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FRTA Model Number _____
FRTA Serial Number _____
Hardware Model Number _____
Hardware Serial Number _____
Date Purchased _____
Retailer / Qualified Installer _____

SERVICE INSTRUCTIONS

8300™, SUNCHASER® FABRIC ROLLER TUBE ASSEMBLY (FRTA)

REPLACEMENT INSTRUCTIONS

■ FABRIC ■ ROLLER TUBE ■ TORSION ASSEMBLY

MODEL

828XXXX, 830XXXX, 833XXXX,
834XXXX, 836XXXX SERIES



Read these instructions carefully. These
instructions **MUST** stay with this product.

REVISION B

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INTRODUCTION

These instructions apply to manual type patio awnings (hereinafter referred to as “awning”, or “product”). The Fabric Roller Tube Assembly (hereinafter referred to as “FRTA”) consists of a vinyl or acrylic fabric, fabric roller tube, and two torsion assemblies.

Read these instructions and highlight the appropriate steps for your particular procedure BEFORE starting the replacement. Replacements can be performed by one person with brief help from additional personnel. Use these instructions to ensure correct installation, function, and operation of product.

Dometic Corporation reserves the right to modify appearances and specifications without notice.

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DOCUMENT SYMBOLS

 Indicates additional information that is **NOT** related to physical injury.

 Indicates step-by-step instructions.

IMPORTANT SAFETY INSTRUCTIONS

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

A. Recognize Safety Information



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

B. Understand Signal Words

A signal word will identify safety messages and property damage messages, and will indicate the degree or level of hazard seriousness.

⚠ WARNING indicates a hazardous situation that, if **NOT** avoided, could result in death or serious injury.

⚠ CAUTION indicates a hazardous situation that, if **NOT** avoided, could result in minor or moderate injury.

NOTICE is used to address practices **NOT** related to physical injury.

C. Supplemental Directives



Read and follow all safety information and instructions to avoid possible injury or death.

Read and understand these instructions before [installing / using / servicing / performing maintenance on] this product.

Incorrect [installation / operation / servicing / maintaining] of this product can lead to serious injury. Follow all instructions.



The installation **MUST** comply with all applicable local and national codes, including the latest edition of the following standards:

U.S.A.

- ANSI/NFPA70, National Electrical Code (NEC)
- ANSI/NFPA 1192, Recreational Vehicles Code

CANADA

- CSA C22.1, Parts I & II, Canadian Electrical Code
- CSA Z240 RV Series, Recreational Vehicles

D. General Safety Messages



⚠ WARNING Failure to obey the following warnings could result in death or serious injury:

- This product **MUST** be [installed / serviced] by a qualified service technician.
- Do **NOT** modify this product beyond the scope of these service instructions. Modification (beyond these service instructions) can be extremely hazardous.
- **IMPACT OR CRUSH HAZARD.** This product should be installed in a controlled environment (inside). Do **NOT** install product during windy conditions, or when wind is expected. Otherwise, product could move unpredictably, become unstable, and could [detach / bend / collapse].

GENERAL INFORMATION

A. Required Kits

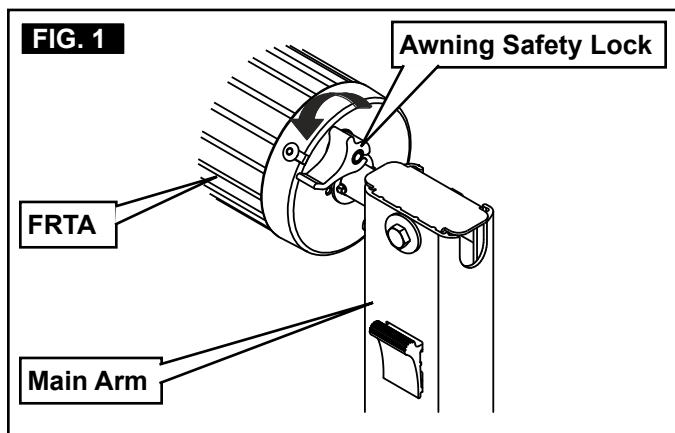
- Fabric, fabric roller tube, and torsion replacement:
 - (1) 3308334.006U Torsion Crank Assembly
- Fabric and fabric roller tube replacement
 - (1) 3109976.005 (End Cap) Fabric Guide

PREPARE AWNING

A. Stage Awning For All Procedures

With awning safety lock in roll down position, open (extend) awning two revolutions (turns) of FRTA. See (FIG. 1).

 See "Opening Awning" in Operating Instructions (or User's Guide) for complete instructions.



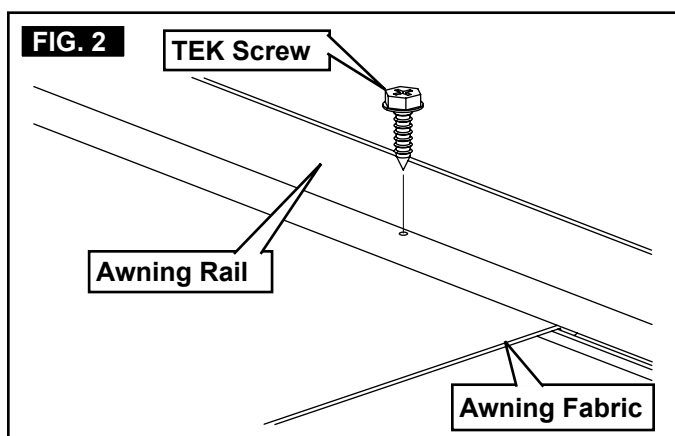
B. Prepare For Awning Removal

This subsection applies to awning fabric and fabric roller tube replacement.

 1. Prepare an area large enough for FRTA and un-rolled awning fabric.

 Area **MUST** be smooth, clean, and clear of debris to prevent fabric damage.

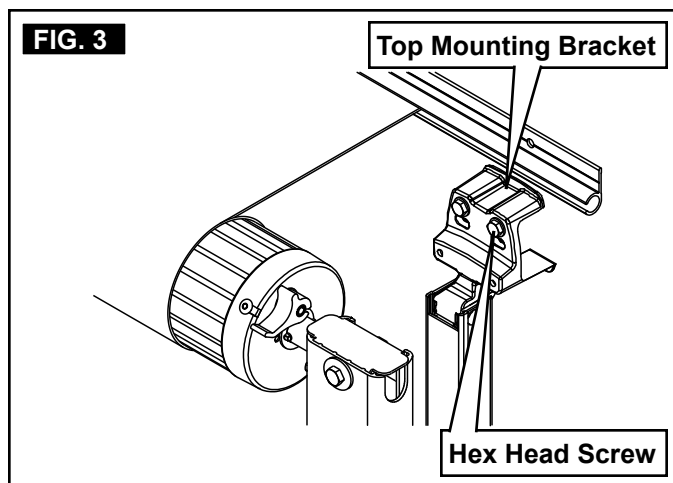
2. Remove TEK screws securing awning fabric at both ends of awning rail. Save for reinstallation later. See (FIG. 2).



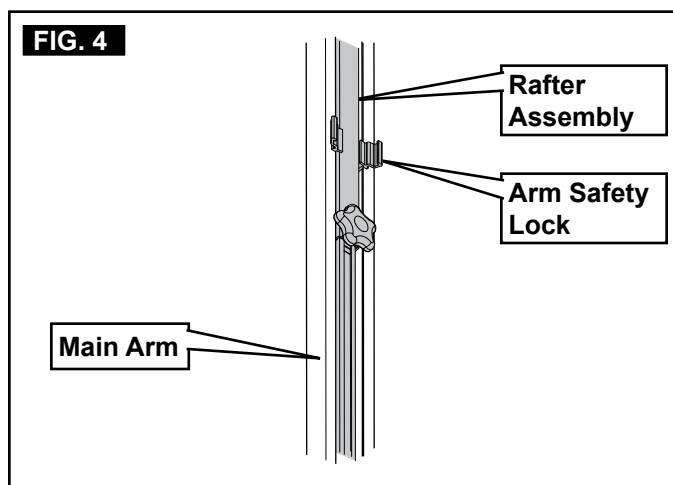
C. Detach Arm Assemblies

This subsection applies to awning fabric and fabric roller tube replacement.

