EX-07/EX-17

Non-Sparking Digital Tactile REX Button

Installation Manual

1. Introduction

Rosslare's EX-07/EX-17 electronic REX buttons control the access of a magnetic lock or electric lock strike. The EX-07 and EX-17 are heavy-duty, non-sparking, non-magnetic, corrosion resistant, illuminated, anti-vandal, timed digital REX (Request-for-Exit) buttons, designed for both indoor and outdoor use.

They feature solid state Piezoelectric Switch Technology generating 2 isolated Form C output pulses with a simple touch of a finger, with no physical movement or moving parts.

Among the many features of the EX-07 and EX-17 are: Jumper selectable illumination status with light dimming option, buzzer mode, 2 Form C relays, timed operation, and relay toggle option.

The EX-07 and EX-17 mount directly to standard US-size gang switchboxes and are crafted to the highest manufacturing standards out of the finest materials under Rosslare's ISO 9001:2000 Certified Quality standards.

Figure 1: EX-07

Figure 2: EX-17

2. Technical Specifications

2.1 Operational Characteristics

Jumpers	The EX-07/17 is equipped with 8 jumpers (see Section 4)
Timer	The timed option (External 1) is set by a built-in potentiometer for 1 to 60 seconds
Lighting Behavior	When a colored light toggles on or off, it dims from the On to Off state and lights up from the Off to On state at a duration of about 500 ms. The dimming or lighting duration starts on the on or off command. In the case of toggling between two colors, the effect results in gradual color change between red and green.

2.2 Electrical Characteristics

Operating Voltage Range	12 to 24 VAC/VDC
Maximum Current Consumption	Maximum: Less than 150 mA at 12 VAC
Relay Outputs	1 x 2 A relay with two isolated Form C: Common, Normally Open (N.O.), Normally Closed (N.C.) Dual outputs are able to switch up to 2 A at 24 VAC/DC
Button Life	1 billion cycles
Relay Life Expectancy	100,000 @ 2A 30 VDC, 500,000 @ 1A 30 VDC
Inputs	Blink Mode input

2.3 Environmental Characteristics

Operating Environment	Indoors and outdoors (meets IP65)
Operating Temperature Range	-35˚C to 66˚C (-31˚F to 151˚F)
Operating Humidity Range	0 to 85% (Non-condensing)
RFI Protection	>20 V/m up to 1000 MHz (not investigated by UL)

2.4 Physical Characteristics

Material	Smoothly brushed stainless steel plate with a rounded-corner, 25 mm wide rectangular pressing area in the center for operating a piezoelectric sensor.
Dimensions	EX-07: 11.4 x 7 x 3.2 cm (4.5 x 2.76 x 1.26 in.)
	EX-17: 11.4 x 4.4 x 3.2 cm (4.5 x 1.73 x 1.26 in.)
Weight	EX-07: 277 g (9.8 oz.)
	EX-17: 205 g (7.2 oz.)

General Features

The main features of the EX-07/EX-17 are:

- **REX Button Technology:** Advanced Soft Touch Piezoelectric REX Button
- **New Weatherproof Design:** Circuit assembly encapsulation
- **Vandal Resistant:** Stainless steel mounting plate and solid state REX button (Vandal was not verified by UL)
- **Adjustable Output Time:** The timer can be set from 1 to 60 seconds for the relay as well as for LED activation
- **Field Selectable Illumination Status:** Jumper selected
- **Mounting Method:** Mounts directly to a single gang switchbox
- **Faceplate Graphics:** "EXIT", "PUSH TO EXIT", or no graphic, custom laser marked black graphics available

3. Installation

3.1 Selecting an Area for Installation

You need to select the best physical location to install the EX-07/EX17. The EX-07/EX-17 REX button has a face plate attached to an inlay that is imbedded in a wall with all of its wiring. The EX-07/17 should be connected to additional equipment in the same room.

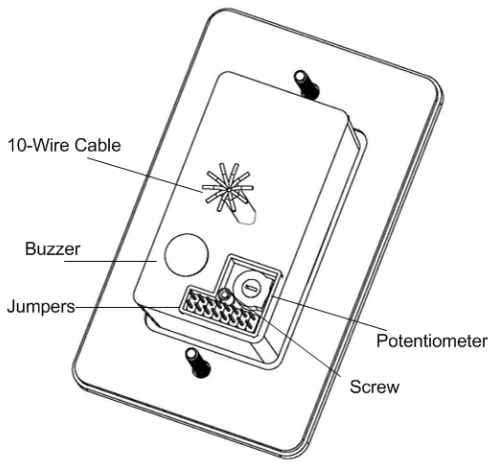
To select a physical location:

1. Select a flat wall in close proximity to the door or item the REX button will control.
2. Ensure that there are no iron beams, door frames, or other obstructions that would prevent the insertion of the inlay in the wall.
3. Stick the mounting plate provided on the wall to ensure quick and easy installation of the product.
4. Mark the dimensions of the inlay on the wall:

   70 x 38 x 27 mm (2.75 x 1.47 x 1.06 in.)

Figure 3 provides a view of the back of the inlay.

Figure 3: Inlay Back View



3.2 Mounting the REX Button

To mount the REX button:

1. Make a hole in the wall measuring the required dimensions, adding 0.5 cm (1/8") on all sides for the gang box to slide in smoothly.
2. Unscrew the cover on the small box containing the jumpers and potentiometer.
3. Using a small screwdriver, set the time on the potentiometer.

> Note: Turning the timer clockwise all the way sets the timer for one second. Turning the timer counter-clockwise all the way sets the timer for 60 seconds.

