



SOLERA® POWER AWNING OWNER'S MANUAL

LIPPERT
COMPONENTS®

System Information

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.



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 or the awning assembly as well as voiding the Lippert Components Limited Warranty.

Operation

NOTE: Some coaches may not use the LCI switch (Fig. 3).

Extending the Awning

1. Verify the RV battery is fully charged and connected to the electrical system.
2. Locate the locking latch (Fig. 1), if equipped, and unlock the latch (Fig. 2).

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

3. Press and hold EXTEND (Fig. 3A) 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. 4).

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.

⚠ 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 RV.

Retracting the Awning

1. Verify the coach 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. 3B) until the awning is retracted completely.
3. Locate the locking latch (Fig. 2), if equipped, and lock the latch (Fig. 1).

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

Fig. 1



Fig. 2



Fig. 3

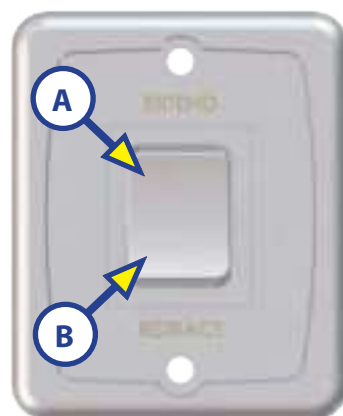
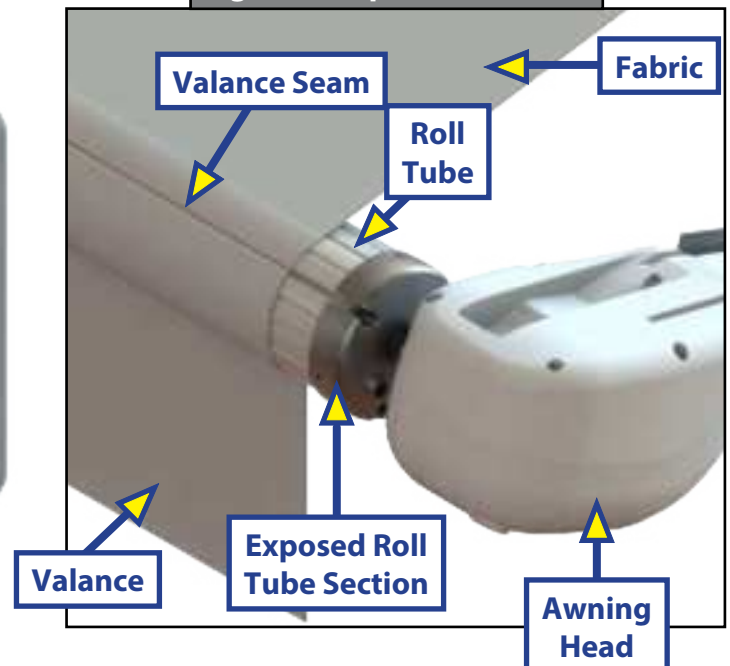


Fig. 4 - Complete Extension



Adjusting Pitch - All Solera Awnings

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 articulating arm to tip one side of the awning to allow water runoff.
2. Extend the awning to desired position.
3. Choose the side of the awning for optimum shade or convenient water runoff. Pull downward on the joint of the articulating arm until desired pitch is set (Fig. 5) to allow for water runoff. Do not push the joints of the articulating arms up. This will put tension on the gas strut, which can cause the strut to break. Belleville washers and bolt (Fig. 6A) allow the joint to remain in the position set by the operator.

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

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

Fig. 5

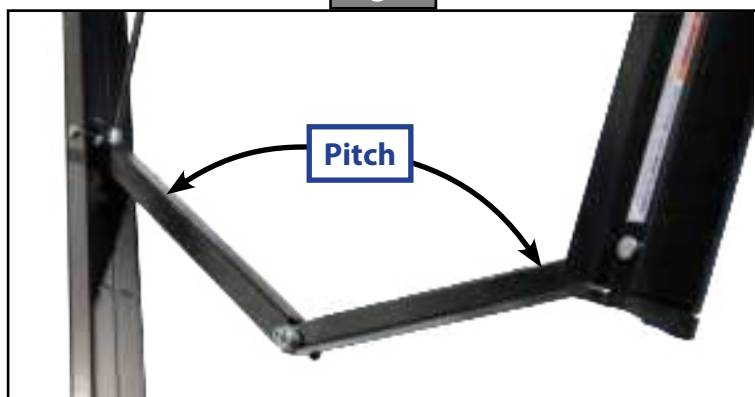
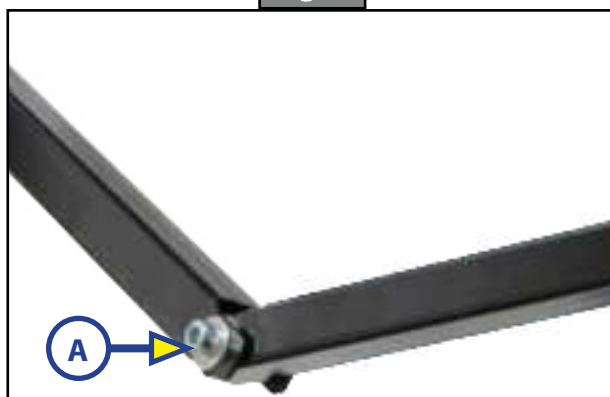


Fig. 6



Maintenance - All Solera Awnings

Fabric Care

If the awning is rolled up while wet, roll it out and let it dry as soon as conditions allow before rolling it up again. This will help prevent the formation of mildew and add greatly to the life of the awning. Mildew does not form on the fabric itself, but on the accumulated dust, dirt and grime.

NOTE: Periodically clean vinyl or woven acrylic fabric using a mixture of $\frac{1}{4}$ cup of dish soap and 5 gallons of warm water. Liberally slosh the mixture on the top of the fabric and roll up the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Roll the awning back out and hose off with fresh water. Repeat if necessary. Allow to dry before rolling up.

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. 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 coach.

2. Using a 7/16" socket and cordless/power drill, spin the manual override nut counterclockwise to retract the awning (Fig. 8).

NOTE: A ratchet may also be used to turn the manual override nut. Using a ratchet will take a significant amount of time and should only be used if no cordless/power drill is available.

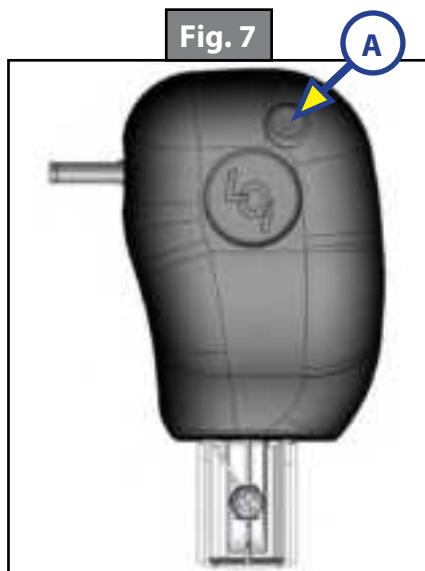
NOTE: Use caution when retracting the awning manually. The use of a step stool or ladder may be required to completely retract the awning.

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

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, be sure to secure the awning in the retracted position with a strap around both the outer support arm and the mounted support arm before the manual override nut is released.

⚠ CAUTION

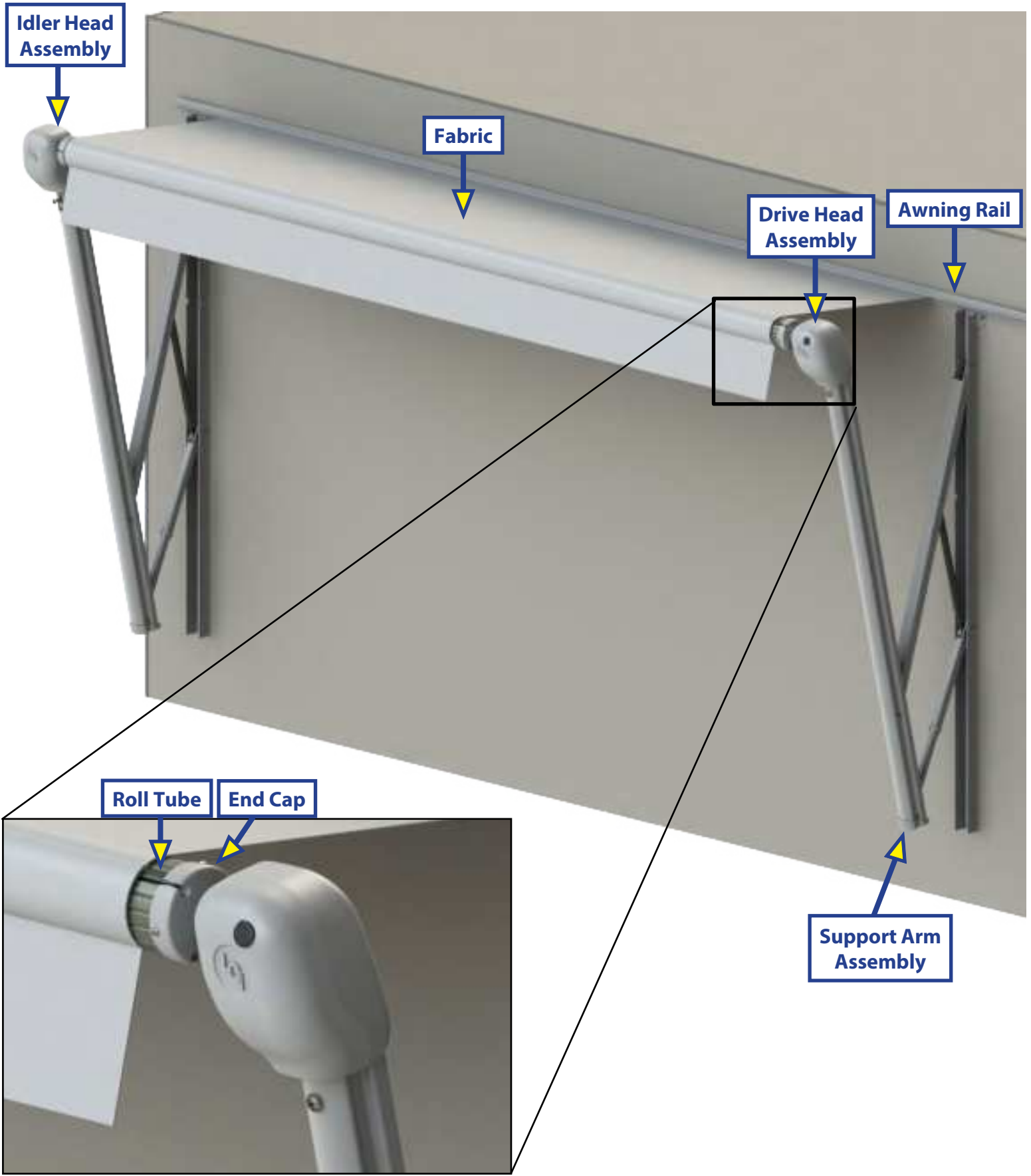
During incidents of high wind, heavy rain or extended time away from the unit, it is advisable to retract the awning completely to prevent damage to the awning and the RV.





SOLERA POWER AWNING ASSEMBLY

AWNINGS



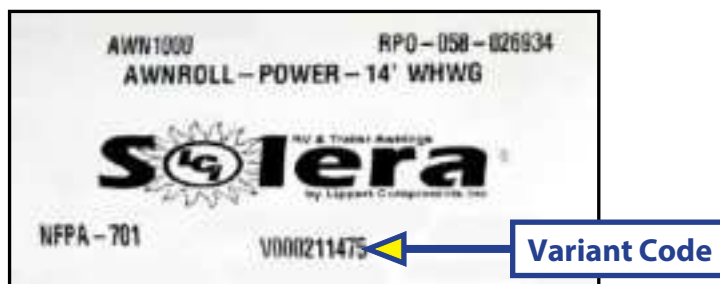


SOLERA POWER AWNING COMPONENTS

AWNINGS

Variant Code Information

The variant code on Lippert products can assist LCI customers in obtaining additional information about the product and its components. For replacement part information, locate the variant code on the awning roll tube and call LCI customer service.



Callout	White Part #	Black Part #	Description
A	281928	281929	Awning Rail (144")

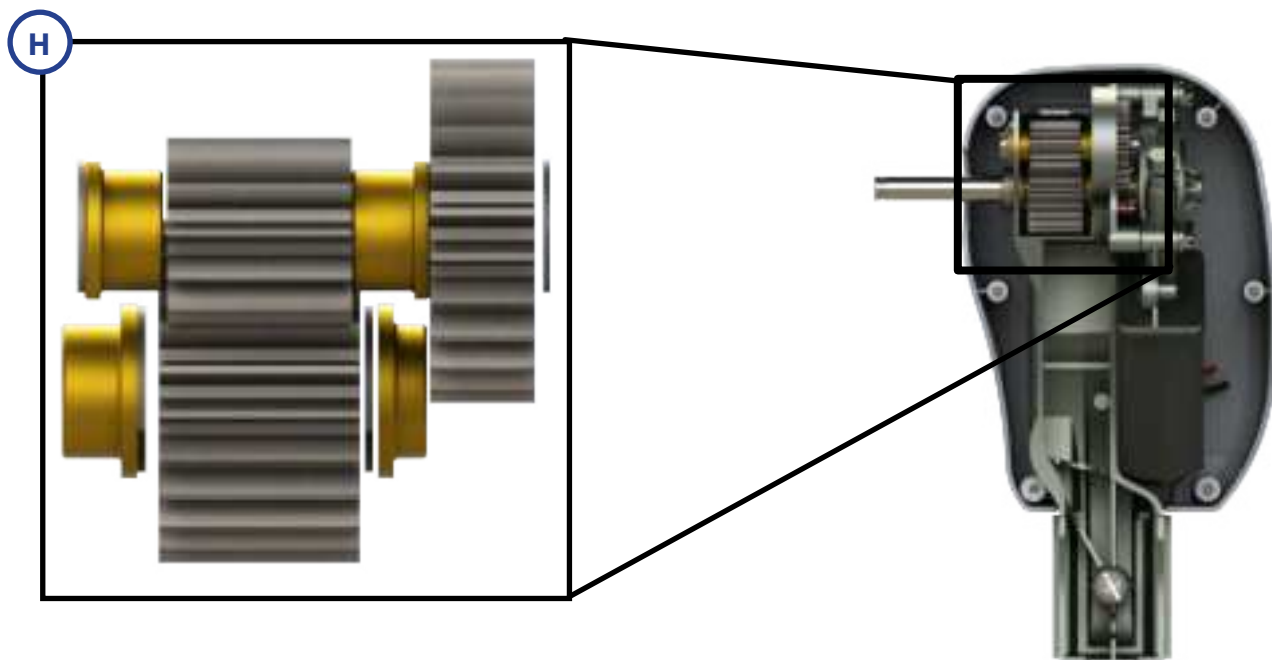
SOLERA POWER AWNING COMPONENTS

AWNINGS



Callout	White Part #	Black Part #	Description
B	266147	273479	Idler Head Assembly
C	289563	289566	Idler Head Front Cover
D	289564	289567	Idler Head Rear Cover
E	266146	273478	Drive Head Assembly
F	289557	289560	Drive Head Front Cover
G	289558	289561	Drive Head Rear Cover

AWNINGS

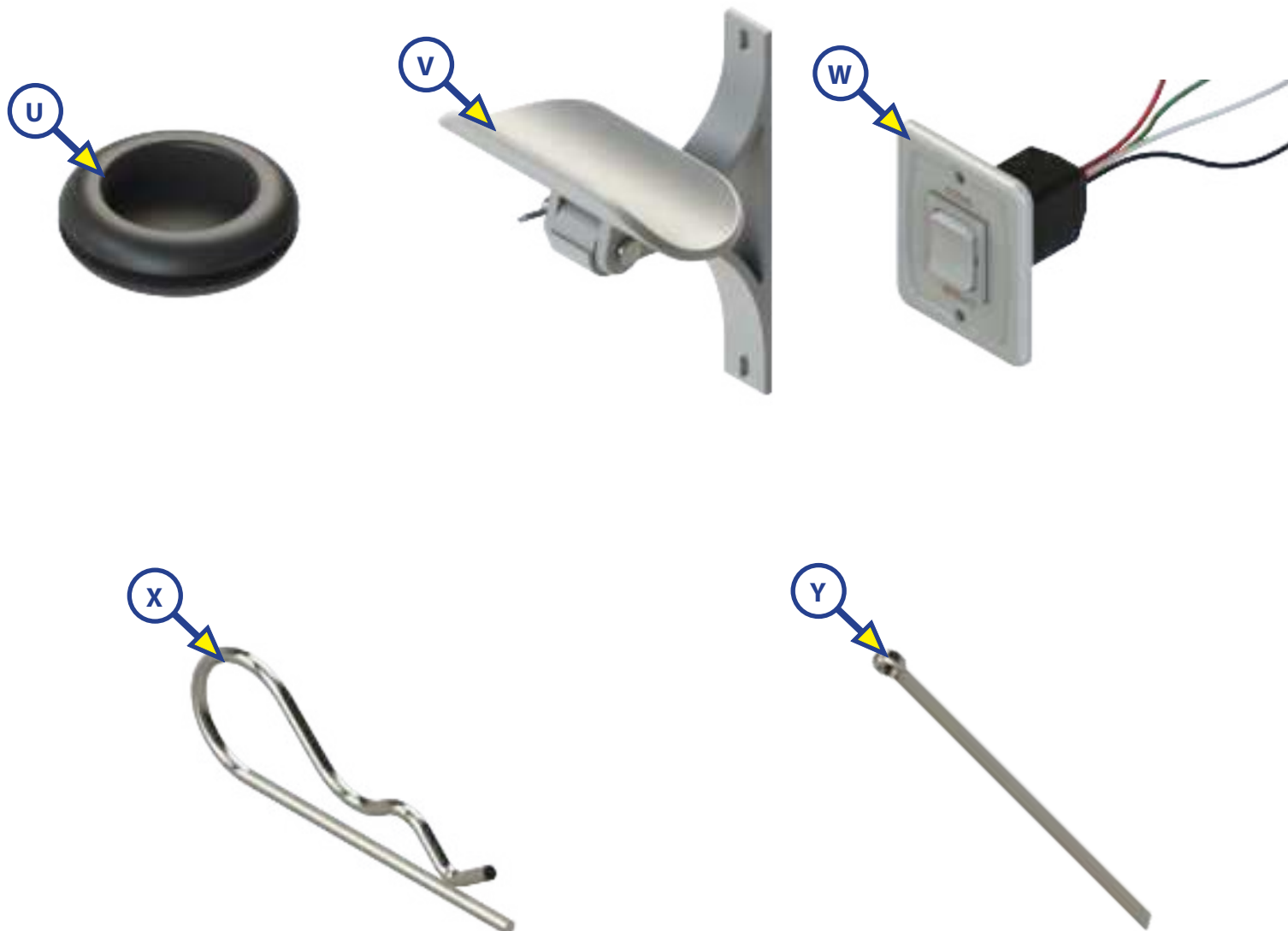


Drive Head Gear Kit		Qty.	Part #	Description
H	353964 (Only available as a kit)	1	266133	.873" 20 PA 16 DP, D SLOT GEAR
		1	266134	.873" 20 PA 16 DP, D SLOT GEAR
		1	266136	.500" 20 PA 16 DP, CLR ZN GEAR
		2	266142	Bushing
		1	266143	Bushing
		1	281828	Bushing
		2	266137	E-Clip 1/2"
		2	276160	E-Clip 3/8"



Callout	Part #	Description
I	299419	Screw, PNH, SQ DR, SLFTPG, Zn (#8 - 15 UNC x 0.500") (End Cap-to-Roll Tube)
J	266156	Screw, PNH, Zn (#6 - 15 UNF x 0.500") (Head Cover fastener – 6/Cover)
K	299630	Screw, Waxed, PNH, SQ DR, Zn (#8 - 32 UNC x 0.500") (Head-to-Roll Tube)
L	118043	Nut, Nylon Lock, Zn ($\frac{5}{16}$ " - 18 UNC) (Head-to-Arm)
M	266155	Screw, Machine, PNH, PHH (#8 - 32 UNC x 0.500") (Back Cover-to-Mount)
N	281079	Screw, Hex Washer, SLFDR, Zn (#6 - 20 UNC x 0.500")
O	266148	Screw, PNH, PHH, Zn ($\frac{5}{16}$ " - 18 UNC x 2.25") (Head-to-Arm)
P	237315	Rivet, Aluminum ($\frac{3}{16}$ " x 1.300") (Klamp-Tite, BAPKTR-06-12)
Q	429284	Screw 8 x 1 $\frac{1}{4}$ " PNH ZN CD AB ST HBK
R	384905	Screw #10 32 x $\frac{1}{2}$ " PHN Plain PH FT SST
S	384906	Nut #10 - 32 Nylon Lock Plain SST
T	320695	Screw #8 - 18 x $\frac{1}{2}$ " PNH SMS ZN SQ AB ST, BLK HD

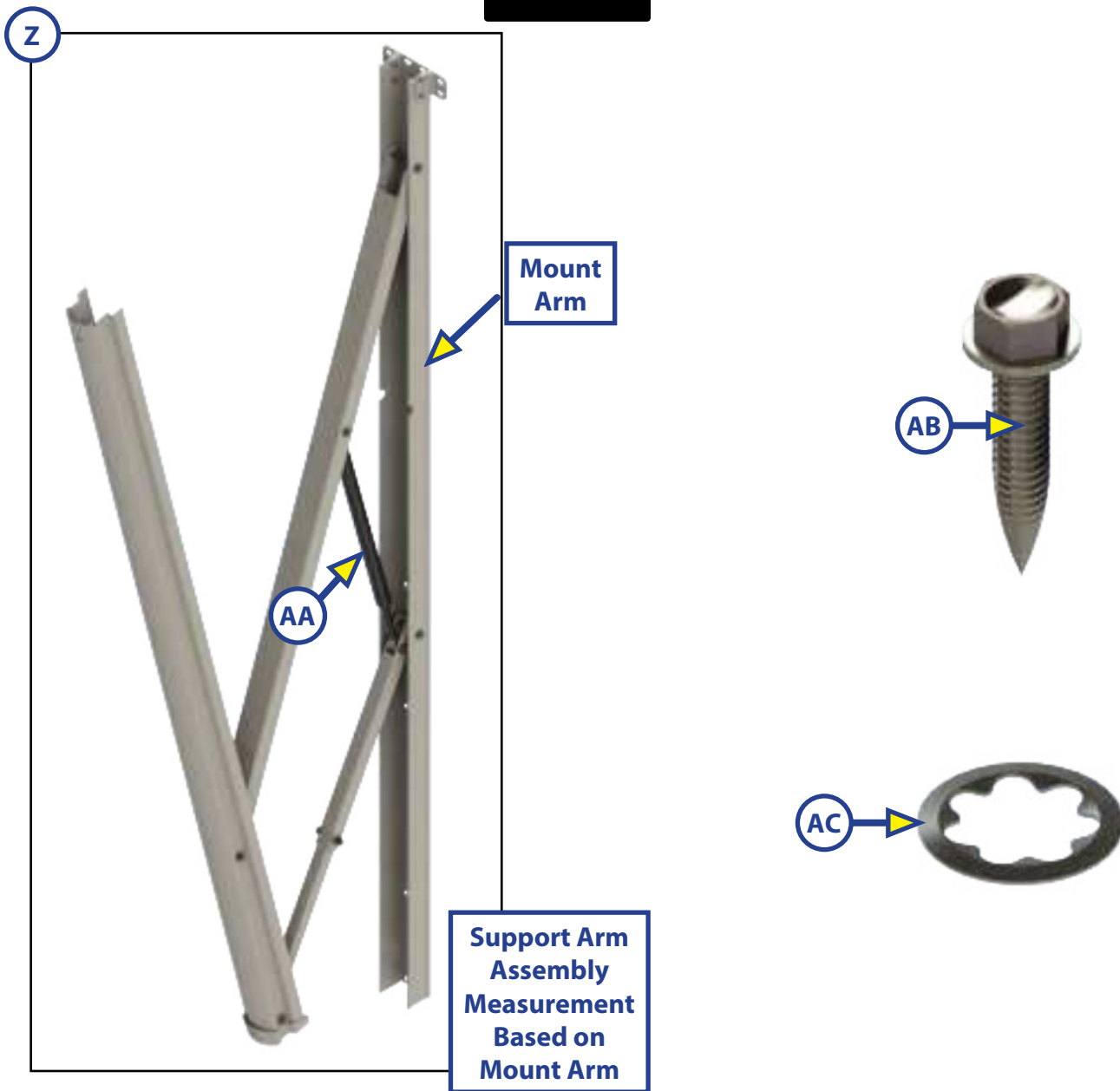
AWNINGS



Callout	White Part #	Black Part #	Description
U	275071		Rubber Grommet (for Manual Override Opening)
V	289373	289374	Awning Center Support Assembly
NOTE: Only required for Solera Awnings greater than 21' in length.			
W	293659	293658	Switch Kit 12GA Wire Harness
X	298760		Cotter Hairpin
Y	347119		Cotter Pin

SOLERA POWER AWNING COMPONENTS

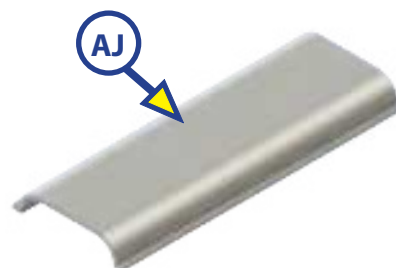
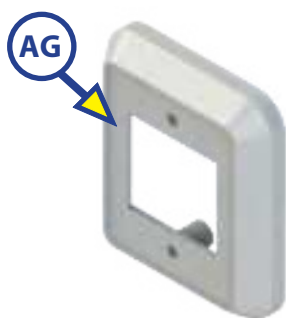
AWNINGS



Callout	White Part #	Black Part #	Description
Z	295742	295743	Support Arm Assembly (Short, 61")
	260294	266169	Support Arm Assembly (Pitched, 66 1/8")
	362132	362133	Support Arm Assembly (Short Standard Fixed Pitch, 60 1/2")
	281152	281154	Support Arm Assembly (Flat, 69")
AA	280343		Gas Strut; 26"; 124 lbs (for Short and Flat Arm Assemblies)
	260282		Gas Strut; 124 - 144 lbs (for Pitched Arm Assemblies)
AB	348108		Screw (#14 - 10 x 1 1/4") (Arms-to-Coach)
AC	282484		Star Washer (for Gas Strut)

SOLERA POWER AWNING COMPONENTS

AWNINGS



Callout	White Part #	Black Part #	Description
AD	266149		Motor
AE	266132		Screw IHWH 2N SLF ST (1/4 - 20 x 1/4") (motor-to-mount)
AF	285499	285500	Switch Kit (Switch, Plate, and Harness)
	280570		Wire Harness Only
	280565	280567	Switch Plate Only
	280564	280566	Switch Only
AG	285079	285077	Bezel Spacer
AH	273007		Power Feed Wires
AI	373008		Power Feed, 2 Way
AJ	275070157	2750701692	Wire Cover; 9.75"; Narrow
	275070353	2750701888	Wire Cover; 22"; Narrow
	266138481	2661382017	Wire Cover; 30"; Narrow
	266139337	2661391872	Wire Cover; 21"; Wide
	266139429	2661391964	Wire Cover; 26.75"; Wide



L I P P E R T
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Please recycle all obsolete materials.

