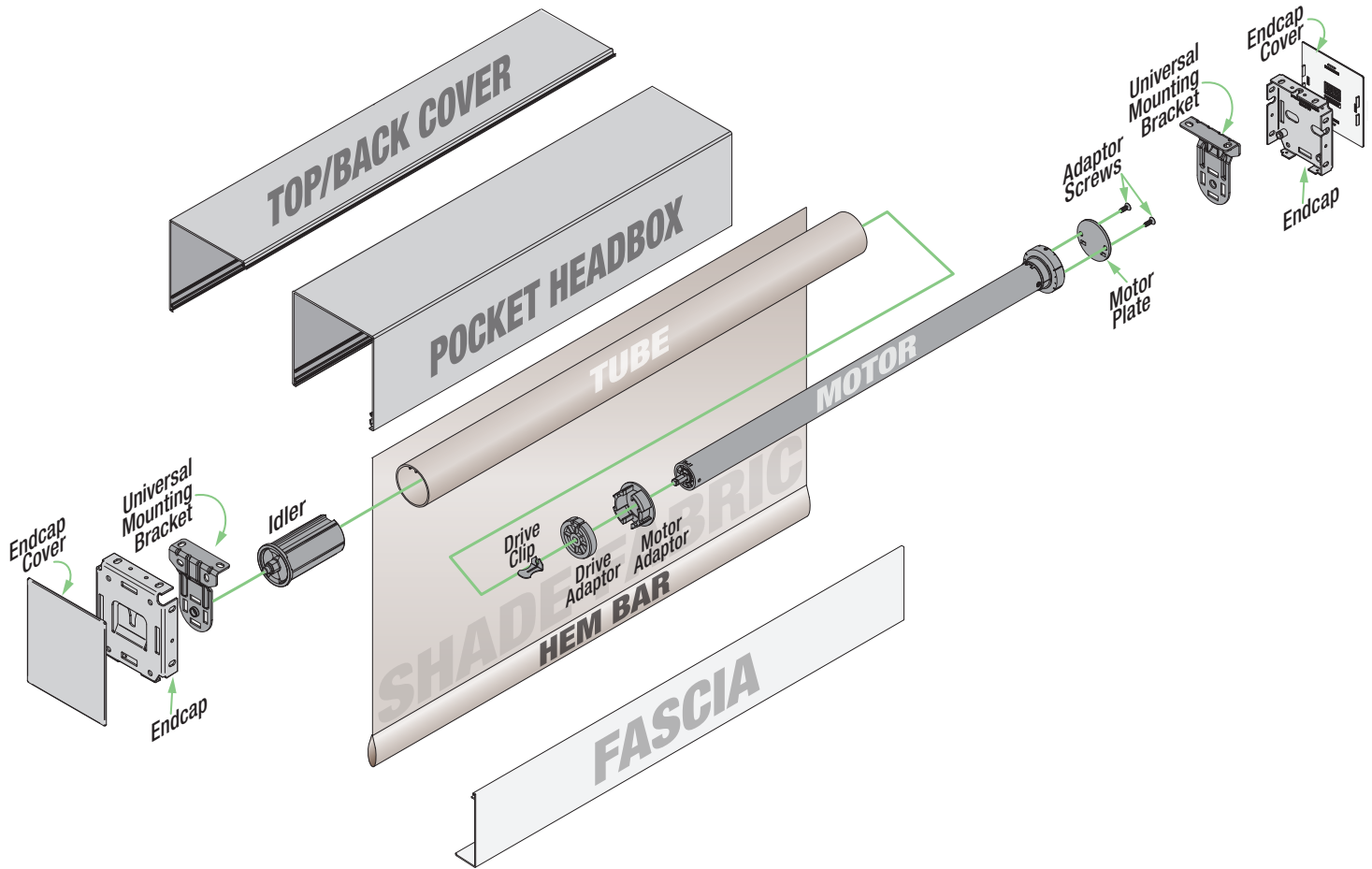# Smart Home Collection Battery Shade
Rechargeable motorized window shade with no wiring or electrician needed

Overview - **Components**

TOP/BACK COVER

POCKET HEADBOX

TUBE

MOTOR

SHADE FABRIC

HEM BAR

FASCIA

Endcap Cover

Universal Mounting Bracket

Idler

Drive Clip

Drive Adaptor

Motor Adaptor

Endcap

Adaptor Screws
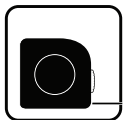
Universal Mounting Bracket
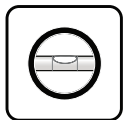
Endcap Cover

Endcap

Motor Plate

TOOLS REQUIRED

PENCIL | TAPE MEASURE | LEVEL | POWER DRILL | PLIERS | HARDWARE (by others)

⚠ CAUTION ⚠
Read and understand all warnings before beginning installation.

