



## REPLACEMENT INSTRUCTIONS FOR AWNING

■ Fabric      ■ Roller Tube      ■ Torsion Assembly

For Models 8500, 8500 PLUS, 9000, 9000 PLUS  
& SUNCHASER II

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### **WARNING**

This manual must be read and understood before installation, adjustment, service, or maintenance is performed. This unit must be installed by a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

### **AVERTISSEMENT**

Lire et comprendre ce manuel avant de procéder à l'installation, à des réglages, de l'entretien ou des réparations. L'installation de cet appareil doit être effectuée par un réparateur qualifié. Toute modification de cet appareil peut être extrêmement dangereuse et entraîner des blessures ou dommages matériels.

## SERVICE INSTRUCTIONS

**MODEL**  
8500, 8500 PLUS, 9000,  
9000 PLUS  
& SUNCHASER II  
**Series**

**REVISION:**  
Form No. 3107299.079 4/09  
(Replaces 3107299.061)  
(French 3109898.043)  
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LaGrange, IN 46761

# FOR MODELS 8500, 8500 PLUS, 9000, 9000 PLUS & SUNCHASER II

## Tools Required:

Vise Grips®  
Socket Wrench Set  
3/16" Drill Bit  
1/8" Pop Rivets  
End Cap Guide

Screwdriver  
Electric Drill  
Step Ladder  
3/16" Pop Rivets  
Pop Rivet Tool

Adjustable Wrench  
1/8" Drill Bit  
Small File

## A. GENERAL INSTRUCTIONS

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

### ⚠ 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.

### ⚠ WARNING

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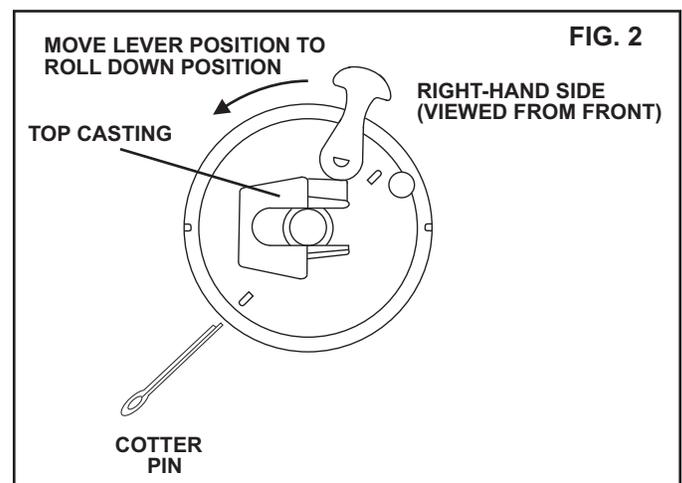
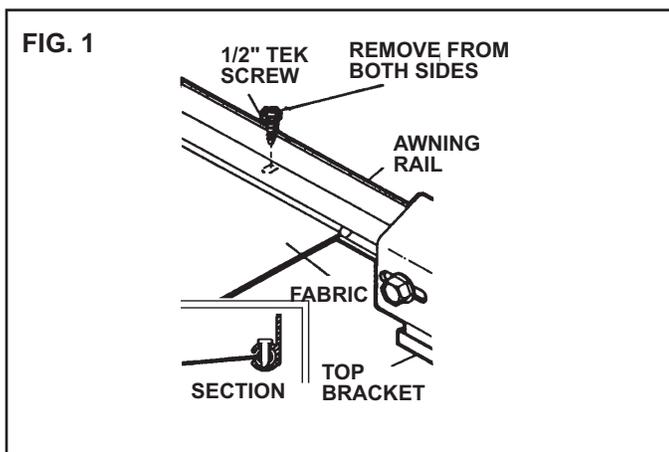
**Note:** For OneStep fabric replacements, contact Dometic Technical Service and request guide 3109470.025

## B. REMOVAL OF THE AWNING FROM THE COACH

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

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 or roller cover at each end of the awning fabric. See FIG. 1.
3. Remove both top mounting brackets on the ends of the awning rail. See FIG. 1

4. Remove both of the patio feet from their mounting brackets and extend the adjustable arms until each patio foot rests on the ground and lock button locks in a hole.
5. Slide the awning fabric or roller cover out of the awning rail.
  - a. To keep the awnings from unwinding during this step, be sure the cam lock lever is in the roll down position. A 1/8" cotter pin can be inserted in each torsion assembly for positive locking of the roller tube. See FIG. 2.



