



Automated Systems

SideWall Curtain

Agriculture House System

**RollSeal
PO Box 140
1751 County Road 68
Bremen, AL 35033**

Table of Contents

Section	Title	Page
1.	Specifications.....	3
1.1	Standard Sidewall Curtain Systems	3
2.	Limited Warranty.....	4
3.	Warnings.....	5
4.	Physical Description/Drawing	5
4.1	Description Of Assembly	6
5.	Use of Equipment	6
6.	Tools Required.....	6
7.	Adjusting Framing	6
8.	Installation	7
8.1	Back plates	7
8.2	Left track.....	8
8.3	Center tracks	9
8.4	Right track.....	9
8.5	Bottom channels.....	10
8.6	Fasten Sidewall Curtain Systems to Boards.....	11
8.7	Top bar	12
8.8	Drive Pipe Assembly.....	12
8.9	Somfy Motor Installation	13
8.10	Ridder Motor Installation	17
8.11	Lock Motor Installation.....	21
8.12	Sidewall 21-1 Manual Drive	28
8.13	Drive Pipe Installation.....	30
8.14	Curtain Installation.....	31
8.15	Fine Tuning System	32
8.16	Top cover	32
8.17	End caps	32
9.	Wiring Diagrams.....	33
9.1	Somfy Motor Tester Wiring Diagram	33
9.2	Somfy Motor Electrical Wiring Diagram.....	34
10.	Diagrams/Parts List.....	35

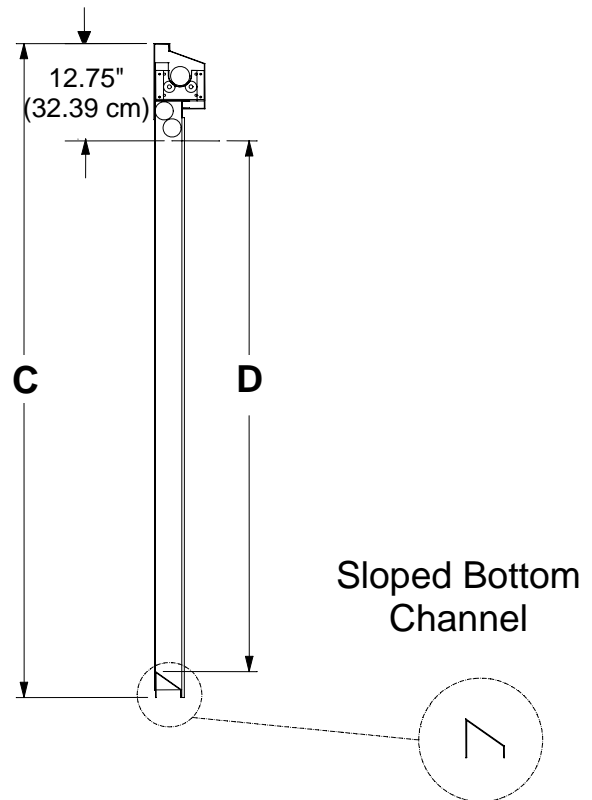
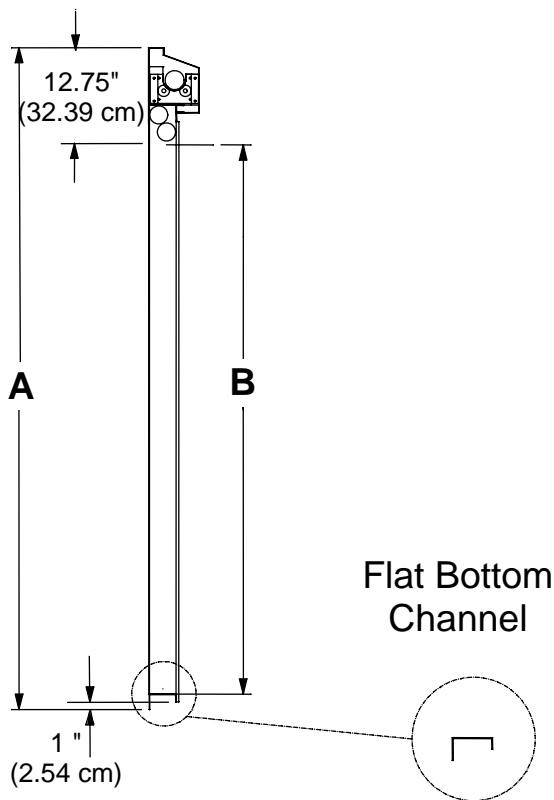
1. Specifications

1.1 Standard Sidewall Curtain Systems

Sidewall curtain systems have standard sizes as given in Table 1. The following sections describe how to install your sidewall curtain system.

Table 1 Standard RollSeal Sidewall Curtain Systems

System	Overall Height Flat Bottom Channel A	Curtain Opening Flat Bottom Channel B	Overall Height Sloped Bottom Channel C	Curtain Opening Sloped Bottom Channel D
2 ft.	38.750 in. (98.43 cm)	24.00 in. (60.96 cm)	37.750 in. (95.89 cm)	21.625 in. (54.93 cm)
3 ft.	50.750 in. (128.9 cm)	36.00 in. (91.44 cm)	49.750 in. (126.37 cm)	33.625 in. (85.41 cm)
4 ft.	62.750 in. (159.38 cm)	48.00 in. (121.92 cm)	61.750 in. (156.85 cm)	45.625 in. (115.89 cm)
5 ft.	74.750 in. (189.86 cm)	60.00 in. (152.4 cm)	73.750 in. (187.33 cm)	57.625 in. (146.37 cm)
6 ft.	86.750 in. (220.34 cm)	72.00 in. (182.88 cm)	85.750 in. (217.81 cm)	69.625 in. (176.85 cm)
7 ft.	98.750 in. (250.83 cm)	84.00 in. (213.36 cm)	97.750 in. (248.29 cm)	81.625 in. (207.33 cm)
8 ft.	110.75 in. (281.31 cm)	96.00 in. (243.84 cm)	109.75 in. (278.77 cm)	93.625 in. (237.81 cm)
9 ft.	122.75 in. (311.78 cm)	108.00 in. (274.32 cm)	121.75 in. (309.25 cm)	105.625 in. (268.29 cm)
10 ft.	134.75 in. (342.26 cm)	120.00 in. (304.8 cm)	133.75 in. (339.73 cm)	117.625 in. (298.77 cm)
11 ft.	146.75 in. (372.75 cm)	132.00 in. (335.28 cm)	145.75 in. (370.21 cm)	128.625 in. (325.29 cm)
12 ft.	158.75 in. (403.22 cm)	148.00 in. (365.76cm)	157.75 in. (400.69 cm)	141.625 in. (359.73 cm)



2. Limited Warranty

All products are warranted to be free from defects in material and workmanship for a period of one year from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturers option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.

This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)

This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

Warrantor:

RollSeal
PO Box 140
1751 County Road 68
Bremen, AL 35033

3. Warnings

Warning!

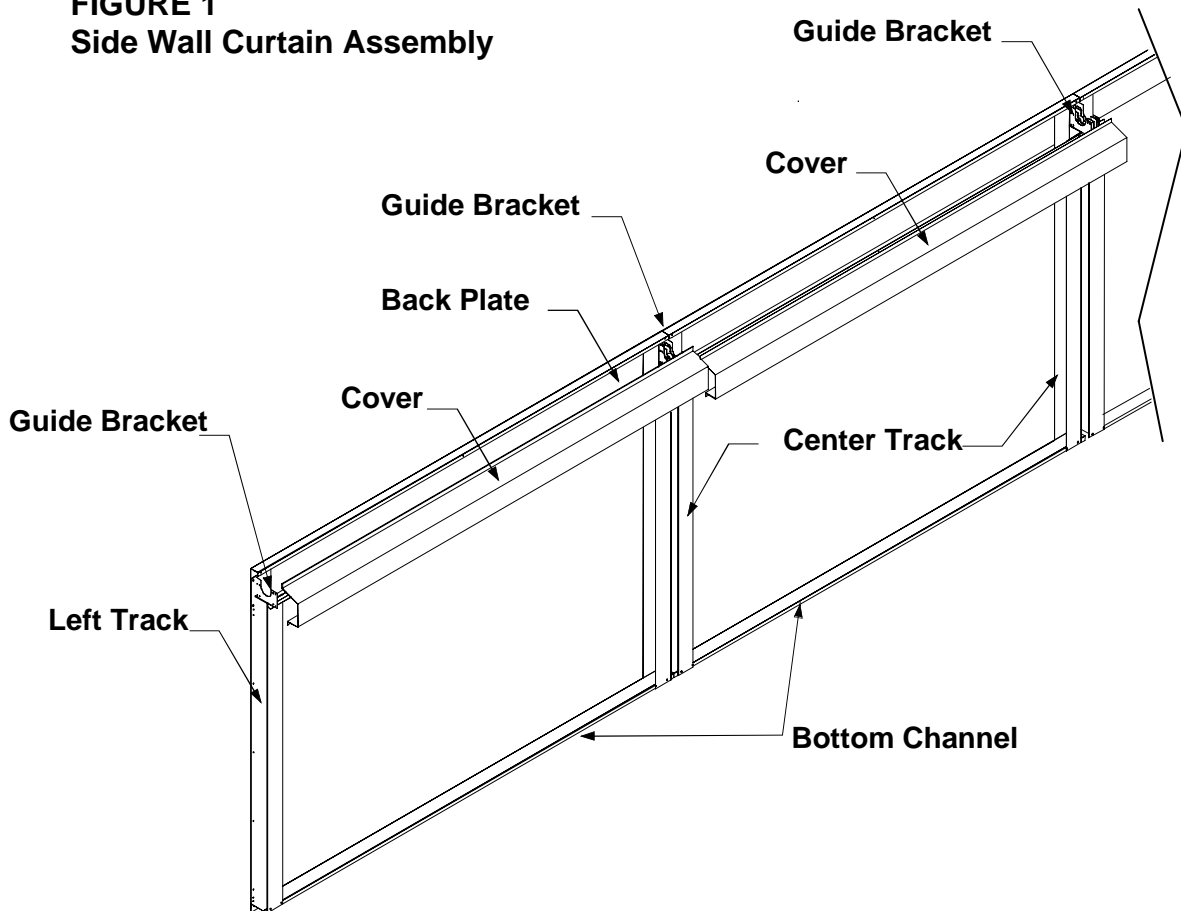
All Wiring Should Be in Accordance With National Electric Code Or Other Local Codes. When connecting multiple motors to one control device, a PT-SLV control must be used on each motor.

Warning!

Dangerous Rotating Machinery.
Keep Hands, Clothing, Etc. Clear When Operating.
Do Not Operate Without All Guards And Covers In Place.

4. Physical Description/Drawing

FIGURE 1
Side Wall Curtain Assembly



4.1 Description Of Assembly

The complete sidewall curtain assembly (**Figure 1**) consists of attached sidewall curtain systems. Each system frames a clear opening, and provides a mount for supporting the drive pipe to which the curtains are attached. Center systems share center tracks. An end system has either a left or a right track and shares a center track.

An end system (left track or right track) is installed with a motor mount for accepting either a tubular (Somfy) motor which rotates the drive pipe for raising and lowering the curtains or a Ridder motor that mounts external to the drive pipe. The placement of the motor is determined by the proximity to the electrical power and system controller or by the proximity to a relay on an adjacent sidewall curtain assembly (if more than one assembly is installed). The drive pipe rests on the guide brackets and spans the entire length of the assembly.

There are hook & loop strips laminated to the back plate, center track, left track, right track, top bar, and drive pipe. These strips stick to hook & loop strips on the sidewall curtains in order to hold the curtains in place and provide a tight seal between the inside and the outside of the Agriculture house. A bottom channel and top cover are installed to each sidewall curtain system.

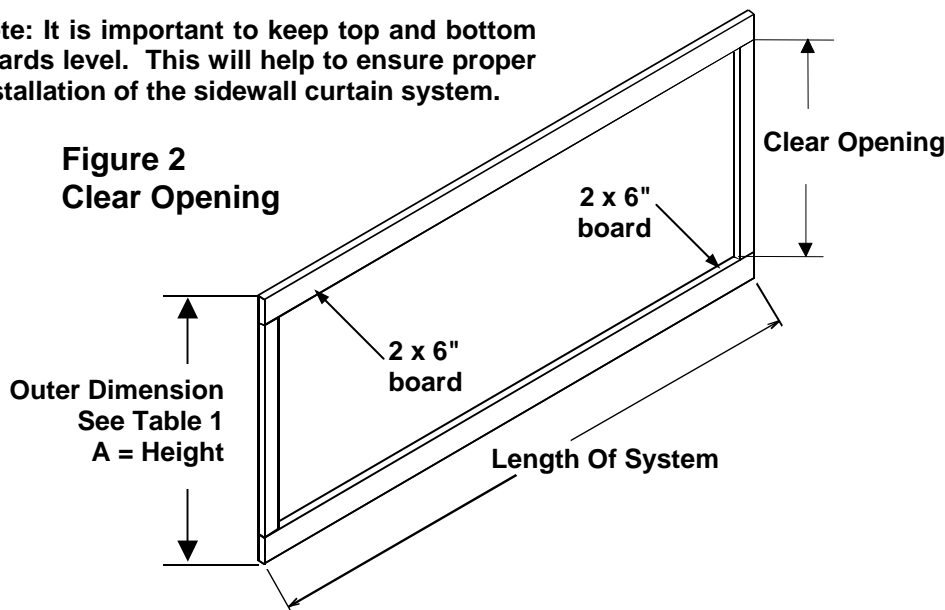
5. Use of Equipment

The sidewall curtain assembly is a motorized curtain enclosure for the side of an Agriculture house that can be operated manually or connected to an automatic controller to regulate ventilation and temperature of a house.

6. Tools Required

3/8 in. (0.95 cm) power screwdriver	Tape measure	Welder
Carpenter's level	Ladder	Pop rivet gun
Hammer	3/16 inch (0.48 cm) drill bit and power drill	Chalk line

Note: It is important to keep top and bottom boards level. This will help to ensure proper installation of the sidewall curtain system.



7. Adjusting Framing

Locate your particular system in Table 1, on page 1 and read the value of the 'overall height'. This gives the overall required outer dimension from the top of the back plate to the bottom of the bottom channel. Adjust the outer dimension of your opening as shown in **Figure 2** to the 'overall height' of your sidewall curtain system by raising or lowering top and bottom 2"x 6" boards, as required. If necessary, add 2"x 6" boards for this specification.

8. Installation

Recommended Installation Procedure

Fully install all back plates. Before installing bottom channels, attach each vertical member (right track, center tracks, left track) with only one screw. Then fully install all bottom channels to all vertical members. Check that system is level and that vertical members are plumb. Install remaining screws to all vertical members to securely fasten down system.

A sidewall curtain system is attached to 2" x 4" or 2" x 6" boards which frame an opening. Boards may be added to the top and bottom of a sidewall opening of an Agriculture house to adjust the vertical height of an opening to a standard height as described in Section 7. The number of sidewall systems to be installed determines the overall length of the sidewall assembly.

After making required adjustments to the opening as described in section 7, the opening is ready for installation of the sidewall curtain.

The installation sequence of the sidewall curtain system is (1) back plates, (2) end tracks and center tracks, (3) bottom channels, (4) top bars, (5) drive pipe and drive motor, (6) curtains. Following this sequence, install the same component along the entire side of the house before proceeding to the next component. Refer to Section 10 "Diagrams/Parts List" to identify the sidewall curtain components.

Usually an Agriculture house will not have regularly spaced posts. The standard opening of an Agriculture House is any length evenly divisible by 2 and greater than 14 ft. (4.3 m). **Specify the length of the opening when ordering a sidewall curtain system.**

8.1 Back plates

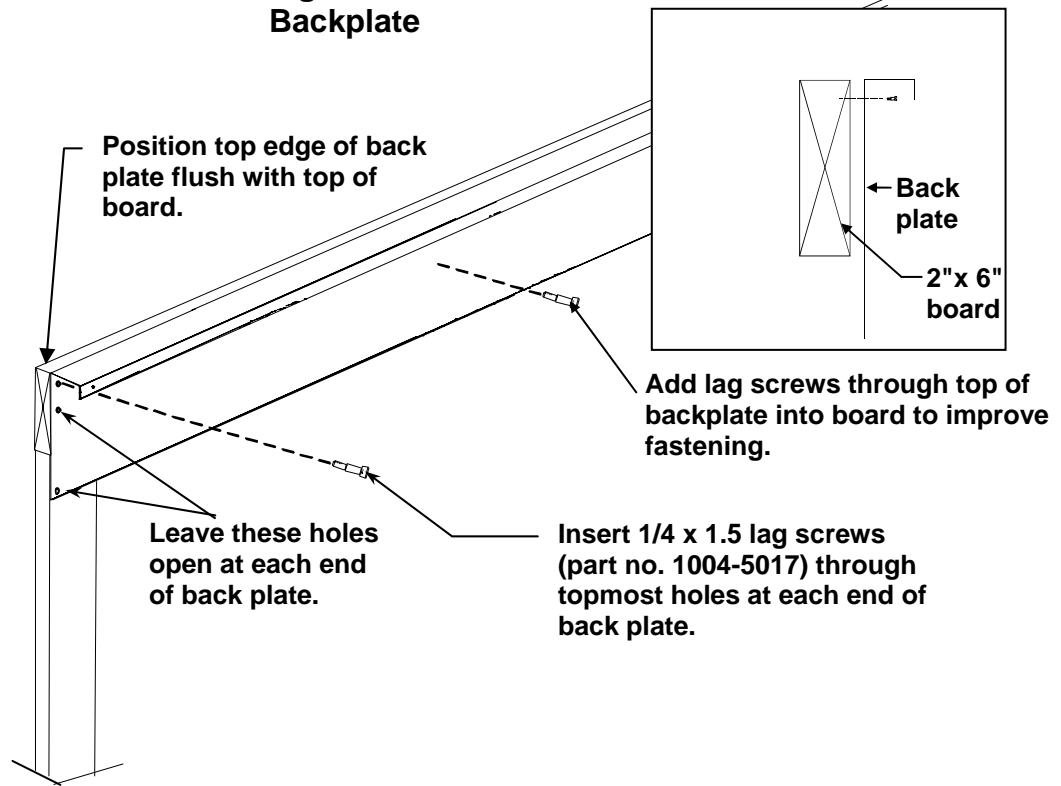
See **Figures 3**. Start at the left end of the Agriculture house wall.

