SOLERA® AWNING SMART ARM™

OWNER'S MANUAL

LIPPERT COMPONENTS®

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Introduction

The Solera® Smart Arm™ 12V DC Power Awning features a touch pad that is nested in the awning arm, so the awning can be extended and retracted without going inside the unit. It also features an optional infrared sensor that will activate the awning's security lights if a moving heat source is detected. It also has an optional wind sensor that will automatically retract the awning in case of severe winds. The awning light has a new low voltage alert system. If the voltage gets below 11V the awning light will automatically start flashing when in use. Also, the awning light has three stages of brightness: low, medium and high.

Additional information about this product can be obtained from 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.
iTunes®, iPhone®, and iPad® are registered trademarks of Apple Inc.
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For information on the assembly or individual components of this product, please visit: https://support.lci1.com/solera-smart-arm .

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels. This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

⚠WARNING

This manual provides operational procedures for the Solera Awning Smart Arm. Operating the Solera Awning Smart Arm 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.

⚠WARNING

Moving parts can pinch, crush or cut. Holding the touch pad from both sides can cause serious bodily injury if the awning is retracted completely. Press the buttons from the touch pad side only.

⚠CAUTION

The "CAUTION" symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

⚠CAUTION

Do not tie down the roll tube, screen room or living room after awning has been extended. Tying down the roll tube 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.

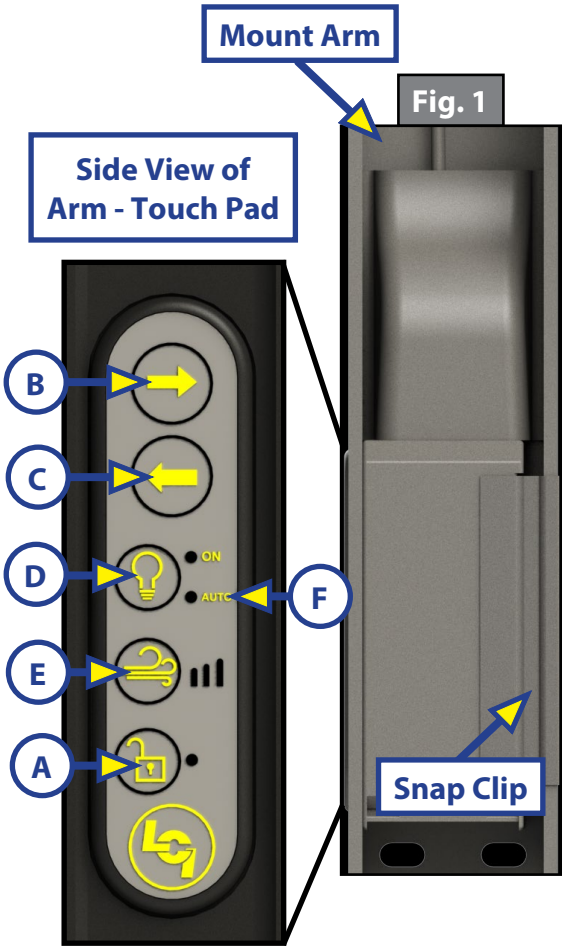
Operation

Extending the Awning

1. Verify the unit's battery is fully charged and connected to the electrical system.
2. To turn the awning controller on, press and hold the lock button (Fig.1A) for three seconds. The green LED will illuminate when the awning is on.
3. Press and hold extend → arrow (Fig.1B) until the awning is extended completely.

NOTE: For the auto-extend feature to function, the optional wind sensor must be installed. To use the "One Touch" feature, press the extend → arrow (Fig.1B) twice within two seconds.

NOTE: The awning fabric should always be above the roll tube. However, if the extend button is engaged too long or extend is hit inadvertently instead of retract, the awning will roll up backward. This is not a defect. To correct the fabric orientation, press the retract ← button (Fig.1C). The awning will then extend to its correct orientation and normal operation can resume.



Retracting the Awning

1. Verify the unit's battery is fully charged and connected to the electrical system.
2. To turn the system on, press and hold the LOCK button (Fig.1A) for three seconds. The green LED will illuminate when the system is on.
3. Press and hold the RETRACT ← arrow (Fig.1C) until the awning is fully retracted.

LED Lights - Optional

The awning can be ordered with or without light kits.

For awnings manufactured prior to 7/26/17.

1. Press and hold the lock button (Fig. 1A) for three seconds to turn on the awning controller.
2. Then press the light button (Fig.1D) to turn on the LED light strip.
3. The lights will stay on until the light button (Fig. 1D) is pressed again.

