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Model Number
Serial Number
Date Purchased
Retailer / Qualified Installer



# TYPE 9500 MANUAL CASE / CASSETTE AWNING

## MODEL 200(LL)(CC).003(#)



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

### **REVISION D**

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# INTRODUCTION

This case awning (hereinafter referred to as "awning," or "product") is designed and intended for use on RVs with straight sides. It is especially well suited for RVs with an over cab extension where there is not sufficient surface for a bottom mounting bracket. This product can be installed by one person with brief help from additional personnel. Use these instructions to ensure correct installation and function of product.

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

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## DOCUMENT SYMBOLS



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



Indicates step-by-step instructions.

# **IMPORTANT SAFETY INSTRUCTIONS**

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

## A. Recognize Safety Information



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

## B. Understand Signal Words

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

**A**WARNING 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.

# **GENERAL INFORMATION**

## A. Required Tools

- Electric Drill (optional)
- Torque Wrench
- Phillips Screwdriver / Bit
- 3 mm Hex Key / Driver / Bit
- 6 mm Hex Key / Driver / Bit
- 6 mm Hex Key Socket
- 10 mm Socket

### B. Required Hardware

### 8' - 13' Models:

- (1) Mounting Bracket
- (12) M6 X 50 mm L Carriage Bolt
- (12) M6 Split Lock Washer
- (12) M6 Flat Washer
- (12) M6 Locknut With Nylon Insert
- (6) #8-18 X .38 Self Drilling Flat Head Screw



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.

C. Additional Hardware Quantity

### 15' - 16' Models ONLY:

- (4) M6 X 50 mm L Carriage Bolt
- (4) M6 Split Lock Washer
- (4) M6 Flat Washer
- (4) M6 Locknut With Nylon Insert
- (2) #8-18 X .38 Self Drilling Flat Head Screw

# **SPECIFICATIONS**

#### **Door Clearance** Α.

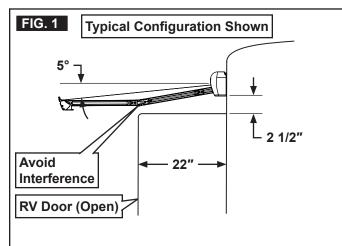
NOTICE Allow for sufficient clearance between awning fabric and entry door to accommodate awning pitch (slope).

Awning is factory preset for a 5° fabric slope, but it may be adjusted for a steeper slope (up to 15°). See (FIG. 1).



For a 22" entry door, the approximate minimum clearance is 2-1/2" for 5° slope, and 6 1/2" for 15° slope.

Make sure mounting surface on RV is flat and vertical. Any tilt in mounting surface will tilt awning, and affect awning pitch (slope).



#### **Awning Dimensions** В.

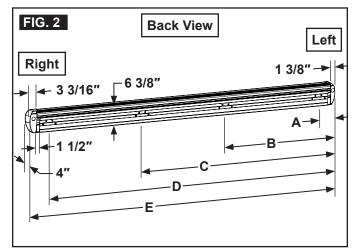
A WARNING IMPACT OR CRUSH HAZARD. Locate mounting bolts behind each shoulder assembly (lateral arm attachment) to provide proper support. Otherwise, awning may become unstable and could bend or collapse. Failure to obey this warning could result in death or serious injury.

Mounting bracket (bolt hole pattern) spacing varies by length. See (FIG. 2).

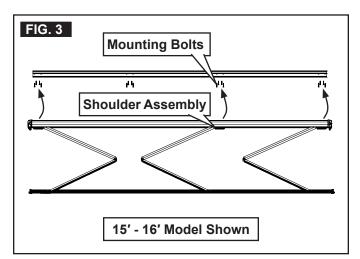
- 8' 13' models require (3) sets of bolts.
- 15' 16' models require (4) sets of bolts.



Spacing MUST provide mounting bolts behind each shoulder assembly (lateral arm attachment). See (FIG. 3).



