Solera®

BY LIPPERT™

3000XL Series Awning

OEM Installation Manual

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System Information

The 3000XL Series Awning features an internal motor to steadily operate the awning. Additionally, the awning features adjustable pitch arms which provide added stability.

NOTE: The openings on awning rails, both existing and new installations, need to be measured before proceeding. Openings that are too large could cause fabric detachment from the unit. See Installing the Awning Rail (If Needed) on page 4 for measurement procedure.

Additional information about this product can be obtained from lci1.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 product information, please visit: **https://support.lci1.com/solera-3000-series-awning**.

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 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

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and property damage, including voiding of the component warranty.

⚠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.

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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 "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

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

This manual provides operational procedures for the 3000XL Series Awning. Operating the awning in any other manner than described may result in personal injury, damage to the unit or the awning assembly as well as voiding the Lippert Components Limited Warranty.

NOTE: This manual will refer 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 "idler side" is the left hand side of the awning when facing the awning from the exterior of the unit.

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's manufacturer for proper location.

Resources Required

- 2-3 People, depending on task
- Cordless or electric drill or screw gun
- Appropriate drive bits
- Side cutters
- Wire strippers
- Screwdriver
- Non-permanent method of marking
- #6 x ½" hex head screws
- #10 x ¾" screws (if installing awning rail)
- #14 x 1 ¼" screws
- 15A circuit protection
- Appropriate sealant (butyl tape, silicone sealant or closed cell PVC foam tape)
- Silicone lubricant

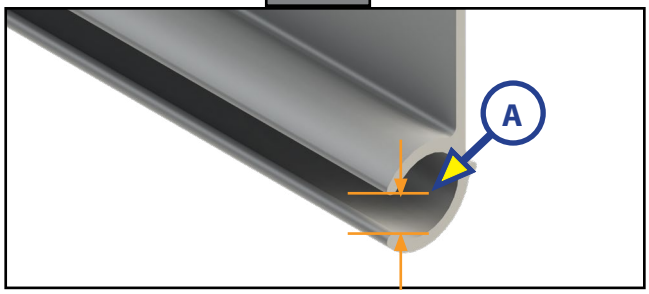
Installation

Awning Rail Installation (If Needed)

NOTE: Awning rail not included.

NOTE: Before installing the awning rail, measure the opening to make sure that the opening is no larger than 3⁄16" (Fig. 1A). An opening that is too large could lead to fabric detachment from the unit

Fig. 1



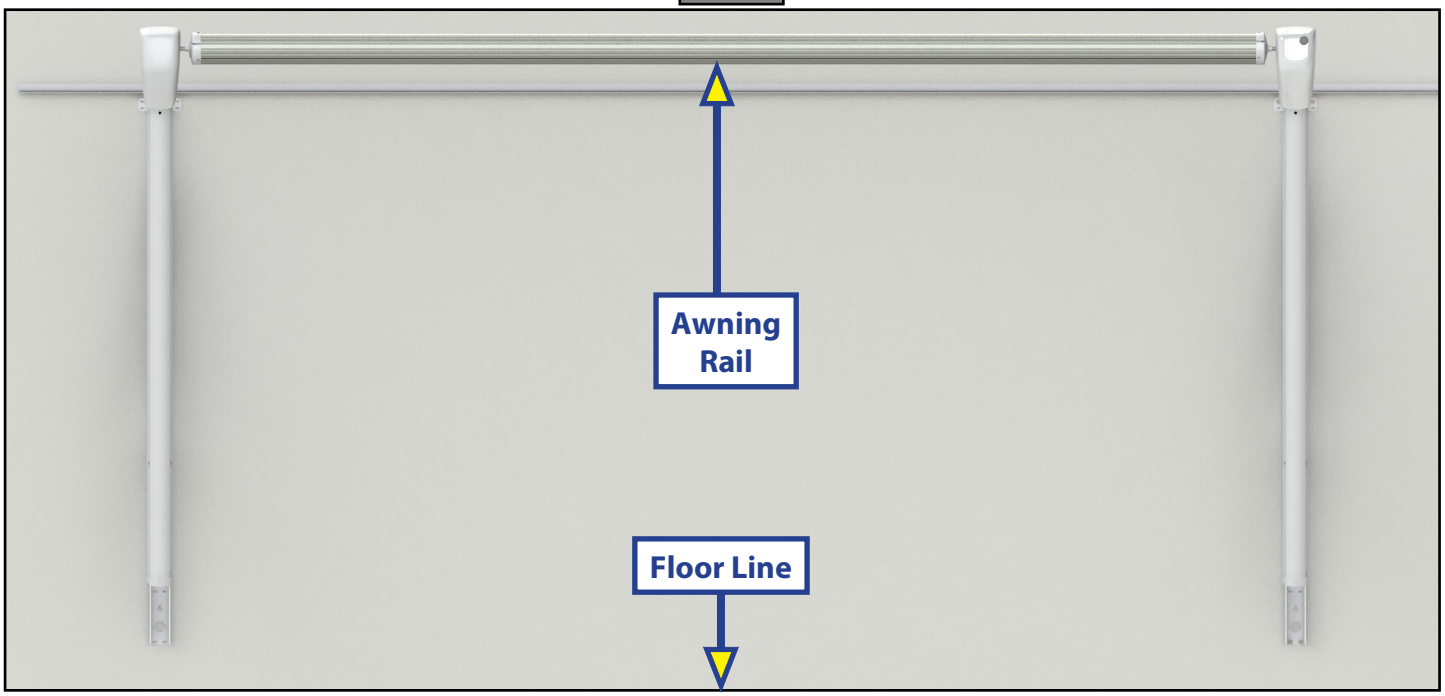
NOTE: Rivet gun and 3⁄16" grip range rivets will be needed if using optional installation method of awning arm.

