



RECORD THIS UNIT INFORMATION FOR FUTURE

REFERENCE:

Model Number _____

Serial Number _____

Date Purchased _____

LA-03

LATERAL ARM

AUTOMATIC AWNING

INSTALLATION INSTRUCTIONS

FOR

810(XX)*(XX)**.000#

MODEL SERIES AWNING

Replace (XX)* with fabric color code

Replace (XX)** with length

= Case Color (U=Black, B=Polar)

USA

SERVICE OFFICE
Dometic, LLC
2320 Industrial Parkway
Elkhart, IN 46516
574-294-2511

CANADA

Dometic, LLC
46 Langs Drive
Cambridge, Ontario
CANADA N3H 2N7
519-653-4390

For Service Center

Assistance Call:
800-544-4881

⚠ 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
810(XX)*(XX).000#**
Prod No.
958303540

REVISION:

Form No. 3308443.039 1/09
(Replaces 3308443.021)
(French 3308444.037)
©2009 Dometic, LLC
LaGrange, IN 46761

Important: 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 INSTRUCTIONS

- A. Dometic, LLC reserves the right to modify appearances and specifications without notice.
- B. The A&E LA-03 awning is designed for:
 1. For use on Class A and higher motorhomes with straight sides.
 2. Installation on a recreational vehicle during the time the vehicle is manufactured.
 3. Mounting on solid structure within the vehicle walls to support the awning weight.
 4. For use with a 20° slope.
 5. Mounting a minimum of 8 feet (2.4 meters) above the ground.
- C. Approval is required from Dometic for alternate mounting brackets (supplied by the coach manufacture), and for mounting of the LA-03 awning on coaches with curved side walls.

D. MATERIAL REQUIREMENTS

Required Parts

20' & Below Qty.	22' & Above Qty.	Description	Service ID No.	Service Kit Part No.
2	-	Bracket, Mounting	682	3309053.001
-	3	Bracket, Mounting	682	3309053.019
12	18	3/8" X 3" Bolts, Carriage	-	In Mount Kit
12	18	Washer, Flat	-	In Mount Kit
12	18	Nut, Nylock	-	In Mount Kit
4	6	Lock Mechanism w/Set Screws	-	In Mount Kit
1	1	Key FOB	-	3308992.001
1	1	Gasket, 12" Longer Than Awning Length	683	3308547.052
1	1	Control Box Assembly	-	3308862.006
1	1	Connector, Motor	-	n/a
1	1	Sensor, Wind	-	3308552.011
1	1	Crank, Handle	678	3308616.006

Required parts installer supplied

- (3) Screws, #10 Stainless (See specification chart)
- (1) Cable, Flat 4 Conductor-Max. 18'
- (2) RJ-11-6C4P Terminal
- (1) Box, Outlet Type FS-Outdoor
- (2) Connector, Romex
- (1) Cover, Type FS Water Tight
- (1) Tube, Silicone Sealant
- (1) Wire, 14 AWG Copper 3 Wire W/Ground
- (8) Wire Nuts & Splice Connectors Tape, Electrical
- (1) GFI Receptacle
- (1) Misc. 18 AWG DC Wires

SPECIFICATION:							
MODEL	12'	14'	16'	18'	20'	22'	24'
Casing							
Length	12'	14'	16'	18'	20'	22'	24'
Height	9"	9"	9"	9"	9"	9"	9"
Width	5.25"	5.25"	5.25"	5.25"	5.25"	5.25"	5.25"
Weight(lbs.)	144	168	192	216	240	264	288
Arms	2	2	2	2	2	3	3
Mtg Brkt Plates	2	2	2	2	2	3	3
Backup Plates	4	4	4	4	4	6	6
Power Supply	120 VAC / 1 Phase / 60Hz.						
Fuse Size	15 Amps.						
Motor Amps.	1.8						
Motor LR Amps.	2.26						
Control Amp Draw	32 Milliampere						
Extend/Retract Time	45 Seconds						
Projection	10' Nominal						
Fabric	Acrylic						

Note: For service parts go to www.eDometic.com and click the link "Service Parts". Enter your product model number to view service parts available.

⚠ WARNING

Improper installation may damage equipment, could endanger life, cause serious injury and/or property damage.

