Circuit description: Reference Block Diagram
ALL MODELS

Each radar detector utilizes a microprocessor to control the operations of power management, audio/visual displays, radar "sweeping" and basic signal processing. All models have an 11.5 GHz Microwave front end consisting of a gunn diode, varactor-tuned oscillator that is driven by analog circuitry under software control. The microprocessor controls the sweep time. Mechanical adjustments limit the upper frequency to 11.680 GHz and a potentiometer (not customer accessible) adjusts the lower frequency to 11.470 GHz. Normal operation allows the first local oscillator (L.O.) to sweep from 11.680 GHz to 11.470 GHz over approximately 120 msec.

In addition, the first local oscillator (L.O.) is allowed to drift (controlled by time) to an non sweeping frequency of 11.280 GHz whereby the first L.O. will "park" and the detector is looking for signals from a sweeping source.

Each detector has (2) two mixers, and intermediate frequency amplifier (I.F. Amp), and (2) two second local oscillators: 265 MHz and 1030 MHz. These frequencies are set at the factory by adjusting a molded coil or by mechanically spreading or compressing the turns of an air wound coil.