

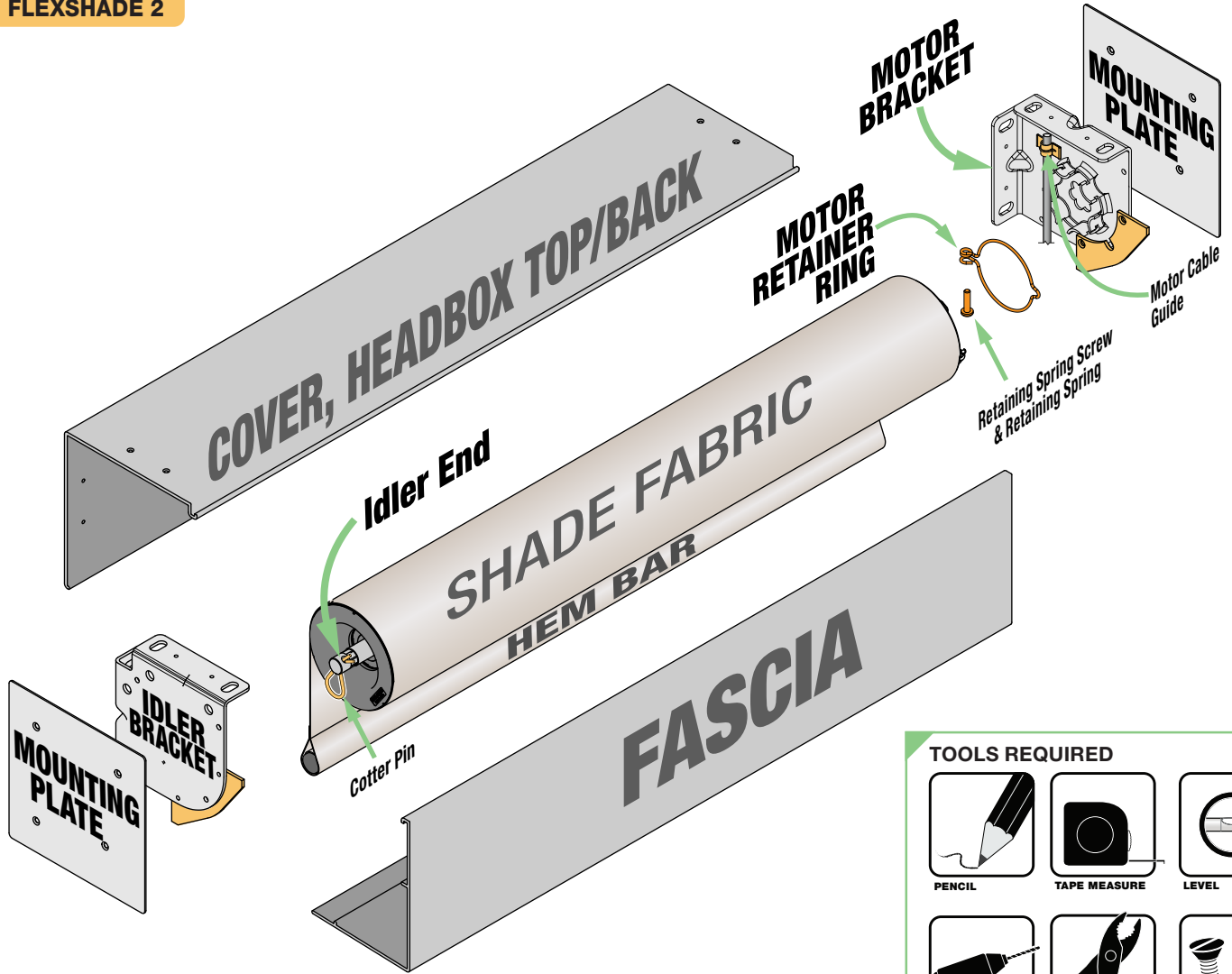
FlexShade® 2

Maximized coverage for large, tall areas, while also reducing light gap

INSTRUCTIONS INSTALLATION & OPERATION

Overview - Components

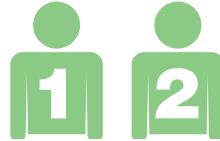
FLEXSHADE 2



TOOLS REQUIRED



PERSONNEL REQUIRED



CAUTION

Read and understand all warnings before beginning installation.

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If you have any difficulties installing or servicing your FlexShade 2, call your dealer or Draper, Inc.

