

## Catalog Numbers • Les Numéros de Catalogue • Los Números de Catálogo: SF-ESxx

Country of Origin: Made in Canada • Pays d'origine: Fabriqué en Canada • País de origen: Hecho en Canadá

### DESCRIPTION AND OPERATION

ES Shades are a powerful solution for motorized, multi-banded, and coupled shades. A single motor is used to control multiple shades allowing for significantly lower motor counts on a project when value engineering is required. ES Shades also offers a variety of solutions for oversized shades and specialty brackets used for multi-angled windows and corner applications.

Utilizing the combined power of intelligent motors and Design Center software, the Motorized System can be configured for time-based events and sensor-based events. An astronomical clock provides unlimited cascading timers for adjusting shade position based on time of day, calendar, seasonal and sunrise/sunset. Light sensors can be used to adjust the shades to block harsh glare or with a Wattstopper System for daylight harvesting scenarios. Motion sensors can be used to trigger energy saving strategies. For example, if a space is unoccupied for set time the shades will close and the lights will turn off. Scenes can also be activated from a wall mounted keypad that will override automation settings.

ES shades are available with tubes from 2 inches up to 5.5 inches and brackets from 3 inches up to 5 inches to support a wide range of shade sizes. Pocket size, motor strength, and brackets may increase for bigger tubes, depending on the roll up. ES shades can be installed in pockets or standalone with a variety of fascia and closure options for any sized shade.

Tools Required for Installation:

- Drill
- Square
- Right Angle Drill
- Flat Head Screwdriver
- Driver Bit for Screws
- Tape Measure
- Extension Cord
- 3/16" Drill Bit
- Needle Nose Pliers
- Hack Saw
- Solarfective Test Switch

**NOTE:** These instructions apply only to models with Standard Limit motors and not to models with ILT RS485 motors

### SPECIFICATIONS

Voltage Supply .....	120V AC, 60Hz
Rated Current:.....	95A
Speed: .....	24RPM
Index Protection Rating .....	IP 31 (interior)
Limit Switch Type .....	Electronic
Limit Switch Capacity .....	300 Turns
Torque .....	6 Nm
Minimum Torque* .....	0.4Nm
Operating Temperature .....	32°F to 140°F (0°C to 60°C)
.....	(Interior use only)
Insulation Class .....	Class 1 for 120V AC
Thermal protection .....	4 minutes
Wiring .....	Parallel wiring allowed in accordance with
.....	NEC and local electrical codes.
Sound Level of motor** .....	< 38 dBA
Optional cables with NEMA plugs available in 3 ft, 6 ft, 12 ft, 18 ft, 24 ft	

\* Minimum Torque: Minimum application weight to ensure smooth operation.

\*\* Sound Level: Actual sound level will vary based on shade materials

### INSTALLATION

- 1** Install optional hanger along length of pocket ensuring seams between lengths of hanger are tight and flush. (Fig. 1) Temporarily installing a small piece of closer at joint will aid in leveling the two pieces of hanger.

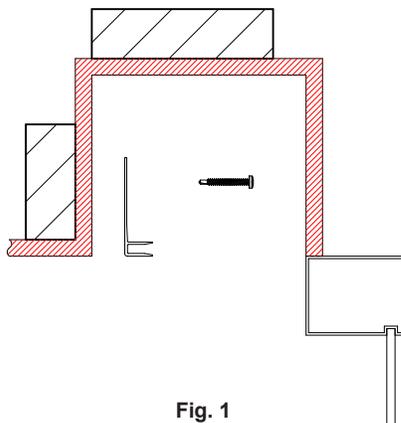


Fig. 1

- 2** For shades up to 120" in height, mount motor and idler bracket 3/4" off back of pocket. (Fig. 2) For shades with greater height or with tubes bigger than 2 1/2", increase this gap accordingly, ensuring Pocket dimensions are appropriately sized based on original project specifications.