For awnings manufactured after 7/26/17.

1. Press the light button (Fig.1D) to turn on the LED light strip.
2. There are three light levels available:
   - **A.** Press light button (Fig.1D) once for the low setting or 10% illumination.
   - **B.** Press light button (Fig.1D) twice for the medium setting or 30% illumination.
   - **C.** Press the light button (Fig.1D) three times for the high setting or 100% illumination.
   - **D.** Press the light button (Fig.1D) four times to turn off the LED light strip.

NOTE: The light goes to 100% illumination if it is off and then is turned on by an external light input, by CAN bus or if motion is detected by the IR sensor with the AUTO mode on.

IR Sensor - Optional

For additional safety and security, the optional IR sensor will automatically turn on the LED Lights if a moving heat source is detected during “no-light” conditions. The IR sensor range reaches out approximately 8 feet in a 180-degree radius from where it is mounted on the unit.

1. Press and hold the light button (Fig. 1D) until the red LED AUTO light (Fig.1F) comes on. The IR sensor is now operational.
2. To discontinue IR sensor function, press and hold the light button (Fig.1D) 3-5 seconds, and the red AUTO light will turn off. The IR sensor is no longer operational.

Wind Sensor - Optional

The optional Wind Sensor will automatically retract the awning if severe wind is detected, based on the wind setting level programmed by the operator.

1. Press and hold the lock button (Fig.1A) for three seconds to unlock the controller. The green LED will illuminate.
2. Press the wind button (Fig.1E) from 1-3 times, depending on the amount of wind sensitivity desired.
3. The amount of wind sensitivity will be displayed via the three LED lights next to the button.

NOTE: The levels of wind sensitivity range from 1-3. Level 1 requires more wind (least sensitive) to trigger the feature. Level 3 requires less wind (most sensitive) to trigger the feature.

NOTE: When the awning is activated by the Wind Sensor, the awning light will flash as a notification it is preparing to close.

NOTE: Any time the awning is retracted for any reason (by the operator or due to strong wind), the desired level of wind sensitivity will need to be set (see Step 2 to set sensitivity). The awning can also be extended without activating the wind sensor.

NOTE: Auto extend can be used if the arm has the wind sensor installed. To use the “One Touch” feature, press the extend ➡ arrow (Fig.1B) twice within two seconds.

⚠ CAUTION

During incidents of high wind, heavy rain or extended time away from the unit, it is advisable to retract the awning completely to prevent damge to the awning and the unit.

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.
3. Pull downward on the joint of the pitch arm until desired pitch is set (Fig. 2A). Belleville washers and bolt (Fig. 2B) allow for the joint to remain in the position set by the operator.

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. 2B) in the center of the joint.

NOTE: Some awnings are equipped with a two-position pitch arm (Fig. 3). The two-position pitch arm can be set in the pitch position or snapped into a straight position by pushing the release button (Fig. 3A) and sliding the sleeve (Fig. 3B).

NOTE: Do not push the joint of any 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.

Fig. 2

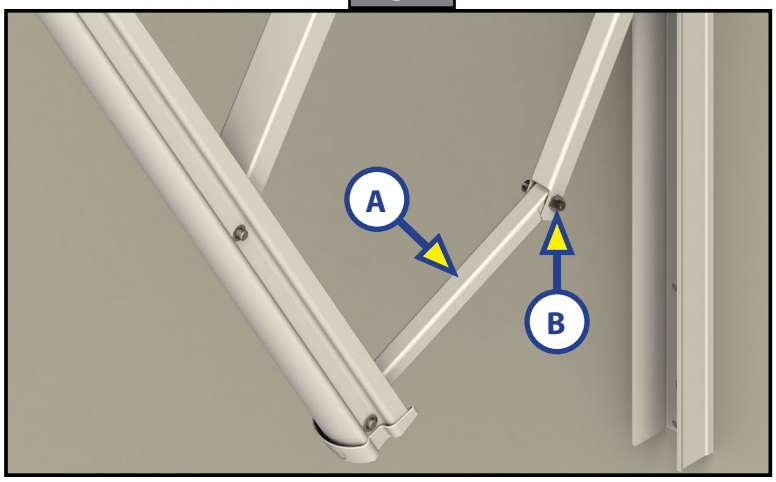
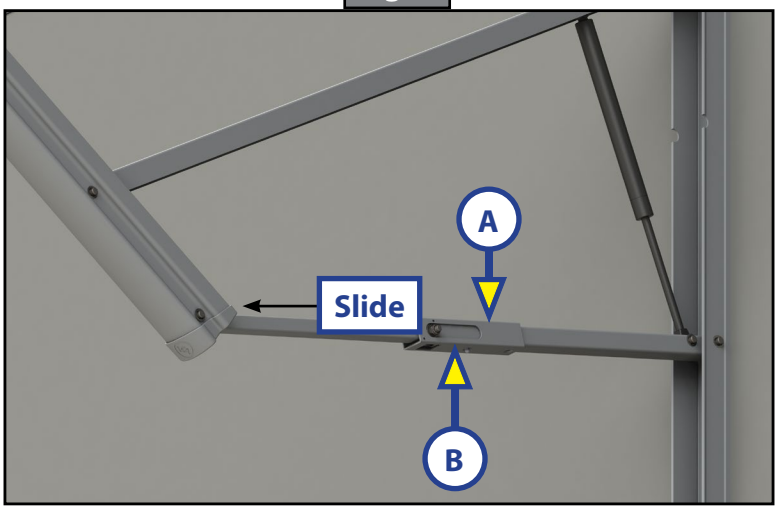


