



SOLERA® AWNING
SMART ARM™
OEM INSTALLATION MANUAL

L I P P E R T
C O M P O N E N T S®

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Introduction

The Solera® Smart Arm™ 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 10.5V the awning light will automatically start flashing when in use. Also, the awning light has three stages of brightness: low, medium and high.

Safety

WARNING

This manual provides operational procedures for the Solera® Smart Arm™ awning. Operating the Solera® Smart Arm™ awning in any other manner than described may result in serious personal injury, severe damage to the unit or the awning assembly as well as voiding the lippert components limited warranty.

WARNING

The “warning” symbol above is a sign that an installation procedure has a safety risk involved and may cause death or serious injury if not performed safely and within the parameters set forth in this manual. Always wear eye protection when performing this installation procedure. Other safety equipment to consider would be hearing protection, gloves, and possibly a full face shield, depending on the nature of the installation procedure.

CAUTION

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

Prior to Installation

All fasteners 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. 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 the awning when facing the awning from the exterior of the unit.

Resources Required

- 1-3 people, depending on task
- Cordless or electric drill or screw gun
- Appropriate drive bits
- Rivet gun (if needed)
- Screwdriver
- Wire cutters/strippers
- Non-permanent method of marking
- Scissors/utility knife
- Silicone sealant or tape
- Silicone lubricant
- 15 A circuit protection (OEM-supplied)
- #10 x $\frac{3}{4}$ " screws
- #14 x $1\frac{1}{4}$ " screws
- Rivets with $\frac{3}{16}$ " grip range (optional)

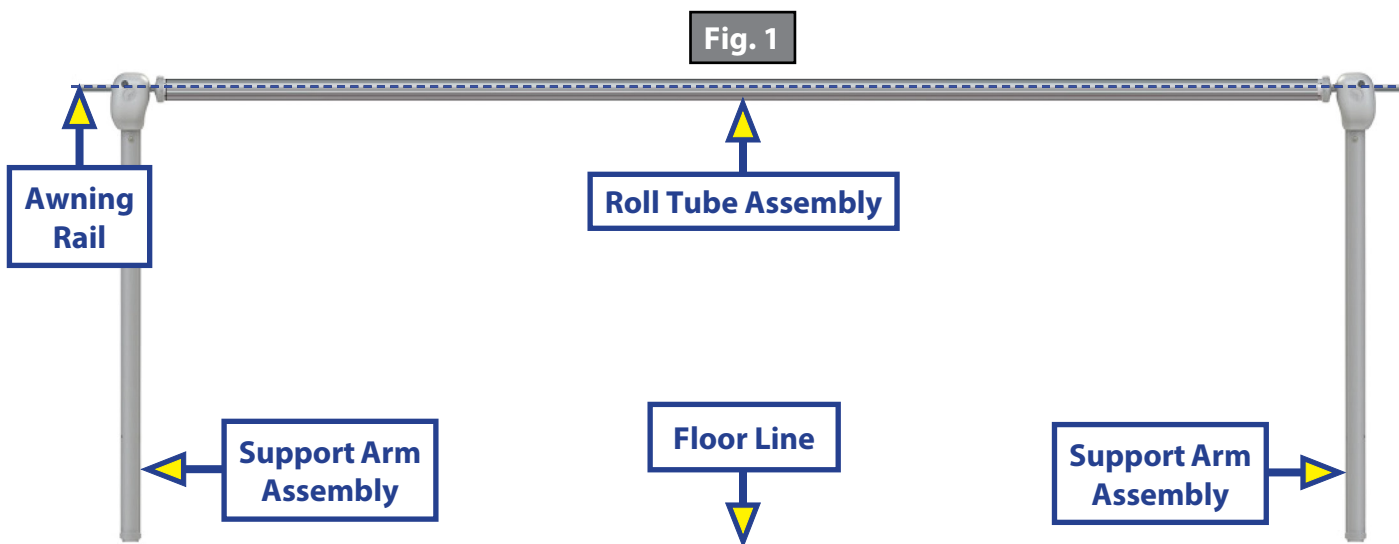
Installing The Awning Rail (if necessary)

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" above doors or windows.
 - B. For flat awnings: A minimum of 4" above doors or windows.

