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# Solera® Hybrid Awning

## Installation and Owner's Manual

(For Aftermarket Applications)

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# **Solera® Hybrid Awning**

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## **Introduction**

The Solera® Hybrid Awning is the next best thing to a power awning. Simple crank operation makes setting up camp fast and easy, and the Hybrid locks into place when retracted for safe travel.

Additionally, the pitch arm assembly allows for rain dump and adjustable pitch features. The pitch arm assembly also provides added stability.

This manual refers to the “drive side” and “idler side” throughout for various instructions. The “drive side” is the right hand side of the awning when facing the awning from the exterior of the unit. The “drive side” head has a crank eyelet. The “idler side” is the left hand side of the awning when facing the awning from the exterior of the unit.

### **⚠ CAUTION**

**THIS MANUAL PROVIDES OPERATIONAL PROCEDURES FOR THE SOLERA HYBRID AWNING. OPERATING THE SOLERA HYBRID AWNING IN ANY OTHER MANNER THAN DESCRIBED MAY RESULT IN PERSONAL INJURY, DAMAGE TO THE RECREATIONAL VEHICLE UNIT OR THE AWNING ASSEMBLY AS WELL AS VOIDING THE LIPPERT COMPONENTS LIMITED WARRANTY.**

## **Prior To Installation**

All screws supporting the awning assembly must have a backer within the structure of the wall of the unit. Refer to the unit manufacturer for proper location.

## **Resources Required**

- 1 to 3 People, Depending on Task
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Appropriate Drive Sockets
- Rivet Gun (If Needed)
- Silicone Sealant or Butyl Tape
- Screwdriver, Flat Blade
- Screwdriver, Phillips
- Medium to Fine File
- Silicone Lubricant
- Non-Permanent Method of Marking

