

REPLACEMENT INSTRUCTIONS TWO STEP AWNING

■ FABRIC

Tools and Supplies Required:

5 x 5/16" Bolt
Screwdriver
Electric Drill
Step Ladder
3/16" Pop Rivets
End Cap Guide

■ ROLLER TUBE

1/8 x 2" Cotter Pin
Pop Rivet Tool
Adjustable Wrench
1/8" Drill Bit
Small File
3108896.006 Crank

■ TORSION ASSEMBLY

Wire Ties (large)
Socket Wrench Set
3/16" Drill Bit
1/8" Pop Rivets

A. GENERAL INSTRUCTIONS

The Fabric Roller Tube Assembly (FRTA) consists of a fabric, a roller tube, and torsion assemblies.

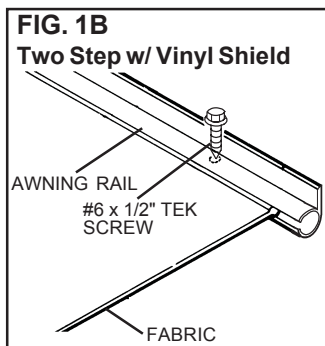
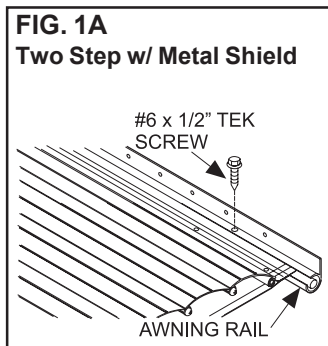
⚠ WARNING

These instructions must be read and understood before installation of this kit. This kit must be installed by a Dometic Service Center or a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

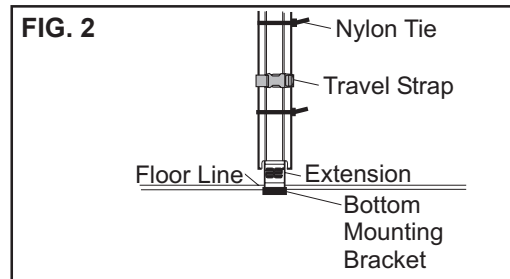
B. REMOVAL OF AWNING FROM COACH

Note: Awning removal from the coach is NOT necessary when replacing a torsion assembly. Proceed to Section C, Steps 1 & 2; Section D, Steps 1-3, and Section H, Steps 1-4.

1. In all instances of fabric or roller tube replacement, it will be necessary to have a large work area to allow complete unrolling of the awning. This work area must be clean and smooth so the fabric will not be damaged.
2. Remove the TEK screws securing the awning fabric at each end of the awning rail. See FIG. 1A & 1B
3. Remove the lag bolts holding the bottom mounting brackets. See FIG. 2.



4. Wrap two wire ties around arm; one below the travel strap, the other above the gas shock bracket. This will prevent the arms from rapidly extending. Repeat steps 3 and 4 on both arms. See FIG. 2.



⚠ WARNING

Arms under tension from the gas strut are dangerous. Use extreme care. If not controlled the arms will extend quickly. Keep hands and clothing clear of awning arms, as personal injury may result.

5. To keep the awning from unwinding during this step, be sure the cam lock lever is in the roll down position. Make sure each torsion has been pinned for positive locking of the roller tube. See Section C, Steps 1 and 2.

Note: The next two steps require three people.

6. Remove the lag bolts holding the top brackets to the coach.
7. While lifting the arms to support the FRTA, slowly walk the awning fabric out of the awning rail.

REVISION A

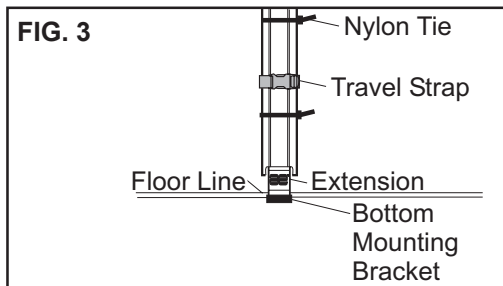
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C. UNWINDING A TORSION ASSEMBLY SPRING

⚠ 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.