PLEASE READ - **Important Installation Information****⚠ Caution:**

1. Inspect all boxes to ensure you have received the proper shades and parts. Controls may be shipped separately, or in same carton as shades.
2. Open cartons lengthwise, taking care not to cut into cardboard shipping container.
3. Before mounting shades, verify measurements on label provided with shade, and ensure unit is installed at correct width.
4. All endcaps, fascia, headbox, and other hardware must be installed level. Shades must be level and square.
6. **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.**
7. **Installer is responsible for selecting mounting hardware appropriate for site conditions.**

PLEASE READ - **Safety Information****Important Safety Information****WARNING****Important Safety Information**

Improper installation and use of the FlexShade® 2 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 wall or ceilings 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 ensure 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. Ensure 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 ensure 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 shimming fabric into the fabric roll when the shade is deployed on the side that the fabric will be drawn toward. For example: if the fabric is tracking to the left, place the shimming fabric 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®, 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.)

Section 1 - Mounting Shade

⚠ 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.
- Ensure that shade is kept clean.
- Ensure that shade is installed level (*using a carpenter's level*).
- Operating switch(es) are packed separately in shade carton. Do not discard with packing material.
- Shade operates on 110-120V, 60 Hz. current.
- Shade has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

1. Mark wall, jamb, or ceiling for placement of mounting brackets.
2. Drill small starter hole (*if necessary*) in mounting surface.
3. Mount brackets using appropriate fasteners for surface. Centers of mounting holes are approximately $\frac{13}{16}$ " (21 mm) from outer edge of endcap/bracket.

Figure 1-A MOUNTING BRACKETS

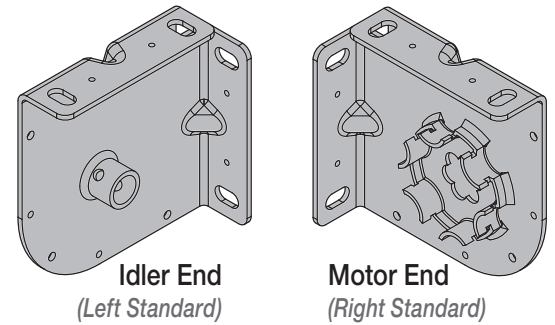
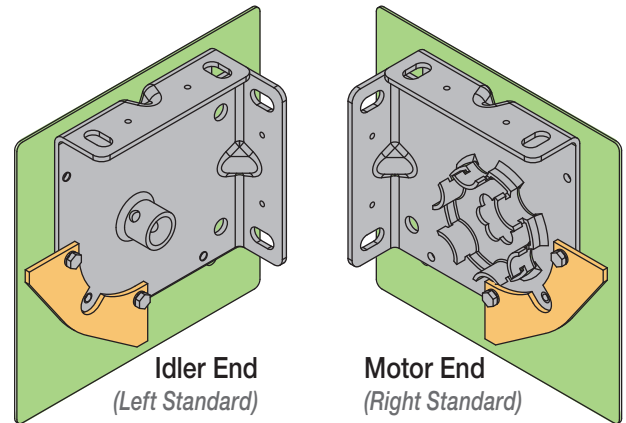
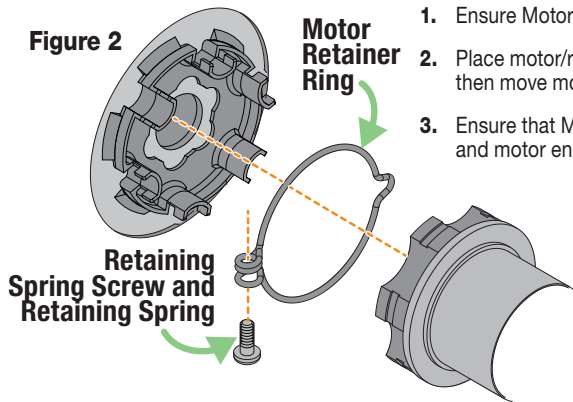


Figure 1-B ENDCAPS FOR HEADBOX OR FASCIA



Section 2 - Installing Shade and Motor Assembly



1. Ensure Motor Retainer Ring is expanded around the motor end bracket (Fig. 2).
2. Place motor/roller assembly in the idler end. Push spring-loaded idler into idler mount (Fig. 3), then move motor end into motor mounting bracket.
3. Ensure that Motor Retainer Ring is properly installed around the grooves in the motor and motor end bracket (Fig. 2).
4. Install the Retaining Spring Screw and tighten (Fig. 2).

Please note: Maximum torque for tightening Retaining Spring Screw is 5 lb-in (22.24 Nm).

5. Use the provided spanner wrench to rotate the idler until the holes in the idler match up with the vertical holes in the idler mounting bracket as seen when looking straight up into the case (Fig. 4).
6. Using a pair of needle-nosed pliers install the cotter pin (Fig. 5). The pin has a built-in ball detent to prevent pin from falling out.

