



**Assembly Instructions
for
Motorization
of
Pre-Fabricated
Cellular & Pleated Shades in Small
Headrail**

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Reel Lift's Parts are Patented

**IT IS RECOMMENDED THAT YOU WATCH THE
AC VIDEO TO SEE SOME OF THE STEPS IN ACTION**

Tools and Components Needed to Complete Job:



Tools:

Hammer	#1 Phillips head screwdriver	#2 Phillips head screwdriver
Scissors	Flat head screwdriver	Wire Cutters
Ruler	Pencil and Marker	Measuring Tape
Drill	7/32" Pilot Drill Bit	Allen Wrench - Long 5/32
Punch	Speed Square	

Components per blind

1 Motor	Headrail - width of the shade cloth
2 headrail end caps	Tube - approx. width of the headrail
2 clips for every cord	1 snap-in grommet per cord

1 set of DC Reel Lift parts

1-Motor Block	1 - #4 3/8" Drive, set screw
1-Threaded Block	2 - #4 5/8" Motor Block screws
1-Threaded Drive	3/4" Bonding Film

Mounting brackets: 0" to 31"	2 brackets
31" to 79"	3 brackets
79" to 127"	4 brackets
127" to 174"	5 brackets

Minimum Width - 13" Maximum Width – 192"

18" to 13" or smaller shades require some custom modifications, call for instructions

Maximum Length - 144"

Ordering your shades:

Order shades with standard headrails, controls right, IB or OB

Cellular Shades that fit the small headrail are:

3/8", 3/4", Double Cell, Triple Cell and 1/2"

1/2" sizes may need to have the stiffener replaced.

The first and last route holes on the shades must be ordered a minimum of 4" in from each end. For shades using the Internal RTS25 DC Receiver, installed in the headrail, the route holes must be ordered a minimum of 8" in from each end. If

the first and last route holes do not meet the minimum of 4", you will need to redirect the cords inside the headrail. If you have to redirect the cords, you must redirect all the cords the same distance or the shade will not be level. See "rerouting holes" on AC Headrail instructions.

Preparing the Shade

Remove pull tassels from lift cords. You may need all the cord on the short cord so be careful what you cut off. Remove cord lock and headrail. If your shade has tapes or cord that is not 0.9mm, the shade will have to be restrung. If you have to restring your shade, cut cords the length of the shade + 16", (6" for tying knots in the bottom rail + 10" extra on top). Restring at this time. If you are replacing tapes put cord guides in the bottom holes and tie a double knot around a small plastic washer. Glue each bucket back in its pocket on the bottom of the headrail

To measure and mark your cords, hang your shade upside down from angle brackets attached to a lift. Hang small hand clamps from the cords; this puts equal weight on the cords and makes the marking of the cords more accurate as seen on video.

Add 1/4" to the finished length of the shade and mark the cords. If you are accurate in this step, it will not be necessary to make any adjustments to the shade when you are setting the limits.

Return shade to table. If required, replace stiffener at this time.

Cutting Headrail and Tube

1. Cut one piece of headrail for each shade you are motorizing. Cut the headrail the same size as the **FABRIC.**
2. Cut one piece of tubing for each shade you are motorizing. **Cut tube 4" wider than the distance between the first and last route holes. Note:** Special cuts are made for 13" to 18" shades, call for instructions.
3. Notch tube for key on motor crown. (Fig. 1)

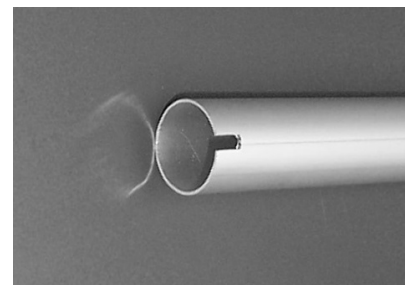


Fig.1

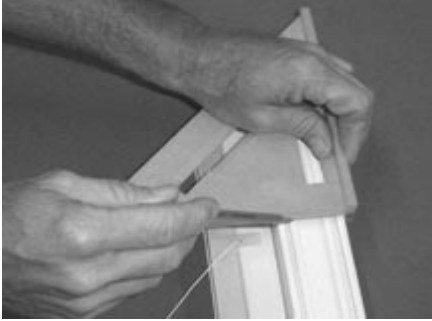
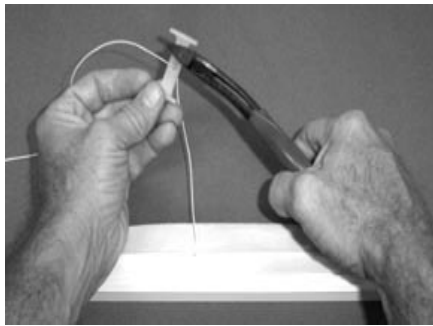


