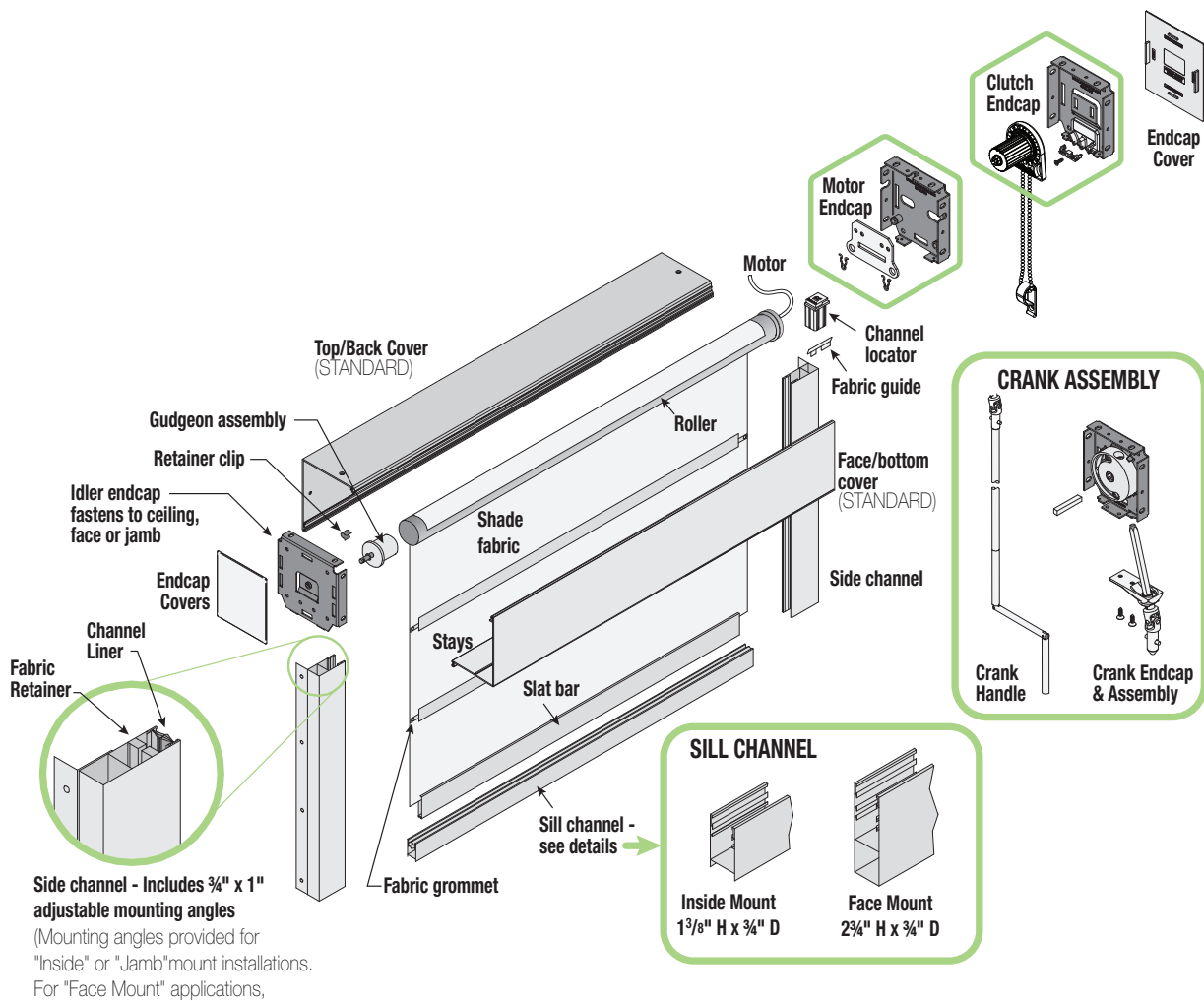
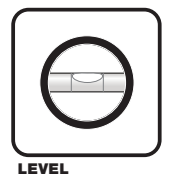
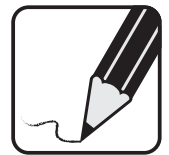


Overview - LightBloc FlexShade Components



TOOLS REQUIRED



⚠ 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 LightBloc FlexShade, call your dealer or Draper, Inc.

