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

**INSTALLATION
INSTRUCTIONS**

**UNIVERSAL SERIES
PATIO AWNING**

HARDWARE

8273000, 8483000, 8430000, 8440000

FRTA

**FABRIC ROLLER TUBE ASSEMBLY
SUNCHASER, 8500, 9000**



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

REVISION C
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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. For curved sides, please see the separate Hardware List in the Dealer Service Manual for the appropriate model.


This awning can be installed 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.

TABLE OF CONTENTS

INTRODUCTION.....	2
DOCUMENT SYMBOLS	2
IMPORTANT SAFETY INSTRUCTIONS.....	3
A. Recognize Safety Information	3
B. Understand Signal Words.....	3
C. Supplemental Directives.....	3
D. General Safety Messages	3
GENERAL INFORMATION.....	3
A. Optional Components.....	3
SPECIFICATIONS.....	4
A. Hardware Dimensions	4
PREPARE FOR INSTALLATION.....	5
A. Door Roller And Edge Guard (Optional).....	5
B. Prepare Awning Rail	5
C. Prepare Awning For Installation.....	5
D. Determine Awning Location.....	6
INSTALL AWNING.....	7
A. Install LED Light Switch (If Applicable).....	7
B. Insert Awning Fabric Into Awning Rail	8
C. Install Top Mounting Brackets.....	8
D. Install Bottom Mounting Brackets.....	9
E. Install Stop Bolts.....	10
F. Release Preset Tension.....	11
G. Secure Awning Fabric To Awning Rail	11
H. LED Light Connections (If Applicable).....	12
VERIFY INSTALLATION.....	12
A. Test Operation	12
B. Secure Awning For Travel	12
C. Keep Literature	12

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 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 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)

SPECIFICATIONS

A. Hardware Dimensions

MODEL SERIES	8430000 8440000 .401#	.001	.002	8273000 8483000 .405#	8273000 8483000 .407#	*8273000 *8483000 .408#
		8273000 .101 8483000 .401# .501#	8273000 .102 8483000 .402# .502#			
Height Range	54" - 61"	76" - 86"	64" - 76"	78" - 91"	94" - 107"	Short 64" - 76"
						Tall 76" - 86"
Main Arm Length	49"	73"	61"	76"	92"	Short 61"
						Tall 73"
Adjustable Arm Length	45"	57"	57"	72"	72"	Short 57"
						Tall 57"
Main Rafter Length	43 1/2"	66"	54"	71"	71"	Short 54"
						Tall 66"
Secondary Rafter Length	42 1/2"	32 1/2"	44 1/2"	53 1/2"	53 1/2"	Short 44 1/2"
						Tall 32 1/2"
Duty	.00(X)	Standard				
	.40(X)#					
	.10(X)	Heavy				
	.50(X)#					

 Standard Duty hardware may be used if awning FRTA is 21' wide (or less).
Heavy Duty hardware **MUST** be used if awning FRTA is greater than 21' wide.

*Models 8273000.(X)08# and 8483000.(X)08# hardware has (1) Short and (1) Tall Arm/Rafter assembly. This hardware is intended for use on fifth wheel RVs.

PREPARE FOR INSTALLATION

A. Door Roller And Edge Guard (Optional)

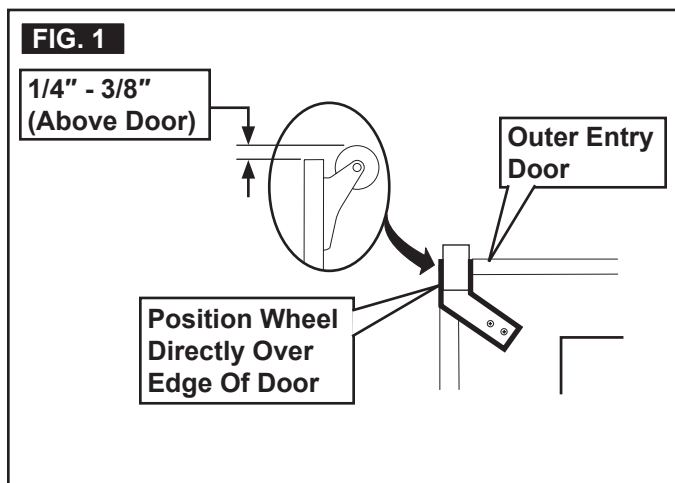
NOTICE Do **NOT** allow corner of entry door to contact awning fabric. Otherwise, premature wear or tearing of awning fabric could occur.

If there's potential for a squared corner entry door to contact awning fabric, a door roller kit (NOT INCLUDED) must be installed.