System Information

The Solera® Power Awning features an internal motor to steadily operate the awning. Additionally, the pitch arm allows for rain dump and adjustable pitch features. The pitch arm also provides added stability.

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 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: If the unit is equipped with a locking latch, be sure to unlock prior to extending the awning. After retraction and before travel, be sure to lock the support arms back into place.

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

Extending the Awning

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

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.

Fig. 1

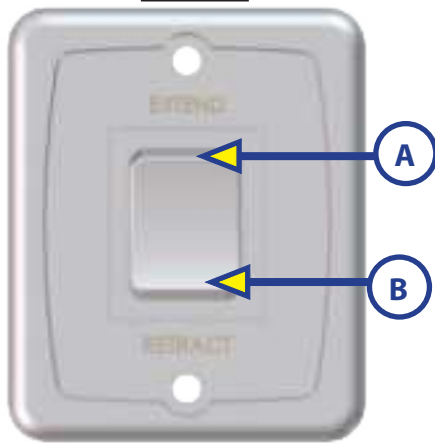
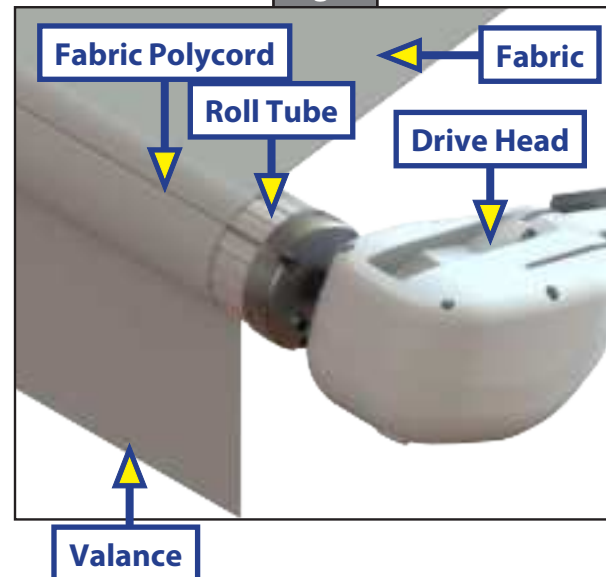


Fig. 2



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.
2. Extend the awning to desired 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. 3) to allow for water runoff. Belleville washers and bolt (Fig. 3) allow for the joint to remain in the position set by the operator.
4. If the pitch arm does not hold position, it can be tightened by adjusting the bolt (Fig. 3) in the center of the joint.

NOTE: Some awnings are equipped with a 2-position pitch arm (Fig.4). The 2-position arm can be set in the pitch position or snapped into a straight position by pushing the release button (Fig.4A) and sliding the sleeve (Fig.4B).

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.

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

Fig. 3

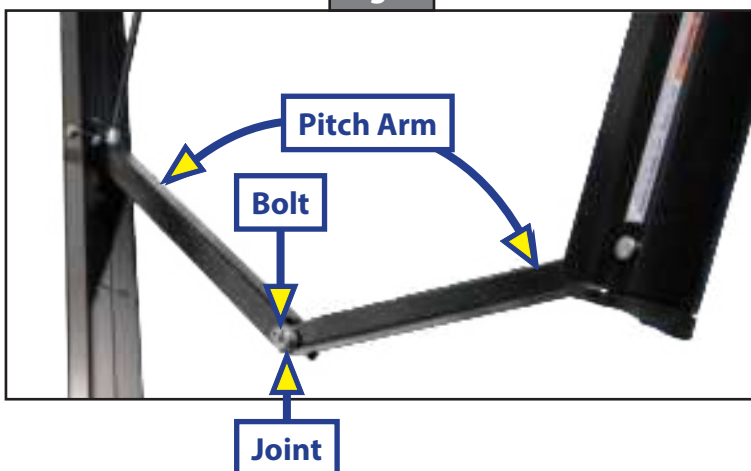
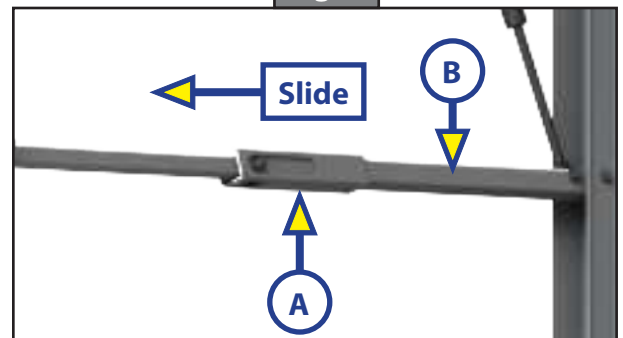


Fig. 4



Maintenance

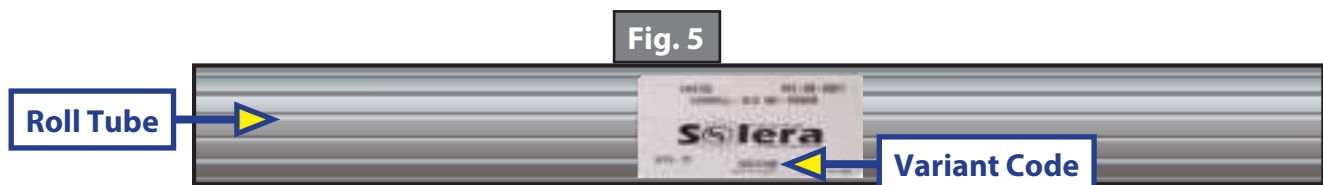
Fabric Care

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

NOTE: Periodically clean vinyl or woven acrylic fabric using a mixture of ¼ cup of dish soap and 5 gallons of warm water. Liberally apply the mixture on the top of the fabric and retract the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Extend the awning and hose off with fresh water. Repeat if necessary. Allow to dry before retracting.

Variant Code Information

Solera® Awnings have a sticker located on the roll tube with a variant code that is specific to that awning assembly (Fig. 5). The sticker on newer units will be located near the motor head on the roll tube. There will also be a sticker on the awning fabric. The variant code will determine which variation of the product is being used. When ordering replacement parts, it is imperative to use the variant code to receive the most compatible part.



Manual Retraction of The Awning

Resources Required

- 2 or 3 People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Razor Knife
- Zip Ties
- Ladders

Procedure #1 (Preferred)

1. Push both support arm assemblies closed until they are approximately one foot from fully retracted. Secure both support arm assemblies by securing a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 6).
2. Remove the #8 wax screw that secures the end cap to the drive head shaft.
3. Pull the roll tube and end cap off of the drive head shaft.



Make sure to adequately support the roll tube during this process. Failure to support the roll tube may result in personal injury or property damage.

4. Roll the fabric up around the roll tube by turning the roll tube by hand.

NOTE: Roll the fabric as tight to the unit as possible while leaving enough slack in the fabric to be able to slide the drive head back onto the end cap.

5. Slide drive head shaft into the end cap and reinstall the #8 wax screw to secure.
6. Tighten zip ties around the support arms until the support arms are as tight against the unit as possible.



Ensure the awning assembly is secure against the side of the unit prior to travel. Failure to do so may result in personal injury or property damage.

Procedure #2

1. Push both support arm assemblies closed until they are approximately 1 foot from fully retracted. Secure both support arm assemblies by securing a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 6).
2. Remove the #6 x ½" hex head screw at each end of the fabric, where it is secured to the awning rail.
3. Remove the drip cap at one end of the awning rail (if equipped).
4. Remove the #8 wax screws that secure the end caps to the drive and idler head shafts.
5. With one person at each end of the awning and one in the middle to support the roll tube, slide the roll tube and end cap assembly off the shaft from each head assembly.
6. Slide the fabric down the awning rail to the desired end to remove it from the unit.
7. Roll the fabric around the roll tube and store securely inside the unit for travel.
8. Tighten zip ties around the support arms until the support arms are as tight against the unit as possible.

⚠ CAUTION

Ensure the awning assembly is secure against the side of the unit prior to travel. Failure to do so may result in personal injury or property damage.

Procedure #3

NOTE: Performing this procedure will require the replacement of the fabric in addition to any other components that may need to be repaired or replaced.

1. Push both support arm assemblies closed until they are approximately 1 foot from fully retracted. Secure both support arm assemblies by securing a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 6).
2. Cut the awning fabric along the roll tube and along the awning rail to remove from the awning assembly.
3. Tighten zip ties around the support arms until the support arms are as tight against the unit as possible.

⚠ CAUTION

Ensure the awning assembly is secure against the side of the unit prior to travel. Failure to do so may result in personal injury or property damage.

Fig. 6





L I P P E R T C O M P O N E N T S®

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System Information

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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

NOTE: 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.

Resources Required

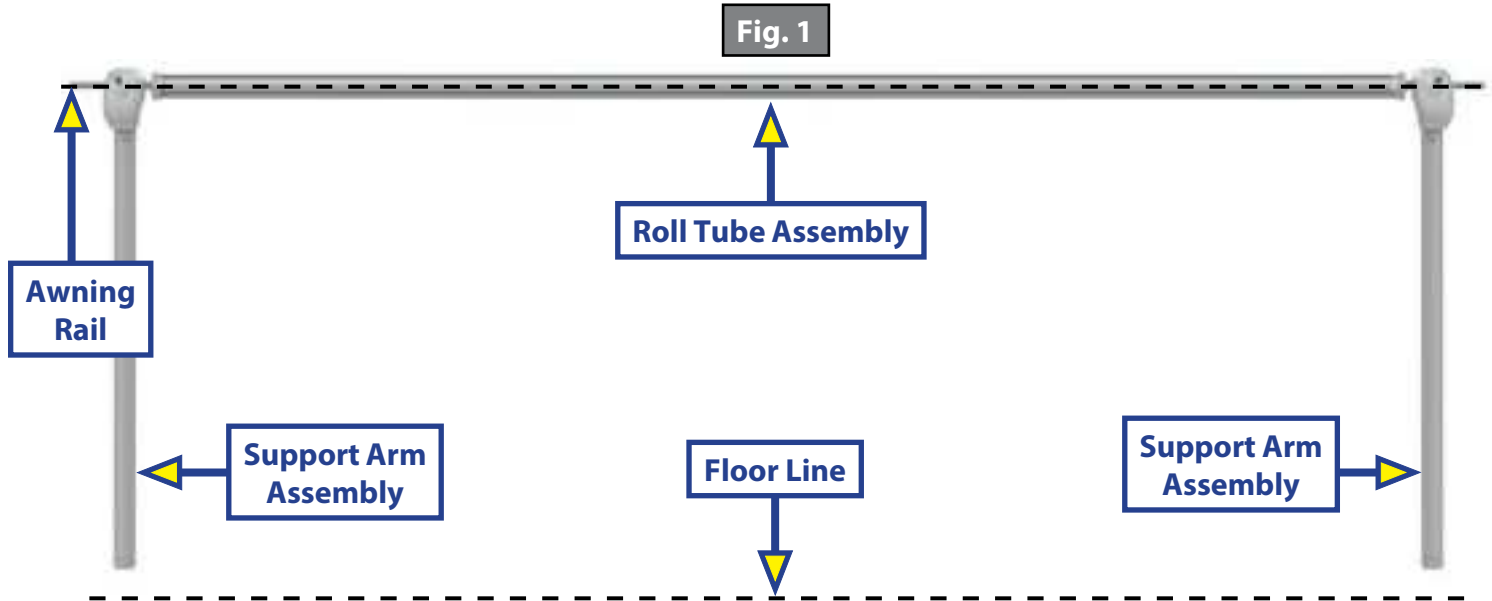
- Three People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Rivet Gun (If Needed)
- Screwdriver
- Wire Cutters/Strippers
- Non-Permanent Method of Marking
- Silicone Sealant or Butyl Tape
- Silicone Lubricant

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

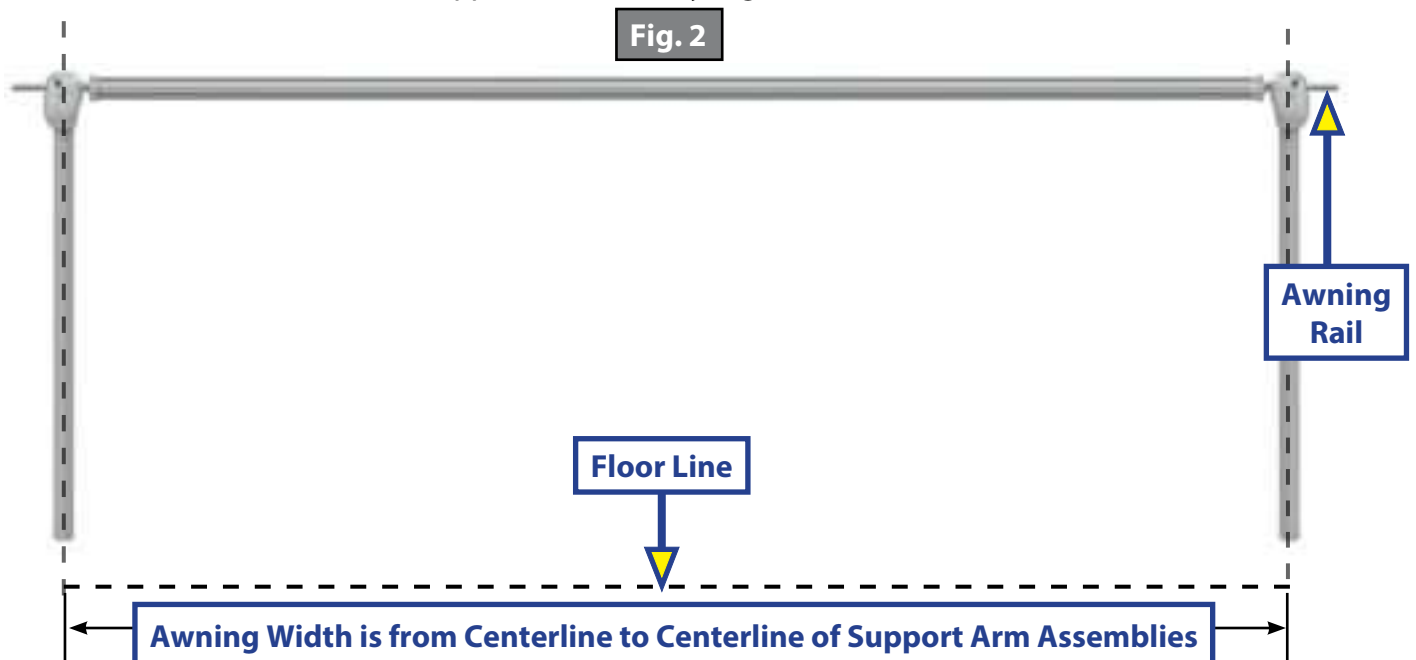
NOTE: The awning rail must be level and parallel with the floor line of the unit (Fig. 1).



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. Ensure 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 end cap (Fig. 3). Align the holes and secure with waxed screw. Repeat process for idler head assembly at other end.

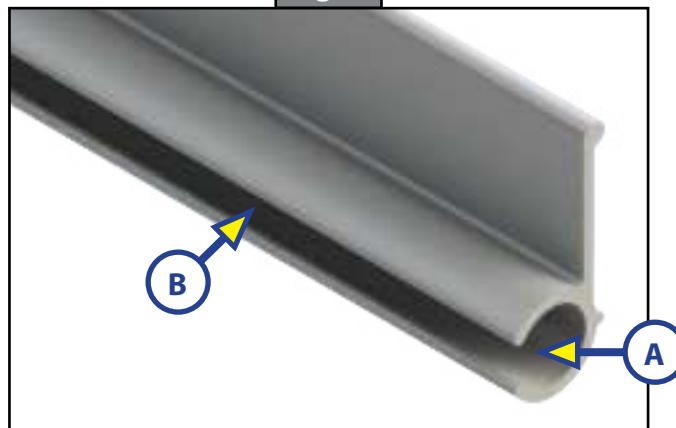
Fig. 3



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 on the installation end (Fig. 4A).
5. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail channel.

Fig. 4



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 centerline marks made previously.

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 (2) #14 x 1 1/4" screws at the top (Fig. 5) and two (2) #14 x 1 1/4" screws at the bottom (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 ensure that 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 2 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.

10. Cut the zip ties and connect the wires from the drive head assembly to a power source and run the awning half way out. Remove the wire cover to expose the fastening points. Install the remaining two (2) #14 x 1 1/4" screws at any of the three locations shown (Fig. 7) in the center of the support arm. Repeat this process for the other side of the awning assembly.

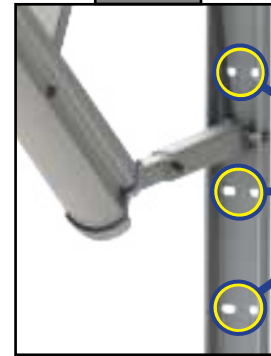
Fig. 5



Fig. 6



Fig. 7

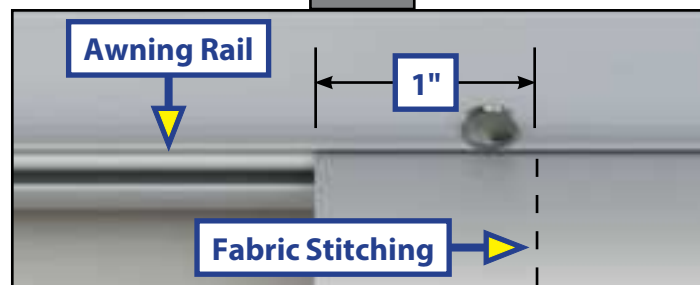


Possible
Fastener
Locations

Securing the Fabric

1. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
2. Secure the fabric in the awning rail no more than 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord (Fig. 8).

Fig. 8



Awning Wiring

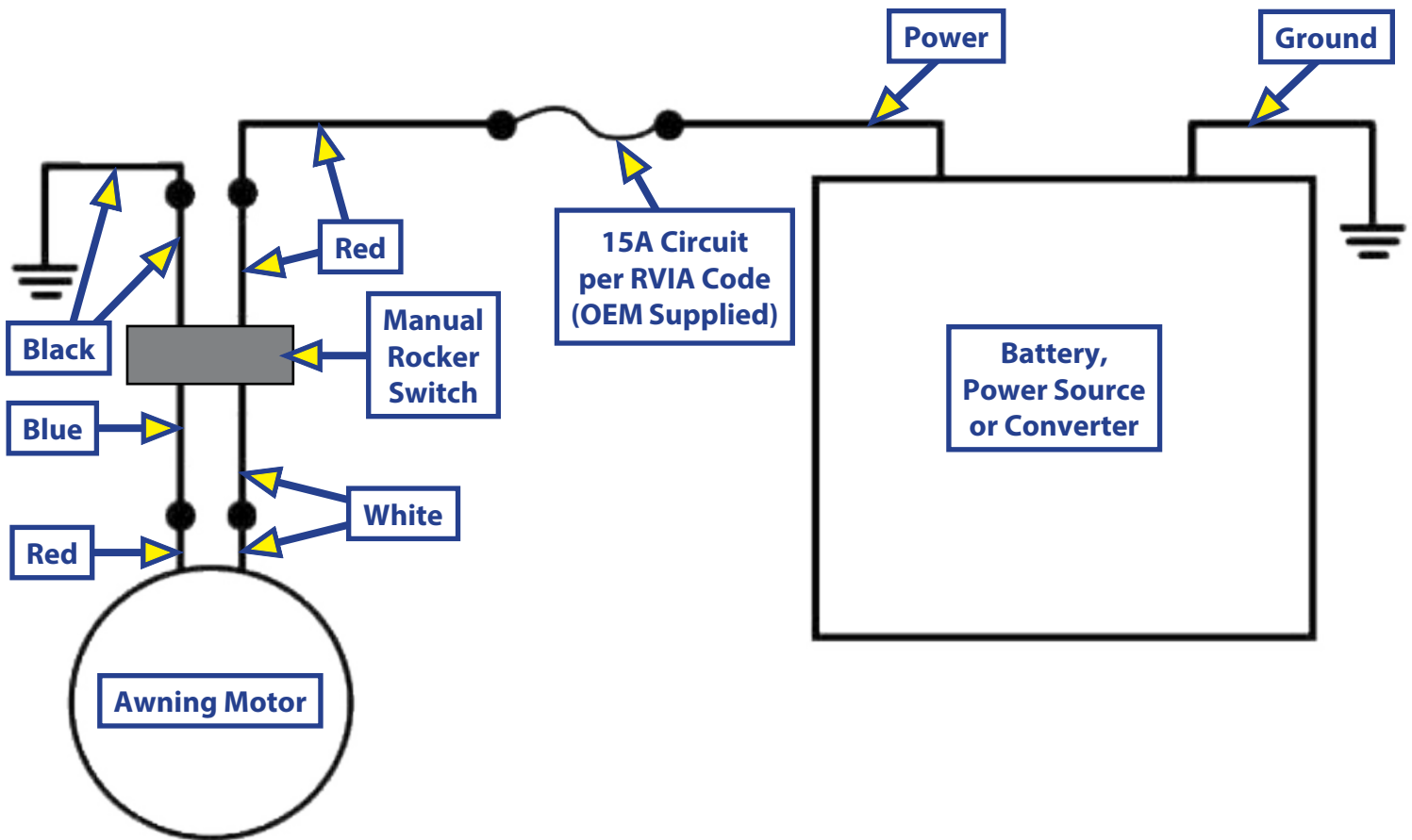
1. Pull the wires from the unit through the support arm assembly. These wires may be located at the bottom or the top of the support arm assembly.
2. Connect wiring from the unit to the switch and the awning drive head per the wiring diagram below (Fig. 9).

