



Solera®
Awning Ground Support
Manual



Introduction

The Solera® Ground Support gives added support to the Solera® Awnings as well as Carefree Awnings and Dometic Awnings.



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



If staking Ground Support Shade to the ground, be sure to disable any and all self re-tracking wind sensing options on your awning. Failure to do so could result in damage to the awning and unit.

Resources

- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Tape Measure
- Non-permanent Method of Marking
- 7/16" Wrench
- 25/64" Drill Bit
- Hammer

Installation

1. Measure the length of the roll tube (Fig. 1).

Fig.1



2. Find the center of the roll tube and mark its location (Fig. 2).

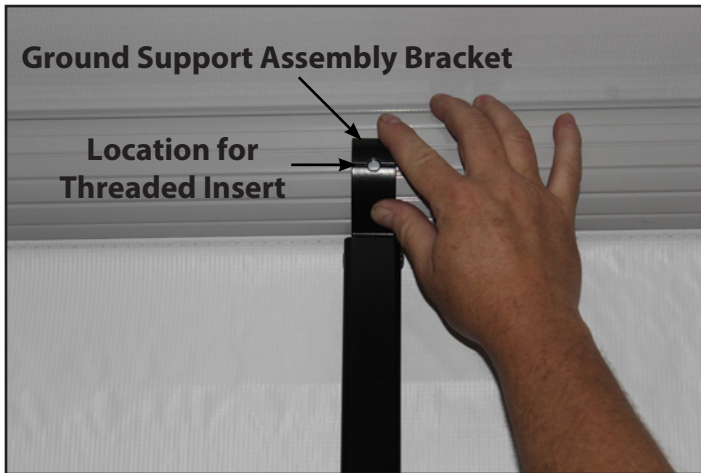
Fig.2





3. Position the Ground Support assembly bracket at the center of the roll tube (Fig. 3).

Fig.3



Note: Keep the pull strap slot clear so accessories can be used with the Ground Support assembly installed.

4. Mark the location for the bolt at the center of the roll tube using the Ground Support assembly bracket (Fig. 3) as a guide.
5. Drill a 25/64" hole at the mark made on the roll tube (Fig. 4).

Fig.4



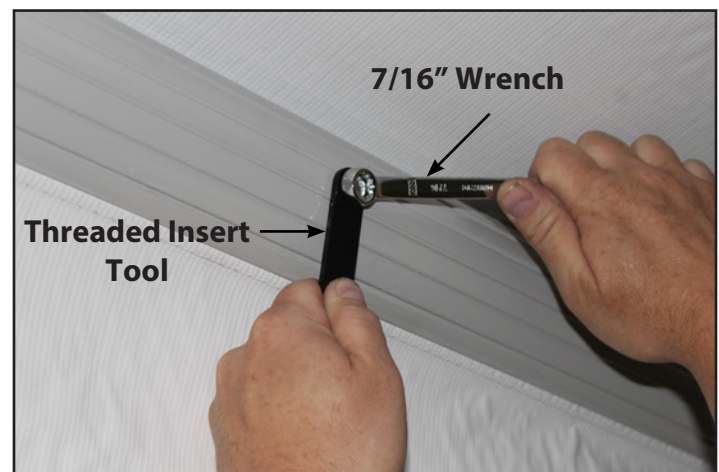
6. Place the bolt through the threaded insert tool and into the threaded insert fastener. Then place the entire assembly into the previously drilled hole (Fig. 5).

Fig.5



7. Tighten the bolt to set the threaded insert fastener with the 7/16" wrench while holding the threaded insert tool stationary (Fig. 6).

Fig.6



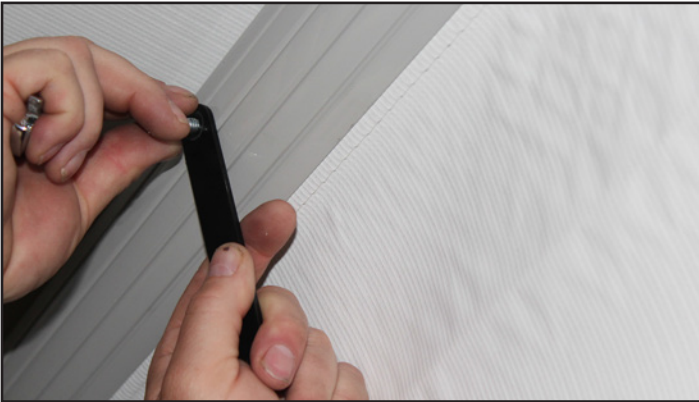


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Solera® Awning Ground Support Aftermarket Manual

8. Remove the bolt and threaded insert tool (Fig. 7).

Fig.7



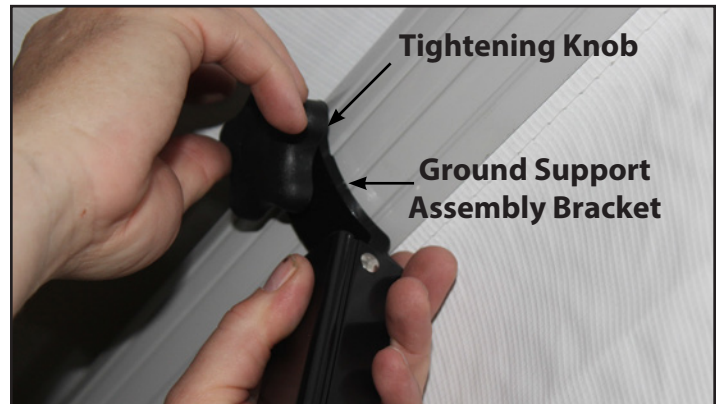
9. The roll tube will now have a threaded hole (Fig. 8).

Fig.8



10. Place the Ground Support assembly bracket over the threaded hole. Insert the tightening knob into the threaded hole (Fig. 9). Tighten to mount the Ground Support assembly to the roll tube.

Fig.9



11. Loosen the adjustment knob of the Ground Support assembly (Fig. 10) and extend the lower leg of the assembly to the ground (Fig. 11) to support the roll tube. Re-tighten the adjustment knob.

Fig.10

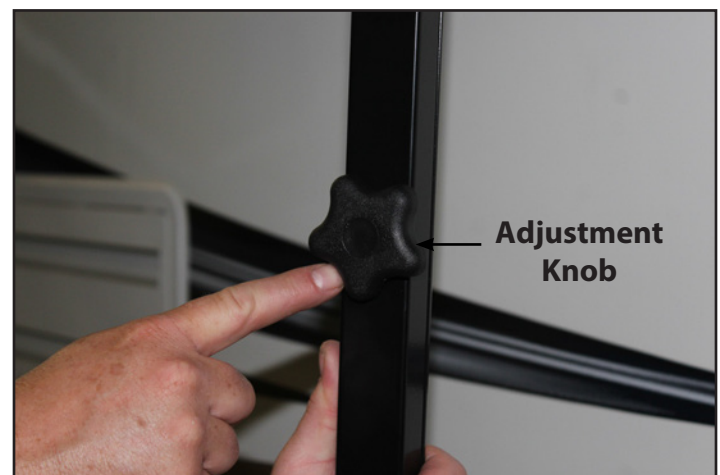




Fig.11



12. At the bottom of the Ground Support assembly, hammer the two stakes through the holes into the ground (Fig. 12) for added stability.

Fig.12



Removal of Ground Support

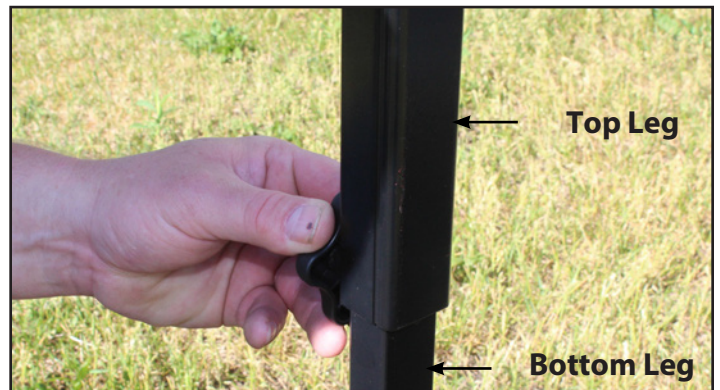
1. Pull up the stakes from the end of the Ground Support assembly (Fig. 13).

Fig.13



2. Loosen adjustment knob (Fig. 14). Slide the bottom leg into the top leg. Re-tighten the adjustment knob.

Fig.14



3. Remove the tightening knob from the Ground Support assembly (Fig. 15). Remove the entire assembly from the roll tube.

Fig.15

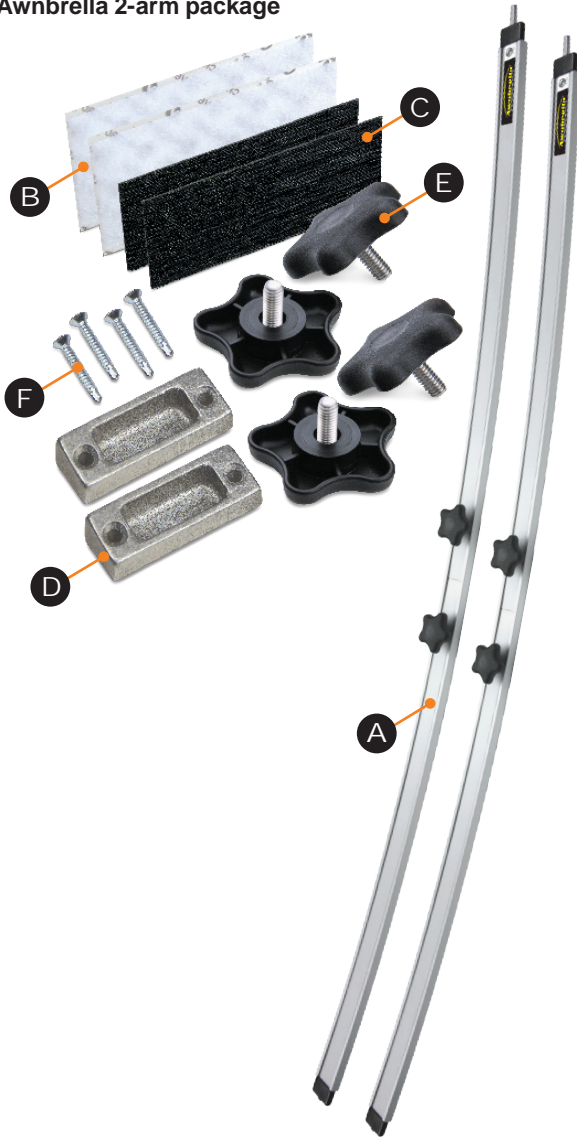




Awnbrella™
Installation
Manual



Parts List Part number 362238
Awnbrella 2-arm package



Parts List Part number 362237
Awnbrella 3-arm package



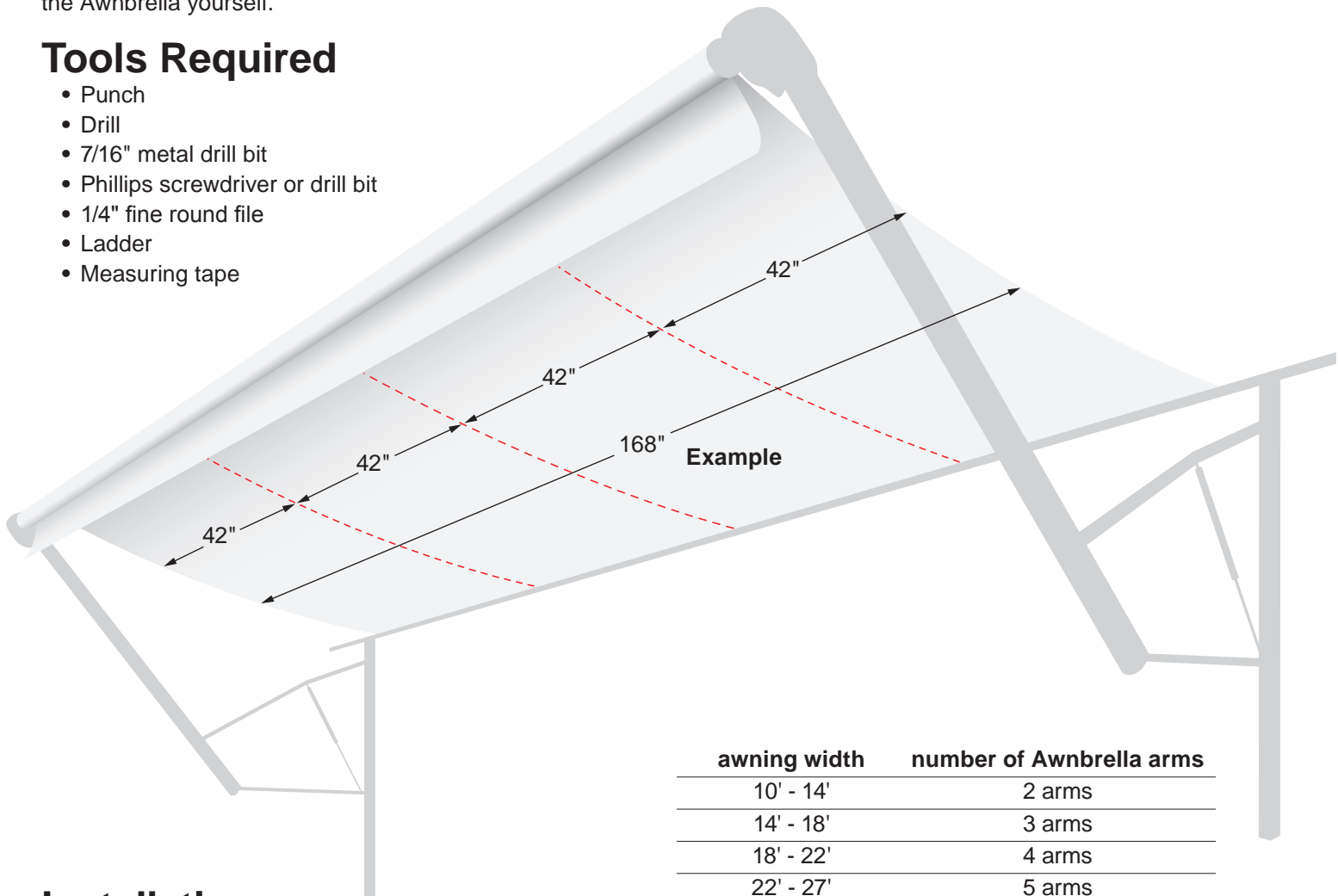
Letter	Description	Qty
A	Awnbrella Arms Adjustable from 59" to 106"	2
B	White Hook and Loop Fastener Pads with Adhesive Backing	2
C	Black Hook and Loop Fastener Pads with Adhesive Backing	2
D	Hanger Blocks	2
E	Plastic Tightening Knobs	4
F	1-1/4" Self-Tapping Mounting Screws	4

Letter	Description	Qty
A	Awnbrella Arms Adjustable from 59" to 106"	3
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D	Hanger Blocks	3
E	Plastic Tightening Knobs	6
F	1-1/4" Self-Tapping Mounting Screws	6

Awnbrella installation is fairly simple. If you have basic mechanical skills, you should have no problem installing the Awnbrella yourself.

Tools Required

- Punch
- Drill
- 7/16" metal drill bit
- Phillips screwdriver or drill bit
- 1/4" fine round file
- Ladder
- Measuring tape



awning width	number of Awnbrella arms
10' - 14'	2 arms
14' - 18'	3 arms
18' - 22'	4 arms
22' - 27'	5 arms

Installation

Spacing Awnbrella Arms

Awnbrella Arms should be evenly spaced with no more than 54" between each. To find the the proper spacing, measure the width of the awning fabric and divide the measurement by the recommended number of arms + 1.

Keep in mind that two arms make three sections, three arms make four sections, etc. We suggest you divide the canvas into sections not exceeding 54". See example to the right and installations instructions on the next page.

Example: Awning canopy width measures 14' (168")
 Recommended number of arms is 3 + 1 = 4
 $168" \div 4 = 42"$
 Space between each arm should be 42" wide

NOTE: Calculations will not always work out to be a complete whole number. The outer most holes drilled into the roller tube for the Awnbrella arms should not be placed any closer than 42" from the end of the tube to protect the roller tube spring.

Drilling the Roller Tube

1. With the awning fully extended, measure the distance you calculated using the chart from the edge of the awning fabric. (Fig.1). Mark the roller tube at that predetermined distance and 1/2" down from the fabric seam. (Fig.2). This is where you will later install the first Awmbrella arm. Continue to make all your measurements and markings along the roller tube for placement of the remaining arms. Verify the correct spacing before proceeding to the next step.

2. Using a metal punch, indent the marks you just made to create a dimple to center the drill bit and keep it from wandering (Fig.3).

3. Drill through the roller tube using a 7/16" bit (Fig.4).

4. Use a 1/4" round file to remove any sharp burrs around the edges of the holes (Fig.5).

NOTE: It is important that all the holes drilled on the roller tube are aligned at 1/2" down from the fabric retaining seam.

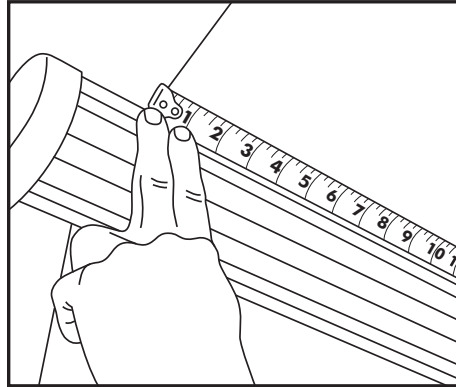


Fig.1

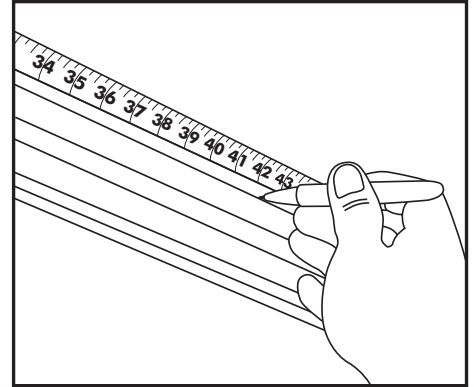


Fig.2

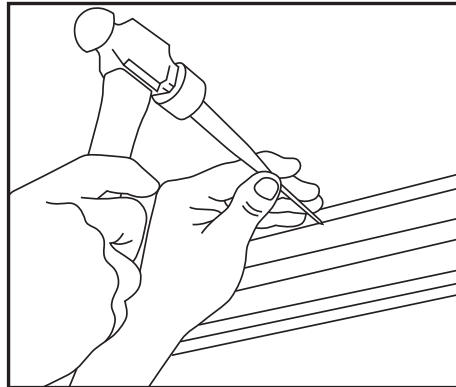


Fig.3

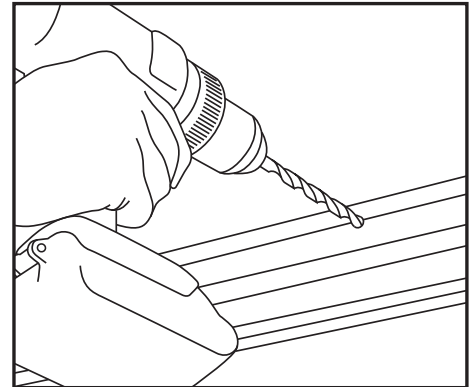


Fig.4

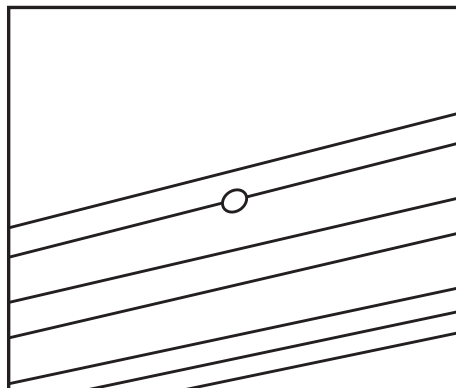


Fig.5

Mounting Hanger Blocks

1. The hanger blocks must be mounted on the exterior wall of the RV directly beneath the awning hanger rail and opposite the corresponding holes you just drilled in the roller tube (Fig.6). Measure and mark the position on the RV wall for all Awmbrella arms.

2. Position the hanger blocks using the marks as a center guide with the wide side down and a 1/8" gap between the hanger block and awning hanger rail. Use a Phillips screwdriver or drill bit to secure the hanger blocks with 1-1/4" self-tapping screws. (Fig.7).

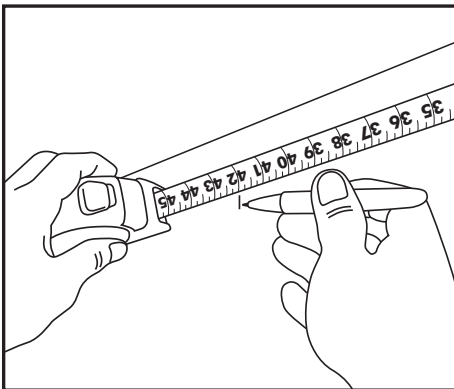


Fig.6

NOTE: Be sure there is backing behind the skin of the RV where you mount the hangers to prevent pressure damage to the wall. Do not overtighten the screws.

Inserting Awmbrella Arms

1. Thread the plastic tightening knobs into the holes on the Awmbrella arms. Extend one Awmbrella arm and measure from the pointed tip end so that the knob is approximately 8 inches from the end of the C-channel. Tighten the knob (Fig.8).

2. Line up the remaining Awmbrella arms and adjust them as you did in step 1. (Fig.9). Adjusting the arms now will make it easier to properly insert them later.

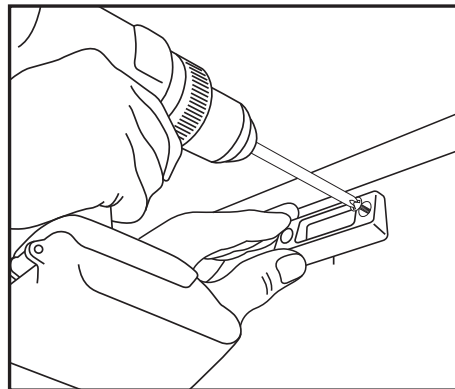


Fig.7

3. Slide the pointed tip of the arm into the hole in the roller tube (Fig.10).

NOTE: If the tip doesn't slide fully into the roller tube, use a round 1/4" file to enlarge the opening until it does.

4. Loosen the knob on the rubber tip end of the arm and push the Awmbrella arm up against the fabric. Slip the rubber tip end of the arm into the hanger block tip mounted on the RV (Fig.11). The harder you push the Awmbrella arm against the fabric, the more tension you will apply to the awning. Tighten the knob so the arm will remain rigidly in place. Be sure Awmbrella arms are secure so they don't fall down on you.

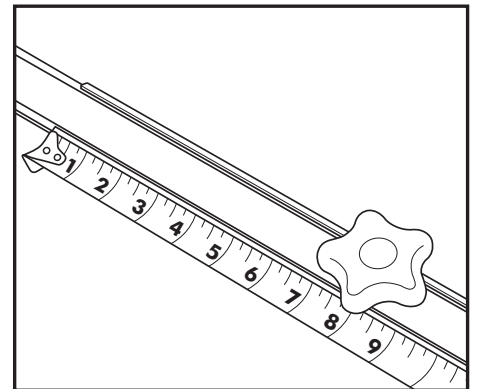


Fig.8

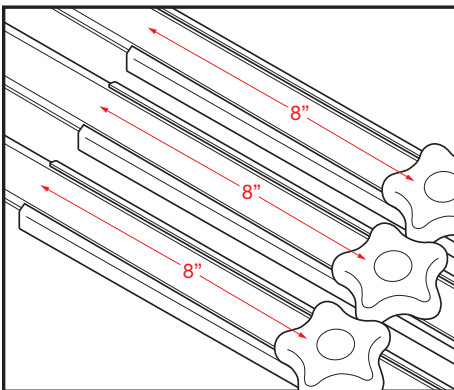


Fig.9

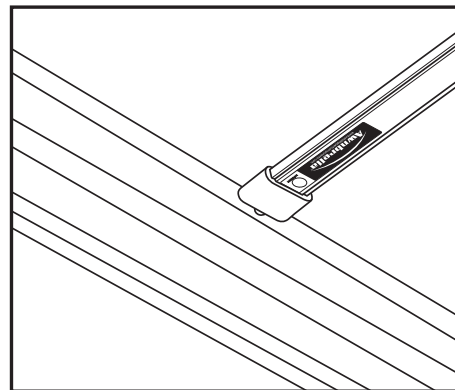


Fig.10

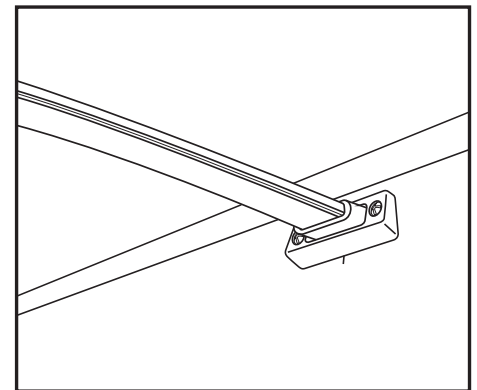


Fig.11

Hook and Loop Fastener Stabilizers

We've included hook and loop fastener stabilizers as a safety precaution to secure the Awmbrella and prevent the arms from shifting or falling. You will adhere a black patch of hook and loop fastener to the back of the Awmbrella arm and a white patch to the canopy.

1. Take the Awmbrella arms down from the RV. On the top side of one Awmbrella arm (side without adjustment knobs), wipe rubbing alcohol to remove any grease or oils

from handling on the center of the arm where you will install the hook and loop fastener patch. Measure 28-1/2" from either end of the channel and mark with a pencil (Fig.12). This is where you will install a black patch of hook and loop fastener.

2. Center the black hook and loop fastener patch over the mark, peel off the protective backing and press firmly into place (Fig.13).

3. Line up all the arms and apply all the patches following steps 1 and 2.

4. Reposition the Awmbrella arm back into the hanger blocks and roller tube, then use alcohol to clean the awning fabric directly opposite the black hook and loop fastener patch on the back of the Awmbrella arm. Attach a white hook and loop fastener patch to the black hook and loop fastener patch on the Awmbrella arm (Fig.14).

5. Remove the clear protective film from the back of the hook and loop fastener (Fig.15). Carefully place the Awmbrella arm back into position, pressing it firmly against the awning fabric.

6. Repeat steps 2 and 4 for each Awmbrella arm.

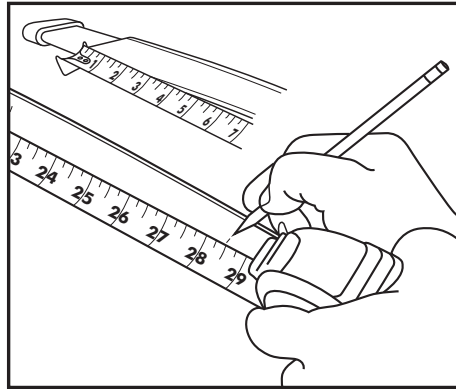


Fig.12

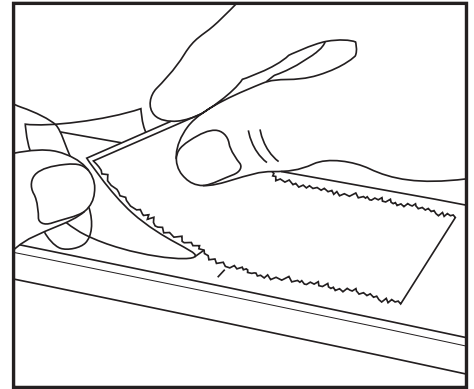


Fig.13

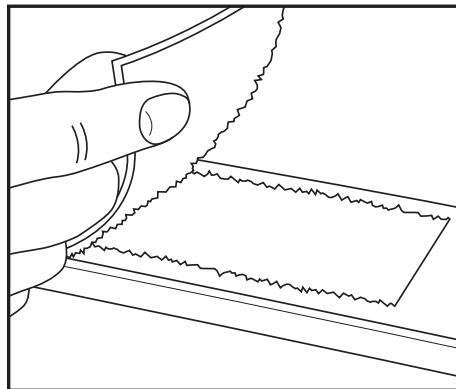


Fig.14

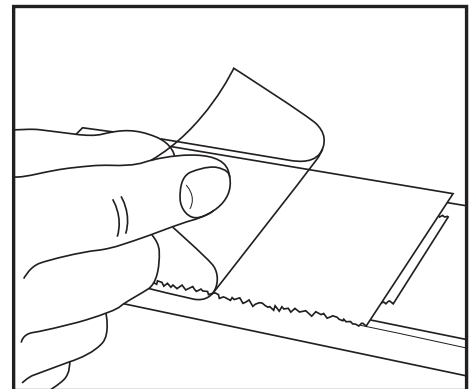
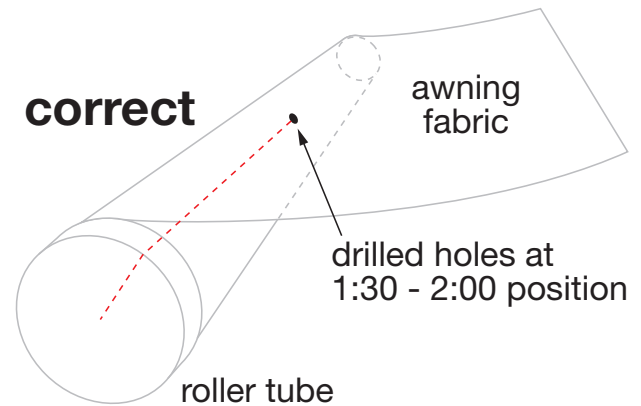
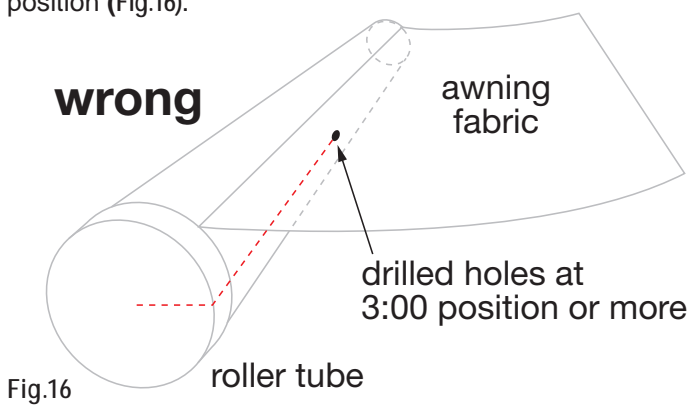


Fig.15

NOTE: Leave the Awmbrella arms in place for 48 hours to allow the adhesive to set. Ideally, hook and loop fastener patches should be installed when the temperature is above 70° for the best bond. The adhesive may not bond tightly to some woven acrylic fabrics. Use vinyl contact adhesive available at most hardware stores for a better bond.

Proper Awning Extention for Awnbrella Arms

If you are going to use the awning in the carport position, put it in this position before installing the arms and check to make sure the holes in the roller bar are in an upward position (Fig.16).



Special Notes:

- For proper water drainage, the roller tube must be at least 6" lower than the hanger rail on the RV. You may check drainage with a water hose to be sure.
- Follow all care instructions recommended by your awning manufacturer.
- Your awning may stretch slightly where it meets Awnbrella arms. This should present no problem in performance. Canvas should be in good condition when using the Awnbrella or it could rip.
- Lippert Components is not responsible for damage or injury due to improper use or installation.

Never:

- Leave your awning out in strong winds. Lippert Components makes no claims regarding the performance of this product in windy conditions.
- Drill into the roller tube closer than 42" from each end to avoid striking the awning roller spring.
- Extend or retract your awning while the Awnbrella arms are installed.
- Adjust the pitch of the awning side arms while the Awnbrella arms are installed.



Solera® Classic
Awning
Installation and
Owner's Manual
(For Aftermarket Applications)



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Solera® Classic Awning Installation and Owner's Manual (For Aftermarket Application)

Introduction

The Solera® Classic Manual Awning is designed for use on most recreational vehicle units and is available in a variety of sizes to fit even the largest unit.

Preparation

⚠ CAUTION

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

Do not remove the following items until instructed:

1. Tape securing the fabric.
2. Cotter pins in the spring assemblies.

⚠ WARNING

Removing these items prematurely may cause personal injury or property damage.

⚠ WARNING

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

NOTE: Solera® Classic Awning drive and idler heads are preloaded with tension and secured with cotter pins from the factory. If the cotter pins have been removed or otherwise lost, and tension needs to be added to the heads, use the turn chart (Fig.1) to add the correct number of turns to the awning heads.

Classic Awnings Pre-Install Turn Chart

Size	Turns
6' to 10'	4
11' to 14'	5
15' to 18'	6
19' and up	8

Fig.1

Resources Required

- 1 to 3 People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Screwdriver
- Ratchet
- 7/16" Socket
- 1/2" Socket
- 1/2" Wrench
- 3/16" Drill Bit
- Non-Permanent Method of Marking
- Silicone Sealant or Butyl Tape
- Silicone Lubricant



Installation

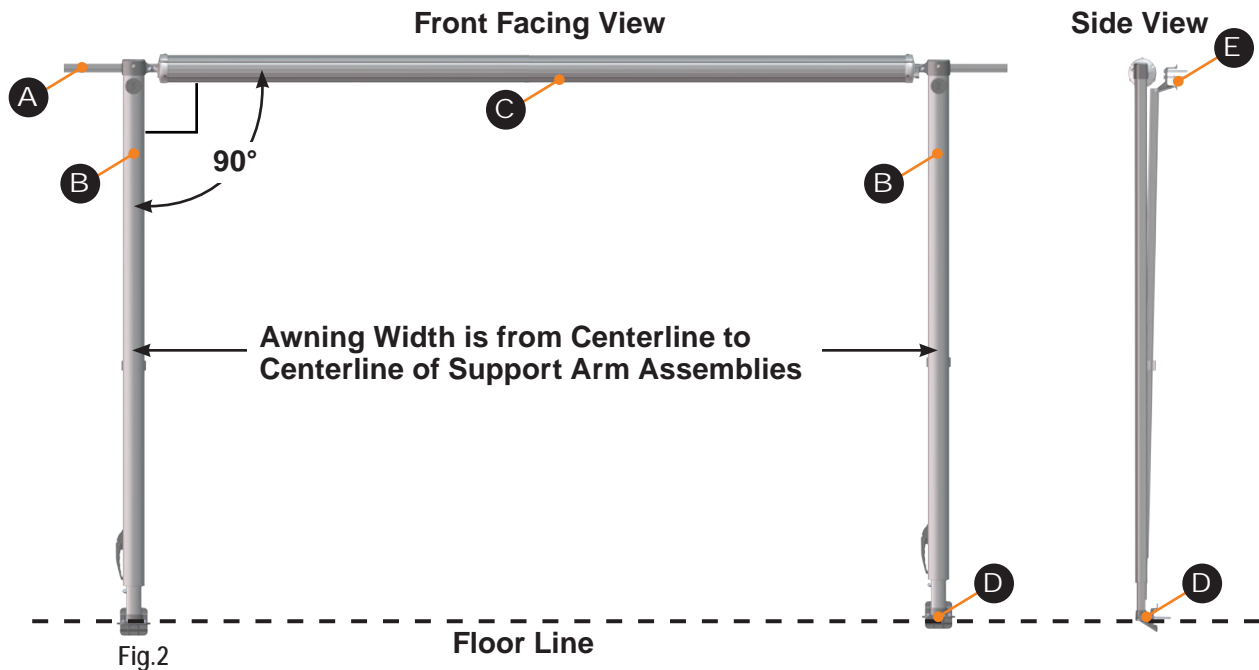
NOTE: All screws supporting the awning assembly **MUST** have a backer within the structure of the wall of the unit. Refer to unit manufacturer for proper location.

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



Letter	Description
A	Awning Rail
B	Support Arm Assembly
C	Roll Tube Assembly
D	Lower Mounting Bracket
E	Upper Mounting Bracket



Assembling the Awning

NOTE: The head assemblies (Fig.3A) and support arm assemblies (Fig.3B) are numbered to ensure proper assembly. Match the proper support arm assembly to the correct head assembly.

1. On a flat surface, carefully lay out the support arm assemblies and roll tube assembly. The cam lock **MUST** be on the right end of the roll tube when facing the unit.

NOTE: Take care not to set the awning on any surface that may damage the assembly or fabric.

2. Slide the left support arm assembly into the idler head assembly of the roll tube. Align the holes and secure using one (1) 1/4-20 x 1/2" Phillips drive screw (Fig.4).
3. Repeat step 2 for the right support arm assembly.
4. Measure and confirm the width of the awning. The distance is measured from centerline of support arm assembly to centerline of support arm assembly (Fig.2).

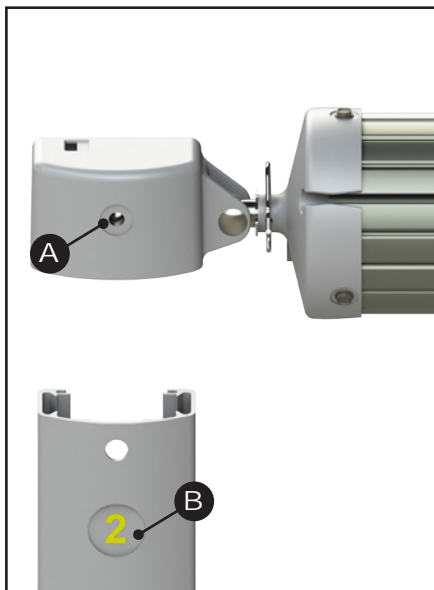


Fig.3

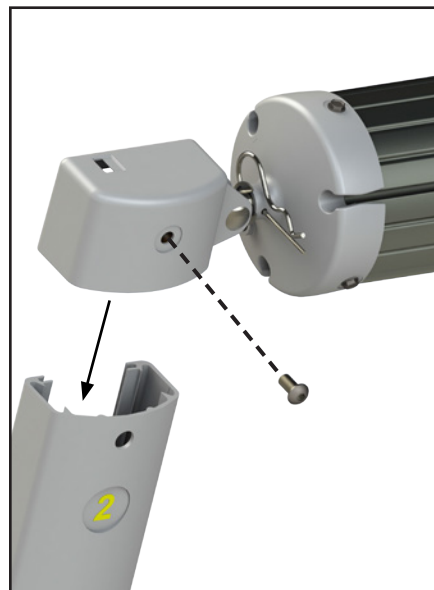


Fig.4

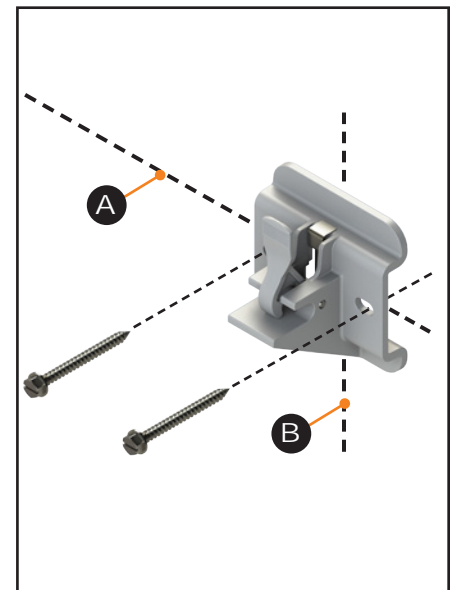


Fig.5

Mounting the Bottom Mounting Brackets

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 the operation of any windows or doors.
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. Position the bottom bracket with the fastening points at the floor line (Fig.5A) and center the bracket on the centerline mark of the support arm assembly (Fig.5B). Mark the hole locations. Using a 3/16" drill bit, pre-drill both holes. Apply a liberal amount of sealant over the holes and attach the bracket using the 1/4" x 2 1/2" lag screws provided (Fig.5).

NOTE: All screws supporting the awning assembly **MUST** have a backer within the structure of the wall of the unit. Refer to unit manufacturer for proper location.

4. Repeat step 3 for the other end of the awning.



Mounting the Awning

1. Measure the distance from the awning rail channel to the lower mounting bracket fastening point.
2. Compare the distance from the center of the roll tube and the support arm assembly foot to the measurement in Step 1 and adjust the support arm assembly to make both distances equal.

A. Open the support arm assembly handle (Fig.6) and slide the outer arm lower channel (channel#2) (Fig.7) up or down as required. Close the handle and slide the outer arm lower channel (channel#2) (Fig.7) until the locking pin clicks into the nearest positioning hole.

3. Use a screwdriver to spread open either end of the awning rail on the installation side (Fig.8A).
4. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail channel.
5. Use silicone lubricant and spray the inside of the awning rail channel (Fig.8B).
6. Remove the packaging from the fabric. Unroll a small portion of fabric, but not more than one turn.

NOTE: The next step 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.

7. 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.
8. Lift the support arm assembly up and secure the feet into the previously installed bottom mounting brackets by pressing the lever and opening the latch (Fig.9).
9. Slide the mount/rafter arm upper channel (channel#3) (Fig.7) up or down as needed over the mount arm lower channel (channel#4) (Fig.7).

NOTE: If adjustments need made so the upper mounting brackets straddle the awning rail, loosen the black locking knob on the mount/rafter arm upper channel (channel#3) (Fig.7).

10. Center the upper mounting brackets on the support arm assembly centerline marked previously and arrange the upper mounting brackets to straddle the awning rail. Tighten the black locking knob on the mount/rafter arm upper channel (channel#3) (Fig.7).



Fig.6

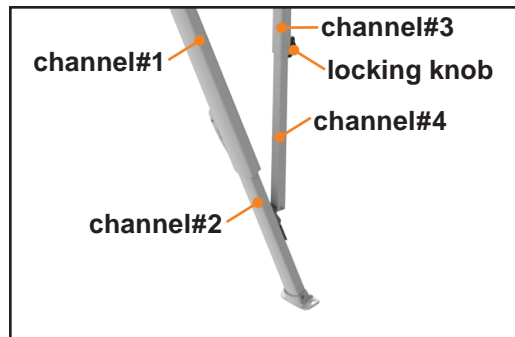


Fig.7

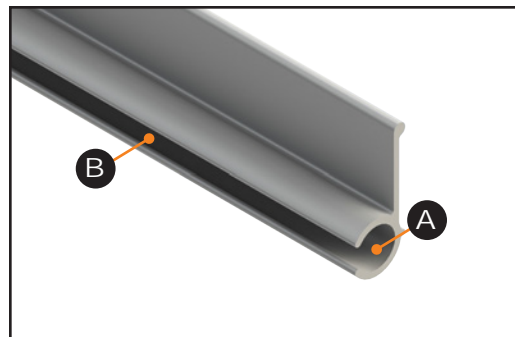


Fig.8

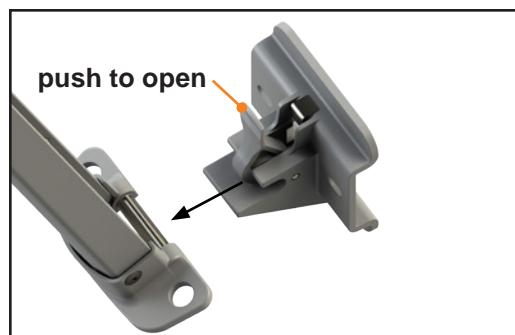


Fig.9



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11. Once the upper bracket is located, mark and pre-drill two 3/16" holes through the awning rail or unit. Apply a liberal amount of sealant over the holes and attach the upper mounting bracket using the 1/4" x 3' lag screws provided (Fig.10).

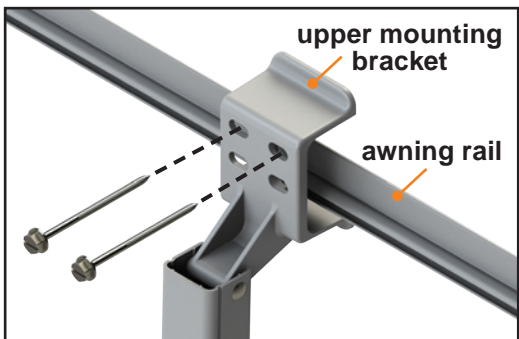


Fig.10

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. It is acceptable that the lag screws go through the flat portion of the awning rail.

12. Repeat steps 9-11 for the other support arm assembly.
13. Place cam lock into the roll up position. Firmly grasp the roll tube and remove the safety cotter pin from each end of the roll tube.
14. Flip the cam lock down to the roll in position and allow the fabric to slowly roll up.

⚠ CAUTION

Failure to maintain control of the roll tube, fabric and support arm assemblies may result in serious injury or property damage.

⚠ WARNING

Use care when removing the cotter pins. The cotter pins are holding the pre-wound tension of the spring. Failure to securely hold the roll tube may allow the roll tube to rapidly roll up and cause personal injury or damage.

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.11).

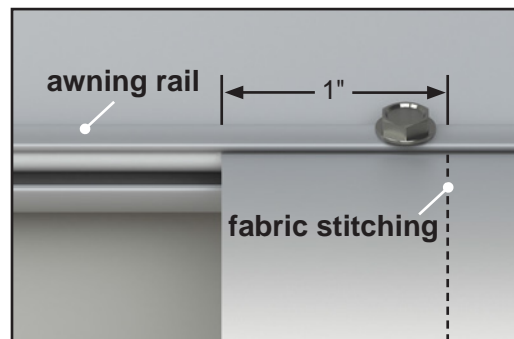


Fig.11



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Installing the Stop Bolt

1. Make sure the awning is retracted completely.
2. Make sure the centerline of the roll tube is level with or slightly higher than the centerline of the awning rail (Fig.2). The bottom of the roll tube **MUST NOT** be higher than the awning rail.
3. Adjust support arm assemblies if necessary.
 - A. Open the outer arm handle (Fig.12) and slide the outer arm upper channel (channel#1) (Fig.7) up or down as required. Close the handle and slide the outer arm upper channel (channel#1) (Fig.7) on the outer arm lower channel (channel#2) (Fig.7) until the locking pin clicks into the nearest positioning hole.
4. Mark the position of the stop hole that is directly below the outer arm upper channel (channel#1) (Fig.7).
5. From the inside of the outer arm lower channel (channel#2) (Fig.7), insert a 5/16" bolt through the hole. Secure with a star washer and 5/16" cap nut using 1/2" socket and wrench (Fig.13).

NOTE: It may be necessary to lift the outer arm upper channel (channel#1) (Fig.7) to tighten the cap nut.

NOTE: Repeat step 4 and 5 for the other support arm.

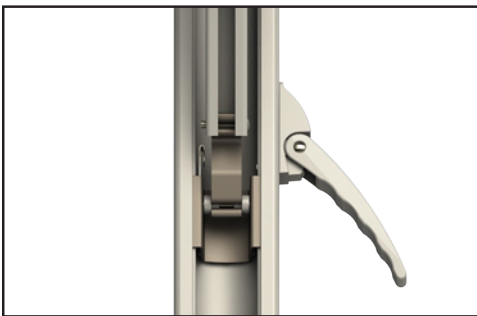


Fig.12

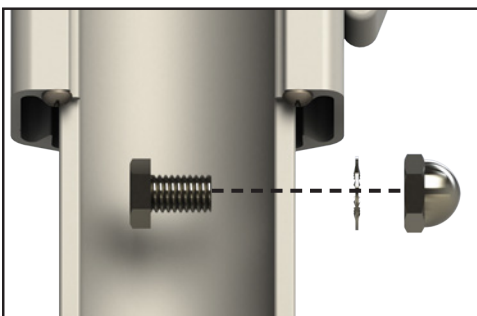


Fig.13

Operation

Extending the Awning

1. Make sure the black locking knobs on the mount/rafter arm upper channel (channel#3) (Fig.7) are loosened and pinch the travel locks together to release the outer arm from the mount/rafter arm.
2. Flip cam lock down to the roll out position.
3. Using the pull rod, start pulling the awning outward until full extension is complete.
4. Slide the mount/rafter arms all the way to the top of the outer arm and make sure they lock into place.
5. Pull on the mount/rafter arm to insure the fabric is taut and tighten the black locking knob to lock it into place.
6. Raise the outer arms to the desired height by releasing the support arm assembly handle and allow the outer arm upper channel (channel#1) (Fig.7) to slide on the outer arm lower channel (channel#2) (Fig.7) Once to the desired height let go of the support arm assembly handle to lock the arm at this position.
7. Slide the pull strap to one end or the other and wrap it around the arm to get it out of the way.

Optional Car Port Position

1. Once all the above steps are complete, remove the outer arm from the side of the unit by releasing the lever on the lower mounting bracket.
2. Walk the awning out until the outer arm is straight up and down and let it set on the ground.
3. Make sure to secure the foot of the outer arm to the ground with the provided stakes.

Retracting the Awning

1. If in car port mode, remove the stakes from the foot of the outer arm. Then walk the outer arm back to the unit and secure it to the lower mounting bracket on the sidewall of the unit. Do this for both ends.
2. Take the awning pull strap and return it to the center of the awning roll tube.
3. Lower the roll tube by holding the outer arm and releasing the support arm assembly handle on the side. Let the outer arm upper channel (channel#1) (Fig.7) slide down the outer arm lower channel (channel#2) (Fig.7) until it rests on the acorn nut. Repeat this for the other end.



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- Loosen the black locking knob and unlock the mount/rafter arm by releasing the spring clip from the top of the head assembly. Allow the mount/rafter arm to slide all the way down toward the bottom of the outer arm. Repeat this for both ends.
- Take a firm hold on the awning strap and release the tension on the springs by flipping the cam lock up to the roll in position.
- Walk the awning in toward the unit. Hook the pull rod into the pull strap before the strap gets too high. Using the pull rod, walk the awning to the fully-closed position.
- Lock the arms for travel mode by compressing the outer arm and mount/rafter arm together until the red tab disappears. Then tighten the black locking knob.

Fabric Replacement

Fabric Removal

- Remove the drip cap (if equipped) from the end the fabric will be removed from.
- Remove the #6 x 1/2" hex head screws located on the awning rail (2 total). Set screws aside (Fig.11).
- Extend the awning out completely by sliding the mount/rafter arms all the way to the top of the outer arm and make sure they lock into place and insert cotter pins (Fig.14).

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

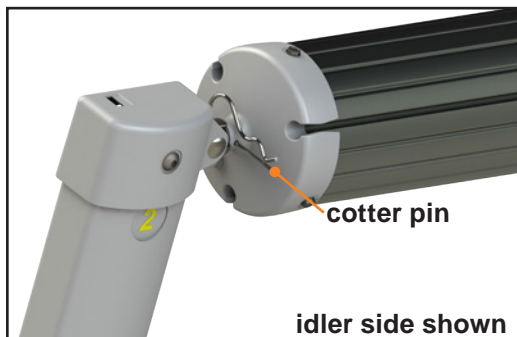


Fig.14

- Pull on the mount/rafter arm to ensure the fabric is taut and tighten the black locking knob to lock it into place. As a precaution, tape the cam lock in the roll out position.

Solera® Classic Awning Installation and Owner's Manual (For Aftermarket Application)

- On the end of the awning rail the fabric will be removed from, remove the upper mounting bracket from the unit wall. Allow the mount/rafter arm to pivot out of the way.
- Remove the drive head assembly and idler head assembly retaining fasteners from the outer arms to separate the components (Fig.15).

