Solera®

BY LIPPERT

3000OG SERIES SOLAR AWNING

OWNER'S MANUAL

Scan for product support

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Introduction

Lippert's Solera® OG (Off-Grid) brand awning installs like a regular awning. However, with Renogy's proprietary thin-film solar technology, Lippert awnings provide the extra benefit of up to 300 watts of solar power without the labor, expense, additional weight and roof intrusion of installing conventional rigid panels.

NOTE: The actual wattage is defined by the awning fabric roll width along the unit wall.

Renogy, a renewable energy company that specializes in solar solutions for off-grid living, is pioneering the awning integrated photovoltaic technology (AIPV) innovation. This first-generation retractable, shatterproof, laminated vinyl awning features power generation up to 300 watts in the extended position and 200 watts in the retracted, travel or stored positions.

The Solera® Power Awning features an internal motor to steadily operate the awning. Additionally, the friction joint allows for rain dump and adjustable pitch features, and there is no rafter arm to lock in place. The friction joint also provides added stability.

Additional information about this product can be obtained from lippert.com/support or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

For additional support on this product go to: https://support.lci1.com/solera-3000-series-12v-power-awning

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 Lippert limited warranty.

⚠WARNING

The "WARNING" symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

⚠WARNING

IMPACT OR CRUSH HAZARD - Pitch MUST be set to lower one side of the awning after the awning is extended. Failure to set pitch could lead to water, snow or debris accumulating on the awning fabric, which could cause the awning to move unpredictably, become unstable, and bend or collapse causing death or personal injury or property damage.

⚠WARNING

IMPACT OR CRUSH HAZARD - Do NOT adjust pitch manually if there is already pooling water, snow or debris on the awning fabric. Keep the awning arm area clear of people and objects when in operation. Failure to heed these warnings could cause severe personal injury and/or property damage.

⚠CAUTION

The awning MUST be retracted completely during incidents of high wind, heavy rain and/or during any extended time away from the unit. Failure to retract the awning in those instances could cause extensive damage to the awning and unit.

⚠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

This manual provides operational procedures for Solera® Power Awning. Operating the Solera® Power 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.

⚠CAUTION

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

NOTE: Some units may not use the Lippert switch (Fig. 1).

Extending the Awning

⚠WARNING

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⚠CAUTION

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.

1. Verify the RV battery is fully charged and connected to the electrical system.

NOTE: if the unit is equipped with a locking latch, be sure to unlock the latch prior to extending the awning.

2. Press and hold EXTEND (Fig.1A) until the awning is extended completely.

NOTE: Extension is considered complete when the fabric is completely unrolled, the valance seam is visible and a section of the roll tube is exposed (Fig. 2).

NOTE: The awning fabric should always be above the roll tube. However, if the extend switch 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. The awning will then extend to its correct orientation and normal operation can resume.

Fig. 1

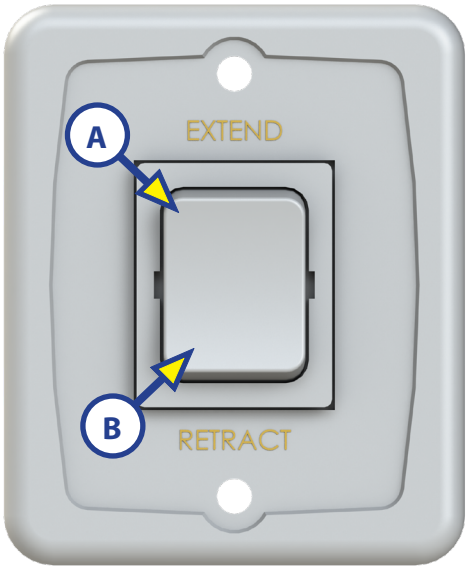
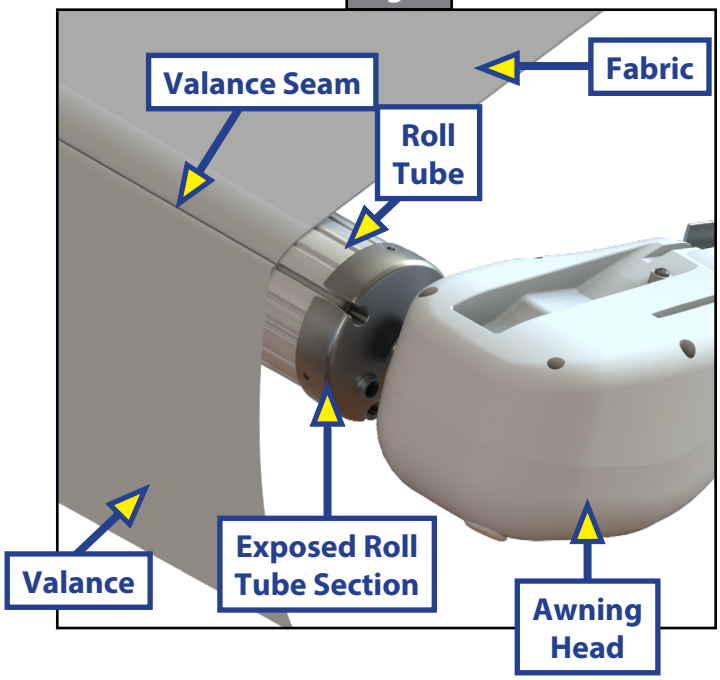