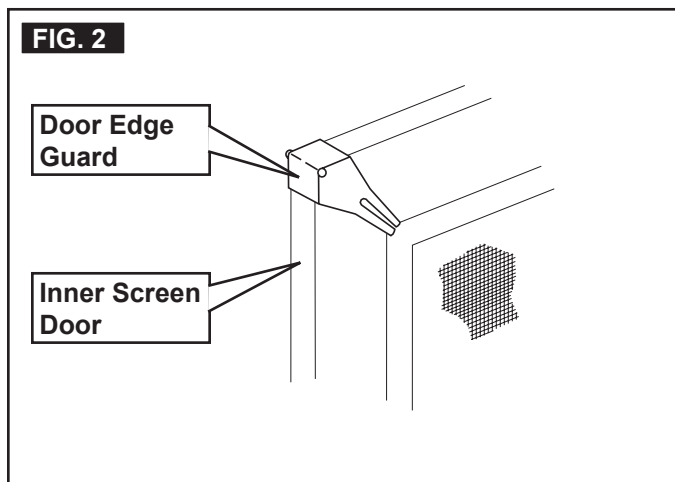
i Rounded corner doors may **NOT** require a door roller kit if there is no potential for damage to awning fabric.

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

1. Install door roller. See (FIG. 1).
 - a. Place door roller at upper corner (opposite to hinge) of outer entry door. Face roller out, and 1/4" to 3/8" 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).

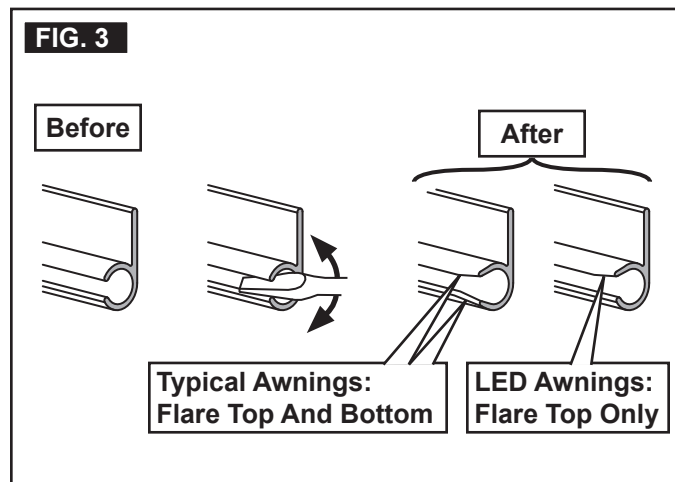


B. Prepare Awning Rail

NOTICE Verify 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 rail with a flat-bladed screwdriver, and remove (file) sharp edges. See (FIG. 3).

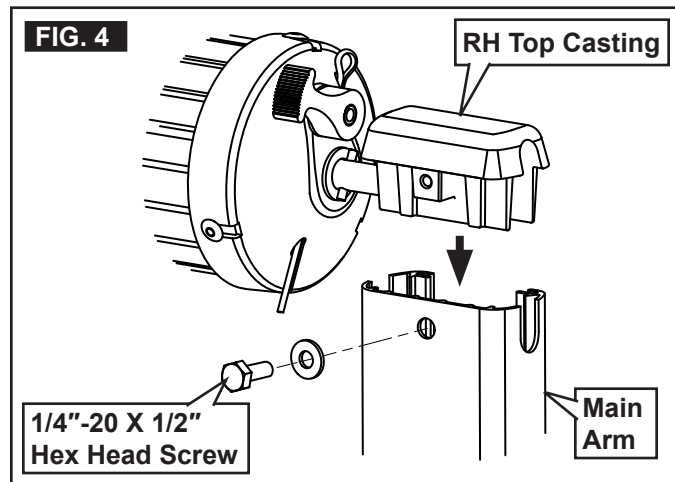
i If awning is equipped with LED lights, flare top (of awning rail opening) **ONLY**.



C. Prepare Awning For Installation

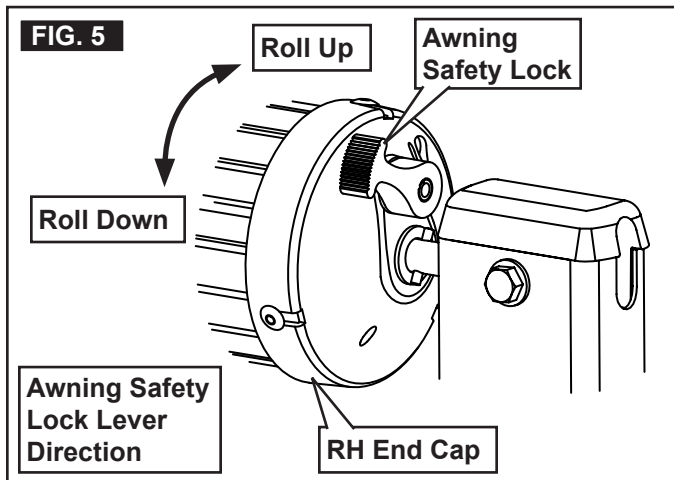
The awning requires minor preparation before installing on RV.

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).