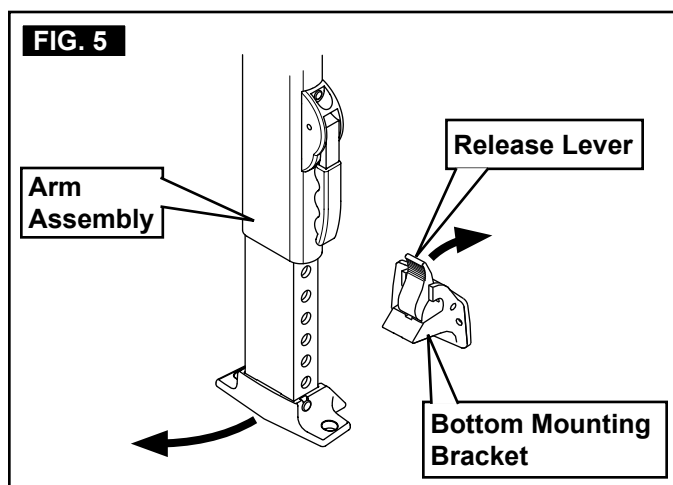
 1. Remove hex head screws securing top mounting brackets (both ends of awning) to RV. Save for reinstallation later. See (FIG. 3).



2. Squeeze rafter assembly into main arm until arm safety lock clicks securely in place. See (FIG. 4).

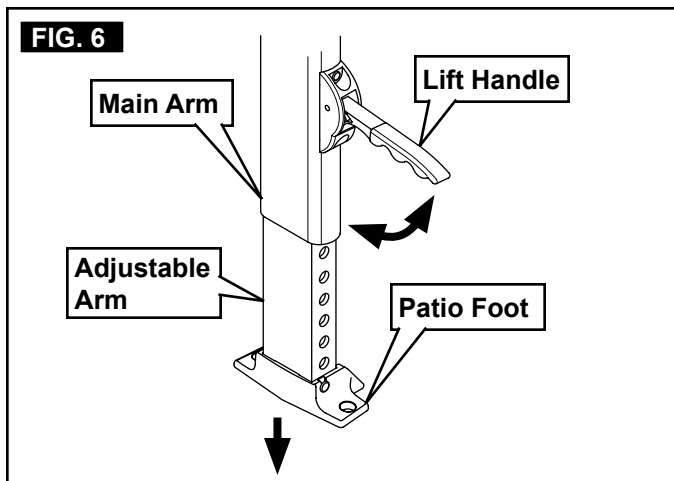


3. Press release lever on bottom mounting bracket and lift (detach) arm assembly out and away from RV. See (FIG. 5).



4. While holding main arm, pull lift handle out. Then slide adjustable arm down until patio foot contacts floor. See (FIG. 6).

PREPARE AWNING



5. Release lift handle to lock adjustable arm into new position. See (FIG. 6).
6. While one person holds and controls detached arm assembly, repeat steps (1) through (5) for opposite side.

D. Remove Awning From RV

This subsection applies to awning fabric and fabric roller tube replacement.

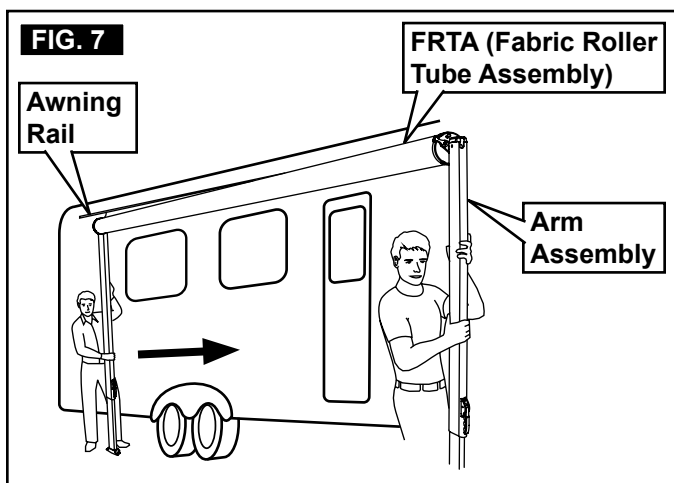
1. Make sure awning safety lock is securely in roll down position before proceeding.

i Maintaining roll down position (of awning safety lock) will prevent FRTA from uncontrolled unwinding when fabric is removed from awning rail.

2. **CAUTION** LIFTING HAZARD. Use proper lifting technique and control when lifting product. Failure to obey this caution could result in injury.

NOTICE Keep both arm assemblies parallel to each other to avoid twisting.

With one person grasping each arm assembly, carefully lift entire awning assembly upright. See (FIG. 7).



3. Carefully move (carry) awning assembly forward until awning fabric slides free from awning rail (on RV). See (FIG. 7).
4. Carefully place FRTA on a clean, well padded "V" trough (or other well protected surface) to prevent fabric damage.

E. Pin Torsions

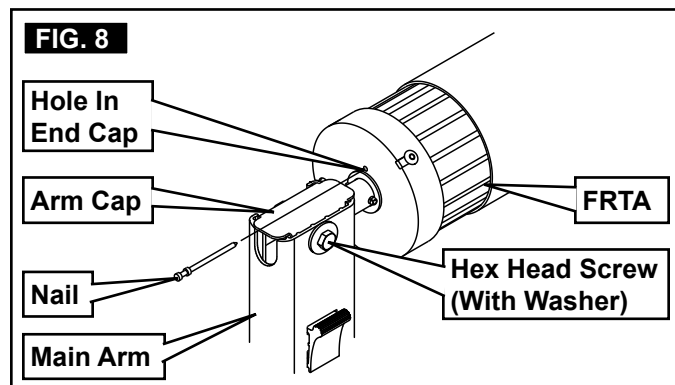
This subsection applies to all replacement procedures.

i If awning is installed on RV, this procedure **MUST** be performed:

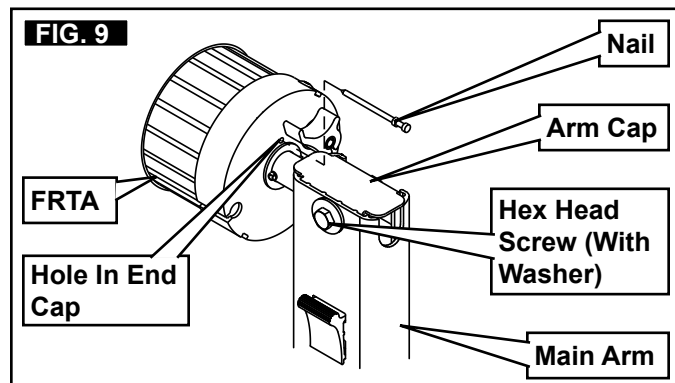
- with FRTA extended 2 revolutions (turns) from awning rail, and
- while on a stepladder.

Pin both torsions to prevent uncontrolled unwinding of spring, or unintended awning movement.

1. Rotate FRTA (by hand) until hole (for nail) in left end cap is located above arm cap. See (FIG. 8).



2. Insert a nail into hole in left end cap for positive locking of FRTA. Place tape over nail to secure in place. See (FIG. 8).
3. Grasp FRTA and move awning safety lock to roll up position.
4. Carefully allow FRTA to roll up slowly until it stops against nail.
5. Move awning safety lock to roll down position.
6. Repeat steps (1) through (2) for right side. See (FIG. 9).



REMOVE TORSION(S)

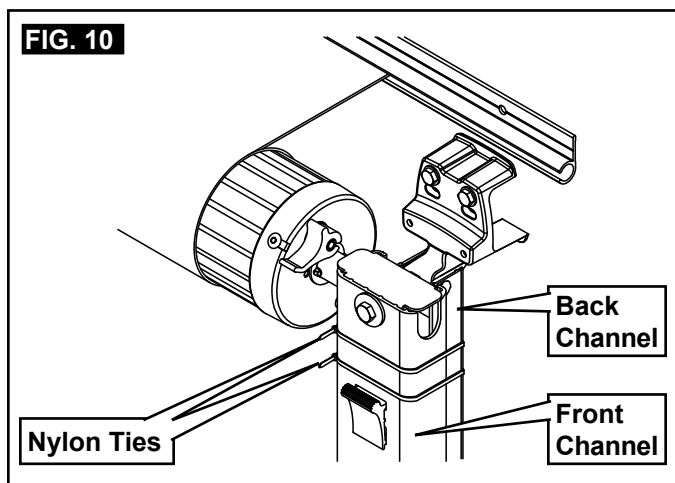
This section applies to awning fabric, fabric roller tube, and torsion replacement.

i If awning is installed on RV, the following procedures **MUST** be performed:

- with FRTA extended 2 revolutions (turns) from awning rail, and
- while on a stepladder.

