

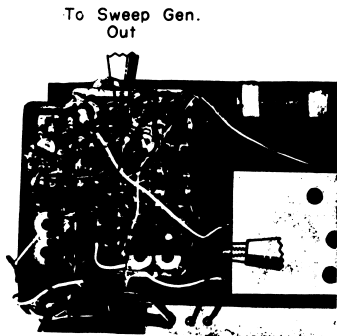
S29-1 Sony 7F-82W

AM IF Alignment

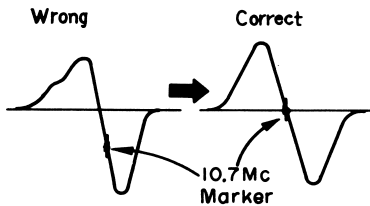
SSG (Standard Signal Generator) Coupling	SSG Freq.	Connect VTVM	Adjust	Remarks
Loop Antenna	455 Kc	To Earphone Jack with 8Ω Load Resistor in parallel.	IFT A301	1. Turn tuning capacitor to minimum capacitance position. 2. Adjust for maximum meter reading.

FM IF Alignment

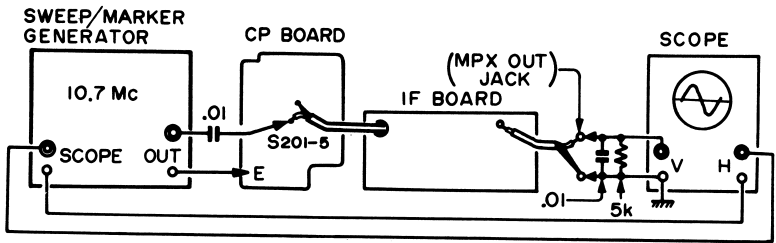
Connect Sweep Generator	Sweep Generator Freq.	Marker Generator Freq.	Connect Oscilloscope	Adjust	Remarks
S 201-5 (See Fig. 1)	10.7 Mc sweep width: approx. 500 Kc	10.7 Mc	MPX OUT Jack	IFT F301 IFT F302 IFT F303 IFT F304	Adjust for maximum gain with symmetrical S curve as shown in Fig. 2.



(Fig. 1)



(Fig. 2)



FM IF Alignment test set-up

(Fig. 3)

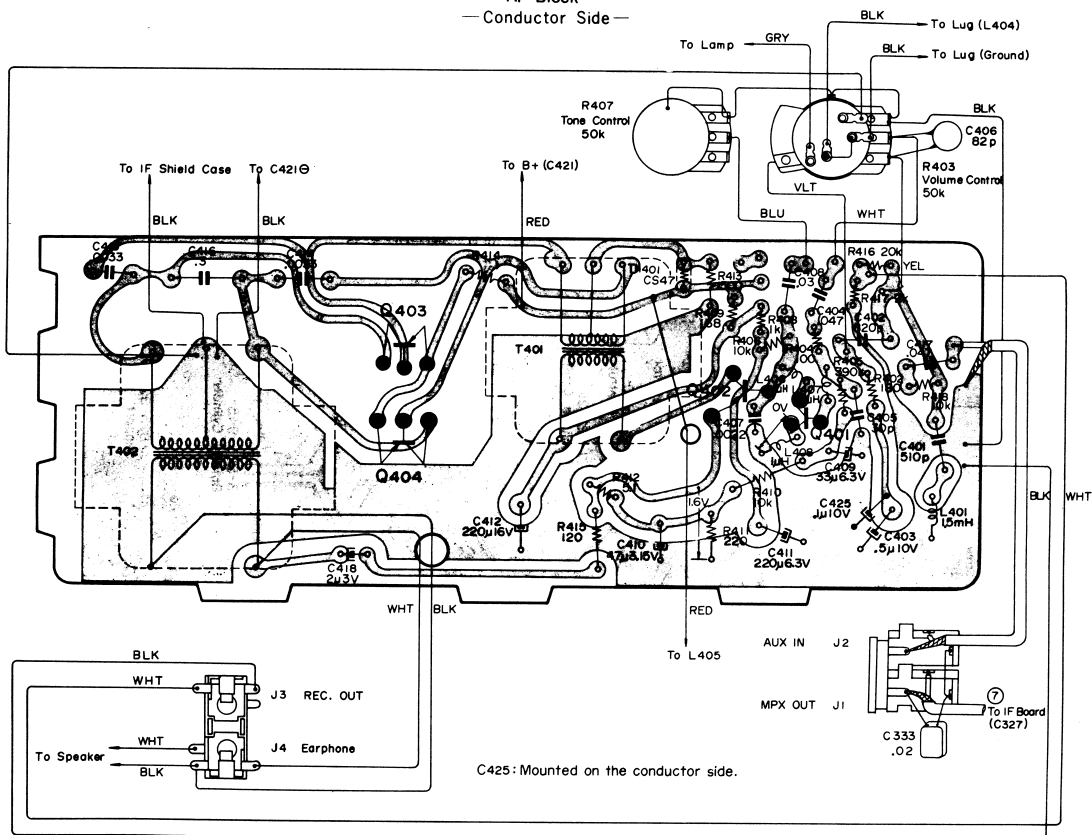
Frequency Coverage and Tracking Adjustment