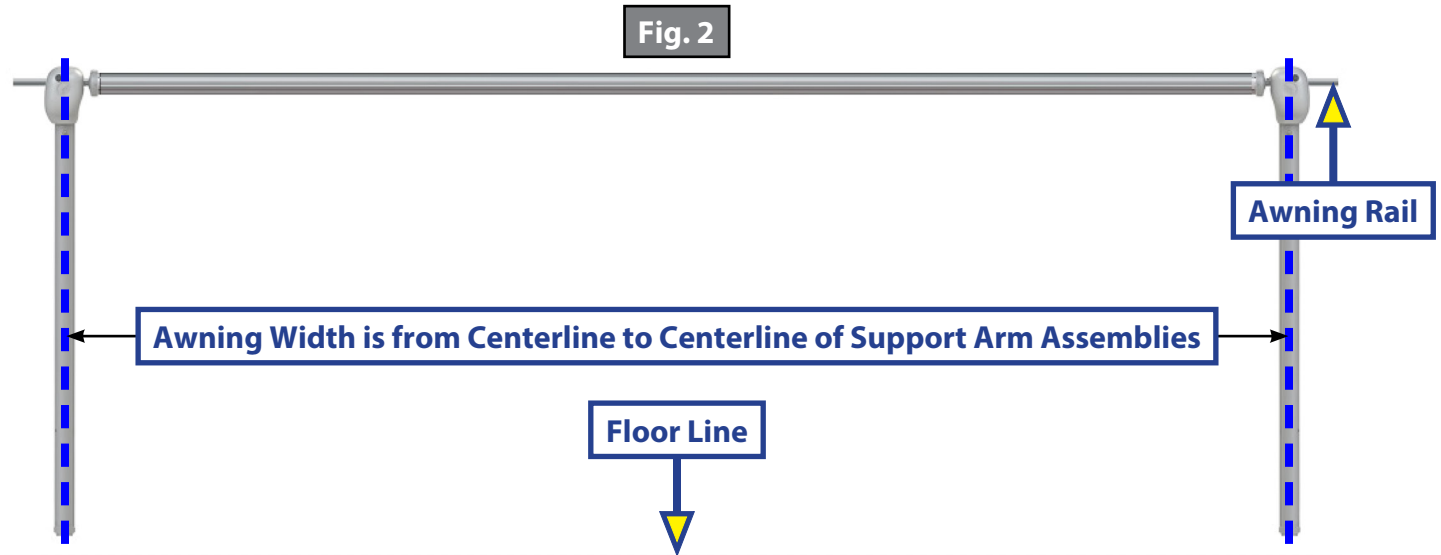
NOTE: The awning rail **MUST** be level and parallel with the floor line of the unit (Fig. 1).

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 $\frac{3}{4}$ " screws, using all fastener holes.



Installation

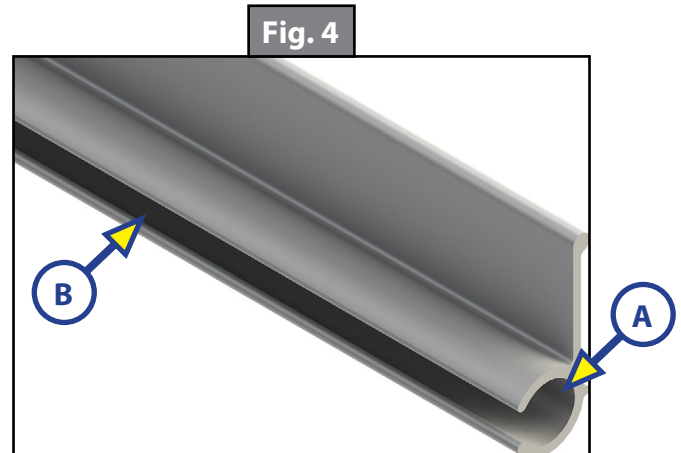
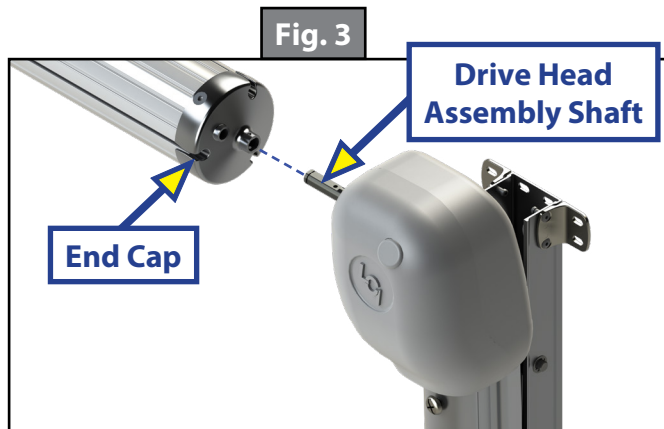
1. On the awning rail, mark the position of the centerlines of the support arm assemblies. Make sure that the support arm assemblies will not interfere with any lights, vents or other obstructions.
2. Using a non-permanent method of marking, mark a perpendicular line from the awning rail down to the floor line. This is the centerline of the support arm assembly (Fig. 2).



