a-m IFT401 (see Fig. 3-10) to obtain the maximum output.

3-4. A-M FREQUENCY COVERAGE AND TRACKING ALIGNMENT

Preparation

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

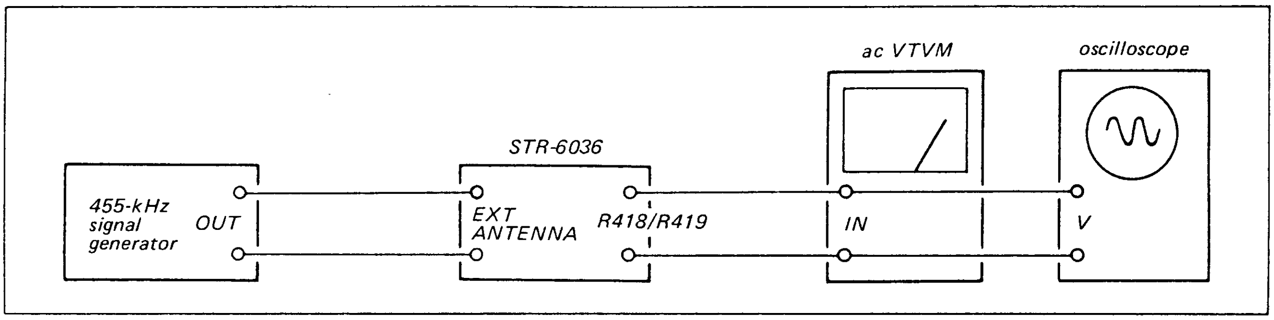


Fig. 3-14. Test setup for a-m i-f alignment by rf signal generator

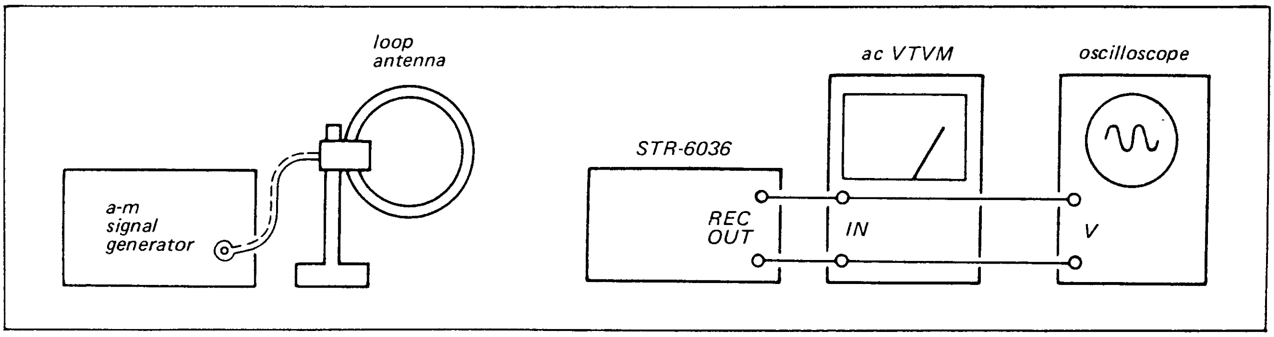


Fig. 3-15. A-m frequency coverage and tracking alignment test setup

Signal Generator Method

Test Equipment Required

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

Procedure

With the equipment connected as shown in Fig. 3-15, follow the procedures given in Table 3-3 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.

TABLE 3-3. A-M FREQUENCY COVERAGE AND TRACKING ALIGNMENT

SSG Coupling	SSG Frequency and Output Level	Tuner Dial Indication	Adjust	Indication
	FREQUENCY COVERAGE ALIGNMENT			
Loop antenna	550 kHz 400 Hz 30% mod. 10,000μV (80 dB)	550 kHz	OSC coil L402 See Fig. 3-10	Maximum VTVM reading
Loop antenna	1,600 kHz Same as above	1,600 kHz	OSC trimmer CT402 See Fig. 3-10	Same as above
	TRACKING ALIGNMENT			
Loop antenna	620 kHz 400 Hz 30% mod. Output level as low as possible	620 kHz	Position of antenna coil L401 See Fig. 3-10	Maximum VTVM reading
Loop antenna	1,400 kHz Same as above	1,400 kHz	Antenna trimmer CT401 See Fig. 3-10	Same as above

MEMO

SECTION 4
REPACKING

The STR-6036's original shipping carton and packing materials are the ideal containers for shipping the unit. However to secure the maximum protection, the STR-6036 must be repacked in these materials precisely as before. The proper repacking procedures are shown in Fig. 4-1.

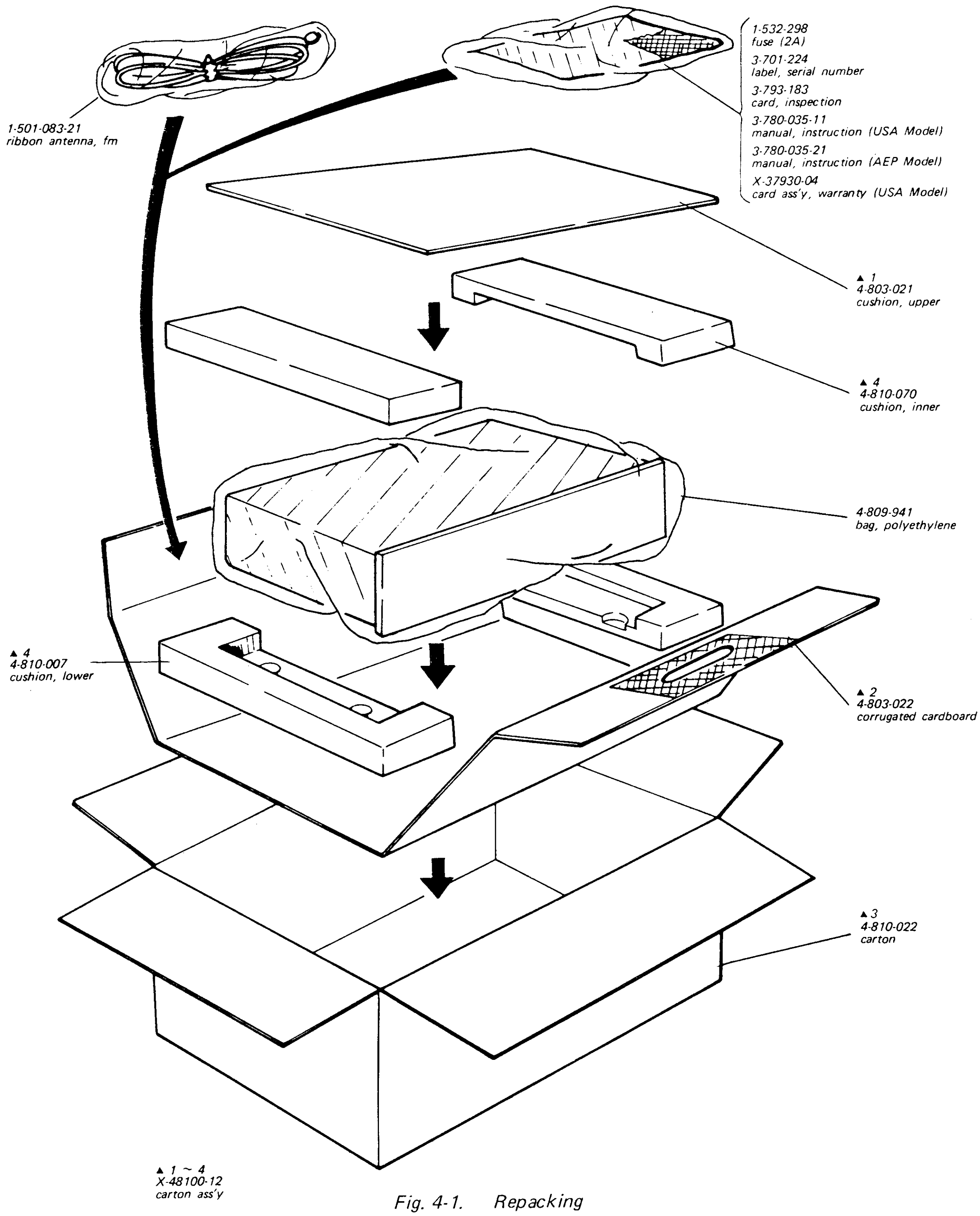
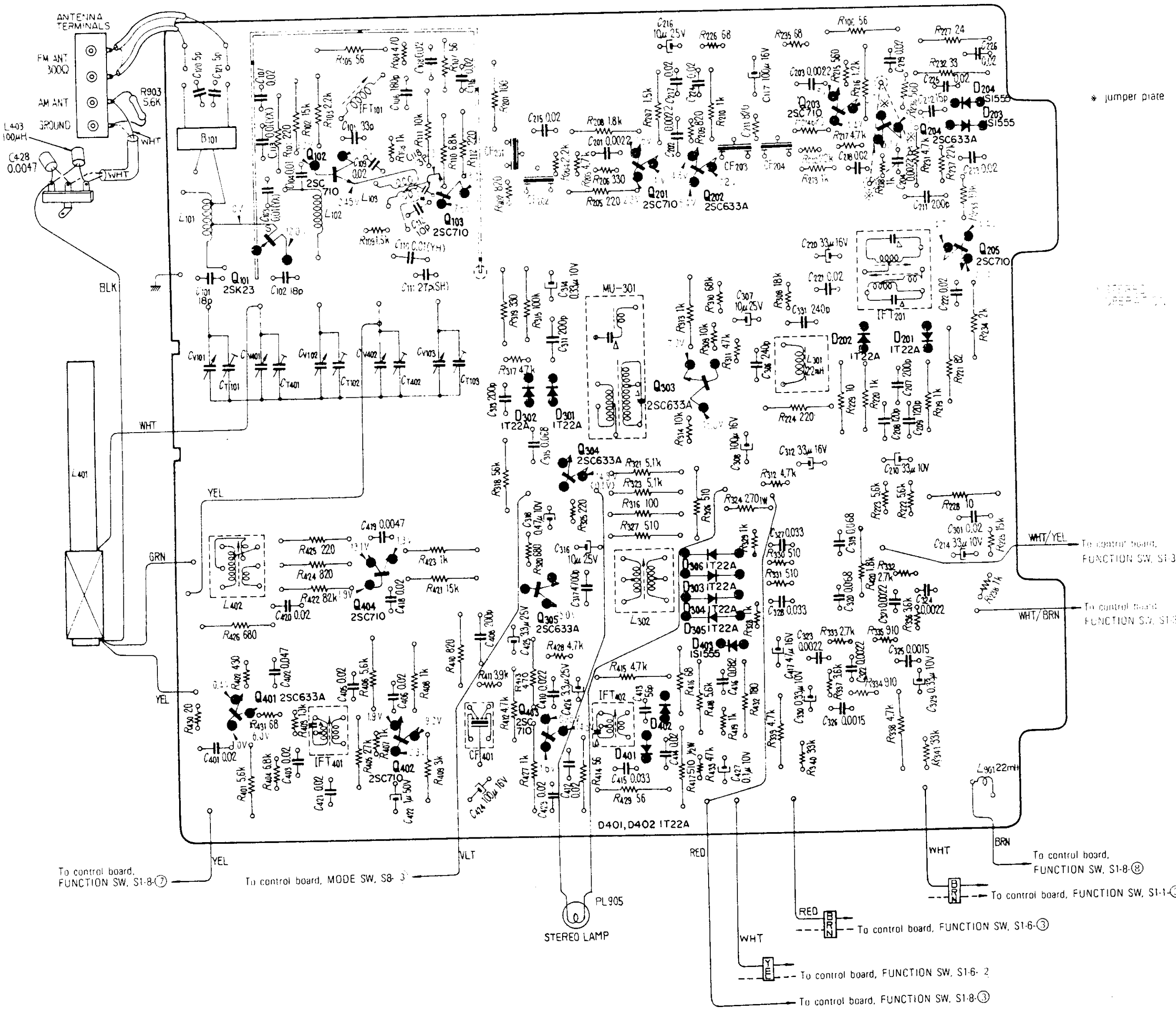


