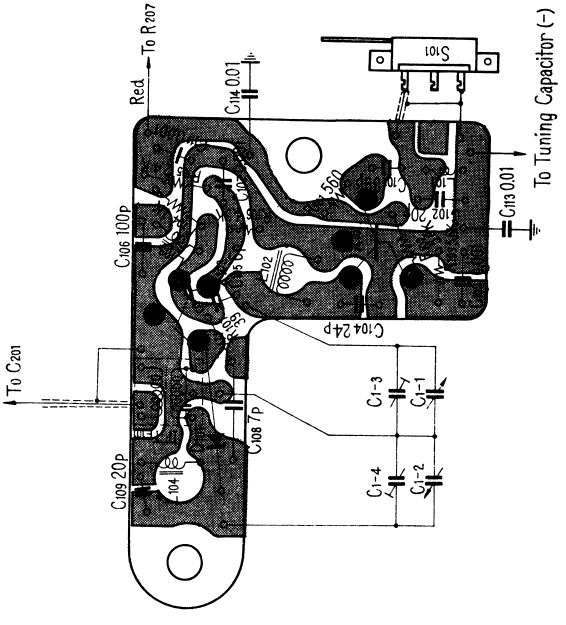
Mounting Diagram
FM Tuner Section
—Printed Side—



LW Band

Preparation for Adjustments

☆ Receiver to be adjusted

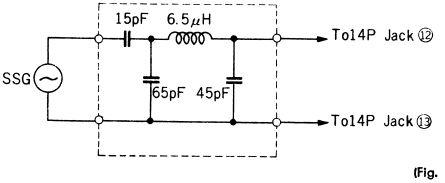
Power Source Voltage :	Keep 4.5 Volts during the adjustments.
Band Switch setting :	LW
Volume Control setting :	Maximum
Tone Switch setting :	High (not pushed)
☆ Load for Output :	Connect an 8Ω resistor instead of speaker.
☆ Output Meter : (VTVM can be used also.)	Connect across the load resistor 8Ω.
☆ Signal Source :	Use a SSG (Standard Signal Generator) which can deliver RF signals modulated at 30% with 1,000 c/s.
☆ Radiating Antenna :	Use a loop type.

a) Frequency Coverage Adjustment

(1) Deliver a 145 Kc signal from the SSG.
(2) Set the Tuning Capacitor at the maximum capacitance position by turning the Tuning Kncb of the Receiver counter-clockwise.
(3) Adjust the core of the LW OSC Coil (L_{207}) to tune to the signal.
(4) Set the Tuning Capacitor at the minimum capacitance position by turning the Tuning Knob of the Receiver clockwise.
(5) Deliver a 300 Kc signal from the SSG.
(6) Adjust the LW OSC Trimmer Capacitor (C_{2-6}) to tune to the signal.
(7) Repeat the above procedures (1～6) until the frequency range between 145 Kc and 300 Kc is fully covered.

b) Tracking Adjustment

(1) Deliver a 160 Kc signal from the SSG.
(2) Tune to the signal by turning the Tuning Knob of the Receiver.
(3) Adjust the position of the LW ANT Coil (L_{201}) along the Ferrite Bar to obtain the maximum output.
(4) Deliver a 280 Kc signal from the SSG.
(5) Tune to the signal by turning the Tuning Knob of the Receiver.
(6) Adjust the LW ANT Trimmer Capacitor (C_{2-3}) to obtain the maximum output.
(7) Repeat the above procedures (1～6) until the maximum output is obtained.
(8) Use a Dummy Antenna shown in Fig. 4 instead of the Loop Antenna.
(9) Set the Portable/Car Antenna Setting Switch to " CAR ".
(10) Deliver a 160 Kc signal from the SSG.
(11) Tune to the signal by turning the Tuning Knob of the Receiver.
(12) Adjust the core of the LW Car Antenna Coil (L_{204}) to obtain the maximum output.
(13) Deliver a 280 Kc signal from the SSG.
(14) Tune to the signal by turning the Tuning Knob of the Receiver.
(15) Adjust the LW Car Antenna Trimmer Capacitor (C_{2-9}) to obtain the maximum output.
(16) Repeat the above procedures (10～15) until the maximum output is obtained.