3. Insert the drive head assembly shaft into the end cap (Fig. 3). Align the holes and secure with 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.

4. Use a screwdriver to spread open either end of the awning rail channel (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).



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 the top of the drive side arm to the side of the unit with two #14 x 1 1/4" screws (Fig. 5). Repeat this procedure for the idler side support arm.

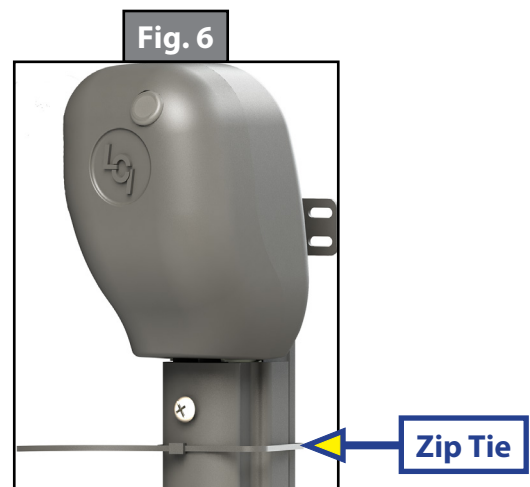
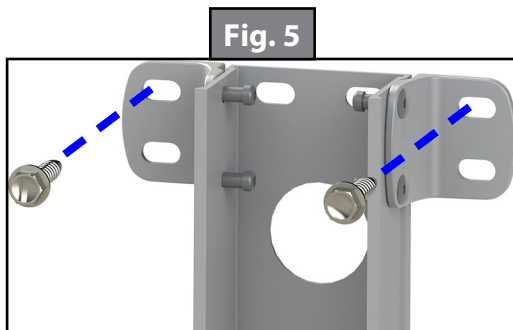
NOTE: Best practice for setting the awning height is to push the top of the support arm assemblies up to be flush with the bottom of the awning rail. The awning height can be adjusted lower if desired, but make sure that the distance from the awning rail to the top of the support arm assemblies is consistent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

NOTE: Four rivets with a 3/16" grip range can be used in place of the two middle and two lower screws on laminated walls.

10. Using scissors or a utility knife, cut the zip ties used to secure both the support arm assembly and the top of the mount arm (Fig. 6). Repeat this process for the opposite end of the awning assembly.

⚠ WARNING

Failure to maintain control of the outer arm while cutting the zip tie may result in serious personal injury or severe property damage.



