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Solera® Power Awning 18V Installation and Owner's Manual (For Aftermarket Applications)

Solera Power Awning 18V Kits	
Part #	Description
434729	Solera Power 18V 69" Kit, Black
434730	Solera Power 18V 69" Kit, White

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Introduction

The Solera® Power Awning with an 18V Power Pack features an internal motor to steadily operate the awning and a unique, rechargeable battery that fits inside the Solera Power Awning arm. Additionally, the pitch arm assembly allows for rain dump and adjustable pitch features. The pitch arm assembly also provides added stability.

Additional information about this product can be obtained from lci1.com/support or by downloading the free myLCI app. Replacement component parts can be ordered from store.lci1.com/ or by using the myLCI app. The myLCI app is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

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Features

- Save 1-2 hours of additional installation expense as there is no need to wire this awning directly in to the RV's power supply.
- Waterproof switch offers easy, push-button operation.
- Operates 22-25 times before needing a simple plug-in recharge.
- Faster extend and retract time.
- Includes Easy Access AC charging adapter that plugs into any 110V outlet.
- Easy DIY installation; no internal wiring needed to the RV's main power source.

Parts List

PN	Description—434729 (Black)	Qty
276611	Square Pan Head Screw, #8 - 18 x ½" (Black)	6
281154	Flat Awning, Support Arm Assy (Black)	1
346891	Rivet, ⅜" x .450 (Black)	6
360575	Square Pan Head Screw, #8 - 32 x ½" (Black)	2
384965	Power Awning Upper Bracket (Black)	2
390806	Solera Power Label (Black)	2
423751	Power Awning End Cap (Black)	2
656484	Flat Awning, Support Arm Assy Battery Pack (Black)	1
672050	Regal Drive Head Assembly (Black)	1
672052	Regal Idler Head Assembly (Black)	1

PN	Description—434730 (White)	Qty
281152	Flat Awning, Support Arm Assy (White)	1
299630	Square Pan Head Screw, #8 - 32 x ½" (White)	2
346890	Rivet, ⅜" x .450 (White)	6
384964	Power Awning Upper Bracket (White)	2
390805	Solera Power Label (White)	2
423750	Power Awning End Cap (White)	2
656483	Flat Awning, Support Arm Assy Battery Pack (White)	1
672049	Regal Drive Head Assembly (White)	1
672051	Regal Idler Head Assembly (White)	1
675906	Square Pan Head Screw, #8 - 18 x ½" (White)	6

PN	Description—Common	Qty
237315	Aluminum Klamp-Tite Rivet, ⅜" x 1.3	8
281079	Hex Screw, #6 - 20 x ½"	2
298760	Hairpin Cotter Pin	4
347119	Cotter Pin, ⅛" x 3"	2
384905	Square Pan Head Screw, #10 - 32 x 2 ½"	2
384906	Nylon Locking Nut, #10 - 32	2
438247	Nylon Cable Tie	2
CCD-000-1260	Solera Power Awning 18V Manual	1



Safety

Read and fully 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

THE "WARNING" SYMBOL ABOVE IS A SIGN THAT A SAFETY RISK IS INVOLVED AND MAY CAUSE DEATH, SERIOUS PERSONAL INJURY AND/OR SEVERE PRODUCT OR PROPERTY DAMAGE IF NOT SAFELY ADHERED TO AND WITHIN THE PARAMETERS SET FORTH IN THIS MANUAL.

⚠ WARNING

FAILURE TO FOLLOW THE INSTRUCTIONS PROVIDED IN THIS MANUAL MAY RESULT IN DEATH, SERIOUS INJURY, UNIT DAMAGE OR VOIDING OF THE COMPONENT WARRANTY.

⚠ WARNING

THIS MANUAL PROVIDES OPERATIONAL PROCEDURES FOR THE SOLERA POWER AWNING WITH AN 18V POWER PACK. 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.

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⚠ 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 18V POWER PACK RECHARGEABLE BATTERY CONTAINS LITHIUM WHICH IS A HAZARDOUS MATERIAL. DO NOT THROW IN THE TRASH OR WITH OTHER HOUSEHOLD RECYCLABLE MATERIALS. THE BATTERY MUST BE DISPOSED OF PROPERLY AT A HOUSEHOLD HAZARDOUS WASTE COLLECTION SITE.

