



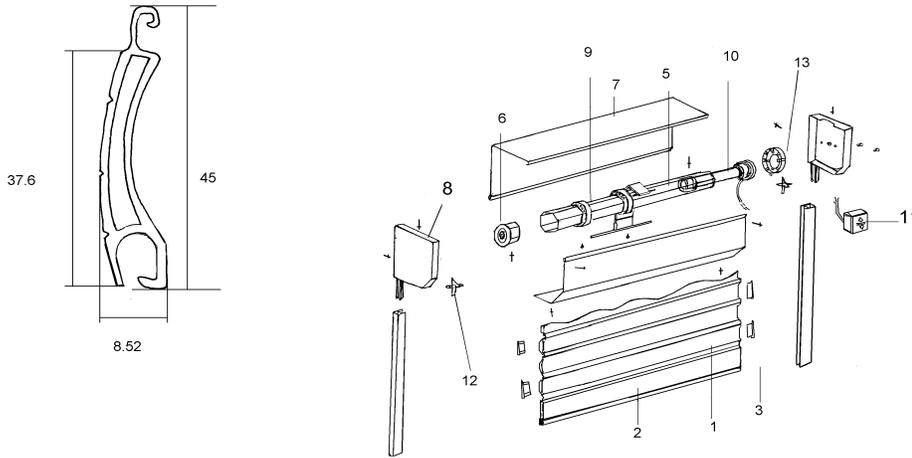
Shutter installation guide

Please read through the General Instructions first, only then read the specific instructions for the type of shutter that you are installing

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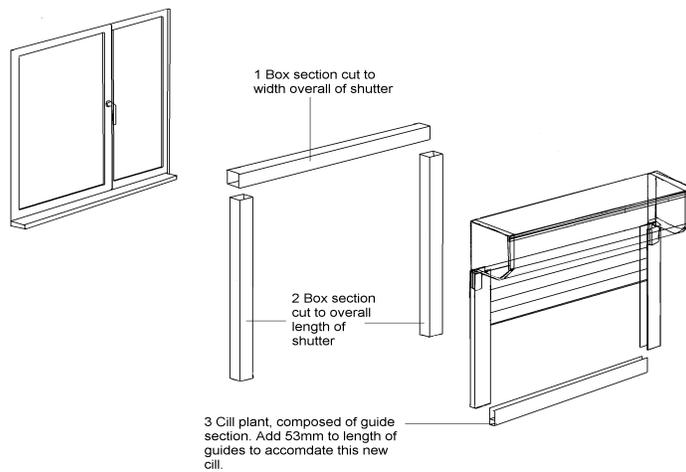
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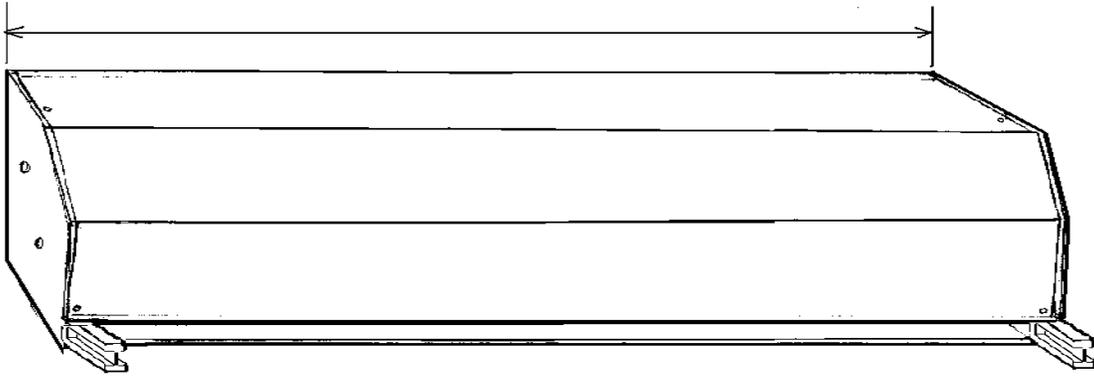
General Instructions for Shutter Installation



