

## SECURITRON EEB2, EEB3N EXIT BUTTON WITH INTEGRATED TIMER INSTALLATION AND OPERATING INSTRUCTIONS

### 1. DESCRIPTION

The model EEB2 is a spring loaded momentary 2" square, exit button, mounted on a stainless steel single gang outlet box cover. The model EEB3N is a spring loaded momentary rectangular exit button, mounted on a 1 3/4" stainless steel narrow stile plate. Both units incorporate a timer set for 30 seconds. The EEB2 and EEB3N have a **3 Amp** switching capacity. These units are **intended only for release of a magnetic lock** from the inside of a door. When the button is pressed, **the lock releases for 30 seconds**. If pressed again during the 30 second lock release period, the unit will **"retrigger"** starting a new 30 second lock release period. These buttons are specifically intended for installation on **access controlled egress doors** as described in the **BOCA** code. A motion detector, such as Securitron's model XMS, is the primary means of releasing a magnetic lock on the door. The button is employed as a backup means of releasing the lock in case of a problem with the motion detector. Note that the exact time will vary with temperature but it will not be less than 30 seconds.

### 2. INSTALLATION

The **EEB2 comes with a retrofit backbox**, fasteners and color coded hookup wires installed. The backbox (Securitron part number 560-10200) includes an installation template. If a different box is used, be sure it is at least 2 1/2" deep to accommodate the switch. The EEB3N is intended for direct mounting on a narrow stile aluminum door frame. Accordingly, no backbox is supplied (fasteners only). The frame must be routed out sufficiently to accommodate the EEB3N components.

### 3. WIRING

The unit will operate on 12 VDC or 24 VDC. Full wave rectified DC (transformer + bridge rectifier) is acceptable. It draws no current when at rest and 28 mA @ 12 V or 38 mA @ 24 V when releasing the lock. The black plastic box that is affixed to the rear of the mounting plate houses the timing electronics. Identify the hole in the side of the box with a plastic jumper block partly protruding from it.

**If the jumper is left in place, the unit will operate on 12 Volts. If removed, the unit will operate on 24 Volts. If the unit is operated on 24 volts with the jumper in place, it can be damaged. NOTE: The unit must operate on the same power supply that operates the magnetic lock.**

Four flying leads constitute the connection points for the unit. Two are for the application of constant power and two are for control of the magnetic lock. Figure 1 shows the color coded identification of the wires and a typical wiring diagram showing a power supply, motion detector, push button and Magnalock so as to comply with the BOCA code for access controlled egress doors.

There is a point to note about the internal design of the unit. Both the push button contacts and the internal timer relay contacts are in series with the white and green wires. This means that if, for any reason, the timer electronics failed, pressing the button would still cut power to the lock for as long as the button is held in. This is called **"double break" wiring** and it provides additional safety. To maintain this important feature, therefore, **the white and green wires do not constitute dry NC contacts**. To operate properly, they must only be connected as shown in Figure 1: The white wire goes to a source of +V and the green wire goes to the positive input wire of a magnetic lock. Note that another switching device such as a motion detector can be put between the white wire and the source of +V (as is shown in Figure 1). Figure 2 shows the internal schematic of the push button contacts and timer which helps clarify the unusual wiring method needed to maintain double break safety.

