

Motorized FlexShade®

Motor Operated Window Shades with Several Control Options



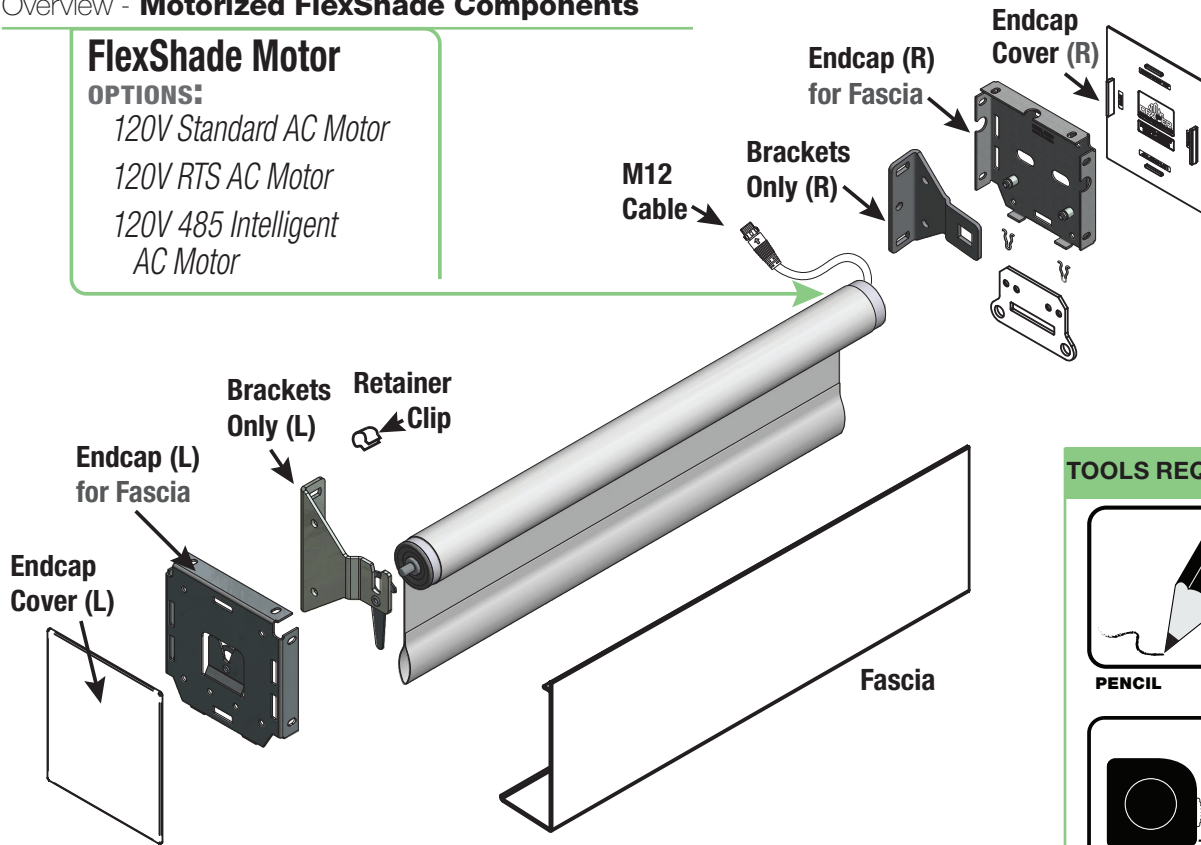
INSTRUCTIONS INSTALLATION & OPERATION

Overview - Motorized FlexShade Components

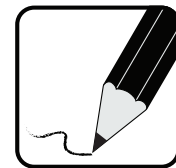
FlexShade Motor

OPTIONS:

- 120V Standard AC Motor
- 120V RTS AC Motor
- 120V 485 Intelligent AC Motor



TOOLS REQUIRED



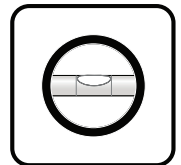
PENCIL



POWER DRILL



TAPE MEASURE



LEVEL



HARDWARE (by others)

Section 1 - Motor Types, Names and Voltage

These instructions apply to all Draper medium duty motorized window shades using the following motors:

MOTOR NAME	MOTOR VOLTAGE
Sonesse 50	120VAC
Sonesse Ultra 50	120VAC
Sonesse RTS	120VAC
Sonesse RTS Ultra	120VAC
Sonesse RS485	120VAC
Sonesse RS485 Ultra	120VAC
IntelliFlex I/O 6Nm	120VAC

Section 2 - Optional Hardware Accessories for Light Gap Reduction

Optional light gap reduction hardware (*listed below*) may be included with the Motorized FlexShade®. Light gap reduction hardware is provided in stock lengths unless otherwise specified. It is the installers responsibility to measure, cut and properly install this hardware in a manner that does not interfere with shade operation.