INSTALLATION

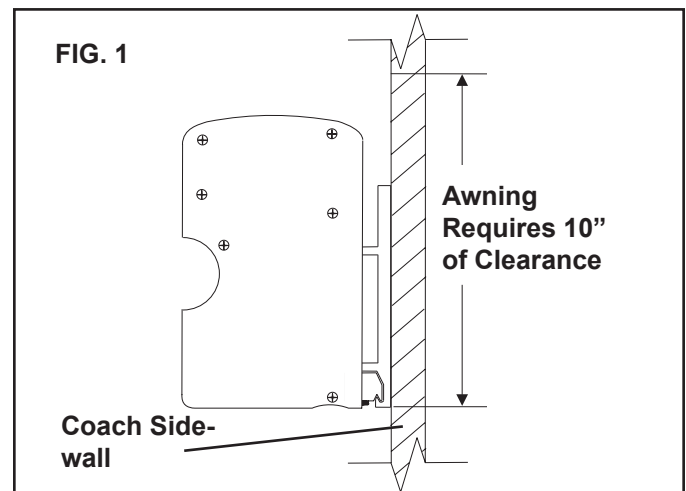
A. Precautions

1. Read Installation and Operating instructions carefully before attempting to start your awning installation.
2. Dometic Corporation will not be liable for any damages or injury incurred due to failure in following these instructions.
3. Installation must comply with the National Electrical Code ANSI/NFPA-70 and CSA Standard C22.1 (latest edition) and any State or Local Codes or regulations.
4. DO NOT add any devices or accessories to this awning except those specifically authorized by Dometic.
5. This equipment must be serviced by qualified personnel and some states require these people to be licensed.

B. Mounting Requirements

The mounting bracket plates are to be placed on the outside of the coach directly behind the lateral arm shoulders. The awning is required to be mounted a minimum of 8 feet (2.4 meters) above the ground (CSA-C22 no. 236 latest edition).

1. The awning requires 10 vertical inches of clear unobstructed surface along its entire length for installation. See FIG. 1.



2. The awning must have enough clearance above a door to prevent damage to the fabric or door. The distance is determined by the projection of the door. See FIG. 2 and Section J.

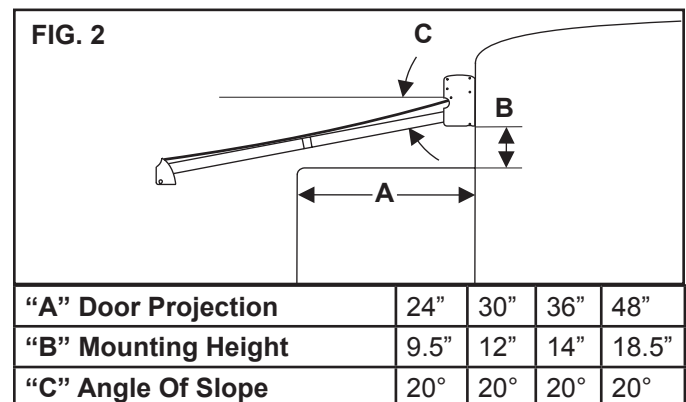
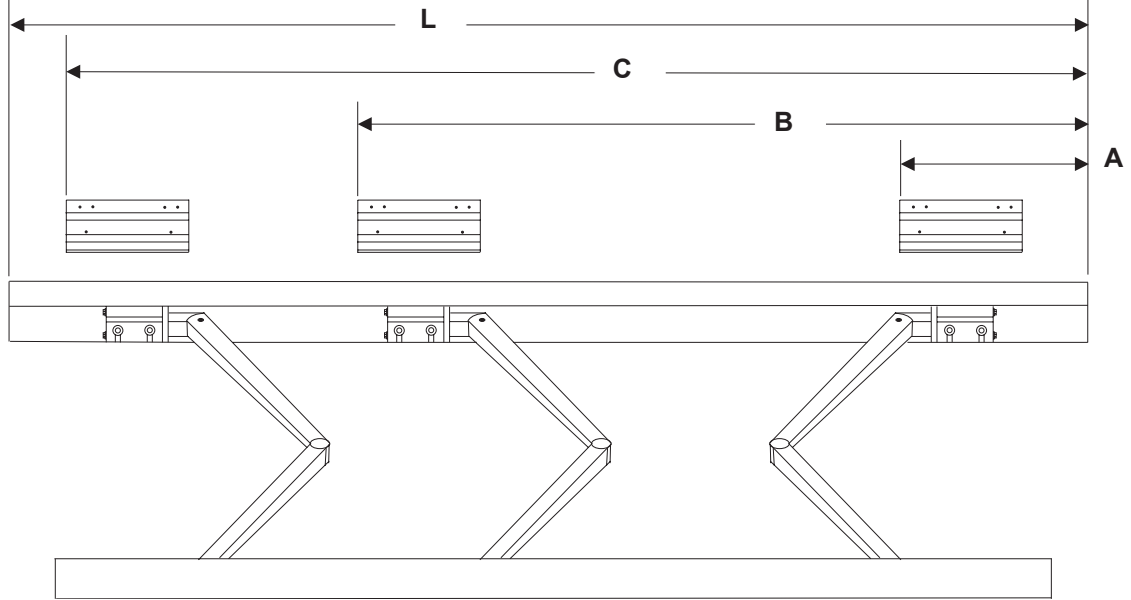