1. Hold top of back plate even with the top 2" x 6" board.
2. Align the left edge of the back plate even with the edge of filler board which should be even with the end of the opening.

Note: The precise end of an opening is determined by the total length of the sidewall curtain assembly.

3. Attach the back plate to the top boards by drilling through the topmost holes of the back plate with lag screws. If desired, add one or two self-tapping screws near the midpoint of the back plate.
4. Align the next back plate with the top of the 2" x 6" board, and align the left edge of the back plate flush with the right edge of the previously attached back plate.
5. Repeat step 4 until all back plates have been installed.

**Figure 3
Backplate**



**Figure 4
Left Track**

8.2 Left track

1. Refer to Fig. 4. Starting at the left end, install the left track. Align the left-hand edge of the track unit with the left-hand edge of the backplate.
2. Locate second row of holes from the top of the back plate. Match the first hole of backplate with the topmost hole of the left track as shown in **Fig. 4**. Note that the bent vertical edges of track units make contact underneath the bottom edge of the backplate.
3. Install a lag screw to hold left track in position. Leave screw loosely attached to allow left track to have freedom of movement. **NOTE:** It is suggested to install remaining screws after installing all bottom channels (Section 8.6).

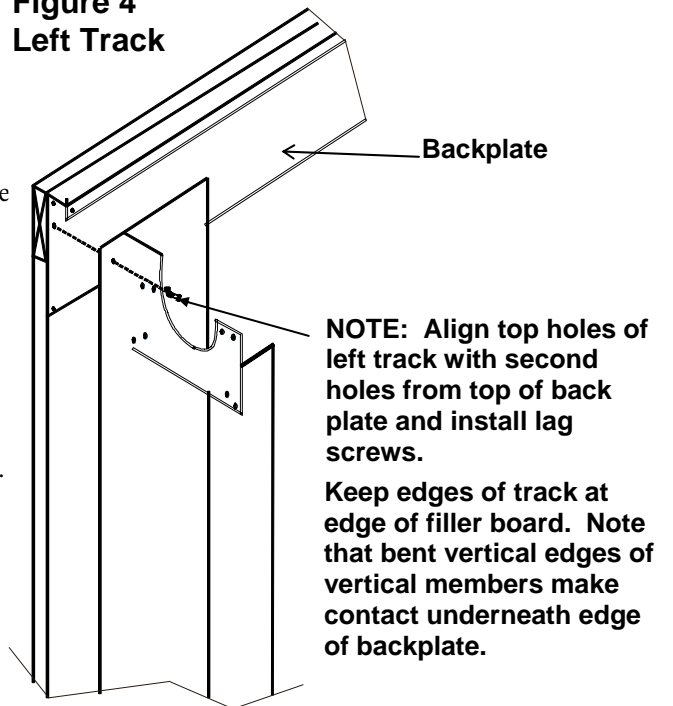
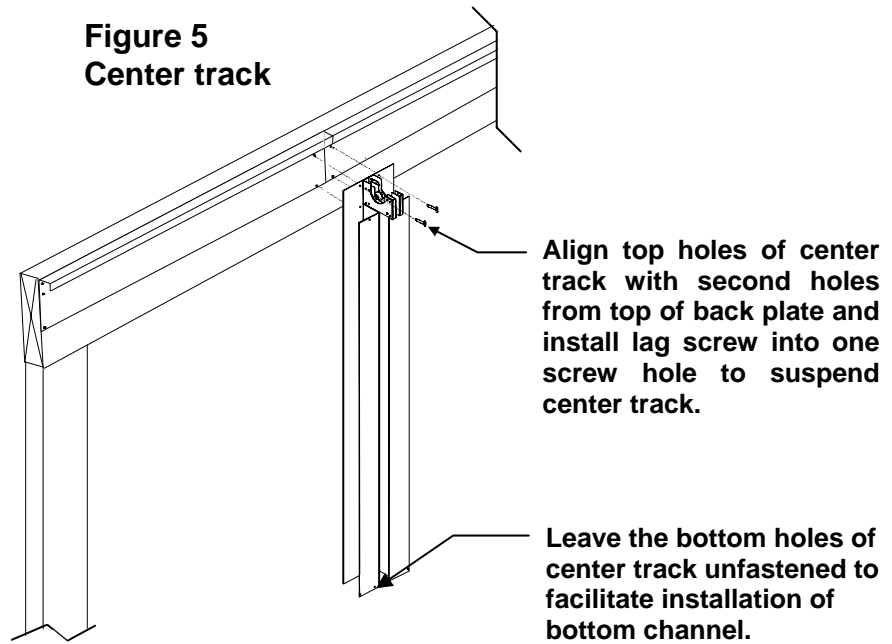


Figure 5
Center track

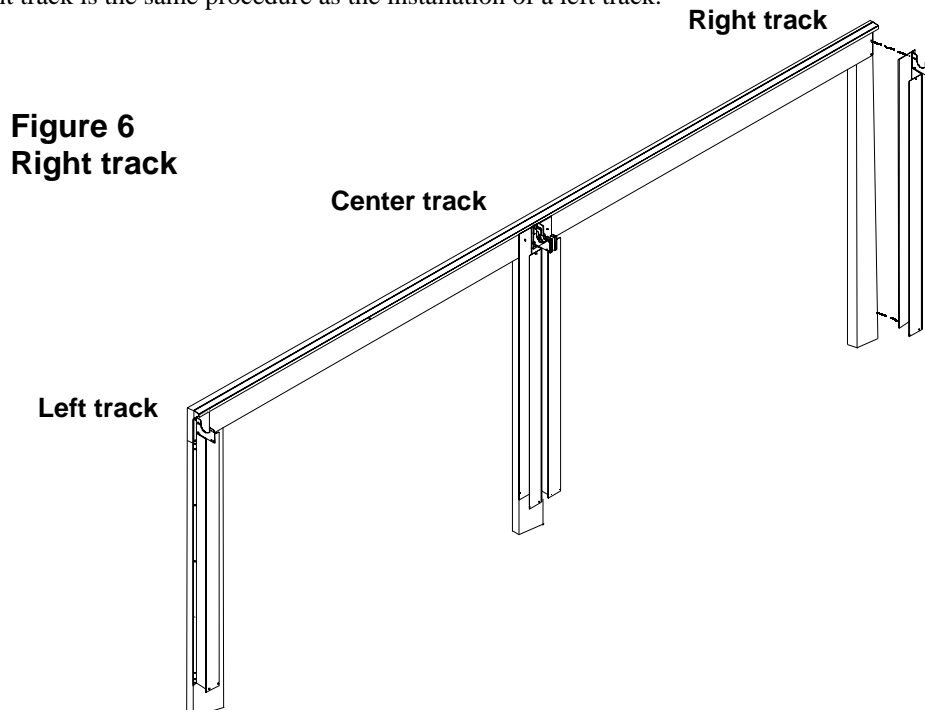


8.3 Center tracks

1. Refer to **Figure 5**. Move to the next joint where the edges of two back plates abut, and install a center track. Align the two topmost holes of the center track with the second holes from the top of the back plates as shown in **Figure 5**. Note that the bent vertical edges of the center track fit underneath the bottom edges of the back plates.
2. Install only one self-drilling lag screw through one hole to loosely hold center track. **Note: It is suggested to install remaining screws after installing all bottom channels (Section 8.6).**
3. Install all center tracks by repeating steps 1-2.

8.4 Right track

Refer to **Fig. 6**. Install a right track at the right end of the Agriculture house. Installation of a right track is the same procedure as the installation of a left track.



8.5 Bottom channels

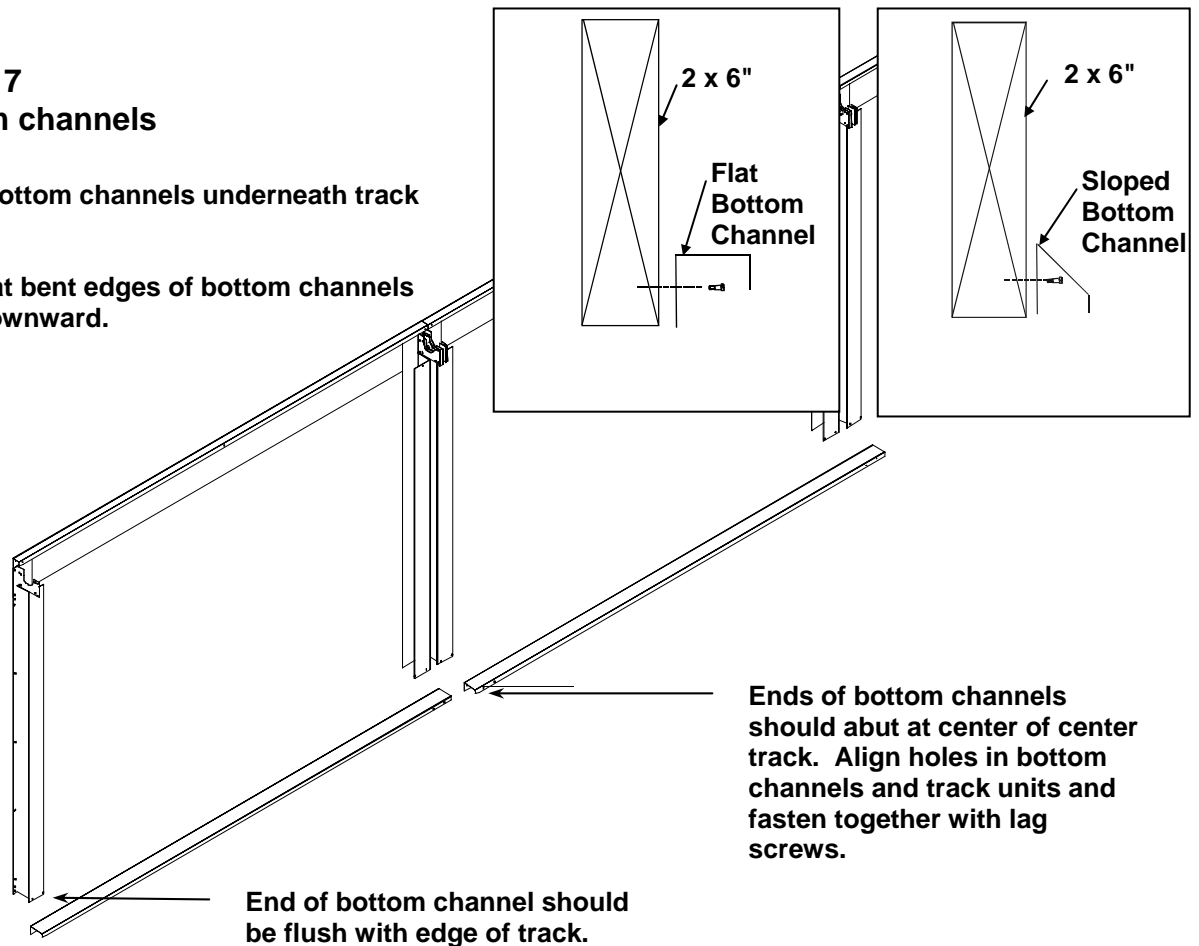
Refer to **Fig. 7**. The bottom channels attach underneath the vertical members (left track, right track and center track units). Starting at the left end, install the bottom channels.

1. Insert a bottom channel underneath the vertical members as shown in **Fig. 7**. The bent edges of the bottom channels point downward. Align the larger flange of a bottom channel against the face of the bottom board. Align the bottom edge of the bottom channel flush with the bottom of the 2"x 6" board.
2. With bottom channel oriented as described in step 1, align screw holes in front flange of bottom channel with bottommost screw holes in the vertical members.
3. Install screws to attach bottom channel to vertical members. **Leave screws loosely attached so that bottom channel has freedom of movement. Do not fasten bottom channel to bottom board at this time.**
4. Repeat steps 1-3 to install all bottom channels to vertical members.

Figure 7
Bottom channels

Install bottom channels underneath track units.

Note that bent edges of bottom channels point downward.



8.6 Fasten Sidewall Curtain Systems to Boards

After completing Section 8.1 through Section 8.5, the system will consist of all vertical members and all bottom channels fastened together as an assembly. The assembly should have freedom of movement since screws have not been tightened.

1. Refer to **Fig. 8**. Use a level to make sure that sidewall systems are level. Make any required adjustments.
2. Check that vertical members at the left end and right end of the opening are plumb. Make any required adjustments.
3. Tighten all screws holding assembly to 2"x 6" boards.
4. Attach self-drilling lag screws through all remaining drill holes of vertical members and bottom channels to securely fasten the assembly to 2"x 6" boards.

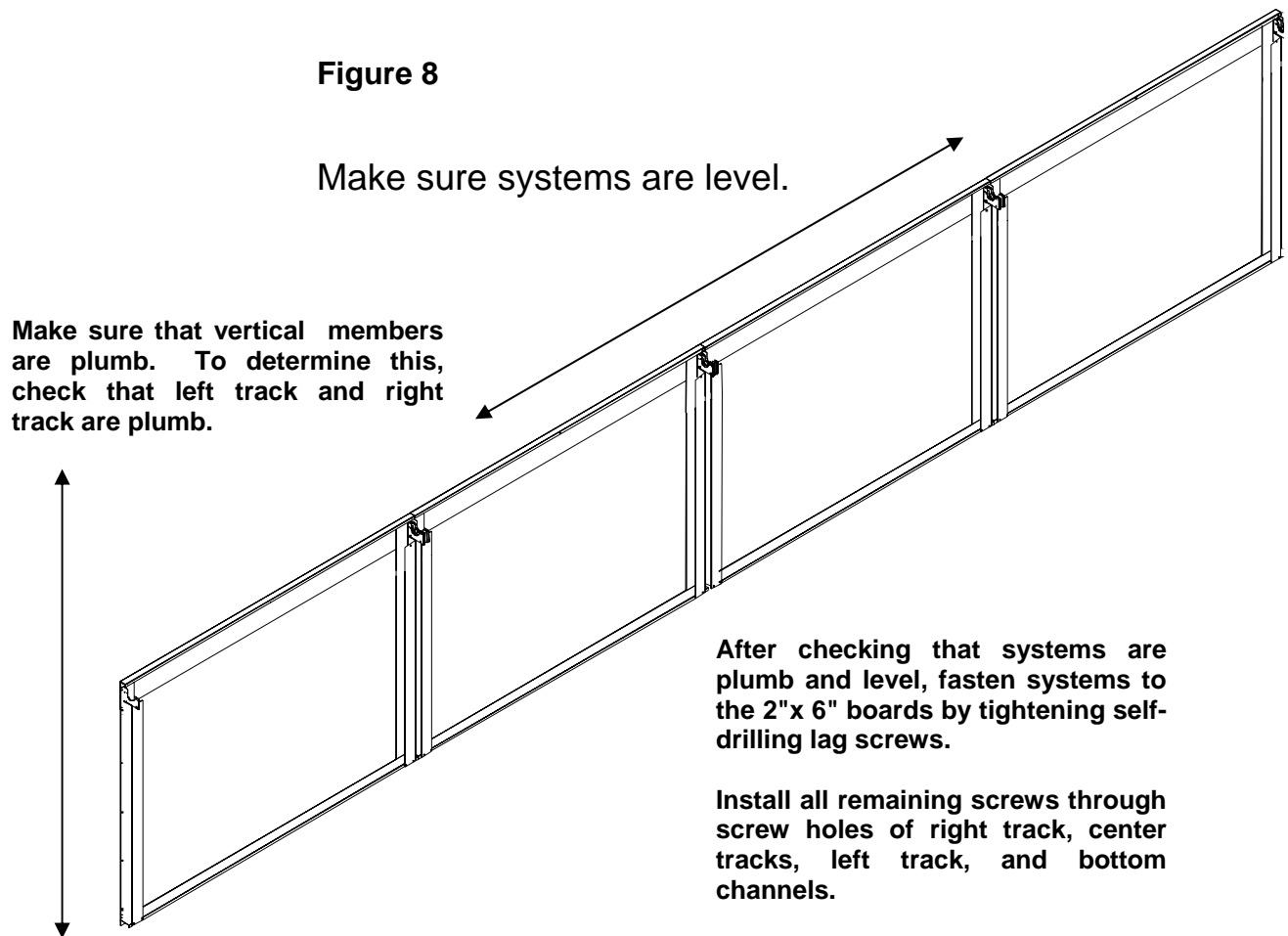
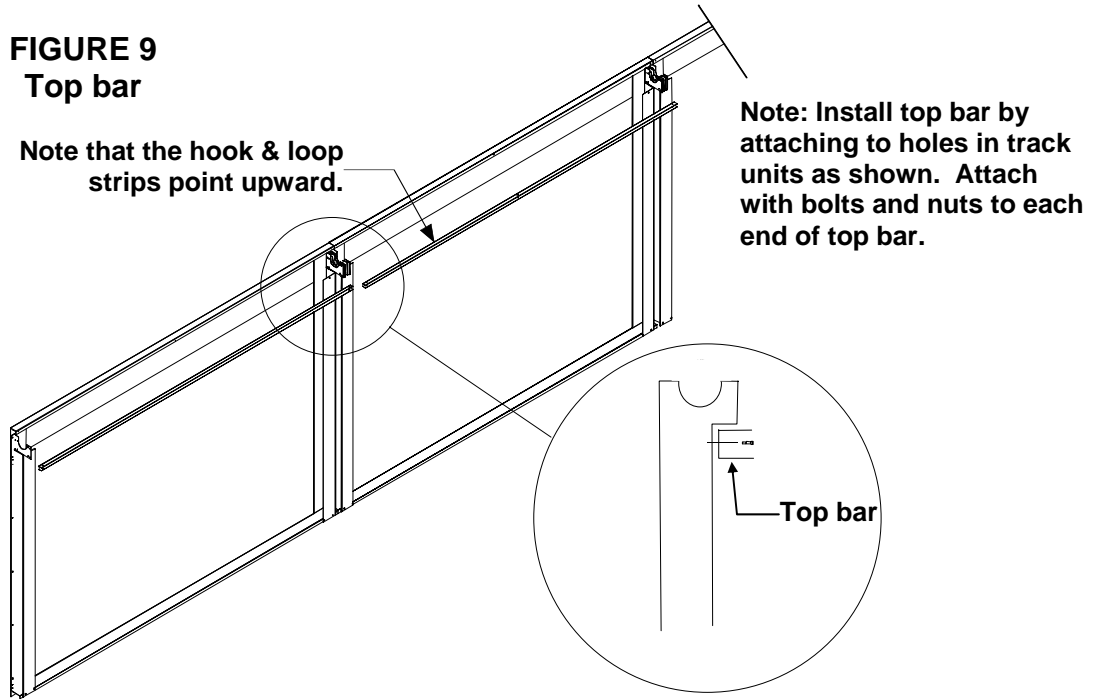