- 'L' Angle
- 'U' Channel
- 'H' Channel

⚠ CAUTION ⚠

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

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

Important Safety Information



Improper installation and use of Motorized FlexShade can result in serious injury or death. Primarily, injuries can occur when the Motorized FlexShade falls due to imprecise installation, mishandling of the Motorized FlexShade 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 Motorized FlexShade 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 make sure appropriate fasteners are used for mounting.
5. All brackets, fascia, head boxes, pockets, wall clips, and other hardware must be installed level. Motorized FlexShade must be level and square.
6. Never leave the area while operating the Motorized FlexShade 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 Motorized FlexShade should be performed only by authorized and qualified personnel, who have been trained in the safe and effective operation of the Motorized FlexShade & understand its safety features.
15. The safety features of the Motorized FlexShade, 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. Motorized FlexShade 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 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 Motorized FlexShade and parts. Controls may be shipped separately, or in same carton as Motorized FlexShade.
6. If you have any difficulties with installing, servicing or operating your Motorized FlexShade, call your dealer or Draper, Inc., (765) 987-7999.

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" 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.

Cleaning and Maintenance

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

Most of Draper's standard 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 dish washing liquid is recommended. A clean dry cloth is recommended for the metal finish.

Please Note: Exceptions are Flocké and Phifer SW7000 fabrics, which must be cleaned with a dry art sponge.

Section 3 - Mounting Brackets (Brackets Only Installation)

1. Mark wall, jamb or ceiling for placement of mounting brackets.

⚠ Caution: Before mounting shades, verify measurements on the card provided with the shade, and ensure the brackets are installed at the correct width.

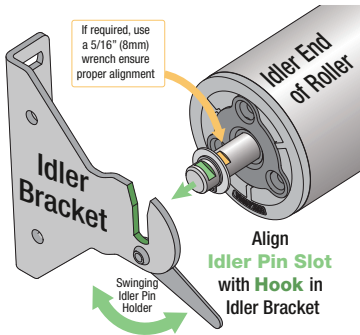
2. Drill small starter hole in mounting surface (if necessary).

3. Attach brackets using appropriate fasteners for mounting surface. The installer is responsible for selecting mounting hardware appropriate for site conditions.

Please Note: The brackets shown are for standard 120V motors. Hardware for other motors will vary.

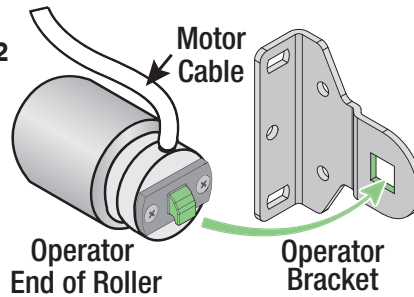
4. Place operator (motor) end onto its bracket. If a coupled unit, see separate instruction sheet for Coupled FlexShades.

5. Slide notched pin on idler end into slot on bracket. Slip retainer clip onto idler end between bracket and roller (see Fig. 2) If required, use a 5/16" (8mm) wrench ensure proper alignment.



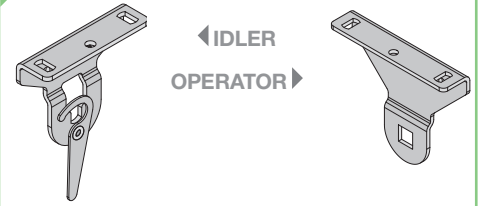
***Don't forget:** Install retainer clip on shaft between bracket and roller!

Figure 2

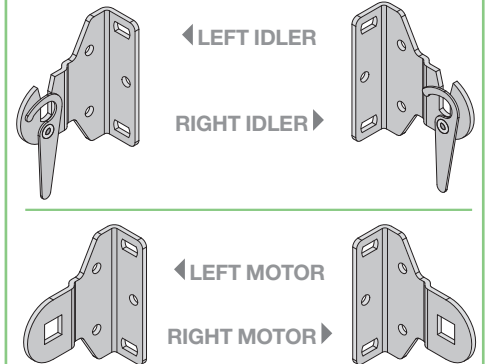


Please Note: Install motor so that limit switches are pointed down or accessible.

CEILING MOUNTING BRACKETS



WALL MOUNTING BRACKETS



⚠ Caution: DO NOT use wall brackets for ceiling installations. DO NOT use ceiling brackets for wall installations.

Section 4 - Endcaps with Fascia

Section 4.1 - Mounting Fascia to Endcaps

1. Snap endcap covers into place (see Fig. 3).

2. Mark wall, jamb or ceiling for placement of mounting endcaps.

3. Drill small starter hole (if necessary) in mounting surface.

4. Mount endcaps using appropriate fasteners for surface. If this is a coupled unit, be sure to mount coupled endcap in the center position.

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

⚠ Caution: Before mounting shades, verify measurements on the card provided with the shade, and ensure the endcaps are installed at the correct width.