Fig. 3



Manual Override

In the event of power loss or motor failure, the awning can be extended and retracted manually. Perform the following procedure to manually retract the awning.

1. Remove the rubber grommet (Fig. 4) from the drive head assembly, exposing the manual override nut on the motor.
2. Using a 7/16" socket and a cordless or electric drill or screw gun, spin the manual override nut counterclockwise to retract the awning (Fig. 5).

NOTE: Use caution when retracting the awning manually. The use of a step stool or ladder may be required to completely retract the awning.

3. When the awning is completely retracted, replace rubber grommet in the drive head assembly (Fig. 4).

NOTE: The motor's internal drive system prevents the awning from moving (extending or retracting) on its own. If the motor is damaged or disabled, secure the awning in the retracted position with a strap around both the outer arm and the mount arm (Fig. 6) before the manual override nut is released.

Fig. 4

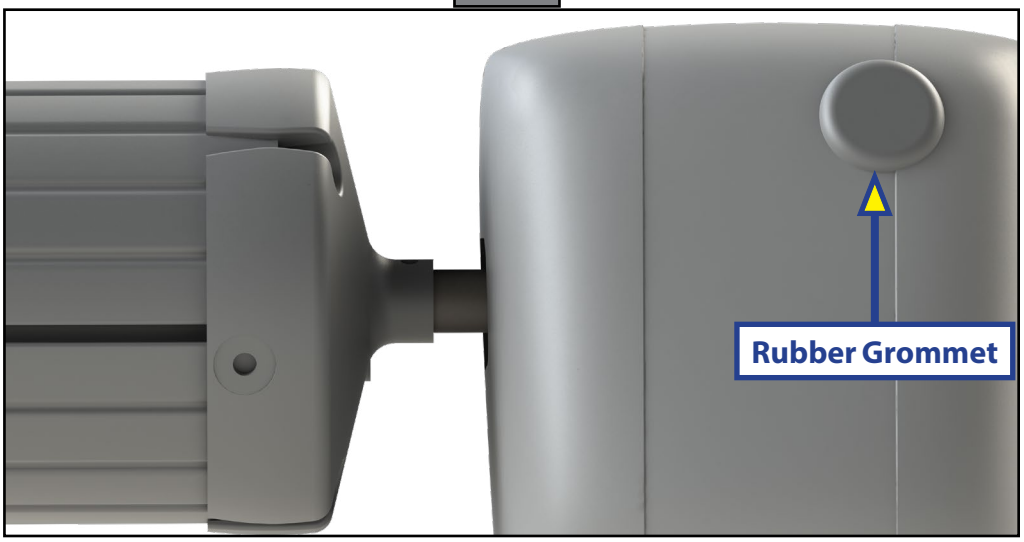
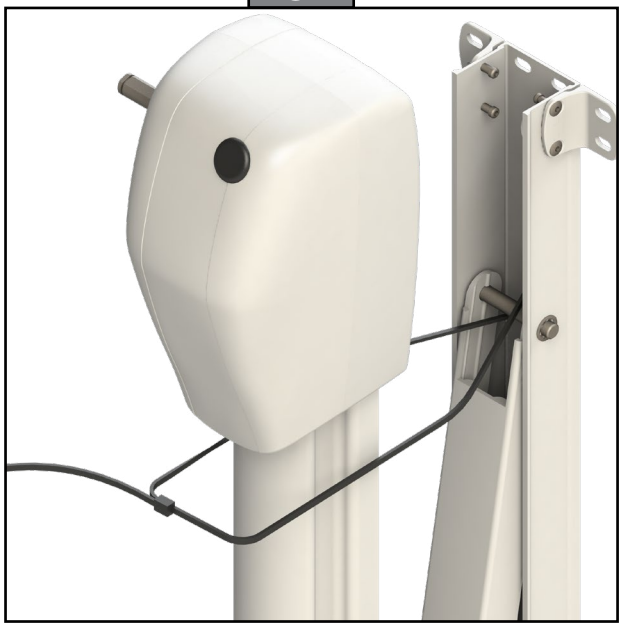


