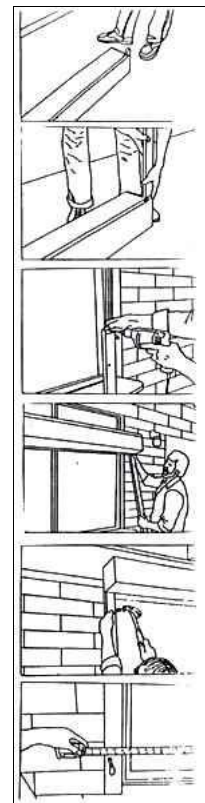


Installation



Installation Part One

1. Lay the rolling shutter on a flat, clean surface with the end cap ears pointing up. Leave the front cover on. Remove the protective plastic film from the back cover only. Unwrap the strap from around the end cap ears and push the extra strap into the box opening. Tie a spare piece of strap around the housing box to stop the shutter from coming out of the box, when the box is inverted.
2. Slide the guide rail down over the end cap ear. Be careful to align the plastic entry guide into the end of the guide rail. If the entry guide is not aligned properly it will break very easily. Check and makes sure the large drilled hole in the guide rail is facing the front of the box and the rivet hole in the guide rail is opposite the the front of the box. Repeat the opposite side.
3. Slide the U channel down over the end of the guide rails and then rivet the U channel into the place. Ensure the width of the U channel is the same as the width of the housing box.
4. Grasp the guide rails at the bottom of the housing box and invert the shutter. Place the shutter up against the wall. **BE CAREFUL WHEN MOVING THE SHUTTER IN THIS POSITION, DUE TO THE ESE OF BREAKING THE END CAP EARS.**
5. Place the shutter over the window at the proper height and equal distance on each side of the shutter by pounding a metal awl in the top guide rail hole.
6. While still holding the shutter in place, square and level the shutter. Mark the location of the other guide rail holes.

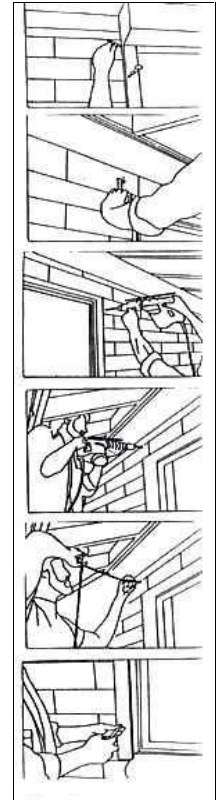


Installation Part Two

7. With the shutter being held flush against the wall, make a vertical mark along side of the control side end cap and the guide rail. Make a horizontal mark at the point where the econtrol side guide rail meets the end cap and also make a mark at the top of the end cap.
Remove the awl and carefully lower the shutter to a stable surface.
8. On the vertical line just make, measure in toward the window $5/8$ ". If the shutter is a bottom exit, measure up from the guide rail line $3/4$ ". If the shutter is a top exit, measure down from the top line $3/4$ ".
9. If the shutter is being mounted on a block or brick surface, drill appropriate holes where marked, to insert anchors.
10. Drill the $3/4$ " control hole (see step 8). Pay close attention when drilling the hole. Control hole must be drilled perfectly straight and level to avoid fraying the strap.



11. Feed the end of the strap through the control hole. Make sure it is not twisted.
12. Fasten the rolling shutter to the wall, plumb and level. Do not overly tighten the top screws.



Installation Part Three

13. From the inside of the all check the strap for proper clearance. Thread the strap through a strap guide and attach the strap guide to the wall over the 3/4" hole.
14. Remove the spare strap from around the housing box and allow the shutter profile to lower into the U-channel and lock into place. Remove the front cover and secure the housing box to the wall with 2 or more flat head screws.
15. **IMPORTANT:** Cut the strap **ONLY** when the shutter is fully **DOWN!!!!** Determine at what height the customer wants the operator (crank box or pull strap) and cut the strap 2' below the location of the operator.

16. CRANK BOX ASSEMBLE:

Lay the crank box on a flat surface. Remove the cover and take out the large nylon gear. Thread the strap through the end of the gear and tie a secure knot in the end of the strap and then pull on the strap to return the knot into the cavity in the side of the gear. (ensure the knot is below the side surface of the gear). Replace the nylon gear into the crank box, threading the strap through the guide rollers. Replace the cover and secure with screws

PULL STRAP ASSEMBLE

Slice a 1/4" opening in the end of the strap. Lay the main body of the pull strap box on a flat surface. Thread the strap under the catch plate and over the two support pins. Attach the strap over the T-pin (through the slit in the strap). Push the retraction wheel flange inward to release the tension on the retraction **BE VERY CAREFUL WHEN RELEASING THE WHEEL, AS THE STRAP WILL TIGHTEN QUICKLY.** Replace the cover by snapping into place.

17. Position either the crank box or the pull strap box at the determined height and so the strap in straight down the wall from the strap guide. Mark where each of the screw holes will be. Move the operator away and install anchors if necessary. Replace the operator and secure to the wall with the appropriate color screws. Do not overly tighten screws, as this will distort the operator.
18. Roll the shutter profile up and down several times, making sure that it works properly. Check and make sure that when the shutter is in the full down position, that it is lock into place. Additional profile may need to be added or removed.
19. Roll the shutter all the way up and replace the font cover. Caulk all the exterior edges (guide rails, side and top of box and u-channel). Be careful when caulking the control side of the box that caulking does not get on the strap. Remove the protective film from the front cover. Install deco caps in each guide rail.