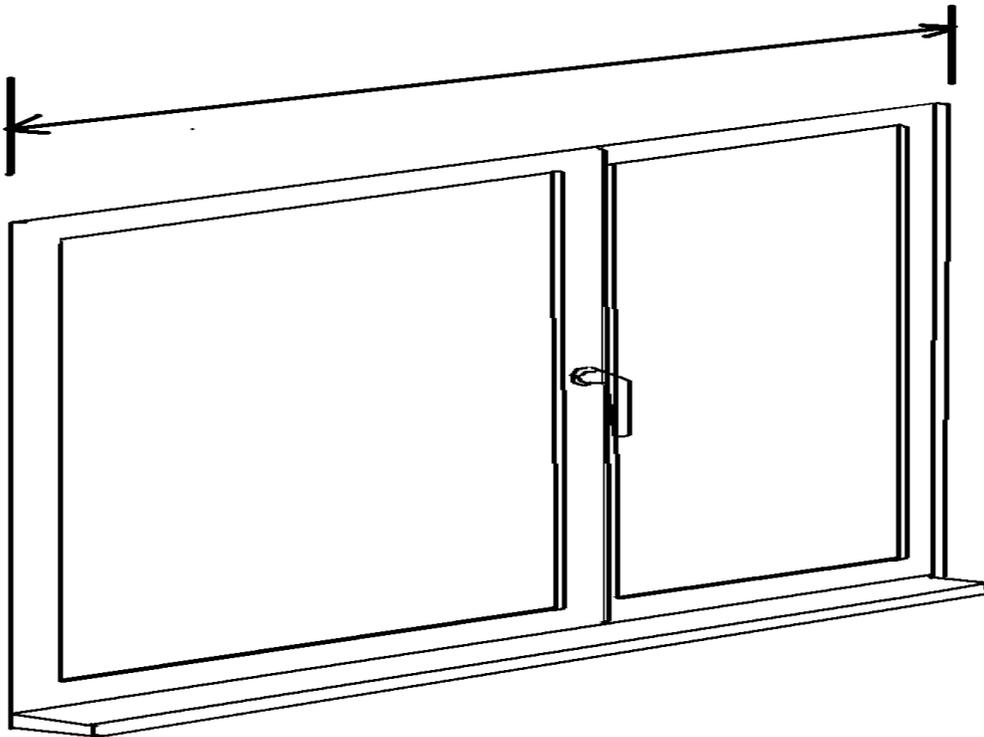
- MAXIMUM WIDTH: 3500mm
- MAXIMUM HEIGHT: 2900mm
- MAXIMUM SQ METERS: 12m
- WEIGHT SQ METER: 7.3kg

On arrival on-site with your shutter, your first job is to double check the overall width of your shutter in relationship to the masonry aperture. Determine whether the shutter will be packed off away from the wall clear of any protrusions ie. door handles. Box section should be ordered at the time of the initial survey if the shutter might be obstructed by window features. If everything is correct, you can continue.





1. First, measure the complete shutter box, and then, using a tape measure, equalise that width across the wall above the window. Mark either end of the intended location of the shutter on the wall with a pencil.

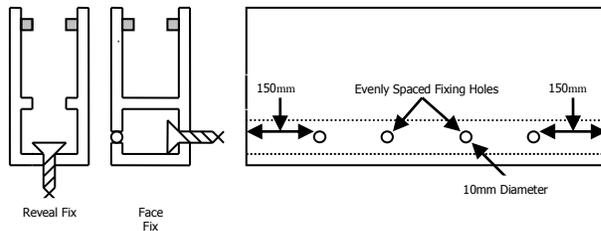


2. Determine which guide channel will be the left hand guide, and which the right hand guide. Hold the guides up to the wall next to the pencil mark made when first marking the width, then level down your guide with a spirit level. Mark the wall with a pencil.
 With width lines drawn on the wall, you have the exact left to right position of your shutter (double check.)

3. Having determined the left and right location of the shutter, you need to determine the height and to mark it. Place the guides back on to the pencil lines to the point at which they require to sit on the cill, then, mark on the wall the top

of the guides. Removing the guides you now need to run a level line across these marks to check that the box will sit level. At this point you may need to cut one of the guides down to ensure that the box sits level when the guides are fitted. It is essential that the box does sit level according to a spirit level. The action of the roller shaft will be inhibited if this is not the case.

4. Both width and height have now been marked correctly. The guides must now be drilled, ready for fitting. You will need a 6.5mm steel drill bit and a 10mm steel drill bit.