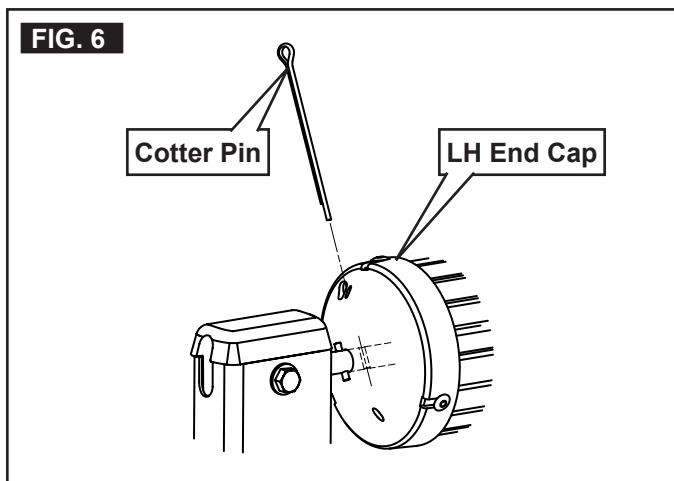
PREPARE FOR INSTALLATION

- Place 1/4"-20 X 1/2" hex head screw (with washer) through main arm and into top casting. Tighten to 65-80 in·lb torque. See (FIG. 4).
- Repeat steps (2) and (3) for opposite side.
- Rotate awning safety lock lever to roll down position. See (FIG. 5).



- ⚠ 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.

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



D. Determine Awning Location

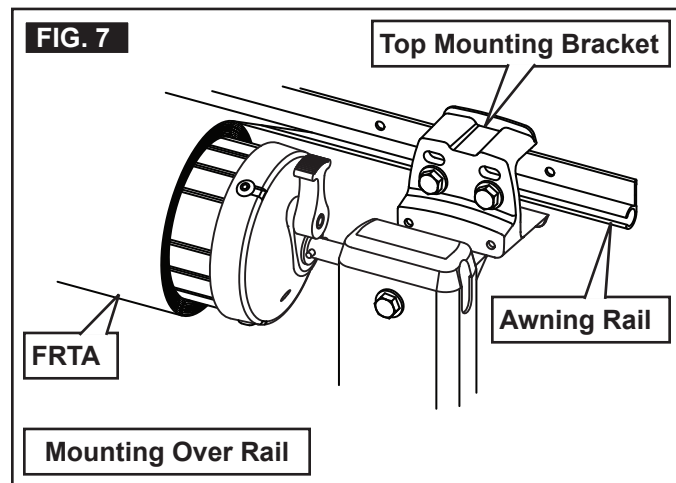
- ⚠ WARNING** IMPACT OR CRUSH HAZARD. Verify mounting surface on RV is flat, has solid structural backing where fasteners penetrate surface, and will safely and securely support product. Otherwise, product may become unstable and could [detach / bend / collapse]. Failure to obey this warning could result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

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

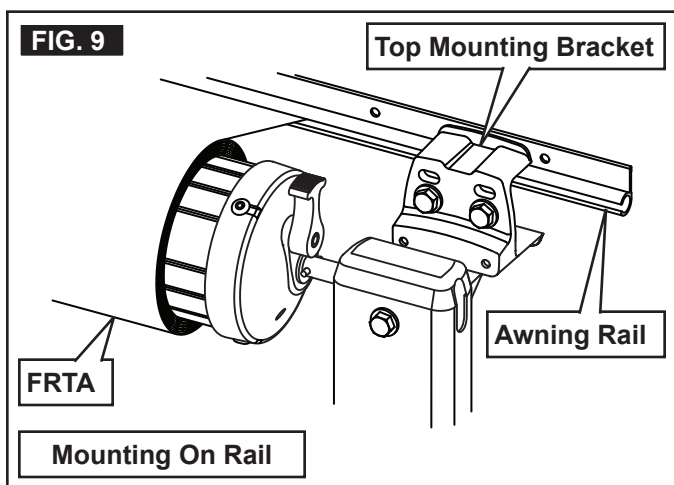
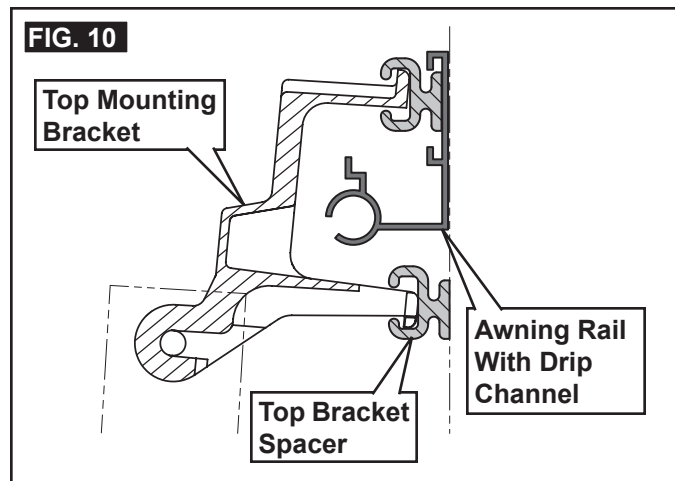
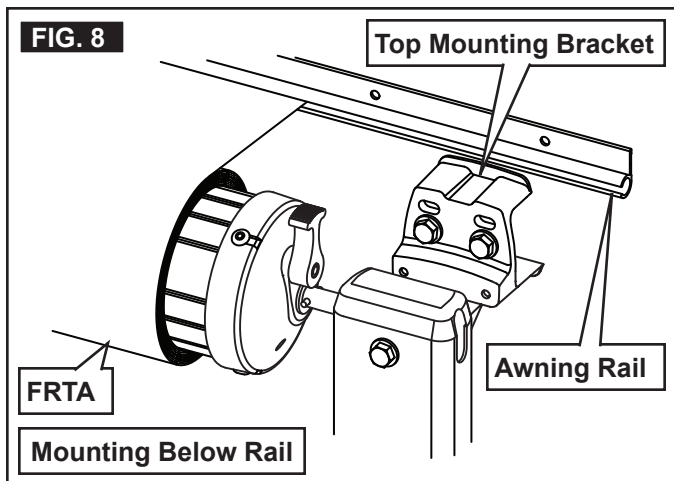
NOTICE Do **NOT** fasten top mounting bracket over awning rail and against rubber cap molding (if RV's roof construction has rounded corners). Otherwise, water leakage could occur. The relationship between solid structure and awning rail will determine location of top mounting brackets. Possible positions for top mounting brackets include:

