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FUTURE REFERENCE:
Model Number _____
Serial Number _____
Date Purchased _____



Two Step Hardware

8541001.40(X)(X) Basement Hardware

8541002.40(X)(X) Standard Hardware

8541003.40(X)(X) 5th Wheel Basement Hardware

8541004.40(X)(X) 5th Wheel Standard Hardware

For

8(X)4(XX)(XX.XX)(X)(X)

Fabric Roller Tube Assembly

USA

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SERVICE CENTER &
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www.eDometic.com

⚠ WARNING

This manual must be read and understood before installation, adjustment, service, or maintenance is performed. This unit must be installed by a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

⚠ AVERTISSEMENT

Lire et comprendre ce manuel avant de procéder à l'installation, à des réglages, de l'entretien ou des réparations. L'installation de cet appareil doit être effectuée par un réparateur qualifié. Toute modification de cet appareil peut être extrêmement dangereuse et entraîner des blessures ou dommages matériels.

INSTALLATION INSTRUCTIONS

Model

8(X)4(XX)(XX.XX)(X)(X)FRTA
854100(X).40(X)(X)
Hardware

REVISION A

Form No. 3311333.011 10/16
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LaGrange, IN 46761

Important: These Instructions must
stay with unit. Owner read carefully.

Safety Instructions

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

RECOGNIZE SAFETY INFORMATION



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

Follow recommended precautions and safe operating instructions.

UNDERSTAND SIGNAL WORDS

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

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

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

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

Read and follow all safety information and instructions.

General Information

COVERED BY PATENTS 5566918, 5383346
OTHER PATENTS PENDING

REQUIRED PARTS (Packed with each Hardware Assembly)

8541001.40(X)(X) Basement & 8541002.40(X)(X) Standard Hardware

- (4) 3104499.094 #14-10 x 2-3/4" Hex Head Screw
- (4) 3104499.086 #14-10 x 2" Hex Head Screw
- (4) 310359.013 #10-16 x 3/4" Hex Washer Head Self Drilling Screw
- (2) 3108404.009(X) Top Mounting Bracket Cover
- (2) 310359.012 #6-20 x .44" Hex Washer Head Self Drilling Screw
- (2) 3104176.205 1/4"-20 x 3/4" Hex Head Bolt
- (2) 3101746.034 Lock Washer, 1/4" Steel Black
- (2) 3109752.000(X) Bottom Mounting Bracket Cover
- (4) 113008 3/16" x 1" Oscar Rivet
- (2) 3307943.005(X) Spacer

8541003.40(X)(X) 5th Wheel Basement Hardware & 8541004.40(X)(X) 5th Wheel Standard Hardware

- (4) #14-10 x 1-1/2" Hex Head Screw
- (4) 3104499.086 #14-10 x 2" Hex Head Screw
- (4) 310359.013 #10-16 x 3/4" Hex Washer Head Self Drilling Screw
- (2) 310359.012 #6-20 x .44" Hex Washer Head Self Drilling Screw
- (2) 3104176.205 1/4"-20 x 3/4" Hex Head Bolt
- (2) 3101746.034 Lock Washer, 1/4" Steel Black
- (2) 3109752.000(X) Bottom Mounting Bracket Cover
- (4) 113008 3/16" x 1" Oscar Rivet
- (2) 3307943.005(X) Spacer

Important: Read and understand all of the following instructions before beginning installation.

Application

The Dometic Corporation Awning is designed and intended for use on Motor homes, Travel Trailers, and Fifth Wheels with straight sides.

Important: Structural backing is required where mounting screws/Oscar rivets will be installed through side wall for securing top/bottom mounting brackets and back channel.

Important: Follow the Minimum distance dimension requirements from awning rail to door. Mounting height depends on awning type and length. Insure sufficient room is available before starting installation. If questions arise, contact your Dometic Sales Representative.

Minimum Awning Rail Distance Above Door		
Hardware Model	Awning Weather Shield	
	Metal	Vinyl
8541001.40(X)(X)	12"	11"
8541002.40(X)(X)	7"	6"
8541003.40(X)(X)	12"	11"
8541004.40(X)(X)	7"	6"

When the door falls in the center of the awning, add 2" to these dimensions.