1. Position the awning rail along the line where the roof and wall meet or:
   - **A.** For pitched awnings: A minimum of 6" above doors or windows
   - **B.** For flat awnings: A minimum of 4 ½" above doors or windows

NOTE: The awning rail **MUST** be level and parallel with the floor line of the RV (Fig. 2).

2. After determining the awning rail's proper location, mark its position with a non-permanent method of marking.
3. Seal the back of the awning rail with appropriate sealant.
4. Align the awning rail on the wall and secure with #10 x ¾" screws, using all fastener holes.

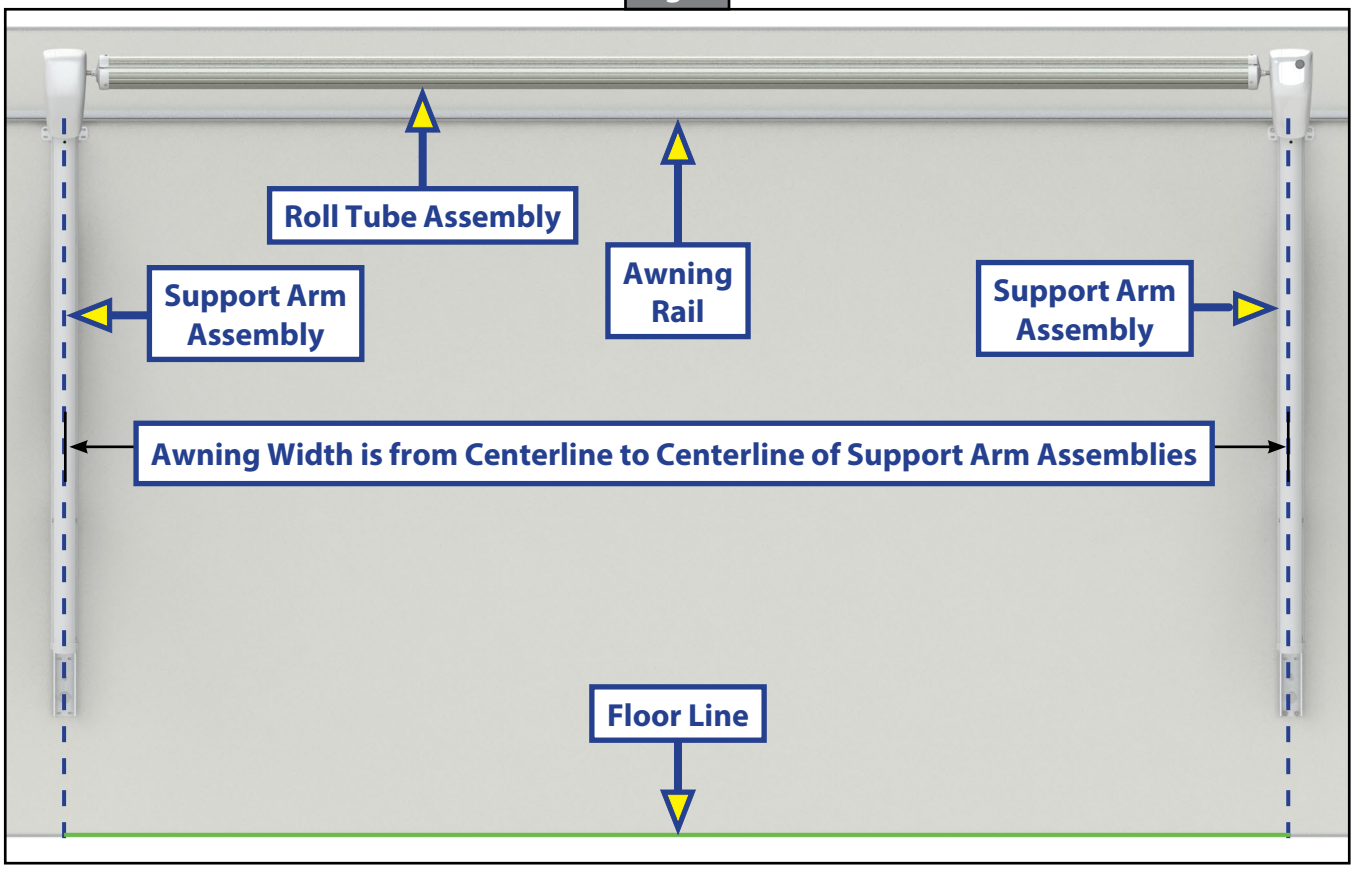
Fig. 2



Awning Installation

1. On the awning rail, mark the position of the centerlines of the support arm assemblies. Make sure that the support arm assemblies will not interfere with any lights, vents or other obstructions.
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. 3).