⚠ Caution: Cotter pin must be correctly installed to insure safe operation of the shade. If misalignment of the holes in the idler shaft and bracket prevent the cotter pin from being installed, remove and re-install roller assembly.

7. Use the Motor Cable Guide with self-adhesive attachment pads to secure the motor cable to the endcap (Fig. 6). This will prevent possible damage to the cable by the roller during shade operation.

Figure 3

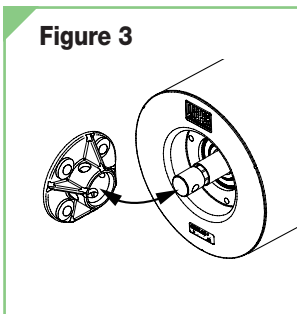


Figure 4

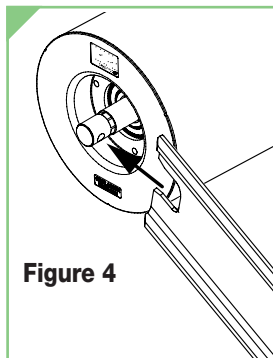


Figure 5

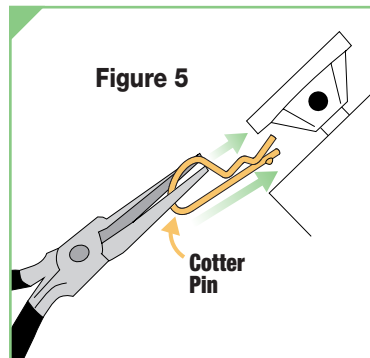
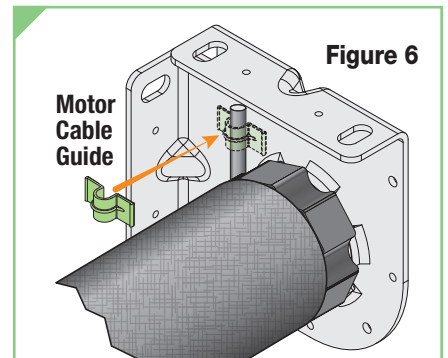
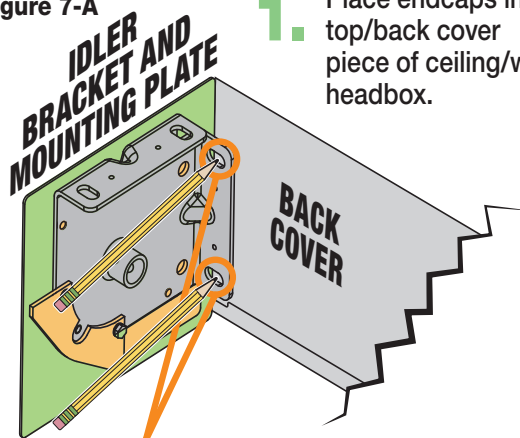


Figure 6



Section 3 - Installing Ceiling/Wall Headbox

Figure 7-A

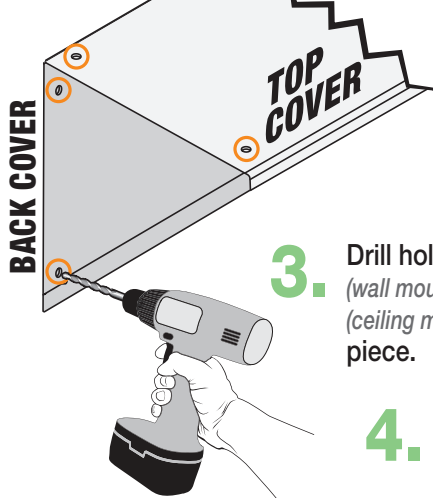


1. Place endcaps into top/back cover piece of ceiling/wall headbox.

2. Using pre-drilled holes in endcaps, mark headbox for drilling.

Please Note: Installer must provide adequate clearance for removal of Roller Assembly during installation and maintenance.

Figure 7-B



3. Drill holes in back (wall mount) or in top (ceiling mount) cover piece.

4. Attach endcaps and top/back cover piece to wall or ceiling, using mounting hardware appropriate for site conditions.

Please Note: Headbox MUST BE mounted directly to ceiling or wall, or to a continuous blocking that has been secured to building structure.

