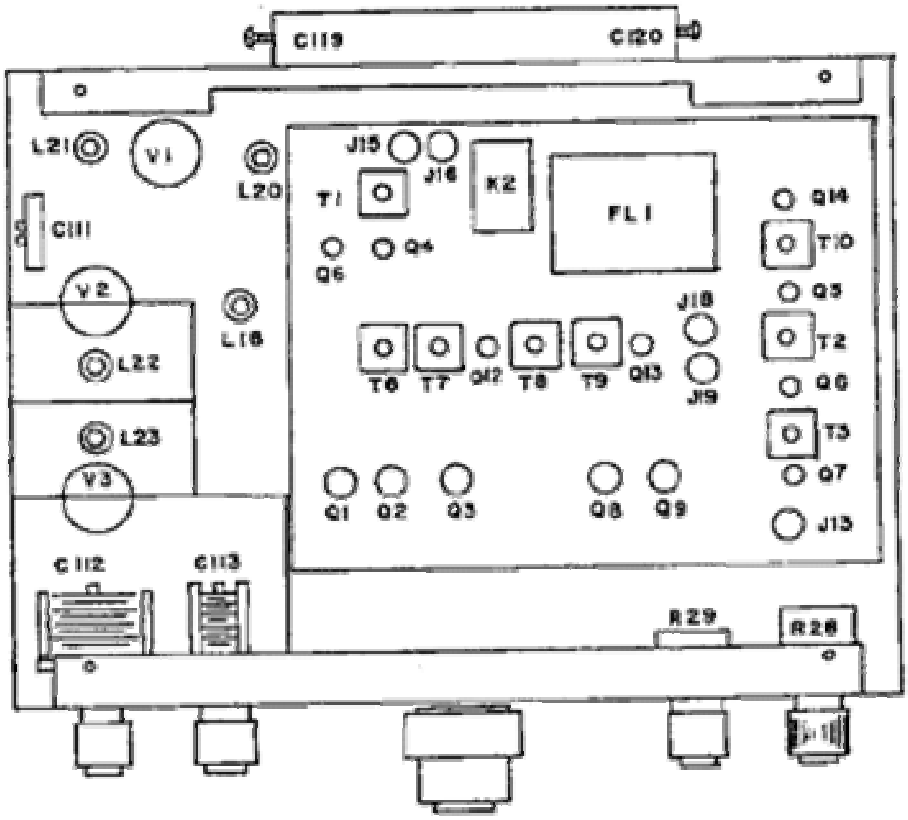

Figure 8, Bottom View

C. 9 MC IF Alignment

Before starting this alignment procedure make sure that the 'S' meter is zeroed. To check the 'S' meter, disconnect the antenna, turn the RF GAIN knob fully clockwise and adjust the 'S' meter with the adjustment located on the right side near the top of the case. See Figure 9. Allow the unit to warm up about five minutes before making this adjustment.

Operate the Sidewinder in the receive mode, "AM", with the RF GAIN knob fully clockwise. Connect a signal generator directly into J16 on the main printed circuit card. (disconnect the plug which is normally in this jack). Set the signal generator to 9 mc with 30% modulation at 1000 cycles.

Tune the generator frequency slightly and increase the output as required until the signal is audible from the speaker. "Rock" the generator frequency for maximum audio output, so that the signal is centered in the filter passband. Align T1, T10, T2, and T3, see Figure 8, for maximum recovered audio at the speaker. Note that on T2 and T3 two different peaks can be obtained, both of which are true peaks, but one of which positions the slug for tighter coupling to the secondary and thus provides higher gain. The higher gain peak should normally be used, unless this produces so much gain that oscillation occurs, in which case the alternate peak should be selected.

When the 9 mc IF is properly aligned, 10 to 20 microvolts of generator output should produce 5 volts peak-to-peak of audio across the speaker terminals, if the AF GAIN knob is fully clockwise.

D. 15 MC IF Alignment

Connect a sweep generator, set to 15 mc, to J18 on the main printed circuit card. See Figure 8. Couple an oscilloscope with a demodulator probe, such as the RCA WG-291, to pin 2 of V1, with a two or three twist capacitance gimmick or a maximum 7 pf capacitor. Provide fixed markers at 14.5 and 15.5 mc. Remove the 9 mc injection from Q13 by disconnecting the plug from J15.

Set the controls on the Sidewinder as follows:

RF GAIN. . . . . .PUSHED IN (filaments off)
MODE. . . . . .AM
MIKE GAIN TR. . .PULLED OUT
AF GAIN. . . . . .TURNED ON

Align L18, T6, T7, T8, and T9 to obtain a flat response within 3 db over the 14.5 to 15.5 mc range.

NOTE: Some 'staggering' of the tuned circuits will be required, and can be easily seen on the oscilloscope.