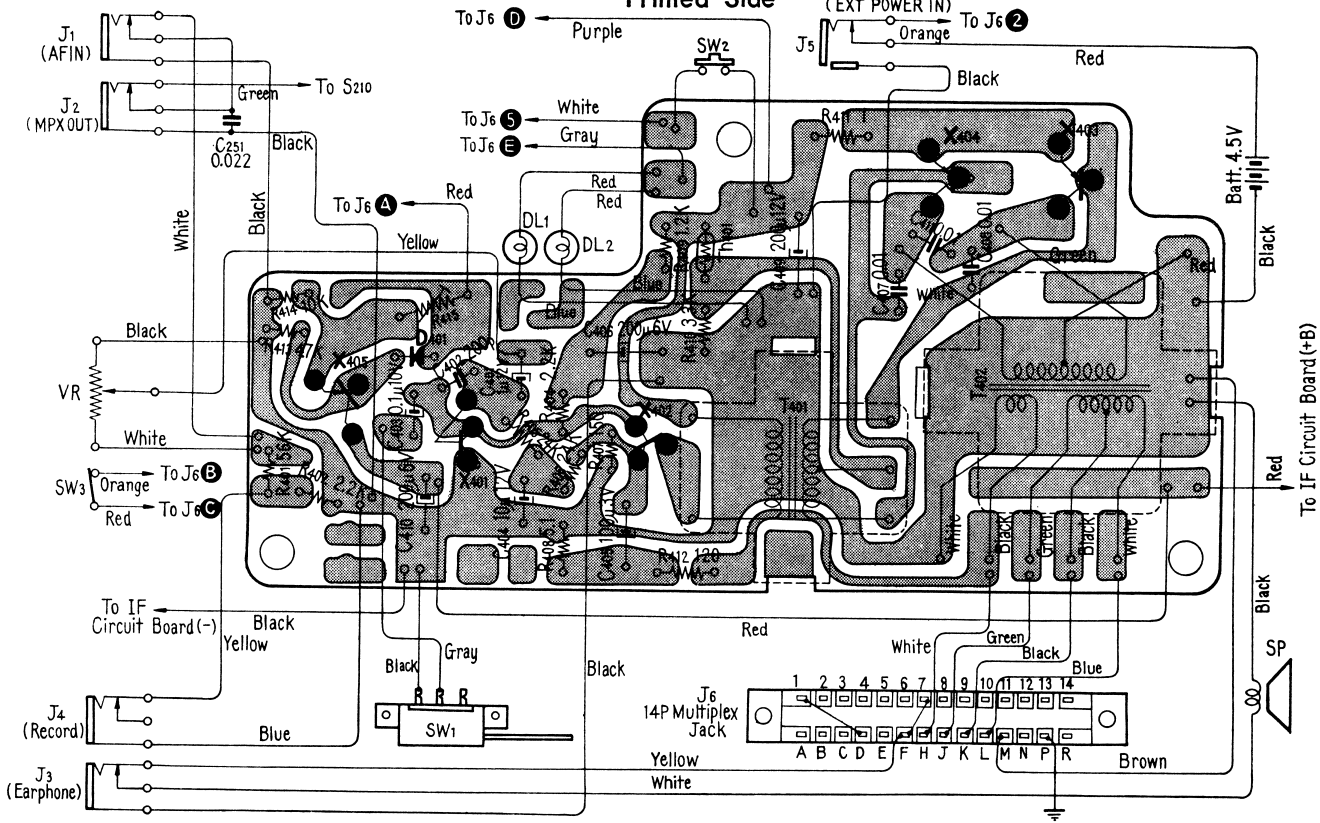