Installation Height: This is the center to center distance of mounting holes in the top mounting bracket and the lower mounting bracket/back channel. See Specification Chart and illustrations on pages 3 and 4.

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

Specification Table				
	8541001	8541002	8541003	8541004
A	66"	69-1/2"	63-3/4"	67-1/4"
B	62-1/64"	65-3/8"	59-13/16"	59-13/16"
C	62-33/64"	65-7/8"	60-37/64"	60-37/64"
D	1/2"	1/2"	3/4"	3/4"
E	64-1/4"	67-3/4"	62"	65-1/2"
F	62"	65-1/2"	62"	65-1/2"
G	1-1/64"	1-5/32"	1-1/64"	1-5/32"
H	1-3/4"	1-3/4"	1-3/4"	1-3/4"
J	5/8"	5/8"	13/32"	13/32"

A = Overall length of hardware.

B = Min. mounting distance center to center on mounting holes.

C = Max. mounting distance center to center on mounting holes.

D = Distance between mounting holes in bracket.

E = Distance between top of top mounting bracket and bottom of back channel.

F = Back channel length.

G = Distance between bottom of back channel and center of mounting hole.

H = Distance front channel guard extends past back channel.

J = Distance from top edge of top bracket and center of first mounting hole.

FIG. 1

8541002.40(X)(X) Standard Hardware

