



SERVICE MANUAL

SLIDEOUT COVER

RV



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The information contained in this manual pertains to the current configuration of the models listed on the title page. Earlier model configurations may differ from the information given. Carefree of Colorado reserves the right to cancel, change, alter or add any parts and assemblies, described in this manual, without prior notice.

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SAFETY INFORMATION

	This is the safety alert symbol. It is used to alert individuals to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible personal injury or death.
	Indicates a hazardous situation, which if not avoided, could result in death or serious bodily injury.
	Indicates a hazardous situation, which if not avoided, may result in minor or moderate bodily injury.
	Indicates a situation that may result in equipment-related damage.

General Safety:

		Shock Hazard. Always disconnect battery or power source before working on or around the electrical system.
		Always wear appropriate safety equipment (i.e. goggles).
		Always use appropriate lifting devices and/or helpers when lifting or holding heavy objects.
	When using fasteners, do not over tighten. Soft materials such as fiberglass and aluminum can be "stripped out" and lose the ability to grip and hold.	

CALIFORNIA PROPOSITION 65

 **This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm. California's Proposition 65 requires this warning to be given to customers in the state of California.**

Reference Publications located @ www.carefreeofcolorado.com:

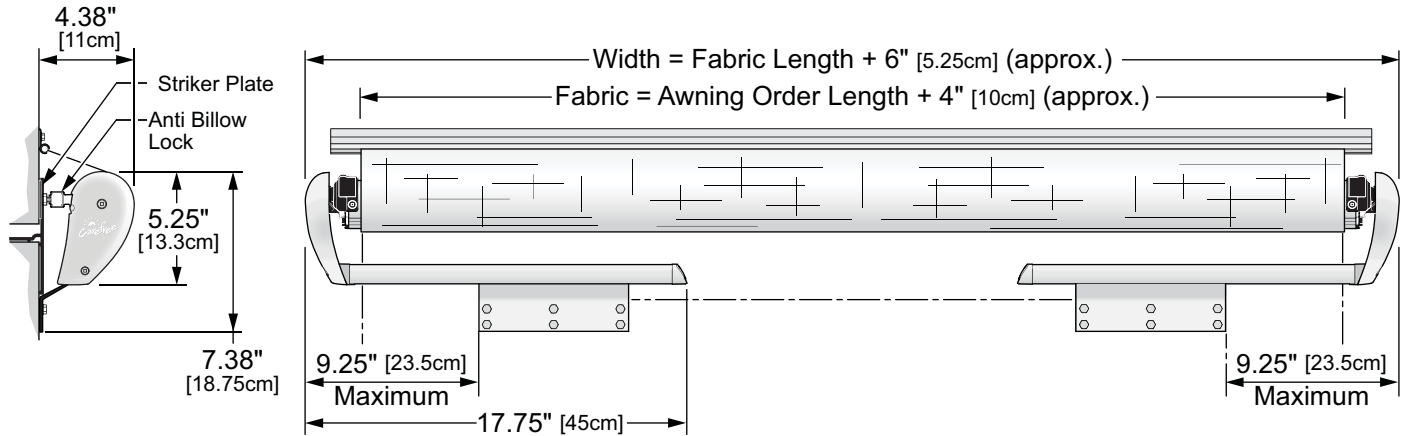
052559-001 Slideout Cover Installation Manual

052559-301 Slideout Cover Service Manual

PRODUCT OVERVIEW

- A Light weight Slideout Cover with style and performance.
- Carefree's innovative automatic anti-billow lock securely holds the fabric during travel. The lock automatically engages when the room is closed and automatically releases when the room is opened.
- Simple Installation.
- Two mounting bracket sizes available to accommodate a range of room flange sizes.

SPECIFICATIONS



Shown with tall bracket, dimensions are approximate. Actual dimensions may vary based on installation and room configuration.

