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UNIVERSAL SERIES HARDWARE 8273000, 8483000, 8430000, 8440000

FRTA
FABRIC ROLLER TUBE ASSEMBLY
SUNCHASER, 8500, 9000

# INSTALLATION INSTRUCTIONS

HARDWARE 8273000, 8483000, 8430000, 8440000 FRTA Sunchaser, 8500, 9000

### **REVISION**

Form No. 3313997.011 12/11 (Replaces 3313997.000) (French 3313998.019) ©2011 Dometic, LLC LaGrange, IN 46761



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

# INTRODUCTION

This awning (hereinafter referred to as "awning," or "product") is designed and intended for use on RVs with straight sides. For curved sides, please see the separate Hardware List in the Dealer Service Manual for the appropriate model.

This product can be installed by one person with brief help from additional personnel. Use the following procedure to ensure a properly installed, and properly functioning product.

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

Covered by one or more of the following patents: 4,188,964; 4,524,791; 5,351,736; 5,351,827; 5,383,346; 5,472,007; 5,,516,244; 5,566,918; 5,924,465; 5,732,756; 5,944,085; 6,006,810; 6,098,693; D353,473; D366,763; D395,170; D428,266; D429,894; others pending.

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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 users 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 WARNING! indicates a hazardous situation that, if not avoided, could result in death or serious injury.

**A CAUTION 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 this product.

Incorrect installation can lead to serious injury. Follow all installation instructions.

The installation must comply with all applicable local or national codes.

## D. General Safety Messages

**AWARNING FAILURE** to obey the following warnings could result in death or serious injury.

- This product MUST be installed by a Dometic, LLC Service Center or a qualified service technician.
- Do NOT modify this product in any way. Modification can be extremely hazardous.

## **GENERAL INFORMATION**

## A. Optional Components

(1) 830304 Door Roller Kit

(1) 830304.003 Door Roller Kits (50 Pack)

(1) 3109623.003 Top Bracket Spacer

(1) 3109623.550 Top Bracket Spacers (50 Pack)

(1) 3104781.004 Bottom Spacer Kit (1 Pair)

(1) 3104781.103 Bottom Spacer Kits (10 Pair)

# **GENERAL INFORMATION**

## B. Specifications

MODEL SERIES	8273000.401# 8483000.001 8483000.401#	8273000.402# 8483000.002 8483000.402#	8273000.405# 8483000.405#	8273000.407# 8483000.407#	**8273000.408# **8483000.408#
Height Range	76" - 86"	64" - 76"	78" - 91"	94" - 107"	Short 64" - 76"
					Tall 76" - 86"
Main Arm Length	73"	61″	76″	92"	Short 61"
					Tall 73"
Adjustable Arm Length	57"	57"	72"	72"	Short 57"
					Tall 57"
Main Rafter Length	66"	54"	71"	71"	Short 54"
					Tall 66"
Secondary Rafter Length	32 1/2"	44 1/2"	53 1/2"	53 1/2"	Short 44 1/2"
					Tall 32 1/2"
*Duty	Standard	Standard	Standard	Standard	Standard

MODEL SERIES	8430000.401# 8440000.401#	8483000.101 8483000.501#	8483000.102 8483000.502#
Height Range	54" - 61"	76" - 86"	64" - 76"
Main Arm Length	49"	73"	61"
Adjustable Arm Length	45"	57"	57"
Main Rafter Length	43 1/2"	66"	54"
Secondary Rafter Length	42 1/2"	32 1/2"	44 1/2"
*Duty	Standard	Heavy	Heavy

<sup>\*</sup>Note: Standard Duty is used with 8500, 8500HL, and 9000 awnings 21' and below.

Heavy Duty is used with 8500 and 9000 awnings greater than 21'.

<sup>\*\*</sup>Note: Models 8273000.408# and 8483000.408# have one Short Arm/Rafter and one Tall Arm/Rafter for fifth wheel applications.

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

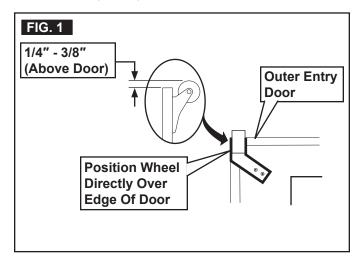
NOTICE FAILURE to obey the following notice could result in property damage.

• Do NOT allow corner of entry door to contact awning fabric. Otherwise, premature wear or tearing of awning fabric could occur.