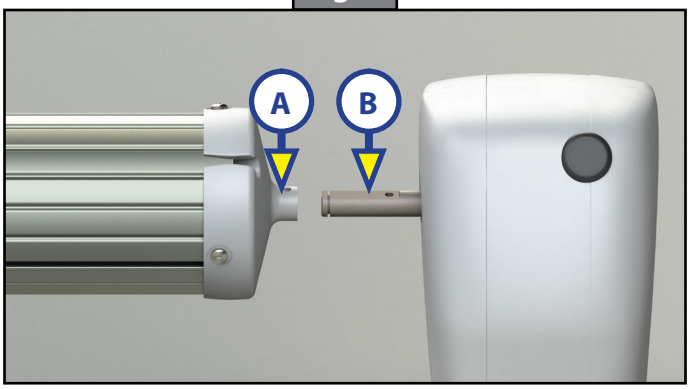
Fig. 3



3. Insert the drive head assembly shaft (Fig. 4B) into end cap (Fig. 4A). Align the holes and secure with waxed screw. Repeat process for idler head assembly at opposite end of roll tube.

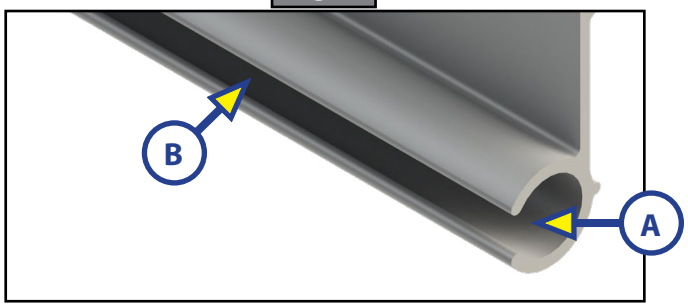
NOTE: Keep the head of the wax screw ⅛" from being fully fastened to avoid compromising the structural integrity of the wax screw.

Fig. 4



4. Use a screwdriver to spread open either end of the awning rail channel (Fig. 5A). See "Awning Rail Installation (If Needed)" section for measurement procedure to ensure awning rail channel opening is not too large.
5. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail channel (Fig. 5B).
6. Use silicone lubricant and spray the inside of the awning rail channel (Fig. 5B).
7. Remove the tape from the fabric. Unroll a small portion of fabric.

Fig. 5



NOTE: The next steps will require three people: One (1) to feed the polycord into the awning rail channel; two (2) to walk the support arm assemblies along the awning rail while the fabric slides into position.

8. 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.

NOTE: Use appropriate sealant on the back side of each of the support arm holes to attach the arms to the RV.

NOTE: Best 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 must not exceed 3" below the rail. Make sure that the distance from the awning rail to the top of the support arm assemblies is consistent at both ends of the awning.

9. Lift the support arm assemblies up and secure by setting the awning assembly to the desired height and attaching it to the side of the RV with two (2) #14 x 1 ¼" screws at the top of each bracket (Fig. 6). Make sure that both arms are attached at the top before cutting zip ties. Do not completely tighten screws until proper alignment is achieved.

NOTE: Make sure the awning assembly is square on the RV prior to mounting the bottom two screws.

NOTE: Four rivets with 3⁄16" grip range can be used in place of the two middle and two lower screws on laminated walls (Fig. 7, Fig. 8).

10. Cut the zip ties and connect the wires from the drive head assembly to a drill battery and run the awning half way out.
11. Install two (2) #14 x 1 ¼" screws to the bottom of the support arm assembly brackets (Fig. 7).
12. Remove the wire cover to expose the fastening points, then install the remaining two (2) #14 x 1 ¼" screws at any of the three locations shown (Fig. 8) in the center of the support arm.
13. Repeat step 11-12 for the other side.
14. Now that proper alignment has been achieved, fully tighten all screws.

Fig. 6

Fig. 7

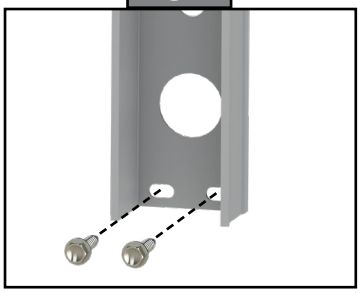
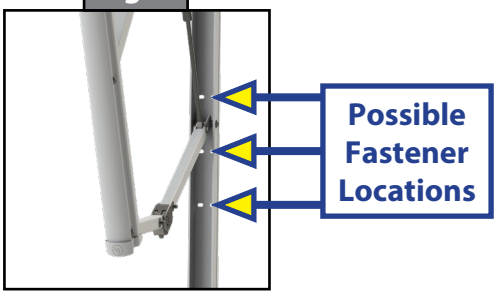


Fig. 8



NOTE: For awnings exceeding 22 feet in length, a center support bracket must be installed. Locate the center of the awning (between the perpendicular marks previously made corresponding with the center of the support arm assemblies) and make a mark. Once the awning has been installed, refer to TI-303 Solera® Awning Center Support for detailed instructions covering center support installation.