## C. UNWINDING A TORSION ASSEMBLY SPRING

**Note:** If the awning is installed on a coach, complete the following steps on a step ladder, with the awning fabric unrolled two feet from the awning rail. The unwinding can also be done while standing on the ground and the awning fully extended and the opposite side rafter locked in place. The torsion spring will be wound with 8/eight more turns in this position and is extremely dangerous.

### **⚠ WARNING**

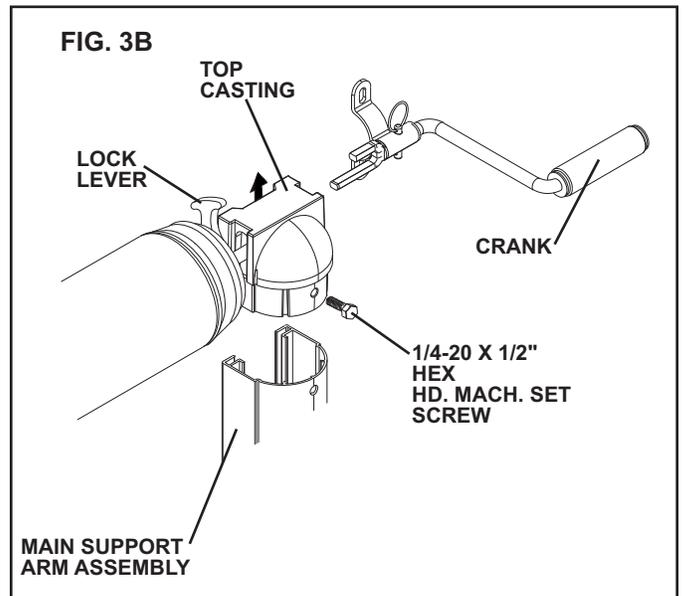
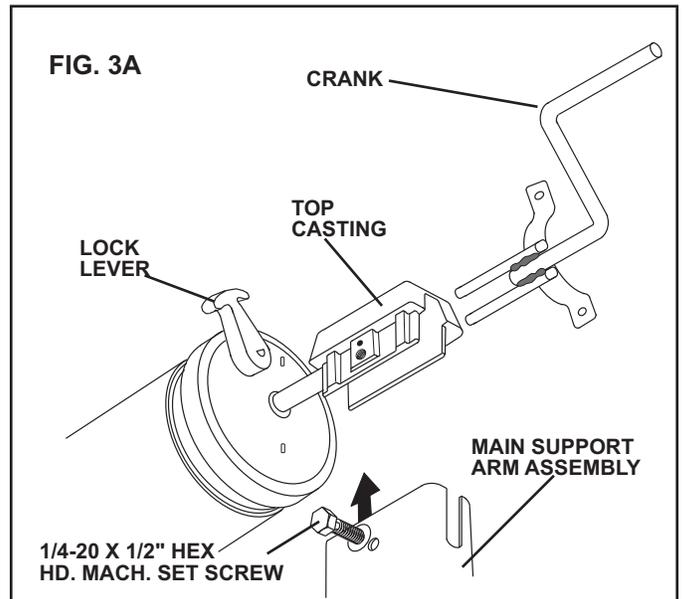
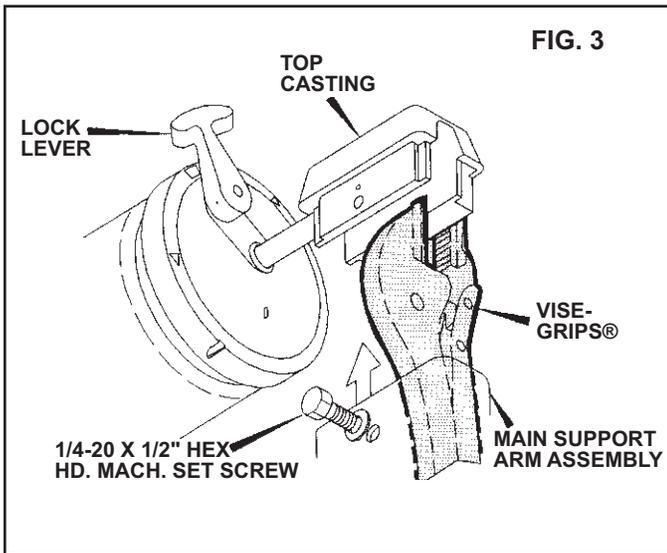
**Severe injuries can result from the rapid spin-off of the top casting. Use Vise Grips® - Never use bare hands - to handle a top casting under spring tension.**