Section 4 - Attaching Fascia

1. Position fascia flush to edge of bracket and/or butted to endcap cover.

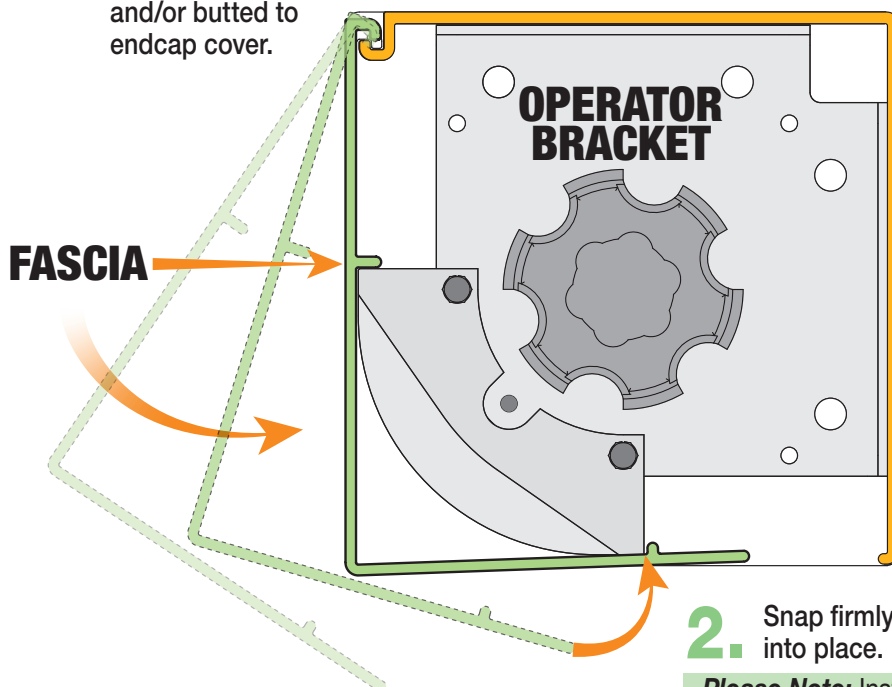


Figure 8

2. Snap firmly into place.

Please Note: Install fascia top to bottom, with the bottom edge clicking/snapping into position.

Section 5 - Limit Setting: Standard and Quiet Motors

⚠ Caution: Unit 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.

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" stop position. Set limit by turning proper screw toward "-" to raise limit, and "+" to lower it.

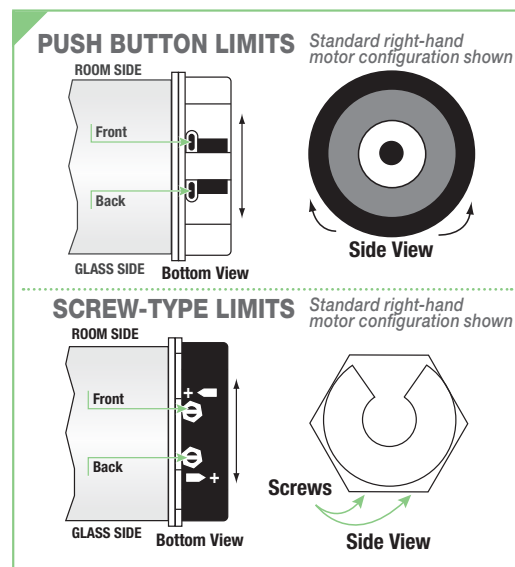
Please Note: Each full rotation of the limit screw equals approximately $\frac{5}{8}$ " (16mm) of shade travel, which may require rotating the limit screw several times.

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

⚠ Caution: DO NOT allow hem bar to retract into the headbox.

⚠ Caution:

- Be sure all switches are in "off" position before adjusting limit switches.
- 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 up or accessible.



Section 6 - Operation

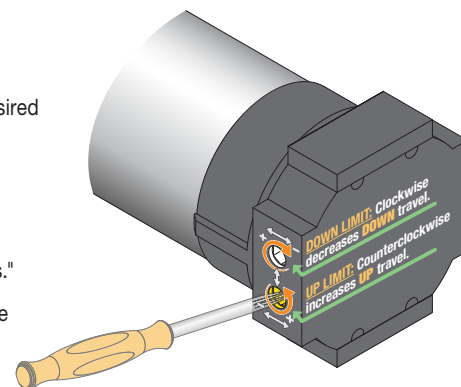
⚠ Caution: Be sure all switches are in "off" position before adjusting limit switches. Always be prepared to shut shade off manually when new adjustment is being tested. Shade may be severely damaged if allowed to run too far up or too far down.

ADJUSTING "FULLY UP" POSITION

1. Insert a small screwdriver in the groove of the **yellow** button on the motor and push in until it "clicks."
2. Raise the shade by pressing the **UP** switch on unit. Press the **STOP** switch when the shade is at the desired position.
3. Press the **yellow** button on motor until it "clicks," then release.