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

NOTE: Solera Power Awning motors come stock with an internal 6A auto reset breaker. If this breaker trips, it will take approximately 30 seconds to reset. LCI recommends that the awning be wired into a 15A circuit.

NOTE: All wire to be 14 AWG or larger as necessary to provide 12V minimum at all times at the connection to the LCI-supplied power cable.

Fig. 9



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 radio wires provided from the unit (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



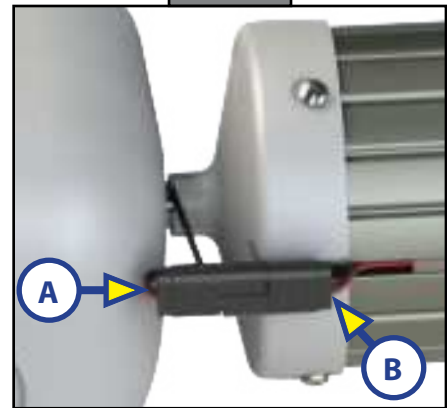
Installation with LED Options

LED Roll Tube Installation

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

NOTE: Be sure the black wire is connected to a ground and the red wire is connected to a 3 amp maximum fuse (usually behind the switch) and then a power source from the unit.

Fig. 11

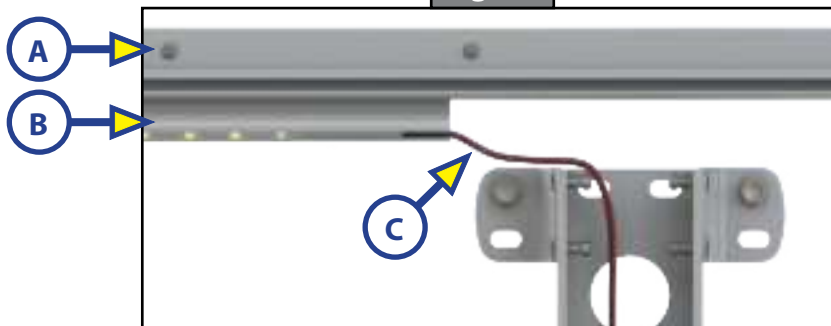


LED Light Rail Installation

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

1. Seal the back of the LED light rail.
2. Mount the LED light rail (Fig. 12B) directly below the awning rail (Fig. 12A) and secure to the side of the unit.
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 unit wiring. Make sure to connect the red wire on the light side to the power wire on the unit side and connect the black wire from the light side to the ground wire from the unit 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 to protect against water intrusion (Fig. 13).
2. Reinstall all wire covers into the support arm assemblies.

Fig. 13





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Preparation

NOTE: All screws supporting awning assembly must have a backer within the structure of the wall of the unit.

Resources Required

- Three people
- Cordless or Electric Drill or Screw Gun
- Appropriate Bits
- Rivet Gun

Installation

1. Insert drive head pin (Fig. 1A) into end cap (Fig. 1B). Align holes and secure with waxed screw. Insert screw fully, but do not over-tighten. Repeat process for idler head at other end.

NOTE: Be sure to align LED light wires (Fig. 2A or 3A) coming from idler head with the LED light on roll tube (Fig. 2B or 3B).

Fig. 1

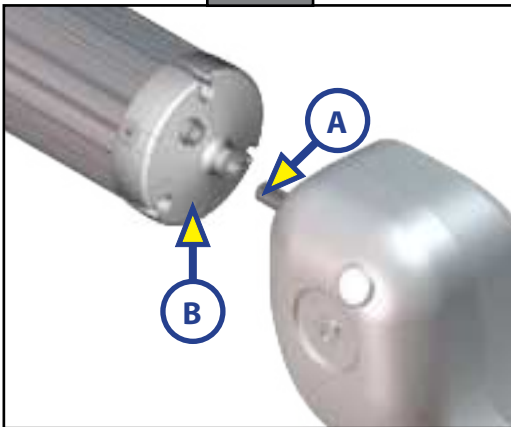


Fig. 2 - Old Connection

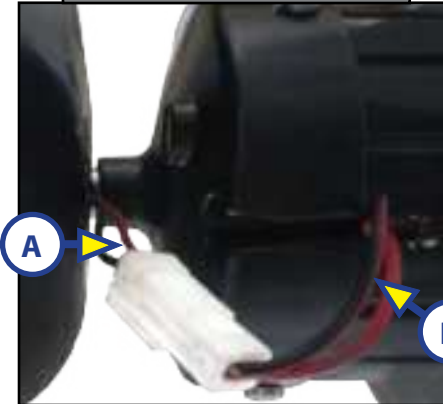
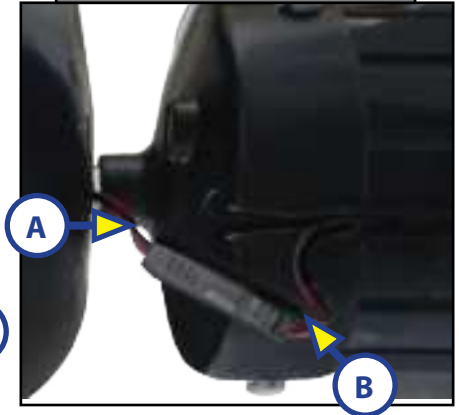


Fig. 3 - New Connection



2. Connect the plug from the idler head (Fig. 2A or 3A) to the plug from the LED light (Fig. 2B or 3B) on the roll tube.
3. Station a person at each end of the awning assembly to hold the support arms. A third person will line up the polycord with the previously-installed awning rail. Slide the polycord to desired position.
4. Set the awning assembly to the desired height and attach it to the side of the unit with two #14 x 1 1/2" screws (286576) at the top (Fig. 4) and two #14 x 1 1/2" (286576) screws at the bottom (Fig. 5).

NOTE: Make sure the awning assembly is square on the unit prior to mounting the bottom 2 screws.

5. Extend the awning half way out by connecting the power and ground wires of the awning to a 12-18V battery.

Fig. 4



Fig. 5

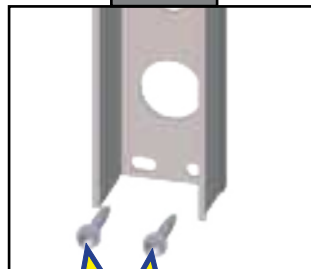
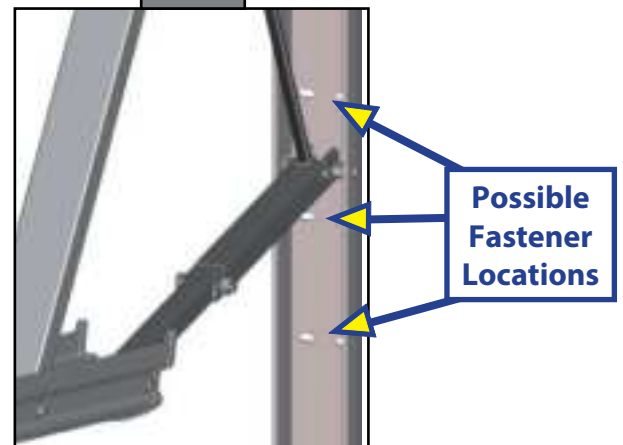


Fig. 6



6. Secure the middle of the wall mounting channel with two #14 x 1 1/2" screws ([286576](#)) at any of the three locations shown (Fig. 6).

7. Repeat this process for the other side of awning assembly.

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

8. Take the LED power wire that is already fed through the idler leg and connect to the desired power wire from the unit.

NOTE: Be sure the black wire is connected to a ground and the red wire is connected to a 3 amp max fuse and then a power source from the unit.

9. Seal all wall penetrations to protect against water intrusion.

NOTE: All screws supporting the awning assembly must have a backer within the structure of the wall of the unit.

NOTE: Solera® awnings under 21' in length **DO NOT** require the use of a cradle.

Securing the Fabric

1. Roll the awning in and out several times to ensure that the fabric is square on the roll tube.

2. Secure the fabric in the awning rail 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord.

LED Light Rail Installation

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

1. Mount the LED light rail track (Fig. 7B) directly below the awning rail (Fig. 7A) and secure to the side of the unit.

2. Route the light wire over the top of the awning mount leg and run the light wire down through the leg in the same manner as the motor wire (Fig. 8).

3. Cut wire to desired length and connect to the unit wiring, making sure to connect the red wire on the light side to the power wire on the unit side.

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

4. Connect the black wire on the light to the ground on the unit side.

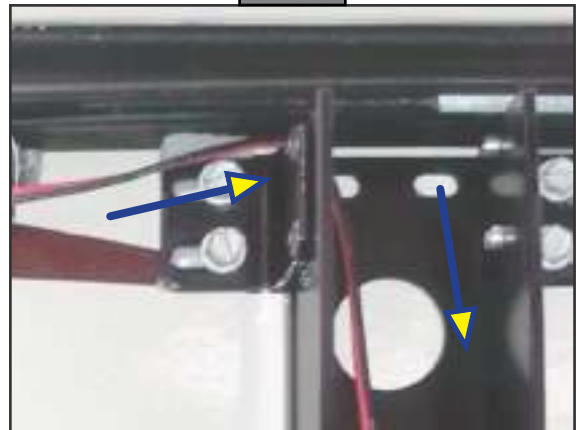
5. Make sure to seal the light track where it is screwed to the wall and where the light wire connects to the unit wire.

6. Turn the light on to confirm it illuminates.

Fig. 7



Fig. 8





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System and Safety Information

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



Failure to follow the instructions provided in this manual may result in death, serious injury, unit damage, or voiding of the component warranty.



Always wear eye protection when performing service or maintenance to the unit. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the service.



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

Basic Troubleshooting

1. Awning won't open or close.
 - A. If optional travel locks are installed, ensure that they have been unlocked.
 - B. Verify the fuse is good.
 - C. Check for power at the motor when the switch is in the extended or retracted position.
2. Awning pitch won't stay in the flat position.
 - A. Check for bad gas strut.
 - B. 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.)
 - C. Make sure all 3 washers are in the proper location of the pitch arm (Fig. 1).
3. Awning doesn't close all the way.
 - A. The awning is considered completely closed as long as the outer arm is overlapping the mount arm. This overlap can vary.
 - B. Ensure there are no obstructions in the support arm assemblies preventing the awning from closing.
 - C. Verify the fabric is square from unit to roll tube and is rolling up straight on the roll tube.
4. Awning runs slow.
 - A. The awning will run slower during retract than extend. Retract is approximately 35 seconds while extend is approximately 27 seconds on a fully-charged battery.
 - B. Ensure there are 12 volts where the unit wire meets the awning wire during retract.
 - C. Ensure the pitch arms are not bent in an upward direction.
 - D. Ensure the ground wire before the switch has a good connection to the battery or chassis.
5. Lights won't work.
 - A. There is a resettable fuse that can take up to 30 seconds to reset.
 - B. Make sure to have 12 volts to the red wire on the light.
6. Awning seems to wobble when extending or retracting.
 - A. Ensure the bolts that hold the head to the support arm assemblies are tight.
 - B. Ensure the end caps are seated properly on the roll tube.
 - C. Ensure the shaft coming out of the head going to the end cap isn't bent.
 - D. Ensure the wall mount is properly secured to the wall.
 - E. Ensure no part of the support arm assemblies are bent.
 - F. Ensure the wear collar spacers are all properly located in the support arm assemblies.
7. Awning works in opposite direction of what switch shows.
 - A. Wires going to awning have been reversed or switched. Reverse the wires.
8. Awning rolls up backwards.
 - A. 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



Service and Replacement

Support Arm Assembly Replacement

Resources Required

- 1-3 people (depending on task)
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Zip Ties



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

1. Run awning out to almost full extension in order to allow access to the fasteners that secure support arm assembly to the wall of the unit.
2. Remove the bottom 2 and middle 2 fasteners from the support arm assembly (Fig. 2 and Fig. 3).
3. Disconnect the wires in the support arm assembly from the wires in the unit.

NOTE: If the unit is equipped with:

- A. LED in the awning roll tube: The LED wires will be in the idler side support arm assembly, and the motor wires will be in the drive side support arm assembly.
 - B. Wall mounted LED or fabric LED: All wires will be in the drive side support arm assembly.
 - C. Speakers in the drive/idler head: The wires will be in both support arm assemblies.
4. Use a cordless battery from a screw gun to retract the outer arm to within 12 " of being closed:
 - A. Take the red and white wires from the motor and connect them to the positive and negative posts on a cordless screw gun battery.
 - B. If the awning does not extend/retract in the correct direction, reverse the wires.
 5. Secure both support arm assemblies by securing a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 4).

Fig. 2



Fig. 3

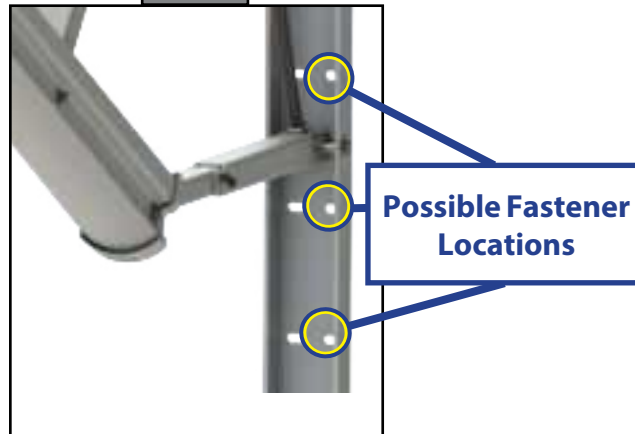


Fig. 4



Fig. 5



6. Remove the drive head or idler head assembly retaining bolt from the outer arm.
7. Support the roll tube and remove the head assembly from the outer arm on the side being replaced.
8. Remove the fasteners (2 or 4) from the angle bracket at the top of the support arm assembly. These are the last of the fasteners holding the assembly to the unit (Fig 5).

9. Remove the support arm assembly from the unit. It should be completely free now and can be removed from the working area.



Make sure the roll tube is adequately supported before removing the support arm assembly. Failure to do so may result in serious personal injury or property damage.

10. Mount the new support arm assembly to the wall using fasteners similar to those removed from the old support arm assembly. One fastener will hold the assembly in place at this time.
11. Very carefully cut the zip ties while holding the support arm assembly. The gas strut will force the support arm assembly to extend. Be cautious and continue to maintain control of the support arm assembly while slowly allowing it to extend.



When cutting the zip tie, hold the outer arm so it does not kick open. Pressure from the gas strut can cause the outer arm to kick open, which could cause serious injury or unit damage.

12. Install the remaining fasteners. There are six total fasteners: 2 at the top, 2 in the middle and 2 at the bottom of the support arm assembly (Fig. 2, Fig. 3 and Fig. 5).
13. Push the support arm assembly back toward the unit to align the head assembly with the support arm assembly. Install the head assembly back into the support arm assembly and secure with the head assembly retaining bolt.
14. 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. Use a cordless battery and extend the awning fully.
15. Reconnect all wiring as previously connected.

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

16. Seal all areas at this time.

Changing (Remove Power) Head Assembly

Resources Required

- 1-3 people (depending on task)
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Zip Ties



Failure to secure the outer arms may result in serious personal injury or property damage. Pressure from the gas strut can cause the outer arm to kick open, which could cause serious injury or unit damage.

1. Extend the awning about 12" away from the unit.
2. Secure both support arm assemblies by running a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 4).
3. Remove the wax screw from the end cap that attaches to the shaft on the drive head assembly.
4. Support the roll tube to prevent the fabric from pulling out of the awning rail on the side of the unit.
5. Remove the drive head assembly retaining bolt from the outer arm.
6. Disconnect the wires. Remember the orientation of the colored wires.
7. Remove the old drive head assembly from the unit and set aside.
8. Connect the new drive head assembly shaft to the roll tube end cap.
9. Replace the wax screw in the roll tube end cap, securely attaching it to the drive head assembly shaft.
10. Connect the wiring according to the previous color orientation and slide it into the outer arm. Be careful not to pinch the wiring between the drive head assembly and the outer arm.
11. Secure the drive head assembly in the outer arm with the drive head assembly retaining bolt.

Awning Fabric Replacement

Resources Required

- Two People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Zip Ties

Removal

1. Extend awning out approximately 12".
2. Secure both support arm assemblies by running a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 4).
3. Remove the screws holding the polycords in place on the roll tube and awning rail.
4. Remove the wax screws holding the end caps onto the drive and idler head shafts.
5. Remove the drip cap (if equipped) from the end the fabric will be removed from.

NOTE: If awning is equipped with an LED light strip, unplug the LED light strip from the idler head assembly.

6. Working together, remove the roll tube and fabric from the awning rail and support arm assemblies.



Failure to support the roll tube, fabric and drive/idler head assemblies during removal may result in serious injury or property damage.

7. Place the roll tube and fabric onto a level area.
8. Remove the end cap from the end of the roll tube from which that fabric will be removed.
9. With one person holding the end of the fabric that gets attached to the awning rail on the unit, another can rotate the roll tube to unroll the fabric until only the polycords are left on the roll tube.
10. To remove the fabric, gently pull the roll tube from one end, while another person holds the fabric in place.

Installation

1. Unroll the replacement fabric so that the polycords are parallel with the roll tube.
2. Gently slide the roll tube on to the two polycords of the fabric, making sure that the non-printed side is touching the roll tube (Fig. 6).
3. Center the fabric on the roll tube.
4. Apply the screws that were holding the polycords in place on the roll tube. Install the screws between the edge of the fabric and the stitching on the hem.

Fig. 6

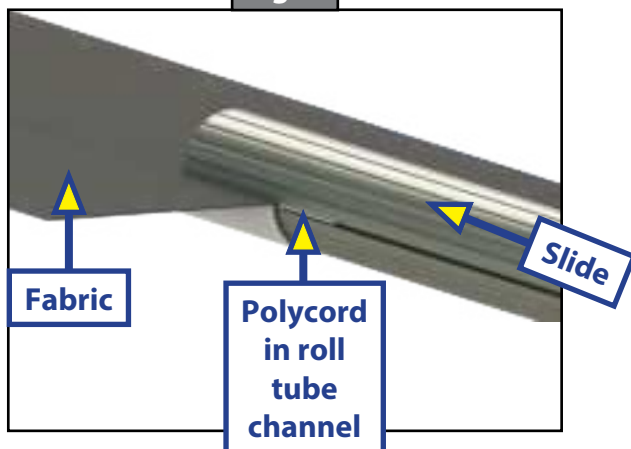
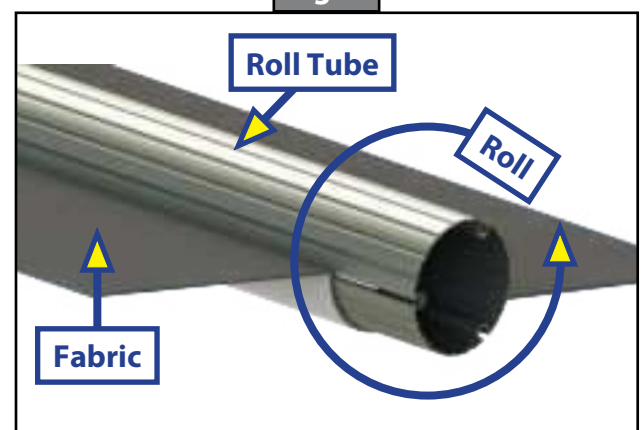


Fig. 7



5. Roll fabric onto roll tube (Fig. 7). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.
6. Reinstall the end cap previously removed.

7. Working together, apply the roll tube and fabric to the awning rail and support arm assemblies, making sure the awning will unroll with the printed side of the fabric up.



Failure to support the roll tube, fabric and drive/idler head assembly during installation may result in serious injury or property damage.

8. Working together, support the roll tube assembly and install the wax screws to each side to secure the roll tube end caps to the head assemblies.
9. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
10. Secure the fabric in the awning rail 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord.
11. Reinstall the drip cap if previously equipped.

NOTE: If awning is equipped with a LED light strip, plug the LED light strip back into the idler head assembly.

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

NOTE: Periodically clean vinyl or woven acrylic fabric using a mixture of 1/4 cup of dish soap and 5 gallons of warm water. Liberally apply the mixture on the top of the fabric and retract the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Extend the awning and hose off with fresh water. Repeat if necessary. Allow to dry before retracting.

Light Replacement

Resources Required

- Silicone Sealant
- Silicone Lubricant

Wall Mount LED or Fabric LED

1. Fully extend the awning.
2. Remove the wire cover that indicates where the wires go into the unit.
3. Disconnect the light wire from the unit wiring.
4. Remove the silicone sealant that holds the light in the light rail at both ends.
5. Slide the light out of the light rail.
6. Spray small amount of silicone lubricant into the light rail channel and slide the new light in.

NOTE: If the light is too long it can be cut at certain locations, which are marked on the light every 3 inches with copper dots.

7. Seal both ends with silicone sealant.
8. Connect the wiring back to the unit as originally wired.

Roll Tube LED

1. Fully extend the awning.
2. Find the plug at the idler head assembly where the light is connected and disconnect the plug.
3. Remove the silicone sealant that is holding the light in the roll tube at both ends.
4. Remove the old light and spray the roll tube channel with silicone lubricant.
5. Slide the new light into the roll tube channel.

NOTE: If the light is too long it can be cut at certain locations, which are marked on the light every 3 inches with copper dots.

9. Center the light in the roll tube channel and seal both ends with silicone sealant.
10. Connect light plug to the connector coming out of the idler head assembly.



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Prior to Installation

All screws/rivets supporting the awning assembly must have a backer within the structure of the wall of the coach.

Resources Required

- Three people
- **Drill or cordless screw gun**
- **#2 square screwdriver bit**
- **3/8" nut driver bit and/or rivet gun**

Installation

Insert drive head pin (Fig. 1A) into cap (Fig. 1B). Align holes and secure with wax screw (Fig. 2A). Insert screw fully, but do not over-tighten. Repeat process for idler head at other end.

Station a person at each end of the awning assembly to hold the support arms. A third person will line up the fabric cord with the previously-installed awning rail. Slide the fabric cord to desired position.

Set the awning assembly to the desired height and attach it to the side of the coach with two #14 x 1 1/2" screws (286576) at the top (Fig. 3) and two #14 x 1 1/2" (286576) screws at the bottom (Fig. 4).

