

Memco E-Series

Installation Guide

Ref No. E850 GB Version 1

Dynamic Installation Notes

1. Install the detectors using the fixing kits provided shown in Fig 1-4
2. Position each detector on the doors 5mm (E10) and 12mm (E32, E40) above the sill
3. Ensure that the detectors are aligned level and straight with each other
4. Secure the cables with the P-clips and screws provided.
5. Detectors with 'earth' wires must be fitted to ensure that the unit is properly grounded.
6. E10 can be fitted dynamically or statically for side-opening and centre-opening installations. (see Fig 7 for fixing positions)
7. E32 can only be fitted to the leading edge of the lift. Plastic filter on E32 profiles has to be removed before mounting & mark or spot through the fixing holes. (Fig 8) Remove the detectors from the door before drilling.
8. E40 can be fitted for side-opening and centre-opening installations. For the E40 centre-opening, one 'flat bracket' will require removing so the L bracket can be fitted.

Dynamic Installation

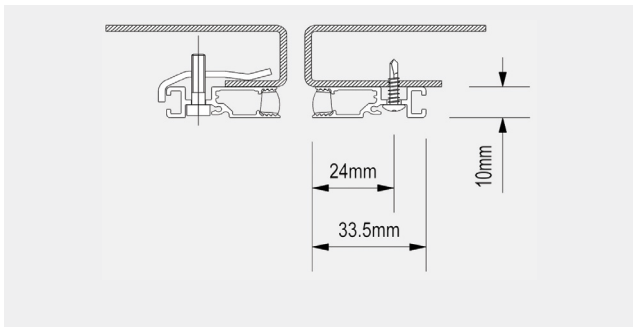


Fig 1: E10 Fixing Clamp & Self-Tapping Screw for side and centre-opening

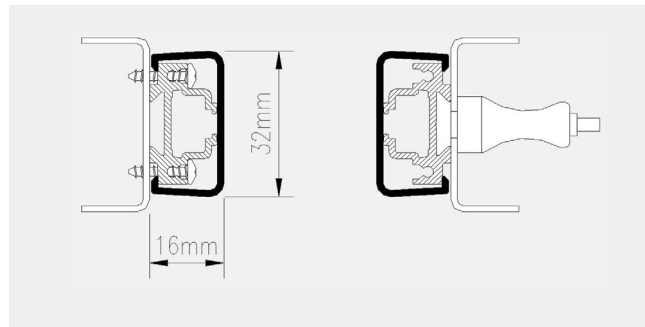


Fig 2: E32 Fitted to the leading edge for side and centre-opening

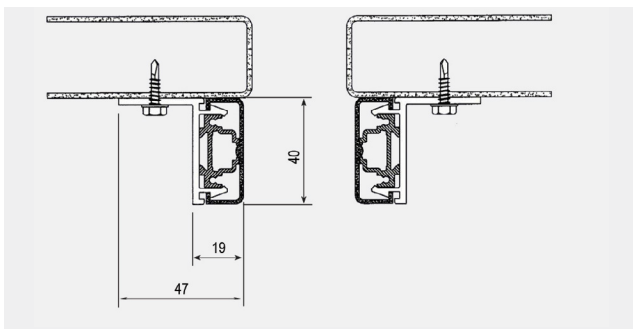


Fig 3: E40 centre-opening doors

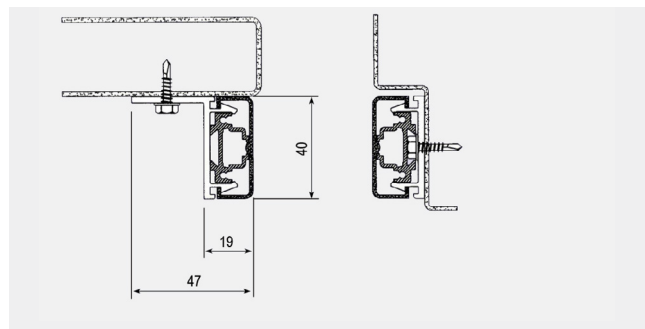


Fig 4: E40 side-opening doors

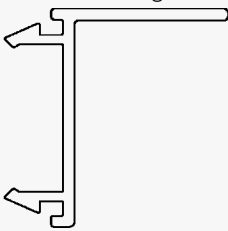
Fig 1-4: Diagrams to show mounting of detectors to car doors and slam