Hole Pattern Locations							
	8′	10′	12′	13′	15′	16′	
Α	5 7/8"						
В	N/A			60 3/8″			
С	48 3/8"	60 5/8″	69″	78 13/16″	115 7/8″		
D	90 3/4″	115 7/16″	132 1/8″	151 7/8″	180 3/8″	190 3/8″	
Е	103″	123 1/2"	140 1/4"	159 7/8″	188 1/2"	199 1/4″	



# INSTALLATION

### A. Determine Awning Location

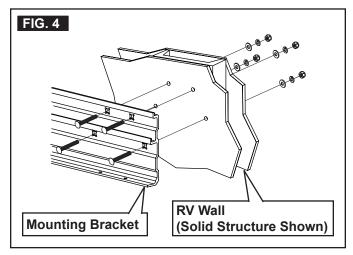
### 1. Structural backing:

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 / collapse]. Failure to obey this warning could result in death or serious injury.

Solid structural backing must be as wide as mounting bolt pattern (behind each shoulder assembly), and span from floor to roof of RV.

a. Best practice:

Find a solid structure in RV wall for support of mounting bracket (when possible). See (FIG. 4).



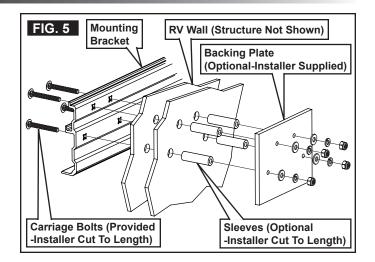
- b. If sufficient structural support is **NOT** present, proceed to step (c). Otherwise, skip to step (2).
- c. Alternative:

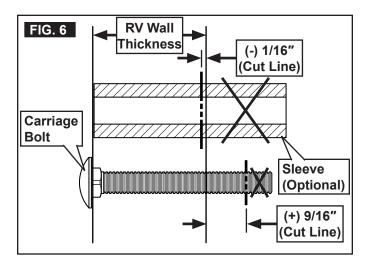
When sufficient structural support is **NOT** present, use backing plate (installer supplied) and sleeves (installer supplied) inside RV wall. This will help strengthen awning support. See (FIG. 5).

Cut sleeves and carriage bolts (Grade 8.8 minimum) to fit RV wall as necessary. Repair threads (at cut) on carriage bolts. See (FIG. 6).

For RV wall thickness up to 1-7/16", use the M6 carriage bolts provided.

For RV wall thickness over 1-7/16", longer carriage bolts are required.





2. **NOTICE** Allow for sufficient clearance between awning fabric and entry door to accommodate awning pitch (slope).

Avoid location that interferes with entry door swing when awning is completely extended. See subsection, "A. Door Clearance" on page (4).

3. Maintain a minimum of 1/2" clearance at top and sides of awning case.



Additional clearance is recommended to allow easier access for servicing.

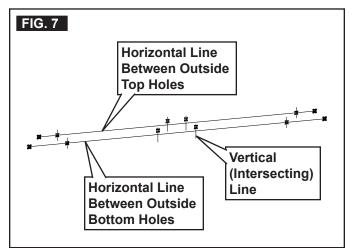
# INSTALLATION

### B. Install Mounting Bracket

1. **NOTICE** Install mounting bracket(s) on a flat surface, and level to ensure correct function and appearance.

Using the mounting bracket as a template, mark its position and all hole locations. See (FIG. 2).

2. Mark a line between the (2) outside top holes, and between the (2) outside bottom holes. See (FIG. 7).



3. Verify horizontal lines are level. Then mark vertical lines from all remaining holes to intersect marked horizontal lines. See (FIG. 7).



Due to the nature of long extruded parts, the mounting bracket may be slightly bowed. Some hole locations may be above or below marked horizontal lines.

4. A WARNING FIRE OR ELECTRICAL SHOCK HAZARD. Make sure there are no obstacles (wires, pipes, etc.) inside RV's [roof / floor / walls]. 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 1/4" clearance holes for M6 carriage bolts on the marked (intersecting) locations. See (FIG. 2) & (FIG. 7).