Important Safety Information **WARNING** Important Safety Information

Improper installation and use of the LightBloc FlexShade® can result in serious injury or death. Primarily, injuries can occur when the shade falls due to imprecise installation, mishandling of the shade 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 shade should only be performed by an authorized, qualified, and experienced professional.
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. shade must be level and square.
6. Never leave the area while operating the shade 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. During testing or operation, carefully watch the surrounding area for any potential safety concerns including nearby persons or objects.
9. After installation, the entire system 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.
10. Operation of shade should be performed only by authorized and qualified personnel, who have been trained in the safe and effective operation of the shade & understand its safety features.
11. The safety features of the shade should never be disabled, bypassed or overridden. The system should not be operated until all safety features are properly and completely installed, calibrated and tested.
12. Shade 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.
13. Failure to precisely follow installation guidelines invalidates all warranties.
14. Custom products/installations may not be reflected in this manual. Call Draper, Inc., if you have questions regarding your installation.

Before Beginning Installation

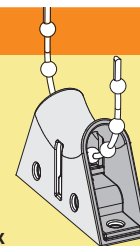
1. Look for any job site conditions that could interfere with installation or operation of the system.
2. Read carefully and be sure to understand all installation instructions and all related operations manuals. These instructions are intended to serve as a guide for the installer and owner. They should 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.

Child Safety Information

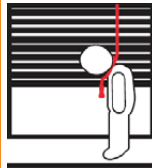
ANSI/WCMA A100.1-2018 standard (developed by the Window Coverings Manufacturer's Association and the Consumer Product Safety Commission) was established on December 15, 2018, to eliminate strangulation hazards for small children from hanging cords and chain loops.

When a Draper dealer specifies that custom shades comply with ANSI/WCMA A100.1-2018, Draper provides a pre-installed Spring-Loaded Chain Tension Device (shown at right) for clutch-operated units. A warning label is attached to the kit and approved mechanical fasteners are included. When properly installed, the tension device prevents the creation of a hazardous loop by maintaining tension on the bead chain. If not installed properly, the shade is partially inoperable. A warning label (shown below) is also added to the shade roller.

For more information, please see Draper's ANSI/WCMA A100.1-2018 compliance page: www.draperinc.com/windowshades/wcmacompliance.aspx



 **WARNING**
 **ADVERTENCIA**



Window Blind Cord can STRANGLE your child. Keep cords out of children's reach. Shorten cords to prevent reach. Move crib and furniture away – Children can climb furniture to reach cords.

La cuerda ciega de la ventana puede ESTRANGULAR a su niño. Mantenga las cuerdas fuera del alcance de los niños. Acorte los cables para evitar el alcance. Mueva la cuna y los muebles lejos – Los niños pueden subir los muebles para alcanzar las cuerdas.

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 dishwashing liquid is recommended. A clean dry cloth is recommended for the metal finish.

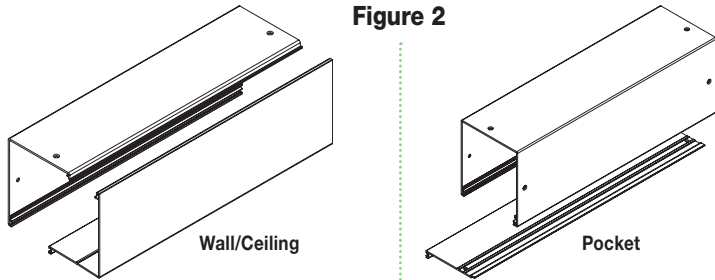
Please Note: Exceptions are Flocké and Phifer SW7000 fabrics, which must be cleaned with a dry art sponge.

Section 1 - Preparation for Installation

⚠ Caution: Before mounting shades, verify measurements on package label with shade.

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

1. FOR ALL: Open cartons lengthwise. Remove all pieces from carton. If shade has a detachable crank handle, remove universal joint and shaft/bracket assembly by removing 2 screws from bottom of endcap (Fig. 1). Save universal joint & screws.