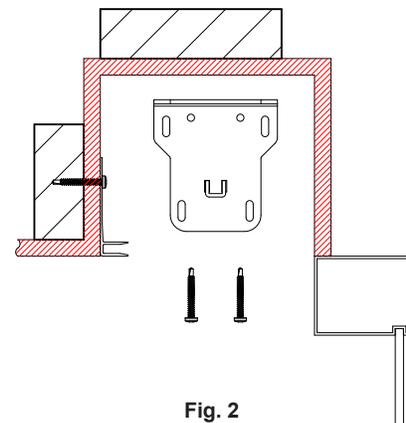


Fig. 2

- 3 Insert motor into tube, ensuring raised key of motor collar slips into keyway in tube. The motor wire should come off the top of motor with yellow cover plate facing down.

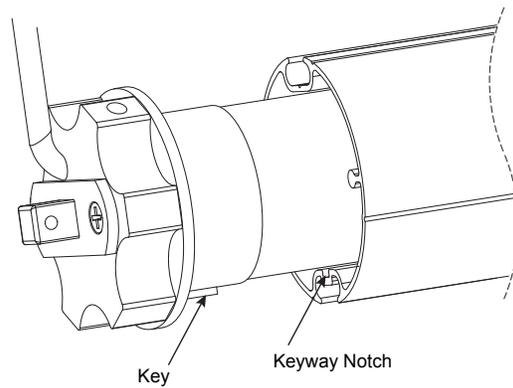


Fig. 3

- 4 **If a single-banded shade:** Insert idler bracket, then lift motor end up and over saddle and drop into place. (Fig. 4)

You can adjust the width of the shade to accommodate small differences between the window and shade width. The idler is adjustable, consisting of two parts: a sleeve and a notched insert (Fig. 5). The insert has numbered measurements on it. Each notch sinks the idler by 1/8". Remove the insert and rotate to the desired amount, lining that amount up with the arrow on the sleeve. The maximum amount the idler can be sunk is 3/4".

Ensure that the yellow cap on motor is facing down for easy access. Install cotton pin through motor bracket and bend it to secure in place

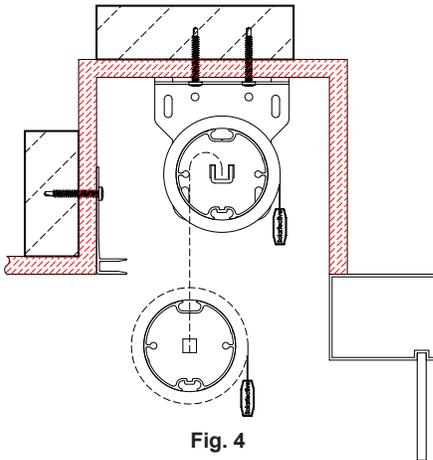


Fig. 4

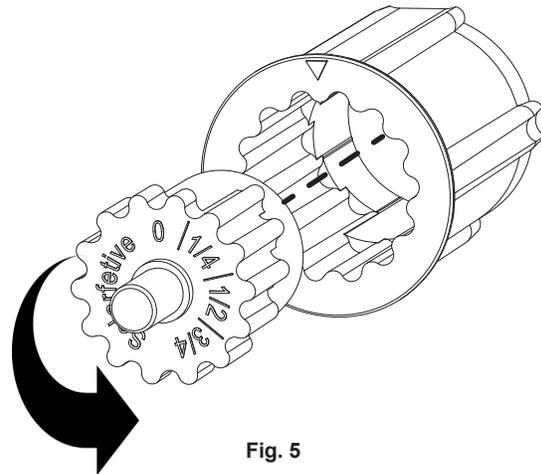


Fig. 5

- 5 **If a multi-banded shade:**

- For the first shade, insert axle bracket into axle plug at opposite end of shade. Lift motor and shade into place. Center axle bracket over mullion and secure in place.
- For middle shades, install axle into plug at opposite end of next shade and install on to the previous shade axle. Ensure that the spline channels are aligned from tube to tube as the shades are installed. Repeat this step until all center shades are installed.
- For the last shade, with idler bracket already installed, insert idler pin into idler bracket. Unscrew the last axle bracket. Lower ends of the shades at the axle location until axle can be inserted into the last shade tube, then push tubes up. Use a flat head screwdriver to center the axle bracket on the mullion and re-fasten it.

- 6 Connect shade to power supply using Solarfective test switch.

