

# Installation Instructions

## Battery Powered FlexShade by Draper

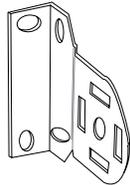
### ⚠ Caution

- 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 All brackets, fascia, and other hardware must be installed level. Shades must be level and square.
- ④ It is the installer's responsibility to make sure appropriate fasteners are used for mounting surface.
- ⑤ Please follow installation guidelines carefully. Failure to do so invalidates warranty.

### Mounting Brackets and Endcaps

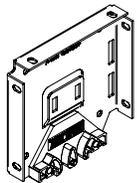
- ① Mark wall, jamb or ceiling for placement of mounting brackets.
- ② Drill small starter hole in mounting surface (if necessary).
- ③ Mount brackets or endcaps using appropriate fasteners for surface (see Fig. 1 for bracket and endcap types). For endcaps, snap on endcap covers.

### Mounting Brackets



Universal Bracket

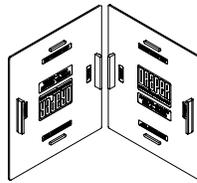
### Endcaps



Operator End  
(Left Standard)



Idler End  
(Right Standard)



Endcap Covers

Figure 1

### Retrofitting Battery-Powered Motor to Manual Shade Roller (skip this section if installing new shades)

**Please Note:** For 1½" rollers only.

- ① Retract shade. If necessary, remove fascia or headbox cover, then remove shade from brackets or endcaps by reversing steps in "Shade Installation" section below.
- ② Remove bead chain clutch from roller (see Fig. 2).
- ③ Slide battery powered motor into roller (see Fig. 2).
- ④ Continue to "Battery Mounting" and "Shade Installation" sections.

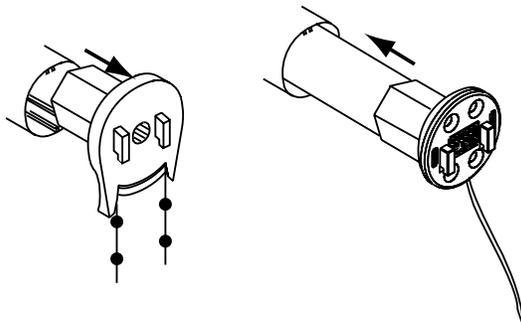


Figure 2

**For information on installing optional Solar Panel Kit please see page 3.**

### Battery Mounting

- ① Mount battery wands to wall using provided mounting clips (see Fig. 3). Be sure to locate the battery wands where they can reach the motor without interfering with shade/roller operation.

**Please Note:** If mounting the battery wands vertically, small plastic grips are provided to slide onto the battery pack and create a snugger fit in the bracket.

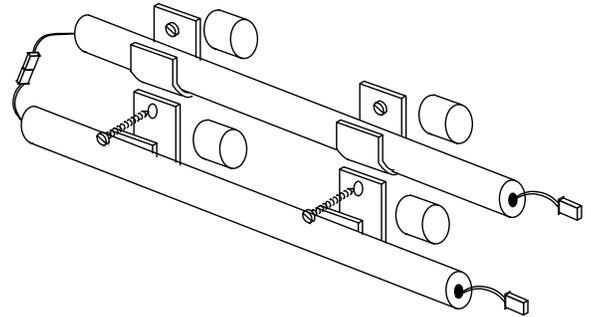


Figure 3

### Battery Wand Size

#### NiMH Battery Wand (Solar Rechargeable)

16 1/8" long x 1 1/16" diameter

#### Reloadable Wand (AA lithium Batteries NOT INCLUDED)

18" long x 1 1/16" diameter (screw-on cap is 3/4" diameter)

#### Battery Wand

16" long x 1 1/16" diameter

### Shade Installation

- ① Place operator (motor) end notches into slots on bracket, then depress spring-loaded pin on idler end and place in hole in endcap (See Fig. 4). Discard the chain guide cover and screw included in the hardware bag.