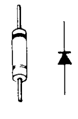
Fig. 4-1. Repacking

SECTION 5
DIAGRAMS

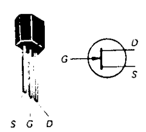
5-1. MOUNTING DIAGRAM – Fm (A-m) Front End/I-f Amp/MPX Board –

– Conductor Side –

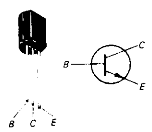




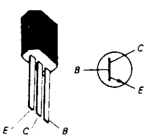
1T22A
1S1555



2SK23



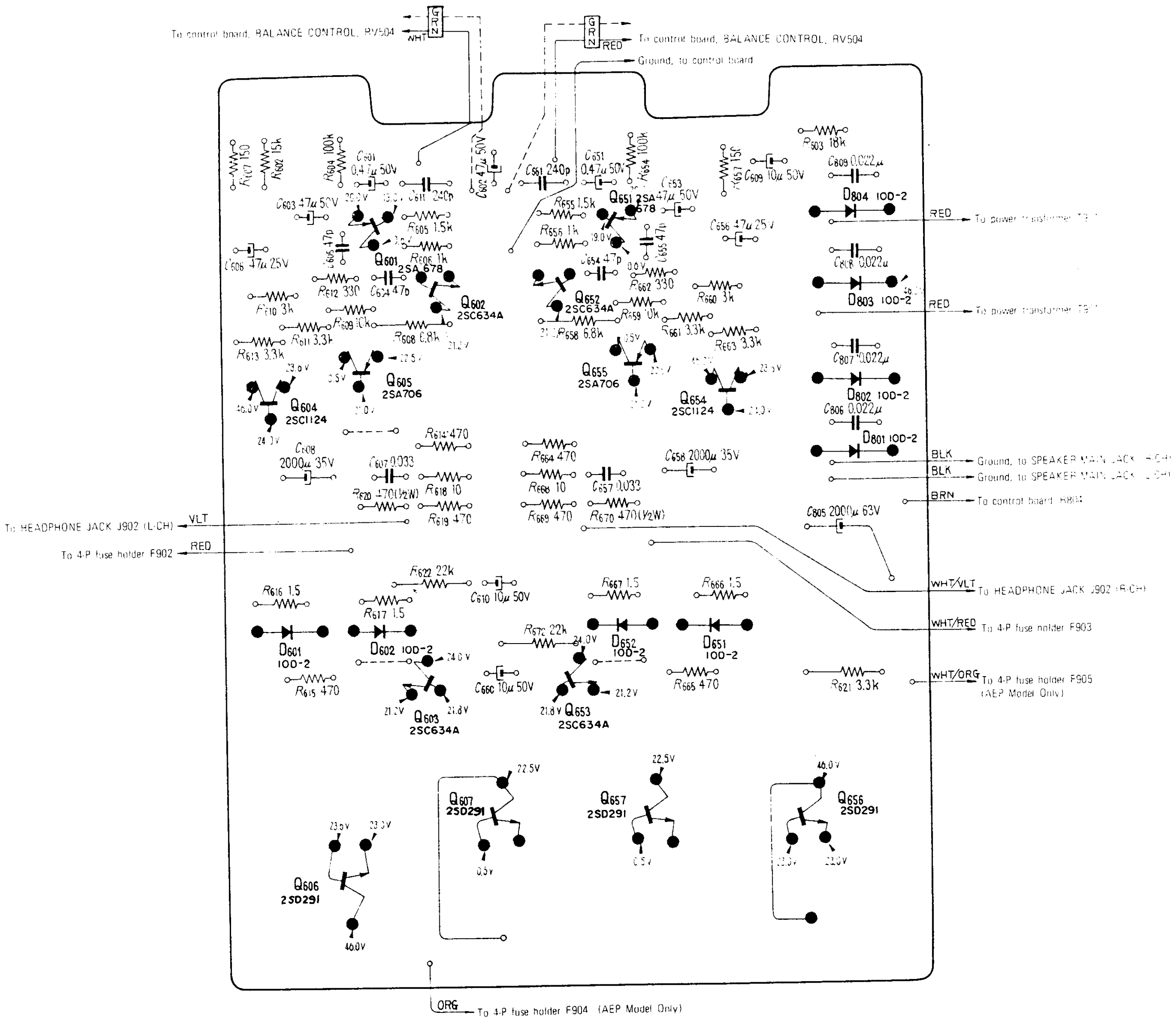
2SC710

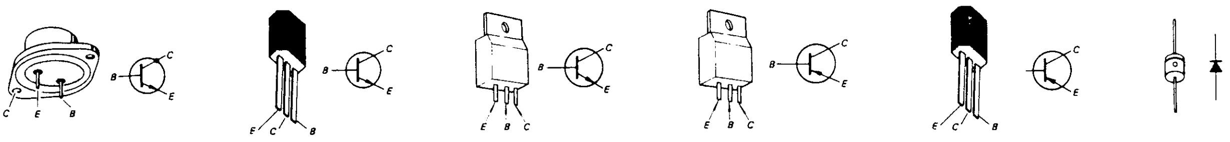


2SC633A

5-2. MOUNTING DIAGRAM – Power Amplifier/Power Supply Board –

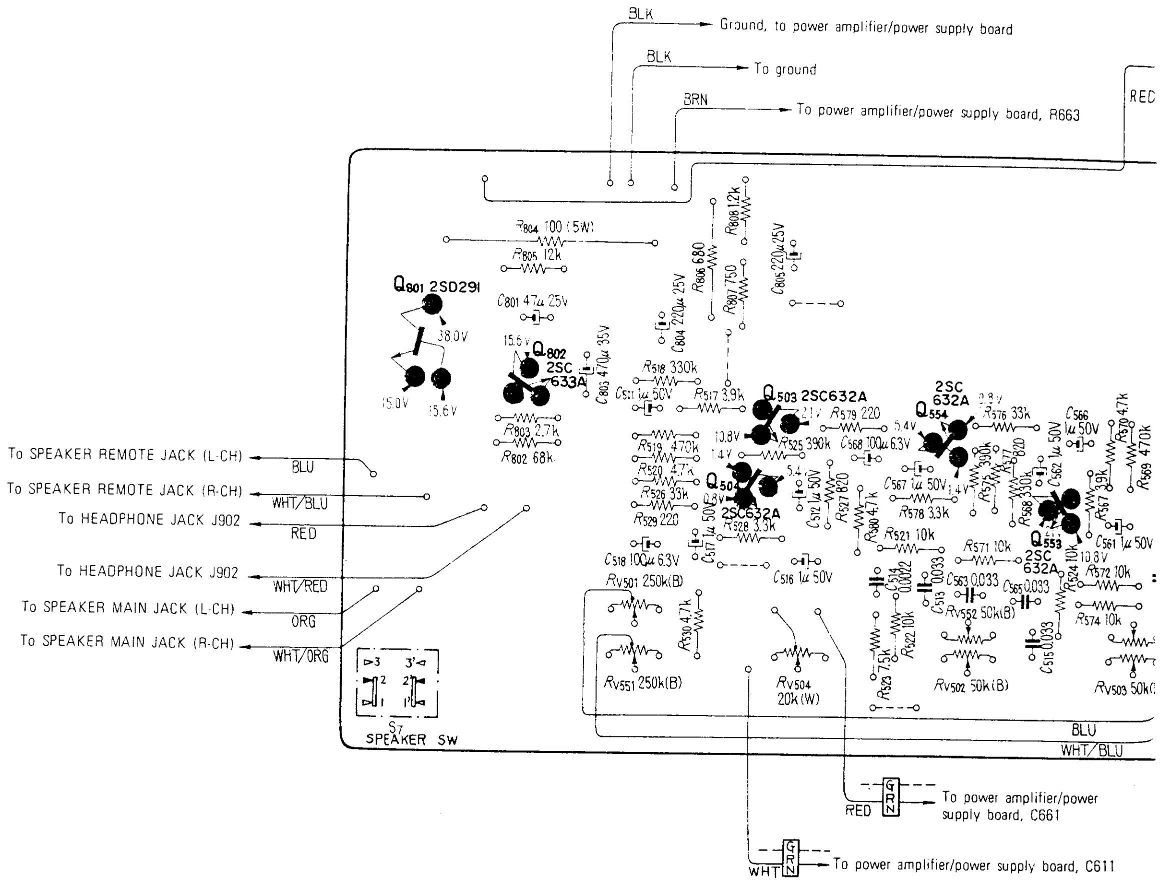
– Conductor Side –

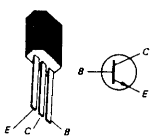




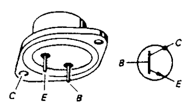
2SD291 2SC634A 2SC1124 2SA706 2SA678 10D-2

