

RECORD THIS INFORMATION FOR FUTURE REFERENCE:
Model Number
Serial Number
Date Purchased
Retailer / Qualified Installer

# **UNIVERSAL SERIES**

PATIO AWNING

### **HARDWARE**

STRAIGHT: 8483003.XXX, 8483004.XXX, 8484003.XXX CURVED: 838100D404, 838100D405

FRTA
FABRIC ROLLER TUBE ASSEMBLY
8300, 8500, 9000



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

#### **REVISION D**

Form No. 3109969.042 01/17 ©2017 Dometic Corporation LaGrange, IN 46761

#### **USA**

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#### **CANADA**

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## INTRODUCTION

This awning (hereinafter referred to as "awning," or "product") is designed and intended for use on RVs with straight sides or curved sides, depending on model number.

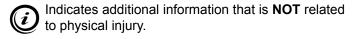
This awning can be installed by one person with brief help from additional personnel. Use these instructions to ensure correct installation and function of product. Keep these instructions with the awning for future reference.

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

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## **DOCUMENT SYMBOLS**





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.

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

**ACAUTION** 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

**AWARNING** 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 in any way. Modification 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. Optional Components

(1) 830304.001 Door Roller Kit

(1) 830304.003 Door Roller Kits (50 Pack)

(1) 3314573.001 Top Bracket Spacer (2 Pack)

(1) 3109623.550 Top Bracket Spacer (50 Pack)

(1) 3104781.004 Bottom Spacer Kit (1 Pair)

(1) 3104781.103 Bottom Spacer Kit (10 Pair)

## **SPECIFICATIONS**

### **Hardware Dimensions**

MODEL SERIES	8483003 8484003	.401X	8483003 8484003	.402X	8483004.401X	8483004.402X	8483004.403X	838100D404X	838100D405X
Height Range	1930mm - 2184mm		1626mm - 1930mm		1892mm - 2235mm	1626mm - 1930mm	1892mm - 2235mm	1626mm - 1930mm	1892mm - 2235mm
Main Arm Length	1854mm		1549mm		1854mm	1549mm	1854mm	1549mm	1695mm
Adjustable Arm Length	1448r	1448mm		nm	1448mm	1448mm	1448mm	1448mm	1448mm
Main Rafter Length	1676mm		1372mm		1676mm	1372mm	1676mm	1372mm	1499mm
Secondary Rafter Length	826mm 1130mm		nm	826mm	1130mm	826mm	1130mm	933mm	
Duty	Standard								



Standard Duty hardware may be used if awning FRTA is 6.4 meters wide (or less). Standard Duty nardware must be used if awning FRTA is greater than 6.4 meters wide.

Replace X with letter code from color chart.

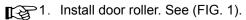
COLOR CHART				
В	Polar White			
S	Satin			
U	Black			

### **Door Roller And Edge Guard (Optional)**

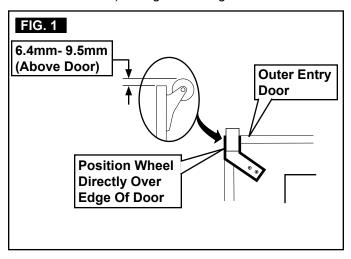
**NOTICE** Do **NOT** allow cosmetic features / surfaces of product to contact floor or other hard surface. Otherwise, abrasion or other damage could occur.

If potential for a squared corner entry door to contact awning fabric, a door roller kit must be installed.

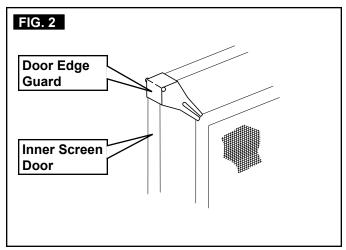
Rounded corner doors may NOT require a door roller kit if there is no potential for damage to awning product.



- a. Place door roller at upper corner (opposite to hinge) of outer entry door. Face roller out, and 6.4mm to 9.5mm above door.
- b. Place and tighten self drilling screws (provided) through mounting holes and into door.