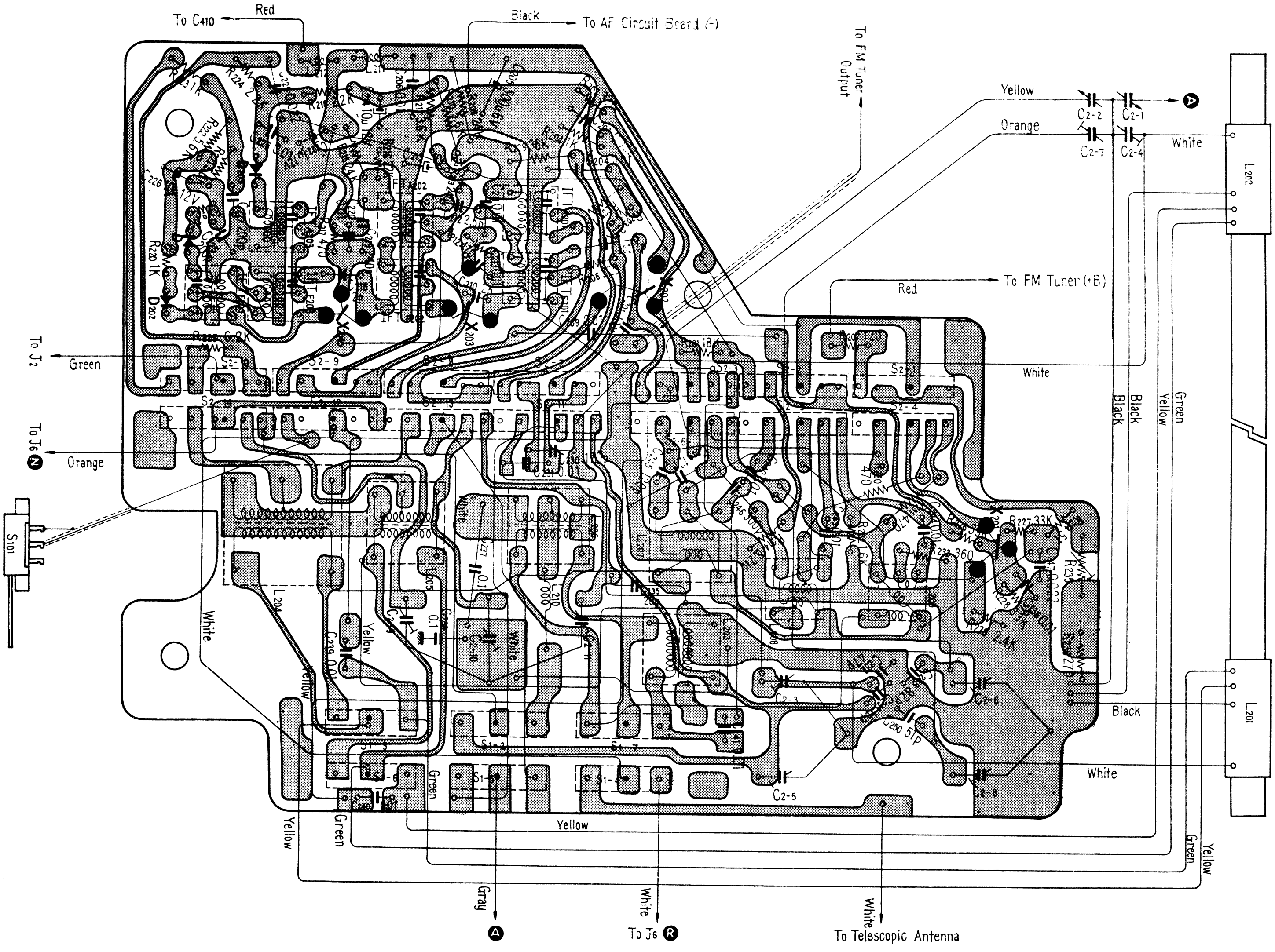
(Fig. 4)

