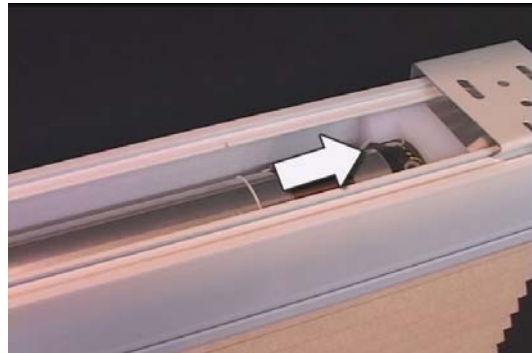


Motorization Solutions for Window Coverings

Welcome to Reel Lift Systems, where simplicity and precision parts combine to create a reliable and production oriented product for lifting cellular and pleated shades.

With the Patented Reel Lift System, the motor and tube move from right to left in the headrail. As the tube rotates, it threads itself inside a fixed block. The tube moves a calculated distance with each revolution, causing the cords to wind up on the tube with complete accuracy.



Ordering your shades:

At this time Reel Lift Systems, Inc. is not aware of any cellular or pleated shade product that cannot be motorized using the New Reel Lift System AC Headrail and the Reel Lift's Patented Lift System.

Minimum Width on the New Reel Lift Headrail

25" X 200"

Maximum Size on the New Reel Lift Headrail

216" X 200"

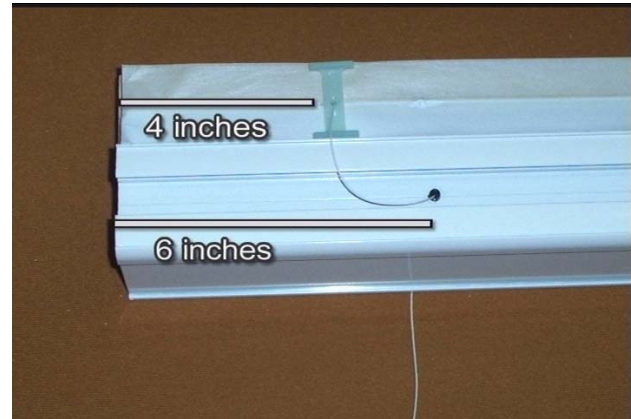
The maximum length is calculated using the Reel Lift 40mm tube and the maximum number of turns on the Somfy 400 Series Motor.

If you are ordering shades from a manufacturer, they should be ordered with a standard headrail whenever possible. If you are able to specify where you want your route holes, make sure the first and last route holes on the shades are a minimum of 6" in from each end. For shades using a headrail control, the route holes must be ordered a minimum of 10" in from each end. If the first and last route holes do not meet the minimum of 6", you will need to redirect the cords inside the headrail.



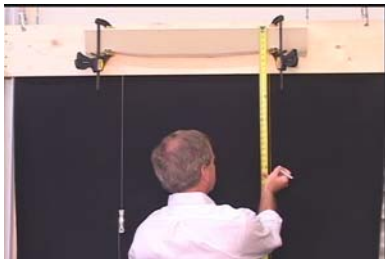
Motorization Solutions for Window Coverings

If you have to redirect cords, you must redirect all the cords the same distance or the shade will not be level. *In this example all the cords have to be redirected two inches.*



Preparing your shade:

The Reel Lift System ONLY works with *0.9mm or 1.4mm cord. If your shade has tape or a cord larger than 1.4mm, the shade will have to be restrung. If you have to restrung your shade, cut the cords the length of the shade + 18", for tying knots in the bottom rail and extra on top.



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.

Add 3/8" 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.

At this time you may have to change out the *stiffener on certain shades. For the 1 1/4" Hunter Douglas Duette, remove the existing stiffener and replace with a 1 1/2" stiffener. Because you will be using new cord guides, any stiffeners drilled with holes larger than 1/8" will also have to be replaced.