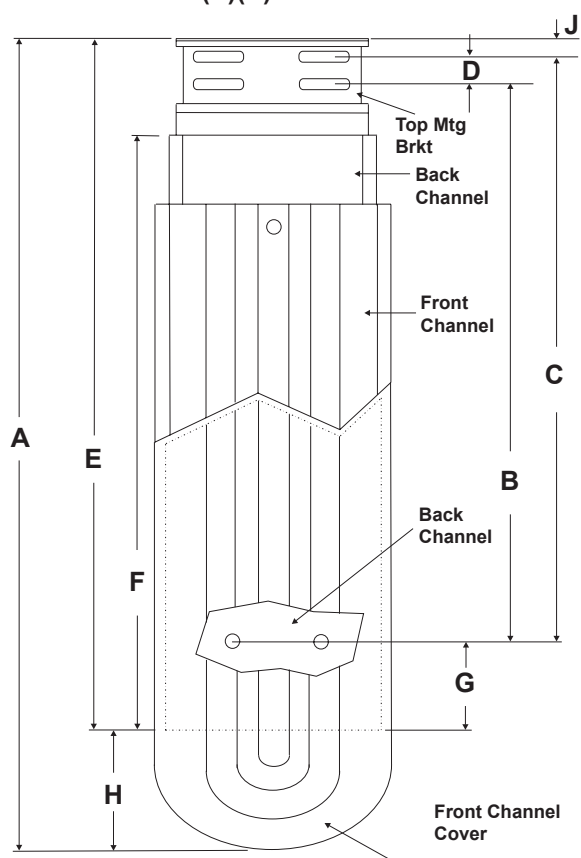


FIG. 2

8541001.40(X)(X) Basement Hardware

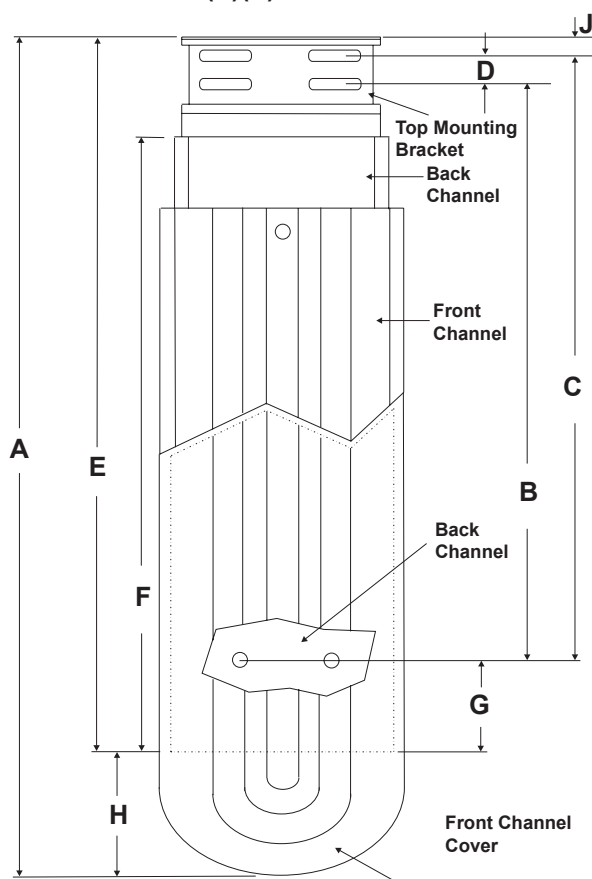
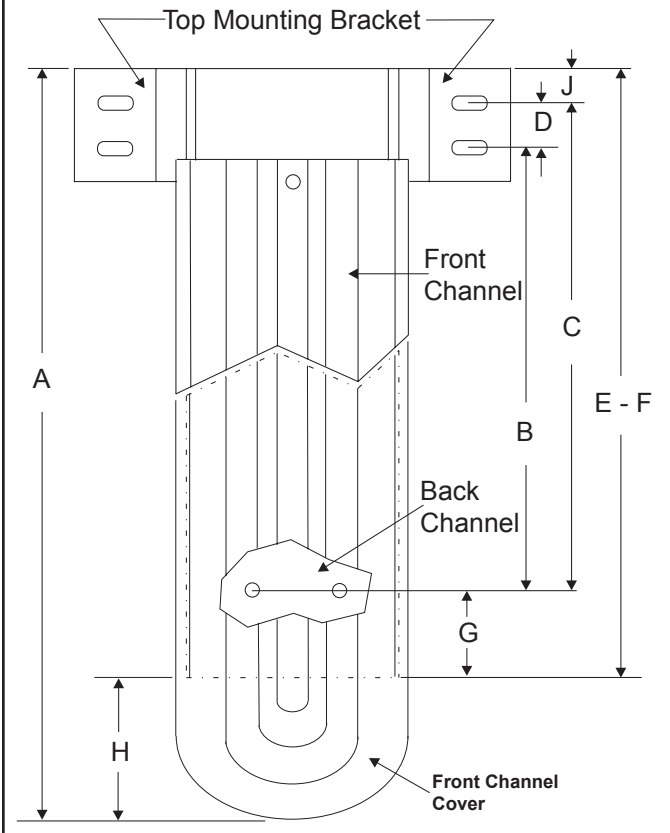


FIG. 3
8541003.40(X)(X) 5th Wheel Basement Hardware
8541004.40(X)(X) 5th Wheel Standard Hardware



Installation Instructions

Installation of Dometic Corporation awnings will briefly require three people. Use the following procedure to assure a properly installed, and properly functioning awning.

A. Secure FRTA to Hardware

1. Carefully lay the fabric roller tube assembly on a clean, well padded "V" trough to prevent fabric and/or roller cover damage. Remove the hardware from the packaging and place it at appropriate end of the FRTA.

Note: One hardware assembly has a spring loaded bottom arm. This arm should be installed on the arm furthest from the door. See FIG. 5. It is identified with a label "Spring Loaded Arm" on the front channel.

! WARNING

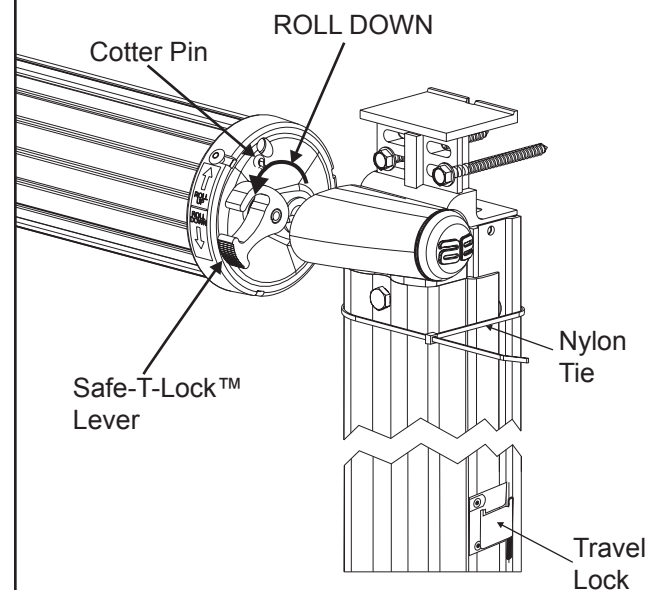
Do not remove the cotter pins located in each end of the FRTA until instructed to do so. The FRTA is pre-wound and under tension. Rapid spin-off will occur if cotter pin is removed.