2. FOR ALL: Remove face cover from headbox by pulling down and out on bottom edge of cover near endcaps. It will snap off (Fig. 2). If this is a pocket installation, remove screws at endcaps. Bottom of cover box snaps down and off at endcaps then slides out of slot in cover box (Fig. 2).

3. FOR ALL: Remove roller assembly from headbox.

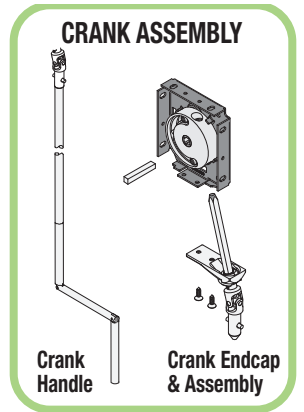


Figure 1

Please Note: If unit is motorized with a crank override, skip this step. Roller assembly and headbox assembly must be installed as a unit — the roller assembly cannot be removed without completely disassembling headbox.)

FOR CRANK OR MOTORIZED UNITS: Remove black plastic retainer clip from idler end of roller and retainer clips from motor studs. Save these clips to replace when re-assembling. Lift idler out of bracket. Depress spring-loaded pin by pressing roller toward pin end endcap until clutch hooks are free from operator endcap. Remove roller assembly from headbox.

FOR BEAD CHAIN CLUTCH UNITS: Lift up on clutch end so that clutch hooks can disengage from operator endcap. Depress spring-loaded pin by pressing roller toward pin end endcap until clutch hooks are free from operator endcap. Remove roller assembly from headbox.

Please Note: It may be necessary to locate and drill a hole for conduit connector (Conduit connector is not supplied) (Fig. 4).

FOR ALL: Verify dimensions of opening and refer to order for overall dimensions of unit. Determine location of headbox directly above and centered on opening. It is critical that headbox is installed absolutely level (use shims and caulking if needed). Install headbox assembly using appropriate fasteners through pre-drilled holes in endcaps, then drill through cover for wall/ceiling mounting (Fig. 5).

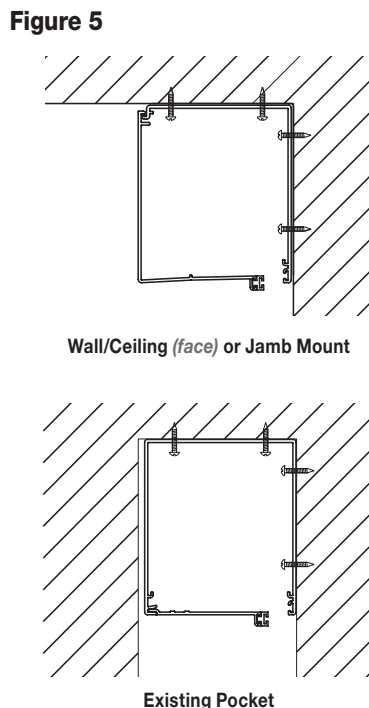
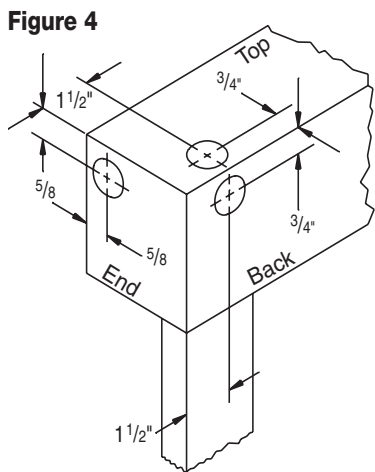


Figure 3:

Idler End

Operator End

Motorized

⚠ Be sure retainer clip is installed.

Idler End

Crank

⚠ Be sure retainer clip is installed.