Fig. 2

4. Lay headrails out with their matching shades and mark one side of the headrail as front. *In 2012 there will be an obvious front and a back to the headrail.*
5. Turn headrail upside down in back of the shade making sure the back of the headrail is facing the back of the shade. Use a speed square to mark route holes on the headrail. Or measure holes from one end of the shade and make your marks on the headrail (Fig.2)

6. Drill a 7/32" hole centered in the headrail on each mark. **Pilot bits drill perfectly round holes in metal and are needed so the snap-in grommets fit correctly.** De-bur the holes.

Fig. 3



7. Trim cord guides (Fig. 3) so they fit inside the appropriate section of the head rail, 1/2" for the smaller inside section and 1 1/4" for the larger section. After trimming replace cord guides.

Motor Assembly for Somfy LT28 and ESI M25S

For the **LT28 motors**, pin all your motors by drilling a 5/32" hole through one side of the motor drive and the thin plastic housing. Making sure that the drive is straight up and not cocked to one side. Then drill another whole 180 degrees from the first hole. Take a left over nail end of a pop rivet and tap it through the first whole, through the cavity and through the hole on the other side making sure the nail is flush to the outside on one side. Cut the other side off with a pair of dikes and file down until it is flush with the outside of the motor housing. (Fig.4)

Remove the two screws from the pin plate on the motor head. Do not remove the plate. Screw the motor block on to the motor using the same wholes in the motor plate with 2 each #4, 5/8", counter sink screws. Do not over tighten, or the limit switches may stick.

For the **ESI M25S** remove the two machine screws holding the Motor bracket on to the motor and save somewhere. Take the new #40 screws and push them through the holes in the ESI motor block. Put just one drop of #262 Loctite on the end of each screw and screw the motor block to the motor using the same holes that held the original bracket screws.

DO NOT PUT THE LOCTITE IN THE SCREW HOLE, IT WILL DRIP DOWN INTO THE MOTOR!



Fig.4

Push the **LT28** into the tube and line up the notch in the tube to the key on the motor. Measure 10 1/4" from the notched end of the tube and drill a 3/32" hole through the tube and the drive. Screw the tube to the drive with one self drilling #6, 3/8" self tapping screw.

For the **ESI** motor, push the motor into the tube and line up the notch in the tube to the key on the motor. Measure 13 3/8" from the notched end of the tube and drill a 3/32" hole through the tube, the drive and into the metal drive shaft. Counter sink the hole on the tube. Use one #4 5/8" screw to fasten the tube, drive and shaft together. Make sure the screw is flush with the tube.

Now tap the threaded drive all the way into the open end of the tube. Take an awl and hammer and dimple the tube exactly 1/4" from the end of the tube. Do this twice 180 degrees from each other. With your hands test that the drive does not rotate or come out of the tube. If it seems a little loose. Make the dimple a little deeper.

With the set screw on the threaded block, pointing away from you, screw the threaded block onto the threaded drive. Keep threading the threaded block onto the drive until just before it covers the set screw. You are now through with the motor assembly.

Final Assembly

You will always be assembling your shade with the motor on your right, even if you shade is a motor left.

Motor Right – Place the shade on the table with the front of the shade facing you.

Motor Left – Place the shade on the table with the front of the shade facing away from you.