- 7 Remove yellow limit switch cap (Fig 6) and depress both limit switch buttons (Fig. 7). They will automatically lock in the depressed position. Operate the switch and check the motor operates correctly and in the correct directions. If not put the switch to the off position and switch the red and black wires and try again

- 8 Lower the shades to the sill. If the light gap down the side of the shade appears to not be in uniform shim down mounting brackets accordingly until fabric hangs plumb.

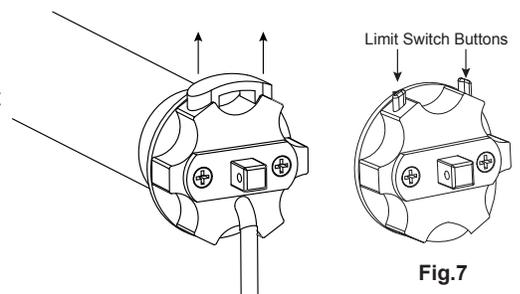


Fig.6

Fig.7

- 9 Lower shades all the way down until the hembar is about 1/4" from the sill. Ensure that the idler pin is all the way in the bracket and check each axle. The spacing between fabrics should be 1 3/4". If installing multi-banded shades, make sure the axle clips are tight to plastic plug to keep tubes from moving together or the idler pin coming out, which is usually the center groove. (Fig. 8)

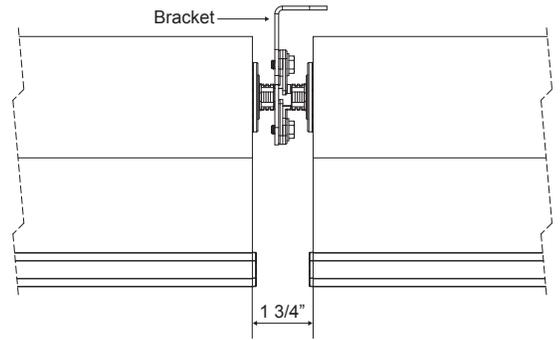


Fig. 8

- 10 Run shade up and down several times and note whether fabric is telescoping to one side. For example, if the fabric moves left- run a 10" piece of shim tape along the fabric where it contacts the tube on the right hand side. Repeat steps until shade rolls straight.
- 11 With multi-banded shades, it may be required to align hembars when the shades are in the open position. Note which hembars are low. Lower the shades until the tube is exposed and run a full width piece of shim across the low shade(s). repeat step until hembars are level.
- 12 To set the limits of the motor, position the shade in the down position and press the limit switch corresponding to the limit switch control chart below. Move the shade to the up position and press the 2nd limit button. Replace the yellow limit switch cap. (Fig. 9)

**Limit Switch Control**

	Motor on Left	Motor on Right
Upper Shade Limit	Yellow	White
Lower Shade Limit	White	Yellow

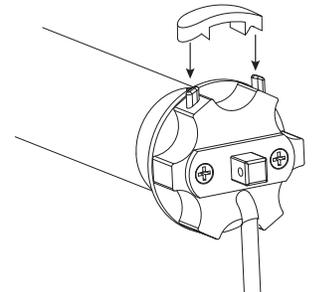


Fig. 9

- 13

Install optional closure. It should fit securely into the slot of hanger (Fig 10). If it does not, remove closure and using a standard flat head screwdriver, open the lip on the closure in a few places along the length and re-install. When using more than one piece, make sure you use a joiner to secure the pieces together to ensure alignment (see Fig 11).