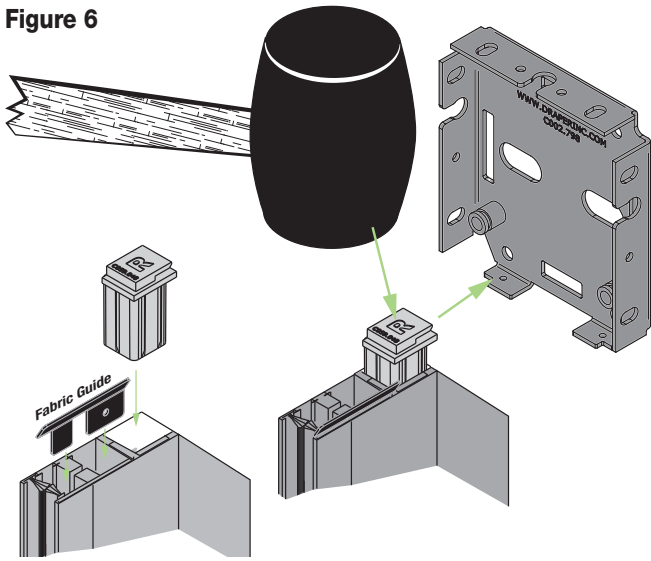
Idler Endcap

20lb Clutch

Bead Chain Clutch

Section 2 - Side Channels

Figure 6



⚠ Caution: For motorized units, make sure POWER IS OFF before making any electrical connections. Use extreme caution when working with electric motors.

- 1. FOR ALL:** Install side channels (*NOTE: Ensure side channels, headbox, and sill channel are square.*)
 - A.** Install channel locator and fabric retainer in top of each side channel. Lightly tap channel locator with a rubber mallet to ensure it is fully seated in side channel. Slide into place (Fig. 6).
 - B.** For face mount, side channel mounts on surface of wall or window mullion. Fasteners go through side channels. Plug buttons should be used to cover holes (*access and mounting holes will be pre-drilled*) (Fig. 7).
 - C.** For inside or jamb mount, attach mounting angles to side channels. Install side channel with mounting angle toward window, if depth will allow, so it is not visible (*it can also be installed toward room*). Bottom edge of mounting angle must be mounted flush with bottom edge of side channel. Fasteners will go through mounting flange (Fig. 7).

- 2. FOR ALL:** Install sill channel between side channels using appropriate fasteners (Fig. 8). On some large LightBlocs, sill channel is replaced by an angle.

Please Note: Be sure of a centered and snug fit between side channels.

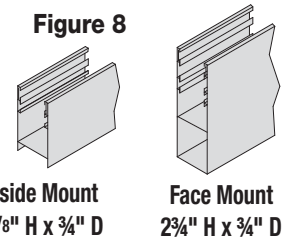
- 3. FOR ALL:** Re-install roller assembly by generally reversing procedures in Section 1.

FOR SPRING ASSISTED CLUTCH OPERATOR: Spring has been pretensioned in factory. Notch on spring roller should be positioned down. Rotate roller so that spear end can be worked out of slot in spear endcap. Remove roller assembly from headbox.

- 4. FOR MOTORIZED UNITS:** Complete electrical wiring according to national and local codes.

Please Note: Opaque caulking around perimeter of cover, side channels, and sill may be necessary for complete light block—especially for jamb mounts where window openings are not square.