1. Clamp a Vise Grip® tightly on the top casting, or insert the crank (3107905.006) into top casting. Remove the 1/4-20 hex head machine screw from the top casting. See FIG. 3 and FIG. 3A.

**Important:** For newer Universal and Sunchaser II models, vise grips cannot be used. Use the crank (3308335.003) supplied in 3308334.006U torsion winder kit. See FIG. 3B.

2. Take the top casting carefully out of the main support arm (see NOTE below). Slowly let the torsion spring unwind completely. Repeat Steps 1 & 2 for the opposite end.

**Note:** If the awning's right-hand torsion assembly has been pinned, the cotter pin must be removed from the torsion assembly before the spring can be unwound. The cam lock lever on the right-hand torsion assembly must be turned clockwise to the roll up position, before the spring can be unwound.

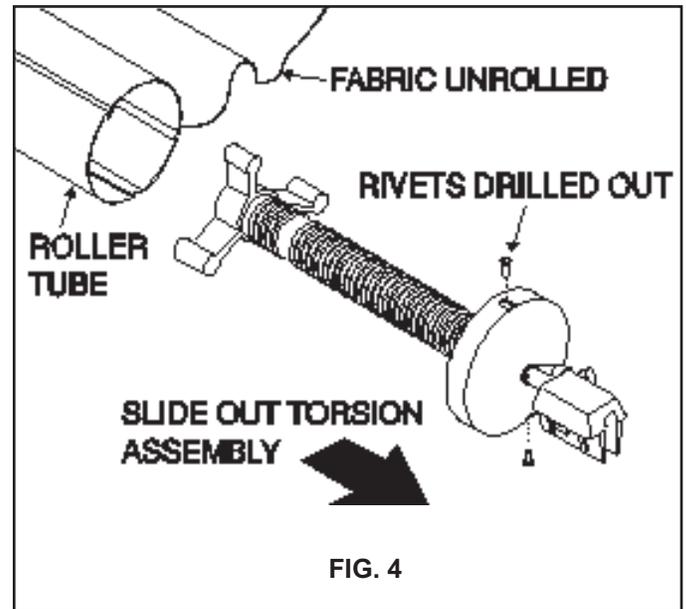


## D. HOW TO REMOVE A TORSION ASSEMBLY

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.

**Note:** Some roller tubes have notches and the end cap has tabs that will allow the torsion to fit only in one position. The fabric must be positioned exactly as shown in FIG. 5 or the lock lever will not be positioned correctly when installed on the coach.

3. Drill out the two rivets using a 3/16" drill bit. Remove torsion assembly and rivet bodies from roller tube. See FIG. 4.



## E. HOW TO REMOVE FABRIC FROM ROLLER TUBE / COVER

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

4. The metal roller cover on 8500 and 9000 models are crimped to the poly ropes. Use needle nose pliers and flat blade screw driver to spread open the channel before removing fabric.

**Note:** Some 9000 model awning have secured the fabric to the roller cover with 1/8" pop rivets. It is necessary to remove the 1/8" pop rivets from both ends of the roller cover. Once the rivets are removed, you can slide the fabric out of the cover. See FIG. 6 & 7.