E40/E32 Dynamic Installation Step-by-Step Guide

Fitting detector to door (centre-opening)

Step 1

Use the correct L mounting brackets



Step 2

Remove the flat-bracket. Fit the L-bracket flush with the underside of cable end cap and progressively clip detector into bracket

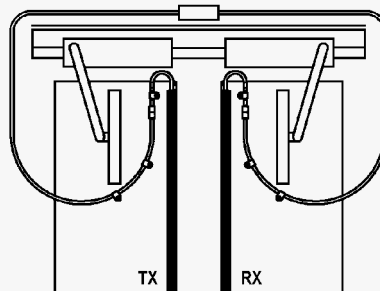
Step 3

Position the bottom of the detector 12mm above the car sill.



Step 5

Attach cable securely with the P-clips and screws provided. Avoid tight bends while providing enough slack so that cables are not stressed or stretched as the doors move.



Step 4

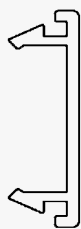
Secure L-Bracket to door using screws provided. Locate screws approximately 75mm from top and bottom and equally space remaining screws.

E40/E32 Dynamic Installation Step by Step Guide

Fitting detector to door (side-opening)

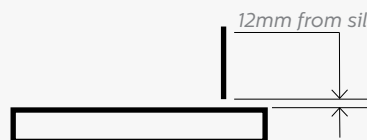
Step 1

Use the correct mounting bracket i.e. L on side-opening and flat-bracket for mounting on slampost or leading edge of door



Step 2

Fit the detector with the L-bracket to the door. Secure using screws provided. Ensure the bottom of the detector is positioned 12mm above the car sill.



Step 3

Do not fit the flat bracket to the detector, first align the top of the flat bracket on the slampost with the top of the L bracket on the opposite door. This ensures the detector will align exactly when the door closes.

Step 5

Attach cable securely with the P-clips and screws provided. Avoid tight bends while providing enough slack so that cables are not stressed or stretched as the doors move.

Step 4

Secure the flat bracket to the slampost using the screws provided. Ensure screws are centred and evenly spaced along length of bracket. Position underside of cable end cap flush with top of bracket. Clip detector into bracket.

Static Installation Notes

1. Static fixing kits must be ordered separately
2. There are 3 static fixing kits available – E10 802, E10 812, E10 805
3. Position each detector on the doors 5mm above the sill
4. Ensure that the detectors are aligned level and straight with each other

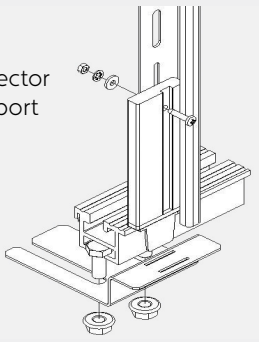
E10 Static Installation Step-by-step Guide

Standard E10 802 – Running clearance greater than 25mm

Standard E10 812 – Running clearance approximately 20-25mm

Step 1

Fit the detector to the support bracket

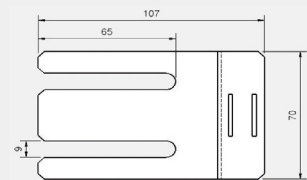


Step 2

Fix the sill bracket to the lift car. Ensure the detectors will be positioned no more than 3m (10ft) apart

Step 3

Insert the tongue of the support bracket into the sill bracket

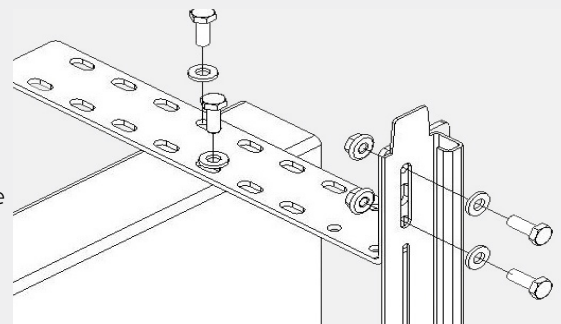


Step 5

Ensure cables are held securely. Avoid tight bends while providing enough slack so that cables are not stressed or stretched as the doors move.