PERSONNEL RECOMMENDED
Larger shades may require two installers.

Contents

BUDGET BLINDS®
Style and service for every budget.™

SMART HOME COLLECTION
by BUDGET BLINDS®

If you have any difficulties installing or servicing your Smart Home Collection Battery Shades, call your Budget Blinds dealer

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

5. All endcaps, fascia, pocket 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 Battery Shade 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.

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, 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. Make sure the limit switches are pointed down or accessible when placing the motor in brackets/endcaps.

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

10. During testing or operation, carefully watch the surrounding area for any potential safety concerns including nearby persons or objects.

11. 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.

12. 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.

13. 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.

14. 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.

15. Failure to precisely follow installation guidelines invalidates all warranties.

16. 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 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.
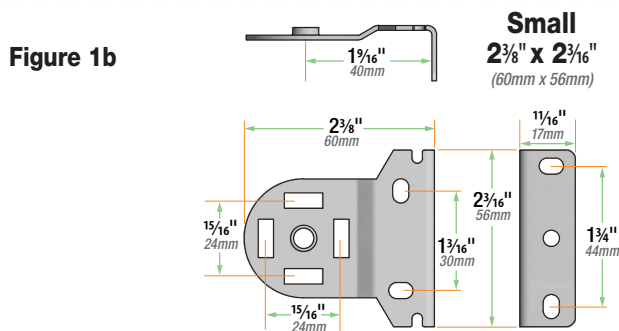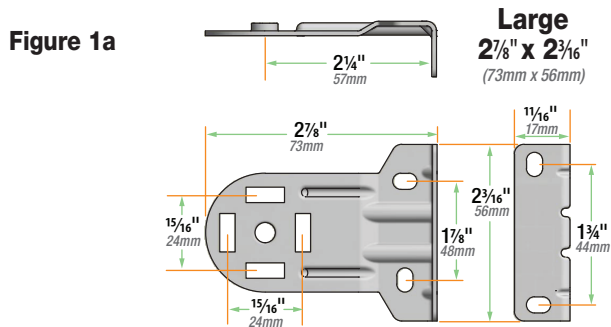
Please Note: Exceptions are GreenScreen Evolve®, GreenScreen Revive®, and Phifer® SW7000 fabrics, which must be cleaned with a dry art sponge.
(GreenScreen Revive® and GreenScreen Evolve® are registered trademarks of Mermet® USA. SheerWeave® is a registered trademark of Phifer® Incorporated.)

⚠ **Caution:** Before mounting shades, verify measurements on label provided with shade, and ensure unit is installed at correct width.
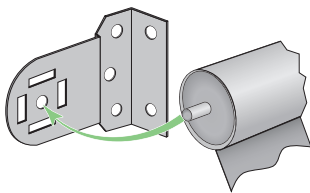
Please Note: Installer is responsible for selecting mounting hardware appropriate for site conditions.
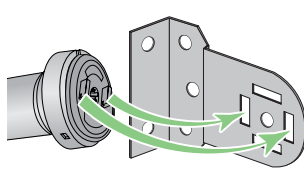
Section 1 - **Brackets**

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 *(Fig. 1a-1b)*.
4. Place spring-loaded pin into idler end bracket, depress pin by pushing shade roller toward bracket, slip notches on operator end into other bracket, then press down to lock in place *(Fig. 2a-2b)*.
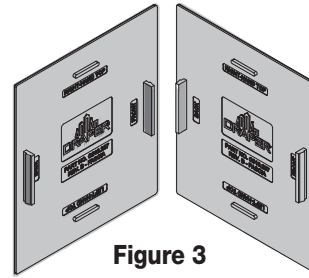
Figure 1a

Large
2⅞" x 2³⁄₁₆"
(73mm x 56mm)

2¼"
57mm

2⅞"
73mm

¹¹⁄₁₆"
17mm

¹⁵⁄₁₆"
24mm

2³⁄₁₆"
56mm

1⅞"
48mm

1¾"
44mm

¹⁵⁄₁₆"
24mm

Figure 1b

Small
2⅜" x 2³⁄₁₆"
(60mm x 56mm)