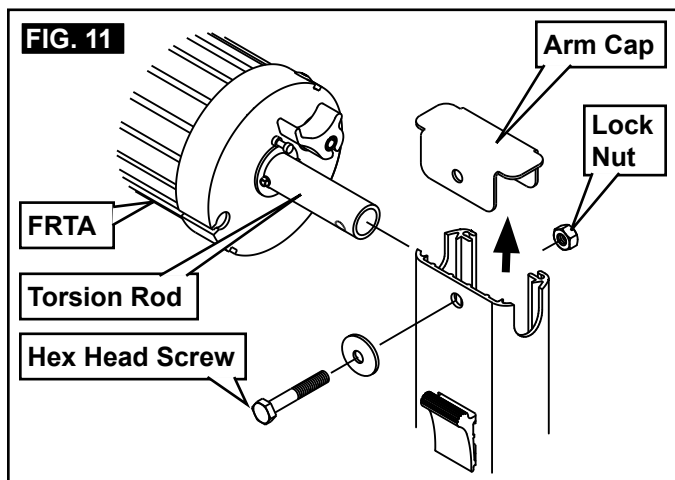
A. Unwind Torsion(s)

1. Secure arm assembly.
 - a. Wrap at least (2) nylon ties around front and back channel near top mounting bracket, and tape in place. See (FIG. 10).



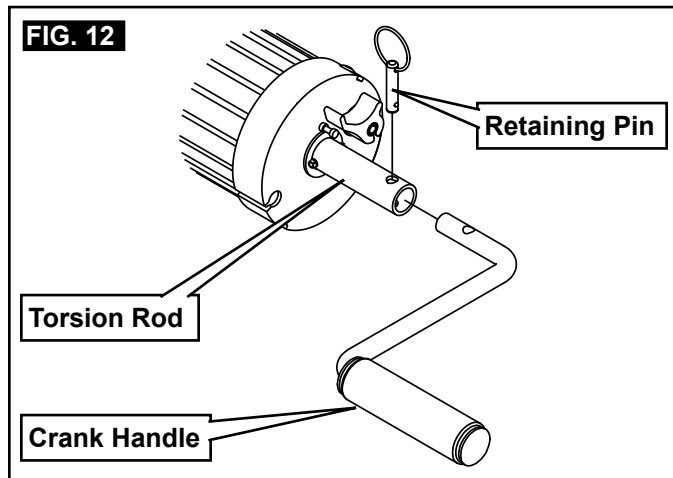
2. **⚠ WARNING** IMPACT OR PINCH HAZARD. Do **NOT** remove awning from arm assembly until torsion (rod) is securely pinned. Otherwise, rapid casting spin off will occur. Spring tension will attempt to spin the fabric roller tube quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

With torsion securely pinned, remove hex head screw (and washer) and lock nut securing torsion rod to right arm assembly. Save for reinstallation later. See (FIG. 11).



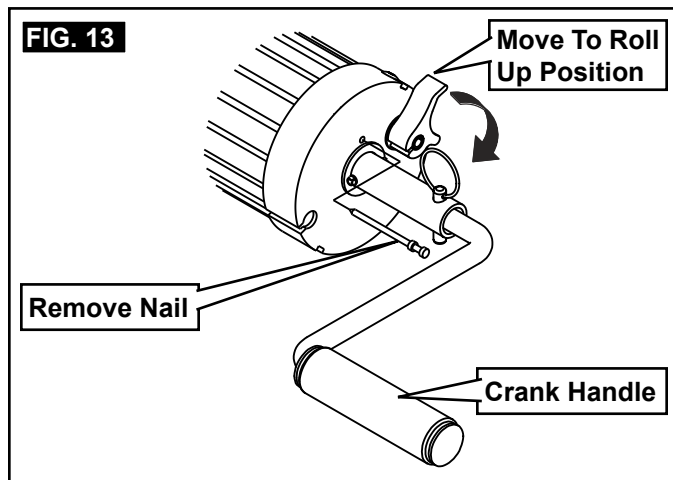
3. Separate (lift) arm cap from main arm / front channel. See (FIG. 11).
4. Insert crank handle into end of torsion rod. Then secure with retaining pin. See (FIG. 12).

i See subsection, "A. Required Kits" on page 3 for torsion crank assembly.



5. **⚠ WARNING** IMPACT OR PINCH HAZARD. Do **NOT** remove nail from torsion rod (at end cap) until arm cap is securely held. Otherwise, rapid casting spin off will occur. Spring tension will attempt to spin the arm cap and/or fabric roller tube quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

While keeping a tight, secure hold on crank handle, pull nail from end cap. See (FIG. 13).



6. On right hand torsion, move awning safety lock to roll up position. See (FIG. 13).
7. **⚠ WARNING** IMPACT OR PINCH HAZARD. Use extreme care when [winding / unwinding] arm cap. If **NOT** controlled, rapid casting spin off will occur. Spring tension will attempt to spin the arm cap and/or fabric roller tube quickly and

REMOVE TORSION(S)

unexpectedly. Failure to obey this warning could result in death or serious injury.

Carefully and slowly unwind torsion until all torsion spring tension is relaxed. Then remove crank handle from torsion rod.

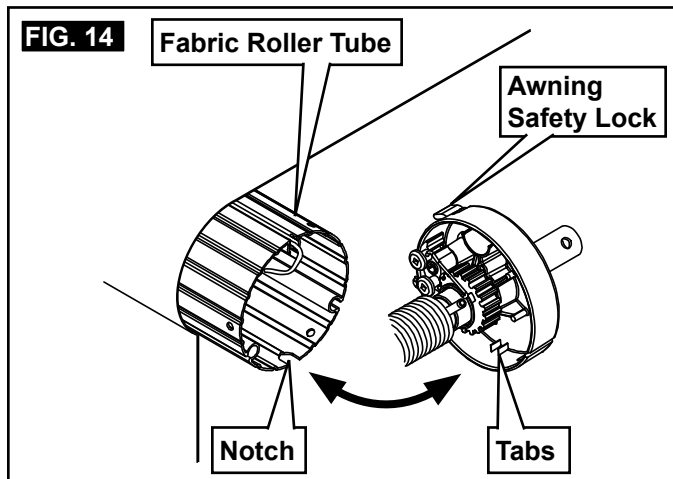
8. Repeat steps (1) through (7) for opposite side (if applicable).

(i) Repeat steps **ONLY** if replacing **BOTH** torsions, fabric roller tube, or awning fabric. Do **NOT** repeat steps if replacing (1) torsion only.

B. Remove OLD Torsion(s)

1. Mark or make note of awning safety lock location on fabric roller tube. See (FIG. 14).

(i) This step applies to RH torsion only. You may skip this step if end cap has alignment tabs. The alignment tabs mate with a notch in fabric roller tube, and allows only one orientation (between fabric roller tube and end cap).

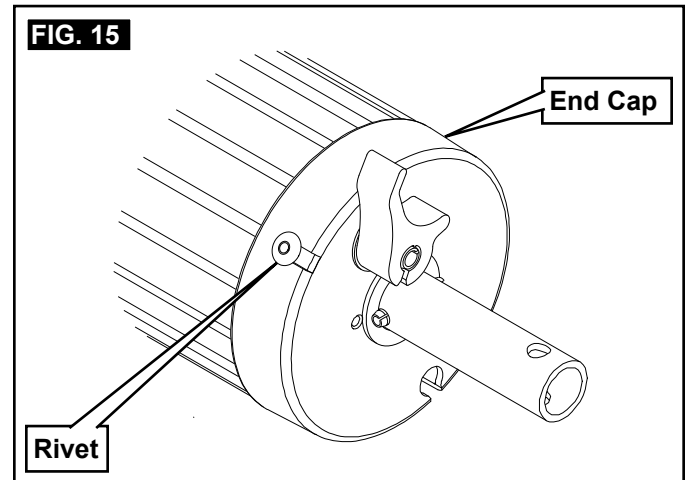


2. **⚠ WARNING** IMPACT OR PINCH HAZARD. Do **NOT** remove torsion from fabric roller tube until spring tension is released (unwound). If torsion rod is also **NOT** pinned at end cap, rapid casting spin off will occur. Spring tension will attempt to spin the arm cap and/or end cap quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

With torsion spring tension released (unwound), remove the (2) rivets securing end cap to fabric roller tube. See (FIG. 15).