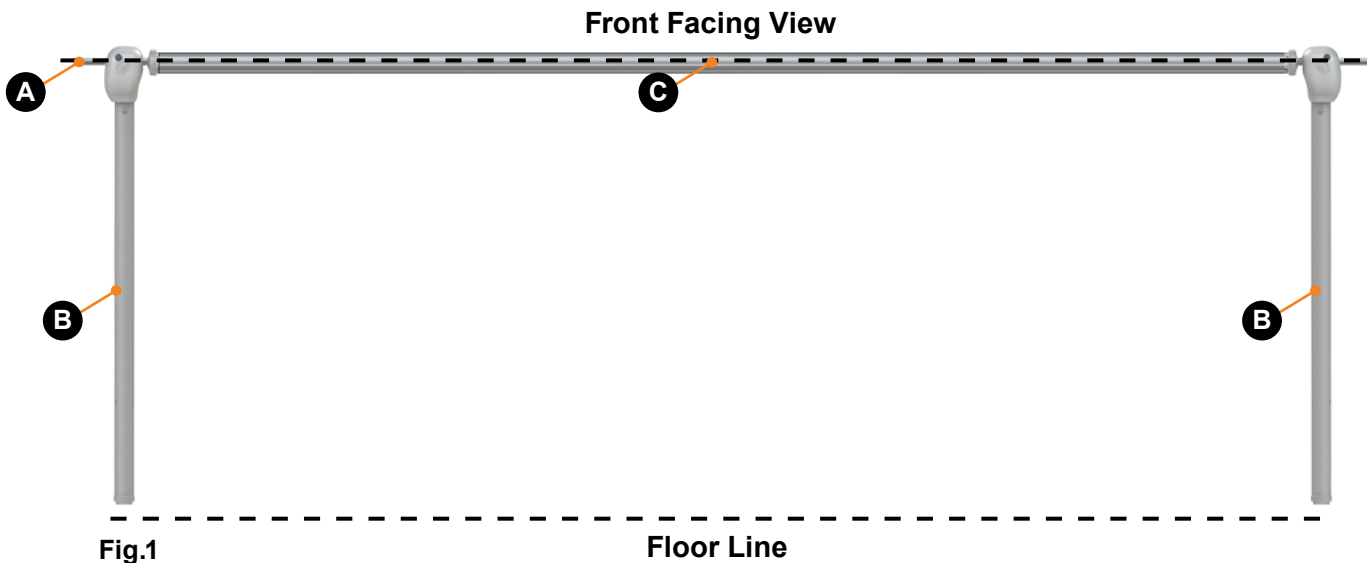


## Installation

### Installing the Awning Rail (if necessary)

**NOTE:** Awning rail not included.

1. Position the awning rail along the line where roof and wall meet or:
  - A. For pitched awnings - A minimum of 6.00" above doors or windows
  - B. For flat awnings - A minimum of 2.50" above doors or windows
2. Make sure the awning rail is level and parallel with the floor line of the unit (**Fig.1**).
3. After determining the awning rail's proper location, mark its position with a non-permanent method of marking.
4. Apply silicone sealant or Butyl tape to seal the back of the awning rail.
5. Align the awning rail on the wall and secure with #10 x 3/4" Zinc Phillips pan head screws (not included), using all fastener holes.

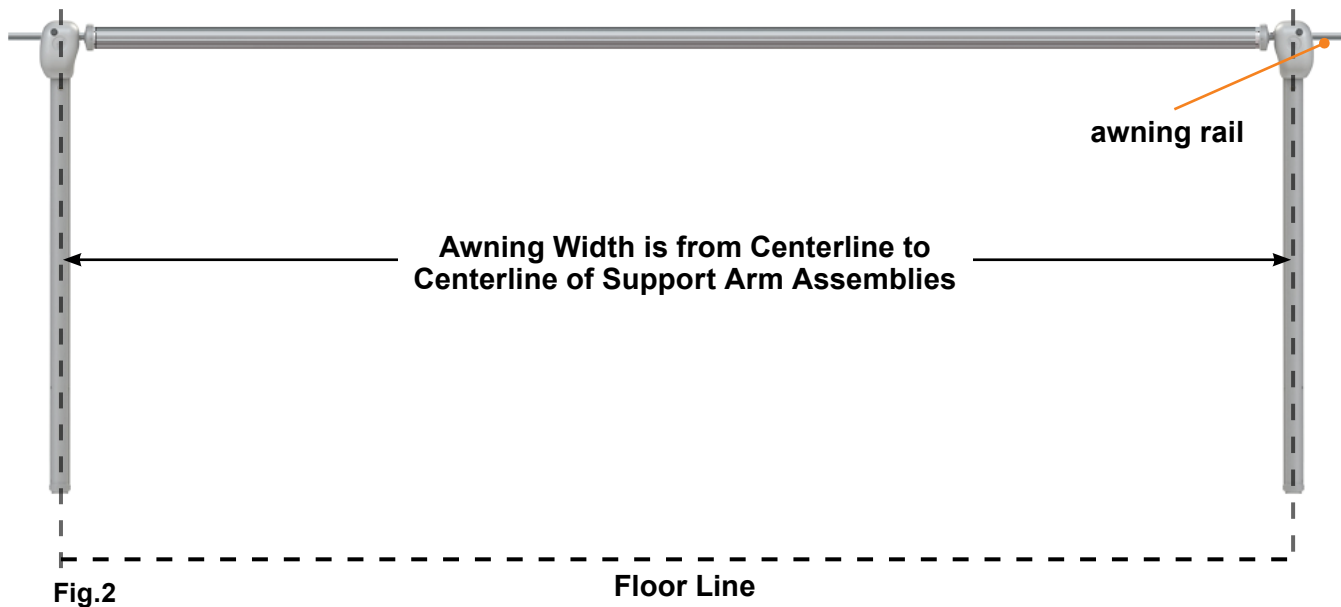


Letter	Description
A	Awning Rail
B	Support Arm Assembly
C	Roll Tube Assembly



## Installation

1. Mark the position of the centerlines of the support arm assemblies on the awning rail. Ensure the position of the support arm assemblies will not interfere with any lights, vents or other unit features.
2. Using a non-permanent method of marking, mark a perpendicular line from the awning rail down to the floor line. This is the centerline of the support arm assembly (**Fig.2**).