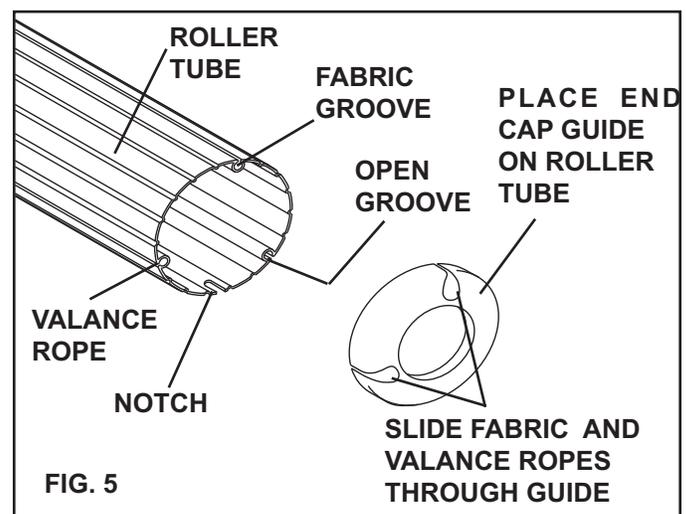
## F. INSTALLING FABRIC ON ROLLER TUBE

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 with the notch located as shown in FIG. 5.
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 5.

**Note:** When changing the fabric, it is vital that the same groove(s) be used. This eliminates the need to re-drill any holes (i.e. center support).

3. Guide the roller tube over the poly-rope(s) of the fabric. Be careful not to damage the roller tube or the fabric.

4. Center the fabric on the roller tube and hand-roll the entire assembly in the same direction as the original fabric.



## G. FABRIC REPLACEMENT ON 9000 WITH 7 SLAT ROLLER COVER

Installing a new replacement fabric on a Model 9000 roller cover with 7 slats and a vinyl strip. See FIG. 6:

1. Remove vinyl strip **A** (FIG. 11), and hinge slat **B** (FIG. 10) from top slat **C** (FIG. 8). Remove two of Slat **D** (Fig. 9). Discard vinyl strip **A**, hinge slat **B** and the two **D** slats .
2. Remove top slat **C** (FIG. 8) from roller cover assembly and keep to be installed later.

**Note:** 9000 awning with 6 slats requires removal of one slat **D**. (8500 and 9000 with 5 slats will require one slat **D** to be remove and discarded if a new roller cover is being replaced.)

3. The new replacement fabric will be installed as shown in FIG. 7.
4. Use a small file to round the ends of the groove in the 5/16" channel of the main slat **D** (FIG. 9).

5. Slide the 5/16" channel of the main slat **D** onto the poly-rope located approximately 12" from the top edge of the fabric.
6. Install two pop rivets in the main slat **D** on both ends to prevent the fabric from shifting in roller cover. If a new roller cover assembly is being installed, a 1/8" hole will need to be drilled 1-1/2" to 2" from end of the main slat for the pop rivets. To prevent damage, be sure to remove any burrs left by the drill.

**Note:** On 8500 models crimp the channel with pliers to hold fabric.

7. Use a small file to round the ends of the 5/16" grooves on the top slat **C** (FIG. 8) to prevent tearing of the fabric. Slide the top slat **C** onto both the 1/4" channel of the fifth main slat **D** and the poly-rope 1-1/2" from the edge of the fabric.
8. Install the screws into the edge of the roller cover assembly. See FIG. 7.

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## H. FABRIC REPLACEMENT ON 9000 WITH 6 SLAT ROLLER COVER

Installing a new replacement fabric on 9000 Model awning roller cover with 6 slats. See FIG. 7.

1. Follow steps 2-8 in Section G.

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## I. FABRIC REPLACEMENT ON 8500 AND 9000 WITH 5 SLAT ROLLER COVER

Installing a new replacement fabric on 8500 and 9000 model awning roller cover with 5 slats. Use Section G.

1. Follow steps 2-8 in Section G.

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## J. INSTALLING NEW ROLLER COVER WITH 6 SLATS

Installing new roller cover on model 9000 with 6 slats. See FIG. 7.