4. Connect the wires as described in Section 3.3.
5. Set the jumper connections located on the bottom right side of the inlay box (see Section 4)
6. Screw the sealed cover back on the small box containing the jumpers and potentiometer.
7. Test the REX button before screwing the inlay to the gang box (see Section 5).
8. Place the inlay with face plate in the gang box, making sure screw alignment is correct and the face plate lies flush against the wall.
9. Insert screws in the face plate and screw tightly to ensure a water tight seal that protects the inner wiring.

3.3 Wiring Information

A 10-wire cable is embedded in the back inlay.

> Note: Connect this product to 12 to 24 VAC/VDC connections using the white and red wires. Make sure that, if needed, the unit is grounded (GND) correctly.

To wire the unit correctly, refer to Table 1.

Table 1: Wiring Color

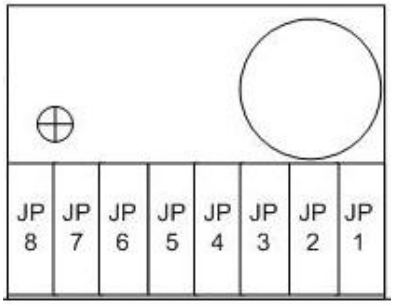
Wire Color	Connection
White	V IN (12-24 VAC/VDC)
Red	V IN (12-24 VAC/VDC)
Brown	N.C. 1
Purple	COM1
Grey	N.O. 1
Orange	N.C. 2
Blue	COM2
Yellow	N.O. 2
Green	Input
Black	Ground/Shield

> Note: The COM must be connected to the adjacent N.C. or N.O. relay.

4. Jumper Settings

The EX-07/EX-17 has 8 internal jumpers (Figure 4).

Figure 4: Jumpers



These are connected to enable the following various features::

- Setting the relay mode (JP1)
- Setting the LED behavior (JP2, JP3)
- Setting the LED color mode (JP4)
- Setting color fading mode (JP5)
- Setting the factory programming mode(JP6)
- Setting the buzzer mode (JP7)
- Setting the blink mode (JP8)

If the black cover is on the jumper, the jumper is Short (S). If the black cover is off the jumper, the jumper is Open (O).

4.1 Relay Mode Jumper

Set the relay mode by setting JP1:

- JP1=O: (default) Relay pulses for the time period set by the potentiometer.
- JP1=S: Relay toggles between on and off.

4.2 Buzzer Mode Jumper

The unit is equipped with a built-in buzzer. Set the buzzer mode by setting JP7:

- JP7=O: (default) Buzzer OFF. No sound generated on any event.
- JP7=S: Buzzer ON.
- Blink input mode: The buzzer pulses following the lighting duty cycle.
- Any other state: The buzzer beeps for 300 ms when the button is pressed.

4.3 Blink Mode Jumper

This feature functions with the Input wire (green).

To enter blink mode, JP8 must be shorted to enable entering blink mode and the blink input wire (green) must be grounded to set the LED illumination according to the table above.

- JP8=O (default): Timer. The timer is off. The timer turns on when the button is pressed.
- JP8=S: Blink. Normally off. If there is a continuous external input signal, there is continuous flashing (500 ms/30% DC)

4.4 LED Behavior Mode Jumpers

Set the LED color and behavior modes by setting JP2, JP3 and JP4.

Table 2 illustrates LED color and behavior in a combination of jumper mode configurations:

Table 2: LED Color and Behavior

JP2	JP3	JP4	Standby color	Active color	Blink color	Description
O	O	O	Red	Green	Red flashing	Changes from red to green (default)
O	O	S	Green	Red	Green flashing	Changes from green to red
O	S	O	Off	Green	Green flashing	Changes from no-light to green
O	S	S	Off	Red	Red flashing	Changes from no-light to red
S	O	O	Off	Off	Red flashing	No light
S	O	S	Red	Red	Red flashing	Always red
S	S	O	Green	Green	Green flashing	Always green
S	S	S	Red	Green	Red flashing	Acts as default

4.5 Factory Programming Mode Jumper

Set the factory programming mode by setting JP6. Factory programming mode is not for regular use.

5. Testing the REX Button

After connecting the wires and setting the jumpers, test the EX-07/EX-17 REX button before screwing in the face plate.

To test the REX button:

1. Press the button on the EX-07/ EX-17.
2. Check to see if the electronic lock or lock strike opens and the desired light and timer settings activate.
3. Make sure the LED returns to its base color.

Limited Warranty

The full ROSSLARE Limited Warranty Statement is available in the Quick Links section on the ROSSLARE website at www.rosslaresecurity.com.

Rosslare considers any use of this product as agreement to the Warranty Terms even if you do not review them.

Contact Information

United States and Canada
Rosslare Security Products, Inc.
Southlake, TX, USA
Toll Free: +1-866-632-1101
Local: +1-817-305-0006
Fax: +1-817-305-0069
support.na@rosslaresecurity.com

Europe
Rosslare Israel Ltd.
Rosh HaAyin, Israel
Tel: +972-3-938-6838
Fax: +972-3-938-6830
support.eu@rosslaresecurity.com

Latin America
Rosslare Latin America
Buenos Aires, Argentina
Tel: +54-11-4001-3104
support.la@rosslaresecurity.com

China
Rosslare Electronics (Shenzhen) Ltd.
Shenzhen, China
Tel: +86-755-8610-6842
Fax: +86-755-8610-6101
support.cn@rosslaresecurity.com

Asia Pacific, Middle East, Africa
Rosslare Enterprises Ltd.
Kowloon Bay, Hong Kong
Tel: +852-2795-5630
Fax: +852-2795-1508
support.apac@rosslaresecurity.com

India
Rosslare Electronics India Pvt Ltd.
Tel/Fax: +91-20-40147830
Mobile: +91-9975768824
sales.in@rosslaresecurity.com

0706-0960210+02