ADJUSTING "FULLY DOWN" POSITION

1. Insert a small screwdriver in the groove of the **white** button on the motor and push in until it "clicks."
2. Lower the shade by pressing the **DOWN** switch on unit. Press the **STOP** switch when the shade is at the desired position.
3. Press the **white** button on motor until it "clicks," then release.



⚠ Caution: AT NO TIME SHOULD SHADE BE UNROLLED ENOUGH TO EXPOSE ANY PART OF SHADE ROLLER.

Please Note: The above instructions affect only the limits on standard motors. For adjustment procedures using RTS, RS485, or Draper's IntelliFlex I/O Control Systems, please consult the installation information on the Draper® website for the appropriate control.

Section 7 - Electrical Connections

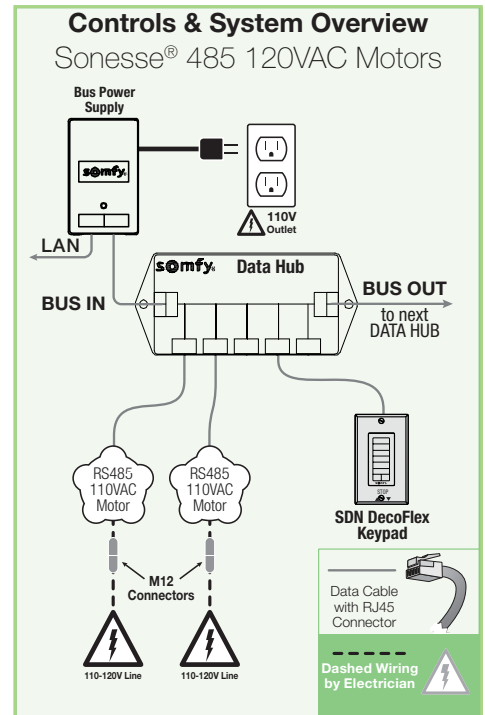
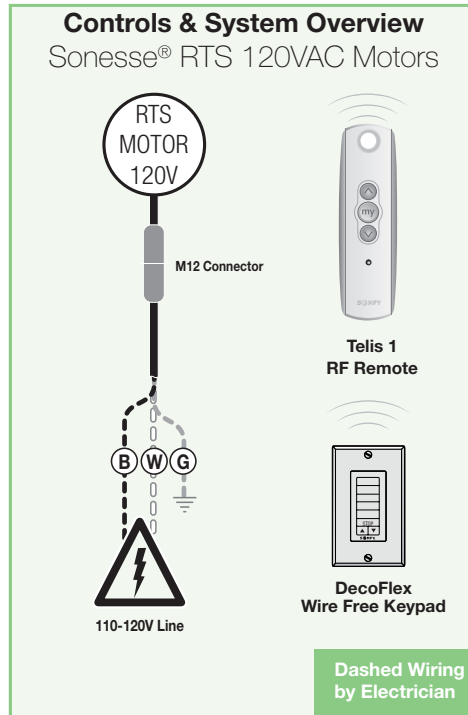
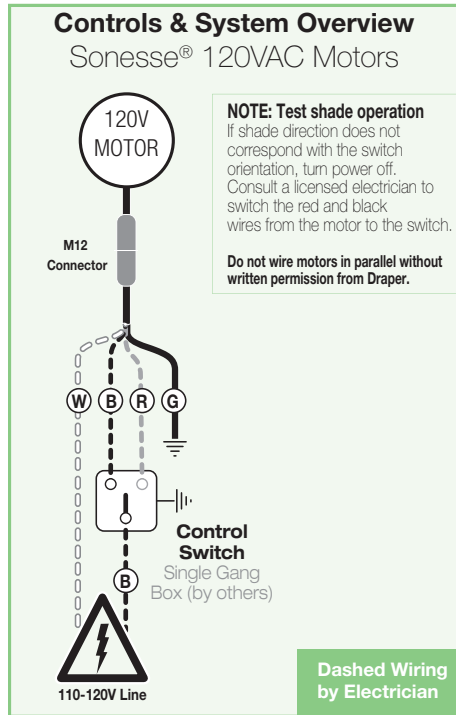
Shade operates on 110-120V, 60 Hz. current. Shade is shipped with internal wiring complete and control switch(es) fully boxed, and standardly supplied with a 6' (1.82m) cable lead. Wire to connect shade to switch(es), and switch(es) to power supply, should be furnished by installer. Connections should be made in accordance with attached wiring diagram, and wiring should comply with national and local electrical codes.