Step 4

Use the 'L' brackets to fix the tops of the support brackets to an appropriate fixing on the lift car. Ensure that the detectors are aligned.



Fixing Kits

Fixed Installation Kit E10 802	2 x 011 320 Sill Bracket
	2 x 011 407 Support Bracket
	2 x 011 412 L Bracket
	1 x E10 806 Fixings

Fixed Installation Kit E10 812	2 x 011 330 Sill Bracket
	2 x 011 404 Support Bracket
	2 x 011 412 L Bracket
	1 x E10 806 Fixings

Static Installation Notes

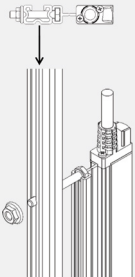
1. Static fixing kits must be ordered separately
2. There are 3 static fixing kits available – E10 802, E10 812, E10 805
3. Position each detector on the doors 5mm above the sill
4. Ensure that the detectors are aligned level and straight with each other

E10 Static Installation Step-by-Step Guide

Standard E10 805 – Aluminium, Strong but lightweight

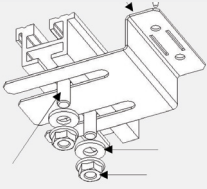
Step 1

Fix the pin and detector to support bracket



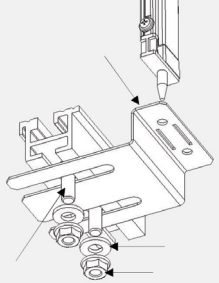
Step 2

Fix the sill bracket to the lift car. Ensure the detectors will be positioned no more than 3m (10ft) apart



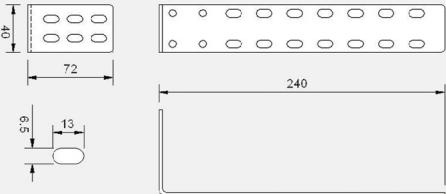
Step 3

Insert the pin on the detector into the sill bracket



Step 4

Use the 'L' brackets to fix the tops of the support brackets to an appropriate fixing on the lift car. Ensure that the detectors are aligned.



Step 5

Ensure cables are held securely. Avoid tight bends while providing enough slack so that cables are not stressed or stretched as the doors move..