FIGURE 9
Top bar



8.7 Top bar

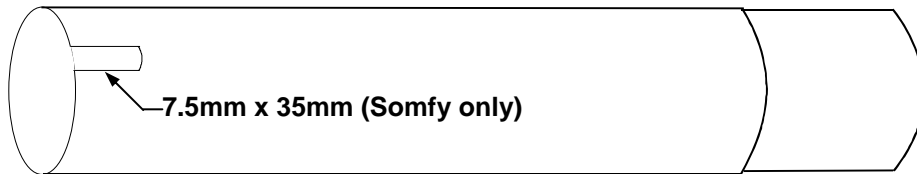
Refer to Fig. 9. Align the holes of the top bars with the holes in the track and attach with nuts and screws. The hook & loop side faces upward. Repeat for all units.

8.8 Drive Pipe Assembly

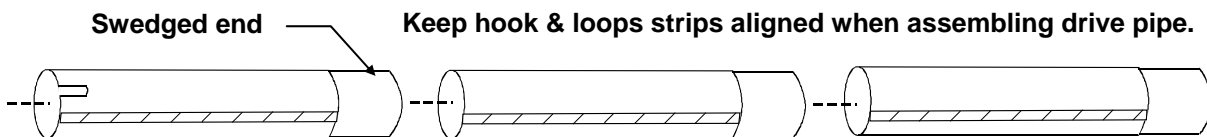
The drive pipe is composed of sections that connect together with pop rivets.

IMPORTANT! SPECIAL INSTRUCTIONS FOR SOMFY MOTOR:

The pipe segment having a 7.5 mm x 35 mm notch attaches to the tubular motor and should be located at the end where the motor is to be installed. This will determine how the pipe sections are arranged for interconnection.

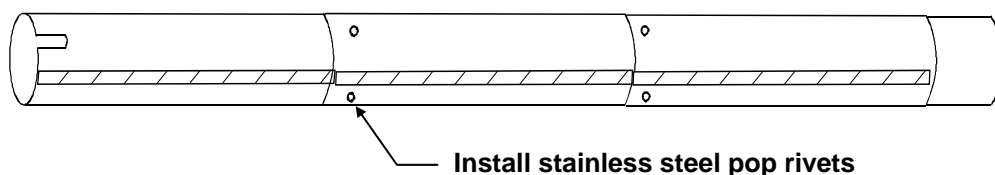


1. Starting at one end of the sidewall opening, arrange the drive pipe sections on the ground end-to-end with the swedge ends nonadjacent. If installing a Somfy motor, place the slotted section of pipe at the end of the assembly where the motor will be installed.



2. **Important!** There is a hook and loop strip laminated to each pipe section. Keep the hook & loop strips lined up when connecting the pipe sections in order to form a continuous strip running the entire length of the drive pipe.

Start at one end. Couple pipe sections together by sliding the swaged end of one section into the adjacent pipe. (Note: It might be necessary to take a hammer and straighten out the dimples in the ends of the pipes which were created when the pipe sections were cut). Attach the sections together by installing stainless steel pop rivets.



3. Pop rivet installation: Drill 3/16 in. (0.48 cm) dia. holes through the pipe and swaged end which form a junction of two pipe sections. At each junction, drill two holes about 2 in. (5 cm) apart on each side of the pipe as shown in the diagram above. Insert pop rivets through these holes to fasten the pipe sections together.

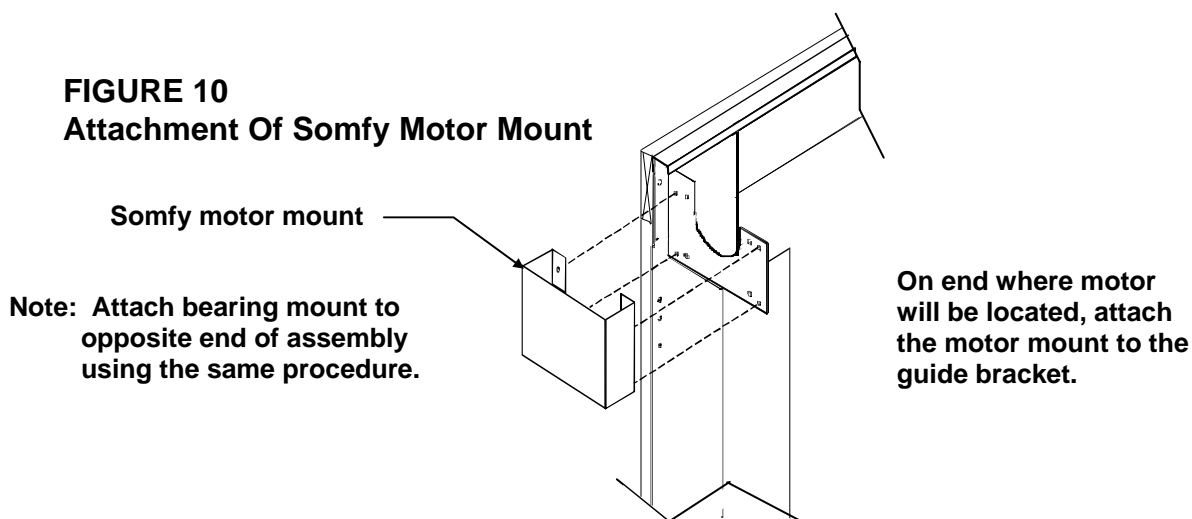
IMPORTANT! IF INSTALLING RIDDER MOTOR SKIP TO SECTION 8.10, IF INSTALLING LOCK MOTOR SKIP TO SECTION 8.11.

8.9 Somfy Motor Installation

8.9.1 Somfy Motor Mount and Bearing Mount Installation

Attach the motor mount to either the left track or the right track depending on which end of the sidewall assembly the motor is to be located (**Figure 10**). Install four bolts and nuts through the holes of the motor mount and through the respective holes of the guide bracket. Tighten nuts securely. The bearing mount installs on the opposite end of the sidewall assembly from the motor mount. The bearing mount attaches to the guide bracket of the end track using bolts and nuts in the same way as the motor mount.

FIGURE 10
Attachment Of Somfy Motor Mount



8.9.2 Somfy Motor Attachment To Drive Pipe

1. Before sliding motor into drive pipe, measure distance from end of motor to end of motor tube. **This distance is labeled as R in Fig. 11b.**
2. Slide the tubular motor into the slotted end of the drive pipe until the raised key of the motor head seats into the slot. (See Fig. 11a).
3. As shown in Fig. 11b. Drill several 3/16 in. (0.48 cm) holes around the circumference of pipe at distance R (measured in step 1). Install stainless steel pop rivets into the holes to fasten motor tube.

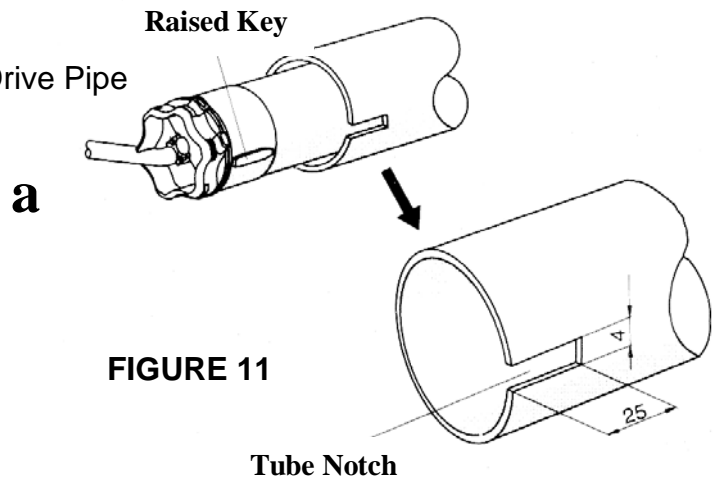


FIGURE 11

8.9.3 Installation Of Drive Pipe

Refer to Section 8.11 for instructions on placing drive pipe into guide brackets. Refer to section 8.9.4 after installing drive pipe.

8.9.4 Somfy Motor Connection To Motor Mount

(IMPORTANT! FIRST INSTALL DRIVE PIPE TO SYSTEM. SEE SECTION 8.11)

Lift end of drive pipe containing the motor, and attach the motor to the motor bracket which is installed on the motor mount. Press motor into the bracket as shown in Figure 12. Be sure the limit switches are accessible.

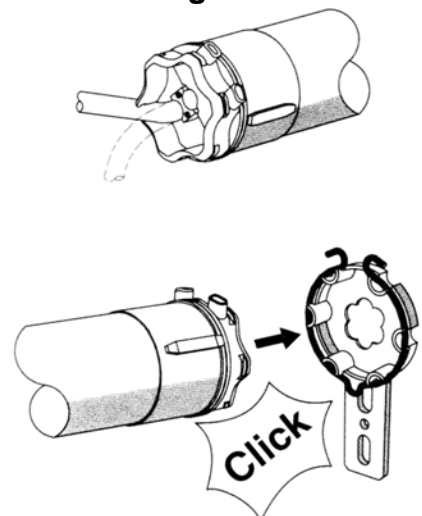
Motor Cable Positioning

Depending on the application, the motor cable can pass through the center of side of the motor head. Raise yellow cover plate, reposition the cable, and then press cover plate into position.

Mounting The Motorized Tube

The motor brackets are equipped with a clip ring. This clip ring does not have to be removed for installation. You can press the motor axially into the motor bracket in any of six positions, so that the limit switch adjustment buttons are always easily accessible.

Figure 12



8.9.5 Somfy Motor Electrical Connection & Testing

1. See Section 9.1 "Somfy Motor Tester Wiring Diagram" for description of test cable. Construct test cable and connect the test cable to the motor cable, match the wire colors and connect the power.
2. Remove yellow protective cap from limit switch adjustment buttons.
3. Press both limit switch adjustment buttons in (they will automatically remain locked).
4. Check that motor rotates properly when switch is turned on.
5. Disconnect electrical power while installing curtains.

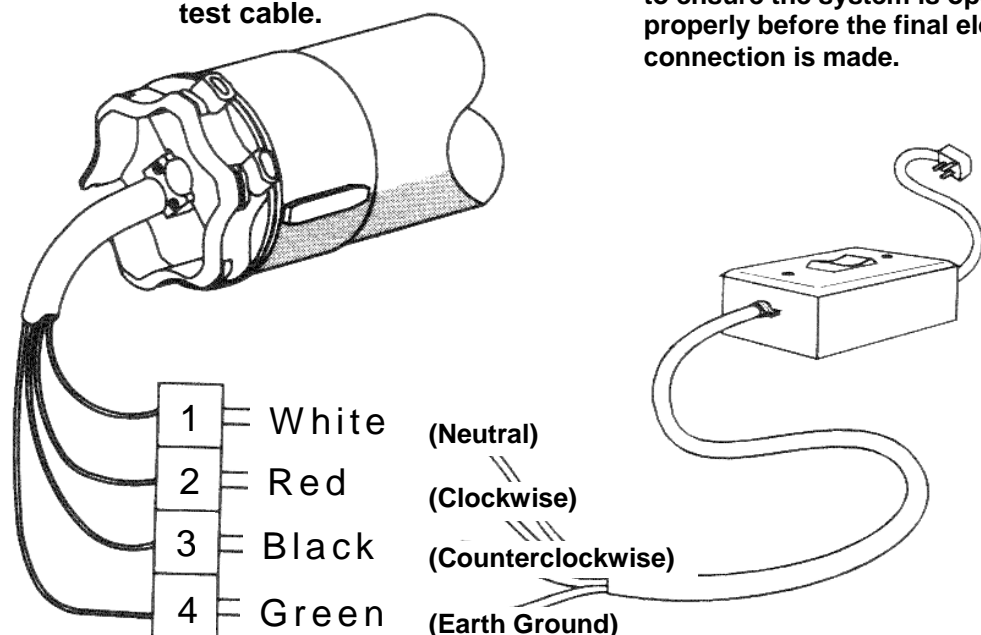
Caution!

When the limit switch adjustment buttons are pushed in, the motor has No stop shut-off points. The number of revolutions is unlimited.

Warning!

Do not wire two or more motors to one switch without using a relay.

Figure 13 See Section "Somfy Motor Tester Wiring Diagram" for test cable.



Somfy recommends using a test cable to set the motor limits, and to ensure the system is operating properly before the final electrical connection is made.

NOTE: Set Limit Switches After Curtain Is Installed.

8.9.6 Somfy Motor Limit Switches

The UP position & DOWN position have to be set. This is where the sidewall curtain will automatically stop.

1. Ensure the power switch is in the OFF position.
2. Remove the protective cap from the motor head. Depress fully both limit switch push buttons (if not already pushed). They will automatically lock in the down position.
3. Turn on the power switch and check that the system operates correctly. If not, put the switch in the OFF position, **disconnect all power sources**, and reverse the black and red motor connection wires.
4. Stop Position 1
Bring motor rotation into desired stop position 1 (Note direction of rotation differs whether motor is left or right mounted).

Turn off power switch when position is reached.

Unlock the UP limit switch push button by depressing and releasing it. This sets the UP limit.

Stop Position 2

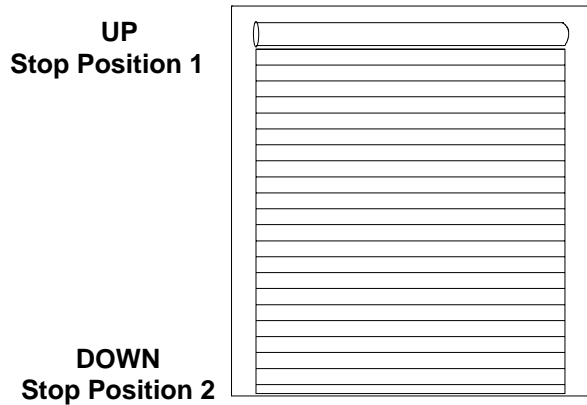
Repeat the above operation to set the lower limit.

5. Check with the switch that the motor stops at the up & down positions just set.
6. Refit the protective cap.
7. Allow the motor to run in both directions, until it shuts off in the stop positions. Because of the built in thermal protection feature, the motor may shut off automatically after running without interruption for an extended period of time. Please wait until the motor has cooled off and is ready for operation again, (approximately 10-15 minutes).

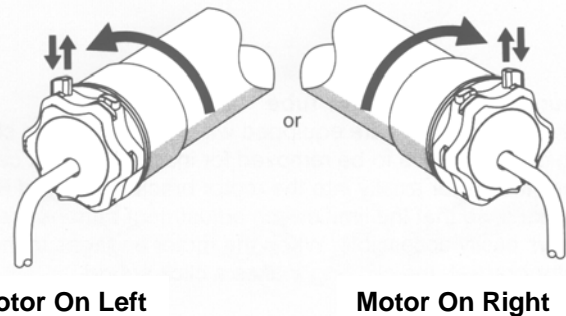
Changing the Set Stop Position

Press the limit switch adjustment button that lies in the direction of rotation. Bring the curtain into the desired stop position. Release the limit switch adjustment button by pressing it down again.