- Mounting **OVER** awning rail. See (FIG. 7).
 - i** 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. 8).
- Mounting **ON** awning rail. See (FIG. 9).
 - i** Install top bracket spacers if awning rail is too wide (has drip channel) and interferes with top mounting brackets. See (FIG. 10).

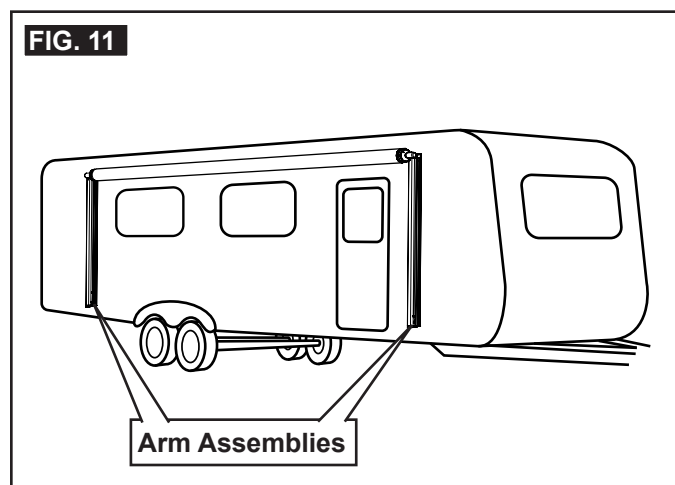
See subsection, "A. Optional Components" on page (3) to order top bracket spacers.



PREPARE FOR INSTALLATION



2. Make sure arm assemblies do not restrict use of doors, windows, etc. See (FIG. 11).



INSTALL AWNING

A. Install LED Light Switch (If Applicable)

An LED light switch (installer supplied) is required for awning models equipped with an LED light strip.

i Skip this subsection if awning is **NOT** equipped with an LED light strip.

1. **⚠ WARNING** ELECTRICAL SHOCK HAZARD. Disconnect 120 Vac power from RV. Failure to obey this warning could result in death or serious injury.
2. **NOTICE** Disconnect the positive (+) 12 Vdc terminal from supply battery. Otherwise, damage to unit could occur.
3. **NOTICE** Do **NOT** expose switch to weather, extreme temperatures, or long hours in direct sunlight.
Find a suitable location for LED switch installation.
4. **NOTICE** Install a (3 A) fuse (installer supplied) at fuse panel for positive (+) 12 Vdc power

supply (**RED** wire) to switch. Otherwise, damage to unit could occur.

- i** Alternatively, a (3 A) inline fuse may be used between positive (+) 12 Vdc power supply (RED wire) and switch.
5. Route wiring (inside RV) to general location where connections to awning hardware will be made.
 - i** Allow enough wiring length to pass through outside RV wall (hole will be drilled later) for connection to awning.
Wiring hole location will be near RH top casting. See (FIG. 4).
 6. Make appropriate wiring connections inside RV.
 - i** Wiring connections to awning (through outside RV wall) will be made later.
See instructions included with your LED light switch for additional wiring instructions.