1⁹⁄₁₆"
40mm

2⅜"
60mm

¹¹⁄₁₆"
17mm

¹⁵⁄₁₆"
24mm

2³⁄₁₆"
56mm

1³⁄₁₆"
30mm

1¾"
44mm

¹⁵⁄₁₆"
24mm

Figure 2a - IDLER END
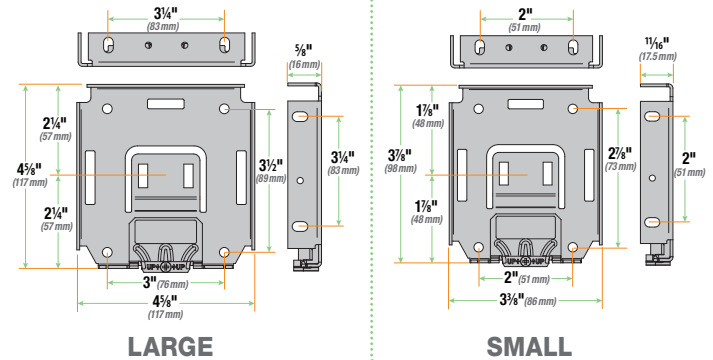
Figure 2b - OPERATOR END
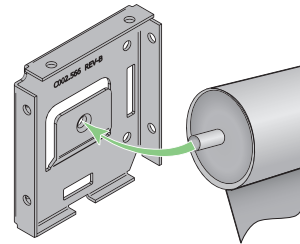
Section 2 - **Endcaps**

1. Snap end covers onto endcaps *(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 *(Fig. 4)*.

Figure 3

Figure 4 - ENDCAP DIMENSIONS

3¼"
(83mm)

⅝"
(16mm)

2¼"
(57mm)

4⅝"
(117mm)

2¼"
(57mm)

3½"
(89mm)

3¼"
(83mm)

3"
(76mm)

4⅝"
(117mm)

LARGE

2"
(51mm)

¹¹⁄₁₆"
(17.5mm)

1⅞"
(48mm)

3⅞"
(98mm)

1⅞"
(48mm)

2⅞"
(73mm)

2"
(51mm)

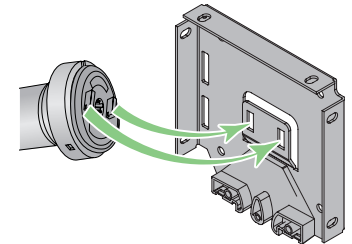2"
(51mm)

3⅜"
(86mm)

SMALL

5. Place spring-loaded pin into idler endcap, depress pin by pushing shade roller toward endcap, slip notches on operator end into operator endcap, then press down to lock in place *(Fig. 5a-5b)*.

**Figure 5a - IDLER END**

Figure 5b - OPERATOR END

Section 3 - **Fascia**

1. Snap end covers onto endcaps.
2. Install endcaps and shade *(see Section 2—Endcaps)*.
3. Place groove along top of fascia over endcaps, and snap into place *(Fig. 6)*. Fascia is not fully seated until it clicks into place on both ends. Once in place, secure with appropriate fastener *(not included)* if necessary.

Figure 6

C002.670 REV-A

Clicks into place
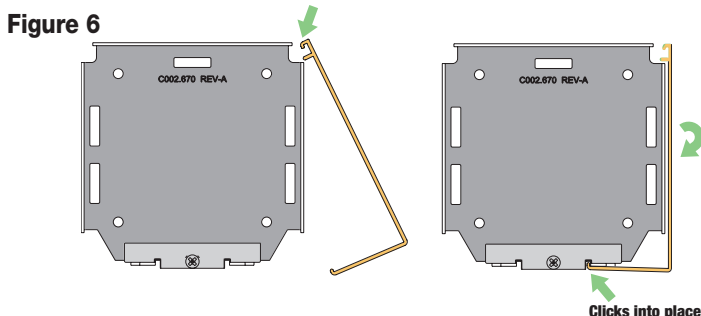
Reverse Roll Fascia

1. Mark mounting points.
2. Slide endcaps into extrusions.
3. Use pre-drilled endcap holes to mark fascia for drilling.
4. Attach endcaps to fascia using included hardware.
5. Mount Endcaps/Reverse Roll Fascia.
6. Install roller/fabric/operator assembly according to relevant instructions.
7. Attach endcap covers to endcaps. Use double-sided tape to help secure in place.