Do not rotate the Safe-T-Lock™ lever until instructed to do so. Lever has been preset in the "ROLL DOWN" position.

Do not remove the nylon ties or open the travel lock until instructed to do so. The arm assemblies are pressurized and will spring open.

Failure to follow these instructions could cause serious personal injury or property damage.

FIG. 4

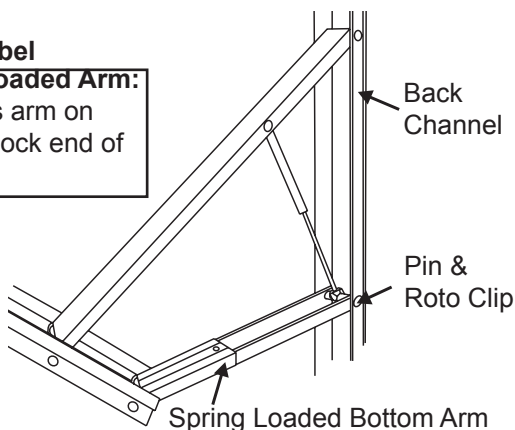


2. Secure each front channel to top casting mounted at the end of the FRTA. See FIG. 6. Slide top nylon tie down arm approximately 24 inches to allow hardware to open far enough to insert top casting into channel. Do Not remove nylon ties at this time. Arm assemblies are pressurized and will spring open.

FIG. 5

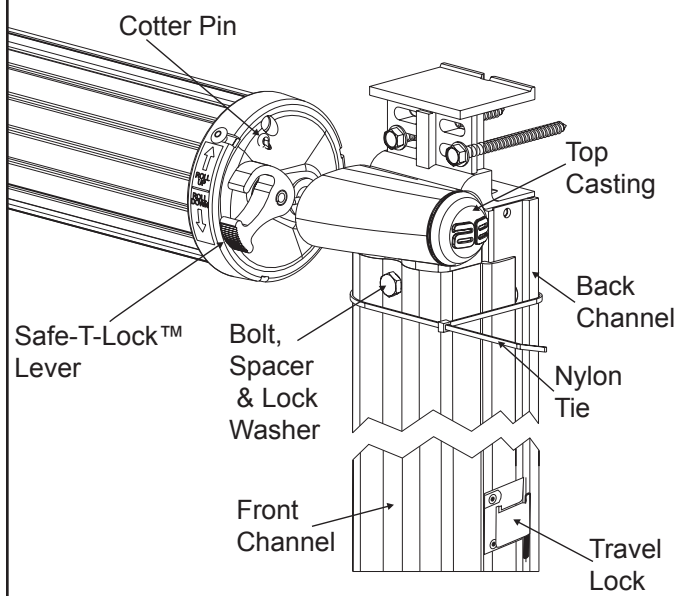
Label

Spring Loaded Arm:
Install this arm on
non cam lock end of
awning



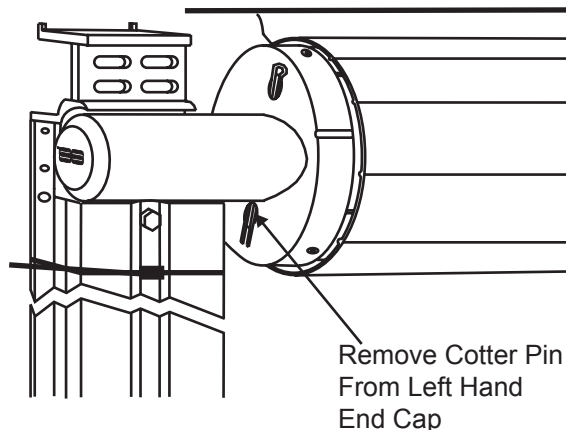
- Using one (1) 1/4-20 x 3/4" hex head bolt, one (1) spacer and one (1) 1/4" lock washer secure both top castings to front channel. See FIG. 6.