Mounting Diagram

AF Section

— Printed Side —

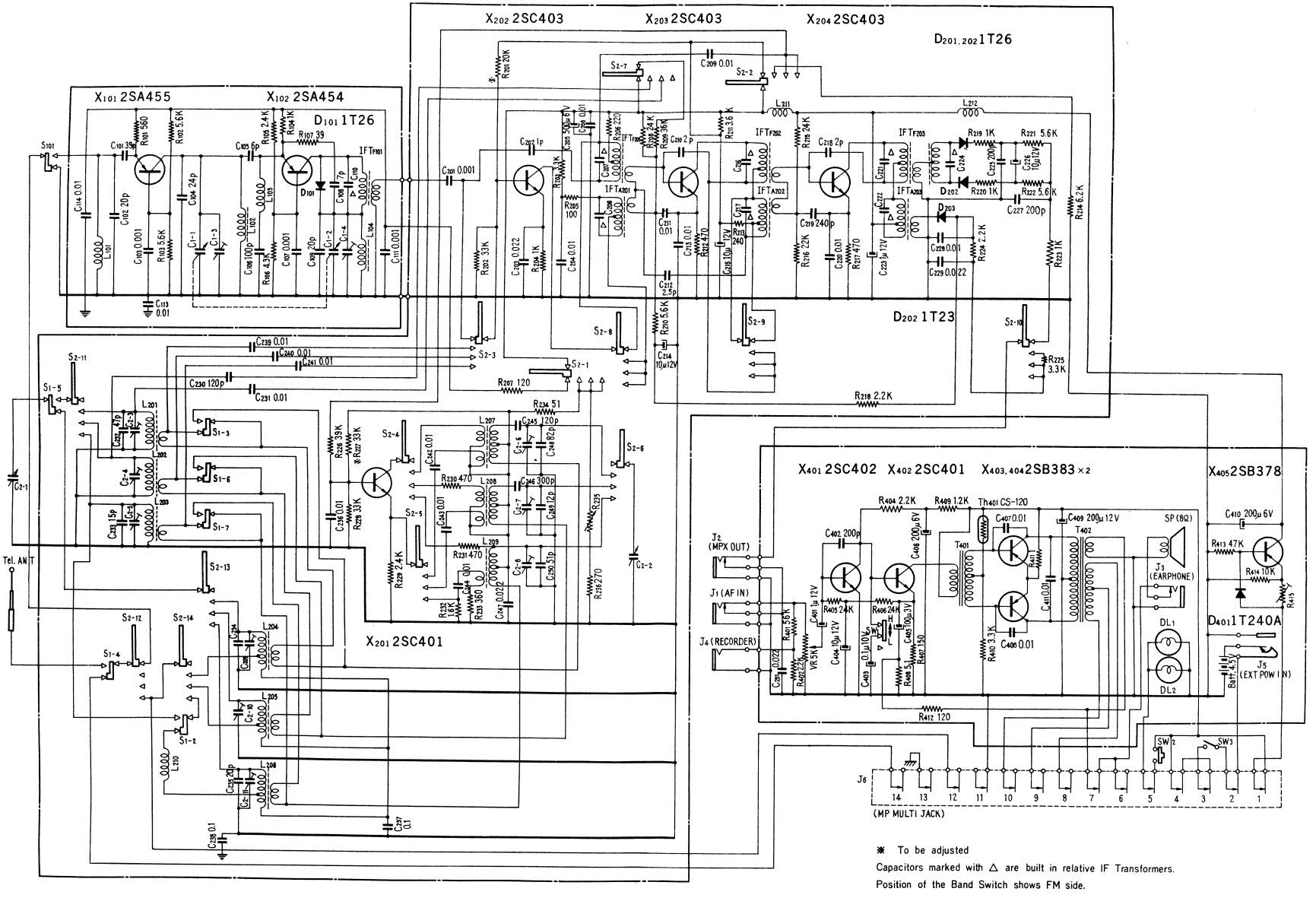




Mounting Diagram

IF Section

— Printed Side —



※ To be adjusted

Capacitors marked with △ are built in relative IF Transformers.

Position of the Band Switch shows FM side.

Preparation for Adjustments

☆ Receiver to be adjusted

Power Source Voltage :	Keep 4.5 Volts during the adjustments.
Band Switch setting :	MW
Volume Control setting :	Maximum
Tone Switch setting :	High (not pushed)
☆ Load for Output :	Connect an 8Ω resistor instead of speaker.
☆ Output Meter : (VTVM can be used also.)	Connect across the load resistor 8Ω.
☆ Signal Source :	Use a SSG (Standard Signal Generator) which can deliver RF signals modulated at 30% with 1,000 c/s.
☆ Radiating Antenna :	Use a loop type.

a) Frequency Coverage Adjustment

(1) Deliver a 520 Kc signal from the SSG.
(2) Set the Tuning Capacitor at the maximum capacitance position by turning the Tuning Knob of the Receiver counter-clockwise.
(3) Adjust the core of the MW OSC Coil (L_{209}) to tune to the signal.
(4) Set the Tuning Capacitor at the minimum capacitance position by turning the Tuning Knob of the Receiver clockwise.
(5) Deliver a 1,680 Kc signal from the SSG.
(6) Adjust the MW OSC Trimmer Capacitor (C_{2-7}) to tune to the signal.
(7) Repeat the above procedures (1～6) until the frequency range between 520 Kc and 1,680 Kc is fully covered.