5-3. MOUNTING DIAGRAM – Control Board –



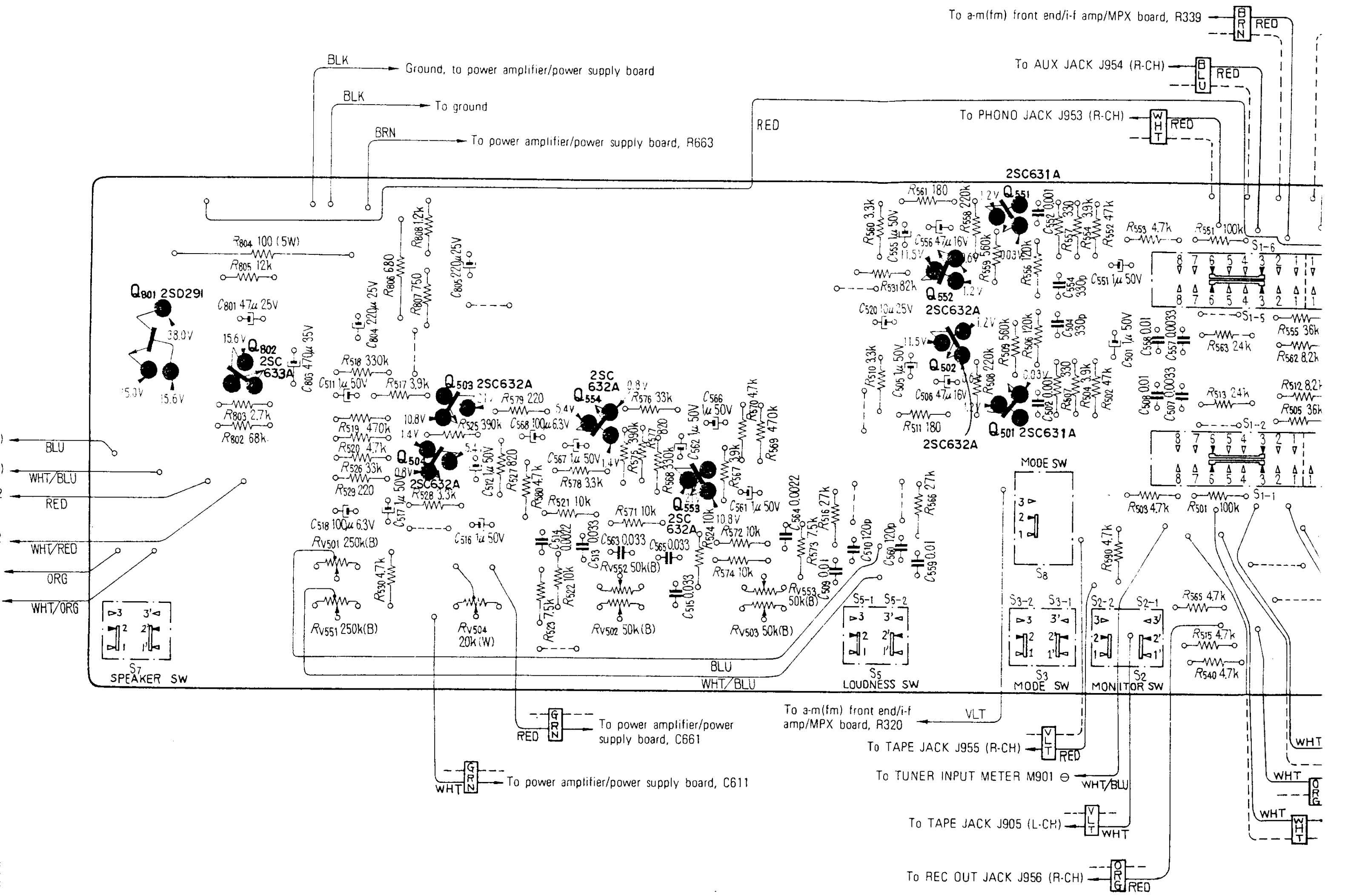


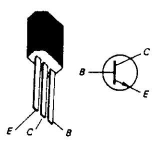
2SC631A
2SC632A
2SC633A



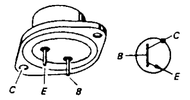
2SD291

Control Board –

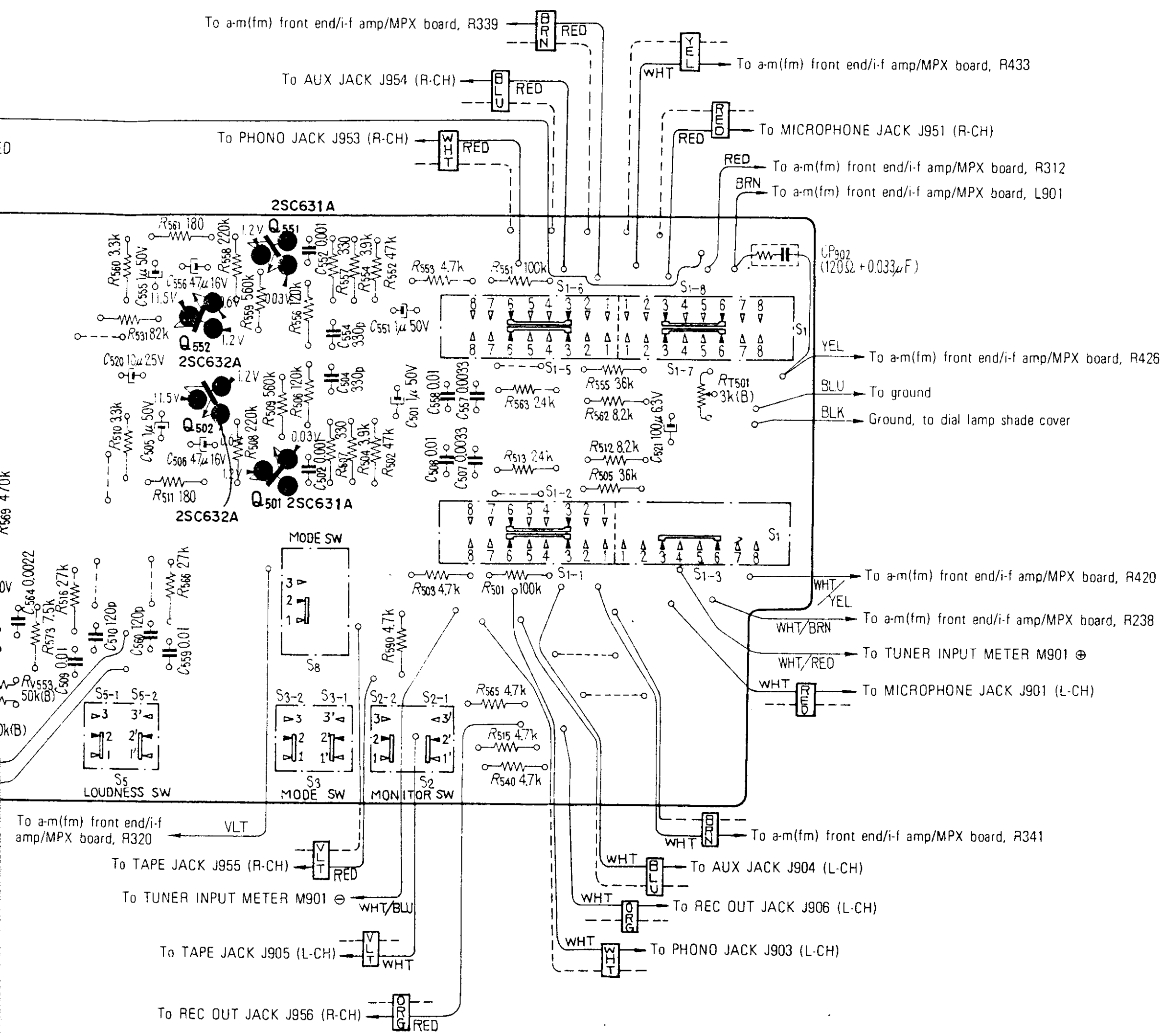




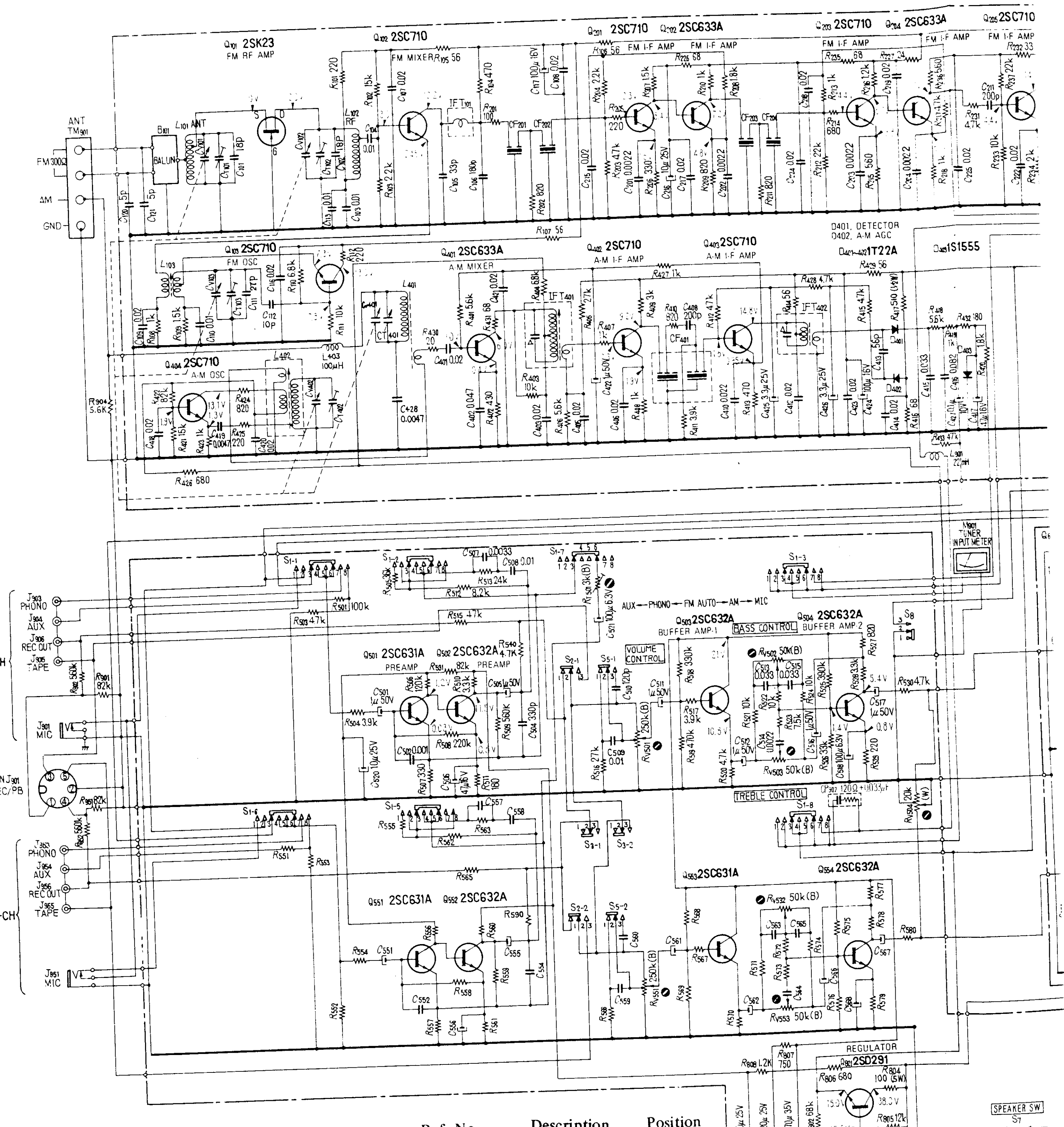
2SC631A
2SC632A
2SC633A



2SD291

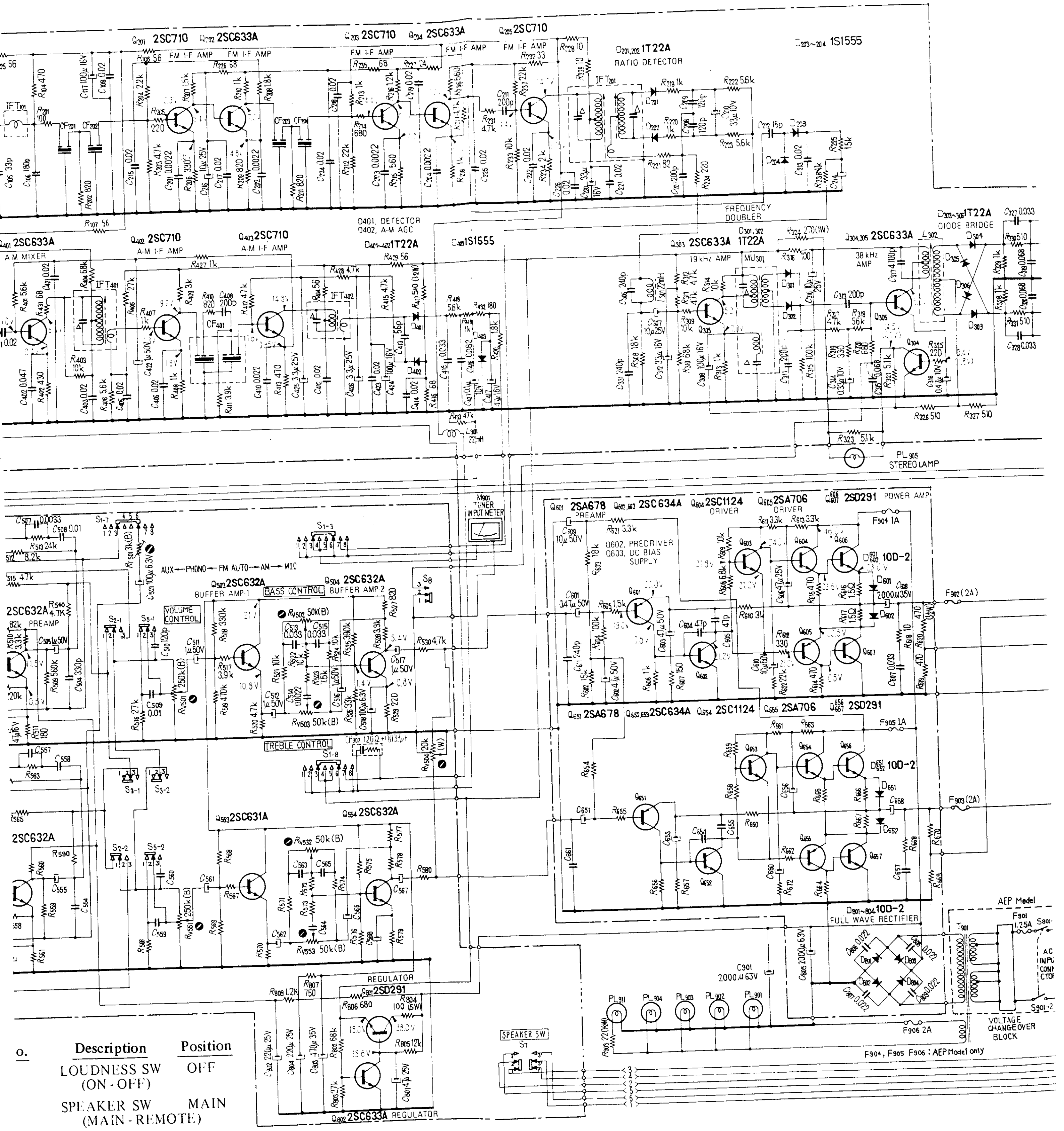

To a-m(fm) front end/i-f amp/MPX board, R339
To AUX JACK J954 (R-CH)
To PHONO JACK J953 (R-CH)
To a-m(fm) front end/i-f amp/MPX board, R433
To MICROPHONE JACK J951 (R-CH)
To a-m(fm) front end/i-f amp/MPX board, R312
To a-m(fm) front end/i-f amp/MPX board, L901
2SC631A
2SC632A
CP902 (120Ω + 0.033μF)
To a-m(fm) front end/i-f amp/MPX board, R426
To ground
Ground, to dial lamp shade cover
MODE SW
LOUDNESS SW
MODE SW
MONITOR SW
To a-m(fm) front end/i-f amp/MPX board, R420
To a-m(fm) front end/i-f amp/MPX board, R238
To TUNER INPUT METER M901 ⊕
To MICROPHONE JACK J901 (L-CH)
To a-m(fm) front end/i-f amp/MPX board, R320
To TAPE JACK J955 (R-CH)
To TUNER INPUT METER M901 ⊖
To TAPE JACK J905 (L-CH)
To REC OUT JACK J956 (R-CH)
To a-m(fm) front end/i-f amp/MPX board, R341
To AUX JACK J904 (L-CH)
To REC OUT JACK J906 (L-CH)
To PHONO JACK J903 (L-CH)