⚠ Caution: DO NOT wire motors in parallel without written permission from Draper.

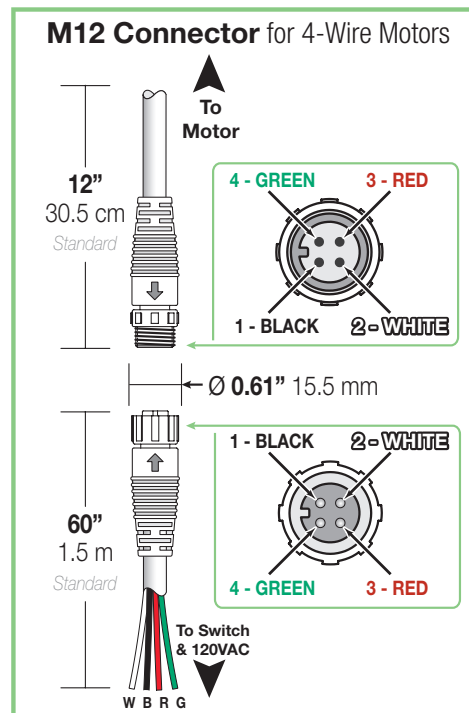
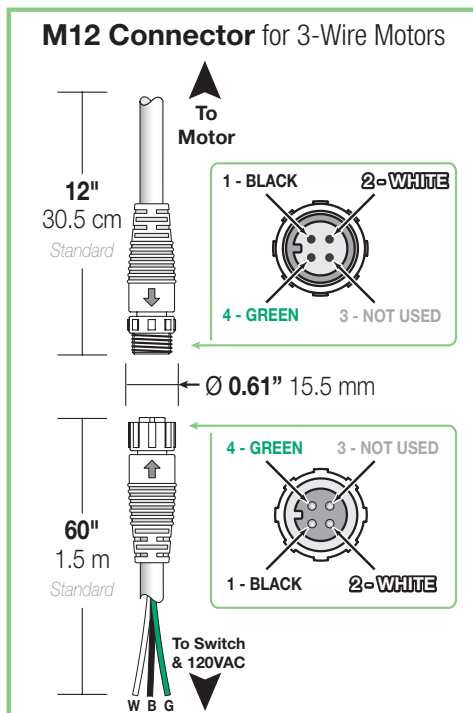
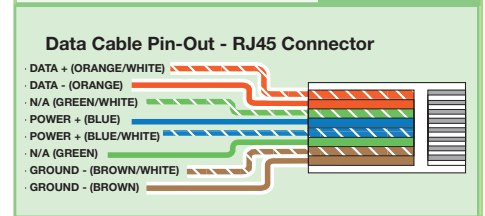
⚠ Caution: All operating switches should be "off" before power is connected.

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 CAT 5 cable be used to prevent any electrical interference.