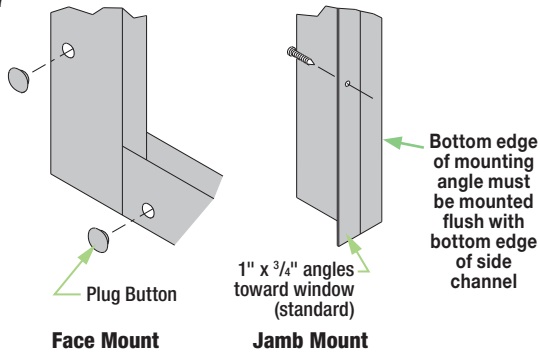
Figure 8



Inside Mount
1³/₈" H x 3/4" D

Face Mount
2³/₄" H x 3/4" D

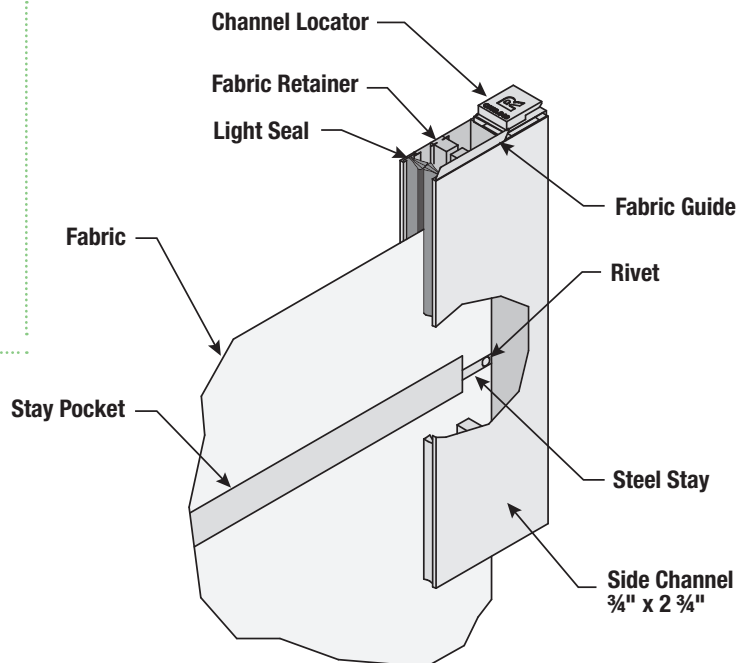
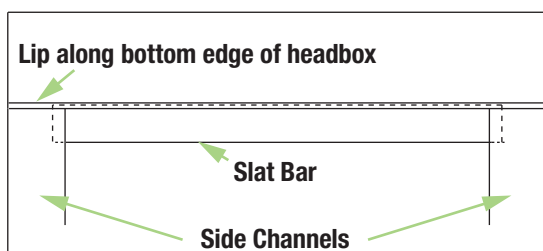
Figure 7



Section 3 - Check Shade Fabric

- With fabric and slat fully raised, pull slat bar forward, out of headbox and in front of side channels.
- Activate operator (*crank, spring roller, bead clutch, or electric*) to completely lower shade fabric. Repeat several times. With the shade fabric hanging in front of side channels, check fabric hang. Shade fabric should hang straight and equally spaced between outside edges of side channels.
- If misalignment still occurs, correct by sticking a small (*approximately 2"*) piece of cloth tape directly to roller to affect direction the fabric runs. (*For example, fabric hanging too far left may be corrected by placing tape on right end of roller beneath fabric. This, in effect, makes that end of the roller larger, therefore taking up more fabric.*)

Figure 9



Section 4 - Bead Chain Limits and Safety Device Installation (for Units with Clutch or Spring Roller Operation)

Section 4.1 - Attaching Stop Balls

1. Set upper and lower travel limits by installing stop balls to bead chain (*crimp closed using pliers*) (Fig. 7).

Section 4.2 - P-Clip Cord Tension Device

Please Note: Draper Bead Chain Clutch Operated shades that do not comply with WMCA/ANSI Standard A100.1-2012 come with a cord tension device pre-attached to bead chain (Fig. 8). This device must be attached to wall, jamb or sill so that bead chain is held taut enough that children cannot pull it away from wall or fit their head into loop.

Section 4.3 - Spring-Loaded Cord Tension Device

Draper LightBloc FlexShade complies with WMCA/ANSI Standard A100.1-2018, a Spring-Loaded Cord Tension Device comes installed on bead chain (Fig. 9). An approved permanent warning label and approved mechanical fasteners (*wood screws*) are included. Device is designed so that children cannot pull bead chain away from wall or fit their head into loop. (See *safety note on page 2*).

For more information, visit www.draperinc.com/WindowShades/WCMACompliance.asp.

Please Note: Over-tightening screws will damage Spring Loaded Tension Device.

Figure 7

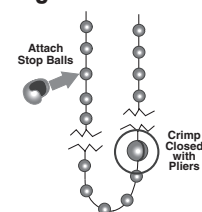


Figure 8

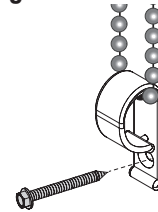
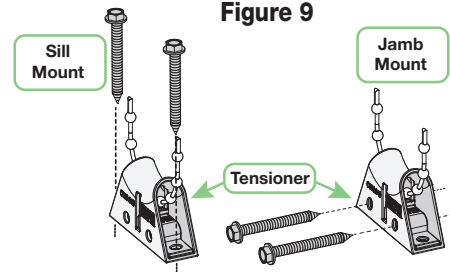