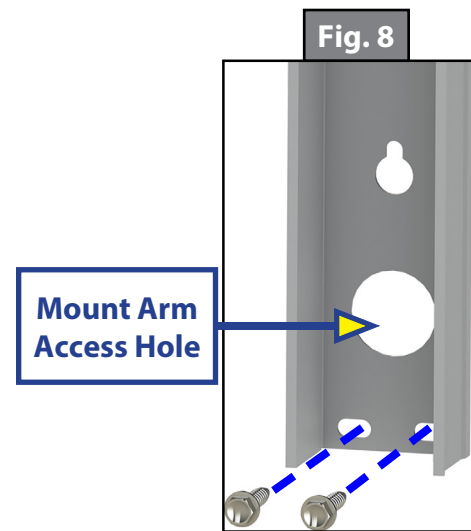
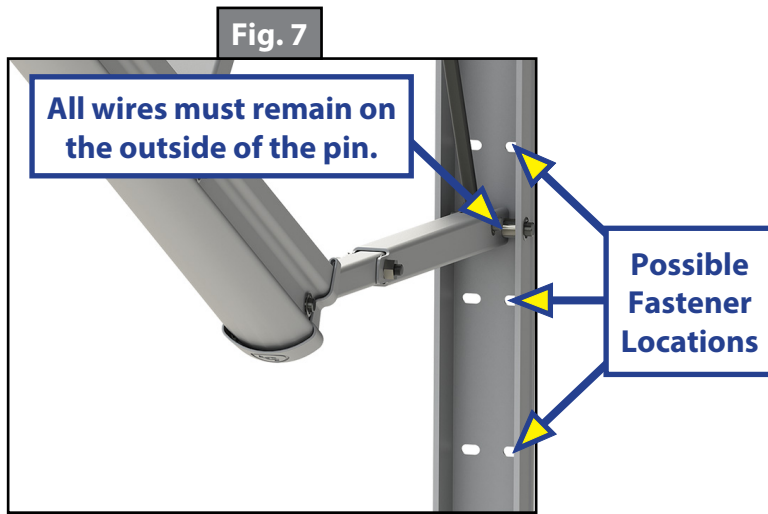
Installation of Smart Arm™ Touch Pad

1. At the top of the drive side mount arm, locate the red power "POWER" wire and the red extend "EXT IN" wire and twist together. Locate the black power "POWER" wire and the black retract "RET IN" wire and twist together.
2. Touch the loose end of the red wires in step 1 to the positive post on a battery. Touch the loose end of the black wires in step 1 to the negative post on a battery.
3. Fully extend the awning.
4. Wires can be separated at this time.
5. Finish the task of securing the mount arms. Make sure the awning assembly is square on the unit prior to completion. Use two #14 x 1 1/4" screws in one of the provided locations in the middle of the arm (Fig. 7), and two #14 x 1 1/4" screws (Fig. 8) in the bottom of the arm.

NOTE: Four rivets with 3/16" grip range can be used in place of the two middle and two lower screws on laminated walls.

NOTE: Refer to a bottom wire connection. If it is a top wire connection, proceed to step 8.

6. At this point, determine whether this is a top or bottom wire installation. If it is a bottom wire installation, pull the power "POWER" wire and the switch (EXT IN, RET IN, LGT IN) wire (red/black/green) down from the top of the mount arm to the bottom.



7. Remove the wire covers from the mount arm on the drive side, including the small wire cover (Fig. 9) at the lower portion of the mount arm.
8. Remove the Smart Arm Touch Pad from the mount arm by removing the snap clip on the right side of the touch pad (Fig. 9). This will allow the Smart Arm Touch Pad to be removed from the mount arm (Fig. 9).
9. Run the wires from the unit through the provided access hole in the mount arm (Fig. 8).

NOTE: If top install, make sure all wires are always on the outside of the pin that secures the pitch arm to the mount arm. (Fig. 7).