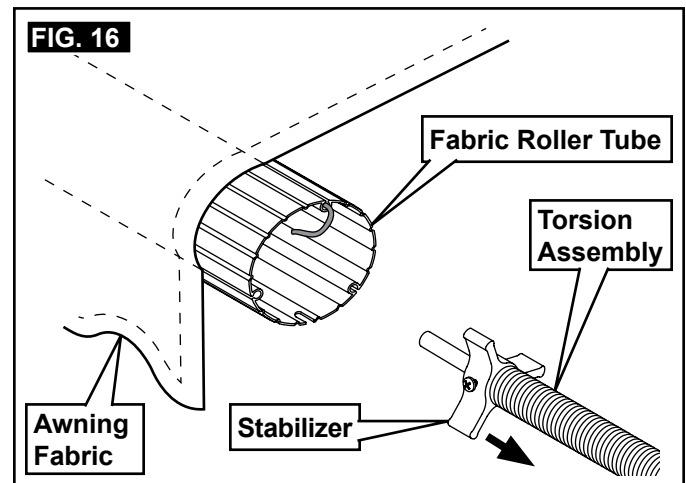
- a. Drill a 3/16" diameter hole through center of rivet.

- b. Remove rivet (with debris) and discard.
- c. Repeat steps (a) and (b) for each rivet securing end cap to fabric roller tube.



3. Slide torsion (assembly) out from fabric roller tube. See (FIG. 16).

(i) Discard torsion if defective. Otherwise, save for reinstallation later.



4. Remove burrs, and discard any rivet bodies and debris from fabric roller tube. See (FIG. 16).

(i) Skip this step if discarding fabric roller tube.

5. Repeat steps (1) through (4) for opposite side (if applicable).

(i) Repeat steps **ONLY** if replacing **BOTH** torsions, fabric roller tube, or awning fabric. Do **NOT** repeat steps if replacing (1) torsion only.

REPLACE AWNING FABRIC / FABRIC ROLLER TUBE

This section applies to awning fabric and fabric roller tube replacement.

- i** To replace torsion(s), skip to section, "Replace Torsion(s)" on page 9.

A. Prepare Work Area

NOTICE Prepare a clean and smooth work area (large enough for unfurled awning fabric) before servicing awning. This will help prevent damage to awning fabric during replacement.

B. Remove Awning Fabric / Fabric Roller Tube

This subsection applies only if keeping old fabric roller tube or old awning fabric.

- i** If **BOTH** fabric roller tube and awning fabric will be replaced, discard old and skip to subsection, "C. Prepare New Awning Fabric" on page 8.

- 1.** Carefully place FRTA on a clean and smooth work surface (prepared earlier).
- 2.** Unroll awning fabric until completely unfurled on prepared work surface.
- 3.** With awning fabric laying flat, slide fabric roller tube from fabric to remove.
- 4.** Discard old fabric roller tube if damaged.

- i** If replacing awning fabric, leave old fabric on work surface for added protection (of new fabric) during installation procedure.

C. Prepare New Awning Fabric

This subsection applies to awning fabric replacement. (Replace old with new.)

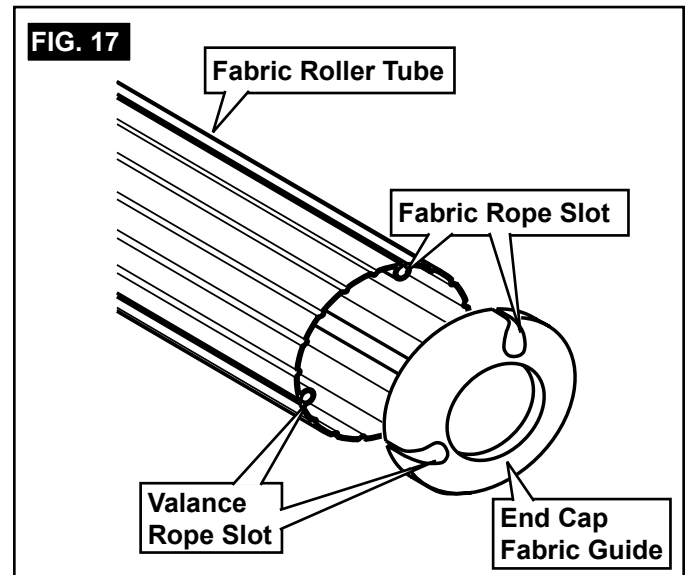
- i** To replace fabric roller tube, skip to subsection, "D. Install Awning Fabric / Fabric Roller Tube" on page 8.

- 1.** Unroll / unfold new awning fabric on top of old fabric (in prepared work area) with bottom side of fabric facing up.
- i** Position new awning fabric in the same orientation as old fabric.
- 2.** Verify new awning fabric size and color matches old fabric.

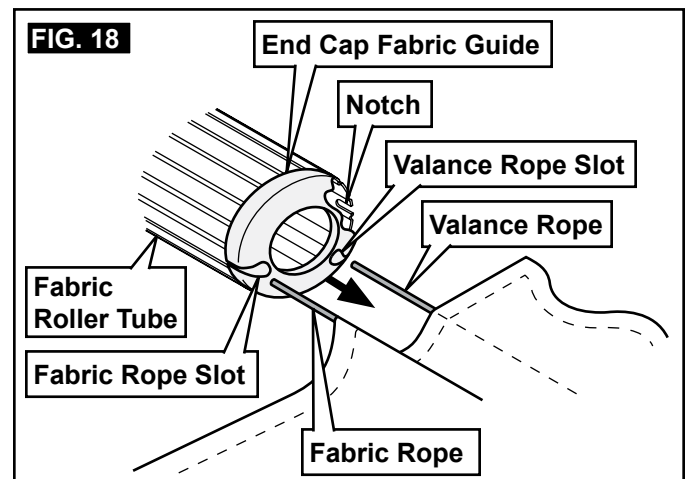
D. Install Awning Fabric / Fabric Roller Tube

- 1.** **NOTICE** Do **NOT** install awning fabric on fabric roller tube without using a fabric guide. Otherwise, damage to awning fabric could occur.

Align fabric rope and valance rope slots of end cap fabric guide to corresponding slots on fabric roller tube. Then place on open end of fabric roller tube. See (FIG. 17).



- 2.** Insert fabric rope and valance rope of awning fabric into corresponding slots on fabric roller tube (through end cap fabric guide). See (FIG. 18).



- 3.** Slide (move) fabric roller tube forward until awning fabric is centered on tube. See (FIG. 18).
- i** Awning fabric will feed into fabric roller tube's slots while moving fabric roller tube forward.
- Awning fabric will be secured to fabric roller tube when torsions are reinstalled later.
- 4.** Remove end cap fabric guide from fabric roller tube.
- i** Save in case further adjustments to awning fabric are needed later.

REPLACE TORSION(S)

This section applies to awning fabric, fabric roller tube, and torsion replacement.

i If awning is installed on RV, the following procedures **MUST** be performed:

- with FRTA extended 2 revolutions (turns) from awning rail, and
- while on a stepladder.

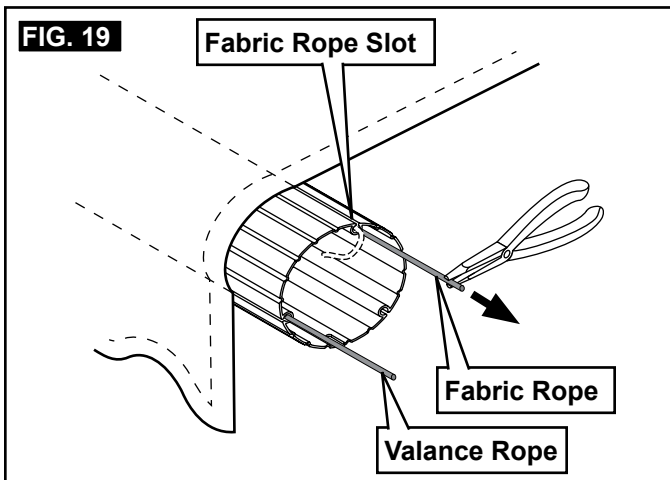
A. Prepare Awning Fabric For Torsion(s)

This section applies to both old and new awning fabric. However, the way this subsection should be used is different:

- **NEW** awning fabric: The following steps **MUST** be performed to complete installation.
- **OLD** awning fabric: The following steps should be reviewed to verify installation is correct.

1. Verify awning fabric is centered on fabric roller tube. See (FIG. 18).
2. Pull / stretch fabric rope and bend rope over toward center of fabric roller tube. See (FIG. 19).

i Make sure fabric rope locks securely into notch (if applicable) at end of fabric rope slot.