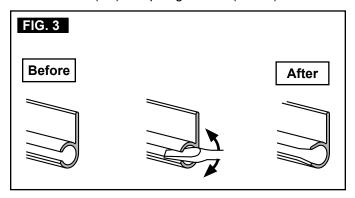
2. Clip door edge guard onto upper corner (opposite to hinge) of inner screen door. See (FIG. 2).



#### В. **Prepare Awning Rail**

**NOTICE** Make sure awning rail is parallel to RV floor, and is NOT warped or curved before installing awning fabric. If awning rail is NOT straight, awning fabric may wrinkle or stretch.

Select desired awning rail end (on RV) into which awning fabric will be inserted. Flare (widen) that end of the rail with a flat-bladed screwdriver, and remove (file) sharp edges. See (FIG. 3).

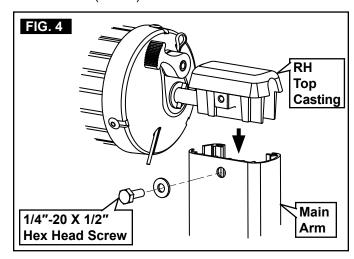


#### C. **Prepare** 8500/9000 Awning For Installation

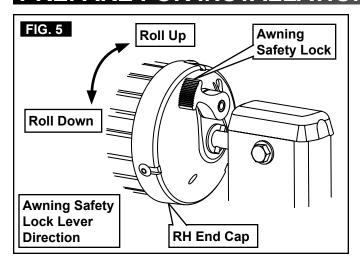
The awning requires minor preparation before installing on RV.



- 1. Carefully lay FRTA on a clean, well padded "V" trough (or other well protected surface) to prevent fabric damage.
  - 2. Insert top casting into corresponding main arm. See (FIG. 4).

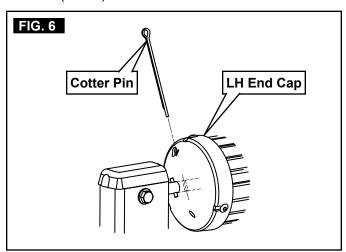


- 3. Place 1/4"-20 X 1/2" hex head screw (with washer) through main arm and into top casting. Tighten to 7.34 - 9.03 N·m torque. See (FIG. 4).
- 4. Repeat steps (2) and (3) for opposite side.
- 5. Rotate awning safety lock lever to roll down position. See (FIG. 5).



6. AWARNING IMPACT OR PINCH HAZARD. Do NOT remove cotter pin from torsion rod (at end cap) until BOTH top castings are secured to corresponding main arms, and awning safety lock lever is in roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to close the awning quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

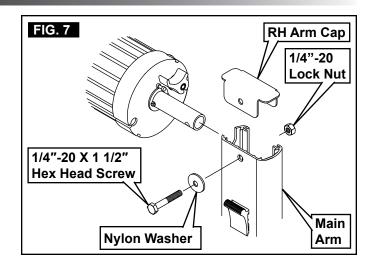
Straighten, remove, and discard cotter pin from left end of torsion rod (LH end cap) only. See (FIG. 6).



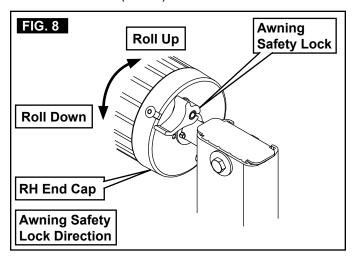
### D. Prepare 8300 Awning For Installation

The awning requires minor preparation before installing on RV.

- 1. Carefully lay FRTA on a clean, well padded "V" trough (or other well protected surface) to prevent fabric damage.
  - 2. Insert arm cap into RH main arm. See (FIG. 7).



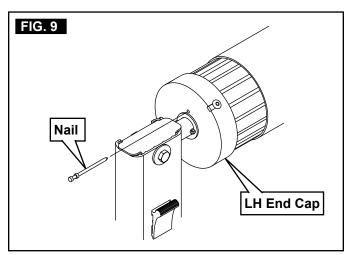
- 3. Assemble main arm to torsion rod of FRTA, with nail (in end cap) opposite main arm.
- 4. Place 1/4"-20 X 1 1/2" hex head screw (with washer) through main arm, cap, and torsion rod, securing with 1/4"-20 lock nut. Tighten to 7.34 9.03 N⋅m torque. See (FIG. 7).
- 5. Repeat steps (2) through (4) for opposite side.
- 6. Be sure awning safety lock is in roll down position. See (FIG. 8).