Figure 7
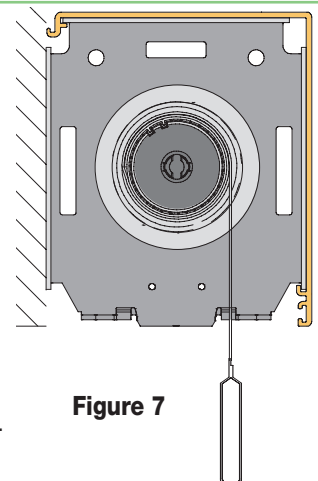
Section 4 - **Headbox**

⚠ *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 onto endcaps.

2. Slide endcaps into back/top portion of wall/ceiling headbox or into pocket extrusion of large pocket headbox. Using pre-drilled holes, mark headbox for drilling.

3. Drill holes in back *(wall mount)* or top *(ceiling mount)*, or in a pocket.

4. Attach endcaps and wall/ceiling headbox back/top or pocket headbox extrusion to wall, ceiling, or pocket.

5. Install shade.

6. Attach headbox fascia *(Section 3)* or pocket closure *(Fig. 8)*. Fascia is not fully seated until it clicks into place on both ends. Once in place, secure with appropriate fastener *(not included)* if necessary.

Figure 8
POCKET
**HEADBOX**

STEP 1   **STEP 2**   **STEP 3**
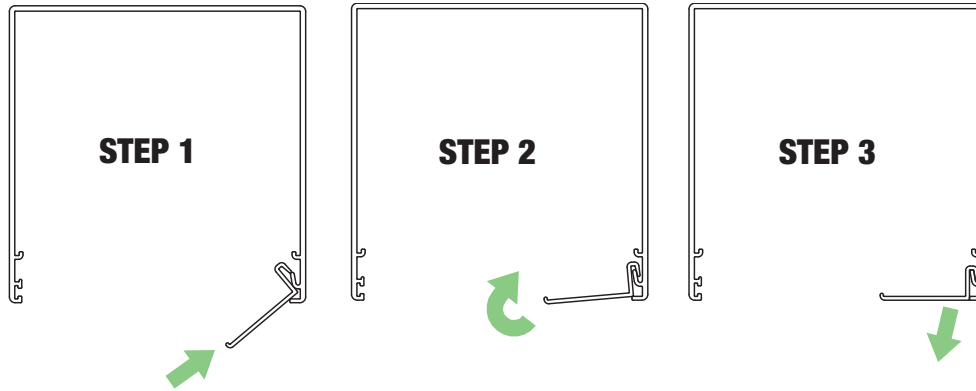
Section 5 - **Charging Battery**

This motor has a 5V built-in Li-ion battery pack with integrated charge management. Motor arrives charged from factory.

- Once battery has been depleted, motor must be charged for 6 hours using recommended AC charger.

- Determine the motor's battery level using any of the Automate controller's one-touch battery-check functions.

⚠ *Caution:* Ensure cable is kept clear of fabric. Ensure antenna is kept straight and away from metal objects.
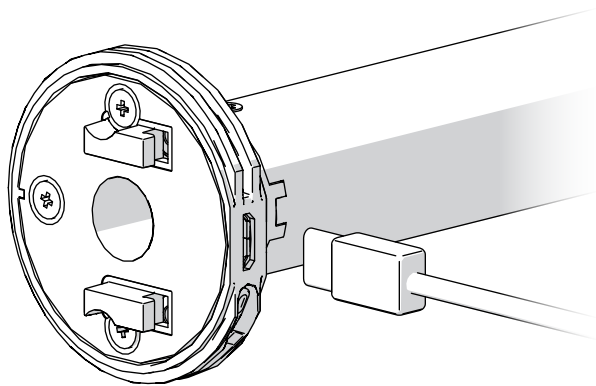
Section 6 - **Remote Controller**

Scan code with your smartphone to view a playlist of Battery Shade limit setting videos. These videos do not replace the written instructions, but offer valuable help.