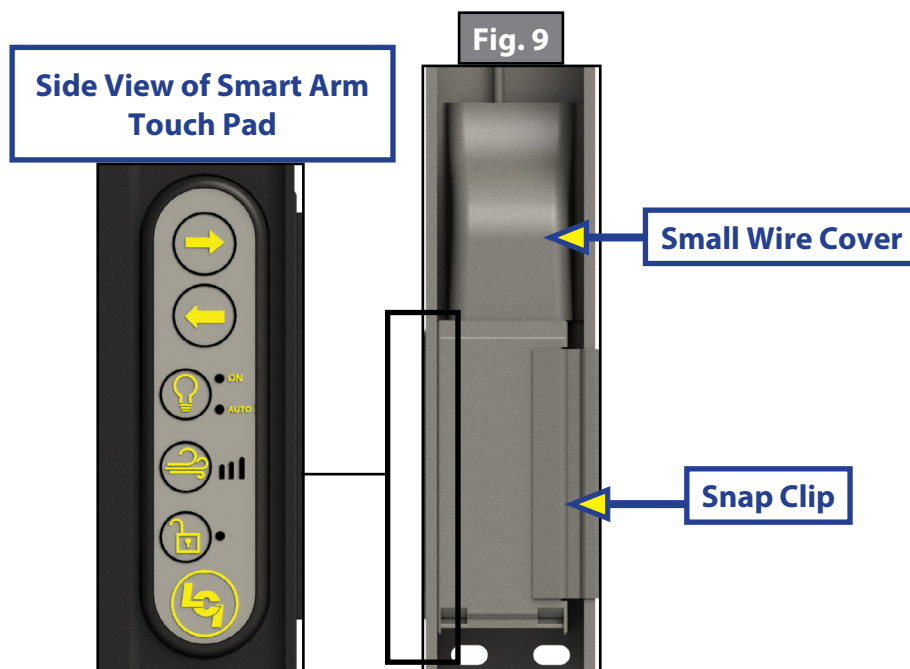
10. Connect the 12 AWG power and ground wires from the unit to the red and black power "POWER" wires on the Smart Arm Touch Pad.

NOTE: 15 amp in-line circuit protection is required.

NOTE: All other wire shall be 14 AWG or higher as necessary to the LCI-supplied Smart Arm™ Touch Pad harness.

11. Connect the extend "EXT IN" and retract "RET IN" wires to the switch wires of the unit (optional) or if using OneControl® plug in harnesses or one harness and a resistor (optional).
12. Tuck loose wiring into the hole in wall of the unit and seal with silicone sealant or tape.

NOTE: If optional light switch inside the unit is utilized, first complete section "Installing the LED Light-Optional" prior to sealing the hole of the unit with silicone sealant or tape.



13. Reinstall the Smart Arm Touch Pad and snap clip (Fig. 9).

NOTE: If optional Infrared (IR) Sensor is utilized, first see section Installing the Infrared (IR) Sensor-Optional and complete this section prior to reinstalling the Smart Arm Touch Pad and snap clip

14. Reinstall the wire covers, including the small wire cover (Fig. 9).

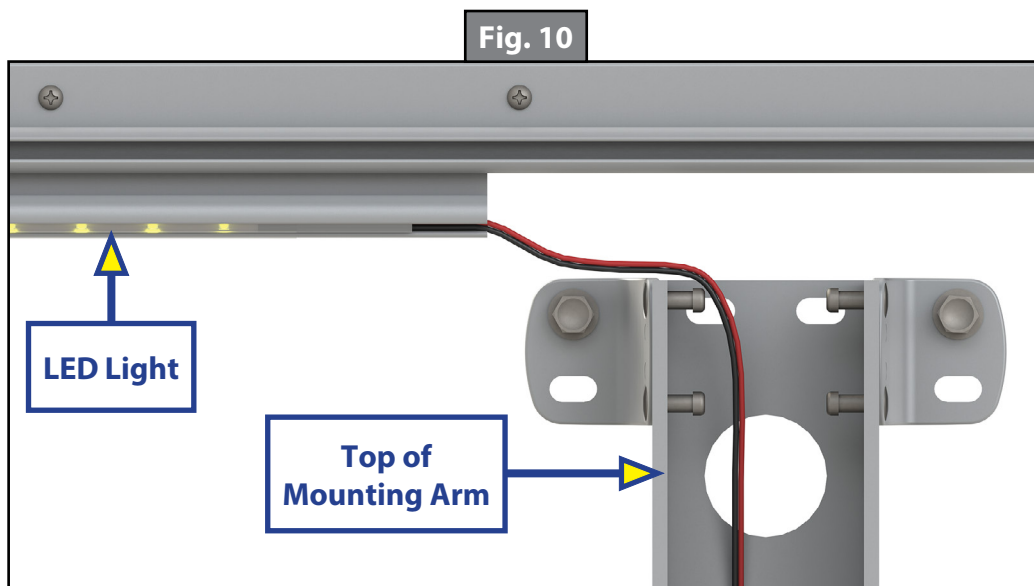
NOTE: Power to the Smart Arm Touch Pad will time out after five minutes of being idle.