Adj. Item	S.S.G. (Standard Signal Generator) Coupling	S.S.G. Freq.	Receiver Dial Setting	Connect V.T.V.M.	Adjust	Remarks
FM Frequency Coverage	Connect the SSG directly to the antenna terminal and ground.	86.5 Mc (400c/s ± 22.5 Kc FM)	Fully leftward	To Earphone Jack with 8Ω load resistor in parallel.	FM OSC Coil (L ₁₀₁)	Adjust for maximum meter reading.
		108.5 Mc (")	Fully rightward		FM OSC Trimmer (C ₁₋₁)	Volume Control: MAX. Tone Control: High AFC: OFF Power Supply: DC 6V
FM Tracking	—ditto—	86.5 Mc (")	Tune to 86.5 Mc signal	—ditto—	FM RF Coil (L ₁₀₁)	—ditto—
		108.5 Mc (")	Tune to 108.5 Mc signal		FM RF Trimmer (C ₁₋₁)	
Marine Frequency Coverage	—ditto—	1.68 Mc (1,000 c/s 30% AM)	Fully leftward	—ditto—	Marine OSC Coil (L ₁₀₁)	—ditto—
		4.15 Mc (")	Fully rightward		Marine OSC Trimmer (C ₁₀₁₋₁)	
Marine Tracking	—ditto—	1.68 Mc (")	Tune to 1.68 Mc signal	—ditto—	Marine ANT Coil (L ₁₀₁)	—ditto—
		4.15 Mc (")	Tune to 4.15 Mc signal		Marine ANT Trimmer (C ₁₀₁₋₁)	
AM Frequency Coverage	Loop Antenna	520 Kc (")	Fully leftward	—ditto—	AM OSC Coil (L ₁₀₁)	—ditto—
		1,680 Kc (")	Fully rightward		AM OSC Trimmer (C ₁₀₁₋₁)	
AM Tracking	—ditto—	620 Kc (")	Tune to 620 Kc signal	—ditto—	AM ANT Coil (L ₁₀₁₋₁)	—ditto—
		1,400 Kc (")	Tune to 1,400 Kc signal		AM ANT Trimmer (C ₁₀₁₋₁)	
Weather Frequency Coverage	—ditto—	188 Kc (")	Fully leftward	—ditto—	Weather OSC Coil (L ₁₀₁)	—ditto—
		403 Kc (")	Fully rightward		Weather OSC Trimmer (C ₁₀₁)	
Weather Tracking	—ditto—	188 Kc (")	Tune to 188 Kc signal	—ditto—	Weather ANT Coil (L ₁₀₁₋₁)	—ditto—
		403 Kc (")	Tune to 403 Kc signal		Weather ANT Trimmer (C ₁₀₁)	