5. Place operator (motor) end into its endcap (see Fig. 4).

6. For coupled units see separate instruction sheet for Coupled FlexShades.

7. Slide notched pin into idler endcap and attach retainer clip (see Fig. 4).

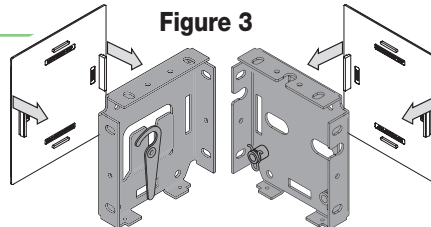
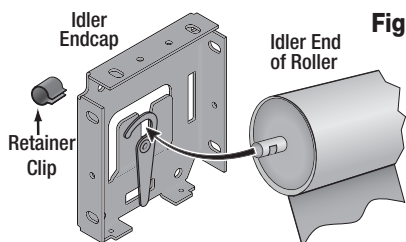
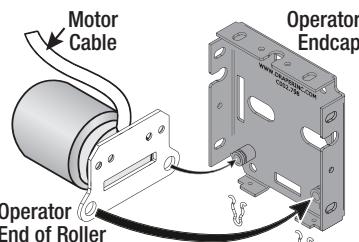


Figure 3

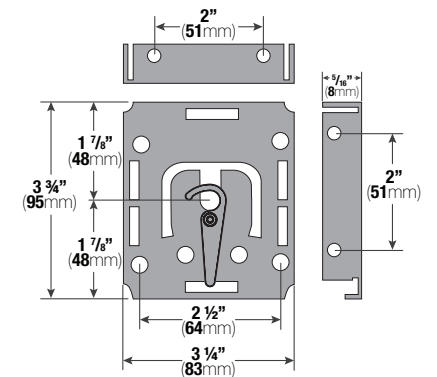


***Don't forget:** Install retainer clip on shaft between bracket and roller!

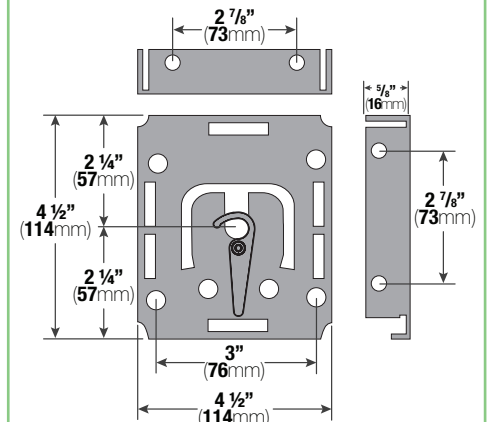


Please Note: Install motor so that limit switches are pointed down or accessible.

SMALL ENDCAPS FOR FASCIA



LARGE ENDCAPS FOR FASCIA



Section 4.2 - Attaching Fascia to Endcaps

1. Place groove along top of fascia over endcaps, and snap into place (see Fig. 5).

Endcaps must be installed the correct distance apart for fascia to be properly attached with full engagement. Fascia is not fully seated until it clicks into place on both ends. Once in place, check for secure fit. If not secure, use an appropriate fastener (not included).

ATTACHING FASCIA

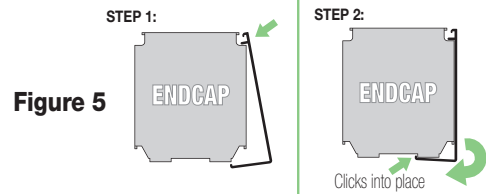


Figure 5

Section 4.3 - Reverse Roll Fascia

1. Slide endcaps into extrusions.
2. Using provided holes in endcaps, mark the fascia for drilling.
3. Attach endcaps to fascia.
4. Mount Endcaps/Reverse Roll Fascia.
5. Install roller/fabric/operator assembly according to relevant instructions.
6. Attach endcap covers to endcaps. Use double-sided tape to help secure in place.

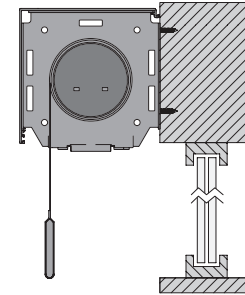


Figure 6

Section 5 - Surface Headbox or Pocket Headbox

1. Snap endcap covers onto endcaps. (See Section 4.2 - Attaching Fascia to Endcaps Step 1).
2. Slide endcaps into the top/back portion of surface headbox or into pocket extrusion of large pocket headbox. Using provided holes in endcaps, mark headbox for drilling.

Please Note: The installer is responsible for selecting mounting hardware appropriate for site conditions.

⚠ Caution: Before mounting shades, verify measurements on the provided with shade, and ensure endcaps are installed at correct width.

3. Drill holes in back (wall mount) or top (ceiling mount), or in a pocket.
4. Attach endcaps and Surface Headbox back/top or Large Pocket Headbox extrusion to wall, ceiling or pocket using mounting hardware appropriate for site conditions.
5. Install shade (See Section 4.1 - Mounting Endcaps for Fascia).
6. Attach headbox fascia or pocket closure (see Fig. 7).

