# SHUTTER INSTALLATION INSTRUCTIONS

OCTOBER 2016





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# 2 Key to Symbols/ Meanings:



#### **WARNING!**

Risk of personal injury!

This is an important piece of safety advice which must be observed to avoid a risk of personal injury!



#### **ATTENTION**

Risk of material damage!

This is an important piece of safety advice to avoid damaging the product you are installing!



### **Operational check:**

At this stage of the installation a component of the door, the operation of the door or the operator can be tested. This is very important as it can immediately identify an error which could take time to discover at a later stage.



Advice / Tip



## Reference to further product information

Here a reference is made to another set of instructions which need to be used for installation of a particular component.

# 3 Warranty / Life Cycles

The warranty for this product is only granted if:

- The installation is carried out by a competent installation engineer following these instructions.
- · Only original parts are used.
- · No additional objects are attached to the door.
- Regular maintenance checks are performed.

For further details on the products warranties please refer to the products price list and our terms and conditions which are available upon on request.

To comply with the Construction Products Directive all products have been durability tested for a minimum of 11,000 cycles.

# **4 General Safety Advice**

## **4.1 General Information**



This document is intended for a qualified, trained installation engineer and should not be given to the owner of the door but should be kept by the installer.

To comply with the Construction Products Directive and the Machinery Directive the product must be installed in accordance with these instructions.

Please read all safety advice and relevant instructions carefully.

These installation instructions are intended for qualified and trained installation engineers. Installation, initial operation, servicing, repairs and dismantling of this product should only be carried out by a qualified and trained installation engineer.

When installing an electrically operated product ensure the mains power supply to the product is disconnected before any electrical connections are attempted.

Before operating a shutter you must always ensure that there are no persons or objects in the opening before and during the opening.

The shutter should only be operated when in view.

Upon completion of the installation the owner of the shutter must be trained how to operate the product safely paying special attention to the following points:

- · The shutter should only be operated when in view
- The operator should ensure there are no objects or persons in the opening before and during operation.
- The end user must read and follow the advice given in the operating and maintenance instructions.
- In the event of a malfunction the end user should follow the advice given in the operating and maintenance instructions and if applicable contact the installer.

During the installation of the shutter you should follow safe working practices. Further advice is available from the Health and Safety Executive (HSE).

## 4.2 Repairing/ Dismantling / Maintenance

Always isolate the mains power before attempting any maintenance, repairs or dismantling. If you need to use the optional remote control during any maintenance, repairs or dismantling procedure you must engage the commissioning mode.

Before attempting to repair or dismantle a shutter you should check for the presence of any safety devices, for example:

- · Anti-fall back spring
- · Anti-drop brake
- · Bottom slat safety edge
- · Safety photo cell

Before attempting to remove an axle assembly which contains a spring you must release the tension in the spring.

When repairing or dismantling a shutter you should keep the opening and the surrounding area clear to prevent risk of injury to yourself and others.

When repairing or dismantling a shutter you should follow safe working practices. Further advice is available from the Health and Safety Executive (HSE).

Maintenance check list:

- · Curtain free running and clean
- · All end locks are correctly and securely located in the curtain
- · No debris in the guide rails
- · Guide rails and end plates are securely fastened to the wall (check also the fascia if fitted)
- · If applicable all axle collars and locking springs are in the correct original position
- · Check action of applicable locking devices to ensure they are engaging correctly
- If applicable motor cable is correctly retained, has not been damaged or in danger of being damaged
- · If a remote control has been supplied check the functionality of the safety devices
- · If required view the service counter on the remote control
- If an anti-fall back spring is fitted check that the spring is under tension when the curtain is in the fully closed position. You should not be able to turn the spring shaft located in the u-cup.
- · Check the operation of the manual override.

#### **Recommended service period**

The recommended service period for a shutter which will operate on average two cycles per day is once every 12 months. If the shutter will perform a greater number of cycles per day the service period should be shortened accordingly. One cycle is a full open and close sequence.