5-4. SCHEMATIC DIAGRAM

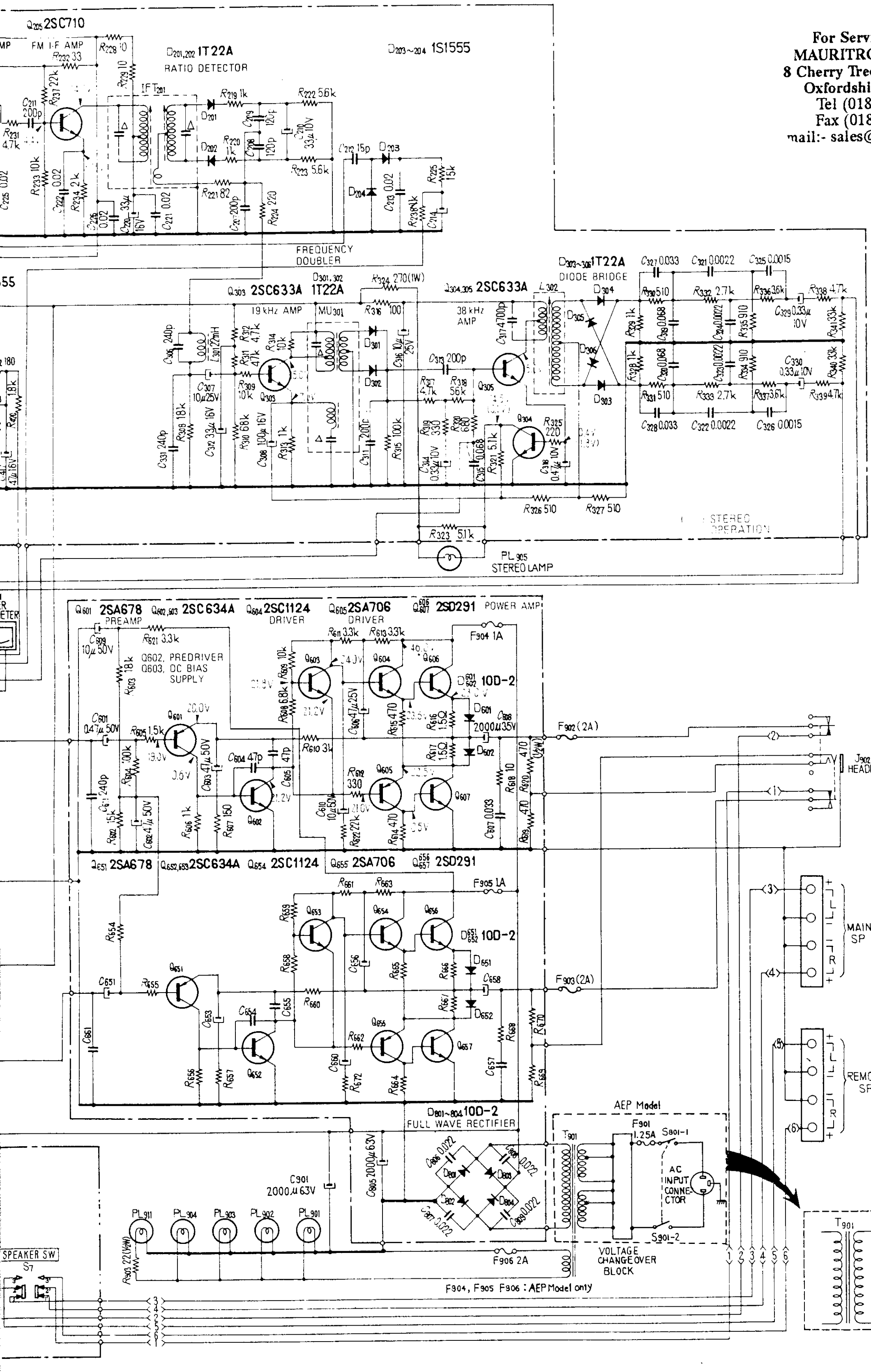


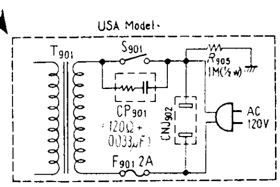
Ref. No.	Description	Position
S1	FUNCTION SW (AUX-PHONO-FM AUTO STEREO-AM)	FM AUTO STEREO
S2	MONITOR SW (SOURCE-TAPE)	SOURCE
S3 (S8)	MODE SW (STEREO-MONO)	STEREO
S5	LOUDNESS SW (ON-OFF)	OFF
S7	SPEAKER SW (MAIN-REMOTE)	MAIN
S901	POWER SW (ON-OFF)	OFF

 STR-6036



o.	Description	Position
	LOUDNESS SW (ON-OFF)	OFF
	SPEAKER SW (MAIN-REMOTE)	MAIN
)1	POWER SW (ON-OFF)	OFF





Note:

All resistance values are in ohms. k = 1,000, M = 1,000 k
All capacitance values are in µF except as indicated with p, which means µµF.
All voltages represent an average value and should hold within ±10%.
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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STR-6036

SECTION 6
EXPLODED VIEW

(1) The following chart will help you to decipher the hardware codes given in the exploded view.

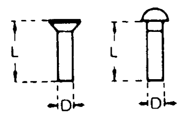
– Hardware Nomenclature –

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

– Example –

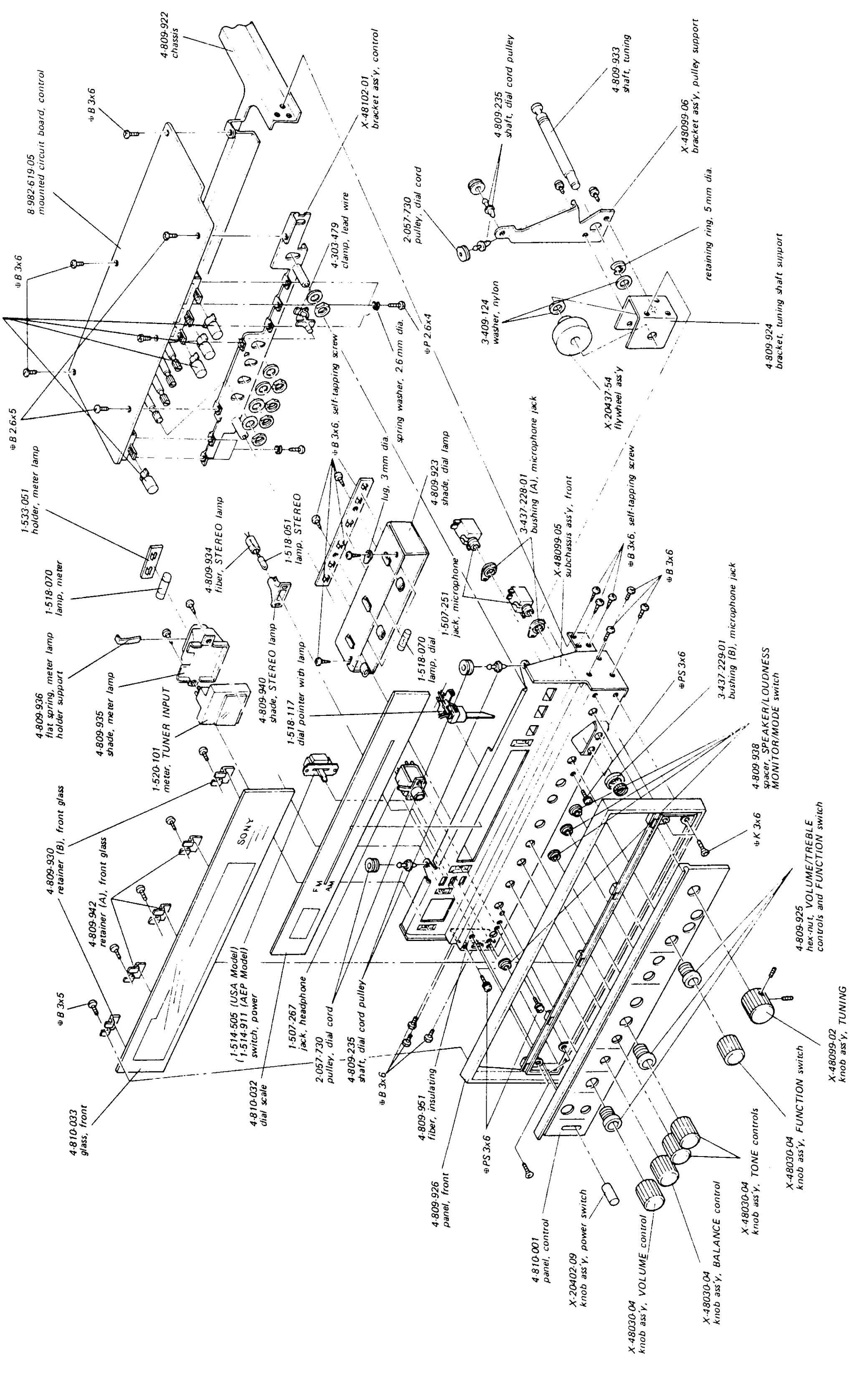
⊕ P 3×10

- ⊕ – Type of Slot
- 10 – Length in mm (L)
- 3 – Diameter in mm (D)
- P – Type of Head

