

CODE 1. 48101
CODE 1. 48102



VOLTAGES MEASURED TO 0- WITH A VTVM $\pm 20\%$, NO SIGNAL FIG. 1
RESISTANCE VALUES ARE IN OHMS. K=1,000 MEG 1,000,000
CAPACITANCE VALUES LESS THAN (1) ARE IN MICROFARADS (μ F),
AND VALUES OF (1) OR GREATER ARE IN MICROMICROFARADS ($\mu\mu$ F),
UNLESS OTHERWISE INDICATED.

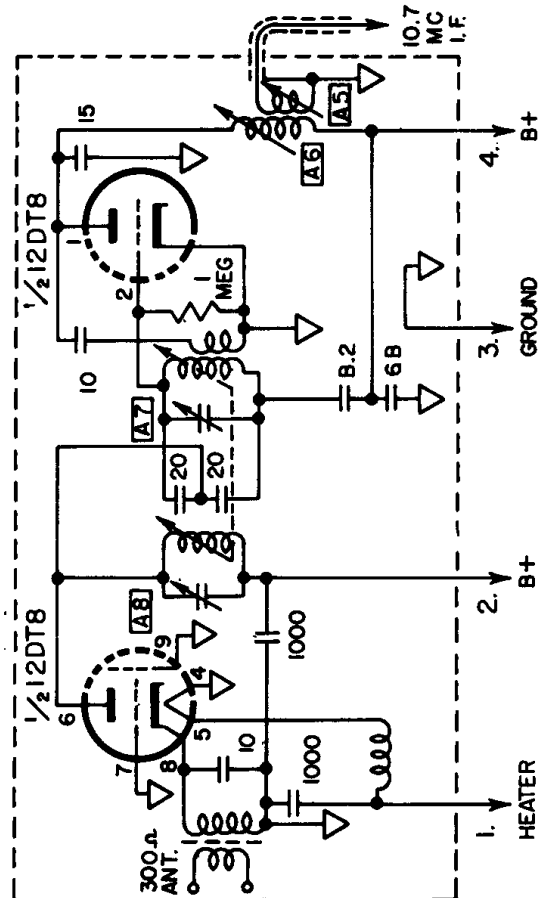
ALIGNMENT PROCEDURE

Detector and I. F. alignment using signal Generator and Oscilloscope.

1. Connect FM Generator, High Side, to grid (pin 1) of 12BA6 2nd I, F, tube through .01 mfd. dummy.
2. Set generator frequency to 10.7 Mc. modulated either 60 cycles or 400 cycles, 480 Kc sweep (240 Kc deviation)
3. Connect vertical input of scope across volume control of receiver (grounded terminal to B-, ungrounded terminal to high side of control).
4. Set scope switch for internal synchronization and set horizontal oscillator to 2X frequency of modulating voltage of generator. (120 or 800 cycles)
5. Tune FM to high end of band.
6. Adjust frequency vernier of horizontal oscillator on scope until the pattern becomes stationary.
7. Adjust ratio detector primary slug No. A2 (outer peak) for maximum vertical sweep of the scope pattern.
8. Adjust ratio detector secondary slug No. A1 (outer peak) to center the cross-over point of the pattern. Pattern should look like Figure 1, with the same amount of curve on both ends, and the cross-over point in the center.
9. Adjust 1, F. slugs A3, A4 (outer peak) for greatest vertical sweep of the pattern, consistent with linearity. If the 1, F. slugs are adjusted for maximum sweep of the pattern, the pattern may become non-linear. Therefore, adjustment should be made for the greatest sweep which can be obtained and still have all four ends of the "X" pattern similar in size and shape.
10. Connect generator to antenna screws on the back of the chassis.
11. Adjust tuner slugs A5, A6 for greatest vertical sweep consistent with linearity.
12. Check the alignment of the 1, F. and detector circuits by varying the signal generator frequency above and below the center frequency of 10.7 Mc. If the receiver is perfectly aligned, two small "x" patterns of similar size and shape will result, one on either side of the center frequency. See Figure 2.



TOP VIEW OF
FM TUNER



TUNER SCHEMATIC