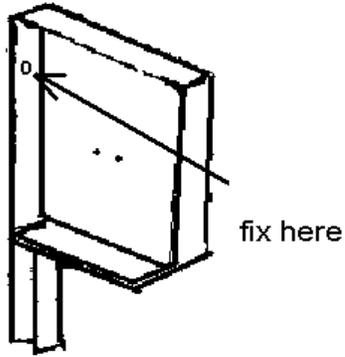


Put the guides back up to the pencil marks and mark on the guide where you require your fixings to be (recommended fixings approx 100mm from top and bottom then fixings equalled out in between, minimum of 3 fixings; average of 300mm between fixings.)

You should drill the centre of the box section of the guide, drilling straight through both front and back of the guide with the 6.5mm bit, and then drilling just the front of the guide with the 10mm bit so that the hole nearest the wall is the lesser one. This arrangement allows you to insert your screws.

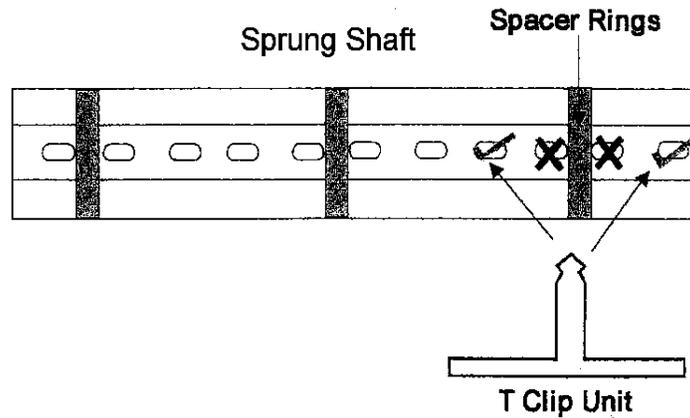
5. Put the guides back up to the pencil marks on the wall and mark through the holes you have drilled into the guides. This pencil mark will give you your fixing points on the wall itself. Remove the guides and drill the wall for your fixings (recommended drill bit 7mm masonry, screws 2inch 10s, and brown plugs.)

6. As long as there is headroom above the guides, you can now fix the guides to the wall, leaving the top screw loose to allow movement so that you can insert the pegs of the box in to the box section of the guide. Once you have the box in place, you can tighten your top screw on the guide. If the box is in place you will need to put a fixing through the back of it, and in to the wall to secure it, using a 6.5mm steel bit through the aluminium and 7mm masonry bit through in to the wall. Guides, end-plates and box are now securely in place.



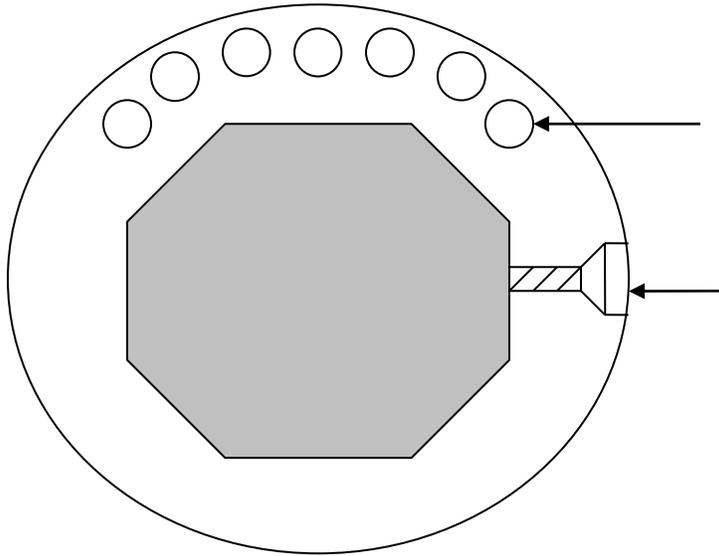
7. Lower the curtain into the guides by feeding the bottom of the curtain over the top of the shaft, then, when the curtain is half way, slide on your t-springs or autolocks. Once the curtain connections are on, carefully lower the curtain all the way down then attach the t springs or autolocks to the shaft as shown in the diagrams below.