Fig. 5

Fig. 6



Troubleshooting

What Is Happening?	What Should Be Done?
Awning won't open or close.	If optional travel locks are installed, make sure that they have been unlocked.
	Verify the fuse is good.
	Motor overheated, thermal breaker has tripped, auto resets once cooled.
	Check for power at the motor when the switch is in the extended or retracted position.
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 three 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.
	Motor overheated, thermal breaker has tripped, auto resets once cooled.
	Verify the fabric is square from the unit to roll tube and is rolling up straight on the roll tube.
Lights won't work.	There is a resettable fuse that can take up to 30 seconds to reset.
	Make sure to have 12V DC to the red wire on the light.
	Double check power coming out of the touch pad.
Awning seems to wobble when extending or retracting.	Make sure the bolts that hold the head to the support arm assemblies are tight.
	Make sure the end caps are seated properly on the roll tube.
	Make sure the shaft coming out of the head going to the end cap isn't bent.
	Make sure the wear collar spacers are all properly located in the support arm assemblies.
Awning works in the opposite direction of what switch shows.	Wires going to awning have been reversed or switched. Reverse the wires.
Awning rolls up backward.	This is not a defect. To correct the fabric orientation, simply operate the awning in the retract direction and the awning will then extend to its correct orientation and normal operation can resume.

Error Codes For Assemblies Produced After May 2018

Level 1 Fault

If moisture is detected in the main, 12-pin connector (Level 1 fault) the interior extend switch will be locked out, as well as the interior awning light control.

NOTE: There will be NO lock-out of the retract function.

If a Level 1 fault is detected, the touchpad lock LED (Fig.1A) will blink continuously (same as a low voltage fault) to alert moisture is detected. While the interior extend switch and light will be locked out, the exterior touchpad will remain functional (unless a Level 2 fault is also found).
On equipped units, OneControl functionality will not be actively locked out, however water in the connector can prevent operation. If a Level 1 Fault has not been detected in the previous 100 seconds, pressing any touchpad button will clear the fault, as will a power cycle on the Smart Arm controller.

Level 2 Fault

If moisture is detected in the touchpad or controller board (Level 2 fault), the touchpad lock LED will also blink continuously. The exterior touchpad extend and light buttons will be locked out until a special touchpad button sequence is performed by the user, which allows for a limited-time operation. The interior switches remain functional on a Level 2 fault, as does OneControl. A power cycle will not clear a Level 2 fault. The following sequence must be per-formed:

1. Press touchpad extend button
2. Press touchpad retract button
3. Press touchpad light button
4. Press touchpad wind button
5. Hold touchpad unlock button for 10 seconds.

Once this unlock procedure is done, the unlock LED will remain on solid. The touchpad buttons function until the mode times out or the user locks the touchpad by depressing the lock button. If no buttons are pressed, the controller will re-lock automatically after 3 seconds. If a button is pressed before 3 seconds has passed, the timeout will be extended by another 3 seconds.

Awning Actively Extending: If a Level 1 or Level 2 fault is detected while the awning is extending or auto-extending, the awning will take special action to stop extending, and auto-retract to the fully retracted state. The appropriate fault will be set in the controller's memory.

Awning Actively Retracting: If a Level 1 or Level 2 fault is detected while the awning is retracting, the awning will not take any special action. The appropriate fault will be set in the controller's memory.

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.

NOTE: Mildew does not form on the fabric itself, but on the accumulated dust, dirt and grime.

Periodically clean vinyl or woven acrylic fabric using a mixture of ¼ cup of dish soap and five gallons of warm water.

1. Liberally apply the mixture on the top of the fabric and retract the awning for five minutes. This will applythe mixture to the bottom of the fabric as well.
2. Extend the awning and hose off with fresh water.
3. Repeat if necessary.
4. Allow to dry before retracting.

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Lippert Components, Inc.
Ph: (574) 537-8900 | Web: lci1.com | Email: customerservice@lci1.com