7. AWARNING IMPACT OR PINCH HAZARD. Do NOT remove nail from torsion rod (at end cap) until BOTH arm caps are secured to corresponding main arms, and awning safety lock lever is in roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to close the awning quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

Remove nail from left end of torsion rod (LH end cap) only. See (FIG. 9).

- With both hardware arms secured to FRTA and front of arms down, rotate left arm clockwise slightly to release pressure from nail.
- b. Remove nail and lower arm.



### E. Determine Awning Location

AWARNING IMPACT OR CRUSH HAZARD.
 Make sure mounting surface on RV is flat, has solid structural backing where fasteners penetrate surface, and will safely and securely support product. Otherwise, product may become unstable and could detach, bend, or collapse. Failure to obey this warning could result in death or serious injury.

Find a solid structure in RV wall for support of top mounting brackets.

**NOTICE** Install back channels on a flat surface, level, and keep parallel with each other to ensure correct function and appearance.

The relationship between solid structure and awning rail will determine location of top mounting brackets. Possible positions for top mounting brackets include:

Mounting OVER awning rail. See (FIG. 10).



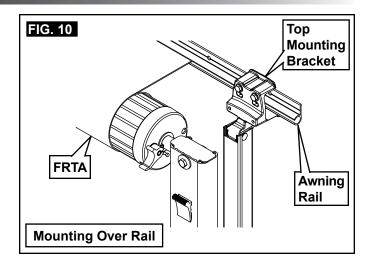
Do **NOT** use this position if top mounting brackets will contact rubber cap molding on RV (roof with rounded corners).

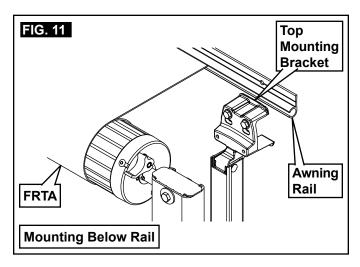
- Mounting BELOW awning rail. See (FIG. 11).
- Mounting ON awning rail. See (FIG. 12).

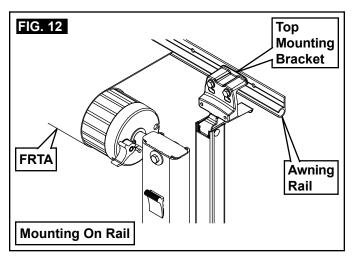


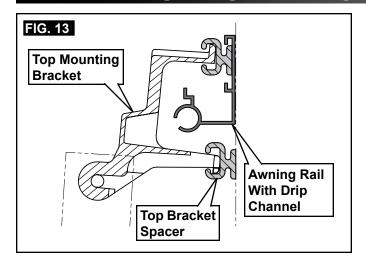
Install top bracket spacers if awning rail is too wide (has drip channel) and interferes with top mounting brackets. See (FIG. 13)

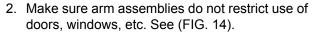
See subsection, "A. Optional Components" on page (3) to order top bracket spacers.

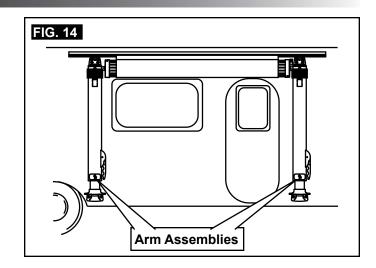










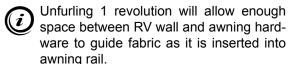


## **INSTALL AWNING**

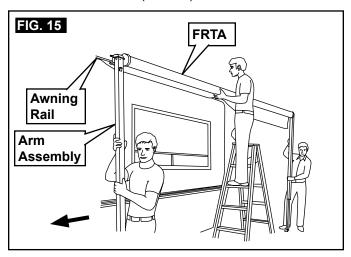
### **Insert Awning Fabric Into Awning Rail**



1. With awning safety lock in roll down position, unfurl awning fabric 1 revolution.



2. ACAUTION LIFTING HAZARD. Use proper lifting technique and control when lifting product. Failure to obey this caution could result in injury. With one person grasping each arm assembly, carefully lift entire awning assembly upright. Then carry awning to prepared (flared) awning rail end. See (FIG. 15).