T Springs



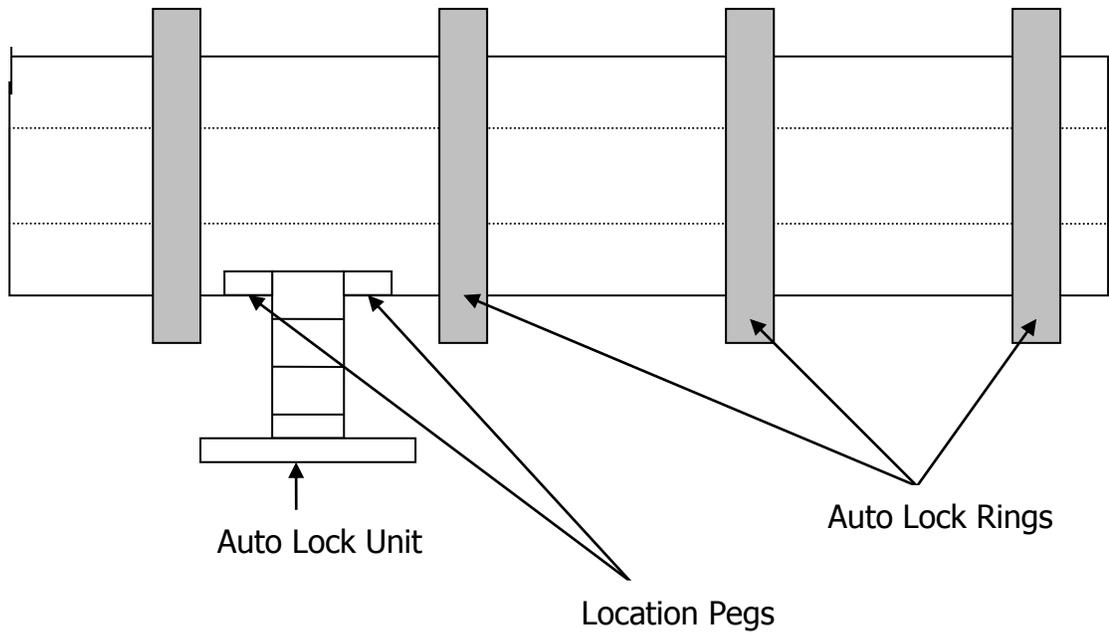
8. Fix the lid on using 4mm rivets using the pr-drilled holes. We recommend sealing all around the shutter with a silicone seal.

Autolocks



Peg Location Holes
Ensure all pegs are located in the same hole series on each Auto Lock.

Self Tapping Screw
This should only form a resistance with the barrel wall.