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3. Insert the drive head assembly shaft into the end cap (Fig.3). Align the holes and secure with the #8 waxed screw. Repeat process for idler head assembly at opposite end.

**NOTE:** Keep the head of the waxed screw approximately 1/8" away from being fully fastened to avoid compromising the structural integrity of the waxed screw.



Fig.3

4. Use a flat blade screwdriver to spread open either end of the awning rail channel on the installation side (Fig.4A).
5. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail channel.
6. Apply silicone lubricant to the inside of the awning rail channel (Fig.4B).

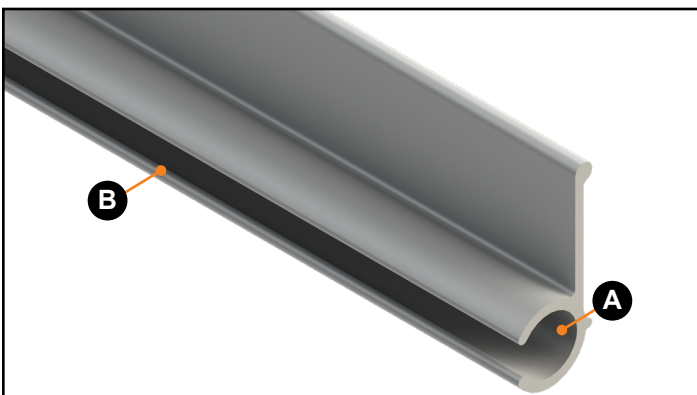


Fig.4

### Setting the Awning Height

Best commercial practice for setting the awning height is to push the top of the support arm assemblies up to be flush with the bottom of the awning rail. The awning height can be adjusted lower if desired, but ensure that the distance from the awning rail to the top of the support arm assemblies is consistent at both ends of the awning.

1. Make sure the awning assembly is square on the unit prior to mounting the bottom two screws.

**NOTE:** Four 3/16" x 0.450" aluminum rivets can be used in place of the two middle and two lower screws when installing support arms on laminated walls.

2. Remove the tape from the fabric.
3. Unroll a small portion of fabric.

**NOTE:** The following steps will require three people: One to feed the polycord into the awning rail channel and two to walk the support arm assemblies along the awning rail while the fabric slides into position.

1. Slide the polycord into the awning rail channel and walk the support arm assemblies and fabric down the awning rail channel until the support arm assemblies are in line with the centerline marks made previously.
2. Lift the support arm assembly up and secure by setting the awning assembly to the desired height and attaching it to the side of the unit with two #14 x 1 1/4" plain hex head self-tapping screws at the top (Fig.5) and two #14 x 1 1/4" plain hex head self-tapping screws at the bottom (Fig.6).

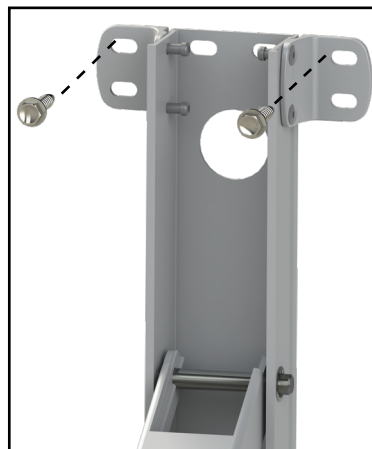


Fig.5

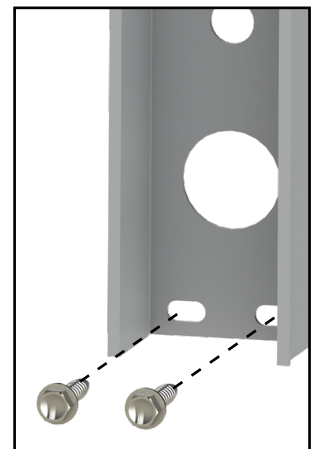


Fig.6



- Use the crank handle (Fig.10A) to extend the awning (see "Operation" section of this manual). Install the remaining two #14 x 1 1/4" plain hex head self-tapping screws at any of the three locations shown (Fig.7) in the center of the support arm. Repeat this process for the opposite awning support arm assembly.

