

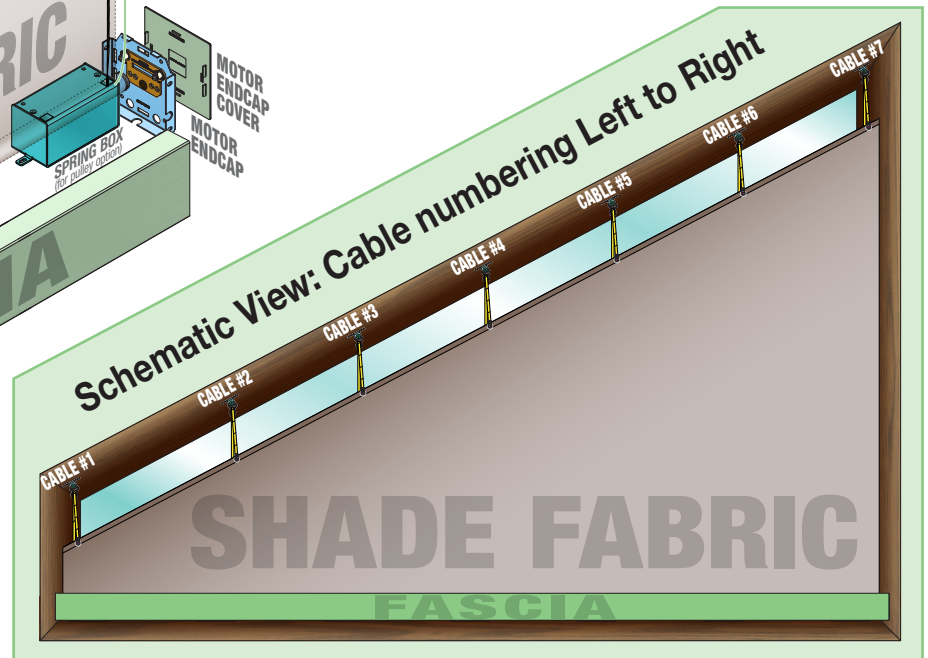
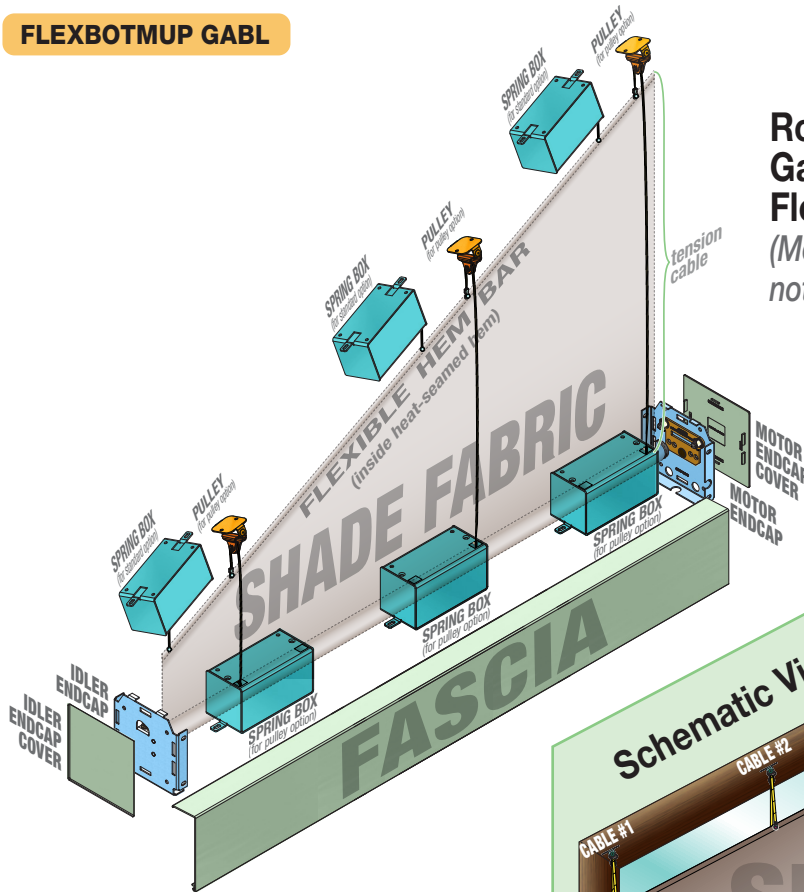
# Gabled Bottom-Up FlexShade®

Motorized triangular bottom-up shade with tension cables, pulleys, and flexible hem bar

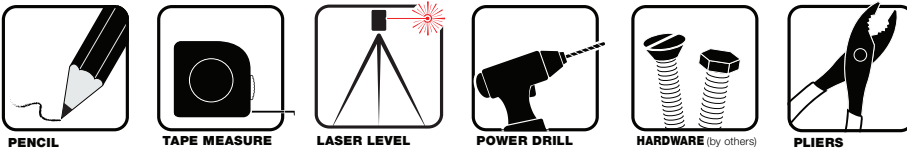
## INSTRUCTIONS INSTALLATION & OPERATION

### Overview - Components

#### FLEXBOTMUP GABL



#### TOOLS REQUIRED



#### ⚠ CAUTION ⚠

Read and understand all warnings (Page 2 of this document) before beginning installation.

#### Contents

Overview - Components.....	1	Section 5 - Adjusting Fabric Tracking.....	8
PLEASE READ - Important Safety & Installation Information .....	2	Section 6 - Install Fascia .....	8
PLEASE READ - Field Adjustments, Cleaning and Maintenance.....	2	Section 7 - Electrical Connections.....	9
Section 1 - Mounting Endcaps.....	3	Section 8 - Limit Switch Adjustments.....	9
Section 2 - Roller Assembly .....	4	Section 9 - Wiring Diagrams.....	10
Section 3 - Spring Boxes: Top Mounted Option .....	4	Section 10 - Dimensions .....	12
Section 4 - Spring Boxes: Sill & Pulley Option.....	6		

If you have any difficulties installing or servicing your Gabled Bottom-Up FlexShade®, call your dealer or Draper, Inc.

## PLEASE READ - Important Installation Information

### ⚠ Caution:

1. Inspect all boxes to make sure you have received the proper shades and parts. Controls may be shipped separately, or in same carton as shades.
2. Open cartons lengthwise.
3. Before mounting shades, verify measurements on label provided with shade, and ensure unit is installed at correct width.
4. Before connecting switches, controls, or electrical, ensure that power is turned **OFF**. Wiring indicated in diagram by dashed lines must be completed by an electrician.
5. Do not wire motors in parallel without written permission from Draper®.
6. All endcaps, fascia, pocket headbox, and other hardware must be installed level. Shades must be level and square.
7. **Read the following installation guidelines thoroughly and follow them carefully. Failure to do so may cause product to fall or otherwise fail, and invalidates warranty.**
8. **Installer is responsible for selecting mounting hardware appropriate for site conditions.**

## PLEASE READ - Safety Information

### Important Safety Information



### Important Safety Information

**Improper installation and use of the Gabled Bottom-Up Flexshade® can result in serious injury or death. Primarily, injuries can occur if the unit falls due to imprecise installation, mishandling of the unit during installation, or installation on an insufficient wall or ceiling structure. Please use extreme care.**