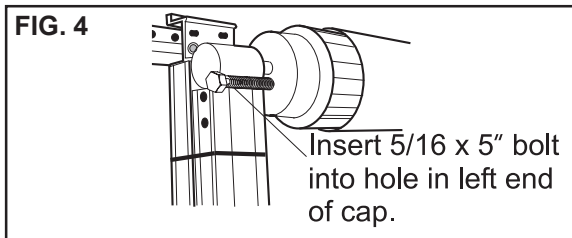
Note: If the awning is installed on a coach, complete the following steps on a step ladder with the awning completely extended. This will relieve the tension in the gas strut and prevent possible injury due to rapid extension of the arm. If awning is not installed on a coach, wrap two wire ties around arms; one below travel strap, the other above gas shock bracket. See FIG. 3.



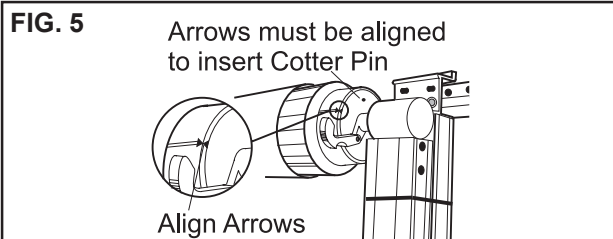
⚠ WARNING

Severe injury can result from the rapid spin of the top casting. Use the 3108896.006 crank (NEVER use bare hands) to handle a top casting under spring tension.

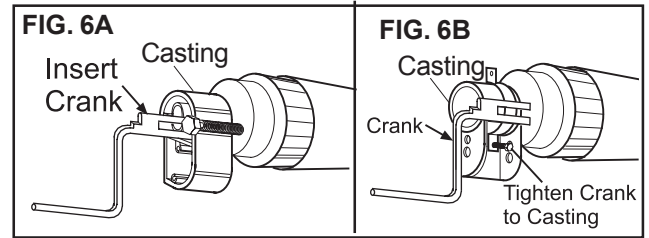
1. Before the arm is removed from the torsion, it must be pinned to prevent uncontrolled unwinding of the spring.
 - a. To pin the left hand torsion, insert a 5/16 x 5" bolt into the 5/16" hole in the end cap. The top casting acts as a stop, preventing the torsion from turning. See FIG. 4.



- b. To pin the right hand torsion, align the arrow on the end cap with the arrow on the lock lever hub. Insert the cotter pin into the hub, making sure it is through the inside hole in the end cap. See FIG. 5.



- Note:** Torsions must be pinned for Step 2. See Step 1.
2. If your end casting looks like the one in FIG. 6A go to Step 3. If your end casting looks like the one in FIG. 6B go to Step 5.



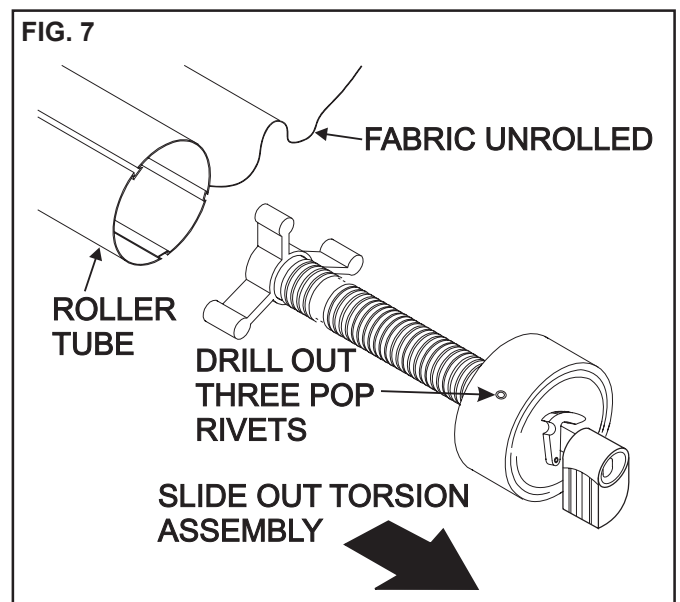
3. Remove the two nuts and screws holding the arm to the torsion. The FRTA can now be lifted out of the arm.
4. Insert the torsion winding crank (3108896.006) into the top casting. With a firm grip on the crank, remove the cotter pin (RH torsion, See FIG. 5) or 5/16 x 5" bolt (LH torsion) from the end cap/hub. See FIG. 4. Slowly unwind the turns of tension on the spring. See FIG. 6A. Repeat on other end.

