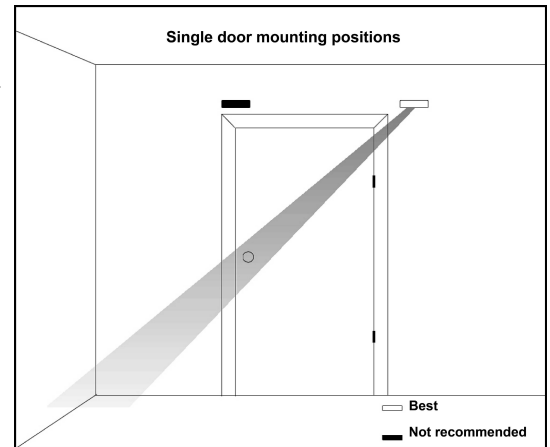


## Mounting the T.REX

Select an appropriate mounting position. Do not mount the T.REX where there is the potential for air drafts or objects to pass through gaps around the door and into the detection area. The cable entry opening into the T.REX is on the right back side, near the cover retaining screw. There is a recess in the back of the T.REX to allow you to route wires to the cable entry opening. To mount the T.REX, complete the following steps:

1. Remove the cover of the T.REX.
2. Rotate the detector barrel upwards and remove it from the back casing.
3. Route the wiring into the back casing.
4. Mount the back casing to the wall.
5. Install the detector barrel into the back casing and connect the wiring. Ensure that the barrel can rotate to permit final adjustment.
6. **Optional:** Modify the jumper settings. For more information, see Jumper settings.
7. To replace the cover, first replace the left end that has two hooks.



## Jumper settings

There are seven jumpers on the left side of the circuit board. By default, all jumpers are on.

### LED jumper

When the main relay is activated, the jumper selects the LED color. By default, the LED follows the relay activation.

### Latch jumper

This jumper determines the relay operation. In the default Latch mode, the relay activates for the duration of the main relay timer setting whenever someone is detected. If you remove the jumper, it is in Follow mode, and the relay activates for the duration of activity in the detection zone, up to a maximum time which is equal to the main relay timer setting.

### Fast jumper

Use this jumper to select normal or high sensitivity. In the default high sensitivity mode, the LED is red and turns green when the main relay is activated. Select this mode for exit detector use.

In normal sensitivity mode, the LED is ordinarily green, and turns red when the main relay is activated. Select normal sensitivity to use the T.REX in unsteady environments.

### Main relay timer jumpers

Use these jumpers to set the durations of the relay in Latch or Follow modes. Select from 16 durations, which range from 1/2 second to 60 seconds. For more information, see Table 1. The default setting is 2 seconds. In both Latch and Follow modes, when the main relay turns off again, it stays off for 3/4 second. This ensures that the access control panel does not miss brief changes of state.

### Lock control relay (LT2 and XL2 only)

The lock control relay is a normally closed solid state relay which deactivates (open contact) for 2 seconds, 50 ms after a detection. You cannot modify this time period.

### Power-up test

When the T.REX runs its 40-second, power-up diagnostic sequence, the LED flashes twice every second. After the sequence, the T.REX is ready to operate. If trouble is detected, the LED flashes four times every second. If there is a strong power fluctuation, the T.REX performs a 10-second self-test and then resumes operations.

**Table 1: Main relay timer settings**

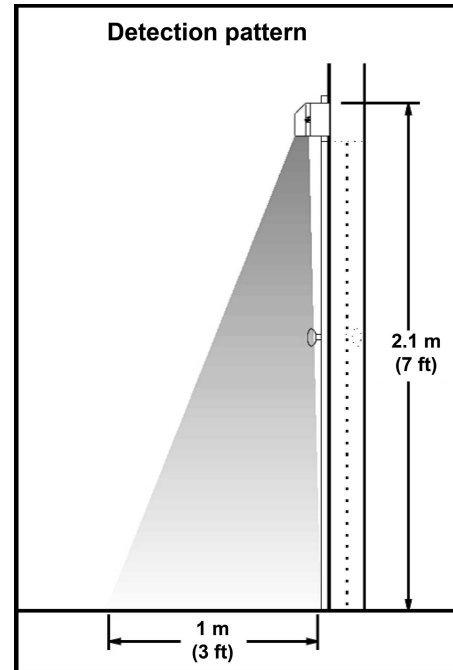
Time (seconds)	Jumper			
	A	B	C	D
1/2				
1	■			
2	■	■	■	■
3		■		
4	■	■		
5			■	
6	■		■	
8		■		
10	■	■	■	
15				■
20	■			■
25				■
30	■	■		■
40			■	■
50	■		■	■
60		■	■	■
Indicates jumper on				■