*See addition information listed on page 11

Motorization Solutions for Window Coverings

*Cutting Headrail and Tube

Lay the shade on the work surface, with the front of the shade facing up, measure the width of the fabric. Next measure the distance between the first and last route holes. Cut a piece of headrail the width of the fabric. Add 5" to the measurement you took between the route holes and cut a piece of 40mm tube.

Notch the end of the tube to fit the key on the crown of the motor. File any burrs off the headrail and tube.



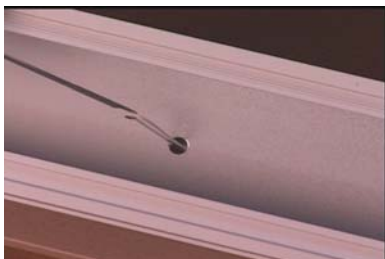
Place the headrail behind the shade, upside down, with the front of the headrail facing away from you. Line the headrail up with the fabric and using a speed-square, mark the headrail at each of the cord locations.

You will notice that there is a centerline etched in the headrail as a drill guide. Drill a 7/32" hole at each mark. De-burr the holes. *Make sure your drill bit has a pilot tip, is sharp, and drills a perfectly round hole or the snap-in-grommet will not fit properly.*

Next, put *cord guides on each of the cords and make sure they fit securely in the stiffener.



Pull all the cords to the right and slide the headrail on to the shade, making sure the cord guides are in the correct slots in the headrail. Slide the headrail about 1/2" past the end of the fabric in order to see the cords.



Use a *small hook to fish the cords through the holes drilled in the headrail.

Slide the headrail back so it lines up with the fabric. Check to see if the holes line up with the cords.

*See addition information listed on page 11

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Next, thread a snap-in-grommet onto the cord and snap it into the headrail.

Check that the cords have not tangled or caught on anything by raising and lowering the shade while holding the cords.



You have now finished with the shade preparation and are ready to start on the motor sub-assembly.

Motor Sub-Assembly

These are the parts needed for the motor sub-assembly.

400 mm Tube (our system does not work with the Rollease 1 1/2" tube)

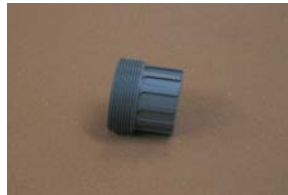
Somfy 400 Series Motor

The Crown and Drive for the 40mm Round Tube

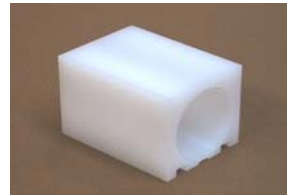
1- Motor Block



1-Threaded Drive



1-Threaded Block



Put the crown and drive onto the motor.

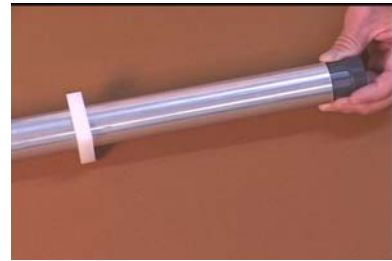
Take the Motor Block and screw it to the motor head with 2 #6 X 1", Phillips counter sink screws. Do not over tighten.



If your shade requires a center support(s), slide it on to the tube now.

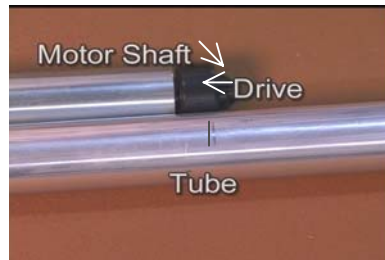
Motorization Solutions for Window Coverings

Insert the Threaded Drive into the un-notched end of the tube. The Reel Lift 40mm Tube is a drawn extrusion, therefore the inside dimension will always remain consistent. If you are using another manufacturer's tube, the inside diameter may be larger or smaller than our tube and you may have to tap the Threaded Drive in with a hammer or tape it to create a snug fit.



Either way, **it is absolutely essential that the threaded drive be centered and square to the tube.**

Make a mark on the tube 16 3/4" from the notched end and 3/8" from the un-notched end. Rotate the tube 180 degrees and make a second set of marks. These measurements and the length of the screws are very important. The tube, drive and motor shaft must all be fastened together and the threaded drive secured to the tube.