FRONT   **BACK**

- LCD SCREEN
- UP
- STOP
- DOWN
- CHANNEL
- SLIDE CONTROL

15 Channel

Battery Compartment
(Shown with cover removed)
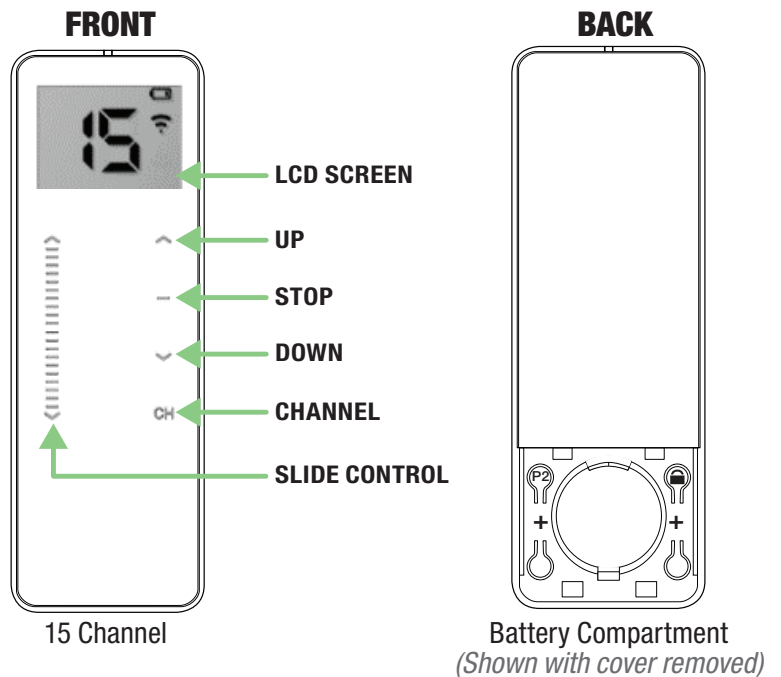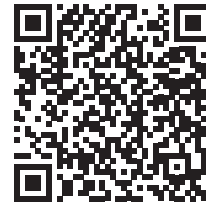
Section 6 - **Initial Motor Setup**

15 Channel Remote
Press right button for 1 second or less to display current mode.

RESPONSE
LCD displays "L" when locked
LCD displays "U" when unlocked

1 Channel Remote

RESPONSE
LED solid on when locked
LED blinking when unlocked

Select channel on controller.
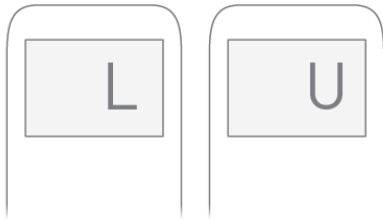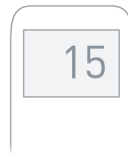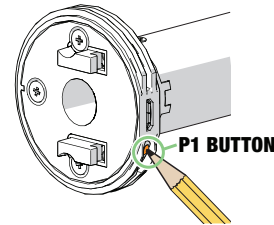
⚠ **IMPORTANT**
Consult user manual for your controller for information on selecting channel.

Hold P1 button on motor head.

P1 BUTTON

Hold STOP on controller.
⚠ *Must be done within 4 seconds of motor jog from P1 button.*

Motor Response
JOG x1
RELEASE P1
EXT. BEEP x1

Motor Response
Approx. 2 SECS
JOG x2
BEEP x3

⚠ *Important:* Motor is now in step mode and ready for setting limits.

P1 Button Functions

Motor state test: This table describes the function of a short P1 Button press/release *(<2 seconds)* depending on current motor configuration.

P1 Press	Condition	Function Achieved	Visual Feedback	Audible Feedback	Function Described
Short Press	If limit is NOT set	None	No Action	None	No Action
	If limits are set	Operational control of motor, run to limit. Stop if running.	Motor Runs	None	Operational control of motor after pairing and limit setting is completed first time.
	If motor is in "Sleep Mode" and limits are set	Wake and control	Motor wakes and runs in a direction.	None	Motor is restored from Sleep Mode and RF control is active.

Activate Pairing Mode
JOG x1
Approx. 2 SECS
RELEASE P1
BEEP x1

Sleep Mode
JOG x1 — Approx. 2 SECS
JOG x1 — Approx. 6 SECS
RELEASE P1
BEEP x2

Reverse Direction
JOG x1 — Approx. 2 SECS
JOG x1 — Approx. 6 SECS
JOG x1 — Approx. 10 SECS
RELEASE P1
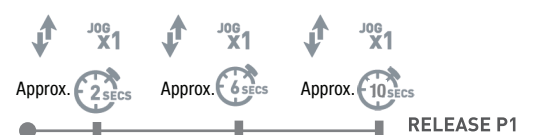
Reset to Factory Settings
JOG x1 — Approx. 2 SECS
JOG x1 — Approx. 6 SECS
JOG x1 — Approx. 10 SECS
JOG x1 — Approx. 14 SECS
RELEASE P1
BEEP x4

Section 7 - **Motor Limits**

⚠ **IMPORTANT**
Cycle shade up and down prior to setting limits to settle fabric.

