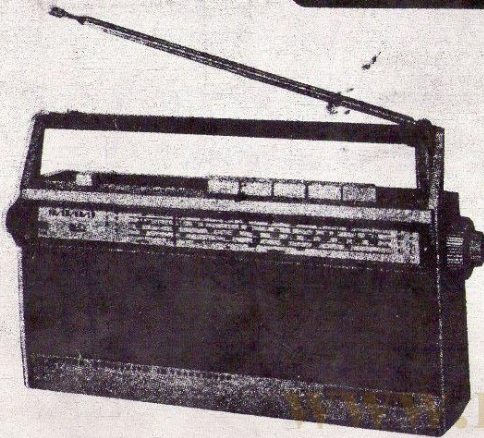


# TFM-117DL

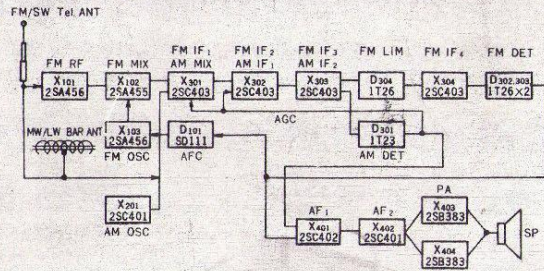


## Specifications

- Circuit:** 12 Transistor Superhetrodyne
- Frequency Coverage:**  
 FM 87-104 Mc (3.44-2.58 m)  
 SW 3.9-12 Mc (76.9-25 m)  
 MW 530-1,605 Kc (566-187 m)  
 LW 150-285 Kc (2,006-1,053 m)
- Intermediate Frequency:**  
 FM 10.7 Mc AM 455 Kc
- Antenna System:**  
 FM/SW Built-in Telescopic Antenna  
 MW/LW Built-in Ferrite Bar Antenna
- Maximum Sensitivity:**  
 FM 0.8  $\mu$ V  
 SW 3.5  $\mu$ V  
 MW 20  $\mu$ V/m  
 LW 89  $\mu$ V/m
- Selectivity:** MW 28 dB at 10 Kc off resonance, at 1,400 Kc
- Output Power:**  
 500 mW (undistorted)  
 800 mW (maximum)
- Current Drain:**  
 20 mA (FM), 15 mA (AM) at zero signal,  
 200 mA at 500 mW output
- Speaker:** 80 x 120 mm (3 x 5"); FM dynamic, 8  $\Omega$
- Power Source:** Four "C" Size Flashlight Batteries (6V in total), or House Current by using SONY AC Power Adaptor
- Dimensions:** 112 x 65 (8 x 2 3/8")
- Weight:** 1.7 Kgs (3 lbs. 11 ozs.) with Batteries.