Note on surface style headbox: Fascia is not fully seated until it clicks into place on both ends. Once in place, check for secure fit. If not secure, use an appropriate fastener (not included)

ATTACHING CLOSURE PANEL

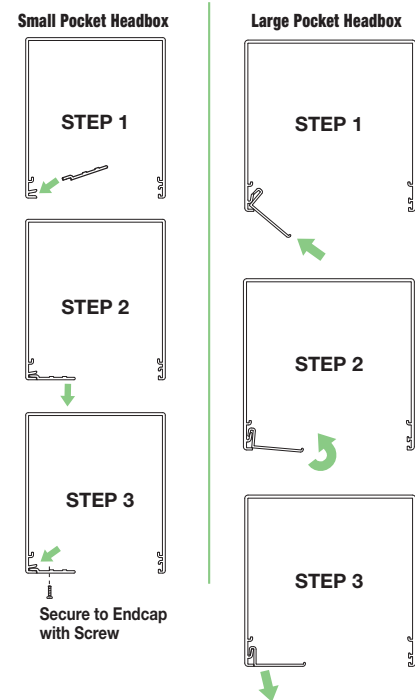


Figure 7

Section 6 - 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' 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 CAT 5 cable be used to prevent any electrical interference.

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

⚠ IMPORTANT: To reduce the risk of electric shock, equipment that features a grounding type attachment plug has a third (grounding) pin on the attachment plug. This plug will ONLY fit into a grounding type outlet. If the plug does not fit into the outlet, a qualified electrician must install the proper outlet. Do not change the plug in any way. Do not use an extension cord. If the power supply cord is too short, a qualified electrician must install an outlet near the drapery operator.

Section 7 - Limit Switch Adjustments

Section 7.1 - Standard and Quiet Motors (All procedures shown are for Standard Roll. Invert orientation for Reverse Roll)

Section 7.1.1- 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.

⚠ Caution:

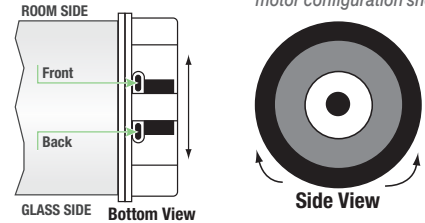
- Be sure all switches are in "off" position before adjusting limit switches.
- Be prepared to shut off manually while testing.
- Shade may be damaged by running shade fabric down too far to expose roller.
- If using a group control system, each limit switch must be set prior to connecting to system.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

Section 7.1.2 - Screw-Type Limits

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

PUSH BUTTON LIMITS

Standard right-hand motor configuration shown



SCREW-TYPE LIMITS

Standard right-hand motor configuration shown

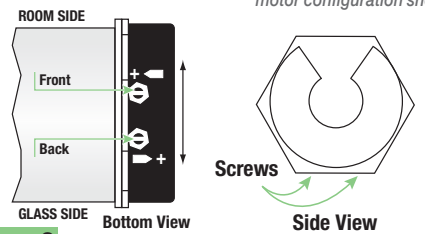


Figure 8

Section 7.2 - Limit Adjustments (RS485 Motors)

For limit setting instructions on these motors, see instructions packaged with the RS485 Address/Limit Setting Tool (part# C156.241).

Section 7.3 - Limit Switch Adjustments (RTS Motors)

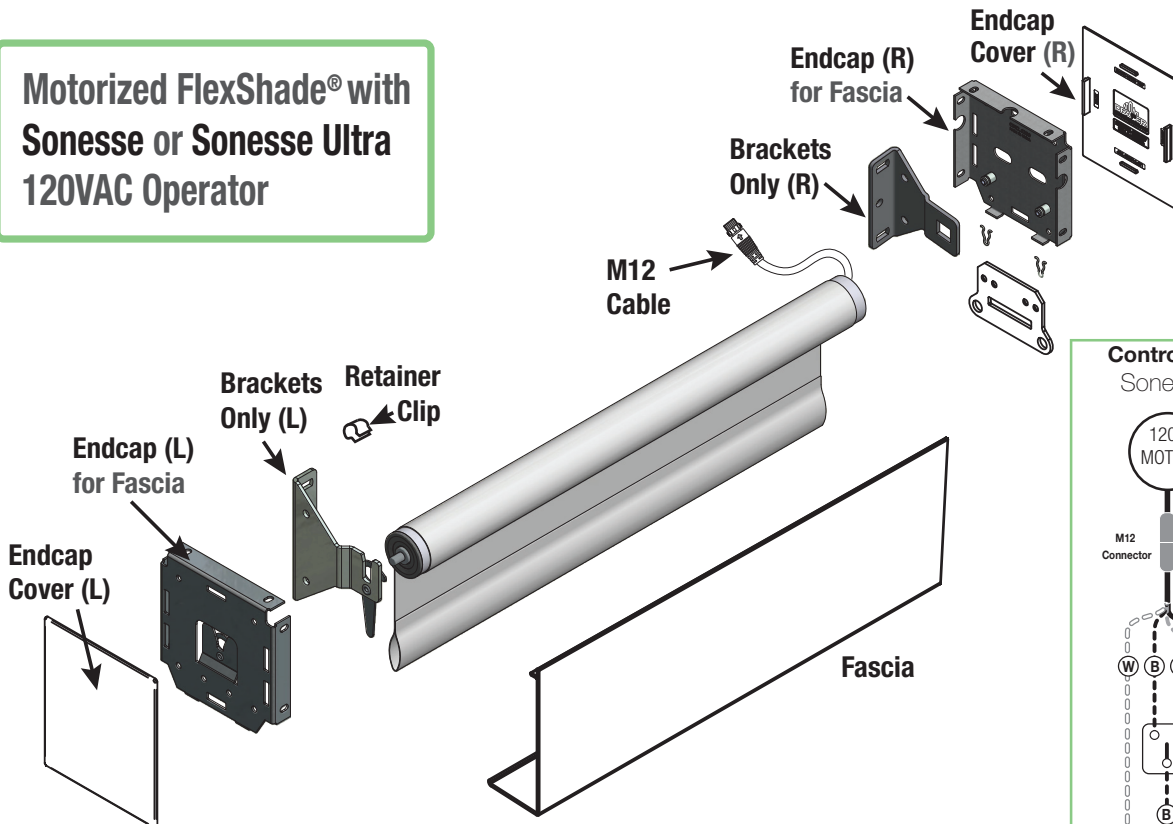
For limit setting instructions on these motors, see Radio Frequency Remote Control Programming Instructions (FS_MO_RFRC_ProgInst).