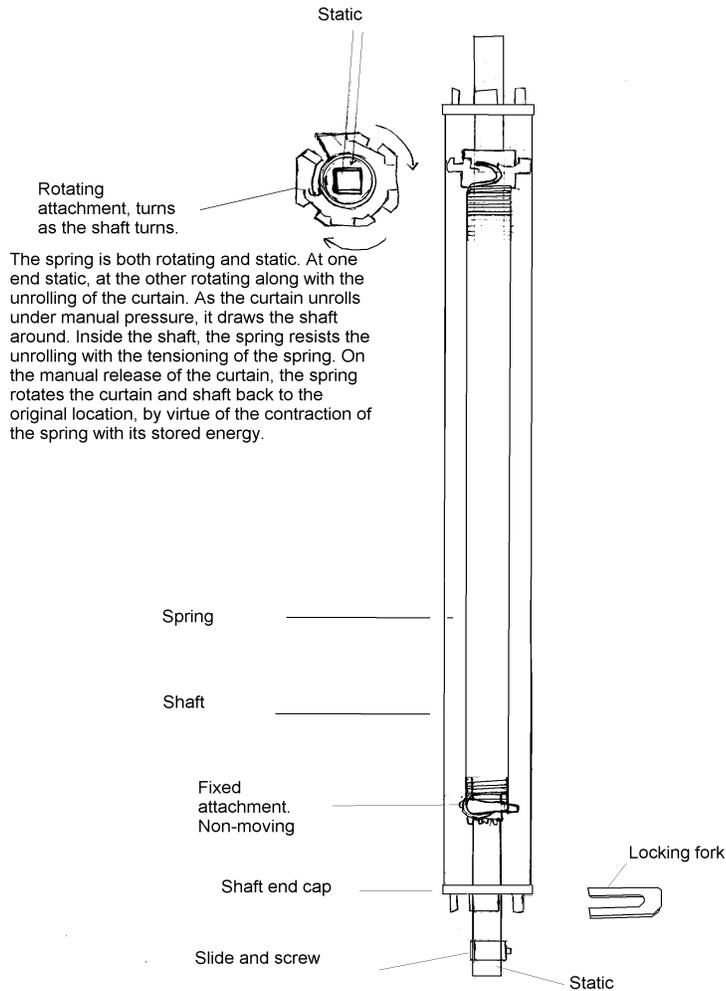
Auto Lock Unit

Location Pegs

Auto Lock Rings

Spring Loaded Shutter Installation Instructions

Spring loaded shutters are lowered by pulling down on the bottom slat, and are raised under the tension of a spring in the shaft. The locking method is a central lock in the bottom slat with key.

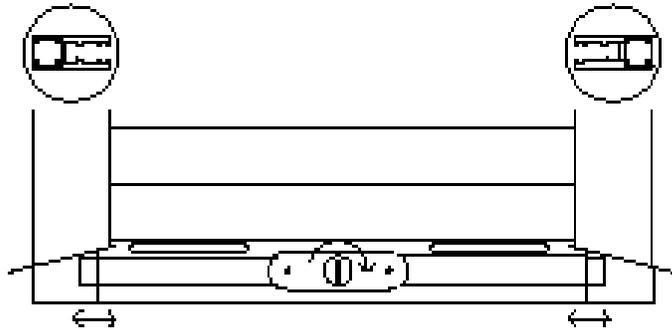


Follow the steps of the general instructions. However, before starting, examine the sprung shaft, and the lock at the bottom of the curtain and familiarise yourself with them.

You will need to notch out a section inside the guide channel to receive the sliding section that will protrude out of the bottom slat when you turn the key.

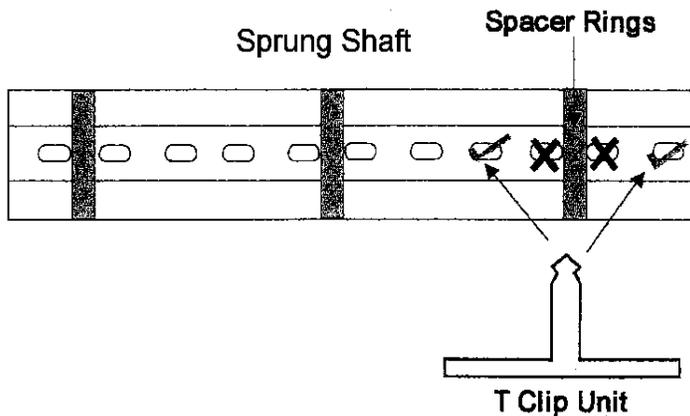
Make the notch with a drill once the curtain is fully installed.

Bottom slat key lock



Spring loaded shutters include a transverse lock fitted into the bottom slat. The central key throws out locking bars which locate into the box section of the guide rail at each side.

After Step 7 of the General Instructions, before proceeding to Step 8, you need to rotate the shaft in the direction of the arrow to put tension on to the spring. Then, connect the t-springs to the shaft by hooking them in to the shaft slots.



More tension may be required on the spring to assist the raising of the shutter; you can do this by disconnecting the top of the curtain from the shaft and manually rotating the shaft in the direction of the arrow. More turns on the shaft increases the amount of tension. It may take 2-3 attempts to achieve the right balance of tension in the barrel so that it raises the curtain with the right amount of power while allowing you to lower it, too.