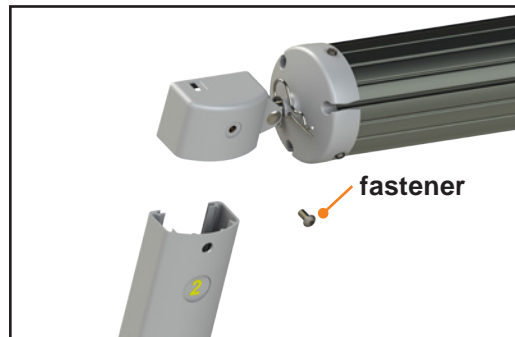


Fig.15

- 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.

- Place the removed assembly onto a level area.
- Have someone securely hold the idler head and roll tube.
- Hold the drive head assembly securely (there will be tension to be released) and remove 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.

- Flip the cam lock to the roll in position. Slowly rotate the drive head assembly clockwise to release tension.
- Mark the cam lock position on the roll tube.



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13. Remove the three screws holding the drive head assembly end cap on the roll tube and set the drive head assembly aside.
14. Mark the roll tube grooves containing the polycords prior to removing the fabric from the roll tube.
15. Remove the two screws holding the fabric in place on the roll tube.
16. To remove the fabric, gently pull the roll tube from one end, while another person holds the fabric in place.

Installing Replacement Fabric

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.16).

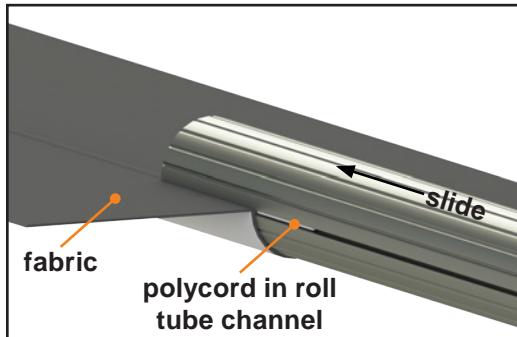


Fig.16

3. Center the fabric on the roll tube.
4. Apply the screws that were holding the polycords in place on the roll tube.
5. Roll the fabric onto the roll tube (Fig. 17). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.

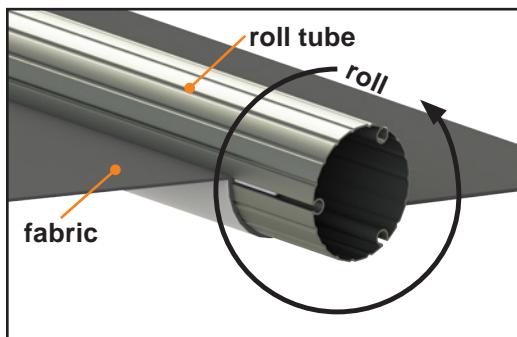


Fig.17

6. Using the three screws previously removed from the end caps, attach the drive head assembly 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.
8. Rotate the drive head assembly counterclockwise the number of turns stated on the turn chart (Fig.18). Insert a cotter pin into the end cap into the shaft on the drive head assembly.

Classic Awnings Fabric Replacement Turn Chart

Size	Turns
6' to 10'	12
11' to 14'	13
15' to 18'	14
19' and up	16

Fig.18

⚠ WARNING

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

10. Unroll the fabric from the roll tube to allow the drive/idler head assemblies to be installed into the outer arms.
11. Install the previously-removed drive head assembly and idler head assembly retaining bolts into the outer arms to secure the components.
12. Reinstall the previously-removed support arm upper mounting bracket to the unit wall.
13. Make sure the cam lock is in the roll out position and remove cotter pins from the awning heads.
14. Retract and extend the awning several times (see



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Operation section of manual) to ensure that the fabric is square on the roll tube.

15. 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.19).
16. Reinstall the drip cap if previously equipped.

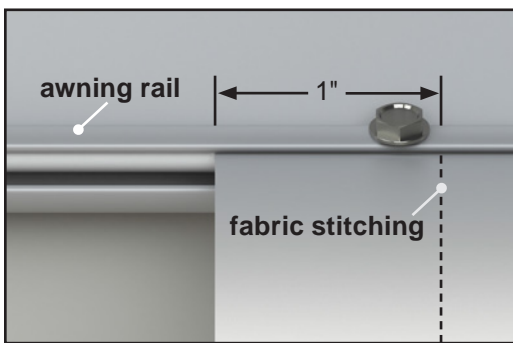


Fig.19



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Solera® Classic Awning Installation and Owner's Manual (For Aftermarket Application)

Solera® Classic Awning Troubleshooting

What's Happening?	What Should Be Done?
Awning will not extend.	Check position of the cam lock (roll out).
	Ensure that the travel locks have been released from the outer arm.
	Make sure the locking knob for the rafters has been loosened.
	Check to see if the outer arm is resting on the mount/rafter arm. If so, the outer arm height adjustment is not set properly.
Awning will not retract or only retracts part way.	Make sure the mount/rafter arms have been put in the stored position and the locking knob has not been tightened.
	Check position of cam lock (roll in).
	Ensure the outer arms have been placed in the closed/stored position.
	Ensure the awning has the proper tension on it.
Fabric is loose or sags on the edges and middle.	Ensure that the mount/rafter arm is not secured to the head of the outer arm.
	Make sure that the mount/rafter arm has been pulled tight and the locking knob is secured.
	Check that the fabric is square on the unit and with the roll tube.
	Make sure the fabric is properly secured to the awning rail on the unit.
Locking knob will not tighten.	Make sure roll tube is not bent.
	The nut for this is a thread part that tightens the arms together. Open the awning and check when turning the knob that the nut is not stripped out. If it is not stripped, it would require replacing both parts.
	Make sure the locking knob has been loosened.
	Make sure there is no debris in the track the arm slides in.
Mount/rafter arm will not extend.	Make sure arm is not bent.
	Check to make sure fabric is centered on roll tube and also centered between the arms attached to the unit.
	If the fabric is not centered, move the screws on both ends of the awning and shift the fabric accordingly.
	Make sure there are screws at both ends of the fabric securing it to the roll tube and at the awning rail. If there is only one screw at one end and not the other, the awning may not roll up correctly.
Awning will not roll up straight.	Make sure the legs are square and straight.
	Check the cam lock. Signs of a faulty cam lock include: The absence of a clicking noise when the awning is rolled out. The awning rolling back up after it is placed in the stop position.
Awning will not stay in the rolled out position.	



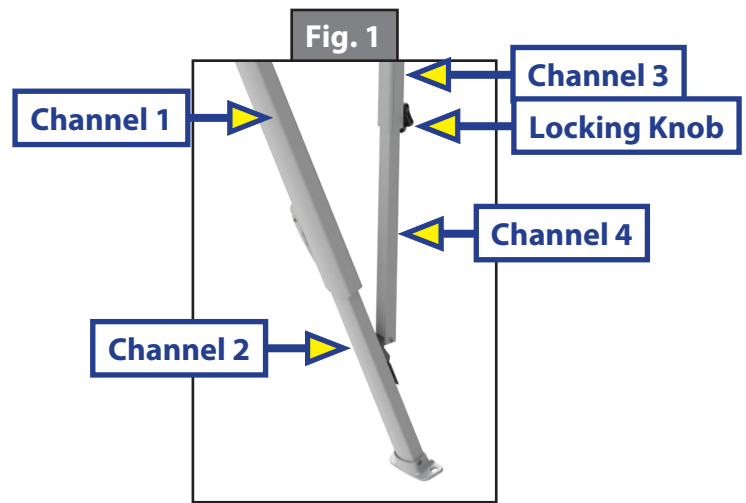
**SOLERA® CLASSIC
MANUAL AWNING**

OWNER'S MANUAL

Operation

Extending the Awning

1. Make sure the black locking knobs on the mount/rafter arm upper channel (channel #3) (Fig. 1) are loosened and pinch the travel locks together to release the outer arm from the mount/rafter arm.
2. Flip the cam lock down to the roll out position.
3. Using the pull rod, start pulling the awning outward until full extension is complete.
4. Slide the mount/rafter arms all the way to the top of the outer arm and make sure they lock into place.
5. Pull on the mount/rafter arm to ensure the fabric is taut and tighten the black locking knob to lock it into place.
6. Raise the outer arms to the desired height by releasing the support arm assembly handle and allow the outer arm upper channel (channel #1) (Fig. 1) to slide on the outer arm lower channel (channel #2) (Fig. 1). Once to the desired height let go of the support arm assembly handle to lock the arm at this position.
7. Slide the pull strap to one end or the other and wrap it around the arm to get it out of the way.



Optional Car Port Position

1. Once all the above steps are complete, remove the outer arm from the side of the unit by releasing the lever on the lower mounting bracket.
2. Walk the awning out until the outer arm is straight up and down and let it set on the ground.
3. Make sure to secure the foot of the outer arm to the ground with the provided stakes.

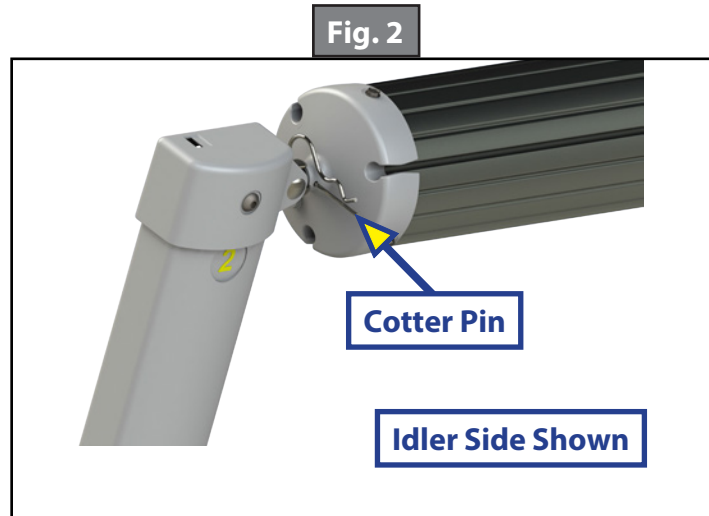
Retracting the Awning

1. If in car port mode, remove the stakes from the foot of the outer arm. Then walk the outer arm back to the unit and secure it to the lower mounting bracket on the sidewall of the unit. Do this for both ends.
2. Take the awning pull strap and return it to the center of the awning roll tube.
3. Lower the roll tube by holding the outer arm and releasing the support arm assembly handle on the side. Let the outer arm upper channel (channel #1) (Fig. 1) slide down the outer arm lower channel (channel #2) (Fig. 1) until it rests on the acorn nut. Repeat this for the other end.
4. Loosen the black locking knob and unlock the mount/rafter arm by releasing the spring clip from the top of the head assembly. Allow the mount/rafter arm to slide all the way down toward the bottom of the outer arm. Repeat this for both ends.
5. Take a firm hold on the awning strap and release the tension on the springs by flipping the cam lock up to the roll in position.
6. Walk the awning in toward the unit. Hook the pull rod into the pull strap before the strap gets too high. Using the pull rod, walk the awning to the fully-closed position.
7. Lock the arms for travel mode by compressing the outer arm and mount/rafter arm together until the red tab disappears. Then tighten the black locking knob.

Fabric Replacement

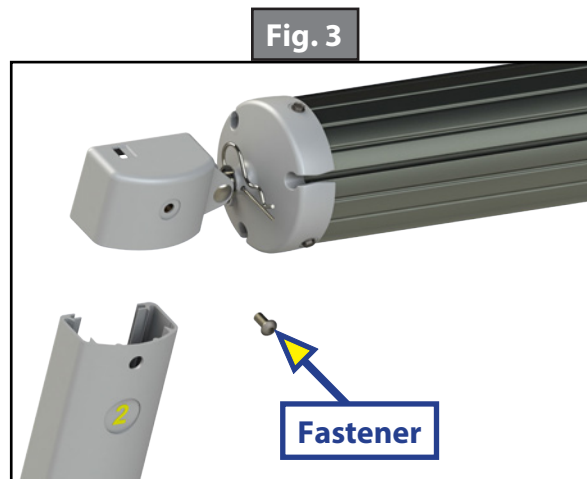
Fabric Removal

1. Remove the drip cap (if equipped) from the end the fabric will be removed from.
2. Remove the #6 x 1/2" hex head screws located on the awning rail (2 total). Set screws aside.
3. Extend the awning out completely by sliding the mount/rafter arms all the way to the top of the outer arm and make sure they lock into place and insert cotter pins (Fig. 2).



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

4. Pull on the mount/rafter arm to ensure the fabric is taut and tighten the black locking knob to lock it into place. As a precaution, tape the cam lock in the roll out position.
5. On the end of the awning rail the fabric will be removed from, remove the upper mounting bracket from the unit wall. Allow the mount/rafter arm to pivot out of the way.
6. Remove the drive head assembly and idler head assembly retaining fasteners from the outer arms to separate the components (Fig. 3).



7. 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.

8. Place the removed assembly onto a level area.
9. Have someone securely hold the idler head and roll tube.
10. Hold the drive head assembly securely (there will be tension to be released) and remove the drive head assembly cotter pin.

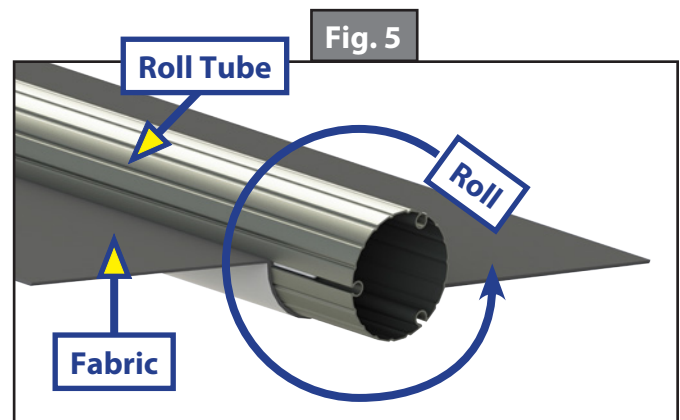
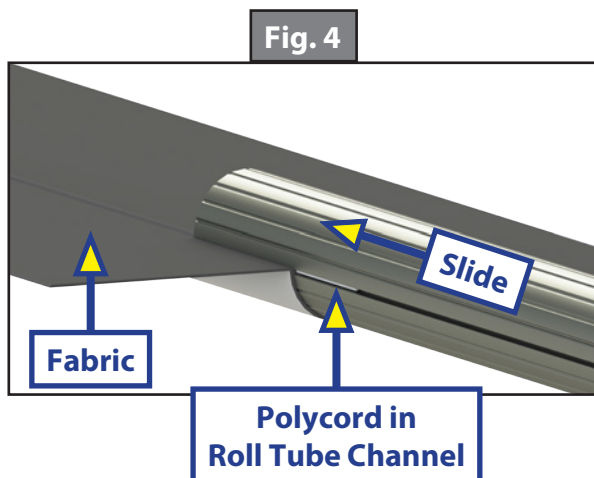
⚠ WARNING

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

11. Flip the cam lock to the roll in position. Slowly rotate the drive head assembly clockwise to release tension.
12. Mark the cam lock position on the roll tube.
13. Remove the three screws holding the drive head assembly end cap on the roll tube and set the drive head assembly aside.
14. Mark the roll tube grooves containing the polycords prior to removing the fabric from the roll tube.
15. Remove the two screws holding the fabric in place on the roll tube.
16. To remove the fabric, gently pull the roll tube from one end, while another person holds the fabric in place.

Installing Replacement Fabric

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. 4).
3. Center the fabric on the roll tube.
4. Apply the screws that were holding the polycords in place on the roll tube.
5. Roll the fabric onto the roll tube (Fig. 5). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.



- Using the three screws previously removed from the end caps, attach the drive head assembly 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.

- Secure the idler head and roll tube.
- Rotate the drive head assembly counterclockwise the number of turns stated on the turn chart (Fig. 6). Insert a cotter pin into the end cap into the shaft on the drive head assembly.

Fig. 6

Classic Awnings Fabric Replacement Turn Chart	
Size	Turns
6ft to 10ft	12
11ft to 14ft	13
15ft to 18ft	14
19ft and up	16

⚠ WARNING

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

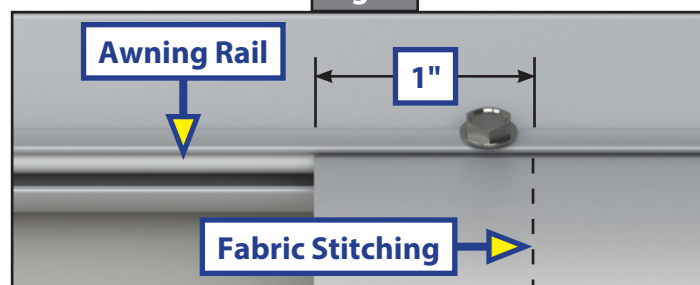
- Working together, install the roll tube assembly (which includes the drive/idler head assemblies) to the awning rail by sliding the assembly along the awning rail. Make sure the awning will unroll with the printed side of the fabric up.

⚠ WARNING

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

- Unroll the fabric from the roll tube to allow the drive/idler head assemblies to be installed into the outer arms.
- Install the previously-removed drive head assembly and idler head assembly retaining bolts into the outer arms to secure the components.
- Reinstall the previously-removed support arm upper mounting bracket to the unit wall.
- Make sure the cam lock is in the roll out position and remove cotter pins from the awning heads.
- Retract and extend the awning several times (see Operation section of manual) to ensure that the fabric is square on the roll tube.
- 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. 7).
- Reinstall the drip cap if previously equipped.

Fig. 7



Solera® Classic Awning Troubleshooting

What's Happening?	What Should Be Done?
Awning will not extend.	Check position of the cam lock (roll out).
	Ensure that the travel locks have been released from the outer arm.
	Make sure the locking knob for the rafters has been loosened.
	Check to see if the outer arm is resting on the mount/rafter arm. If so, the outer arm height adjustment is not set properly.
Awning will not retract or only retracts part way.	Make sure the mount/rafter arms have been put in the stored position and the locking knob has not been tightened.
	Check position of cam lock (roll in).
	Ensure the outer arms have been placed in the closed/stored position.
	Ensure the awning has the proper tension on it.
	Ensure that the mount/rafter arm is not secured to the head of the outer arm.
Fabric is loose or sags on the edges and middle.	Make sure that the mount/rafter arm has been pulled tight and the locking knob is secured.
	Check that the fabric is square on the unit and with the roll tube.
	Make sure the fabric is properly secured to the awning rail on the unit.
	Make sure roll tube is not bent.
Locking knob will not tighten.	The nut for this is a thread part that tightens the arms together. Open the awning and check when turning the knob that the nut is not stripped out. If it is not stripped, it would require replacing both parts.
Mount/rafter arm will not extend.	Make sure the locking knob has been loosened.
	Make sure there is no debris in the track the arm slides in.
	Make sure arm is not bent.
Awning will not roll up straight.	Check to make sure fabric is centered on roll tube and also centered between the arms attached to the unit.
	If the fabric is not centered, move the screws on both ends of the awning and shift the fabric accordingly.
	Make sure there are screws at both ends of the fabric securing it to the roll tube and at the awning rail. If there is only one screw at one end and not the other, the awning may not roll up correctly.
	Make sure the legs are square and straight.
Awning will not stay in the rolled out position.	<p>Check the cam lock. Signs of a faulty cam lock include:</p> <ul style="list-style-type: none"> The absence of a clicking noise when the awning is rolled out. The awning rolling back up after it is placed in the stop position.

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 $\frac{1}{4}$ 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.



**Solera[®] Family Room and
Solera[®] Screen Room
Aftermarket
Manual**



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Solera® Family Room and Solera® Screen Room Aftermarket Manual

Introduction

The Solera® Family Room and Screen Room is designed for use on Solera Classic, Solera Hybrid and Solera 12V power awnings Carefree Fiesta, Spirit, Pioneer manual, Traveler & Eclipse 12V power awnings Dometic Sunchaser, 8500 manual, Weather Pro & 9100 series 12V power awnings.

⚠ WARNING

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

For awnings with wind sensors, the wind sensor must be shut off when using a room. If the awning should retract after the room is setup, damage to the awning, room and unit will occur, as well as possible personal injury. Refer to the awning owner's manual for instructions.

⚠ WARNING

Preparation

⚠ CAUTION

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

Both the Solera® Family Room and Screen Room are designed the same. The installation instructions will be the same for both products.

Note: Confirm proper room size. Measure existing awning from center of arm to center of arm. Room size must match awning size. A smaller room cannot be installed on a longer awning.

Tools Required:

- Sealant
- Measuring Tape
- Cordless Driver / Screw Gun
- 1/4" Hex Head Bit
- Drill bit for screws supplied or rivets required
- Ladder
- Non-permanent method of marking
- Mallet or Hammer

Resources Required

- 2 people



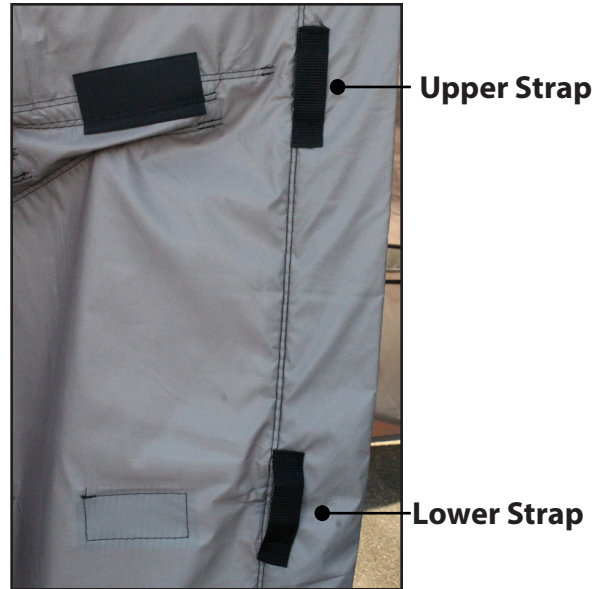
Installation

1. Extend the awning out completely according to the manufacturer's instructions. Ensure that the open roll tube slot and the slot access is down and accessible. Set and secure both rafters, if applicable.

Fig.1



Fig.2



Install Upper Brackets

1. Place the upper bracket directly under the awning rail (Fig. 1) so the hook is approximately 2" under the awning fabric and the end of the bottom of the "L" portion of the bracket is directly under the edge of the awning fabric (Fig.1).
2. Mark the bracket location. Apply a liberal amount of sealant to the back of the bracket. Attach the bracket using the screws provided.
3. Repeat the process on the opposite side.

Note: Molly rivets may be required if no backer material is present (not provided).

Attach the Side Panels

1. Measure from the awning rail to the ground.
For awning rails between 96" and 110"
2. Attach the side panel to the upper bracket using the LOWER strap on the side panel (Fig. 2).
- For awning rails between 111" and 130"**
3. Attach the side panel to the upper bracket using the UPPER strap on the side panel (Fig.2).
4. Hang the upper or lower strap, depending on the awning rail height, on the bracket (Fig. 3).

Fig.3





5. On the other end, wrap the strap over the roll tube (Fig. 4) next to the awning fabric. Attach the strap (Fig. 5), and tighten the strap (Fig. 6).

Fig.4



Fig.5



Fig.6



6. The wedge zippers on the side panels should be facing under the awning. To adjust the height of the side panel: zip up one or both zippers to make the appropriate height (Fig. 7).

Fig.7



7. Choose the appropriate poly cord to slide into roll tube (Fig. 8).
- A. If both zippers were closed, use the lowest poly cord and slide the front panel into the roll tube.
 - B. If the middle zipper was closed, use the middle poly cord and slide the front panel into the roll tube.
 - C. If neither zippers were closed, use the top poly cord and slide the front panel into the roll tube.

Fig.8





8. Run the poly cord through to the other end of the roll tube (Fig. 9 and 10).

Fig.9



Note: Do not unzip the front from the insert. The front panel fits various size awnings. Once you have set up the room you can cut off the other poly cords and vinyl on the front insert if you do not want the room to fit other unit applications.

Fig.10



9. Repeat steps 1 through 6 for the second side panel.

10. Zip the front panel to the side panels on both sides (Fig 11).

Fig.11



11. Hook and Loop fastener the top side panel and front panel together on both sides (Fig. 12).

Fig.12





Install Unit Skirting

CAUTION

The skirting must not interfere with LP appliance or exhaust vents. Do not start or operate the motorhome engine or unit generator if the exhaust components are located behind the skirting.

Note: The room kit comes with a unit skirt panel and a shorter, wheel well cover panel. Both will be attached to the unit with self-adhesive fasteners. The attachment points for the fasteners on the unit must be clean and dry. It may be necessary to use rubbing alcohol on the area before attaching the adhesive snaps to remove dirt and moisture. The optimum temperature should be above 50 degrees.

1. Attach all of the included self-adhesive fasteners to the snaps on the unit skirt panel (Fig. 13).

Fig.13



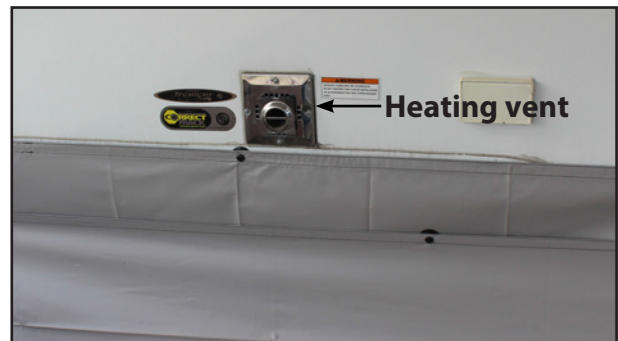
2. Starting at one end of the unit skirt panel, remove the backing of the first adhesive snap and attach it to the unit approximately 2" outside of the room's side panel (Fig. 14).
3. Move to the next fastener and repeat process keeping the skirt in a straight line. (If the skirt covers a compartment, simply unsnap the skirt when using the room to obtain access to the compartment.)

Fig.14



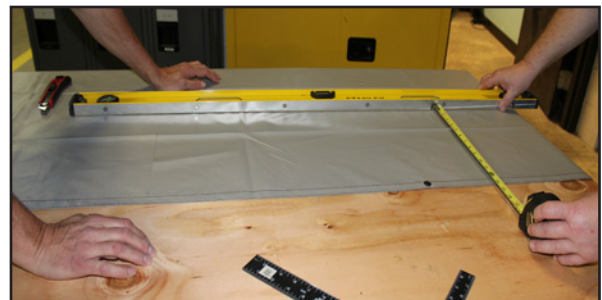
4. If the wheel well opening is not covered completely by the room skirt, use the wheel well skirt to cover the opening using the self-adhesive fasteners (Fig. 15). Once the wheel well skirt is installed, tuck the bottom of the skirt behind the room skirt (Fig. 15).

Fig.15



5. If the unit skirt panel goes across the entry step:
 - A. With the panel attached to the unit wall, carefully mark the location of the top, inner and outer edges of the step frame on the skirt.
 - B. Remove the skirt from the unit and lay out on a flat, clean surface (Fig.16).

Fig.16





- C. Using a straight edge and sharp knife, draw and then cut out three sides on the skirt (Fig. 17).
 - D. This creates a flap in the fabric.
6. Reattach the skirt to the unit.

Fig.17



7. Pull steps out through the flap (Fig. 18). Tuck the flap behind the stairs (Fig.19).

Fig.18



Fig.19



Securing the Room to the Ground

1. Place a ground spike through the bracket on the side tensioner. Hammer the spike into the ground, preferably slightly under the RV. This will keep the side panel snug against the unit.
2. Pull the shock cord through to tighten the side panel.
3. Position the room so the sides and front panel look square.
4. Starting at the side panel and use the grommet closest to the unit. Place the spike through the grommet and hammer the spike into the ground.

To avoid tearing the room, hit the spike directly on the head and do not pound the spike down too hard.



5. Set the remaining spikes in the grommets in the following order: Side panel closest to the door; front panel near the opposite side panel; unit side, opposite side from where you started.
6. Set all remaining spikes.

Removing spikes

1. Using vise grips or pliers, grab the head of the spike and twist 3 or four times, then lift the spike out of the ground.



LIPPERT
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Storing The Panels

1. Ensure that the privacy panels are down and secured.
2. Remove the spikes holding the panels.
3. Reverse the setup procedures to remove the panels.
4. Store the spikes in the small storage bag.
5. To fold the panels:
 - A. Lay the panels flat with the screen panel facing up.
 - B. Square the side panel by folding the triangular shape over.
 - C. Fold the top over and down to the bottom edge.
 - D. Fold in half until the panel is approximately 12" segment.
 - E. Starting on one end, fold the panel in approximately 24" segments.
 - F. Store the panels in the storage bags.

Solera



Solera® Front Shade Aftermarket Manual

Introduction

The Solera® Front Shade can be used on manual or 12V power awnings. The Front Shade can be used on Solera® Awnings as well as Carefree Awnings and Dometic Awnings. It simply slides into the open channel of the roll tube. It is perfect for providing additional shade. The open-weave fabric cuts approximately 85% of light for a cool and comfortable shade.

⚠ CAUTION

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

⚠ WARNING

If staking Solera® Front Shade to the ground, be sure to disable any and all self re-tracking wind sensing options on your awning. Failure to do so could result in damage to the awning and unit.

Resources

- Two people for installation

Installation

1. Unbox and unfold the Solera® Front Shade.
2. Locate the top polycord (plastic cord sewn into the fabric). Trim the polycord so that at least 3 inches of polycord extends past the fabric on both sides.
3. Locate the open channel in the awning roll tube that is accessible through the end cap.

Fig.1



4. Remove or slide the pull strap to the opposite side of the roll tube (if applicable). Check the roll tube channel to make sure there are no sharp edges that can snag or tear the fabric.
5. Slide the Solera® Front Shade into the roll tube open channel, making sure not to snag the Front Shade (Fig. 1).

Note: The easiest way to install the Front Shade is to have one person hold the Front Shade even with the roll tube, while another person pulls the Front Shade into the roll tube channel (Fig. 2).

Fig.2



6. Stake the shade to the ground with the tie downs and stakes provided.

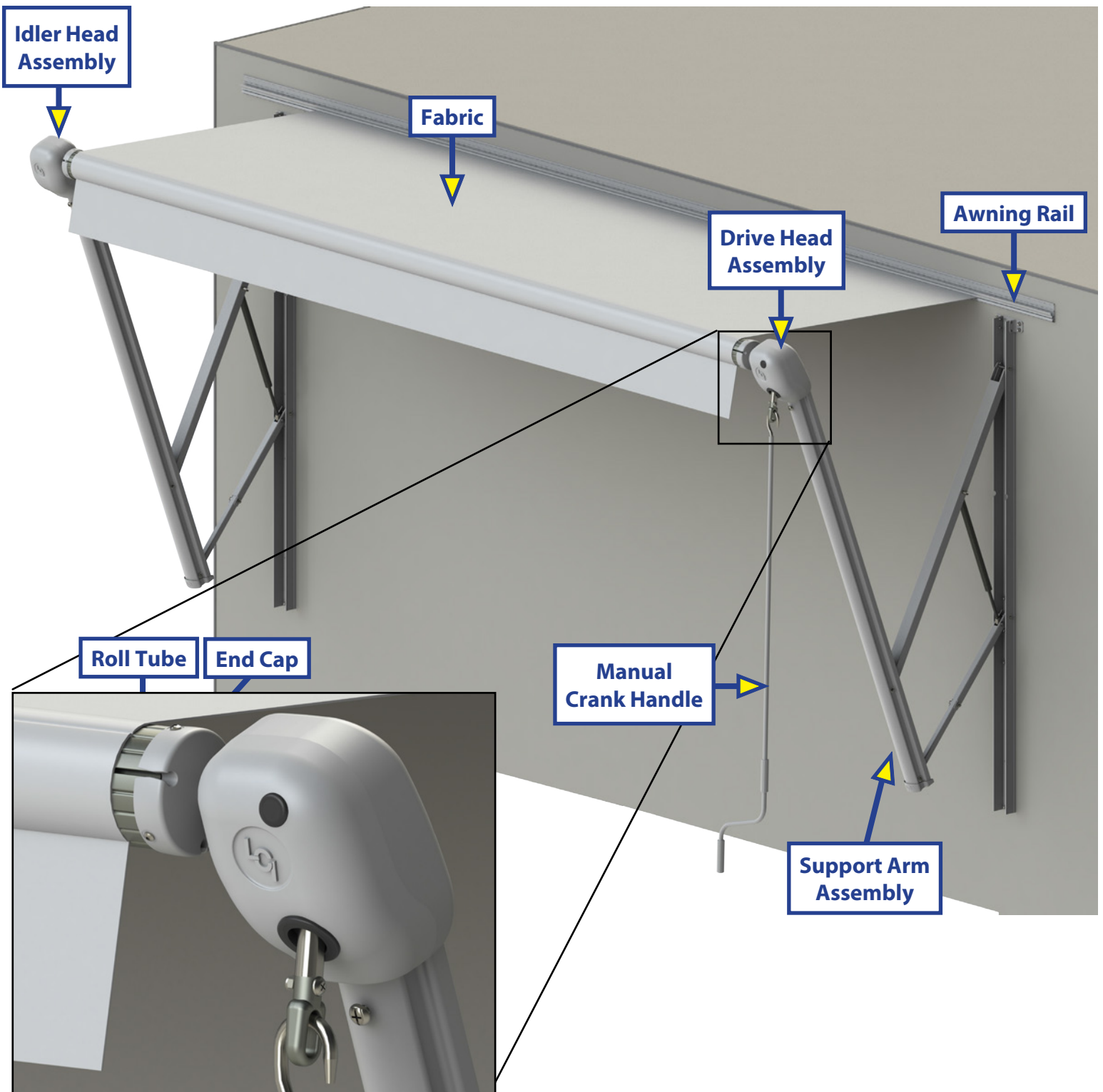
Note: To remove the Front Shade for storage, remove the tie downs and stakes and slide the shade out of the roll tube channel. Fold to fit in the storage bag provided.

Manual information may be distributed as a complete document only, unless Lippert Components provides explicit consent to distribute individual parts.

All manual information is subject to change without notice.

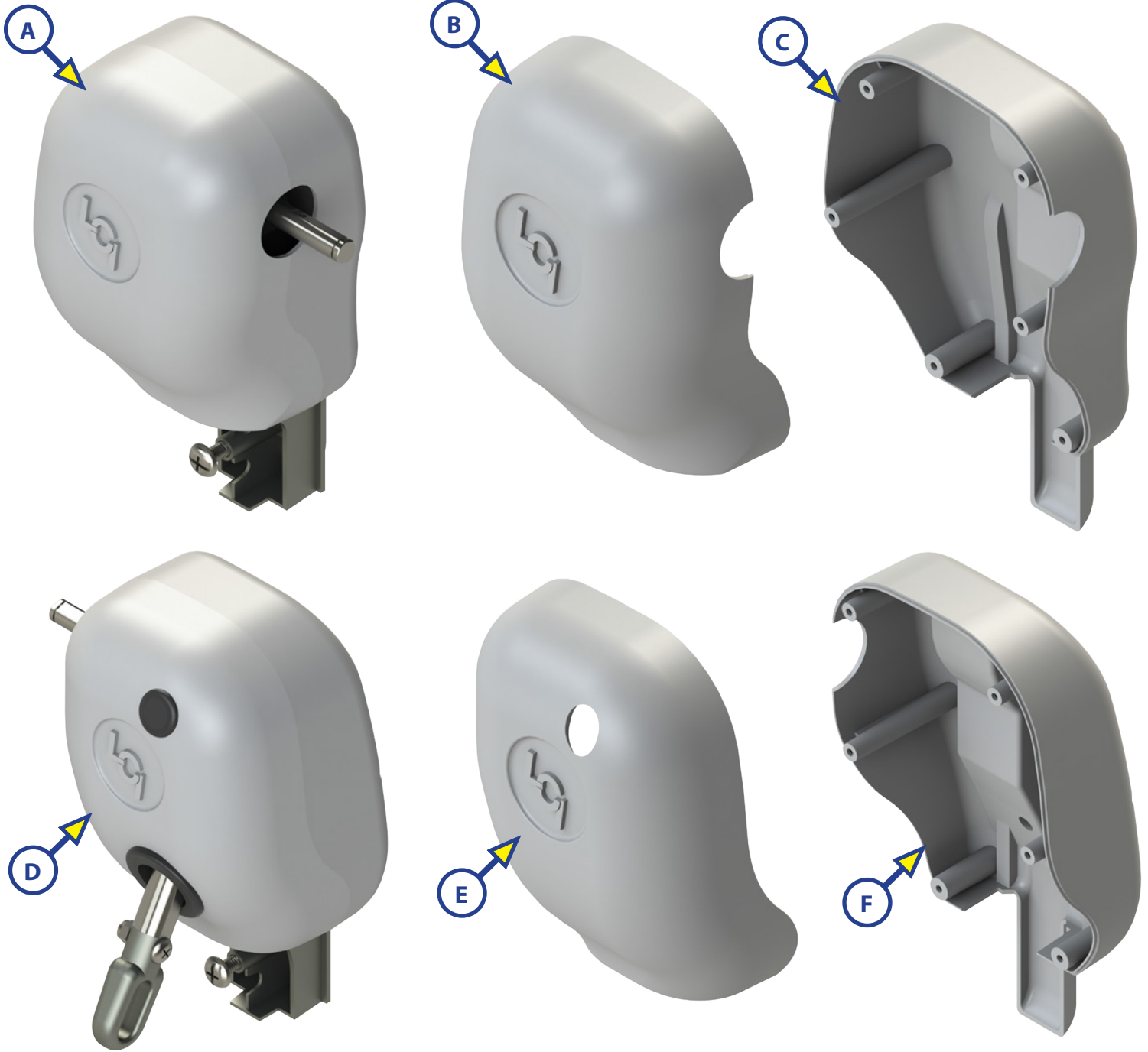
SOLERA® HYBRID AWNING ASSEMBLY

AWNINGS



Solera

AWNINGS

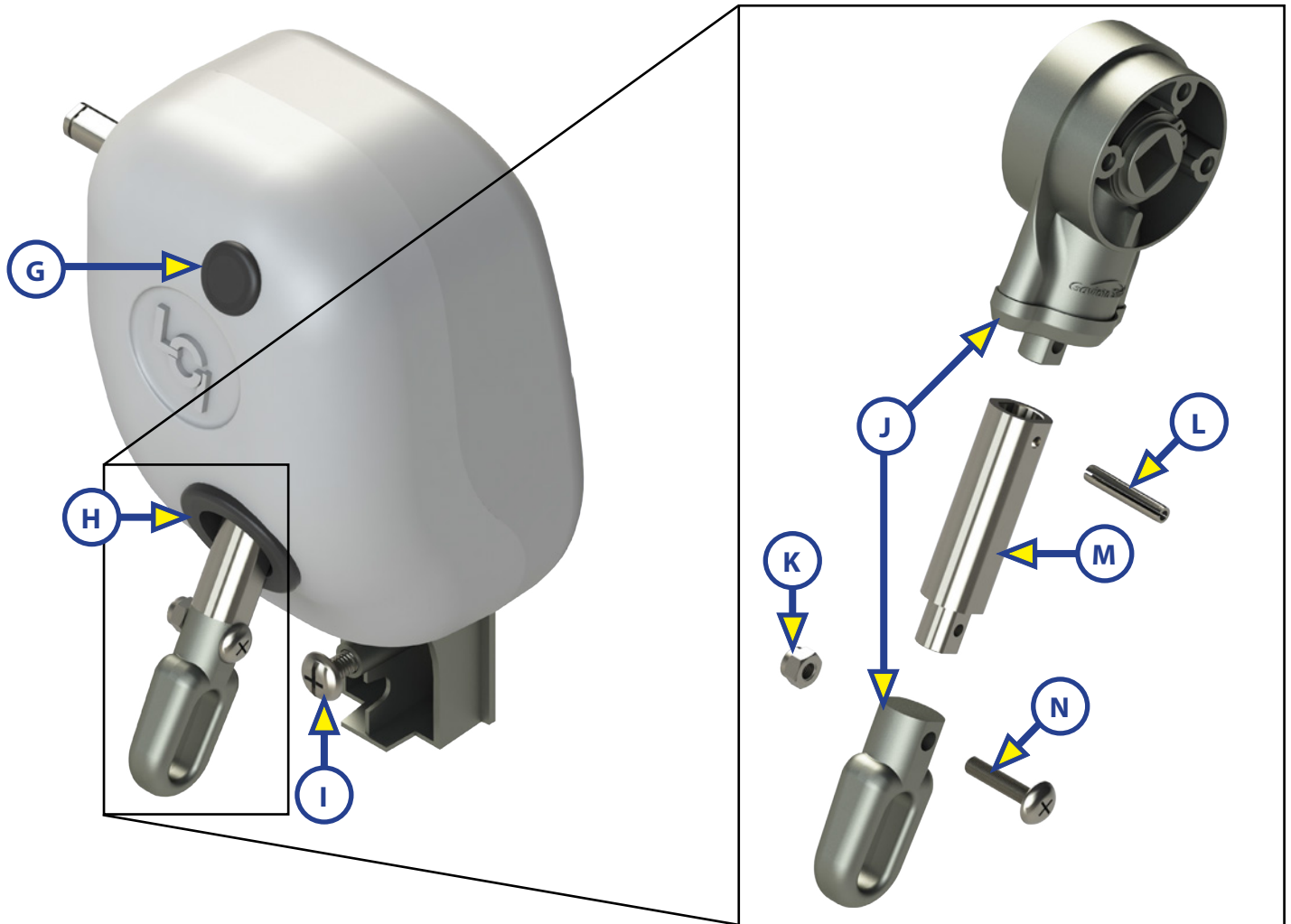


Callout	White Part #	Black Part #	Description
A	266147	273479	Idler Head Assembly
B	289563	289566	Idler Head Front Cover
C	289564	289567	Idler Head Rear Cover
D	300029	300031	Drive Head Assembly
E	289557	289560	Drive Head Front Cover
F	289558	289561	Drive Head Rear Cover



SOLERA® HYBRID AWNING COMPONENTS

AWNINGS

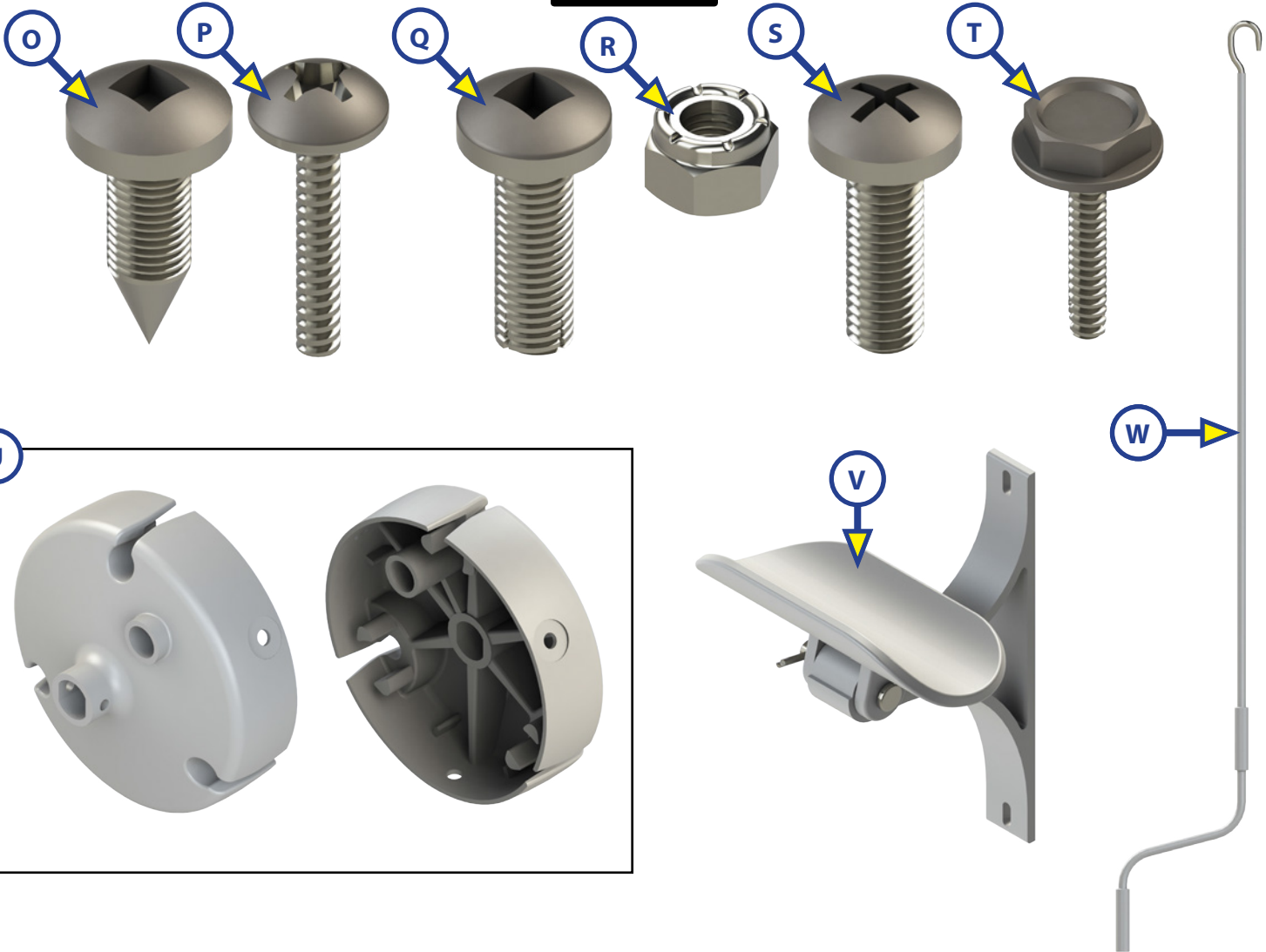


Callout	White Part #	Black Part #	Description
G	275071		Rubber Grommet (for Manual Override Opening)
H	299993		Grommet Diaphragm (for Manual Crank Opening)
I	266148		Screw $\frac{5}{16}$ - 18 x 2 - $\frac{1}{4}$ (Head to Arm)
J	300028		Box Gear with Eyelet (Gear Will Come Disassembled)
K	322401		Nut $\frac{1}{4}$ - 20 Nylock (for Drive Head)
L	300026		Spring Slotted Pin (for Drive Head)
M	299889		Coupler (for Drive Head)
N	300027		Screw $\frac{1}{4}$ - 20 x 1 $\frac{1}{8}$ (for Drive Head)



SOLERA® HYBRID AWNING COMPONENTS

AWNINGS

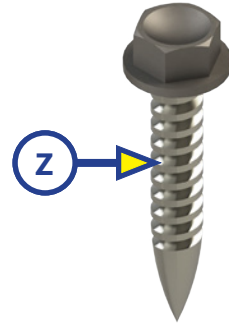


Callout	White Part #	Black Part #	Description
O	299419		Screw #8 - 15 x ½ PNH ZN SQ A ST (End Cap to Roll Tube)
P	266156		#6 x ½ ZN Screw (Fastener for Head Covers, 6 Per Cover)
Q	299630		#8 End Cap Wax Screw (Head to Roll Tube)
R	118043		Nut ⅝ - 18 Nylock ZN ST (Head to Arm)
S	266155		Screw #8 - 32 x ½ PH PNH MACHG ZN FT HD (Back Cover to Mount)
T	281079		Screw #6 - 20 x ½ HEX WSHR SLFDR ZN
U	266130		End Cap
V	289373	289374	Awning Center Support Assembly NOTE: Only required for Solera Awnings greater than 21' in length
W	300030		Manual Crank Handle



SOLERA® HYBRID AWNING COMPONENTS

AWNINGS

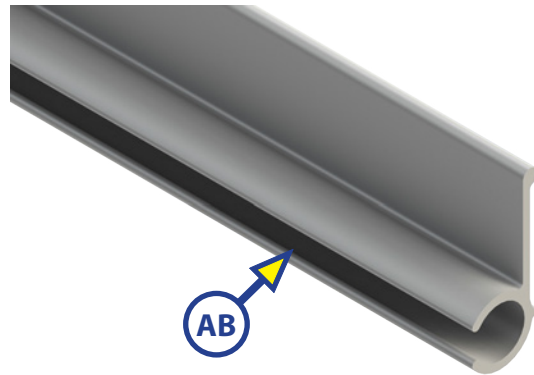


Callout	White Part #	Black Part #	Description
X	295742	295743	Support Arm Assembly (Short, 61")
	260294	266169	Support Arm Assembly (Pitched, 66 1/8")
	281152	281154	Support Arm Assembly (Flat, 69")
Y	280343		Gas Strut; 26"; 124 lbs (for Short and Flat Arm Assemblies)
	260282		Gas Strut; 124 - 144 lbs (for Pitched Arm Assemblies)
Z	286576		Screw #14 - 10 x 1 1/2 (Arms to Coach)
AA	282484		Star Washer (for Gas Strut)



SOLERA® HYBRID AWNING COMPONENTS

AWNINGS



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



SOLERA[®] HYBRID AWNING
OWNER'S MANUAL

Operation

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

Extending The Awning

1. Locate the crank handle for the awning.
2. Insert the hook end of the crank handle into the eye bolt on the drive head (Fig. 1).
3. Turn the crank in a clockwise direction and fully extend the awning (Fig. 2).

NOTE: Keeping the handle as parallel to the support arm assembly as possible makes it easier to turn.

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. 3).

⚠ CAUTION

Tying the roll tube down 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.