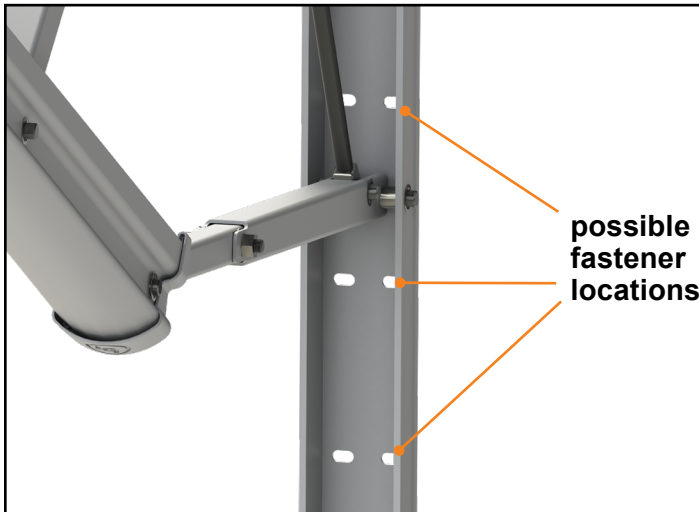


Fig.7

## Securing the Fabric

- Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
- Secure the fabric in the awning rail no more than 1.00" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw.
- Install the screw down through the awning rail into the fabric and the polycord (Fig.8).

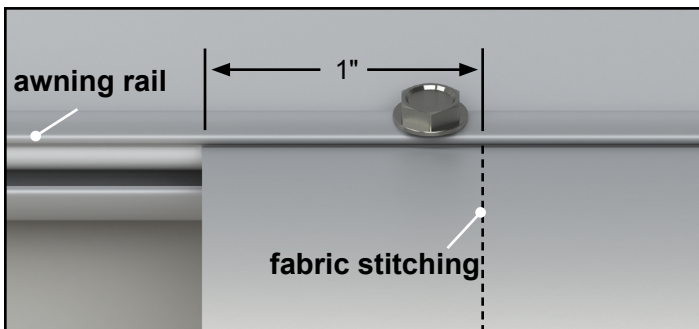


Fig.8

## Seal Wall Penetrations

Seal all fastener locations and wire penetrations to protect against water intrusion (Fig.9).

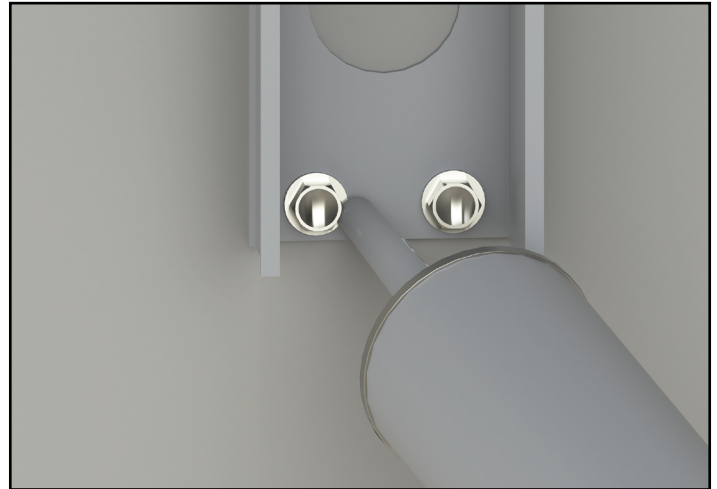


Fig.9





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### Operation

#### ⚠ CAUTION

DO NOT EXTEND AWNING WITHOUT UNLOCKING LATCH. EXTENDING AWNING WHILE LOCKED MAY CAUSE PRODUCT DAMAGE. ALWAYS CHECK LOCKING LATCH STATUS BEFORE EXTENDING AWNING.