b) Tracking Adjustment

(1) Deliver a 620 Kc signal from the SSG.
(2) Tune to the signal by turning the Tuning Knob of the Receiver.
(3) Adjust the position of the MW ANT Coil (L_{202}) along the Ferrite Bar to obtain the maximum output.
(4) Deliver a 1,400 Kc signal from the SSG.
(5) Tune to the signal by turning the Tuning Knob of the Receiver.
(6) Adjust the MW ANT Trimmer Capacitor (C_{2-4}) to obtain the maximum output.
(7) Repeat the above procedures (1～6) until the maximum output is obtained.
(8) Use a Dummy Antenna shown in Fig. 4 instead of the Loop Antenna.
(9) Set the Portable/Car Antenna Setting Switch to " CAR ".
(10) Deliver a 620 Kc signal from the SSG.
(11) Tune to the signal by turning the Tuning Knob of the Receiver.
(12) Adjust the core of the MW Car Antenna Coil (L_{205}) to obtain the maximum output.
(13) Deliver a 1,400 Kc signal from the SSG.
(14) Tune to the signal by turning the Tuning Knob of the Receiver.
(15) Adjust the MW Car Antenna Trimmer Capacitor (C_{2-10}) to obtain the maximum output.
(16) Repeat the above procedures (10～15) until the maximum output is obtained.

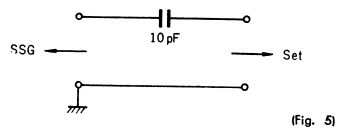
SW Band

Preparation for Adjustments

☆ Receiver to be adjusted

Power Source Voltage :	Keep 4.5 Volts during the adjustments.
Band Switch setting :	SW
Volume Control setting :	Maximum
Tone Switch setting :	High (not pushed)
☆ Load for Output :	Connect an 8Ω resistor instead of speaker.
☆ Output Meter : (VTVM can be used also.)	Connect across the load resistor 8Ω.
☆ Signal Source :	Use a SSG (Standard Signal Generator) which can deliver RF signals modulated at 30% with 1,000 c/s.

Unsolder the telescopic antenna lead (white) at the Telescopic Antenna. Connect the SSG to the telescopic antenna lead and ground of the Set through the Dummy Antenna specified in Fig. 5.



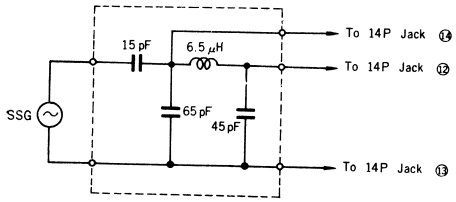
(Fig. 5)

a) Frequency Coverage Adjustment

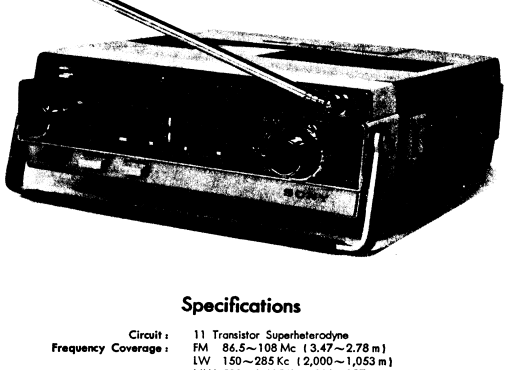
(1) Deliver a 5.75 Mc signal from the SSG.
(2) Set the Tuning Capacitor at the maximum capacitance position by turning the Tuning Knob of the Receiver counter-clockwise.
(3) Adjust the core of the SW OSC Coil (L_{209}) to tune to the signal.
(4) Set the Tuning Capacitor at the minimum capacitance position by turning the Tuning Knob of the Receiver clockwise.
(5) Deliver a 12.6 Mc signal from the SSG.
(6) Adjust the SW OSC Trimmer Capacitor (C_{2-8}) to tune to the signal.
(7) Repeat the above procedures (1～6) until the frequency range between 5.75 Mc and 12.6 Mc is fully covered.

b) Tracking Adjustment

(1) Deliver a 5.75 Mc signal from the SSG.
(2) Tune to the signal by turning the Tuning Knob of the Receiver.
(3) Adjust the core of the SW ANT Coil (L_{203}) to obtain the maximum output.
(4) Deliver a 12.6 Mc signal from the SSG.
(5) Tune to the signal by turning the Tuning Knob of the Receiver.
(6) Adjust the SW ANT Trimmer Capacitor (C_{2-5}) to obtain the maximum output.
(7) Repeat the above procedures (1～6) until the maximum output is obtained.
(8) Use a Dummy Antenna shown in Fig. 6 instead of the Dummy Antenna shown in Fig. 5.
(9) Set the Portable/Car Antenna Setting Switch to " CAR ".
(10) Deliver a 5.75 Mc signal from the SSG.
(11) Tune to the signal by turning the Tuning Knob of the Receiver.
(12) Adjust the core of the SW Car Antenna Coil (L_{206}) to obtain the maximum output.
(13) Deliver a 12.6 Mc signal from the SSG.
(14) Tune to the signal by turning the Tuning Knob of the Receiver.
(15) Adjust the SW Car Antenna Trimmer Capacitor (C_{2-11}) to obtain the maximum output.
(16) Repeat the above procedures (10～15) until the maximum output is obtained.