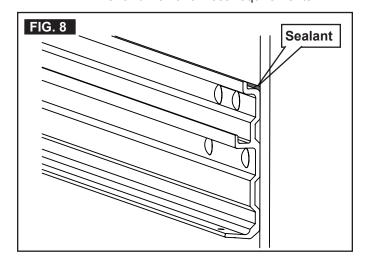
If sleeves (installer supplied) are used, larger clearance holes are necessary. Drill appropriately sized clearance holes to accommodate sleeves.  AWARNING IMPACT OR CRUSH HAZARD. Do NOT over-tighten fasteners. Applying too much torque may cause fasteners/threads to fail, and could allow product to collapse. Failure to obey this warning could result in death or serious injury.

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

Apply sealant along entire top edge of mounting bracket (where it contacts RV's wall), and around drilled holes. Then place and tighten carriage bolts (with locknuts, and washers) through mounting bracket and drilled holes in RV wall. See (FIG. 4) & (FIG. 8).

Tighten to  $35 \pm 5$  in lb torque.

If solid structure is **NOT** present, use backing plates and sleeves. See (FIG. 5). Alternative fasteners may be used only if size and strength requirements are met for safe installation and operation of awning. Bolt head **MUST** be no taller than 1/8". See subsection, "A. Determine Awning Location" on page (5) for more fastener and wall thickness requirements.



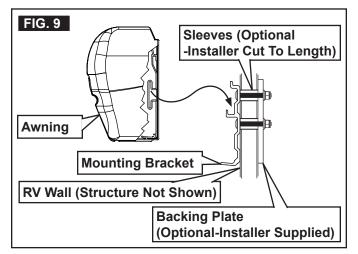
# INSTALLATION

## C. Install Awning

1. ACAUTION LIFTING HAZARD. Use proper lifting technique and control when lifting product. Failure to obey this caution could result in injury. With a mechanical lift, or the help of additional personnel, lift awning up to mounting bracket.

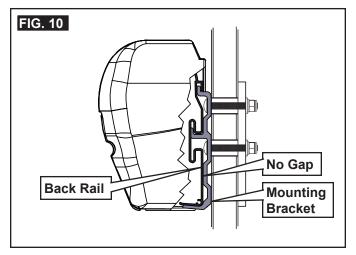
Do **NOT** hook onto mounting bracket until wiring is routed.

2. With the help of additional personnel, hook awning onto mounting bracket. See (FIG. 9).



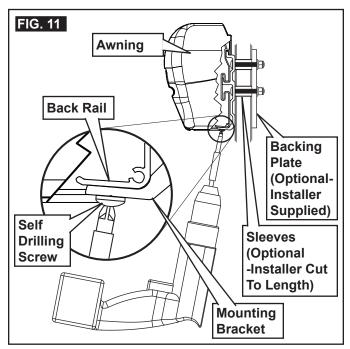
3. **AWARNING** IMPACTORCRUSHHAZARD.Do **NOT** extend awning until it is securely [mounted / hooked] onto mounting bracket(s). Take special care when extending. Otherwise, awning could dislodge and fall. Failure to obey this warning could result in death or serious injury.

Carefully extend awning approximately 1'. Then verify awning's back rail is fully contacting mounting bracket's vertical surface. See (FIG. 10).



4. **AWARNING** IMPACT OR CRUSH HAZARD. Do **NOT** operate or leave awning unattended until it is securely fastened to mounting bracket(s). Otherwise, awning could dislodge and fall. Failure to obey this warning could result in death or serious injury.

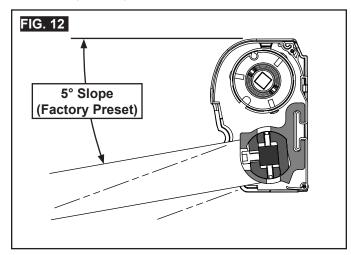
Place and tighten self drilling screws through mounting bracket and into awning's back rail. See (FIG. 11).