1. Follow steps 1-8 in Section G.

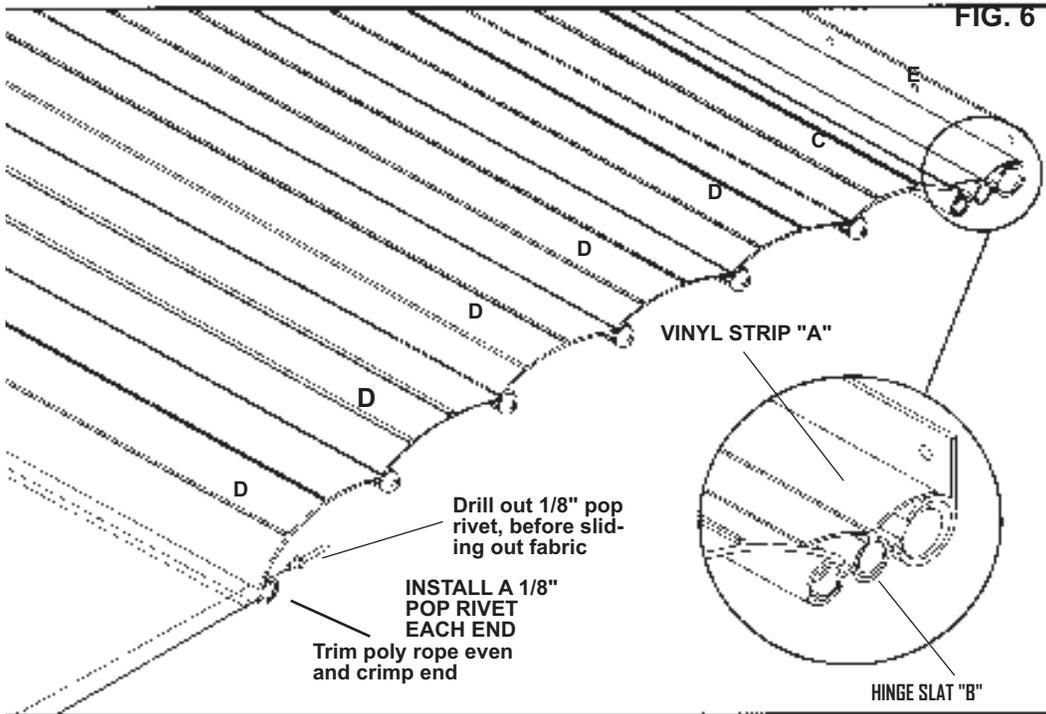
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## K. INSTALLING NEW ROLLER COVER WITH 5 SLATS