⚠ **IMPORTANT**
Damage to shade may occur when operating motor prior to setting limits.

Atttention should be given.

OR

Quick Press = Step
Long Press = Continuous Travel

To reverse shade direction, hold both UP and DOWN until the motor responds.

⚠ **IMPORTANT**
Reversing motor direction using this method is only possible during initial set-up.

Motor Response
Approx. 2 SECS JOG X1
BEEP X1

Setting 5 Volt Motor Limits

⚠ **IMPORTANT**
Cycle shade up and down prior to setting limits to settle fabric.

Move shade to the desired highest or lowest position by pressing the UP or DOWN buttons on controller.

OR

To save upper limit, hold UP and STOP.

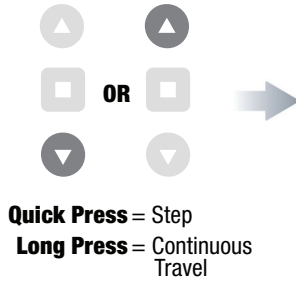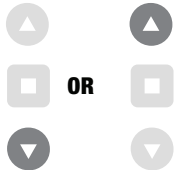To save lower limit, hold DOWN and STOP.

⚠ **IMPORTANT**
After setting limits, motor will automatically exit from initial setup mode.

Motor Response
Approx. 5 SECS JOG X2
BEEP X3

Adjusting 5 Volt Motor Limits

To adjust upper limit:
Hold UP & STOP for 1 jog & 1 beep.
Move shade to new upper limit.
Hold UP & STOP for 2 jogs & 3 beeps.

To adjust lower limit:
Hold DOWN & STOP for 1 jog & 1 beep.
Move shade to new lower limit.
Hold DOWN & STOP for 2 jogs & 3 beeps.

OR

Motor Response
JOG X1
BEEP X1

Motor Response
Approx. 5 SECS JOG X2
BEEP X3
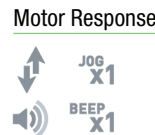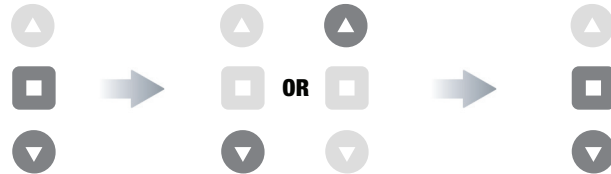
⚠ **IMPORTANT**
The bottom limit should be set ~ 1.38 in. *(35mm)* below the Ultra-Lock to disengage the auto lock mechanism when the shade is raised.

Using P2 Button on existing controller to add a new controller or channel

A = Existing controller or channel *(to keep)*

B = Controller or channel to add or remove

Press P2 on controller A.
A
(P2)

Press P2 on controller A.
A
(P2)

Press P2 on controller B to add it.
B
(P2)

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X2
BEEP X3
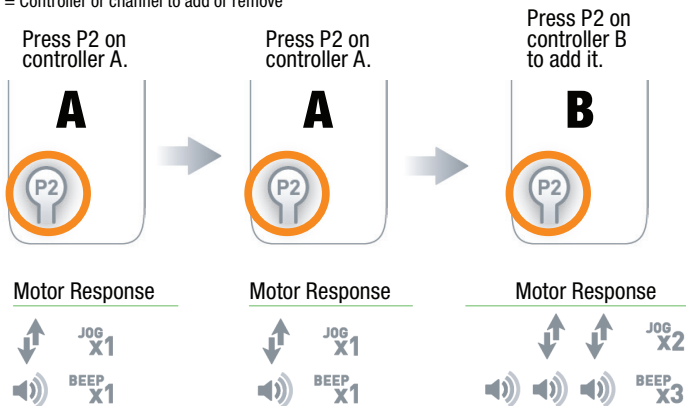
⚠ **IMPORTANT**
Consult user manual for your controller or sensor.