(Fig. 6)



Specifications

Circuit :	11 Transistor Superheterodyne
Frequency Coverage :	FM 86.5~108 Mc (3.47~2.78 m) LW 150~285 Kc (2,000~1,053 m) MW 530~1,605 Kc (566~187 m) SW 5.9~12 Mc (50.8~25 m)
Antenna System :	Built-in Ferrite Bar Antenna (LW, MW) Built-in Telescopic Antenna (FM, SW) Car Antenna Coil (FM, AM)
Intermediate Frequency :	FM 10.7 Mc, AM 455 Kc
Maximum Sensitivity : (at 50 mW output with 7 dB S/N)	Portable / Car FM 5.5 dB / 5.5 dB LW 44 dB / 26 dB MW 37 dB / 24 dB SW 12 dB / 17 dB
Selectivity :	30 dB at 10 Kc off resonance, at 1,400 Kc
Power Output :	450 mW (undistorted) 730 mW (maximum)
Current Drain :	21 mA at zero signal, 200 mA at 450 mW output
Speaker :	12 cm (5"), PM dynamic, 8Ω
Power Source :	Three Size "D" Flashlight Batteries, 4.5 V in total
Dimensions :	205 (H) × 203 (W) × 65 (D) mm (8-1/16 × 8 × 2-9/16")
Weight :	1.9 Kg. (4 lbs. 3 ozs.)

To String the Dial Cord

Frequency Coverage and Tracking Adjustment

FM Band

Preparation for Adjustments

☆ Receiver to be adjusted

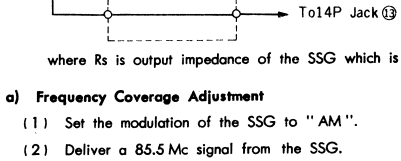
Power Source Voltage :	Keep 4.5 Volts during the adjustments.
Band Switch setting :	FM
Volume Control setting :	Maximum
Tone Switch setting :	High (not pushed)
FM Distant/Local Switch setting :	Distant (not pushed)

☆ Load for Output : Connect an 8Ω resistor instead of speaker.

☆ Output Meter : Connect across the load resistor 8Ω.
(VTVM can be used also.)

☆ Signal Source : Use a SSG (Standard Signal Generator) which can deliver RF signals modulated at 30% with 1,000 c/s.

☆ Antenna : Use a Dummy Antenna shown in Fig. 3.



(Fig. 3)

* Nominal input impedance of the Receiver is 100Ω.

* R is the calculated as follows :

$R = 100 - Rs\ [\Omega]$

where Rs is output impedance of the SSG which is usually 50Ω or 75Ω.

a) Frequency Coverage Adjustment

(1) Set the modulation of the SSG to "AM".
(2) Deliver a 85.5 Mc signal from the SSG.
(3) Set the Tuning Capacitor at the maximum capacitance position by turning the Tuning Knob of the Receiver counter-clockwise.
(4) Adjust the core and gap of the FM OSC Coil (L_{104}) to tune to the signal.
(5) Deliver a 109.5 Mc signal from the SSG.
(6) Set the Tuning Capacitor at the minimum capacitance position by turning the Tuning Knob of the Receiver clockwise.
(7) Adjust the FM OSC Trimmer Capacitor (C_{1-4}) to tune to the signal.
(8) Repeat the above procedures (2~7) until the frequency range between 85.5 Mc and 109.5 Mc is fully covered.

b) Tracking Adjustment

(1) Set the modulation of the SSG to "AM".
(2) Deliver a 85.5 Mc signal from the SSG.
(3) Tune to the signal correctly by turning the Tuning Knob of the Receiver.
(4) Change the modulation of the SSG to "FM".
(5) Adjust the FM RF Coil (L_{102}) for the maximum reading on the Output Meter.
(6) Change the Modulation of the SSG to "AM".
(7) Deliver a 109.5 Mc signal from the SSG.
(8) Tune to the signal correctly by turning the Tuning Knob of the Receiver.
(9) Change the modulation of the SSG to "FM".
(10) Adjust the FM RF Trimmer Capacitor (C_{1-3}) to obtain the maximum output.
(11) Repeat the above procedures (1~10) until the maximum output is obtained.