

## **Guardian Tune Up Procedure**

The radio will be connected to an automatic testing station where a software program will tune all the radio parameters. The following instructions summarize the procedure for tuning the output power.

The tuning program will key up the radio at four points across the band and sets the power to 10W. Power control is achieved by controlling the voltage on the first stage of the transmitter, which controls the RF drive to the following stages. The power output is programmable by using a digital to analog converter (DAC) on the RF board. This DAC is controlled by the on-board microprocessor.

Once the DAC value is determined for these four frequencies the processor interpolates the DAC value for frequencies in between the calibrated frequencies. This ensures equal power output across the entire RF band.

The tuning program then will tune the radio at four points across the band at 1W by following the same procedure. The processor interpolates the DAC value for power values between the calibrated powers.

Note: Deviation is a preprogrammed set value for all radios.