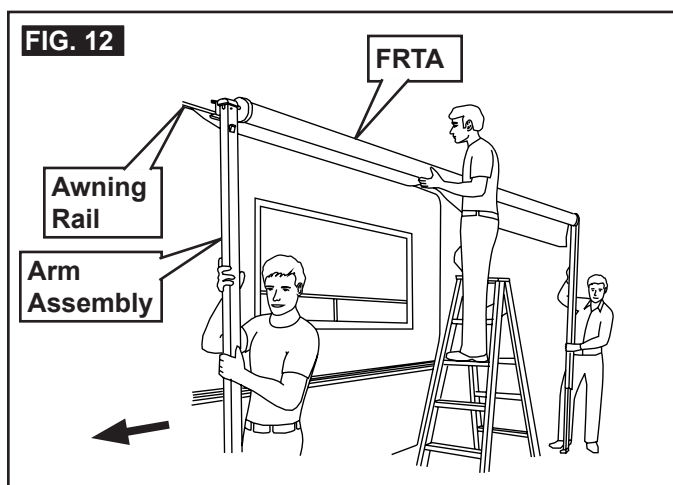
INSTALL AWNING

B. Insert Awning Fabric Into Awning Rail

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

i Unfurling 1 revolution will allow enough space between RV wall and awning hardware to guide fabric as it is inserted into awning rail.

2. **CAUTION** 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. 12).



3. While one person guides awning fabric into awning rail, carefully move (carry) awning assembly to predetermined location. See (FIG. 12).

i To determine correct awning location, see subsection, "D. Determine Awning Location" on page (6).

A stepladder may be necessary to reach awning rail.

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

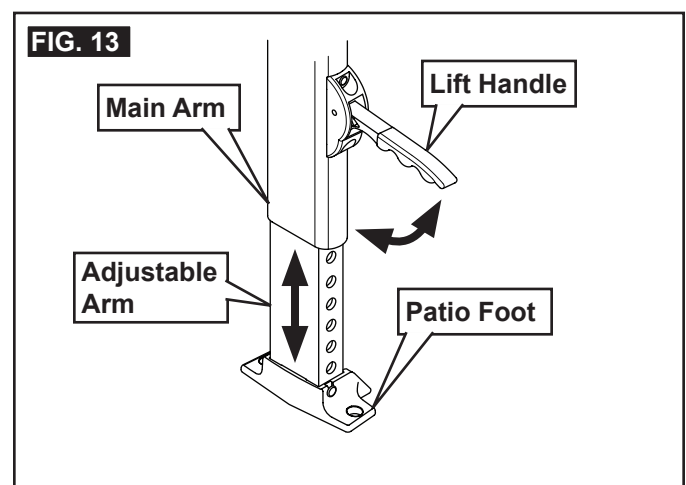
- both top mounting brackets are correctly installed;
- both bottom mounting brackets are correctly installed;
- both patio feet are securely latched into bottom mounting brackets.

C. Install Top Mounting Brackets

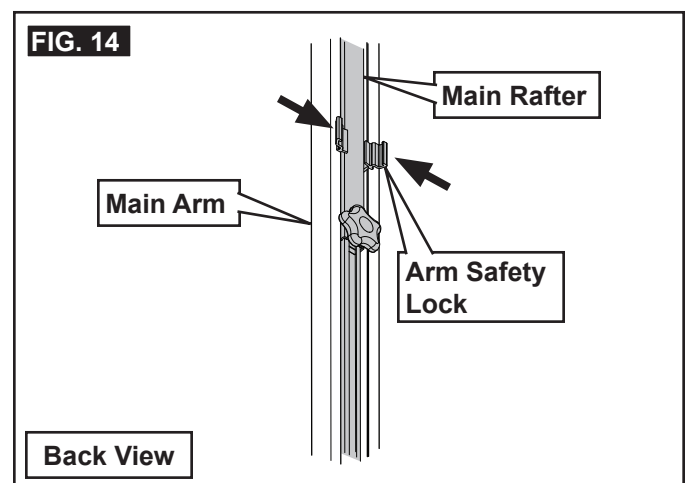
1. When awning is in predetermined location, extend both adjustable arms down to help support awning assembly.

i To determine correct awning location, see subsection, "D. Determine Awning Location" on page (6).

- a. Pull lift handle out and CAREFULLY extend adjustable arm until patio foot contacts floor / ground. See (FIG. 13).
- b. With FRTA at same height (approximately) as awning rail, release lift handle to lock in position. See (FIG. 8) & (FIG. 13).
- c. Repeat steps (a) through (b) for opposite side.