⚠ CAUTION

MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION.

Prior to Installation

If the unit does not have a pre-installed awning rail, one must be purchased.

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.

Make sure the battery is fully charged prior to operating the Solera Power Awning 18V for the first time. The time it takes to fully charge the battery will vary. See Charging the Battery section.

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.

Solera 18V Tall Arm (69") Adjustable Pitch Arms require:

- 69" of unobstructed area from the awning rail straight down.
- Minimum clearance of 4" between the awning rail and the top of the entry door.

Resources Required

- 2-3 people, depending on the task
- Cordless or electric drill or screw gun
- Appropriate drive and drill bits
- Socket wrench
- 7/16" socket
- Rivet gun (if needed)
- Locking pliers
- Ladder
- Non-permanent method of marking
- Silicone sealant or butyl tape
- Screwdriver
- Silicone lubricant
- Scissors/utility knife
- Wire cutters/strippers
- #6 x 1/2" hex head screws
- #10 x 3/4" screws
- #12 1 1/4" screws
- #14 x 1 1/4" screws

Awning Rail Installation

If installation of an awning rail is required, complete the following steps.

1. Position the awning rail along the line where 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" above doors or windows.

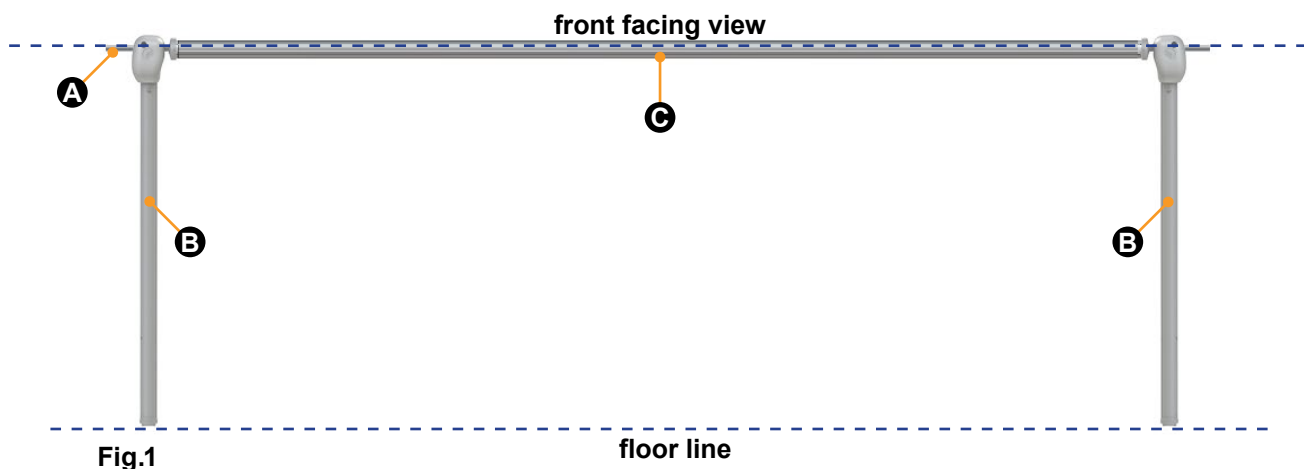
NOTE: The awning rail must be level and parallel with the floor line of the unit (**Fig.1**).

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.

4. Align the awning rail on the wall and secure with #10 x 3/4" screws, using all fastener holes.

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



Awning Installation

1. On the awning rail, mark the position of the centerlines of the support arm assemblies. Make sure 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.2**).

NOTE: If applicable, unplug support arm assembly from charger before proceeding.

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

NOTE: Keep the head of the wax screw $\frac{1}{8}$ " from fastened to avoid compromising the structural integrity of the wax screw.