FIG. 3



3. Solid structure in the coach wall for mounting of the mounting bracket plates is required and for supporting the awning weight. (Mounting Bracket Location Chart and See FIG. 3)

MOUNTING BRACKET LOCATION

L= Awning Length	A	B	C
12'/144"	20"	NA	142"
14'/168"	20"	NA	166"
16'/192"	20"	NA	190"
18'/216"	20"	NA	214"
20'/240"	20"	NA	238"
22'/264"	20"	150"	262"
24'/288"	20"	162"	286"

Note: A installer supplied (5-3/8" x 3-3/4" x 1/8") flat plate that matches the 3 bolt pattern of the mounting bracket is placed inside of the coach. The 6 hole mounting bracket plate goes on the outside. Solid structure within the wall is required for support of the awning weight. See FIG. 4 & 4A. If methods for mounting other than those described in this manual require prior approval from Dometic.

4. The control box should be mounted in a compartment or location near the right hand end of the awning, where it can be easily reached for service and connecting of the wiring. See FIG. 9.
5. Install an AC Power GFI (Ground Fault Interrupter) receptacle (not supplied) within reach of the 6' power cord of the awning control box. See FIG. 9.
6. Install a recessed AC outlet box (FS type outside water tight, not supplied) to supply power to the awning motor. The electrical outlet box cover must be flush with the side wall of the coach. It must be a minimum of 1-1/8" away from the awning RH end plate, but not more than 1-1/4" maximum. It must be 3-1/8" down from the top of the awning case. See FIG. 9 & 9A.

C. Mounting Bracket Installation

1. The mounting bracket plates must be installed at the same height horizontally with respect to each other. Use a chalk line to mark a level line for the bottom edge of the mounting bracket plates.
2. Determine the distance between the mounting bracket plates from chart on page 4. Mark the location for the mounting bolts using the mounting bracket plate as a template. See FIG. 3.

⚠ WARNING

There may be electrical wiring in the walls and the ceiling. Disconnect 115 volt AC power cord and the positive (+) 12 volt DC terminal at the supply battery. Failure to follow this instruction may create a shock hazard causing death or severe personal injury.

3. Use a 7/16" drill to bore the holes in the coach wall for the mounting bolts. Be careful not to damage or cut electrical wiring in the walls.

FIG. 4

Place The Flat Backer Plates Over The Bolts

Place Flat Washer & Lock Nuts Over The Bolts

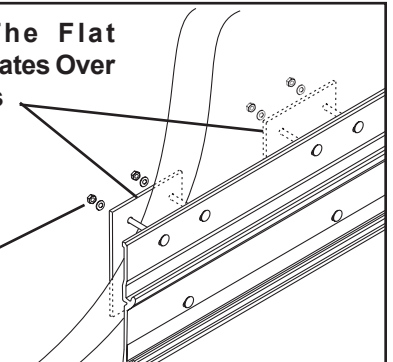
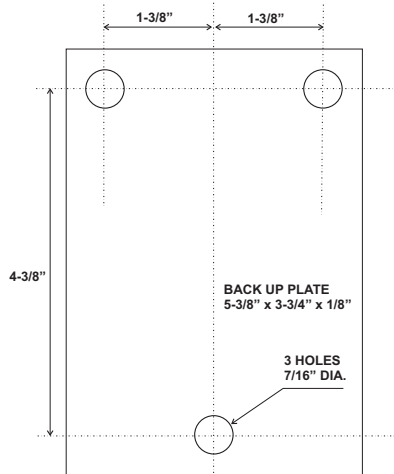


FIG. 4A



⚠ WARNING

The largest unit weighs approximately 288 pounds. To prevent back injury and/or possible damage to awning, use a mechanical hoist to place awning on mounting brackets.