Using an existing controller to add or delete a controller or channel

A = Existing controller or channel *(to keep)*

B = Controller or channel to add or remove

Press P2 on controller A.
A
(P2)

Press P2 on controller A.
A
(P2)

Press P2 on controller B to remove it.
B
(P2)

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X2
BEEP X3
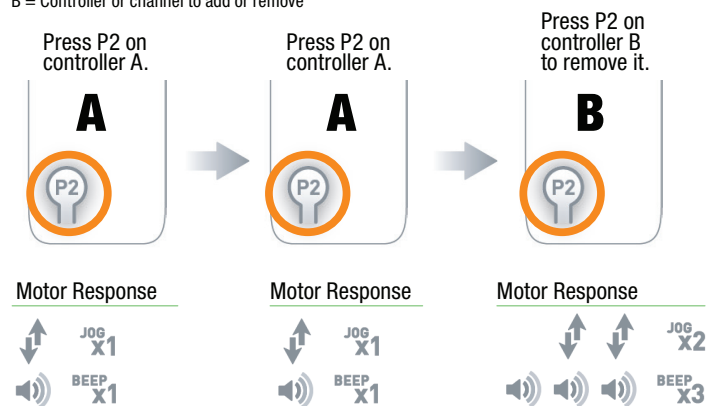
⚠ **IMPORTANT**
Consult user manual for your controller or sensor.

Setting Favorite Position

Move shade to the desired position by pressing the UP or DOWN button on the controller.

Send Shade to Favorite Position

Approx. 2 SECS

Press P2 on controller.

Press STOP on controller.

Press STOP on controller.

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X2
BEEP X3

Deleting Favorite Position

Press P2 on controller.

Motor Response

JOG X1
BEEP X1

Press STOP on controller.

Press STOP on controller.

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X1
EXT. BEEP X1

Toggle Motor to Roller Mode

Default motor mode is Roller Mode *(for use with roller shades)* after initial Limits have been set. If motor is in Tilt Mode (for use with other product types), use the following steps to return to Roller Mode.

Hold UP and DOWN on controller.

Press STOP on controller.

Motor Response

Approx. 5 SECS

JOG X1
BEEP X1

Motor Response

JOG X1
EXT. BEEP X1

Adjusting Motor Speed

Increase Motor Speed *(Default motor mode is the slowest speed.)*

Press P2 on controller.

Press UP.

Press UP.

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X2
BEEP X1

Decrease Motor Speed

Press P2 on controller.

Press DOWN.

Press DOWN.

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X1
BEEP X1

Motor Response

JOG X2
BEEP X1

Stop Configuration

Turn Soft Stop OFF:
Motor must be in slowest speed to turn Soft Stop OFF.

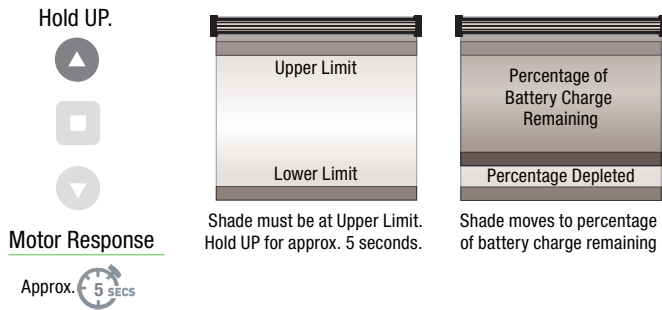Press P2 on controller.

Press DOWN.

Press DOWN.

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
BEEP X1
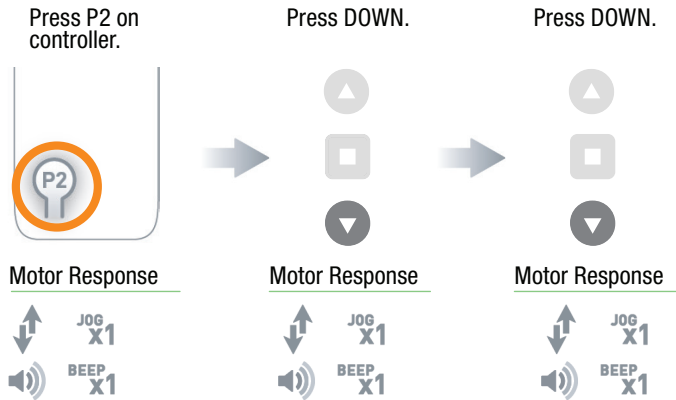
Turn Soft Stop ON:
Motor must be in fastest speed to turn Soft Stop ON.

Press P2 on controller.

Press UP.

Press UP.