FIG. 6



- Remove cotter pin from LH end cap. See FIG. 7.

FIG. 7

**⚠ WARNING**

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

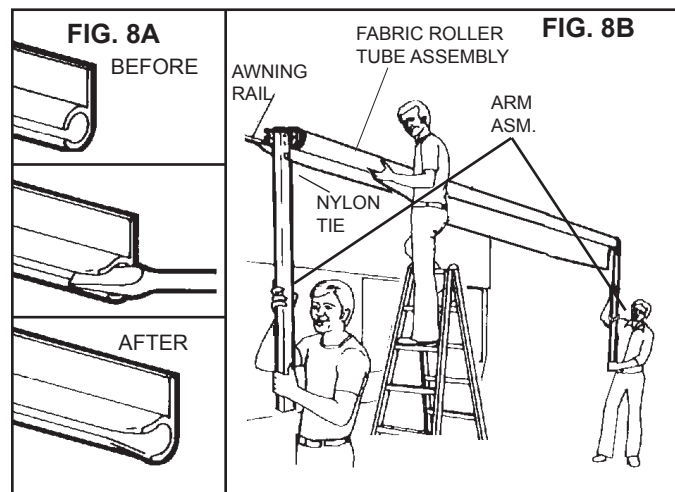
B. Install Fabric In Awning Rail

- Prepare the awning rail to accept the awning fabric. Select the end from which the awning shall be fed, then widen that end with a flat screwdriver and file off any sharp edges. See FIG. 8A.
- With one person grasping each arm assembly, carefully lift the entire assembly to an upright position.

Important: Keep the two arm assemblies parallel to each other to avoid excessive twisting and possible damage to the assembly.

Walk the awning to the end where the awning rail was prepared. See FIG. 8B

A third person is now required to feed the fabric into the awning rail. The other two will walk the entire awning assembly forward and into the desired position.

**C. Top Mounting Bracket Installation**

Note: Remove protective collar around rotor on right side torsion assembly before installing right side top mounting bracket.

- Secure Top Mounting Brackets (8541001 Base-mount & 8541002 Standard)
 - After the complete awning assembly has been threaded into the awning rail, check that its position allows for solid mounting of the top mounting brackets and back channels. Also insure that the back channels are in the desired location (not restricting use of doors, access doors, windows, etc.).

Important: Structural backing is required where mounting screws will be installed through side wall for securing top mounting brackets.

Note: Awning rails with rain gutters may require an extension kit to prevent the FRTA from closing against the rain gutter, causing fabric damage and/or improper operation. These can be obtained through Dometic.