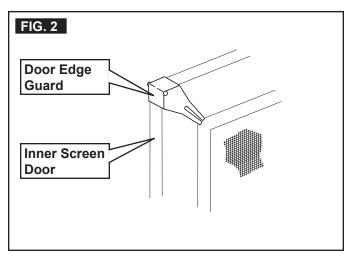
If there's potential for a squared corner entry door to contact awning fabric, a door roller kit (NOT IN-CLUDED) should be installed. Rounded corner doors may not require a door roller kit if there is no potential for damage to awning fabric.

See section, "A. Optional Components" on page (3) to order optional components.

1. Place door roller on upper corner of outer entry door (opposite to hinge), transfer (drill) two pilot holes, and place and tighten mounting screws. See (FIG. 1).



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

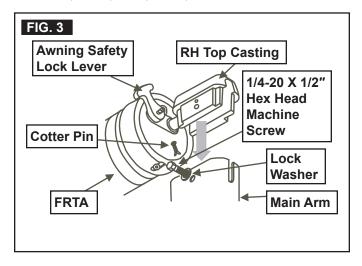


#### В. **Prepare Hardware Assembly**

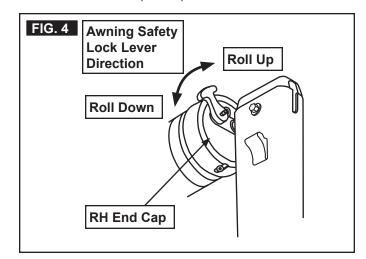
The awning hardware requires minor preparation before installing on RV.



- 1. Carefully lay fabric roller tube assembly (FRTA) on a clean, well padded "V" trough (or other well protected surface) to prevent fabric damage.
  - 2. Secure arm assemblies to the corresponding top castings using 1/4-20 x 1/2" hex head machine screws and 1/4" lock washers. See (FIG. 3) and (FIG. 5).

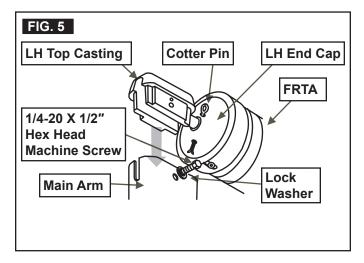


3. After attaching both arms to top castings, rotate the awning safety lock lever to the roll down position. See (FIG. 4).



4. WARNING! IMPACT OR PINCH HAZARD, Do **NOT** remove cotter pin from torsion rod (at end cap) until top casting is secured to hardware, and awning safety lock lever is in the roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to spin the hardware and/or fabric roller tube guickly 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. 5).

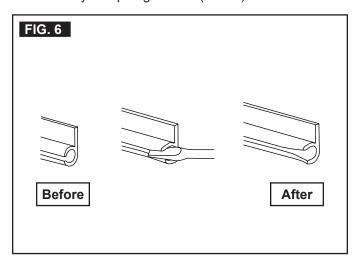


### **Prepare Awning Rail**



1. NOTICE. Make sure awning rail on RV is NOT warped or curved before installing awning fabric. If awning rail is not straight, awning fabric may wrinkle or stretch.

> Select the desired awning rail end (on RV) into which the awning fabric will be fed. Widen that end of the rail with a flat screwdriver, and file off any sharp edges. See (FIG. 6).



2. With awning safety lock lever in roll down position, unfurl awning fabric one revolution before installing fabric (with awning roller cover, if equipped) into awning rail. See (FIG. 4).



This will allow enough space between side wall and awning hardware to guide awning fabric into awning rail.

Do NOT unfurl more than one revolution of fabric.

#### D. **Attach Awning Fabric**

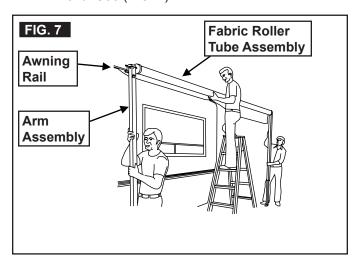


At least two other people are required to hold and control hardware until bottom mounting brackets are properly installed.



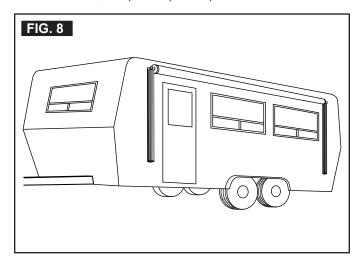
1. NOTICE. Keep both arm assemblies parallel to each other to avoid twisting.

> With one person grasping each arm assembly, carefully lift the entire awning assembly upright. Carry the awning to the prepared awning rail end. See (FIG. 7).



2. One person is needed to guide the awning fabric (with awning roller cover, if equipped) into the awning rail (a stepladder may be necessary), while two others carefully move (carry) the awning hardware assembly to desired position. See (FIG. 7).