3. Trim fabric rope length according to the appropriate procedure.

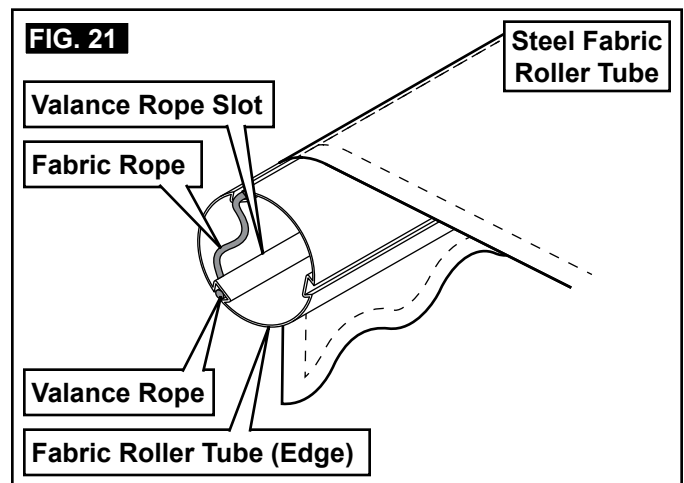
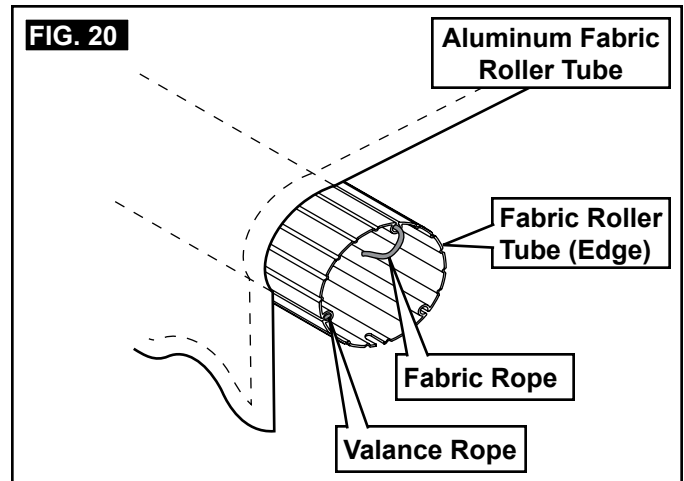
i This helps prevent interference with torsion, and shifting of awning fabric. The procedure to follow (below) depends on fabric roller tube material.

a. ALUMINUM fabric roller tube:

Trim fabric rope 2" below edge of fabric roller tube. See (FIG. 20).

b. STEEL fabric roller tube:

Trim fabric rope leaving enough length to wedge behind valance rope slot (inside fabric roller tube). See (FIG. 21).



4. Trim valance rope flush with edge of fabric roller tube. See (FIG. 20) & (FIG. 21).

i This helps prevent interference with torsion, and shifting of awning fabric.

5. Repeat steps (2) through (4) for opposite side.

B. Install Torsion(s)

1. Make sure fabric rope is secured properly inside fabric roller tube. See (FIG. 20) & (FIG. 21).

i Do **NOT** cut fabric rope.

2. Insert torsion assembly into fabric roller tube. See (FIG. 22).

a. Align end cap to fabric roller tube using one of the following procedures.

i The procedure to follow (below) depends on whether the fabric roller tube is notched.

1. WITH NOTCH (new fabric roller tube):

Align alignment tabs on end cap to notch in fabric roller tube. See (FIG. 14).

REPLACE TORSION(S)

II. WITHOUT NOTCH (old fabric roller tube):
Identify the RH end cap. See (FIG. 24).
Position the awning safety lock lever as shown. See (FIG. 30), (FIG. 31), (FIG. 32), (FIG. 33), (FIG. 34), and (FIG. 35).

i Rivet holes in end cap and fabric roller tube **MUST** also align.

If a new torsion is being installed on an old fabric roller tube (without notch), the tabs inside end cap **MUST** be removed (broken off). See (FIG. 14).

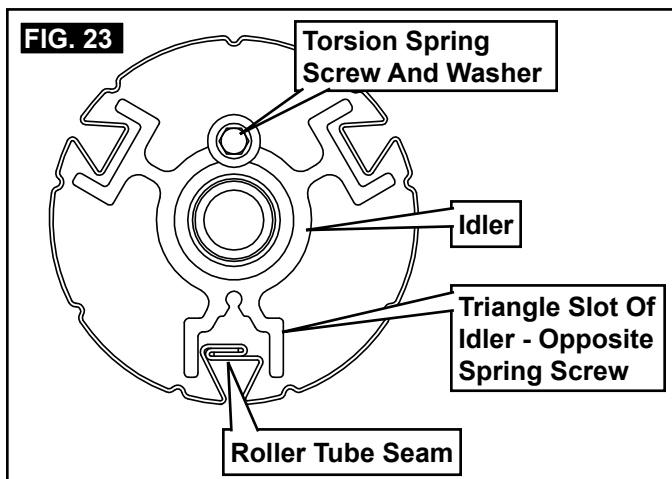
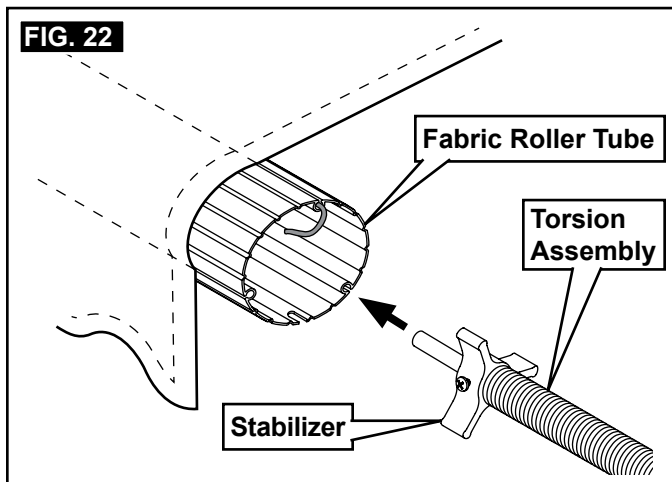
- b. While maintaining alignment, insert stabilizer end of torsion into fabric roller tube. See (FIG. 23).
- c. Slide torsion inside fabric roller tube until end cap seats onto end of tube.

i If RH torsion is being installed, verify the awning safety lock lever will be approximately 30° from RV wall (11 o'clock position) when awning is closed. See (FIG. 25).

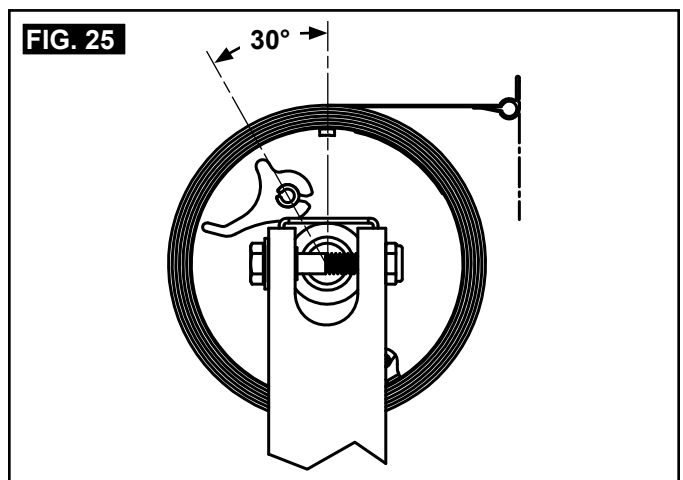
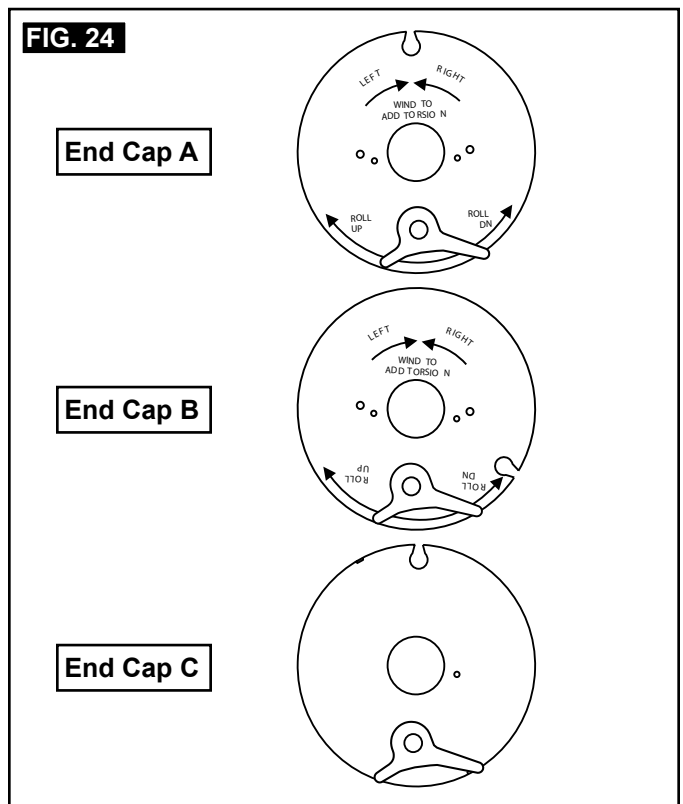
- a. Verify end cap is aligned properly and fully seated on fabric roller tube.
- b. If fabric roller tube has pre-drilled rivet holes, skip to step (d).