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AVAILABLE LENGTHS: (measured box length) 42" - 202"		AVAILABLE EXTENSION: Up to 42"
FABRIC TENSION	One spring mounted in RH end of roller tube	
COLOR:	<i>Hardware:</i>	White, Black
	<i>Fabric:</i>	Vinyl (refer to sales literature for available colors)
WEIGHT:	<i>Standard</i>	Base Weight @ 42" Box Length = 13.5 lbs; for every 12" increase, add 1 lb
<i>Weight calculation is approximate. Actual weight may vary based on specific installation details</i>		

CANOPY REPLACEMENT

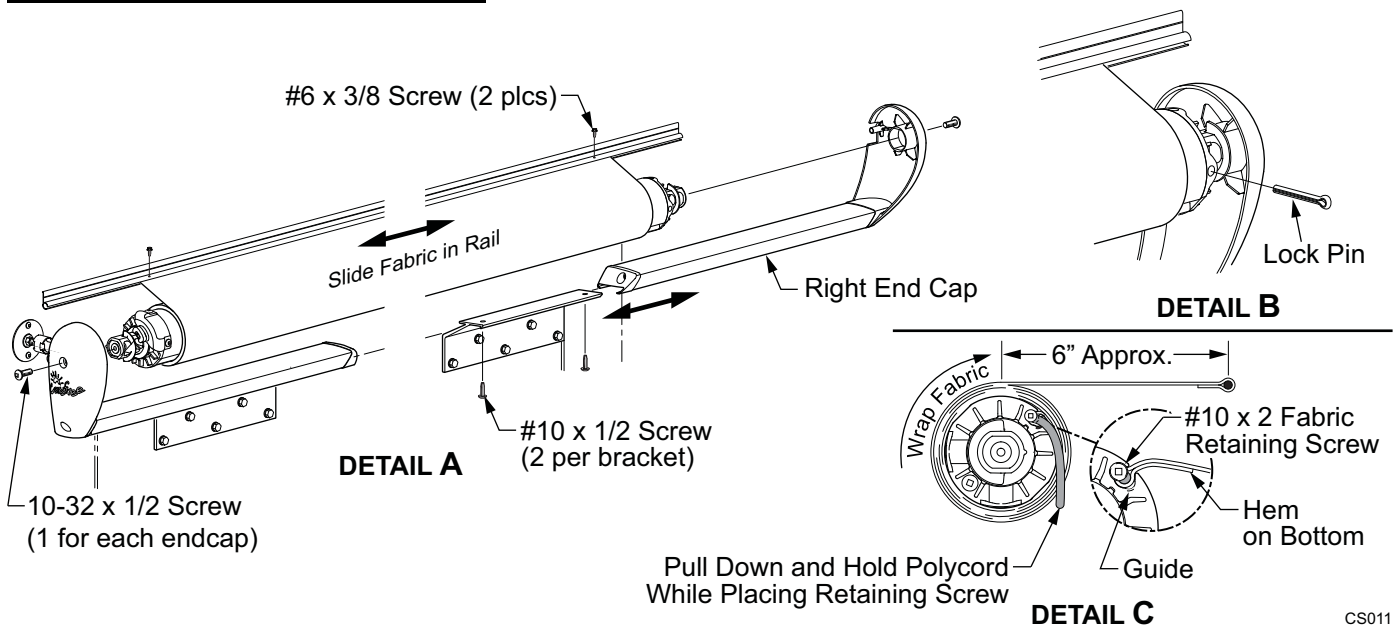


Figure 1. Replacing the Fabric.

REMOVING THE FABRIC AND ROLLER TUBE

1. Close the room if open.



The springs are wound and under tension. The spring locking pins must be inserted before continuing otherwise the roller tube can spin out of control and cause personal injury and/or property damage.

