



Janus E200

Installation Guide

System Description

The E200 safety system consists of a transmitter detector (TX) and a receiver detector (RX) for installation to elevator car doors or an elevator car door and strike post. The detectors generate a light curtain of infra-red beams across the elevator entrance. If a beam is broken, an output is switched on the RX relay wires (blue, green & yellow) to re-open the elevator doors.

Center Opening Installation

1. Ensure the plastic L brackets are fitted to both detectors.
 - + mounted approximately 1/4" above the sill
 - + aligned with the leading door edge and plumb with each other.
2. Position each detector on the car door checking that they are:
 - + located approximately 3" from top and bottom and equally space remaining screws between the two points
3. Use five self-drilling Pan head screws to secure the detector:
 - + attach cables securely with the "P" clips and screws provided:
 - + avoid tight bends while providing enough slack so the cables are not stressed or stretched as the doors move

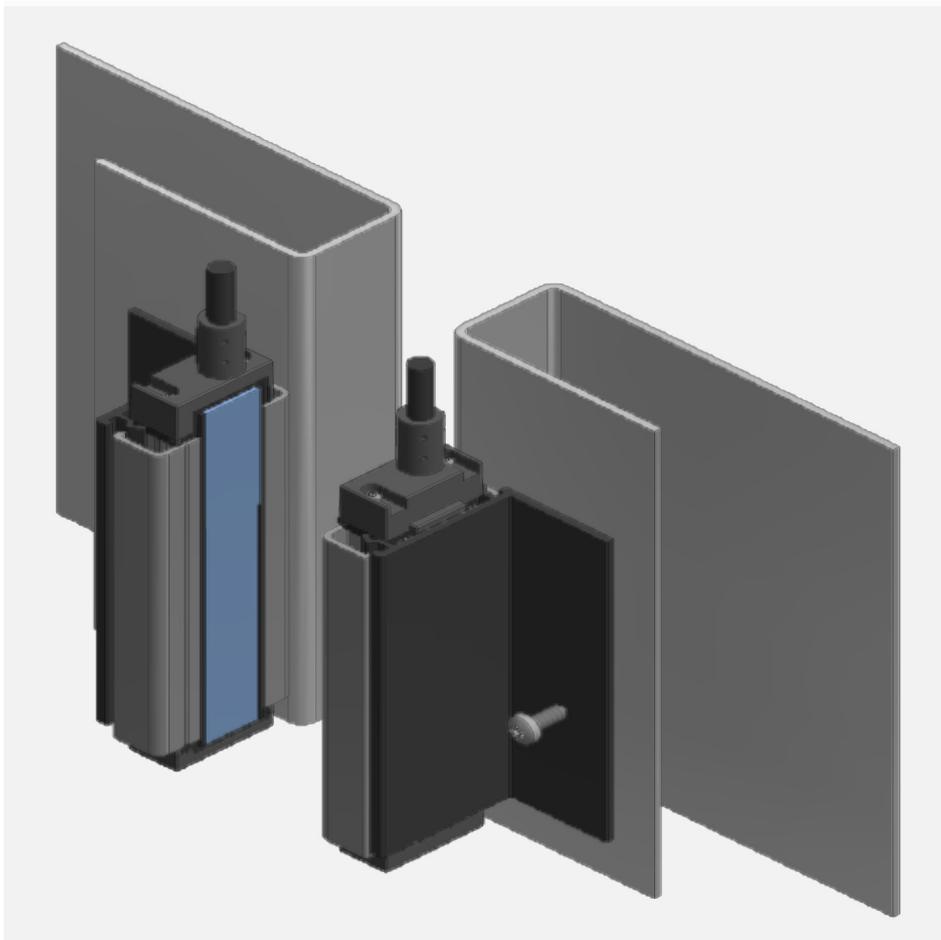


Fig 1: Center opening doors

Side Opening Installation

1. Use the CENTER OPENING INSTALLATION directions to mount the antenna on the door.
2. Using a screwdriver, pry the detector from the plastic bracket (see Fig 3).
3. Position the strike post bracket (plastic U-shaped channel) approximately $\frac{1}{2}$ " above the car sill consistent with door edge.
4. Use 5 No.8 pan-head self-tapping screws to secure the plastic U-shaped channel to the strike post. Ensure the screws are centered in the channel and evenly spaced along the length of the bracket.
5. Align the aluminum channel with the top end cap lip and snap into position.
6. Attach cable securely with the "P" clips and screws provided.