Securing the Fabric

Secure the fabric to the awning rail using **ONE** of the two options listed below. In option 1 the screw will go through the fabric, awning rail, and polycord, while in option 2, the screw will only go through the awning rail and polycord.

Option 1

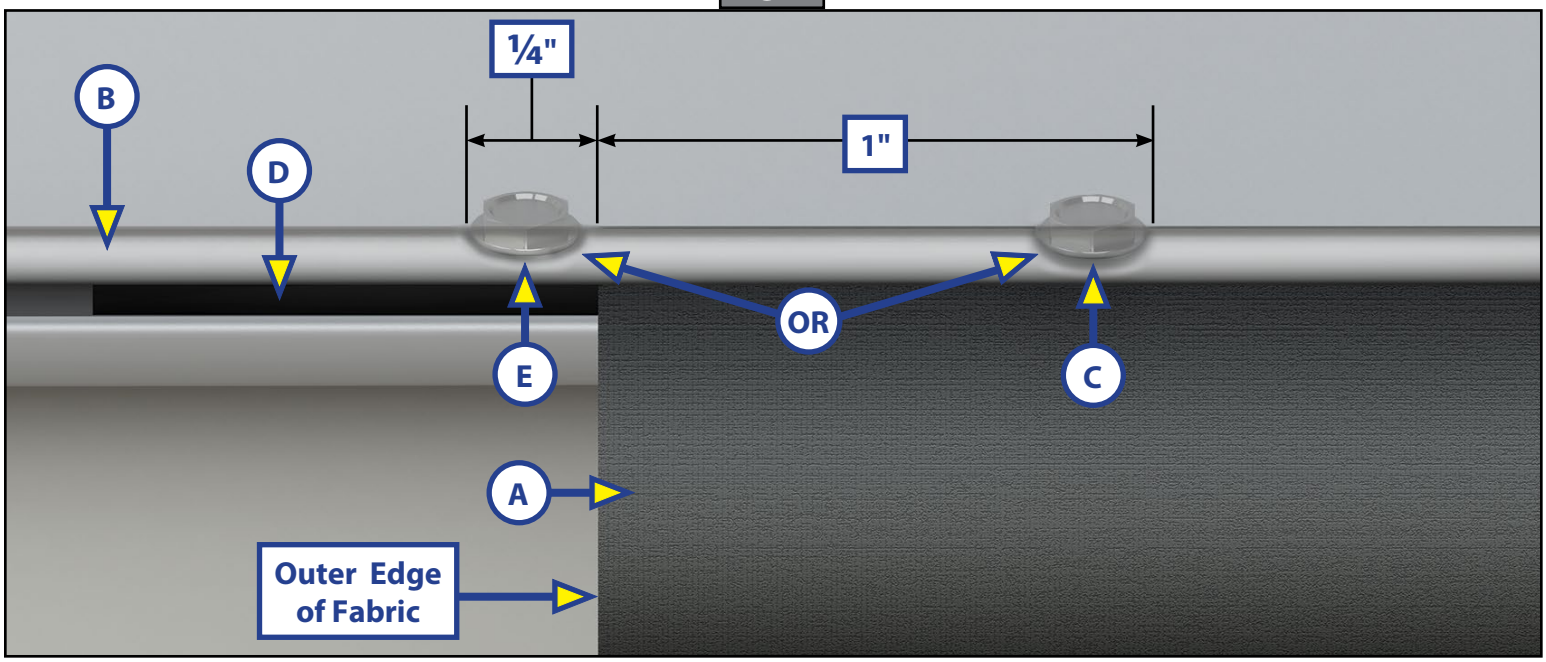
Secure the fabric (Fig. 9A) in the awning rail (Fig. 9B) no more than 1" inside the edge of the fabric on both ends using an OEM supplied #6 x ½" hex head screw (Fig. 9C). Install the screw (Fig. 9C) down through the awning rail (Fig. 9B) into the fabric (Fig. 9A) and the polycord (Fig. 9D).

Option 2

Secure the fabric (Fig. 9A) in the awning rail (Fig. 9B) no more than ¼" outside the edge of the fabric on both ends using an OEM supplied #6 x ½" hex head screw (Fig. 9E). Install the screw (Fig. 9E) down through the awning rail (Fig. 9B) and polycord (Fig. 9D).

NOTE: When choosing option 2 for installation, polycord MUST extend past the fabric more than ¼" to allow it to be secured by the screw, and screw must fully penetrate and secure polycord when installed.

Fig. 9



Awning Wiring

3000 Series motors come stock with an internal 6A auto reset breaker. If this breaker trips, it will take approximately 30 seconds to reset. Lippert recommends the awning be wired into a 15A circuit breaker. All wire shall be 14 AWG or higher as necessary to provide 11.5V minimum at all times to the Lippert-supplied power cable connection.