Fig. 2



1. Set pitch using pitch arms with gas strut (Fig. 3A).
Scan this QR Code to watch the video on How to Correctly Pitch a Lippert Awning.

A. Choose the side of the awning for optimum shade or convenient water runoff. Pitch **MUST** be set by adjusting the articulating arm to tip one side of the awning to allow water runoff.

NOTE: Before manually adjusting pitch, make sure there is no water or snow pooling or debris present on top of the awning fabric. Use a long-handled tool that will not puncture the fabric (e.g. a broom) to push up on the awning fabric to drain off the water, snow or debris.

B. Pull downward on the joint of the pitch arm until desired pitch is set (Fig. 3). A bolt, Belleville washers and nut (Fig. 4A) allow the joint to remain in the position set by the operator. If pitch arm does not hold position, see "Adjusting Pitch Arm Fasteners" in the Troubleshooting section of this manual.

NOTE: Do not push the joints of the articulating arms up past a straight line (Fig. 5A). This will put tension on the gas strut, which can cause the strut to break.

Fig. 3

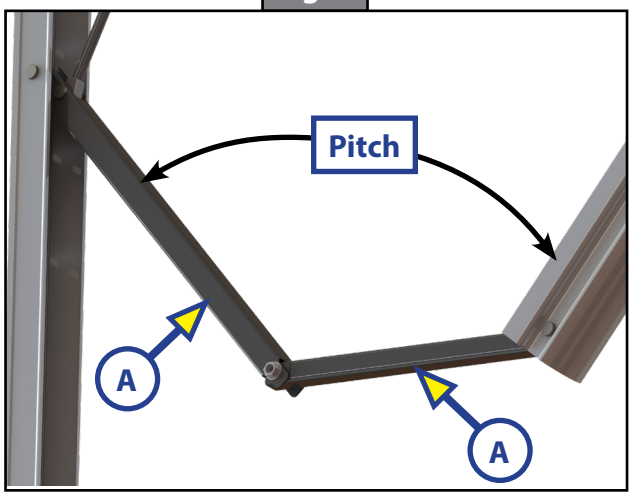


Fig. 4

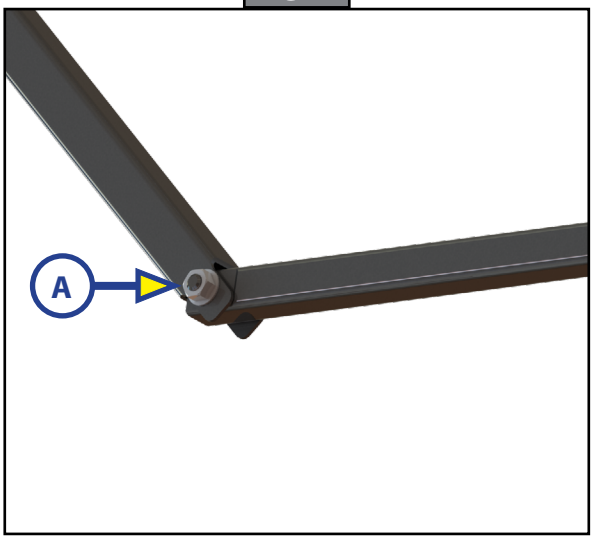
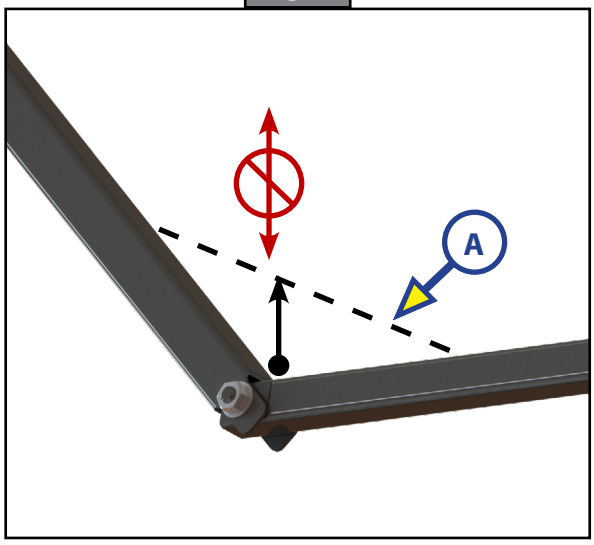