Section 7.4 - Limit Switch Adjustments (IntelliFlex I/O Motors)

For limit setting instructions on these motors, see instructions packaged with the Motor Limit Setting Tool (part# C202.030).

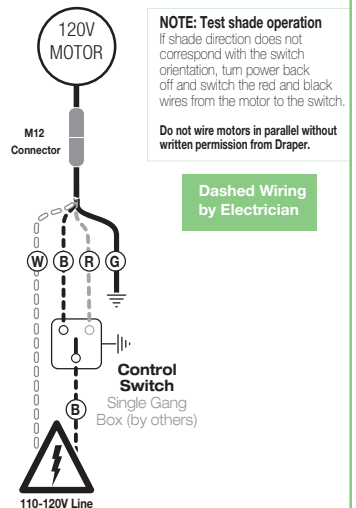
Section 8 - 120V Components, Wiring and Controls

Motorized FlexShade® with Sonesse or Sonesse Ultra 120VAC Operator



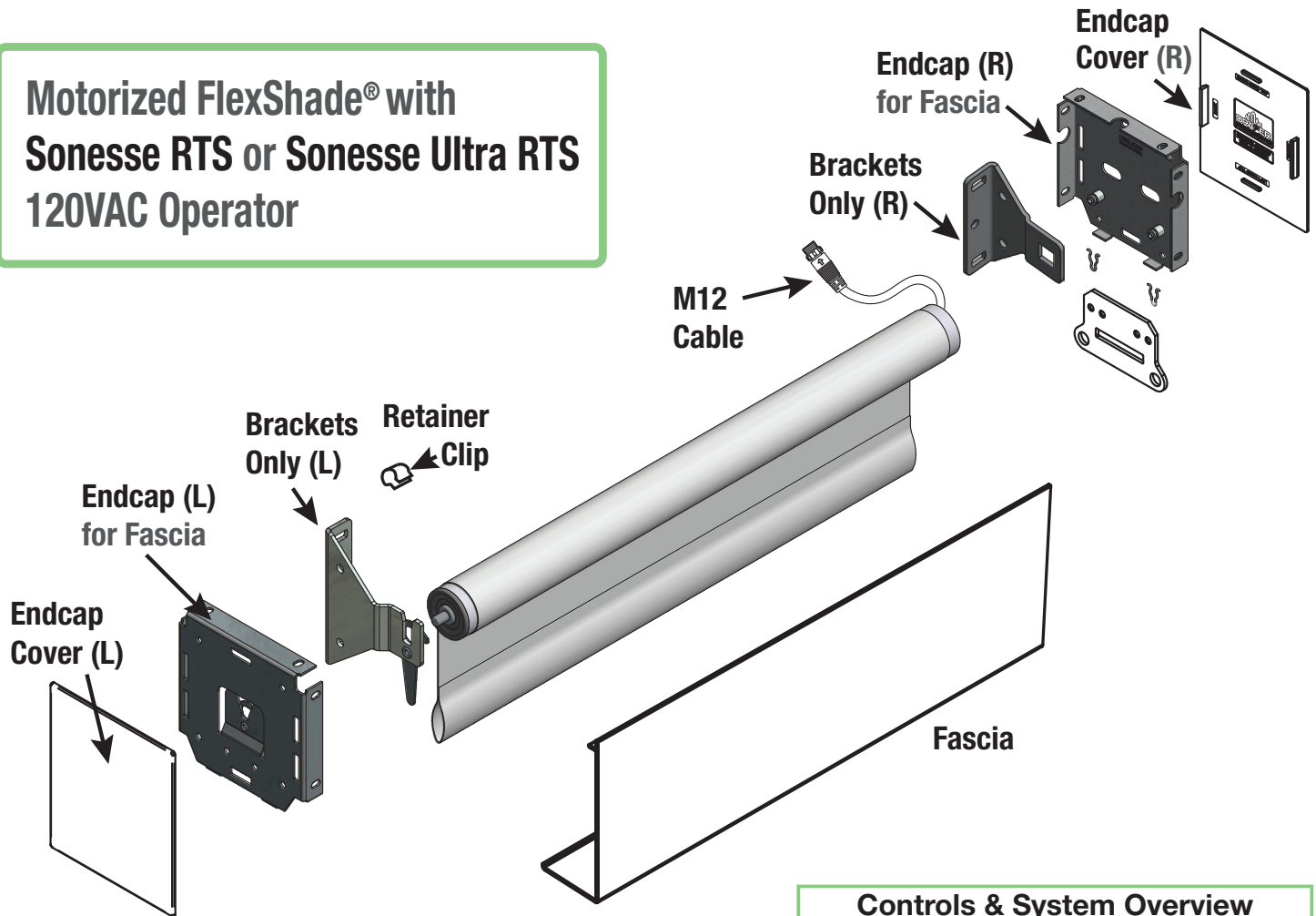
Controls & System Overview

Sonesse® 120VAC Motors



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

Motorized FlexShade® with Sonesse RTS or Sonesse Ultra RTS 120VAC Operator

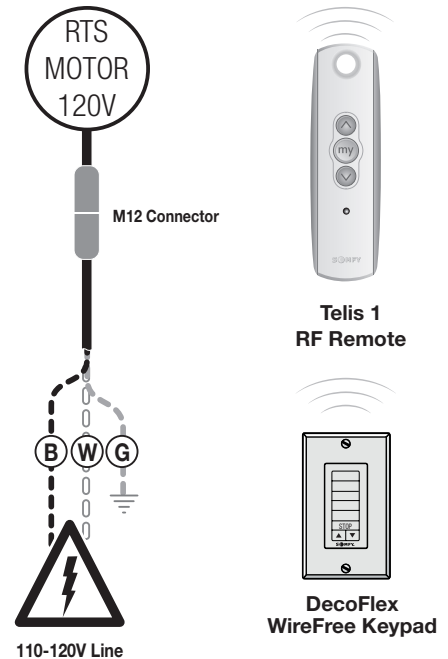


Please Note: A Draper Motor Test Cable (Part# 503109) and M12 Pigtail (Part# C107.089.60) are available for temporary power for testing and limit setting.

⚠ IMPORTANT: To reduce the risk of electric shock, equipment that features a grounding type attachment plug has a third (*grounding*) pin on the attachment plug. This plug will **ONLY** fit into a grounding type outlet. If the plug does not fit into the outlet, a qualified electrician must install the proper outlet. Do not change the plug in any way. Do not use an extension cord. If the power supply cord is too short, a qualified electrician must install an outlet near the drapery operator.