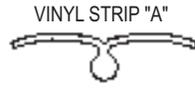
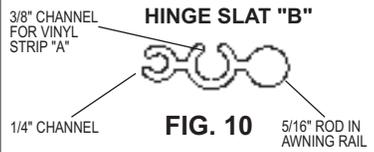
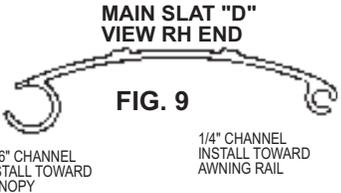
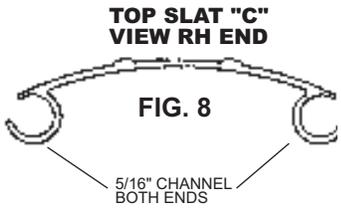
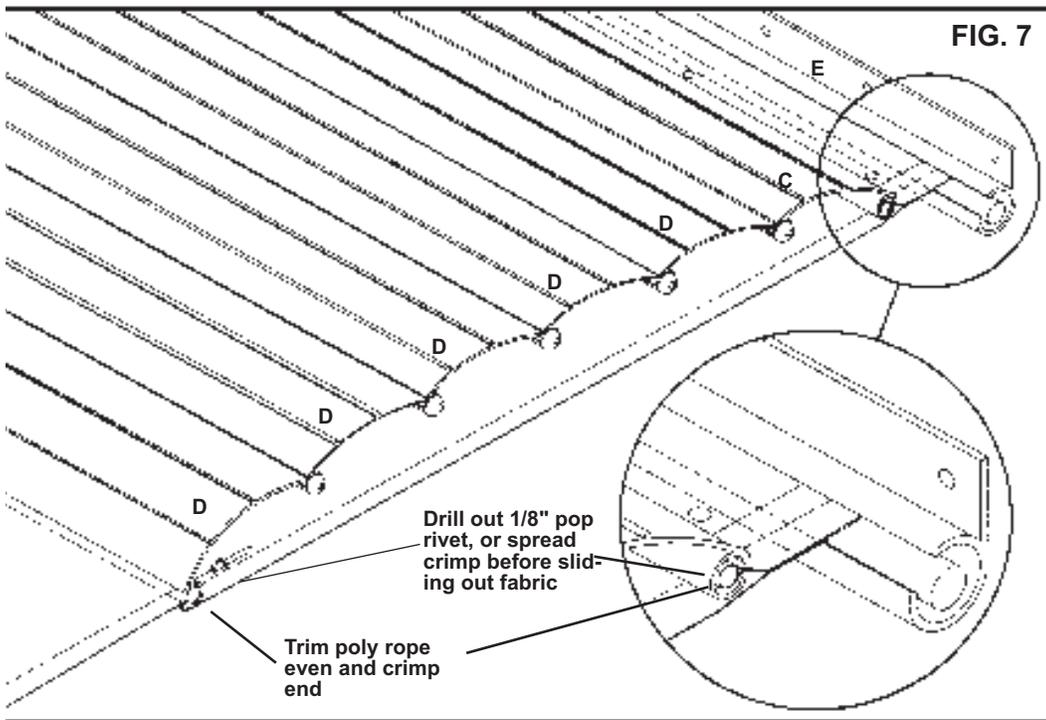
Installing new roller cover on 8500 model with 5 slats. See FIG. 7.

1. Follow steps 1-8 in Section G.
-

# FIGURES 6 THROUGH 11



- FOR FIGS. 6-11**
- A - VINYL STRIP**
  - B - HINGE SLAT**
  - C - TOP SLAT**
  - D - MAIN SLAT**
  - E - AWNING RAIL**



**FIG. 11**

**Note:** FIG. 6 shows 9000 model with 7 slats (1 "B" hinge slat, 1 "C" top slat and 5 "D" slats).

FIG. 7 shows 9000 Model with 6 slats (1 "C" and 5 "D" slats).