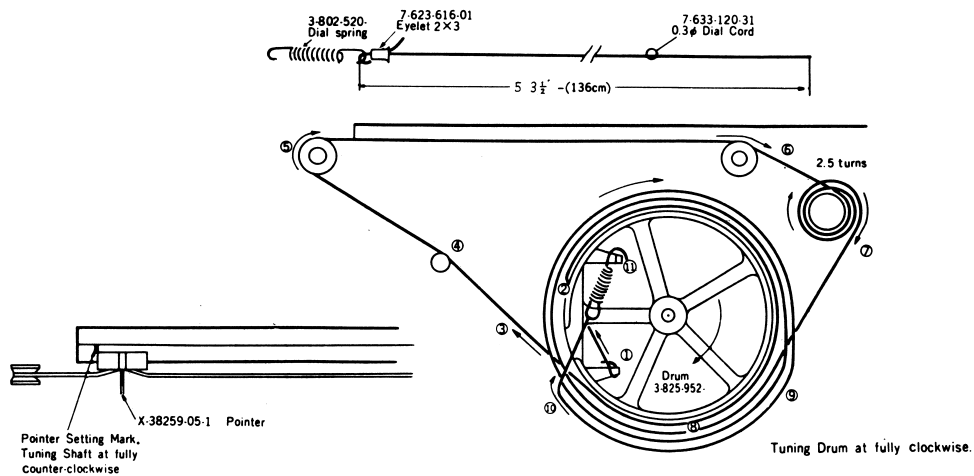
Mounting Diagram

AF Block

— Conductor Side —

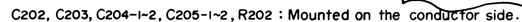


Stringing Dial Cord

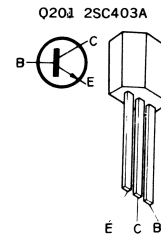


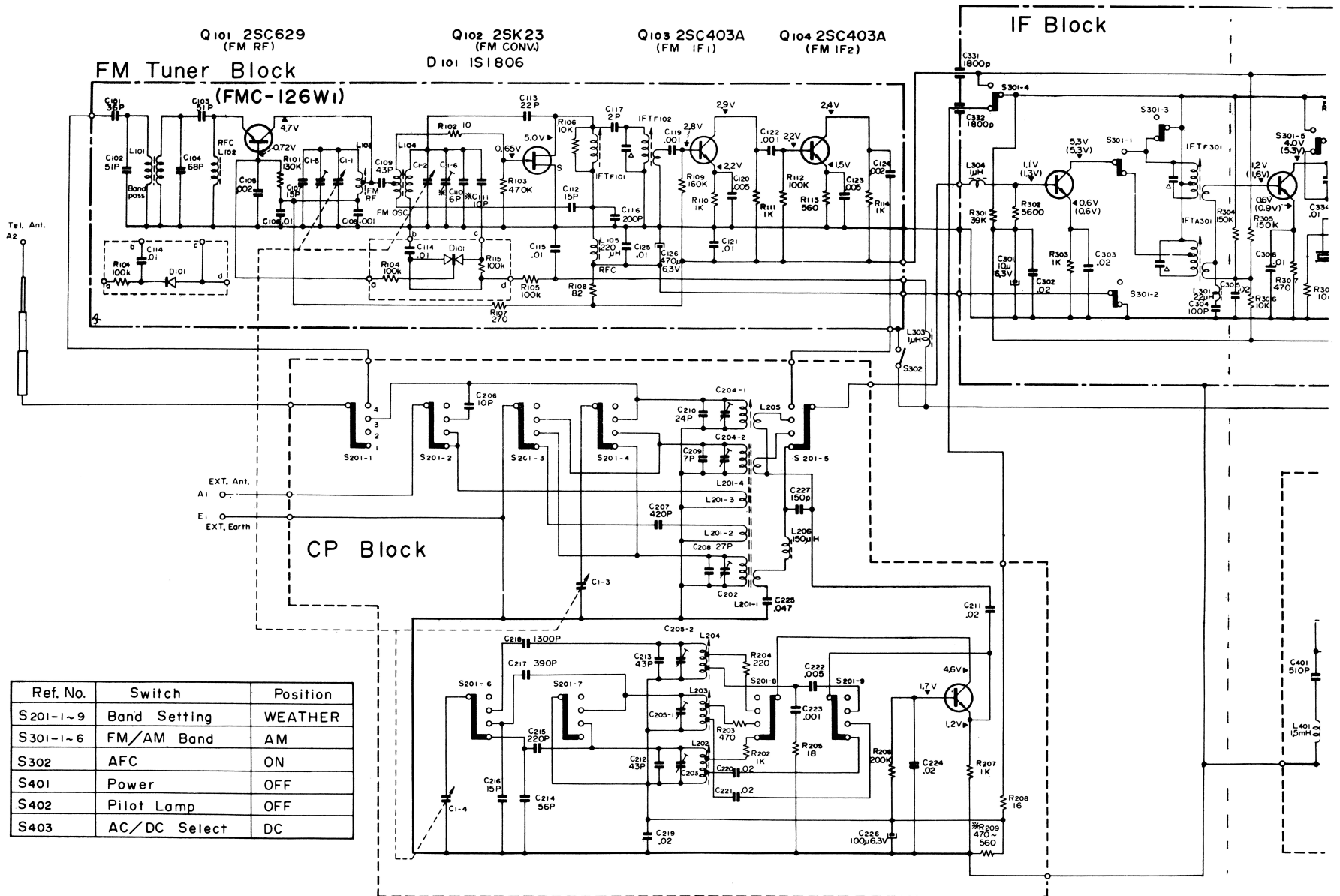
7F-82W 7F-82W

— Conductor Side —



— Component Side —



**Notes:**

1. All resistors and capacitors are rated in Ω and μF , unless otherwise noted.
2. Capacitor marked with Δ is built in IF Transformer.
3. Voltage values shown are measured with a DC voltmeter with no radio signal received.
4. Voltage values shown in () are measured with no radio signal received and with band selector set to FM.