2. (*Detail B*) On the right end of the roller tube, insert a spring locking pin through the roller bearing and spindle; it may be necessary to twist the roller to align the holes. The locking pin is a 3/16 x 1 1/4 cotter pin or equivalent. Place tape over the head of the pin to avoid the pin coming out.
3. Remove the two fabric retaining screws from the awning rail.
4. (*Detail A*) Remove the 10-32 screws from the endcaps (one in each endcap)
5. On the right side, remove the two #10 x 1/2 screws from the mounting bracket.
6. Hold the roller tube and slide the right endcap assembly out and away from the roller tube. It is not necessary to remove the endcap assembly from the bracket.
7. Pull the roller tube from the left endcap then slide the fabric and roller tube out of the awning rail.
8. (*Detail C*) Remove the retaining screws from the roller tube spindles and save. Remove the fabric from the roller tube.

INSTALLING THE FABRIC AND ROLLER TUBE

If replacing or repairing the roller tube, make the necessary repairs before continuing.

1. Unfold the replacement fabric.
2. (*Detail C*) Slide the black polycord of the fabric into the fabric slot of the roller tube. Orient the fabric with the hem on the bottom (the hem will then roll against the roller tube). Center the fabric in the roller tube.

3. (*Detail C*) After the fabric is centered, pull and hold the excess polycord in the bottom of the fabric slot. Place one (1) #10 x 2 PHSD screw through the fabric slot hole and polycord. The screw must be positioned to thread into the metal of the roller tube slot and the edge of the polycord. The screw action will pull the polycord further into the slot hole. DO NOT OVERTIGHTEN, maximum torque 16 in-lbs.

NOTE: There is a small guide on the bearing at the bottom of the hole. The screw goes in the top of the hole, opposite the guide.

4. After the screw is installed, trim the excess polycord.
5. After tightening the fabric in the slot from one end of the roller tube to the other end, repeat step 5 and 6 to secure the fabric.
6. Roll the fabric onto the roller tube. Note the direction of the wrap as shown in Detail C. The view is of the RH spindle (the end with the screw retaining pin). Allow approximately 6" of fabric to extend past the roller tube.
7. Lift the roller tube up and slide the fabric polyrod into awning rail. Center the fabric over the room.
8. Roll up any slack material onto the roller tube.

NOTICE

Failure to roll up the slack before installing the roller tube will reduce the spring tension. Reduced spring tension may cause the fabric to sag and not roll up correctly when the room is closed.

9. Insert the roller tube spindle into the LH endcap. The flats on the roller tube spindle will align with the flats in the endcap. Ensure that the spring locking pin is pointing out on the RH side of the roller tube.
10. Slide the RH endcap on the mounting bracket and over the RH spindle of the roller tube.
11. (*Detail A*) Attach the endcaps and roller tube together using the two 10-32 x 1/2 screws removed previously.
12. Secure the RH endcap assembly to the mounting bracket using the two (2) #10 x 1/2 screws removed previously.
13. Confirm the fabric is centered in the awning rail.

**CAUTION**

When the pins are removed, the roller tube springs will quickly roll up any slack material. Use care that hands and fingers are out of the way.

14. (*Detail B*) Remove the spring locking pin from the end of the roller tube assembly.
15. Open and close the room to ensure that the fabric is rolling up straight on the rollbar.
16. Secure the fabric to the awning rail using two #6 x 3/8 screws through the rail and fabric.

SPRING/ROLLER TUBE REPLACEMENT

⚠ WARNING These procedures deal directly with the pre-wound spring tension in the roller tube. If the spring is prematurely released, the roller tube can spin out of control. Failure to exercise care and/or failure to follow the instructions can result in personal injury and/or property damage.

NOTES:

1. Replacement roller tube assemblies are complete and include the spindles and pre-wound spring assembly.
2. The instructions in this section are for replacing only the roller tube assembly or spring assembly.
3. If replacing the fabric and roller tube assembly, follow the "Canopy Replacement" instructions on page 2. Substitute the replacement roller tube for the existing roller tube.
4. If replacing the fabric and spring assembly, follow the "Canopy Replacement" instructions on page 2. Repair the roller tube assembly following the instructions for "Replacing the Spring Assembly" on page 5 before installing the new fabric.