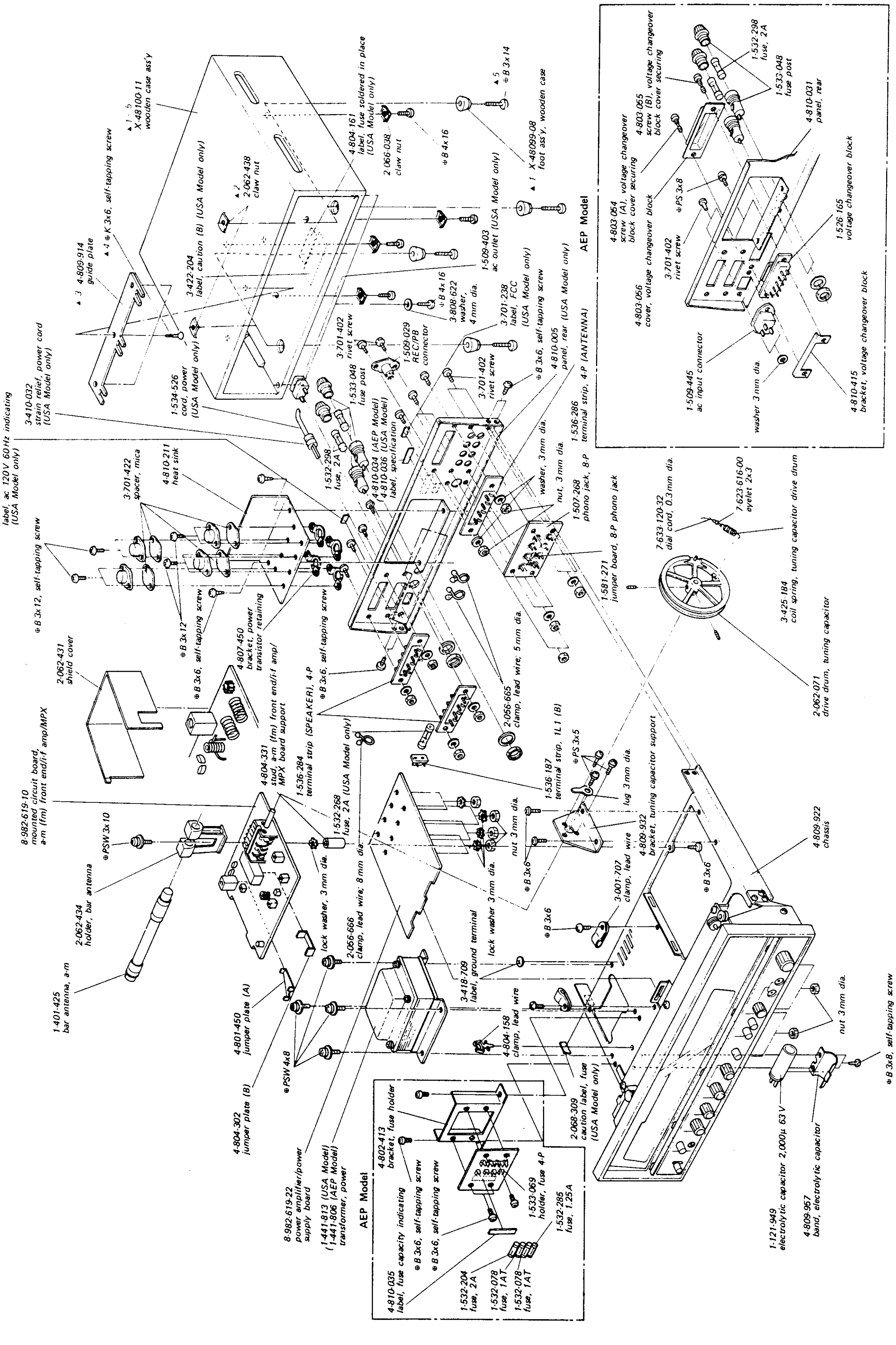


(2) To simplify the exploded view, the part numbers of normal screws, nuts, washers, and retaining rings are not expressed but summarized in the table below.

Part No.	*Description*
7-621-259-25	screw, ⊕P 2.6 x 4
7-621-771-34	screw, ⊕B 2.6 x 5
7-623-108-17	washer, 3 mm dia.
7-623-207-21	washer, spring 2.6 mm dia.
7-623-208-27	washer, spring 3 mm dia.
7-623-408-01	washer, lock (external tooth) 3 mm dia.
7-623-508-01	lug, 3 mm dia.
7-623-616-00	eyelet, 2 x 3
7-624-109-01	retaining ring, 5 mm dia.
7-682-145-01	screw, ⊕P 3 x 4
7-682-247-01	screw, ⊕K 3 x 6
7-682-545-01	screw, ⊕B 3 x 4
7-682-546-01	screw, ⊕B 3 x 5
7-682-547-01	screw, ⊕B 3 x 6
7-682-548-01	screw, ⊕B 3 x 8
7-682-549-13	screw, ⊕B 3 x 10
7-682-565-01	screw, ⊕B 4 x 16
7-682-646-01	screw, ⊕PS 3 x 5
7-682-647-01	screw, ⊕PS 3 x 6
7-682-648-01	screw, ⊕PS 3 x 8
7-682-949-01	screw, ⊕PSW 3 x 10
7-682-961-01	screw, ⊕PSW 4 x 8
7-684-013-01	nut, 3 mm dia.
7-684-023-00	nut, 3 mm dia.
7-685-245-21	screw, self-tapping ⊕K 3 x 6
7-685-545-21	screw, self-tapping ⊕B 3 x 6
7-685-546-21	screw, self-tapping ⊕B 3 x 8
7-685-548-21	screw, self-tapping ⊕B 3 x 12



4-809-922
chassis
⊕B 3x6
8-982-619-05
mounted circuit board, control
X-48102-01
bracket ass'y, control
4-809-235
shaft, dial cord pulley
4-809-933
shaft, tuning
X-48099-06
bracket ass'y, pulley support
2-057-730
pulley, dial cord
4-303-479
clamp, lead wire
retaining ring, 5 mm dia.
X-48099-04
knob ass'y, SPEAKER/LOUDNESS/
MODE/MONITOR switch
⊕B 3x6
⊕B 2.6x5
⊕P 2.6x4
3-409-124
washer, nylon
4-809-924
bracket, tuning shaft support
spring washer, 2.6 mm dia.
⊕B 3x6, self-tapping screw
lug, 3 mm dia.
X-20437-54
flywheel ass'y
1-533-051
holder, meter lamp
4-809-923
shade, dial lamp
3-437-228-01
bushing (A), microphone jack
X-48099-05
subchassis ass'y, front
⊕B 3x6, self-tapping screw
⊕B 3x6
1-518-070
lamp, meter
4-809-934
fiber, STEREO lamp
1-518-051
lamp, STEREO
1-507-251
jack, microphone
4-809-936
flat spring, meter lamp
holder support
4-809-935
shade, meter lamp
4-809-940
shade, STEREO lamp
1-518-117
dial pointer with lamp
1-518-070
lamp, dial
⊕PS 3x6
3-437-229-01
bushing (B), microphone jack
1-520-101
meter, TUNER INPUT
4-809-938
spacer, SPEAKER/LOUDNESS
MONITOR/MODE switch
4-809-930
retainer (B), front glass
⊕K 3x6
4-809-942
retainer (A), front glass
SONY
FM
AM
4-809-925
hex-nut, VOLUME/TREBLE
controls and FUNCTION switch
⊕B 3x5
1-514-505 (USA Model)
1-514-911 (AEP Model)
switch, power
1-507-267
jack, headphone
2-057-730
pulley, dial cord
4-809-235
shaft, dial cord pulley
X-48099-02
knob ass'y, TUNING
4-810-032
dial scale
⊕B 3x6
4-809-951
fiber, insulating
X-48030-04
knob ass'y, FUNCTION switch
4-810-033
glass, front
⊕PS 3x6
X-48030-04
knob ass'y, TONE controls
4-809-926
panel, front
4-810-001
panel, control
X-20402-09
knob ass'y, power switch
X-48030-04
knob ass'y, BALANCE control
X-48030-04
knob ass'y, VOLUME control



Note: ▲1 ~ 5 Wooden case ass'y (X-48100-11) includes all the parts marked ▲

SECTION 7
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
		MOUNTED CIRCUIT BOARDS
	8-982-619-10	a-m (fm) front-end/i-f amplifier/MPX circuit board (TCB-011 BW5C)
	8-982-619-22	power amplifier/power supply circuit board (PCB-114)
	8-982-619-05	control board (CCB-112)
		SEMICONDUCTORS
D201		diode, 1T22A
D202		diode, 1T22A
D203		diode, 1S1555
D204		diode, 1S1555
D301		diode, 1T22A
D302		diode, 1T22A
D303		diode, 1T22A
D304		diode, 1T22A
D305		diode, 1T22A
D306		diode, 1T22A
D401		diode, 1T22A
D402		diode, 1T22A
D403		diode, 1S1555
D601 (D651)		diode, 10D-2
D602 (D652)		diode, 10D-2
D801		diode, 10D-2
D802		diode, 10D-2
D803		diode, 10D-2
D804		diode, 10D-2
Q101		FET, 2SK23
Q102		transistor, 2SC710
Q103		transistor, 2SC710
Q201		transistor, 2SC710
Q202		transistor, 2SC633A
Q203		transistor, 2SC710
Q204		transistor, 2SC633A
Q205		transistor, 2SC710
Q303		transistor, 2SC633A
Q304		transistor, 2SC633A
Q305		transistor, 2SC633A
Q401		transistor, 2SC633A
Q402		transistor, 2SC710
Q403		transistor, 2SC710
Q404		transistor, 2SC710
Q501 (Q551)		transistor, 2SC631A
Q502 (Q552)		transistor, 2SC632A
Q503 (Q553)		transistor, 2SC631A
Q504 (Q554)		transistor, 2SC632A
Q601 (Q651)		transistor, 2SA678
Q602 (Q652)		transistor, 2SC634A
Q603 (Q653)		transistor, 2SC634A
Q604 (Q654)		transistor, 2SC1124
Q605 (Q655)		transistor, 2SA706
Q606 (Q656)		transistor, 2SD291
Q607 (Q657)		transistor, 2SD291
Q801		transistor, 2SD291
Q802		transistor, 2SC633A
		TRANSFORMERS, COILS AND INDUCTORS
B101	1-417-025	balun
IFT101	1-403-556-21	IFT, 10.7 MHz
IFT201	1-403-291	transformer, discriminator 10.7 MHz
IFT401	1-403-152	IFT, 455 kHz
IFT402	1-403-128	IFT, 455 kHz
L101	1-401-476	coil, fm antenna
L102	1-425-710	coil, fm rf
L103	1-405-495	coil, fm osc.
L301	1-407-418	coil, SCA trap 22 mH
L302	1-425-683	transformer, switching 38 kHz
L401	1-401-425	bar antenna, a-m
L402	1-405-391	coil, a-m osc.
L403	1-407-169	inductor, micro 100 μH
L901	1-407-408	inductor, micro 22 mH
MU301	1-425-548	MPX unit
T901	1-441-806	transformer, power (AEP Model)
	1-441-813	transformer, power (USA Model)