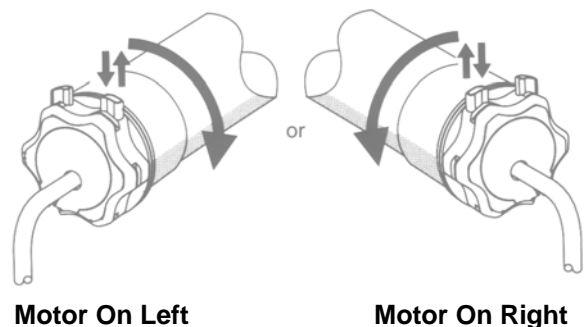
Figure 14



**Stop Position 1
Depending Upon Type Of Installation**



**Stop Position 2
Depending Upon Type Of Installation**

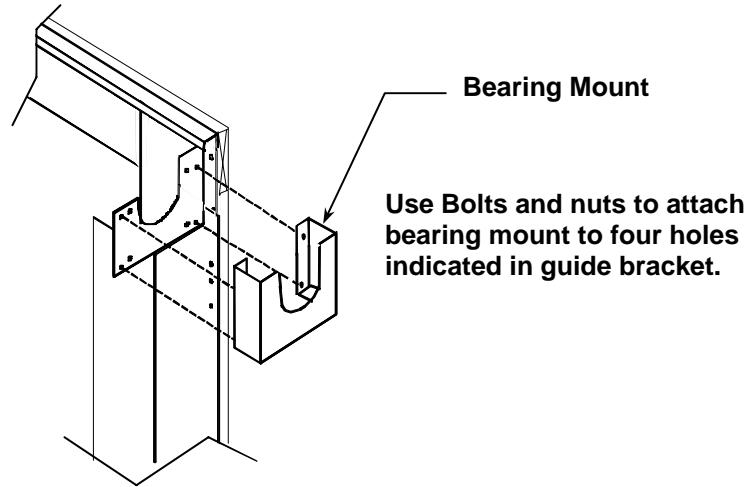


8.10 Ridder Motor Installation

8.10.1 Ridder Motor Mount & Bearing Mount

1. Attach bearing mount to track on end of system opposite motor. Install four bolts and nuts through the holes of bearing mount and respective holes of guide bracket. Tighten bolts & nuts securely.

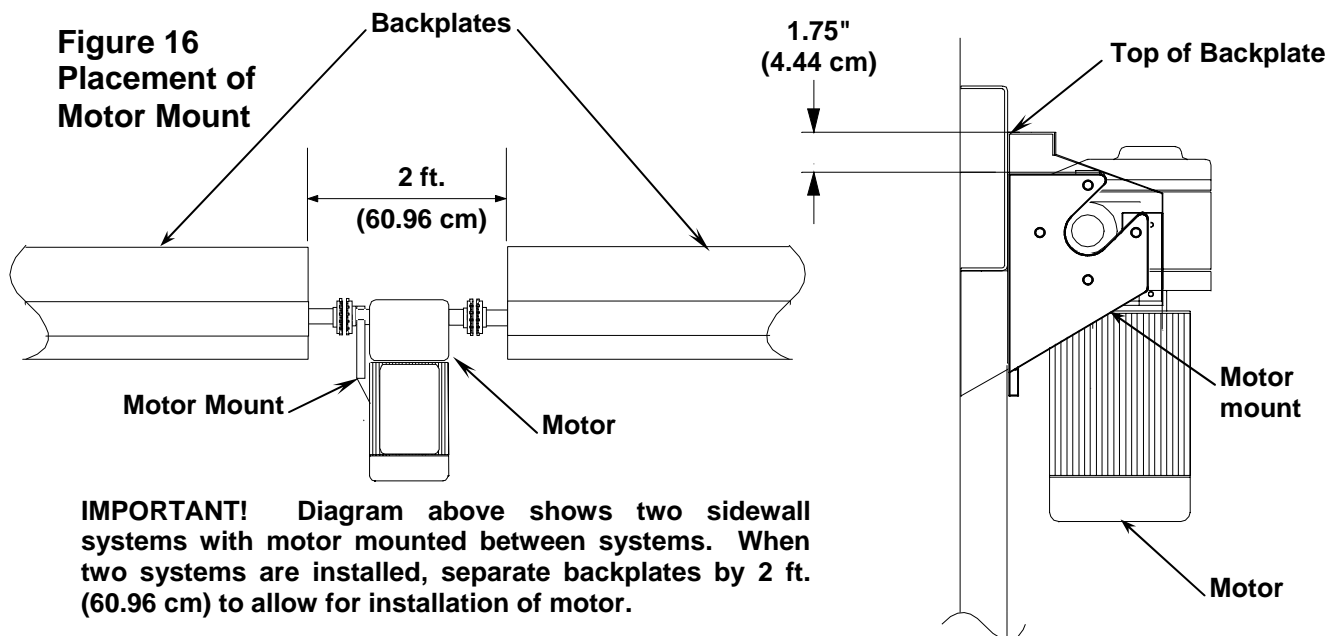
Figure 15
Bearing Mount



8.10.2 Ridder Motor Mount

NOTE: Install motor mount after drive pipe has been positioned in guide brackets.

1. Position top edge of motor mount bracket exactly 1.75" (4.44 cm) from top edge of backplate.
2. Align slot of motor mount bracket in line with end of drive pipe.
IMPORTANT! Make sure that sprocket of motor will align exactly with the sprocket on end of drive pipe. Refer to Fig. 16 and Fig. 20.
3. With motor mount properly aligned according to 1 and 2, fasten motor mount to framing member with 1/4-20 x 1/2 screws (1004-1401) provided.

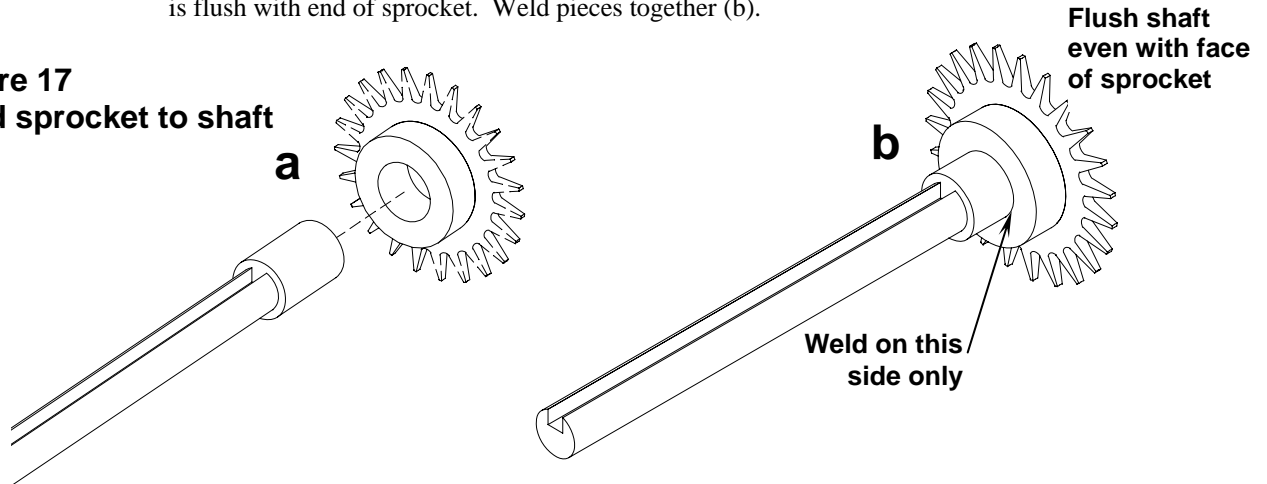


8.10.3 Drive Pipe Connection For Ridder Motor

NOTE: Two drive pipes may be attached to motor as shown in Fig. 16 & Fig. 20.

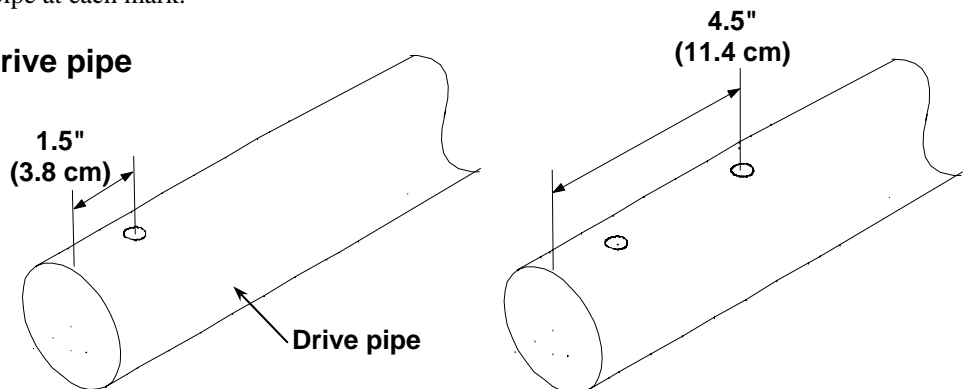
1. Fit end of drive shaft into sprocket (a). **IMPORTANT!** Make sure that end of drive shaft is flush with end of sprocket. Weld pieces together (b).

Figure 17
Weld sprocket to shaft



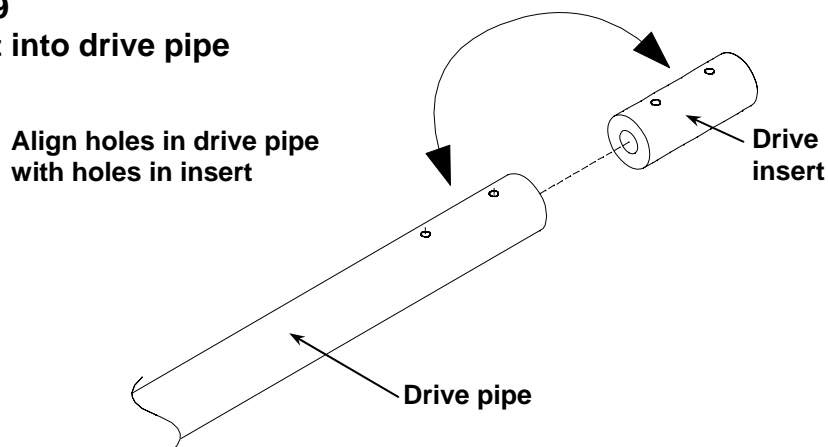
2. Measure 1.5" (3.81 cm) from one end of drive pipe. Mark pipe. Measure 4.5" (11.43 cm) from end of pipe in line with first mark. Mark pipe. Drill 3/8" (0.95 cm) hole in pipe at each mark.

Figure 18
Drill holes in drive pipe



3. Slide drive insert assembly into end of drive pipe. Align two holes of drive insert with holes in drive pipe. Fit drive insert flush with end of drive pipe.

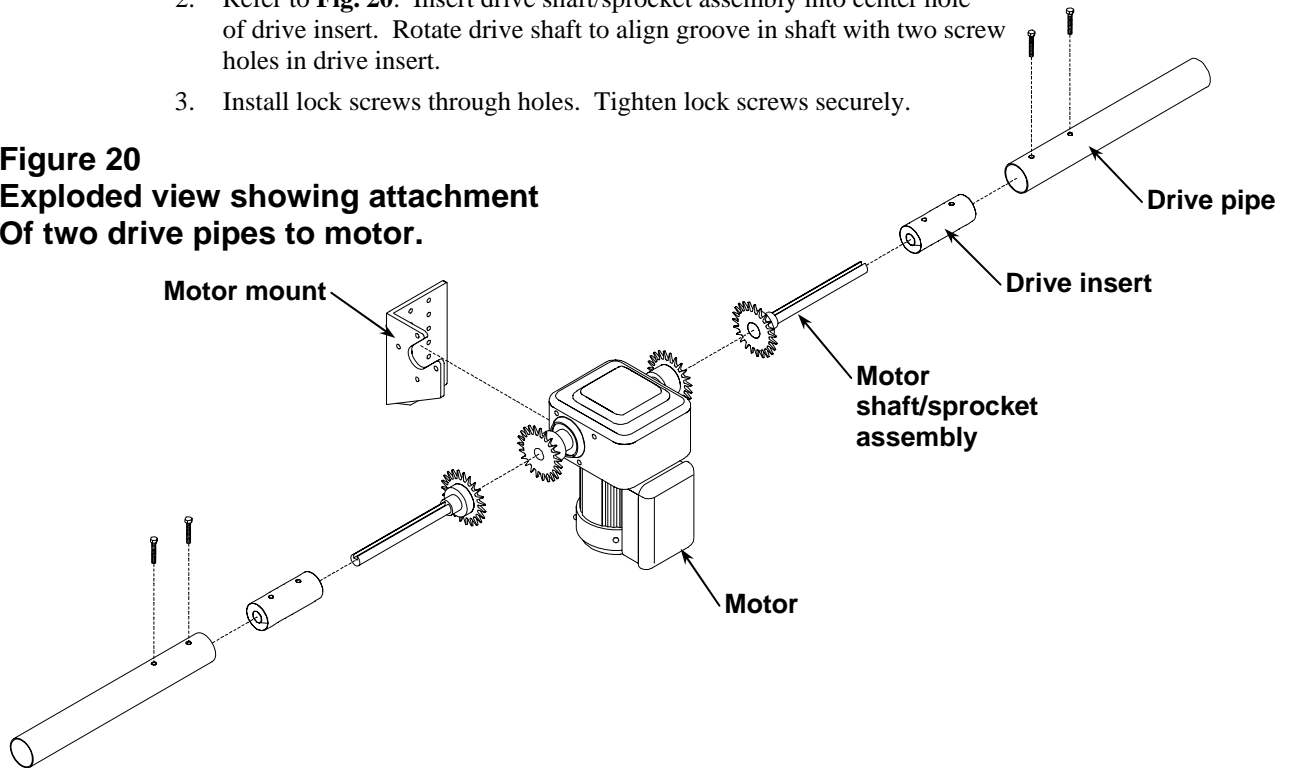
Figure 19
Fit insert into drive pipe



8.10.4 Installation Of Drive Pipe

1. Refer to Section 8.11 for instructions on placing drive pipe into guide brackets. Refer to section 8.10.4 after installing drive pipe.
2. Refer to **Fig. 20**. Insert drive shaft/sprocket assembly into center hole of drive insert. Rotate drive shaft to align groove in shaft with two screw holes in drive insert.
3. Install lock screws through holes. Tighten lock screws securely.

Figure 20
Exploded view showing attachment
Of two drive pipes to motor.

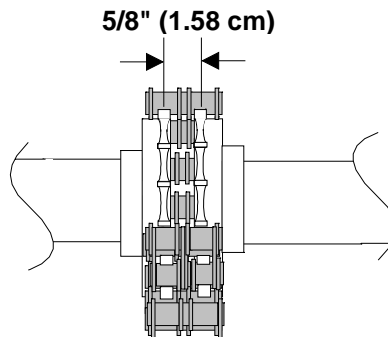


8.10.5 Ridder Motor Attachment

1. Attach Ridder motor to motor mount with four bolts provided. Tighten bolts securely.
2. After attaching Ridder motor to motor mount, make sure that sprockets are in line and separated by 5/8" (1.58 cm). If necessary, loosen two screws holding insert & drive shaft. Slide drive shaft to achieve proper spacing between sprockets. Tighten set screws securely.
3. Connect sprockets together with double link chain.

Figure 21

Wrap double link chain
around sprockets.
Connect end links together.



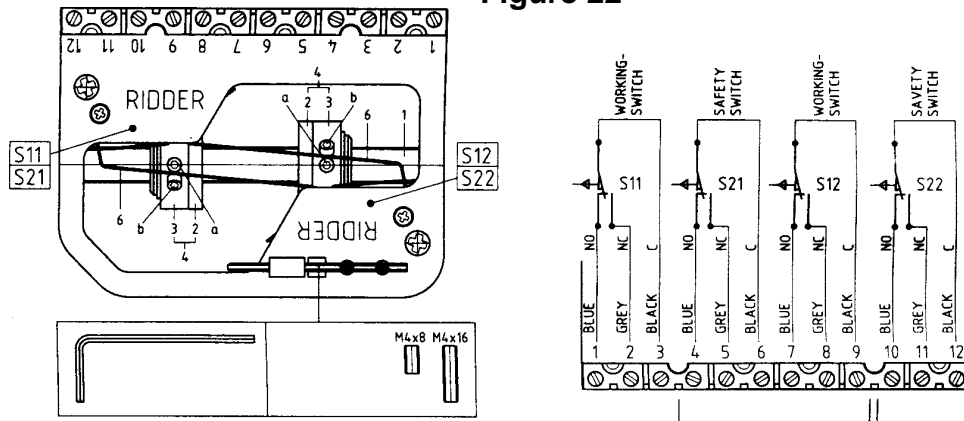
8.10.6 Electrical Wiring To Ridder Motor

Refer to Ridder Motor Control Manual, part no. 4801-5081 for instructions on connecting the motor & limit switches to controller.

NOTE: Set Limit Switches After Curtain Installation

8.10.7 Ridder Limit Switches

Figure 22



The Ridder RSU30 limit switch system is a linear switch system that has been developed for and used for RW45, RW240, RW400, and RW200 geared motors. The limit switch system is driven by the output shaft of the motor gearbox, by means of transmission. Dependent on the type of geared motor, a number of revolutions of the output shaft, between a starting and final position, can be determined. Dependent on the type of geared motor, this is 55, 86, 97, or 860 revolutions of the output shaft.