Installing the LED Light - Optional

1. The LED light "LIGHT" wire is under the 4-inch wire cover at the top of the mount arm (Fig. 10). Remove the wire cover.
2. Connect the red wire from the LED light to the red 20 AWG light "LIGHT" wire in the mount arm.
3. Connect the black wire from the LED light to the white 20 AWG light "LIGHT" wire in the arm.
4. The LED light wire must be routed over the top of the mount arm (Fig. 10).
5. Connect green wire marked "LGT IN" to the light power wire from the unit (optional).

NOTE: The ground wire from the light switch inside the unit will be capped off.

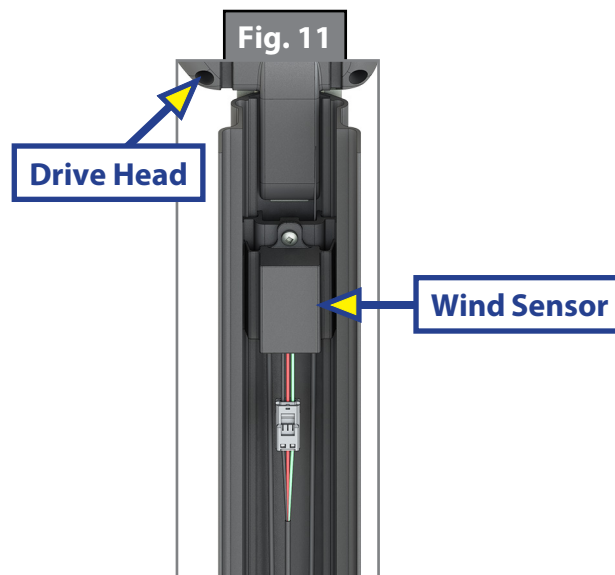
NOTE: The LED Light is equipped with a low voltage alert system. If the voltage gets below 11.0V the awning light will automatically start flashing when in use. The lock button on the Smart Arm™ will also flash with the low voltage alert system.



Installing The Wind Sensor - Optional

NOTE: If the Smart Arm™ is ordered with a Wind Sensor, the Wind Sensor will be already installed by Lippert Components. If installation instruction is needed see [TI-277](#) or visit the Lippert Components website:
<https://www.lci1.com/support-solerareg-smart-arm> and select Solera® Smart Arm Wind Sensor Installation Guide.

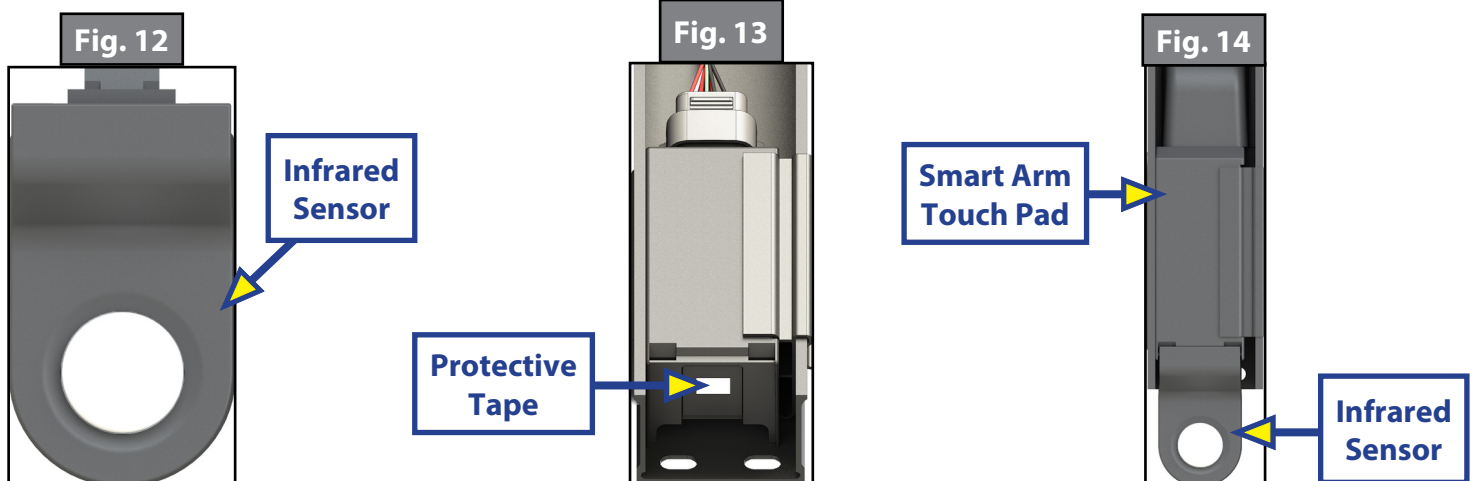
NOTE: For identification of Wind Sensor components refer to Fig. 1.