Mounting Diagram

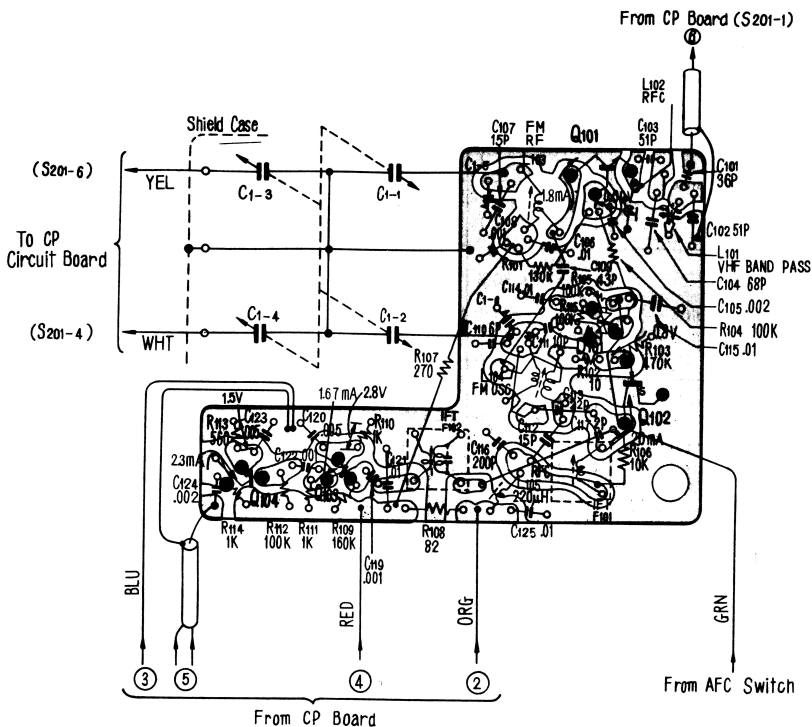
FM Tuner

— Conductor Side —

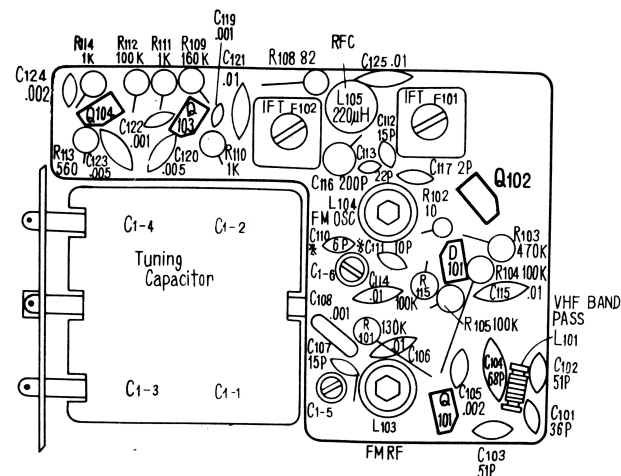
Mounting Diagram

FM Tuner

— Component Side —



L102, C109, R106, R107 : Mounted on the Conductor side.

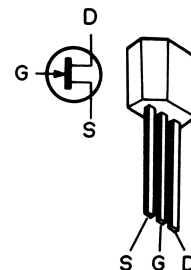
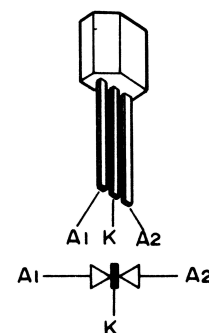
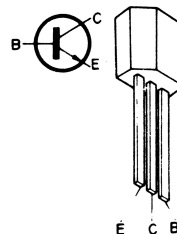


L102, C109, R106, R107 : Mounted on the conductor side.

Q101 2SC629
Q103 2SC403A
Q104 2SC403A

D101 1S1806

Q102 2SK23



Q302 2SC403A
(FM IF 4)
(AM IF 1)

Q303 2SC403A
(FM IF 5)
(AM IF 2)

D302 1T23
(AM Det.)

Q304 2SC403A
(FM IF 6)