1. Please read the following installation guidelines thoroughly and follow them carefully. Failure to do so may cause product to fall or otherwise fail, and could result in serious injury.
2. Installation and calibration of the unit should only be performed by an authorized, qualified, and experienced professional. In particular, electrical work and wiring [indicated in diagram by dashed lines] must be completed only by a qualified professional electrician who has read this manual completely and is familiar with the construction and operation of this equipment and the hazards involved.
3. Do not affix the unit to walls, ceilings, or other surfaces that have inadequate strength to permanently hold the unit during use. It is the owner's and installer's responsibility to confirm the wall or ceiling to which the unit attaches is sufficient to permanently hold the weight and stress loads of the unit at all times. Draper, Inc., is not responsible for improper installation, application, testing, or workmanship related to the product at place of installation.
4. It is the installer's responsibility to make sure appropriate fasteners are used for mounting.
5. All brackets, fascia, headboxes, pockets, wall clips, and other hardware must be installed level. Unit must be level and square.
6. Never leave the area while operating the unit during installation, maintenance, or normal operation, unless it is secure and safe.
7. Before testing or operation, carefully inspect the entire area and path of the shade and areas underneath the shade to be sure no persons or objects are in the area.
8. Turn off power and any nearby equipment or cables carrying electricity before connecting switches, wires, controls, or electrical components.
9. Make sure the limit switches are pointed down or accessible when placing the motor in brackets/endcaps.
10. All motors should be tested and limits set using test cord before shades are wired.
11. Do not wire motors in parallel without written permission from Draper, Inc.
12. During testing or operation, carefully watch the surrounding area for any potential safety concerns including nearby persons or objects.
13. After installation, the entire system, including all sensors, should be carefully tested to ensure safe and normal operation. Extreme care should be taken during testing to remain clear of moving parts to avoid possible injury.
14. Operation of unit should be performed only by authorized and qualified personnel, who have been trained in the safe and effective operation of the unit and understand its safety features.
15. The safety features of the unit, including sensors, should never be disabled, bypassed, or overridden. The system should not be operated until all safety features, including the sensors, are properly and completely installed, calibrated, and tested.
16. Unit may need to comply with local, state, or district rules and regulations, in particular when installed in schools. All applicable rules and regulations should be reviewed before installation and use.
17. Failure to precisely follow installation guidelines invalidates all warranties.
18. Custom products/installations may not be reflected in this manual. Call Draper®, Inc., if you have questions about the installation of custom products or any questions about your installation.

### Before Beginning Installation

1. Look for any job site conditions that could interfere with installation or operation of the system.
2. Read carefully and be sure to understand all installation instructions and all related operations manuals. These instructions are intended to serve as a guide for the installer and owner. They should be followed closely and combined with the expertise of experienced qualified installers. Draper, Inc., is not responsible for improper installation, application, testing, or workmanship related to the product at place of installation. Please retain all instructions for future use.
3. Open cartons lengthwise.
4. Locate and lay out all pieces.
5. Inspect all boxes to make sure you have received the proper shade and parts. Controls may be shipped separately, or in same carton as shade.
6. If you have any difficulties with installing, servicing, or operating your shade, call your dealer or Draper, Inc., 765-987-7999.

### PLEASE READ - Field Adjustments

Each Draper Solar Control Shade is tested to ensure proper operation. Even with this testing, some field adjustments may be needed for telescoping.

If the shade is telescoping, place a piece of high quality gaffer tape about 1" (25mm) wide on the exposed roller (where the fabric will cover it) on the side that the fabric will be drawn toward. For example: if the fabric is tracking to the left, place the tape on the right side.

### PLEASE READ - Cleaning and Maintenance

Window covering products manufactured by Draper, when properly installed, should require no operational maintenance or lubrication.

Most standard Draper fabrics may be cleaned at the window by vacuuming with a soft brush attachment. They also may be cleaned by using a sponge or soft cloth and mild solution of warm soapy water. A mild dishwashing liquid is recommended. A clean dry cloth is recommended for the metal finish.

**Please Note:** Exceptions are GreenScreen Evolve®, GreenScreen Revive®, Flocké®, and Phifer® SW7000 fabrics, which must be cleaned with a dry art sponge. (GreenScreen Revive® and GreenScreen Evolve® are registered trademarks of Mermet® USA. SheerWeave® is a registered trademark of Phifer® Incorporated.)

## ⚠ IMPORTANT ⚠

Mounting Hardware must be installed parallel, plumb, and square, with a tolerance of +/- 1/8" (3mm).  
**Verify unit measurements and ensure unit will fit in the desired location.**  
**Shade requires a minimum of 2, and a maximum of 7 cable locations.**

**Please Note:** Installer is responsible for selecting mounting hardware appropriate for site conditions.

**IMPORTANT:** Note the size of endcap and fascia. Three (3) different sizes are available: Small, Large, and Dual.

**IMPORTANT:** There are several different installation and mounting methods available for Tension Cables:

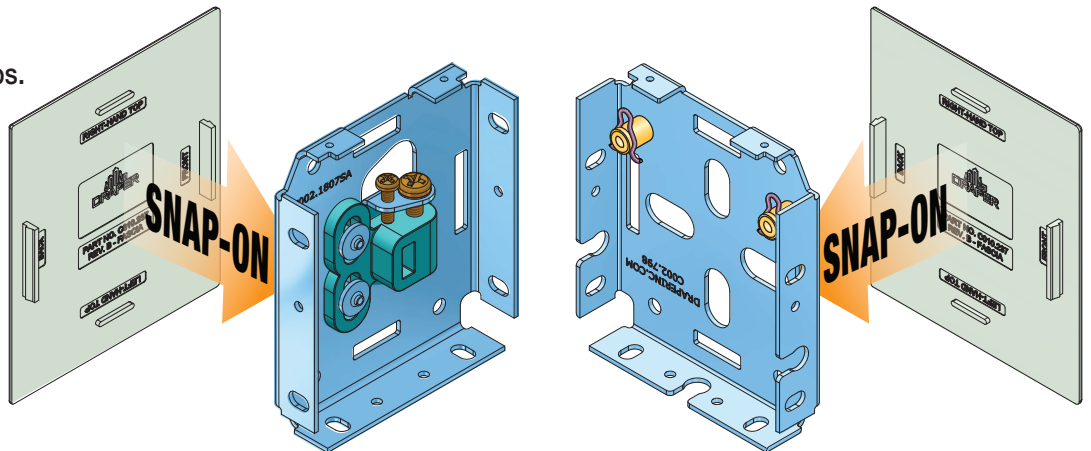
- Spring Boxes mounted on top of window jamb (used with Small, Large or Dual Endcaps). See Section 3, page 4.
- Spring Boxes mounted on window sill, behind endcaps (used with Small, Large or Dual Endcaps), with Tension Cables routed through top mounted pulleys. See Section 4, page 6.
- Spring Boxes mounted on window sill, nested within Dual Endcap (Dual Endcaps ONLY), with Tension Cables routed through top mounted pulleys. See Section 4, Step 3, page 6.
- Product should be installed with fascia or another method to make cables inaccessible to children.

### Section 1 - Mounting Endcaps (Small size hardware shown)

**⚠ Caution:** Before mounting shades, verify measurements on label provided with shade, and ensure unit is installed at correct width.

**Please Note:** Installer is responsible for selecting mounting hardware appropriate for site conditions.

- 1.** Snap endcap covers (optional) onto endcaps.

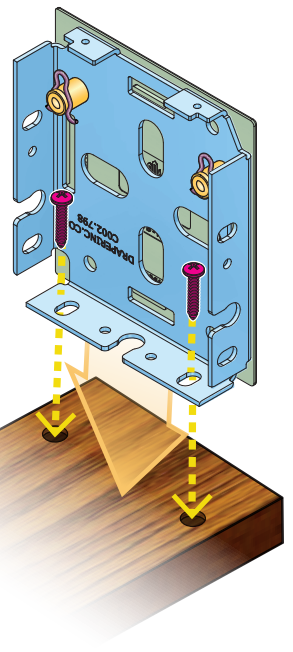


- 2.** Mark sill for placement of endcaps. Drill small starter hole (if necessary).