Fig. 1

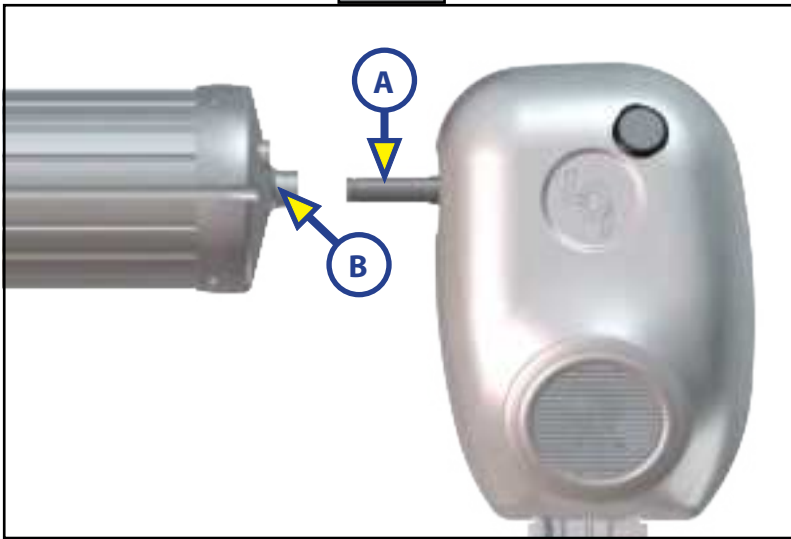


Fig. 2

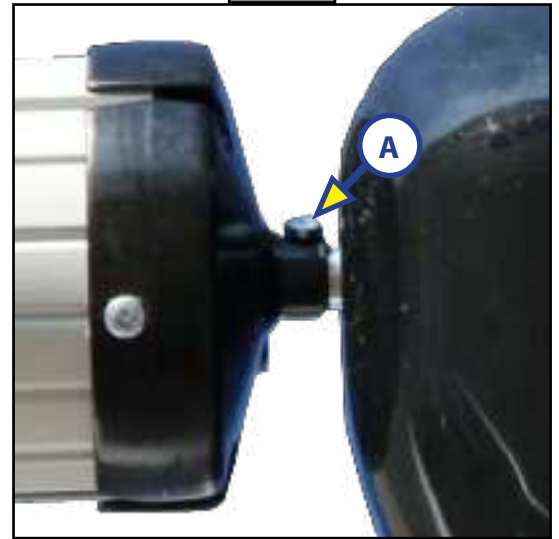
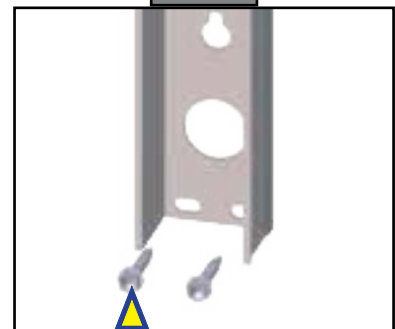


Fig. 3



286576

Fig. 4



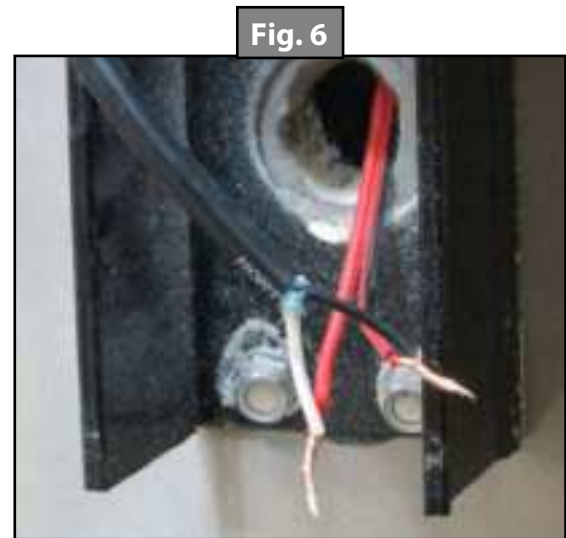
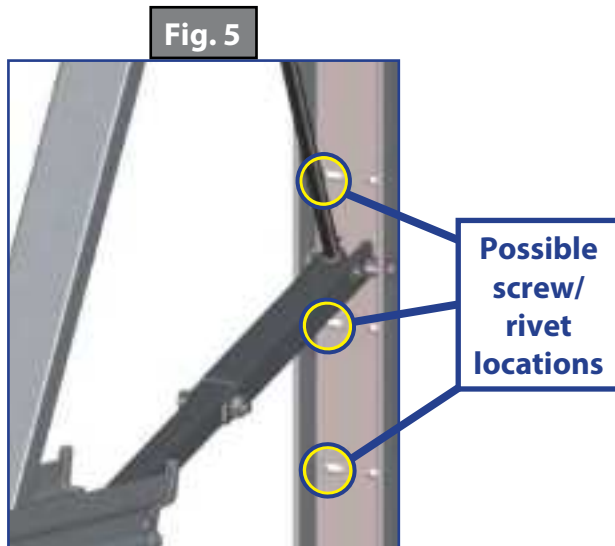
286576

Make sure the awning assembly is square on the unit prior to mounting the bottom 2 screws.

Extend the awning half way out by connecting the power and ground wires of the awning to a 12-18V battery.

Secure the middle of the wall mounting channel with two #14 x 1 1/2" screws (286576) at any of the three locations shown (Fig. 5). Repeat this process for the other side of awning assembly.

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



At both support arms there will be a wire labeled "speakers." Connect these to the radio wires provided from the coach (Fig. 6).

Connecting the speaker wire will be done at the same location on the support arm as the power wire for the motor.

Speaker wire is indicated with a blue insulation on the wiring.

Replace wire covers on both support arms to secure awning power and speaker wiring.

Seal all wall penetrations to protect against water intrusion.

Solera® awnings under 21' in length **DO NOT** require the use of a cradle.

Securing the Fabric

Extend and retract the awning several times to ensure that the fabric is square on the roll tube.

Secure the fabric in the awning rail by installing a #6 x 1/2" hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides.



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Solera® Power Awning

Introduction

The Solera® Power Awning features an internal motor to steadily operate the awning. 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 www.lci1.com/support or by downloading the free myLClapp. The app is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

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▲ CAUTION

This manual provides operational procedures for the 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

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 manufacturer for proper location.

Resources Required

- Three People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Rivet Gun (If Needed)
- Non-Permanent Method of Marking
- Silicone Sealant or Butyl Tape
- Screwdriver
- Silicone Lubricant



Solera® Power Awning

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 11" 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.

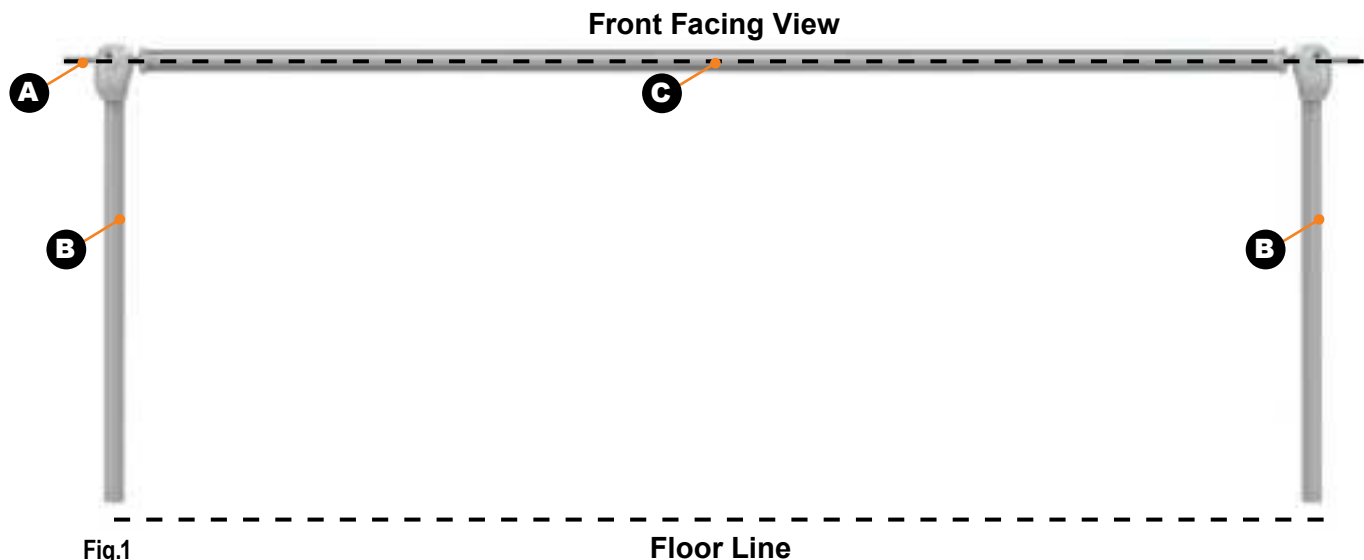


Fig.1

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

Installation

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

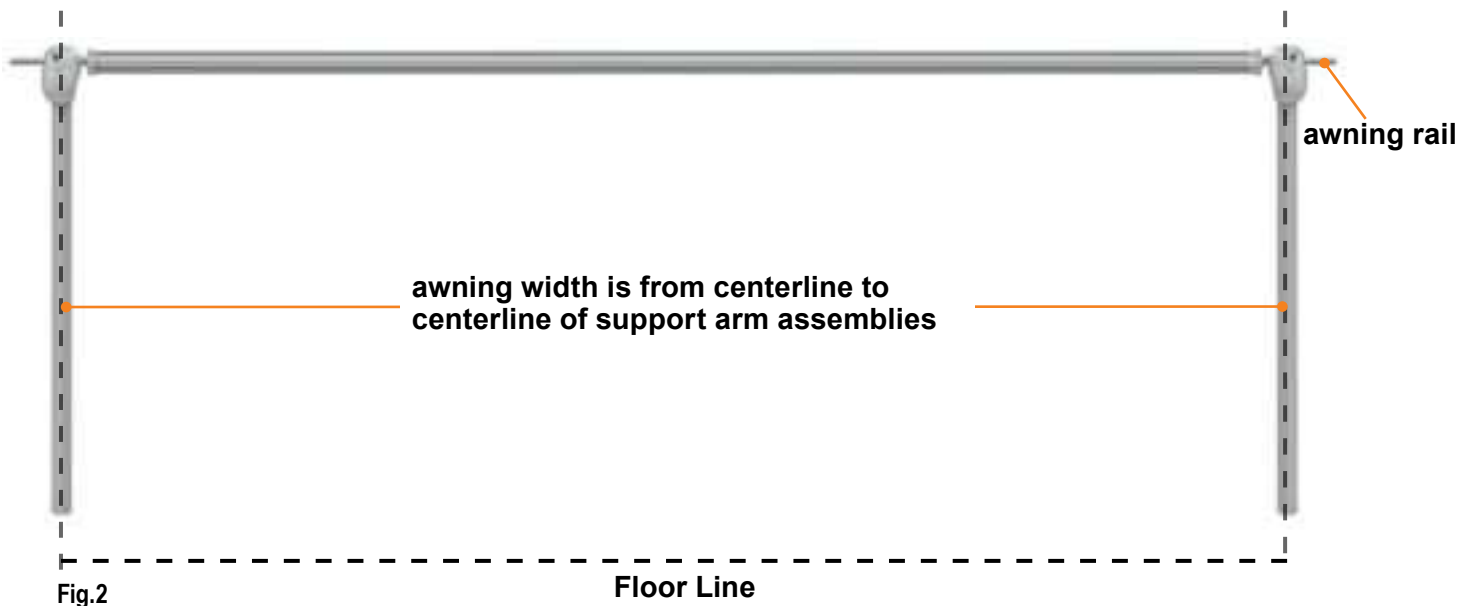


Fig.2

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 other end.

NOTE: Keep the head of the wax screw 1/8" from fastened to avoid compromising the structural integrity of the wax screw.



Fig.3



Solera® Power Awning

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).

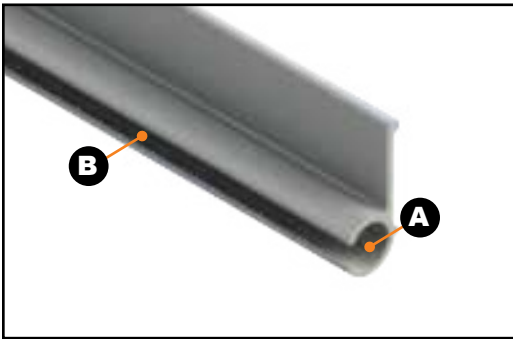


Fig.4

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 centerline marks made previously.
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 (2) #14 x 1 1/4" screws at the top (Fig.5) and two (2) #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 ensure that 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 2 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.



Solera® Power Awning

10. Cut the zip ties and connect the wires from the drive head assembly to a power source and run the awning half way out. Remove the wire cover to expose the fastening points. Install the remaining two (2) #14 x 1 1/4" screws at any of the three locations shown (Fig.7) in the center of the support arm. Repeat this process for the other side of the awning assembly.

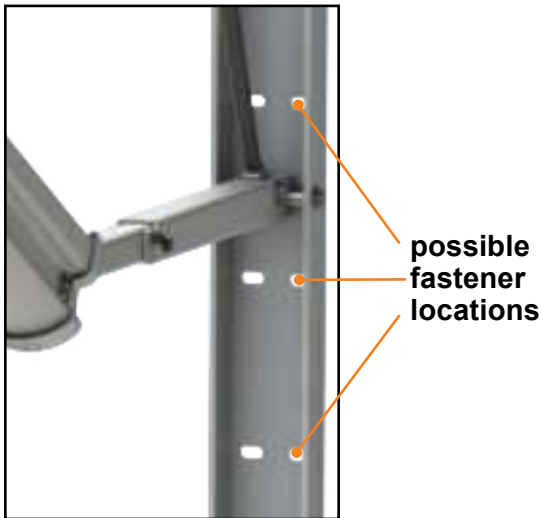


Fig.7

Securing the Fabric

1. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
2. Secure the fabric in the awning rail no more than 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord (Fig.8).

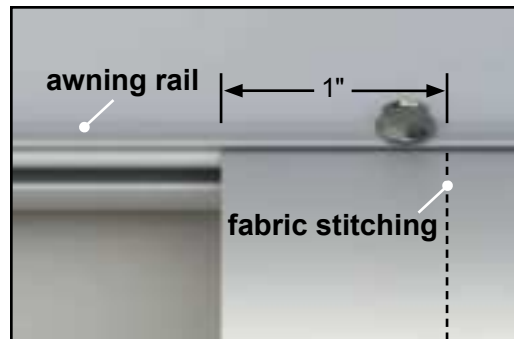


Fig.8



Solera® Power Awning

Awning Wiring

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 below (Fig.9).

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

NOTE: Solera Power Awning motors come stock with an internal 6A auto reset breaker. If this breaker trips, it will take approximately 30 seconds to reset. LCI recommends that the awning be wired into a 15A circuit.

NOTE: All wire to be 14 AWG or larger as necessary to provide 12V minimum at all times at the connection to the LCI-supplied power cable.

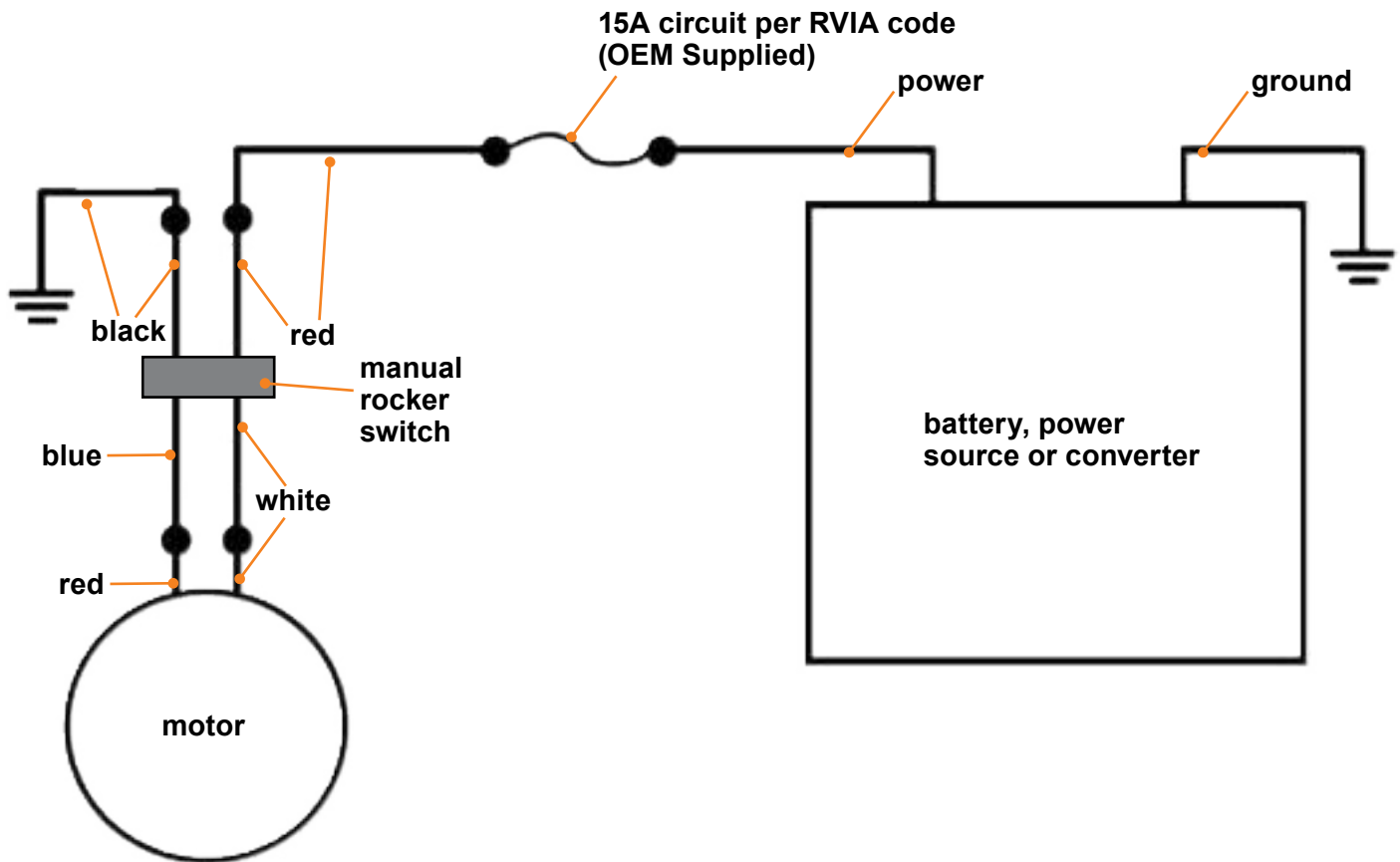


Fig.9



Solera® Power Awning

Installation with Speakers Option

1. Remove the wire covers in both mount arms.
2. At both support arm assemblies there will be a wire labeled "speakers." Connect these to the radio wires provided from the unit (**Fig.10**).

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



Fig.10

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.

Installation with LED Options

LED Roll Tube Installation

1. Remove the wire covers in the idler side mount arm.
2. Be sure to align LED light wires (**Fig.11A**) coming from the idler head with the LED light on the roll tube (**Fig.11B**).
3. Connect the plug from the idler head (**Fig.11A**) to the plug from the LED light (**Fig.11B**) on the roll tube.

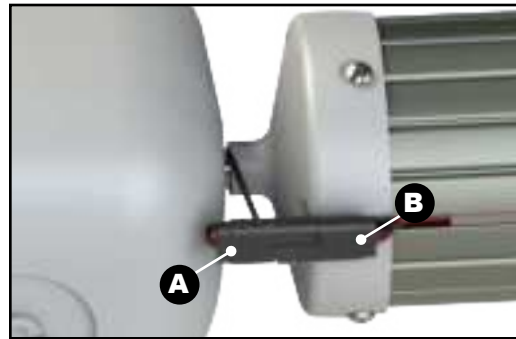


Fig.11

4. Take the LED power wire that is already fed through the idler leg and connect to the desired power wire from the unit.

NOTE: Be sure the black wire is connected to a ground and the red wire is connected to a 3 amp maximum fuse (usually behind the switch) and then a power source from the unit.



Solera® Power Awning

LED Light Rail Installation

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

1. Seal the back of the LED light rail.
2. Mount the LED light rail (**Fig.12B**) directly below the awning rail (**Fig.12A**) and secure to the side of the unit.
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 drive side mount arm and run the light wire down through the mount arm (**Fig.12C**).

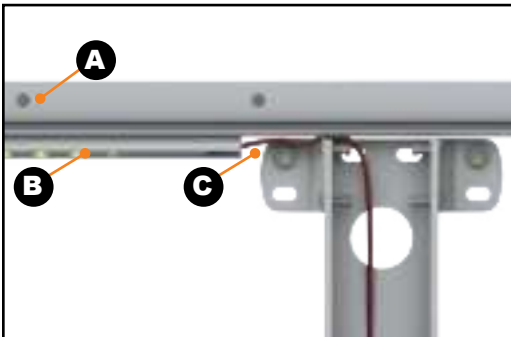


Fig.12

5. Cut the power and ground wires to the desired length and connect to the unit wiring. Make sure to connect the red wire on the light side to the power wire on the unit side and connect the black wire from the light side to the ground wire from the unit 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 to protect against water intrusion (**Fig.13**).



Fig.13

2. Reinstall all wire covers into the support arm assemblies.

Operation

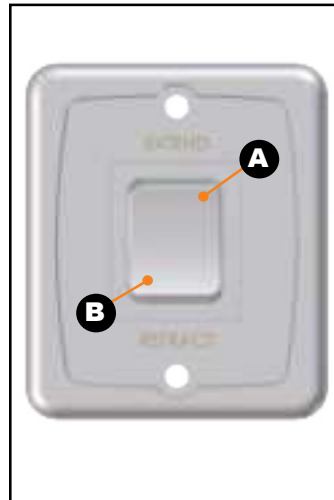


Fig.14

NOTE: Some units may not use the LCI switch (**Fig.14**).

Extending the Awning

1. Verify the RV battery is fully charged and connected to the electrical system.
2. Locate the locking latch on the side of the support arm, if equipped, and unlock the latch.



Solera® Power Awning

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

3. 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 is hanging down from the roll tube and a section of the roll tube is exposed (Fig.15).

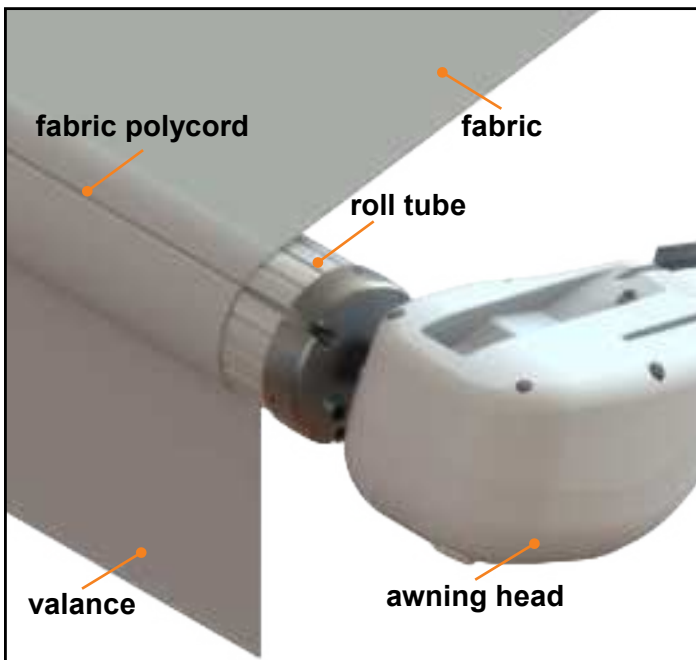


Fig.15

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 (Fig.14B). 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.

Retracting the Awning

1. Verify the coach 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.

3. 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.16) 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.

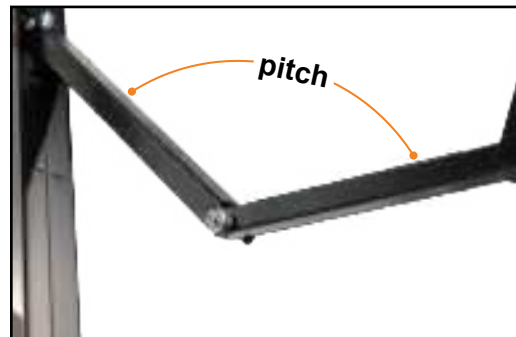


Fig.16



Solera® Power Awning

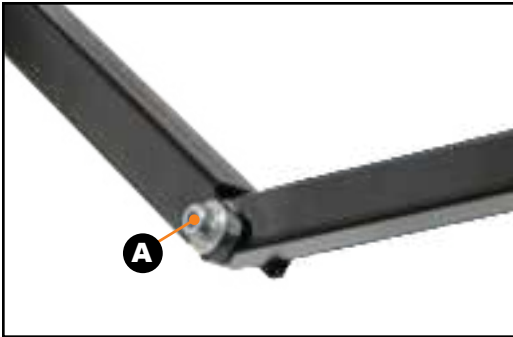


Fig.17

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

NOTE: Belleville washers and bolts (Fig.17A) 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.17A) 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.18A) from the drive head assembly, exposing the manual override nut on the motor.