**SONY**  
SERVICING GUIDE

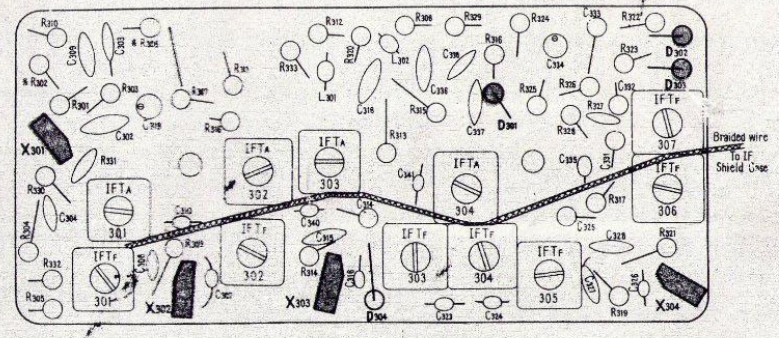
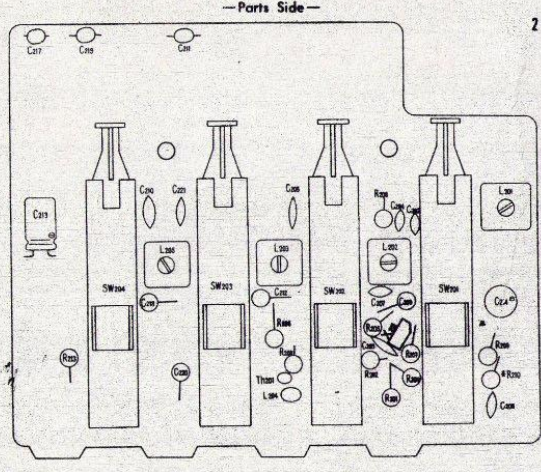
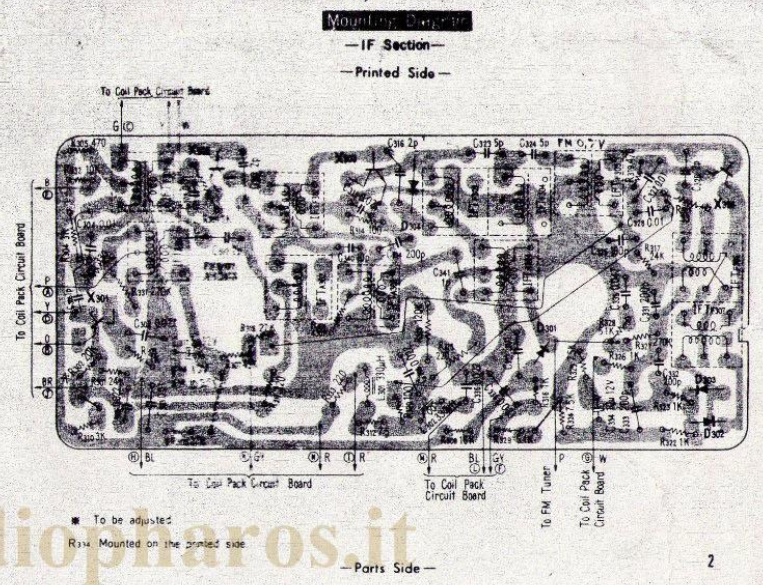
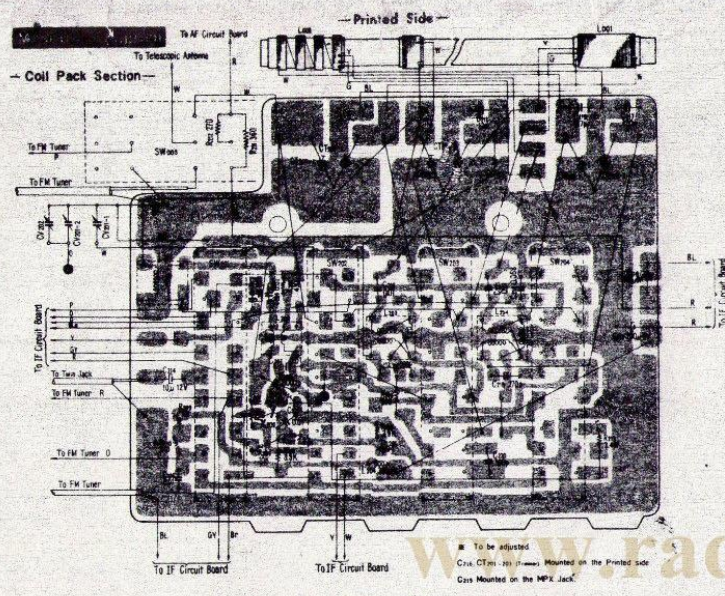
## Block Diagram