If fabric roller tube does **NOT** have pre-drilled rivet holes, proceed with step (c).

- c. Drill 3/16" diameter holes into fabric roller tube using the rivet holes / slots in end cap as a guide.
 - d. Insert 3/16" x 3/8" blind rivets through rivet holes in end cap and secure to fabric roller tube.
4. Repeat steps (1) through (3) for opposite side (if applicable).



3. Secure end cap to fabric roller tube. See (FIG. 15).



WIND TORSION(S)

This section applies to awning fabric, fabric roller tube, and torsion replacement.

i If awning is installed on RV, the following procedures **MUST** be performed:

- with FRTA extended 2 revolutions (turns) from awning rail, and
- while on a stepladder.

1. Insert crank handle in end of torsion rod. Then secure with retaining pin. See (FIG. 12).

i See subsection, "A. Required Kits" on page 3 for torsion crank assembly.

2. ⚠️ WARNING IMPACT OR PINCH HAZARD. Use extreme care when [winding / unwinding] arm cap. If **NOT** controlled, rapid casting spin off will occur. Spring tension will attempt to spin the arm cap and/or fabric roller tube quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

Always have crank handle at 6 o'clock position and turn toward the side of the RV.

Turn RH end cap counter-clockwise, and LH end cap clockwise. See (FIG. 28) & (FIG. 29).

i RH torsion **MUST** have awning safety lock in roll down position.

The number of turns to achieve correct torsion spring tension depends on awning model and width. See the appropriate torque specifications table (below) for correct number of turns.

If awning is installed on RV and extended 2 revolutions (turns) from awning rail, **ADD** 2 turns to the number of turns in table.

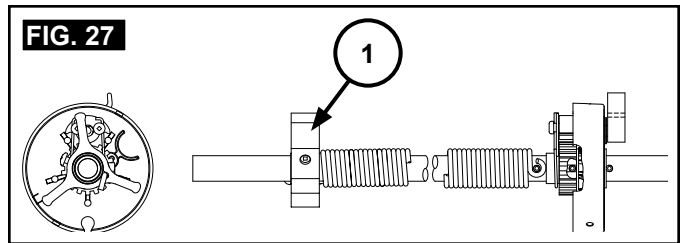
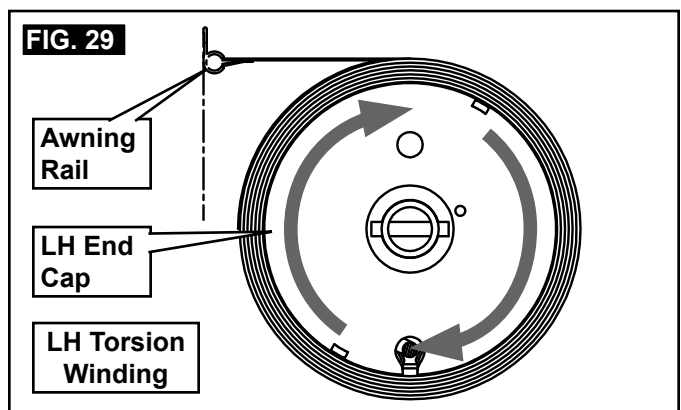
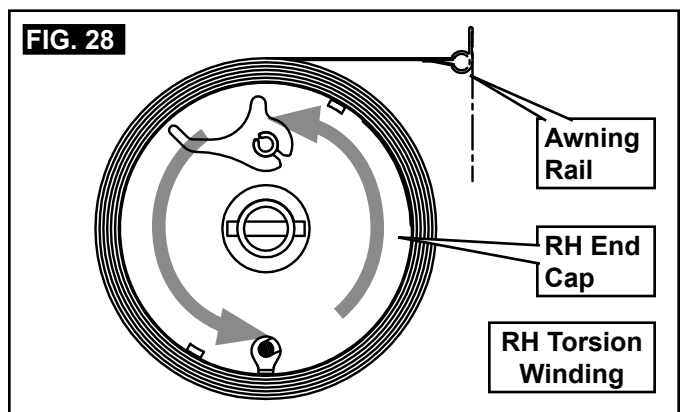


Table 2: Torsion Winding For (FIG. 27)

Awning Width	Number Of Turns	
	Rolled Up	Extended
≤ 12'	8	14
12'-1" → 14'	9	15
14'-1" → 16'	10	16
> 16'	12	18

Add 6 additional turns to torsion spring when awning is fully extended.



3. Rotate FRTA (by hand) until hole (for nail) in left end cap is located above arm cap. See (FIG. 8).
4. Insert a nail into hole in left end cap for positive locking of FRTA. Place tape over nail to secure in place. See (FIG. 8).
5. Repeat steps (1) through (4) for opposite side (if applicable).

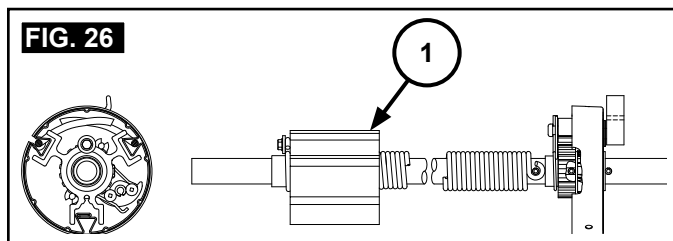


Table 1: Torsion Winding For (FIG. 26)

Awning Width	Number Of Turns	
	Rolled Up	Extended
≤ 12'	5	11
12'-1" → 14'	6	12
14'-1" → 16'	7	13
16'-1" → 18'	9	15
> 18'	10	16

Add 6 additional turns to torsion spring when awning is fully extended.

WIND TORSION(S)