- 3.** Mount endcaps using appropriate fasteners for surface.

**Please Note:** Endcaps MUST BE fastened securely to mounting surface and cannot move from side to side.

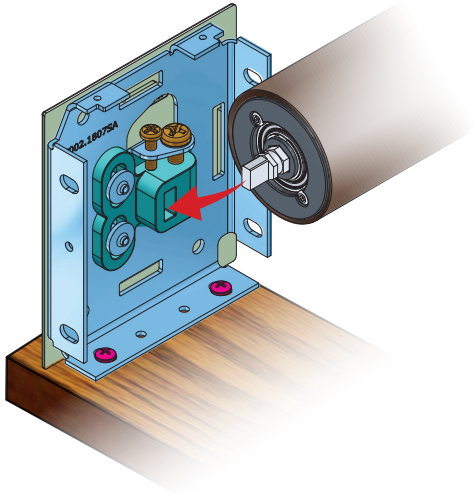


## Section 2 - Roller Assembly

**Important:** Always start at Idler End of shade.

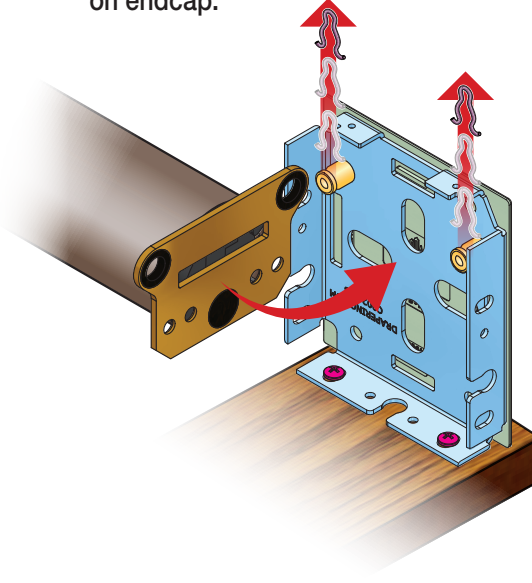
### IDLER END

1. Place shade spring-loaded pin in idler endcap. Depress pin by pressing shade roller toward endcap.

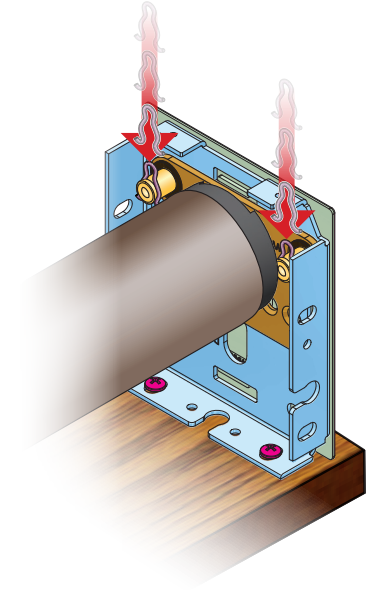


### MOTOR END

2. Remove retaining clips from studs, and place motor plate over studs on endcap.



3. Slide retaining clips onto studs.

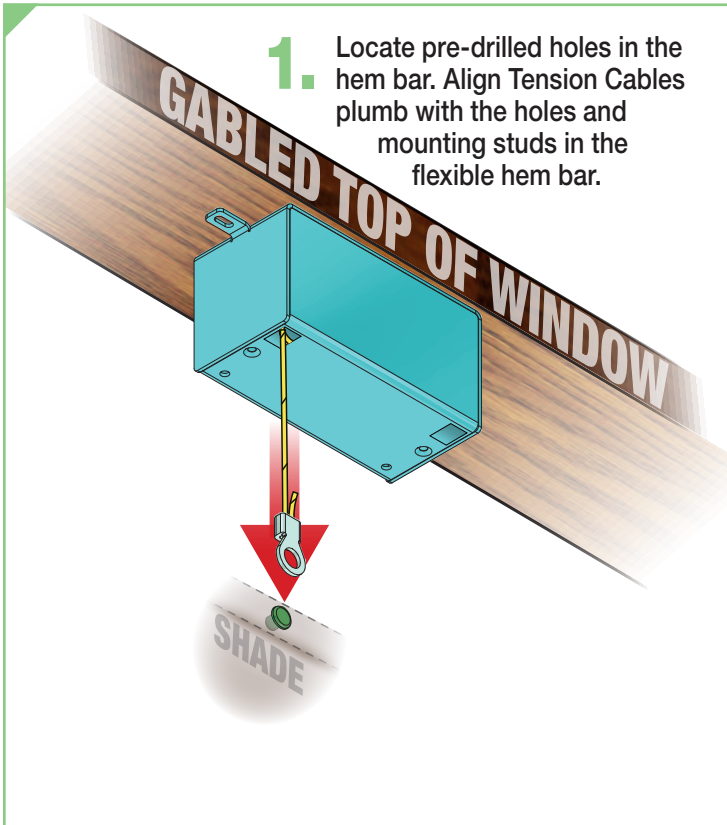


## Section 3 - Spring Boxes: Top Mounted Option (available for Small, Large, and Dual Endcaps) (Large Hardware shown)

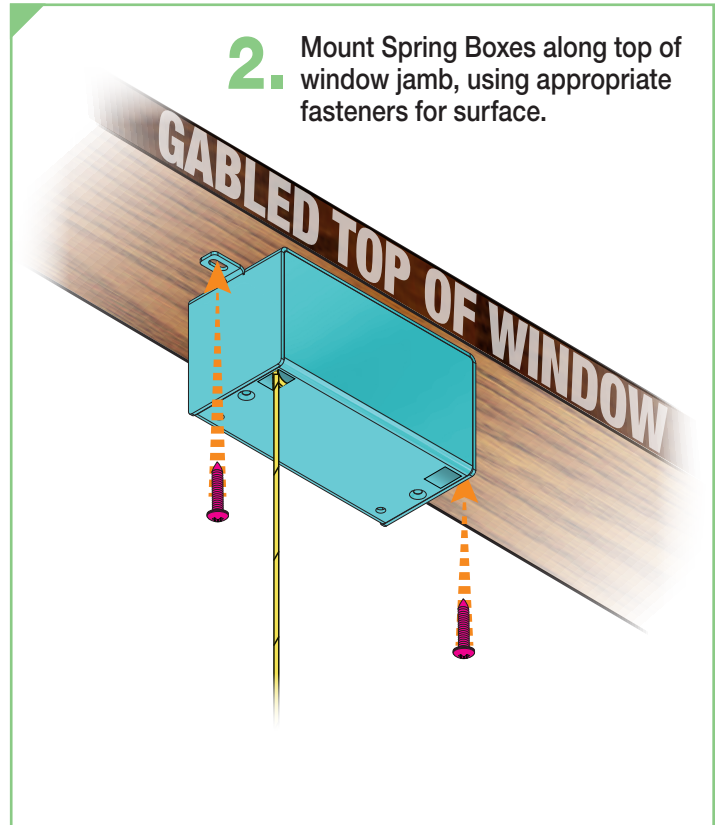
**IMPORTANT:** Spring Box Cables must be mounted no more than 24" (61cm) apart.

Installation **MUST** start at left end (as viewed from room side of window), with Spring Box cable opening on the **LEFT SIDE**. Other Spring Boxes will have cable opening on the **RIGHT SIDE**.