Fig.18

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 7/16" socket and cordless or electric drill or screw gun, spin the manual override nut counterclockwise to retract the awning (Fig.19).



Fig.19

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.18A).

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, be sure to secure the awning in the retracted position with a strap around both the outer arm and the mount arm before the manual override nut is released.

⚠ 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.



Solera® Power Awning

Solera Power Awning Troubleshooting

What's Happening?	What Should Be Done?
Awning won't open or close.	If optional travel locks are installed, ensure that they have been unlocked.
	Verify the fuse is good.
	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 3 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.
	Ensure 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 35 seconds while extend is approximately 27 seconds on a fully-charged battery.
	Ensure there are 12 volts where the unit wire meets the awning wire during retract.
	Ensure the pitch arms are not bent in an upward direction.
	Ensure the ground wire before the switch has a good connection to the battery or chassis.
Lights won't work.	There is a resettable fuse that can take up to 30 seconds to reset.
	Make sure to have 12 volts to the red wire on the light.
Awning seems to wobble when extending or retracting.	Ensure the bolts that hold the head to the support arm assemblies are tight.
	Ensure the end caps are seated properly on the roll tube.
	Ensure the shaft coming out of the head going to the end cap isn't bent.
	Ensure the wall mount is properly secured to the wall.
	Ensure no part of the support arm assemblies are bent.
	Ensure the wear collar spacers are all properly located in the support arm assemblies.



Solera® Power Awning

Solera Power Awning Troubleshooting Continued

What's Happening?	What Should Be Done?
Awning works in opposite direction of what switch shows.	Wires going to awning have been reversed or switched. Reverse the wires.
Awning rolls up backwards.	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.

Maintenance - Solera Awnings

Fabric Care

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

NOTE: Periodically clean vinyl or woven acrylic fabric using a mixture of 1/4 cup of dish soap and 5 gallons of warm water. Liberally apply the mixture on the top of the fabric and retract the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Extend the awning and hose off with fresh water. Repeat if necessary. Allow to dry before retracting.

AWNINGS

Introduction

In mid to late 2015, the Solera® Awning LED light connectors (for the light in the roll bar or the lighted fabric applications) were changed as a product improvement. This change was made on a running basis at the manufacturer's level.

The old style connector was white (Fig. 1). The new style connector is a black (Fig. 2). The two connectors are not compatible with each other.

Fig. 1



Fig. 2



If LED Lights Need To Be Replaced:

1. If the unit has the black connector (Fig. 2) on the end of the LED lights, only new lights will be needed. The new lights will come with the black connector that will match the connector on the idler head on the awning assembly.
2. If the unit has a white connector (Fig. 1) on the LED lights, new lights and a new idler head assembly will be needed. The new lights will come with the black connector which is not compatible with the white connector. The new idler head will have the black connector to match the black connector on the new lights. The connection point is between the idler head and the end of the roll bar (Fig. 3 and Fig. 4).

Fig. 3



Fig. 4



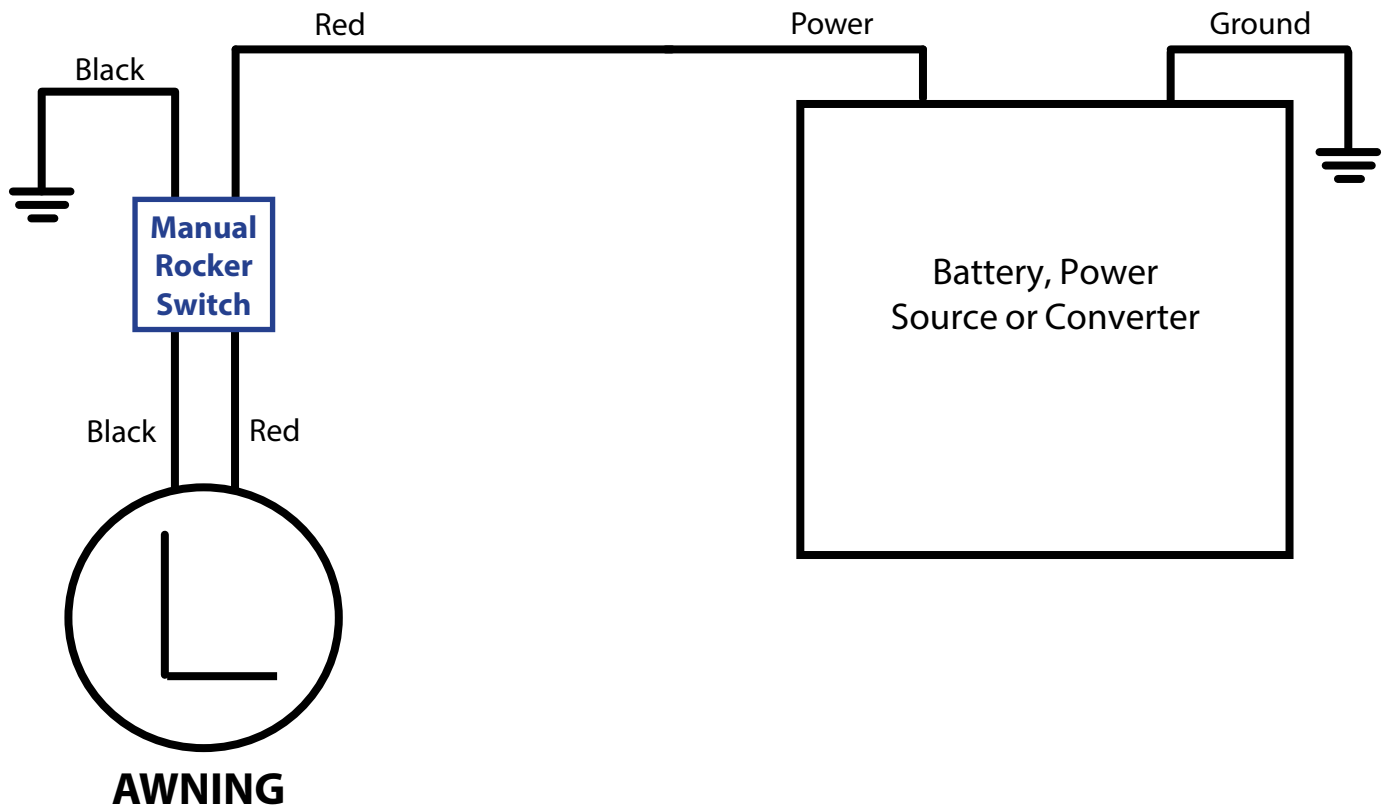
AWNINGS

NOTE: Solera® Awnings are equipped with a 6A Auto Reset breaker supplied by LCI.

NOTE: The motor comes stock with internal thermal protection. LCI recommends that the awning be on a 15A circuit.

NOTE: All wire to be 14 AWG or larger as necessary to provide 12V minimum at all times at the connection to the LCI-supplied power cable.

Fig. 1



DOORS

Purpose

This document provides the steps to replace the awning pitch arm assembly.



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

Resources Required

- 2 People
- Pliers
- Flat Head Screwdriver
- $\frac{7}{16}$ " Deep Well Socket
- C-clamp (optional)

Installation

NOTE: Fig. 1 and Fig. 2 show two different types of pitch arms. The removal and replacement of the pitch arm will be the same.

1. Extend the awning to the fully-open position.
2. With a flat head screwdriver carefully remove the black spacers that are placed in between the pitch arm and the outer arm (Fig. 3A) and in between the pitch arm and the mount arm (Fig. 4A).

Fig. 1

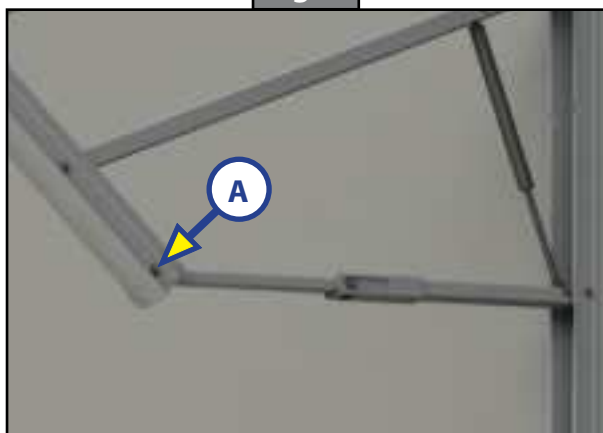


Fig. 2



Fig. 3

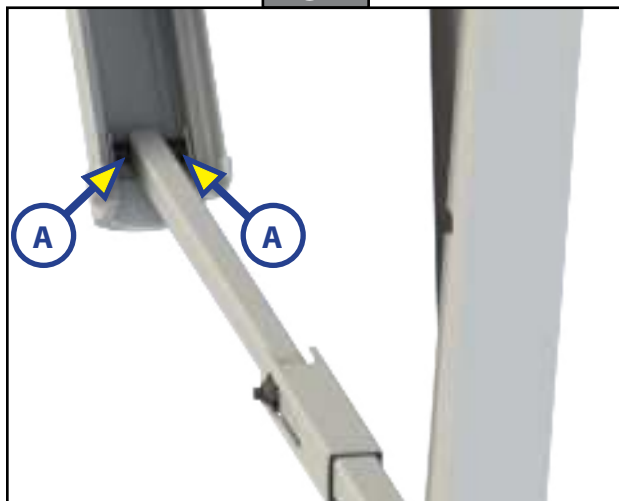
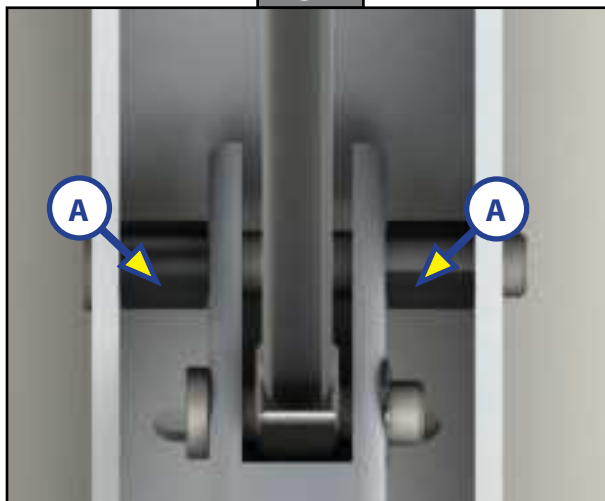


Fig. 4



DOORS

NOTE: Make sure to keep all the black spacers that are placed in between the pitch arm and the outer arm (Fig. 3A) and in between the pitch arm and the mount arm (Fig. 4A).

CAUTION

Make sure to adequately support the roll tube during this process. Failure to support the roll tube may result in personal injury or property damage.

3. With an assistant holding the roll tube, remove the star washer on the pin where the pitch arm and the outer arm meet (Fig. 1A).

NOTE: Squeezing the outer arm may assist in removal of the star washer. Tin snips may also be needed to remove the star washers.

4. Remove the star washer where the pitch arm meets the gas strut (Fig. 5A) and where the pitch arm meets the mount arm (Fig. 5B).

NOTE: A C-clamp may be used carefully to squeeze the mount arm for easier removal of the star washer.

Fig. 5



5. Making sure the assistant has a firm hold on the roll tube so it will not fall, remove the pin where the pitch arm meets the outer arm. Remove the pin holding the gas strut to the pitch arm and remove the pin holding the pitch arm to the mount arm.
6. Discard the old pitch arm and install the new pitch arm in place.

NOTE: The assistant holding the roll tube may have to raise or lower it in order to align the holes for the pins.

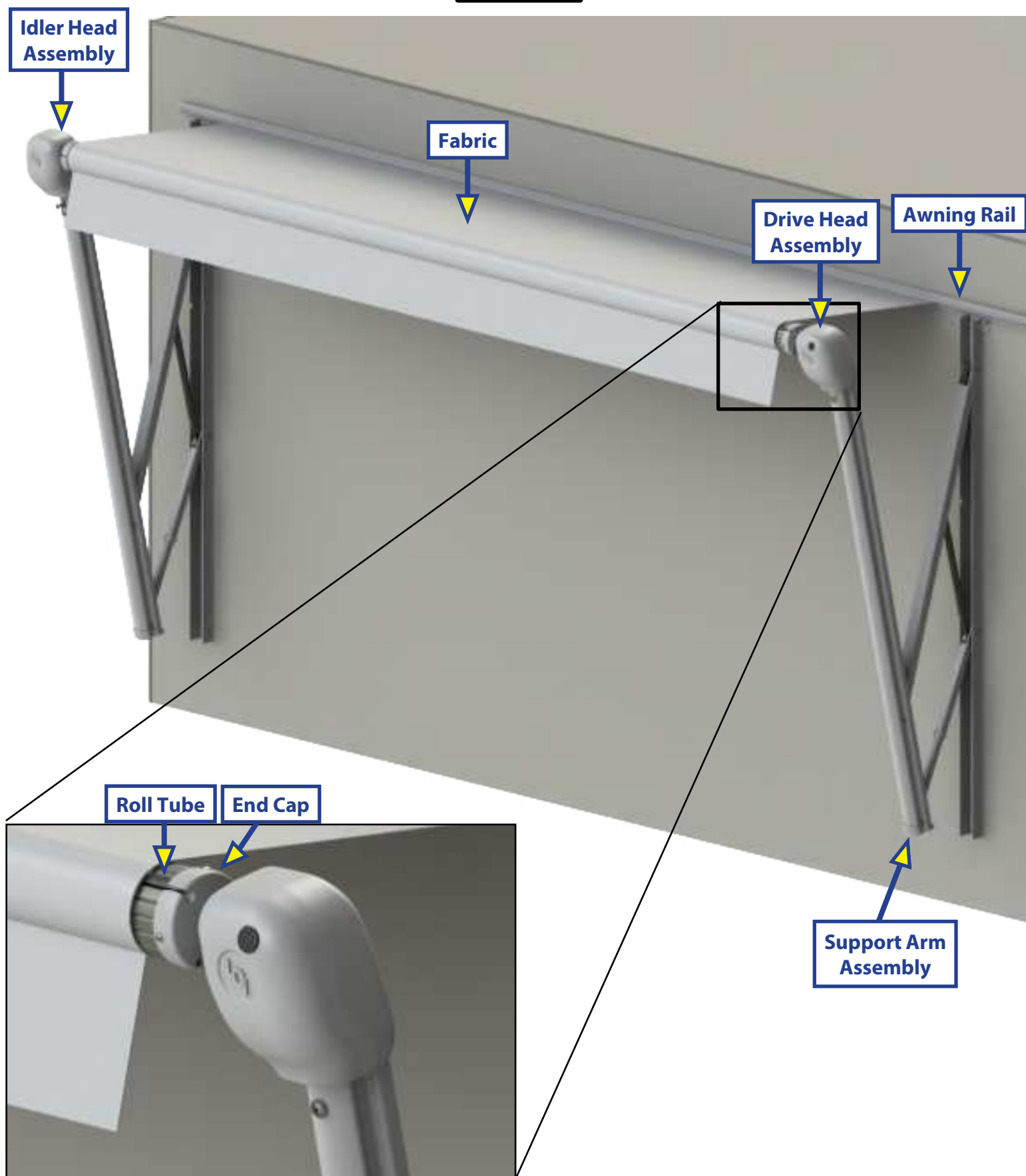
7. Replace the pin that holds the gas strut to the pitch arm.
8. Replace the pin that holds the pitch arm to the mount arm.
9. Replace the pin that holds the pitch arm to the outer arm.
10. Replace the 2 black spacers in between the pitch arm and the outer arm (Fig. 3A) by pushing the gap side onto the pin.
11. Replace the 2 black spacers in between the pitch arm and the mount arm (Fig. 4A) by pushing the gap side onto the pin.
12. Use a $\frac{7}{16}$ " deep well socket to push new star washers on to all 3 pins. The star washers can only be installed in one direction (with the points facing out).

NOTE: Always use new star washers when replacing the pins.



SOLERA® POWER AWNING ASSEMBLY

AWNINGS



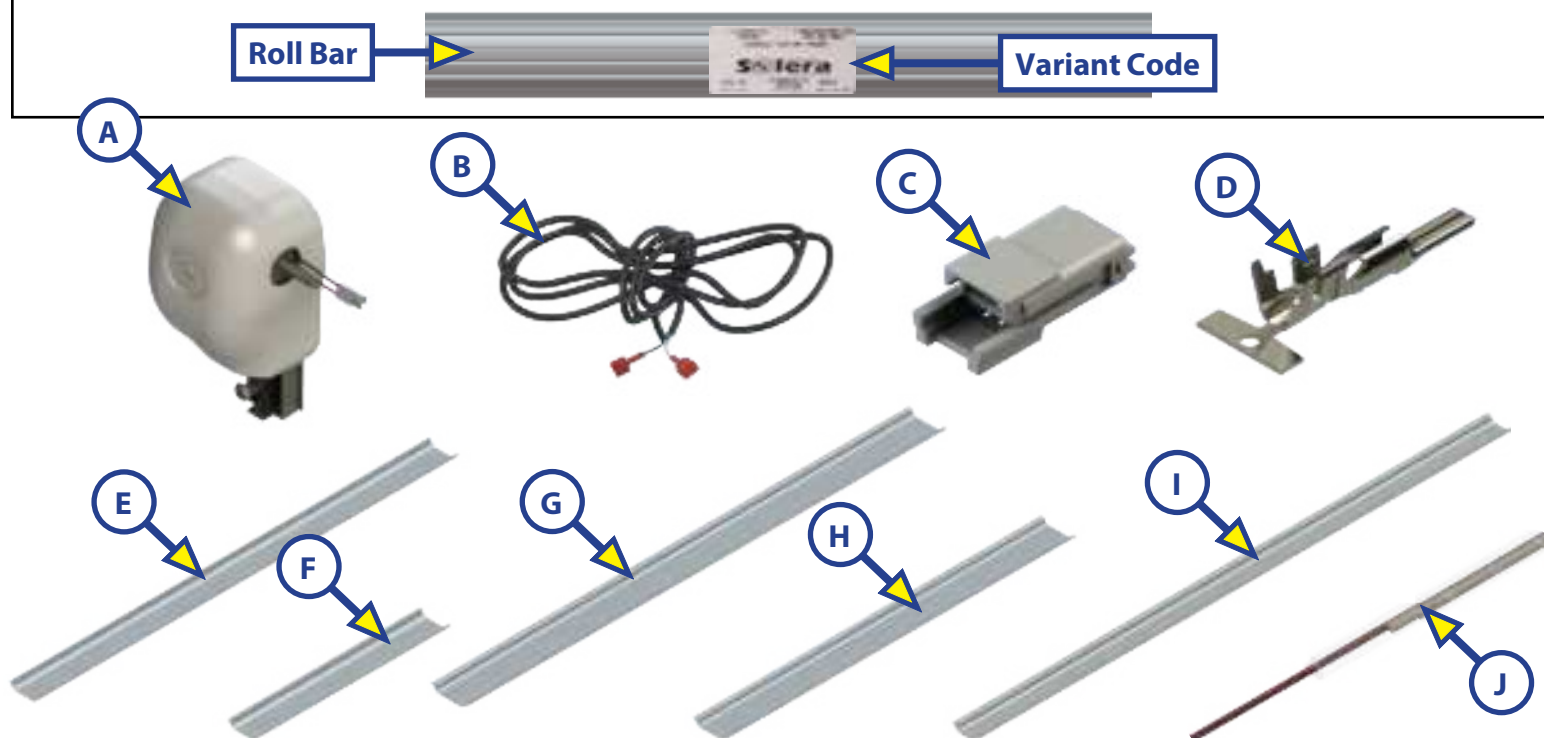


SOLERA® POWER AWNING ROLL BAR LED UPGRADE FOR POWER OR MANUAL CRANK AWNING

AWNINGS

Variant Code Information

The variant code on Lippert products can assist LCI customers in obtaining additional information about the product and its components.



Callout	White Part #	Black Part #	Description	Quantity
A	334789	334785	LED Idler Head	1
B	273007		Power Feed Wires	1
C	317243		Waterproof Connector	1
D	317241		Silver Waterproof Connector Pin	2
E	275070353	2750701888	Wire Cover; 22" - Narrow	1
F	275070157	2750701692	Wire Cover; 9.75" - Narrow	1
G	266139429	2661391964	Wire Cover; 26.75" - Wide	1
H	266139337	2661391872	Wire Cover; 21" - Wide	1
I	266138481	2661382017	Wire Cover; 30" - Narrow	1

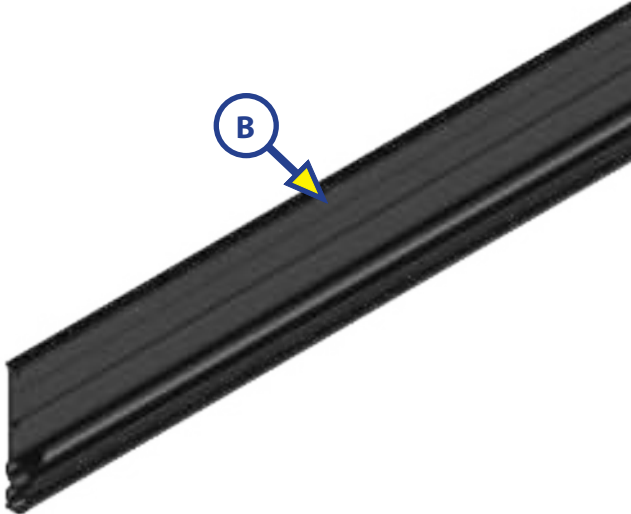
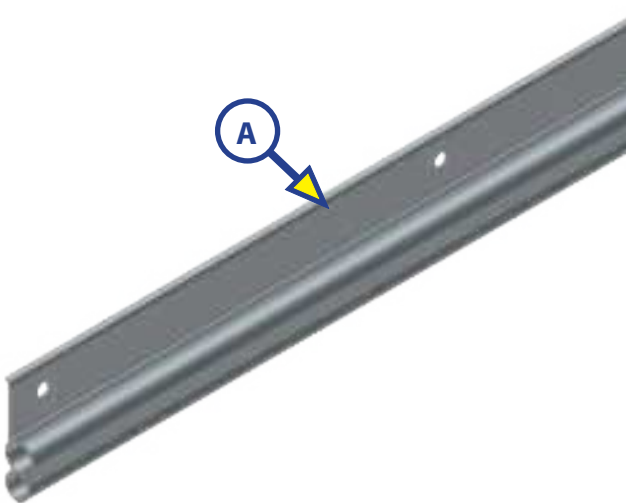
NOTE: Choose (1) of the following LED Tube Lights in correct length according to the awning size:

Callout	Part #	Awning Size	Description
J	329395	11' - 14'	Awning LED Tube 13'
	329396	15'	Awning LED Tube 14'
	329575	16'	Awning LED Tube 15'
	329398	17' - 18'	Awning LED Tube 17'
	329399	19' - 21'	Awning LED Tube 20'
	329536	22' - 23'	Awning LED Tube 24'



SOLERA® POWER AWNING LED RAILS

AWNINGS

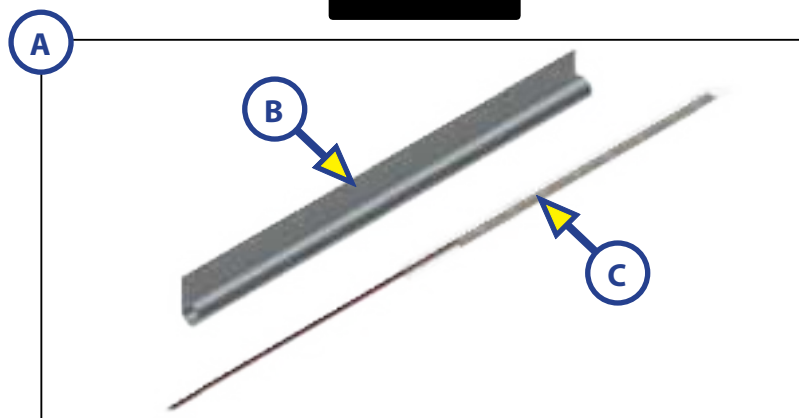


Callout	White Part #	Black Part #	Awning Size	Description
A	3207921	3207922	11' - 18'	LED/Awning Cord Rail (216")
	3207881	3207882	19' - 24'	LED/Awning Cord Rail (288")
B	3357432	3357431	6' - 15'	LED/Awning Cord Rail w/ Gutter (192")
	336930	336929	17' - 18'	LED/Awning Cord Rail w/ Gutter (216")
	336932	336931	19' - 20'	LED/Awning Cord Rail w/ Gutter (252")
	336933	336548	22' - 24'	LED/Awning Cord Rail w/ Gutter (288")