Fig.3

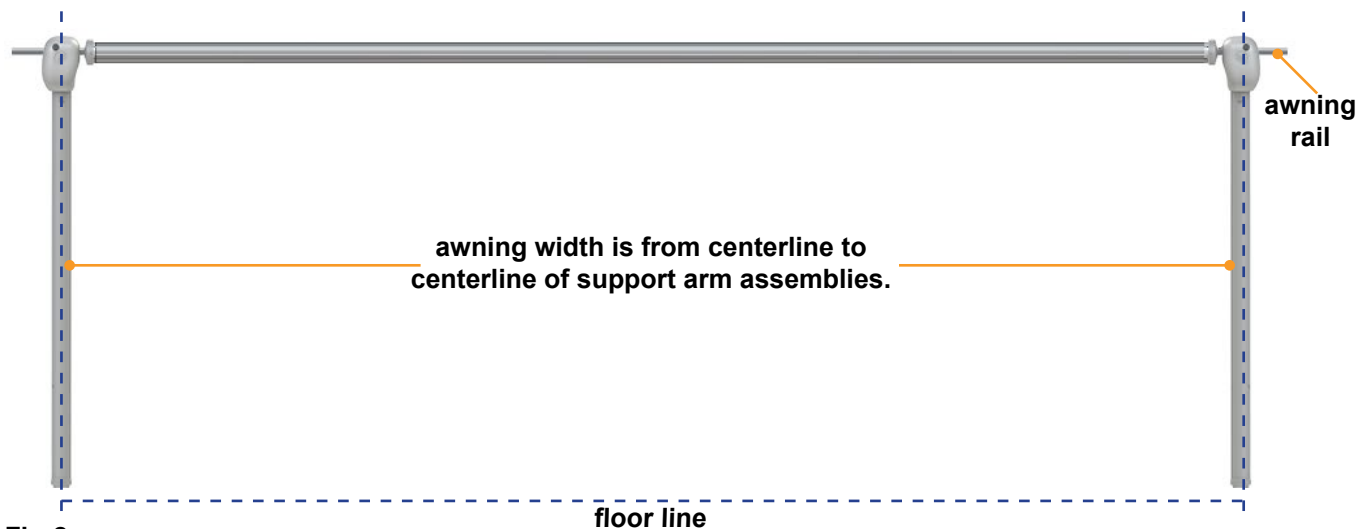


Fig.2

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4. Use a 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. Use silicone lubricant and spray the inside of the awning rail channel (**Fig.4B**).

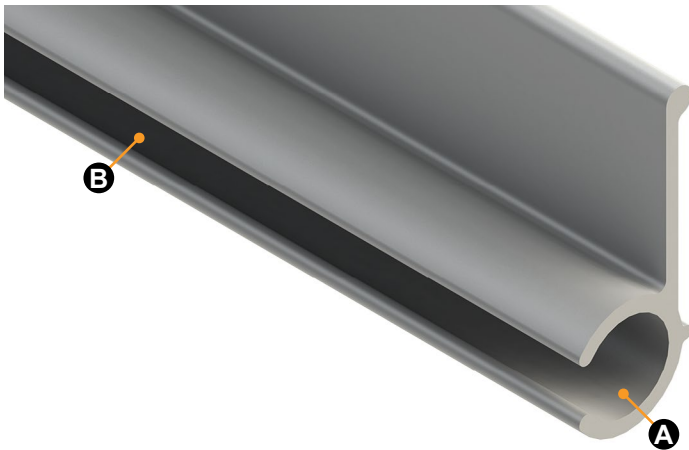


Fig.4

7. Remove the tape from the fabric. Unroll a small portion of fabric.

NOTE: The next steps will require three people: One to feed the polycord into the awning rail channel; two 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 previously-made centerline marks.

9. 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" screws at the top (**Fig.5**) and two #14 x 1 1/4" screws at the bottom (**Fig.6**).



Fig.5

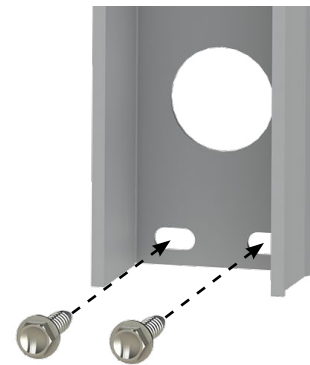


Fig.6

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 make sure the distance from the awning rail to the top of the support arm assemblies is consistent at both ends of the awning.