## L. REPLACING TORSION ASSEMBLIES

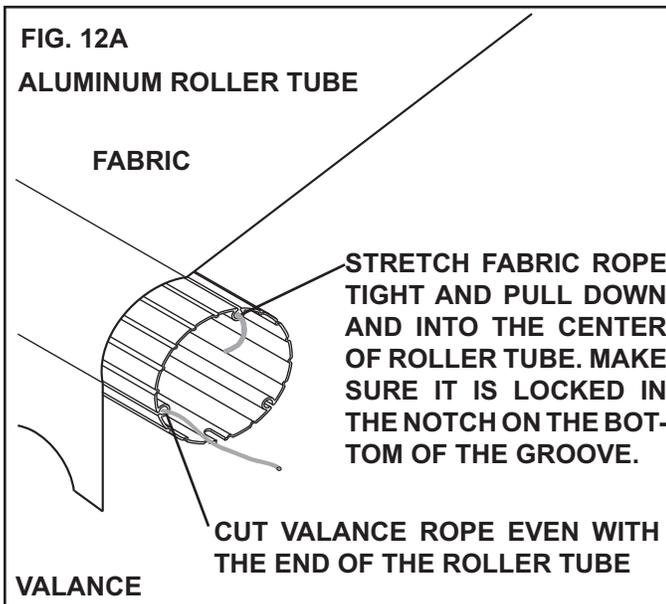
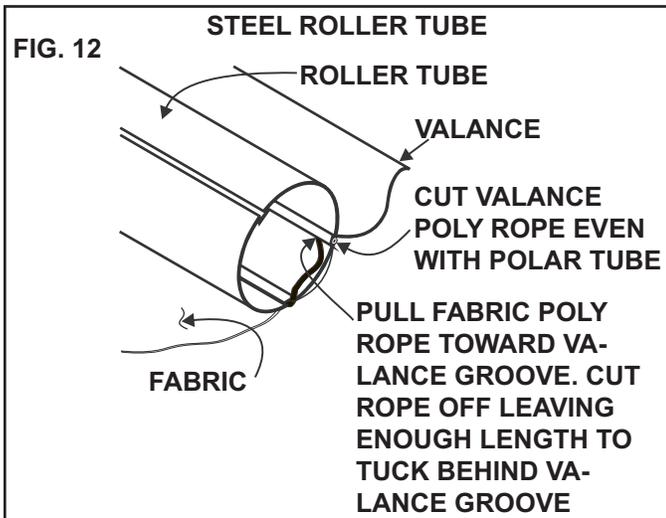
1. To reduce the possibility of the poly rope interfering with the cam lock mechanism, the right-hand torsion requires the valance rope to be cut off even with the roller tube.
  - a. Steel Roller Tube: The poly rope on the fabric side must be pulled toward the valance groove and cut off leaving enough length to tuck it behind the valance groove. See FIG. 12.
  - b. Aluminum Roller Tubes: The poly rope on the fabric side is cut 2" longer than the roller tube. Stretch the poly rope and pull it toward the center of the roller tube. Make sure it is locked in the notch of the groove in the roller tube. See FIG. 12A.
2. Reinstall the torsion assembly in the roller tube. Align the rivet slots on the end cap with the holes in the roller tube - in the exact same position as in Section D, Step 2. If a new roller tube is being used make sure the fabric has been installed as directed in Section "F".

**Note:** If the roller tube is new, the rivet holes are not drilled. The torsion assemblies must be positioned as follows: **The left-hand torsion assembly** position has the open slot in the end cap aligned with the empty groove of the roller tube.

**Position the right-hand torsion assembly** open hole in the end cap in alignment with the empty groove in the roller tube. If a new right-hand torsion assembly is being installed and the roller tube does not have the notch shown in FIG. 5, the two tabs inside the right-hand torsion end cap must be broken off. See FIG. 13A.

**Note:** Placing the end caps as suggested usually positions the lock lever in the proper position when awning is closed. The awning should be opened and closed several times, and checked. The cam lock lever should be at the "11:00" position. The end cap may have to be removed and repositioned if it is not in the proper location. See FIG. 13.

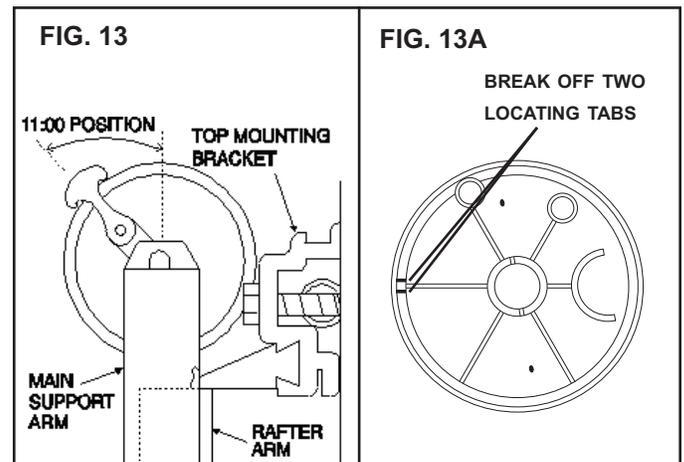
3. The poly ropes on the left-hand end of the roller tube should be trimmed in the same manner as the right-hand. See Section "L" Step 1.



### CAUTION

Models 8500 and 9000 19' - 25' have been manufactured with both standard and heavy duty torsion springs. Before installing the torsion, properly identify (Standard or Heavy Duty) the springs. This is necessary for proper winding of the torsion. See Spring Identification Table on page 8.