Note: Torsions must be pinned for Step 5. See Step 1.

5. Remove the #1/4 x 20-0.5 hex head bolt from the arm. Make sure the cotter pin (RH torsion) - See FIG. 5 - or 5/16" x 5" bolt (LH torsion) - See FIG. 4 - are in place before you lift the end casting out of the arm. Repeat on other end.
6. While casting is still in the arm, place the 3108896.006 crank on the back side of the casting. Insert the screw just removed through the hole in the bracket on the crank. Tighten the screw. Now the arm can be removed from the torsion. Slowly unwind the turns of tension on the spring. See FIG. 6B.

D. HOW TO REMOVE A TORSION ASSEMBLY

1. Make sure the torsion spring has been relieved of its tension. See Section C
2. Mark or make note of the location of the fabric and the end cap on the roller tube. This is necessary to reposition the new torsion, fabric or roller tube exactly the same when the new part is installed.
3. Drill out the three rivets using a 3/16" drill bit. Remove assembly from roller tube. Clean out any burrs or rivet bodies left in the tube. See FIG. 7.



E. HOW TO REMOVE FABRIC FROM ROLLER TUBE

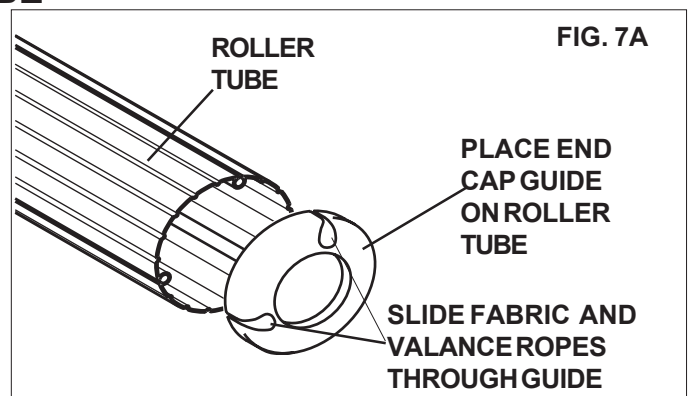
1. Remove awning from coach. See Section B.
2. Remove both torsions. See Section D, Steps 1-3 for torsion removal.
3. Roll the awning completely out on a clean smooth surface.
4. With the awning laying flat, slide the roller tube out from fabric.

Note: Use needle nose pliers to spread open the channel before removing fabric.

F. INSTALLING FABRIC ON ROLLER TUBE

1. Unfold the new fabric and lay it on top of the existing fabric in the **exact same position**. Be sure the new fabric is the correct size and color. If roller tube is being replaced, make sure it is the correct length and position it the same as the original.
2. Dometic requires the use of the end cap guide to prevent damages to the fabric, when replacing the fabric/roller tube. Place the end cap guide supplied with the replacement fabric/roller tube on the end of the roller tube. Slide the fabric and valance ropes through the end cap guide and onto the roller tube. See figure 7A.