1. Locate pre-drilled holes in the hem bar. Align Tension Cables plumb with the holes and mounting studs in the flexible hem bar.



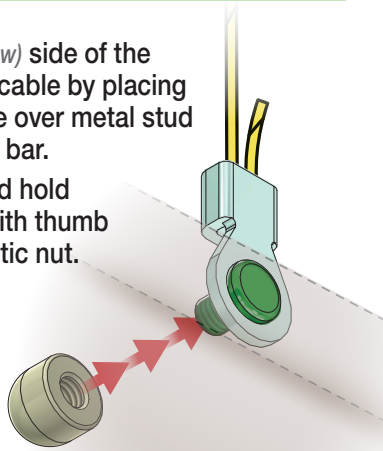
2. Mount Spring Boxes along top of window jamb, using appropriate fasteners for surface.



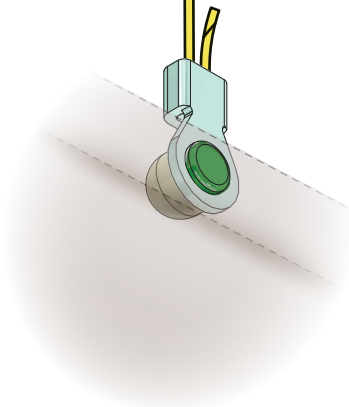
**Please Note:** Start this process on the HIGH SIDE (taller side) of shade.

3. On the back (window) side of the shade, attach the cable by placing eyelet on the cable over metal stud in the flexible hem bar.
4. Grasp hem bar and hold down steel stud with thumb and screw on plastic nut.

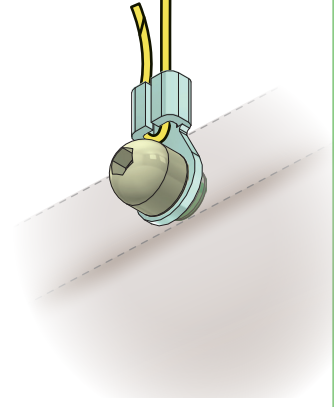
**Please Note:** Nut can be tightened with a 4mm hex key.



FRONT OF SHADE



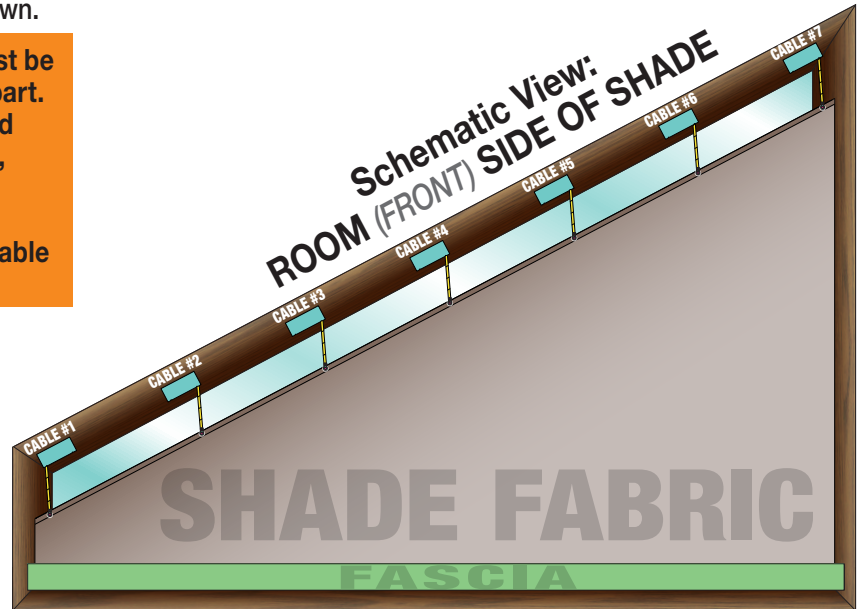
BACK OF SHADE



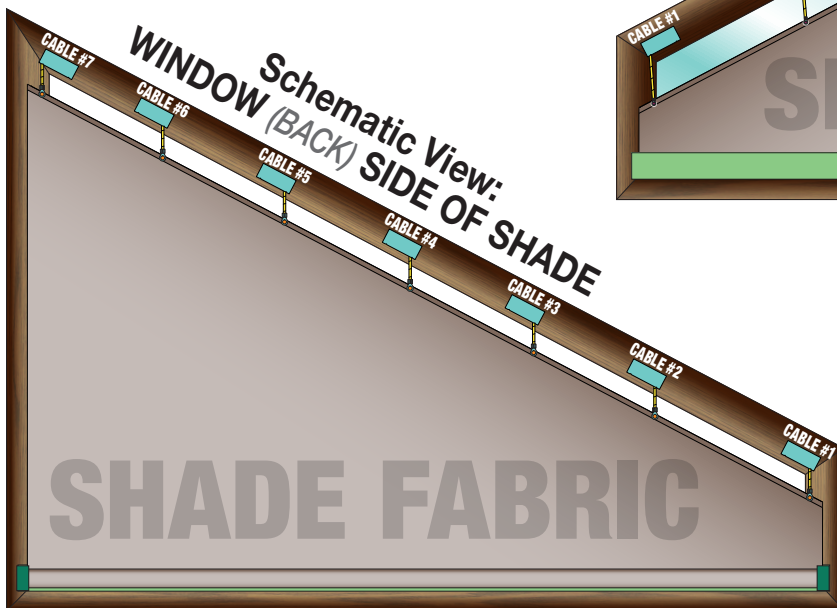
5. Endcaps, Spring Boxes, Tension Cables, Pulleys, and Shade should align as shown.

**IMPORTANT:** Spring Box Cables must be mounted no more than 24" (61cm) apart. Installation MUST start at left end (as viewed from ROOM SIDE of window), with Spring Box cable opening on the LEFT SIDE. Remaining Spring Boxes will have cable opening on the RIGHT SIDE.

Schematic View:  
ROOM (FRONT) SIDE OF SHADE



Schematic View:  
WINDOW (BACK) SIDE OF SHADE

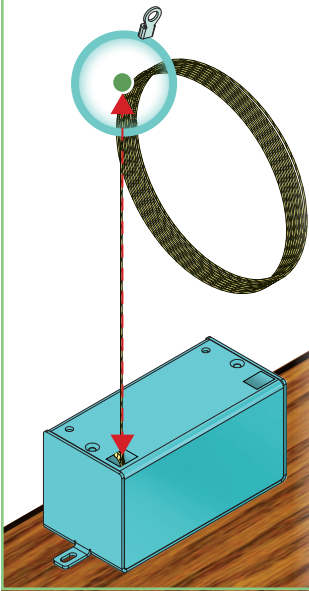


## Section 4 - Spring Boxes: Sill & Pulley Option (Available for Small, Large, and Dual Endcaps)

1. Locate the pre-drilled holes and mounting studs in the Flexible Hem Bar, and the Tension Cable openings in the Spring Boxes.

**Please Note:** Spring boxes may be rotated 90° so that cable opening is on window side.

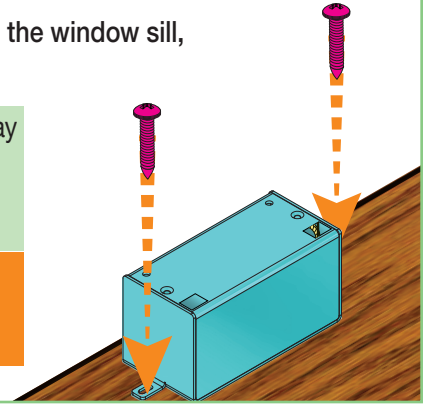
**IMPORTANT:** Ensure that these are aligned before mounting Spring Boxes.