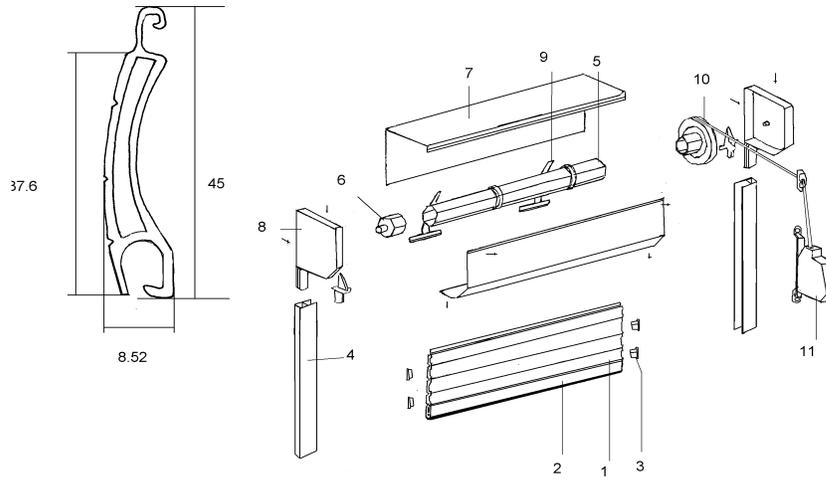
When you have achieved the right balance, you can fit the stops to the bottom rail. You will need a 5mm steel drill bit to drill straight through the bottom rail the stops. Screw straight through these.

NOTE! The holes that are drilled through the bottom rail should be no further down than 10mm from the top. Going below this will damage the lock.

Installation Guide for Cord Operated Shutters

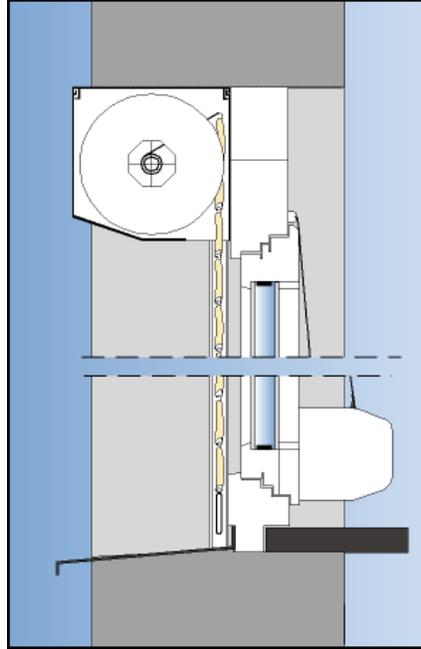
Cord operated shutters are raised and lowered via a tape pulley system from within the building.

The shutter is raised by pulling a cord out from the wall at approx. lintel height and lowered by pulling the cord from the box sited approx. waist level.



Maximum width: 2000mm
 Maximum height: 3000mm
 Maximum square meters: 3m
 Weight per square meter: 7.3kg

Follow the general Shutter Installation Instructions. However, at step 6, having drilled for the guide fixings, you must drill for the cord hole.



This will need to be a 20mm hole starting at the top of your guide centrally of the box section. Starting with a 10mm sds bit drill through the wall angled slightly downwards and away from the internal reveal, as you get close to the inside you need to come off hammer and drill gently through. Once you have got your first hole through you need to move up to your 15mm sds bit repeating the process and again with the 20mm sds bit. Once the hole is complete you can insert through the hole a length of plastic conduit, this will ensure that the cord will run smooth through the wall once fitted.

Now the conduit is through the wall and blown free of any dirt or dust you need to fit the cord box and cord roller. Fit the cord roller first. This will fit directly over the hole you have drilled fitted with the roller to the bottom and the brush to the top. The cord box will fit on the wall at about waist height and in line with the roller. This is fitted with 2 screws, once fitted, pull all the cord from the box and put a plug in to the brake area to stop the cord retracting, make sure the cord is not twisted and feed through the roller and through the wall slightly protruding through top the outside.

7. As long as you have the headroom above your guides you can now fix the guides to the wall, leaving the top screw loose to allow movement so that you can insert the pegs of the box in to the box section of the guide. Before fitting the box on to your guides you will need to feed the cord through the back of the box. Once you have done this you can lower your box into place.