3. While one person guides awning fabric into awning rail, carefully move (carry) awning assembly to predetermined location. See (FIG. 15).



To determine correct awning location, see subsection, "E. Determine Awning Location" on page (7).

A stepladder may be necessary to reach awning rail.

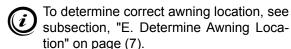
At least two other people are required to hold and control awning hardware until:

- · both top mounting brackets are correctly installed;
- both bottom mounting brackets are correctly installed;
- both patio feet are securely latched into bottom mounting brackets.

### **Install Top Mounting Brackets**

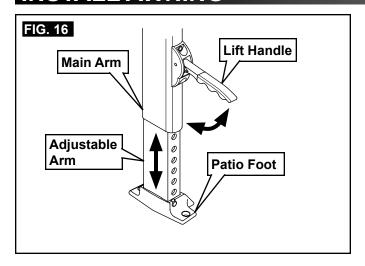


1. When awning is in predetermined location, extend both adjustable arms down to help support awning assembly.

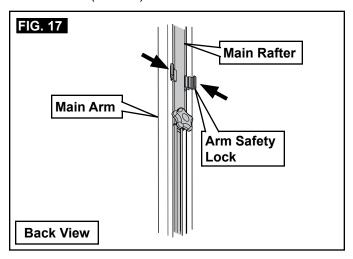


- a. Pull lift handle out and CAREFULLY extend adjustable arm until patio foot contacts floor / ground. See (FIG. 16).
- b. With FRTA at same height (approximately) as awning rail, release lift handle to lock in position. See (FIG. 11) & (FIG. 16).
- c. Repeat steps (a) through (b) for opposite side.

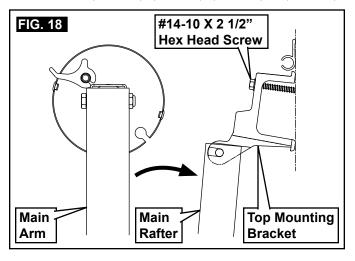
## **INSTALL AWNING**



2. Push in one side tab of arm safety lock, then the other to disengage main rafter from main arm. See (FIG. 17).



 Make sure rafter is aligned directly behind and centered with main arm. Then carefully pull main rafter away from main arm (toward RV), and mark hole location for top mounting bracket. See (FIG. 10), (FIG. 11), (FIG. 12), & (FIG. 18).



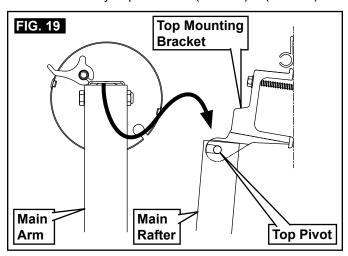
4. AWARNING FIRE OR ELECTRICAL SHOCK HAZARD. Make sure there are no obstacles (wires, pipes, etc.) inside RV's roof and / or walls. Shut OFF gas supply, disconnect 220-240 Vac power from RV, and disconnect positive (+) 12 Vdc terminal from supply battery BEFORE drilling or cutting into RV. Failure to obey these warnings could result in death or serious injury. Drill 4.76mm diameter holes through marked mounting hole locations and into solid structure of RV.

Drill 5.56mm diameter holes if drilling into steel.

5. **NOTICE** ALWAYS use sealant on (clean) parts and surfaces where fasteners enter RV's roof and / or walls. Otherwise, water leakage could occur.

Apply sealant to #14-10 X 2-1/2" hex head screw threads. Then place and tighten screws through top mounting bracket and into solid structure of RV. See (FIG. 10), (FIG. 11), (FIG. 12), & (FIG. 18).

- 6. Repeat steps (2) through (5) for opposite side.
- 7. Lift and place top casting onto top mounting bracket's top pivot. Then push (squeeze) main rafter into main arm until arm safety lock snaps securely in place. See (FIG. 17) & (FIG. 19).