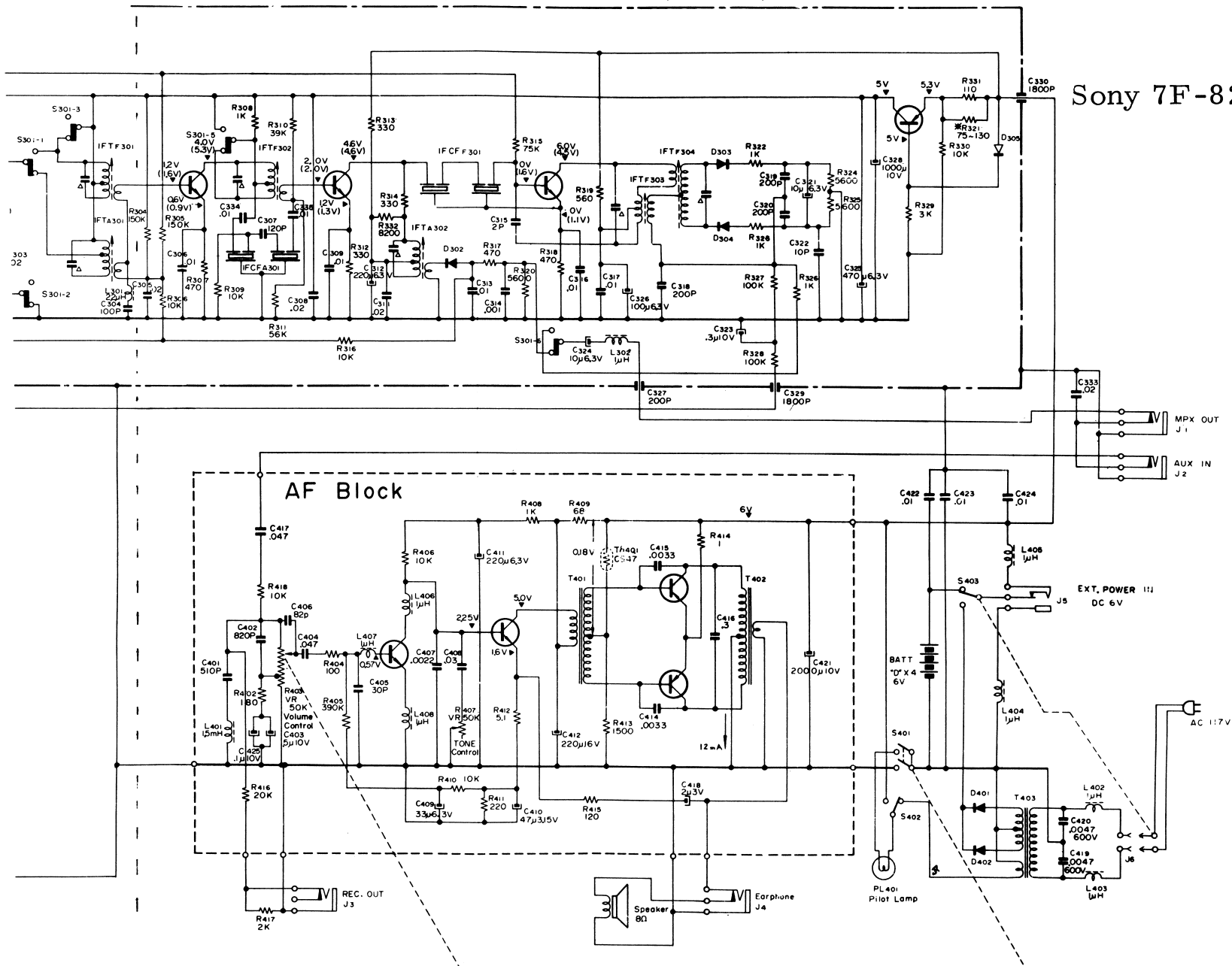
D303, 304 1T262
(FM Ratio Det.)

Q305 2SB136
(Regulator)

D305 1T240

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