# 5 Tools/ Fixings Required

This list of tools and fixings is a minimum guide, to be adapted for each installation.

- · Drill with pneumatic/hammer action to take the drill bits used below
- 10mm & 22mm masonry bits up to 400mm long (or wall thickness)
- 3, 4.2, 5, 10 & 13mm metal drill bits
- Countersunk posidrive type fixings or similar, with appropriate masonry drill bits and rawl plugs for guide rails and shutter box
- Guide rails and end plates require at least 21/2 inch 10s or 12s twin threaded screws with brown rawl plugs
- To secure the shutter box to the wall use at least 11/2 inch 8s screws with red plugs.
   A 250mm long masonry drill bit will be required
- Screw drivers and wire strippers
- 4mm & 6mm Allen keys
- Pliers
- Tin Snips
- · Metal files round, half round and flat
- Spirit level
- · Straight edge (square)
- Plastic hammer
- Tape measure
- Marker pen
- 3 core and 4 core cable
- Junction box
- · 3 amp plug
- Surface trunking
- Motor test lead (YEC384O0)
- Hacksaw
- · Pop riveter with 4mm brown or white rivets
- Dust sheets
- Step ladders
- · Workmate bench (optional)
- · Silicone gun with brown, white or clear silicone
- If the fitting surface is not flat or there is a projecting door handle, painted timber may be required to form a sub frame. Alternatively 20/50 x 50mm aluminium packers or pieces of guide rail may be used
- If the shutter box is to fit up into a soffit, a circular saw or jigsaw will be needed to cut the soffit board.

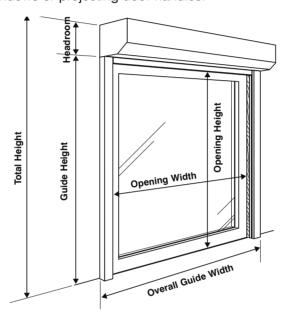
# 6 Preparation for the Installation

The structure of the opening must be adequate to take the weight of the door and suitable to take the appropriate fixings.



**RISK OF MATERIAL DAMAGE** Check that the opening is ready for installation. Surfaces should be flat and vertical to guarantee a parallel alignment of the guide rails. It is important that you check that the lintel does not bow inwards or have any projections that may catch on the curtain or could push the box back towards the curtain. If in doubt pack the guides and box out by at least 10mm.

Before you begin installing the shutter you should check that the shutter will not foul on any opening doors or windows or projecting door handles.





**RISK OF MATERIAL DAMAGE** Check the dimensions of the opening to ensure that the product supplied is the correct size to suit the opening. This must be done before removing any existing products and before you begin installation of the shutter.

To avoid damages to the box and the curtain unpack the components very carefully. We recommend using the packaging supplied as a protective mat.

Check the packages you have received to ensure you have received all the parts you require and they are in a satisfactory condition before you begin installation of the shutter.

# 7.2 Rod Crank Operation Parts List

#### **General Parts:**

- Assembled shutter box (1 per shutter)
- Pair of guide rails (1 pair per shutter)
- · Assembled curtain (1 per shutter)
- Installation instructions
- Operating & Maintenance instructions

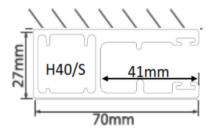
## **Operation Specific Parts:**

- · Rod crank handle (1 per shutter)
- Rod crank handle clip (1 per shutter)

Accessories are packed in a separate box.

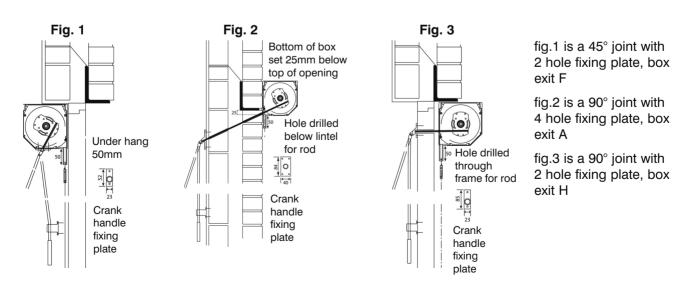
If applicable angle & packer are usually packed with the guide rails.