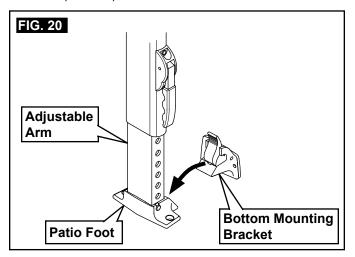
8. Repeat step (7) for opposite side.

### **INSTALL AWNING**

### **Install Bottom Mounting Brackets**



1. Latch bottom mounting bracket onto patio foot (located on bottom of adjustable arm). See (FIG. 20).



- 2. Make sure top casting is still resting on top mounting bracket's top pivot. See (FIG. 19).
- 3. A WARNING IMPACT OR CRUSH HAZARD. Make sure mounting surface on RV is flat, has solid structural backing where fasteners penetrate surface, and will safely and securely support product. Otherwise, product may become unstable and could [detach / bend / collapse]. Failure to obey this warning could result in death or serious injury.

Find a solid structure in RV wall to install bottom mounting bracket. Then adjust arm to place bottom mounting bracket in desired mounting position. See (FIG. 16), (FIG. 20), & (FIG. 21).



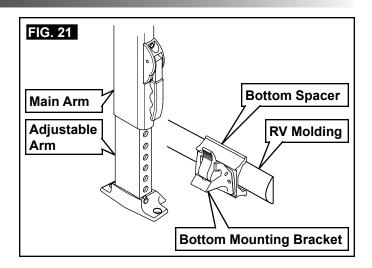
Mount directly into RV floor line, over molding, etc. If installing over RV molding, a bottom spacer MUST be used.

See subsection, "A. Optional Components" on page (3) to order bottom spacer kits.

- a. While one person holds and controls main arm, pull lift handle out.
- b. Slide adjustable arm up or down until bottom mounting bracket is in desired mounting position
- c. Release lift handle to lock in position.



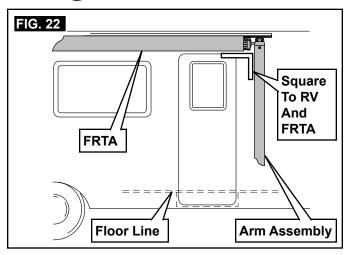
Lift handle MUST be locked in position to complete installation (later steps).



4. Square arm assembly to RV and FRTA. See (FIG. 22).



Measuring from a door or window frame is acceptable.



- 5. While holding bottom mounting bracket against RV wall, mark hole locations. See (FIG. 20) & (FIG. 22).
- 6. A WARNING FIRE OR ELECTRICAL SHOCK HAZARD. Make sure there are no obstacles (wires, pipes, etc.) inside RV's roof and / or walls. Shut OFF gas supply, disconnect 220-240 Vac power from RV, and disconnect positive (+) 12 Vdc terminal from supply battery BEFORE drilling or cutting into RV. Failure to obey these warnings could result in death or serious injury. Drill 4.76mm diameter holes through marked mounting hole locations and into solid structure of RV.



Drill 5.56mm diameter holes if drilling into steel.

### NSTALL AWNING

**NOTICE** ALWAYS use sealant on (clean) parts and surfaces where fasteners enter RV's roof and / or walls. Otherwise, water leakage could occur.

Apply sealant to #14-10 X 1 3/4" hex head screw threads. Then place and tighten screws through bottom mounting bracket and into solid structure of RV.

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

#### D. **Install Stop Bolts**

**NOTICE** Install shoulder bolt (stop bolt) to help prevent over-travel of arm assembly.

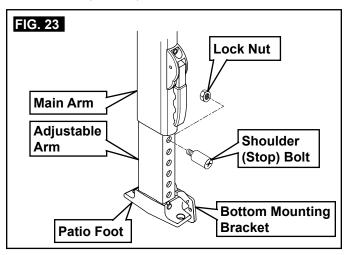


Before proceeding with stop bolt installation:

- Bottom mounting bracket MUST be installed.
- Patio food MUST be latched into bottom mounting bracket.
- Lift handle **MUST** be locked in position.



- 1. Pull lift handle out and slide main arm up by one hole only. Then release lift handle to lock in position. See (FIG. 16).
  - 2. Place shoulder (stop) bolt through highest, fully exposed hole in adjustable arm (nearest bottom edge of main arm). Then secure with lock nut. See (FIG. 23).