## Frequency Coverage and Tracking Adjustment

| Adj. Item         | SSG (Standard Signal Generator) Coupling                            | SSG Freq.                                   | Receiver Dial Setting | Connect VTVM            | Adjust  | Remarks  |
|-------------------|---|---|-----------------------|-------------------------|---|--|
| FM Freq. Coverage | SSG<br>R<br>Rec<br>R-75-Rs (D)<br>where Rs: output impedance of SSG | 86 Mc<br>1000 C/s $\pm$ 22.5 Kc<br>FM Mod   | Fully Left            | Across 8D Load Resistor | FM OSC Coil (L <sub>osc</sub> )   | Adjust for maximum deflection.   |
| FM Tracking       | -ditto-   | 86 Mc<br>105.5 Mc                           | Fully Right           | -ditto-                 | FM OSC Trimmer (Cr <sub>osc</sub> )                                       | Volume Control: Max<br>Tone Control: High<br>AFC Switch: OFF<br>Power Supply: DC6V |
| SW Freq. Coverage | SSG<br>8PF<br>Rec   | 3.8 Mc<br>(1000 C/s, 30% AM Mod)<br>12.4 Mc | Fully Left            | -ditto-                 | SW OSC Coil (L <sub>sw</sub> )  | -ditto-  |
| SW Tracking       | -ditto-   | 3.8 Mc<br>12.4 Mc                           | Fully Right           | -ditto-                 | SW OSC Trimmer (Cr <sub>sw</sub> )<br>SW ANT Trimmer (Cr <sub>ant</sub> ) | -ditto-  |
| MW Freq. Coverage | Loop Antenna  | 520 Kc<br>1,680 Kc                          | Fully Left            | -ditto-                 | MW OSC Coil (L <sub>mw</sub> )<br>MW OSC Trimmer (Cr <sub>mw</sub> )      | -ditto-  |
| MW Tracking       | -ditto-   | 620 Kc<br>1,400 Kc                          | Fully Right           | -ditto-                 | MW ANT Coil (L <sub>ant</sub> )<br>MW ANT Trimmer (Cr <sub>ant</sub> )    | -ditto-  |
| LW Freq. Coverage | -ditto-   | 145 Kc<br>295 Kc                            | Fully Left            | -ditto-                 | LW OSC Coil (L <sub>lw</sub> )<br>LW OSC Trimmer (Cr <sub>lw</sub> )      | -ditto-  |
| LW Tracking       | -ditto-   | 145 Kc<br>295 Kc                            | Fully Right           | -ditto-                 | LW ANT Coil (L <sub>ant</sub> )<br>LW ANT Trimmer (Cr <sub>ant</sub> )    | -ditto-  |

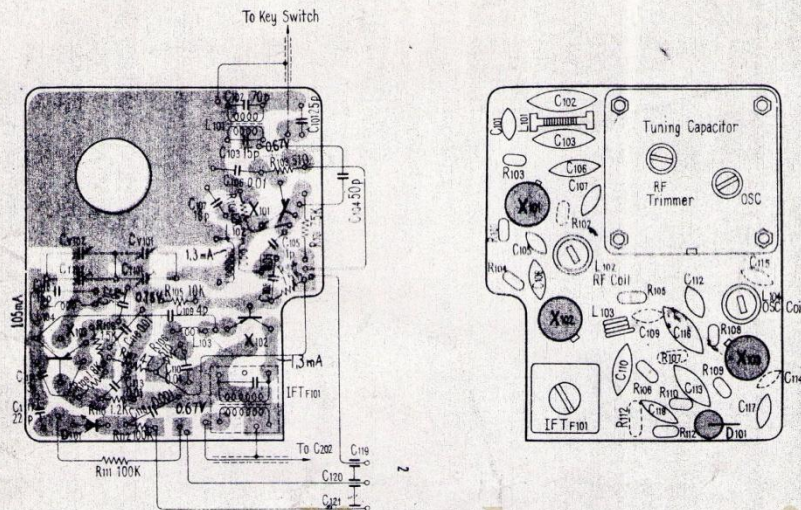
\* Dummy Antenna  
 FM, SW: Unsolder the lead at the Telescopic Antenna terminal. Connect the SSG to the Telescopic Antenna lead and ground of the receiver through the Dummy Antenna.



