

## **2.6 Active Circuit Device (Refer to Block Diagram and Schematics)**

Q2 and Q1 are NPN transistors that make up the cascade amplifier used as a Voltage Controlled Oscillator to oscillate the frequency range of 460 MHz to 470 MHz. Q3 and Q5 are NPN transistors that make up the cascade amplifier used as a buffer amplifier. IC17 is used for reference crystal oscillator. Q5 and Q6 are NPN transistors that make up the cascade amplifier that is used to isolate the final amplifier of Q4. Q4 is used to amplify the frequency range of 460 MHz to 470 MHz and its output drives the antenna.

## **2.7 Circuit Diagram**

Block Diagram and Schematics are separate attachments.

## **2.8 Operators Manual (Instruction Book)**

Operators Manual is separate attachment.

## **2.9 Tune-up Procedure (Refer to Block Diagram and Schematics)**

VC1 is adjusted for maximum amplitude of the RF Output. VC2 brings the oscillator within 200 Hz of the correct frequency. VR1 is then adjusted for specified level at the 460 MHz to 470 MHz output.