D401,402 SD1Z
(Rectifier)

Q401 2SC633
(AF Amp. 1)

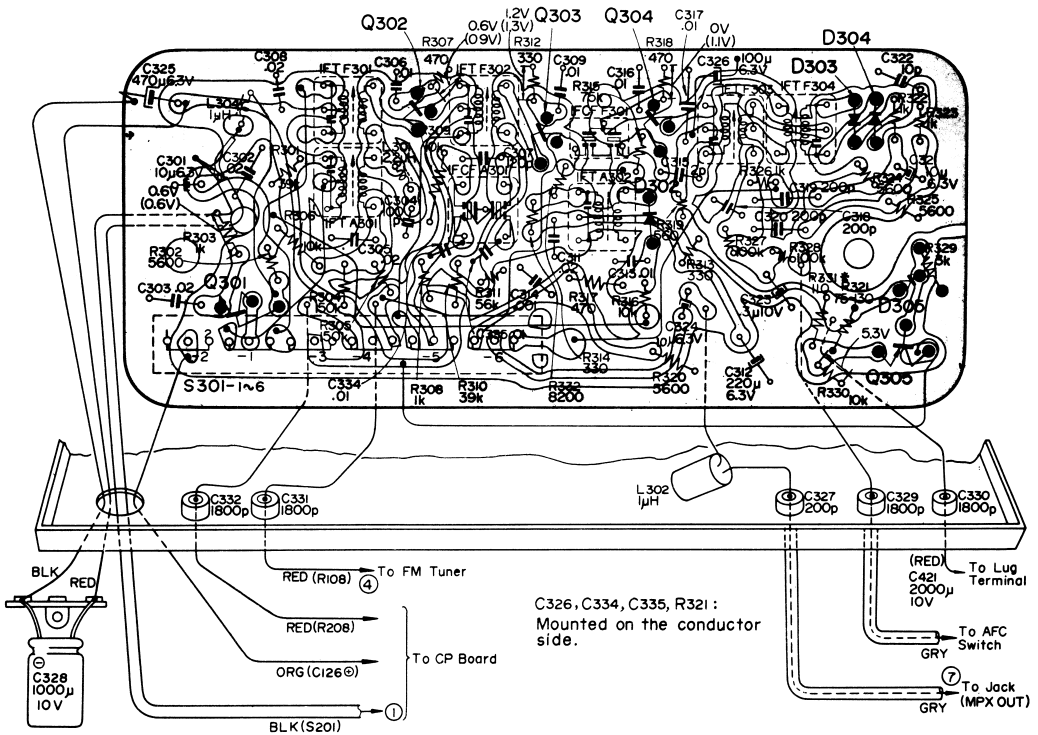
Q402 2SC870
(AF Amp. 2)