CAPACITORS

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

Ref. No.	Part No.	Value	Tolerance	Voltage	Type
C101	1-102-953	18p	±5%	50V	ceramic
C102	1-102-953	18p	±5%	50V	ceramic
C103	1-101-118	0.01	±20%	50V	ceramic
C104	1-101-923	0.01	$^{+80}_{-20}$%	25V	ceramic
C105	1-102-963	33p	±5%	50V	ceramic
C106	1-102-982	180p	±10%	50V	ceramic
C107	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C108	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C109	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C110	1-101-118	0.01	±20%	50V	ceramic
C111	1-102-806	27p	±5%	50V	ceramic

Ref. No.	Part No.	Description			
C112	1-102-947	10p	±5%	50V	ceramic
C113	1-101-118	0.01	±20%	50V	ceramic
C114		————			
C115		————			
C116	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C117	1-121-415	100	$^{+100}_{-10}$%	16V	electrolytic
C118	1-102-862	3p	±0.25pF	50V	ceramic
C119		————			
C120	1-102-942	5p	±0.5pF	50V	ceramic
C121	1-102-942	5p	±0.5pF	50V	ceramic
C201	1-101-919	0.0022	$^{+80}_{-20}$%	25V	ceramic
C202	1-101-919	0.0022	$^{+80}_{-20}$%	25V	ceramic
C203	1-101-919	0.0022	$^{+80}_{-20}$%	25V	ceramic
C204	1-101-919	0.0022	$^{+80}_{-20}$%	25V	ceramic
C205		————			
C206		————			
C207	1-102-977	200p	±5%	50V	ceramic
C208	1-101-340	120p	±10%	50V	ceramic
C209	1-101-340	120p	±10%	50V	ceramic
C210	1-121-402	33	$^{+100}_{-10}$%	10V	electrolytic
C211	1-102-977	200p	±5%	50V	ceramic
C212	1-102-951	15p	±5%	50V	ceramic
C213	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C214	1-121-402	33	$^{+100}_{-10}$%	10V	electrolytic
C215	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C216	1-121-398	10	$^{+100}_{-10}$%	25V	electrolytic
C217	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C218	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C219	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C220	1-121-403	33	$^{+100}_{-10}$%	16V	electrolytic
C221	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C222	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C223	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C224	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C225	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C226	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C306	1-107-140	240p	±10%	50V	silvered mica
C307	1-121-398	10	$^{+100}_{-10}$%	25V	electrolytic
C308	1-121-415	100	$^{+100}_{-10}$%	16V	electrolytic
C309		————			
C310		————			
C311	1-102-977	200p	±5%	50V	ceramic
C312	1-121-403	33	$^{+100}_{-10}$%	16V	electrolytic
C313	1-102-977	200p	±5%	50V	ceramic
C314	1-127-021	0.33	±20%	10V	solid, aluminum
C315	1-105-683-12	0.068	±10%	50V	mylar
C316	1-121-398	10	$^{+100}_{-10}$%	25V	electrolytic
C317	1-103-575	4,700p	±5%	50V	styrol
C318	1-127-022	0.47	±20%	10V	solid, aluminum
C319	1-105-683-12	0.068	±10%	50V	mylar

Ref. No.	Part No.	Description			
C320	1-105-683-12	0.068	±10%	50V	mylar
C321	1-105-665-12	0.0022	±10%	50V	mylar
C322	1-105-665-12	0.0022	±10%	50V	mylar
C323	1-105-665-12	0.0022	±10%	50V	mylar
C324	1-105-665-12	0.0022	±10%	50V	mylar
C325	1-105-663-12	0.0015	±10%	50V	mylar
C326	1-105-663-12	0.0015	±10%	50V	mylar
C327	1-105-679-12	0.033	±10%	50V	mylar
C328	1-105-679-12	0.033	±10%	50V	mylar
C329	1-127-021	0.33	±20%	10V	solid, aluminum
C330	1-127-021	0.33	±20%	10V	solid, aluminum
C331	1-107-140	240p	±10%	50V	silvered mica
C401	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C402	1-105-681-12	0.047	±10%	50V	mylar
C403	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C404		————			
C405	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C406	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C407		————			
C408	1-103-608	200p	±5%	50V	styrol
C409		————			
C410	1-105-677-12	0.022	±10%	50V	mylar
C411		————			
C412	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C413	1-101-884	56p	±5%	50V	ceramic
C414	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C415	1-105-679-12	0.033	±10%	50V	mylar
C416	1-105-684-12	0.082	±10%	50V	mylar
C417	1-121-409	47	$^{+100}_{-10}$%	16V	electrolytic
C418	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C419	1-105-669-12	0.0047	±10%	50V	mylar
C420	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C421	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C422	1-121-391	1	$^{+150}_{-10}$%	50V	electrolytic
C423	1-101-924	0.02	$^{+80}_{-20}$%	25V	ceramic
C424	1-121-415	100	$^{+100}_{-10}$%	16V	electrolytic
C425	1-121-392	3.3	$^{+150}_{-10}$%	25V	electrolytic
C426	1-121-392	3.3	$^{+150}_{-10}$%	25V	electrolytic
C427	1-127-019	0.1	±20%	10V	solid, aluminum
C428	1-105-669-12	0.0047	±10%	50V	mylar
C501 (C551)	1-121-391	1	$^{+150}_{-10}$%	50V	electrolytic
C502 (C552)	1-105-661-12	0.001	±10%	50V	mylar
C503 (C553)		————			
C504 (C554)	1-102-112	330p	±10%	50V	ceramic
C505 (C555)	1-121-391	1	$^{+150}_{-10}$%	50V	electrolytic
C506 (C556)	1-121-409	47	$^{+100}_{-10}$%	16V	electrolytic
C507 (C557)	1-105-667-12	0.0033	±10%	50V	mylar
C508 (C558)	1-105-673-12	0.01	±10%	50V	mylar
C509 (C559)	1-105-673-12	0.01	±10%	50V	mylar

Ref. No.	Part No.	Description			
C510 (C560)	1-102-816	120p	±5%	50V	ceramic
C511 (C561)	1-121-391	1	$\pm^{150}_{10}$%	50V	electrolytic
C512 (C562)	1-121-391	1	$\pm^{150}_{10}$%	50V	electrolytic
C513 (C563)	1-105-679-12	0.033	±10%	50V	mylar
C514 (C564)	1-105-665-12	0.0022	±10%	50V	mylar
C515 (C565)	1-105-679-12	0.033	±10%	50V	mylar
C516 (C566)	1-121-391	1	$\pm^{150}_{10}$%	50V	electrolytic
C517 (C567)	1-121-391	1	$\pm^{150}_{10}$%	50V	electrolytic
C518 (C568)	1-121-413	100	$\pm^{100}_{10}$%	6.3V	electrolytic
C519 (C569)	—				
C520	1-121-398	10	$\pm^{100}_{10}$%	25V	electrolytic
C521	1-121-413	100	$\pm^{100}_{10}$%	6.3V	electrolytic
C601 (C651)	1-121-726	0.47	$\pm^{150}_{10}$%	50V	electrolytic
C602	1-121-411	47	$\pm^{100}_{10}$%	50V	electrolytic
C603 (C653)	1-121-411	47	$\pm^{100}_{10}$%	50V	electrolytic
C604 (C654)	1-101-880	47p	±5%	50V	ceramic
C605 (C655)	1-101-880	47p	±5%	50V	ceramic
C606 (C656)	1-121-410	47	$\pm^{100}_{10}$%	25V	electrolytic
C607 (C657)	1-105-679-12	0.033	±10%	50V	mylar
C608 (C658)	1-121-984	2,000	$\pm^{100}_{10}$%	35V	electrolytic
C609	1-121-738	10	$\pm^{100}_{10}$%	50V	electrolytic
C610 (C660)	1-121-738	10	$\pm^{100}_{10}$%	50V	electrolytic
C611 (C661)	1-107-140	240p	±10%	50V	silvered mica
C801	1-121-410	47	$\pm^{100}_{10}$%	25V	electrolytic
C802	1-121-422	220	$\pm^{100}_{10}$%	25V	electrolytic
C803	1-121-361	470	$\pm^{150}_{10}$%	35V	electrolytic
C804	1-121-422	220	$\pm^{100}_{10}$%	25V	electrolytic
C805	1-121-946	2,000	$\pm^{50}_{10}$%	63V	electrolytic
C806	1-105-877-12	0.022	±20%	100V	mylar
C807	1-105-877-12	0.022	±20%	100V	mylar
C808	1-105-877-12	0.022	±20%	100V	mylar
C809	1-105-877-12	0.022	±20%	100V	mylar

RESISTORS

All resistance values are in ohms, ±5%, ¼W and carbon type unless otherwise indicated.