Fig. 1

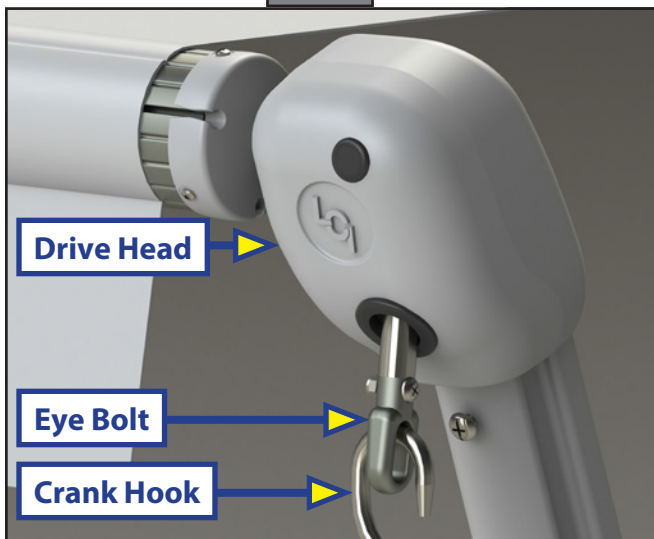


Fig. 2

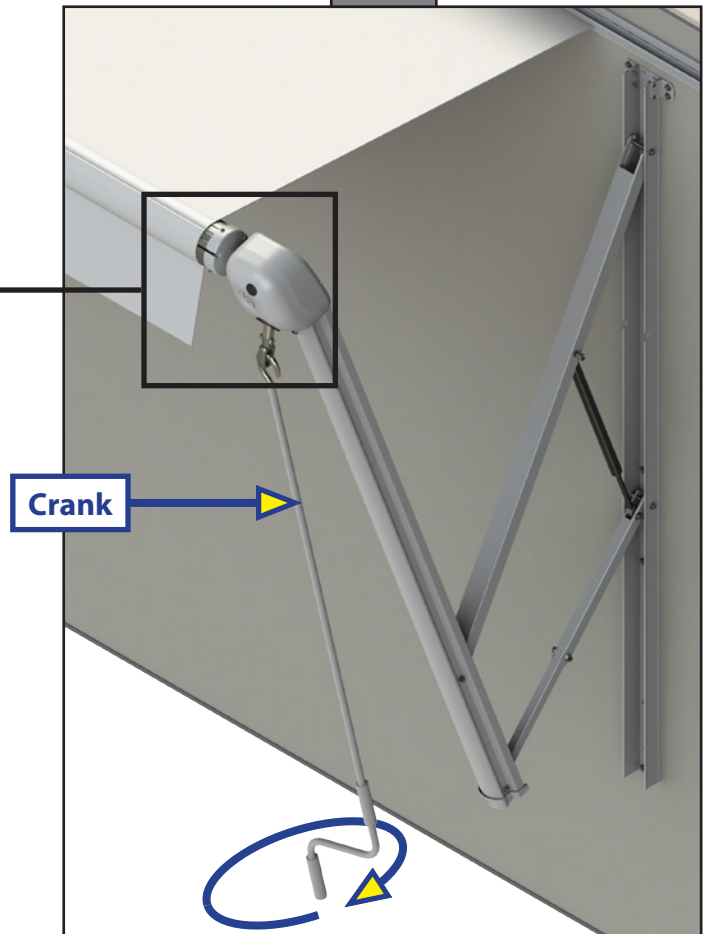
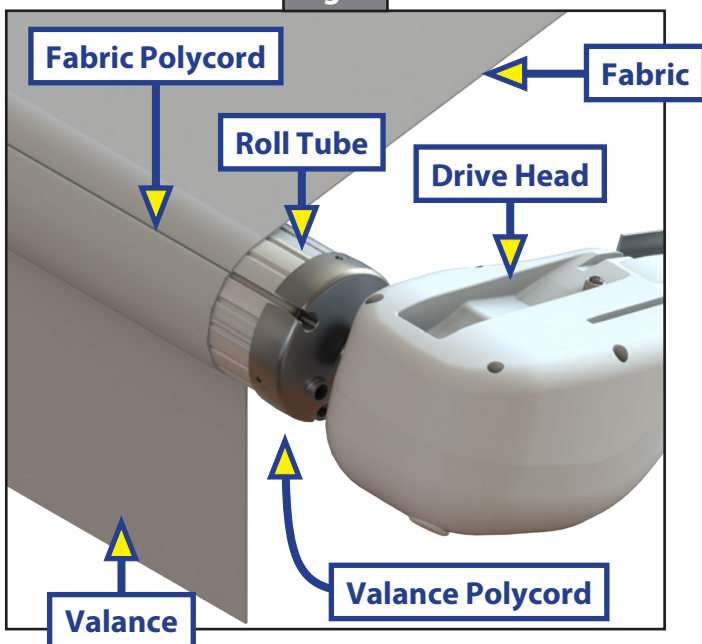


Fig. 3



Retracting The Awning

NOTE: The awning can be retracted without resetting the pitch (see Adjusting Pitch).

1. Locate the crank handle for the awning.
2. Insert the hook end of the crank handle into the eye bolt on the drive head (Fig. 4).
3. Turn the crank handle in a counterclockwise direction until the awning is fully retracted (Fig. 5).

NOTE: Keeping the handle as parallel to the support arm assembly as possible makes it easier to turn.

Fig. 4

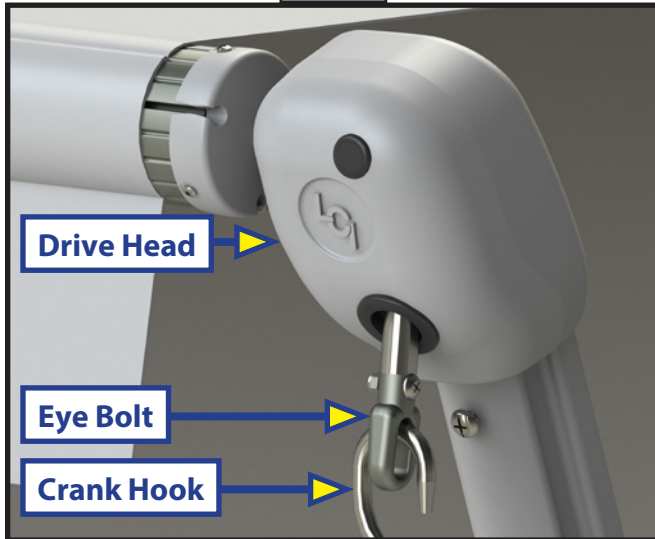
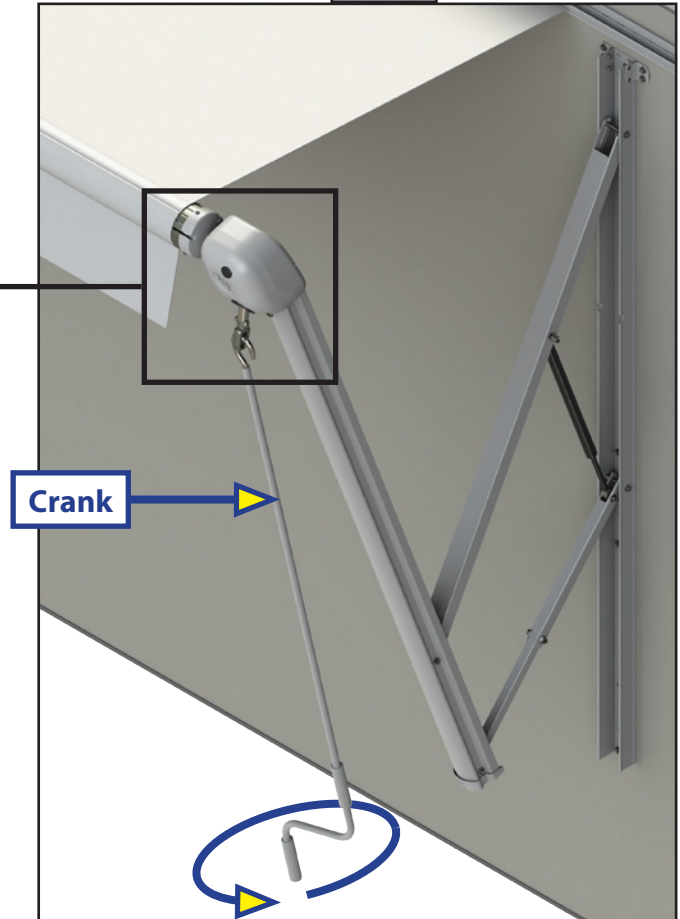


Fig. 5



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 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. 6). Belleville washers and bolt (Fig. 7A) allow for the joint to remain in the position set by the operator.

NOTE: Do not push the joint of the pitch arm up past the point where the two sections are in a straight 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.

NOTE: If the pitch arm does not hold position, it can be tightened by adjusting the bolt (Fig. 7A) in the center of the joint.

Fig. 6

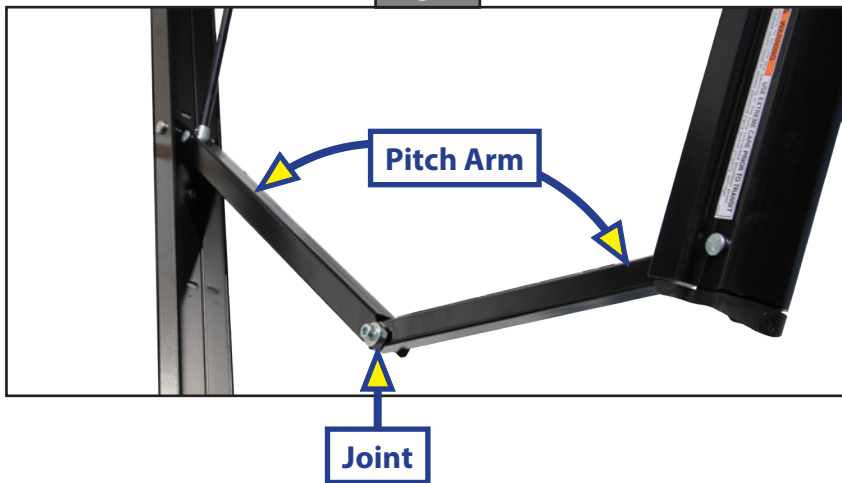
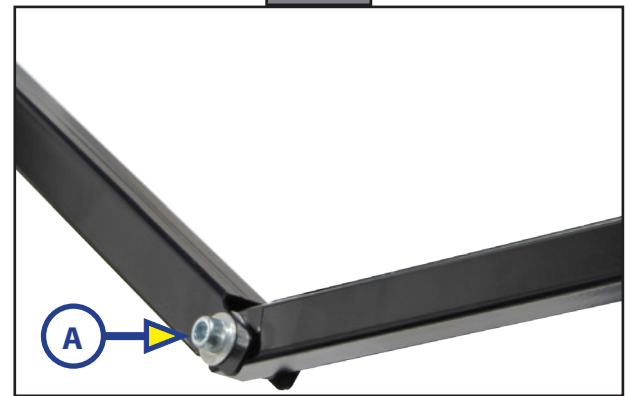


Fig. 7



Troubleshooting

Solera® Hybrid Awning Basic Troubleshooting Chart	
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.
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 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 mount arms are 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.
Awning rolls up backwards.	The awning fabric should always be above the roll tube. However, if the crank handle is operated past full extension, the awning will roll up backwards. This is not a defect. To correct the fabric orientation, simply operate the crank handle in the retract direction and the awning will then extend to its correct orientation and normal operation can resume.

Maintenance

Fabric Care

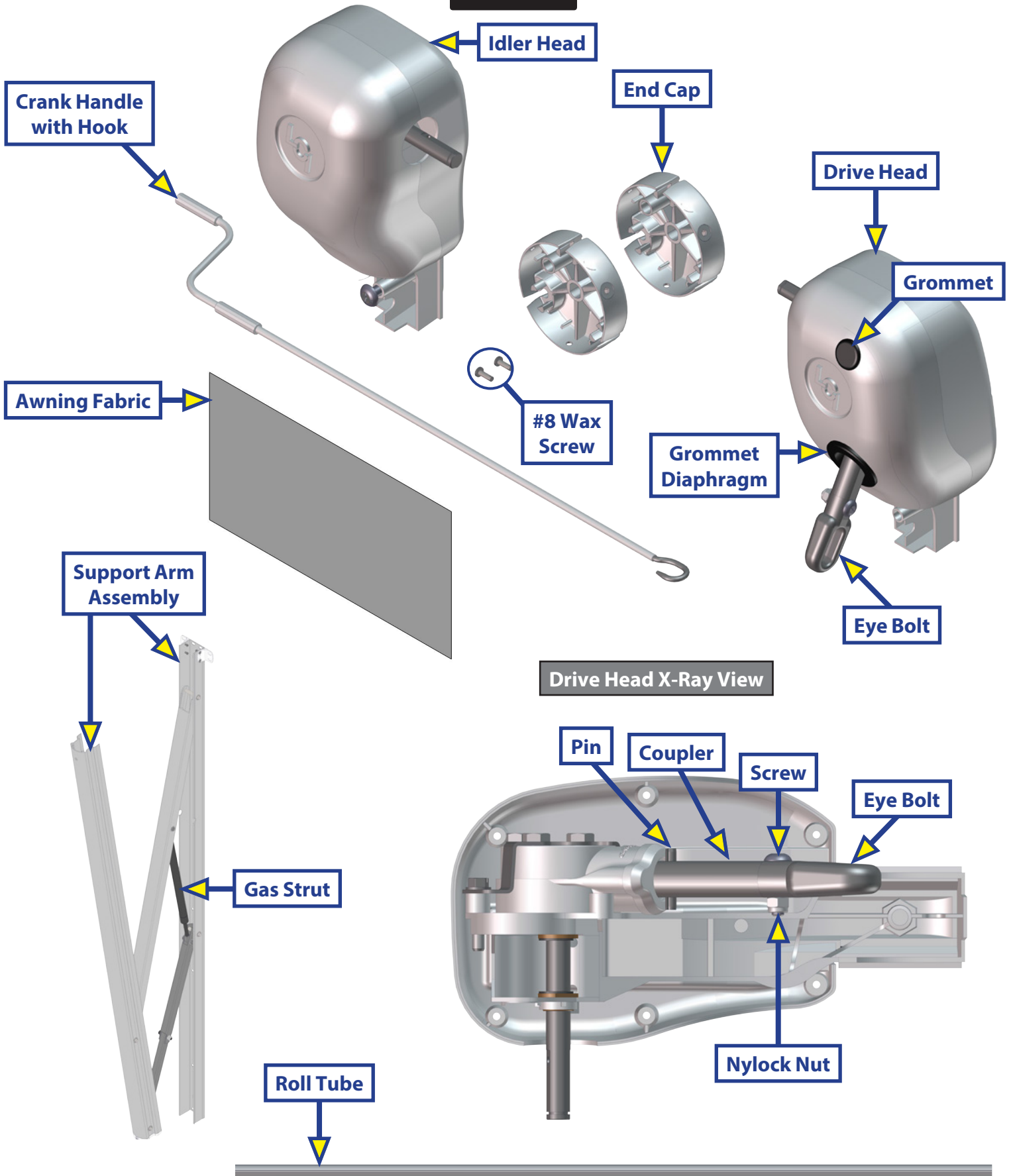
If the awning is retracted while wet, extend the awning and let it dry as soon as conditions allow before retracting. This will help prevent the formation of mildew and add greatly to the life of the awning. Mildew does not form on the fabric itself, but on the accumulated dust, dirt and grime.

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.



SOLERA® HYBRID AWNING ASSEMBLY

AWNINGS



AWNINGS

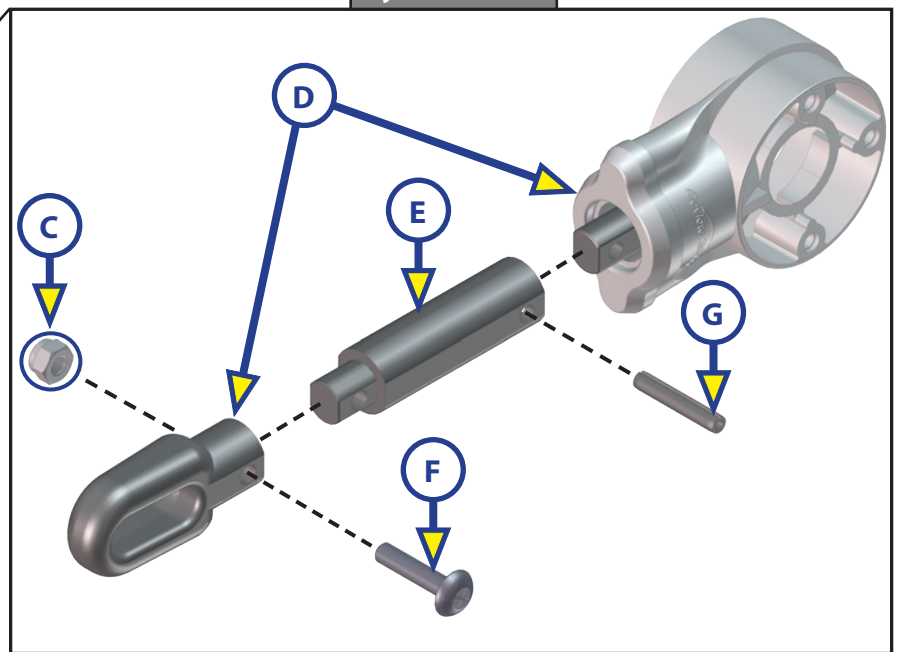
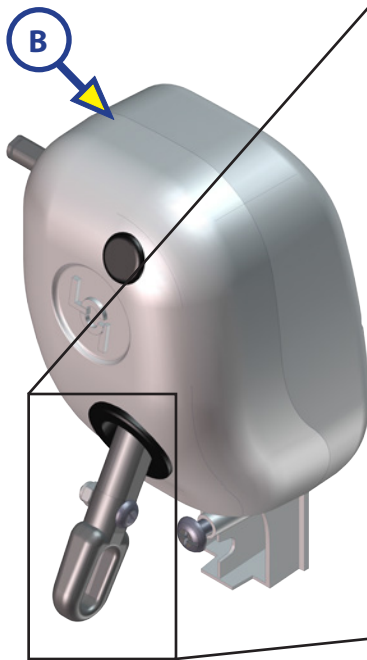


Variant Code Information

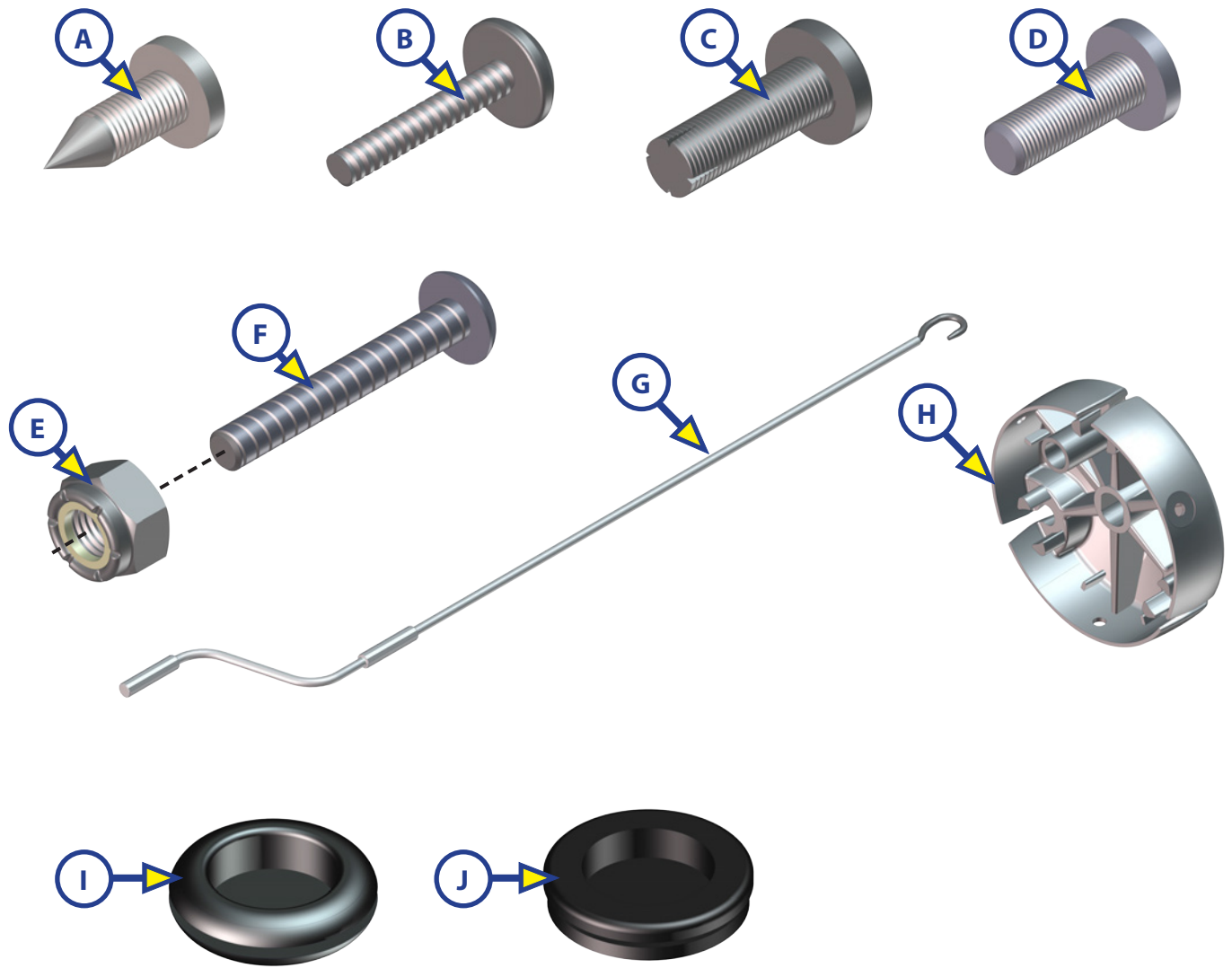
Solera® Awnings have a sticker located on the roll tube with a variant code that is specific to that awning assembly. The sticker on newer units will be located near the gearbox head on the roll tube. There will also be a sticker on the awning fabric. The variant code will determine which variation of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



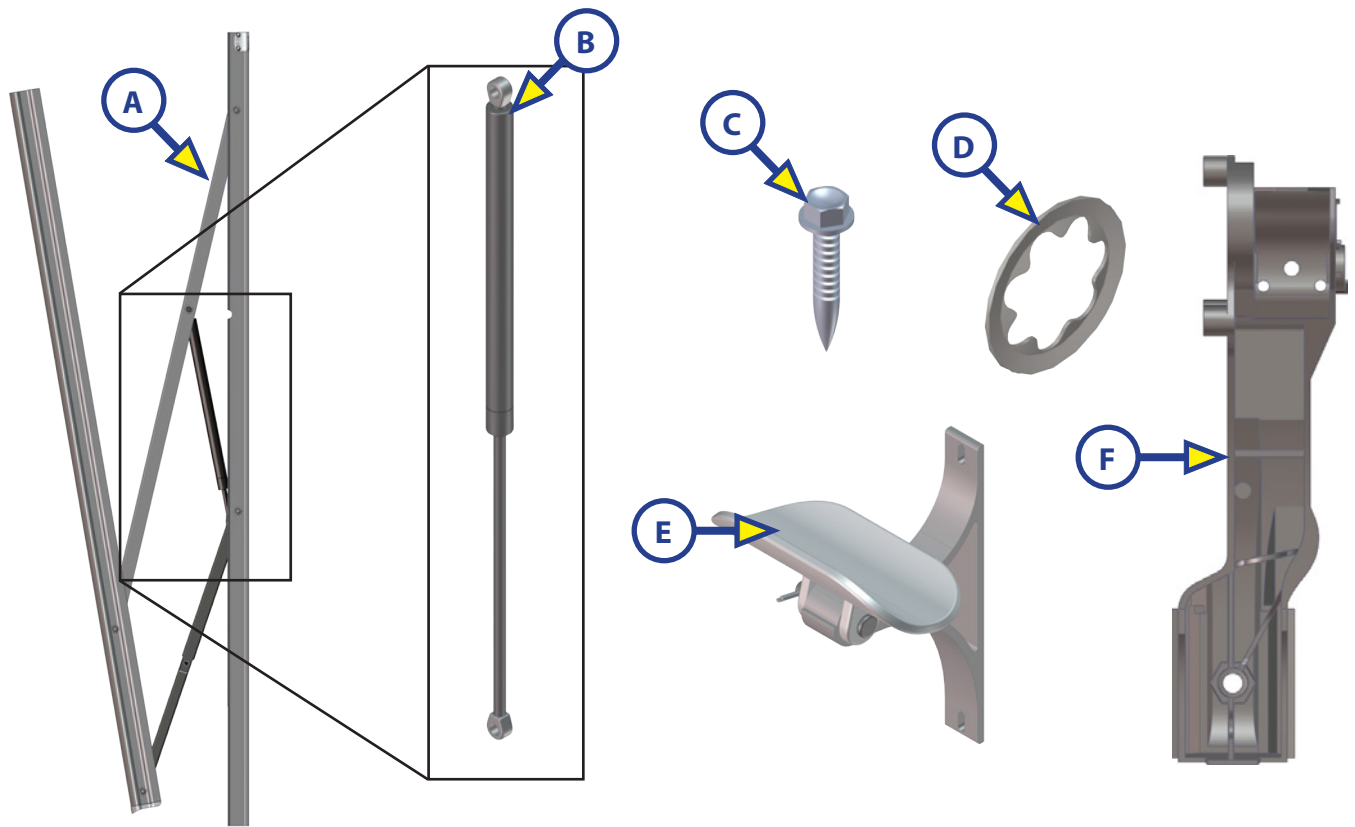
Eyelet Detail



Callout	White Part #	Black Part #	Description
A	266147	273479	Idler Side Head
B	300029	300031	Drive Side Head Assembly
C		322401	Nut ¼" - 20 Nylock (for Box Gear)
D		300028	Box Gear, Manual, with Eyelet (gear will come disassembled)
E		299889	Coupler (for Box Gear)
F		300027	Screw ¼" - 20 x 1 ⅛" (for Box Gear)
G		300026	Pin, Spring Slotted (for Box Gear)



Callout	White Part #	Black Part #	Description
A	299419		Screw - # 8-15 x 1/2"
B	266156		Screw - #6 x 1/2" (fastener for head covers, 6 per cover)
C	299630		#8 End Cap Wax Screw (head to roll tube)
D	266155		Screw - #8-32 x 1/2" (back cover to mount)
E	118043		Nut 5/16"-18 Nylock (head to arm)
F	266148		Screw 5/16"-18 x 2-1/4" (head to arm)
G	300030		Crank Handle With Hook
H	2661301	2661302	End Cap
I	275071		Rubber Grommet
J	299993		Grommet Diaphragm

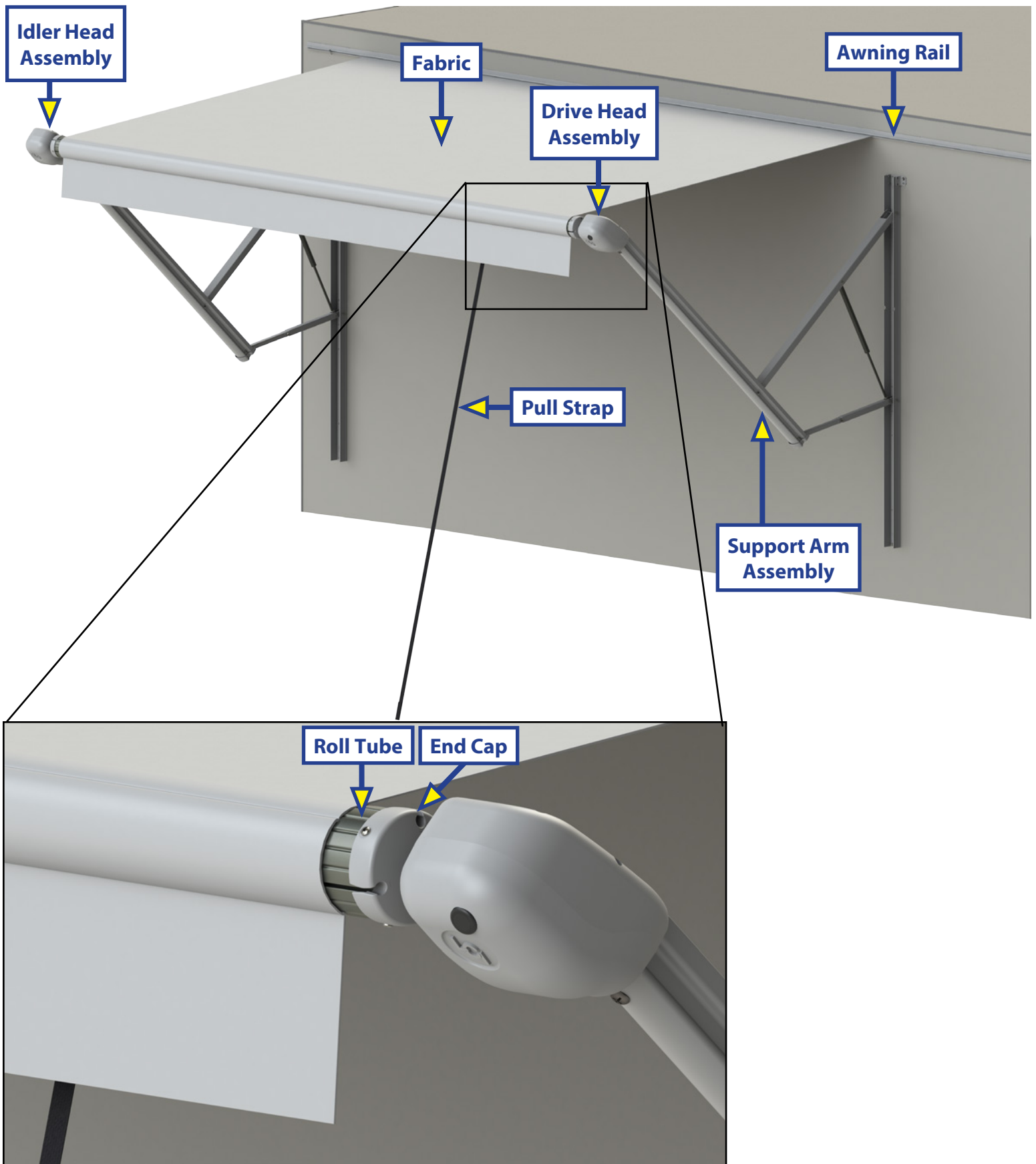


Callout	White Part #	Black Part #	Description
A	295742	295743	Support Arm Assembly (Short, 61") (One Arm)
	260294	266169	Support Arm Assembly (Pitched, 66 1/8") (One Arm)
	281152	281154	Support Arm Assembly (Flat, 69") (One Arm)
B	280343		Gas Strut; 26"; 124 LBS (for Short and Flat Arm assemblies)
	260282		Gas Strut; 26"; 124 - 144 LBS (for Pitched Arm assemblies)
C	286576		Screw - #14 - 10 x 1 1/2 (arms to coach)
D	282484		Star Washer (for Gas Strut and Holding Pins)
E	289373	289374	Awning Cradle NOTE: Only required for Solera® Awnings greater than 21' in length
F	266128		Awning Idler Head Mount
	266129		Awning Drive Head Mount



MANUAL AWNING, PULL STRAP STYLE ASSEMBLY

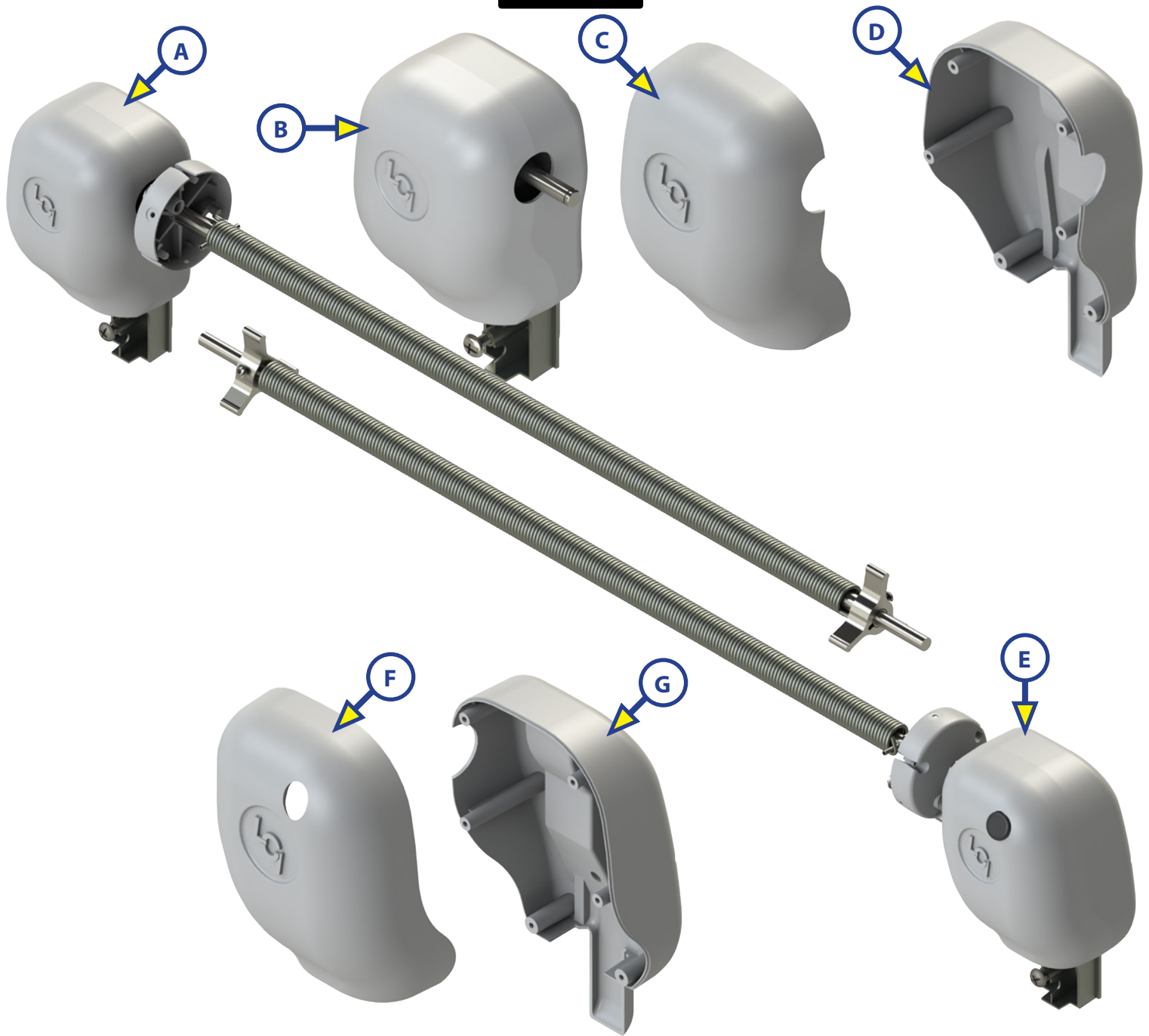
AWNINGS





SOLERA® MANUAL AWNING, PULL STRAP STYLE COMPONENT

AWNINGS

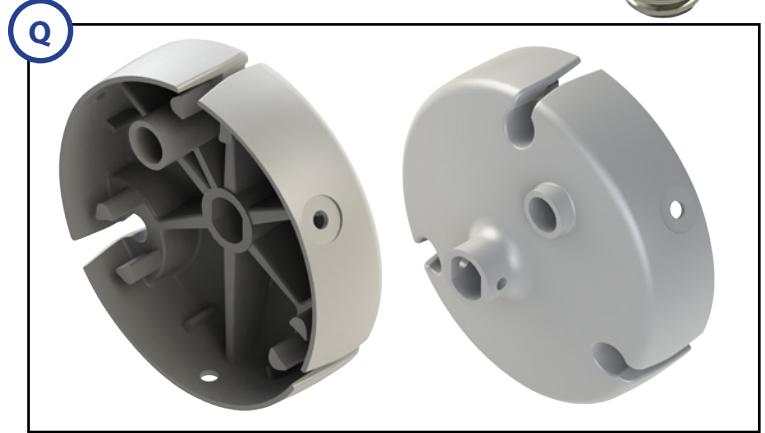
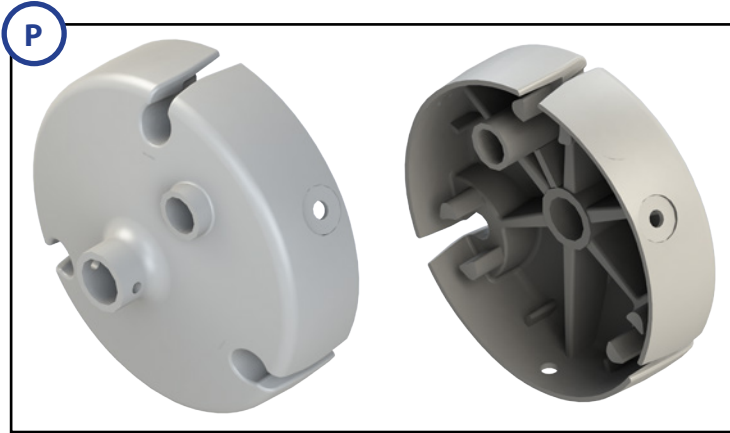


Callout	White Part #	Black Part #	Description
A	272397	285147	Idler Head Assembly
B	266147	273479	Idler Head Assembly (Only used on 6' awning assemblies)
C	289563	289566	Idler Head Front Cover
D	289564	289567	Idler Head Rear Cover
E	271181	272067	Drive Head Assembly
F	289557	289560	Drive Head Front Cover
G	289558	289561	Drive Head Rear Cover



SOLERA® MANUAL AWNING, PULL STRAP STYLE COMPONENTS

AWNINGS

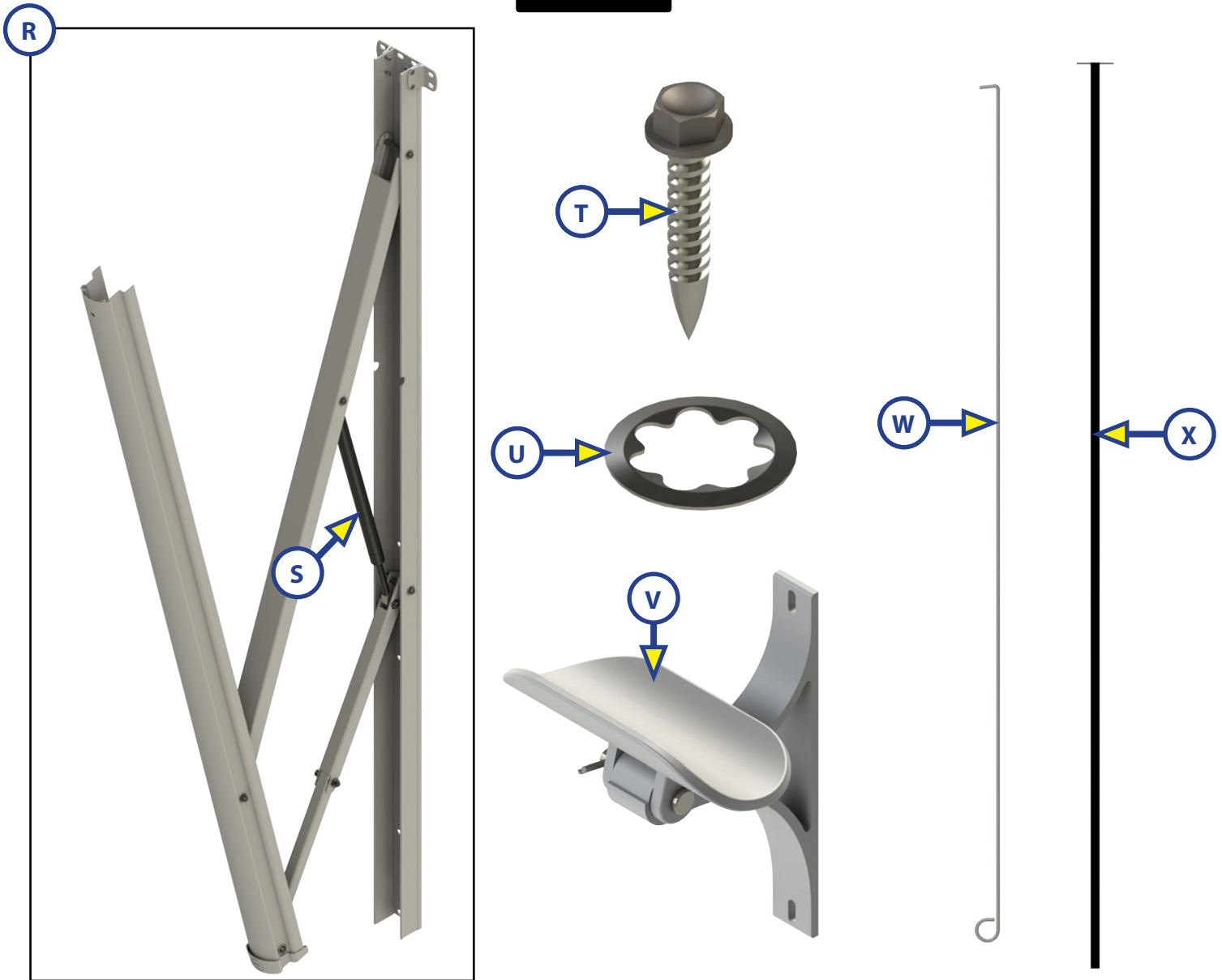


Callout	White Part #	Black Part #	Description
H	299419		Screw #8 - 15 x ½ PNH ZN SQ A ST (End Cap to Roll Tube)
I	266156		#6 x ½ ZN Screw (Fastener for Head Covers, 6 Per Cover)
J	299630		#8 End Cap Wax Screw (Head to Roll Tube)
K	118043		Nut ⅝- 18 Nylock ZN ST (Head to Arm)
L	266155		Screw #8 - 32 x ½ PH PNH MACHG ZN FTTHD (Back Cover to Mount)
M	281079		Screw #6 - 20 x ½ HEX WSHR SLFDR ZN
N	266148		Screw ⅝-18 x 2-1/4 (head to arm)
O	275071		Rubber Grommet (for manual override opening)
P	3334291	3334292	End Cap for Drive Head
Q	3334301	3334302	End Cap for Idler Head



SOLERA® MANUAL AWNING, PULL STRAP STYLE COMPONENTS

AWNINGS

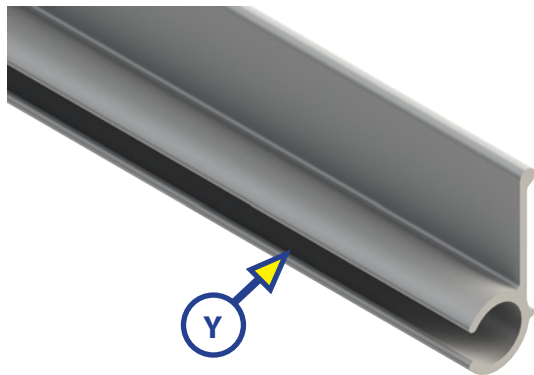


Callout	White Part #	Black Part #	Description
R	295742	295743	Support Arm Assembly (Short, 61")
	260294	266169	Support Arm Assembly (Pitched, 66 1/8")
	281152	281154	Support Arm Assembly (Flat, 69")
S	280343		Gas Strut; 26"; 124 lbs (for Short and Flat Arm Assemblies)
	260282		Gas Strut; 124 - 144 lbs (for Pitched Arm Assemblies)
T	286576		Screw #14 - 10 x 1 1/2 (Arms to Coach)
U	282484		Star Washer (for Gas Strut)
V	289373	289374	Awning Center Support Assembly NOTE: Only required for Solera Awnings greater than 21' in length.
W	281080		Pull Rod
X	292794		Manual Pull Strap Replacement



SOLERA® MANUAL AWNING, PULL STRAP STYLE COMPONENTS

AWNINGS



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



SOLERA[®] MANUAL PULL STRAP AWNING
OWNER'S MANUAL

Operation

Extending The Awning

1. 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.

2. Using the pull rod, place the "L" end of the rod on top of the cam lock (Fig. 3A) and pull down on the lock to release it (Fig. 3).

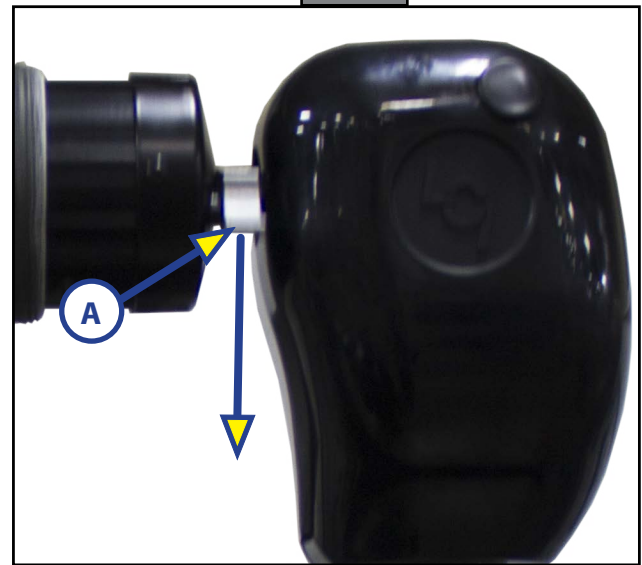
Fig. 1



Fig. 2



Fig. 3



3. Insert the pull rod into the pull strap (Fig. 4).
4. Pull strap to chest height using the pull rod. Using hands to grasp the strap, walk the awning outward, keeping in front of the roll tube at all times (Fig. 5).

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. 6). The exposed part of the roll tube will be under the awning upon full extension. Also check to make sure the cam lock is on top of the roll tube.

Fig. 4



Fig. 5

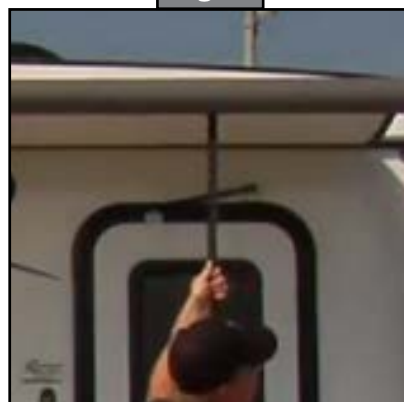
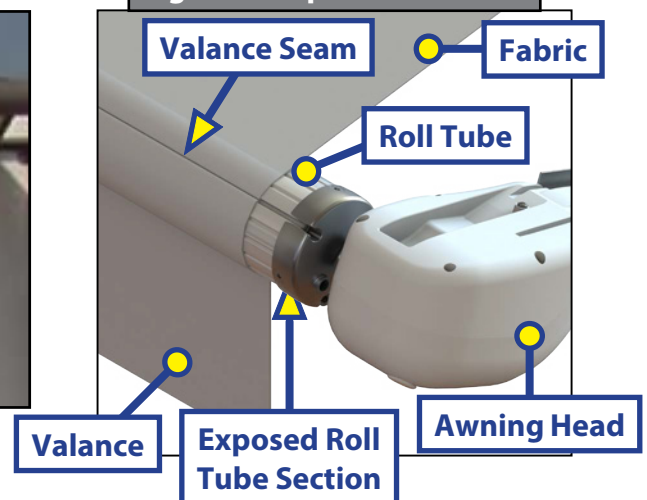


Fig. 6 - Complete Extension



CAUTION

Tying the roll tube down once 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

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

1. Grasp the strap and pull slightly toward you (Fig. 7) to release pressure on the cam lock (Fig. 7A) and disengage the cam lock.
2. While holding the strap in hand, walk the awning toward the coach until the strap is about chest height (Fig. 8).

Fig. 7

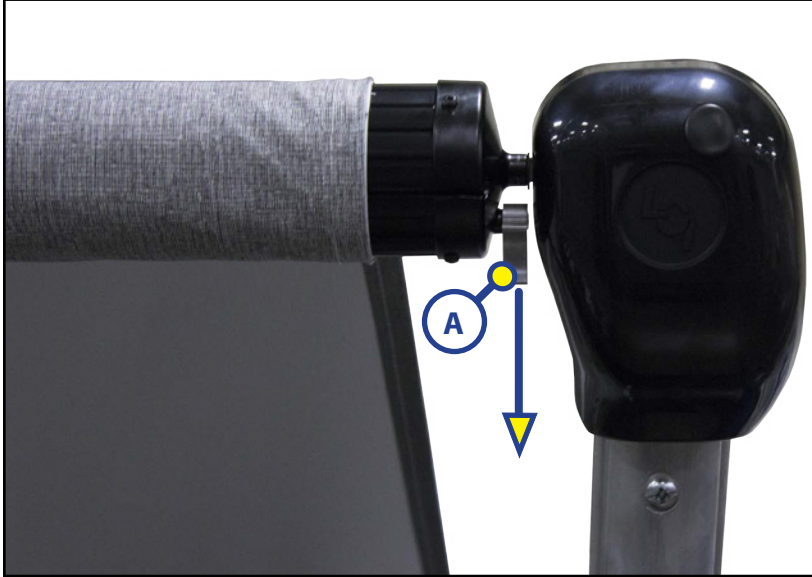


Fig. 8



3. Insert pull rod into the pull strap.
4. Walk awning all the way in until it stops (Figs. 9 and 10). Remove pull rod from strap.
5. Locate the locking latch (Fig. 11), if equipped. Lock the latch to secure the awning in place (Fig. 12).

NOTE: This latch is optional and may or may not be installed on one or both support arms. If not installed, awning is secured and ready for transportation.

Fig. 9



Fig. 10



Fig. 11



Fig. 12



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 manually 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. 13) to allow for water runoff. Do not push the articulating arm up past straight. This will put tension on the gas strut, which can cause the strut to break. Belleville washers and bolt (Fig. 14A) allow for 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. 14A) in the center of the articulating arm.

Fig. 13

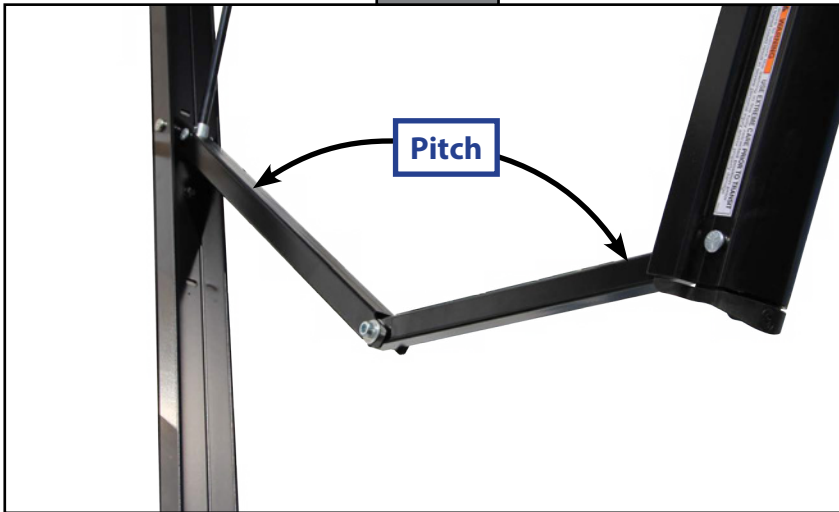
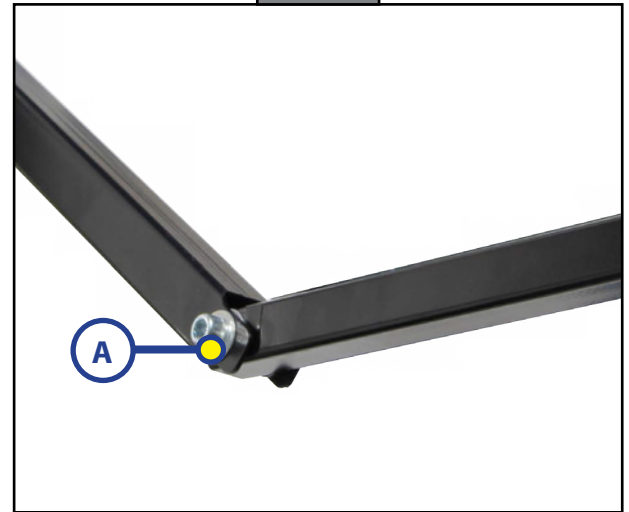


Fig. 14



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.