Q403,404 2SB383
(Power Amp)

Mounting Diagram

—IF Block—

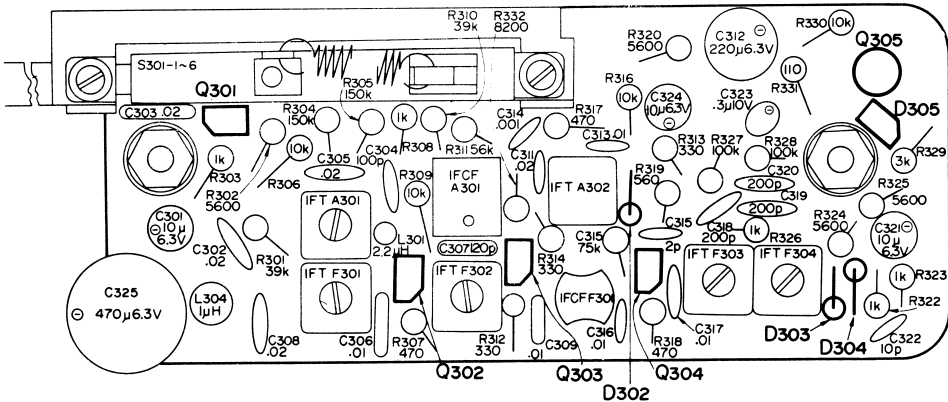
— Conductor Side —



Mounting Diagram

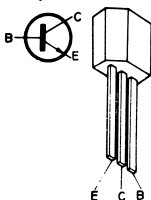
—IF Block—

— Component Side —

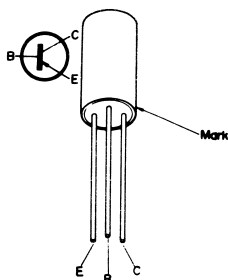


C326, C334, C335, R321: Mounted on the conductor side.

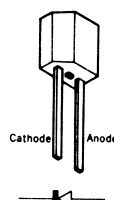
Q301 2SC403A
Q302 2SC403A
Q303 2SC403A
Q304 2SC403A