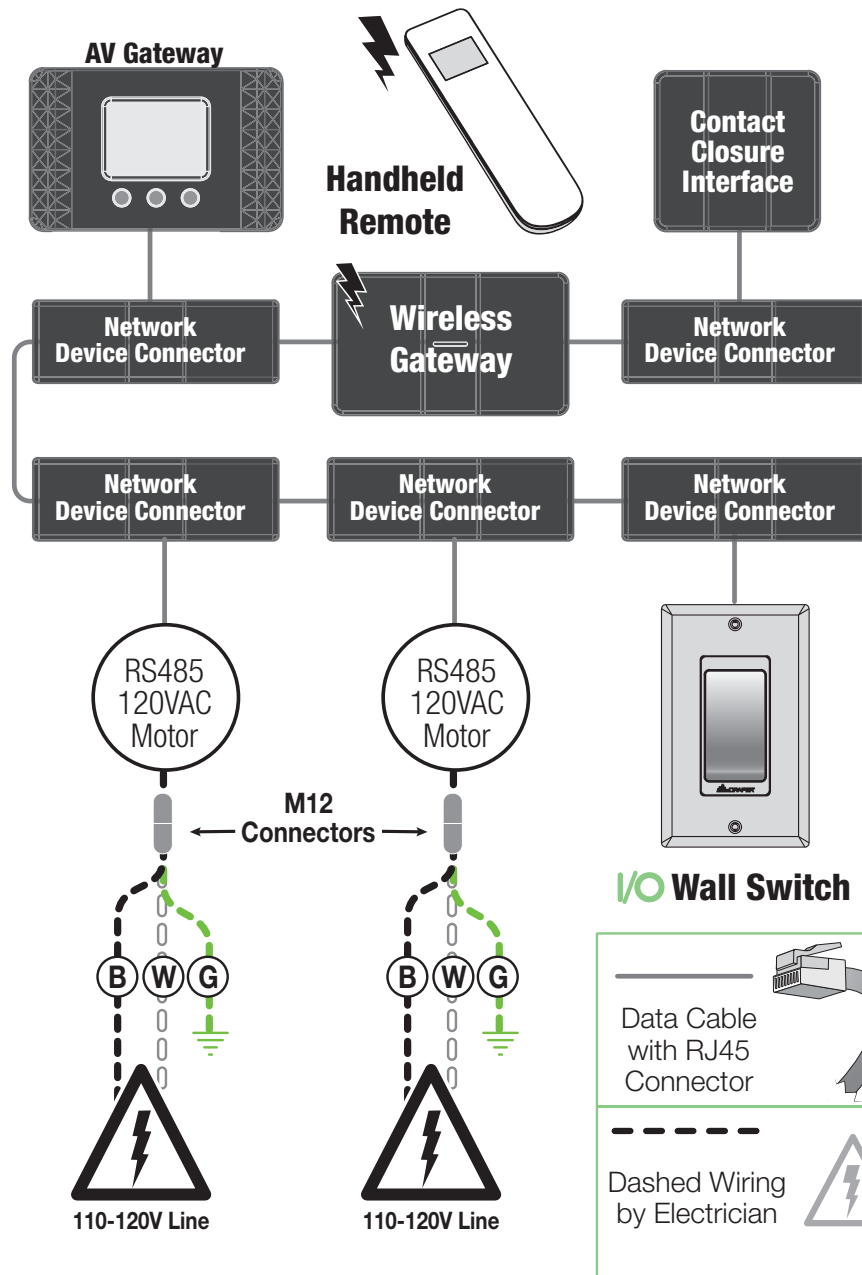
Section 8 - Electrical Connections



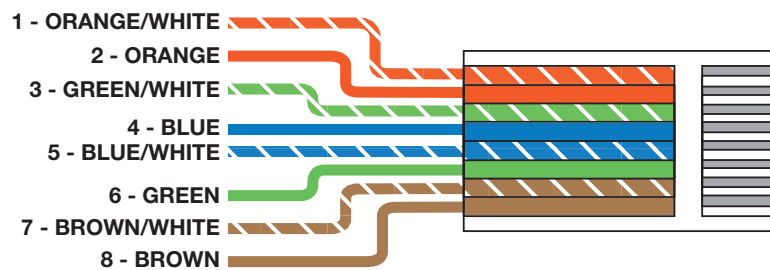
Sonesse® is a registered trademark of Somfy® Systems, Inc.