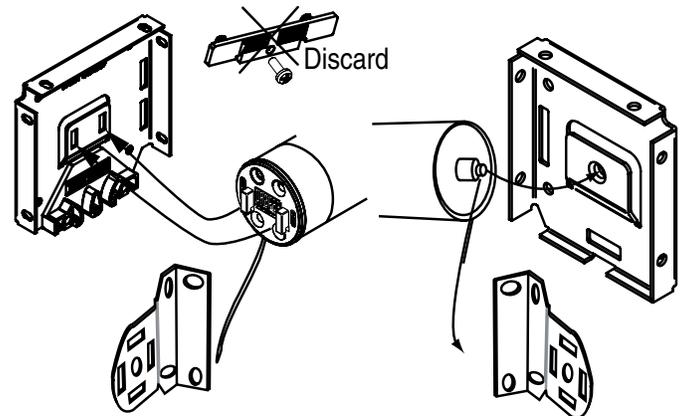


Figure 4

- ② Connect battery packs together, and to motor.

### Fascia

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

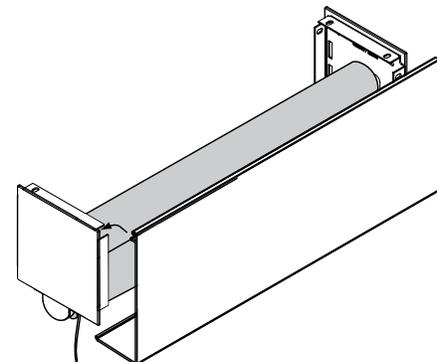


Figure 5

# DRAPER

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If you encounter any difficulties installing or servicing your Battery Powered FlexShade, call your dealer or Draper, Inc., Spiceland, Ind., (765) 987-7999, or fax (765) 987-7142.

## Surface Mount Headbox

- ① Snap endcap covers onto endcaps.
- ② Place endcaps into back/top portion of headbox. Using pre-drilled holes in endcaps, mark the back/top portion of headbox for drilling.
- ③ Drill holes in back or top, depending on whether you will be mounting the headbox to the wall or ceiling.
- ④ Attach headbox back/top and endcaps to wall or ceiling using mounting hardware appropriate for installation site conditions.
- ⑤ Mount battery wands somewhere outside the headbox (see "Battery Mounting" section above).
- ⑥ Install shade (see "Shade Installation" section above).
- ⑦ Place face cover on headbox (see Fig. 6).

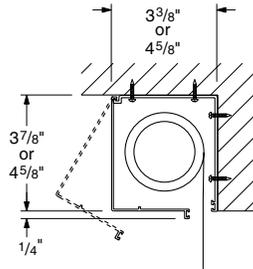
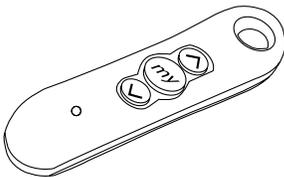


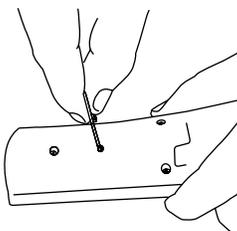
Figure 6

## RF Remote Programming Instructions

**Please Note: The motor has no programming on it so it must be learned and programmed to work on the transmitter that you have at the job. Here are the initial programming instructions.**



- ① Connect the battery wand to one motor. Select the transmitter/channel to which you plan to learn the motor. Press and hold the UP and DOWN buttons at the same time until the motor jogs, then release.
- ② Check the motor run direction by pressing either the UP or DOWN buttons. This is important because if you do step 3 without doing this step, then you will need to reset the motor. If you need to reverse the motor direction, then press the STOP button (middle button which might be labeled MY) for five seconds until the motor jogs. Check the direction again to make sure that it works.
- ③ Move the motor to its upper limit position. Press the STOP and DOWN buttons at the same time until the motor starts to move down, then release. You will stop the motor at its lower limit. You can use the UP and DOWN buttons to adjust the motor to the correct lower limit position if need be.
- ④ Once the motor is at its lower limit position, then press the UP and STOP buttons at the same time until the motor starts to move up, then release. The motor should move to the upper limit position in step 3 and stop.
- ⑤ Once the motor has stopped at its upper limit position, then press and hold the STOP button for five seconds until the motor jogs.
- ⑥ Now, you must put the motor into USER mode. Find the programming button which is a small button on the back or side of the transmitter and press it until the motor jogs. Once you have done this, then the motor will operate in normal fashion.



- ⑦ Disconnect power to this motor and move to the next in your installation and start with step 1. Reconnect motor to power when all motors are programmed.

## Reset Motor Instructions

If the motor is not working or responding correctly and you want to reprogram it from the beginning and clear all previous programming, then follow this.

- ① Using a paperclip, press and hold the program button on the motor head until the motor jogs 3 times. This erases all transmitters and limits.