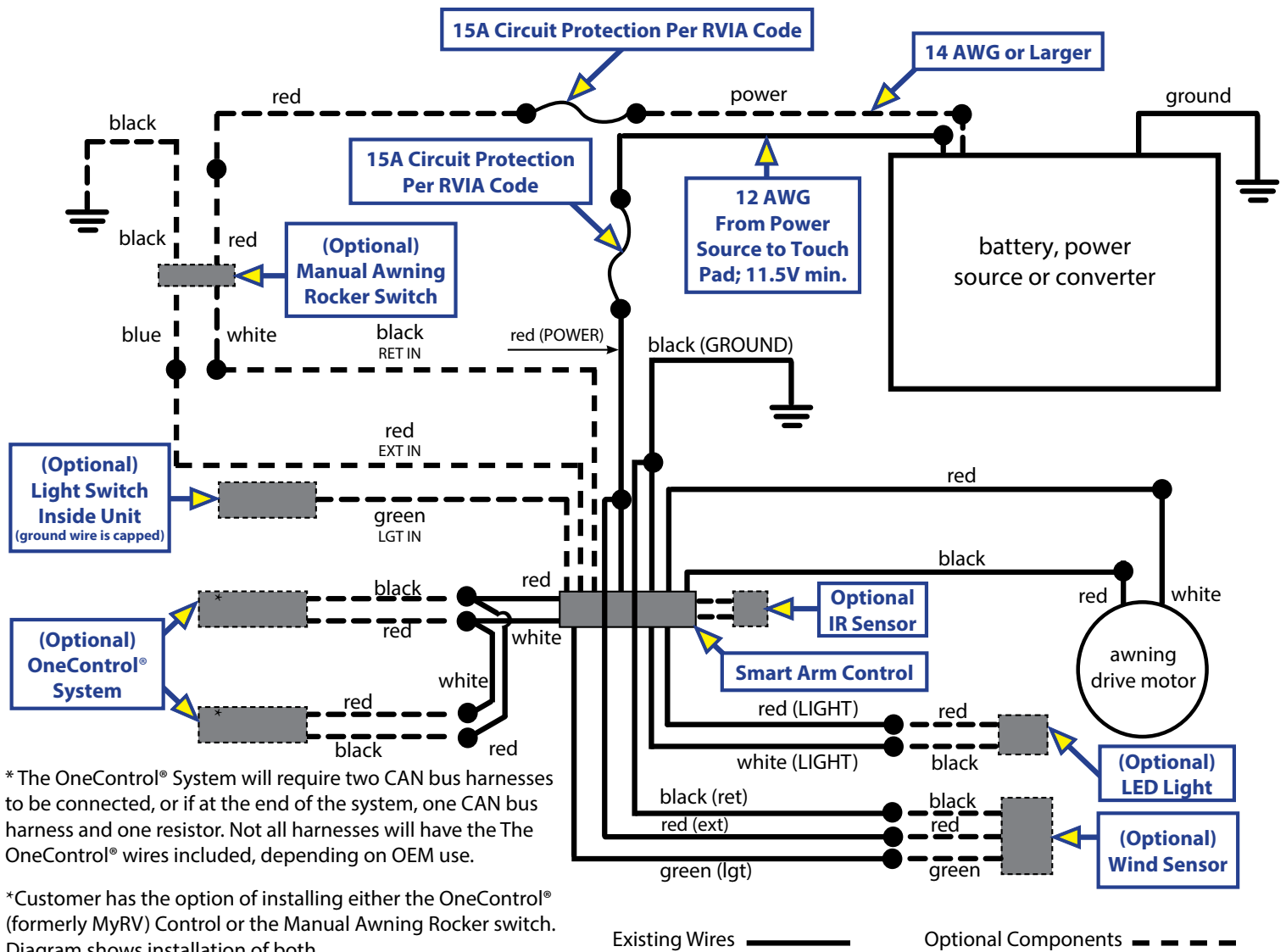
Installing the Infrared (IR) Sensor - Optional