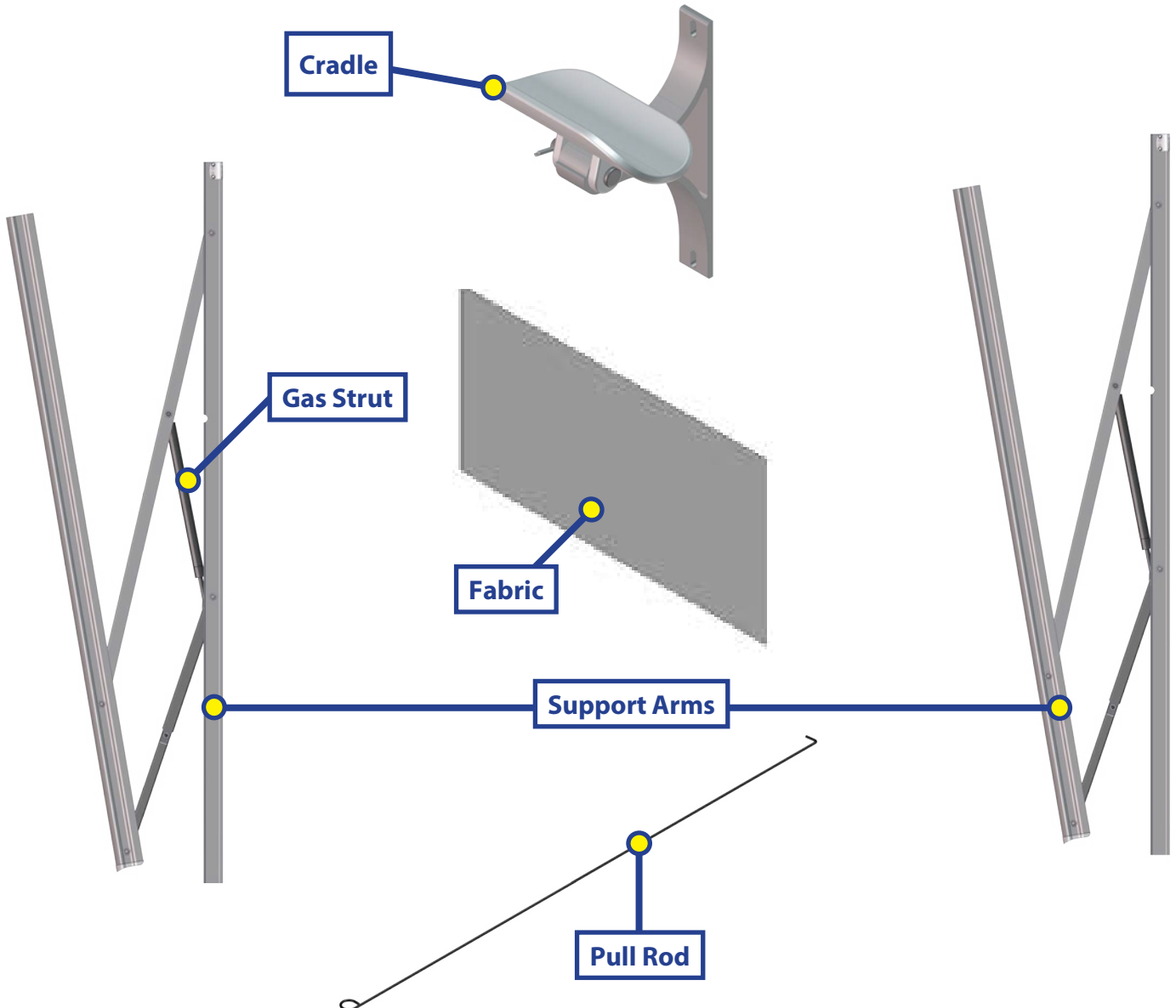
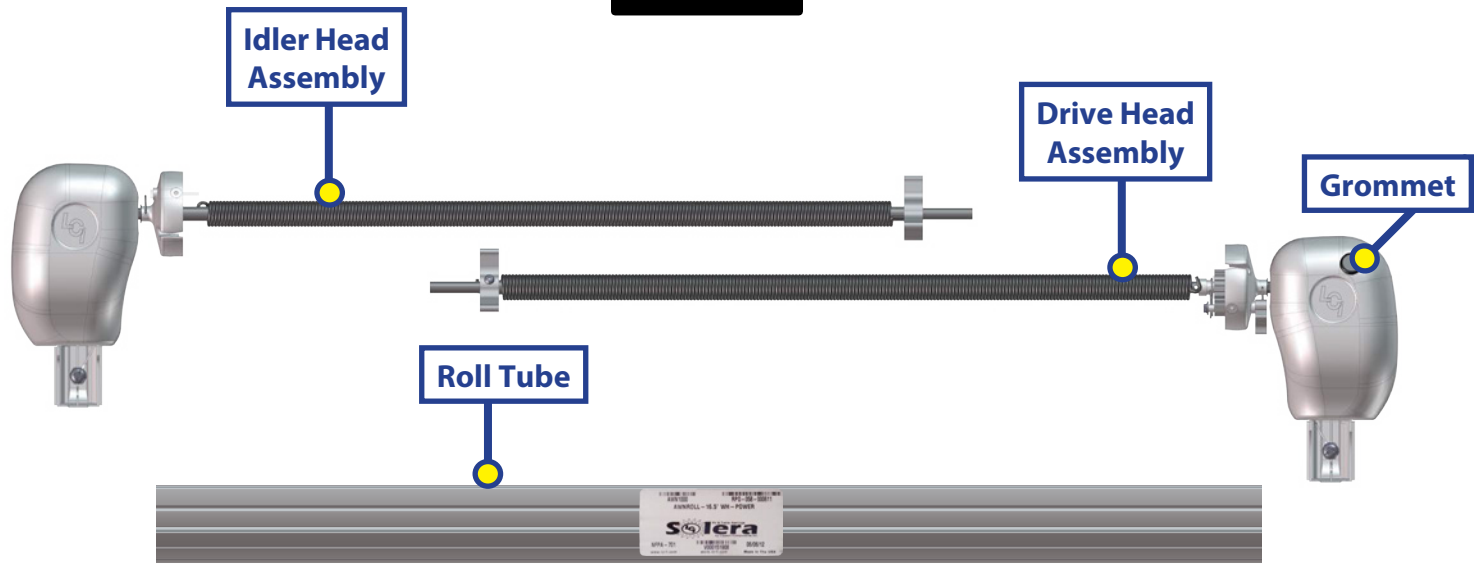
NOTE: Periodically clean vinyl or woven acrylic fabric using a mixture of ¼ cup of dish soap and 5 gallons of warm water. Liberally slosh the mixture on the top of the fabric and roll up the awning for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Roll the awning back out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



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SOLERA® MANUAL PULL STRAP AWNING ASSEMBLY

AWNINGS



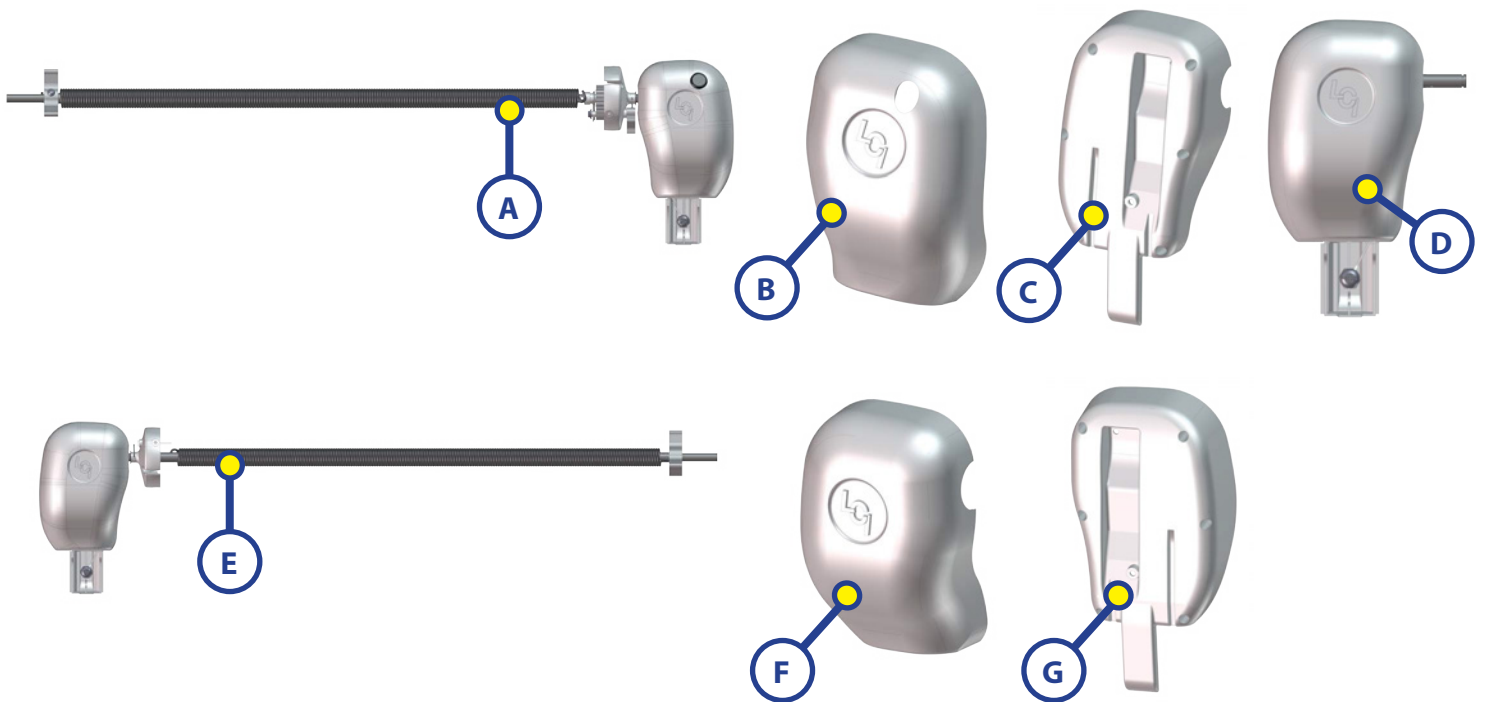


SOLERA® MANUAL PULL STRAP AWNING COMPONENTS

AWNINGS

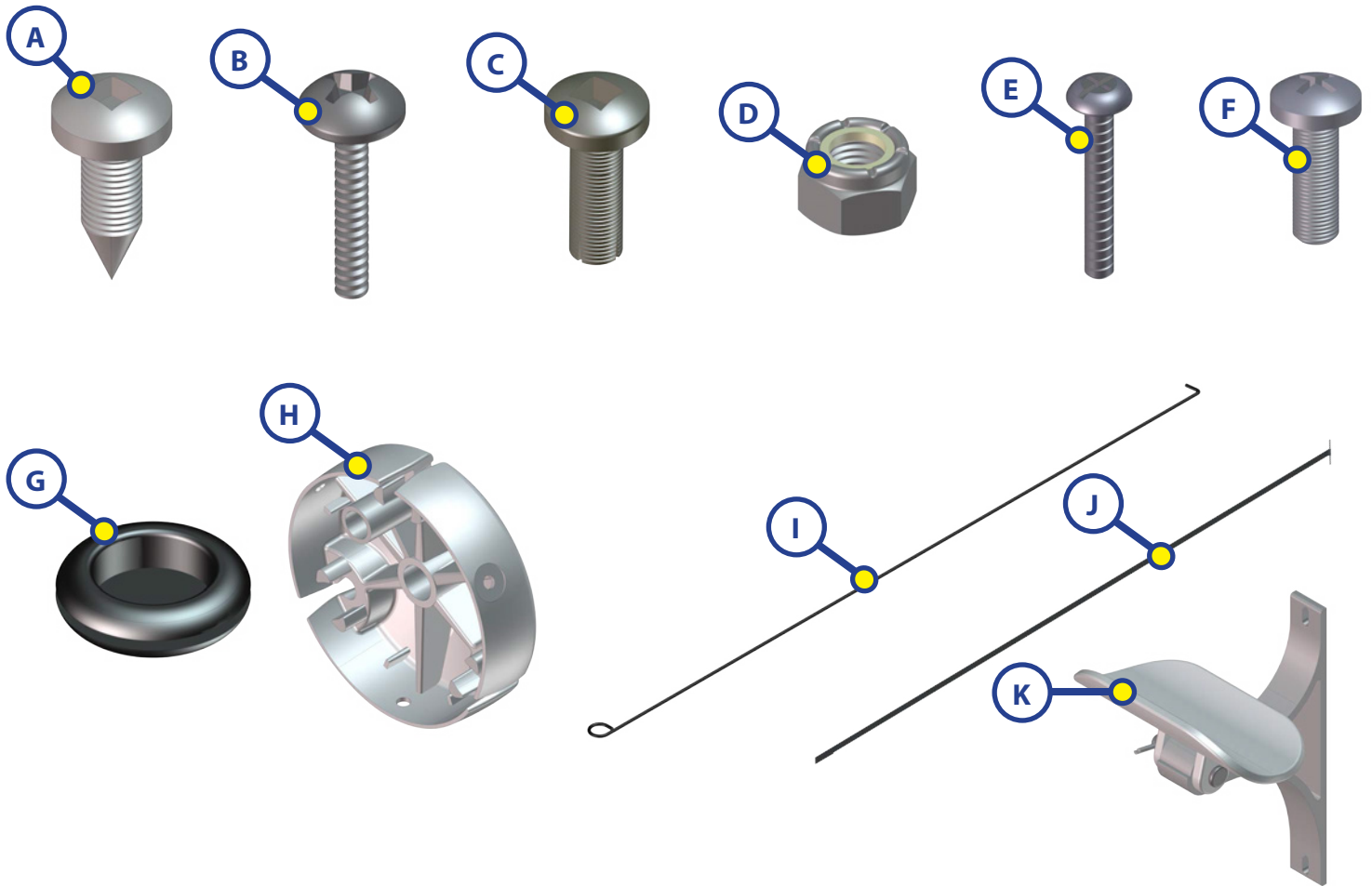
Variant Code Information

Solera® Awnings have a sticker located on the roll tube with a variant code that is specific to that awning assembly. The sticker on newer units will be located near the drive 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.

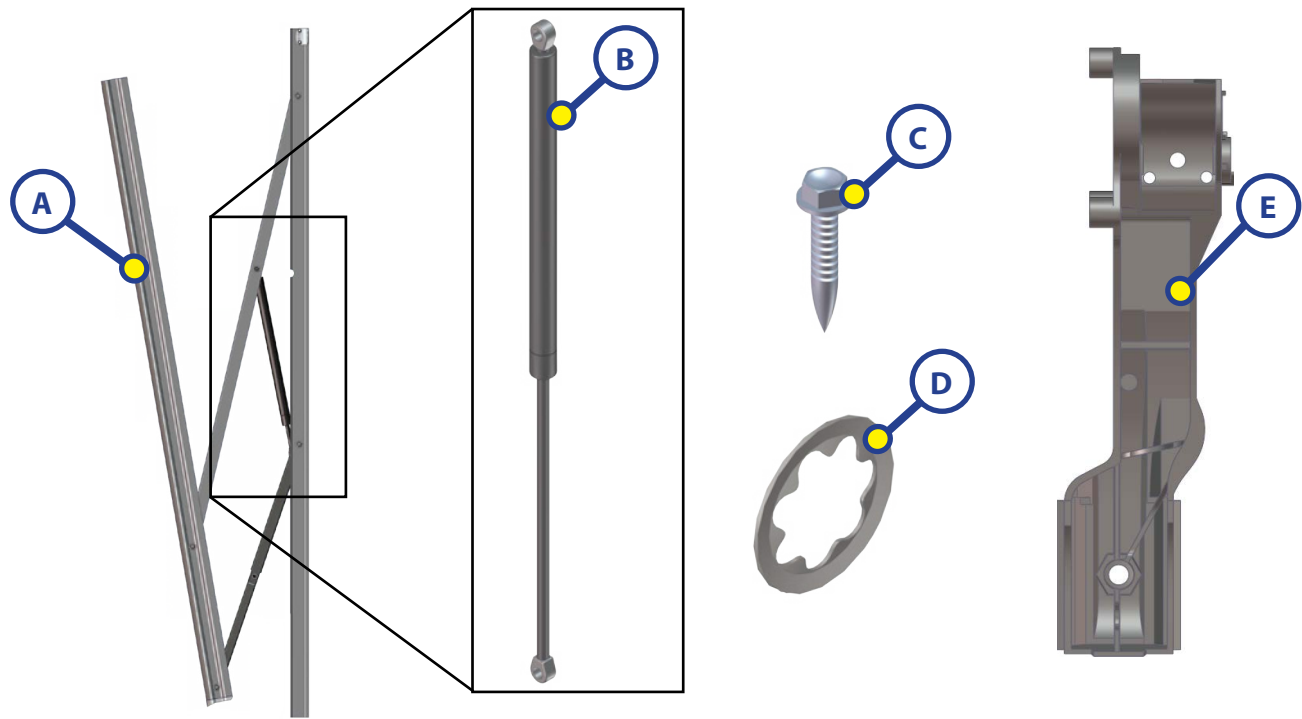


Callout	White Part #	Black Part #	Description
A	271181	272067	Drive Head Assembly
B	<u>266151</u>	<u>266161</u>	Drive Head Front Cover
	289557	289560	Drive Head Front Cover (CURRENT)
C	<u>266152</u>	<u>266162</u>	Drive Head Rear Cover
	289558	289561	Drive Head Rear Cover (CURRENT)
D	266147*	273479*	Idler Side Head
E	272397	285147	Idler Head Assembly
F	<u>266153</u>	<u>266163</u>	Idler Head Front Cover
	289563	289566	Idler Head Front Cover (CURRENT)
G	<u>266154</u>	<u>266164</u>	Idler Head Rear Cover
	289564	289567	Idler Head Rear Cover (CURRENT)

NOTE: * Only used on 6' awning assemblies.



Callout	White Part #	Black Part #	Description
A	299419		Screw - # 8 - 15 X ½ PNH ZN SQ A ST
B	266156		#6 X ½ ZN Screw (fastener for head covers, 6 per cover)
C	299630		#8 Wax Screw NOTE: For 6' awnings at the idler head to connect roll tube to the shaft.
D	118043		Nut ⅝-18 Nylock ZN ST (head to arm)
E	266148		Screw ⅝-18 X 2-¼ (head to arm)
F	266155		Screw #8-32 x ½ PH PNH MACHG ZN FT HD (back cover to mount)
G	275071		Rubber Grommet
H	3334291	3334292	End Cap for Manual Drive Head
	3334301	3334302	End Cap for Manual Idler Head
I	281080		Pull Rod
J	292794		Manual Pull Strap Replacement
K	289373	289374	Awning Cradle NOTE: Only required for Solera Awnings greater than 21' in length.



Callout	White Part #	Black Part #	Description
A	295742	295743	Support Arm Assembly (Short, 61") (One Arm)
	260294	266169	Support Arm Assembly (Pitched, 66 1/8") (One Arm)
	281152	281154	Support Arm Assembly (Flat, 69") (One Arm)
B	280343		Gas Strut; 26"; 124 LBS (for Short and Flat Arm assemblies)
	260282		Gas Strut; 26"; 124 - 144 LBS (for Pitched Arm assemblies)
C	286576		Screw - #14 - 10 x 1 1/2 (arms to coach)
D	282484		Star Washer (for Gas Strut and Holding Pins)
E	266128		Awning Idler Head Mount
	266129		Awning Drive Head Mount



Solera® Power Awning Aftermarket Manual



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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.

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 Warranty.

Note: This manual will refer to the “drive side” and “idler side” throughout for various instructions. The “drive side” is the right hand side of the awning when facing the awning from the exterior of the unit. The “idler side” is the left hand side of the awning when facing the awning from the exterior of the unit.

Prior To Installation

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



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.

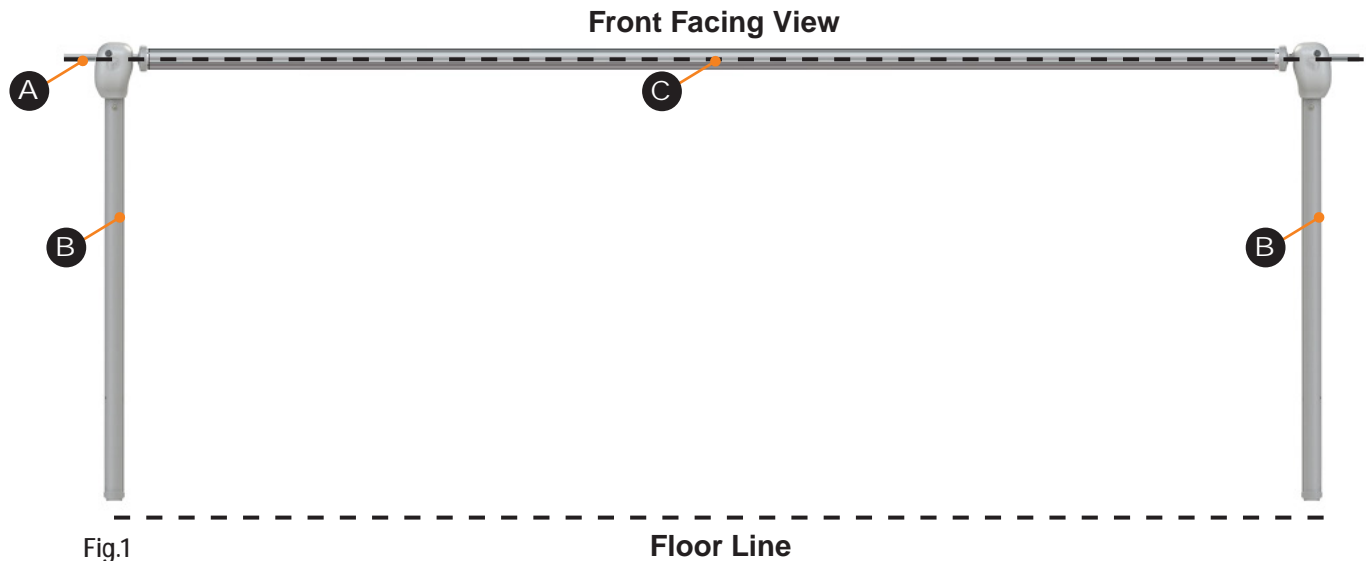


Fig.1

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



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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).

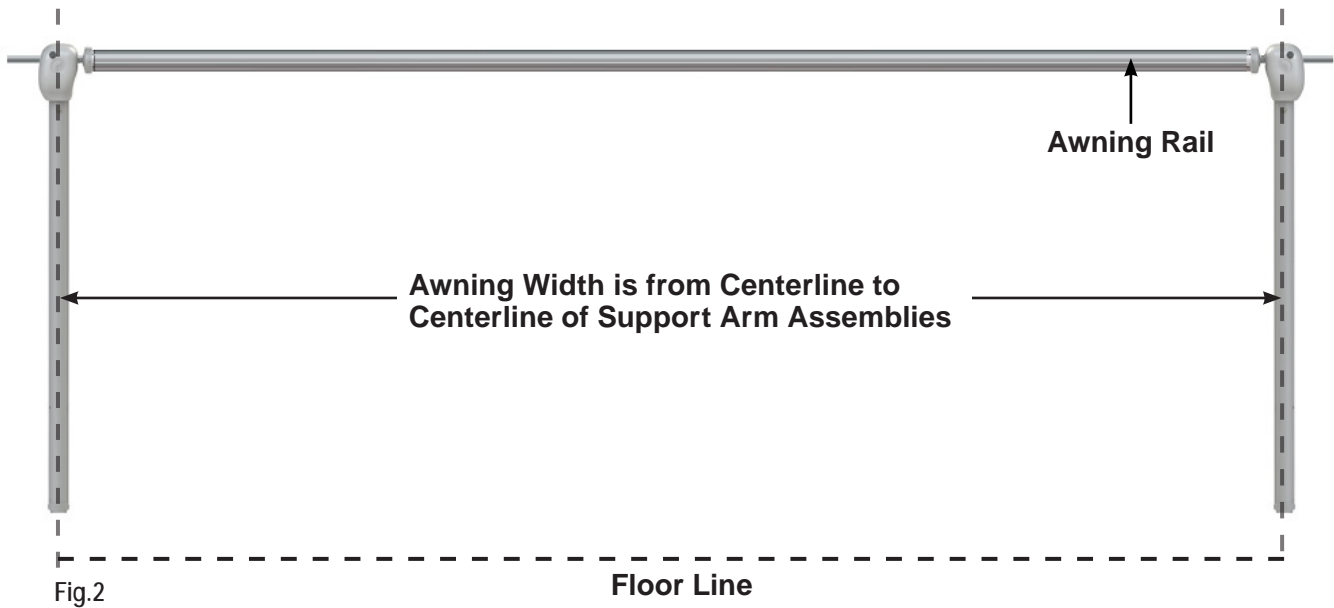


Fig.2

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



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4. Use a screwdriver to spread open either end of the awning rail channel on the installation side (Fig.4A).
5. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail channel.
6. Use silicone lubricant and spray the inside of the awning rail channel (Fig.4B).

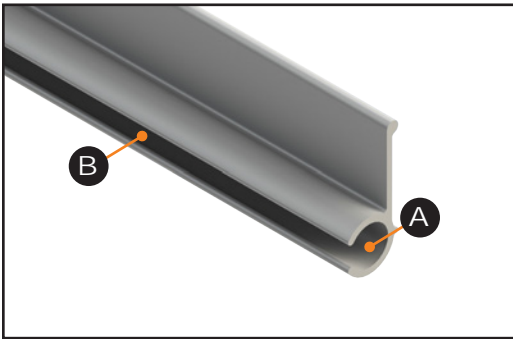


Fig.4

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

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

8. Slide the polycord into the awning rail channel and walk the support arm assemblies and fabric down the awning rail channel until the support arm assemblies are in line with the 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

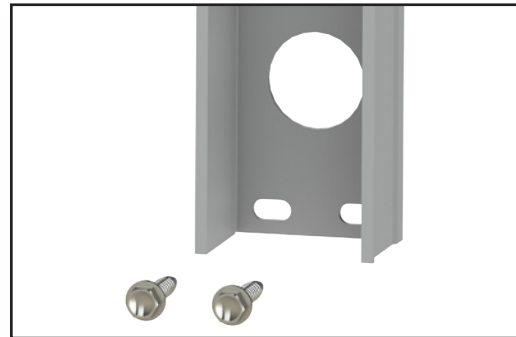


Fig.6

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.



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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.

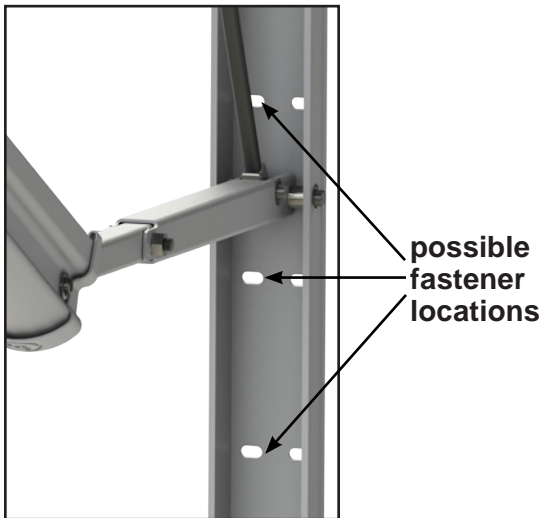


Fig.7

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).

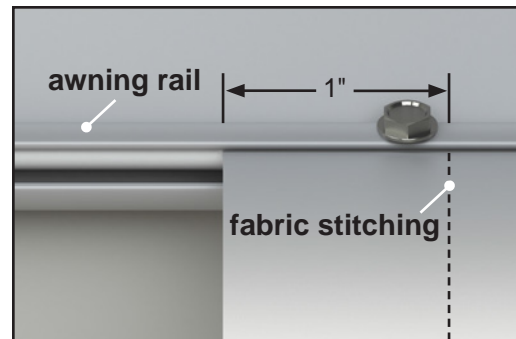


Fig.8



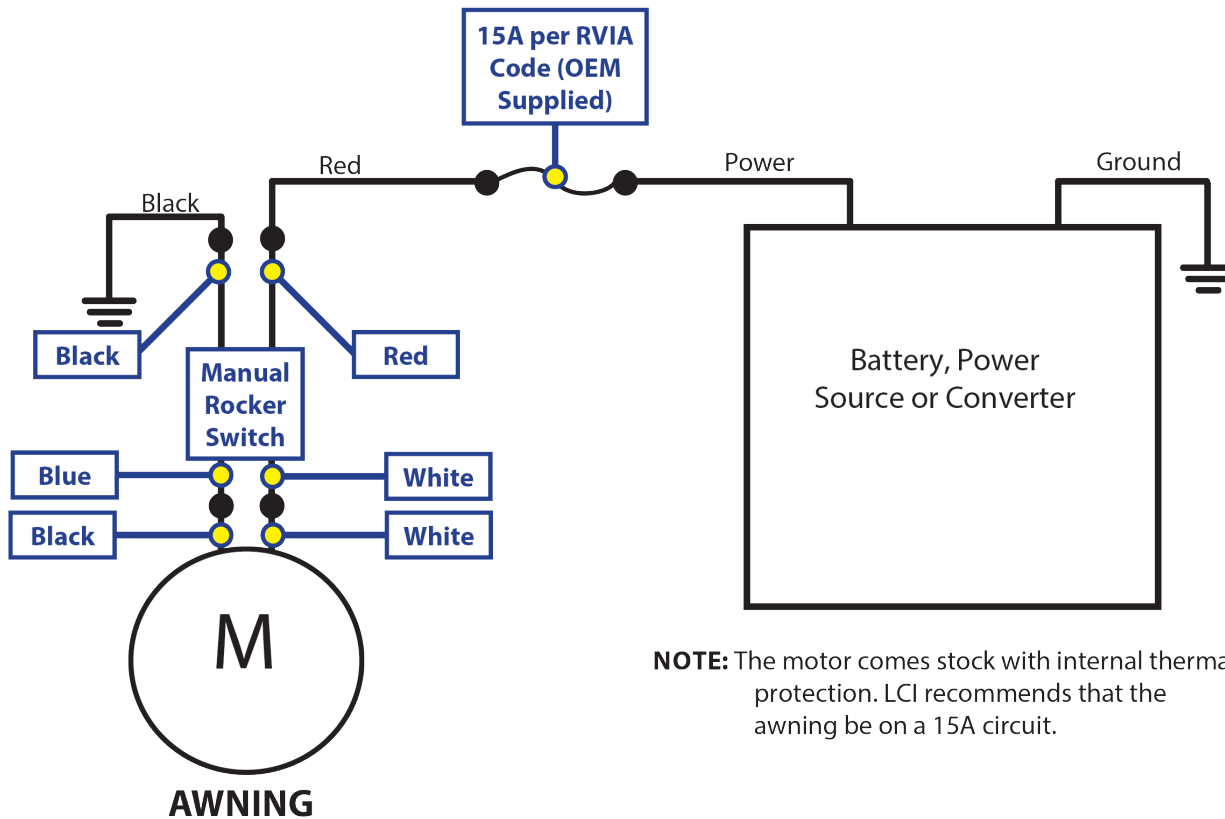
Awning Wiring

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.



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

Fig.9



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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.

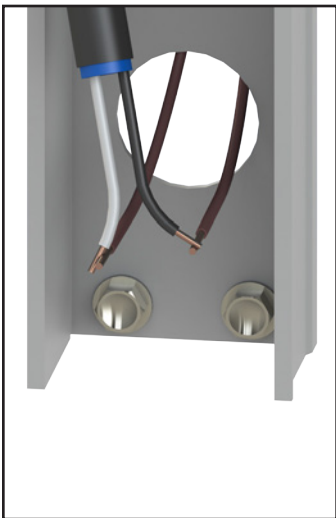


Fig.10

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.

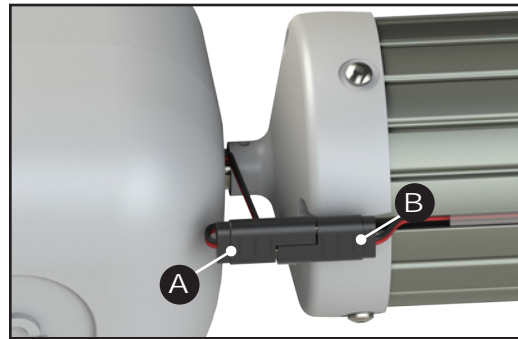


Fig.11

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.



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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).

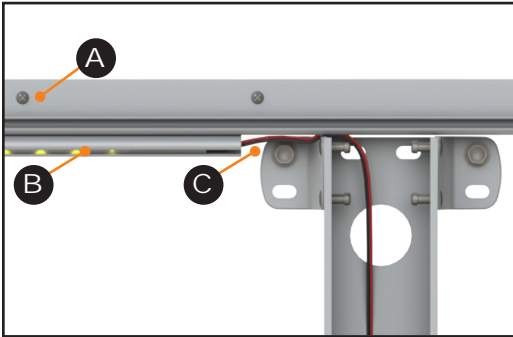


Fig.12

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).

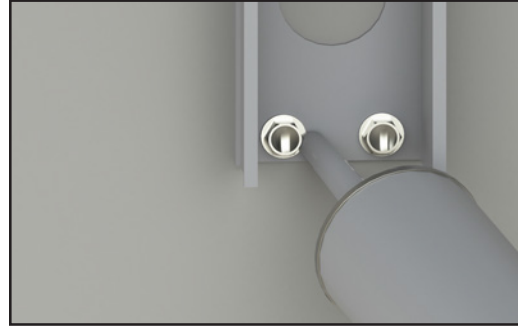


Fig.13

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

Operation

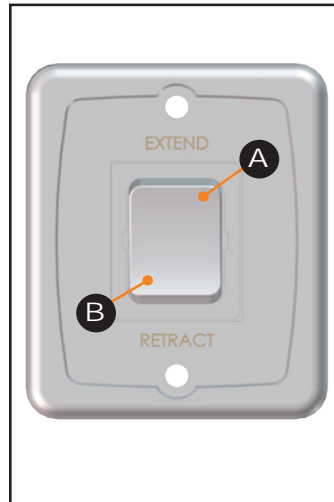


Fig.14

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.



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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).

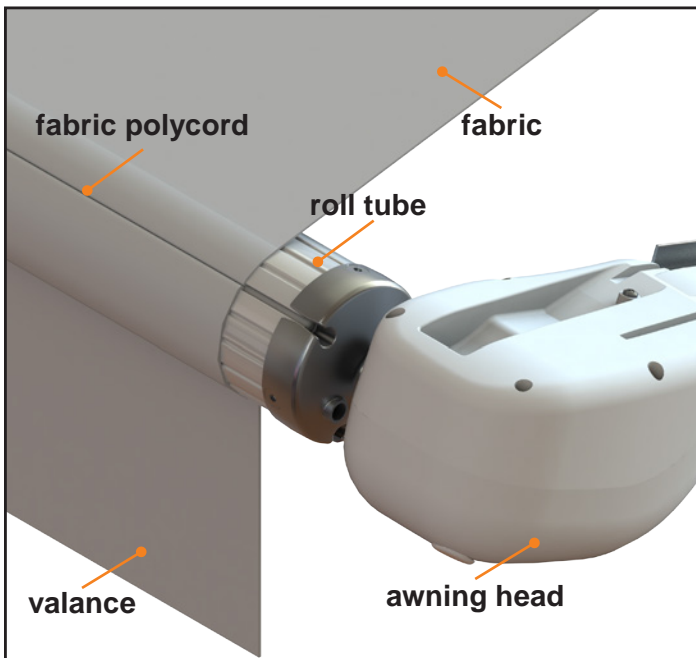


Fig.15

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.

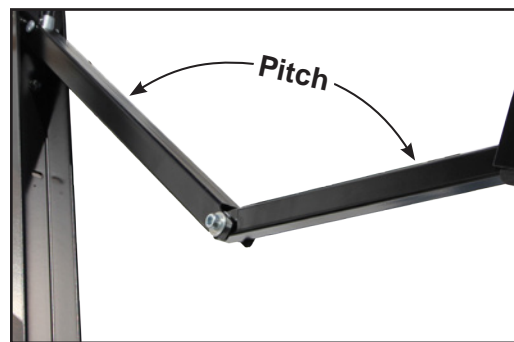


Fig.16

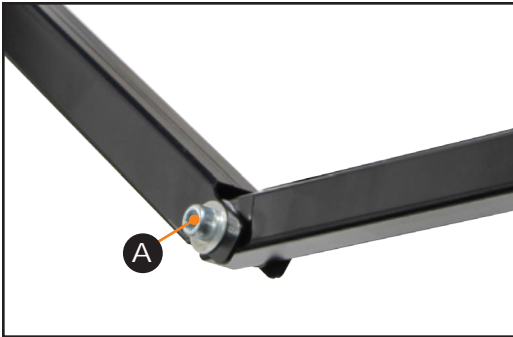


Fig.17

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.

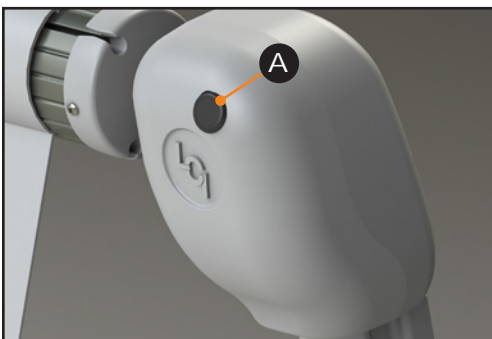


Fig.18

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).

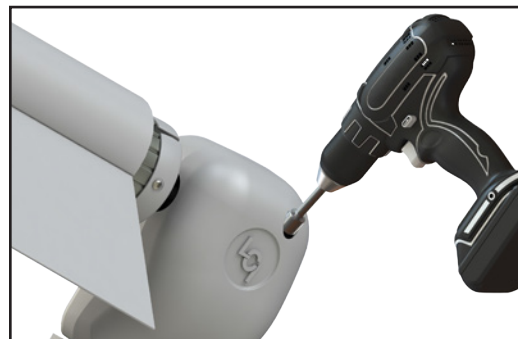


Fig.19

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.



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Solera® Classic 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.



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Solera® Classic 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.

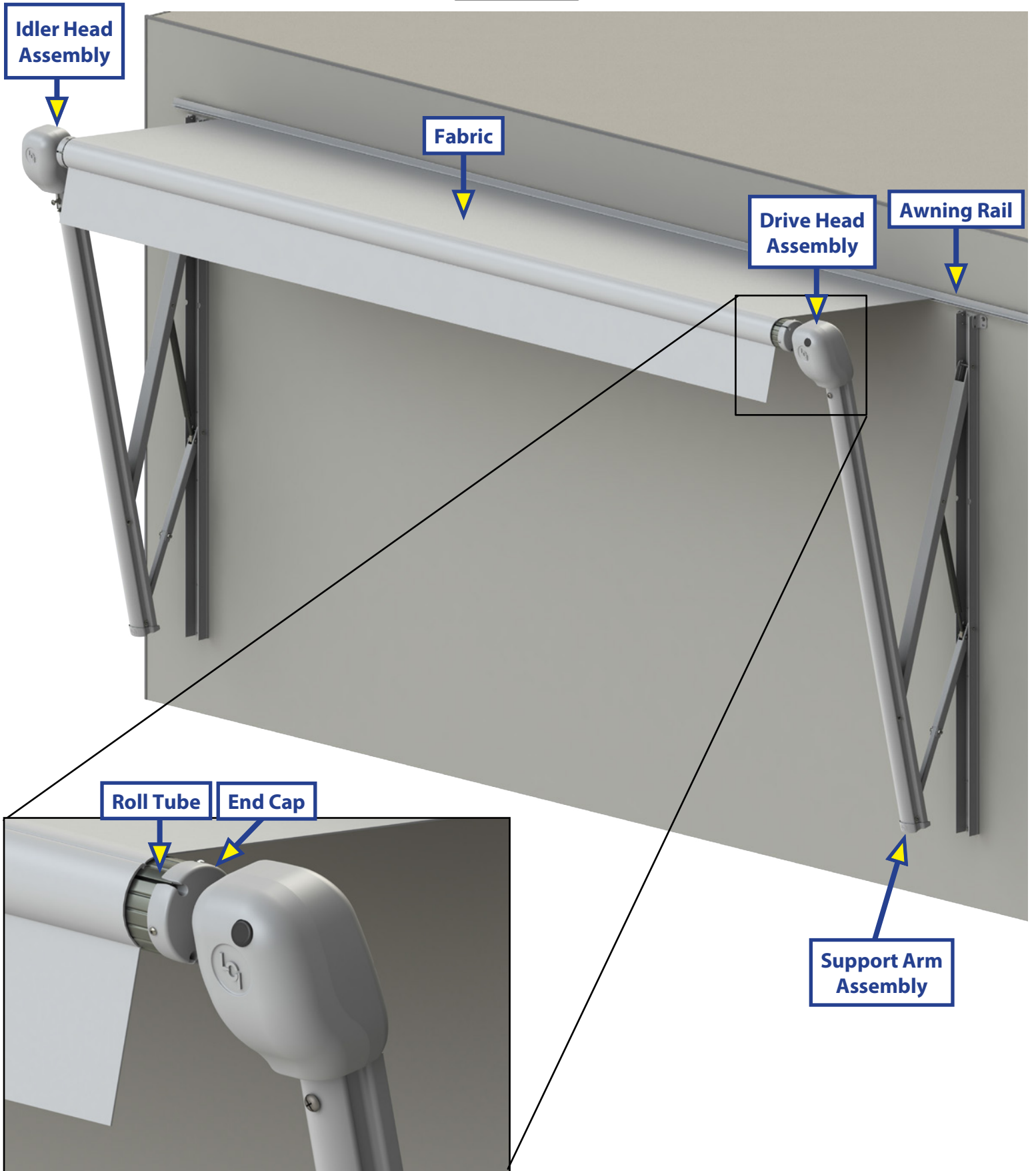
Maintenance - Solera® Awnings

Fabric Care

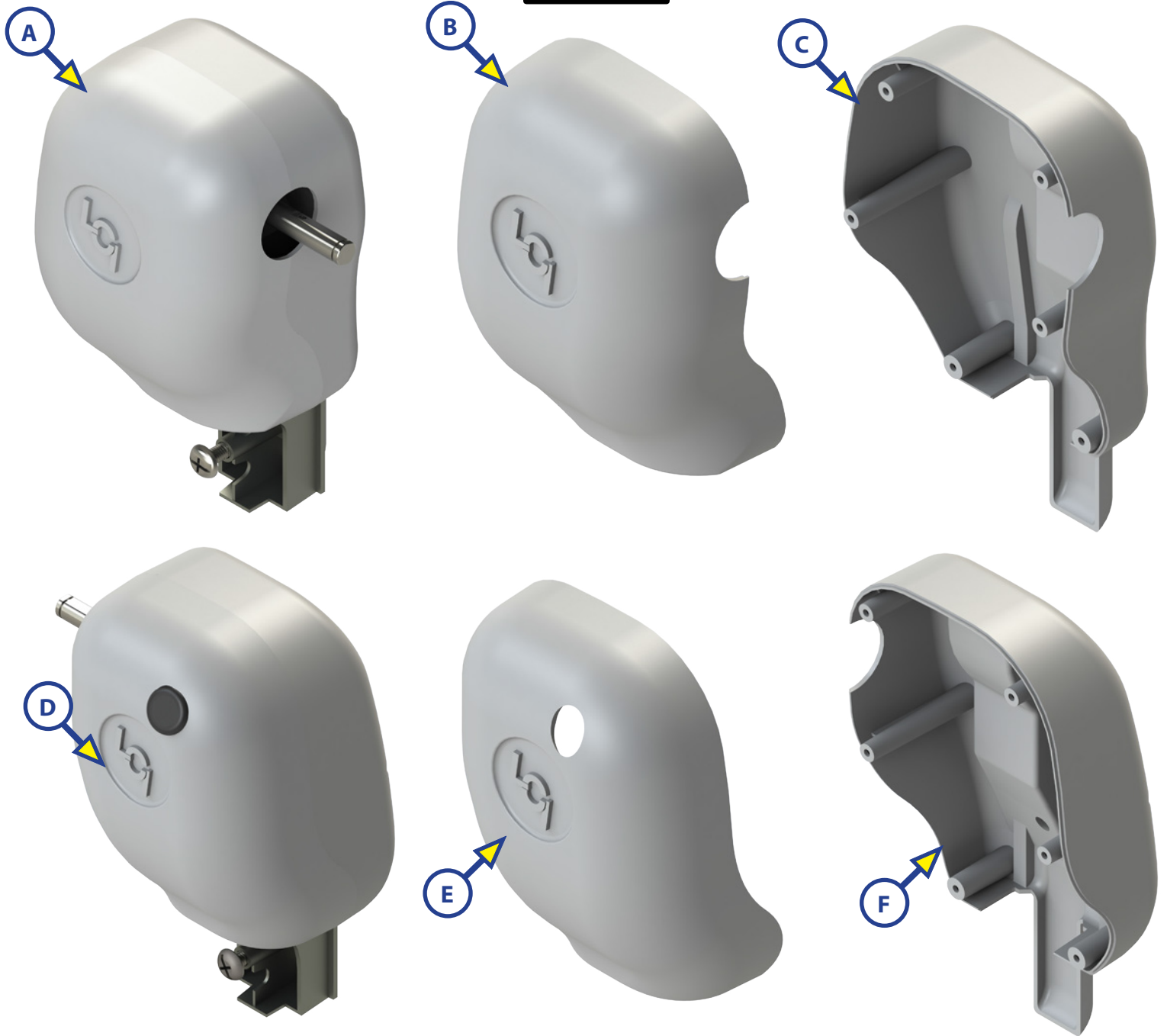
NOTE: If the awning is retracted while wet, extend the awning and let it dry as soon as conditions allow before retracting. This will help prevent the formation of mildew and add greatly to the life of the awning. Mildew does not form on the fabric itself, but on the accumulated dust, dirt and grime.