Working:

Of the Ridder RSU30 limit switch system, the threaded shaft (1) is driven by the gear belt transmission or the screw wheel transmission. In working situation the connection nuts (4) will make a linear movement during the rotation of the threaded shaft. One adjusting screw (a) will rest then against the switch spring (6). When a final position is reached, the connection nut runs against the stop and will turn with the threaded shaft. By this, the switch spring is moved and a working switch (S11 or S12) is operated. The electric signal, obtained from this, controls the

relay and the geared motor will stop. Should the relay or a working switch refuse service, an emergency switch (S21 or S22) will also be operated by the switch spring. The electric signal obtained from this will control an emergency relay, so both the steering and the geared motor will be disconnected. In this way resultant damage to the drive system will be prevented.

Delivery:

A Ridder motor gearbox with RSU30 limit switch system will be delivered with connection nuts (4) of which the adjusting rings (3) are not fixed. This means that the drive unit can run in both directions of rotation unrestricted. This also prevents that the limit switch system - when it has not been connected yet - breaks down at exceeding the (pre-) adjusted final positions when the motor gearbox is operated by hand or electrically.

Connection: To connect the Ridder RSU30 limit switch system we refer to the available electrical schemes.

Warning!

If, with an adjusted RSU30 limit switch system, the geared motor is operated by hand, it has to be checked that the adjusted FINAL POSITIONS OF THE SWITCH SYSTEM WILL NOT BE EXCEEDED. This can cause damage to the limit switch system, as a result of which the limit switch system will not function well anymore.

Adjustment

The "starting" and "final position" are adjusted as follows:

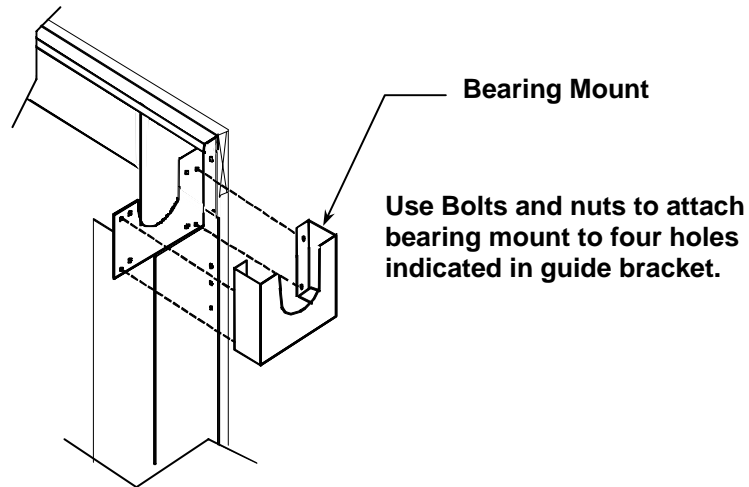
1. By turning the outer shaft of the drive unit, bring the system in "starting" or "final position" and determine which working switch S11 or S12 has to be operated. The switch direction of RSU30 limit switch system can be turned by changing junctions 1 and 7 of the connector.
2. At the determined side, turn the knurling nut (2) "hand tight" against the stop. The knurling nut can be turned easily on the threaded shaft (1) by hand. The connection nut (4) removes itself herewith as a whole along the threaded shaft.
3. Now turn the adjusting ring (3) over the knurling nut until the working switch is just connected.
4. Then tighten the adjusting ring with the adjusting screws (a and b) firmly on the knurling nut. Now the adjusting ring can not be turned on the knurling nut anymore.
5. For adjusting the limit switch system in the opposite turn direction, repeat steps 1 though 4. Herewith the limit switch system has been adjusted.

8.11 Lock Motor Installation

8.11.1 Lock Motor Mount & Bearing Mount

1. Attach bearing mount to track on end of system opposite motor. Install four bolts and nuts through the holes of bearing mount and respective holes of guide bracket. Tighten bolts & nuts securely.

Figure 23
Bearing Mount



8.11.2 Lock Motor Mount

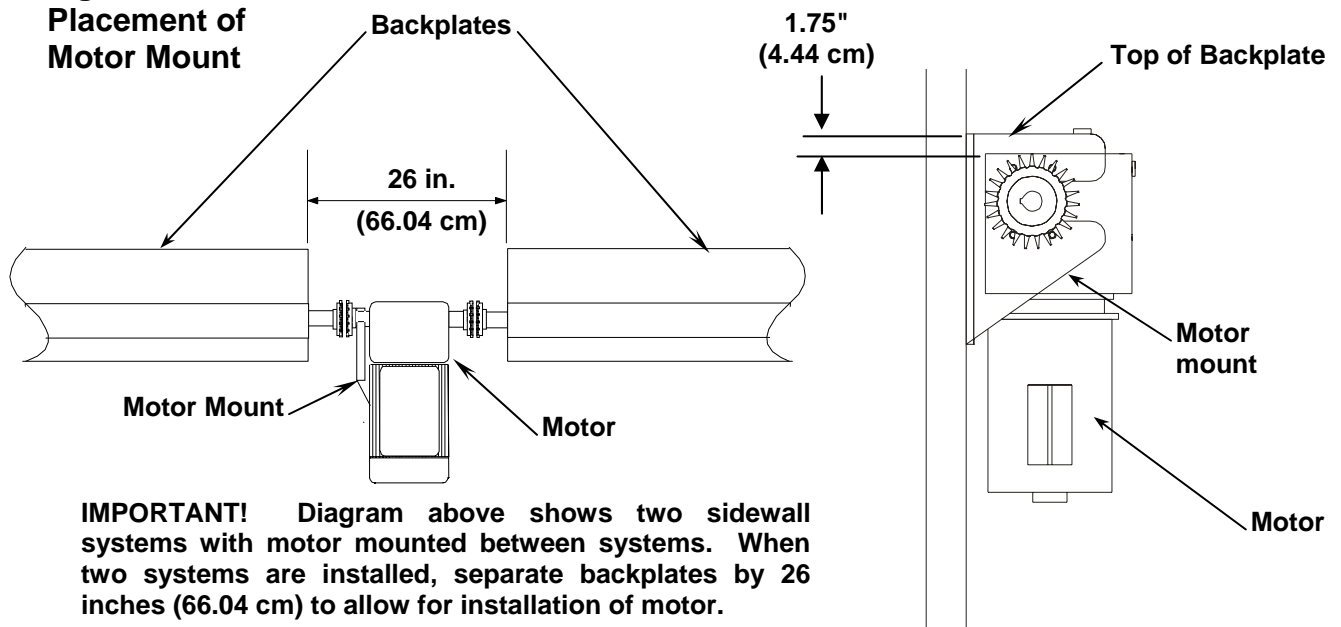
NOTE: Install motor mount after drive pipe has been positioned in guide brackets.

1. Position top edge of motor mount bracket exactly 1.75" (4.44 cm) from top edge of backplate.
2. Align slot of motor mount bracket in line with end of drive pipe.

IMPORTANT! Make sure that sprocket of motor will align exactly with the sprocket on end of drive pipe. Refer to Fig. 24 and Fig. 28.

3. With motor mount properly aligned according to 1 and 2, fasten motor mount to framing member with 1/4-20 x 1/2 screws (1004-1401) provided.

Figure 24
Placement of
Motor Mount

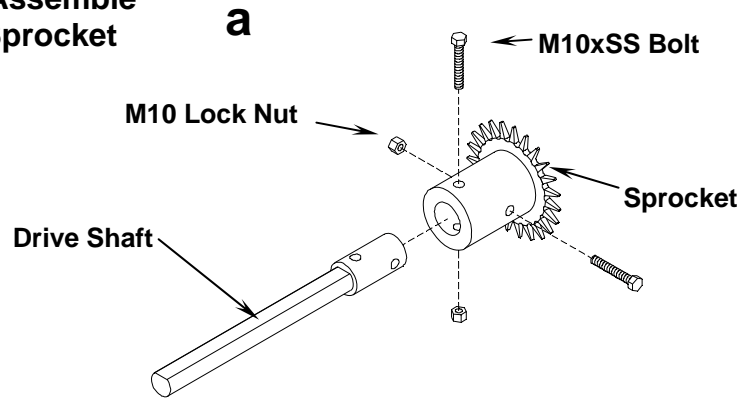


8.11.3 Drive Pipe Connection for Lock Motor

NOTE: Two drive pipes may be attached to motor as shown in Fig. 24 and Fig. 28.

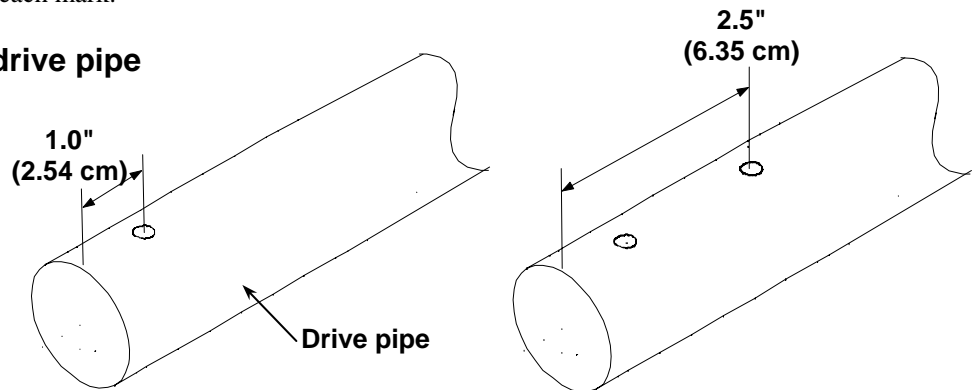
1. Fit end of drive shaft into sprocket (a). **IMPORTANT!** Make sure that end of drive shaft is flush with end of sprocket. Tighten the Set Screw (b).

Figure 25 Assemble Shaft and Sprocket



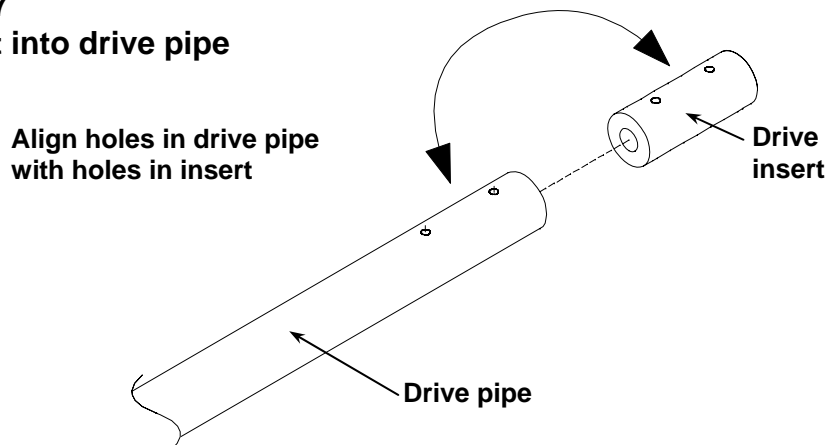
2. Measure 1.0" (2.54 cm) from one end of drive pipe. Mark pipe. Measure 2.5" (6.35 cm) from end of pipe in line with first mark. Mark pipe. Drill 3/8" (0.95 cm) hole in pipe at each mark.

Figure 26 Drill holes in drive pipe



3. Slide drive insert assembly into end of drive pipe. Align two holes of drive insert with holes in drive pipe. Fit drive insert flush with end of drive pipe.

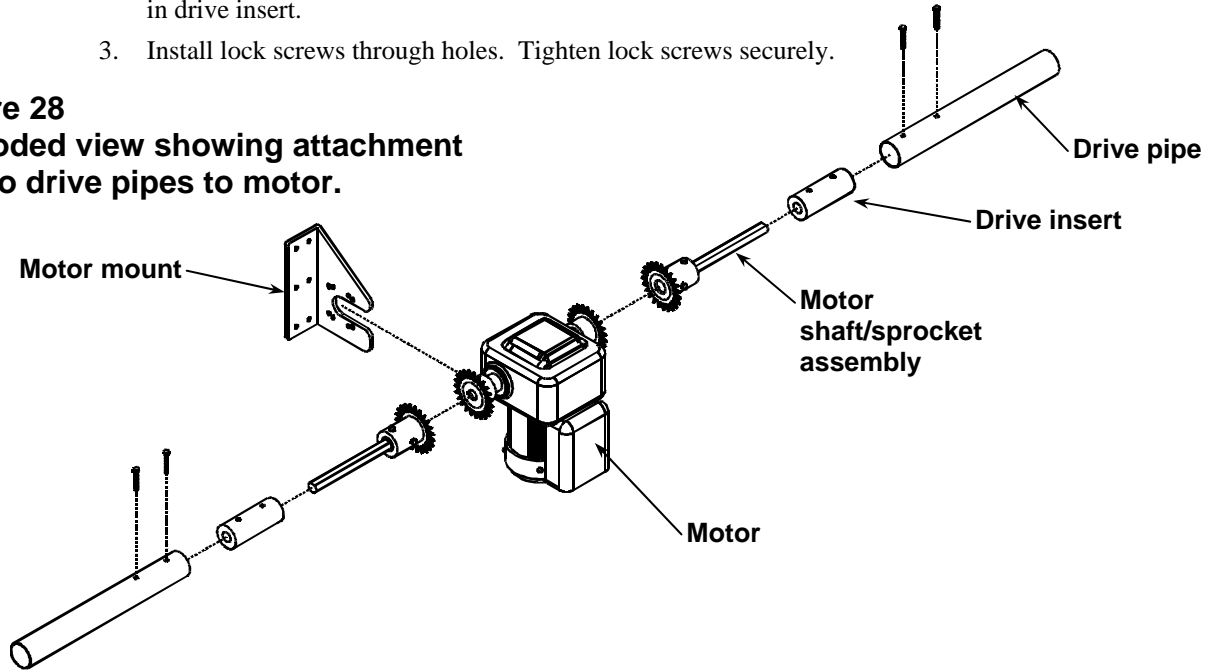
Figure 27 Fit insert into drive pipe



8.11.4 Installation Of Drive Pipe

1. Refer to Section 8.11 for instructions on placing drive pipe into guide brackets. Refer to section 8.10.4 after installing drive pipe.
2. Refer to **Fig. 28**. Insert drive shaft/sprocket assembly into center hole of drive insert. Rotate drive shaft to align groove in shaft with two screw in drive insert.
3. Install lock screws through holes. Tighten lock screws securely.

Figure 28
Exploded view showing attachment of two drive pipes to motor.

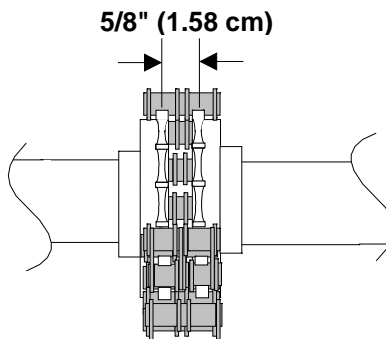


8.11.5 Lock Motor Attachment

1. Attach Lock motor to motor mount with four bolts provided. Tighten bolts securely.
2. After attaching Lock motor to motor mount, make sure that sprockets are in line and separated by 5/8" (1.58 cm). If necessary, loosen two screws holding insert & drive shaft. Slide drive shaft to achieve proper spacing between sprockets. Tighten set screws securely.
3. Connect sprockets together with double link chain.

Figure 29

Wrap double link chain around sprockets.
Connect end links together.