After awning fabric has been threaded into awning rail, check to make sure its position allows for solid mounting of the top and bottom mounting brackets, and that arm assemblies are in desired location (not restricting use of doors, windows, etc.). See (FIG. 8).



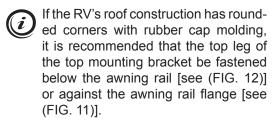
### E. Install Top Mounting Brackets

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

**NOTICE.** Do **NOT** fasten top mounting bracket over awning rail and against rubber cap molding (if RV's roof construction has rounded corners). Otherwise, water leakage could occur.

Find a solid structure in RV wall to install the top mounting brackets. The relationship of the solid structure with the awning rail will determine the appropriate position.

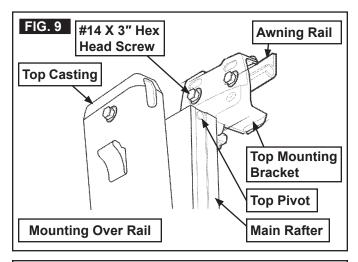
- a. The top mounting bracket may need to be placed over the awning rail [see (FIG. 9) and (FIG. 10)],
- b. ... on the awning rail [see (FIG. 11)],
- c. ... or below the awning rail [see (FIG. 12)].

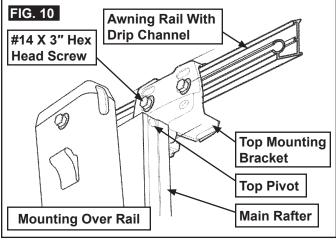


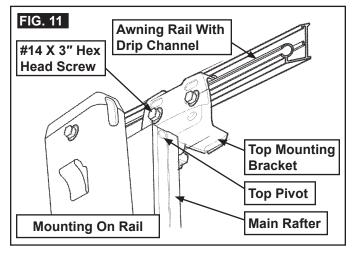
Some awning rails have a drip channel to catch water as it runs off the roof

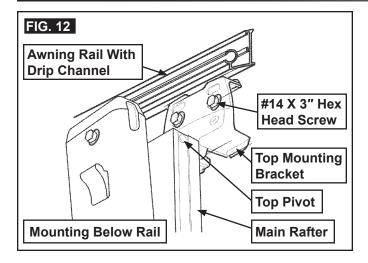
and drain it to the front or rear of RV. If the top mounting bracket cannot touch the side of the RV because the awning rail is too wide, a top bracket spacer is available. This will allow the top mounting bracket to clear the wider awning rail.

See section, "A. Optional Components" on page (3) to order optional components.

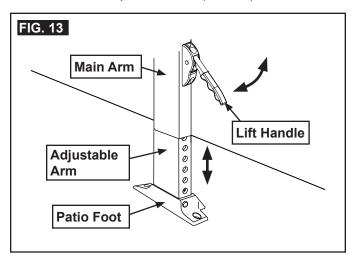








2. Make sure top mounting bracket is aligned directly behind and centered with the main arm. To help support the awning, pull lift handle out and CAREFULLY extend adjustable arm until patio foot contacts the ground, then release lift handle to lock in position. See (FIG. 13).



3. **NOTICE.** Do **NOT** pull arm assembly away from RV when the awning safety lock lever is in the roll up position. Otherwise, damage to the torsion lock could occur.

With awning safety lock lever in roll down position [see (FIG. 4)], CAREFULLY pull main arm away from top mounting bracket and main rafter, and mark the hole locations for top mounting bracket. See (FIG. 9), (FIG. 10), (FIG. 11), or (FIG. 12).

4. Drill two 3/16" diameter holes (7/32" diameter if drilling steel) through marked hole locations and into solid structure of RV.

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

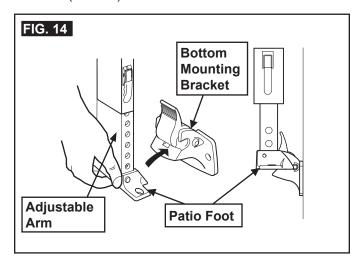
Apply sealant to the #14 X 3" hex head screw threads. Then place and tighten screws through top mounting bracket and into solid structure of RV. See (FIG. 9), (FIG. 10), (FIG. 11), or (FIG. 12).

- 6. Lift and place top casting onto the top mounting bracket's top pivot. See (FIG. 9).
- 7. Repeat steps (2) through (6) for opposite side.