Controls & System Overview

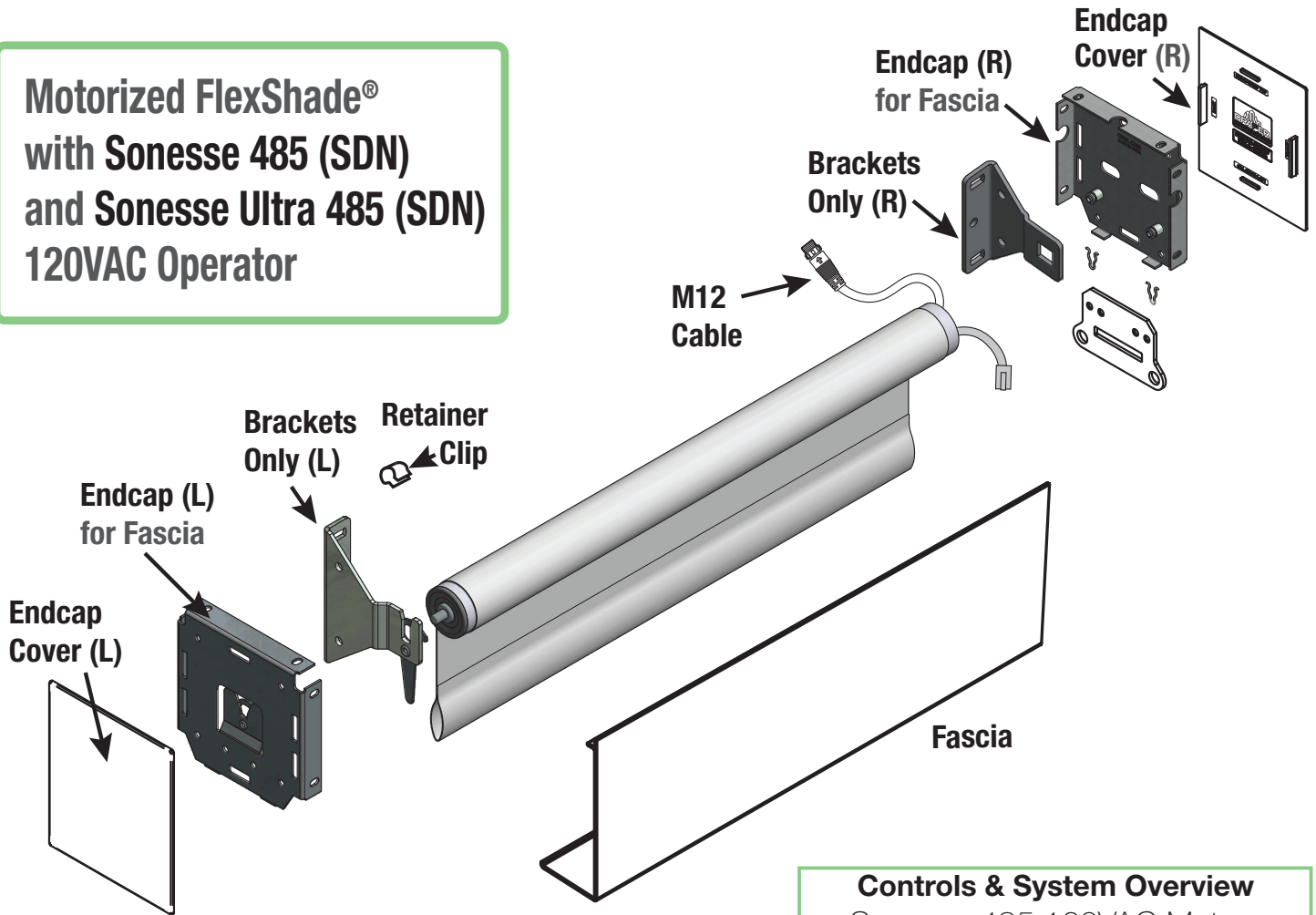
Sonesse® RTS 120VAC Motors



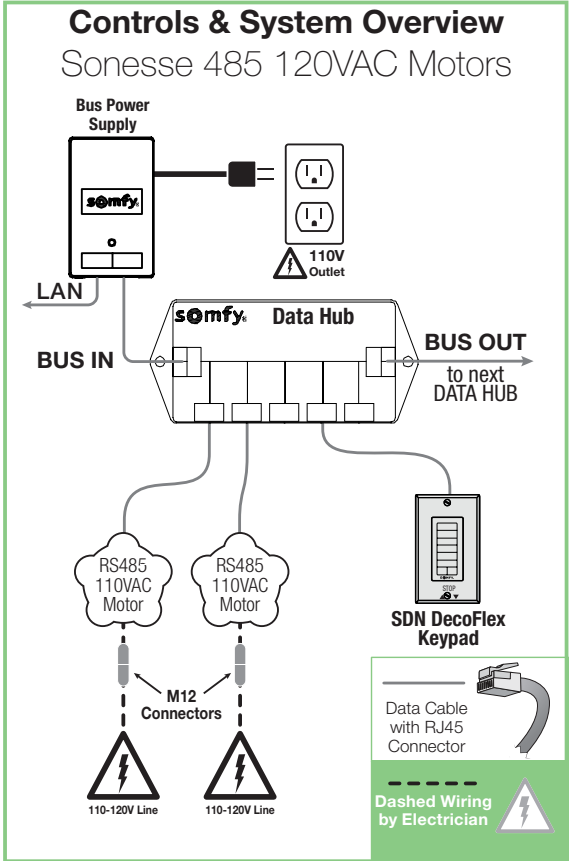
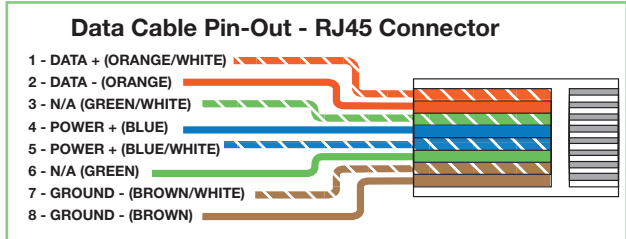
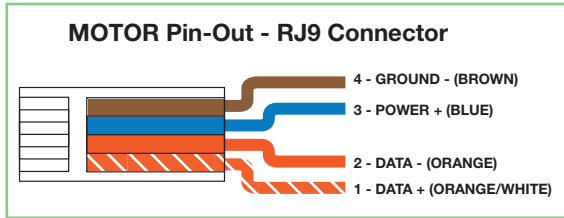
Dashed Wiring
by Electrician