8.11.6 Electrical Wiring To Lock Motor

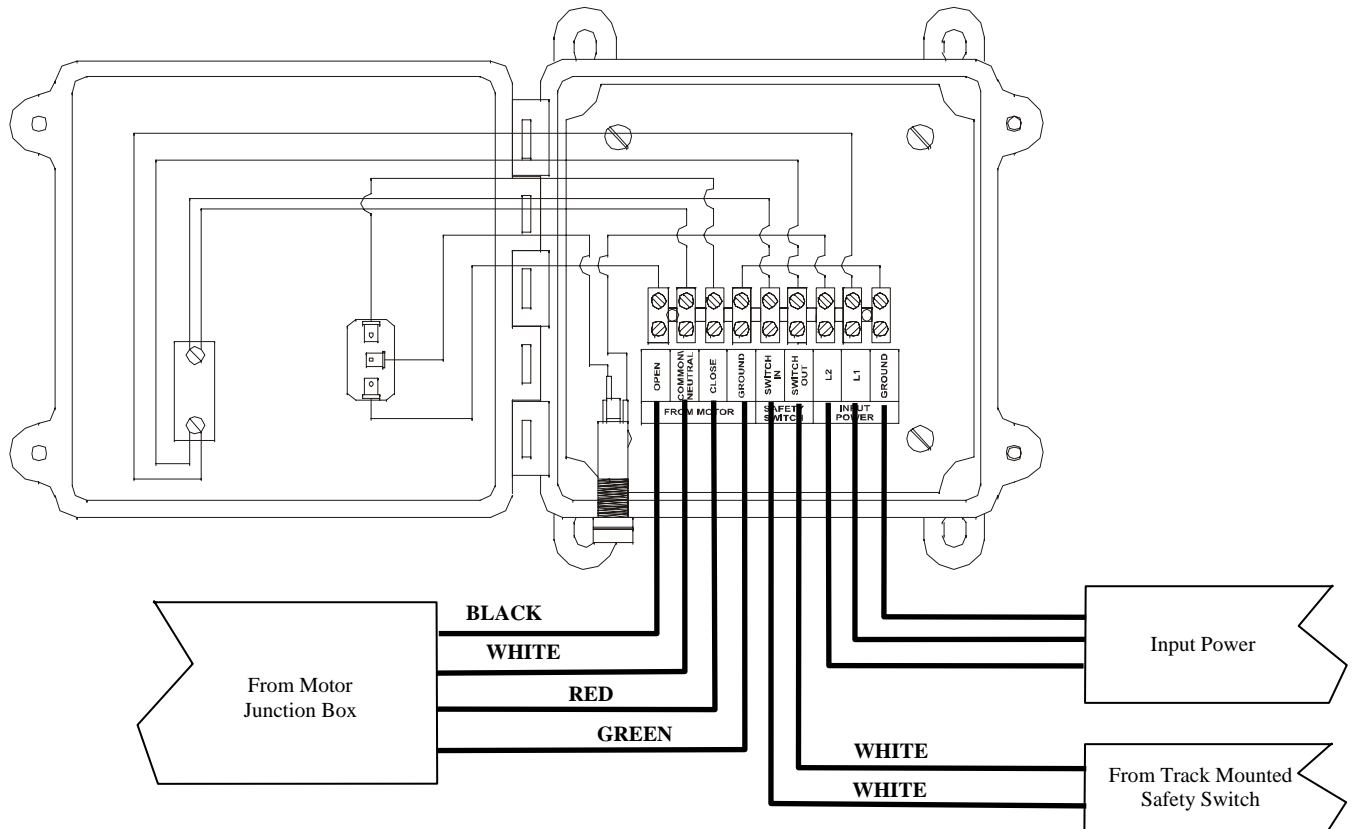


Figure 30 - Controller Wiring Diagram

8.11.7 Adjusting the Lock Limit Switches

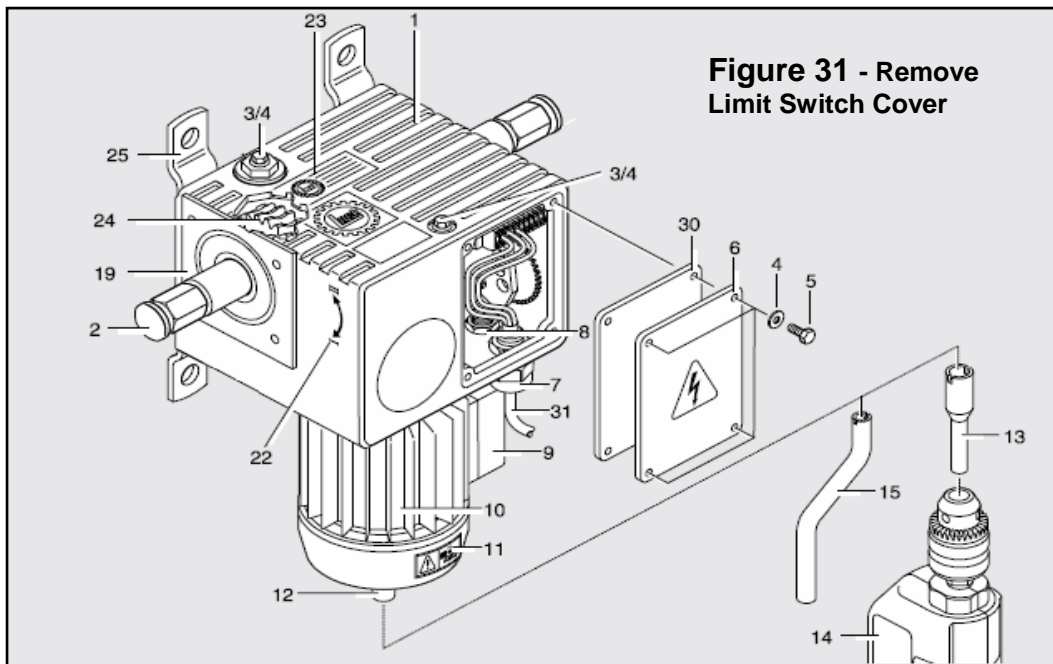
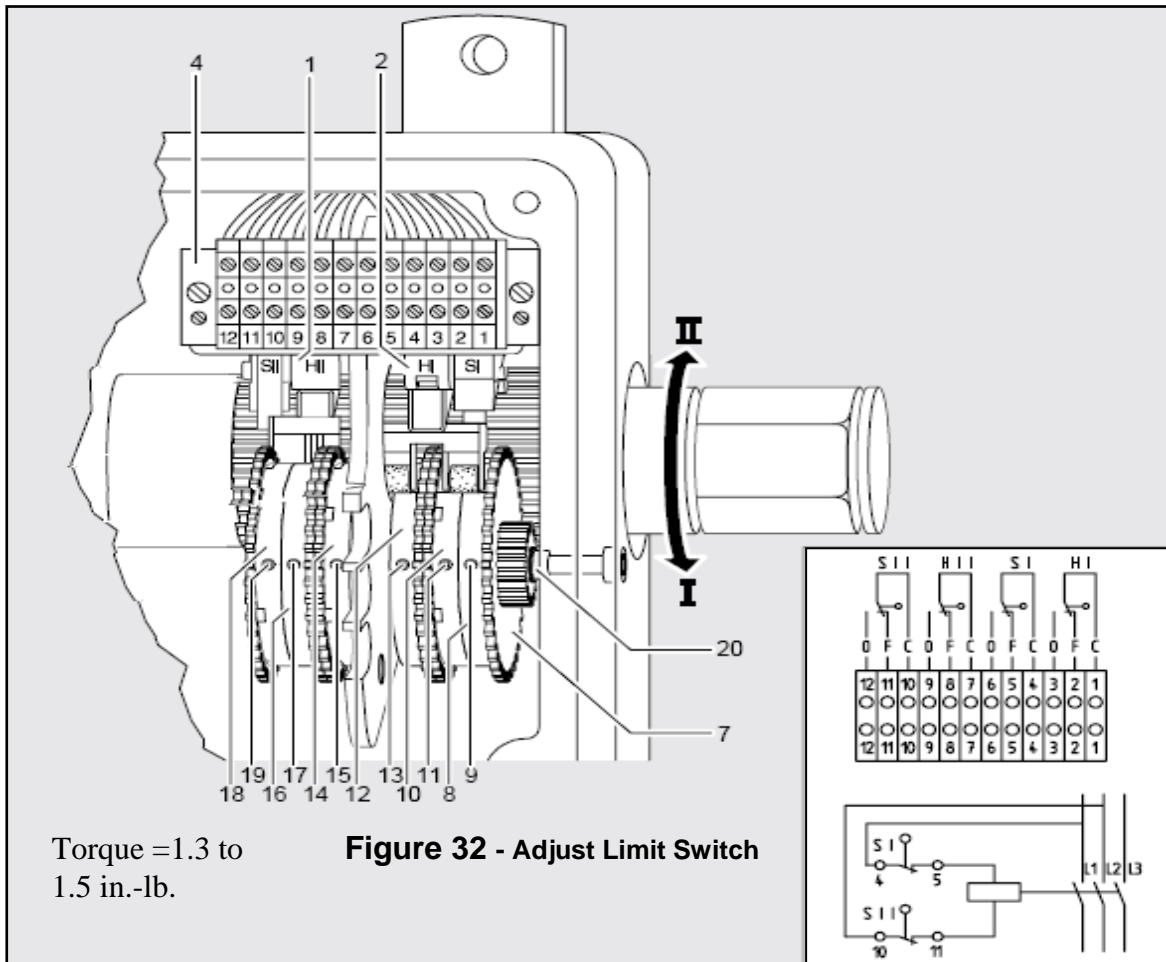


Figure 31 - Remove Limit Switch Cover

Reference to Items in Figure 31 – Remove Limit Switch Cover			
Item	Description	Item	Description
1	Drive Unit	15	Hand Crank
2	Output Shaft	16	Not Used
3	Not Used	17	Not Used
4	Copper Sealing Ring	18	Mounting Bore
5	Double Chain	19	Chain
6	Limit Switch Cover	20	Chain Coupling
7	Connector	21	Drive Pipe Shaft
8	Not Used	22	Direction Arrow
9	Terminal Box Cover	23	Not Used
10	Electric Motor	24	Worm Wheel
11	Warning Label	25	Bracket
12	Motor Shaft	26	Not Used
13	Adaptor	27	Not Used
14	Electric Drill	30	Seal



Reference to Items in Figure 32 – Adjust Limit Switches			
Item	Description	Item	Description
1	Switch HII	11	HI Setting Ring Screw
2	Switch HI	12	Setting Ring
3	Not Used	13	HI Setting Ring Screw
4	Terminal Rail	14	HII Setting Ring
5	Not Used	15	HII Setting Ring Screw
6	Not Used	16	HI Setting Ring
7	Not Used	17	HII Setting Ring Screw
8	Setting Ring	18	SII Setting Ring
9	SI Setting Ring Screw	19	SII Setting Ring
10	HI Setting Ring	20	Not Used

To set the Limit Switches, locate the Lock Motor Control Box. See Figure 33. NOTE: Items noted in brackets [] in this section can be found in Figure 32.

1. Unscrew the limit Switch Cover and locate the Allen Wrench and the hex shaft packaged in the Vinyl Storage Seal. See Figure 34.
2. Remove the Vinyl Storage Seal and locate the six Hex Adjusting Screws on the Ring Screws. See Figure 35.

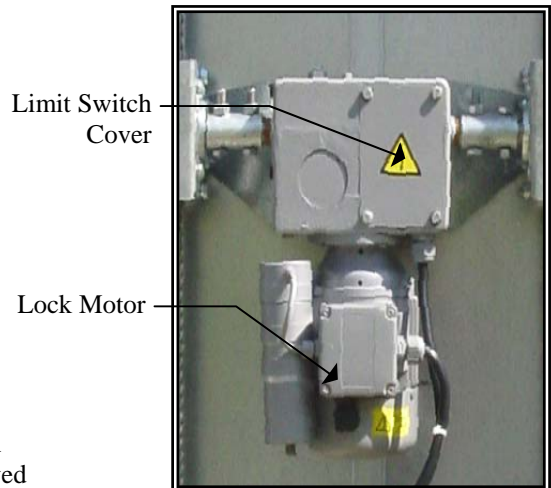


Figure 33 – Lock Motor

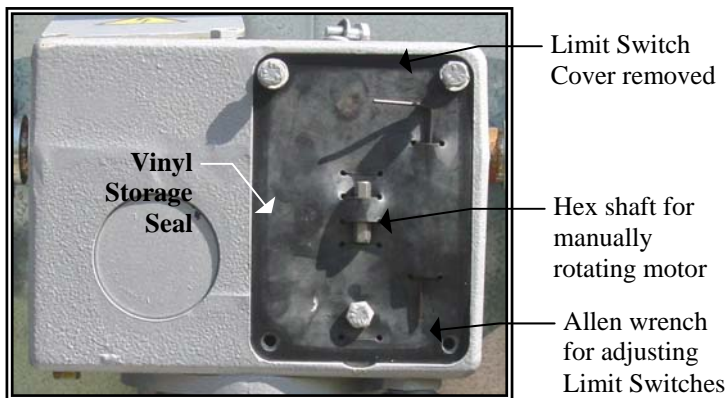


Figure 34 – Remove Limit Switch Cover

3. Run the curtains to the bottom position by using a Crank or Drill [Item 14 Figure 31] or by manually turning the one of the three Left Adjusting Screws with the Allen Wrench from the Vinyl Seal as illustrated in Figure 35. NOTE: If turning the drive with drill and adaptor, run to end position carefully (very slowly). Maximum drive speed is 1400 rpm.

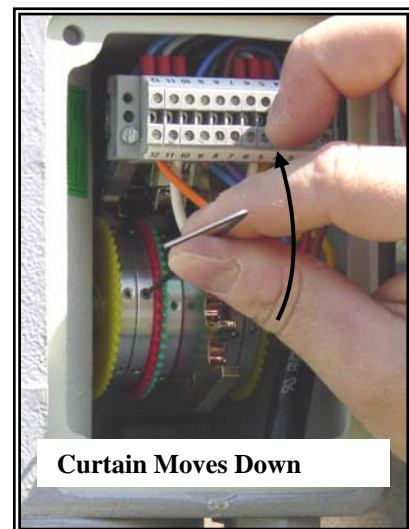


Figure 35 – Manually Close Curtain

NOTE: Electrical power must be applied and Limit Switches must be properly wired for curtains to operate by moving the Setting Rings.

4. With the curtain at the bottom limit, turn the Left Limit Switch's 3 Setting Rings until the Limit Switch Roller [22] snaps into place in the Switch Groove [21]. See Figure 36.
5. When the three switch grooves [21] are in line, the three Adjusting Screws in the adjusting rings [9, 11, 13] are also in one line. Tighten the screws in the setting rings [9, 11, 13] using a 1.5 mm hex wrench. Torque to 1.3 to 1.5 in.-lb.
6. Open the Curtain. See Figure 37.

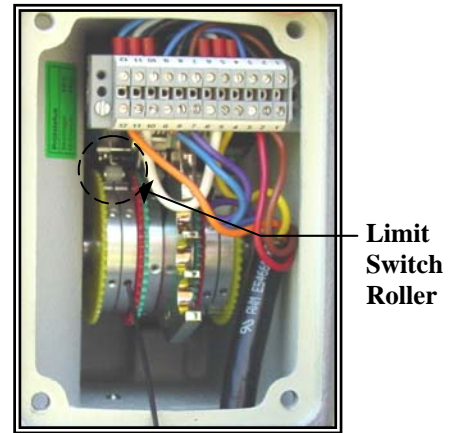


Figure 36 – Left Limit Switch Roller

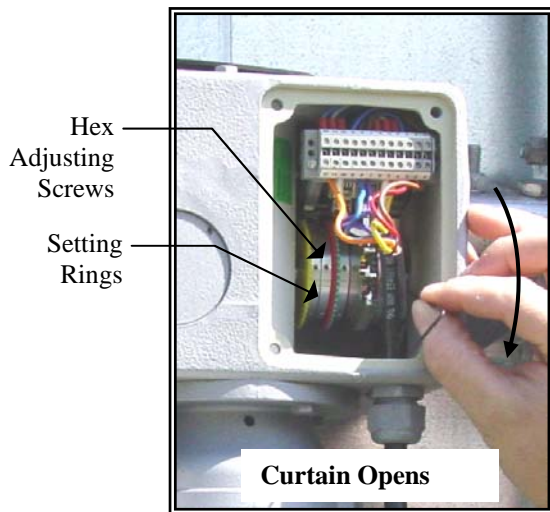


Figure 37 – Manually Open Curtain

7. Turn the 3 Setting Rings of the Right Limit Switch like in Step 4.
8. Tighten screws in setting rings [15, 17, 19] to 1.3 to 1.5 in.-lb.
9. Verify the operation of the Limit Switch Settings by operating the curtain from the controller.
10. Replace the tools in the Vinyl Seal and replace the Limit Switch Cover [6] and Seal [30].

8.12 Sidewall 21-1 Manual Drive

1. Refer to Section 8.11.3 Figures 26 and 27 for instructions on placing the drive insert into the drive pipe.
2. Refer to Fig. 38. Insert drive shaft into the drive insert. Rotate drive shaft to align groove in shaft with two screws in drive insert.
3. Install lock screws through holes. Do not tighten lock screws at this time. The drive shaft must move freely in the drive insert.
4. Mount the gear box to the mounting bracket with the supplied hardware.
5. See Fig. 38. Attach the pinion sleeve to the gear box and to the drive shaft. Install the hardware in the pinion sleeve.
6. Align the gear box and tighten the lock screws from Step 3 above.