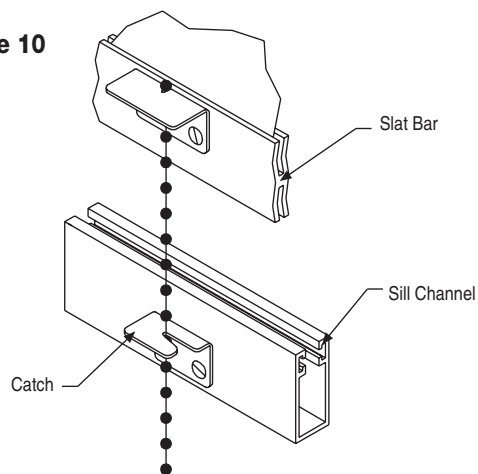
Figure 9



Section 5 - Check Shade Operation (for Units with Clutch or Spring Roller Operation)

Attach bead chain to slat bar and catch to sill channel. To operate shade, pull down, locking in place using the bead chain (Fig. 11).

Figure 10



Section 6 - Electrical Connections (for Motorized Units)

⚠ Caution: For motorized units, make sure POWER IS OFF before making any electrical connections. Use extreme caution when working with electric motors.

Shade operates on 110-120v, 60 Hz. current. Shade ships 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. Only RTS and 485 motors can be wired in parallel.

Please Note: 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: Wiring diagram for standard right-hand motor placement with fabric from rear of roller, or left-hand motor placement with fabric from front of roller. For left hand motor placement with fabric from rear of roller or right hand motor placement with fabric from front of roller, Red is "Up" and Black is "Down."

Please Note: All Motorized LightBloc FlexShade motors are equipped with M12 Connectors.

Section 7 - Wiring Diagrams (for Motorized Units)

Controls & System Overview Sonesse 120VAC Motors

NOTE: Test shade operation
If shade direction does not correspond with the switch orientation, turn power back off and switch the red and black wires from the motor to the switch.

Do not wire motors in parallel without written permission from Draper.

Dashed Wiring by Electrician

Controls & System Overview Sonesse RTS 120VAC Motors

Telis 1 RF Remote

Decora RTS Wireless Keypad

Dashed Wiring by Electrician

Controls & System Overview Sonesse RS485 120VAC Motors

Bus Power Supply

LAN

110V Outlet

Sonesse Data Hub

BUS IN

BUS OUT to next DATA HUB

DATA CABLES

RS485 120VAC Motor

M12 Connectors

Wall Switch

110-120V Line

Data Cable with RJ45 Connector

Dashed Wiring by Electrician

MOTOR Pin-Out - RJ9 Connector

- 4 - GROUND - (BROWN)
- 3 - POWER + (BLUE)
- 2 - DATA - (ORANGE)
- 1 - DATA + (ORANGE/WHITE)

Data Cable Pin-Out - RJ45 Connector

- 1 - DATA + (ORANGE/WHITE)
- 2 - DATA - (ORANGE)
- 3 - N/A (GREEN/WHITE)
- 4 - POWER + (BLUE)
- 5 - POWER - (BLUE/WHITE)
- 6 - N/A (GREEN)
- 7 - GROUND - (BROWN/WHITE)
- 8 - GROUND - (BROWN)

Section 8 - Limit Switch Adjustments (for Motorized Units)

Section 8.1 - Standard and Quiet Motors (All procedures shown are for Standard Roll. Invert orientation for Reverse Roll)

Section 8.1.1- Push Button Limits

1. Fully depress both limit switch push buttons, then operate wall switch to ensure 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.

Section 8.1.2 - 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.

⚠ Caution:

- All switches must be 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 8.2 - Limit Adjustments (RS485 Motors)

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

Section 8.3 - Limit Switch Adjustments—RTS Motors

Section 8.3.1 - Programming Instructions

1. Connect power to one motor. Select a transmitter channel to assign motor. Hold UP & DOWN buttons until motor jogs, then release.
2. Check motor direction. To reverse motor direction, hold MY/STOP button for 5 seconds until motor jogs. Check direction again.

Please Note: Failure to complete Step 2 before Step 3 can only be corrected with a motor reset (Section 8.3.6).