If the unit is equipped with a locking latch, be sure to unlock the latch prior to extending the awning. After retraction and before travel, be sure to lock the support arms back into place.

#### Extending the Awning

1. Locate the awning crank handle for the awning (Fig.10A).
2. Insert the hook end of the crank handle into the eye bolt on the drive head (Fig.11A).
3. Turn the crank handle so the eye bolt rotates in a clockwise direction to fully extend the awning.

**NOTE:** Keeping the crank handle as parallel to the support arm assembly as possible makes it easier to extend or retract the awning.

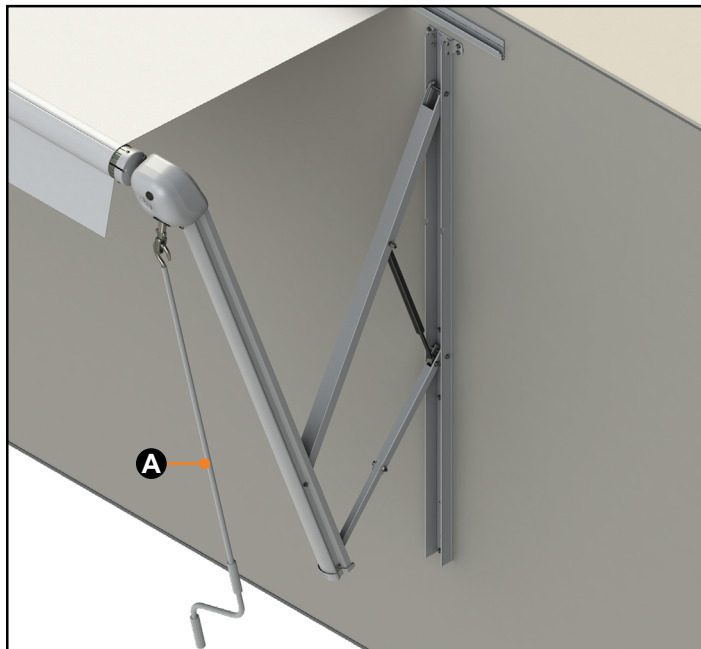


Fig.10

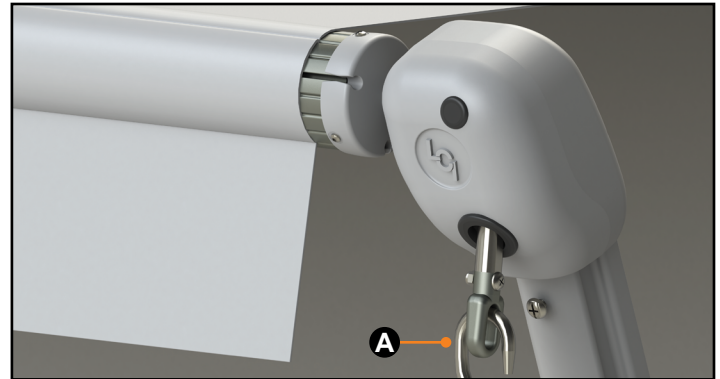


Fig.11

Awning extension is complete when the fabric is fully unrolled, the valance is hanging down from the roll tube and a section of the roll tube is exposed (Fig.12).