1. Pull the wires from the unit through the support arm assembly. These wires may be located at the bottom or the top of the support arm assembly.
2. Connect wiring from the unit to the switch and the awning drive head per the wiring diagram (Fig. 22).

NOTE: Check the switch. If the awning is running in reverse of what the switch indicates, reverse the wires.

NOTE: To prevent pinching of the wires, make sure all wires are routed on the outside of the pin that secures the pitch arm to the mount arm (Fig. 23).

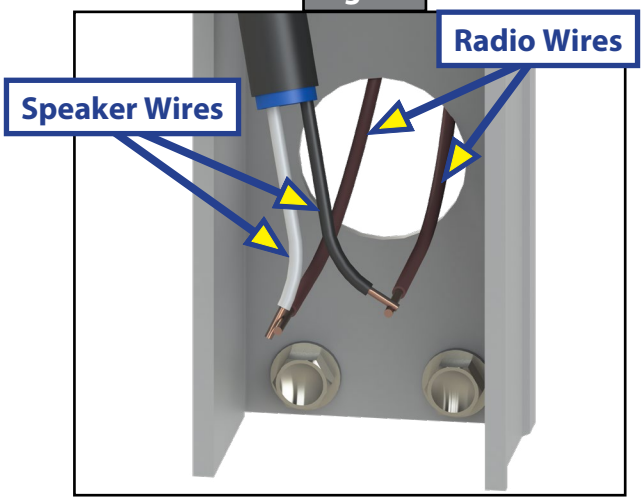
Installation with Speakers — Option

1. Remove wire covers on both mount arms.
2. At both support arm assemblies there will be a wire labeled "speakers." Connect these to the RV's radio wires (Fig. 10).

NOTE: Speaker wire is indicated with blue insulation on the wiring.

NOTE: On the drive side, the speaker wire will be connected at the same location on the support arm assembly as the power wire for the motor. On the idler side, the speaker wire may be connected at the top or bottom of the support arm assembly.

Fig. 10

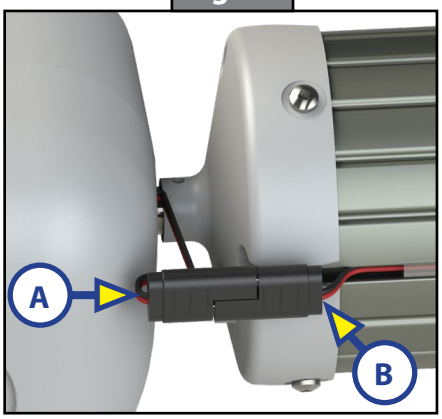


Installation with LED — Options

LED Roll Tube Installation

1. Remove the wire covers on the idler side mount arm.
2. Make sure to align the idler head's LED light wires (Fig. 11A) with the roll tube's LED light (Fig. 11B).
3. Connect the plug from the idler head (Fig. 11A) to the plug from the LED light (Fig. 11B).
4. Take the LED power wire, that is already fed through the idler leg, and connect it to the desired power wire from the unit.

Fig. 11



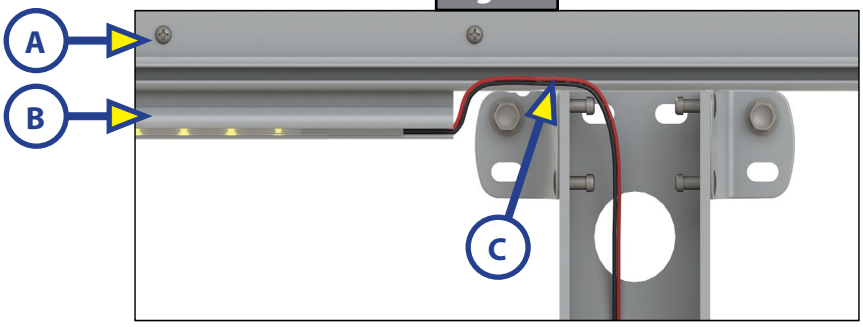
NOTE: Make sure the black wire is connected to a ground and the red wire is connected to a 3 amp maximum fuse, normally located behind the switch, and then to a power source from the RV.

LED Light Rail Installation

NOTE: Solera Power Awning XL must be installed prior to LED Light Rail installation.

1. Seal the back of the LED light rail with silicone sealant or tape.
2. Mount the LED light rail (Fig. 12B) directly below the awning rail (Fig. 12A) and secure to the side of the RV.
3. Remove the wire covers in the drive side mount arm.
4. Route the light wire over the top of the upper brackets on the mount arm and run the light wire down through the support arm assembly in the same manner as the motor wire (Fig. 12C).