FIG. 30

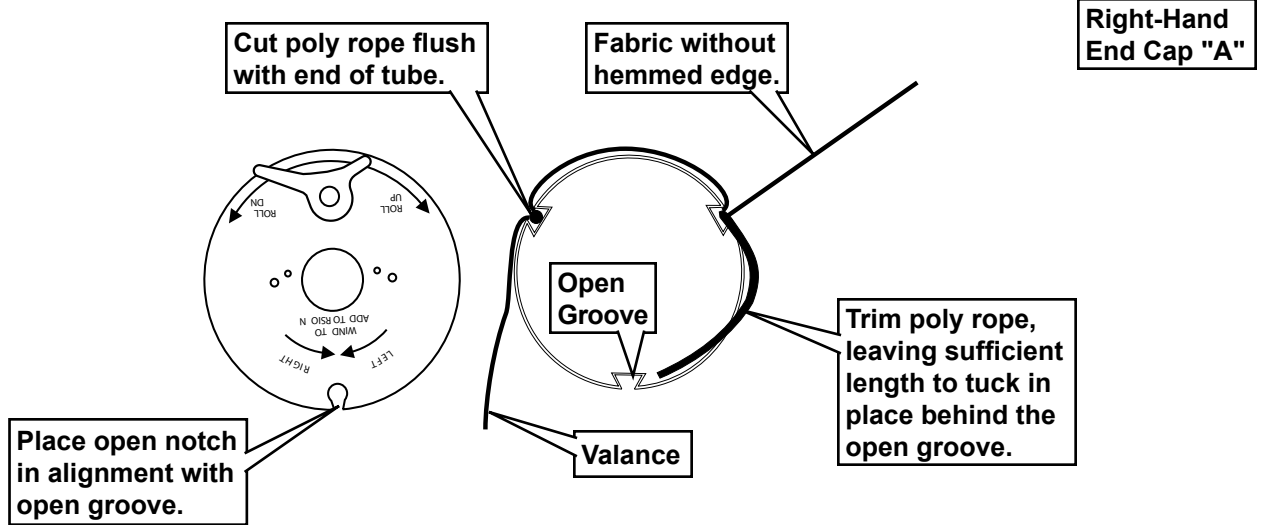


FIG. 31

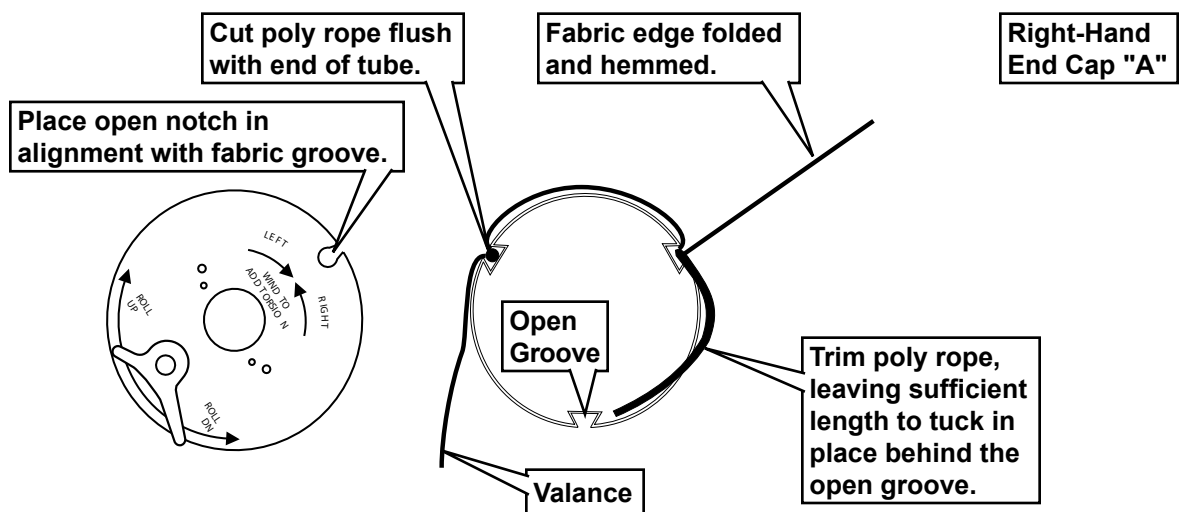
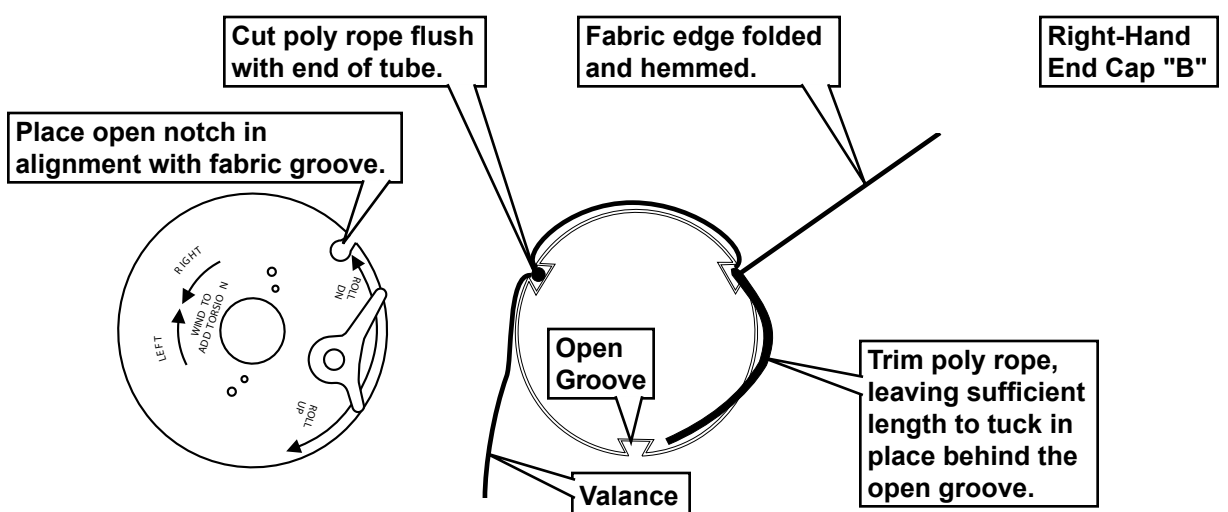


FIG. 32



WIND TORSION(S)

FIG. 33

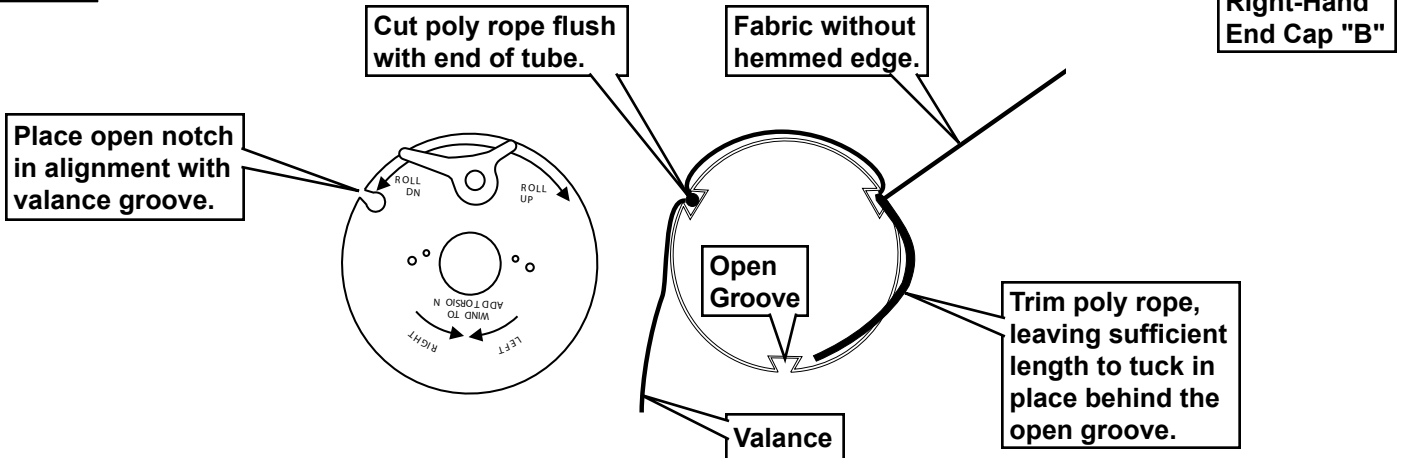


FIG. 34

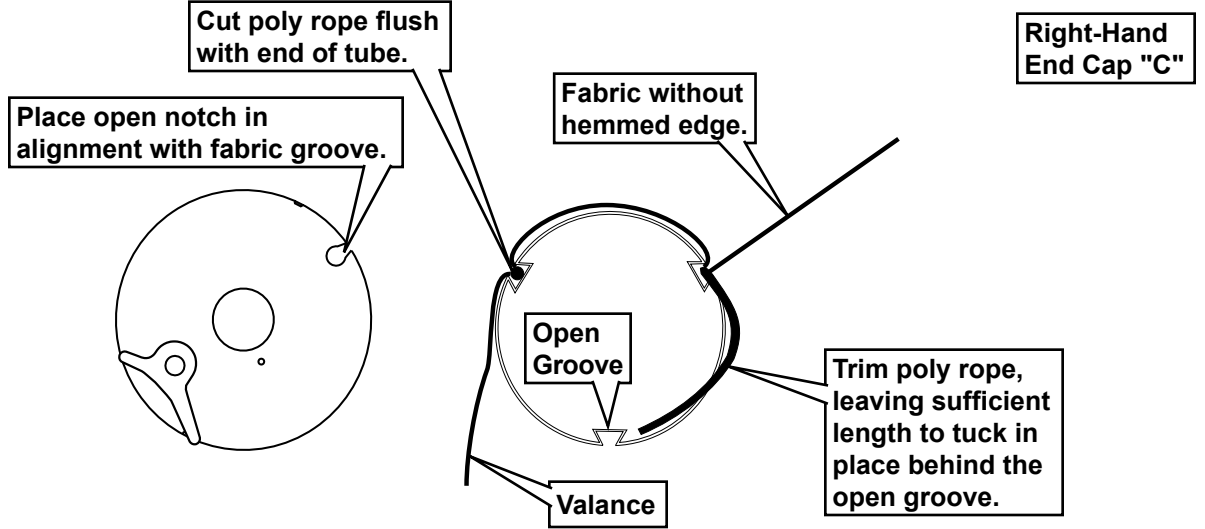
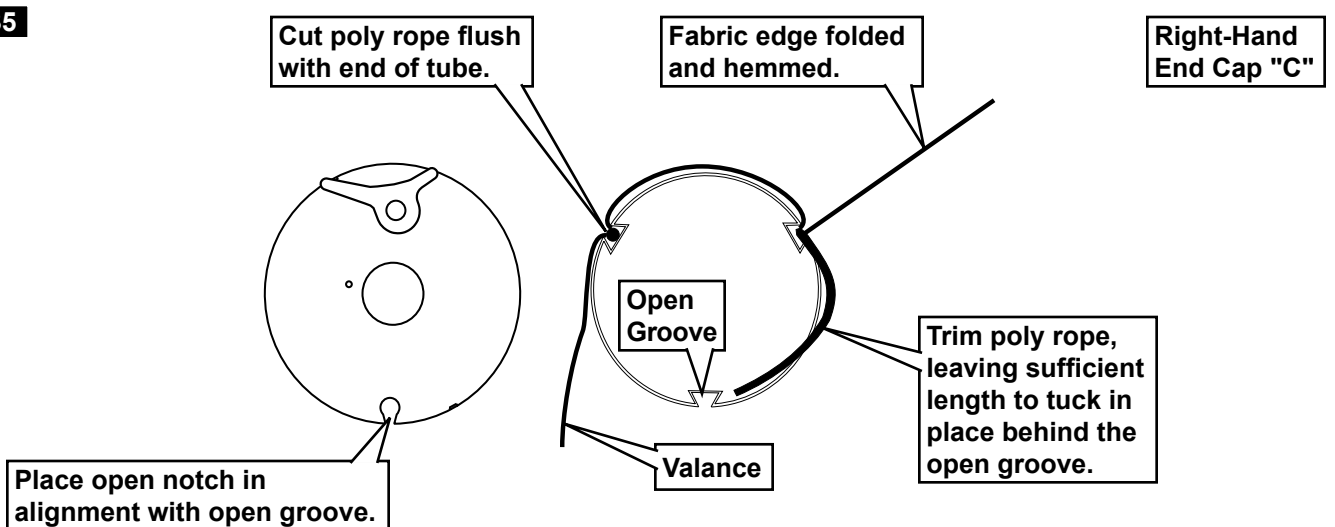