## Setting an Intermediate Stop

This is done once the shade is in USER mode from the initial programming at top.

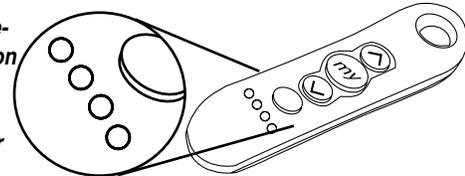
- ① Move the motor to the mid-point location that you want the stop located.
- ② Press and hold the STOP button until the motor jogs.
- ③ Now, if you hit the STOP button when the motor is standing still, it will move to that intermediate location.
- ④ If you want to delete the stop, then go to the intermediate stop and press and hold the STOP button until the motor jogs.

## Add/Delete a Channel/Transmitter

**To add a channel/transmitter:**

- ① Select the channel/transmitter that is currently operating the motor, then press the programming button until the motor jogs.
- ② Select the new channel/transmitter that you want to add to the motor, then press the programming button until the motor jogs.
- ③ The motor should now work on both the old and new channel/transmitter.

**Channel selector button on Multi-Channel Transmitter**



**To delete a channel/transmitter:**

- ① Select the channel/transmitter that is currently operating the motor and you want to keep, then press and hold the programming button until the motor jogs.
- ② Select the channel/transmitter that you want to remove, then press and hold the programming button until the motor jogs.
- ③ The motor should now only work on the channel/transmitter on step 1.

## Adjust Limits in User Mode

If your initial limits have changed or you want to fine tune a motor, you do not need to reset the motor and re-program it. You can just change the limits with these steps.

- ① Move the motor to the limit (upper or lower) that you want to change.
- ② Press and hold the UP and DOWN buttons until the motor jogs.
- ③ Move the motor to its new limit location.
- ④ Press and hold the STOP button until the shade jogs.

**Please Note: For instructions with Programmable Timer, please consult instructions provided with the timer.**

## Cleaning and Maintenance

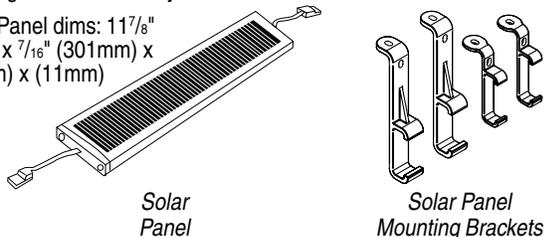
Idlers on motorized shades may occasionally need lubrication. If lubrication is required, apply a small amount of a lithium based grease direct to the idler pin.

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

## Solar Rechargeable Battery Instructions

Refer to the instructions on this page if you are using the optional solar charging kit for the Battery Powered FlexShade.

Solar Panel dims: 11<sup>7</sup>/<sub>8</sub>" x 1<sup>5</sup>/<sub>8</sub>" x 7<sup>1</sup>/<sub>16</sub>" (301mm) x (40mm) x (11mm)



Solar Panel

Solar Panel Mounting Brackets

### Determine Location of Solar Panel

The solar panel must always be installed indoors, directly against the window glass to allow as much natural light as possible to reach the panel.

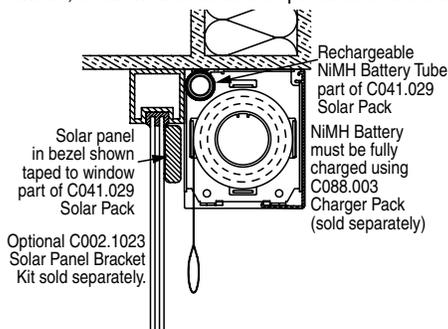
**⚠ CAUTION!** Never install the solar panel on any window glass allowing less than 65% light transmission (including Low E glass and/or window tinting), or obstructed by a window pane or bug screen.

Always leave the photovoltaic cells unobstructed.

The three components which make up the Solar Pack must be installed on the same side as the motor.

Install so that all components may be connected to the wire harness easily, and that the wire harness does not interfere with the free movement of the interior window covering.

The solar panel and battery must be mounted outside the headbox or footprint of the shade, to allow unobstructed operation of the shade.



### Mounting the Solar Panel

**⚠ CAUTION!** It is imperative that window hardware or framing does not collide with the solar panel!

Be careful to not damage the wire harness cables during installation.

If adhering the solar panel directly onto the window glass, determine the position of the solar panel prior to application of 2-sided tape to insure proper adhesion the first time.