—Printed Side—

—FM Tuner Section—

—Parts Side—

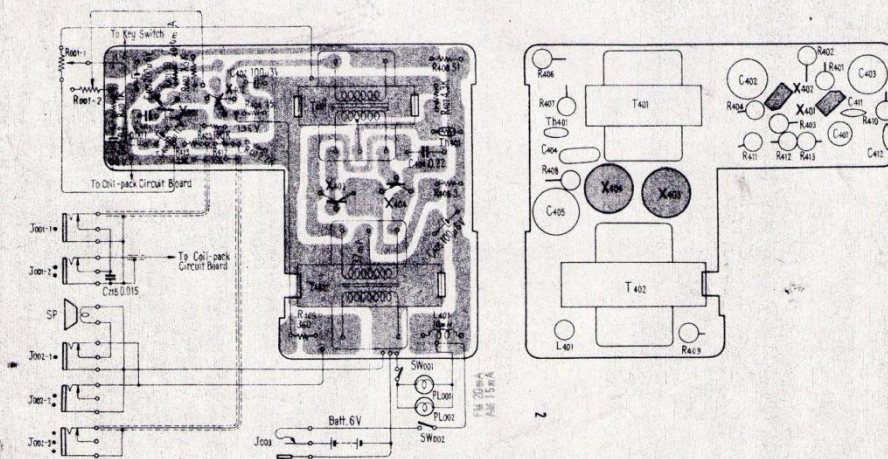


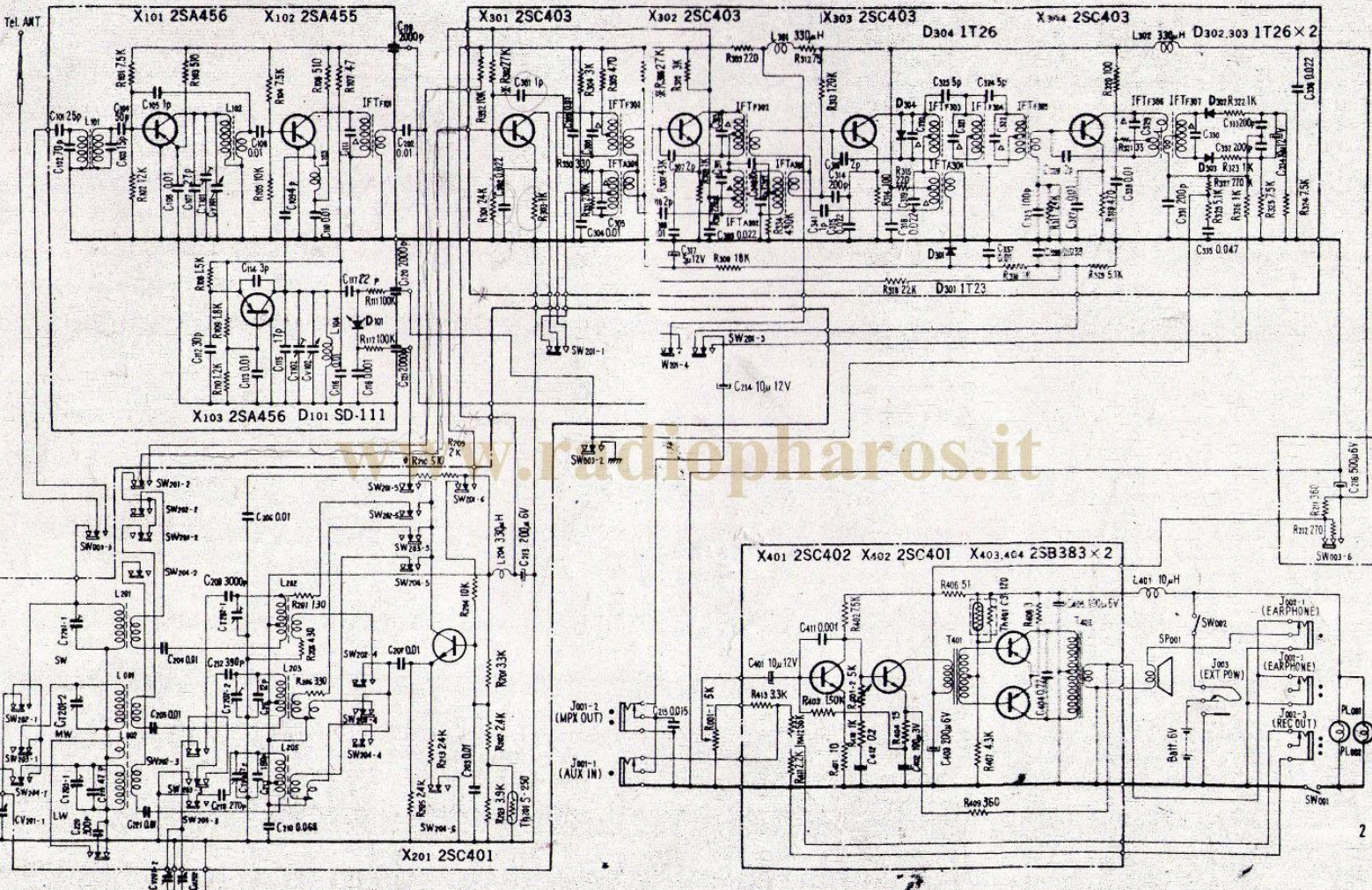
Mounting Diagram

—Printed Side—

—AF Section—

—Parts Side—





\* To be adjusted  
 Capacitors marked with  $\Delta$  are built in relative IF Transformers.

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