REMOVING THE ROLLER TUBE ASSEMBLY

If not replacing the fabric, it is not necessary to remove the fabric from the coach. The fabric can hang down on the side of the coach.

Refer to Figure 1 "Replacing the Fabric" on page 2.

1. Close the room if open



CAUTION The spring is pre-wound and under tension. The spring locking pin must be inserted before continuing otherwise the roller tube can spin out of control and cause personal injury and/or property damage.

2. *(Detail B)* On the right end of the roller tube, insert a spring locking pin through the bearing and spindle; it may be necessary to twist the roller to align the holes. The locking pin is a 3/16 x 1 1/4 cotter pin or equivalent. Place tape over the head of the pin to avoid the pin coming out.
3. *(Detail A)* Remove the 10-32 screws from the endcaps (one in each endcap)
4. On the right side, remove the two #10 x 1/2 screws from the mounting bracket.
5. Hold the roller tube and slide the right endcap assembly out and away from the roller tube. It is not necessary to remove the endcap assembly from the bracket.
6. Pull the roller tube from the left endcap then unroll the fabric from the roller tube.
7. *(Detail C)* Remove the retaining screws from the roller tube spindles and save.
8. Slide the roller tube off the fabric.

If replacing the roller tube assembly, go to "Installing the Roller Tube Assembly" on page 6.

If replacing the spring assembly, go to "Replacing the Spring Assembly" on page 5.

REPLACING THE SPRING ASSEMBLY

This procedure will require two people.

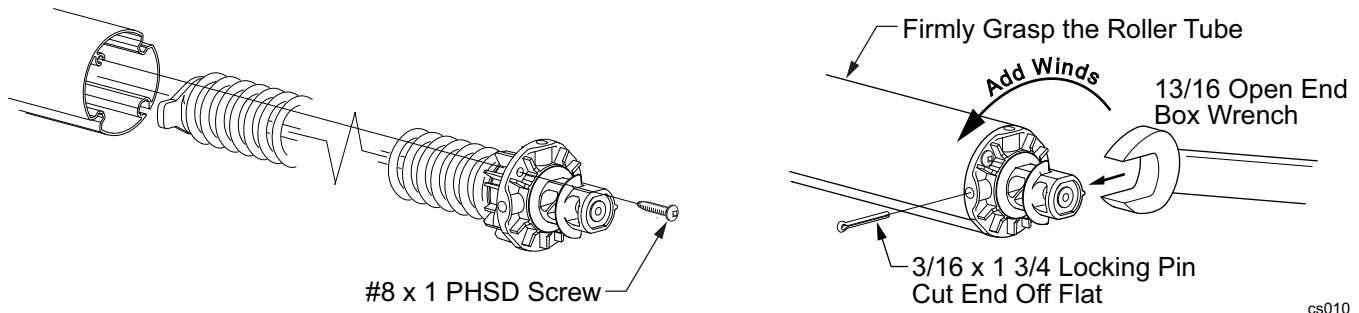


Figure 2. Replacing the Spring Assembly.

1. Remove the roller tube from the vehicle.
2. Remove the existing spring winds.

Tip: Use a pair of good quality work gloves to protect the hands while holding onto the roller tube. Insulated rubber gloves provide a solid grip.

- 1.1. Firmly hold onto the roller tube.



CAUTION The spring is wound and under tension. When the pin is removed, the spindle will turn rapidly. To avoid personal injury, keep hands away from the spindle until the spring has unwound.