Ref. No.	Part No.	Description		
R101	1-244-657	220		
R102	1-244-701	15k		
R103	1-244-681	2.2k		
R104	1-242-665	470		
R105	1-244-643	56		
R106	1-244-643	56		
R107	1-242-643	56		
R108	1-242-673	1k		
R109	1-242-677	1.5k		
R110	1-244-693	6.8k		
R111	1-244-697	10k		
R112	1-244-657	220		
R201	1-244-649	100		
R202	1-242-671	820		
R203	1-242-689	4.7k		
R204	1-242-681	2.2k		
R205	1-244-657	220		
R206	1-242-661	330		
R207	1-244-677	1.5k		
R208	1-244-679	1.8k		
R209	1-242-671	820		
R210	1-244-673	1k		
R211	1-242-671	820		
R212	1-242-705	22k		
R213	1-242-673	1k		
R214	1-242-669	680		
R215	1-242-667	560		
R216	1-244-675	1.2k		
R217	1-242-689	4.7k		
R218	1-242-673	1k		
R219	1-244-673	1k		
R220	1-244-673	1k		
R221	1-244-647	82		
R222	1-242-691	5.6k		
R223	1-242-691	5.6k		
R224	1-244-657	220		
R225	1-242-701	15k		
R226	1-242-645	68		
R227	1-244-634	24		
R228	1-244-625	10		
R229	1-244-625	10		
R230	—			
R231	1-244-689	4.7k		
R232	1-244-637	33		
R233	1-242-697	10k		
R234	1-244-680	2k		
R235	1-242-645	68		
R236	1-242-667	560		
R237	1-242-705	22k		
R238	1-242-673	1k		
R308	1-242-703	18k		
R309	1-242-697	10k		
R310	1-242-717	68k		
R311	1-242-713	47k		
R312	1-242-689	4.7k		
R313	1-244-673	1k		
R314	1-242-697	10k		
R315	1-244-721	100k		
R316	1-244-649	100		
R317	1-242-689	4.7k		
R318	1-244-715	56k		
R319	1-244-661	330		
R320	1-242-669	680		
R321	1-244-690	5.1k		
R322	—			
R323	1-244-690	5.1k		
R324	1-209-216	270	±10%	1W
R325	1-242-657	220		

Ref. No.	Part No.	Description		
R326	1-244-666	510		
R327	1-244-666	510		
R328	1-242-673	1 k		
R329	1-242-673	1 k		
R330	1-242-666	510		
R331	1-242-666	510		
R332	1-242-683	2.7 k		
R333	1-242-683	2.7 k		
R334	1-242-672	910		
R335	1-242-672	910		
R336	1-242-686	3.6 k		
R337	1-242-686	3.6 k		
R338	1-244-689	4.7 k		
R339	1-244-689	4.7 k		
R340	1-242-709	33 k		
R341	1-242-709	33 k		
R401	1-244-691	5.6 k		
R402	1-242-664	430		
R403	1-242-697	10 k		
R404	1-242-693	6.8 k		
R405	1-244-707	27 k		
R406	1-244-691	5.6 k		
R407	1-242-673	1 k		
R408	1-244-673	1 k		
R409	1-244-684	3 k		
R410	1-244-671	820		
R411	1-242-687	3.9 k		
R412	1-244-689	4.7 k		
R413	1-244-665	470		
R414	1-244-643	56		
R415	1-244-689	4.7 k		
R416	1-244-645	68		
R417	1-202-566	510	±5% ½W	composition
R418	1-244-691	5.6 k		
R419	1-242-673	1 k		
R420	1-244-679	1.8 k		
R421	1-244-701	15 k		
R422	1-244-719	82 k		
R423	1-244-673	1 k		
R424	1-244-671	820		
R425	1-244-657	220		
R426	1-244-669	680		
R427	1-244-673	1 k		
R428	1-242-689	4.7 k		
R429	1-244-643	56		
R430	1-242-632	20		
R431	1-242-645	68		
R432	1-244-655	180		
R433	1-242-713	47 k		
R501 (R551)	1-244-721	100 k		
R502 (R552)	1-244-713	47 k		
R503 (R553)	1-244-689	4.7 k		

Ref. No.	Part No.	Description		
R504 (R554)	1-244-687	3.9 k		
R505 (R555)	1-244-710	36 k		
R506 (R556)	1-244-723-09	120 k, noiseless		
R507 (R557)	1-244-661	330		
R508 (R558)	1-244-729-09	220 k, noiseless		
R509 (R559)	1-244-739-09	560 k, noiseless		
R510 (R560)	1-244-685-09	3.3 k, noiseless		
R511 (R561)	1-244-655	180		
R512 (R562)	1-244-695	8.2 k		
R513 (R563)	1-244-706	24 k		
R515 (R565)	1-244-689	4.7 k		
R516 (R566)	1-244-707	27 k		
R517 (R567)	1-244-687	3.9 k		
R518 (R568)	1-244-733-09	330 k, noiseless		
R519 (R569)	1-244-737-09	470 k, noiseless		
R520 (R570)	1-244-689-09	4.7 k, noiseless		
R521 (R571)	1-244-697	10 k		
R522 (R572)	1-244-697	10 k		
R523 (R573)	1-244-694	7.5 k		
R524 (R574)	1-244-697	10 k		
R525 (R575)	1-244-735-09	390 k, noiseless		
R526 (R576)	1-244-709-09	33 k, noiseless		
R527 (R577)	1-244-671	820		
R528 (R578)	1-244-685	3.3 k		
R529 (R579)	1-244-657	220		
R530 (R580)	1-244-689	4.7 k		
R531	1-244-719	82 k		
R540 (R590)	1-244-689	4.7 k		
R602	1-242-701	15 k		
R603	1-242-703	18 k		
R604 (R654)	1-242-721	100 k		
R605 (R655)	1-242-677	1.5 k		
R606 (R656)	1-242-673	1 k		
R607 (R657)	1-242-653	150		
R608 (R658)	1-244-693	6.8 k		
R609 (R659)	1-242-697	10 k		
R610 (R660)	1-242-684	3 k		
R611 (R661)	1-242-685	3.3 k		
R612 (R662)	1-242-661	330		
R613 (R663)	1-242-685	3.3 k		
R614 (R664)	1-242-665	470		
R615 (R665)	1-242-665	470		
R616 (R666)	1-242-605	1.5		
R617 (R667)	1-242-605	1.5		
R618 (R668)	1-242-625	10		
R619 (R669)	1-242-665	470		
R620 (R670)	1-202-565	470	±10% ½W	composition
R621	1-244-685	3.3 k		
R622 (R672)	1-244-705	22 k		
R802	1-244-717	68 k		
R803	1-244-683	2.7 k		

Ref. No.	Part No.	Description
R804	1-217-078	100 ±10% 5W wire-wound
R805	1-244-699	12 k
R806	1-206-044	680 ±10% 2W metal-oxide
R807		———
R808	1-244-675	1.2 k
R901 (R951)	1-244-719	82 k
R902 (R952)	1-244-739	560 k
R903	1-244-633	22
R904	1-244-691	5.6 k
R905	1-202-645	1 M ±10% ½W composition (USA Model only)
RT501	1-221-320	3 k (B), semi-fixed
RV501 (RV551)	1-222-543	250 k (B), variable (VOLUME control)
RV502 (RV552)	1-222-544	50 k (B), variable (BASS control)
RV503 (RV553)	1-222-544	50 k (B), variable (TREBLE control)
RV504	1-222-545	20 k (W), variable (BALANCE control)

SWITCHES

Ref. No.	Part No.	Description
S1	1-514-905	switch, rotary/slide (FUNCTION) (MONITOR)
S2, S3, S5	1-514-908	switch, push (MODE) (LOUDNESS)
S7	1-514-290	switch, push (SPEAKER)
S8	1-514-907	switch, slide (MODE)
S901	1-514-505	switch, (POWER) . . . USA Model
	1-514-911	switch, (POWER) . . . AEP Model

FILTERS

Ref. No.	Part No.	Description
CF201, CF202, CF203, CF204	1-527-507-11	fm i-f, ceramic 10.70 MHz (red)
	1-527-507-21	fm i-f, ceramic 10.66 MHz (black)
	1-527-507-31	fm i-f, ceramic 10.74 MHz (white)
	1-527-507-41	fm i-f, ceramic 10.62 MHz (green)
	1-527-507-51	fm i-f, ceramic 10.78 MHz (yellow)
CF401	1-403-153	filter, ceramic 455 kHz

MISCELLANEOUS

Ref. No.	Part No.	Description
CP901	1-231-057	encapsulated component, 120Ω + 0.033μF (USA Model only)
CP902	1-231-057	encapsulated component, 120Ω + 0.033μF
J901, 951	1-507-251	jack, MICROPHONE
J902	1-507-267	jack, HEADPHONE
	1-507-268	phono jack, 8-P
	1-509-029	REC/PB connector
CNJ901	1-509-403	ac outlet (USA Model only)
CNJ902	1-509-445	ac input connector (AEP Model only)
	1-517-050	socket, dial lamp
PL905	1-518-051	lamp, stereo 4.5 V/40 mA
PL902, 903, PL904	1-518-070	lamp, dial 8 V/0.3 A
PL911	1-518-117	pointer with lamp
PL901	1-518-124	lamp, meter 8 V/0.25 A
M901	1-520-101	meter, TUNER INPUT
VS	1-526-165	voltage changeover block (AEP Model only)
F901	1-532-268	fuse, 2 A (USA Model only)
	1-532-285	fuse, 1.25 AT (AEP Model only)
F904, 905	1-532-078	fuse, 1 AT (AEP Model only)
F906	1-532-204	fuse, 2 A (AEP Model only)
F902, 903	1-532-298	fuse, 2 A
	1-533-048	fuse post
	1-533-051	holder, stereo lamp
	1-533-069	fuse holder, 4-P
	1-534-526	cord, power (USA Model only)
	1-536-179	terminal strip, 1L1
	1-536-187	terminal strip (USA Model only)
	1-536-248	terminal post
TM902, 903	1-536-284	terminal strip, 4-P (SPEAKER)
TM901	1-536-286	terminal strip, 4-P (ANTENNA)
	1-581-271	jumper board, 8-P phono jack

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