3. Move motor to upper limit position. Hold MY/STOP & DOWN buttons until motor moves down, then release. Stop shade at desired lower limit position using MY/STOP button (*shade will not stop on its own*). UP and DOWN buttons can be used to adjust the lower limit position if needed.
4. While motor is at lower limit, hold UP & MY/STOP buttons until motor moves up, then release. The shade should move to upper limit and stop.
5. Next, hold MY/STOP button for five seconds until motor jogs.
6. Put motor into USER MODE by pressing small programming button (Fig. 13) on back of transmitter until motor jogs.
7. Disconnect power to this motor and move to next motor in installation and start with step 1.
8. Reconnect motor to power when all motors are programmed.

Section 8.3.2 - Setting an Intermediate Stop - Shade MUST BE in USER mode.

1. Move shade to desired mid-point location and hold MY/STOP button until motor jogs.
2. To test, press MY/STOP button when motor is standing still. Shade will move to that intermediate location.
3. To delete an intermediate stop, go to intermediate stop and hold MY/STOP button until motor jogs.

Section 8.3.3 - Add a Channel - Shade MUST BE in USER mode.

1. Select channel currently operating motor, then hold programming button until motor jogs.
2. Select new channel to add to motor, then hold programming button until motor jogs.
3. The motor should now work on both old and new channel.

Section 8.3.4 - Delete a Channel - Shade MUST BE in USER mode.

1. Select channel operating motor that you want to keep, then hold programming button until motor jogs.
2. Select channel to remove, then hold programming button until motor jogs. Motor should now only work on channel kept from Step 1.

Section 8.3.5 - Adjust Limits in User Mode

1. Move motor to limit (*upper or lower*) to be changed. Shade must move to previously set limit and will stop automatically.
2. Hold UP & DOWN buttons until motor jogs.
3. Move motor to its new limit location and hold MY/STOP button until motor jogs.

Section 8.3.6 - Reset Motor

1. Disconnect power for 5 seconds and reconnect to power for 15 seconds. Disconnect power for 5 seconds, then reconnect to power and leave connected. Shade should roll down a few inches and stop.
2. Hold programming button (Fig. 13) for 15 seconds. Motor will jog up and down once; pause and then jog a 2nd time. Motor is now reset and ready to be programmed.

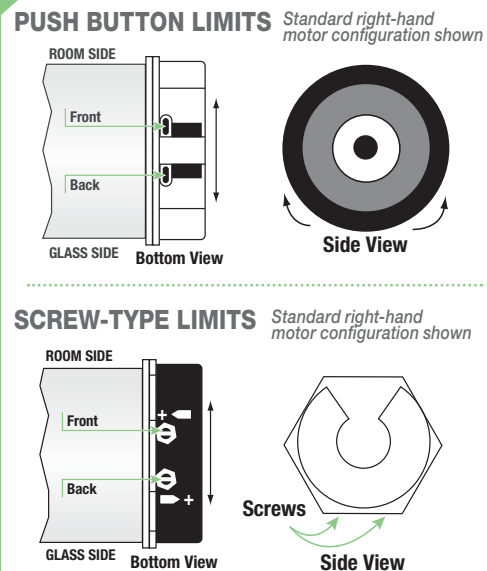


Figure 12

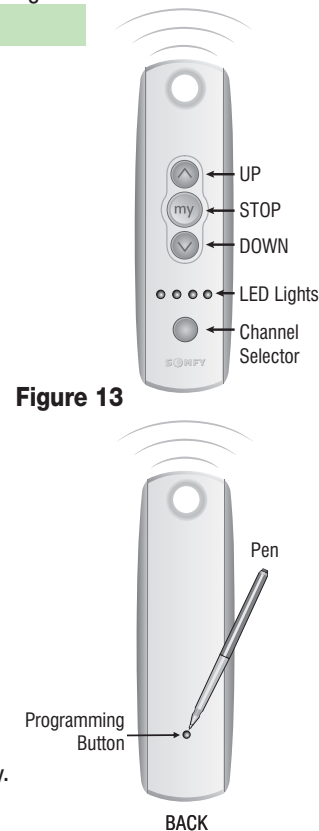


Figure 13

Section 9 - Dimensions - LightBloc FlexShade