Now connect the cord to the spool. You will see on the spool a little hook to which you fit the end of your cord. This already has a pre-drilled hole in it, your cord will come to the underside of the spool to which you then connect. Once connected, tighten the top screw on the guides. Now your box is in place you will need to put a fixing through the back of this and in to the wall to secure it, again

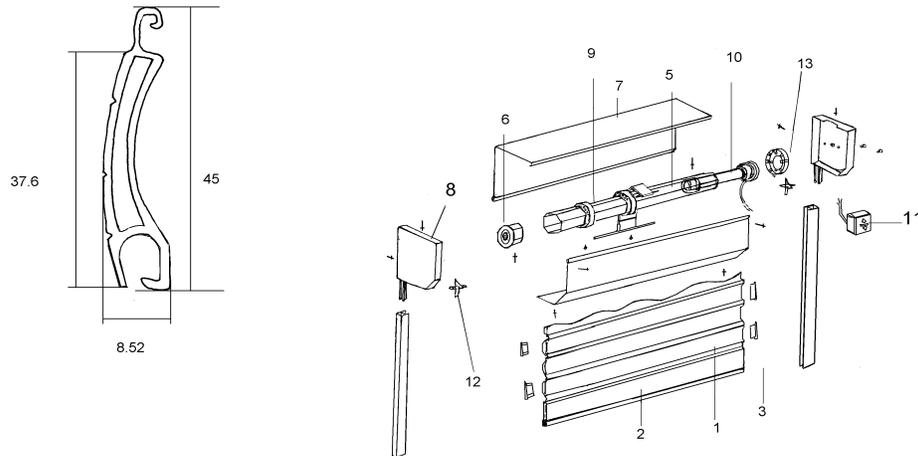
using a 6.5mm steel bit through the aluminium and 7mm masonry bit through in to the wall.

8. Now that the shutter is fitted to the wall, you need to lower in the curtain. Do this by feeding the bottom of the curtain over the top of the shaft then carefully lower this half way down. While the curtain is in this position you need to slide the t-springs on to the top of the curtain and then lower the curtain all the way down, the top of the curtain should finish approx. 50mm from the top of the box. If this is too high, you will have to take a slat out of the top. Once you have the right height, put a number of rotations on the shaft before connecting the curtain. Ensure you leave slack on the cord on the inside, once you are happy with this, connect the t-springs to the shaft with approx. 20mm self tapping screws.

9. Finally, drill the bottom slat for your stops. These will be fitted just inside the guides. Check the running of the shutter, if everything is okay, then fit the lid, rivet on with 4mm rivets. Seal around the shutter with silicone. We recommend that a spot of silicone goes on the rivets on top of the box to seal against water entry.

Installation of electric shutter

Standard electric shutters are raised and lowered via either a 2-way momentary switch for internal use, or a 2-way momentary key switch for external use.



MAXIMUM WIDTH: 3500mm

MAXIMUM HEIGHT: 2900mm

MAXIMUM SQ METERS: 12m

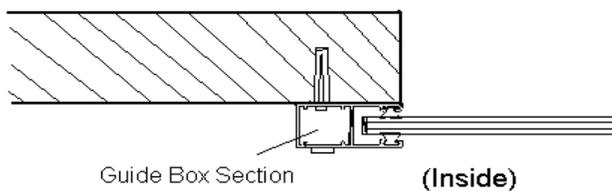
WEIGHT SQ METER: 7.3kg

Follow the General Installation Instructions until step 6.

6. Now that the wall is drilled for your guide fixings, you need to decide the positioning of your switch. If it is internal, the recommendation for the switch positioning would be to either the left or the right hand side of the window at approx. waist height. Before fixing the switch you will need to drill the hole through the wall for your cable using a 10mm sds bit.

7. To get the motor cable from inside the box to inside the building can be done by drilling a 10mm hole through the peg of your end plate (inside the recess). The cable can then be fed through this and down the box section of the guide channel.

Internal fit



Mark the height at which you wish to have your switch on the outer wall and then transfer that mark to the back of your guide channel. Once you have that mark on the back of the guide, drill just the back of the guide with a hole big enough to feed the cable through. You then need to fit the guide channel to the peg of the end plate before fitting this to the wall. Whilst doing this you need to feed the cable down the guide channel and out of the hole on the back of the guide that you have drilled.

8. You will need to drill through the wall with a 10mm sds bit at the point of which your cable is coming out of the guide channel, and in to the inside of the building at the point to where you want your switch fixing.

9. Now you have one guide already connected to your box you can either fit your other guide to the wall or fit to the box and put the shutter on the wall in one unit. It is recommended 2 people do this method. While raising the shutter in position you need to feed the cable through the wall at the same time. Once in position you can screw all your guide fixings up, taking care not to damage the cable when fixing screws through where this is.

