

## DETAILED TROUBLE SHOOTING

If the tubes check out in good condition, the trouble can be assumed to be a faulty component in the transceiver circuitry. Before attempting detailed trouble shooting, become thoroughly familiar with the operation of all circuits in the equipment by reference to the CONTROLS AND FUNCTIONS chart, the CIRCUIT DESCRIPTION information, and the schematic diagram. When circuitry is fully understood, the location of faulty components consists of systematic and intelligent use of the voltage references on the schematic diagram, and in case of faulty tuned circuits, the alignment data.

Do not attempt to align the equipment unless it is evident that alignment is

incorrect, or you have replaced a tuned circuit, part of a tuned circuit, or an RF or oscillator tube. In most cases it is not necessary to align the entire equipment. Individual tuned circuits can, in most cases, be aligned by adjusting the tuned circuit individually, using the applicable steps in the alignment procedure. Individual IF transformers can be aligned without a signal generator by "peaking" the tuned circuits for maximum noise in the speaker. Be sure the ANL switch is in OFF position while adjusting transformers in this manner. If more than one transformer or tuned circuit is to be adjusted, perform the applicable detailed alignment procedure.

## ALIGNMENT PROCEDURE

For complete alignment, always align the receiver first. Do not attempt to align the transmitter unless the receiver is in good alignment. Referenced parts can be located by using the call-out photographs in the back of the manual. Before starting alignment, set the controls to the following positions:

SQUELCH: Full Clockwise  
VOLUME: One-quarter open from full counter-clockwise  
RECEIVE-TRANSMIT switch: RECEIVE position  
ANL OFF-ON switch: OFF position (up)

VFO-STAL switch: XTAL position  
SPOT OFF-ON switch: OFF position (counter-clockwise)  
GRID-PLATE-MOD switch: PLATE position  
LAMPS-OFF-ON switch: ON position  
MIC GAIN control (rear panel): Full counter-clockwise  
Adjust all slugs with type 8606 (general Cement) tool or equivalent.