Because the Reel Lift Systems moves inside the headrail, if this is not done correctly the drive may separate from the motor or the threaded drive could be pulled out of the tube.

Slide the motor into the tube and match up the key in the crown with the notch in the tube.



Next drill a 3/32" hole through the tube, drive and motor shaft at the mark you made 16 3/4" from the notched end. Drill another hole on the mark you made 3/8" from the un-notched end of the tube through the tube and into the Threaded Drive. Countersink the holes and screw the motor drive and the Threaded Drive to the tube using #4 X 5/8" Phillips countersink screws.

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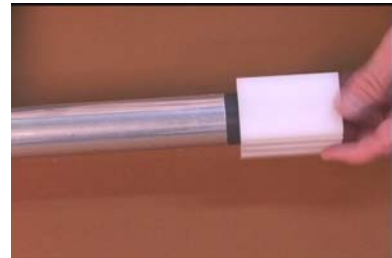


All screws in the tube must be flush with the tube.

Turn the tube 180 degrees and drill a second set of holes on your marks. Counter sink and set your screws.

Screw the Threaded Block onto the Threaded Drive until the Threaded Drive is 3/16" from the end of the threaded block.

You have now finished the motor assembly and are ready to assemble the shade.



Final Assembly

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



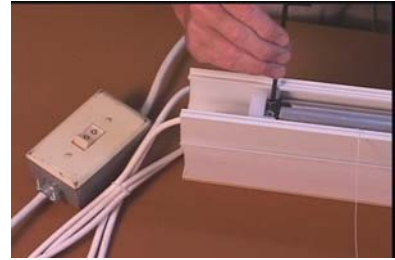
For **Right Motors**, place the shade on the table with the front of the shade **facing you**.

For **Left Motors** place the shade on the table with the front of the shade **facing away from you**.

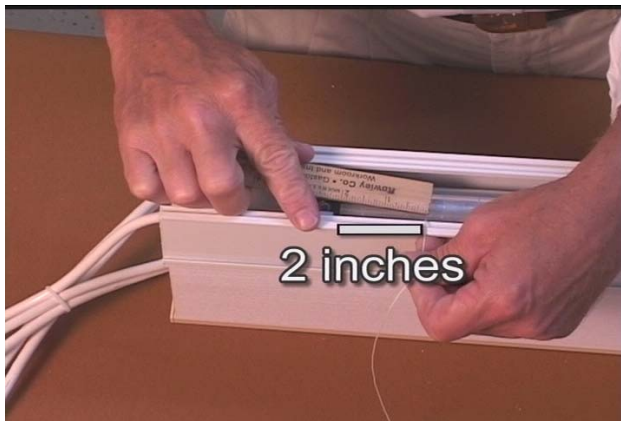
In either case, pull all the cords to the right end of the headrail. On right end of the headrail, slide the Threaded Block into the headrail. Once the Threaded Block is at least 6" inside the headrail, pull the cords up and over the back of the headrail. Continue to slide the motor assembly all the way into the headrail.

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Next hook the motor up to a *switch in order to find the lower limit. Run the motor counterclockwise or away from you until it hits a limit. Adjust the limit to line the notch in the tube so it is centered in the headrail opening.



Check to see if the Threaded Drive is flush with the Threaded Block. If not slide the Threaded Block out the left end of the headrail and adjust by screwing the Threaded Block in or out.



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.

Go to the center of the Threaded Block and drill a 3/32" hole into the back edge of the headrail and into the block. Using #4 X 1/4" Phillips pan head screw, secure the threaded block to the headrail.



Caution: Using a longer screw may puncture the inside of the Threaded Block and damage the threads!

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

Cut a piece of 3M #396 Super Bonder Film, approximately 1 1/4" for each cord and temporarily stick it to the edge of the headrail.