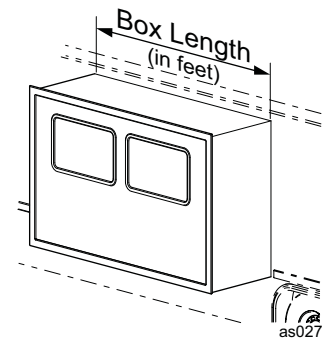
- 1.2. Remove the spring locking pin and allow the spring to unwind.
3. After the spring is unwound, remove the #8 x 1 pan head square drive screw that attaches the spindle assembly to the roller tube and save.
4. Remove the spring assembly from the roller tube and set aside.
5. Insert the new spring assembly and secure to the roller tube with the #8 x 1 screw removed previously.

Calculating the Spring Winds

The spring winds are calculated based on the box length of the slide-out. To calculate the spring winds (room closed), measure the box length IN FEET.

<u>Box Length</u>	<u>Winds Required</u>
• 47" or less	Spring Winds = 11
• 4' to 13'11"	Spring Winds = Number of feet +7
• 14' to 16' 4"	Spring Winds = 21

*Example: Box Length = 10' 4"; spring winds = 10 + 7 = 17.
Always round down to the nearest whole number.*



Adding Spring Winds

NOTE: Have a spring lock pin available. The pin should be a solid 3/16 x 1 1/4 shaft with a flat end such as a drill bit. If using a 3/16 cotter pin, cut the two legs flush so that the end is flat.

6. Have one person firmly hold the roller tube stationary.
7. Using a 13/16 box wrench or equivalent, turn the spindle counter clockwise to add spring winds. One complete rotation of the spindle equals one spring wind.
8. After adding the required number of spring winds, firmly hold the wrench and roller tube and insert the spring locking pin.
9. Hold the pin in place and slowly release the wrench. Place tape over the head of the pin to avoid the pin coming out.

After completing the spring replacement, go to "Installing the Roller Tube Assembly".

INSTALLING THE ROLLER TUBE ASSEMBLY

If the new fabric is being installed with the replacement or modified roller tube, use the installation instructions for "Installing the Fabric and Roller Tube" on page 2.

For the referenced Details, refer to Figure 1 "Replacing the Fabric" on page 2.

If the fabric was left on the coach:

1. Slide the roller tube onto the fabric. Make sure that the right end (spring end) of the roller tube is on the RH side of the canopy.
2. (Detail C) After the fabric is centered, hold the polycord in the bottom of the fabric slot. Place one (1) #10 x 2 PHSD screw through the fabric slot hole and polycord. The screw must be positioned to thread into the metal of the roller tube slot and the edge of the polycord. The screw action will pull the polycord further into the slot hole. DO NOT OVERTIGHTEN, maximum torque 16 in-lbs.

NOTE: The attaching screws are offset from the center of the polyrods. Ensure that the polyrod is positioned in the large diameter of the fabric slot. The screws thread into the extrusion and the top of the polyrod.

Tip: Place a small wedge (such as a small flat blade screwdriver) between the top of the fabric and the slot to hold the polyrod down to start the screw in the correct position. Use care to not damage the fabric.

3. After tightening the fabric in the slot from one end of the roller tube to the other end, repeat step 2 to secure the fabric.
4. Roll the fabric onto the roller tube. Note the direction of the wrap as shown in Detail C. The view is of the RH spindle.

NOTICE

Failure to roll up the slack before installing the roller tube will reduce the spring tension. Reduced spring tension may cause the fabric to sag and not roll up correctly when the room is closed.

5. Insert the roller tube spindle into the LH endcap. The flats on the roller tube spindle will align with the flats in the endcap. Ensure that the spring locking pin is pointing out on the RH side of the roller tube.
6. Slide the RH endcap on the mounting bracket and over the RH spindle of the roller tube.
7. (Detail A) Attach the endcaps and roller tube together using the two 10-32 x 1/2 screws removed previously.
8. Secure the RH endcap assembly to the mounting bracket using the two (2) #10 x 1/2 screws removed previously.
9. Confirm the fabric is centered in the slat.



CAUTION

When the pins are removed, the roller tube springs will quickly roll up any slack material. Use care that hands and fingers are out of the way.