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

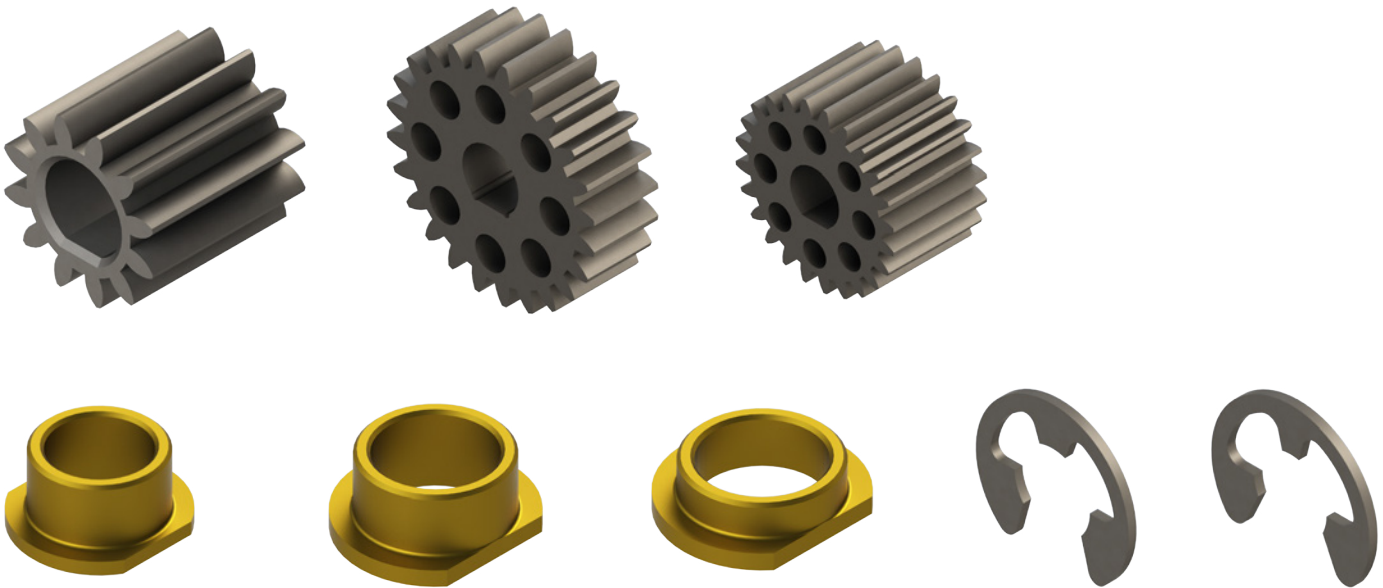
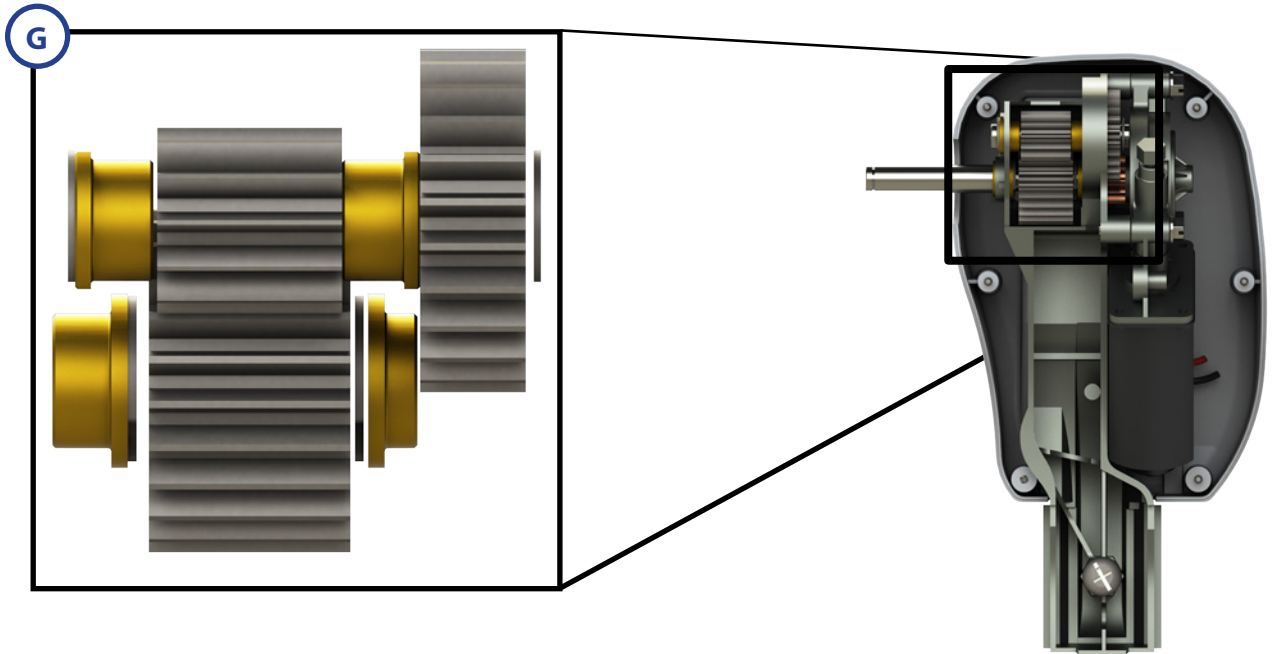


AWNINGS



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

AWNINGS

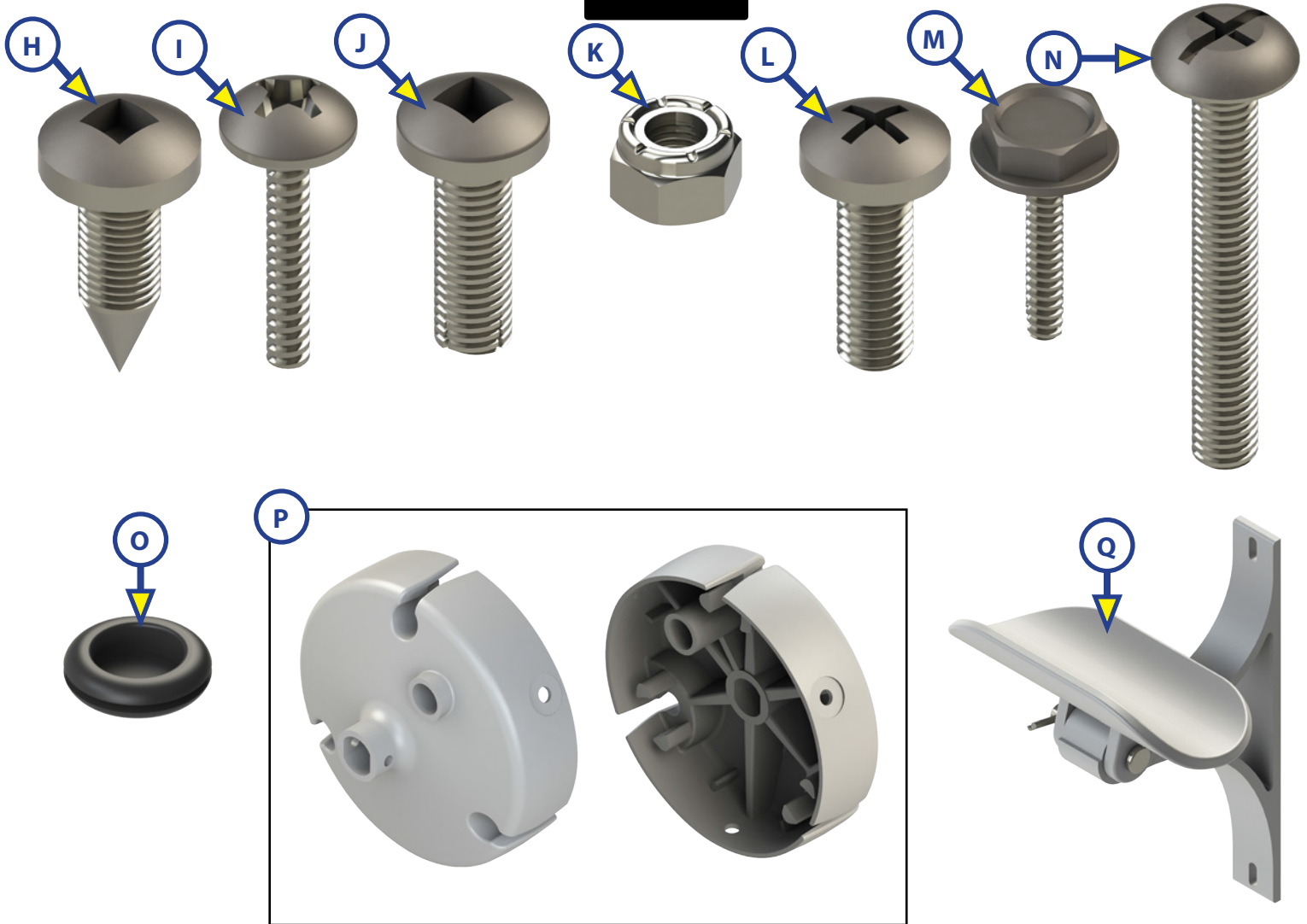


Drive Head Gear Kit		Qty.	Part #	Description
G	353964 (Only available as a kit)	1	266133	.873" 20 PA 16 DP, D SLOT GEAR
		1	266134	.873" 20 PA 16 DP, D SLOT GEAR
		1	266136	.500" 20 PA 16 DP, CLR ZN GEAR
		2	266142	Bushing
		1	266143	Bushing
		1	281828	Bushing
		2	266137	E-Clip ½"
		2	276160	E-Clip ⅜"



SOLERA® POWER AWNING COMPONENTS

AWNINGS

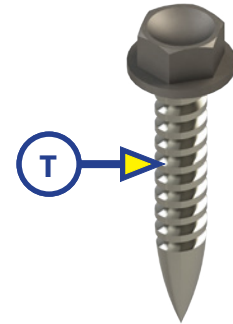


Callout	White Part #	Black Part #	Description
H	299419		Screw #8 - 15 x 1/2 PNH ZN SQ A ST (End Cap to Roll Tube)
I	266156		#6 x 1/2 ZN Screw (Fastener for Head Covers, 6 Per Cover)
J	299630		#8 End Cap Wax Screw (Head to Roll Tube)
K	118043		Nut 5/16 - 18 Nylock ZN ST (Head to Arm)
L	266155		Screw #8 - 32 x 1/2 PH PNH MACHG ZN FT HD (Back Cover to Mount)
M	281079		Screw #6 - 20 x 1/2 HEX WSHR SLFDR ZN
N	266148		Screw 5/16 - 18 x 2 - 1/4 (Head to Arm)
O	275071		Rubber Grommet (for Manual Override Opening)
P	266130		End Cap
Q	289373	289374	Awning Center Support Assembly NOTE: Only required for Solera Awnings greater than 21' in length



SOLERA® POWER AWNING COMPONENTS

AWNINGS

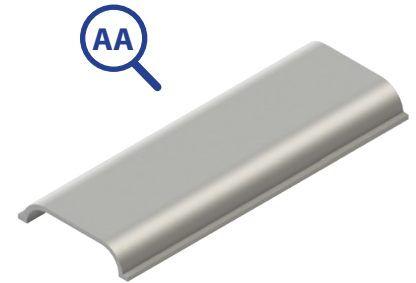
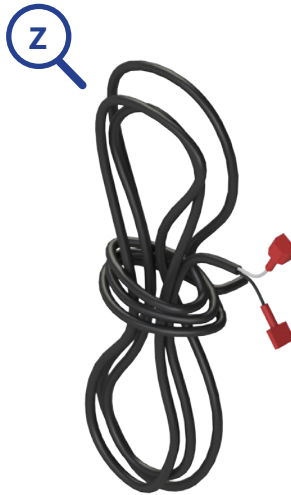
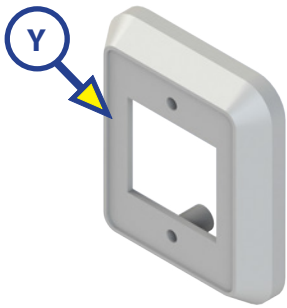
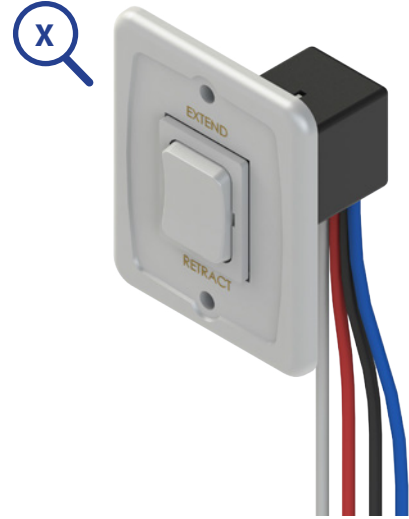
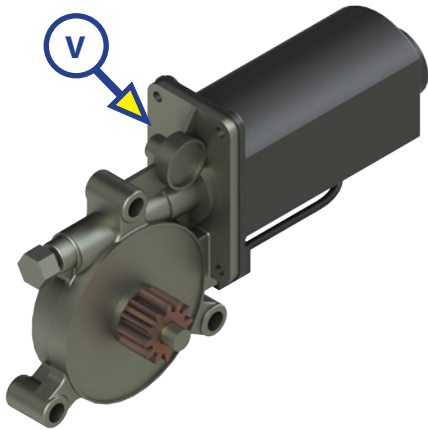


Callout	White Part #	Black Part #	Description
R	295742	295743	Support Arm Assembly (Short, 61")
	260294	266169	Support Arm Assembly (Pitched, 66 1/8")
	281152	281154	Support Arm Assembly (Flat, 69")
S	280343		Gas Strut; 26"; 124 lbs (for Short and Flat Arm Assemblies)
	260282		Gas Strut; 124 - 144 lbs (for Pitched Arm Assemblies)
T	286576		Screw #14 - 10 x 1 1/2 (Arms to Coach)
U	282484		Star Washer (for Gas Strut)



SOLERA® POWER AWNING COMPONENTS

AWNINGS

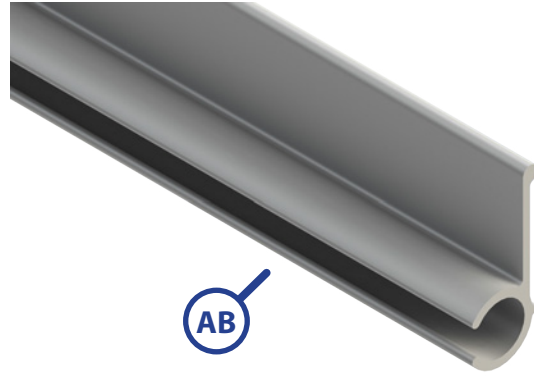


Callout	White Part #	Black Part #	Description
V	266149		Motor
W	266132		Screw ¼ - 20 x ¼ IHWH 2N SLF ST (motor to mount)
X	285499	285500	Switch Kit (Switch, Plate, and Harness)
	280570		Wire Harness Only
	280565	280567	Switch Plate Only
	280564	280566	Switch Only
Y	285079	285077	Bezel Spacer
Z	273007		Power Feed Wires
AA	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 COMPONENTS

AWNINGS



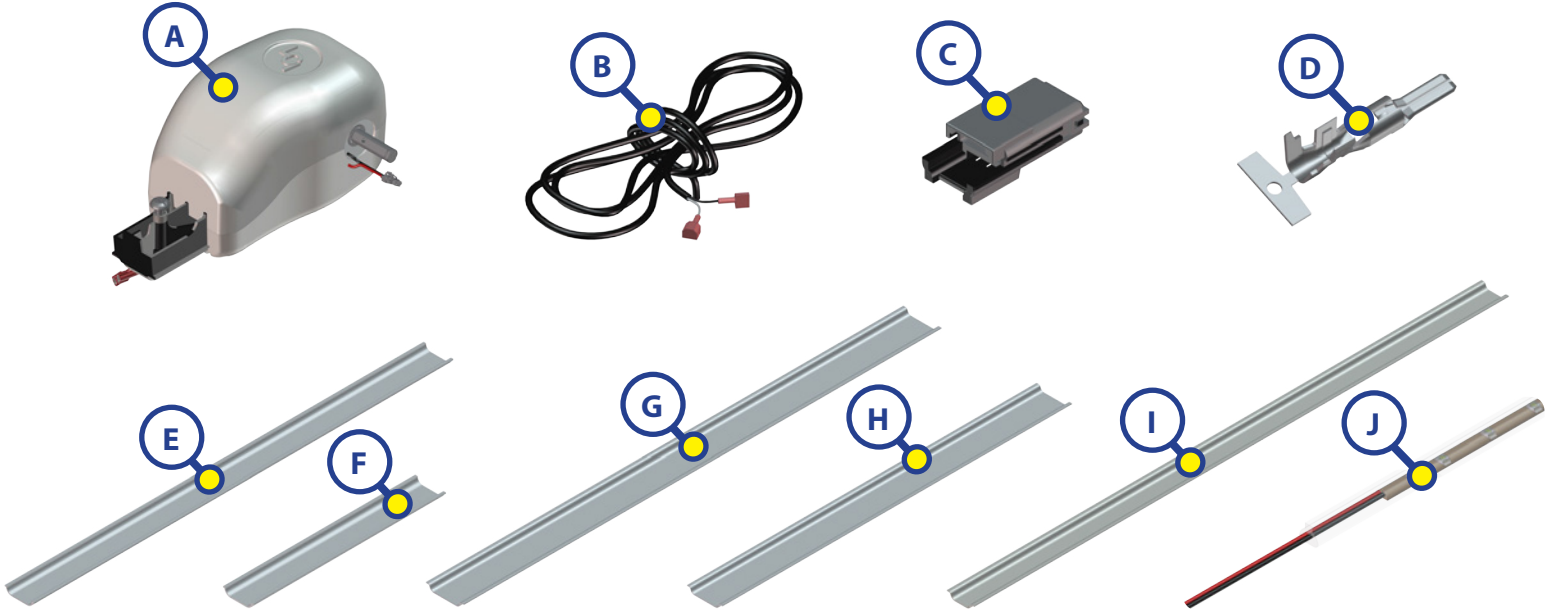
Callout	White Part #	Black Part #	Description
AB	281928	281929	Awning Rail (144")



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

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

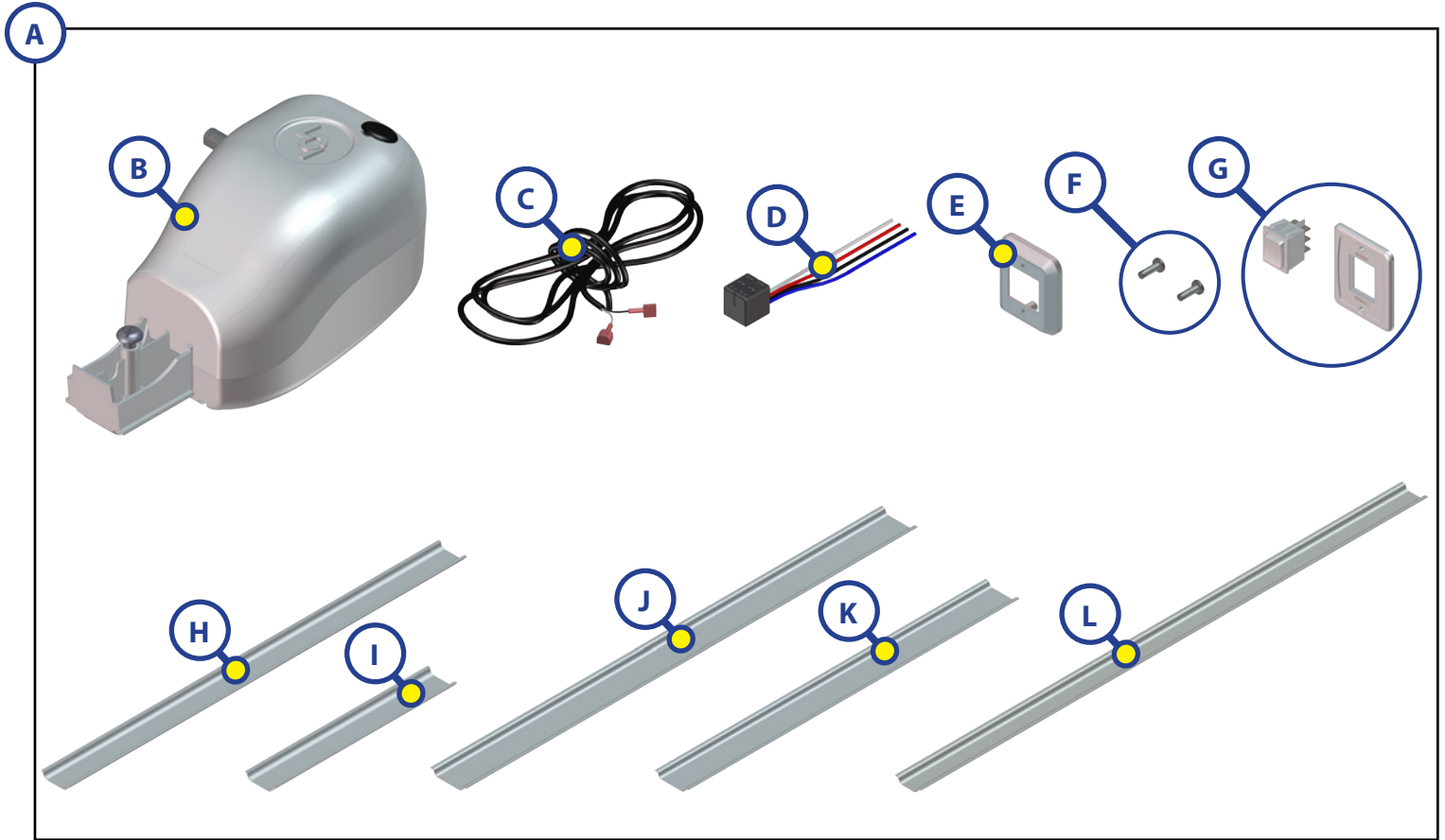
NOTE: Choose (1) of the following LED Tube Lights in correct length according to the awning size:

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 UPGRADE FOR MANUAL AWNINGS

AWNINGS



Kit	White Part #	Black Part #	Description
A	337727	337728	Power Awning Upgrade from Manual Crank Style Kit

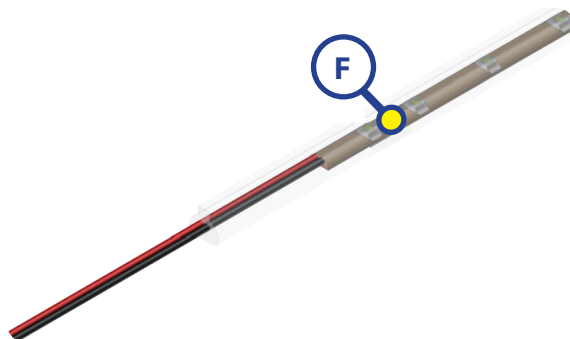
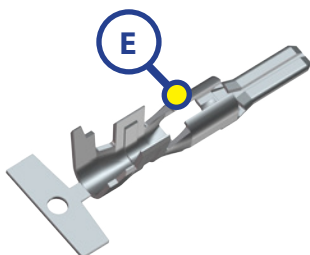
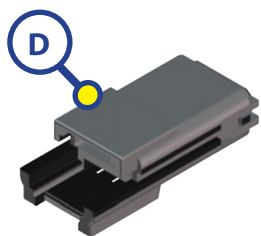
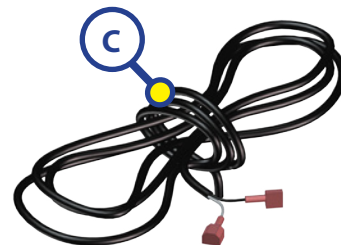
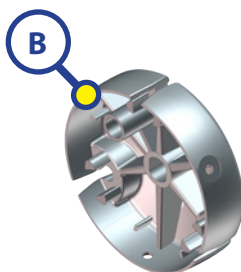
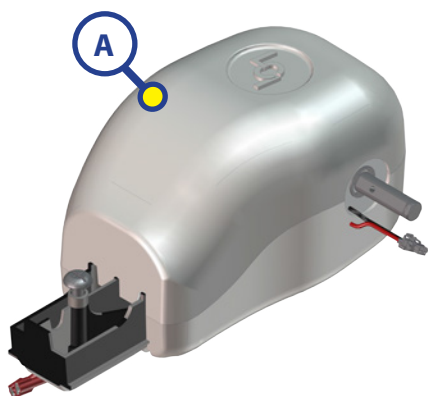
NOTE: Parts below are available in kit A referenced above or individually as needed.

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
A	334789	334785	LED Idler Head	1
B	2661301	2661302	End Caps	2
C	273007		Power Feed Wires	1
D	317243		Waterproof Connector	1
E	317241		Silver Waterproof Connector Pin	2

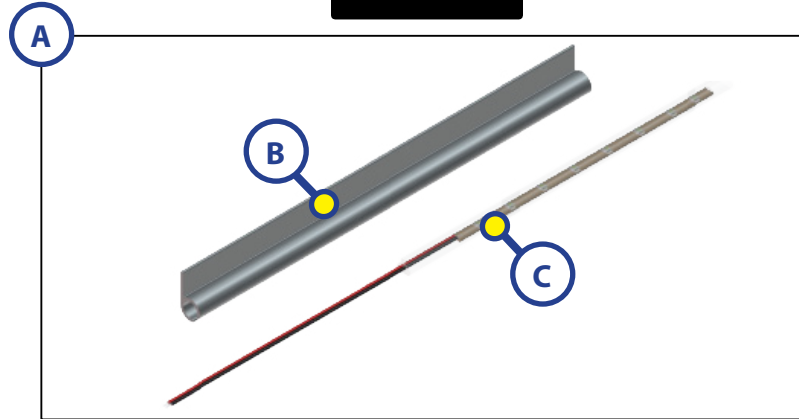
NOTE: Choose (1) of the following LED Tube Lights in correct length according to the awning size:

Callout	Part #	Awning Size	Description
F	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 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 ½" 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'		

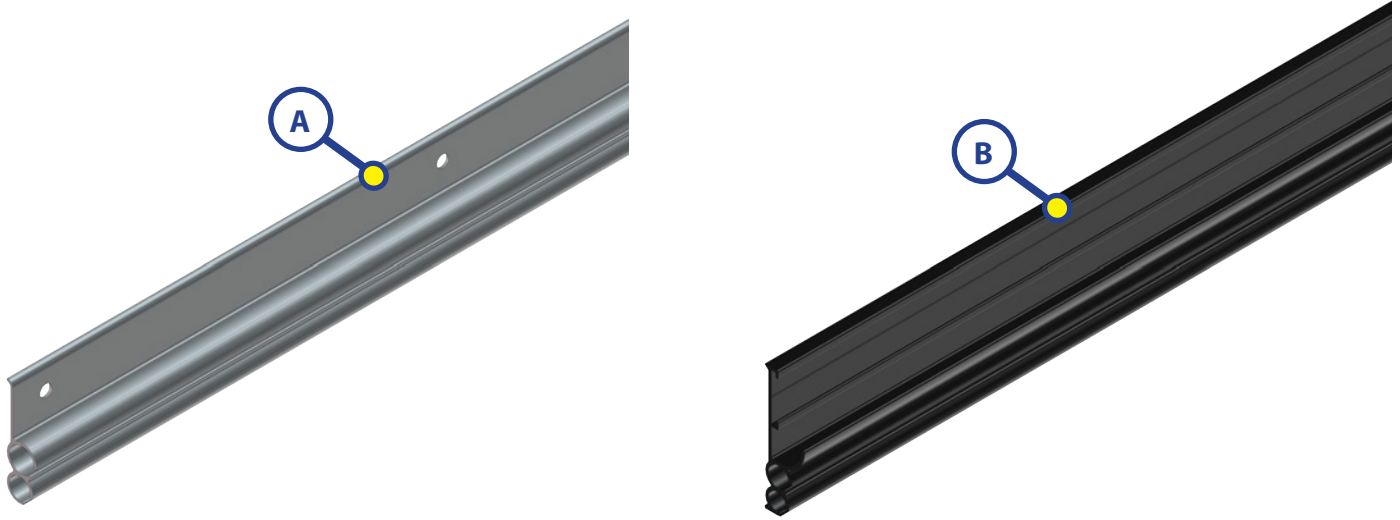
NOTE: Parts below are available in kit A numbers referenced above or individually as needed.

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 LED RAILS

AWNINGS

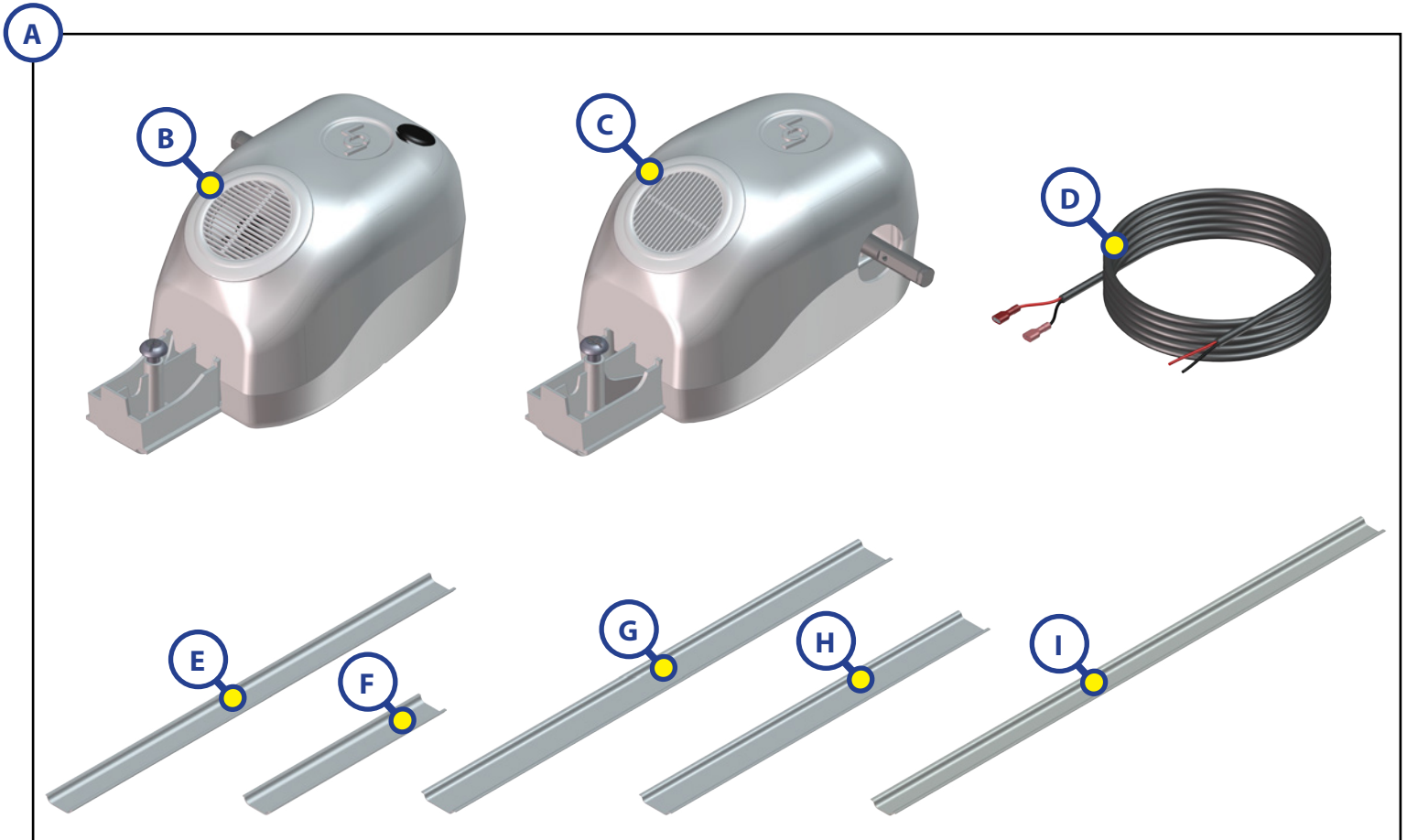


Callout	White Part #	Black Part #	Awning Size	Description
A	3207921	3207922	11' - 18'	LED/Awning Cord Rail (216")
	3207881	3207882	19' - 24'	LED/Awning Cord Rail (288")
B	3357432	3357431	6' - 15'	LED/Awning Cord Rail with Gutter (192")
	336930	336929	17' - 18'	LED/Awning Cord Rail with Gutter (216")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



SOLERA® POWER AWNING SPEAKER UPGRADE

AWNINGS

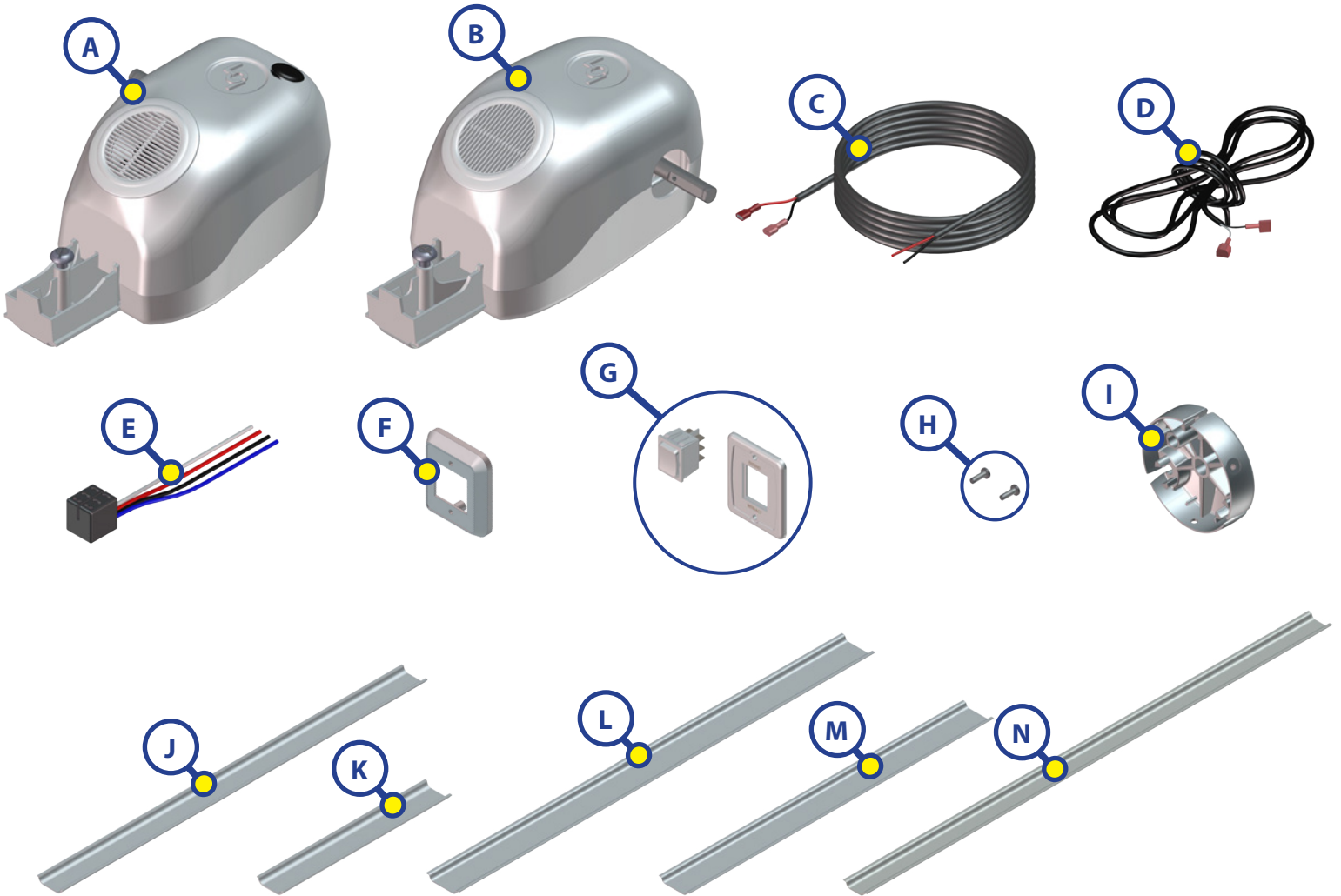


Kit	White Part #	Black Part #	Description	
A	351863	351864	Power Awning to Speaker Head Conversion	
NOTE: Parts <u>below</u> are available in kit A numbers referenced <u>above</u> or individually as needed.				
Callout	White Part #	Black Part #	Description	Quantity
B	342147	342149	Speaker Drive Head	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 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
OWNER'S MANUAL

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

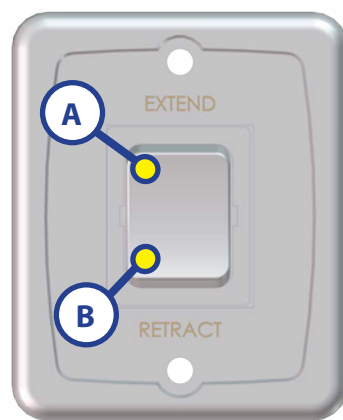
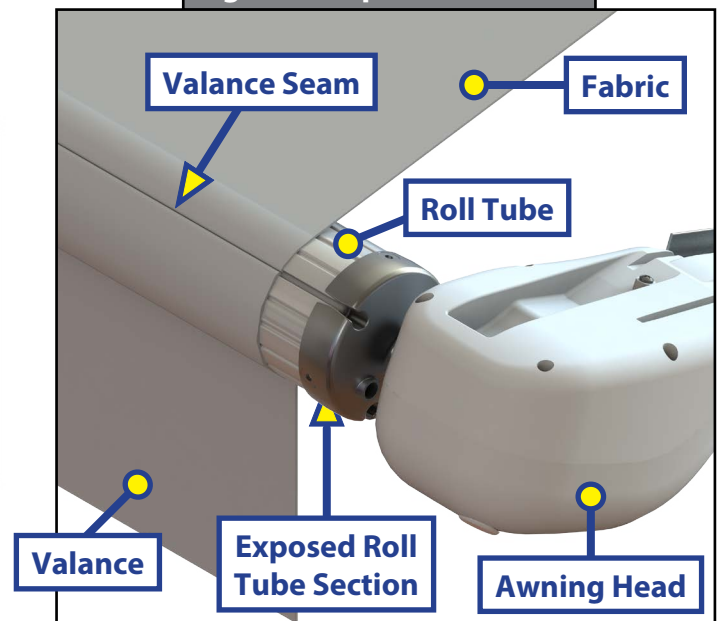


Fig. 4 - Complete Extension



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

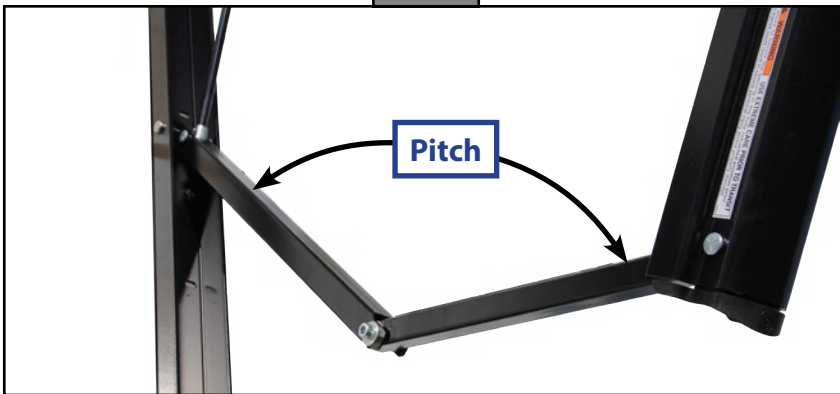
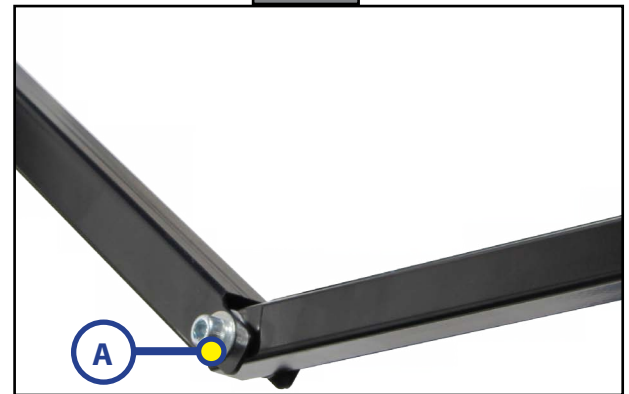


Fig. 6



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 ¼ 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 $\frac{7}{16}$ " 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.

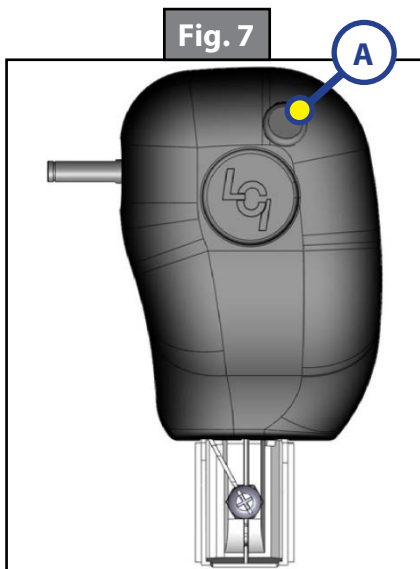
NOTE: Use caution when retracting the awning manually. The use of a step stool or ladder may be required to completely retract the awning.

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.

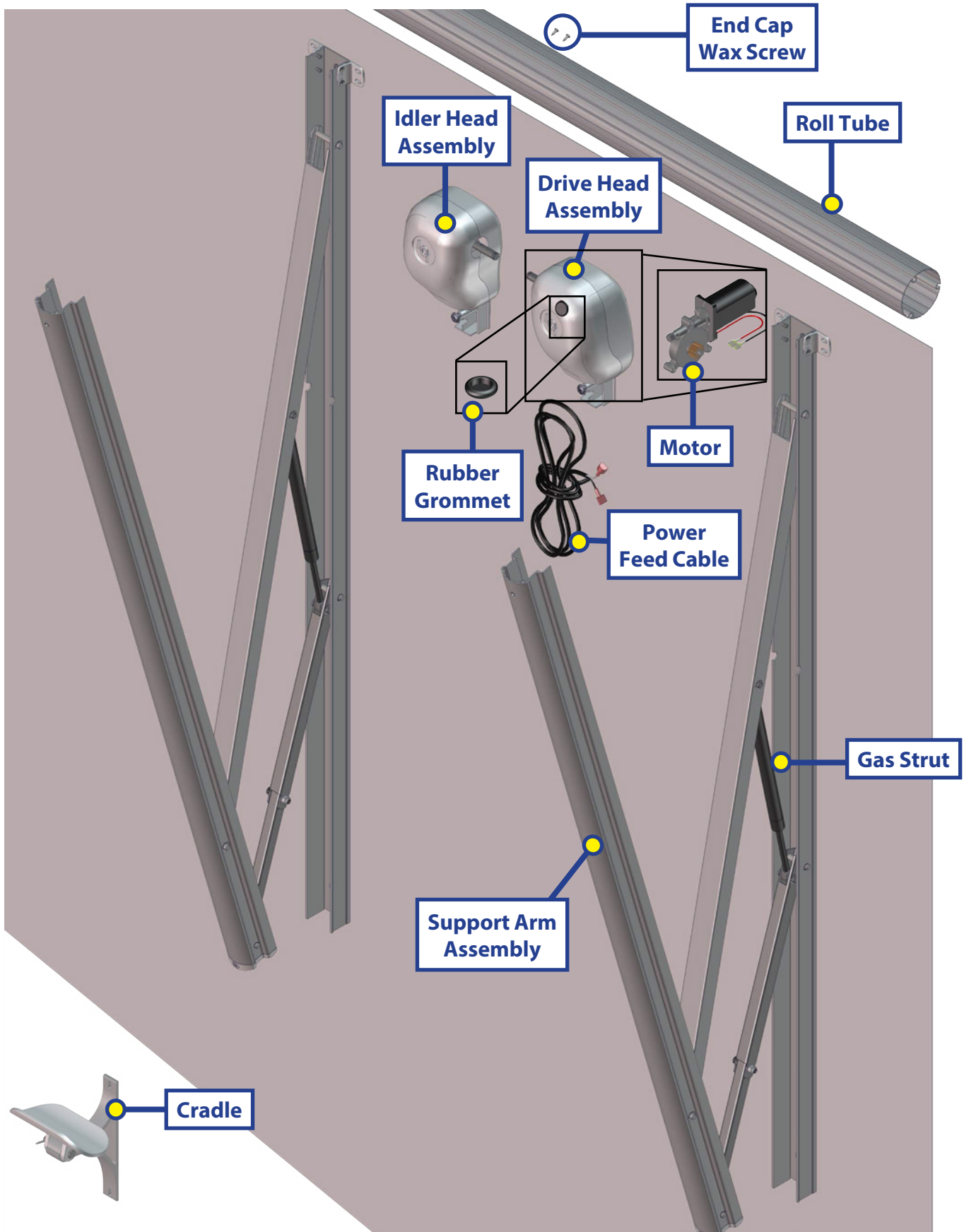




LIPPERT
COMPONENTS

SOLERA® POWER AWNING ASSEMBLY

AWNINGS



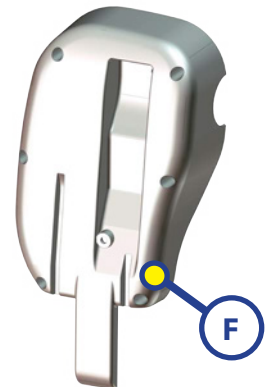
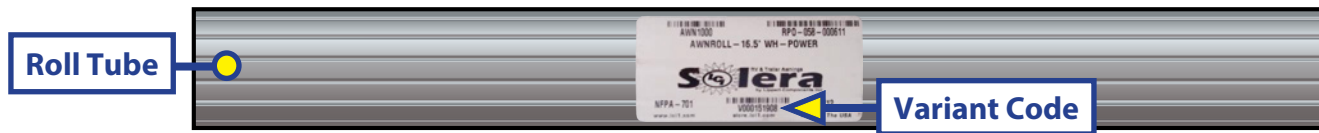


SOLERA® POWER AWNING COMPONENTS

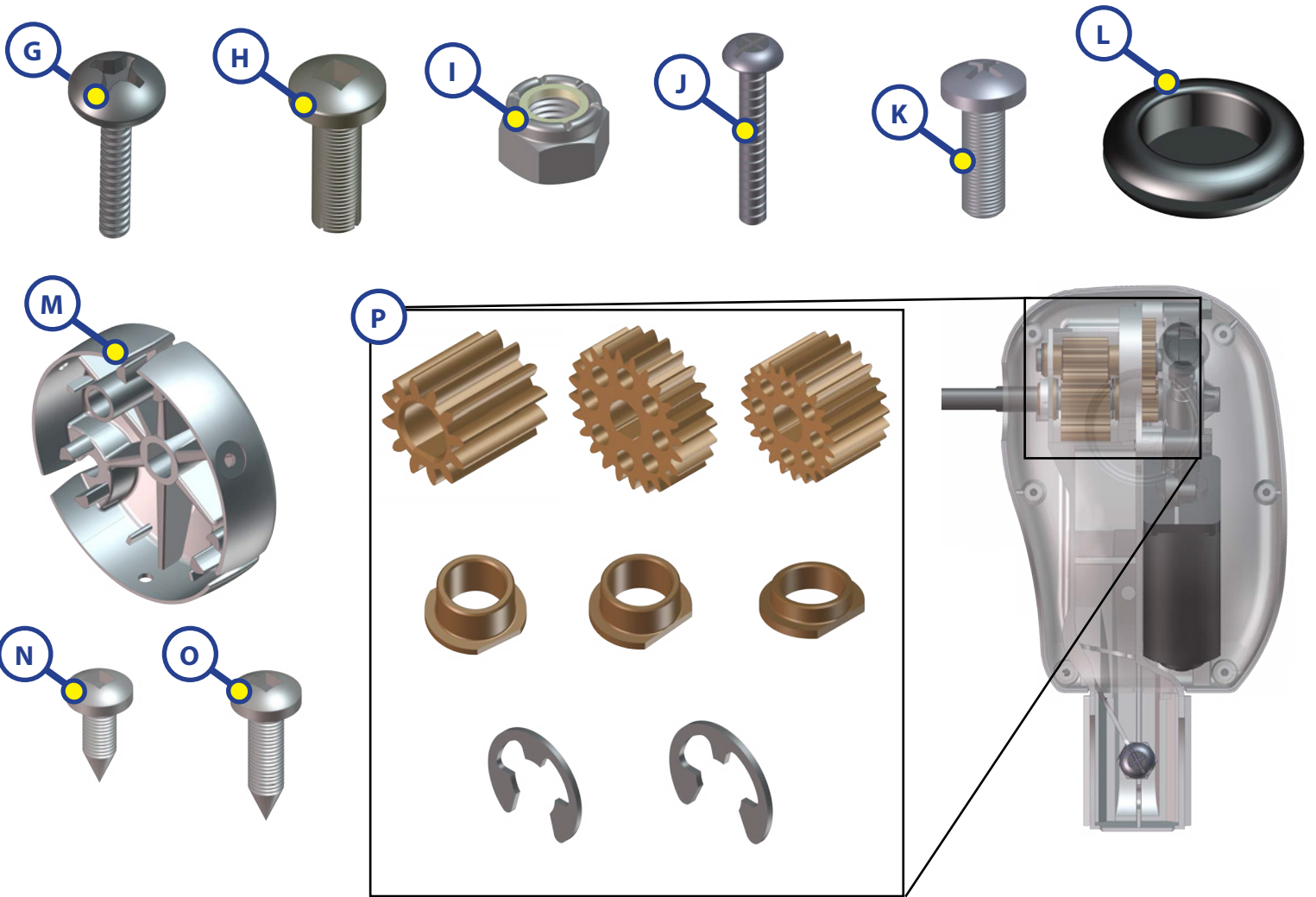
AWNINGS

Variant Code Information

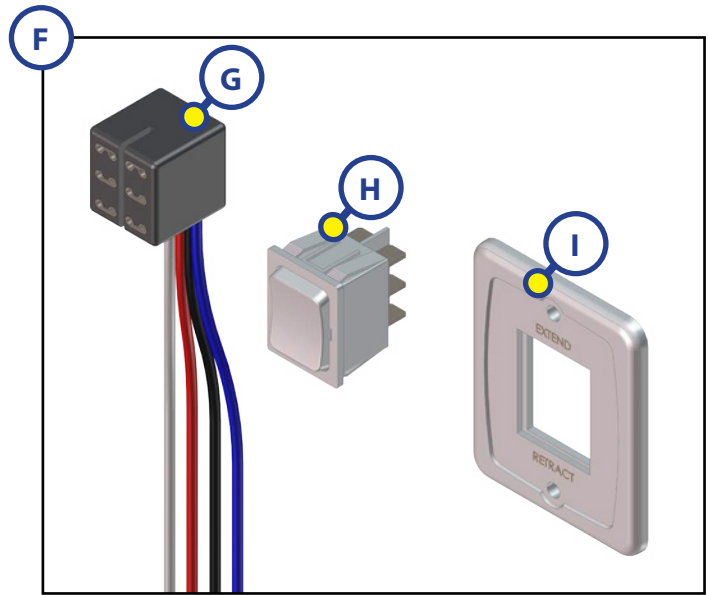
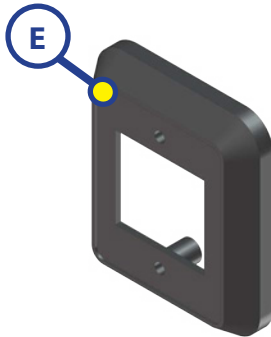
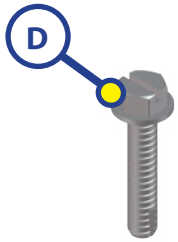
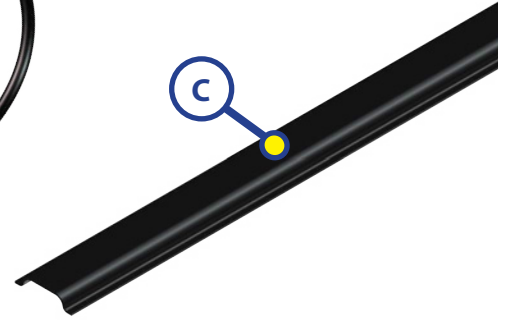
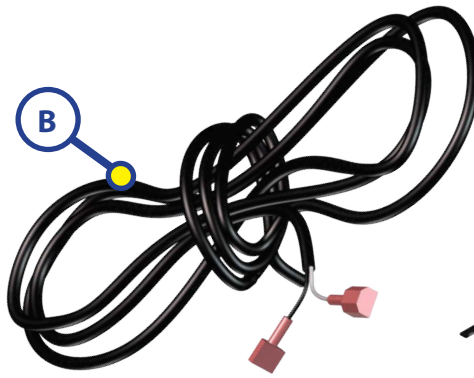
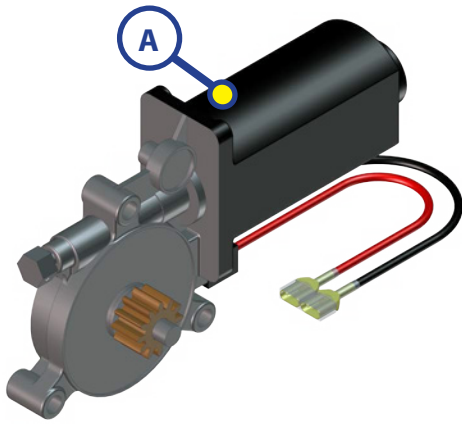
Solera® Awnings have a sticker located on the roll tube with a variant code that is specific to that awning assembly. The sticker on newer units will be located near the motor head on the roll tube. There will also be a sticker on the awning fabric. The variant code will determine which variation of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



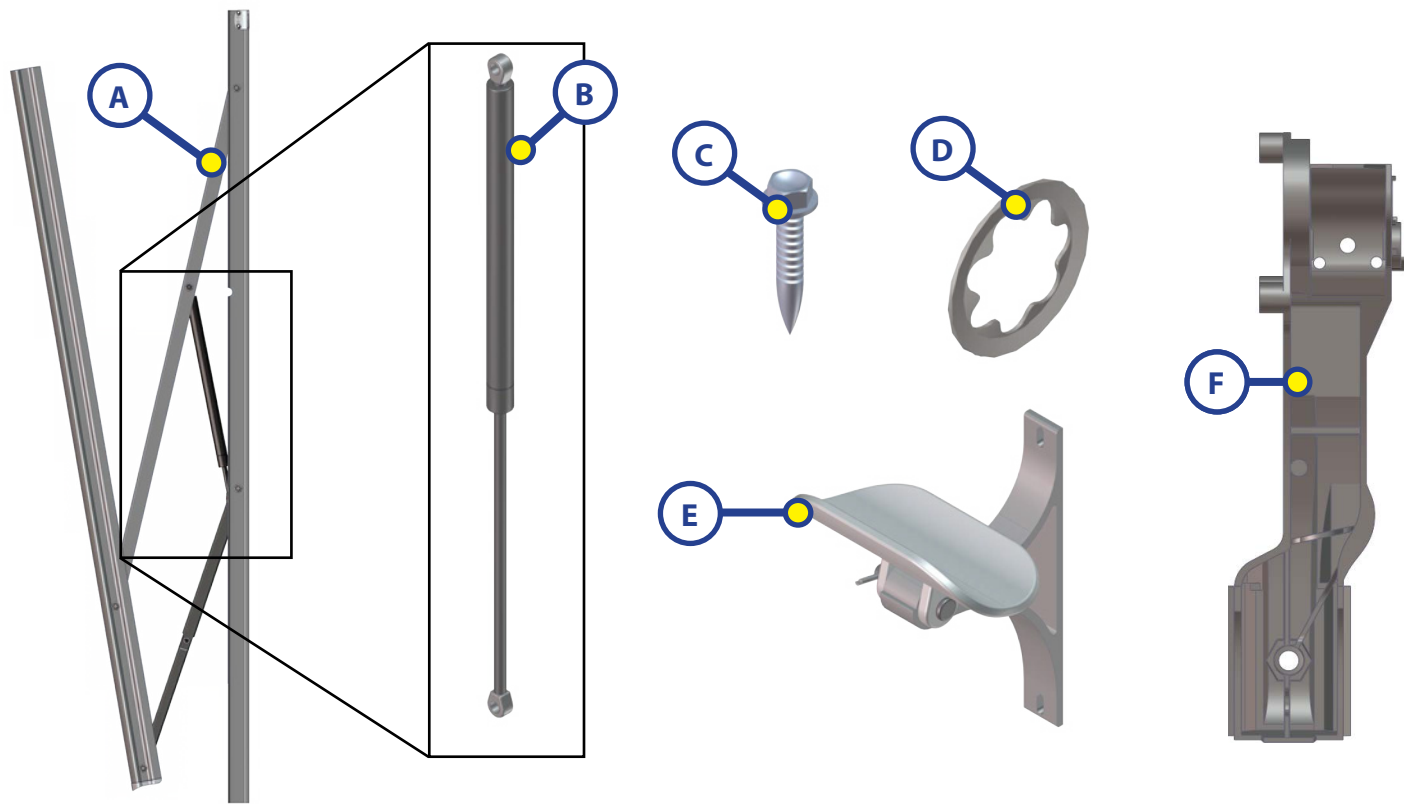
Callout	White Part #	Black Part #	Description
A	266147	273479	Idler Head Assembly
B	289563	289566	Idler Head Front Cover
C	289564	289567	Idler Head Rear Cover
D	266146	273478	Drive Head Assembly
E	289557	289560	Drive Head Front Cover
F	289558	289561	Drive Head Rear Cover



Callout	Part #	Description
G	266156	#6 X 1/2 ZN Screw (fastener for head covers, 6 per cover)
H	299630	#8 End Cap Wax Screw (head to Roll Tube)
I	118043	Nut 5/16-18 Nylock ZN ST (head to arm)
J	266148	Screw 5/16- 18 X 2 - 1/4 (head to arm)
K	266155	Screw #8-32 x 1/2 PH PNH MACHG ZN FTHD (back cover to mount)
L	275071	Rubber Grommet (around manual override on drive head)
M	2661301	End Cap for power heads (White)
	2661302	End Cap for power heads (Black)
N	299419	Screw - # 8 - 15 X 1/2 PNH ZN SQ A ST (Endcap to Roll Tube)
O	178231	#10 x 3/4" Hex, Tek Screw (Cord to Roll Tube)
Drive Head Gear Kit		Qty. Description
P	353964 (Only available as a kit)	1 .873" 20 PA 16 DP, D SLOT GEAR
		1 .442" 20 PA 16 DP, CLR ZN GEAR
		1 .500" 20 PA 16 DP, CLR ZN GEAR
		2 .746" OD x .438" ID Oiled Bushing
		1 .822" OD x .503" ID Oiled Bushing
		1 .822" OD x .503" ID Short Oiled Bushing
		2 E-Clip 1/2"
		2 E-Clip 3/8"



Callout	White Part #	Black Part #	Description
A	266149		Motor
B	273007		Power Feed Wires
C	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
D	266132		Screw ¼ - 20 x ¼ IHWH 2N SLF ST (motor to mount)
E	285079	285077	Bezel Spacer
F	285499	285500	Switch Kit (Switch, Plate, and Harness)
G	280570		Wire Harness
H	280564	280566	Switch
I	280565	280567	Switch Plate



Callout	White Part #	Black Part #	Description
A	295742	295743	Support Arm Assembly (Short, 61") (One Arm)
	260294	266169	Support Arm Assembly (Pitched, 66 1/8") (One Arm)
	281152	281154	Support Arm Assembly (Flat, 69") (One Arm)
B	280343		Gas Strut; 26"; 124 LBS (for Short and Flat Arm assemblies)
	260282		Gas Strut; 24"; 124 - 144 LBS (for Pitched Arm assemblies)
C	286576		Screw - #14 - 10 x 1 1/2 (arms to coach)
D	282484		Star Washer (for Gas Strut and Holding Pins)
E	289373	289374	Awning Cradle NOTE: Only required for Solera® Awnings greater than 21' in length
F	266128		Awning Idler Head Mount
	266129		Awning Drive Head Mount



**SOLERA[®] POWER AWNING WITH SPEAKERS
INSTALLATION MANUAL**

Prior To Installation

NOTE: 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
- $\frac{3}{8}$ " nut driver bit and/or rivet gun

Installation

1. 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.
2. 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.
3. 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).