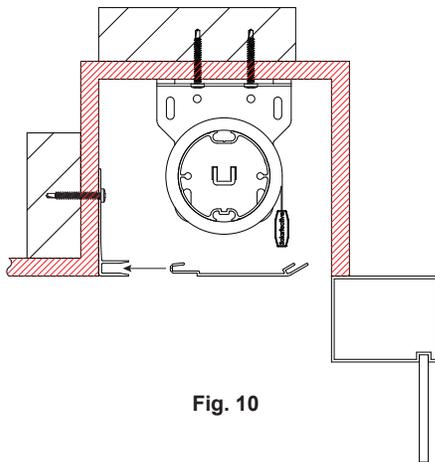


Fig. 10

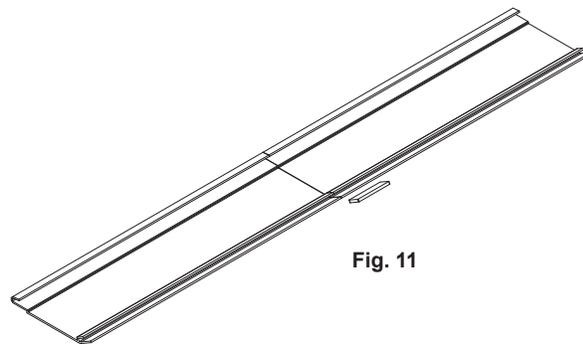


Fig. 11

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## LIMITED WARRANTY

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Solarfective Products LTD (“Manufacturer”) warrants that this window shade product, and/or specific components of the window shade product (collectively, “Products”), will be free from defects in materials and workmanship under normal use for the period of time specified herein. This Limited Warranty shall apply to each Product specified herein, beginning from the date first sold to the commercial or residential consumer (either, the “Buyer”) who uses or intends to use the Product, as evidenced by such Buyer’s proof of purchase, for the time periods set forth below:

- For all shade motors, controls, and power supplies manufactured by Legrand: lifetime of the motor, control or power supply
- For all shade motors, controls, and power supplies manufactured by Others: eight (8) years
- For all hardware including shade brackets, metal extrusions, and manual clutches: twenty-five (25) years
- For fabrics used as part of the shade system (for interior use only, regardless of whether fabrics are rated for outdoor/exterior use):
  - Mermet Fabrics:
    - Mermet GreenScreen fabric: five (5) years
    - All other Mermet fabrics: ten (10) years
  - Phifer Fabrics – twenty-five (25) years
  - All Others – five (5) years

Exclusions From this Limited Warranty: This Limited Warranty shall be null and void and no part of it shall apply if any one of the following occur: 1) the Product has not been properly installed by a qualified installer in accordance with all Manufacturer specifications; 2) the Product has been subject to unauthorized service; 3) the Product has been subject to mishandling, misuse, or abuse; 4) the Product has been modified; 5) the Product has suffered damage resulting from lightning, power surges, vandalism, fire, earthquake, acts of nature, or any other cause which the Product was not designed to withstand; 6) the Product has been used, or attempted to be used, for other than the normal or customary usage or for other than the Product’s intended use, including but not limited to exterior or outdoor use of a Product; 7) the Product has not been maintained in accordance with Manufacturer’s instructions; or 8) the Product has been damaged by battery decay or corrosion.

This Limited Warranty extends only to the original Buyer and is only valid if the Product is purchased either directly from Manufacturer or an authorized reseller. This Limited Warranty is not transferable. This Limited Warranty does not cover normal wear or tear or deterioration which occurs with the passage of time.

Batteries originally provided with a new Product, if any, are produced by a third party and are not warranted by Manufacturer. No employee, distributor, dealer, agent or representative is authorized to change the terms of this Limited Warranty in any way, to extend the warranty time periods, or to grant additional warranties, and no attempt to do any of the foregoing will be binding upon Manufacturer.

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Claims for defects in material and workmanship covered by this Limited Warranty must be made in writing to the dealer from whom the Product was originally first purchased within the warranty period stated above, and must include proof of purchase. Manufacturer may either send a service representative or have the Product returned to Manufacturer’s facility, at Buyer’s expense, for inspection. If judged by Manufacturer to be defective in material or workmanship, and to otherwise be covered by this Limited Warranty, the Product will be replaced or repaired at the option of Manufacturer, in its sole and absolute discretion, free from all charges for parts, labor, and shipping incurred by Manufacturer. Replacement labor, transportation costs, and any other costs or charges by the dealer, wholesaler, distributor, contractor, or installer are not covered by this Limited Warranty. Manufacturer may, in its sole discretion, replace a Product with any model it determines to be equivalent to the defective Product, or with a Product that has been factory refurbished. The remainder of any original warranty period will apply to any repaired Product or replacement Product.

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