## Adjusting the detection pattern

After you mount the T.REX and replace the cover, set the span and target direction of the detection pattern by gently turning the louver direction screws. Stop turning the louvers when you feel resistance. The louvers are located below the detector lens on the barrel of the T.REX. The slots on the louvers indicate their position and serve as an adjustment guide. The adjustment range is approximately 45°.

To adjust the detection zone towards or away from the door, rotate the detector barrel. If you mount the T.REX directly above the door, direct the detection zone away from the door. Rotate the barrel so that the lower edge of the detector lens is approximately 1/4 in. above the edge of the case. Test the detection pattern and zone by walk testing. Watch the LED for position detection. When you find the correct detection pattern and zone, remove the cover and tighten the barrel locking screw on the right side of the barrel, and replace the cover.

**Warning:** This detector provides fast detection and has not been designed to be used in intrusion detection applications. This detector is designed to detect an individual approaching a door. Normally, upon receiving the detector information, the system supervising the door will bypass the door condition for a certain time to permit the exit without causing a 'door forced open' alarm. This detector is designed to be used on free exit doors. It has not been designed to unlock doors equipped with door strikes. Locking and associated devices are generally governed by regulatory bodies and should always be installed according to local regulations. In most instances, there are strict limitations to installing this type of device on doors used to exit. Be sure to check with local authorities for regulations before using any such devices.



**Table 2: Technical specifications**

<b>Detector type</b>	Passive infrared
<b>Filter technology</b>	Digital signal processing (DSP)
<b>Detector lens</b>	Curtain type Fresnel lens
<b>Detection range</b>	One hand: 3 m (10 ft). Whole body: 6 m (20 ft)
<b>Power consumption</b>	12 to 28 VDC, 50 mA
<b>Piezo buzzer</b>	90 db at 28 VDC, 5 to 28 VDC, 20 mA (XL and XL2 models only)
<b>Main relay contacts</b>	SPDT, 1 A maximum at 30 VDC maximum
<b>Main relay timer</b>	Adjustable, 1/2 to 60 seconds
<b>Main relay recycle time</b>	Fixed, 3/4 second off
<b>Lock control relay</b>	Solid state relay, N.C., 600 mA at 30 VDC, fixed time of 2 seconds. Available on LT2 and XL2 models only.
<b>Tamper switch</b>	N.C., 100 mA maximum at 30 VDC maximum
<b>Dimensions (H x W x D)</b>	19 x 4.5 x 4.75 cm (7 1/8 x 1 3/4 x 1 7/8 in.)
<b>Indicator light</b>	Red and green LED
<b>Certifications</b>	UL 294, CE, FCC

**Table 3: T.REX models**

Part number	Description
<b>T.REX-LT</b>	Tamper and timer
<b>T.REX-XL</b>	Tamper, piezo, and timer
<b>T.REX-LT2</b>	Tamper, timer, and 2 relays
<b>T.REX-XL2</b>	Tamper, piezo, timer, and 2 relays

**Table 4: LED, fast, and latch jumpers**

Jumper	On (default)	Off
<b>LED</b>	LED follows the relay.	LED stays on.
<b>Fast</b>	High sensitivity. LED is normally red. LED is green on detection.	Normal sensitivity. LED is normally green. LED is red on detection.
<b>Latch</b>	Relay is on for timer setting.	Relay follows detection, up to the maximum timer setting.

## UL 294 performance levels

Destructive attack: Level I  
Line security: Level I  
Endurance: Level IV  
Standby power: Level I

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Kantech could void the user's authority to use this equipment.