2. Mount Spring Boxes on the window sill, behind the shade.

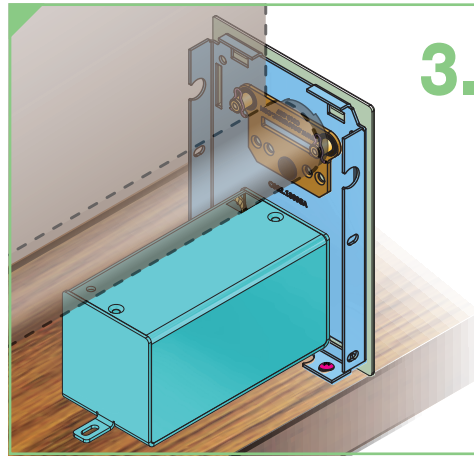
**Please Note:** Spring boxes may also be disassembled and mounted through bottom of spring box

**IMPORTANT:** Spring Boxes must be mounted no more than 24" (61cm) apart.

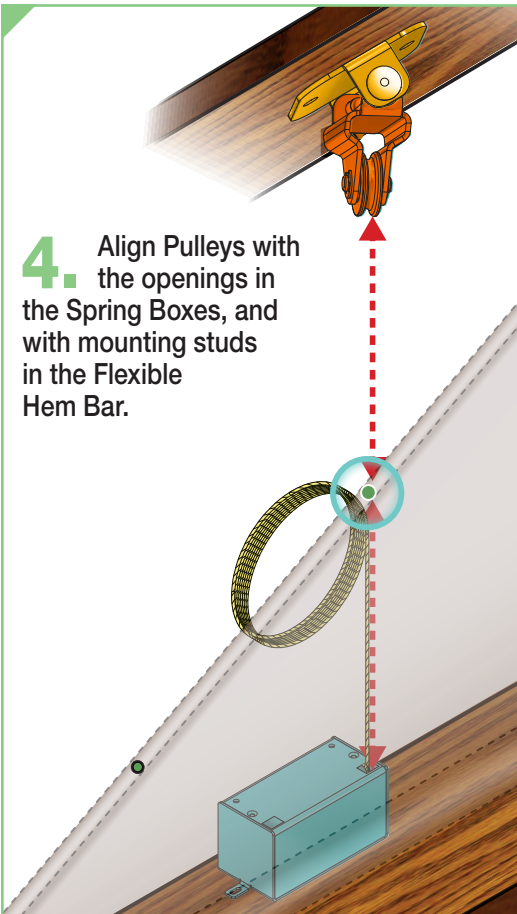


3. **FOR DUAL SIZE ENDCAPS ONLY:** Spring Boxes can be nested within Endcaps, under Shade Roller Assembly.

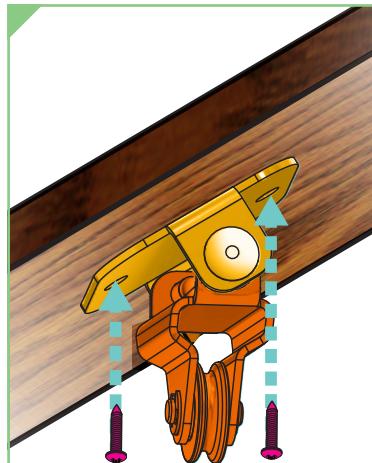
**Please Note:** For this method, turn spring box so opening is closest to window.



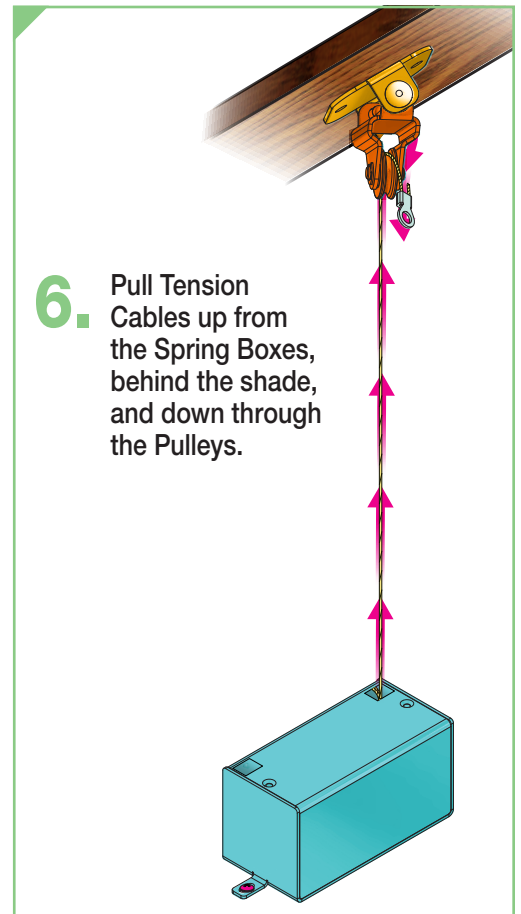
4. Align Pulleys with the openings in the Spring Boxes, and with mounting studs in the Flexible Hem Bar.



5. Mount Pulleys to the top of the window jamb, with appropriate hardware for mounting surface.



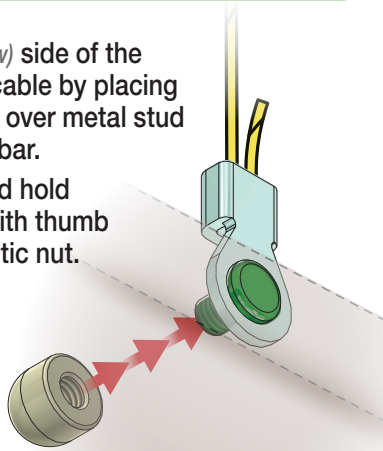
6. Pull Tension Cables up from the Spring Boxes, behind the shade, and down through the Pulleys.



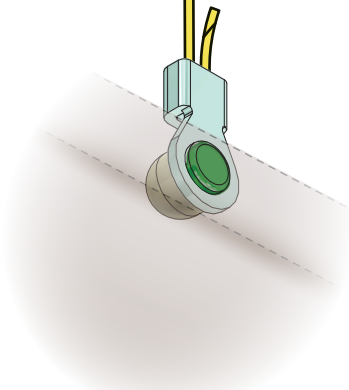
**Please Note:** Start this process on the HIGH SIDE (taller side) of shade.

7. On the back (window) side of the shade, attach the cable by placing eyelet on the cable over metal stud in the flexible hem bar.
8. Grasp hem bar and hold down steel stud with thumb and screw on plastic nut.

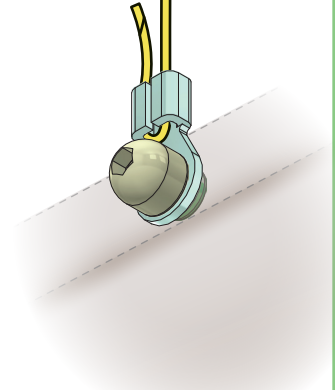
**Please Note:**  
Nut can be tightened with a 4mm hex key.



