



When ordering parts, always state:
MODEL NO. - PRODUCT NO. - QUANTITY -
PART NUMBER - DESCRIPTION
For Electric Details also state:
VOLTAGE - WATTAGE

REPLACEMENT TORSION ASSEMBLY FOR TWO STEP AWNINGS

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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 INSTRUCTONS

MODEL KITS

3311311.000(X) RH
3307922.017(X) LH

REVISION A
Form No. 3311312.000 2/07
(French 3311313.000_A)
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LaGrange, IN 46761

Safety Instructions

This manual has safety information and instructions to help users eliminate or reduce the risk of accidents and injuries.

Recognize Safety Information



This is the safety-alert symbol. When you see this symbol in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating instructions.

Understand Signal Words

A signal word, **WARNING** OR **CAUTION** is used with the safety-alert symbol. They give the level of risk for potential injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION used without the safety alert symbol indicates, a potentially hazardous situation which, if not avoided, may result in property damage.

Read and follow all safety information and instructions.

GENERAL INSTRUCTIONS

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. Improper modification of this product can be extremely hazardous and could result in personal injury or property damage.

These instructions are written in a manner that will allow the torsion assembly to be replaced without removing the awning from the RV. Do not separate the FRTA from the hardware arms unless the torsion assembly has been properly pinned.

WARNING

Do not attempt to separate the FRTA from the hardware arm unless the torsion assemblies are pinned. The FRTA is under spring tension and rapid spin off will occur if separated. Failure to follow these instructions could cause serious personal injury or property damage.

If the awning is to be removed from the RV to make this replacement, the arm assemblies must be tied in the closed position before separating the FRTA from the hardware arms.

WARNING

Do not attempt to separate the FRTA from the hardware arm unless the torsion assemblies are pinned and the hardware arm assemblies are tied. The FRTA is under spring tension and rapid spin off will occur if separated. The hardware arm assemblies are pressurized and will spring open. Failure to follow these instructions could cause serious personal injury or property damage.

Tools Required:

Socket Wrench Set
 Pop Rivet Tool
 Step Ladder
 3/16" x 3/8" Pop Rivet
 7/64" x 2-3/4" Cotter Pin
 9/64" x 1.50" Cotter Pin

Screw Drivers
 Electric Drill
 3/16" Drill Bit
 Vise Grips®
 Nylon Wire Ties

A. Torsion Assembly Removal

Note: The following steps are to be completed on a step ladder with the awning fully extended. This will relieve the tension in the gas strut and prevent possible injury due to rapid extension of the arm. If both torsions are being replaced do them one at a time.

⚠ WARNING

When utilizing a step ladder for this procedure, follow step ladder manufacturers safety warnings. Failure to follow these instructions could be extremely hazardous and could result in personal injury.

1. Before either torsion is removed from the roller tube both right and left torsions must be pinned to prevent uncontrolled unwinding of the springs.
2. The torsions are pinned by inserting a 7/64" x 2-3/4" cotter pin through the end cap and torsion rod. See FIG. 1. Turn top casting or FRTA until the pin is parallel with the two slots in the end cap. Put a piece of tape over the head of the cotter pin to prevent it from dropping out.

FIG. 1 LH Torsion
 Turn FRTA Or Top Casting To Align
 Slots In End Cap With Pin

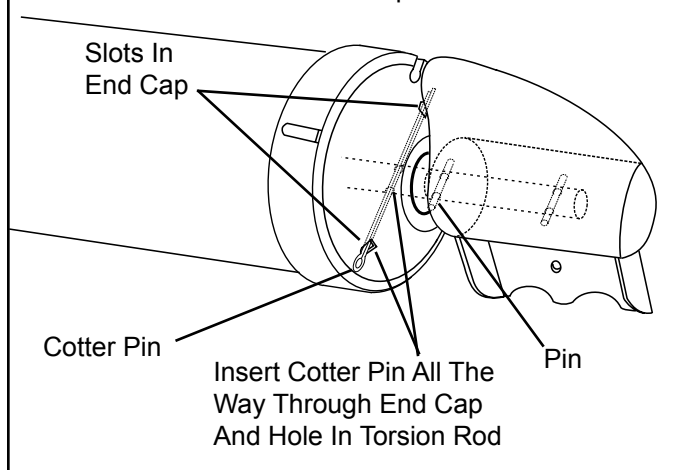
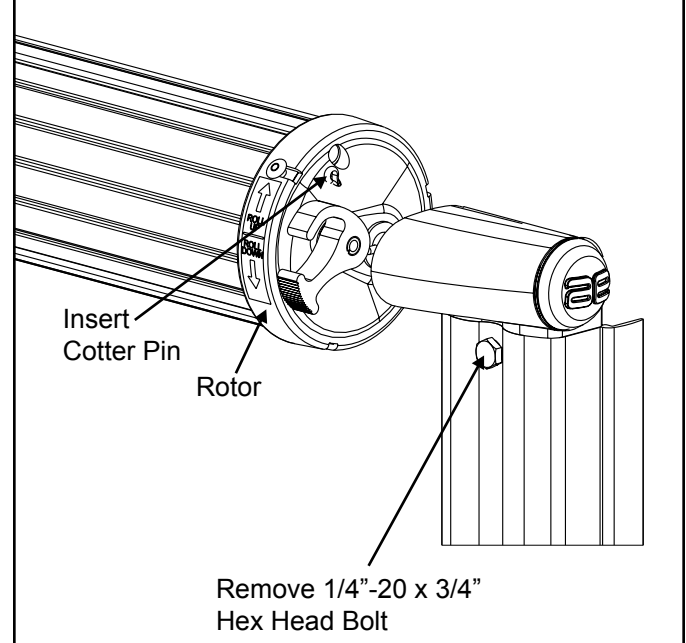