FIG. 9A

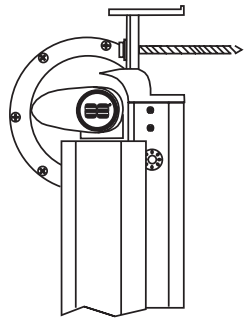


FIG. 9B

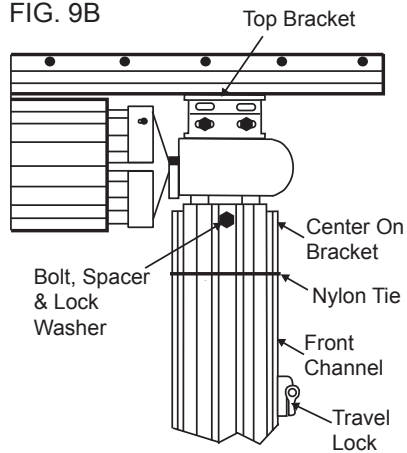


FIG. 10A

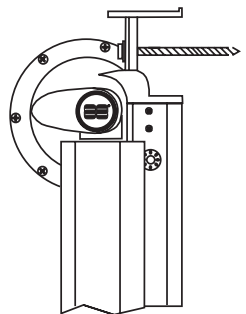


FIG. 10B

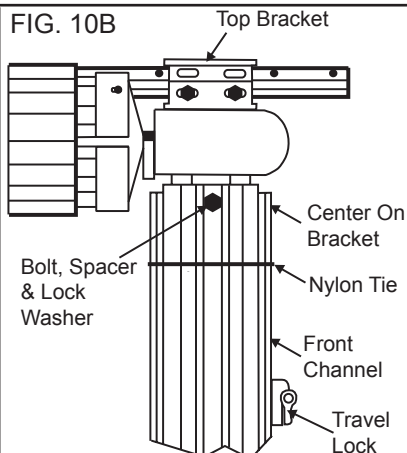


FIG. 11A

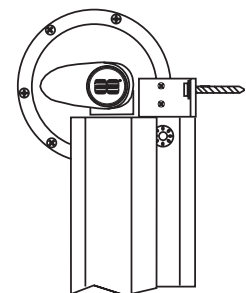
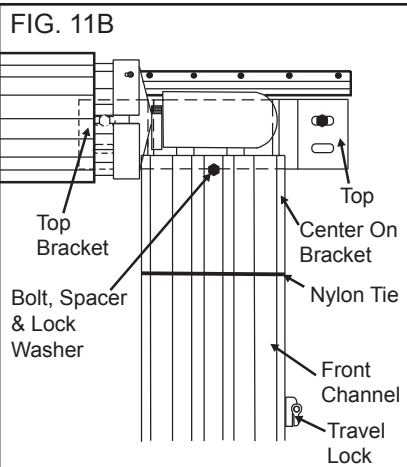


FIG. 11B



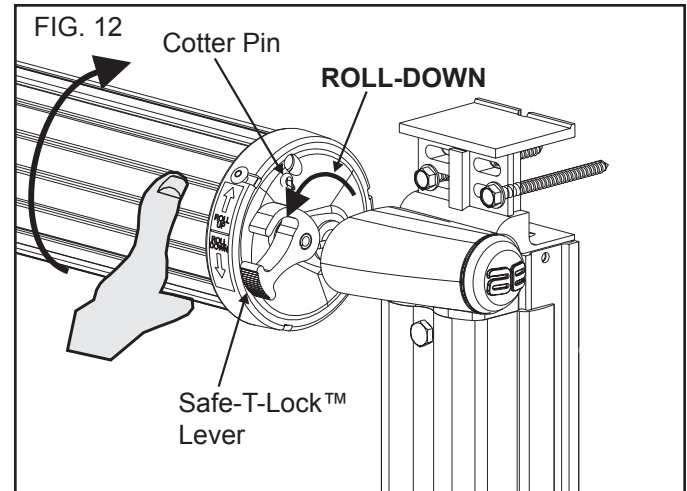
- b. Place the right side top bracket in position over or directly under the awning rail as shown in FIG. 9B & 10B. Top mounting bracket must be parallel level with awning rail. Mark the hole position for the top bracket and slide the assembly out of the way. Pre-drill the two holes using a 3/16" drill bit (use a 7/32" drill bit if in steel). Install top bracket with two #14-10 x 2-3/4" hex head screws. Seal where the screws enter the coach with clear silicon sealer.

⚠ CAUTION

The arm assemblies must be controlled while the top mounting brackets are being installed. When the weight of the FRTA is no longer supported, the downward force could cause the arm assembly to swing side ways and may damage the side wall if not controlled.

- c. At this point the arm assembly can support itself. Repeat this procedure on the opposite arm at the same height. When doing the opposite arm make sure the hardware is completely closed before tightening the screws. This will help in the overall alignment of the awning.
- d. Before doing the next step, remove the cotter pin from the right side of FRTA. To easily remove cotter pin, follow these steps:

FIG. 12



- 1.) Make sure the Safe-T-Lock™ Lever is in the "ROLL DOWN" position.
- 2.) Grasp the FRTA from underneath and rotate it slightly toward yourself to relieve some of the tension.
- 3.) Remove cotter pin and allow awning to return slowly to its original position.

⚠ WARNING

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

2. Secure Top Mounting Brackets (8541003 & 8541004 5th Wheel Hardware)
 - a. After the complete awning assembly has been threaded into the awning rail, check that its position allows for solid mounting of the top and bottom mounting brackets. Also insure that the back channels are in the desired location (not restricting use of doors, access doors, windows, etc.).

Important: Structural backing is required where mounting screws will be installed through side wall for securing top mounting brackets.