Fig. 5



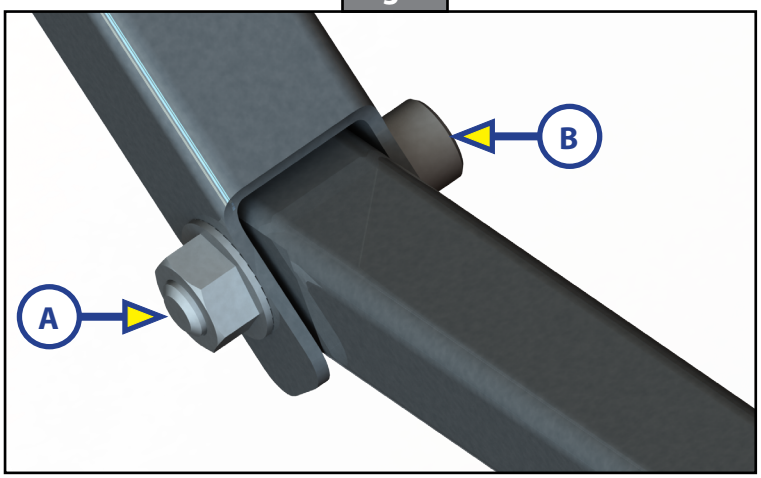
Adjusting Pitch Arm Fasteners

If the pitch arm does not hold position, it can be tightened by adjusting the bolt (Fig. 6A) in the center of the pitch arm.

1. Use a 1/2" wrench to tighten the nut (Fig. 6A) while holding the bolt (Fig. 6B) on the other side of the pitch arm with a 1/4" hex wrench.

NOTE: When tightening the nut do not tighten more than ¼ turn at a time and do not tighten to the point of crushing the pitch arm.

Fig. 6



NOTE: Existing bolt, Belleville washers and nut are installed in a specific orientation for tensioning. Removal of these components or modification of the orientation will cause adverse effects on the pitch arm functionality.

Retracting the Awning

1. Verify the unit's battery is fully charged and connected to the electrical system.
2. Press and hold "RETRACT" (Fig. 1B) until the awning is retracted completely.

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

Troubleshooting

Manual Override

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

NOTE: This procedure may also be performed to extend or retract the awning in the event of dry camping or camping without a battery.

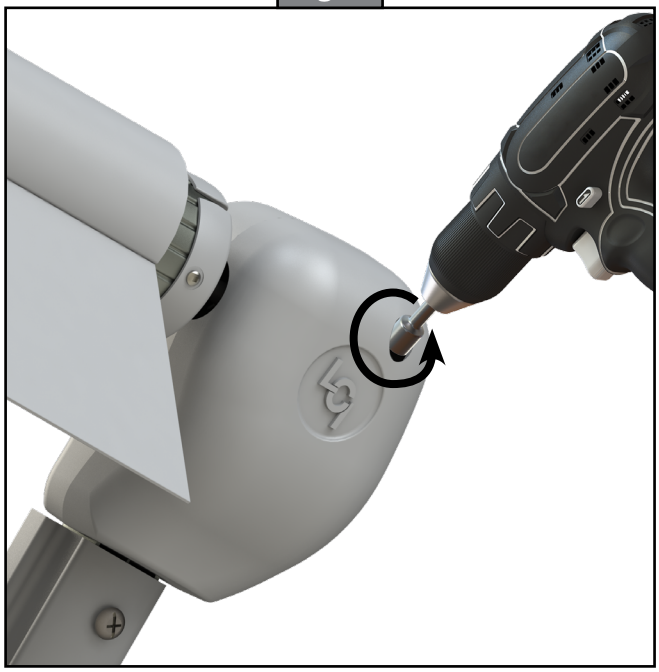
3. Remove the rubber grommet (Fig. 7A) from the drive head assembly, exposing the manual override nut on the motor.