Fig. 12



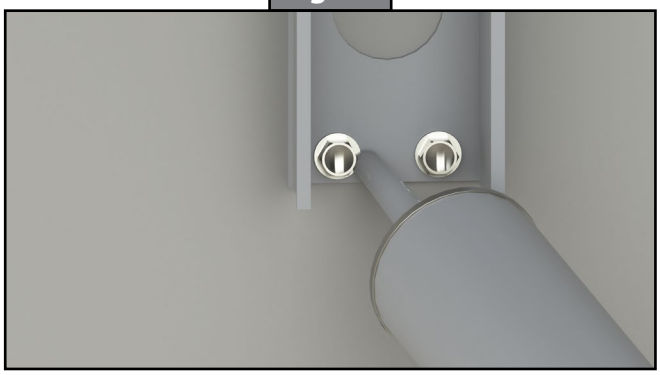
5. Cut the power and ground wires to the desired length and connect to the RV wiring.
   - **A.** Make sure to connect the red wire on the light side to the power wire on the RV.
   - **B.** Connect the black wire from the light side to the ground wire from the RV side.

NOTE: The LED light rail must be wired through a 3 amp maximum fused circuit.

Seal Wall Penetrations

1. Seal all fastener locations and wire penetrations with silicone sealant to protect against water intrusion (Fig. 13).
2. Reinstall all wire covers onto the support arm assemblies.

Fig. 13



Operation

Extending the Awning with The Power Button Switch

NOTE: Some RV's may not use the Lippert switch (Fig. 14).

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

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

2. Press and hold EXTEND (Fig. 14A) 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. 15).

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. 14

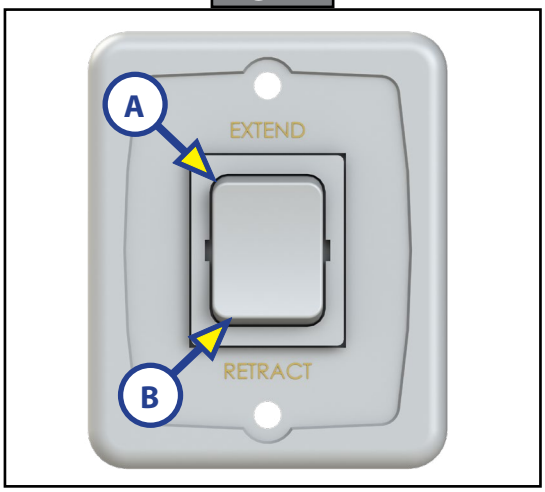
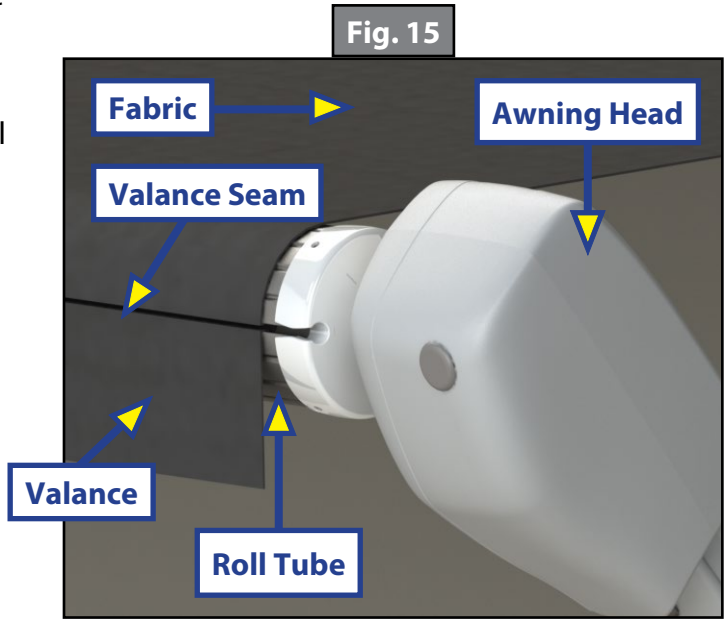


Fig. 15



⚠CAUTION

Tying down the roll tube once the awning is extended will not allow the free-floating support arms and the wind sensor to work as designed and may cause damage to the awning or Unit.

3. Set pitch using pitch arms with gas strut (Fig.16A).

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. 16). A bolt, Belleville washers and nut (Fig. 17A) 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. 18A). This will put tension on the gas strut, which can cause the strut to break.