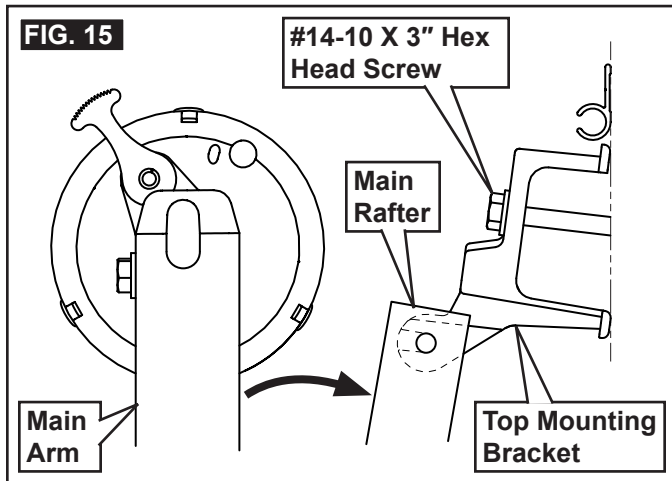


2. Push in one side tab of arm safety lock, then the other to disengage main rafter from main arm. See (FIG. 14).



INSTALL AWNING

3. Make sure main rafter is aligned directly behind and centered with main arm. Then carefully pull main rafter away from main arm (toward RV), and mark hole locations for top mounting bracket. See (FIG. 7), (FIG. 8), (FIG. 9), & (FIG. 15).



4. **⚠ WARNING** FIRE OR ELECTRICAL SHOCK HAZARD. Verify there are no obstacles inside RV's roof and/or walls (wires, pipes, etc.). Shut **OFF** gas supply, disconnect 120 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 3/16" diameter holes through marked mounting hole locations and into solid structure of RV.

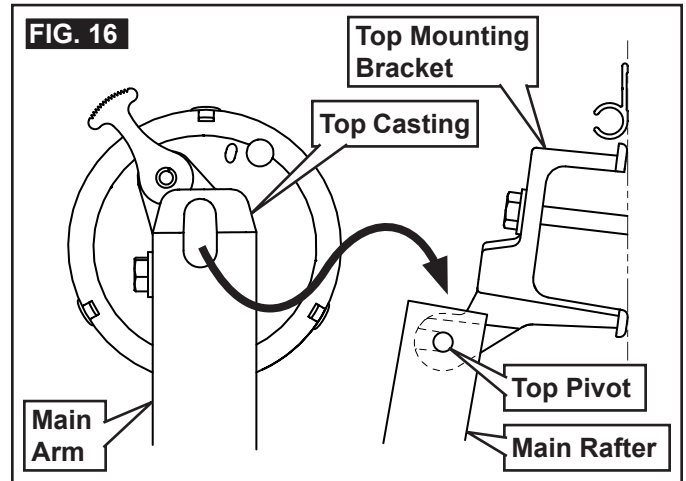
i Drill 7/32" diameter holes if drilling into steel.

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 3" hex head screw threads. Then place and tighten screws through top mounting bracket and into solid structure of RV. See (FIG. 7), (FIG. 8), (FIG. 9), & (FIG. 15).

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

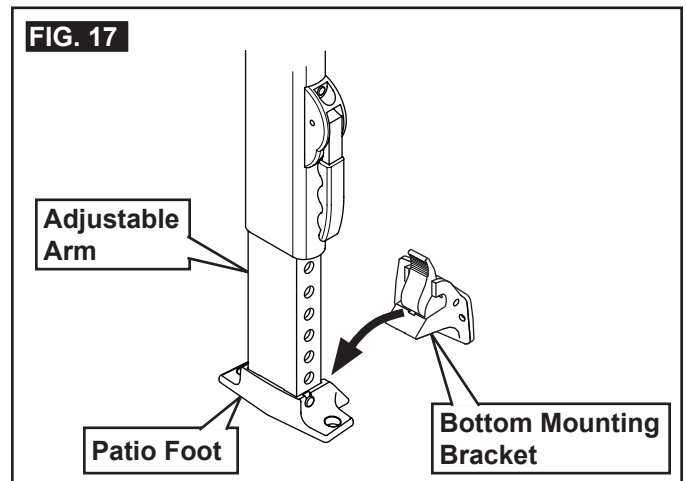
7. Lift and place top casting onto top mounting bracket's top pivot. Then push (squeeze) main rafter into main arm until arm safety lock snaps securely in place. See (FIG. 14) & (FIG. 16).



8. Repeat step (7) for opposite side.

D. Install Bottom Mounting Brackets

1. Latch bottom mounting bracket, onto patio foot (located on bottom of adjustable arm). See (FIG. 17).



2. Make sure top casting is still resting on top mounting bracket's top pivot. See (FIG. 16).

INSTALL AWNING

3. **⚠ WARNING IMPACT OR CRUSH HAZARD.** Verify 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.