SOLERA® POWER AWNING LED LIGHT RAIL KITS

AWNINGS



Kit	White Part #	Black Part #	Awning Size	Description
A	329797	329799	11'	Awning Wall Light Kit NOTE: Light kits are cut 5 1/2" shorter than stated awning size so it fits under the awning.
	329804	329805	12'	
	329810	329811	13'	
	329816	329817	14'	
	329825	329826	15'	
	329832	329833	16'	
	329838	329839	17'	
	329844	329845	18'	
	329866	329867	19'	
	329881	329882	20'	
	329887	329888	21'	
	329899	329900	22'	
	329905	329906	23'	
	329893	329894	24'	
	329911	329912	25'	

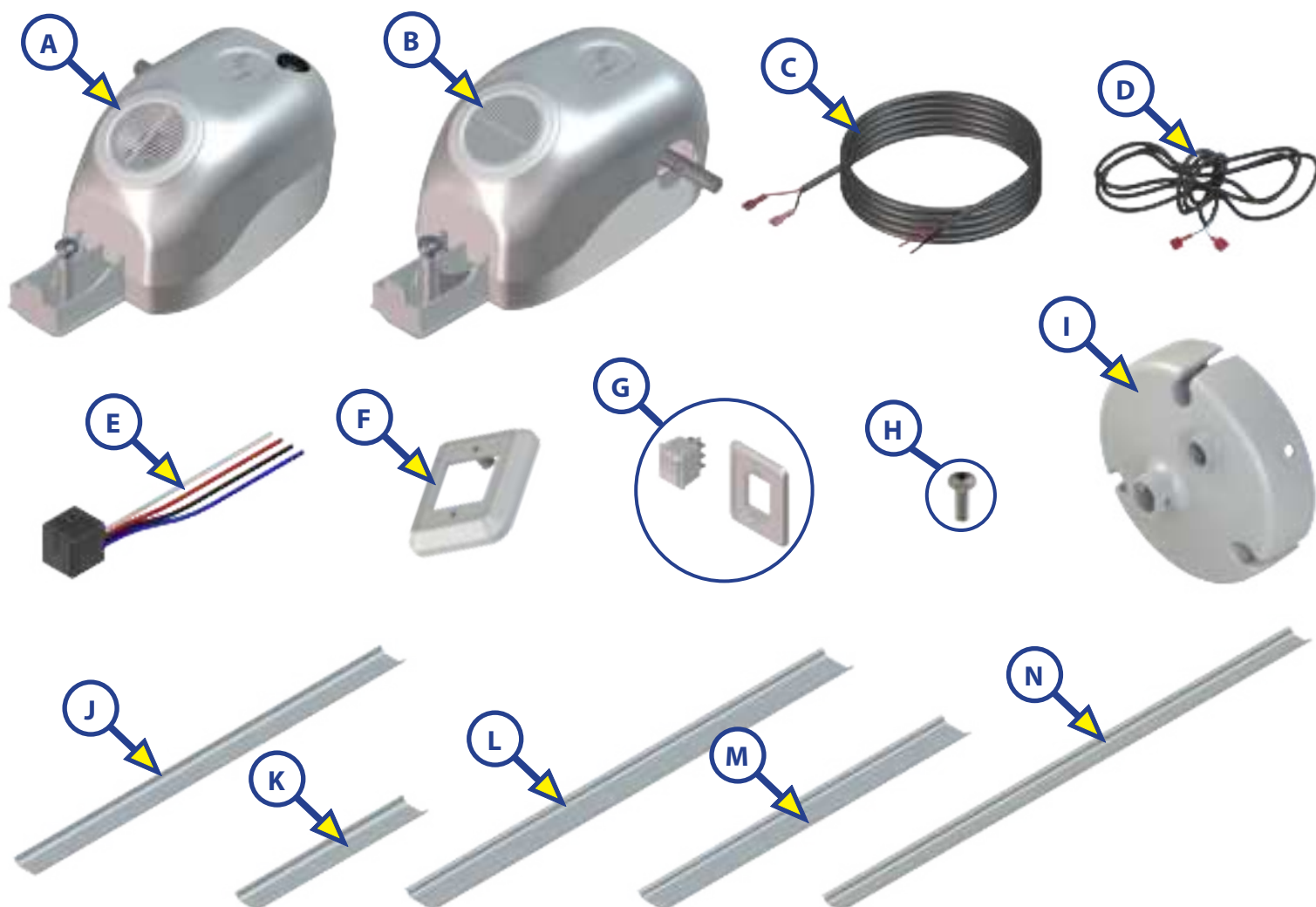
NOTE: Parts below are available in Kit A referenced above or individually as needed.

Callout	White Part #	Black Part #	Awning Size	Description
B	329387	3293871	11' - 14'	LED Light Rail 13' 9"
	329388	3293881	15'	LED Light Rail 14' 9"
	329389	3293891	16'	LED Light Rail 15' 9"
	329391	3293911	17' - 18'	LED Light Rail 17' 9"
	329394	3293941	19' - 21'	LED Light Rail 20' 9"
	329535	3295351	22' - 25'	LED Light Rail 24' 9"
C	329395		11' - 14'	Awning LED Tube 13'
	329396		15'	Awning LED Tube 14'
	329575		16'	Awning LED Tube 15'
	329398		17' - 18'	Awning LED Tube 17'
	329399		19' - 21'	Awning LED Tube 20'
	329536		22' - 25'	Awning LED Tube 24'



SOLERA® POWER AWNING SPEAKER UPGRADE FOR PULL-STYLE MANUAL AWNING

AWNINGS

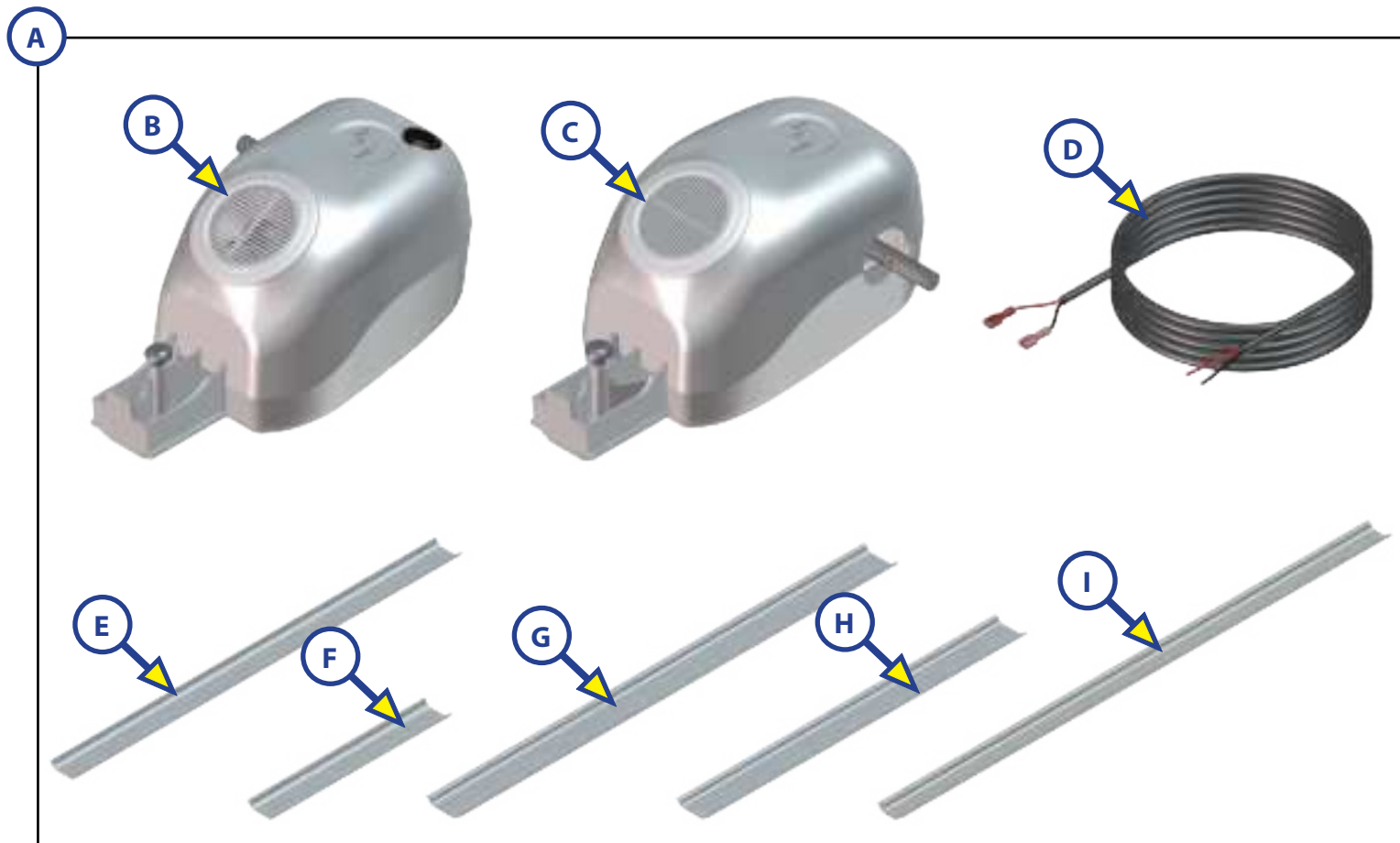


Callout	White Part #	Black Part #	Description	Quantity
A	342147	342149	Speaker Drive Head	1
B	342148	342150	Speaker Idler Head	1
C	336504		Speaker Feed Harness	1
D	273007		Power Feed Wires	2
E	280570		Wire Harness	1
F	285079	285077	Power Awning Bezel Spacer	1
G	308472	308474	Switch Plate and Switch	1
H	299630		#8 - 32 x 1/2" Screws	2
I	2661301	2661302	End Caps	1
J	275070353	2750701888	Wire Cover; 22" - Narrow	1
K	275070157	2750701692	Wire Cover; 9.75" - Narrow	2
L	266139429	2661391964	Wire Cover; 26.75" - Wide	1
M	266139337	2661391872	Wire Cover; 21" - Wide	1
N	266138481	2661382017	Wire Cover; 30" - Narrow	1



SOLERA® POWER AWNING SPEAKER UPGRADE

AWNINGS



Kit	White Part #	Black Part #	Description	
A	351863	351864	Power Awning to Speaker Head Conversion	
NOTE: Parts <u>below</u> are available in Kit A referenced <u>above</u> or individually as needed.				
Callout	White Part #	Black Part #	Description	Quantity
B	342147	342149	Speaker Drive Head	1
C	342148	342150	Speaker Idler Head	1
D	336504		Speaker Feed Harness	2
E	275070353	2750701888	Wire Cover; 22" - Narrow	1
F	275070157	2750701692	Wire Cover; 9.75" - Narrow	1
G	266139429	2661391964	Wire Cover 26.75" - Wide	1
H	266139337	2661391872	Wire Cover; 21" - Wide	1
I	266138481	2661382017	Wire Cover; 30" - Narrow	1



SOLERA® POWER AWNING COMPONENTS

AWNINGS

Variant Code Information

The variant code on Lippert products can assist LCI customers in obtaining additional information about the product and its components.



Callout	White Part #	Black Part #	Description
A	281928	281929	Awning Rail (144")



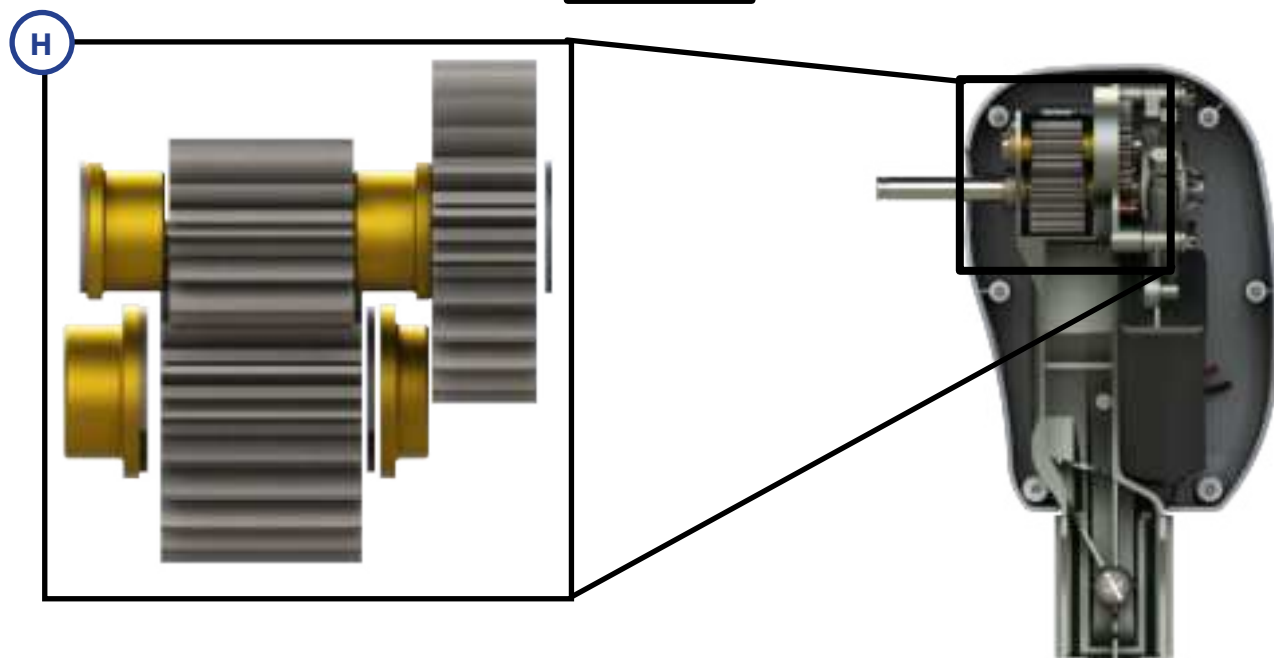
SOLERA® POWER AWNING COMPONENTS

AWNINGS



Callout	White Part #	Black Part #	Description
B	266147	273479	Idler Head Assembly
C	289563	289566	Idler Head Front Cover
D	289564	289567	Idler Head Rear Cover
E	266146	273478	Drive Head Assembly
F	289557	289560	Drive Head Front Cover
G	289558	289561	Drive Head Rear Cover

AWNINGS



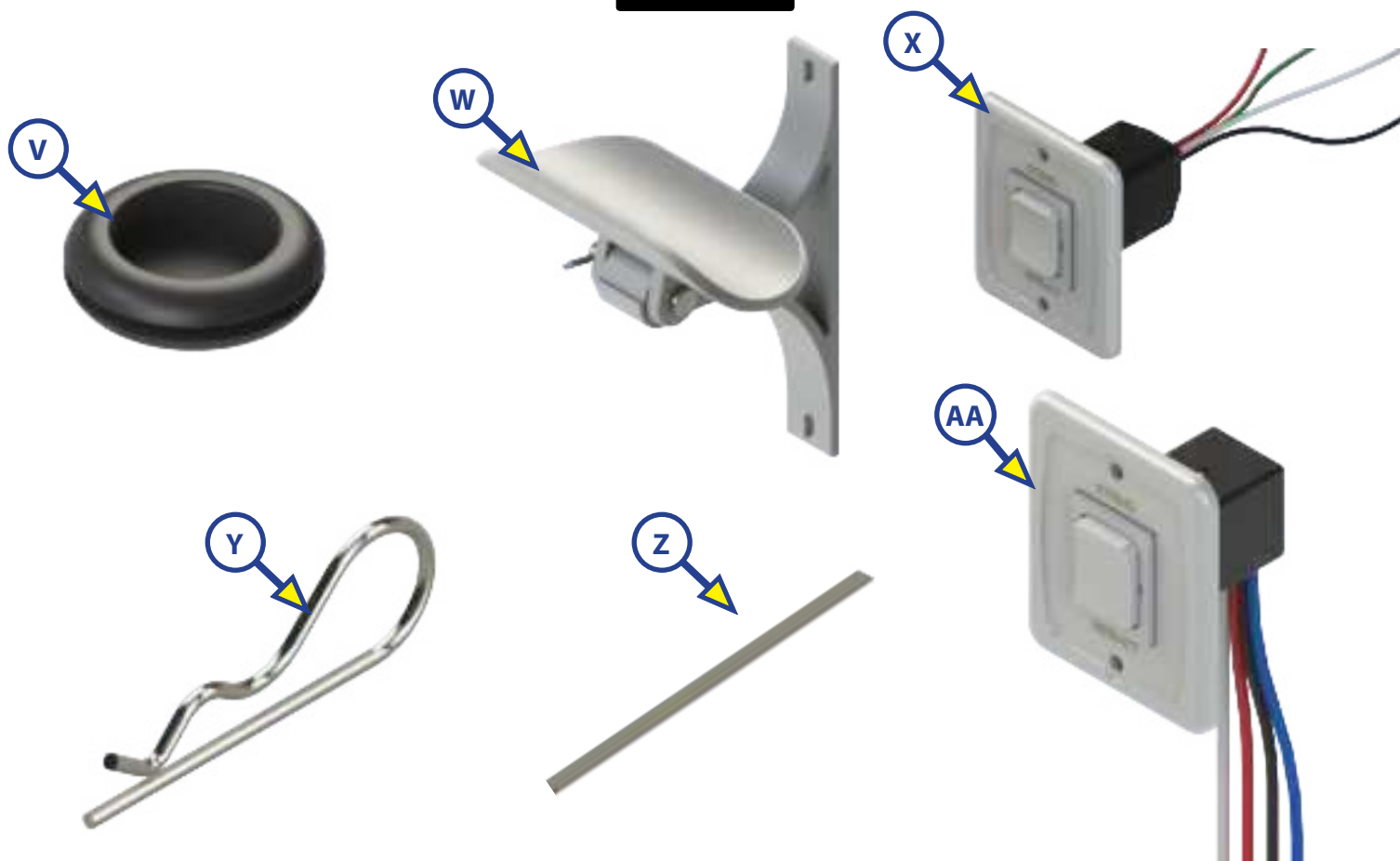
Drive Head Gear Kit		Qty.	Part #	Description
H	353964 (Only available as a kit)	1	266133	.873" 20 PA 16 DP, D SLOT GEAR
		1	266134	.873" 20 PA 16 DP, D SLOT GEAR
		1	266136	.500" 20 PA 16 DP, CLR ZN GEAR
		2	266142	Bushing
		1	266143	Bushing
		1	281828	Bushing
		2	266137	E-Clip 1/2"
		2	276160	E-Clip 3/8"



Callout	Part #	Description
I	299419	Screw, PNH, SQ DR, SLFTPG, Zn (#8 - 15 UNC x 0.500") (End Cap-to-Roll Tube)
J	266156	Screw, PNH, Zn (#6 - 15 UNF x 0.500") (Head Cover fastener – 6/Cover)
K	299630	Screw, Waxed, PNH, SQ DR, Zn (#8 - 32 UNC x 0.500") (Head-to-Roll Tube)
L	118043	Nut, Nylon Lock, Zn (5/16" - 18 UNC) (Head-to-Arm)
M	266155	Screw, Machine, PNH, PHH (#8 - 32 UNC x 0.500") (Back Cover-to-Mount)
N	281079	Screw, Hex Washer, SLFDR, Zn (#6 - 20 UNC x 0.500")
O	266148	Screw, PNH, PHH, Zn (5/16" - 18 UNC x 2.25") (Head-to-Arm)
P	237315	Rivet, Aluminum (3/16"x 1.300") (Klamp-Tite, BAPKTR-06-12)
Q	429284	Screw 8 x 1 1/4" PNH ZN CD AB ST HBK
R	384905	Screw #10 32 x 1/2" PHN Plain PH FT SST
S	384906	Nut #10 - 32 Nylon Lock Plain SST
T	320695	Screw #8 - 18 x 1/2" PNH SMS ZN SQ AB ST, BLK HD
U	266132	Screw IHWH 2N SLF ST (1/4 - 20 x 1/4") (motor-to-mount)

SOLERA® POWER AWNING COMPONENTS

AWNINGS

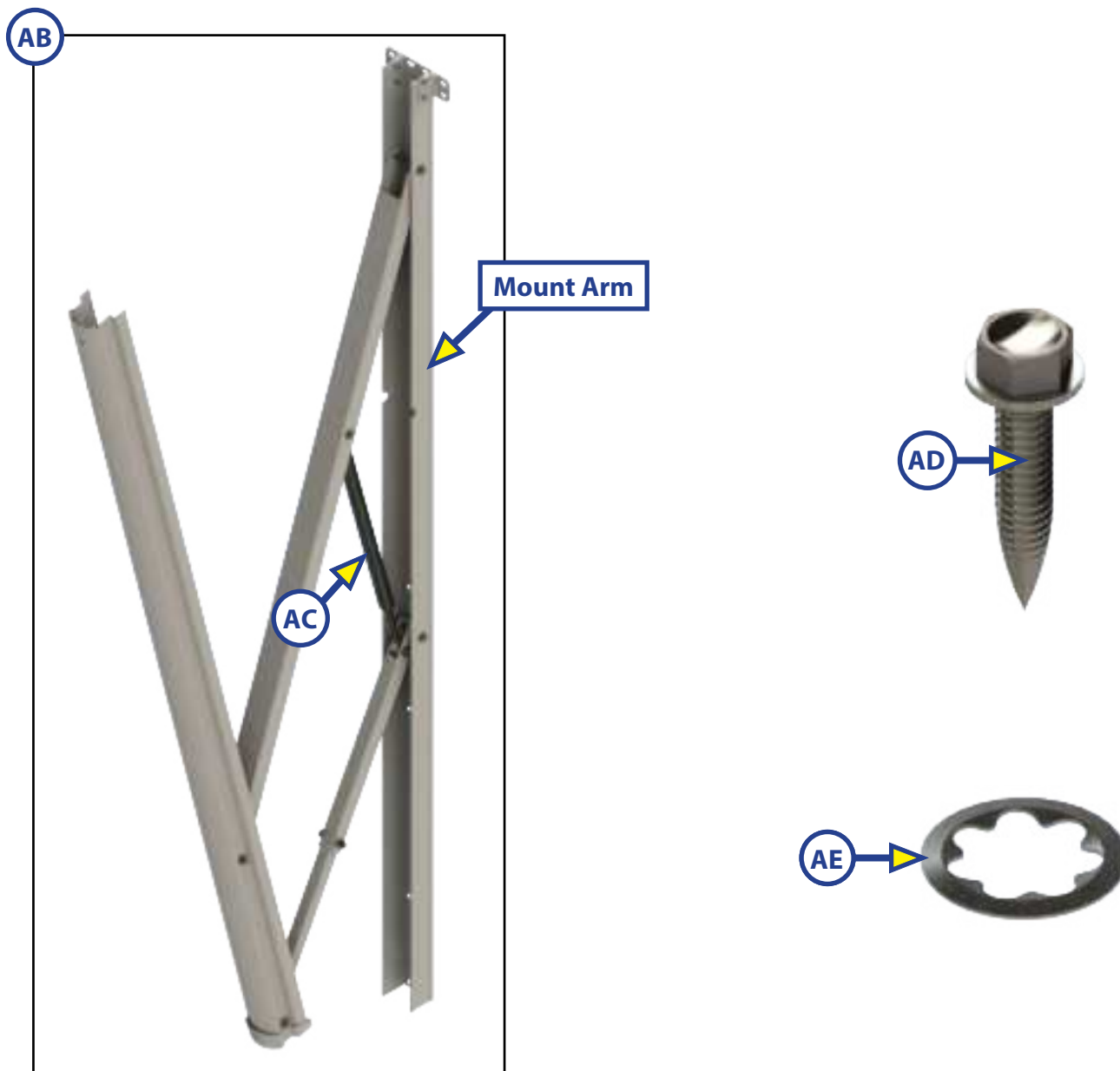


Callout	White Part #	Black Part #	Description
V	275071		Rubber Grommet (for Manual Override Opening)
W	289373	289374	Awning Center Support Assembly
NOTE: Only required for Solera Awnings greater than 21' in length.			
X	293659	293658	Switch Kit 12GA Wire Harness
Y	298760		Cotter Hairpin
Z	347119		Cotter Pin
AA	285499	285500	Switch Kit (Switch, Plate, and Harness)
	280570		Wire Harness Only
	280565	280567	Switch Plate Only
	280564	280566	Switch Only



