



TECHNICAL DESCRIPTION

MODEL 45129 RECEIVER MONITOR

DESCRIPTION

The radio receiver is assembled in a case enclosure and act as a remote monitor when receive the signal from the sensor. It responds when properly encoded signal modulated on a radio frequency of 318MHz.

FUNCTION

The received signal is feed into an antenna and is amplified by front stage transistor (Q8). The transistor (Q4) and its associated components act the superregenerative detector. T2 is used to align the receiver frequency of 318MHz. The detected audio signal is RF decoupled by the low-pass filter, R52 and C40, C41 and amplified by an integrated circuit (U7-B).

The decoded signal is then wave shaping by (U7-A) and then feed to the proprietary micro-controller (U2) for decoding. The capacitor (C18 and C19) and ceramic resonator (Y1) established the clock rate of 4MHz

Different zones including the beep or siren are generated by the micro-controller (U2) or (U5). A peaking coil is used to amplify the output of the beep or siren to a peak value of nearly a hundred volt which drives a PIEZO-electric buzzer. The LEDs (LED1-5) indicates the status of the encoded signal from its associated sensor. The LED (LED6) indicates the status of the unit.

The digital modulator output data from the proprietary micro-controller (U2) drives an oscillator, a high-Q SAW resonator (Y2) controls frequency of oscillation. The inductive load is configured on the PCB as the principle-radiating element which similar to an elementary dipole. Resistor (R37) in conjunction with the base bias circuit (R36) regulates the power output of the transmitter.

The power supply is designed to operate with an AC adapter of 12VDC. The voltage is feed to rectifier (D1) and filtered by capacitor (C1, C2) and regulated by a voltage regulator (U4) to +3.6V dc for use by all internal circuitry.

The battery of 6V is for backup in case of the power failure from the AC main.

Warning: Changes or modifications to this unit not expressly approved by the party responsible of compliance could void the user's authority to operate the equipment.