#### **Guide to correct guide rail orientation**



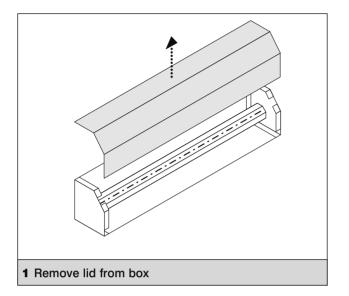
Certain guide rails have an internal and external face, due to their extrusion profile. These guide rails must be installed the correct way round. Please check the guide rails you have been supplied before you begin installing the shutter.

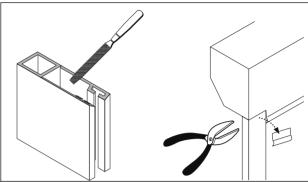
#### **Rod crank and override handles**



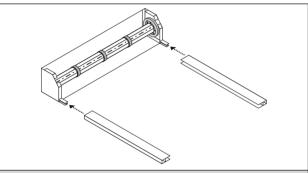
# 7.2 Rod Crank Operation Installation instructions

Before you begin installing the shutter please ensure you have read pages 4-9.

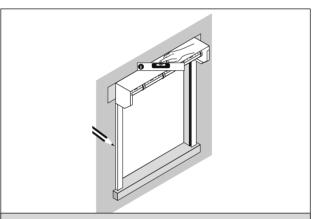




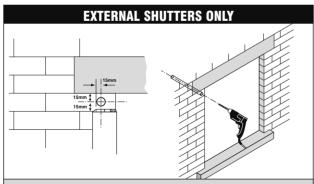
2 File the top of the guides at an angle to create the optimum lead in for the curtain. Guide insert should also be trimmed to suit the filed guide top and securely crimped in place. If the shutter is being face fitted remove the lip from the box back which overlaps the guide rails.



3 Carefully locate the guide rails onto the box lugs ensuring that on face fit guides the 13mm holes are on the outside. When moving the shutter as a complete unit you should take care to prevent the lugs being snapped off the box ends by the leverage available from the guide rails. If the shutter is too large to be lifted up as a complete unit you should offer up, locate and fix the individual guide rails then the shutter box.

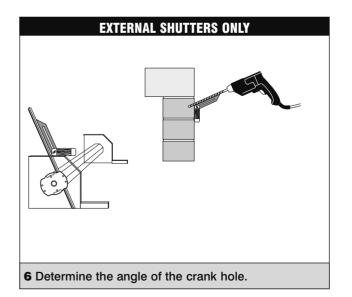


**4** Offer the shutter to the opening and centralise, ensuring the top of the shutter box is horizontal and that both guide rails are vertical. Mark the guide location.

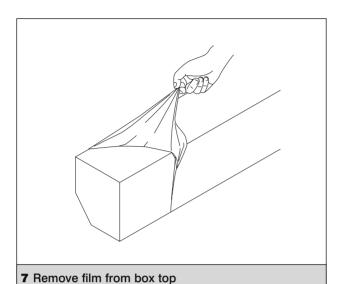


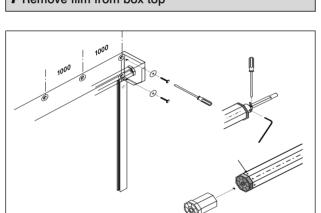
5 Mark and drill the rod crank hole. Refer to step 6 to determine the angle of the crank hole. Please note the shutter box is not shown in this diagram. The location of the hole is determined by the exit hole in the shutter box. Drill a 10mm pilot hole followed by a 22mm hole for the tube.

Tip – hold a block of wood against plaster to reduce damage caused by the drilling process.