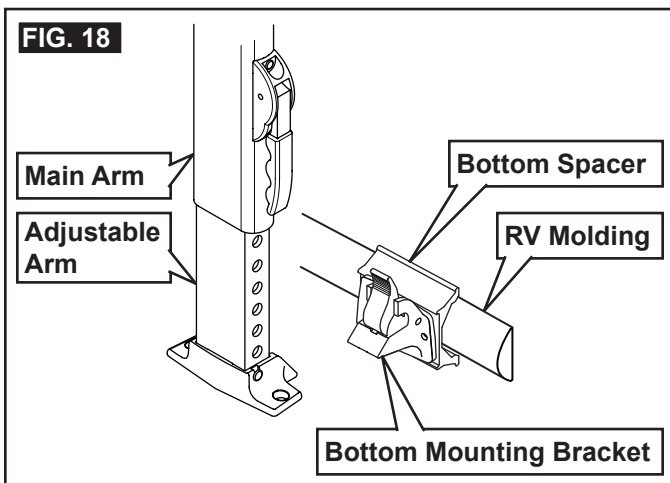
Find a solid structure in RV wall to install bottom mounting bracket. Then adjust arm to place bottom mounting bracket in desired mounting position. See (FIG. 13), (FIG. 17), & (FIG. 18).

i 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.

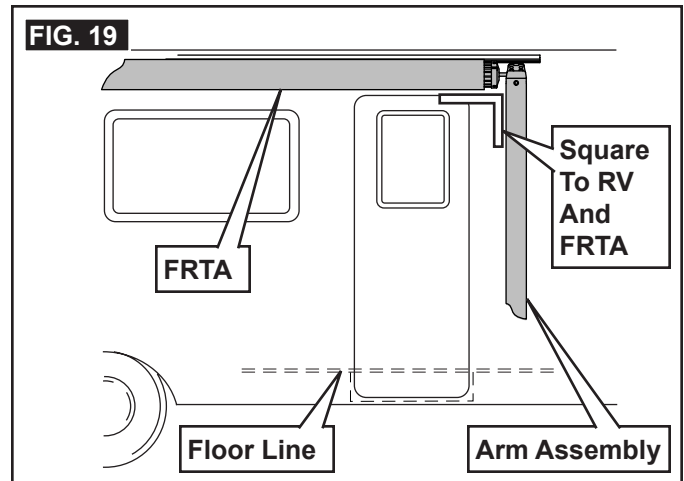
- While one person holds and controls main arm, pull lift handle out.
- Slide adjustable arm up or down until bottom mounting bracket is in desired mounting position.
- Release lift handle to lock in position.

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



4. Square arm assembly to RV and FRTA. See (FIG. 19).

i Measuring from a door or window frame is acceptable.



5. While holding bottom mounting bracket against RV wall, mark hole locations. See (FIG. 17) & (FIG. 19).

6. **⚠ WARNING FIRE OR ELECTRICAL SHOCK HAZARD.** Verify there are no obstacles inside RV's roof and/or walls (wires, pipes, etc.). Shut **OFF** gas supply, disconnect 120 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 3/16" diameter holes through marked mounting hole locations and into solid structure of RV.

i Drill 7/32" diameter holes if drilling into steel.

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 #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.

E. Install Stop Bolts

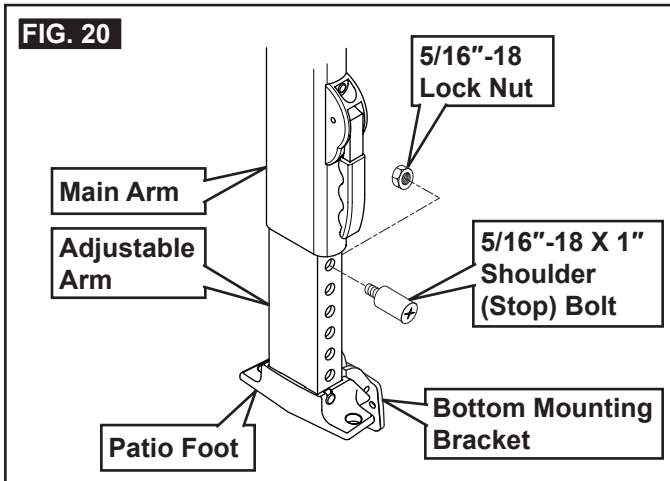
NOTICE Install shoulder bolt (stop bolt) to help prevent over-travel of arm assembly.

- i** Before proceeding with stop bolt installation:
- Bottom mounting bracket **MUST** be installed.
 - Patio foot **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. 13).

INSTALL AWNING

- Place 5/16"-18 X 1" shoulder (stop) bolt through highest, fully exposed hole in adjustable arm (nearest bottom edge of main arm). Then secure with 5/16"-18 lock nut. See (FIG. 20).



- 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. 13) & (FIG. 20).

i Top casting should now clear top pivot by 1/2" when awning closes. See (FIG. 16).