FRONT OF SHADE



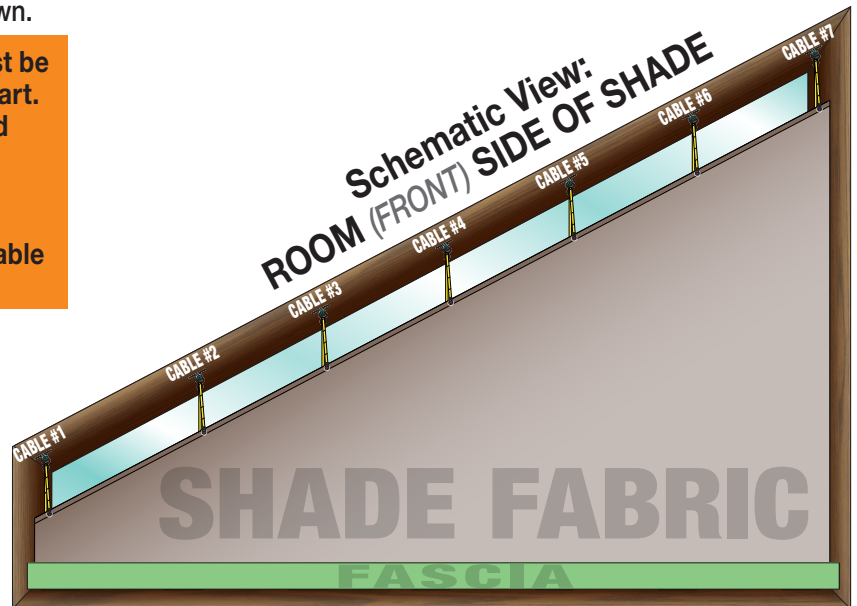
BACK OF SHADE



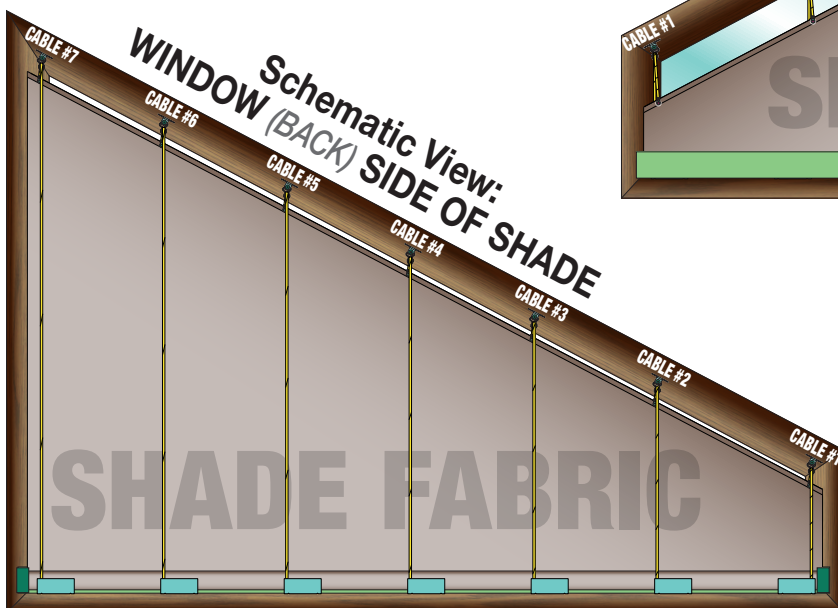
9. Endcaps, Spring Boxes, Tension Cables, Pulleys, and Shade should align as shown.

**IMPORTANT:** Spring Box Cables must be mounted no more than 24" (61cm) apart. Installation MUST start at left end (as viewed from ROOM SIDE of window), with Spring Box cable opening on the LEFT SIDE. Remaining Spring Boxes will have cable opening on the RIGHT SIDE.

Schematic View:  
ROOM (FRONT) SIDE OF SHADE

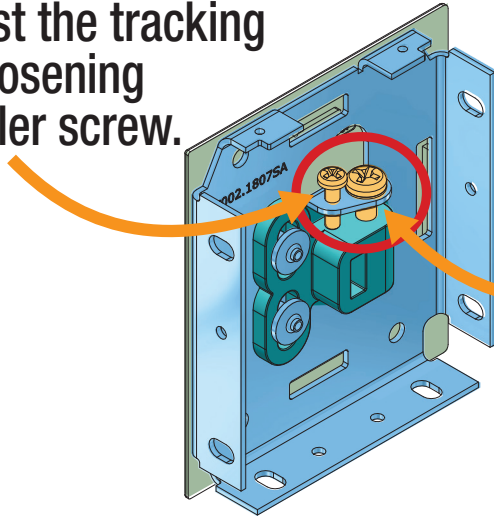


Schematic View:  
WINDOW (BACK) SIDE OF SHADE



## Section 5 - Adjusting Fabric Tracking

1. Adjust the tracking by loosening smaller screw.



2. Raise or lower fabric roller with larger screw, as needed.

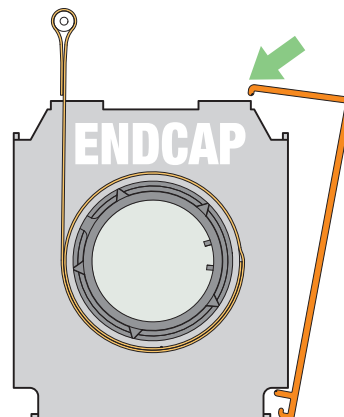
1. Raise the shade to its fully closed position and ensure that the hem bar is centered in the window.
2. Lower the shade to its fully retracted position and observe the tracking on the fabric roller.
3. Adjust the tracking by loosening the smaller screw, and then raising or lowering the fabric roller with the larger screw, as needed.
4. Tighten the smaller screw to lock the position of the roller.
5. Re-test the fabric tracking and re-adjust if needed.
6. Set the upper- and lower-limits of the unit's operating range (Section 8).

## Section 6 - Install Fascia

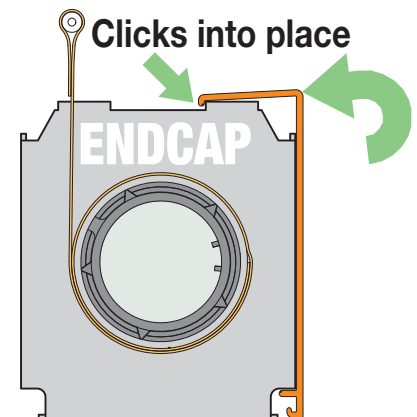
1. Place groove along top of fascia over endcaps, and snap into place.
2. Fascia is not fully seated until it clicks into place on both ends. Once in place, check for secure fit.

### STANDARD ROLL FASCIA

#### STEP 1:



#### STEP 2:





## Section 7 - Electrical Connections

Shade operates on 110-120V, 60 Hz. current. Shade is shipped with internal wiring complete and control switch(es) fully boxed, and standardly supplied with a 6' (183 cm) cable lead. Longer lead can be substituted by removing two screws in motor end of roller, removing lead, plugging new lead in, and replacing screws. Wire to connect shade to switch(es) and switch(es) to power supply should be furnished by installer. Connections should be made in accordance with attached wiring diagram, and wiring should comply with national and local electrical codes. DO NOT wire motors in parallel without written permission from Draper®.

All operating switches should be "off" before power is connected.

**Please Note:** For low-voltage wiring requirements, Draper recommends consulting with a professional low-voltage electrical contractor. It is very important that shielded and stranded CAT5 cable be used to prevent any electrical interference.

## Section 8 - Limit Switch Adjustments

### Standard and Quiet Motors

**⚠ Caution:** The Gabled Bottom-Up FlexShade® ships without limits. Limits will need to be set before the unit is operated. Always be prepared to shut off manually when new adjustment is being tested.

**⚠ Caution:**

- Be sure all switches are in "off" position before adjusting limit switches.
- Be prepared to shut off manually while testing.
- Shade may be damaged by running shade fabric up too far and exposing roller.
- If using a group control system, each limit switch must be set prior to connecting to system.
- Motor must be installed so limit switches are pointed down.