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
BEEP X1

Motor Response
JOG X1
EXT. BEEP X1
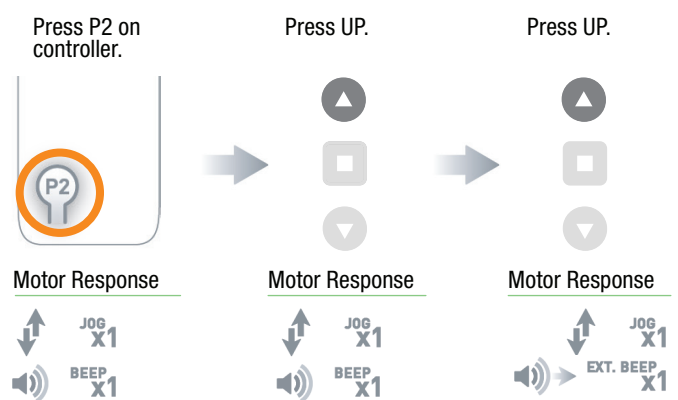
Battery Check Function

Send Shade to battery charge level.

⚠️ **IMPORTANT**
Shade must be at Upper Limit.

Hold UP.

Motor Response
Approx. 5 SECS

Upper Limit
Lower Limit

Shade must be at Upper Limit. Hold UP for approx. 5 seconds.

Percentage of Battery Charge Remaining

Percentage Depleted

Shade moves to percentage of battery charge remaining

Charging LED

Turn Charging LED ON/OFF

⚠️ **IMPORTANT**
Shade must be at Lower Limit.

Hold DOWN to toggle off.

Hold DOWN to toggle on.

Motor Response
Approx. 5 SECS
Red LED flashes 3x

Motor Response
Approx. 5 SECS
Red LED flashes 3x
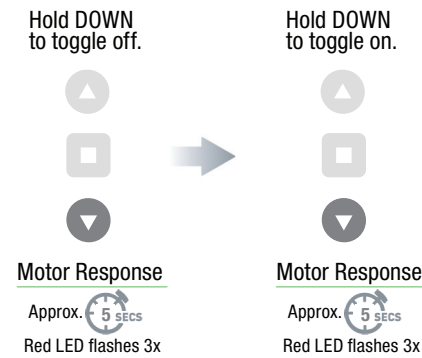
Sleep Mode

If multiple motors are grouped on a single channel, Sleep Mode may be used to put all but 1 motor to sleep, allowing programming of just the one motor that remains "Awake".

Enter Sleep Mode
Sleep mode is utilized to prevent a motor from incorrect configuration during other motor setup.

Hold P1 button on the motor head.

Motor Response
Approx. 6 SECS
JOG X2
RELEASE P1
BEEP X2

Exit Sleep Mode: Method 1
Exit sleep mode once the shade is ready.

Press and release P1 button on the motor head.

Motor Response
JOG X1
BEEP X1

Exit Sleep Mode: Method 2
Remove power and then re-power the motor.

Troubleshooting

PROBLEM	CAUSE	REMEDY
Motor is not responding	Battery in motor is depleted	Recharge with a compatible charger
	Insufficient charging from solar PV panel	Check connection and orientation of PV panel
	Transmitter battery is discharged	Replace battery
	Battery is inserted incorrectly into transmitter	Check battery polarity
	Radio interference/shielding	Ensure transmitter is positioned away from metal objects and the aerial on motor or receiver is kept straight and away from metal
	Receiver distance is too far from transmitter	Move transmitter to a closer position
	Charging failure	Check power supply to motor is connected and active
Motor beeps x10 when in use	Battery voltage is low	Recharge with a compatible charger
Cannot program a single motor *(multiple motors respond)*	Multiple motors are paired to the same channel	Always reserve an individual channel for programming functions. Use Sleep Mode to program individual motors.

Section 8 - **Dimensions**

Small Endcap

2" (51 mm)

$1\frac{7}{8}$" (48 mm)

$3\frac{7}{8}$" (98 mm)

$1\frac{7}{8}$" (48 mm)

$2\frac{7}{8}$" (73 mm)

$\frac{11}{16}$" (17.5 mm)

2" (51 mm)

2" (51 mm)

$3\frac{3}{8}$" (86 mm)

Large Endcap

$3\frac{1}{4}$" (83 mm)

$2\frac{1}{4}$" (57 mm)

$4\frac{5}{8}$" (117 mm)

$2\frac{1}{4}$" (57 mm)

$3\frac{1}{2}$" (89 mm)

$\frac{5}{8}$" (16 mm)

$3\frac{1}{4}$" (83 mm)

3" (76 mm)

$4\frac{5}{8}$" (117 mm)

Shade Width

Roller Width

Fabric Width

$\frac{3}{4}$" (19mm)

$\frac{3}{16}$" (5mm)

$\frac{3}{4}$" (19mm)