1. Pull all cords to the right end of the headrail and slide the threaded block into the right side of the headrail about 6". Once the threaded block is approximately 6" inside the headrail pull the cords up and over the back of the headrail. Continue to slide the motor assembly all the way into the headrail.
2. Now pull the cord closest to the motor head, straight up. Adjust the motor assembly inside the headrail until it measures 2" from the cord to the end of the tube. (Fig.5)

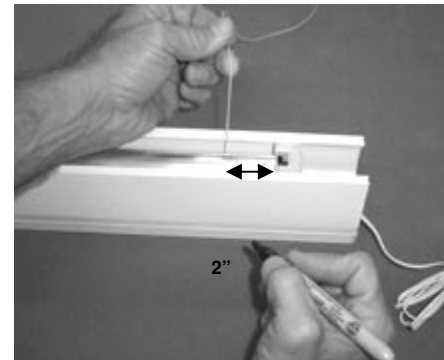
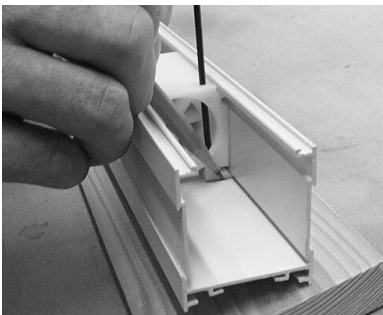


Fig.5

Fig.6



3. Go to the other end of the motor assembly and make a pencil mark inside the headrail at the end of the threaded block. (Fig.6)
4. With the long handled Allen-wrench; tighten down the set screw in the treaded block until it leaves a mark on the inside of the headrail. Loosen the set screw and pull the threaded block back to expose the mark.

Fig. 7



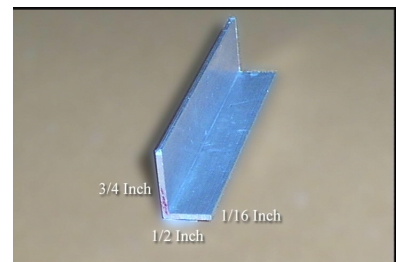
5. Using a 3/16" drill bit, drill on the mark you made with the set screw, until the bit just breaks through the bottom of the headrail. (Fig. 7)
6. Move the threaded block back to the pencil mark you made on the inside of the headrail and tighten the set screw down. (DO NOT OVER TIGHTEN OR THE SYSTEM WILL OSCILLATE)!
7. Pull each cord so it is straight up and 90 degrees to the edge of the head rail, and make a mark on the top of the headrail.

Do not skip this next step! The tape assures your shade will not come out of adjustment.

8. Cut a piece of 3M #396 Super Bonder Film, approximately 1 1/2" for each cord and temporarily stick it to the edge of the headrail.

Make a jig out of 3/4" X 1/2" X 1/6" aluminum angle, 3" long.

9. With the 3/4" leg pointing up, lay the jig up against the front of the headrail in front of the marks you made on the headrail for the cords. On the 1/2" edge of the jig draw a short line down the center of the tube.



10. Then, turn the jig 90 degrees to the headrail. With the 1/2" leg pointing toward the motor, line the back of the jig up to your cord mark on the headrail. Draw a line down the face of the 1/2" leg that crosses your first line on the tube. Do this for every cord location. *It is important to make these marks in this way so the shade lifts perfectly level every time. Fig.8*
11. Find the mark you made on your cord. With the end of the cord pointing toward the motor, lay the cord parallel to the tube on the cross mark. Using the piece of tape you cut and tape the string to the tube on the motor side.



Fig. 8

12. Pick the headrail and the shade up and snap the headrail into the correct mounting brackets. Gently lower the shade to the floor and connect the motor to a low voltage switch with a 12 or 24 VDC transformer. Raise the lift if necessary until the shade is a couple of inches off the floor.

NOTE: On the lift.

UP= the tube rolling toward you for a motor right

UP= the tube rolling away from you for a motor left.

13. Run your shade up and set the upper limit. Run the shade down to the ordered length and set the lower limit. Measure the shade on both sides and in the middle. If any adjustments are required, adjust the length by pulling the appropriate cord in the headrail to level the shade. When you are satisfied that the shade is level and set at the finished length, snap the 29 mm cord clip over the tape and cord onto the tube. Lay the string back over the clip and snap another cord clip over the first cord clip. Trim the cord to approximately 1".
14. Run the shade up and down to check the final limits. Run the shade up to the top and make sure the limit is snug not so tight that the shade does not reach its limit.
15. Disconnect from the switch, return the shade to the table and tap the end caps into the headrail and clip on the appropriate number of mounting brackets. The shade is ready for packaging and installation.

Installation

Hang shade with appropriate brackets, making sure that any screws used to secure brackets do not protrude into the headrail enough to block the movement of the motor block!