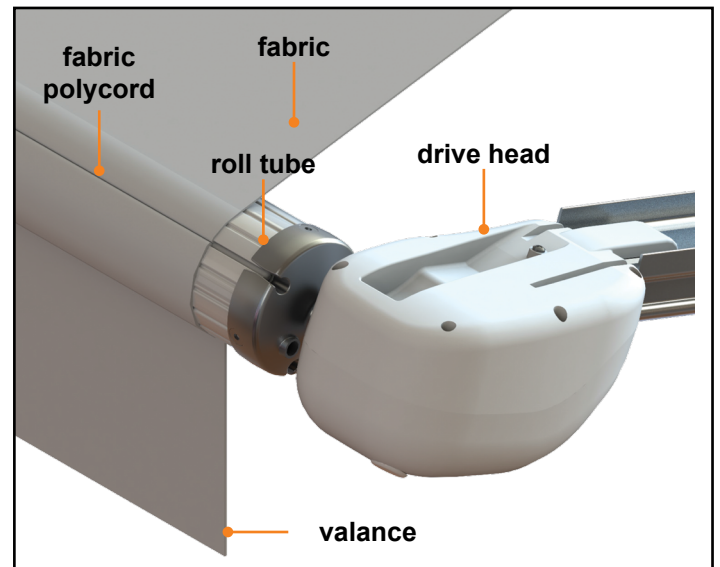


Fig.12

#### ⚠ CAUTION

TYING THE ROLL TUBE DOWN ONCE THE AWNING IS EXTENDED WILL NOT ALLOW THE FREE FLOATING SUPPORT ARMS TO WORK AS DESIGNED AND MAY CAUSE DAMAGE TO THE AWNING OR UNIT.



### Retracting the Awning

The awning can be retracted without resetting the pitch (see Adjusting Pitch).

1. Locate the crank handle for the awning (**Fig.10A**).
2. Insert the hook end of the crank handle into the eye bolt on the drive head (**Fig.11A**).
3. Turn the crank handle so the eye bolt rotates in a counterclockwise direction to fully retract the awning.

**NOTE:** Keeping the crank handle as parallel to the support arm assembly as possible makes it easier to extend or retract the awning.

### Adjusting Pitch

**NOTE:** The awning will pitch itself to purge the pooling of excess water and may dump a significant amount of water without notice.

**NOTE:** Pitch can be set by adjusting the pitch arm to tip one side of the awning to allow water runoff.

1. Extend the awning to the fully open position.
2. Choose the side of the awning for optimum shade or convenient water runoff. Pull downward on the joint of the pitch arm until desired pitch is set (**Fig.13A**). Belleville washers and bolt (**Fig.13B**) allow for the joint to remain in the position set by the operator.

**NOTE:** Some awnings are equipped with a 2-position pitch arm (**Fig.14**). The 2-position arm can be set in the pitch position or snapped into a straight position by pushing the release button (**Fig.14A**) and sliding the sleeve (**Fig.14B**).

**NOTE:** Do not push the joint of the pitch arm up past the point where the two sections are in a straight line. This will put tension on the gas strut, which can cause the strut to break.

**NOTE:** The awning can be retracted without resetting the pitch.

**NOTE:** If the pitch arm does not hold position, it can be tightened by adjusting the bolt (**Fig.14C**) in the center of the joint.