NOTE: Make sure the awning assembly is square on the unit 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.



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10. Cut the cable ties, locate the switch on the side of the arm and open the awning halfway out.
11. Remove the wire cover to expose the fastening points.
12. Install the remaining two #14 x 1 ¼" screws at any of the three locations shown in the center of the support arm (**Fig.7**).
13. Repeat this process for the other side of the awning assembly.



Fig.7

Securing The Fabric

1. Extend and retract the awning several times to make sure the fabric is square on the roll tube.
2. On both ends, secure the fabric in the awning rail no more than 1" inside the edge of the fabric using a #6 x ½" hex head screw (**Fig.8A**).
3. Install the screw down through the awning rail into the fabric and the polycord.

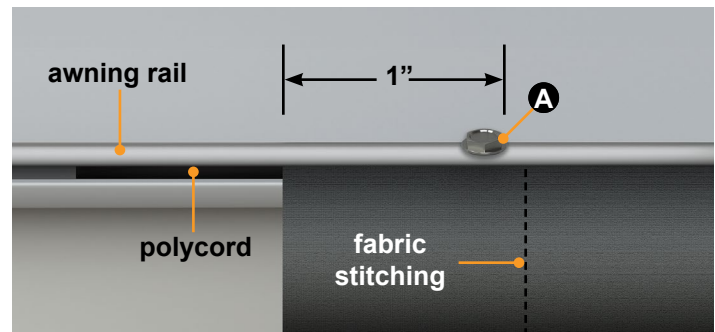


Fig.8

Charging the Battery

⚠ CAUTION

ONLY THE BATTERY CHARGING STEPS OUTLINED IN THIS MANUAL SHOULD BE USED TO CHARGE THE BATTERY. FAILURE TO FOLLOW THE PROCEDURE AS OUTLINED OR PLUGGING THE CHARGER INTO ANY CONNECTOR OTHER THAN THE ONE SPECIFIED MAY RESULT IN PERSONAL INJURY, DAMAGE TO THE RECREATIONAL VEHICLE UNIT OR THE AWNING ASSEMBLY AS WELL AS VOIDING THE LIPPERT COMPONENTS LIMITED WARRANTY.

The battery for the Solera 18V Power Pack is located inside the drive arm. The awning will operate 22-25 times before needing to be recharged.



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Operation

Extending the Awning

1. Locate the locking latch on the side of the support arm, if equipped, and unlock the latch.

NOTE: This latch is optional and may or may not be installed on one or both support arms.

2. Lift up and hold the switch (**Fig.11A**) until the awning is extended completely.

1. Locate the battery harness (**Fig.9A**) stored inside the bottom of the drive arm. The wires will be affixed with a hook-and-loop fastener.
2. Attach the battery harness to the included battery charger cord (**Fig.9B and Fig.10B**).
3. Plug the electrical end of the charger (**Fig.10A**) into a 110V outlet.
4. When the battery is fully charged, a green light will illuminate on the charger. A red light indicates the battery is still charging.

NOTE: The green light will be illuminated if the charger is plugged into the wall and **NOT** plugged into the awning. Make sure the charger cable is securely connected to the awning battery.