FIG. 2 RH Torsion



3. Separate Torsion assembly from hardware arm.
 Note: Once the torsion assembly is separated, the hardware arm will hang free. Do not apply downward pressure on the arm as this may cause damage to the arm. Do not attempt to close arm against back channel until new torsion assembly is installed and connected to arm.

- a. Remove the 1/4"-20 x 3/4" hex head bolt from arm. See FIG. 2. Make sure the cotter pin is still in position, then lift the top casting out of the arm.

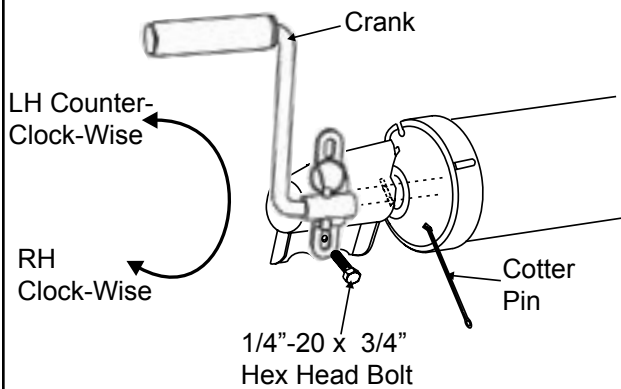
Note: This procedure will now require two people. One to support the awning roller tube and another to unwind the torsion and remove it.

⚠ WARNING

Use extreme care. Springs under tension are dangerous. If not controlled they will unwind quickly. Keep hands and clothing clear of top casting. Failure to follow these instructions could cause serious personal injury or property damage.

FIG. 3

RH Torsion

**⚠ WARNING**

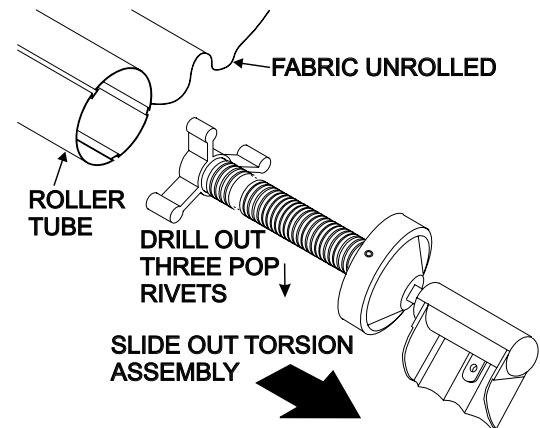
Never use bare hands to unwind the turns of tension on the spring. Failure to follow these instructions could cause severe personal injury.

4. Unwinding torsion.
 - a. Place the torsion winding crank (part number 3308334.006U) on the back side of casting. Keep control of the winding crank, as the following steps will allow the torsion to unwind. Insert the 1/4"-20 x 3/4" hex head bolt, just removed, through the hole in the crank and screw it tight in the top casting. See FIG. 3. (RH torsion shown) Remove the cotter pin from torsion and place the Safe-T-Lock lever (RH torsion only) in the roll up position. Slowly unwind the turns of tension on the spring. Turn the LH torsion counter-clock-wise and the RH torsion clock-wise.
5. Remove torsion from roller tube.
 - a. Make sure the torsion spring has been relieved of its tension.
 - b. Using a 3/16" drill bit drill out the three (3) rivets holding the end cap to the roller tube. Slide the torsion out of the roller tube. Clean any burrs or rivet bodies left behind in the tube. See FIG. 4.

B. Replacing Torsion Assemblies

1. Install torsion assembly
 - a. Slide torsion assembly into end of roller tube. Turn end cap till locating tabs are in place in the notch on the roller tube. This should align the open channel with the slot in the end cap.
 - b. Secure the end cap to the roller tube using three (3) (3/16" x 3/8") pop rivets.

