

Section 5
MAINTENANCE

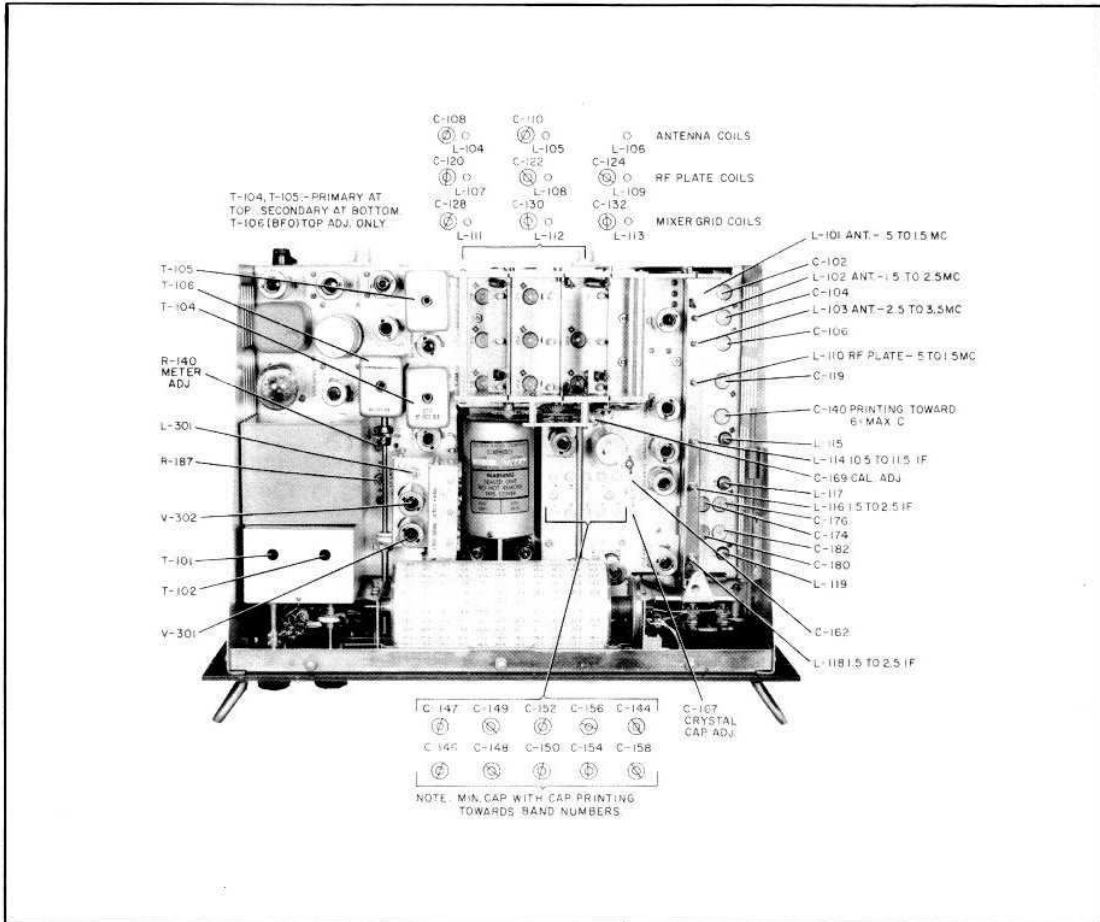


Figure 5-1. 51J-4 Alignment Adjustments

(2) Line up the crystal filter PHASING control knob with the panel mark and with the mid-range position of the phasing capacitor. To accomplish this, with the aid of a flashlight look into the right-hand hole in the top of the crystal filter cover (see figure 5-1) in order to see the plates of the phasing capacitor. Turn the PHASING control until the rotor plates are straight down toward the bottom of the receiver, i. e., until the rotor plates completely engage the bottom set of stator plates. Loosen set screws in PHASING control knob. Set knob line 90° to the left of the panel mark. Tighten set screws. Turn knob to panel mark. Phasing capacitor is now at mid-range.

(3) Connect the frequency modulated signal generator lead to pin 7 of V106. Connect oscilloscope lead to junction of R150 and R152. Turn on generator and oscilloscope and allow them to warm up.

(4) Turn SELECTIVITY switch to position 1. Select 3 kc filter, turn AVC off, LIMITER off, BFO off, CALIBRATE off and AUDIO GAIN to position 0. Tune receiver to carrier frequency of signal generator, which should be between 1.5 and 3.5 mc.

(5) Turn RF GAIN to mid-range and synchronize scope. Two fairly symmetrical peaks should appear on the scope screen. If they do not, adjust receiver tuning, RF GAIN and oscilloscope controls until they do appear. Each of these peaks is essentially an i-f response curve.

(6) Rotation of the PHASING control to the left should cause a rejection notch to appear at one side of each peak. If this notch does not appear, set the PHASING control about one-eighth turn to the left of center and adjust the core in top of T102 (accessible through the right-hand hole in the crystal filter cover) until it does appear and is well-defined