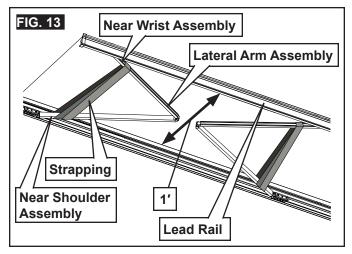
# **ADJUSTMENTS (OPTIONAL)**

### A. Adjust Fabric Slope (If Desired)

This awning is factory preset for a 5° fabric slope to help accommodate water runoff. Alternatively, the awning may be set for a steeper slope (up to 15°) if adequate clearance (for door, etc.) is available. See (FIG. 12).

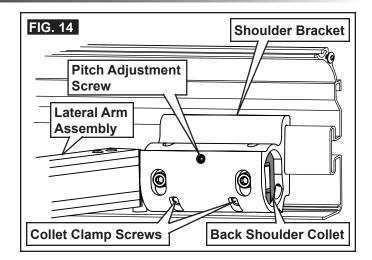


1. Extend awning far enough (approximately 1') to access shoulder assembly. See (FIG. 13).



- 2. Tie all lateral arm assemblies securely (with fabric strapping or light rope) near shoulder and wrist. See (FIG. 13).
- 3. Support weight of lead rail and lateral arm assemblies securely.
- 4. **AWARNING** IMPACT OR CRUSH HAZARD. Make sure lateral arm assemblies are tied and supported securely (with lead rail) before loosening fasteners. Otherwise, the lead rail and lateral arm assemblies could shift or drop quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

Loosen collet clamp screws (clamping back shoulder collet) on (1) lateral arm assembly **ONLY**. See (FIG. 14).



5. **ACAUTION** PINCH HAZARD. Keep **CLEAR** of pivot area while raising or lowering lateral arm assembly. Failure to obey this caution could result in injury.

Carefully loosen pitch adjustment screw, and pivot lateral arm assembly down (lower lead rail) until it is in desired position. See (FIG. 12) & (FIG. 14).

- Tighten both collet clamp screws to 140 in lb torque to re-clamp back shoulder collet. See (FIG. 14).
- 7. Repeat steps (4) through (6) for each lateral arm assembly.
- 8. Remove ties from lateral arm assemblies when done.
- 9. Verify awning will close without interference.
  - See subsection, "B. Adjust Lateral Arm Assemblies (If Required)" on page (8) if adjustments are necessary. See subsection, "C. Adjust Lead Rail Alignment (If Required)" on page (10)

B. Adjust Lateral Arm Assemblies (If Required)

to adjust lead rail alignment.

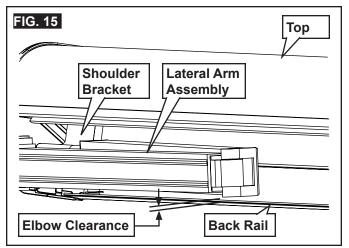
**NOTICE** Do **NOT** allow lateral arm assemblies to rub against lower lip of back rail when closing, or allow awning fabric to contact shoulder base when fully opened. Otherwise, premature wear and abrasions could occur.

If awning will not close correctly, or if lateral arm assembly's elbow will not clear back rail, it will require adjustment. See (FIG. 15).

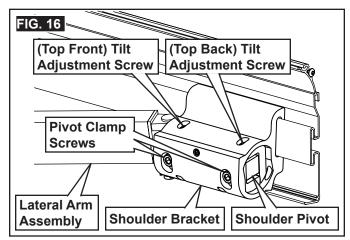


The lateral arm assembly's elbow should just clear (slightly above) lower lip of back rail without rubbing. Adjusting too high may interfere with top (awning case), or may cause shoulder base to contact awning fabric.