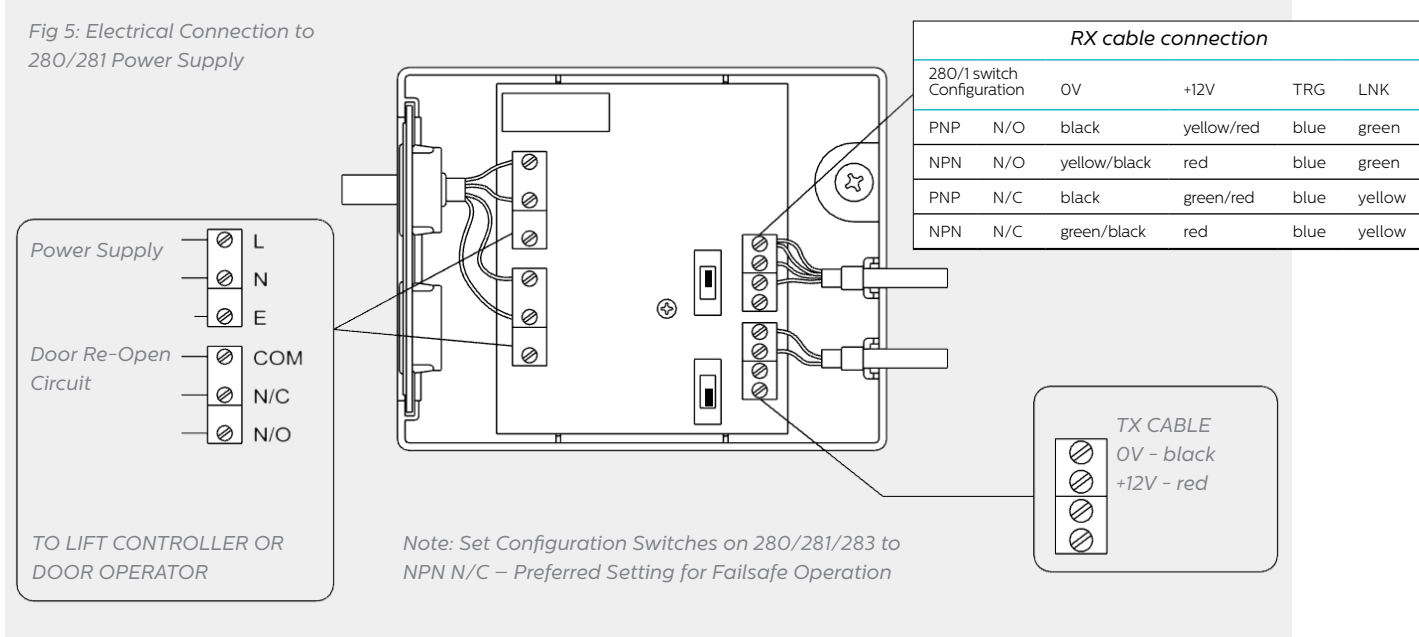
Fixing Kits

Fixed Installation Kit E10 805	2 x 011 443 Sill Bracket
	2 x 010 571 Support Bracket
	2 x 011 412 L Bracket
	1 x E10 806 Fixings
	2 x E10 816 6mm Pin Kit

For further details on the installation of E10 805 installation kit, please refer to E10 860 installation guide.

System Connection with Model 280/281/283

Fig 5: Electrical Connection to 280/281 Power Supply

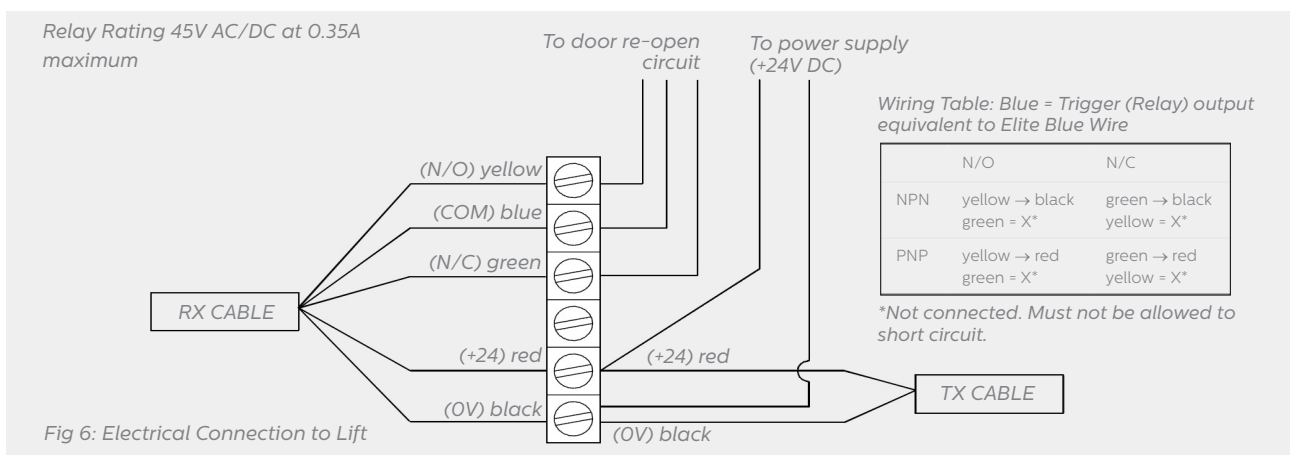


Direct Communication to Elevator Controller

Warning: Direct connection requires a good understanding of both Lift & 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 its recommended you use a Memco 280/281/283 Power Supply – See above for 280/281/283 connections.