10. (Detail B) Remove the spring locking pin from the end of the roller tube assembly.
11. Open and close the room to ensure that the fabric is rolling up straight on the rollbar.
12. Secure the fabric to the awning rail using two #6 x 3/8 screws through the rail and fabric.

STANDARD MAINTENANCE

Maintaining a Carefree Ascent slide-out cover is easy. Just follow these basic steps:

- Periodically check that the fasteners are tight. Tighten if necessary.
- Keep the awning fabric clean.

FABRIC CARE

NOTICE Do not use oil based cleaners or any caustic, granulated, or abrasive type cleaners on your Carefree product.

1. One of the best ways to keep the fabric looking good and to delay the need for deep or vigorous cleanings is to hose fabrics off on a monthly basis with clear water. This practice will help prevent dirt from becoming deeply imbedded in the fabric. In most environments, a thorough cleaning will be needed every two to three years.
2. When it's time for a thorough cleaning, the fabric can be cleaned while still on the awning frame.
 - For Vinyl Fabric – Use a soft brush and warm water with soap.
3. When cleaning the fabric, it is important to observe the following:
 - Always use a natural soap, never detergent.
 - Water should be cold to lukewarm, never more than 100°F.
 - Air-dry only. Never apply heat to the fabric.
 - Always allow the fabric to dry thoroughly before rolling up the canopy.

Mildew

Mildew is a fungus growth that looks like dirt. Vinyl coated polyester fabrics are mildew resistant because of a chemical biocide in the vinyl coating. Under ordinary conditions, mildew will not appear. However, in areas where high temperature and humidity are common, mildew can be a problem and required the material to be washed more frequently. Thoroughly rinse the fabric with clean water and allow to air dry completely before rolling up the canopy.

Pooling

When water collects on the top of the fabric, this is known as "pooling". This can occur during inclement weather or if a running air conditioner discharges over the awning. The water is dumped when the awning is retracted. It is recommended that if water accumulates on the top; retract the room in steps (8"-12") to dump the water. This will help prevent the fabric from stretching or distorting.

IMPORTANT NOTE: If the room must be closed during wet weather (rain), close the room in increments (approximately 6-8"). This is to allow water to run off while the room is closing and prevent sudden pooling.

HARDWARE MAINTENANCE

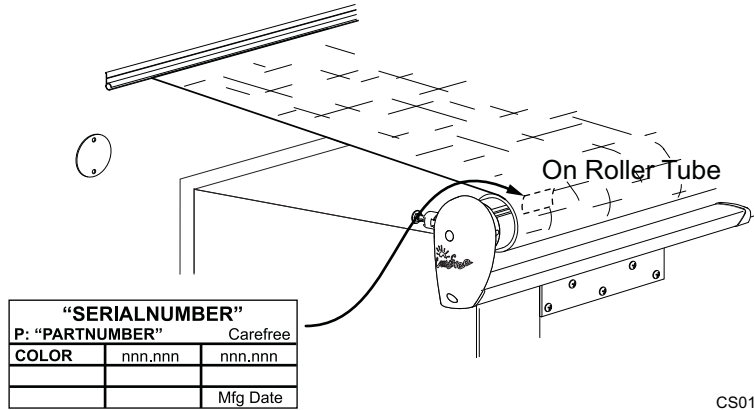
- Replace any parts that become damaged.
- Periodically check all mounting hardware, screws, lags, etc., and re-tighten when necessary.