#### F. **Install Bottom Mounting Brackets**



1. Latch bottom mounting bracket, onto patio foot (located on bottom of adjustable arm). See (FIG. 14).



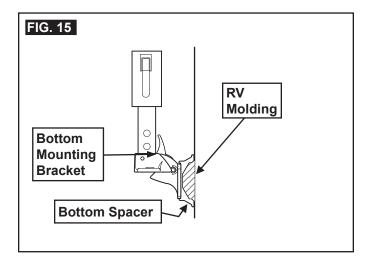
- 2. Ensure top casting is still resting on the top mounting bracket's top pivot. See (FIG. 9).
- 3. Pull lift handle out and slide adjustable arm up to the desired mounting position, then release lift handle to lock in position. See (FIG. 13).

4. Find a solid structure in RV wall to install the bottom mounting bracket. (Mount directly into floor line, over molding, etc.)



If installing over a molding, a bottom spacer kit must be used. See (FIG. 15).

See section, "A. Optional Components" on page (3) to order optional components.



- 5. Mark hole locations for bottom mounting brack-
- 6. Drill two 3/16" diameter holes (7/32" diameter if drilling steel) through marked hole locations and into solid structure of RV.
- 7. 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 the #14 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.

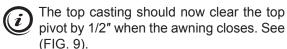
#### G. **Install Stop Bolt**

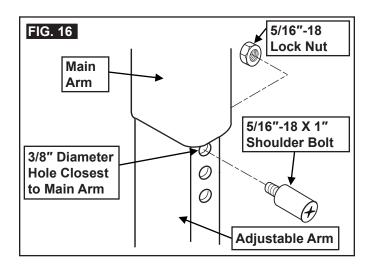
NOTICE FAILURE to obey the following notice could result in property damage.

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



- 1. With awning safety lock lever in roll down position, pull lift handle out and slide main arm up by one hole only. Then release lift handle to lock in position. See (FIG. 4) and (FIG. 13).
  - 2. Place the 5/16"-18 X 1" shoulder bolt (stop bolt) through the hole (on adjustable arm) that's closest to bottom of main arm, and secure with 5/16"-18 lock nut. See (FIG. 16).





3. Repeat steps (1) through (2) for opposite side.

### **Release Preset Tension**

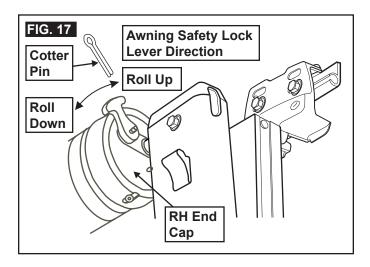


1. WARNING! IMPACT OR PINCH HAZARD. Do NOT remove cotter pin from torsion rod (at end cap) until top casting is secured to hardware, and awning safety lock lever is in the roll down position. Otherwise, rapid casting spin off will occur. Spring tension will attempt to close the awning quickly and unexpectedly.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

> With awning safety lock lever in roll down position, straighten, remove, and discard cotter pin from right end of torsion rod (RH end cap). See (FIG. 4) and (FIG. 17).



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.



#### I. Secure Awning Fabric To Awning Rail



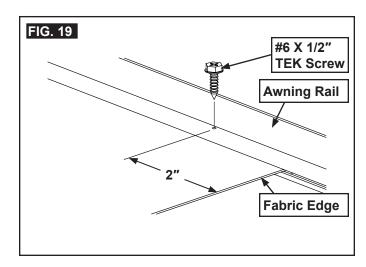
1. While holding pull strap, rotate the awning safety lock lever to the roll up position. The awning should now roll up snugly against side of RV. See (FIG. 4) and (FIG. 18).

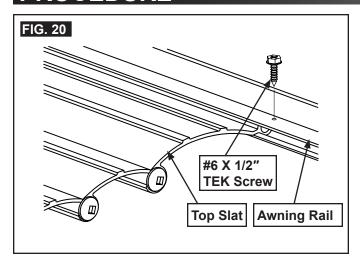


- 2. Open and close awning four or five times to allow for natural self adjustment of awning.
- 3. Ensure the arms are still positioned directly in front of the top brackets, then secure awning fabric by installing a #6 X 1/2" TEK screw on each end of awning rail (approximately 2" from fabric edge). See (FIG. 19).



For awnings with metal slats, the #6 X 1/2" TEK screw will need to be installed immediately next to metal hinge on each end of awning rail. See (FIG. 20).





#### **Secure Awning For Travel** J.

- 1. Operate awning according to the Operating Instructions to verify all parts are functioning prop-
  - 2. Secure awning for travel. (See "Close Awning" in Operating Instructions.)

For added security and rattle-free travel, tighten rafter knobs, secure arm safety locks, and make sure the awning safety lock lever is in the roll up position. See (FIG. 4), (FIG. 21), (FIG. 22), and (FIG. 23).