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

Fig. 1

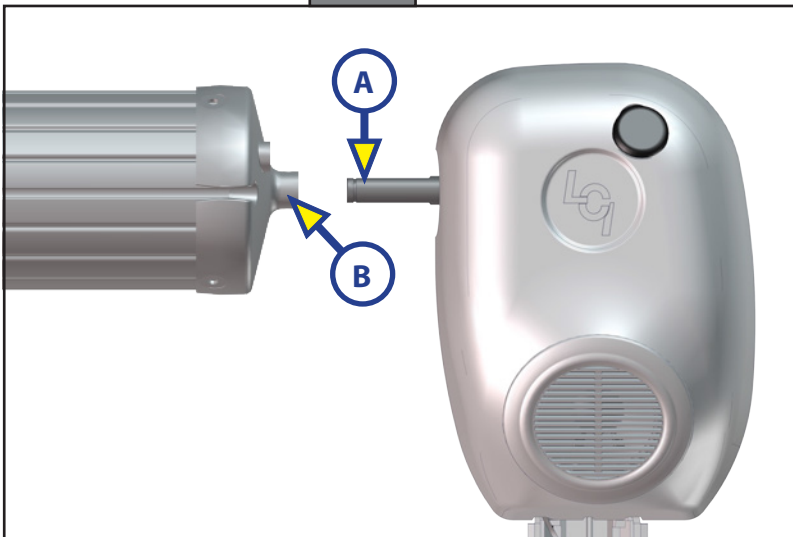


Fig. 2

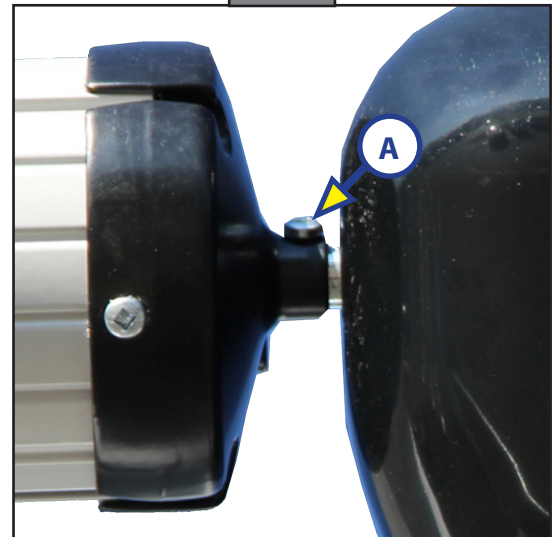


Fig. 3

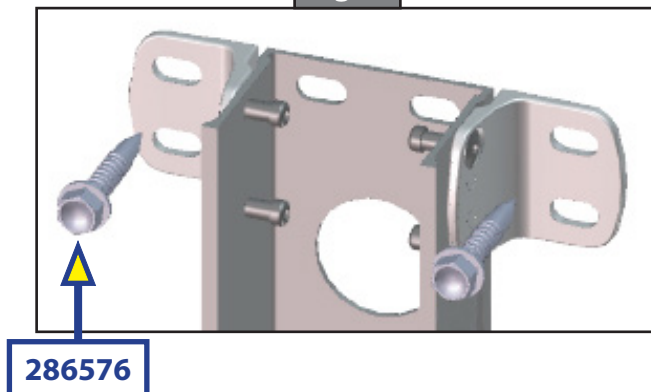
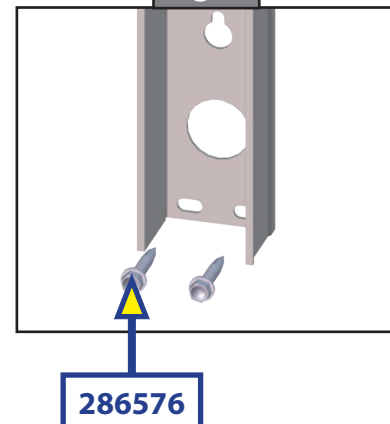


Fig. 4



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

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

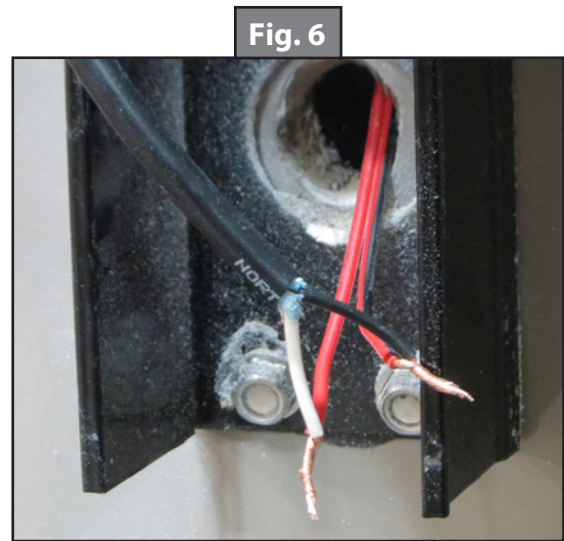
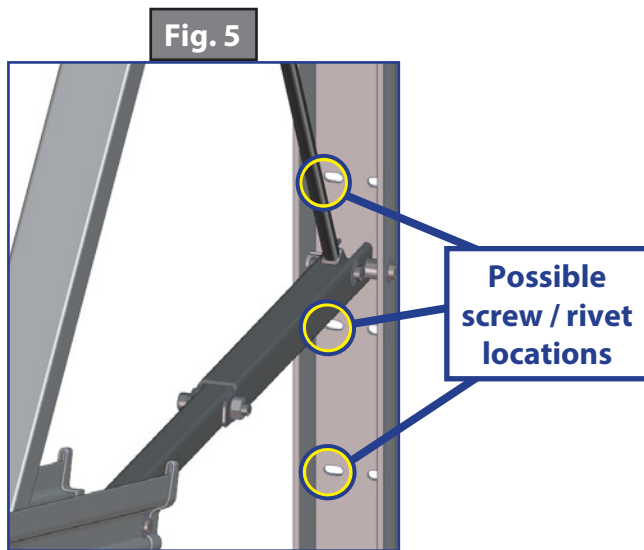
6. At both support arms there will be a wire labeled "speakers." Connect these to the radio wires provided from the coach (Fig. 6).

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

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

7. Replace wire covers on both support arms to secure awning power and speaker wiring.
8. Seal all wall penetrations to protect against water intrusion.

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



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 1/2" hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides.



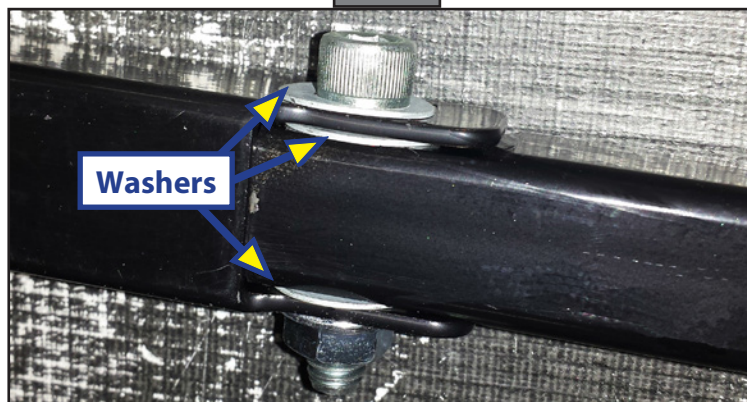
SOLERA® POWER AWNING

**TROUBLESHOOTING
AND SERVICE MANUAL**

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 roughly 35 seconds while extend is roughly 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 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

Arm Replacement

Resources Required

- 1-3 people (depending on task)
- Cordless or Electric Drill or Screw Gun (and appropriate drive bits)
- Zip Ties

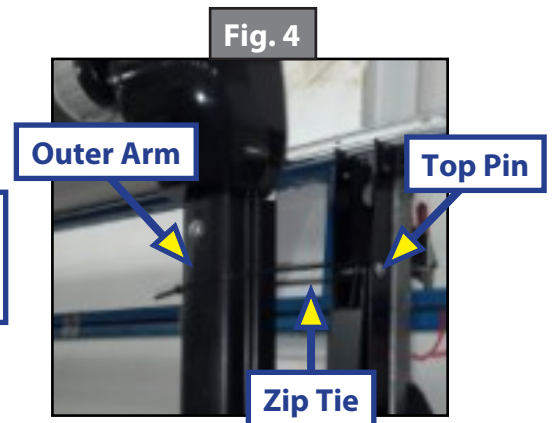
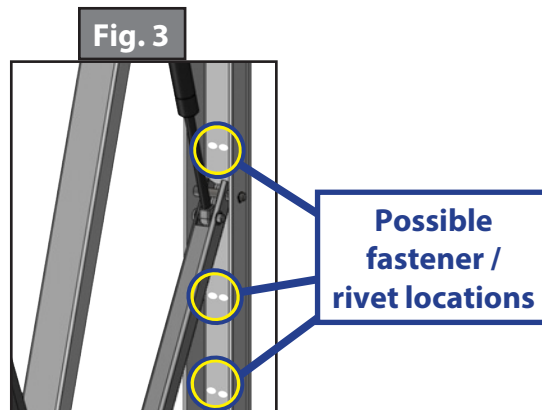
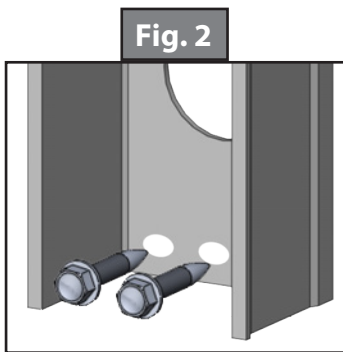
CAUTION

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 the mount arms to the wall of the unit.
2. Remove the bottom 2 and middle 2 fasteners from the mount arm (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 tube: The LED wires will be in the idler side support arm assembly, and the motor wires will be in the drive side support assembly.
 - B. Wall mounted LED or fabric LED: All wires will be in the drive side support arm assembly.
4. Use a cordless battery from a screw gun to run 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 run in the correct direction, reverse the wires.
 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. 4).



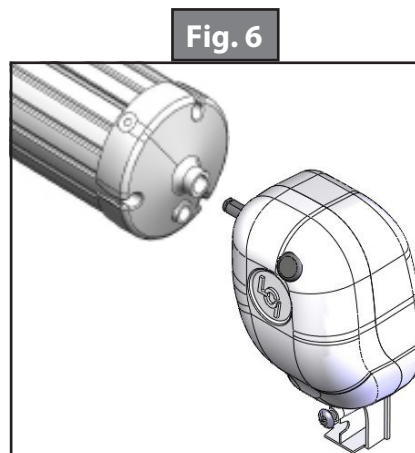
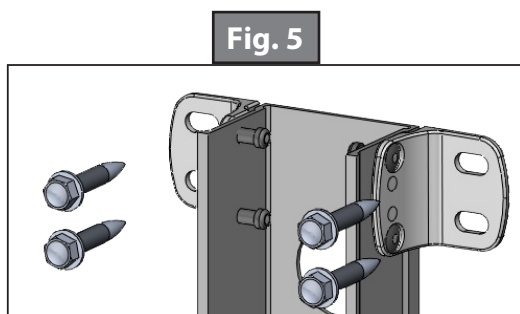
6. Remove the wax screw that holds the head shaft to the end cap on the roll tube.
7. Support the roll tube and remove the head on the side being replaced.
8. Remove the 4 fasteners from the angle bracket at the top of the mount arm. These are the last of the fasteners holding the support arm assembly to the unit (Fig 5).
9. Remove the support arm assembly from the end cap. It should be completely free now and can be removed from the working area.

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.

10. Take the new support arm assembly and slide the head shaft into the end cap on the roll tube (Fig 6).
11. Mount the 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.

NOTE: The first fastener should be placed in the bottom of the angle bracket on the inside of the mount arm. This is the easiest area to access.



12. Install the #8 wax screw back into the end cap to secure the head shaft.
13. Cut the zip tie and install the remaining 3 fasteners into the angle brackets at the top of the arm.

CAUTION

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.

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. Install the remaining fasteners, 2 at the bottom and 2 in the middle of the mount arm.
16. Reconnect the all wiring as previously connected.

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

17. Seal all areas at this time.

Changing (Remove Power) Head Assembly

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).

CAUTION

Failure to secure the outer arms may result in serious personal injury or property damage.

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 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

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 fabric cords 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 side 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 assembly.

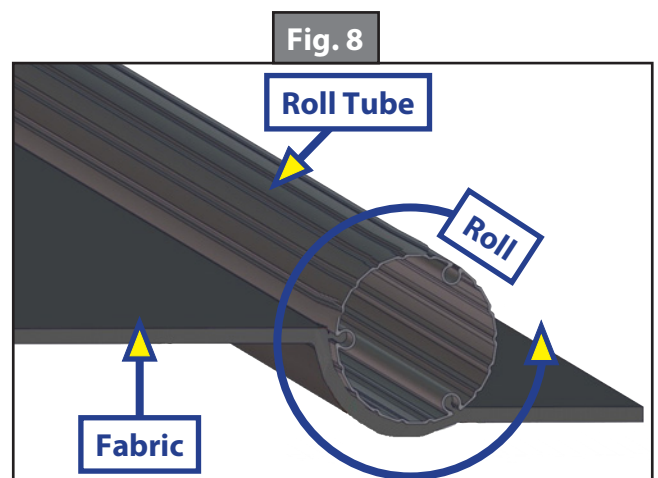
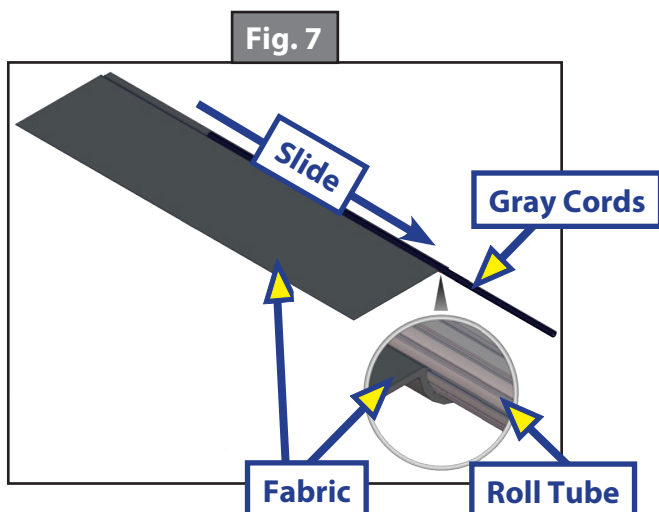
⚠ WARNING

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 that fabric will be removed from.
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 unfurl the fabric until only the fabric cords are left on the roll tube.
10. To remove fabric, gently pull the roll tube from one end, while another person holds the fabric in place.

Installation

1. Unfurl the replacement fabric so that the cords are parallel with the roll tube.
2. Gently slide the roll tube on to the two fabric cords of the fabric, making sure that the non-printed side is touching the roll tube (Fig. 7).
3. Center the fabric on the roll tube.
4. Apply the screws that were holding the fabric cords in place on the roll tube. Install the screws between the edge of the fabric and the stitching on the hem.
5. Roll fabric onto roll tube (Fig. 8). Make sure the fabric stays snug and flat to the roll tube with the printed side facing away.
6. Reinstall 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.



⚠️ WARNING

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. Roll the awning in and out several times to ensure that the fabric is square on the roll tube.
10. Secure the fabric in the awning rail by installing a #6x $\frac{3}{8}$ " hex head screw through the fabric cord and fabric 1" inside the edge of the fabric.
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 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 apply 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.

Light Replacement.

Wall Mount LED or Fabric LED

1. Fully extend the awning.
2. Remove 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 lubricant into the light rail 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 that is holding the light in the roll tube at both ends.
4. Remove the old light and spray the roll tube channel with 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.

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



SOLERA[®] POWER AWNING
WITH LED OPTIONS

OEM INSTALLATION MANUAL

Prior To Installation

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

Tools Required

- Electric screw gun
- #2 square screwdriver bit
- $\frac{3}{8}$ " nut driver bit and/or rivet gun

Resources Required

- Three people

Awning With LED In Roll Tube 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

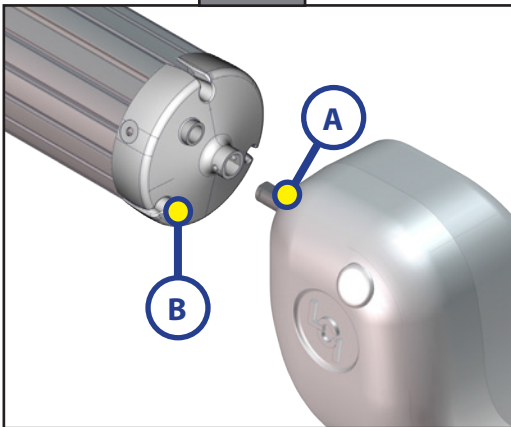


Fig. 2 - Old Connection

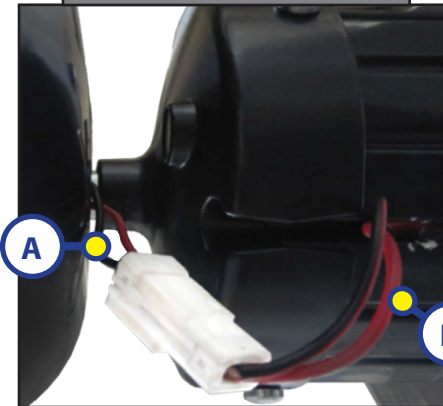
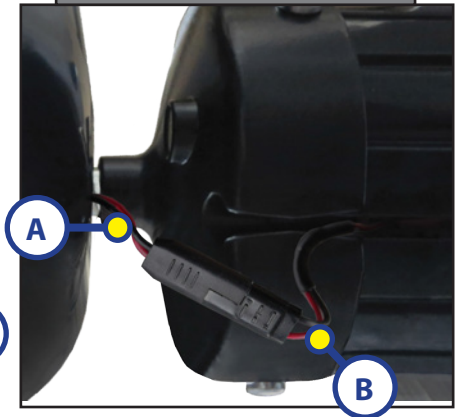
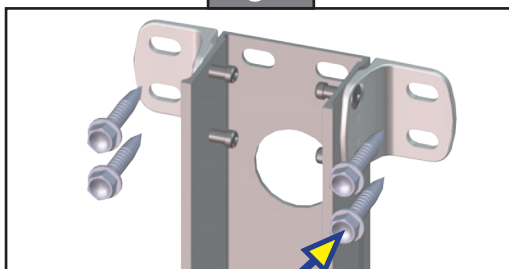


Fig. 3 - New Connection



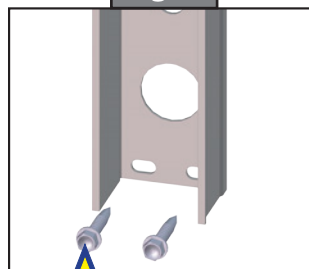
2. Connect the plug from the idler head (Fig. 2A or 3A) to the plug from the LED light (Fig. 2B or 3B) on the roll tube.
3. Station a person at each end of the awning assembly to hold the support arms. A third person will line up the fabric cord with the previously-installed awning rail. Slide the fabric cord to desired position.
4. Set the awning assembly to the desired height and attach it to the side of the coach with four #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).
5. Extend the awning half way out by connecting the power and ground wires of the awning to a 12-18V battery.
6. Secure the middle of the wall mounting channel with two #14 x 1 1/2" screws (286576) at any two of the three locations shown (Fig. 6).

Fig. 4



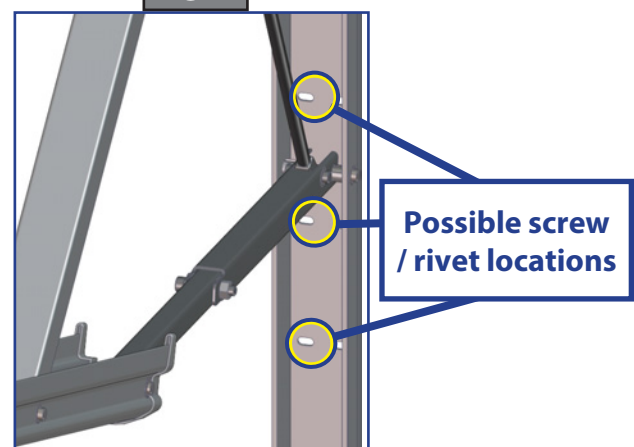
286576

Fig. 5



286576

Fig. 6



Possible screw / rivet locations

7. Repeat this process for the 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.

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

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 coach.

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

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

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 by installing a #6 x $\frac{3}{8}$ " hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides.

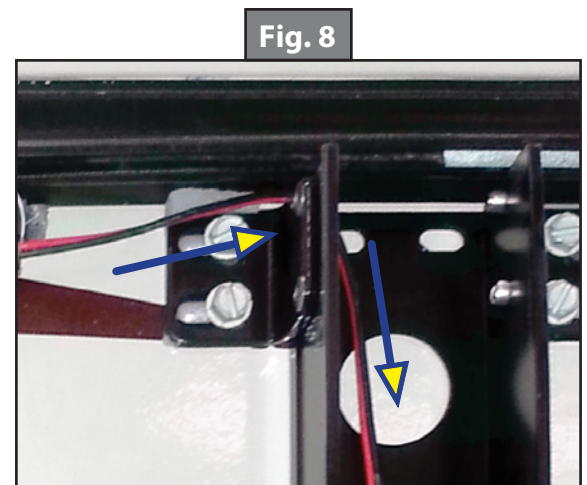
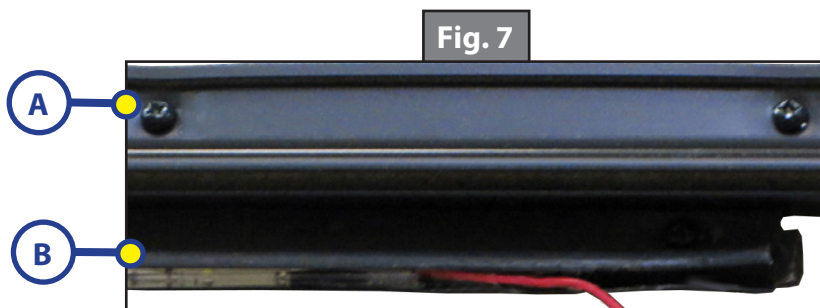
LED Light Rail Installation

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 coach.
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 coach wiring, making sure to connect the red wire on the light side to the power wire on the coach 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 coach side.
5. Make sure to seal the light track where it is screwed to the wall and where the light wire connects to the coach wire.
6. Turn the light on to confirm it illuminates.





SOLERA[®] POWER AWNING

(NO MANUAL OVERRIDE)

OWNER'S MANUAL

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.

⚠ CAUTION

This manual provides operational procedures for Solera® Power Awning. Operating the Solera® Power Awning in any other manner than described may result in personal injury, damage to the recreational vehicle or the awning assembly as well as voiding the Lippert Components Limited Warranty.

Operation

NOTE: Some units 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 unit 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

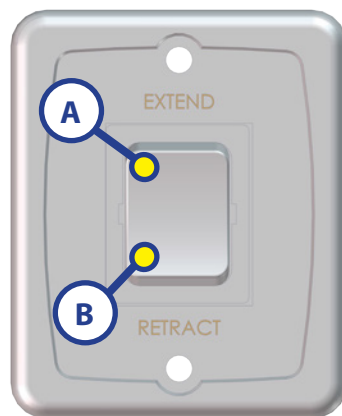
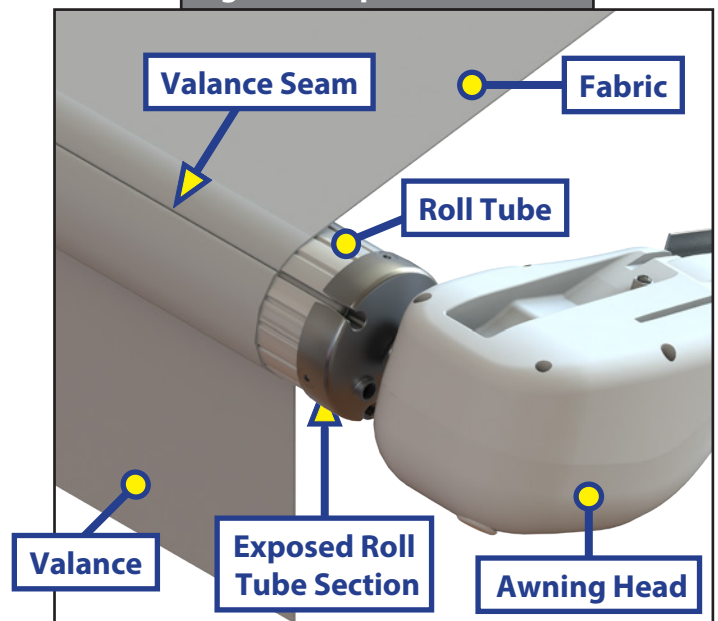


Fig. 4 - Complete Extension



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

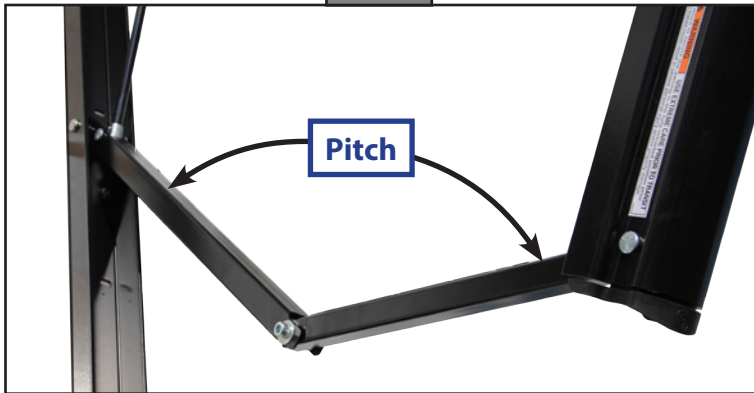
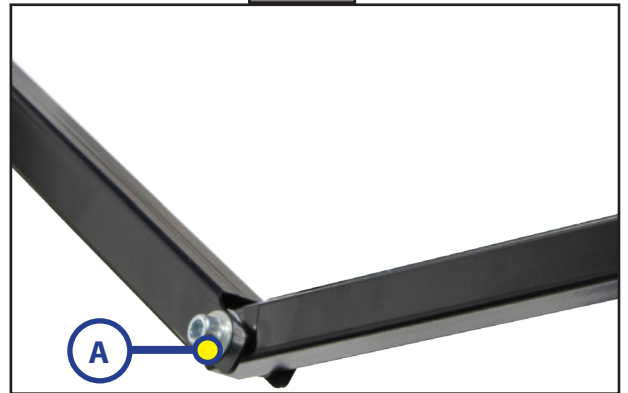


Fig. 6



Maintenance - All Solera® Awnings

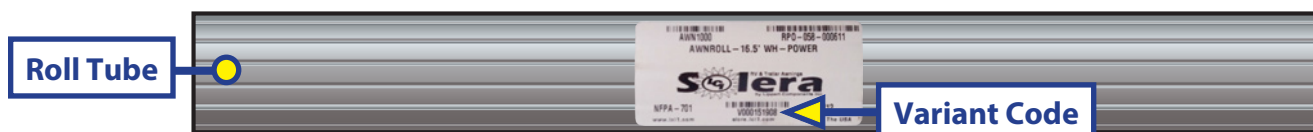
Fabric Care

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 ¼ cup of dish soap and 5 gallons of warm water. Liberally slish 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.

Variant Code Information

Solera® Awnings have a sticker located on the roll tube with a variant code that is specific to that awning assembly. 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

Tools Required

- Zip Ties
- Razor Knife
- Cordless or Electric Screw Gun or Drill
- ¼" Nut Driver Bit (or equivalent)
- #2 Square Head Drive Bit

Resources Required

- Ladders
- 2 or 3 People

Procedure #1 (Preferred)

1. Push both support arms closed until they are approximately one foot from fully retracted and zip tie both outer arms to both wall mount arms.
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 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 arms closed until they are approximately one foot from fully retracted and zip tie both outer arms to both wall mount arms.
2. Remove the ¼" hex head screw at each end of the fabric, where it is secured to the cord rail.
3. Remove the drip cap at one end of the cord 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 cord 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.



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 arms closed until they are approximately one foot from fully retracted and zip tie both outer arms to both wall mount arms.
2. Cut the awning fabric along the roll tube and along the cord 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.



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.



Solera® Side Shade Aftermarket Manual



Solera® Side Shade Aftermarket Manual

Introduction

The Solera® Side Shade is designed for use on most recreational vehicle units and is available in a variety of sizes to fit even the largest unit. The Side Shade can be used on Solera® Awnings as well as Carefree Awnings and Dometic Awnings.



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



If staking Solera® Side Shade to the ground, be sure to disable any and all self re-tracking wind sensing options on the awning. Failure to do so could result in damage to the awning and unit.

Resources

- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Rivet Gun
- 3/16" Drill Bit

Installation

Note: There are two sets of brackets that can be mounted — one set on each end of the awning. The brackets allow the shade to be moved to either side of the unit depending on the sun's location.

1. Mount the upper bracket 1/2" past the edge of the fabric and 1/2" below the awning rail with the #10 screw or molly rivet provided (Fig. 1).

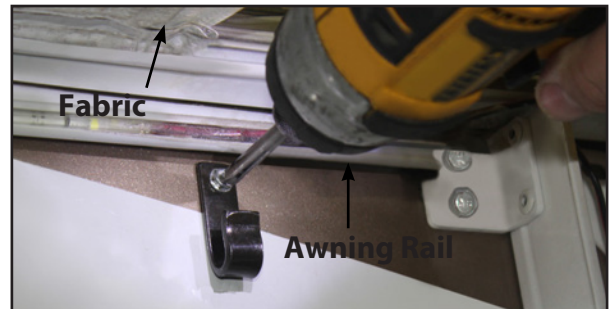


Fig.1

2. Starting on one end of the roll tube, position a roll tube bracket flush with the valance roll tube channel, 1/2" from the fabric. Mark the mounting holes on the roll tube. Drill the holes using a 3/16" drill bit. Mount the bracket using the pop rivets provided (Fig. 2).



Fig.2



3. There are four loops on the rear of the shade (Fig. 3). Use the loop that best matches the pitch of the awning.



Fig.3

4. Place the desired loop on the pull rod (Fig. 3A) and hook the loop on the bracket on the unit (Fig. 4).



Fig.4

5. For the Side Shade to tension properly, the adjustment cord needs to go through the grommet (Fig. 5) and attach to the roll tube bracket (Fig. 6).



Fig.5



Fig.6



6. Pull the adjustment cord taut (Fig. 7).



Fig.7

7. The Side Shade should be tight from the unit to the roll tube (Fig. 8).



Fig.8

8. Secure the Side Shade to the ground using the spikes and tie downs provided.

Note: To remove the Side Shade for storage, remove the spikes and tie downs, release the tension on the adjustment cord and unhook the loops from the roll tube bracket and upper bracket. Fold to fit in the storage bag provided.



Solera® Slider
Aftermarket
Manual



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Introduction

System and Safety Information

Solera® Sliders are a high-quality, cost-effective way to help keep slide-outs free of dirt, leaves and debris. Solera® Sliders are permanently attached to the slide-out and retract/extend with the room. The easy-to-install kits are designed to fit rooms from 56" to 188" in length. All Solera® Slider fabric produced before August 2014 allows for a 58" projection and all fabric produced after that date allows for a 50" projection. The hardware hole pattern is universal and will match most competitive brands, which alleviates the need to patch holes.

NOTES:

- The Solera® Slider kit comes complete with mounting hardware.
- Awning rail included.
- All fabric is 6" shorter than slider length, which is measured from centerline of torsion arm to centerline of torsion arm.
- Box width is measured on the outside front of the box. Include the T-molding for a proper fit.

⚠ WARNING

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

⚠ WARNING

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.

⚠ CAUTION

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

This manual provides general installation procedures. Many variables can change the circumstances of the procedure, i.e., the degree of difficulty involved in the service operation and the ability level of the individual performing the operation. This manual cannot begin to plot out procedures for every possibility, but will provide the general instructions for effectively installing the system. In the event the skill level required is too advanced or the procedure too difficult, a certified technician should be consulted before performing the necessary service. Failure to correctly install the system may result in voiding the warranty, inflicting injury or even death.

Resources Required

- Two People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- 5/16" Socket
- Screwdriver
- Tape Measure
- Silicone Sealant or Butyl Tape
- Silicone Lubricant



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Installation

NOTE: All screws supporting the awning assembly **MUST** have a backer within the structure of the wall of the unit. Refer to unit manufacturer for proper location.

Installing the Awning Rail

NOTE: Awning rail included.

1. Position the awning rail along the line where the roof and wall meet or a minimum of 3" above the upper edge of the slide room the Solera® Slider will cover. The awning rail must be level and parallel with the top of slide room box of the unit.
2. After determining the awning rail's proper location, mark its position with a non-permanent method of marking.
3. Apply sealant to the back of the awning rail (Fig.1A)
4. Align the awning rail on the wall and secure with #10 x 3/4" screws, using all fastener holes.

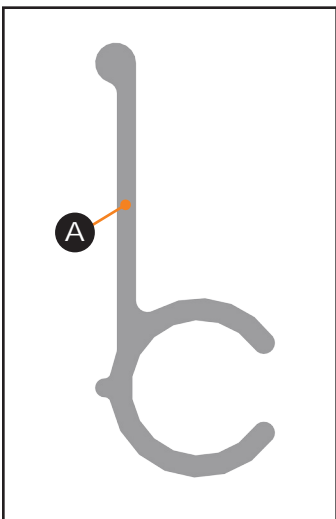


Fig.1

Installing the Solera® Slider

1. Slide the hex extension rod (Fig.2A) into the spring head assembly torsion arm (Fig.2B), aligning the fastener locations (Fig.2).
2. Slide the spring head assembly torsion arm end cap (Fig.2C) into the hex extension rod (Fig.2A), aligning all three fastener locations (Fig.2). Fasten using the provided phillips head self-threading screw (Fig.3).

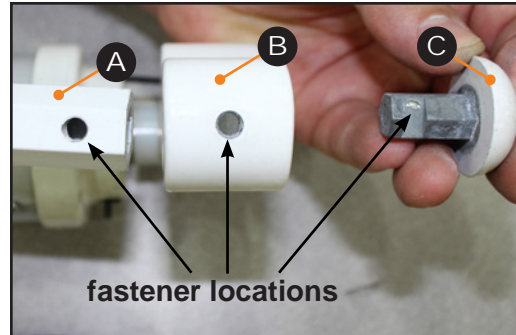


Fig.2



Fig.3

3. Seal the back side of the support arm bracket screw holes with sealant so that the sealant is against the unit when mounting the support arm bracket.
4. Place the support arm bracket against the bottom of the T-molding at the top corner of the slide-out. Make sure to keep the support arm bracket parallel with the T-molding. Fasten using the provided self-tapping screws (Fig.4).
5. Repeat Steps 1-4 for the other end, but do not secure the second hex extension rod to the spring head assembly torsion arm until the Solera® Slider is ready for installation on the unit.



Fig.4

6. To prepare for fabric installation, use a screwdriver to spread open either end of the awning rail on the installation end (Fig.5A).
7. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail.
8. Spray the inside of the awning rail channel with silicone lubricant (Fig.5B).
9. Remove packaging from the roll tube and unroll a small portion of fabric, no more than one turn.

⚠ CAUTION

Unrolling the fabric more than one turn will cause the slider to lose tension and create slack when closing the slide room. Make sure to leave the slide room closed or not to extend more than 6"

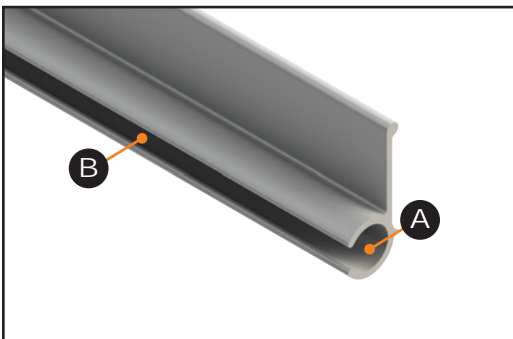


Fig.5

10. Using at least two people, feed the polycord through the awning rail channel (Fig.6).

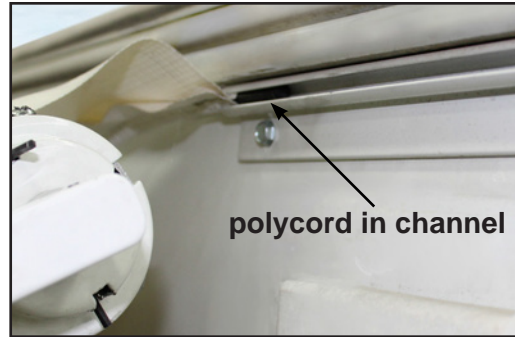


Fig.6

11. Feed one of the hex extension rods into the support arm bracket. By pulling the hex extension rod all the way into the support arm bracket, the other hex extension rod will slide into the support arm bracket at the opposite end.
12. Angle the hex extension rod so that the roll tube will not be touching the slide room.
13. Secure the second hex extension rod to the spring head assembly torsion arm using the provided phillips head self-threading screw (Fig.3).
14. Center the Solera® Slider over the slide room using a tape measure.
15. Fasten the hex extension rods to the support arm brackets using two of the provided 5/16" hex head screws (Fig.7).
16. Grasp the roll tube to relieve tension and remove the spring clip.

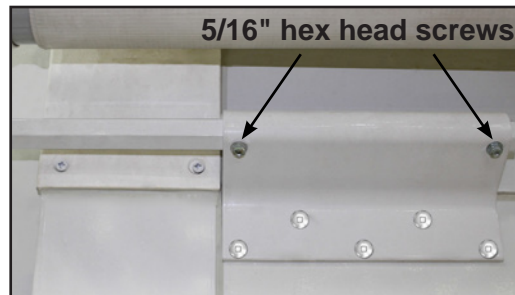


Fig.7

⚠ WARNING

Release the roll tube slowly to avoid damage to the assembly and serious injury.



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Securing the Fabric

1. Extend and retract the room 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).

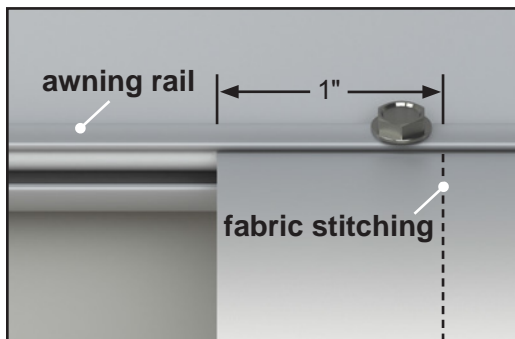


Fig.8

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 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.

Solera® Slider Troubleshooting

What's Happening?	What Should Be Done?
Rub marks appear on the fabric.	Check that there is no debris in the track where fabric goes into the case.
Fabric sags or is loose.	Check tension on springs.
	Make sure the end caps are properly secured.
Fabric will not roll up.	Check spring tension.
	Make sure there are no debris or foreign objects in the fabric opening or case.
Fabric will not unroll.	Make sure the pins that lock the tension for install have been removed from both ends of the end caps.
Fabric appears to roll up at an angle.	Make sure the rail that is mounted to the unit is square with the main housing of the slide topper.
	Make sure fabric is cut square.



SOLERA[®] SLIDER

INSTALLATION MANUAL

Prior to Installation

Tools Required

- Cordless or power screw gun
- 5/16" socket
- Square drill bit
- Butyl tape
- Tape measure

Resources Required

- Two People

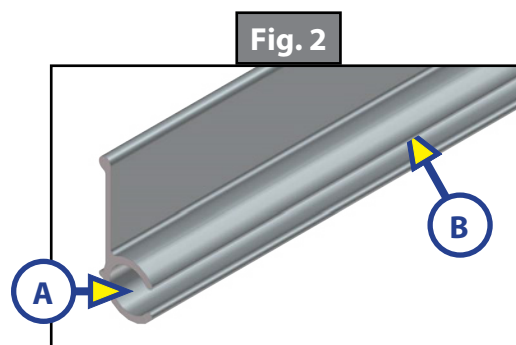
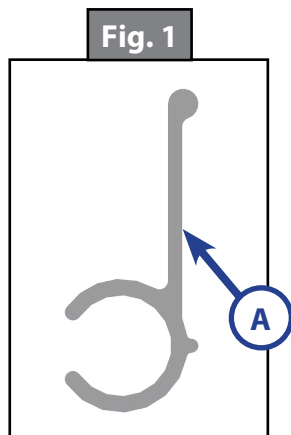
Installation

NOTE: All screws/rivets supporting the awning assembly **MUST** have a backer within the structure of the wall of the coach. Refer to coach manufacturer for proper location.

Installing the Awning Rail (If Necessary)

1. Position the awning rail along the line where roof and wall meet or a minimum of 6" above the upper edge of the slide room the Solera® Slider is covering. Awning rail must be level and parallel with the floor line of the coach.
2. After determining its proper location, mark its position with a non-permanent method of marking.
3. Seal the back of the awning rail (Fig. 1A) with putty tape or silicone sealant.
4. Align the awning rail on the wall and secure with #10 x 3/4" screws, using all fastener holes.
5. Use a screwdriver to spread open either end of the awning rail on the installation side (Fig. 2A).
6. To protect the fabric from damage during installation, file any sharp edges or burrs from the awning rail.
7. Use silicone lubricant and spray the inside of the awning rail track (Fig. 2B).

NOTE: Awning rail not included.



8. Slide hex rod into roll bar arm and align the screw holes (Fig. 3A).
9. Slide end cap into other end of roll bar arm and align all three screw holes. Fasten using self-tapping screws (Fig. 3B).
10. Apply butyl tape to bracket screw holes so that the butyl tape is against the coach when mounting bracket (Fig. 5A).
11. Place bracket against the bottom of the T-molding at the top corner of the slide-out. Make sure to keep the bracket parallel with the awning rail/T-molding. Fasten using self-tapping screws (Fig. 4).
12. Leave one of the hex bars free floating. Repeat Step 8-11 for other side.

Fig. 3

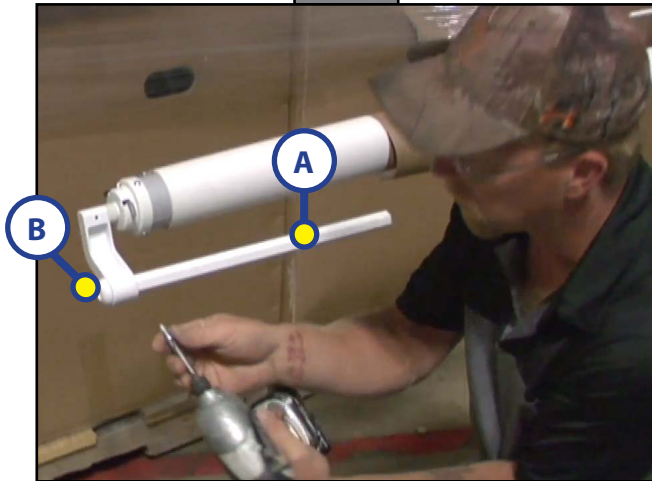
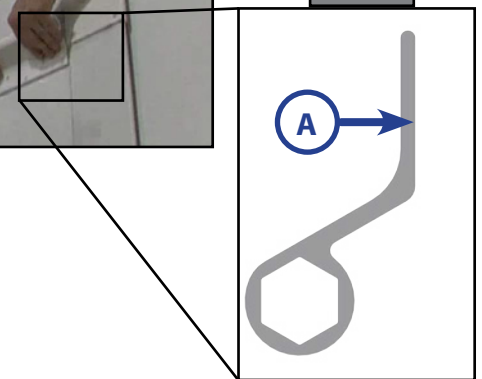


Fig. 4



Fig. 5



13. Remove paper wrap from roll bar and bring fabric out one roll.

CAUTION

Unrolling fabric more than one roll will make the slider lose tension and create slack when closing the slide. Make sure to leave the slide room closed or not to extend more than 6”.

14. Using at least two people, feed the fabric through the awning rail (Fig. 6).
15. Feed one of the hex rods into the bracket. By pulling the hex rod all the way into the bracket, the other hex rod will slide into the bracket at the opposite end (Fig. 6A).

Fig. 6



16. Secure the second hex rod to the roller bar assembly.
17. Center the Solera® Slider over the slide room using a tape measure.
18. Fasten the hex rods to the brackets using two 5/16" hex head screws in each bracket (Fig. 7).
19. Grasp the roll bar to relieve tension and remove the spring clip (Fig. 8).

⚠ WARNING

Release the roll bar slowly to avoid damage to the assembly and serious injury.

20. Test slider by extending and retracting the slide-out, being sure to watch the fabric.

Fig. 7



Fig. 8



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 by installing a #6 x 3/8" hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides.

Maintenance

Fabric Care

If the slider 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 slider. 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 roll up the slider for 5 minutes. This will apply the mixture to the bottom of the fabric as well. Roll the slider back out and hose off with fresh water. Repeat if necessary. Allow to dry before rolling up.



SOLERA® SLIDER ASSEMBLIES

- A. Complete Solera® Sliders include fabric, roll bar, drive head assembly and idler head assembly.
- B. Length of Solera® Sliders is measured from center of torsion bar to center of torsion bar and hardware can be adjusted to fit multiple widths.
- C. Label with variant code will be on the fabric in the corner.