NOTE: The drive head assembly is always located on the right side of the awning as it is viewed from outside of the unit.

4. Using a 7⁄16" socket and cordless power drill, spin the manual override nut clockwise to extend or counterclockwise to retract the awning. (Fig. 8).

Fig. 7

Fig. 8



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

5. When the awning is completely extended or retracted, remove socket or drive device and replace the rubber grommet in the drive head assembly.

Maintenance of Awning

Resources Required

- 5 gallon bucket
- Clean water
- ¼ cup of dish soap

Fabric Care

⚠ CAUTION

Overspray of cleaning solution can cause eye and sensitive skin irritation. Flush affected area with clean water and seek medical attention, if necessary. Wear eye protection and appropriate protective clothing to avoid personal injury.

⚠ CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

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 apply the 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.

Maintenance, Cleaning of AIPV (Awning Integrated Photovoltaic) Module

Resources Required

- Rubber-soled shoes
- Protective glovers
- Nonabrasive microfiber cloth

Module Care

Keeping the modules clean and unsoiled enables maximum power production. While rain will clean off dust and light soiling, it is recommended to inspect and clean the AIPV modules periodically. In high-soiling areas such as the desert or rural areas with agriculture, the AIPV modules may require more frequent cleaning.

NOTE: Do not use solvents or acetone for cleaning.

NOTE: Do not use brushes, power cleaners or power scrubber on AIPV modules.

NOTE: Do not direct water spray at AIPV module junction boxes and conduit connections. High-pressure water spray should never be used as it may damage the module and void the warranty.

1. Disconnect the utility and/or battery sources.
2. Be cautious: AIPV modules are extremely slippery when wet.
3. Wear slip-resistant soft rubber-soled shoes and protective gloves when cleaning AIPV modules.

⚠ CAUTION

Use caution when cleaning AIPV modules. The combination of water and electricity may present a shock hazard.

4. Visually inspect the module for damaged wires, loose connections and damage before cleaning.
5. Use a clean, damp, soft, nonabrasive microfiber cloth or sponge to wipe soil off modules. Wipe with a gentle motion and do not use excessive down force.

Possible Power Options

NOTE: Specific instructions for accessing the power from the awning are not in the scope of this manual. That procedure is to be done by the consumer or dealer who would purchase the charge controller and/or inverter separately from Renogy or Furrion.

Unit With 'Solar Prep'

If the unit came from the OEM with a "solar prep" package, then the following steps would be necessary.

1. Locate the junction box on the unit. Most tend to be on the roof.
2. Find where the wires from the junction box end.

NOTE: This may require some research of the OEM or from information provided by the dealership.

3. Install the correct charge controller. The proper charge controller depends on the size of the panel and/or panels.
4. If necessary, a battery or bank of batteries may need to be installed.
5. An inverter could be installed to the battery or batteries if the user wanted to use 120V AC.

NOTE: All of this must be completed using the correct size wiring, charge controller, inverter and circuit breakers if wiring the 120V AC into outlets.

Unit With Solar Panels

Integrating the awning panel into the system may not be possible depending on the wire sizing and the size of the charge controller, etc. That would need to be verified by the OEM or dealer.

A separate junction box, charge controller, battery, etc., may have to be installed.

Unit Without 'Solar Prep'

If the unit does not have a "solar prep" package from the OEM, then connecting power will require a large do-it-yourself project.

1. A junction box would need to be installed, either on the roof or a wall.
2. From the junction box, wires would lead to the charge controller.
3. Then the charge controller would be connected to the battery.

NOTE: The end user will have to decide how the wiring would be completed. Work would be needed on opening the ceiling and walls to run the wiring around the unit. Also, decisions would need to be made on where to install the charge controller and batteries and inverter, if desired. Installers must also utilize the correct size wire and components for the solar panel that was installed.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
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