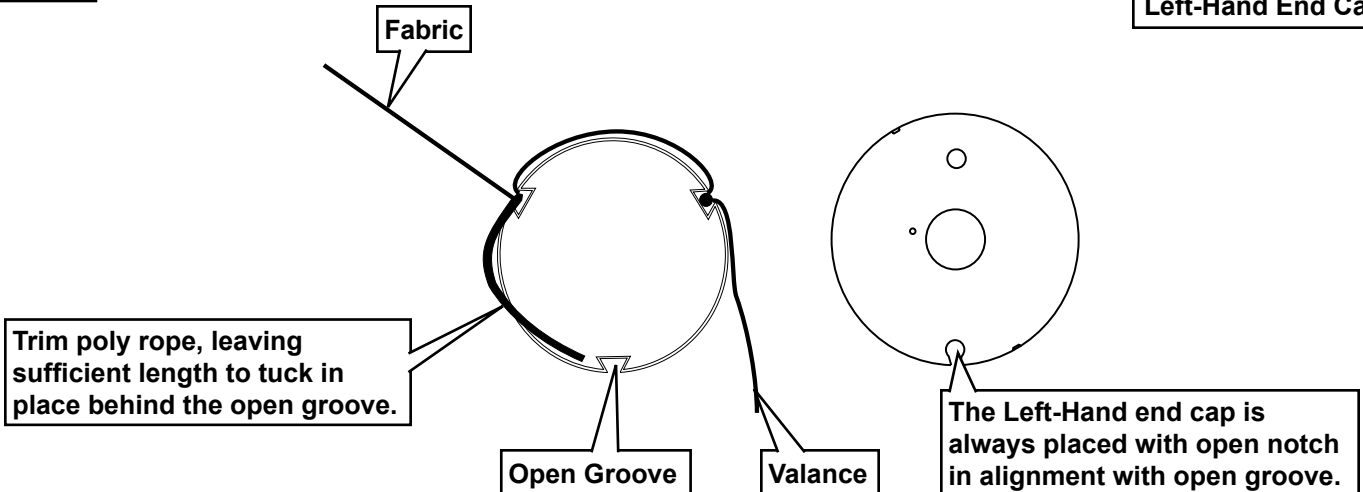
FIG. 35



WIND TORSION(S)

FIG. 36

Left-Hand End Cap



REATTACH TORSION(S) TO AWNING HARDWARE

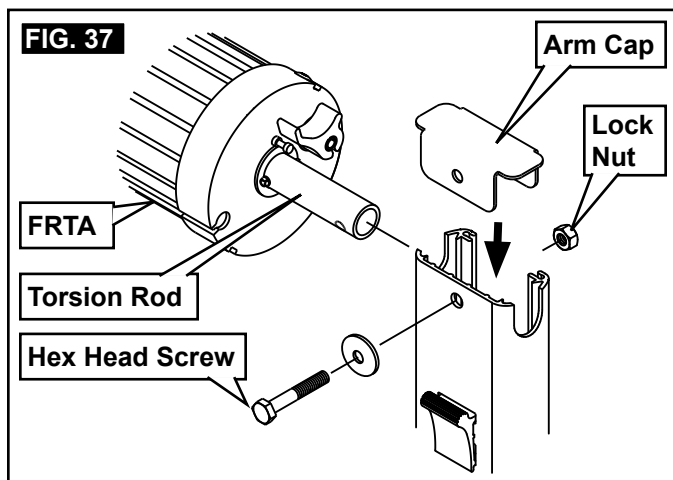
This section applies to awning fabric, fabric roller tube, and torsion replacement.

i If awning is installed on RV, the following procedures **MUST** be performed:

- with FRTA extended 2 revolutions (turns) from awning rail, and
- while on a stepladder.

A. Attach Torsion To Hardware

i 1. Insert arm cap into main arm. See (FIG. 37).

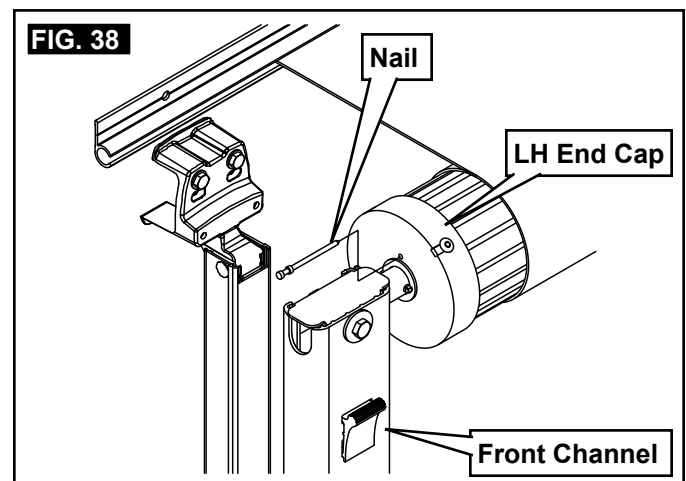


2. Assemble torsion rod of FRTA to main arm, aligning hole through torsion rod with holes in main arm and arm cap.
3. Reinstall hex head screw (with washer) through main arm, arm cap, and torsion rod, securing with lock nut. See (FIG. 37).

B. Remove Nails

⚠ WARNING IMPACT OR PINCH HAZARD. Do **NOT** remove nail from torsion rod (at end cap) until **BOTH** arm caps are secured to corresponding front channels, and awning safety lock lever is in roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to spin the hardware and/or fabric roller tube quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

i 1. Remove nail from left end of torsion rod (LH end cap), if applicable. See (FIG. 38).



2. With awning safety lock lever in roll down position, remove nail from right end of torsion rod (RH end cap), if applicable. See (FIG. 9).

i If awning is **NOT** installed on RV, do **NOT** remove nail at this time. Skip to section, "Finish Installation" on page 15.

FINISH INSTALLATION

This section applies to awning fabric and fabric roller tube replacement, or if awning was removed from RV.



Some additional procedures may need to be performed to complete the replacement. These procedures will vary in detail based on awning model. See latest Installation Instructions for your specific awning model.

Additional procedures may include:

- Secure awning fabric to awning rail.
- Secure hardware to RV.
- Remove RH nail **AFTER** awning is installed.
- Etc.

VERIFY INSTALLATION

A. Test Operation

Operate awning according to Operating Instructions (or User's Guide) to verify all parts are functioning correctly.

B. Secure Awning For Travel



1. Fully close awning. See "Close Awning" in Operating Instructions (or User's Guide).
2. Verify awning is secure for travel. See "Close Awning" in Operating Instructions (or User's Guide).

C. Keep Literature

Keep these instructions with awning.