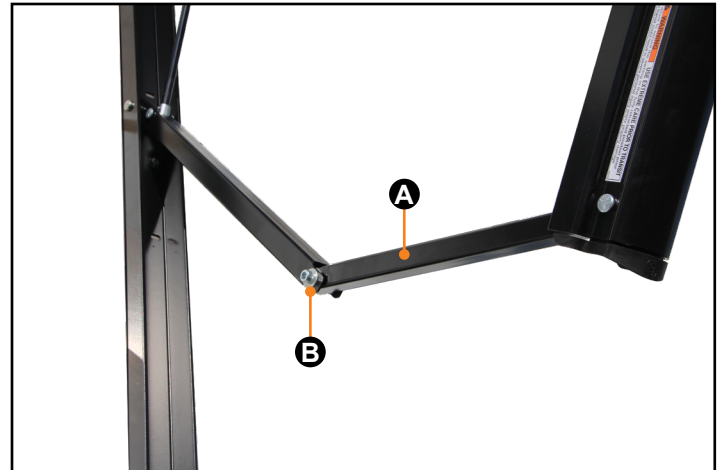


Fig.13

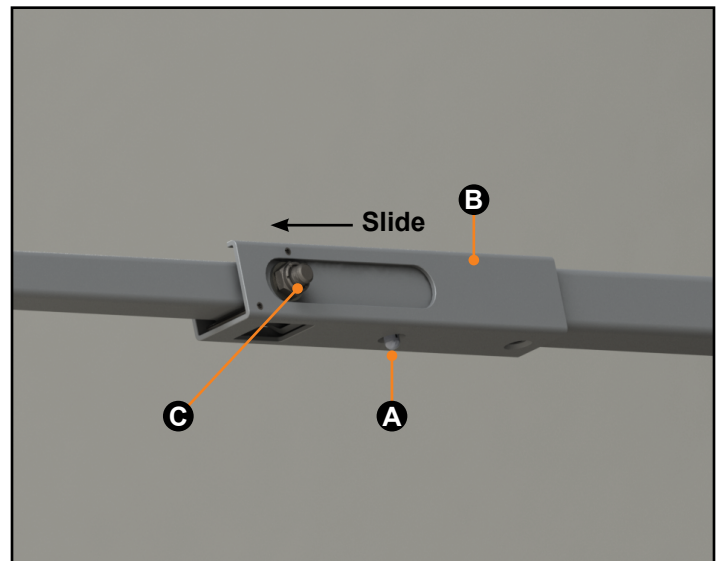


Fig.14





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### Solera® Hybrid Awning Troubleshooting

What's Happening?	What Should Be Done?
Awning won't open or close.	If optional travel locks are installed, ensure that they have been unlocked.
Awning pitch won't stay in the flat position.	Check for bad gas strut.
	Check pitch arm bolt for proper tension. (High winds can cause the pitch arm to deviate from the flat position due to the built-in safety feature of the awning.)
	Make sure all 3 washers are in the proper location of the pitch arm.
Awning doesn't close all the way.	The awning is considered completely closed as long as the outer arm is overlapping the mount arm. This overlap can vary.
	Ensure there are no obstructions in the support arm assemblies preventing the awning from closing.
	Verify the fabric is square from unit to roll tube and is rolling up straight on the roll tube.
Awning seems to wobble when extending or retracting.	Ensure the bolts that hold the head to the support arm assemblies are tight.
	Ensure the end caps are seated properly on the roll tube.
	Ensure the shaft coming out of the head going to the end cap isn't bent.
	Ensure the mount arms are properly secured to the wall.
	Ensure no part of the support arm assemblies are bent.
	Ensure the wear collar spacers are all properly located in the support arm assemblies.
Awning Rolls Up Backward	The awning fabric should always be above the roll tube. However, if the crank handle is operated past full extension, the awning will roll up backwards. This is not a defect. To correct the fabric orientation, simply operate the crank handle in the retract direction and the awning will then extend to its correct orientation and normal operation can resume.



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## Maintenance

### Fabric Care

If the awning is retracted while wet, extend the awning and let it dry as soon as conditions allow before retracting. This will help prevent the formation of mildew and add greatly to the life of the awning. Mildew does not form on the fabric itself, but on the accumulated dust, dirt and grime.

Periodically clean vinyl or woven acrylic fabric as follows:

1. Make a mixture of 1/4 cup of dish soap to 5 gallons of warm water.
2. Liberally apply the mixture on the top of the fabric.
3. Retract the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well.
4. Extend the awning and hose off with fresh water. Repeat if necessary.
5. Allow to dry before retracting awning.

## Additional Product Information

Additional information about this product can be obtained from [www.lci1.com/support](http://www.lci1.com/support) or by downloading the free myLCI app. The app is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

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