Controls & System Overview IntelliFlex[®]I/O 120VAC Motors



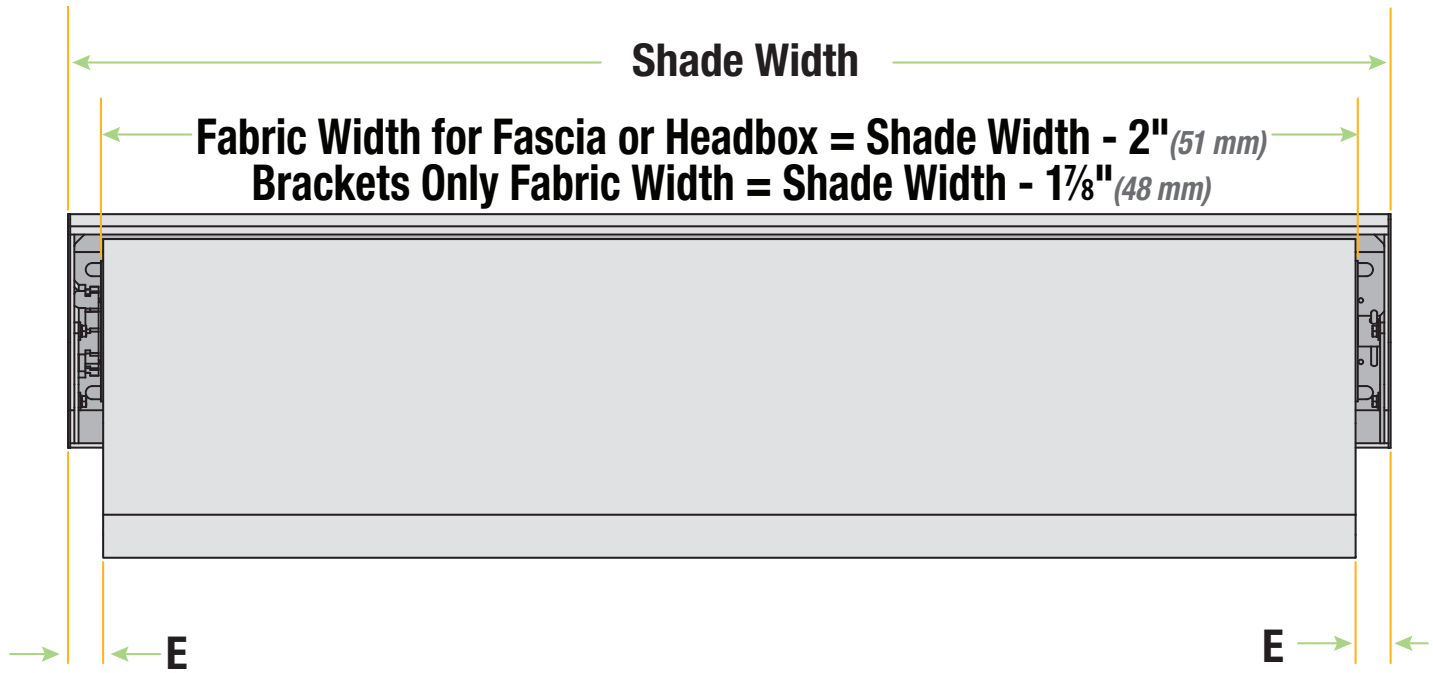
Data Cable Pin-Out - RJ45 Connector



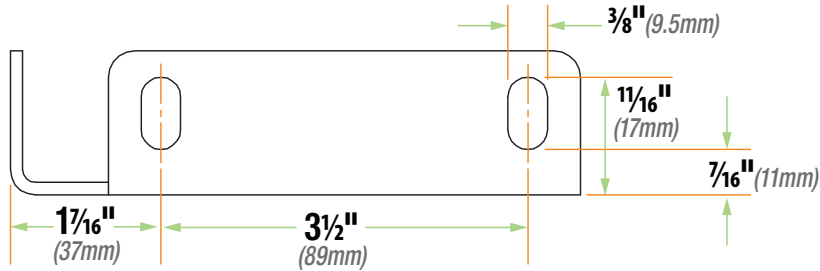
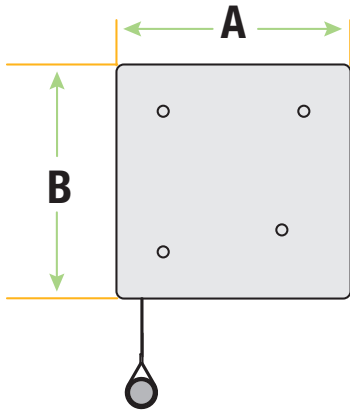
Section 9 - Dimensions

Please note: Fascia or headbox will add $\frac{1}{8}$ " (3 mm) between the wall and the bracket; headbox will add $\frac{1}{16}$ " (1.5 mm) between ceiling or wall and the bracket. Centers of mounting holes in endcaps and brackets are located approximately $\frac{13}{16}$ " (21 mm) in from the outer edge of the endcap/bracket.

Please Note: Maximum bundle diameter is $5 \frac{1}{4}$ " (133 mm) (for Headbox, Fascia, or Brackets)

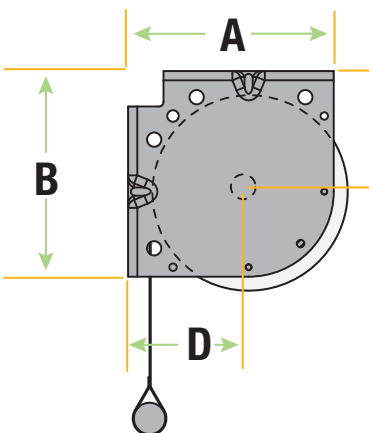


HEADBOX / FASCIA WITH ENDCAPS



MOUNTING HOLE DIMENSIONS / LOCATIONS

BRACKETS ONLY



HEADBOX WITH ENDCAPS		
A1	6 ⁵ / ₁₆ "	168mm
B1	6 ⁵ / ₁₆ "	168mm
C1	NA	NA
D1	NA	NA
E1	1"	25mm

FASCIA WITH ENDCAPS		
A1	6 ¹ / ₂ "	165mm
B1	6 ¹ / ₂ "	165mm
C1	NA	NA
D1	NA	NA
E1	1"	25mm

BRACKETS		
A2	5 ⁷ / ₁₆ "	138mm
B2	5 ⁷ / ₁₆ "	138mm
C2	3 ¹ / ₄ "	83mm
D2	3 ¹ / ₄ "	83mm
E2	1 ³ / ₈ "	3.5mm