NOTE: The IR Sensor (Fig. 12) will be shipped “loose” (unattached) from the Smart Arm Touch Pad.

1. Locate the Smart Arm Touch Pad at the bottom of the mount arm on the drive head side (Fig. 9).
2. Remove the wire covers from the mount arm on the drive side, including the small wire cover (Fig. 9) at the lower portion of the mount arm.
3. Remove the Smart Arm Touch Pad from the mount arm by removing the snap clip on the right side of the touch pad (Fig. 9). This will allow the Smart Arm™ Touch Pad to be removed from the mount arm.
4. Remove the protective tape covering the connection pins at the bottom of the Smart Arm Touch Pad (Fig. 13).
5. Insert the IR Sensor (Fig.12) into the bottom of the Smart Arm Touch Pad (Fig.14), with the white sensor facing out. No additional wiring is required.
6. Reinstall the Smart Arm Touch Pad and snap clip (Fig. 9).
7. Reinstall the wire covers, including the small wire cover (Fig. 9).



Smart Arm Wiring Diagram



*The OneControl® System will require two CAN bus harnesses to be connected, or if at the end of the system, one CAN bus harness and one resistor. Not all harnesses will have the The OneControl® wires included, depending on OEM use.

*Customer has the option of installing either the OneControl® (formerly MyRV) Control or the Manual Awning Rocker switch. Diagram shows installation of both.

Troubleshooting

What Is Happening?	Why?	What Should Be Done?
Awning won't open or close.	System secured.	If optional travel locks are installed, make sure that they have been unlocked.
	Faulty Fuse.	Verify the fuse is good.
	Motor overheated.	Thermal breaker has tripped, auto resets once cooled.
	No power to motor.	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.	Improper mounting.	The awning is considered completely closed as long as the outer arm is overlapping the mount arm. This overlap can vary.
	Pitch arm bolt loose.	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.
	Improper assembly.	Make sure all three washers are in the proper location of the pitch arm.
Awning doesn't close all the way.	Improper mounting.	The awning is considered completely closed as long as the outer arm is overlapping the mount arm. This overlap can vary.
	Heavy strain on motor.	Motor overheated, thermal breaker has tripped, auto resets once cooled.
	Awning fabric improperly installed.	Verify the fabric is square from the unit to roll tube and is rolling up straight on the roll tube.
Lights won't work.	Built-in fuse delay.	There is a resettable fuse that can take up to 30 seconds to reset.
	Low power.	Make sure to have a minimum of 11.5V DC to the red wire on the light.
	Loose connection	Double check power coming out of the touch pad.
Awning seems to wobble when extending or retracting.	Improper assembly.	Make sure the bolts that hold the head to the support arm assemblies are tight.
	Improper assembly.	Make sure the end caps are seated properly on the roll tube.
	Drive head or idler head assembly shaft bent.	Make sure the shaft coming out of the head going to the end cap isn't bent.
	Improper assembly.	Make sure the mount arms are properly secured to the wall.
	Support arm(s) bent.	Make sure no part of the support arm assemblies is bent.
	Improper assembly.	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.	Built-in feature.	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.

Additional Information Sources

Additional information about this product can be obtained from 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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