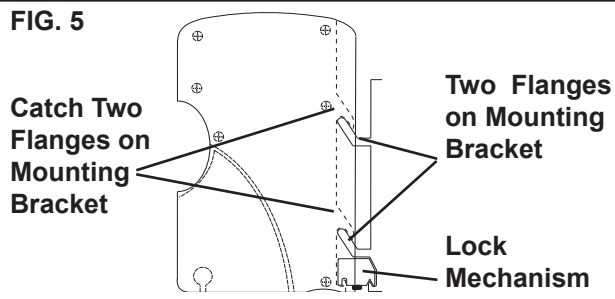
4. Apply silicone sealant around each mounting bolt hole and to each mounting bolt before it is inserted into the hole. This will prevent water leaks through the side wall.
5. Place the flat backer plate over each group of three mounting bolts, a flat washer on each bolt and, secure with a lock nut. See FIG. 4.
6. Tighten all six of the mounting bolts evenly to a torque of 33 foot pounds (minimum).

D. Placing Awning On Mounting Brackets

Note: Make sure all of the mounting brackets are properly tightened. See Step C, paragraph 6.

1. A mechanical hoist is recommended to be used in the installation of this awning. If the awning must be lifted by hand, use a minimum of 4 persons, always wear back braces and use proper lifting technique.
2. Place the awning in an upright position above the mounting brackets. Allow the awning to slide straight down catching the two mounting flanges on the back of the casing in the matching two flanges on the mounting brackets. See FIG. 5.

FIG. 5

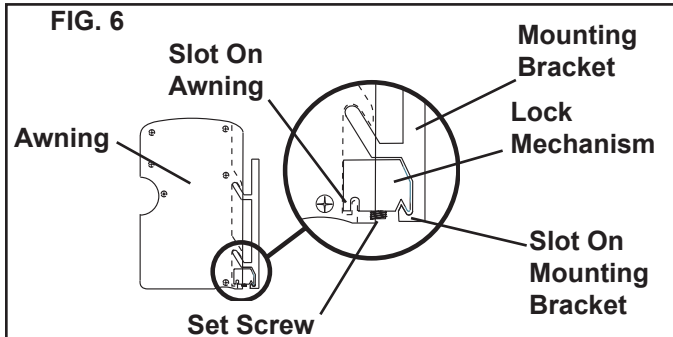


3. Visually inspect the awning to make sure the mounting brackets are positioned behind each of the lateral arms shoulder brackets. Make sure the Awning is hooked on all mounting brackets. If awning is not caught by the bracket, determine the problem and correct, **The awning must be fully seated on all mounting brackets flanges.** See FIG. 5.

Note: Prior removal of the 2 set screws out of the locking mechanism makes their installation easier.

4. Place the locking mechanism so it is hooked into the slots on the awning back and 1 " from the ends of the mounting bracket. Two locking mechanisms are required on each mounting bracket. Tighten the set screws evenly (6 foot pounds of torque) locking the awning securely to the mounting brackets. See FIG. 6.

FIG. 6



E. Installation Of the Mounting Gasket

1. The gasket has the shape of the an upside down letter "Y" and is placed between the awning and coach side wall. See FIG. 7.



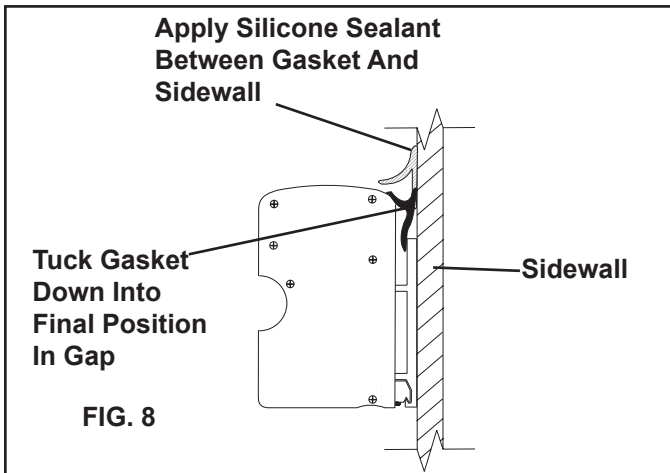
FIG. 7

Gasket

⚠ WARNING

Disconnect 115 volt AC. Failure to follow these instructions could create a shock hazard causing death or severe personal injury.

2. Lay the gasket full length on top of the awning case.
3. Slide the longer side behind the case, while catching the shorter side on top. See FIG. 8
4. Place the tip of the silicone tube behind the gasket and apply a generous bead between it and the side wall. See FIG. 8.
5. Tuck gasket down into its final position in gap between the side wall and back of awning case.