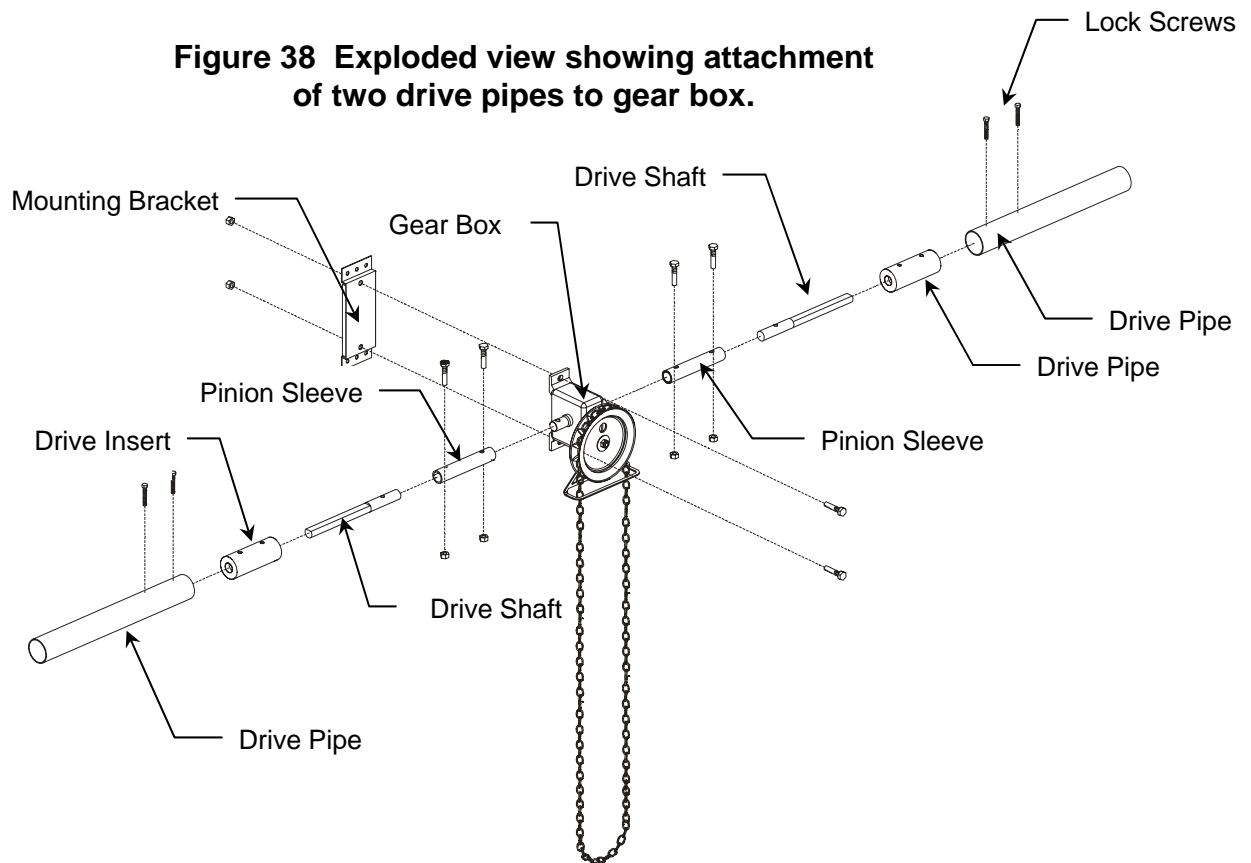
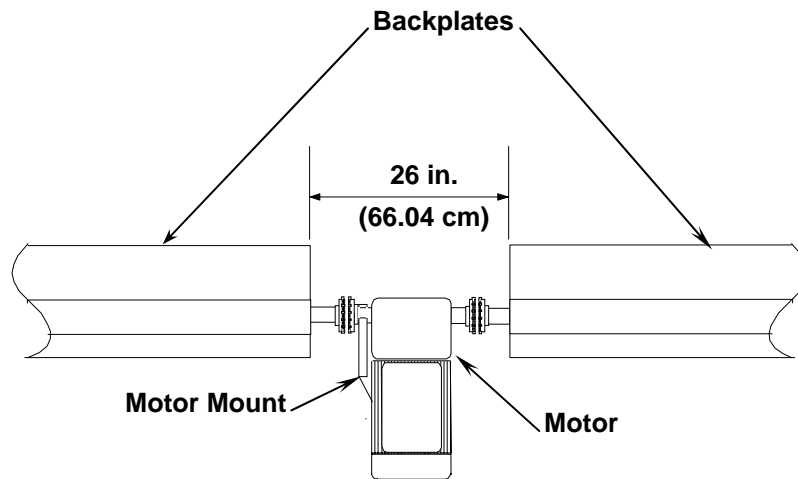


Figure 39 Placement of Motor Mount



IMPORTANT! Diagram above shows two sidewall systems with motor mounted between systems. When two systems are installed, separate backplates by 26 inches (66.04 cm) to allow for installation of motor.

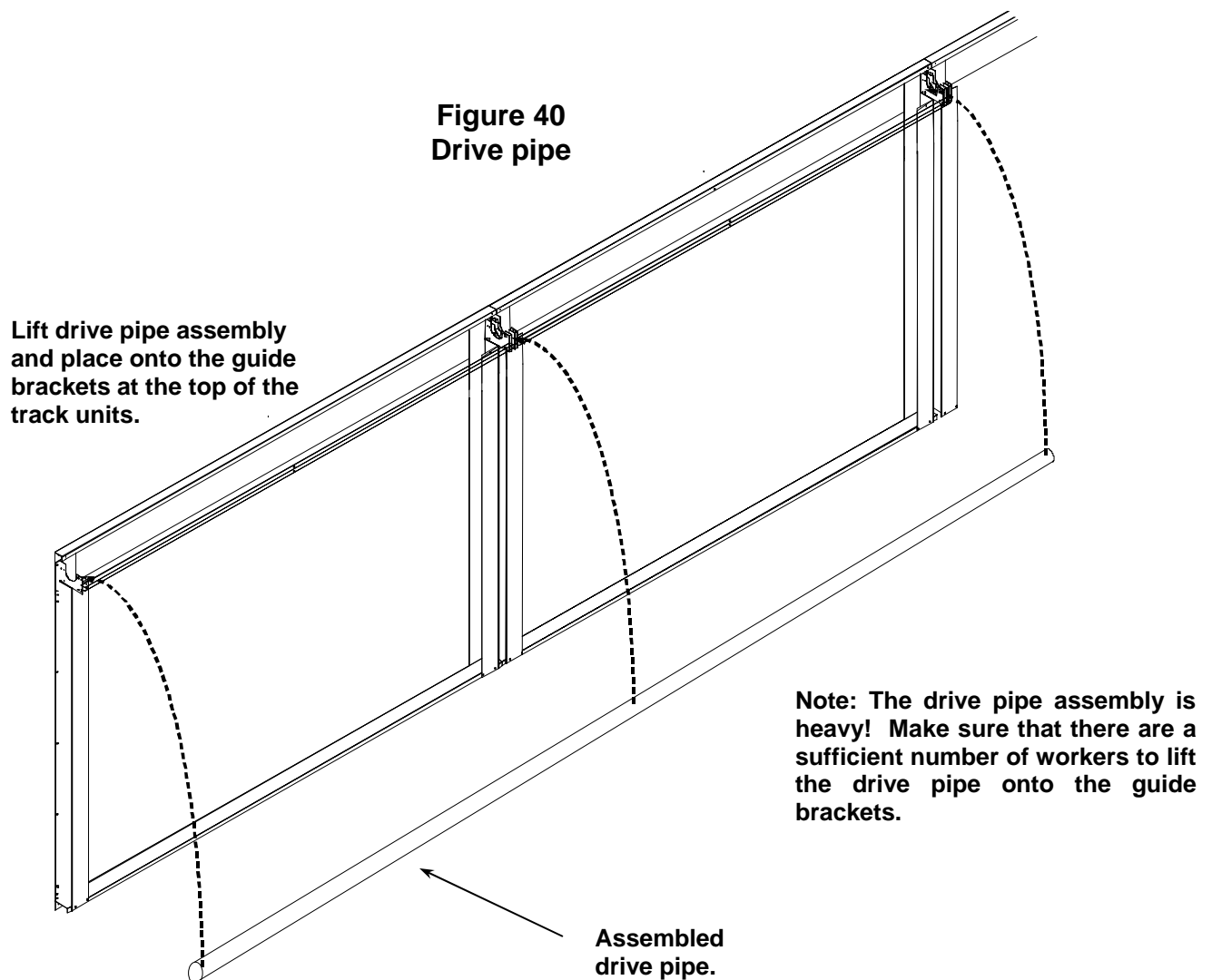
8.13 Drive Pipe Installation

After fastening the pipe sections together to form the drive pipe, lift the drive pipe and place it onto the guide brackets at the top of the track units. (See Fig. 40)

Important!

The drive pipe is heavy and will require several workers to lift it into position. Do not attempt to lift the drive pipe without a sufficient number of workers.

Note: For installation with very long drive pipes it may be necessary to leave one or more junctions of the drive pipe unattached to create lighter drive pipe sections which can be more easily lifted onto the guide brackets. Connect the loose junctions with pop rivets after the drive pipe is placed onto the guide brackets.

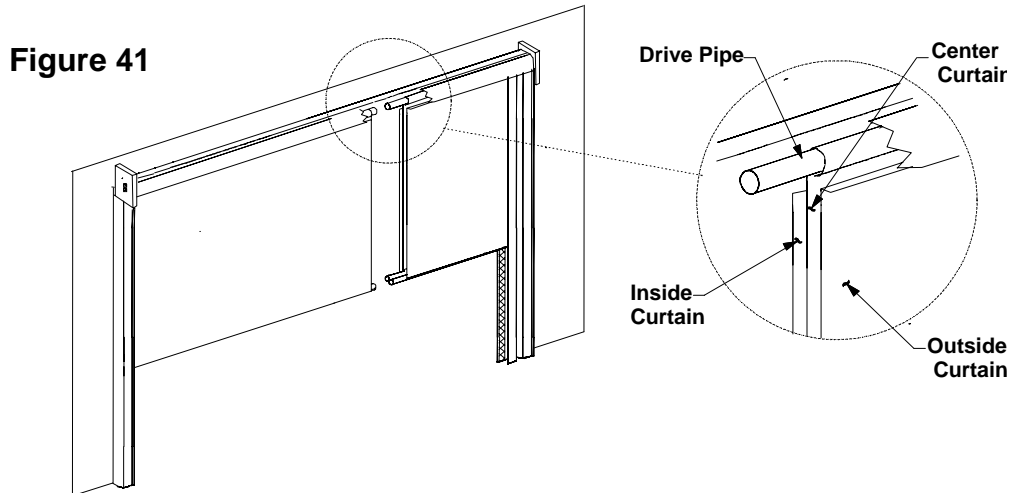


8.14 Curtain Installation

1. After drive pipe is in place, install the curtain material. The sidewall curtain consists of three curtains that are sewn together. Curtains can be identified by the following descriptions (See diagram below):
Center Curtain: The center curtain has a hook strip across the top of curtain only. This curtain attaches to the loop on drive pipe.

Inside Curtain: The inside curtain has hook strips at top and down each side of the curtain. This curtain is shorter than the inside curtain. This curtain attaches to the loop on backplate.

Outside Curtain: The outside curtain has hook strips at top and down each side of the curtain. This curtain is longer than the inside curtain. This curtain attaches to the top bar.



2. Attach the inside curtain to backplate. The hook strip at the top of the curtain sticks to the loop strip of the backplate. Align top & ends of curtain even with top & ends of backplate. Press the hook & loop strips together along the entire backplate.
3. After the inside curtain has been attached, attach center curtain to drive pipe. The center curtain wraps around the drive pipe from the inside (between the backplate & drive pipe). Attach hook & loop strips of drive pipe & center curtain. Press strips together along the entire drive pipe. NOTE:

Make sure to install curtain straight along entire length of drive pipe.

4. Attach outside curtain to top bar. Insert curtain from back of top bar. Firmly press together hook & loop strips of top bar and outside curtain.
5. After curtain has been secured, install tension pipes inside folds of curtain as shown below.
6. Curtain installation complete.

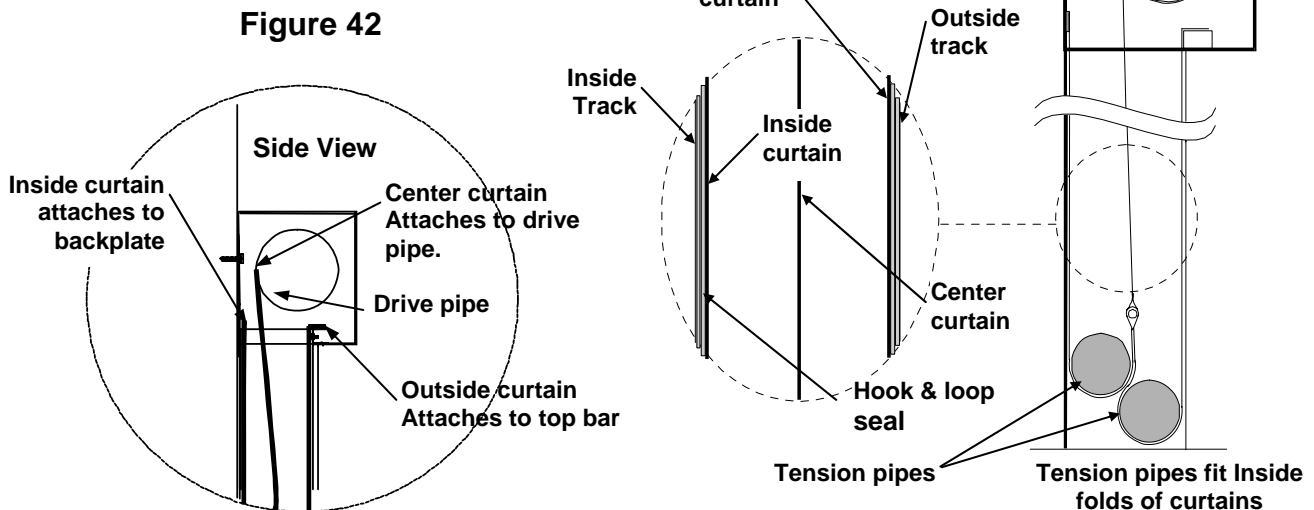
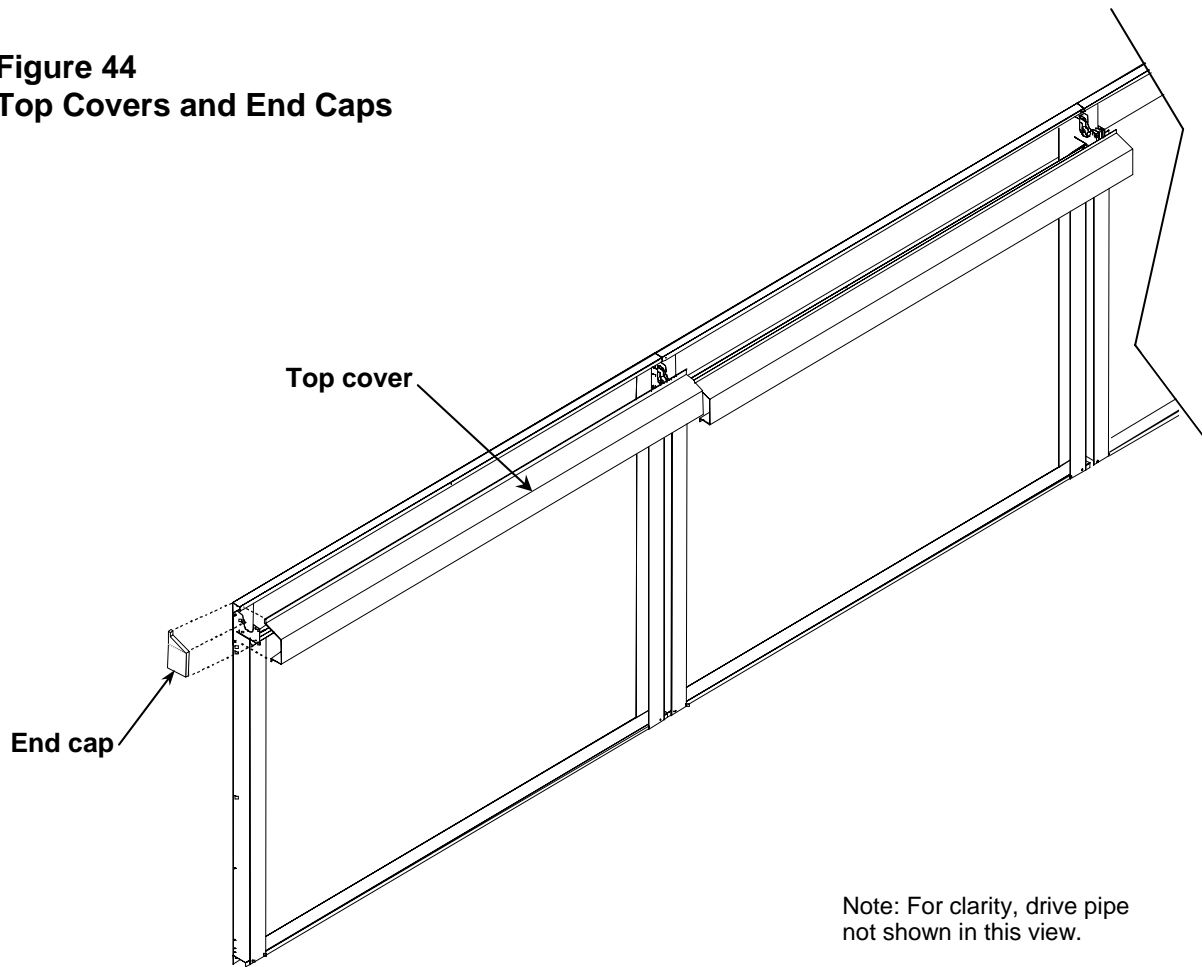


Figure 44
Top Covers and End Caps



8.15 Fine Tuning System

After connecting electrical power to system and setting initial limits, exercise the curtains.

1. Open and close the curtains several times to tighten fabric and get rid of wrinkles.
2. Readjust curtain panels as required to achieve satisfactory fit and operation of curtains.
3. After required adjustments, reset limits if necessary.

8.16 Top cover

After completing the curtain installation, and setting and testing the limit switches on the motor, install the top covers.

