



### **TIM Transmitter Functional Description**

The TIM 200 is a frequency-hopping transmitter that is installed inside a gas meter or similar device. While in sleep mode it monitors the switch closures on pins 1 and 6 of connector JP2 (from the meter). These switch closures will be accumulated after a preprogrammed number of pulses (1 to 10,000 set during installation). A data packet containing the total counts is transmitted to a receiver station using Frequency Shift Keying (FSK) modulation. This transmission will be on 1 of 25 different frequency channels ranging from 902 to 928 MHz (ISM) and will transmit for approximately 57 msec. After a packet of data has been sent, the transmitter will return to "sleep" mode to collect another packet of data.

The above process will then be repeated (at the next frequency in the hop chart) once a complete data packet has been collected. All 25 transmit frequencies will be used before any given frequency will be repeated. The minimum amount of time that the TIM 200 will use the same channel again is 1.075 seconds.