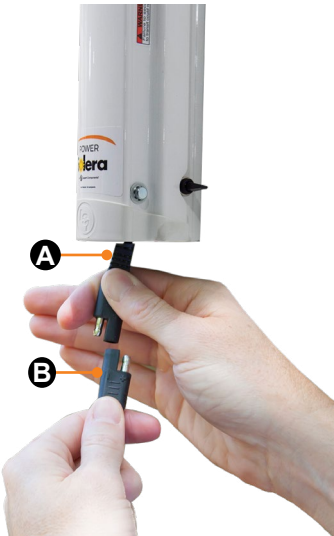


Fig.9

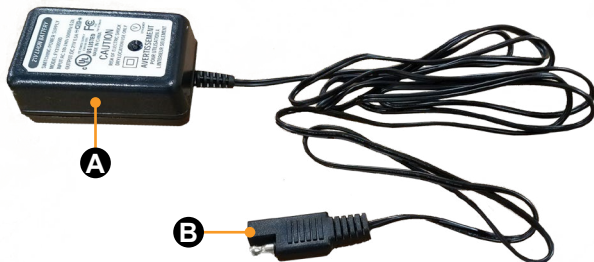


Fig.10

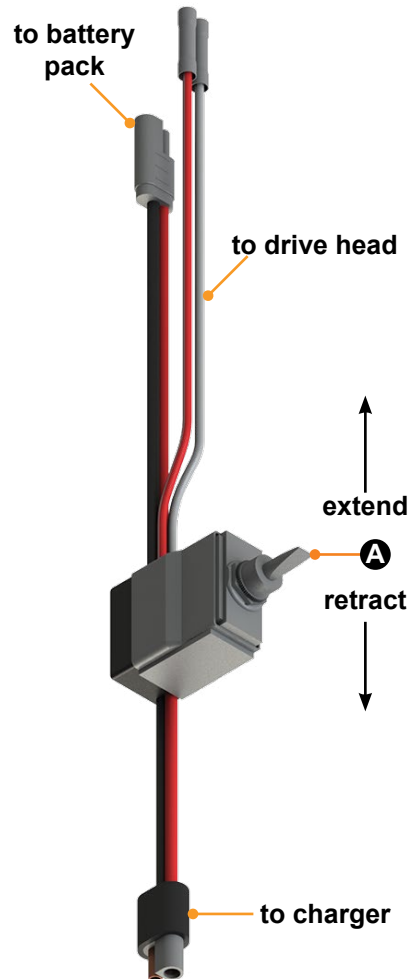


Fig.11

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Extension is considered complete when the fabric is completely unrolled, the valance is hanging down from the roll tube and a section of the roll tube is exposed (**Fig.12**).

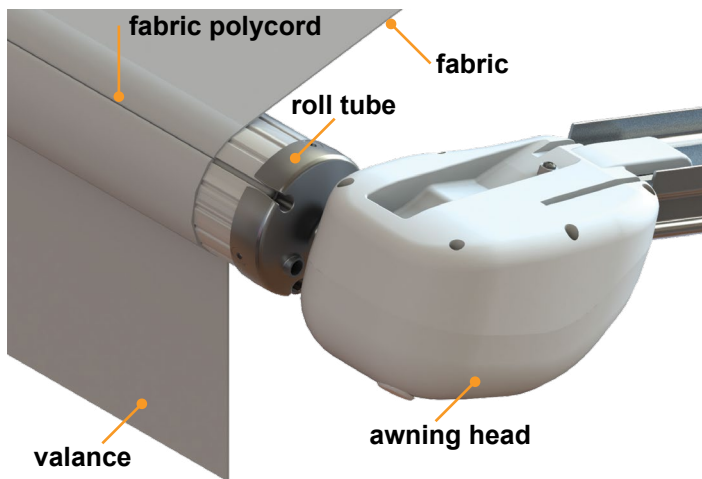


Fig.12

The awning fabric should always be above the roll tube. However, if the extend switch is engaged too long or extend is hit inadvertently, the awning will roll up backward. This is not a defect. To correct the fabric orientation, set the switch to retract (**Fig.11A**). The awning will then extend to its correct orientation and normal operation can resume.

⚠ 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.

⚠ 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 DAMAGE TO THE AWNING AND THE UNIT.

Retracting the Awning

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

1. Hold the switch (**Fig.11A**) down until the awning is retracted completely.
2. Locate the locking latch on the side of the support arm, if equipped, and lock the latch.

NOTE: This latch is optional and may or may not be installed on one or both support arms.

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.

1. Pitch can be set by adjusting the pitch arm to tip one side of the awning to allow water runoff or shade.
2. Extend the awning to the fully open position.
3. 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.13**) to allow for water runoff.