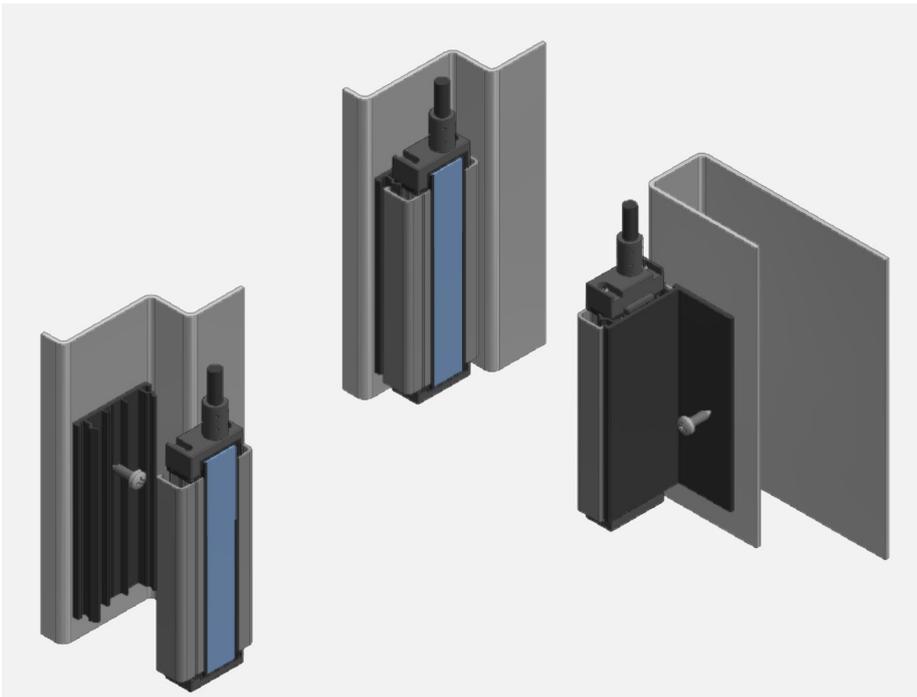


Fig 2: Strike Post Installation



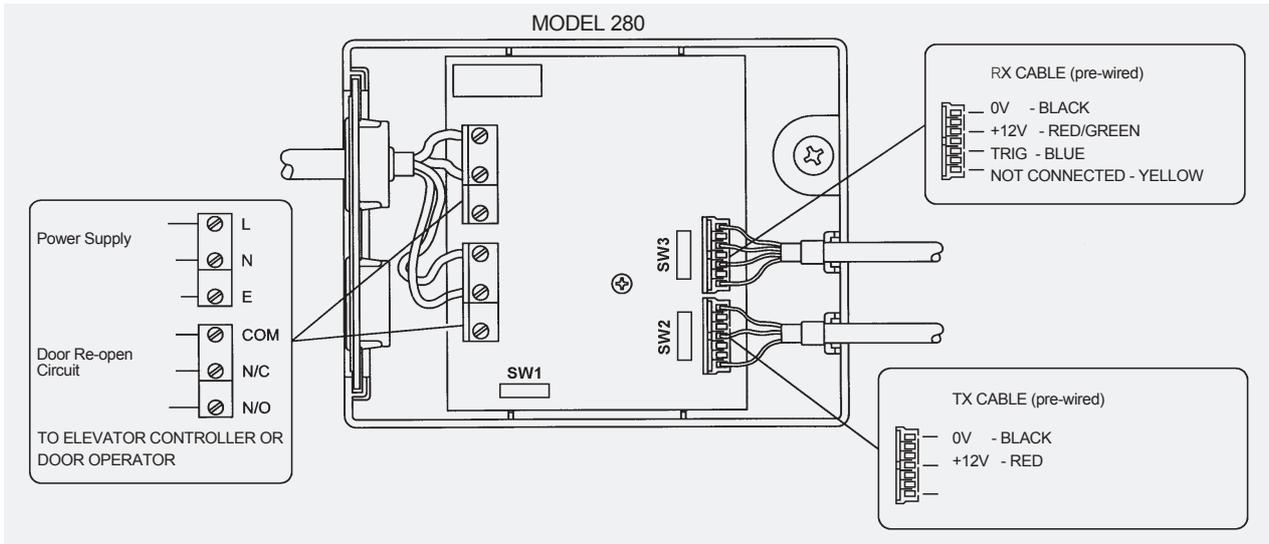
Fig 3: Bracket Removal

System Connection with Model 280, see Fig 4

The Model 280 power supply provides a regulated DC supply for the detectors and a voltage-free relay contact to re-open the elevator doors.

1. Position the Model 280 close the center of the car top within reach of both RX and TX cables.
2. Plug in RX and TX cables as shown in Fig 4.
3. Connect the relay output to the "Door Re-Open" or "Safety Edge" input of the door operator elevator controller. The Model 280 provides voltage-free contacts as follows:
 - + 'COM' = common
 - + 'N/C' = normally closed
 - + 'N/O' = normally open
4. Connect the Model 280 to a 240V or 110V AC mains supply.
5. Set SW2 NPN and SW3 to N/C.
6. When power is applied, a tone should be heard when a person or object is detected. This tone can be switched on or off by using SW1.

Fig 4: Electrical Connection to 280 Power Supply



Direct Connection to Elevator Controller

The E200 can be directly connected to the lift controller or door operator (Fig 5). In such cases the opto-relay output inside the E200 RX detector directly drives the “door re-open” circuit of the lift.

Warning - direct connection requires good understanding of both lift and detector electronics. Any incompatibility between the two systems may cause permanent damage to either. Do not apply supply voltage directly across the opto-relay as this will result in damage. If you have any doubts then you should use a Memco 280 Power Supply instead (see Fig 6 for 280 connection details).

Check:

- + DC - do not use an AC supply
- + Regulated - do not use an un-smoothed supply
- + Negative Ground - do not use a ‘positive ground’ supply (since the black 0v wire is connected to the earthed metalwork)
- + Correct Voltage - the voltage must be at least 11v and never exceed 42vdc under any circumstances
- + Ripple voltage should not cause the DC supply to exceed the maximum 42v supply voltage.
- + Sufficient Power - the supply must be capable of supplying at least 100mA plus whatever current is needed to drive the ‘Door re-open’ circuit on the lift.

