Operation Principles – MasterLink EL-2501/2

The device utilizes two switches to monitor open/close and tamper events, which are produced manually. The device can be used as a universal transmitter (EL-2502) which is provided without the internal reed switch. The universal transmitter is designed for use with external reed and tamper switches.

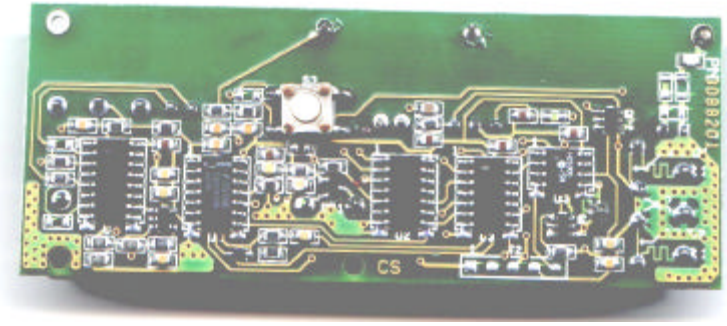
The logic section detects transitions in the switches and activates the encoder and the 418MHz transmitter producing a 0.8 second transmission and ceases until the next event. The logic section contains a timer that produces a supervision event (S.V.) once every hour. This timer is reset every time any of the three events (Door, Tamper, Supervision) occur. The test jumper shortens the time out to produce test transmissions once every 8 seconds. During normal operation, this jumper must be removed.

The encoder section is based on the Microchip HCS300 rolling code encoder chip. The encoder receives three signals from the logic section:

- Door (OPEN/CLOSE)
- Tamper (ON/OFF)
- Supervision Transmission

The encoder emits a PWM data stream, which modulates the transmitter. It also drives the LED indicator that is operational only when the tamper switch is open. The LED also blinks to indicate a low battery condition.

The initial parameters and serial number are factory programmed via the programming connector.



MasterLink EL2501/2 - Block Diagram