

M023200 Functional Description:

The M02320 family of transmitters are used in conjunction with various different Innotek collar receiver units to provide a means for repelling an animal from a specific area.

The primary function of the circuit is to send out an 8-bit PWM coded word on one of two alternating frequencies (8.2kHz and 13.2kHz). This is accomplished via the microcontroller (U3) modulating the transistor/FET darlington circuit (Q1, Q2, Q3) with the appropriate frequency for the proper pulse duration (a “0” is approximately 2ms wide and a “1” is approximately 4ms wide). The circuit puts out a word on the 8.2kHz frequency then puts out the same word on the 13.2kHz frequency 131ms later. This pattern repeats continuously while the unit is powered up.

The field strength of the signal is controlled via adjusting the voltage using the potentiometer within S1. The ferrite (L1) acts as the radiating element for the circuit.

Power and ground for the transmitter are provided by an external AC/DC transformer.