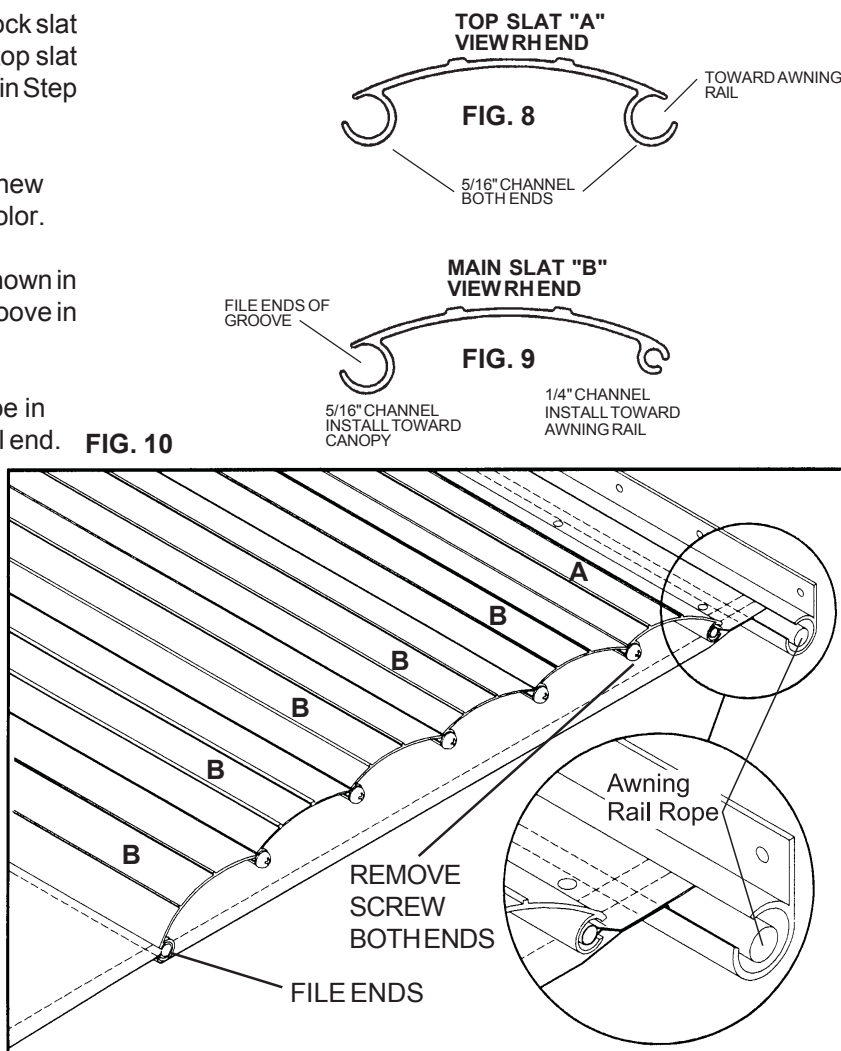
Note: When changing the fabric, it is vital that the same groove(s) be used. This eliminates the need to redrill any holes.



3. Center the fabric on the roller tube and hand-roll the entire assembly in the same direction as the original fabric.
4. See Section H - Replacing Torsion Assemblies.
5. See Section I - Rewinding Torsion Assembly Spring.

G. FABRIC REPLACEMENT ON TWO STEP AWNING WITH ROLLER COVER

1. Remove the two screws (one on each side) that lock slat "A" to first slat "B". See FIG. 8, 9 & 10. Slide the top slat "A" off slat assembly and fabric. Keep for re-install in Step 5.
2. Slide remaining slat assembly off fabric and lay new fabric over old one. Check for correct size and color.
3. The new replacement fabric will be installed as shown in FIG. 10. Use a small file and round ends of the groove in the 5/16" end of slat "B". See FIG. 9 & 10.
4. Slide connected slat assembly onto the poly rope in fabric located approximately 12" from awning rail end. See FIG. 10.
5. Slide slat "A" onto poly rope (located 1" from awning rail) and onto first slat "B" at the same time. See FIG. 10.
6. Replace the screws removed in Step 1.

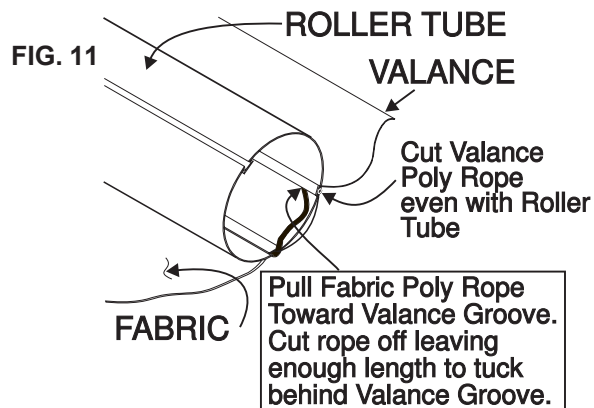


H. REPLACING THE TORSION ASSEMBLY

1. The poly rope on the fabric right hand side must be pulled toward the valance groove, leaving enough length to tuck it behind the valance groove (cut off if necessary). The poly rope for the valance is cut off even with the roller tube. See FIG. 11.
2. The poly ropes on the left hand end of the roller tube should be pulled toward and tucked into the groove. See FIG. 11.
3. Reinstall the torsion assembly in the roller tube. Align rivet slots on the end cap with the holes in the roller tube. Be sure the new torsion is in the same position as the original torsion. If the position of the torsion assemblies was not noted, they must be aligned as follows:
 - a. Left hand torsion assembly: align empty groove of the roller tube with the slot in the end cap.
 - b. Right hand torsion assembly: has an arrow on the outside of the end cap and the hub. The arrows match up with the empty groove in the roller tube. See FIG. 5.