Section 10 - RS485 Components, Wiring and Controls

**Motorized FlexShade®
with Sonesse 485 (SDN)
and Sonesse Ultra 485 (SDN)
120VAC Operator**

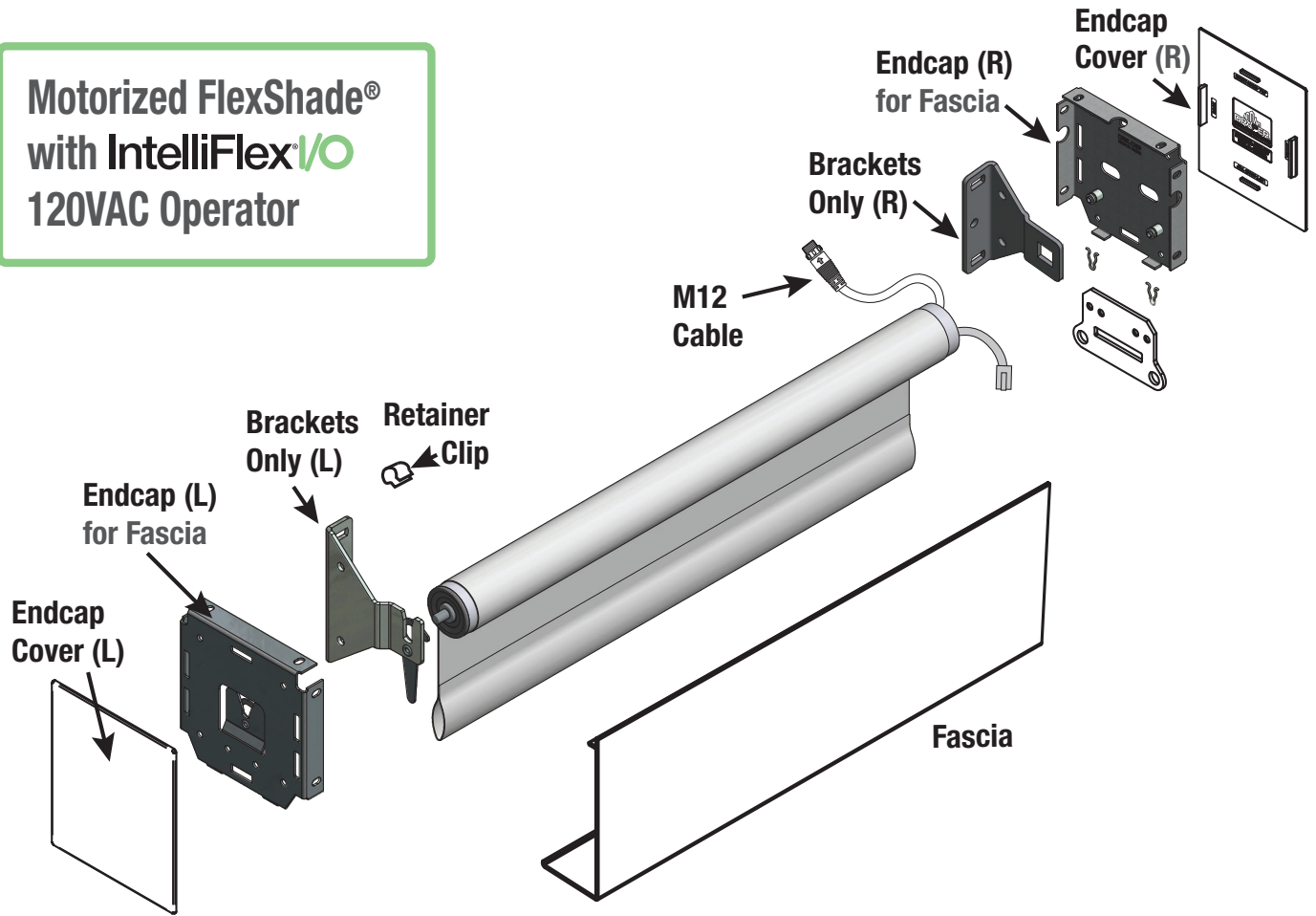


Please Note: A Draper Motor Test Cable (Part# 503109) and M12 Pigtail (Part# C107.089.60) are recommended for temporary power for testing and limit setting.



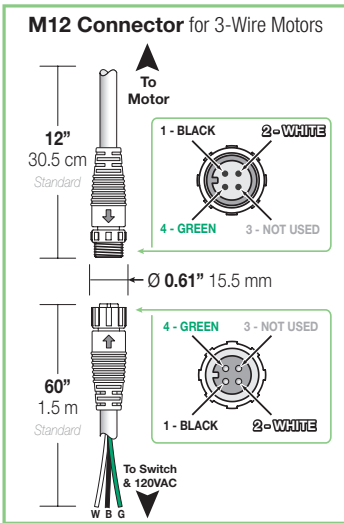
Section 11 - IntelliFlex I/O Components, Wiring and Controls

**Motorized FlexShade®
with IntelliFlex I/O
120VAC Operator**



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

IMPORTANT: To reduce the risk of electric shock, equipment that features a grounding type attachment plug has a third (grounding) pin on the attachment plug. This plug will ONLY fit into a grounding type outlet. If the plug does not fit into the outlet, a qualified electrician must install the proper outlet. Do not change the plug in any way. Do not use an extension cord. If the power supply cord is too short, a qualified electrician must install an outlet near the drapery operator.



Controls & System Overview IntelliFlex I/O 120VAC Motors