### Glass Mounting

**⚠ CAUTION:** To insure a secure adhesive hold over a long period, prepare the inside window glass prior to mounting the solar panel. The VHB adhesive tape should never be touched directly with fingers or other contaminants prior to adhesion.

- ① Clean solar panel bezel corners and window area with alcohol prep pad. Let dry for two minutes.
- ② On a table, with the solar panel facing up, apply the 3M VHB 2-sided tape to four corners of the solar panel bezel.

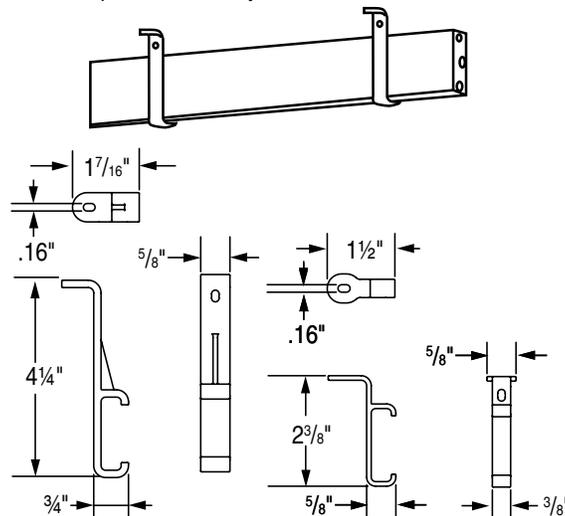
**Note:** The VHB tape is precut for your convenience between the top (facer) and bottom (backer) liners. With your fingers, lift off each precut adhesive piece so that it remains attached to the "facer" material. The opposite side of the tape should then be released from the back liner.

- ③ Remove the "facers" of the applied VHB tape. Position the bezel with solar panel facing to outdoors, then press entire panel with firm, even pressure into the glass for 10-15 seconds. The panel is now supported by the adhesive to glass bond but will require 24 hours of cure time to allow full strength characteristics. Do not disturb during this period.



## Mounting Brackets

- ① Determine location of brackets. Locate brackets so that solar panel will be against the window, and outside the headbox or footprint of the shade, to allow unobstructed operation of the shade.
- ② Pre-drill mounting holes.
- ③ Mount brackets using hardware (not included) appropriate for mounting surface.
- ④ Attach solar panel in brackets.
- ⑤ Continue installation of battery and shade as outline on page 1.
- ⑥ Connect solar panel and battery to motor.



## Battery State of Charge

The Battery is shipped from the factory inside the battery tube with a partial charge only.

## Battery Preparation

Have a service professional fully charge the battery using the compatible Solar Pack Rapid Charger.

Refer to Solar Pack Wall Charger Instructions.

**⚠ CAUTION!** Use of another battery charger is a safety hazard. Disconnect from AC wall receptacle upon completion of charge.

## Battery Tube Install Location

Once conditioned with a pre-charge, the battery tube assembly can be secured and hidden from view either behind, inside or next to the window covering product hardware.

**⚠ CAUTION!** If installing the battery vertically, always position it with the cable output upwards to reduce unrestrained wire from catching the shade.

## Connections

**⚠ CAUTION!** The wiring harness connecting the Solar Pack components must be protected from the movement of the motorized window covering.

**⚠ CAUTION!** Do not change the configuration of this system to include different connectors.

- ① Connect the wire harness to the motor.
- ② Connect the solar panel to the wire harness.
- ③ Connect the battery tube to the wire harness.

## Commissioning

### Activation of Motor

If the Solar Pack is being installed as an upgrade to an existing shade installation, there is no need to reprogram the motor.

If the Solar Pack is being installed with a new motor, follow the motor installation guide.

## Product in Use

### Normal Operation

After commissioning, the battery is trickle-charged by electrical energy generated by the solar panel. The energy is stored in the high capacity NiMH battery (acting like a reservoir) and the system provides uninterrupted service through many climatic seasons. It is normal for the battery to gain more energy in summer as compared to winter—the Solar Panel converts the intensity of light to energy upon availability.

### Excessive Energy Use

**⚠ CAUTION!** If daily motor activations exceed recommended cycles per day as stated in the Solar Performance Chart, the solar panel will not be able to "replenish" the battery as designed.

If the motorized shade does not operate due to an excessively diminished battery, the battery may require a full recharge.

If the battery no longer provides adequate power to operate your motor, a freshly charged replacement battery may be ordered.