Now your box is in place you will need to put a fixing through the back of this and in to the wall to secure, again using a 6.5mm steel bit through the aluminium and 7mm masonry bit through in to the wall.

10. Connecting your switch. There are sufficient holes in the back of your switch box for your cable to come through, so site this on the wall to suit the cable and mark through the fixing holes. Drill the marks and insert your plugs and fix the switch back to the wall. (It is easier to strip your outer sleeve of the cable before doing this.) Once the switch box is fitted you need to get power to this. This should be coming from a socket ring main, via a plug top. If the power requires being on a fuse spur or must be wired direct to the mains, the switch should always have its own isolation point and be wired by a qualified electrician.

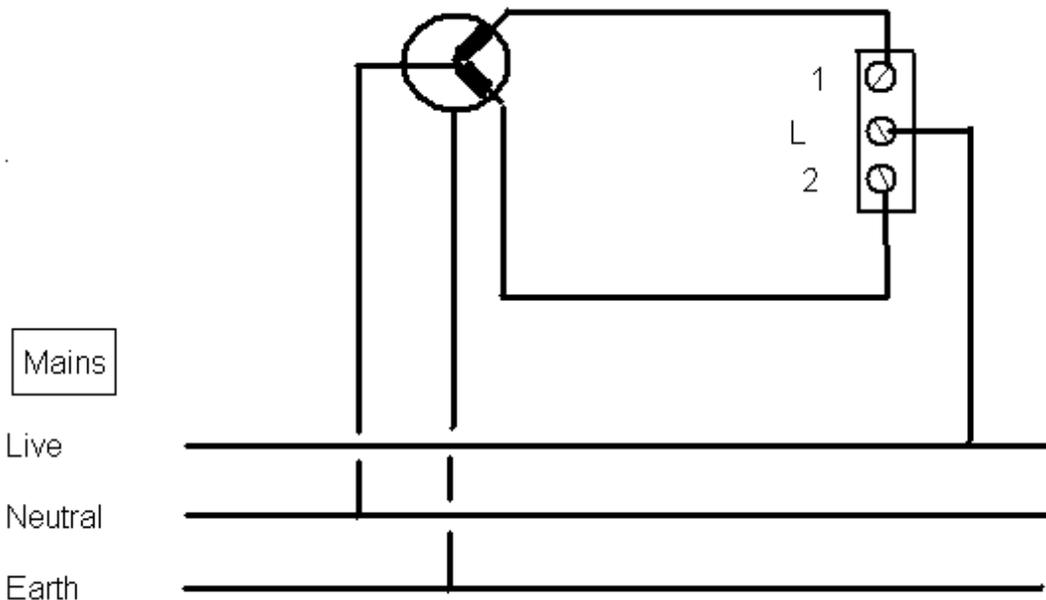
Once you have power to the switch there will be a 3-core cable from your mains and a 4-core cable from your motor. The neutral or blue from the motor and mains connect together in a terminal block separate from the switch. The earth or green and yellow from the motor and mains connect together in a terminal block separate from the switch; and the live or brown from the mains connects to the terminal on the switch marked L. Brown and black from the motor remain; these are the motor directions. One connects in to terminal 1 of the switch, the other connects in to terminal 2.

11. Check that your shaft is running in the direction indicated by the switch. If not, you need to change the black and brown of your motor cable in the switch.

12. Now, the shutter is fitted to the wall and the switch is connected and working. Lower in the curtain. You do this by feeding the bottom of the curtain over the top of the shaft then carefully lower this half way down. While the curtain is in this position you need to slide the t-springs on to the top of the curtain and then lower the curtain all the way down, the top of the curtain should finish approx. 50mm from the top of the box. If this is too high, you will have to take a slat out of the top. Once you have the right height, connect the t-springs to the shaft with approx. 20mm self-tapping screws.

13. *Setting the limits.* There are 2 buttons on your motor covered by a yellow cap. Remove the cap and push both of the buttons in. This puts the limits on constant run. Push both the buttons in again and this zeroes the limits. Now put your switch in the up position and press one button in to determine which is the up limit, and which is your down. Once you know this, you find that pushing in your up limit keeps it running constant until you push in again and release. Where your shutter stops is where the limit is set to. Repeat this process going down.

Internal Momentary Switch and Motor



External Key Switch and Motor