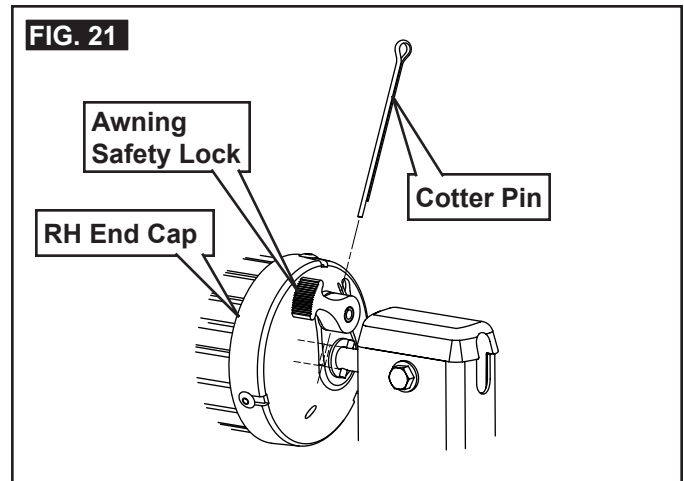
- Repeat steps (1) through (3) for opposite side.

F. Release Preset Tension

⚠ 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 close the awning quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

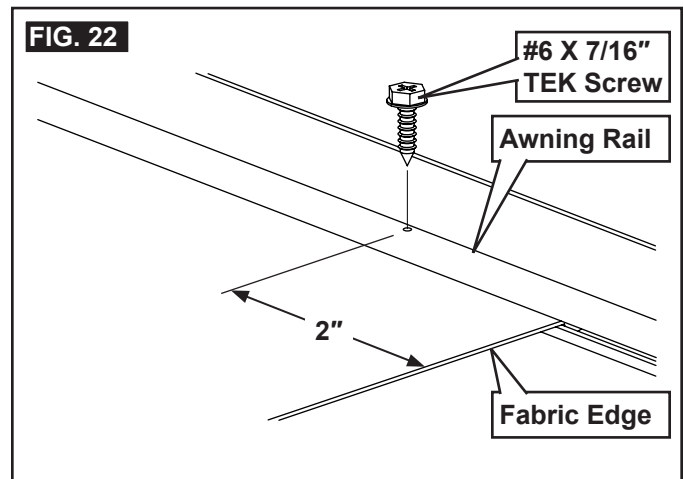
With awning safety lock lever in roll down position, straighten, remove, and discard cotter pin from right end of torsion rod (RH end cap). See (FIG. 21).

i 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.



G. Secure Awning Fabric To Awning Rail

- ⚠ CAUTION** PINCH HAZARD. Maintain a horizontal distance of at least 16" between fully open awning and any permanent object. Failure to obey this caution could result in injury. Open and close awning four or five times to allow for natural self adjustment of awning fabric. See Operating Instructions.
- Verify alignment of awning fabric, and awning hardware.
 - If there is misalignment, make adjustments accordingly.
 - Cycle awning again to check alignment.
- Ensure arm assemblies are still positioned correctly (directly in front of top brackets), then mark location of awning fabric edges on awning rail.
- Pull one edge of awning fabric approximately 1/4" beyond marked position. Then secure with #6 X 7/16" TEK screw through awning rail (approximately 2" from fabric edge). See (FIG. 22).




INSTALL AWNING


5. Pull to stretch opposite edge of awning fabric approximately 3/4". Then secure with #6 X 7/16" TEK screw through awning rail (approximately 2" from fabric edge).

H. LED Light Connections (If Equipped)

 Skip this subsection if awning is **NOT** equipped with an LED light strip.


-  1. **WARNING** FIRE OR ELECTRICAL SHOCK HAZARD. Verify there are no obstacles inside RV's roof and/or walls (wires, pipes, etc.). Shut **OFF** gas supply, disconnect 120 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.

With awning open, drill (1) 5/8" diameter hole through outside wall of RV (near RH top casting and under awning rail).

 Make sure location will allow LED wiring to pass through wall without interference.


2. **NOTICE** Do **NOT** pinch wiring or allow wiring to rub against sharp edges. If wiring is damaged, it **MUST** be replaced by a qualified service technician.

Use a grommet (installer supplied) when routing wiring through RV wall.

 If grommet is **NOT** used, use heat-shrink tubing where wiring will pass through RV wall.


3. **NOTICE** **ALWAYS** seal wiring against weather and moisture where wiring enters RV's roof and/or walls. Otherwise, water leakage could occur.

Pull wiring through wiring hole (and grommet).


 If grommet is **NOT** used, make sure sealant will also provide effective and permanent protection against wire damage.

4. **NOTICE** Verify the positive (+) 12 Vdc terminal is disconnected from supply battery. Otherwise, damage to unit could occur.

Connect LED switch wiring to the factory pre-wired LED light strip.

 See instructions included with your LED switch kit (installer supplied) for additional wiring instructions.

5. Secure wiring to prevent pinching or other damage during awning operation.


 Allow enough slack in wiring to safely accommodate possible fabric movement.

VERIFY INSTALLATION

A. Test Operation

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

B. 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.