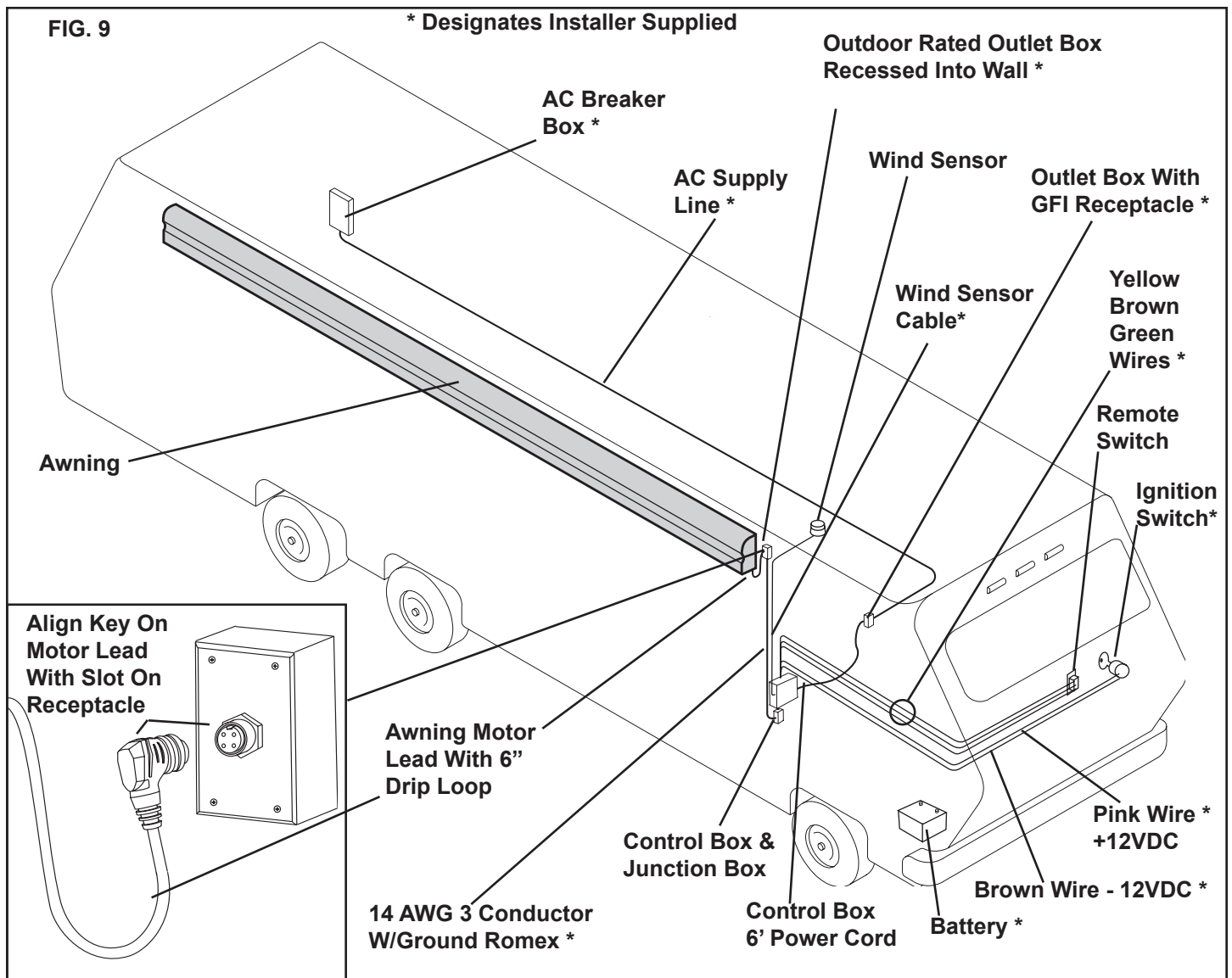
F. Installation Of Control Box

Note: The outlet box and cover must be installed in accordance with the National Electrical Code (NEC) and local codes, as required by the NEC article 406.8 for outdoors, latest edition, and complies with subrule 26-706 of the Canadian Electrical Code, latest edition.