Fig. 16

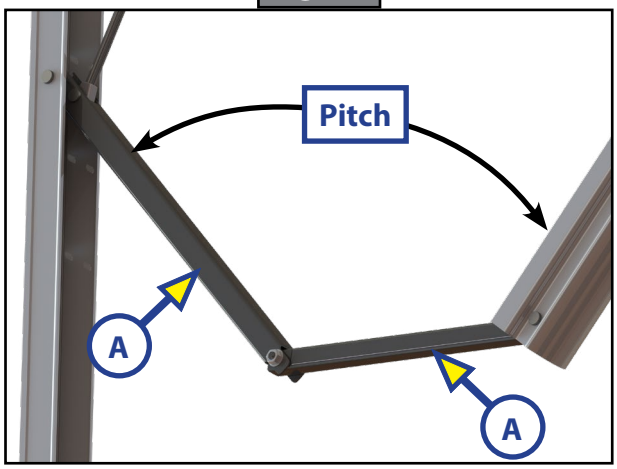


Fig. 17

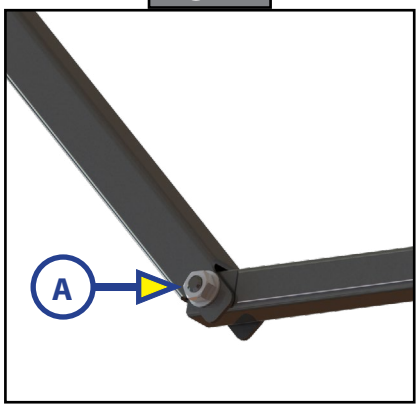
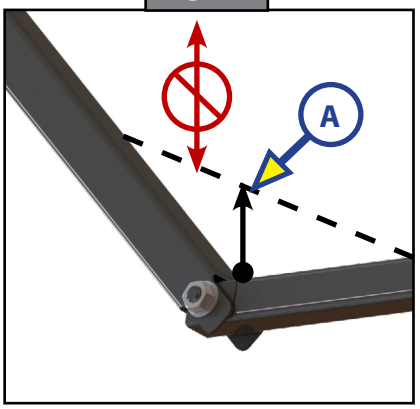


Fig. 18



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⚠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

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.

Retracting the Awning with The Power Button Switch

NOTE: Some RV's may not use the Lippert switch (Fig. 14).

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

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

2. Press and hold RETRACT (Fig. 14B) until the awning is retracted completely.

⚠WARNING

Warning Chime - If the awning is paired to the OneControl app, during the automatic closure due to a wind event, a warning chime will sound. This is intended to warn users to stand clear as the awning retracts.

NOTE: The awning may automatically retract if the wind sensor is activated.

NOTE: If the RV is equipped with a locking latch, be sure to engage the latch after retracting the awning.

⚠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.

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.

1. Remove the rubber grommet (Fig. 19A) 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 RV.

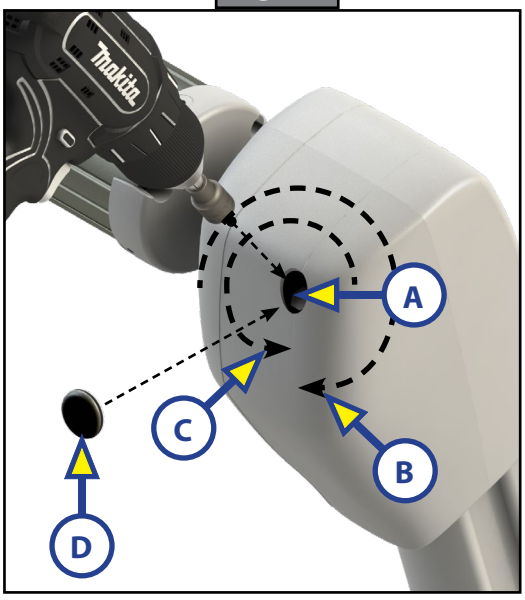
2. Using a 7⁄16" socket and cordless power drill, spin the manual override nut (Fig. 20A) clockwise to extend (Fig. 20B) or counterclockwise to retract (Fig. 20C) the awning.

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.

3. When the awning is completely extended or retracted, remove socket or drive device and replace the rubber grommet (Fig. 20D) in the drive head assembly.

Fig. 19

Fig. 20



Adjusting Pitch Arm Fasteners

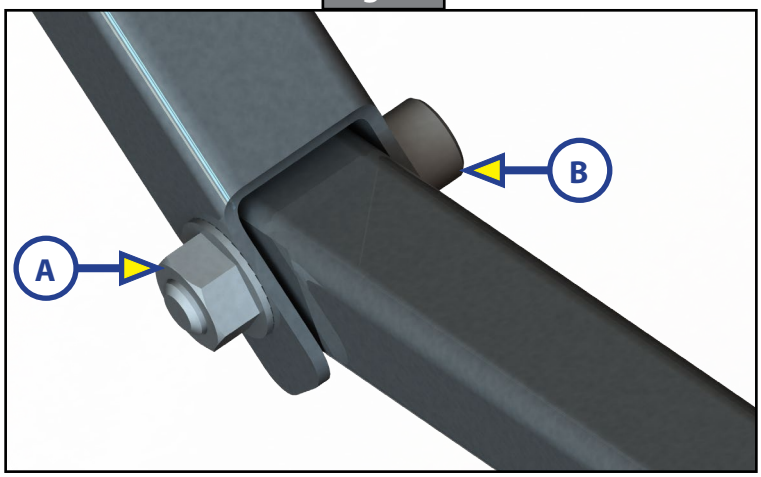
If the pitch arm does not hold position, it can be tightened by adjusting the bolt (Fig. 21A) in the center of the pitch arm.

1. Use a 1/2" wrench to tighten the nut (Fig. 21A) while holding the bolt (21B) 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.

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.

Fig. 21



Maintenance

Resources Required

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

Fabric Care

⚠ CAUTION

Over-spray 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.