Note: Awning rails with rain gutters may not allow the FRTA to close all the way. It may be necessary to lower the top bracket position to ensure the FRTA will close properly.

- b. Place the right side top bracket in position directly under the awning rail as shown in FIG. 11B. Top bracket must be installed parallel with the awning rail. Using the outside bracket hole as a guide predrill a 3/16" hole for mounting screw. Drill a 7/32" hole if drilling into steel. Install outside top mounting bracket using (1) one #14-10 x 1-1/2" hex head screw. Seal where the screw enters the side wall with clear silicon sealant.

⚠ CAUTION

The arm assemblies must be controlled while the top mounting brackets are being installed. When the weight of the FRTA is no longer supported, the downward force could cause the arm assembly to swing side ways and may damage the side wall if not controlled.

- c. At this point the arm assembly can support itself. Repeat this procedure on the opposite arm at the same height. When doing the opposite arm make sure the hardware is completely closed before tightening the screw.

This will help in the overall alignment of the awning.

- d. Before doing the next step, remove the cotter pin from the right side of FRTA. See FIG. 12. To easily remove cotter pin follow these steps:
 - 1). Make sure the Safe-T-Lock™ Lever is in the **"ROLL DOWN"** position.
 - 2). Grasp the FRTA from underneath and rotate it slightly toward yourself to relieve some of the tension.
 - 3). Remove cotter pin and allow awning to return slowly to its original position.

⚠ WARNING

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

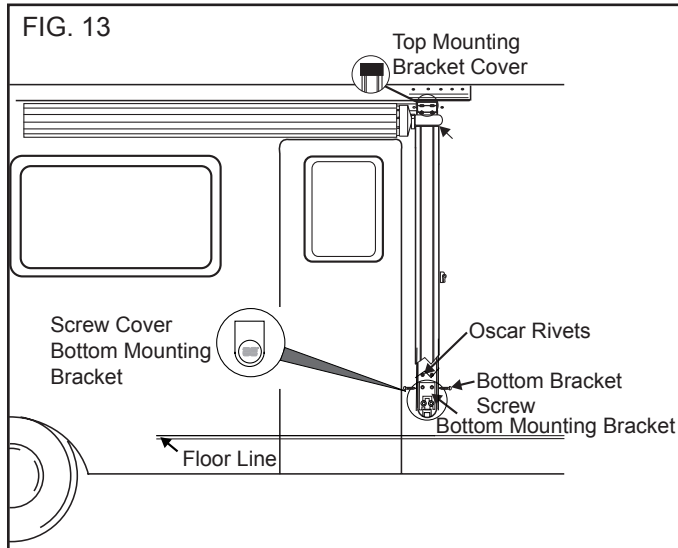
- e. To install screws on the inside top mounting brackets it will be necessary to pull the Fabric Roller Tube Assembly away from the side wall approximately 12". Remove nylon ties wrapped around the front and back channels. Open travel locks on arm assemblies. See FIG. 4. Make sure Safe-T-Lock™ Lever is in the **"ROLL DOWN"** position. Grasp pull strap and open awning. Predrill hole as in previous step and install one (1) #14-10 x 1-1/2" hex head screw. Repeat this procedure on opposite side.

⚠ WARNING

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

D. Back Channel And Bottom Bracket Installation

1. Remove nylon ties wrapped around the front and back channels. Open travel locks on arm assemblies. See FIG. 4. This was already done on 8541003 and 8541004 in previous step.



⚠ WARNING

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

2. Open awning approximately 1-1/2 feet to secure back channel and install bottom mounting bracket. This will expose the two (2) holes in the bottom of the Back Channel. See FIG. 13. Align the Back Channel so that it is square with the vehicle and the FRTA. A door or window frame can be used to measure from. Once it is square, drill two (2) 3/16" holes through the outside wall using the holes in the Back Channel as a guide. Secure Back Channel to wall with two (2) 3/16" x 1" oscar rivets provided.