SOLERA® POWER AWNING COMPONENTS

AWNINGS



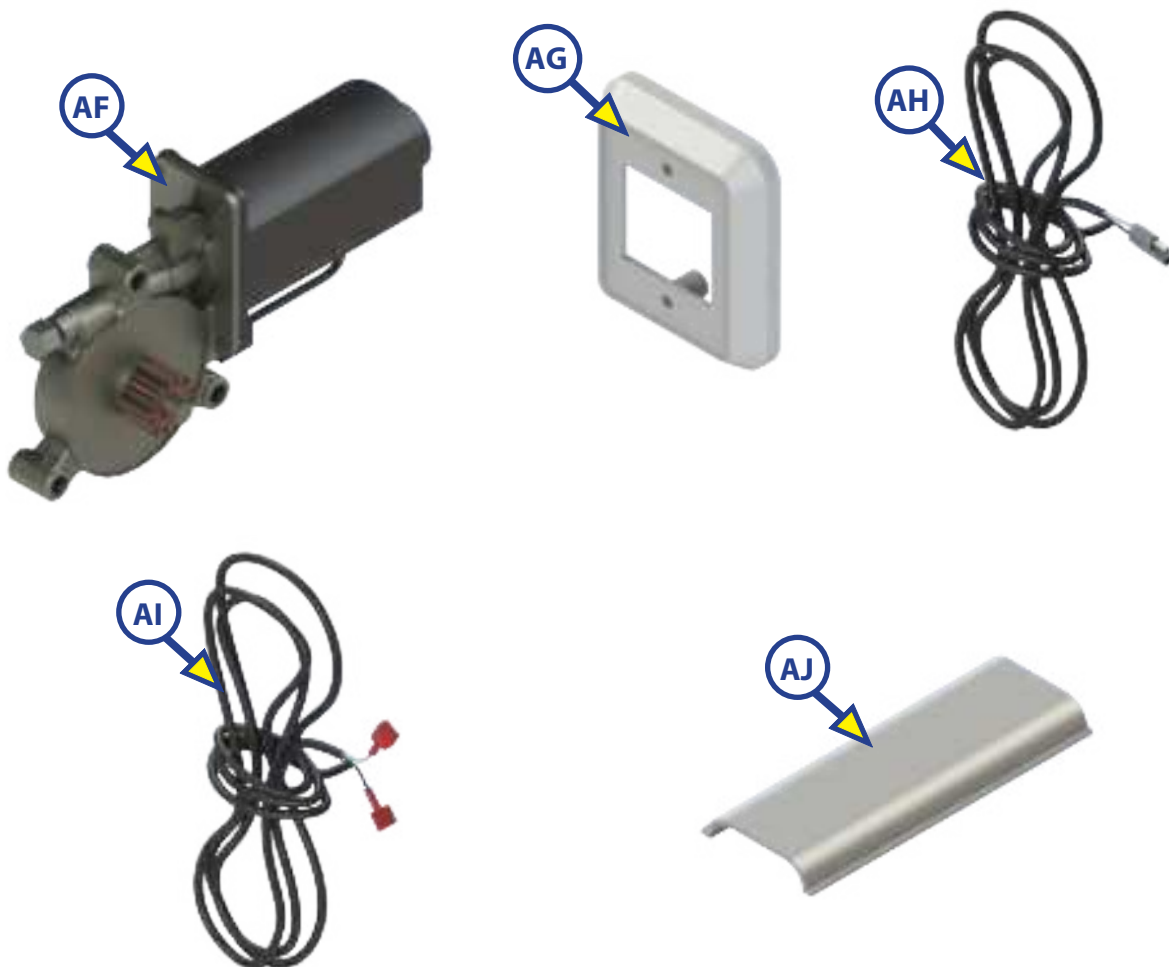
Support Arm Assembly Measurement Based on Mount Arm

Callout	White Part #	Black Part #	Description
AB	295742	295743	Support Arm Assembly (Short, 61")
	260294	266169	Support Arm Assembly (Pitched, 66 1/8")
	362132	362133	Support Arm Assembly (Short Standard Fixed Pitch, 60 1/2")
	281152	281154	Support Arm Assembly (Flat, 69")
AC	280343		Gas Strut; 26"; 124 lbs (for Short and Flat Arm Assemblies)
	260282		Gas Strut; 124 - 144 lbs (for Pitched Arm Assemblies)
AD	348108		Screw (#14 - 10 x 1 1/4") (Arms-to-Coach)
AE	282484		Star Washer (for Gas Strut)



SOLERA® POWER AWNING COMPONENTS

AWNINGS

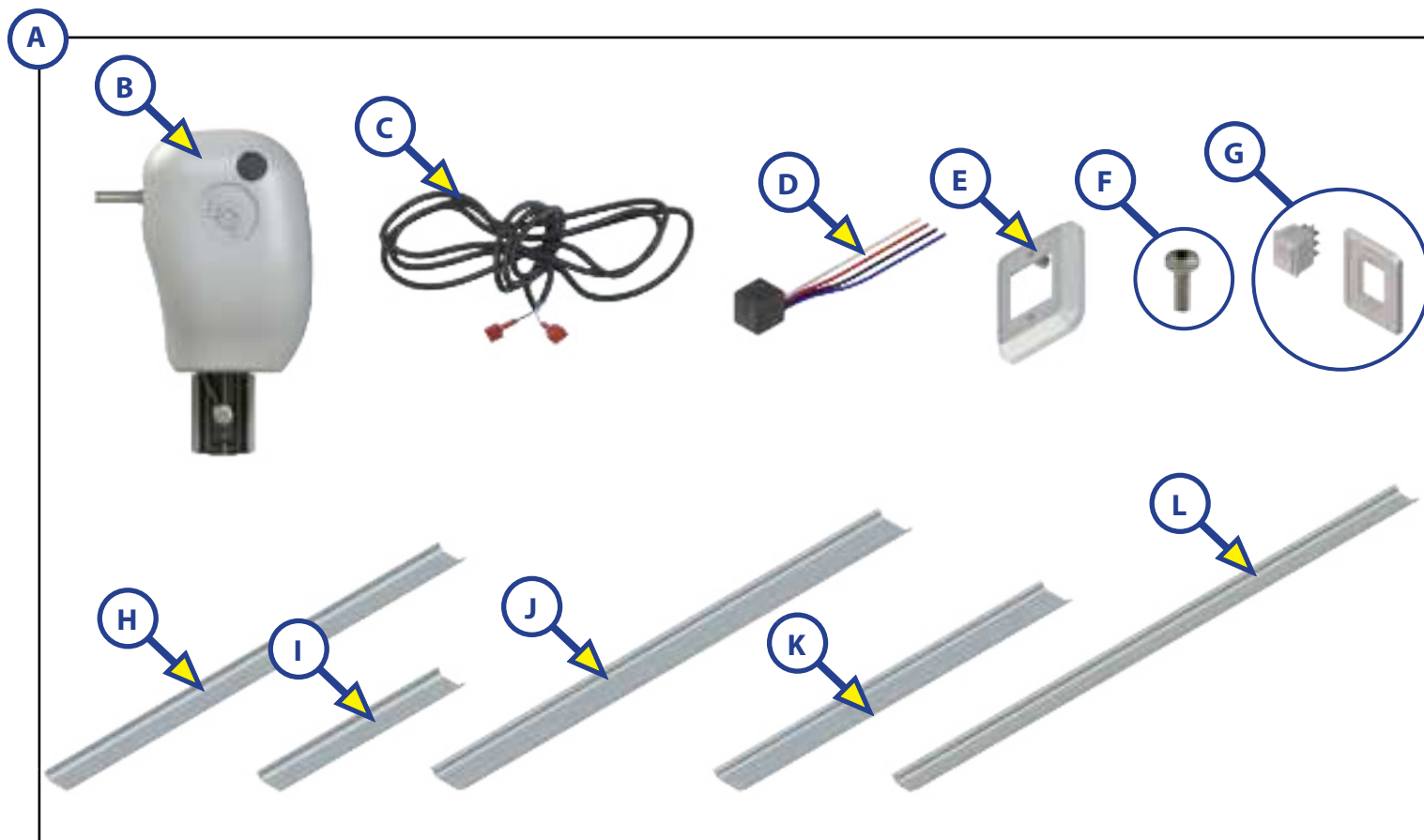


Callout	White Part #	Black Part #	Description
AF	266149		Motor
AG	285079	285077	Bezel Spacer
AH	273007		Power Feed Wires
AI	373008		Power Feed, 2 Way
AJ	275070157	2750701692	Wire Cover; 9.75"; Narrow
	275070353	2750701888	Wire Cover; 22"; Narrow
	266138481	2661382017	Wire Cover; 30"; Narrow
	266139337	2661391872	Wire Cover; 21"; Wide
	266139429	2661391964	Wire Cover; 26.75"; Wide



SOLERA® POWER AWNING UPGRADE FOR MANUAL AWNINGS

AWNINGS

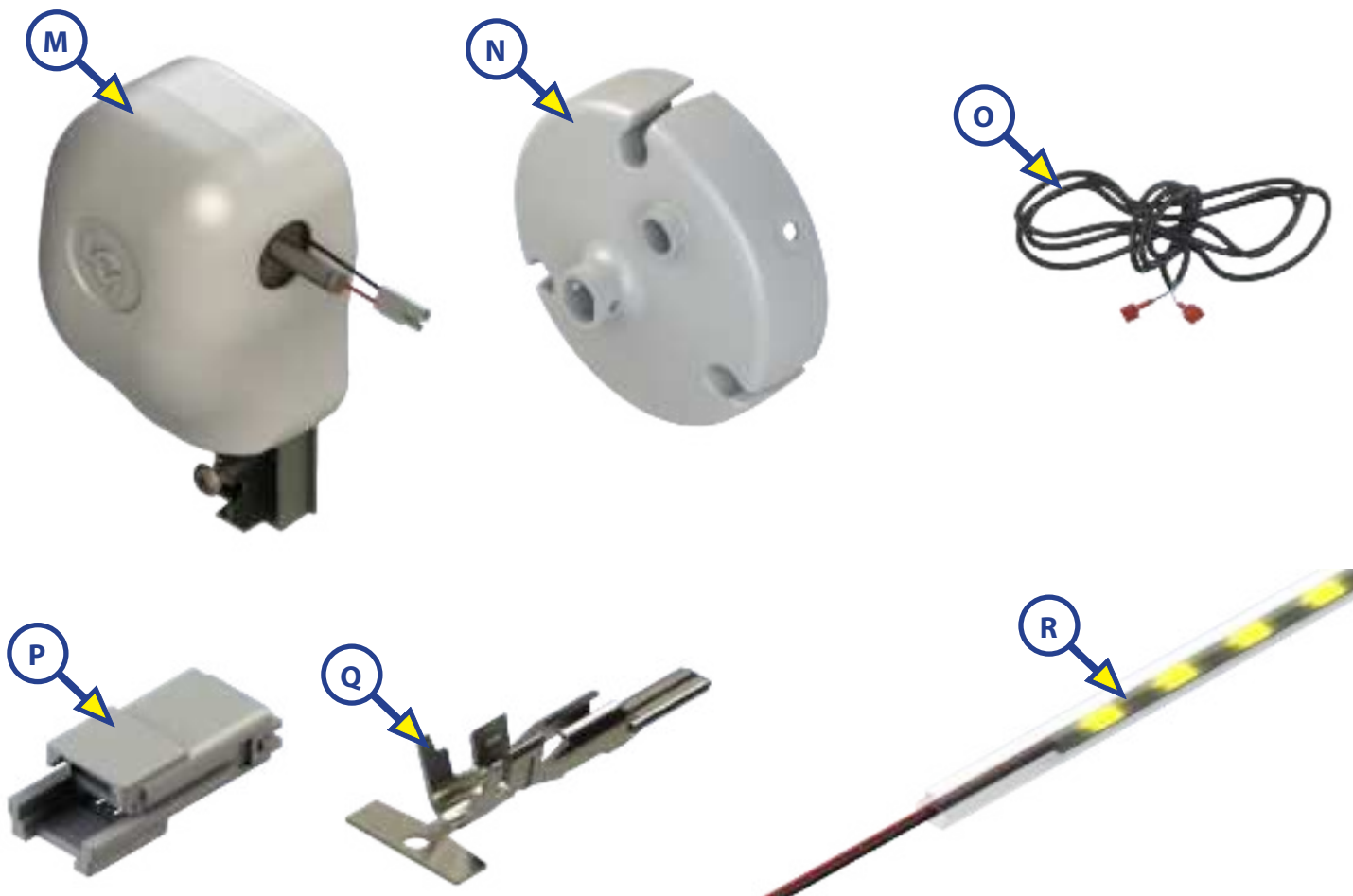


Kit	White Part #	Black Part #	Description	
A	337727	337728	Power Awning Upgrade from Manual Crank Style Kit	
NOTE: Parts <u>below</u> are available in Kit A referenced <u>above</u> or individually as needed.				
Callout	White Part #	Black Part #	Description	Quantity
B	266146	273478	Drive Head Assembly	1
C	273007		Power Feed Wires	1
D	280570		Wire Harness	1
E	285079	285077	Power Awning Bezel Spacer	2
F	299630		#8 - 32 x 1/2" Screws	2
G	308472	308474	Switch Plate and Switch	1
H	275070353	2750701888	Wire Cover ; 22" - Narrow	2
I	275070157	2750701692	Wire Cover; 9.75" - Narrow	2
J	266139429	2661391964	Wire Cover; 26.75" - Wide	2
K	266139337	2661391872	Wire Cover; 21" - Wide	2
L	266138481	2661382017	Wire Cover; 30" - Narrow	2



SOLERA® POWER AWNING UPGRADE FOR MANUAL AWNINGS

AWNINGS



NOTE: If upgrading from a manual awning to a power awning with roll bar LEDs you must order [337727](#) (white) or [337728](#) (black) in order to have the complete upgrade.

Callout	White Part #	Black Part #	Description	Quantity
M	334789	334785	LED Idler Head	1
N	2661301	2661302	End Caps	2
O	273007		Power Feed Wires	1
P	317243		Waterproof Connector	1
Q	317241		Silver Waterproof Connector Pin	2

NOTE: Choose (1) of the following LED Tube Lights in correct length according to the awning size.

Callout	Part #	Awning Size	Description
R	329395	11' - 14'	Awning LED Tube 13'
	329396	15'	Awning LED Tube 14'
	329575	16'	Awning LED Tube 15'
	329398	17' - 18'	Awning LED Tube 17'
	329399	19' - 21'	Awning LED Tube 20'
	329536	22' - 23'	Awning LED Tube 24'

AWNINGS

Prior To Installation

NOTE: All screws supporting the awning assembly **MUST** have a backer within the structure of the wall of the coach.

Resources Required

- Three people
- Cordless or Electric Drill or Screw Gun
- #2 Square Screwdriver Bit
- $\frac{3}{8}$ " Nut Driver Bit and/or Rivet Gun

Installation

1. Insert drive head pin into end cap (Fig. 1). Align holes and secure with waxed screw. Insert waxed screw fully, but do not over-tighten. Repeat process for idler head at other end.
2. With two people holding the support arms, one at either end of the awning assembly, a third person needs to line up the polycord on the fabric with the awning rail that has been installed on the coach. Slide the fabric cord the length of the awning rail.
3. Set the awning assembly to the desired height and attach it to the side of the coach with two (2) #14 x 1 $\frac{1}{2}$ " screws (286576) at the top (Fig. 2) and two (2) #14 x 1 $\frac{1}{2}$ " (286576) screws at the bottom (Fig. 3).

NOTE: Make sure the awning assembly is square on the unit prior to mounting the bottom 2 screws.

4. Connect the assembly to a power source, cut the tie straps, and run the awning half way out. Remove wire cover to expose the mounting holes. Secure the middle of the wall mounting channel with two (2) #14 x 1 $\frac{1}{2}$ " screws (286576) at any of the three locations shown (Fig. 4). Repeat this process for other side of awning assembly.

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

5. Connect switch to power source.

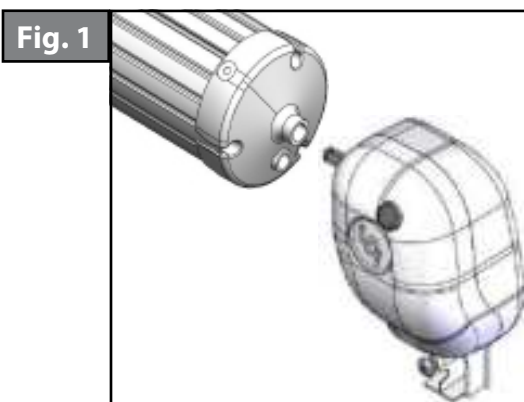


Fig. 2



Fig. 4

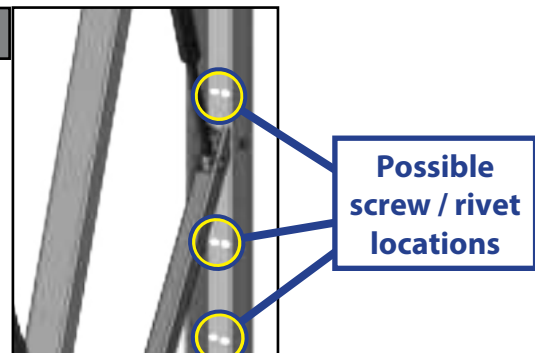
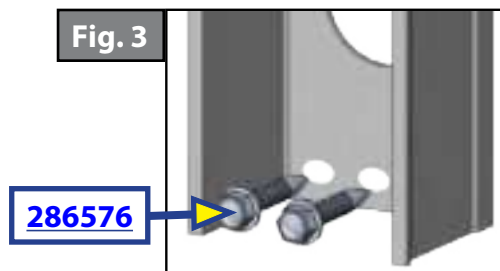


Fig. 3



AWNINGS

Securing The Fabric

1. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
2. Secure the fabric in the awning rail by installing a #6 x ½" hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides (Fig. 5).

NOTE: Seal all wall penetrations to protect against water intrusion (Fig. 6).

NOTE: Solera Awnings 21' and under **DO NOT** require a center support or cradle.

Fig. 5



Fig. 6



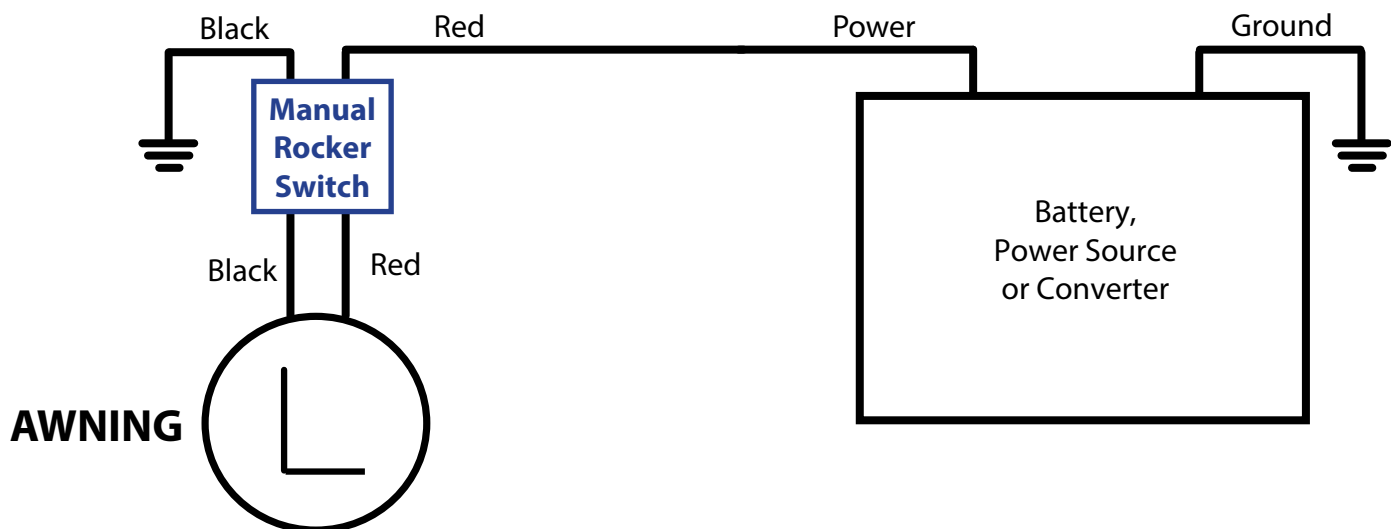
Wiring Diagram

NOTE: Solera® Awnings are equipped with a 6A Auto Reset breaker supplied by LCI.

NOTE: The motor comes stock with internal thermal protection. LCI recommends that the awning be on a 15A circuit.

NOTE: All wire to be 14 AWG or larger as necessary to provide 12V minimum at all times at the connection to the LCI-supplied power cable.

Fig. 7



AWNINGS

Resources Required

- 1 to 3 People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Zip Ties
- Two Cotter Pins (manual awning only)
- Non-Permanent Marker

⚠ CAUTION

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

Manual Awning Fabric Replacement

Removal

1. Remove the drip cap (if equipped) from the end the fabric will be removed from.
2. Extend the awning out approximately 12" and insert cotter pins through both end caps into the shafts on the head assemblies (Fig. 1).

NOTE: If the awning is 6' in length it will only need one cotter pin for the drive side end cap.

3. Secure both support arm assemblies by running a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 2).

⚠ WARNING

If not properly secured, the support arms can kick out due to pressure from the gas strut, which may result in serious injury or property damage.

4. Remove the screws holding the polycord in place on the awning rail.
5. Remove the drive head assembly and idler head assembly retaining bolts from the outer arms to separate the components.
6. Working together, remove the roll tube assembly (which includes the drive/idler head assemblies) from the awning rail and support arms by sliding the assembly along the awning rail until clear.

⚠ WARNING

Failure to support the roll tube, fabric and drive/idler head assemblies during removal may result in serious injury or property damage.

Fig. 1



Fig. 2



AWNINGS

7. Secure the idler head and the roll tube to the work bench.
8. Hold the drive head assembly securely (there will be tension to be released) while another person removes the drive head assembly cotter pin.

WARNING

Failure to maintain control of the roll tube, fabric and drive/idler head may result in serious injury or property damage.

9. While one person holds the roll tube, have another person slowly rotate the drive head assembly clockwise to release tension.
10. Mark the cam lock position on the roll tube with a non-permanent marker.
11. Remove the three screws holding the drive head assembly end cap on the roll tube and set the drive head assembly aside.

NOTE: Awnings longer than 6' will also have tension that needs to be released in the idler head assembly prior to continuing the procedure. To release tension, remove the idler head cotter pin and slowly rotate the idler head in a counterclockwise motion to release tension in the idler head assembly's spring.

12. Place the roll tube and fabric on a clean, level surface that is free of any debris able to scratch or damage the roll tube and/or fabric.
13. With one person holding the awning rail end of the fabric, another can rotate the roll tube to unroll the fabric until only the polycords are left on the roll tube.
14. Remove the screws holding the polycords in place on the roll tube.
15. Mark the roll tube grooves containing the polycords with a non-permanent marker prior to removing the fabric from the roll tube.
16. To remove the fabric, gently pull the roll tube from the idler end, while another person holds the fabric in place.

Installation

1. Unroll the replacement fabric printed side down so that the polycords are parallel and away from the roll tube.
2. On a clean, level surface free of any debris able to scratch or damage the roll tube, gently slide the roll tube onto the two polycords of the fabric, making sure that the non-printed side is touching the roll tube (Fig. 3).
3. Center the fabric on the roll tube.
4. Apply the screws that were holding the polycords in place on the roll tube. Install the screws between the edge of the fabric and the stitching on the hem.
5. Roll the fabric onto the roll tube (Fig. 4). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.