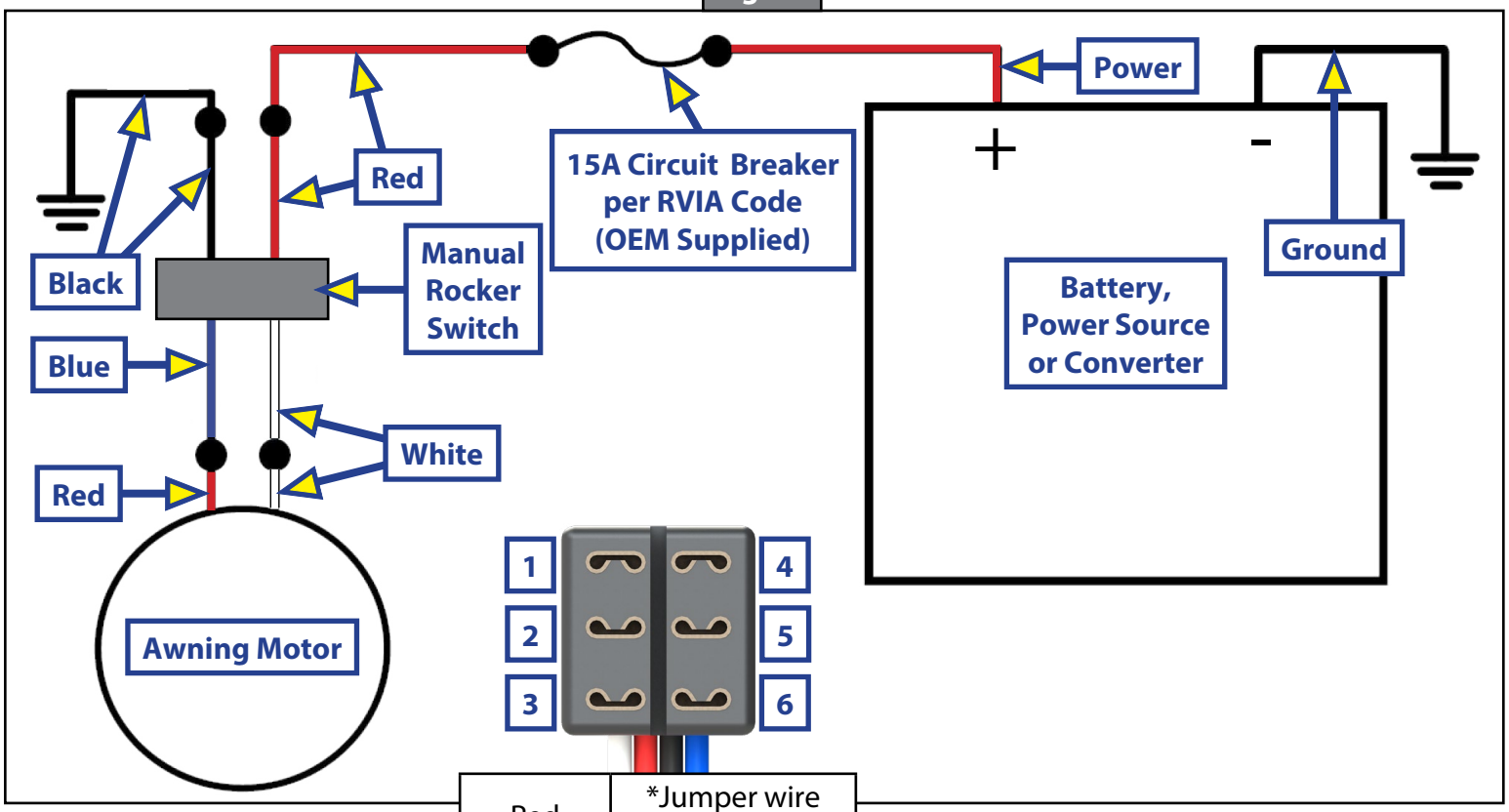
If the awning is retracted while wet, extend the awning and let it dry as soon as conditions allow before retracting. This will help prevent the formation of mildew and add greatly to the life of the awning.

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.

Wiring Diagram

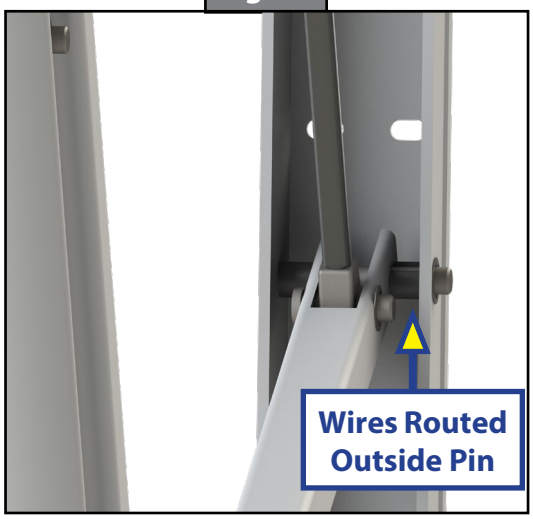
Fig. 22



Red	*Jumper wire 1 to 6
Black	*Jumper wire 4 to 3
White	2
Blue	5

*Jumper wires are internal

Fig. 23



Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert.
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com