1. Refer to **Figure 44**. Place top covers as shown.
2. Attach top covers to back plate with self-drilling screws.

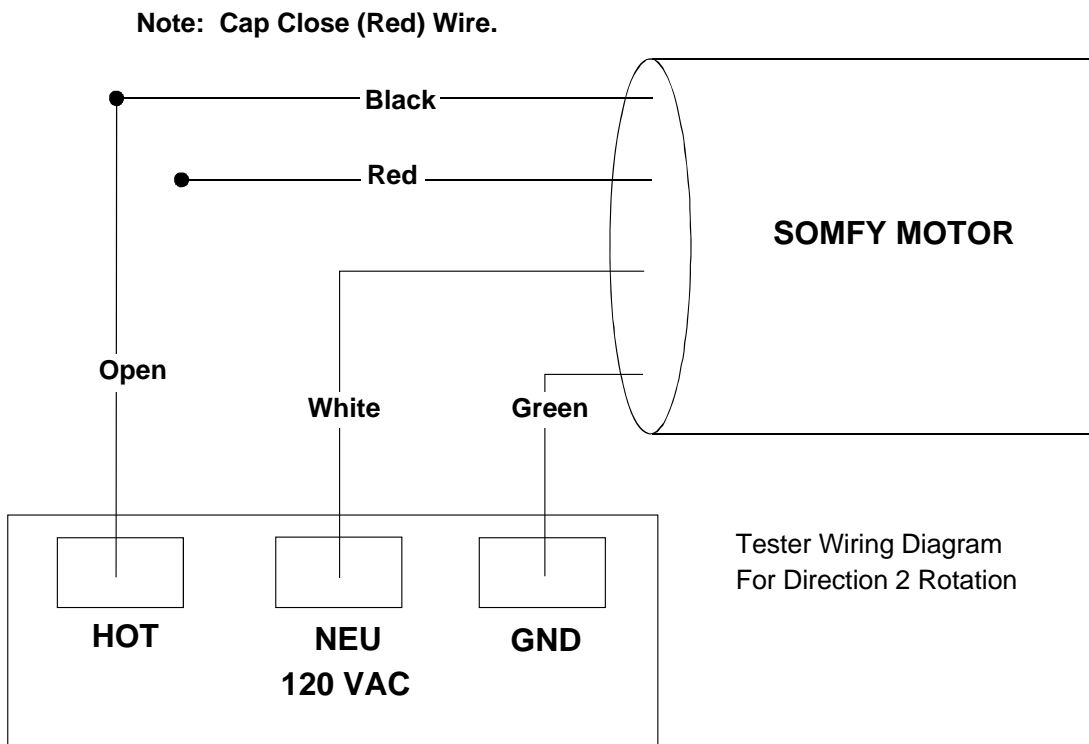
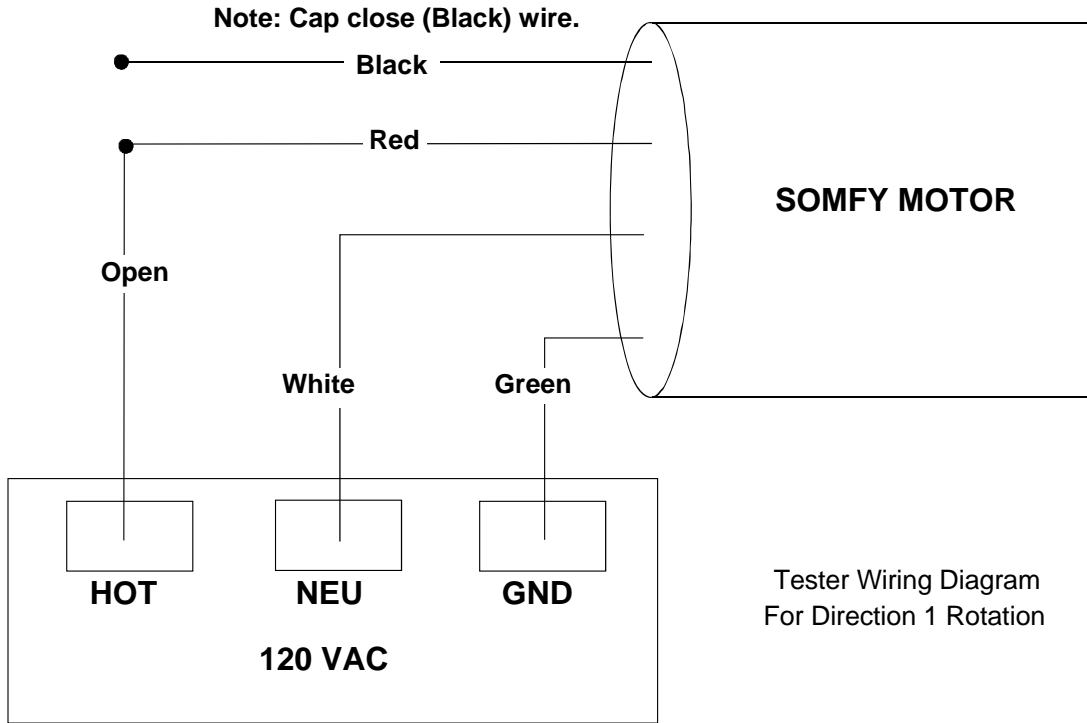
8.17 End caps

Refer to **Figure 44**. Install end caps to each end of the sidewall curtain assembly.

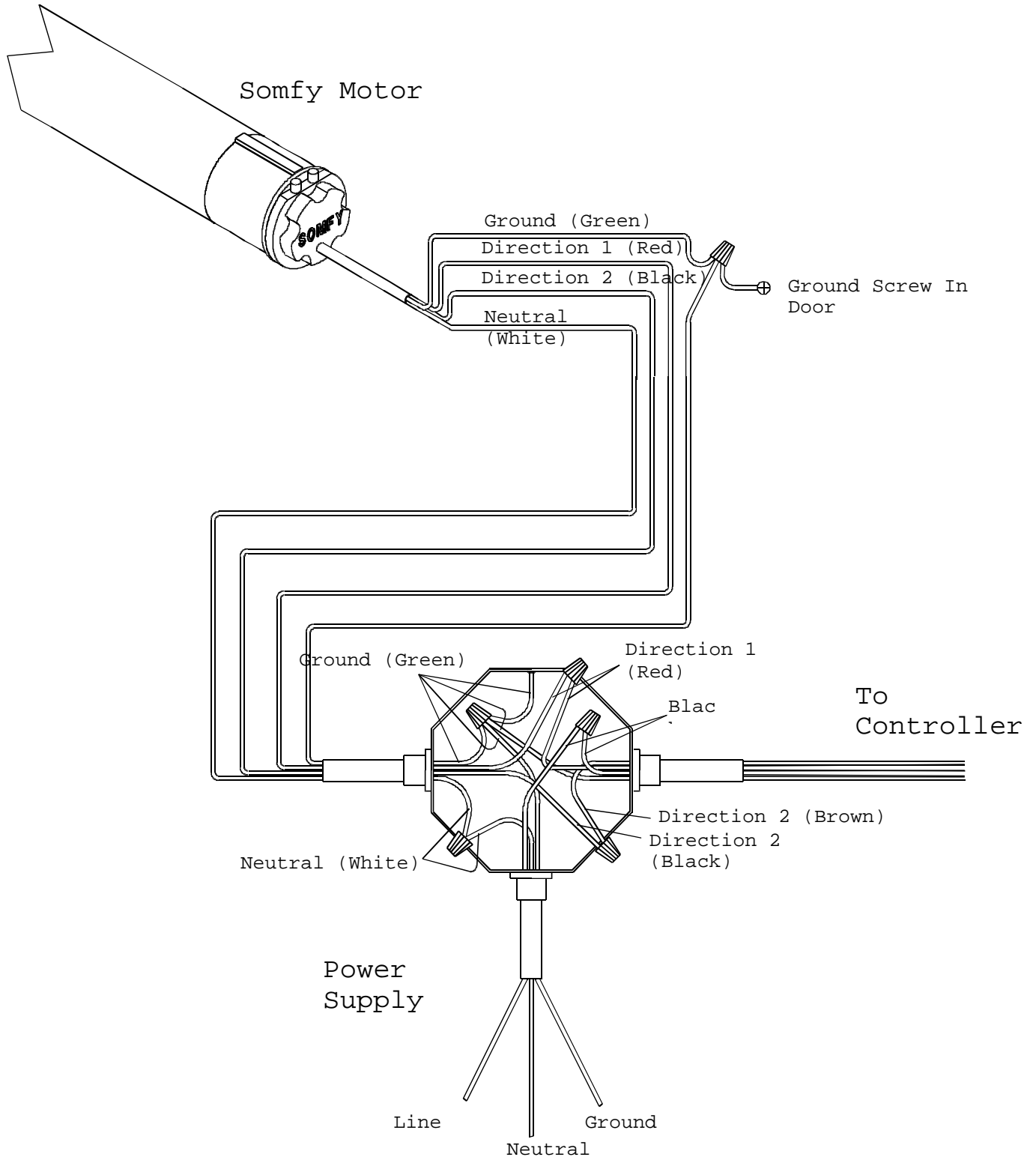
This completes installation of your side wall curtain assembly.

9. Wiring Diagrams

9.1 Somfy Motor Tester Wiring Diagram



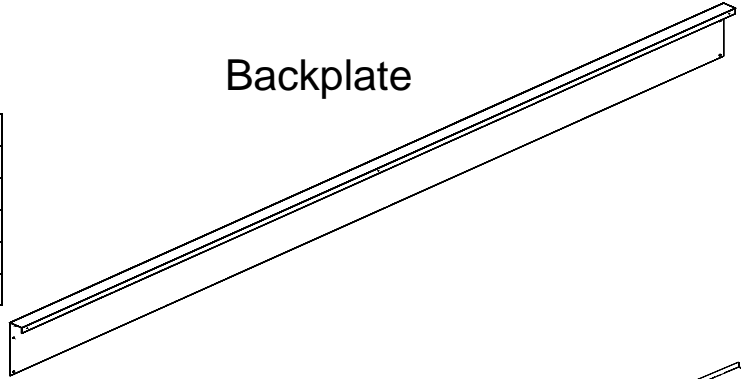
9.2 Somfy Motor Electrical Wiring Diagram



10. Diagrams/Parts List

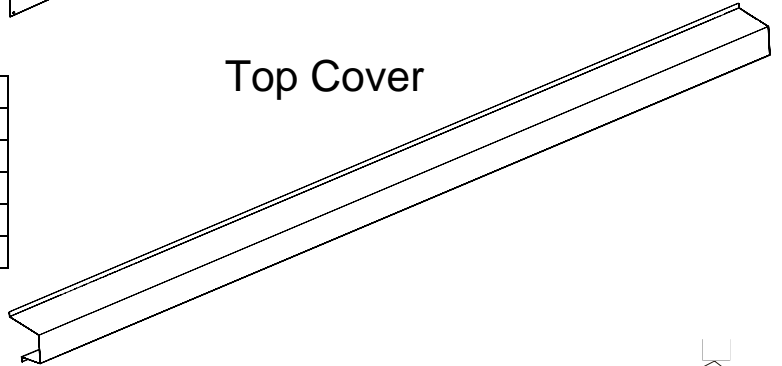
Size	Part No.
8'	6421-0315
9'	6421-9114
10'	6421-0316
11'	6421-9130
12'	6421-0317

Backplate



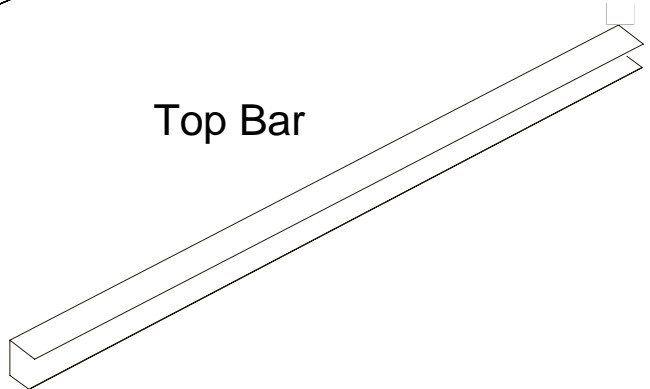
Size	Part No.
8'	0404-9507
9'	0404-9880
10'	0404-9511
11'	0404-8965
12'	0404-9515

Top Cover



Size	Part No.
8'	6421-0318
9'	6421-9115
10'	6421-0319
11'	6421-9131
12'	6421-0320

Top Bar

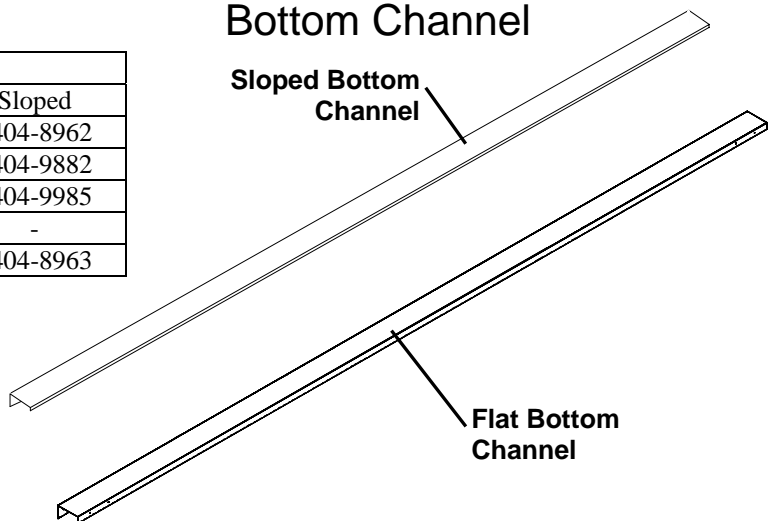


Size	Part No.	
	Flat	Sloped
8'	0404-9509	0404-8962
9'	0404-8897	0404-9882
10'	0404-9513	0404-9985
11'	0404-8968	-
12'	0404-9517	0404-8963

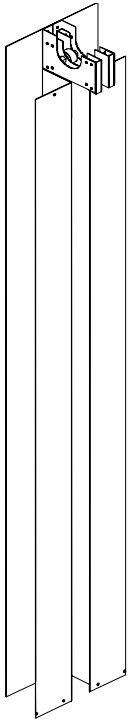
Bottom Channel

Sloped Bottom Channel

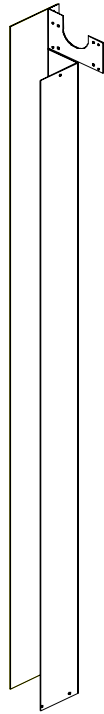
Flat Bottom Channel



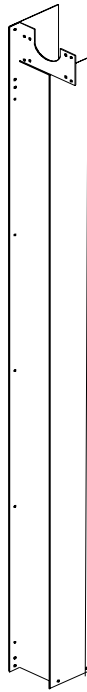
Center track



Right track



Left track

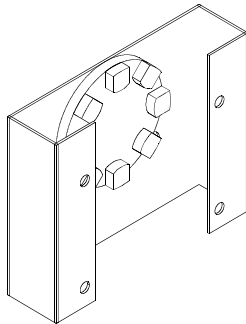


System	Left track Part no.
2 ft.	6421-0301
3 ft.	6421-0304
4 ft.	6421-0307
5 ft.	6421-0310
6 ft.	6421-0313
7 ft.	6421-8278
8 ft.	6421-8266
9 ft.	6421-8270
10 ft.	6421-8274
11 ft.	6421-8286
12 ft.	6421-8282

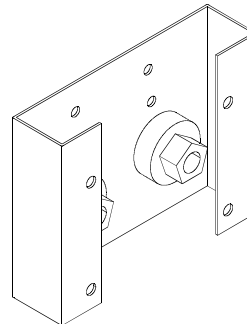
System	Right track Part no.
2 ft.	6421-0302
3 ft.	6421-0305
4 ft.	6421-0308
5 ft.	6421-0311
6 ft.	6421-0314
7 ft.	6421-8279
8 ft.	6421-8267
9 ft.	6421-8271
10 ft.	6421-8275
11 ft.	6421-8287
12 ft.	6421-8283

System	Center track Part no.
2 ft.	6421-0300
3 ft.	6421-0303
4 ft.	6421-0306
5 ft.	6421-0309
6 ft.	6421-0312
7 ft.	6421-8277
8 ft.	6421-8265
9 ft.	6421-8269
10 ft.	6421-8273
11 ft.	6421-8285
12 ft.	6421-8281

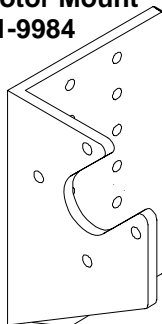
**Somfy Motor Mount
6421-0357**



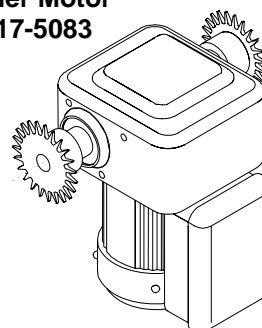
**Bearing Mount
6421-0321**



**Ridder Motor Mount
0411-9984**



**Ridder Motor
3017-5083**



Part No.		Description
Curtains		
Clear Curtain	Blackout Curtain	
6421-0234	6421-0250	Curtain 2' x 8'
6421-0235	6421-0251	Curtain 2' x 10'
6421-0236	6421-0252	Curtain 2' x 12'
6421-0237	6421-0253	Curtain 3' x 8'
6421-0.238	6421-0254	Curtain 3' x 10'
6421-0239	6421-0255	Curtain 3' x 12'
6421-0240	6421-0256	Curtain 4' x 8'
6421-0241	6421-0257	Curtain 4' x 8'
6421-0242	6421-0258	Curtain 4' x 12'
6421-0243	6421-0259	Curtain 5' x 8'
6421-0244	6421-0260	Curtain 5' x 10'
6421-0245	6421-0261	Curtain 5' x 12'
6421-0246	6421-0262	Curtain 6' x 8'
6421-0247	6421-0263	Curtain 6' x 10'
6421-0248	6421-0264	Curtain 6' x 12'
Tubing		
6421-0355		Drive Pipe Assy.
6427-0356		Motor Drive Pipe Assy.
6421-0359		8' Tension Bars
6421-2400		9' Tension Bars
6421-0360		10' Tension Bars
6421-9197		11' Tension Bars
6421-0361		12' Tension Bars
Motors		
Somfy		
6450-7550		Somfy motor kit
3017-5015		Somfy 880 lb. motor
1050-5000		Somfy Drive Crown
Lock		
6450-7565		Lock Motor Mounting Kit
3017-5411		Lock Gear 600Nm 230v 1Ph
3017-5409		Lock Gear 600Nm 230/480v 3Ph
Hardware		
6450-3050		Hardware Kit

RollSeal[®]

Automated Systems