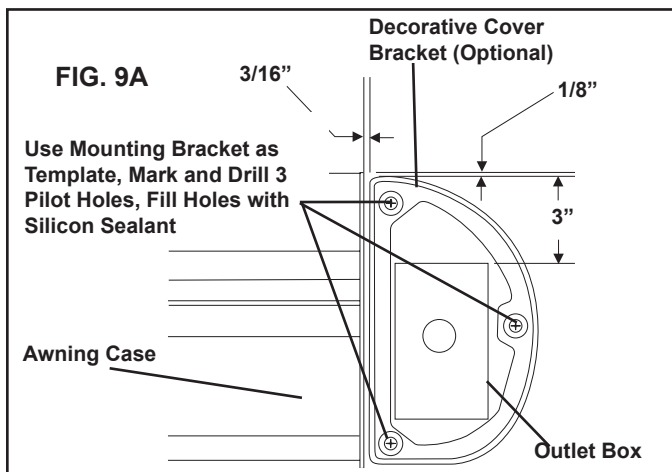
1. Location of control box should be in an accessible compartment near the right hand end of the awning. See FIG. 9.
2. Install an AC Power GFI (Ground Fault Interrupter) receptacle (not supplied) within reach of the 6' power cord of the awning control box. See FIG. 9.
3. Install a recessed AC outlet box (FS type outside water tight, not supplied). The electrical outlet box cover must be flush with the side wall of the coach. It must be a minimum of 1-1/8" away from the RH end plate, but not more than 1-1/4" maximum. It must be 3-1/8" down from the top of the awning case. See FIG. 9 & 9A.

Note: This placing will allow the 3308645 Decorative End Cap Kit to be installed over the outlet box.

4. Route a 14 AWG 3 conductor w/ground copper Romex wire (not supplied) between the outlet box mounted on the awning control box and the outlet box next to the right hand end of the awning. Secure at both outlet boxes using Romex connectors (not supplied), leaving 8 inches of wire extended. See FIG. 9.



5. Drill a 0.750" diameter hole in the center of the outside outlet box cover and install the (supplied) water tight pigtail wire harness female receptacle plug. Connect the 4 wires from the pigtail harness to the 3 conductor w/ground Romex wires in the outlet box. (Black - Black, White - White, Red - Red, & Green, Green w/yellow stripe - bare copper or Ground) The ground (green or bare copper) must be attached to the junction box with a grounding screw. Use wire nuts for connections and tape to prevent them from coming loose.
6. Place the cover with the connector plug and gasket on the junction box and tighten the screws.
7. The awning motor cable is to be connected to the cover receptacle on the junction box cover. Be sure to form a 6" drip loop with the motor cable to keep moisture out of the connection plug. See FIG. 9.



⚠ WARNING

To reduce the risk of electrical shock, this equipment has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not alter or change the plug in any way.

8. Connect the Romex wire into the outlet box attached to the awning control box (Black - Black, White - White, Red - Red, & copper with the Green/Yellow) The Green/Yellow control box wire and the bare copper wire are fastened to buss strip in upper right corner of the junction box. Install the cover. See FIG. 9 & 19.
9. Plug the control box into the receptacle. See FIG. 9.
10. If used, fasten the 3308645.XXX decorative covers on each end of the awning, per instructions packed with the covers.

G. Wind Sensor Installation

3308347.008 Control Box Kit (Wind sensor wire routed through RV roof)

Note: Wind sensor is to be installed on the RV roof, in an open area away from other objects. It should be mounted within 3° of a vertical position. It must be within 18' of the control box. See FIG. 9.

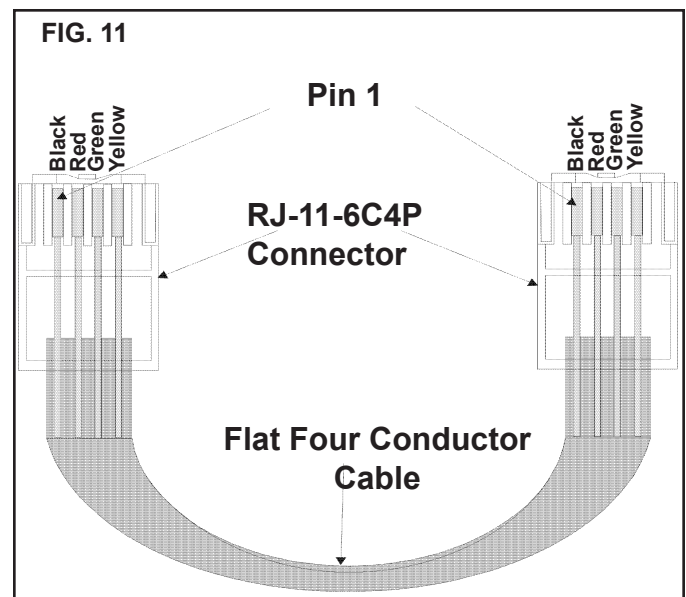
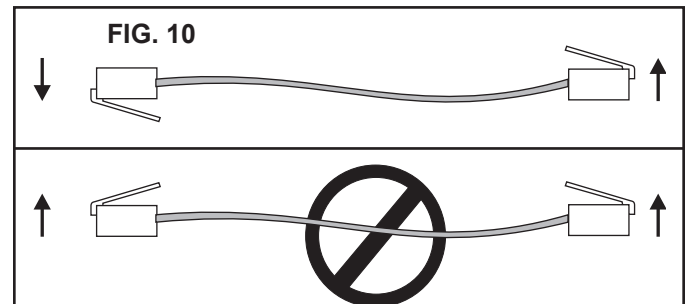
1. Find wind sensor location and drill a 1/2" hole through roof. See FIG. 9.
2. Route a FLAT four conductor cable (maximum length 18', installer supplied) from wind sensor to control box. This cable must be terminated with a RJ-11-6C4P connector on both ends. See FIG. 10, 11, & 19. Refer to the crimp tool manufacturer for crimping instructions. Be sure the cable is installed in the proper position in the connector before it is crimped. **Polarity is important and a standard pre-made telephone cable will not work.**