Fig. 3

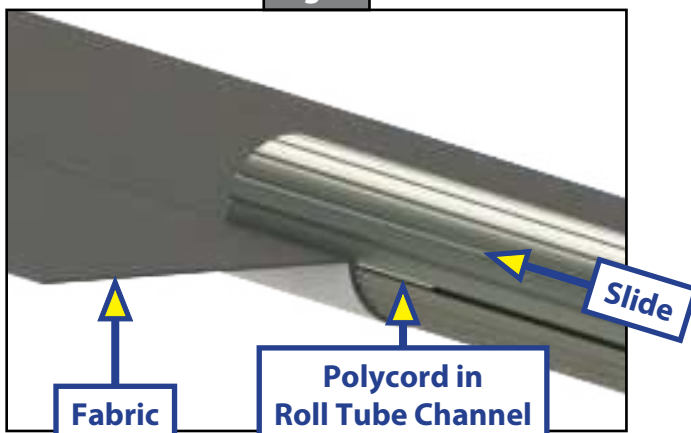
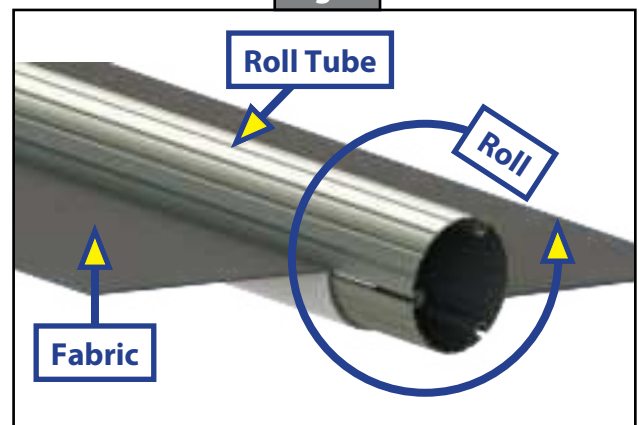


Fig. 4



AWNINGS

6. Using the three screws previously removed from the drive head assembly end cap, attach the drive head to the roll tube, making sure the orientation is the same.

NOTE: Be sure the drive head assembly with the cam lock is on the right-hand side of the awning.

7. Secure the idler head and roll tube to the work bench.
8. Rotate the drive head assembly counterclockwise, proper turns according to the length of the awning (Fig. 5) and insert a cotter pin into the end cap into the shaft on the drive head assembly.

NOTE: If the awning is longer than 6' and the idler head assembly tension had previously been released, rotate the idler head assembly clockwise according to the length of the awning (Fig. 5) and insert a cotter pin into the end cap into the shaft on the idler head assembly. Be sure that both head assemblies are parallel once tension has been added.

Fig. 5

Manual Awning Tensioning	
Awning Length	Proper Tensioning (# of turns)
6'*	15
7'-16'	9
17'-21'	10
22'-28'	11
NOTE: 6' Awnings only have one spring to tension on the drive side.	

⚠ WARNING

Failure to maintain control of the roll tube, fabric and drive/idler heads may result in serious injury or property damage.

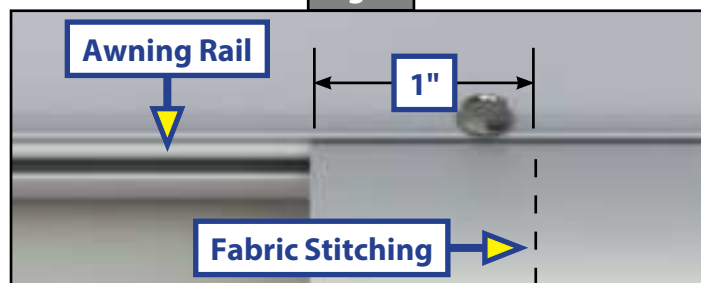
9. Working together, install the roll tube assembly (which includes the drive/idler head assemblies) to the awning rail and support arms by sliding the assembly along the awning rail. Make sure the awning will unroll with the printed side of the fabric up.

⚠ WARNING

Failure to support the roll tube, fabric and drive/idler head assembly during installation may result in serious injury or property damage.

10. Install the previously removed drive/idler head assembly retaining bolts into the outer arms to secure.
11. Remove the cotter pins from both end caps and cut the zip ties from the support arm assemblies.
12. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.
13. Secure the fabric in the awning rail 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord (Fig. 6).
14. Reinstall the drip cap (if previously equipped).

Fig. 6



AWNINGS

Power and Hybrid Awning Fabric Replacement

Resources Required

- 1 to 3 People (depending on task)
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Zip Ties

Removal

1. Remove the drip cap (if equipped) from the end the fabric will be removed from.
2. Fully extend the awning.
3. Disconnect any fabric LED lights in the support arm assembly or remove the fabric LED light strip from the polycord of the fabric.
4. Retract the awning until approximately 12" remain visible.
5. Secure both support arm assemblies by running a zip tie around the outer arm and around the pin on the top of the mount arm where the mount arm and inner arm connect (Fig. 7).
6. Remove the screws holding the polycord in place on the awning rail.
7. Remove the wax screws holding the end caps onto the drive and idler head shafts (Fig. 8).

WARNING

Failure to support the roll tube, fabric and drive/idler head assemblies during removal may result in serious injury or property damage.

Fig. 7



Fig. 8



8. Working together, remove the roll tube and fabric from the awning rail and support arm assemblies.
9. Place the roll tube and fabric on a clean, level surface that is free of any debris able to scratch or damage the roll tube and/or fabric.
10. Remove the end cap from the end of the roll tube from which the fabric will be removed.
11. With one person holding the end of the fabric that gets attached to the awning rail on the unit, another can rotate the roll tube to unroll the fabric until only the polycords are left on the roll tube.
12. Remove the screws holding the polycords in place on the roll tube.
13. To remove the fabric, gently pull the roll tube from one end, while another person holds the fabric in place.

AWNINGS

Installation

1. Unroll the replacement fabric so that the cords are parallel with the roll tube.
2. On a clean, level surface free of any debris able to scratch or damage the roll tube, gently slide the roll tube onto the two polycords of the fabric, making sure that the non-printed side is touching the roll tube (Fig. 9).
3. Center the fabric on the roll tube.
4. Install the screws that were holding the polycords in place on the roll tube. Install the screws between the edge of the fabric and the stitching on the hem.
5. Roll the fabric onto the roll tube (Fig. 10). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.

Fig. 9

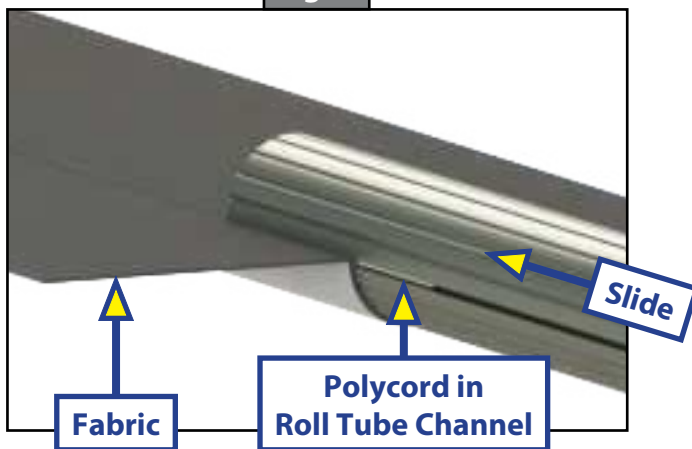
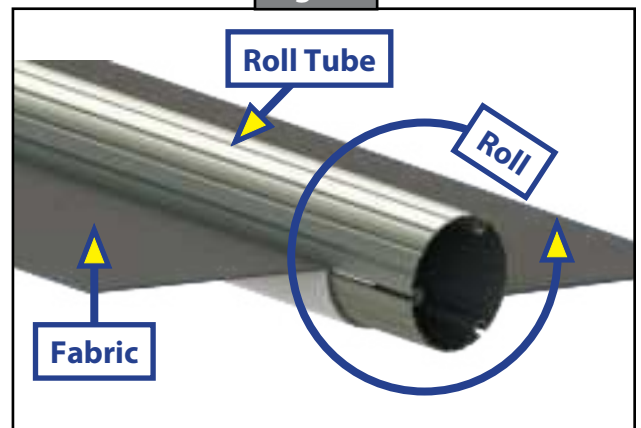


Fig. 10



6. Reinstall the end cap previously removed.
7. Working together, install the roll tube and fabric on the awning rail and support arms, making sure the awning will unroll with the printed side of the fabric up.

⚠ WARNING

Failure to support the roll tube, fabric and drive/idler head during installation may result in serious injury or property damage.

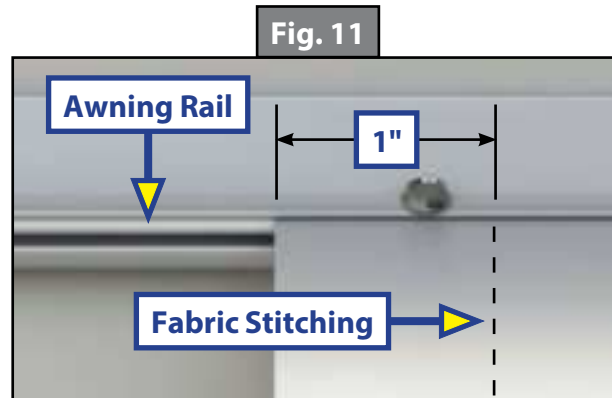
8. Working together, slide the shaft on the head assembly into the end cap. Install the wax screws at each end to secure the roll tube end caps to the head assemblies.

NOTE: It is suggested to keep the head of the wax screw $\frac{1}{8}$ " from fastened so as not to compromise the structural integrity of the wax screw.

9. Extend and retract the awning several times to ensure that the fabric is square on the roll tube.

AWNINGS

10. Secure the fabric in the awning rail no more than 1" inside the edge of the fabric on both ends using a #6 x 1/2" hex head screw. Install the screw down through the awning rail into the fabric and the polycord (Fig. 11).



11. Reinstall the drip cap (if previously equipped).
12. Reconnect any light wiring as needed.

NOTE: The fabric LED light strip will need to be installed on the polycord of the fabric prior to connecting any wiring previously removed.

AWNINGS

White Kit #	Black Kit #	Description	
323948	323949	Conversion from Manual Pull Strap to Power Awning Kit	
NOTE: Parts <u>below</u> are available in kits referenced <u>above</u> or individually as needed.			
White Part #	Black Part #	Description	Qty.
266146	273478	Drive Head Assembly	1
266147	273479	Idler Head Assembly	1
273007		Power Feed Wires	1
280570		Wire Harness	1
2661301	2661302	End Cap	2
299630		#8 - 32 X ½" Wax Screws	2
280564	280566	Switch	1
280565	280567	Switch Plate	1
285079	285077	Bezel Spacer	2
275080353	2750701888	Wire Cover ; 22" - Narrow	2
275070157	2750701692	Wire Cover; 9.75" - Narrow	2
266139429	2661391964	Wire Cover; 26.75" - Wide	2
266139337	2661391872	Wire Cover; 21" - Wide	2
266138481	2661382017	Wire Cover; 30" - Narrow	2

Prior To Conversion

Tools Required

- Electric screw gun
- #2 square screwdriver bit
- #3 Phillips bit
- Zip ties
- (2) Cotter pins (.09" x 2 ⅝" OAL Zinc Plated Hairpin or equivalent)

Resources Required

- Two People

Procedure

1. Extend awning out approximately 1' and insert cotter pins through both end caps into the shafts on the head assemblies (Fig. 1).

NOTE: If the awning is 6' in length it will only need one cotter pin on the drive side.

Fig. 1



AWNINGS

2. Zip tie both support arms around the outer arm and top pin of the mounted arm (Fig. 2).

CAUTION

The awning arms will be under pressure from the gas strut and can kick out from the unit if not properly secured, causing personal injury or property damage.

3. Remove the three (3) screws holding the drive head end cap onto the roll tube (Fig. 3).
4. While one person holds the roll tube, remove the bolt holding the drive head assembly into the support arm and remove the drive head assembly from the support arm (Fig. 4).
5. Remove the drive head cotter pin being sure to hold onto the drive head assembly and the roll tube as there will be tension that needs to be released.

WARNING

Failure to maintain control of the roll tube or the drive head assembly may result in serious injury or property damage.

6. Slowly rotate the drive head assembly to release tension and then remove the drive head assembly (Fig. 5).

NOTE: Awnings longer than 6' will also have tension that needs to be released in the idler head assembly prior to continuing the procedure. To do so, remove the idler head cotter pin and slowly rotate the roll tube to release tension in the idler head's spring.

Fig. 2



Fig. 3



Fig. 4



Fig. 5



CONVERSION FROM MANUAL PULL STRAP TO POWER AWNING

AWNINGS

7. Install new end cap to the roll tube using the three square head screws that were removed in Step 3 above. Confirm cap is fully seated on the end of the roll tube. If the screws/screw holes have been stripped consider using #10 screws to ensure a secure fit.
8. Plug the power cord into the motor by matching the black wire from power cord to black wire at the motor. Next take the white wire from the power cord and plug it into the red wire on the motor. Make sure to then tuck the wires down into the mount assembly to assure wires won't be pinched during install (Figs 6 & 7).
9. Insert the shaft from the motor head into the end cap and secure with the provided #8 wax screw (Fig. 8).
10. Install the head mount into the arm and secure with the bolt removed in Step 3 above.
11. Repeat Steps 3 through 6 and 8-9 for the idler head side of the awning. Cut zip ties from top of arm. Using the cordless screw gun battery (or other low voltage battery source) run the awning out by putting the black wire from power cord to the positive side of battery and the white wire on negative.

Fig. 6**Fig. 7****Fig. 8**

AWNINGS

12. Starting at the motor, run the wire approximately halfway down the outer arm, then up the inner arm to the wall mount (holes for 'top wire' and 'bottom wire' options are provided in the wall mount extrusion) (Fig 9). Install plastic wire covers into the outer arm (1 section), inner arm (2 sections), and wall mount (2 sections) extrusions to secure/protect the power supply wire (Figs 10-12). Make sure wire is placed on the outside of the pin that joins the steel tension arm to the wall mount (Fig. 12) to prevent damage to the wire.
13. Hook power cord to the coach supplied power.
14. Seal all wall penetrations to protect against water intrusion (Fig. 13).

Fig. 9

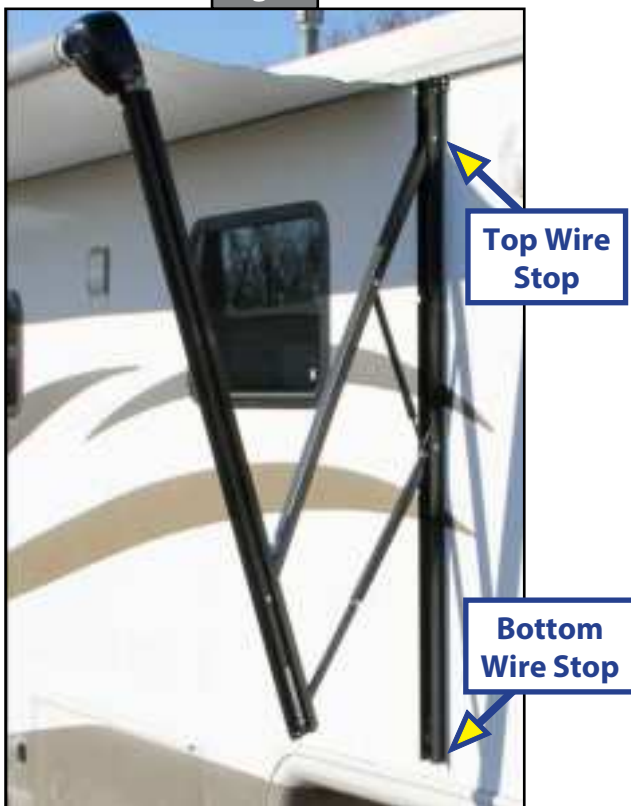


Fig. 10



Fig. 11



Fig. 12



Fig. 13



AWNINGS

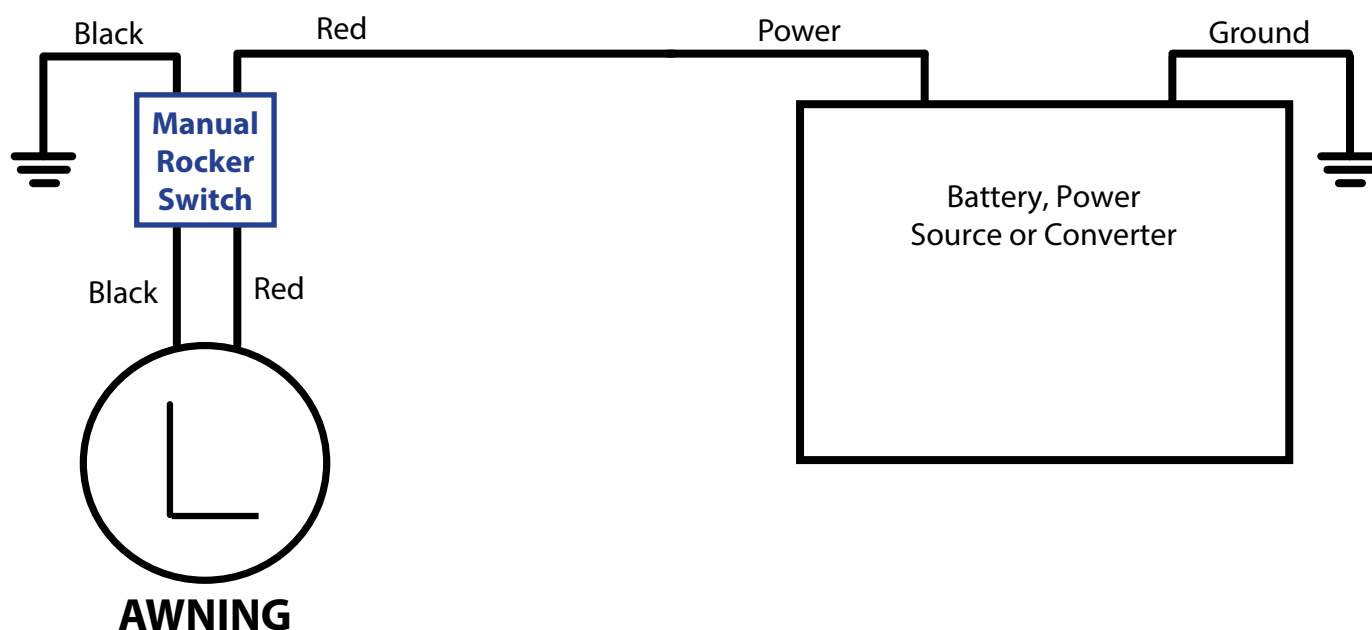
Wiring Diagram

NOTE: Solera® Awnings are equipped with a 6A Auto Reset breaker supplied by LCI.

NOTE: The motor comes stock with internal thermal protection. LCI recommends that the awning be on a 15A circuit.

NOTE: All wire to be 14 AWG or larger as necessary to provide 12V minimum at all times at the connection to the LCI-supplied power cable.

Fig. 14



AWNINGS

Tools Required

- Cordless or electric screw gun or drill (and appropriate drive bits)
- Zip ties

Resources Required

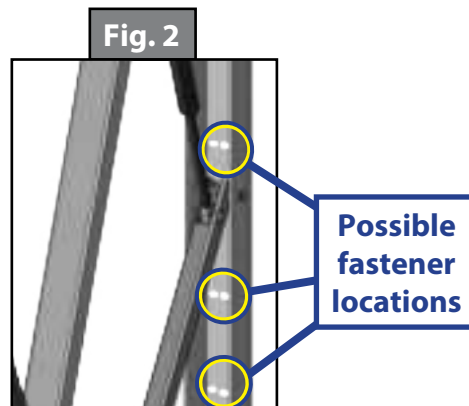
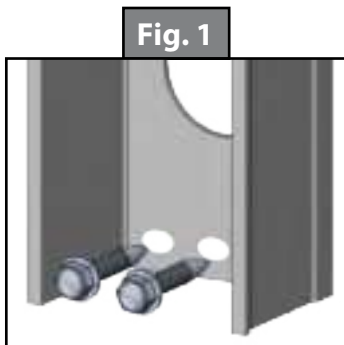
- 1-3 people (depending on task)



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

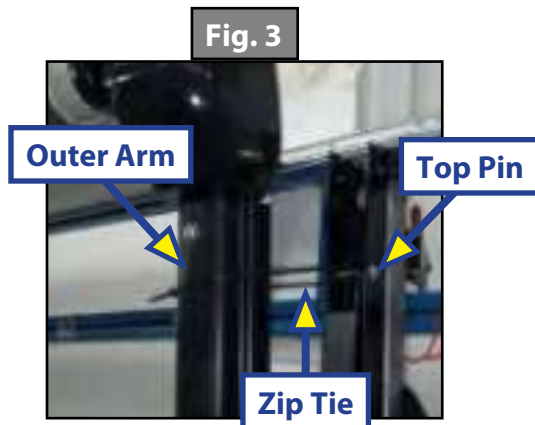
Power Awning Arm Replacement

1. Run awning out to almost full extension in order to allow access to the fasteners that secure the awning arms to the wall of the unit.
2. Remove the bottom 2 and middle 2 fasteners from the mount arm (Fig. 1 and Fig. 2).



3. Disconnect the wires in the awning arm from the wires on the unit.
4. If the unit is equipped with an awning light that is mounted to the wall of the unit, make sure to take the wire out of the arm from the top side.
5. Use the cordless battery from the screw gun to run the arm IN within 18" of being closed:
 - A. Take the red and white wires from the motor and connect them to the positive and negative posts on the cordless screw gun battery.
 - B. If the awning does not run in the correct direction, reverse the wires.
6. Secure the outer arm to the mount arm by taking a zip tie and running it around the pin on the top of the mount arm, where the mount arm and inner arm connect (Fig. 3)

NOTE: If replacing the drive side, secure the idler side with a zip tie to stop the awning from unrolling.



AWNINGS

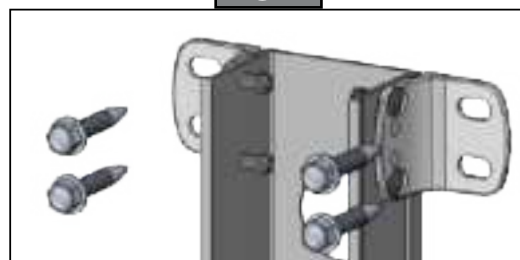
7. Remove the #8 wax screws that hold the drive head shaft to the end cap on the roll tube.

CAUTION

Make sure the roll tube is adequately supported before removing the support arm assembly. Failure to do so may result in serious personal injury or property damage.

8. Remove the 4 fasteners from the angle bracket at the top of the arm. These are the last of the fasteners holding the support arm assembly to the unit (Fig 4).
9. Remove the support arm assembly from the end cap. It should be completely free now and can be removed from the working area.
10. Take the new support arm assembly and slide the head shaft into the end cap on the roll tube (Fig 5).
11. Mount the support arm assembly to the wall using similar fasteners that were previously in the old arm. One fastener will hold the awning in place at this time.

Fig. 4



NOTE: The first fastener should be placed in the bottom of the angle bracket on the inside of the mount arm, as this is the easiest one to access.

12. Install the #8 wax screws back into the end cap to secure head shaft.
13. Cut the zip tie and install the remaining 3 fasteners into the angle brackets at the top of the arm.
14. Pull the wires out of the bottom of the awning arm. If the arm is a top mount, wires can be removed from the top as well. Use the cordless battery and extend the awning fully.
15. Install the remaining fasteners, 2 at bottom and 2 in the middle of the mount arm.
16. Reconnect the wires from the motor to the unit. Check the switch. If the awning is running reverse of what the switch indicates, reverse the wires.
17. If unit was equipped with a light, run the wire down the arm and reconnect it to the unit wiring. In order for the system to work properly the power wire **MUST** go to red and ground to black.
18. Seal all areas at this time.

Fig. 5