Roller Tube Noise

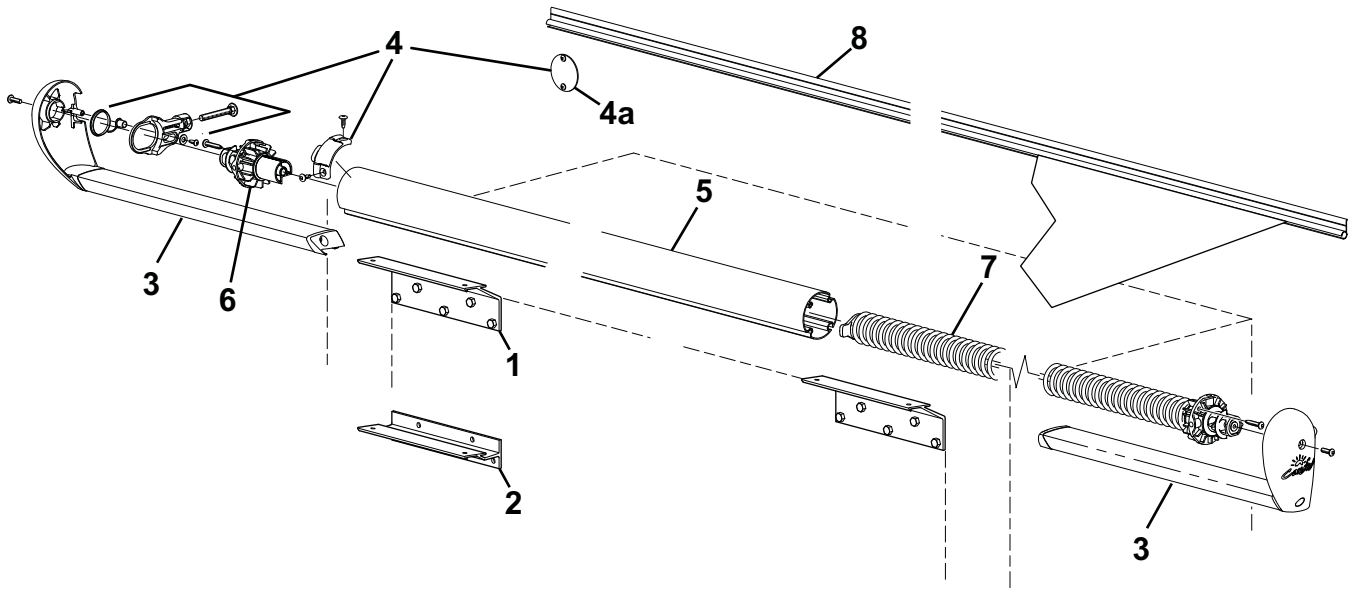
After a period of use, the roller tube bearing may make some squeaking noises. Spray some silicone lubricant between the flange on the pivot shaft and the roller tube bearing. Open and close the room and repeat the application until the lubricant has penetrated between the shaft and bearing.

PART NUMBER LISTING

PART NUMBER/SERIAL NUMBER LOCATION



ILLUSTRATED PARTS LIST



cs501

Item	Part Number	Description	Notes
1	R012546-005	Bracket, Mounting Kit, Tall	White 2
	R012546-006	Bracket, Mounting Kit, Tall	Black 2
2	R012545-005	Bracket, Mounting Kit, Short	White 2
	R012545-006	Bracket, Mounting Kit, Short	Black 2
3	R012540-005	Endcap and Mounting Tube Assy	White 3
	R012540-006	Endcap and Mounting Tube Assy	Black 3
4	R001583	Plunger Kit	White 5
	R001584	Plunger Kit	Black 5
4a	R041276-005	Striker Plate	White
	R041276-006	Striker Plate	Black
5	R001580-xxx	Roller Tube Assy	4
6	R001581	Spindle Assy, LH	
7	R001582	Spring Assy, RH	
8		Awning Rail	See Hardware and Accessories

- Notes:
- xxx = Length in inches
 - Items 1 & 2 contain 2 brackets and attaching hardware.
 - Item 3 contains 1 ea LH and RH end caps w/ mounting tubes assembled. Plunger mechanism is part of the LH endcap assembly.
 - Roller tube assy (item 5) is complete and includes roller tube, LH spindle assy (item 6) and prewound spring assy (item 7).
 - Plunger kit (item 4) is used for RH and LH applications.