4. Secure torsion assembly to roller tube using the 3/16 x 3/8" long stainless steel pop rivets.

Note: If the roller tube is new, the rivet hole must be drilled.



I. REWINDING TORSION ASSEMBLY SPRING

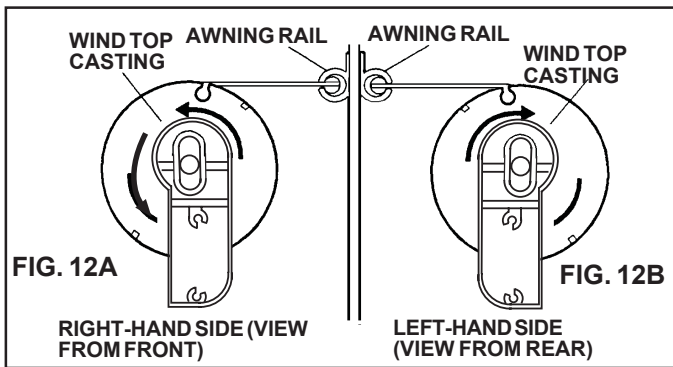
⚠ WARNING

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.

Note: Make sure torsion has been completely unwound before winding torsions.

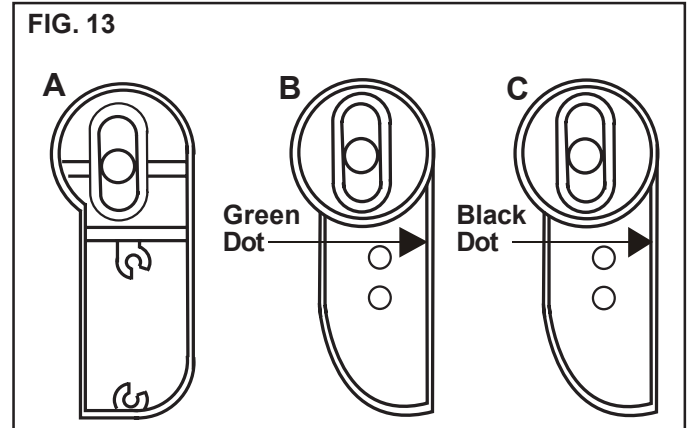
- Using the torsion winding crank (3108896.006), wind torsion assembly to the number of turns indicated in the Torsion Assembly Torque Chart and in the direction shown in FIG. 12A & 12B. See FIG. 6A & 6B for proper positioning of torsion winding crank.

Important: Never exceed the number of turns listed in the chart.



- Place a 1/8" cotter pin through the hole in the right end cap and torsion rod. This will prevent the rapid spin-off of the top casting during installation. See FIG. 5.
- Place a 5/16 x 5" bolt in the hole in the left end cap. This will prevent the rapid spin-off of the top casting during installation. See FIG. 4.

TORSION ASSEMBLY TORQUE SPECIFICATIONS						
Awning Length	Number of Turns					
	Casting A*		Casting B*		Casting C*	
	Roll Up	Extended	Roll Up	Extended	Roll Up	Extended
12'	9	17	5	13	10	18
13'	10	18	5	13	11	19
14'	10	18	5	13	11	19
15'	10	18	5	13	11	19
16'	12	20	6	14	12	20
17'	12	20	6	14	12	20
18'	12	20	6	14	12	20
19'	13	21	6	14	13	21
20'	13	21	6	14	13	21
21'	13	21	6	14	13	21



- Reinstall the top casting in the arms.

Note: If the casting on the torsion looks like "A" in FIG. 13, use the torque listed in Chart for Casting A. If the casting looks like "B" in FIG. 13, use the torque listed in Chart for Casting B. Casting B also has a green dot on the inside of the back. If casting looks like "C" in FIG. 13, use the torque listed in Chart for Casting C. Casting C also has a black dot on the inside of the back.
- Open and close the awning several times to test the operation. If problems are still present, replace both torsions.