1. Use a DC supply - Do not use an AC Supply.
2. Use a smoother or regulated supply. Do **not** use an unsmoothed supply.
3. Use a Negative Ground - Do not use a 'Positive Ground' supply [since the Black 0V Wire is connected to the earthed metalwork]
4. Peak Ripple Voltage should not exceed 44V & the average voltage not exceed 42V.
5. Correct Voltage – The voltage must be at least 11V & never exceed 42V DC, average under any circumstances.
6. 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.

Direct Connection to Elevator Controller



LED Operation

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 synchronised TX not powered All beams blocked

Auto Beam Disabling Function

The E-Series detectors are supplied with Learning Mode [Automatic Beam Disabling] – enabled the first time the detectors are switched on, to switch beams off:

1. Block those beams that are or will be disabled using opaque tape.
2. Switch on power to the detectors; wait for 20seconds with the space between the detectors clear, after this period the detectors will be untriggered, indicating that the 'Learning' process has finished. The LED will flash at the normal slow rate & the disabled beams will still be inactive when the opaque tape is removed.
3. When the 20-second timeout has completed, the detectors will switch back to normal mode so the next power cycle it will not go into learning mode, but it will remember those beams disabled.
4. To re-enable learning mode, the detectors must be switched on with all the beams unobstructed. To prevent enabling learning mode accidentally when the power is cycled, then at least one beam must always be obstructed.

Trouble Shooting Guide

Fault	
Red LED on continuously (Triggered) with no obstruction	Check both covers are clean, remove any floor wax, dirt
Red LED flashes fast	TX is not connected – Verify TX detector is wired correctly & check both covers are clean, especially between diodes 7 & 8 (communication diodes)

Manufacturing Guide for Fixture Holes

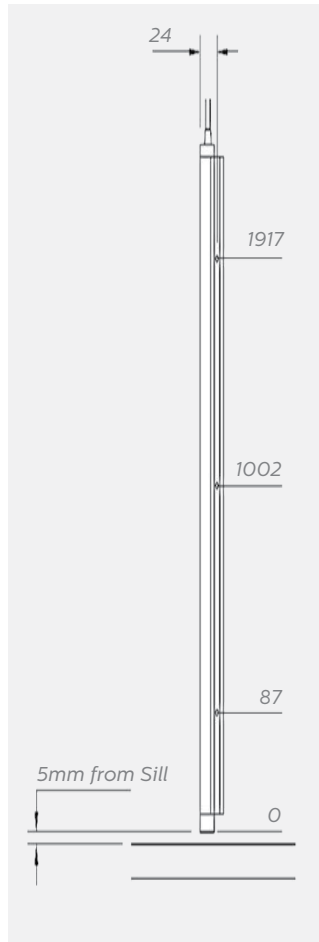


Fig 7: E10 Fixture Holes
Position for static installation

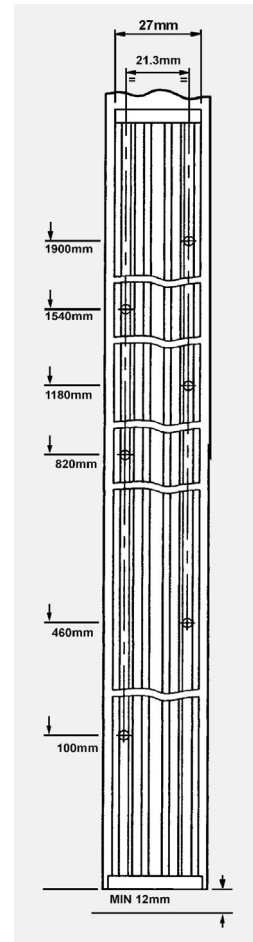


Fig 8: E32 Fixture Holes

Cleaning of Light Curtains

Light curtains are not waterproof and their performance can deteriorate or result in complete failure if scratched or damaged. This can be caused by using abrasive cloths or inappropriate solvents.

Light curtains may be wiped down using a lightly dampened cloth.

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