Note - if you have any doubts then you should use a Model 280 Power Supply

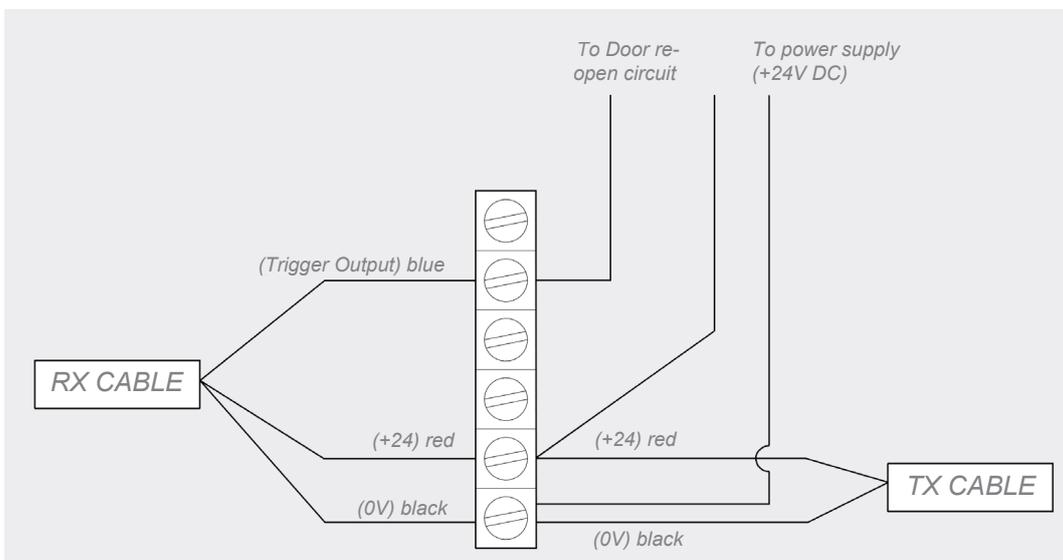


Fig 5: Electrical Connection to Lift

LED Operation

The RX detector has one LED for troubleshooting that is positioned at the top end of the detector.

STATUS	LED ON	LED OFF	POSSIBLE CAUSE
Normal, Untriggered	0.5 sec	2 secs	Normal Operation
Triggered	Always	-	Obstruction between detectors
Timed-Out Beams	1 sec	1 sec	One or more diodes timed out
No Signal	0.5 sec	0.5 sec	Detectors not synchronized TX not powered. All beams blocked

Troubleshooting Guide

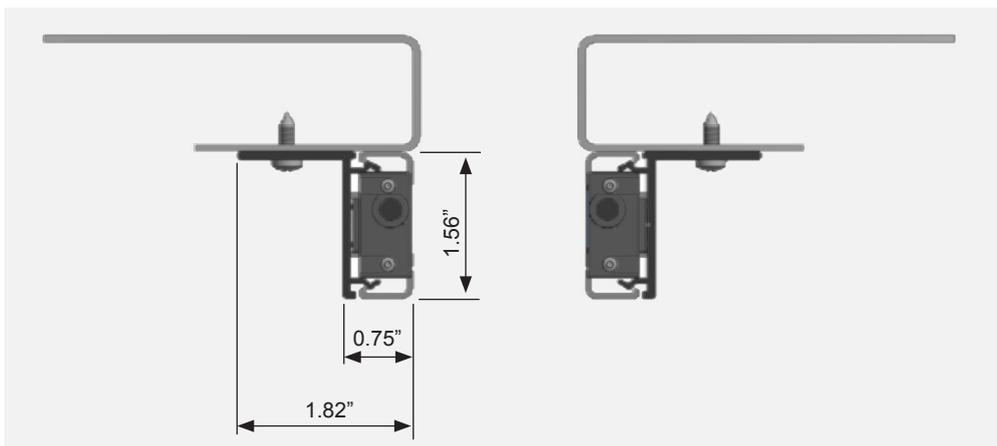
FAULT - Blue LED on continuously (triggered) with no obstruction.

Check both covers are clean, remove any floor wax, dirt or scratches.

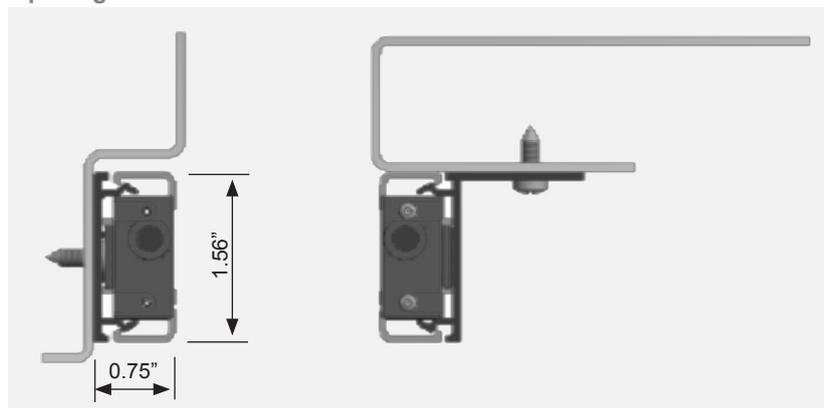
FAULT - Blue LED flashes fast.

TX is not connected - verify TX detector is correctly wired.

Check both covers are clean, especially between diodes 7 and 8.



Center Opening Doors



Side Opening Doors