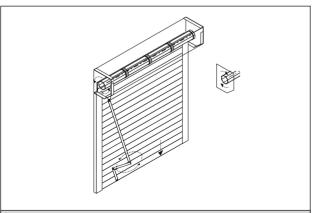


# 7.2 Rod Crank Operation Installation instructions (cont.)

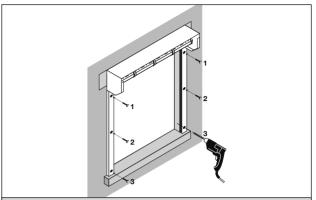




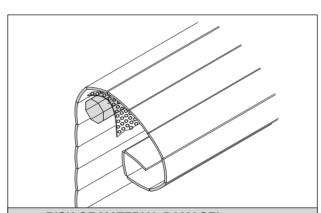
**9** Fit the shutter box using the recommended fixings and spacings. Once the shutter box has been installed check the dummy end making sure that it is securely located within the axle. If the dummy end is a shaft bolt design make sure that the centre shaft is fixed in place so that it can not slide back into the axle.



**11** The crank gear contains a stop to prevent the shutter from being overwound when it reaches the bottom. Wind the crank gear to the bottom stop then wind back  $\frac{1}{2}$  a turn.



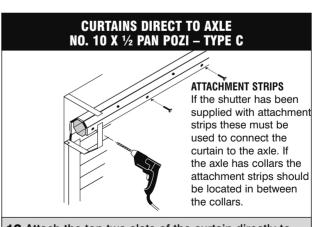
**8** Starting with the top holes, fix the guide rails ensuring that the guide rails are vertical and that the shutter box is horizontal. Use the fixings recommended on page 8. 7mm hole right through then front hole enlarged to 13mm.



RISK OF MATERIAL DAMAGE!

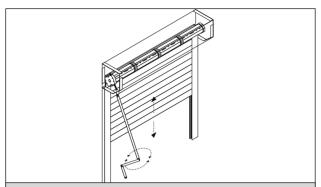
10 Cover the axle with bubble wrap or a similar material to prevent the curtain from being damaged during the curtain loading process.

Carefully load the curtain over the axle.

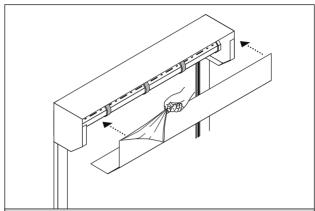


**12** Attach the top two slats of the curtain directly to the axle using the screws provided. The screws must be countersunk to prevent them damaging the slats which will coil on top.

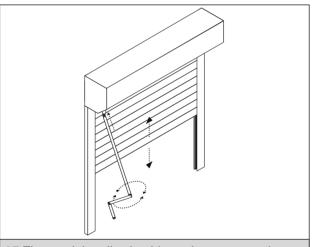
## 7.2 Rod Crank Operation Installation instructions (cont.)



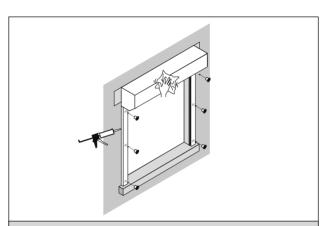
13 Insert the crank handle temporarily and slowly wind the handle to test the operation of the shutter. Test the shutter to ensure that the curtain locks correctly when the curtain closes fully. Please refer to the operating and maintenance instructions supplied for the correct method for operating and locking the shutter. Ensure that the shutter moves freely up and down in the guide rails.



**14** Remove the protective film from the box lid then fit the box lid to the shutter box. If the shutter is externally fitted the box lid should be fastened using appropriately coloured 4mm rivets.



**15** The crank handle should now be permanently attached to the shutter.



**16** To complete the installation you should fit cover caps to the guide rails (if applicable), mastic around the edges of the shutter then give the shutter a final clean and tidy.

Upon completion of the installation the owner of the shutter must be trained how to operate the product safely paying special attention to the following points:

- The shutter should only be operated when in view
- The operator should ensure there are no objects or persons in the opening before and during operation.
- The end user must read and follow the advice given in the operating and maintenance instructions.
- In the event of a malfunction the end user should follow the advice given in the operating and maintenance instructions and if applicable contact the installer.