# **ADJUSTMENTS (OPTIONAL)**



1. Extend awning far enough (approximately 1') to access pivot clamp screws. See (FIG. 16).

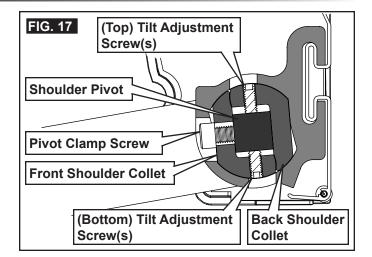


- 2. Support weight of lead rail and lateral arm assemblies securely.
- 3. **AWARNING** IMPACT OR CRUSH HAZARD. Make sure lead rail and lateral arm assemblies are supported securely before loosening fasteners. Do **NOT** completely remove fasteners, or loosen them so far that shoulder base will disengage from shoulder bracket. Otherwise, the lead rail and lateral arm assemblies could shift or drop quickly and unexpectedly, or lateral arm assemblies could extend to the side (beyond awning perimeter) quickly and unexpectedly. Failure to obey this warning could result in death or serious injury.

Slightly loosen pivot clamp screws (clamping front shoulder collet to shoulder pivot). See (FIG. 16) & (FIG. 17).

Loosen screws just enough to relieve clamping pressure on components.

Repeat this step for each lateral arm assembly requiring adjustment.



 Retract awning until lateral arm assembly's elbow meets top and back rail to check for clearance. See (FIG. 15).

Allow enough gap to access top and bottom tilt adjustment screws.

5. Adjust lateral arm assembly's closing height. See (FIG. 15), (FIG. 16), & (FIG. 17).

Repeat this step for each lateral arm assembly requiring adjustment.

- a. To increase (raise) elbow clearance:
  - I. Loosen (top front) & (bottom back) tilt adjustment screws far enough to allow a generous range of movement.
  - II. Tighten (top back) tilt adjustment screw.
  - III. Tighten (bottom front) tilt adjustment screw.
  - IV. Repeat steps (II) through (III) as necessary.
  - V. When desired clearance is reached, tighten (top front) & (bottom back) tilt adjustment screws to clamp in place.
- b. To decrease (lower) elbow clearance:
  - I. Loosen (top back) tilt adjustment screw.
  - II. Loosen (bottom front) tilt adjustment screw.
  - III. Repeat steps (I) through (II) as necessary.
  - IV. When desired clearance is reached, tighten (top front) & (bottom back) tilt adjustment screws to clamp in place.
- When you reach the appropriate clearance (for ALL lateral arm assemblies), extend awning far enough (approximately 1') to access pivot clamp screws.

# **ADJUSTMENTS (OPTIONAL)**

 Tighten both pivot clamp screws to 140 in lb torque (to clamp front shoulder collet to shoulder pivot).

Repeat this step for each lateral arm assembly.

8. Verify awning will close without interference.



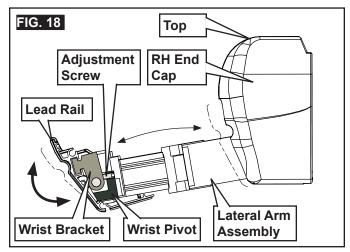
See subsection, "C. Adjust Lead Rail Alignment (If Required)" on page (10) to adjust lead rail alignment.

## C. Adjust Lead Rail Alignment (If Required)

After fabric slope and lateral arm assembly adjustments, the lead rail may need realignment with top and end caps. See (FIG. 18).

- 1. Check alignment of lead rail against top and end caps.
  - 2. Extend awning far enough (approximately 6") to access adjustment screw in wrist pivot.
  - 3. Tilt lead rail, by turning adjustment screw in wrist pivot (for each lateral arm assembly), until alignment appears correct.
    - a. Turn clockwise to tilt lead rail forward.
    - b. Turn counter-clockwise to tilt lead rail back.

- 4. Retract awning again to check alignment of lead rail against top and end caps.
- 5. Repeat steps (2) through (4) as necessary.



## **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.