4. Secure torsion assemblies to roller using a 3/16" dia x 3/8" long stainless steel pop rivets.



## M. REWINDING TORSION ASSEMBLY SPRING

**Note:** If the awning is installed on a coach, complete the following steps on a step ladder, with the awning fabric unrolled two feet from the awning rail. The winding can also be done while standing on the ground and the awning fully extended and the opposite side rafter locked in place. The torsion spring will be wound with 8/eight more turns in this position and is extremely dangerous.

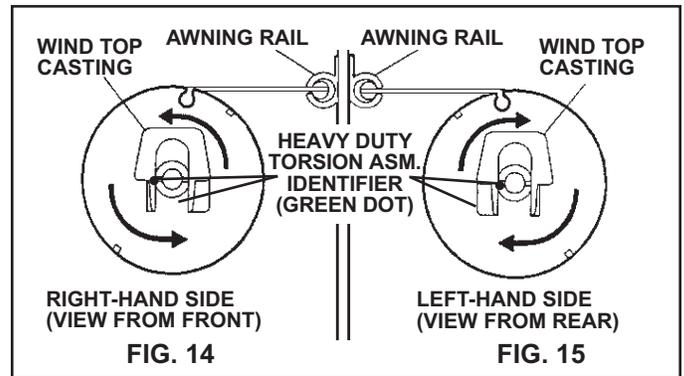
### **⚠ WARNING**

**Severe injury can result from the rapid spin-off of the top casting. Use Vise Grips® - NEVER use bare hands - to handle a top casting under spring tension.**

1. Insert the torsion winding crank (Part Number 3108896.006) or clamp a Vise Grip® tightly on the thickest side of the top casting. See FIG. 3 and FIG. 3A
2. Rewind the torsion assembly to the number of turns indicated by the torsion assembly Torque Chart and in the direction shown in FIGS. 14 & 15.
3. Place a 1/8" cotter pin through the hole in the end cap and torsion rod. This will prevent the rapid spin-off of the top casting during installation of the awning. See FIG. 2.

**Note:** If awning is installed on the coach, place the top casting in the support arm and secure with the 1/4-20 hex head bolt.

TORSION ASSEMBLY TORQUE SPECIFICATIONS		
Awning Length	Model 8500, 8500 PLUS, 9000, 9000 PLUS & SUNCHASER II Standard	Model 8500, 8500 PLUS, 9000, 9000 PLUS & SUNCHASER II Heavy Duty
	Number of Turns	Number of Turns
8'	8	-
8' 6"	8	-
9'	8	-
10'	8	-
10' 6"	8	-
10' 8"	8	-
11'	8	-
11' 6"	8	-
12'	8	-
13'	9	-
14'	9	-
14' 6"	9	-
15'	10	-
15' 6"	10	-
16'	10	-
16' 1"	10	-
16' 6"	12	-
17'	12	-
18'	12	-
18' 6"	12	-
19'	12	8
19' 6"	12	8
20'	12	8
20' 6"	12	8
20' 9"	12	8
21'	12	8
21' 9"	12	8
22'	12	8
23'	12	8
24'	12	8
25'	12	8



SPRING IDENTIFICATION CHART				
	Standard		Heavy Duty	
Wire Dia.	0.135		0.148	
RH	Painted red cap end and no paint on stabilizer end.	Painted red cap end and blue on stabilizer end.	Painted yellow cap end, red on stabilizer end.	Painted white on cap end and black on stabilizer end.
LH	No paint on either end.	Painted blue cap end and no paint on stabilizer end.	Painted yellow on cap end, no paint on stabilizer end.	Painted black on stabilizer end and no paint on cap end.

**Note:** Heavy duty torsions can also be identified by a green dot on the side of the top casting or on the end of the torsion rod. See Figures 14 and 15.

### **⚠ WARNING**

**Before winding the torsion it must be identified for heavy duty or standard springs. Incorrect winding can result in damage and improper operation.**

## N. INSTALLING AWNING ON COACH

1. Follow installation instructions for the awning when replacing on coach.