Note: RJ-11-6C4P connectors must be wired identically on both ends. Reversed polarity of RJ-11-6C4P connectors will cause the awning to retract with the wind sensor "ON". See FIG. 10 & 11.

Note: Awning is not intended for cold weather operation. Awning will close at approximately 30° F. with sensor turned "ON".

Note: If the awning is open with the wind sensor "ON" and the wind sensor is unplugged for any reason, the Awning will automatically close in 30 seconds.

3. Connect cable to wind sensor. See FIG. 12 & 19.

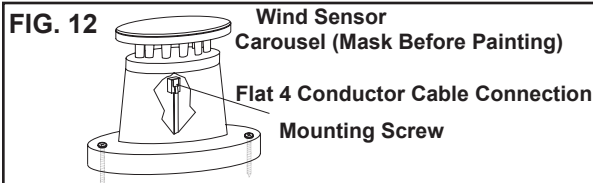


4. Mount wind sensor to roof with #10 stainless steel screws (installer supplied) with appropriate length depending on roof thickness. Seal around the wind sensor cable, screw heads and wind sensor base with suitable sealer to prevent water leaks.
5. Connect opposite end of cable to control box. See FIG. 9 & 19.

Note: The awning control box contains an audible alarm. This alarm will sound if the wind sensor is exposed to temperatures 30° F or below when the wind sensor switch is “ON” or when the awning control has detected a problem either in the wind sensor or the wind sensor cable. If you hear a beeping sound coming from the control box when the wind sensor switch is in the “ON” position, one of the above situations has occurred. When the alarm sounds the wind sensor feature is not functioning. Turn the wind sensor switch to the “OFF” position and wait till the ambient temperature is above 30° F. and turn switch back “ON”. If alarm is still sounding contact a Dometic Service Center or a qualified service technician for assistance.

Important: If vehicle is to be painted after wind sensor is installed, the carousel must be masked off. Wind sensor will withstand paint booth temperatures up to 185° F. The sensor material is Polycarbonate. Remove masking after painting. See FIG. 12.

H. Installation Of Remote Switch



The remote switch can be located at any convenient location to operate the awning from inside of the vehicle. A common location is in the dash of motor homes. The remote switch is supplied with low DC power from the control box. The controls must be plugged into 120 VAC before voltage will be present at the remote switch. See FIG. 9.

1. The switch is a double throw triple pole momentary “ON” switch.
2. Route three 18 AWG. copper stranded conductors Orange, Yellow and Brown in color from the Awning Control Box to the location for the remote switch.
3. Connect the Brown wire to the center terminal of the remote switch and to the brown wire on the molded plug pigtail harness of the control box.
4. Connect the Yellow (retract) wire to one of the outside terminals of the remote switch and the Yellow wire on the molded plug pigtail harness of the control box.
5. Connect the Orange (extend) wire to the remaining outside terminal of the remote switch and the Orange wire on the molded plug pigtail harness of the control box.