FIG. 4



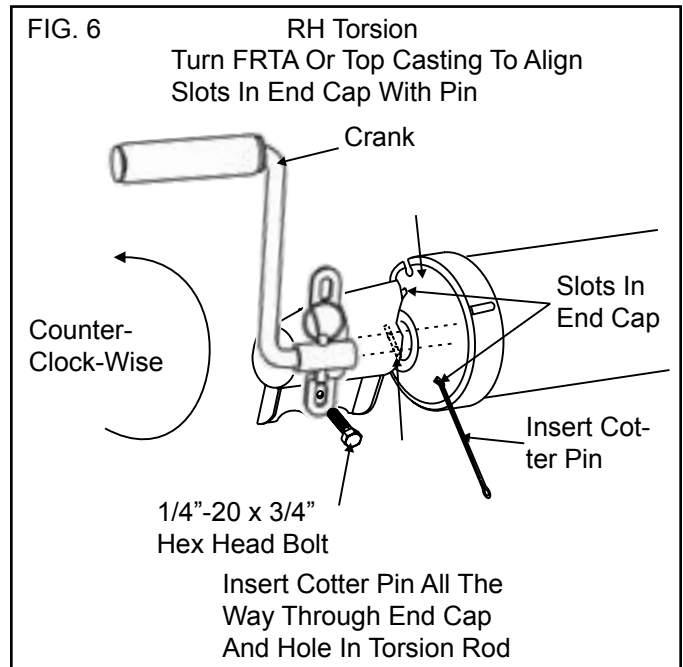
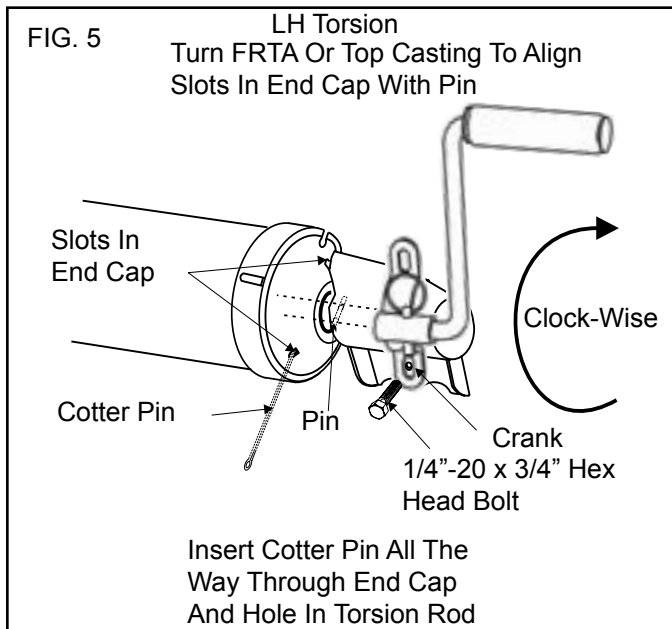
C. Winding Torsion Assembly

⚠ WARNING

Never use bare hands to wind the turns of tension on the spring. Failure to follow these instructions could cause severe personal injury.

1. Left Hand Torsion Winding.
 - a. Using the torsion winding crank part number 3108334.006U, wind the LH torsion assembly clock-wise to the number of turns indicated in the Torsion Assembly Torque Table. See FIG. 5 for proper positioning of torsion winding crank and winding direction.
 - b. Turn top casting or FRTA until the pin can be inserted through the end cap and torsion rod. See FIG. 5. Insert a 7/64" x 2-3/4" cotter pin through the end cap and torsion rod. Put a piece of tape over the head of the cotter pin to prevent it from dropping out.

Important: Never exceed the number of turns listed in the Table 1.



- c. Remove crank and insert top casting into arm assembly. Replace 1/4"-20 x 3/4" hex head bolt and tighten.
 - d. Remove the cotter pin from both torsions and check operation of the awning.
2. Right Hand Torsion Winding
- a. Using the torsion winding crank part number 3108334.006U, wind the RH torsion assembly counter-clock-wise to the number of turns indicated in the Torsion Assembly Torque Table. See FIG. 6 for proper positioning of torsion winding crank and winding direction. Place Safe-T-Lock lever in the roll down position.
 - b. Turn top casting or FRTA until the pin can be inserted through the end cap and torsion. See FIG. 6. Insert a 7/64" x 2-3/4" cotter pin through the end cap and torsion rod. Put a piece of tape over the head of the cotter pin to prevent it from dropping out.

Important: Never exceed the number of turns listed in the Table 1.

- c. Remove crank and insert top casting into arm assembly. Replace 1/4"-20 x 3/4" hex head bolt and tighten.
- d. Remove the cotter pin from both torsions and check operation of the awning.

TABLE 1

TORSION ASSEMBLY TORQUE SPECIFICATIONS				
Awning Length	Number of Turns			
	(RH)		(LH)	
	Roll Up	Extended	Roll Up	Extended
12	10	18	9	17
13	11	19	9	17
14	11	19	9	17
15	11	19	9	17
16	12	20	9	17
17	12	20	9	17
18	13	20	9	17
19	13	20	9	17
20	13	20	9	17
21	13	20	9	17