#### Push Button Limits

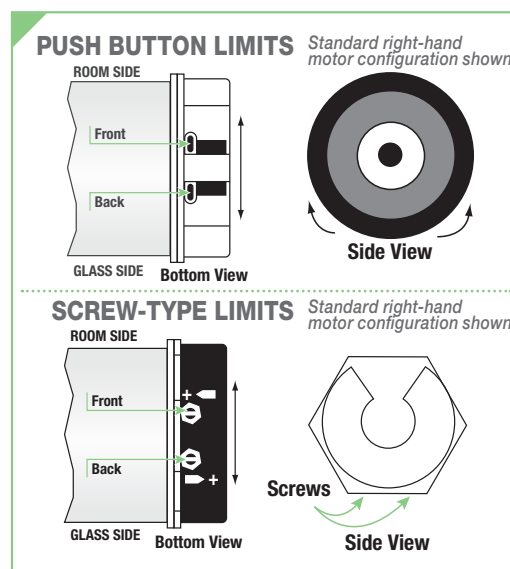
1. Fully depress both limit switch push buttons, then operate wall switch to make sure system works properly.
2. Raise shade to desired "up" stop position.
3. Set upper limit by depressing proper (*back*) push button.
4. Lower shade to desired "down" stop position.
5. Set lower limit by depressing proper (*front*) push button.

#### Screw-Type Limits

6. Determine which direction of fabric travel corresponds with arrows on motor.
7. Operate shade to desired "down" stop position. Set limit by turning proper socket toward "+" to lower limit, and "-" to raise it.
8. Operate shade to desired "up" stopping position. Set limit by turning proper screw toward "-" to raise limit, and "+" to lower it.

**Please Note:** Each full rotation of the limit screw equals approximately  $\frac{5}{8}$ " (16mm) of shade travel, which may require rotating the limit screw several times.

**⚠ Caution:** DO NOT allow the hem bar to hit the upper roller or fascia. This will damage the unit.



### Limit Adjustments for Other Motors

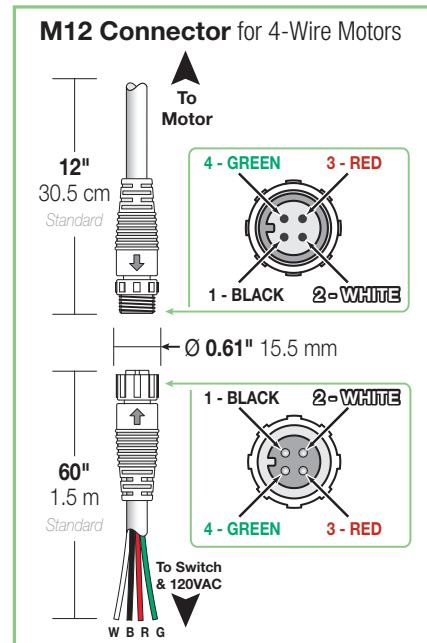
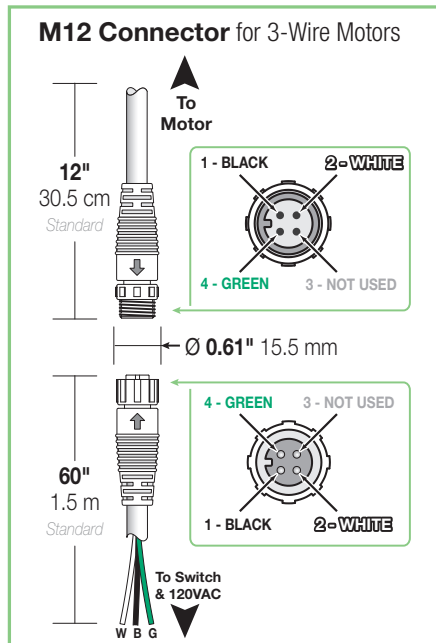
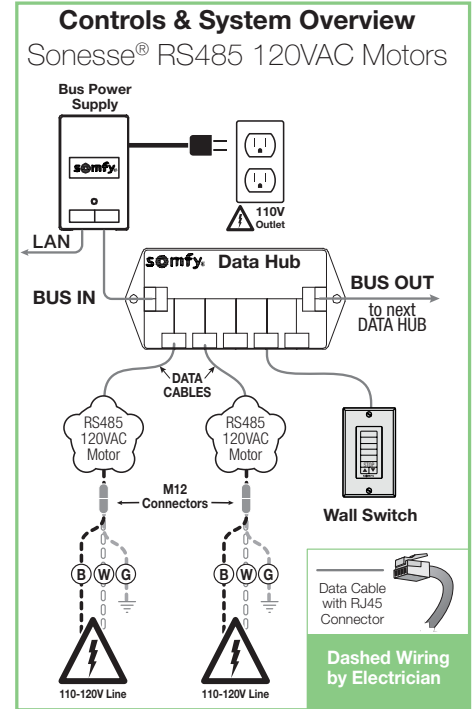
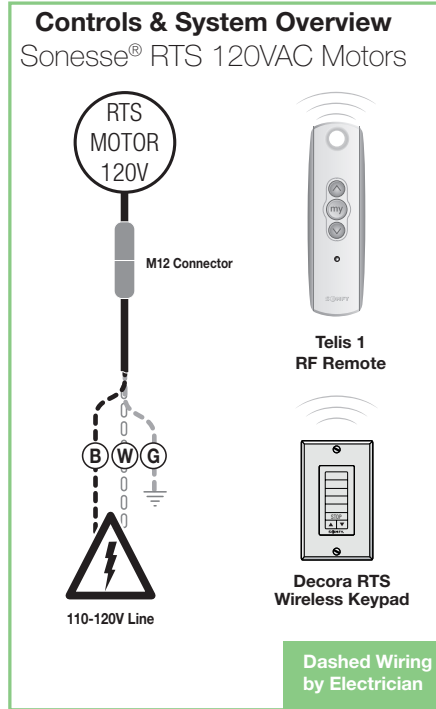
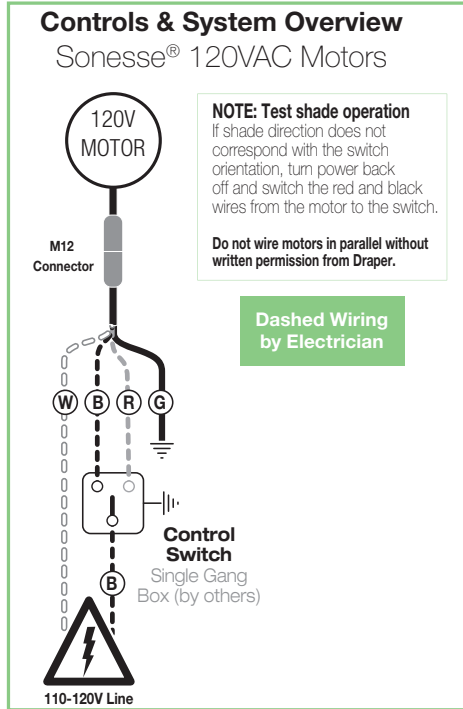
- For limit setting instructions on RS485 Motors, see instructions packaged with the RS485 Address/Limit Setting Tool (part# C156.241).
- For limit setting instructions on RTS Motors, see Radio Frequency Remote Control Programming Instructions (FS\_MO\_RFRC\_ProgInst).
- For limit setting instructions on IntelliFlex® I/O Motors, see instructions packaged with the Motor Limit Setting Tool (part# C202.030).