3. Pull lift handle out and slide main arm down until it rests on stop bolt. Then release lift handle to lock in position. See (FIG. 20) & (FIG. 23).

Top casting should now clear top pivot by 12.7mm when awning closes. See (FIG. 19).

4. Repeat steps (1) through (3) for opposite side.

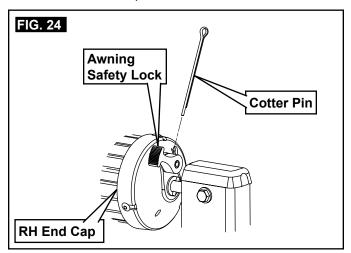
#### E. Release 8500/9000 **Awning** Preset Tension

1. A WARNING IMPACT OR PINCH HAZARD. Do NOT remove cotter pin from torsion rod (at end cap) until BOTH top castings are secured to corresponding main arms, 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.

With awning safety lock lever in roll down position, straighten, remove, and discard cotter pin from right end of torsion rod (RH end cap). See (FIG. 24).



Removing cotter pins will release the factory preset tension. To facilitate removal, you may need to twist the fabric roller tube (as if unrolling awning) by pulling the bottom of tube toward you while pulling on cotter pin.



#### Release 8300 Awning Preset Tension F.

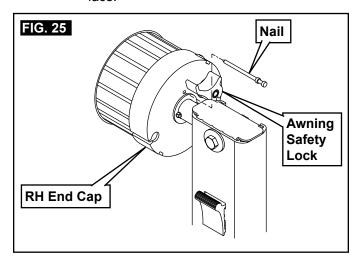


1. AWARNING IMPACT OR PINCH HAZARD. Do NOT remove nail from torsion rod (at end cap) until BOTH arm caps are secured to corresponding main arms, and awning safety lock lever is in roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to close the awning quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

> With awning safety lock in roll down position, remove nail from right end of torsion rod (RH end cap). See (FIG. 25).

## **INSTALL AWNING**

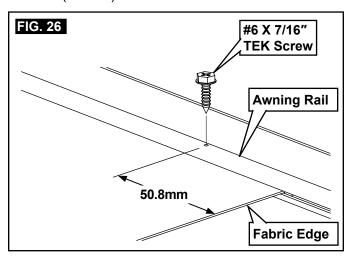
- Removing nails will release the factory preset tension. To facilitate removal, you may need to twist the fabric roller tube (as if unrolling awning) by pulling the bottom of tube toward you while pulling on nail.
- a. Hold strap securely.
- b. Rotate awning safety lock to roll up position, allowing awning to roll up against RV surface.



### Secure Awning Fabric to Awning Rail

- 1. ACAUTION PINCH HAZARD. Maintain a horizontal distance of at least 406.4mm between fully open awning and any permanent object. Failure to obey this caution could result in injury. Open an close awning four or five times to allow for natural self adjustment of awning fabric. See Operating Instructions.
  - 2. Verify alignment of awning fabric, and awning hardware.

- a. If there is misalignment, make adjustments accordingly.
- b. Cycle awning again to check alignment.
- 3. Ensure arm assemblies are still positioned correctly (directly in front of top brackets), then mark location of awning edges on awning rail.
- 4. Pull one edge of awning fabric approximately 6.35mm beyond marked position. Then secure with #6 X 7/16" TEK screw through awning rail (approximately 50.8mm from fabric edge). See (FIG. 26).



5. Pull to stretch opposite edge of awning fabric approximately 19.05mm. Then secure with #6 X 7/16" TEK screw through awning rail (approximately 50.8mm from fabric edge).

### VERIFY INSTALLATION

### **Test Operation**

Operate awning according to Operating Instructions to verify all parts are functioning correctly.

#### В. Secure Awning for Travel

- 1. Fully close awning. See "Close Awning" in Operating Instructions.
  - 2. Verify awning is secure for travel. See "Prepare Awning For Travel" in Operating Instructions.

#### C. Keep Literature

Instructions contain valuable information for product use and consumer safety.



Keep BOTH the Installation and Operating Instructions with product.