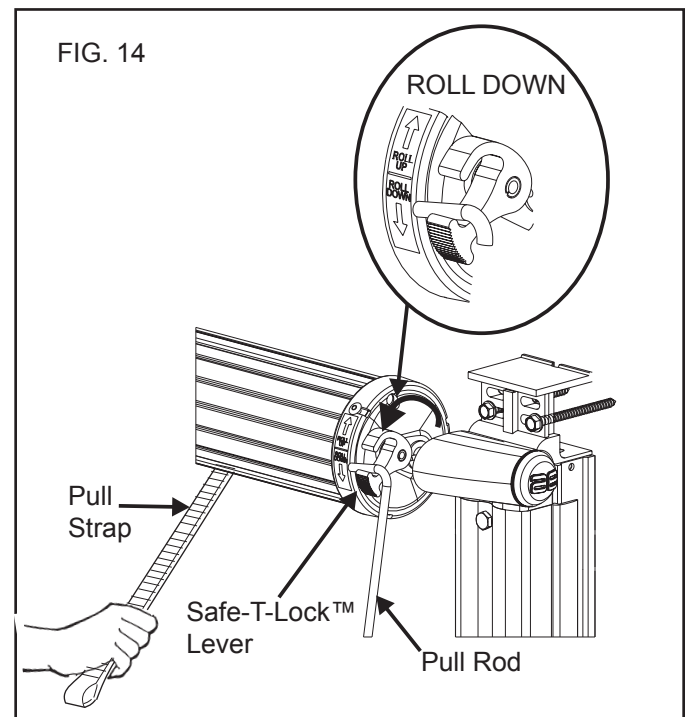
Important: Structural backing (metal) is required where oscar rivets will be installed through side wall for securing back channel.

3. Seal where rivets enter coach with clear silicon sealer. Repeat this procedure for the opposite side.

4. Place bottom mounting bracket in position. While holding bottom mounting bracket in position drive two (2) #10-16 x 3/4" self drilling screws through hole in back channel and into bracket. See FIG. 13.

E. Initial Awning Adjustment

1. Use the pull rod provided to pull the awning to its full out position.
2. Cycle the awning four or five times to check fabric alignment and to make sure the hardware is nesting properly. If there is a misalignment, close the awning and lock one arm properly in place. Adjust the other arm by loosening the upper mounting bolts and moving the bracket accordingly. Cycle the awning again to check the alignment. See User's Guide for complete "ROLL DOWN" and "ROLL UP" instructions.



3. When satisfied with the alignment, secure fabric or fabric roller cover by driving a #6-20 x .44" Tek screw through the rail and into the fabric rope. See FIG. 15A & 15B for screw location. Repeat at opposite end. Snap top and bottom bracket screw covers in position. The installation is now complete and ready for use.

FIG. 15A Two Step w/Metal Shield

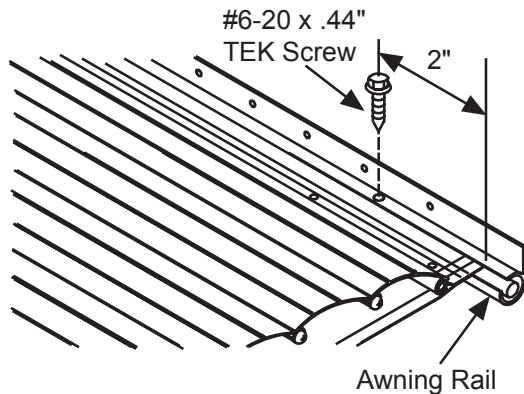
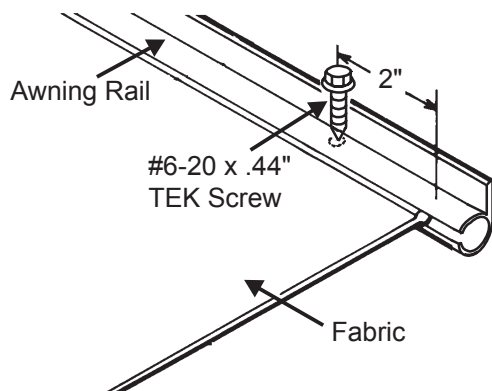


FIG. 15B Two Step w/Vinyl Shield



F. Close and Secure Awning

1. If awning will not be used after installation, close and secure.
 - a. Make sure Safe-T-Lock™ Lever is in the **"ROLL UP"** position.
 - b. Secure each arm assembly by closing each travel lock. See FIG. 16. See User's Guide for complete **"ROLL UP"** and securing instructions.

FIG. 16