## Section 9 - Wiring Diagrams

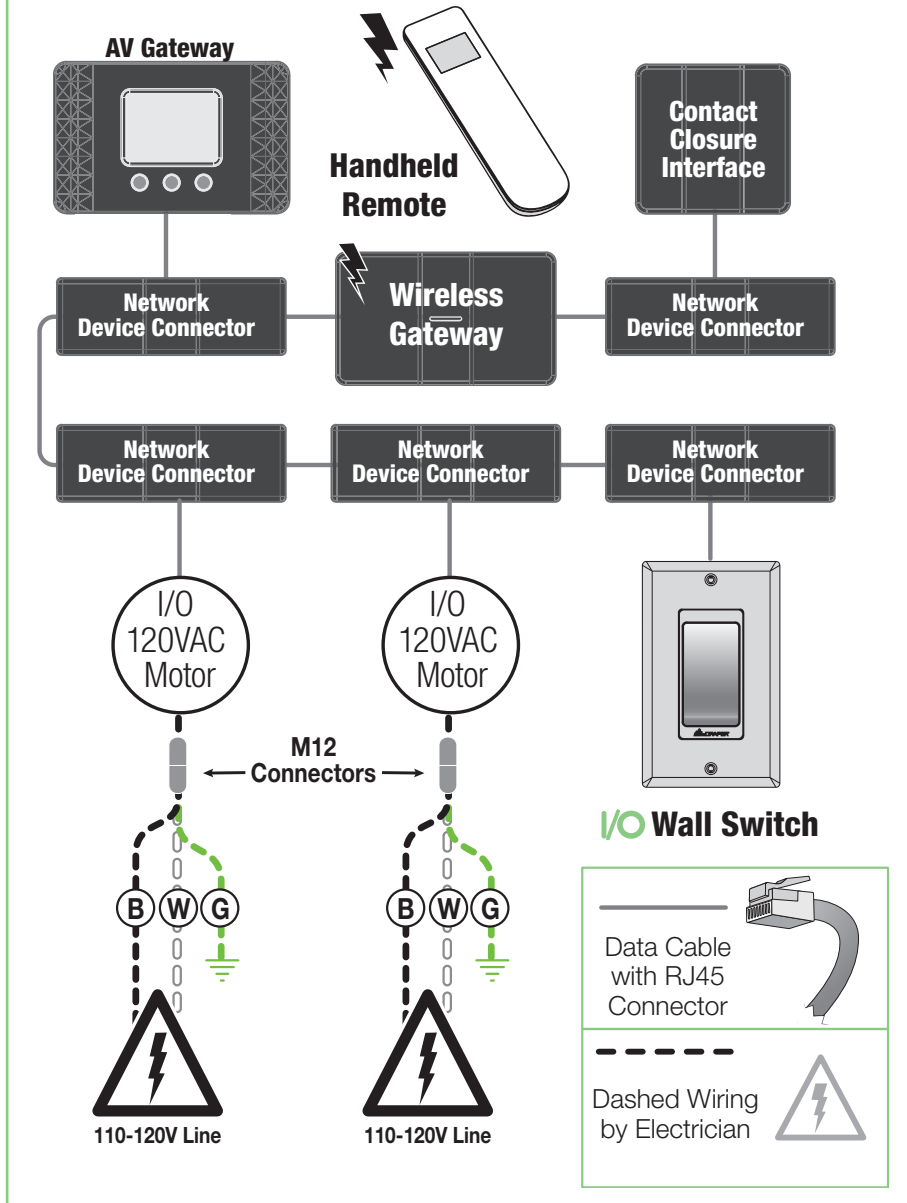
**Caution:** Do not wire motorized units in parallel without written consent from Draper®.

**Please Note:**

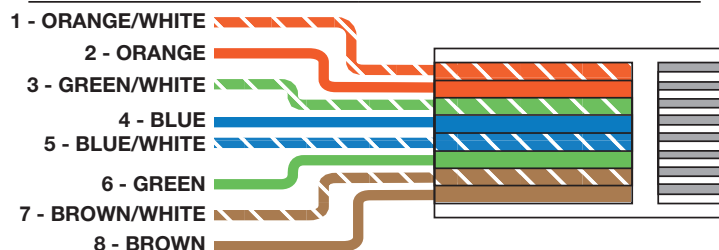
A Draper Motor Test Cable (Part# 503109) and M12 Pigtail (Part# C107.089.60) are recommended for temporary power for testing and limit setting.



## Controls & System Overview IntelliFlex<sup>®</sup> I/O 120VAC Motors

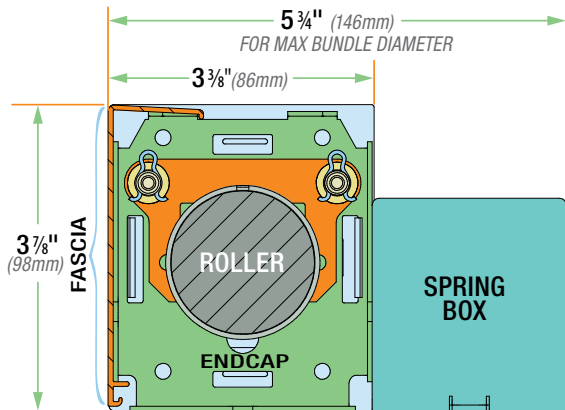


### Data Cable Pinout - RJ45 Connector: T-568B

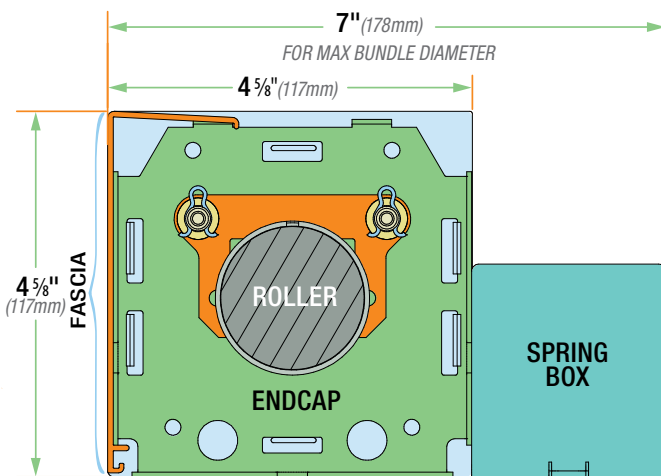


## Section 10 - Endcap Dimensions

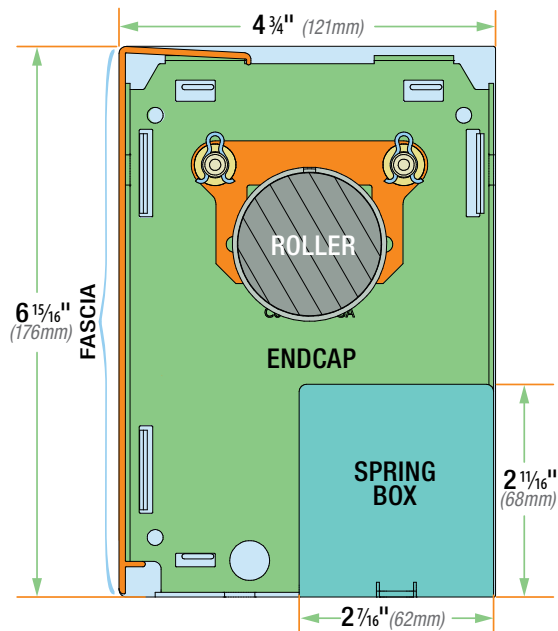
### SMALL HARDWARE



### LARGE HARDWARE



### DUAL HEIGHT HARDWARE



## Section 11 - Spring Box Dimensions