Used On Box Width	Solera® Slider Length	White Variant Code	Black Variant Code
56" to 61 ¾"	66"	V000163273	V000168104
62" to 67 ¾"	72"	V000163274	V000231482
68" to 73 ¾"	78"	V000163279	V000165063
74" to 79 ¾"	84"	V000163285	V000168105
80" to 85 ¾"	90"	V000163287	V000165062
86" to 91 ¾"	96"	V000163288	V000168106
92" to 97 ¾"	102"	V000163289	V000168107
98" to 103 ¾"	108"	V000163290	V000168108
104" to 109 ¾"	114"	V000163291	V000168325
110" to 115 ¾"	120"	V000163292	V000251461
116" to 121 ¾"	126"	V000163293	V000182037
	128"		V000184672
122" to 127 ¾"	132"	V000163294	V000168326
128" to 133 ¾"	138"	V000163295	V000184673
	140"	V000168319	V000168327
	141"		V000177333
134" to 139 ¾"	144"	V000139496	V000168328
140" to 145 ¾"	150"	V000163298	V000177334
	151"		V000181971
	154"	V000168320	V000168329
146" to 151 ¾"	156"	V000163299	V000165061
	159"		V000182454
152" to 157 ¾"	162"	V000163300	V000168109
	163"		V000181970
	165"	V000168321	
158" to 163 ¾"	168"	V000163301	V000168110
164" to 169 ¾"	174"	V000163302	V000168112
170" to 175 ¾"	180"	V000163303	V000251477
176" to 181 ¾"	186"	V000163304	V000251478
182" to 187 ¾"	192"	V000163307	V000194925
	198"	V000163308	



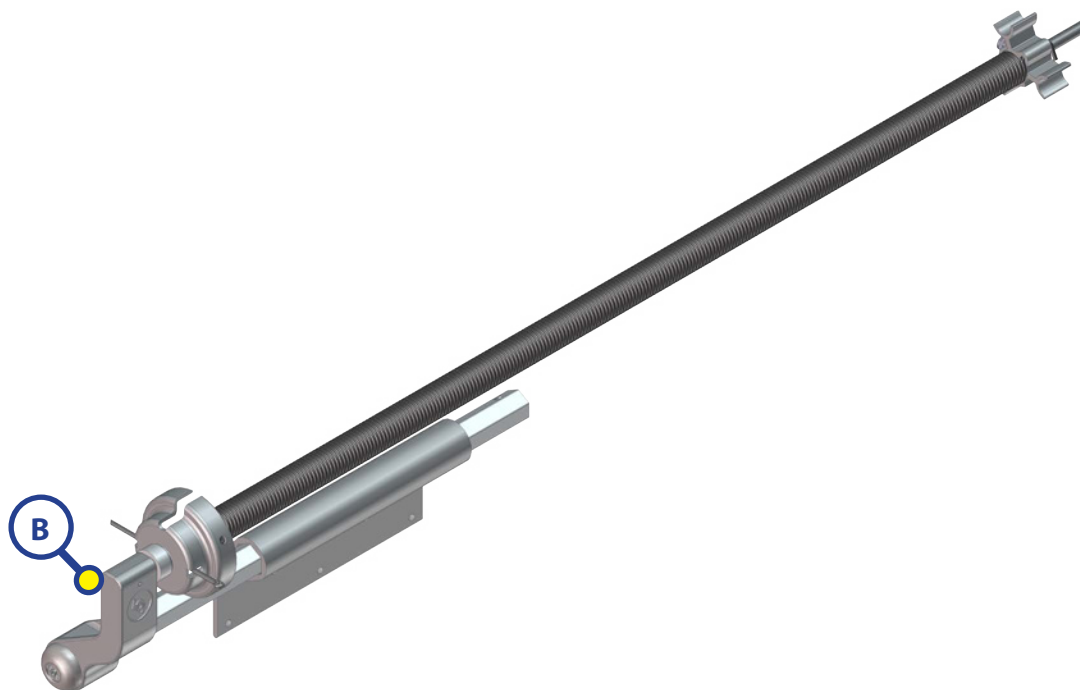
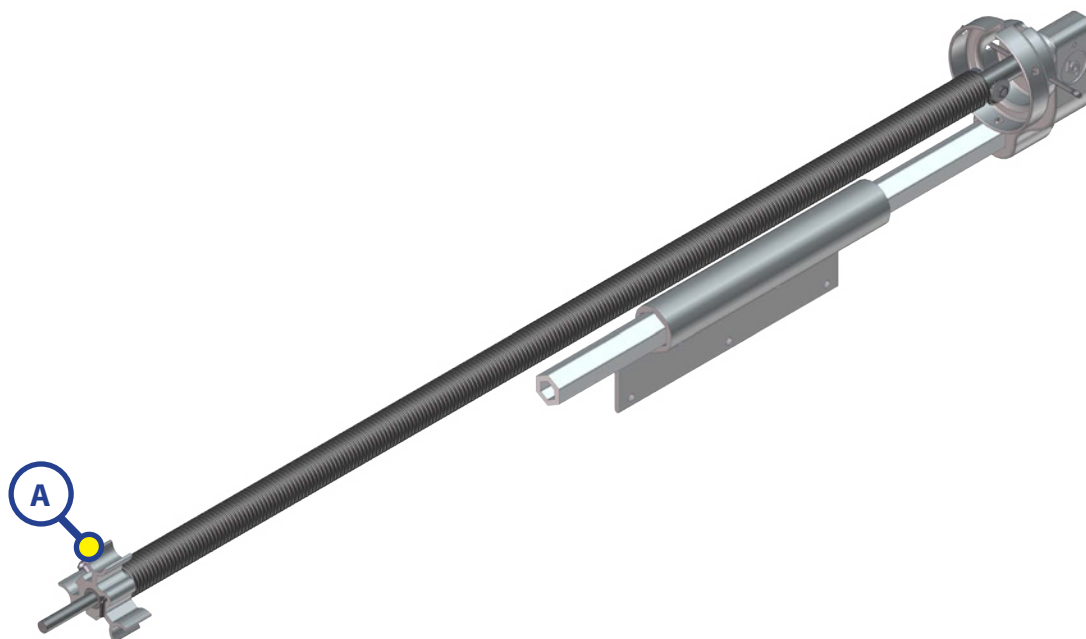
SOLERA® SLIDERS FABRIC ONLY

- A. All Solera® Slider fabric produced prior to August 2014 will have a projection of 58". All fabric produced after that date will have a projection of 50".
- B. All fabric will be 5" shorter than the Solera® Slider length on order.

Used On Box Width	Solera® Slider Length	White Variant Code	Black Variant Code
56" to 61 ¾"	66"	V000253379	V000253350
62" to 67 ¾"	72"	V000253380	V000253352
68" to 73 ¾"	78"	V000253381	V000253353
	83"		V000260051
74" to 79 ¾"	84"	V000253382	V000253354
	88"		V000260049
80" to 85 ¾"	90"	V000253383	V000253355
86" to 91 ¾"	96"	V000253384	V000253356
92" to 97 ¾"	102"	V000253385	V000253357
98" to 103 ¾"	108"	V000253386	V000253358
104" to 109 ¾"	114"	V000253387	V000253359
110" to 115 ¾"	120"	V000253388	V000253360
116" to 121 ¾"	126"	V000253389	V000253362
122" to 127 ¾"	132"	V000253390	V000253361
128" to 133 ¾"	138"	V000253391	V000253367
134" to 139 ¾"	144"	V000253392	V000253369
140" to 145 ¾"	150"	V000253393	V000253370
	154"		V000279899
146" to 151 ¾"	156"	V000253394	V000253371
	160"		V000224582
152" to 157 ¾"	162"	V000253397	V000253372
158" to 163 ¾"	168"	V000253398	V000253373
164" to 169 ¾"	174"	V000253399	V000253374
170" to 175 ¾"	180"	V000253401	V000253375
176" to 181 ¾"	186"	V000253402	V000253376
182" to 187 ¾"	192"	V000253403	V000253377



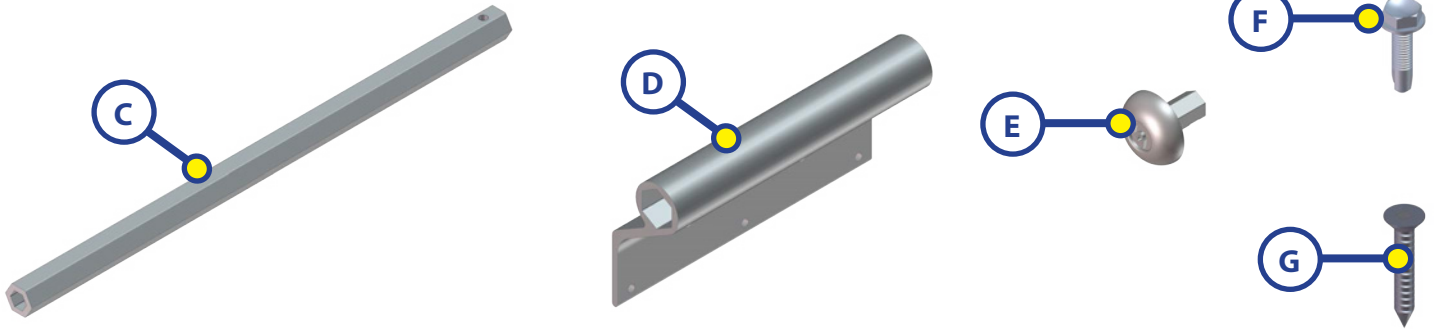
SOLERA® SLIDER HEAD ASSEMBLIES



Callout	White Part #	Black Part #	Description
A	272455	285149	Drive Head Assembly
B	272454	285148	Idler Head Assembly



SOLERA® SLIDER COMPONENTS



Callout	White Part #	Black Part #	Description
NOTE: The following are the only parts of the heads that may be ordered separately:			
C	2724391	2724392	Extension Rod
D	2724411	2724412	Extension Bracket
E	2724561	2724562	Torsion Arm Cap
F	300247		Screw #10 - 16 x 3/4 hwh zn hex
G	300234		Screw #10 - 13 x 1 1/4 csk zn sqd



SLIDER ASSEMBLIES

AWNINGS

- A. Complete Solera® Sliders include fabric, roll tube, drive head assembly and idler head assembly.
- B. Length of Solera® Sliders is measured from center of torsion to center of torsion and hardware can be adjusted to fit multiple widths.
- C. Label with variant code will be on the fabric in the corner.

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	154"	V000168320	V000168329
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152" to 157 ¾"	162"	V000163300	V000168109
	163"		V000181970
	165"	V000168321	
158" to 163 ¾"	168"	V000163301	V000168110
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170" to 175 ¾"	180"	V000163303	V000251477
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LIPPERT
COMPONENTS

SOLERA® SLIDERS FABRIC ONLY

AWNINGS

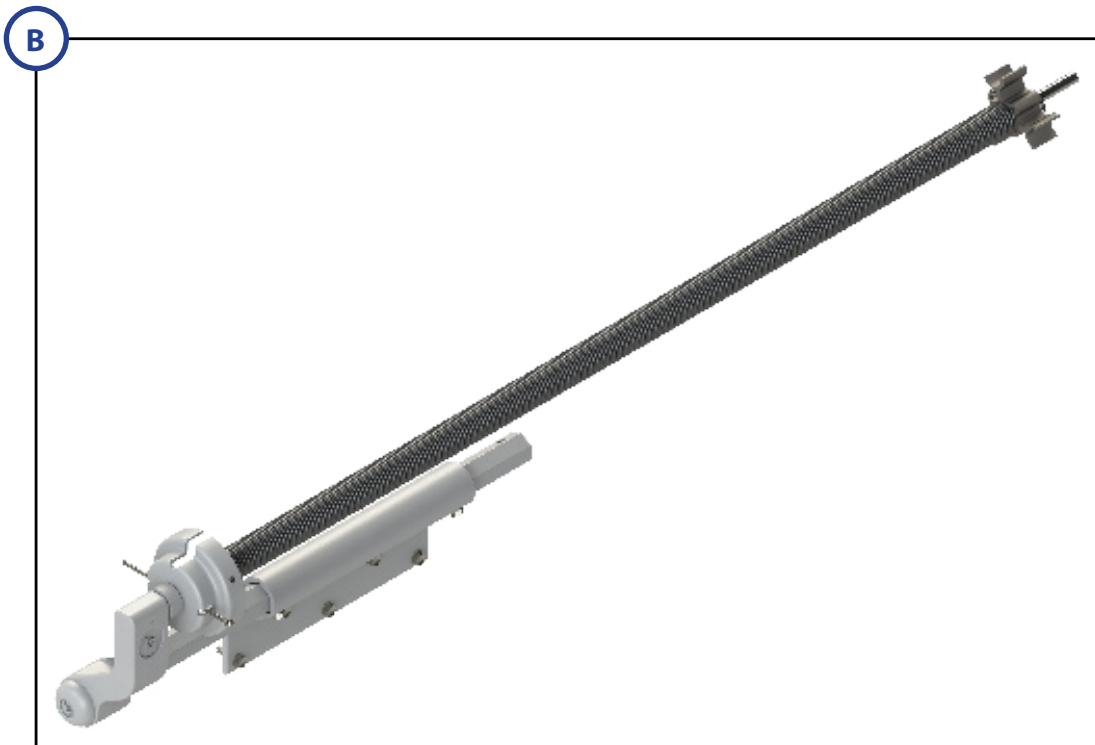
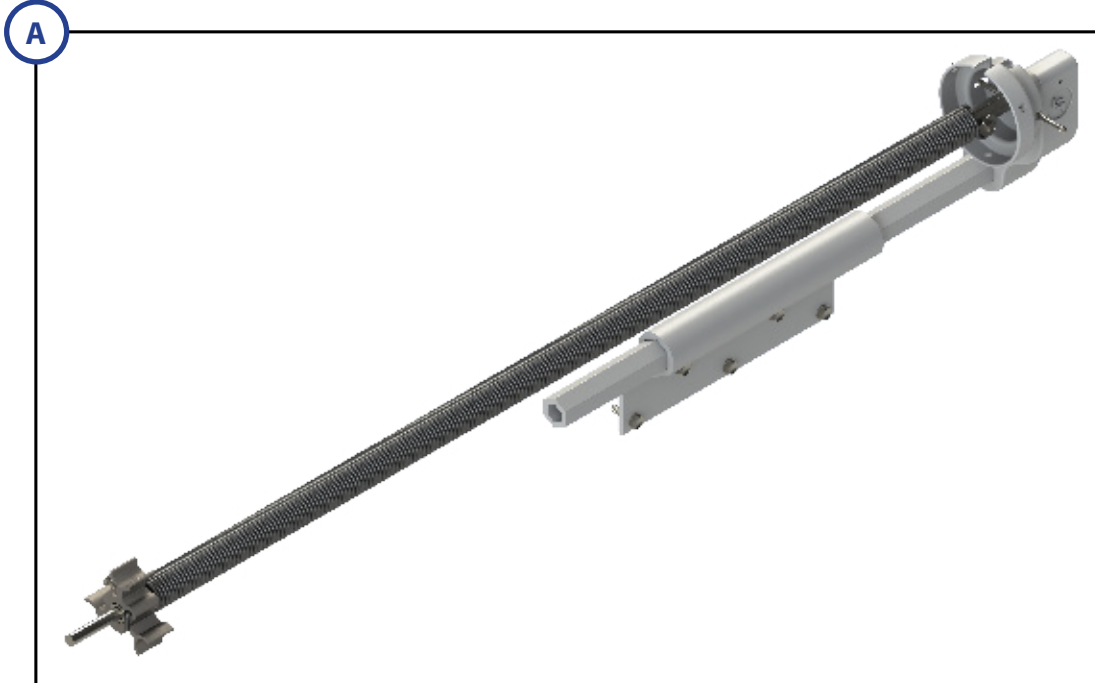
- A.** All Solera® Slider fabric produced prior to August 2014 will have a projection of 58". All fabric produced after that date will have a projection of 50".
- B.** All fabric will be 5" shorter than the Solera® Slider length on order.

Used On Box Width	Solera® Slider Length	White Variant Code	Black Variant Code
56" to 61 ¾"	66"	V000253379	V000253350
62" to 67 ¾"	72"	V000253380	V000253352
68" to 73 ¾"	78"	V000253381	V000253353
	83"		V000260051
74" to 79 ¾"	84"	V000253382	V000253354
	88"		V000260049
80" to 85 ¾"	90"	V000253383	V000253355
86" to 91 ¾"	96"	V000253384	V000253356
92" to 97 ¾"	102"	V000253385	V000253357
98" to 103 ¾"	108"	V000253386	V000253358
104" to 109 ¾"	114"	V000253387	V000253359
110" to 115 ¾"	120"	V000253388	V000253360
116" to 121 ¾"	126"	V000253389	V000253362
122" to 127 ¾"	132"	V000253390	V000253361
128" to 133 ¾"	138"	V000253391	V000253367
134" to 139 ¾"	144"	V000253392	V000253369
140" to 145 ¾"	150"	V000253393	V000253370
	154"		V000279899
146" to 151 ¾"	156"	V000253394	V000253371
	160"		V000224582
152" to 157 ¾"	162"	V000253397	V000253372
158" to 163 ¾"	168"	V000253398	V000253373
164" to 169 ¾"	174"	V000253399	V000253374
170" to 175 ¾"	180"	V000253401	V000253375
176" to 181 ¾"	186"	V000253402	V000253376
182" to 187 ¾"	192"	V000253403	V000253377



SOLERA® SLIDER HEAD ASSEMBLIES

AWNINGS

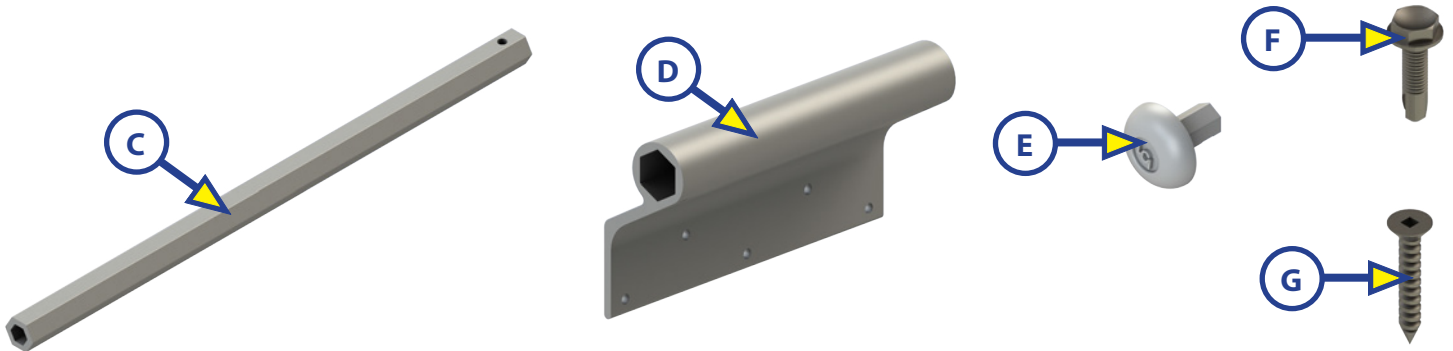


Callout	Part #	Description	
A	272455	Drive Head	White
	285149	Drive Head	Black
B	272454	Idler Head	White
	285148	Idler Head	Black



SOLERA® SLIDER COMPONENTS

AWNINGS



Callout	Part #	Description	
NOTE: The following are the only parts of the heads that may be ordered separately:			
C	2724391	Extension Rod	White
	2724392	Extension Rod	Black
D	2724411	Extension Bracket	White
	2724412	Extension Bracket	Black
E	2724561	Torsion Arm Cap	White
	2724562	Torsion Arm Cap	Black
F	300247	Screw #10 - 16 x $\frac{3}{4}$	
G	300234	Screw #10 - 13 x 1 $\frac{1}{4}$	



Solera® Super Shade
Aftermarket
Manual



Introduction

The Solera® Super Shade is the only recreational vehicle awning shade made specifically for 12V awnings. It is simply the easiest shade to set up on the market today. The Super Shade can be used on Solera® Awnings as well as Carefree Awnings and Dometic Awnings. It's perfect for awnings that provide little shade because they roll out flat. The open-weave fabric cuts approximately 85% of light for a cool and comfortable shade. It provides some privacy without blocking your view and doubles as a windbreak.

The Solera® Super Shade for Electric Awnings comes in two pieces: a 6 ft. body (below the zipper) and an insert.

⚠ CAUTION

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

⚠ WARNING

If staking Solera® Super Shade to the ground, be sure to disable any and all self re-tracking wind sensing options on your awning. Failure to do so could result in damage to the awning and unit.

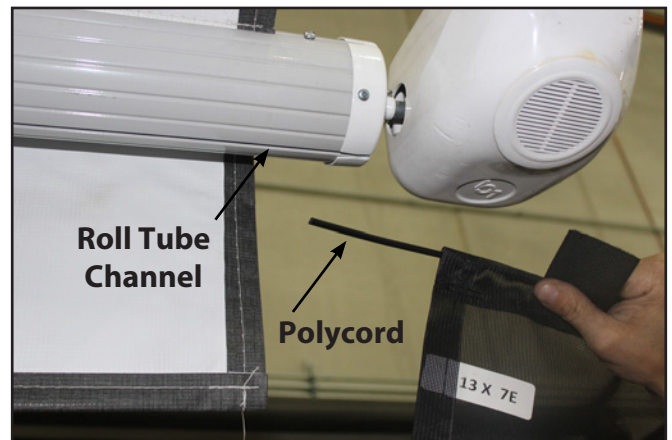
Resources

- 1 to 2 Persons

Installation

1. Unbox and unfold the Solera® Super Shade body and the zipper insert. Unzip the insert piece from the body and set the body piece aside.
2. Locate and trim the polycord so that at least 3 inches of polycord extends past the fabric on both sides (Fig. 1).

Fig.1



3. Locate the open channel in the awning roll tube accessible through the end cap.
4. Check the roll tube channel to make sure there are no sharp edges that can snag or tear the fabric.

Note: For Solera® and Carefree awnings, align the roll tube channel with the front side of the drive/idler head (Fig. 1 and Fig. 2). This allows the insert piece to slide more easily into the roll tube channel.



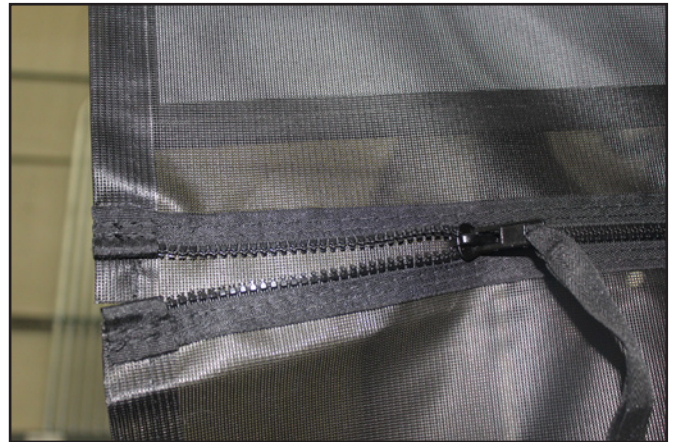
- Using the polycord, slide the insert piece into the roll tube channel, making sure not to snag the insert (Fig.2).

Fig.2



- Take the body of the Super Shade and zip it to the insert piece (Fig. 4).

Fig.4



Note: The easiest way to install this insert piece is to have one person hold the insert even with the roll tube, while another person pulls the insert into the roll tube channel.

- Once the insert is located in the center of the roll tube, affix the insert piece with self-adhesive hook and loop to the roll tube on both ends. This will hold the insert in place when zipping on the body portion of the Super Shade (Fig. 3).

Note: The other section of hook and loop is sewn into the insert piece (Fig. 3).

Fig.3



- Stake the shade to the ground with the tie downs and stakes provided.

Note: To remove the Super Shade for storage, remove the spikes and tie downs and unzip the body panel of the Super Shade. Fold to fit in the storage bag provided. The insert piece can remain on the roll tube and roll up with the fabric when the awning is retracted.



Solera[®] Window Awning

**Installation and
Owner's Manual**
(For Aftermarket Applications)



LIPPERT
COMPONENTS®

Introduction

The Solera® Window Awning is designed for use on most recreational vehicle units and is available in a variety of sizes to fit even the largest unit.

Resources Required

- Cordless or Electric Drill or Screw Gun
- Molly Rivets – $\frac{3}{16}$ " as needed
- Appropriate Drive Bits
- Measuring Tape
- Drill Bit – $\frac{3}{16}$ "
- Vise Grips
- Sealant

Safety Requirements

⚠ WARNING

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

⚠ WARNING

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.

⚠ CAUTION

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



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Installation of the Awning Rail

1. Mark the center of the window and the center of the awning rail (Fig.1).

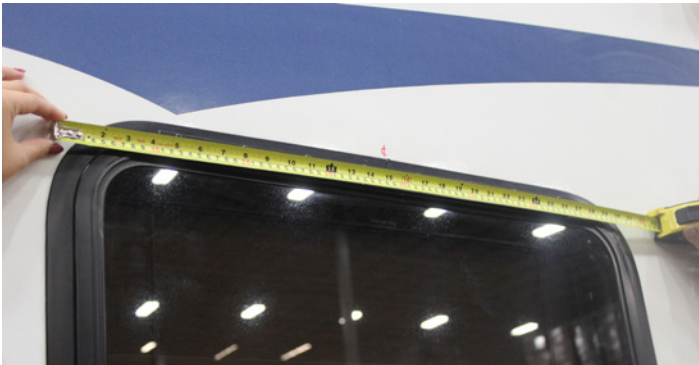


Fig.1

2. Position and center the awning rail approximately 3" above the top of the window frame.
3. Apply a sealant behind the awning rail before securing the awning rail with #8 - 18 x 1" self-drilling fasteners or 3/16" molly rivets (Fig.2).



Fig.2

Hanging the Window Awning

CAUTION

DO NOT REMOVE THE COTTER PINS AT THIS TIME.

1. Attach the support arm to the spring head assembly and secure together with one #10 - 12 x 1" fastener (Fig.3). Both arms are identical and can be used interchangeably. Repeat for the other end.



Fig.3

2. Unroll one full roll of the fabric to slide the polycord into the awning rail. If too much fabric is unrolled before releasing the tension, there will not be enough tension to sufficiently retract the awning after use.
3. Insert the polycord into the channel in the awning rail (Fig.4) and center the fabric with the awning rail.

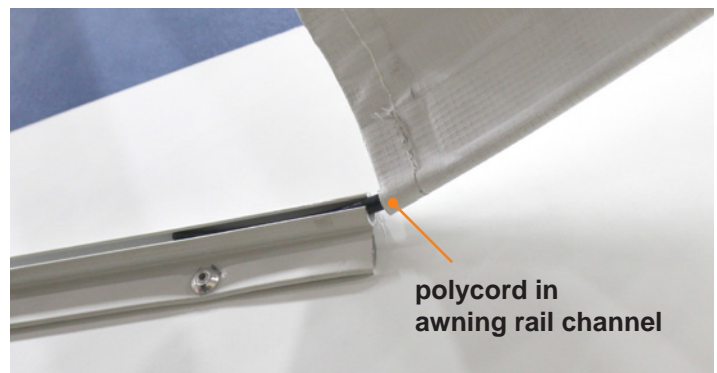


Fig.4



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4. Secure the fabric in the awning rail by installing a #6 x 1/2" self-drilling fastener through the awning rail, polycord and fabric 1" inside the edge of the fabric on both ends (Fig.5).



Fig.5

Releasing Preset Tension

⚠ WARNING

SPRINGS ARE UNDER TENSION WHEN COTTER PINS ARE REMOVED. THE AWNING WILL ATTEMPT TO CLOSE. KEEP HANDS CLEAR OF HARDWARE AND ROLL TUBE.

⚠ WARNING

USE EXTREME CARE. SPRINGS UNDER TENSION ARE DANGEROUS. IF NOT CONTROLLED THEY WILL UNWIND QUICKLY. KEEP HANDS AND CLOTHING CLEAR OF SPRING HEAD ASSEMBLY, AS PERSONAL INJURY MAY RESULT.

5. Remove the cotter pin that is holding factory preset tension. The cotter pin is found in the roll tube end cap (Fig.6). For easier removal, twist the roll tube as if extending the awning while pulling on the cotter pin.

6. Discard pin and repeat for other end. The support arms will now be free to move due to release of the spring tension. Maintain control of the support arm and place against the unit wall. Push the support arms up until the end cap pushes against the channel of the awning rail.

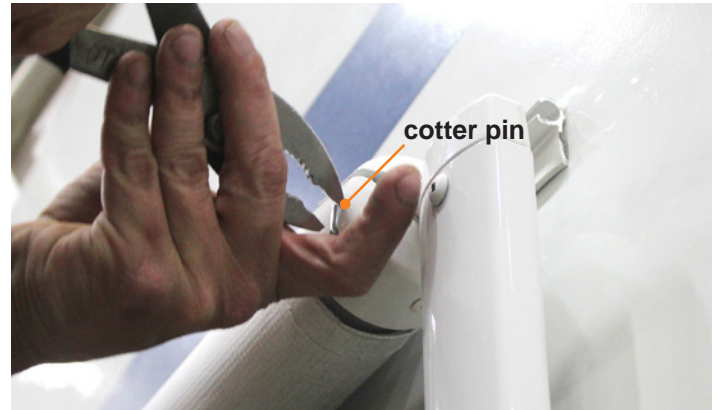


Fig.6

Installation of Support Arms

1. Measure from the edge of the window frame to the arm on both sides in two locations. Make sure the support arms have the same amount of space on both sides and are parallel to the side of the window frame. Mark the location of the bottom of the support arm (Fig.7).

2. Apply sealant at the support arm fastening points. Install fasteners, making sure the top of the roll tube end caps of the support arm assemblies are just below the polycord channel of the awning rail, and the arms are parallel with the window frame.

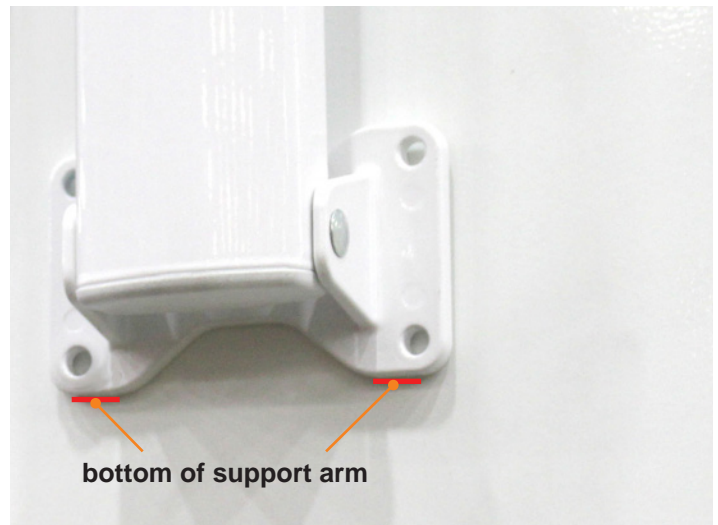


Fig.7



NOTE: For fiberglass and aluminum sidewall units with backer material, drill four $\frac{1}{8}$ " diameter holes, apply sealant and secure the support arm assembly using four #10 - 12 x 1" fasteners (Fig.8). Repeat for other end.

NOTE: For fiberglass and aluminum sidewall units without backer material, drill four holes using a $\frac{3}{16}$ " drill bit. Apply sealant and secure the support arm assembly using $\frac{3}{16}$ " diameter molly rivets (Fig.9).



Fig.8



Fig.9

3. Place the protective bumpers on the awning rail, just below the awning rail channel, behind the roll tube end cap on each end. Let the roll tube end caps rest on these bumpers. (Fig.10).



Fig.10

Installation of Pull Strap Bracket

NOTE: Prior to installation please check the following clearance. In order for the pull strap bracket to work properly, clear wall space of 41" is needed for the standard arm (18") and 65" is needed for the XL arm (33"). This measurement is taken from the channel of the awning rail (located approximately 3" above the window frame) to a position downward on the unit wall. This measurement is especially critical on window awnings located on slide room windows.

1. Open the awning to its full extension by pulling down on the pull strap.



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2. Center the strap in the awning. Move the loop of the pull strap toward the unit and under the windowsill to locate the placement of the pull strap bracket. Mark the location (Fig.11). The valance should be hanging straight down.

⚠ CAUTION

MAKE SURE AWNING IS PULLED TAUT BY THE PULL STRAP WHEN POSITIONING THE PULL STRAP BRACKET.



Fig.11

3. Apply sealant and install pull strap bracket with two #10 - 12 x 1" fasteners or molly rivets as needed (Fig.12).



Fig.12

4. To secure the awning, locate the pull strap and hook the end into the pull strap bracket (Fig.13).



Fig.13

Operation

To Open Window Awning

1. Grasp the loop on the pull strap and pull down to extend the awning then hook the loop onto the pull strap bracket (Fig. 14).



Fig.14



Fig.15

To Close Window Awning

1. Remove the pull strap from the pull strap bracket (Fig.15).

CAUTION
DO NOT RELEASE STRAP AS WINDOW AWNING IS UNDER TENSION AND MAY SNAP BACK AGAINST THE UNIT.

2. Slowly allow awning to retract to closed position by feeding the pull strap upwards at a 45-degree angle. This prevents the strap from building up and creating a bulge in the fabric.

3. The awning is now ready for travel with no further locking required.

Loading the Tension

NOTE: If the Solera Window Awning does not have cotter pins holding the pre-wound spring head assemblies, then tension must be added.

WARNING

USE EXTREME CARE. SPRINGS UNDER TENSION ARE DANGEROUS. IF NOT CONTROLLED THEY WILL UNWIND QUICKLY. KEEP HANDS AND CLOTHING CLEAR OF TOP CASTING, AS PERSONAL INJURY MAY RESULT.

1. Remove the #10 - 12 x 1" fastener from the support arm and lift the spring head assembly out of the support arm on both sides (Fig.16).

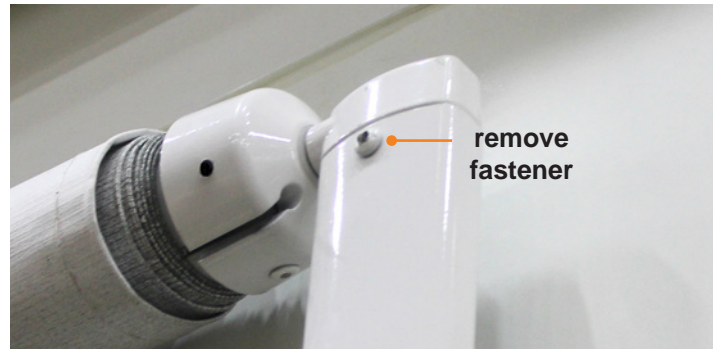


Fig.16

2. To load tension on the torsion spring, turn the spring head assembly as shown in (Fig.17 and Fig.18).

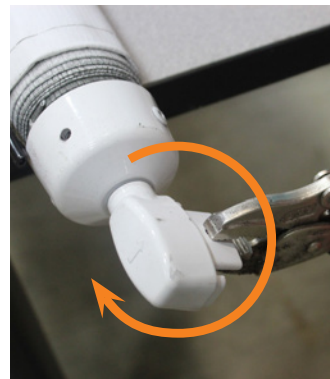


Fig.17

Left End Cap -
Turn clockwise

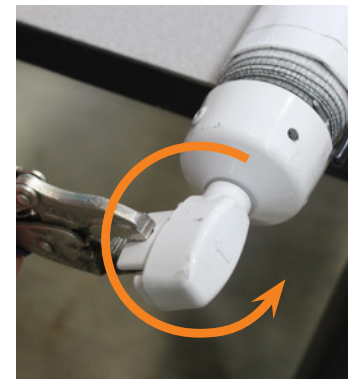


Fig.18

Right End Cap -
Turn counterclockwise



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3. Refer to the chart (Fig.19) for the number of turns required for the awning size.

Size	Turns
156-192"	16
144"	14
132"	14
120"	13
108"	13
96"	13
90"	13
84"	12
72"	12
66"	12
60"	11
54"	10
48" or less	9

Fig.19

4. When facing the awning, the spring head assembly on the right is to be turned counterclockwise. The spring head assembly on the left is to be turned clockwise.

NOTE: There are arrows on both end caps indicating the correct direction to turn the springs (Fig.20).

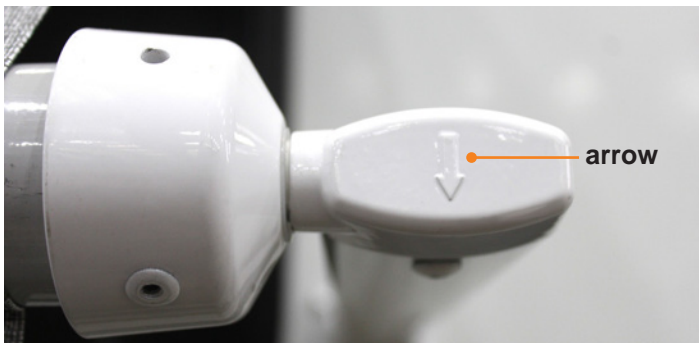


Fig.20

5. Turn the spring head assembly as specified and insert cotter pins. Carefully insert the spring head assembly back into the support arm assembly, secure with a #10 - 12 x 1" fastener. Repeat for the other side. Remove cotter pins.

Maintenance

Fabric Care

If the awning is retracted while wet, extend the awning and let it dry as soon as conditions allow before retracting it 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 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.

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

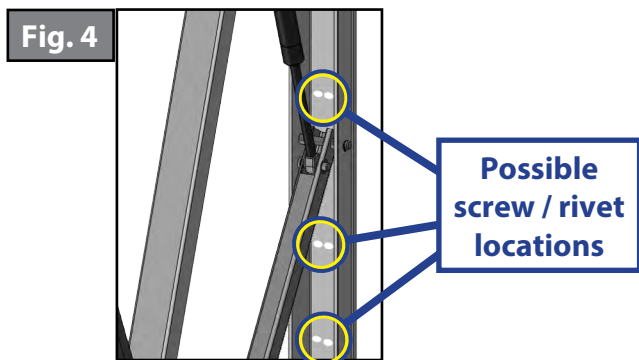
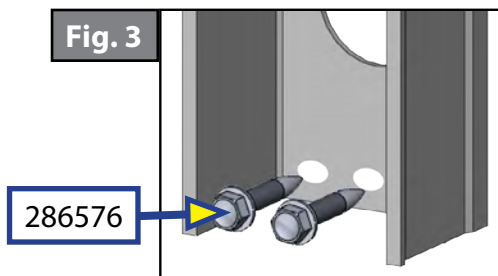
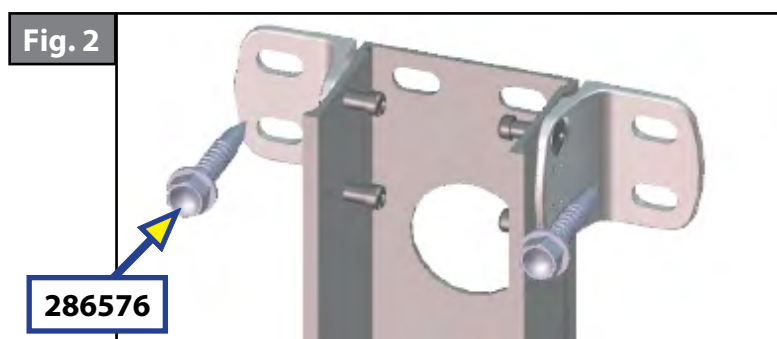
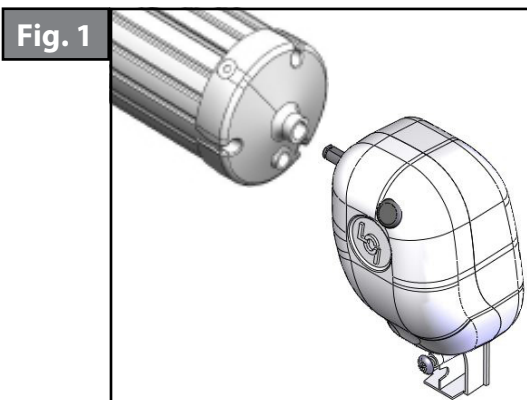
1. Insert drive head pin into end cap (Fig. 1). Align holes and secure with waxed screw. Insert waxed screw fully, but do not over-tighten. Repeat process for idler head at other end.
2. With two people holding the support arms, one at either end of the awning assembly, a third person needs to line up 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 1/2" screws (286576) at the top (Fig. 2) and two (2) #14 x 1 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 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.



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 1/2" hex head screw through the fabric cord and fabric 1" inside the edge of the fabric on both sides (Fig. 5).

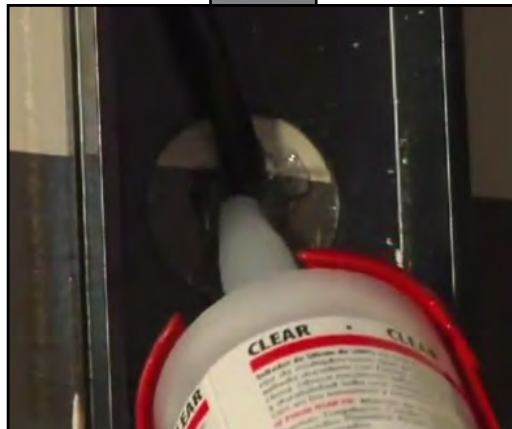
NOTE: Seal all wall penetrations to protect against water intrusion (Fig. 6).

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

Fig. 5



Fig. 6



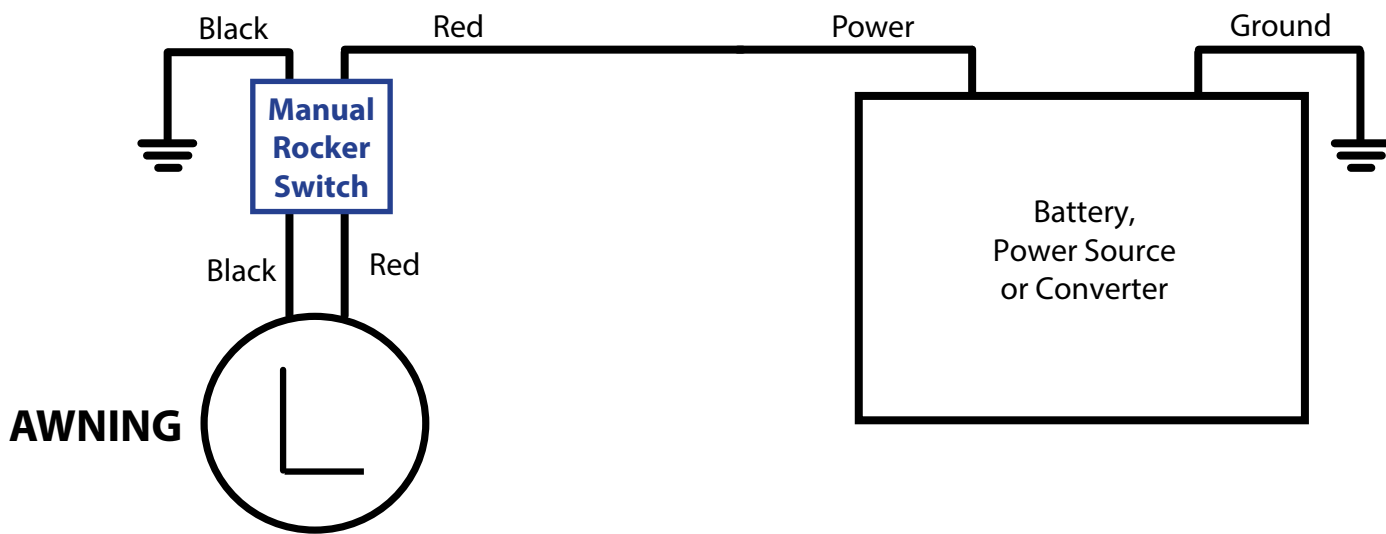
Wiring Diagram

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

Prior To Installation

NOTE: All screws/rivets supporting 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
- $\frac{3}{8}$ " nut driver bit and/or rivet gun

Installation

NOTE: If installing a Pull Strap Awning, refer to TI-163 for instructions to mount heads to roll tube.

1. Attach the awning heads to the support arm assemblies by screwing the $\frac{5}{16}$ "-18 x 2 $\frac{1}{4}$ " bolts (266148) into the ends of the support arms and tightening the bolts (Fig. 1).
2. With two people holding the support arms, one at either end of the awning assembly, a third person needs to line up the fabric cord with the awning rail that has been installed on the coach. Slide the fabric cord the length of the awning rail.

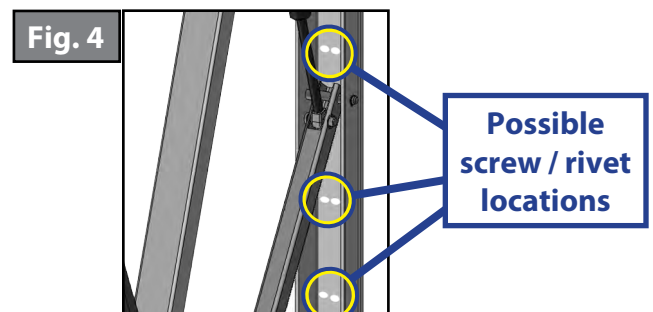
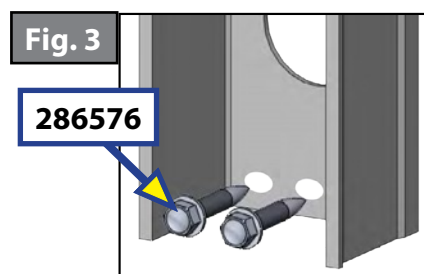
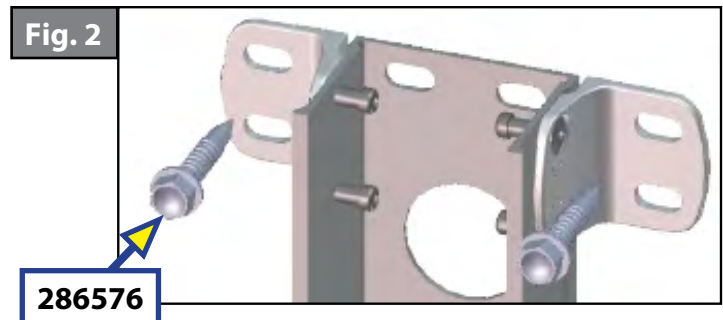
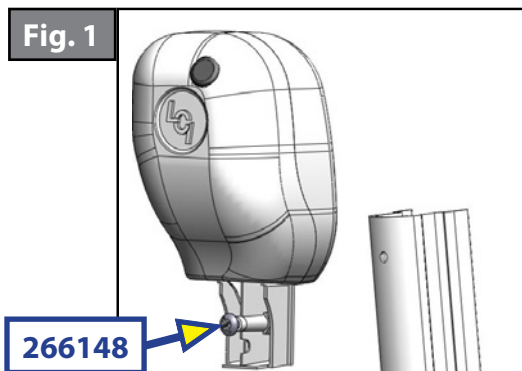
NOTE: Do not unravel fabric more than one full revolution for installation or the tension will be too weak to retract properly.

3. Set the awning assembly to the desired height and attach it to the side of the coach with two #14 x 1 $\frac{1}{2}$ " screws (286576) at the top (Fig. 2) and two #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. Remove the cotter pin from each head assembly. Extend the awning half way out. Secure the middle of the wall mounting channel with two #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.



AWNINGS

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 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 (Fig. 5).

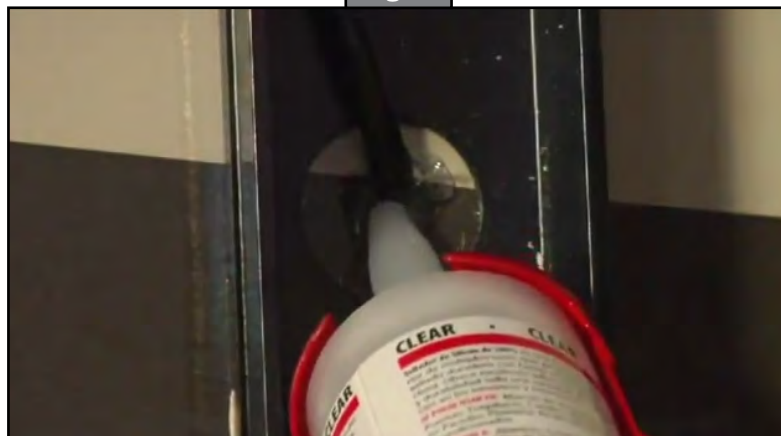
NOTE: Seal all wall penetrations to protect against water intrusion (Fig. 6).

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

Fig. 5



Fig. 6



AWNINGS

1. Insert drive head with 3-way pivot arms on the clockwise side of the cord rails (Fig. 1).

NOTE: On flat or pitched awnings, the drive head knob and drive head lock line up on the clockwise side of the second cord (Fig. 2).

NOTE: On short arm awnings, the drive head knob and drive head lock line up between the two cords (Fig. 3).

2. Push end cap completely flush with roll tube and attach with three 299419 screws. Use low setting on screw gun to ensure the roll tube is not stripped (Fig. 4).

Fig. 1

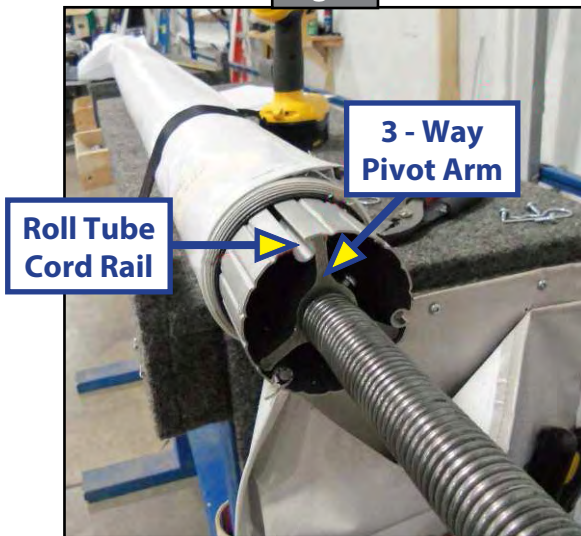


Fig. 2 - Flat or Pitched Awnings

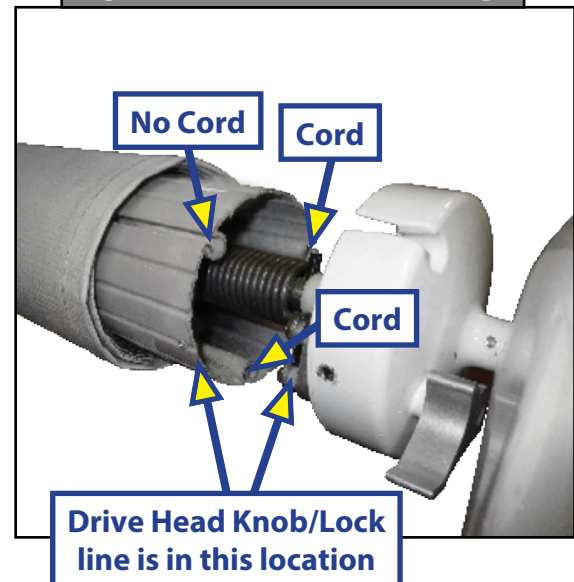


Fig. 3 - Short Arm Awnings

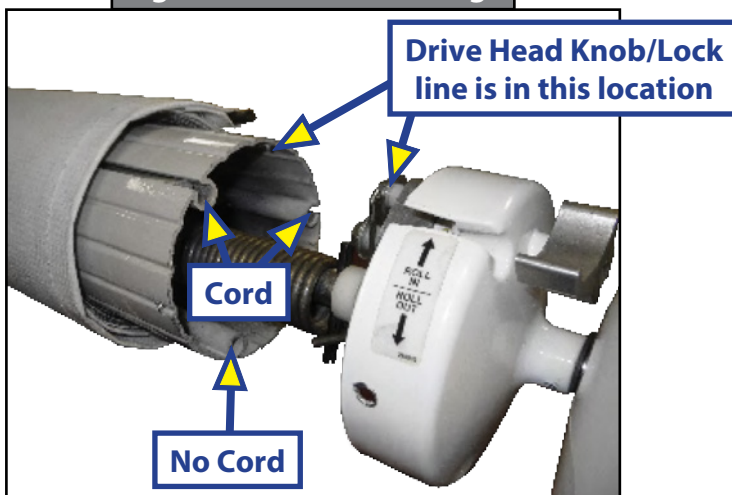
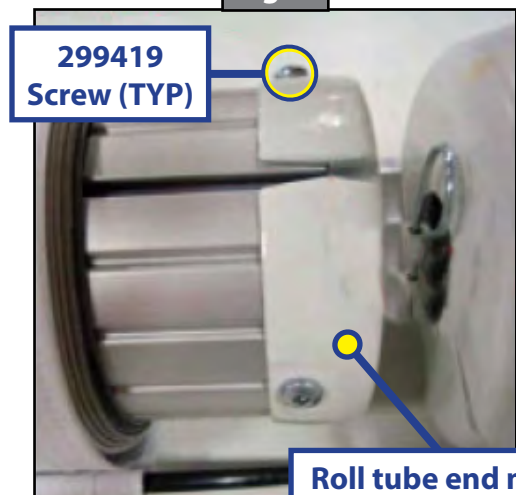


Fig. 4



Roll tube end must be flush with end cap all the way around (check three locations)

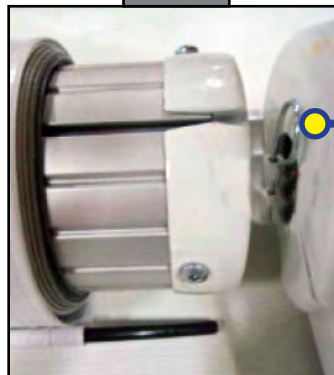
AWNINGS

3. Rotate drive head (Fig. 5) counterclockwise a number of turns according to chart and insert cotter pin 298760 (Fig. 6) to secure the head.

