

Wireless RF Entry Transmitter

Model Number: 6016-TX

General Description:

The 6016-TX wireless entry transmitter is a transmitting device used for signaling entry through a window or door or remotely controlling room lights by utilizing RF transmission technology and a compatible RF receiving device. The device is capable of transmitting two separate commands, which are used to turn the room lights ON or OFF.

The transmitter and magnet housings are made of ABS-757 plastic and are designed for mounting to a door/window and frame of door/window. The electrical circuitry is comprised of a 3-volt battery power supply, one single-pole, double throw reed switch, one 4-position dipswitch, a CMOS hex inverter IC, a CMOS 12-bit encoder IC, a 315 MHz RF oscillator circuit, and complementary passive components. The circuitry is soldered to a double-sided, 94V-0 rated printed circuit board. The circuit is powered by replaceable 3-volt lithium, 20 mm coin cell battery, type CR2032.

Specifications:

- Input: 3 volt battery, type CR2032 lithium
- Circuit voltage: ~3.0 volts DC.
- Radio Frequency: 315 MHz
- User-selectable address codes: 16

Theory of Operation:

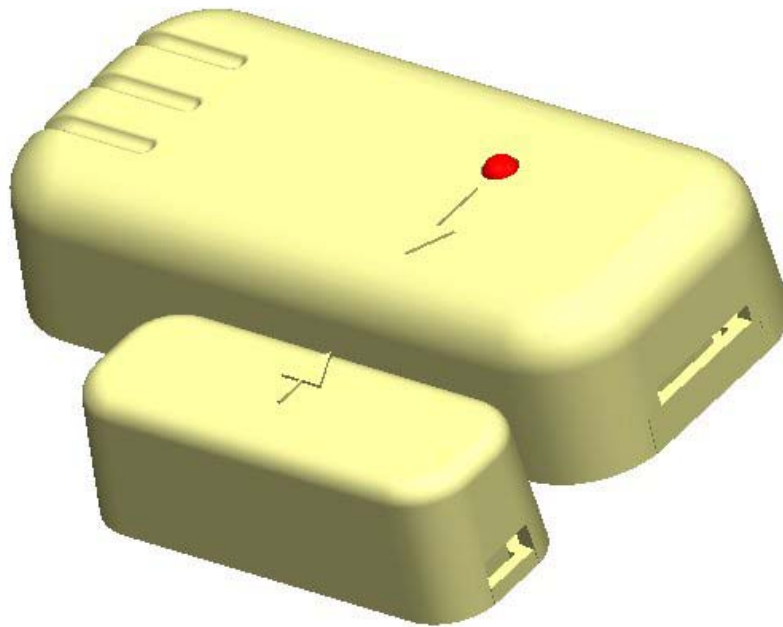
The entry transmitter is normally off with the RF transmission starting when the magnet is moved away from the reed switch. When the magnet and magnetic field are moved away from the reed switch, the switch contact moves to the "door open" contact. At this time the power supply transistor is biased on and applies power to the rest of the circuit. With power applied, the encoder outputs a 3 KHz 12-bit transmission to the RF oscillator circuit transmitting the information at a carrier frequency of 315 MHz. The "ON" code is transmitted for approximately 2 seconds and then stops. When the battery and magnetic field return, the reed switch contact moves back to the "door closed" contact and an "OFF" code is sent in the same manner for approximately 2 seconds.

The 12-bit output consists of an 8-bit address and 4 bits of data. The user-selectable address is set with a four-position dipswitch. The other 4 address lines are permanently set. The receiving unit to be controlled is set to the same address as the wireless switch.

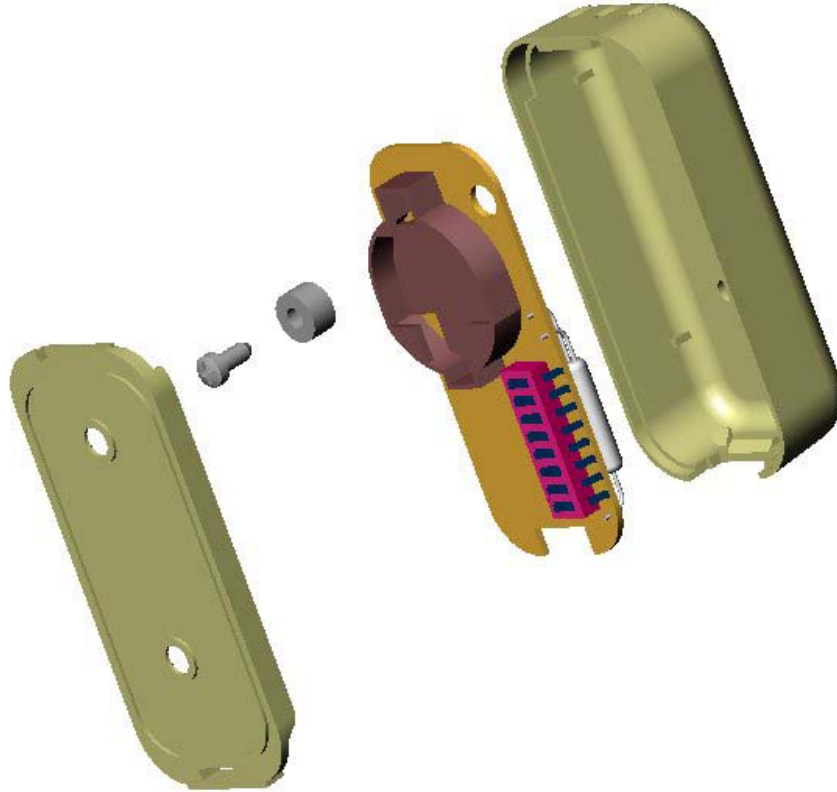
Theory of Operation: (Continued)

A red LED is located on the transmitter front cover. The purpose of the LED is to serve as a visual indicator to let the operator know that the unit is transmitting a command. The LED remains in the “on” state until the transmission is complete.

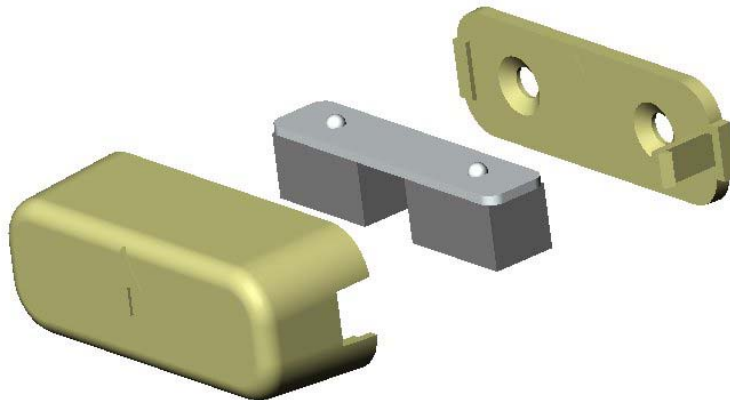
Product Pictorials:



6016-TX Wireless Entry Alert & Magnet
Assembled View



6016-TX Wireless Entry Transmitter
Exploded View



6016-TX Magnet Assembly
Exploded View