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

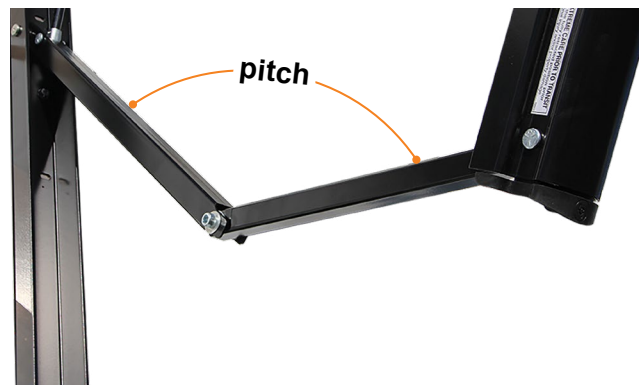


Fig.13

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Fig.14

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

NOTE: Belleville washers and bolts (**Fig.14A**) allow the joint to remain in the position set by the operator. If the pitch arm does not hold position, it can be tightened by adjusting the bolt (**Fig.14A**) in the center of the pitch arm.

Troubleshooting

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.

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.15A**) from the drive head assembly, exposing the manual override nut on the motor.



Fig.15

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

2. Using a $\frac{7}{16}$ " socket and cordless or electric drill or screw gun, spin the manual override nut counterclockwise to retract the awning (**Fig.16**).

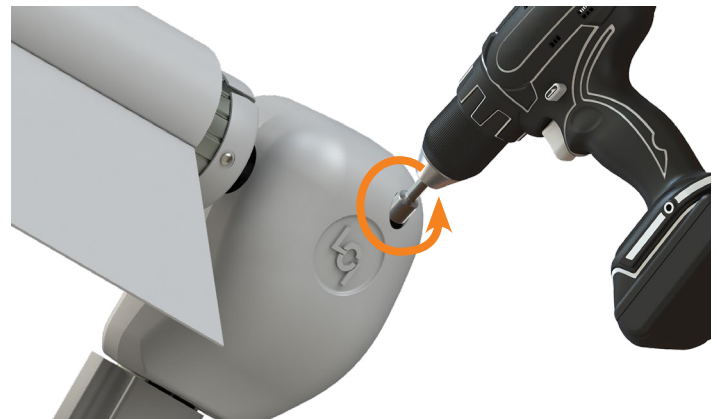


Fig.16

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 the rubber grommet in the drive head assembly (**Fig.15A**).

NOTE: The motor's internal drive system prevents the awning from moving (extend or retract) on its own. If the motor is damaged or disabled, make sure to secure the awning in the retracted position with a strap around both the outer arm and the mount arm (**Fig.17**) before the manual override nut is released.



Fig.17



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Solera Power Awning Troubleshooting

What's Happening	What Should Be Done?
Awning won't open or close.	If optional travel locks are installed, make sure that they have been unlocked.
	Check for power at the motor when the switch is in the extended or retracted position.
	Check for secure plug connections in the arm between the battery and the switch.
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.
	Make sure 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 runs slow.	The awning will run slower during retract than extend. Retract is approximately 30 seconds while extend is approximately 20 seconds on a fully-charged battery.
	Make sure pitch arms are not bent in an upward direction.
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.
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 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 wall mount is properly secured to the wall.
	Make sure no part of the support arm assemblies are bent.
	Make sure the wear collar spacers are all properly located in the support arm assemblies.
Awning works in opposite direction of what switch shows.	Wires going to awning have been reversed or switched. Reverse the wires.
Awning rolls up backward	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.
Awning needs to be recharged.	Plug the designated charger into the bottom of the extend/retract drive arm harness and outlet. A red light will appear on the charger. For a full charge, leave it plugged in for 24 hours. The red light will turn green when the awning is fully charged. The green light will be illuminated if the charger is plugged into the wall and NOT plugged into the awning battery harness. Make sure the charger cable is securely connected to the bottom of the extend/retract drive arm battery harness. Charging the awning batteries any other way could cause damage.



Notes

4. Allow to dry before retracting.



Please recycle all obsolete materials and contact Lippert Components with concerns or questions.



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Follow proper safety practices. If in doubt, consult a professional RV technician.