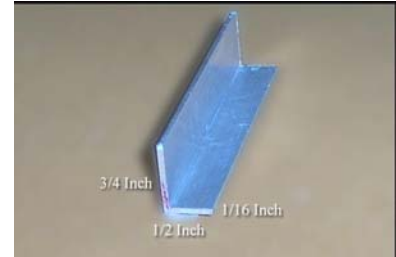
*See addition information listed on page **11**

Motorization Solutions for Window Coverings



To locate the position of each lift cord, pull each cord straight up out of the headrail and make a mark on the edge of the headrail or measure where the cord exit the top of the shade and mark the headrail.

Make a jig out of $\frac{3}{4}$ " X $\frac{1}{2}$ " X $\frac{1}{16}$ " aluminum angle, 3" long.



With the $\frac{3}{4}$ " 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 $\frac{1}{2}$ " edge of the jig draw a short line down the center of the tube.

Then, turn the jig 90 degrees to the headrail. With the $\frac{1}{2}$ " leg pointing toward the motor, line the back of the jig up to your mark on the headrail. Draw a line down the face of the $\frac{1}{2}$ " 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.



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Find the mark you made on your cord. With the end of the cord pointing to the right, lay the cord parallel to the tube on the cross mark. Using the piece of tape you cut, tape the string to the tube. Snap the 40 mm cord clip over the tape and cord on to the tube.



Tap the end caps into either end of the headrail and your shade is ready to hang.



*Setting the Limits

Hang the appropriate headrail mounting brackets on your lift or wall. Pick the headrail and the shade up and snap the headrail into the brackets. Gently lower the shade to the floor. Raise the lift if necessary until the shade is a couple of inches off the floor. Attach your switch and run your shade up and set the upper limit. Run the shade down to the lower limit and measure the shade on both sides and in the middle. If any adjustments are required, adjust the lower limit or pull the appropriate cord to level the shade. When you are satisfied that the shade is level and set at the finished length, cut the cords off leaving approximately 1". Run the shade up and down to check the final limits. Run the shade up to the top. The shade is ready for installation.

If you are shipping your shade, or handing it off to an installer, it is recommended that after running the shade to the top, you back the upper limit off a quarter of a turn. This will avoid the shade coming out of adjustment during shipping or installation.

*See addition information listed on page **11**



Motorization Solutions for Window Coverings

Parts Required for Building

One Motorized AC Blind Using the Reel Lift System Headrail

Headrail (the width of the blind)

Reel Lift Systems AC Headrail

40 mm Tube (the width of the headrail)

Reel Lift Systems 40mm tube

Somfy 400 Series Motor

Crown and Drive for 40 mm round tube

1 set of Reel Lift Systems parts (parts listed here are for use with the Reel Lift Headrail)

Motor Block

2 - #6 X 1" Phillip countersink screws

Threaded Drive

2 - #4 X 5/8 Phillips countersink screws

Threaded Block

1 - #4 X 1/4" Phillips pan head screw

Center Supports, if necessary

1 - #4 X 1/4" Phillips pan head screw (1 screw for each center support)

2 - Headrail End Caps

Headrail Mounting Brackets

25" – 42" 2 brackets

42" – 72" 3 brackets

72" – 108" 4 brackets

108" – 144" 5 Brackets

144" - 174" 6 brackets

40mm Cord Clips (one per cord)

Cord Guides (one per cord)

Snap-in-Grommets (one per cord)

3M #396 Super Bonder Film

7/32" Drill Bit

Motorization Solutions for Window Coverings

Sources

.9mm Cord	Rowley Co. 800-343-4542
Hand Clamps	Ace Hardware or www.adjustableclamp.com
Stiffeners	Turnils 800-367-2645
Saw Blade	DML Non Ferrous TCG 12 X 80 www.fastenal.com Part #0200476
Cord Guides	Turnils 800-367-2645
Cord Hook	(Loop Turner) www.jo-ann.com
Needles	for restringing shades www.hancockfabrics.com (upholstery needles)
Setting Limits	www.somfysystems.com /Motor Instructions/LS40 Motor PDF/Page 2
Switch	www.somfysystems.com /Motor Instructions/LS40 Motor PDF/Page 2