Fig. 5



Fig. 6



Cotter pin
298760

Awning Length	# Of Turns
6'*	15
7'-16'	9
17'-21'	10
22'-28'	11

NOTE: *Only one spring used on 6' systems.

4. Rotate idler head (Fig. 7) clockwise a number of turns according to the number of times the drive head was turned and insert cotter pin 298760 (Fig. 6) to secure the head.

Fig. 7



AWNINGS

White Kit #	Black Kit #	Description	
323948	323949	Conversion from Manual Pull Strap to Power Awning Kit	
NOTE: Parts below are available in kits referenced above 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 1/2" 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 5/16" 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

- 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.

- Remove the three (3) screws holding the drive head end cap onto the roll tube (Fig. 3).
- 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.
- 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.

- 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

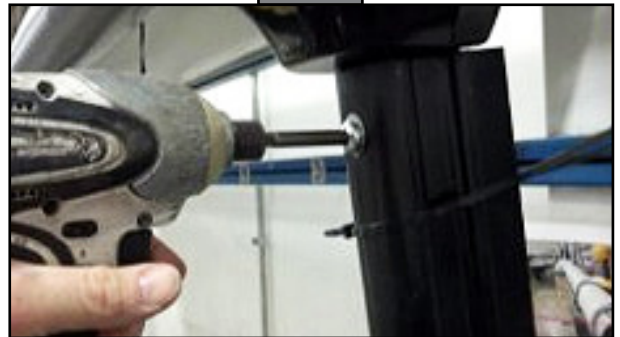


Fig. 4

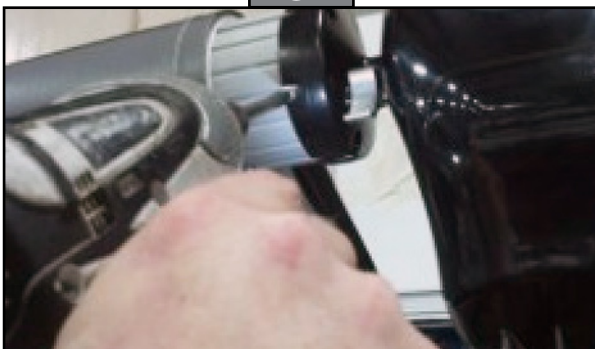
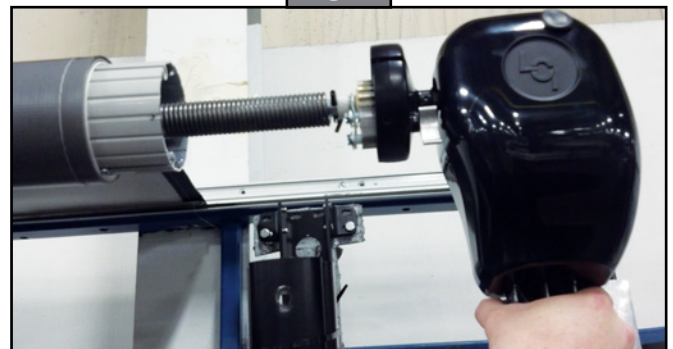


Fig. 5



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

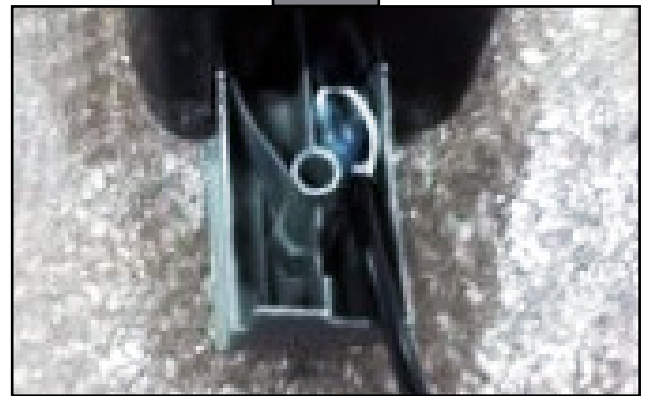
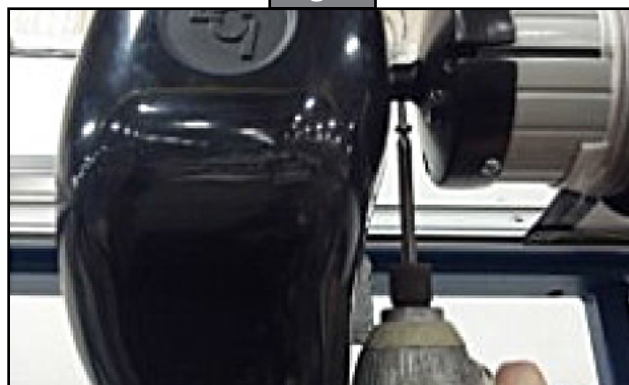


Fig. 8



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

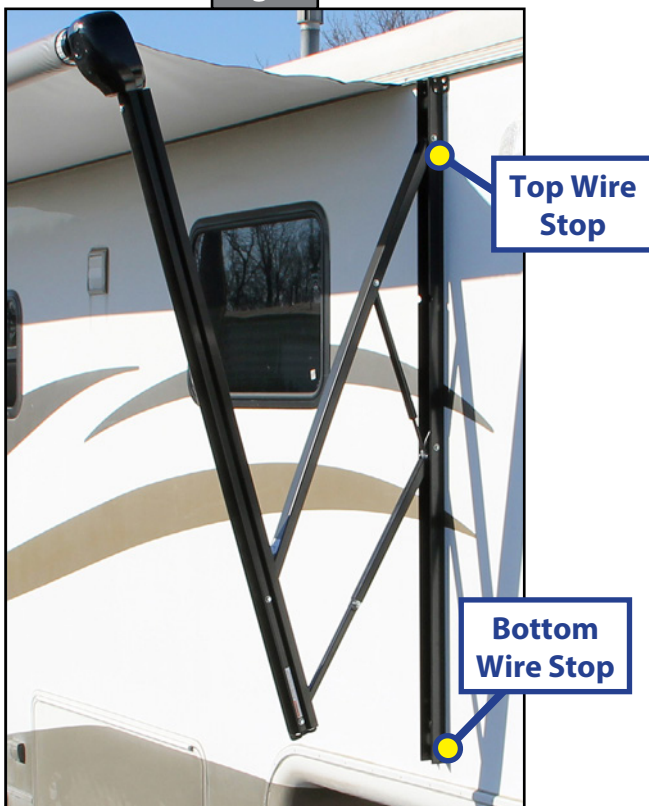


Fig. 10



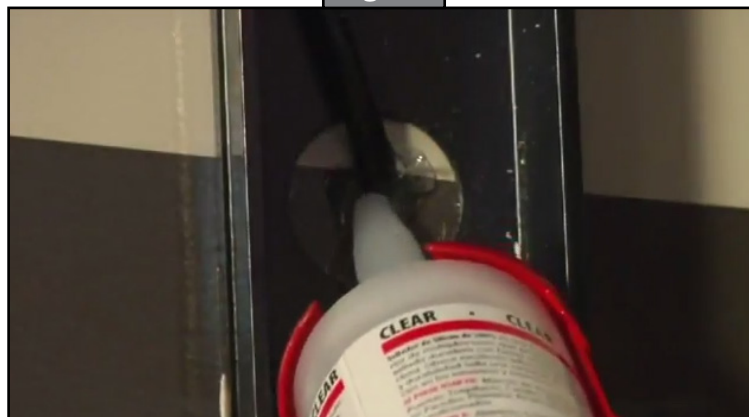
Fig. 11



Fig. 12



Fig. 13



AWNINGS

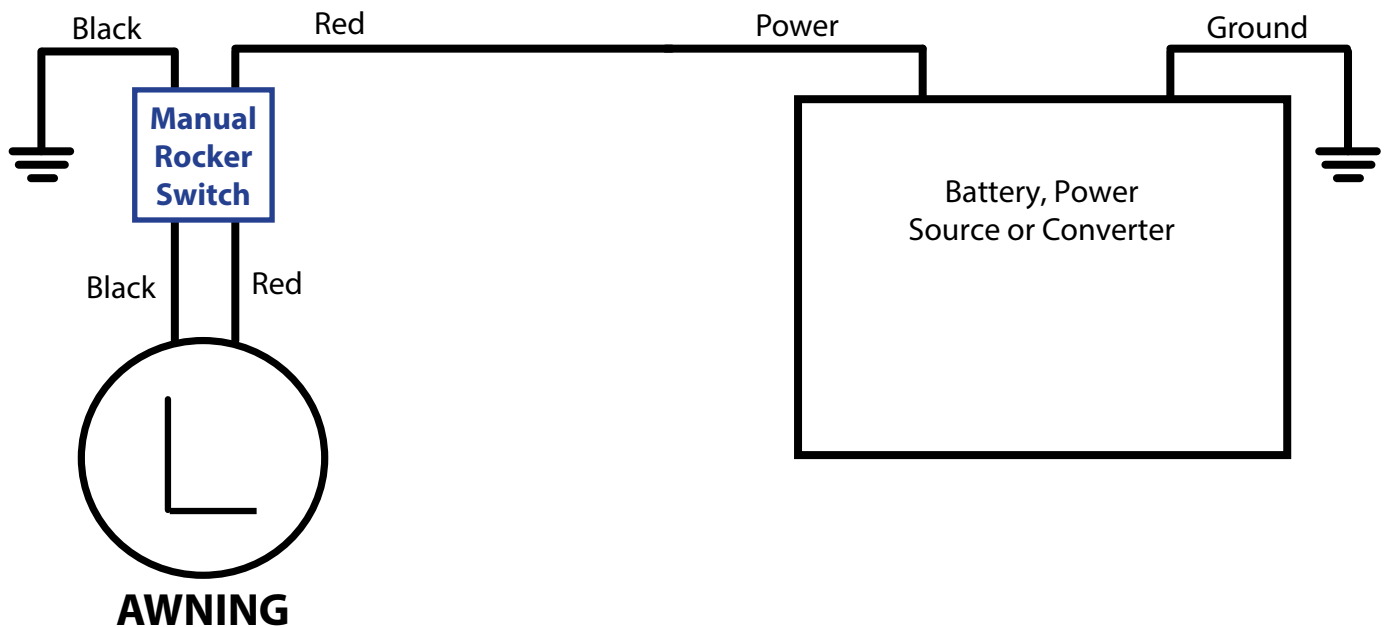
Wiring Diagram

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



SOLERA® POWER AWNING WIRING DIAGRAM

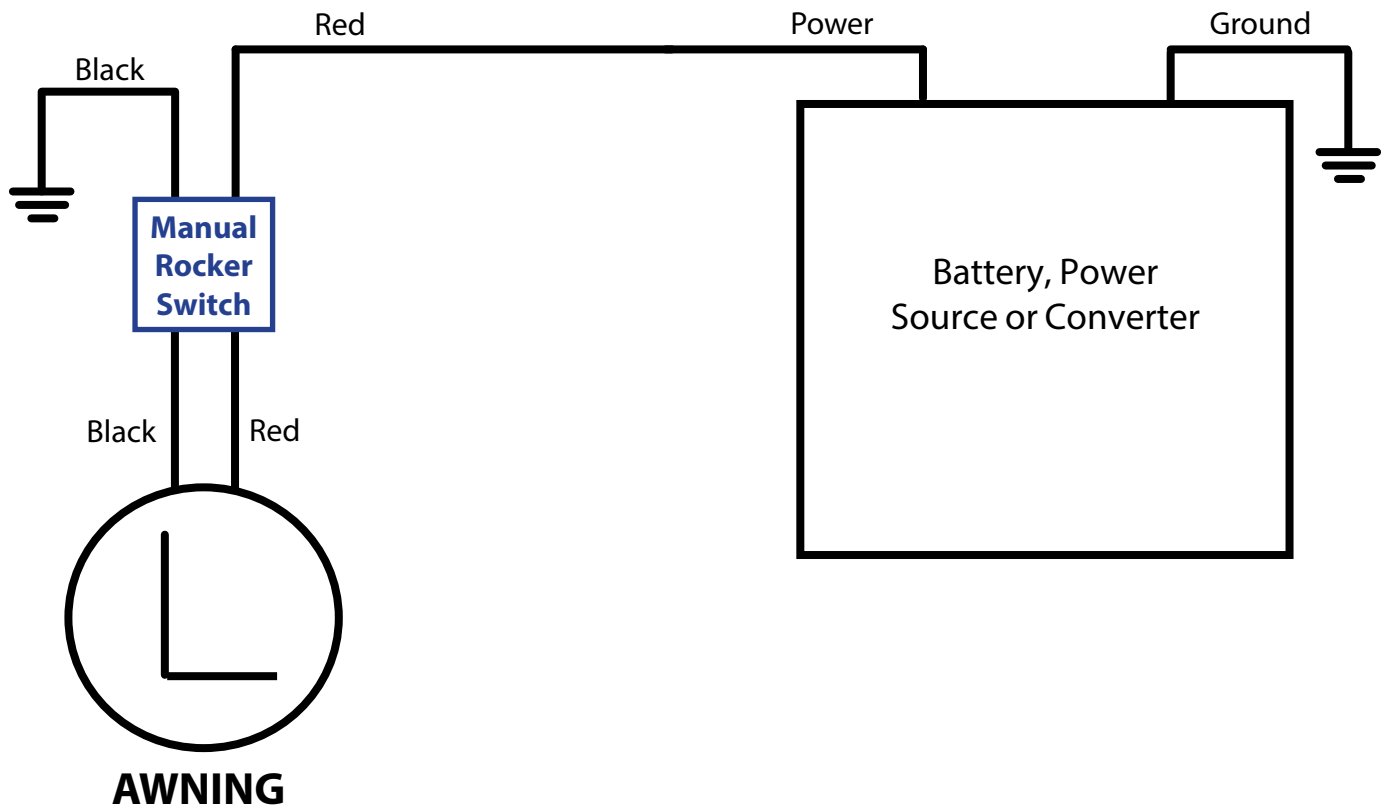
AWNINGS

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



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).

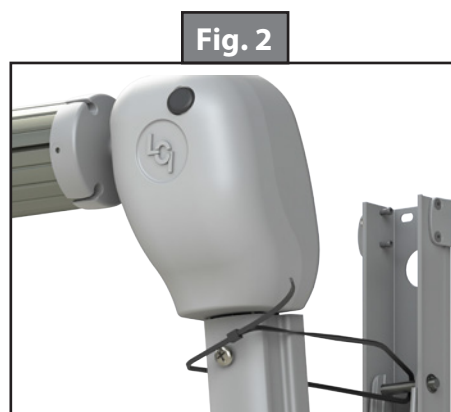
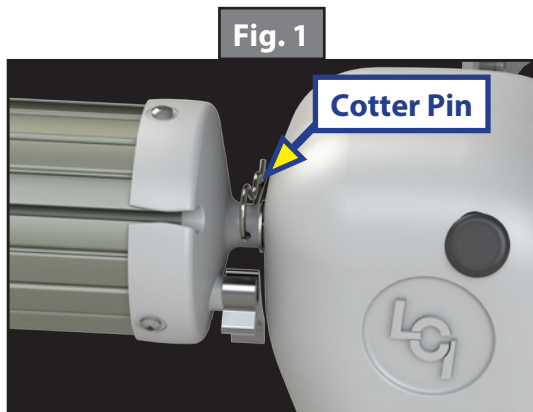
WARNING

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.



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

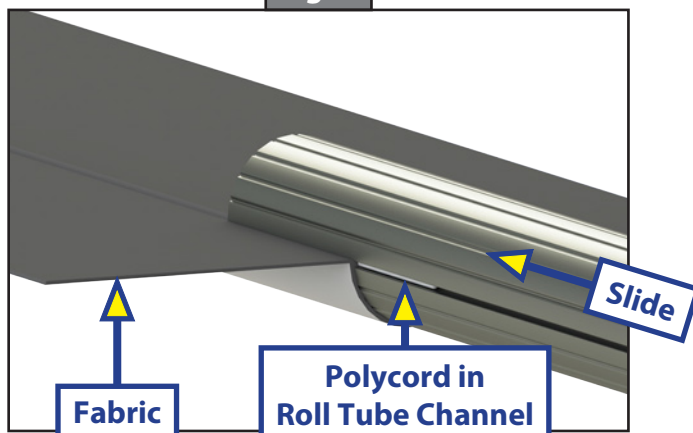
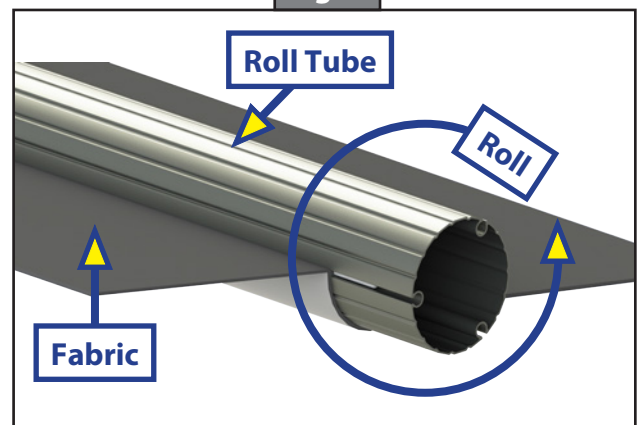


Fig. 4



AWNINGS

- 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.

- Secure the idler head and roll tube to the work bench.
- 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.

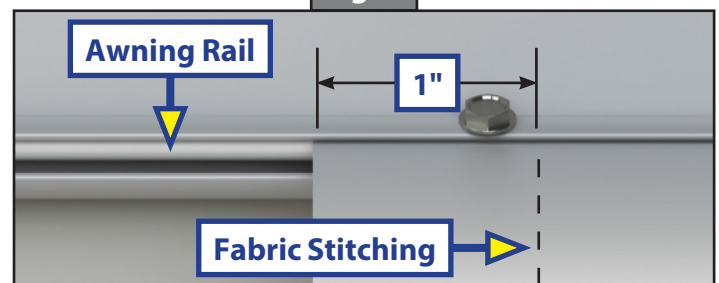
- Working together, install the roll tube assembly (which includes the drive/idler head assemblies) to the awning rail and support arms by sliding the assembly along the awning rail. Make sure the awning will unroll with the printed side of the fabric up.

⚠ WARNING

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

- Install the previously removed drive/idler head assembly retaining bolts into the outer arms to secure.
- Remove the cotter pins from both end caps and cut the zip ties from the support arm assemblies.
- 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 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).
- 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



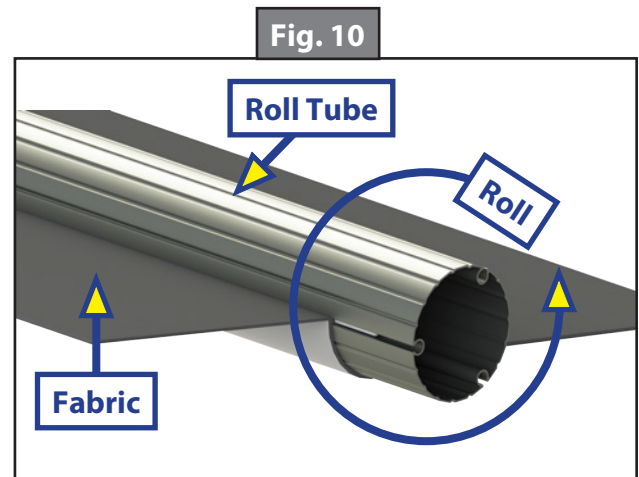
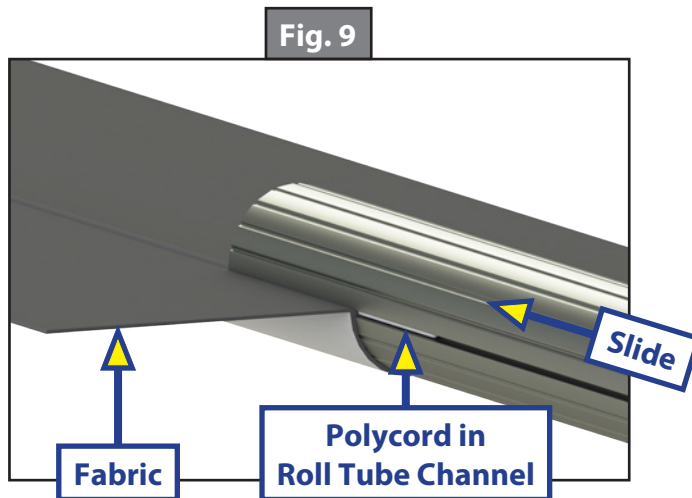
8. Working together, remove the roll tube and fabric from the awning rail and support arm assemblies.
9. Place the roll tube and fabric on a clean, level surface that is free of any debris able to scratch or damage the roll tube and/or fabric.
10. Remove the end cap from the end of the roll tube from 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.

AWNINGS

13. 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 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.
6. Reinstall the end cap previously removed.

⚠ WARNING

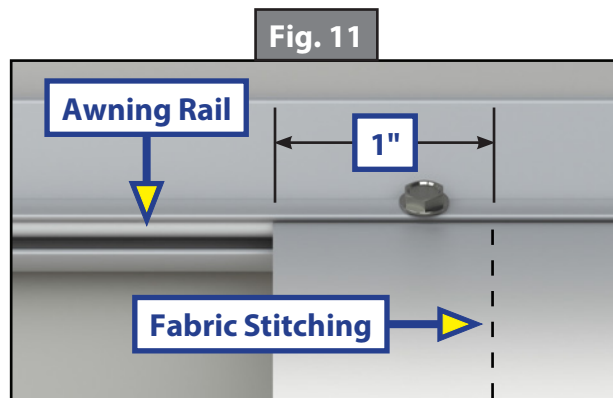
Failure to support the roll tube, fabric and drive/idler head during installation may result in serious injury or property damage.

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.
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.
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 Part #	Description	
333410	333411	Conversion from Manual Pull Strap to Manual Gearbox Awning Kit	
NOTE: Parts below are available in kits referenced above or individually as needed.			
White Part #	Black Part #	Description	Quantity
300029	300031	Drive Head Assembly	1
266147	273479	Idler Head Assembly	1
2661301	2661302	End Cap	2
300030		Manual Crank Handle	1
299630		#8 - 32 x 1/2" Wax Screws	2

Prior To Conversion

Tools Required

- Drill or cordless screw gun
- #2 square screwdriver bit
- #3 Phillips bit
- Zip ties
- (2) Cotter pins (.09" x 2 5/16" 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).

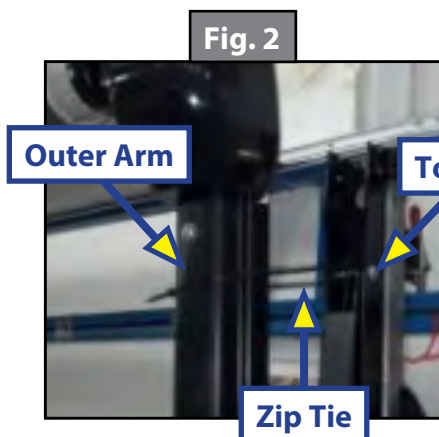
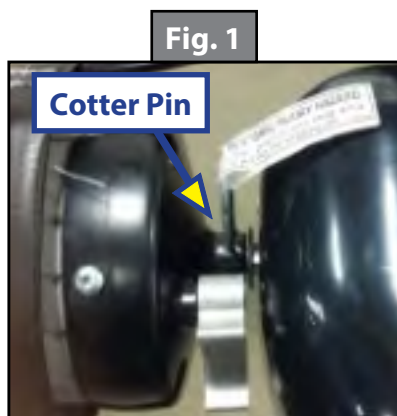
NOTE: If the awning is 6' in length it will only need one cotter pin on the drive side.

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



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).



AWNINGS

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.
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. 4).

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.

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. Insert the shaft from the gearbox drive head into the end cap and secure with the provided #8 wax screw (Fig. 5).
9. Install the head mount into the support arm and secure with the bolt removed in Step 4 (Fig. 6).
10. Repeat steps 3 through 8 for the idler head side of the awning.
11. Cut zip ties from the top arm. See TI-199 for operation instructions.

Fig. 4



Fig. 5

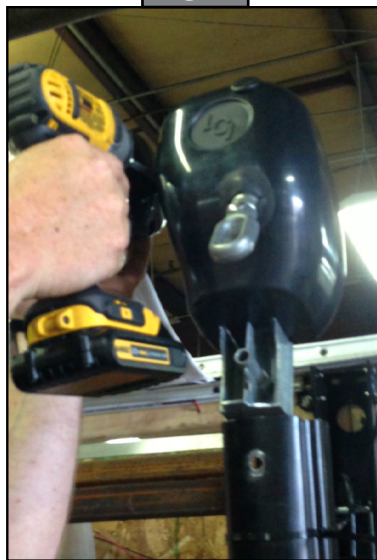


Fig. 6



AWNINGS

Solera® Manual Pull Strap Awning

Extending The Awning

1. Locate the locking latch (Fig. 1) (if equipped) on the drive side awning arm. Unlock the latch (Fig. 2).

NOTE: This latch is optional and may be installed on one or both support arms.

2. Using the pull rod, place the "L" end of the rod on top of the cam lock (Fig. 3A) and pull down on the lock to release it (Fig. 3).

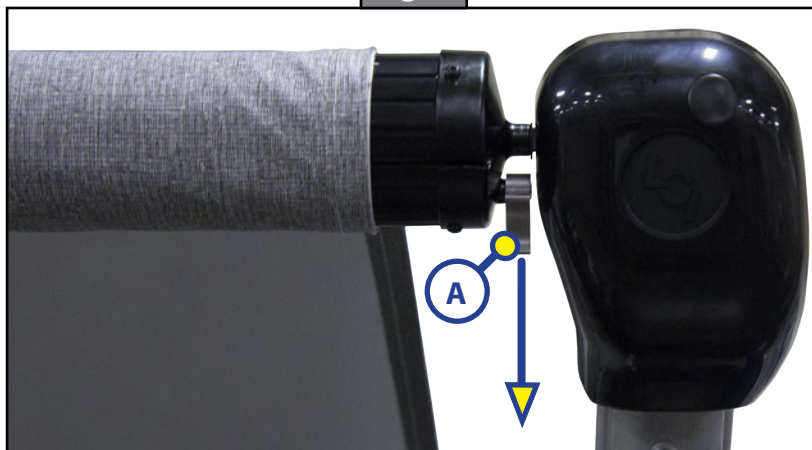
Fig. 1



Fig. 2



Fig. 3



3. Insert the pull rod into the pull strap (Fig. 4).
4. Pull strap to chest height using the pull rod. Using hands to grasp strap, walk the awning outward, keeping in front of the roll tube at all times (Fig. 5).

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. 6). Also check to make sure cam lock is on top of the roll tube.

⚠ CAUTION

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

Fig. 4



Fig. 5

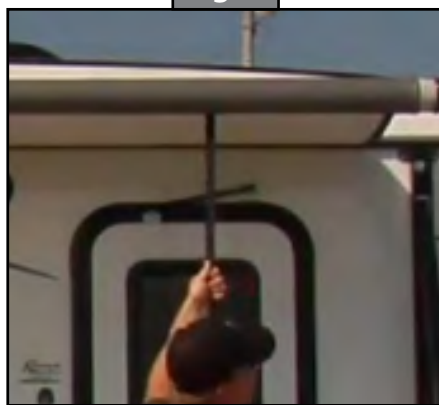
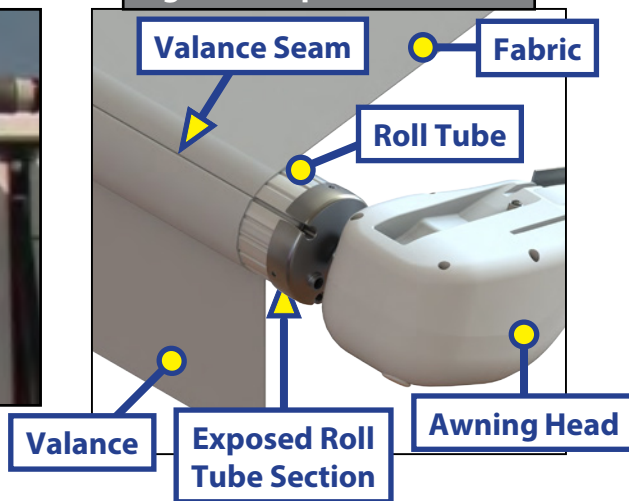


Fig. 6 - Complete Extension



AWNINGS

Retracting the Awning

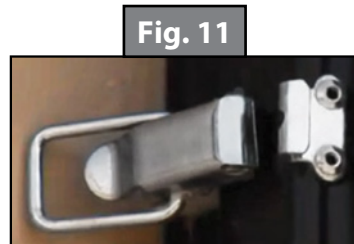
NOTE: The awning can be retracted without resetting the pitch.

1. Grasping the strap, pull slightly toward you (Fig. 7) to release pressure on the cam lock (Fig. 7A) and disengage the cam lock.
2. While holding strap in hand, walk awning toward coach until the strap is about chest height (Fig. 8).



3. Insert pull rod into the pull strap.
4. Walk awning all the way in until it stops (Figs. 9 and 10). Remove pull rod from strap.
5. Locate the locking latch (Fig. 11) (if equipped) on the drive side awning arm. Lock the latch to secure the awning in place (Fig. 12).

NOTE: This latch is optional and may not be installed. If not installed, awning is secured and ready for transportation.



AWNINGS

Solera® Manual Gearbox Awning

Extending The Awning

1. Locate the locking latch (Fig. 13) (if equipped) on the drive side awning arm. Unlock the latch (Fig. 14).

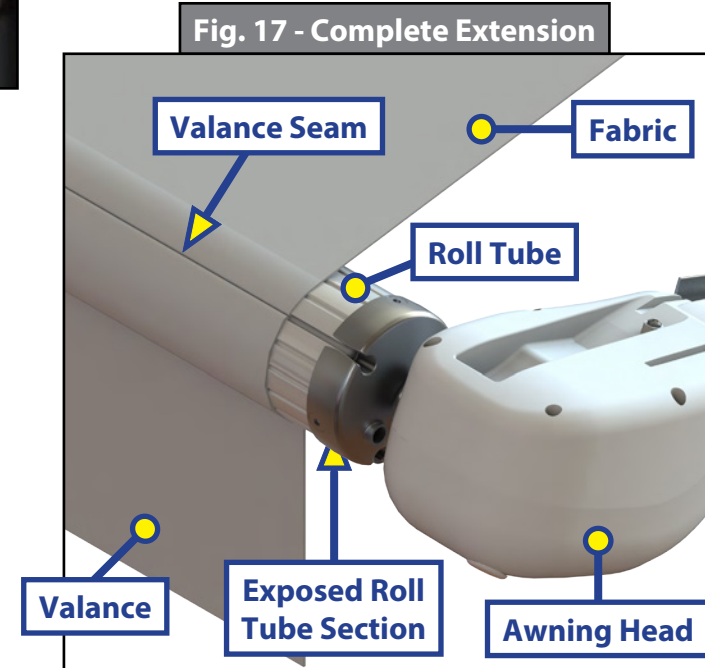
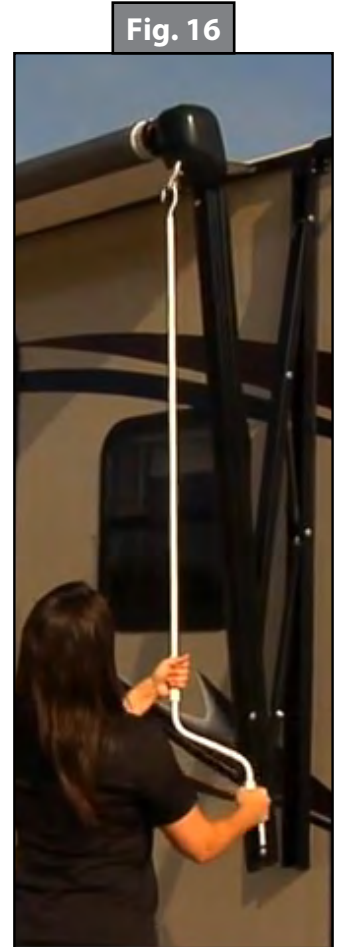
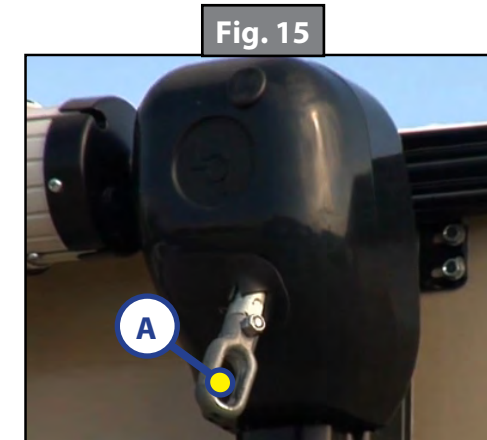
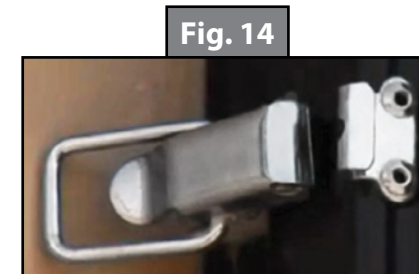
NOTE: This latch is optional and may be installed on one or both support arms.

2. Locate the manual crank handle for the awning.
3. Insert the hook end of the crank handle into the eye bolt on the drive head (Fig. 15A).
4. Turn the crank in a clockwise direction and fully extend the awning (Fig. 16).

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. 17).

CAUTION

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



AWNINGS

Retracting The Awning

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

1. Insert the hook end of the crank handle into the eye bolt on the drive head (Fig. 18).
2. Turn the crank handle in a counterclockwise direction until the awning is fully retracted (Figs. 19 and 20).

NOTE: Keeping the handle even with the roll tube makes it easier to turn.

3. Locate the locking latch (Fig. 21) (if equipped) on the drive side awning arm. Lock the latch to secure the awning in place (Fig. 22).

NOTE: This latch is optional and may not be installed. If not installed, awning is secured and ready for transportation.

Fig. 18



Fig. 19



Fig. 20

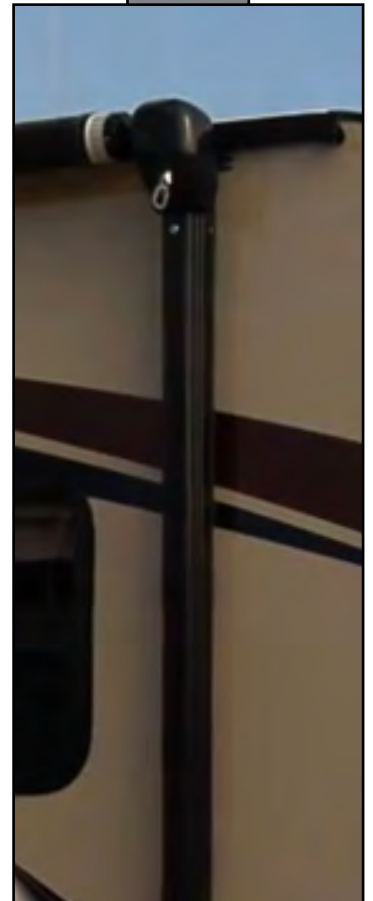


Fig. 21

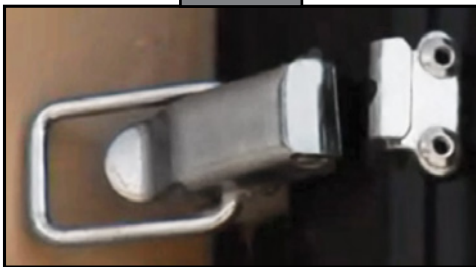


Fig. 22



AWNINGS

Tools Required

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

Resources Required

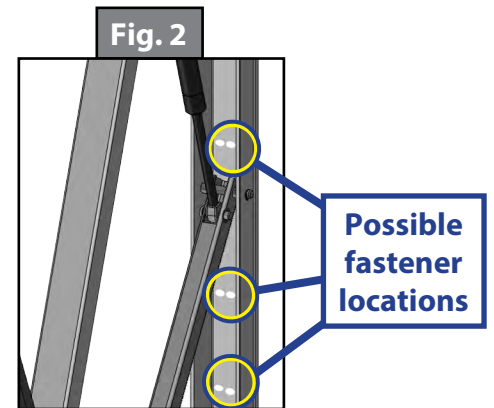
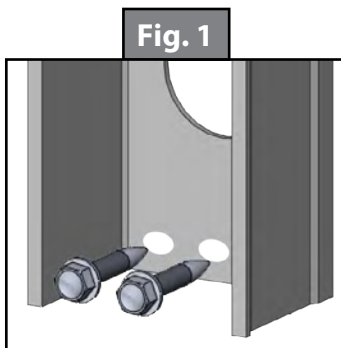
- 1-3 people (depending on task)

CAUTION

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

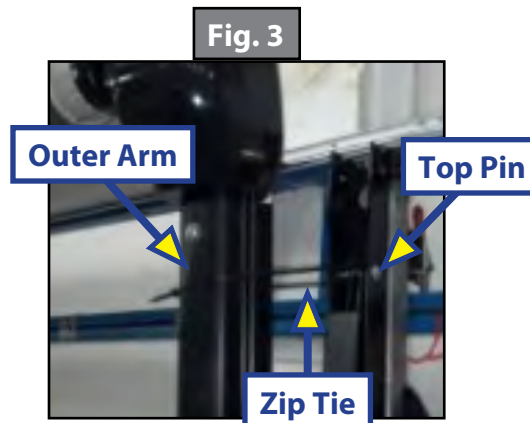
Power Awning Arm Replacement

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

- 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.

- 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).
- Remove the support arm assembly from the end cap. It should be completely free now and can be removed from the working area.
- Take the new support arm assembly and slide the head shaft into the end cap on the roll tube (Fig 5).
- 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.

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.

- Install the #8 wax screws back into the end cap to secure head shaft.
- Cut the zip tie and install the remaining 3 fasteners into the angle brackets at the top of the arm.
- 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.
- Install the remaining fasteners, 2 at bottom and 2 in the middle of the mount arm.
- 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.
- 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.
- Seal all areas at this time.

Fig. 4

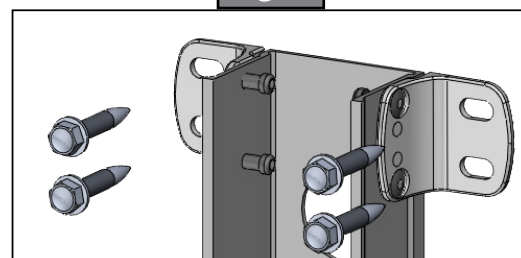
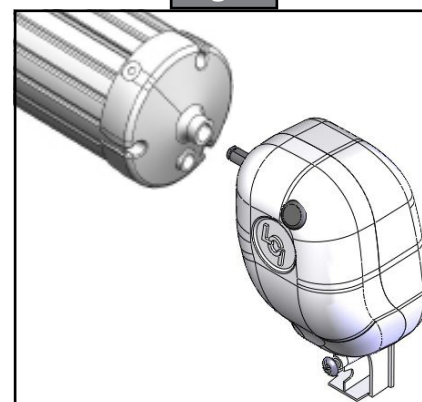


Fig. 5



AWNINGS

⚠ CAUTION

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

⚠ WARNING

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

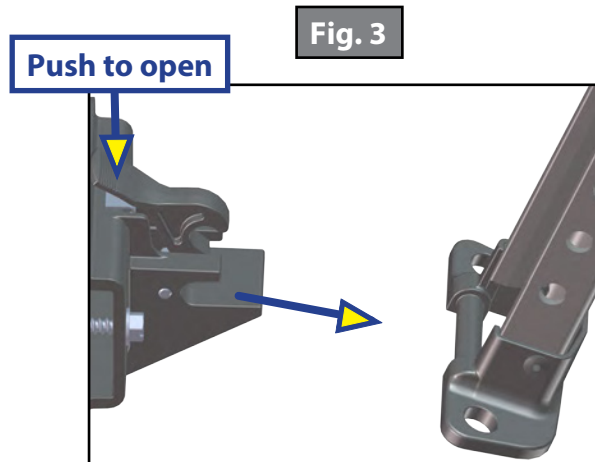
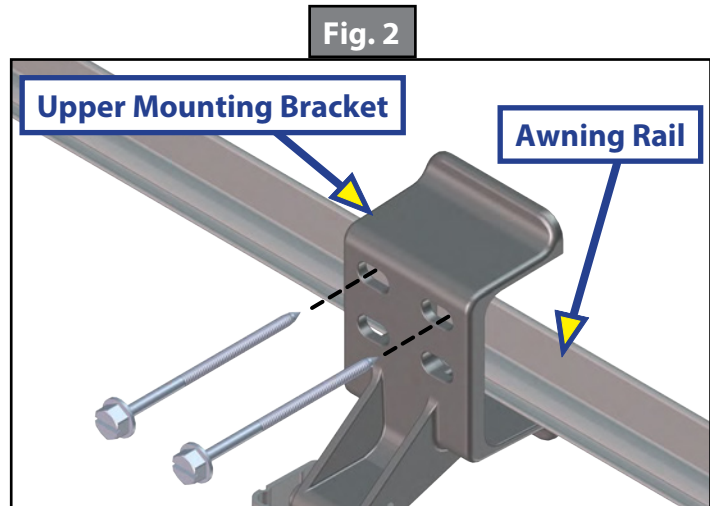
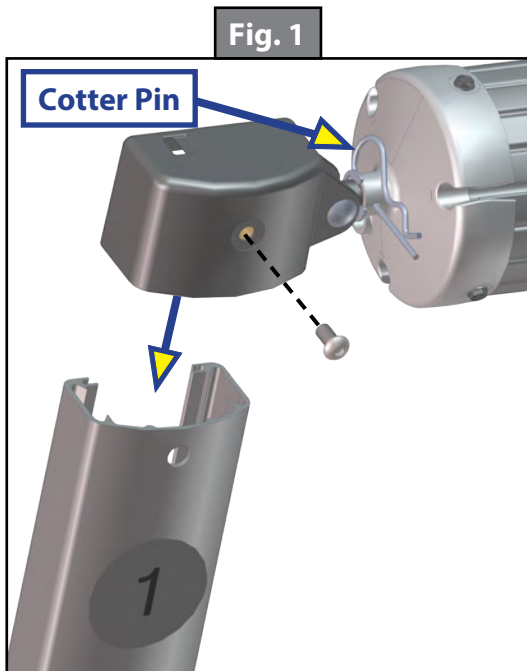
Removal of the Arm

1. Roll awning out approximately 1 ft.
2. Align the hole in the end cap with the hole in the shaft going from the head through the end cap.
3. Insert a cotter pin through the aligned end cap and head shaft holes on each end of the awning (Fig. 1).
4. Remove the screw holding the support arm to the head on the awning roll tube (Fig. 1).

⚠ 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.

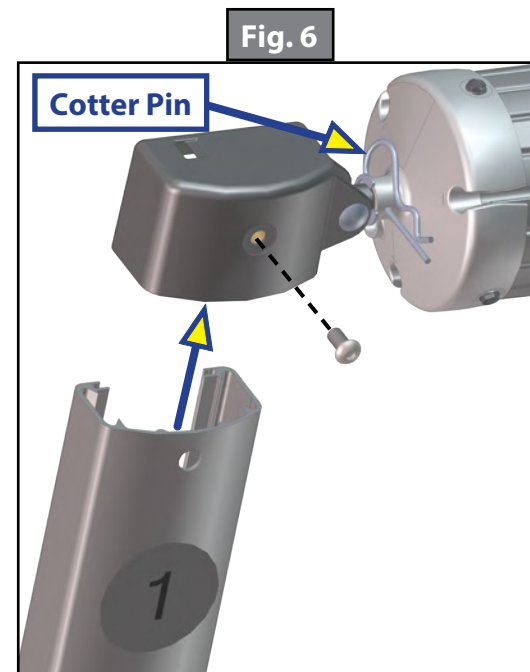
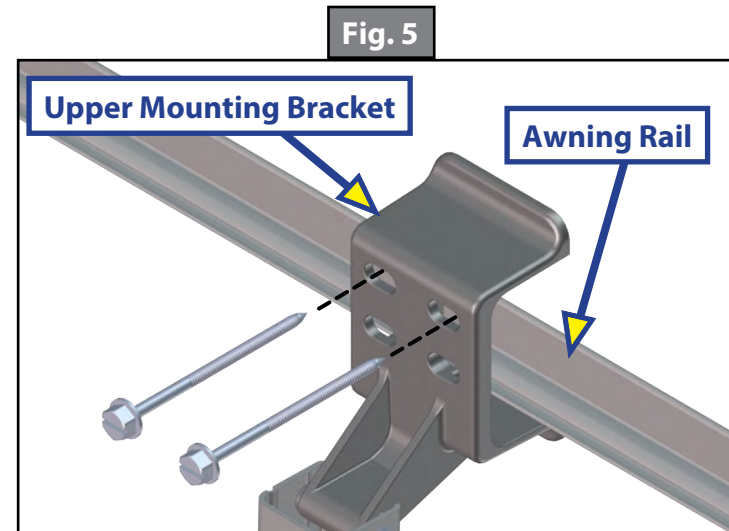
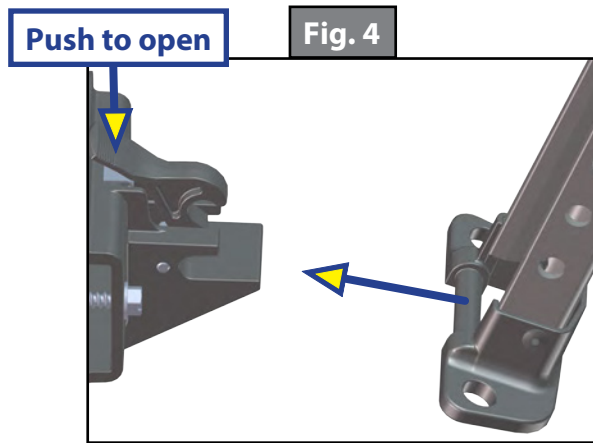
5. Remove the 2 screws securing the upper mounting bracket to the sidewall of the coach (Fig. 2).
6. Remove the support arm from the head and un-latch it from the bottom bracket (Fig. 3).



Installation of the New Arm

1. Secure the support arm assembly in the lower mounting bracket (Fig. 4).
2. Place the upper bracket in place over the awning rail in the same position from which the old bracket was removed. Apply a liberal amount of sealant over the holes and attach the bracket using the ¼" x 3" lag screws provided (Fig. 5).
3. Slide the support arm assembly into the head assembly and secure with the screw that was previously removed (Fig. 6).
4. Ensure the locking lever is still in the roll out position and remove the cotter pin (Fig. 6) from the end cap and head shaft holes.

CAUTION Firmly grasp the pull strap on the awning fabric before removing the cotter pins to prevent the awning from retracting on its own. Failure to do this may result in serious personal injury or property damage.

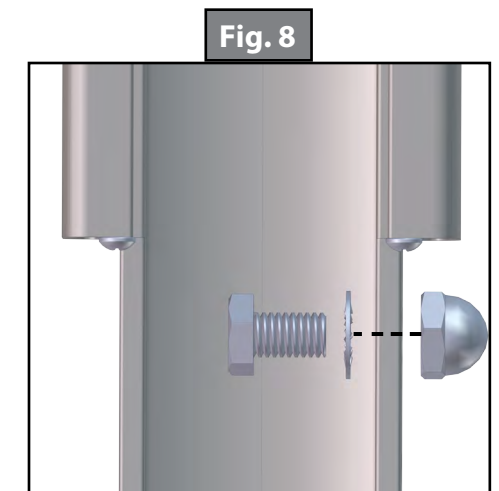
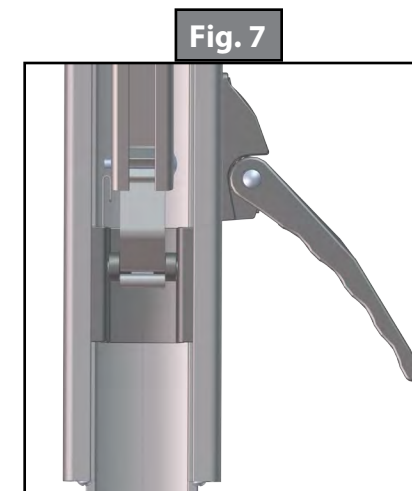


Installing the Stop Bolt

1. Retract the awning.
2. Make sure the centerline of the roll tube is level with or slightly higher than the centerline of the awning rail. The bottom of the roll tube **MUST NOT** be higher than the awning rail.
3. Adjust support arm if necessary.
 - A. Open the support arm handle and slide the upper arm up or down as required. Close the handle and slide the lower channel until the locking pin clicks into the nearest positioning hole (Fig. 7).
4. Mark the position of the stop hole that is directly below the upper channel.
5. From the inside of the channel, insert a 5/16" bolt and star washer through the hole. Secure with a 5/16" cap nut using ½" socket and wrench (Fig. 8).

NOTE: It may be necessary to lift the upper channel to tighten the cap nut.

6. Repeat steps 4 and 5 for the other support arm.



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

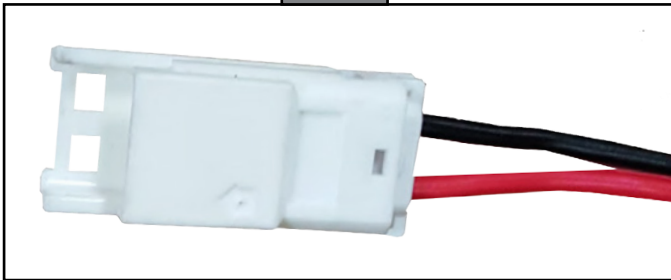
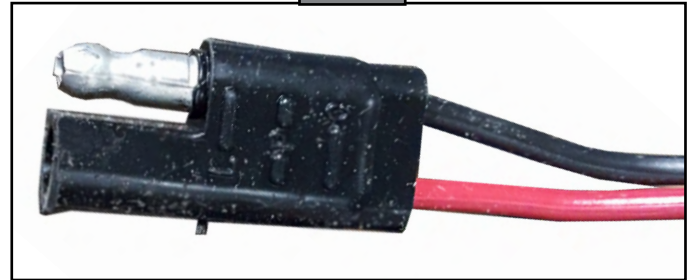


Fig. 2



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

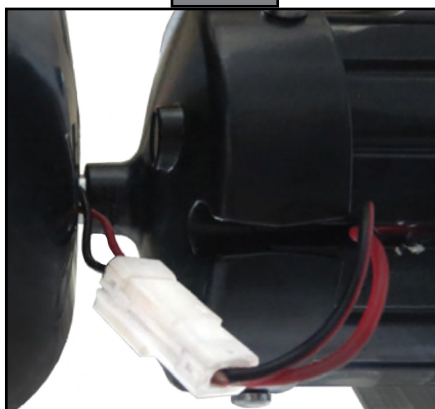


Fig. 4