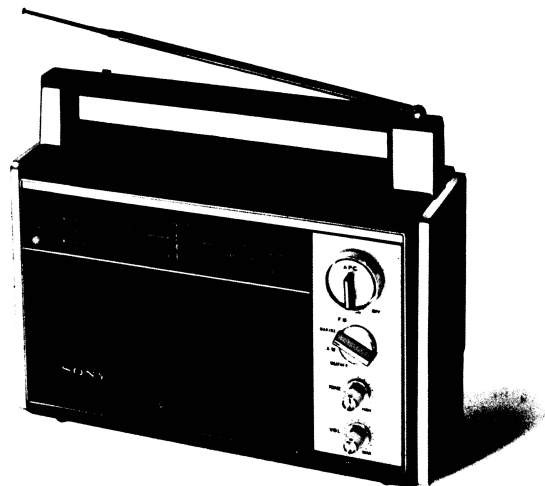
Q305 2SB136



D305 1T240



7F-82W



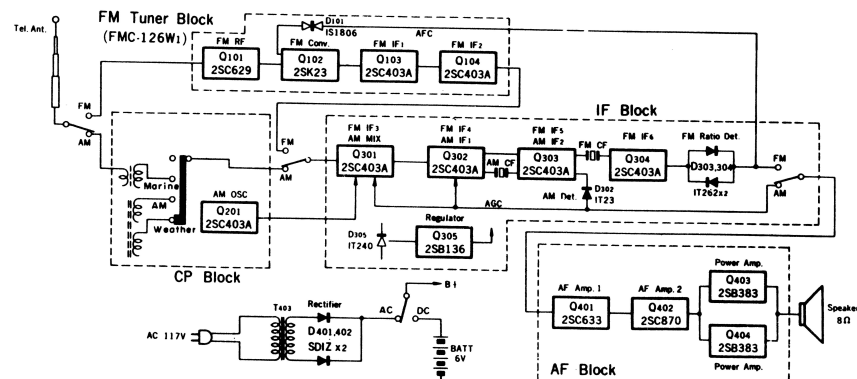
Specifications

Circuit:	14 Transistor, Superheterodyne
Frequency Coverage:	FM 87~108 Mc (3.45~2.78 m) Marine 1.7~4 Mc (176~75 m) AM 530~1,605 Kc (566~187 m) Weather 190~400 Kc (1,579~750 m)
Antenna System:	FM/Marine Built-in Telescopic Antenna AM/Weather Built-in Ferrite Bar Antenna Ext. Lead Wire Antenna
Intermediate Frequency:	FM 10.7 Mc Marine/AM/Weather 455 Kc
Maximum Sensitivity: (at 50 mW output)	FM 1.4 μ V Marine 56 μ V AM 56 μ V/m Weather 140 μ V/m
Selectivity:	28 dB at 10 Kc off resonance, at 1,400 Kc
Power Output:	950 mW (undistorted) 1.6 W (maximum)
Speaker:	4" (10 cm) PM Dynamic, 8 Ω
Current Drain:	50 mA at zero signal, 300 mA at 950 mW output
Power Source:	Four "D" size Flashlight Batteries, 6V in total or House Current by using SONY AC Adaptor (AC-81W)
Dimensions:	11 1/2" (W) $\times$ 7" (H) $\times$ 4" (D) (295 $\times$ 179 $\times$ 101 mm)
Weight:	5 lbs 3 oz (2.35 kgs) with Batteries

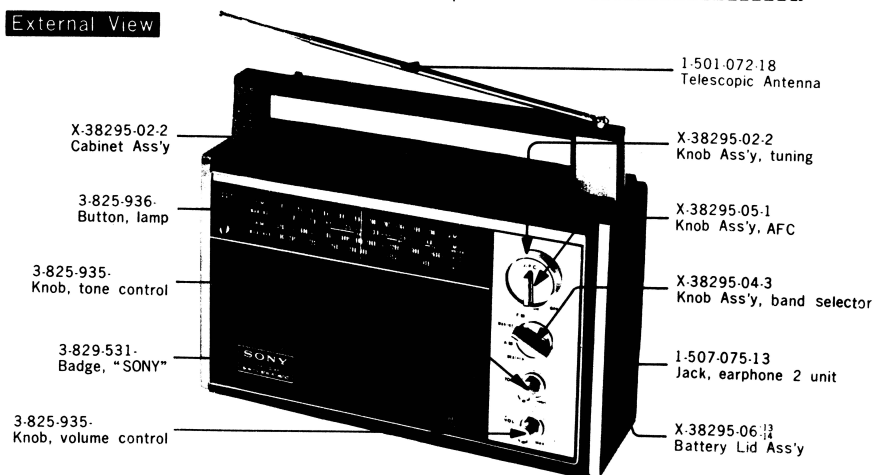
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Block Diagram



External View



Interior View