I. Installation Of The Ignition Lock

Installation of the ignition lock will prevent the extension of the awning if the engine of the motor home or tow vehicle is operating and the AC power is available to the awning. See FIG. 9. Use the following Procedure:

1. Route a Pink and Brown 18 AWG copper wire to the ignition switch from the control box.
2. Connect the Pink wire to the Pink pigtail wire off the control box.
3. Connect the Pink wire to the **Positive** DC source of the ignition system (battery).
4. Connect the Brown wire to the Brown pigtail wire off the control box.
5. Connect the Brown wire to the **Negative** DC source of the ignition system (battery).
6. Restore the AC power back to the coach. With the Ignition Key “ON” the awning should not extend. Turn “OFF” the ignition Key and extend the awning, while observing for clearance over doors and other coach structure that may interfere with it's movement. If an obstruction is present it may require adjustment of the pitch of the awning canopy. See Section J.

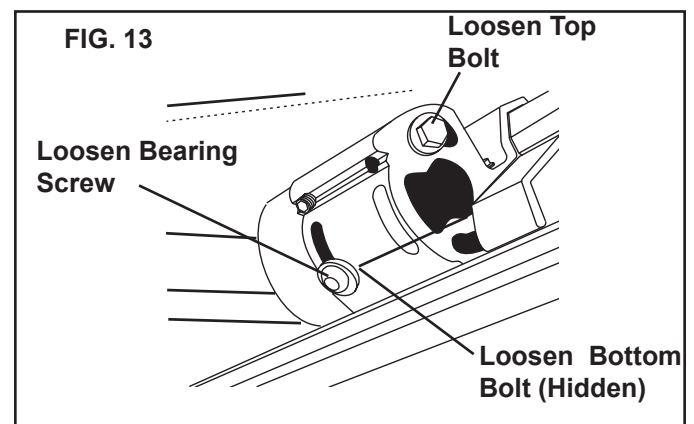
J. Adjusting Pitch

⚠ CAUTION

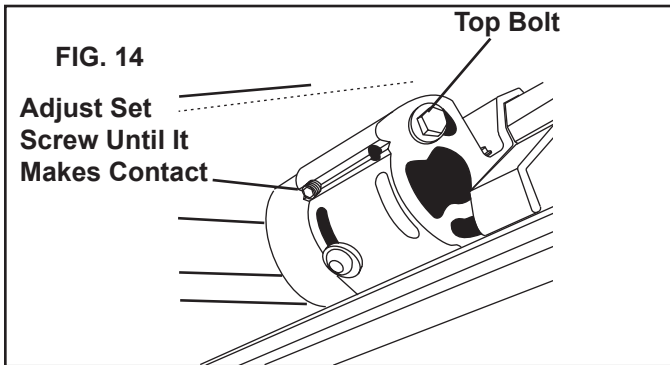
This unit must be serviced by a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

Note: The awning is factory preset with a 20° pitch. If minor adjustments are required to level the lead rail they must maintain the minimum 20° slope. A slope of 20° is 4.38” of drop for each foot of extension of the awning.

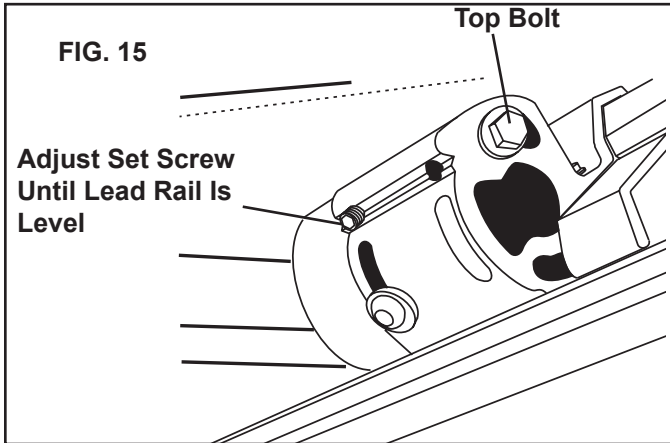
1. Coach should be parked on a flat and level surface, such as a concrete garage floor.
2. Extend awning canopy till it is about to make contact with the obstruction, or fully extended.
3. Loosen the top and bottom bolts and bearing screw on all of the rafter brackets. See FIG. 13.



4. It is easier to adjust the set screw when load is removed, have a second person lift the lead rail while the set screw is being turned.
5. Adjust the set screw (in to raise or out to lower, each turn changes slope 4° per turn) to change the awning slope. See FIG. 14.



6. Adjust the set screw in each of the rafter brackets until the awning rail is level. See FIG. 15.



7. Retighten the top and bottom bolts and the bearing screws loosened in step 3. See FIG. 13.
8. Retract and extend awning a couple times to verify the adjustment to be correct. Repeat steps 1 through 8 if necessary.

⚠ WARNING

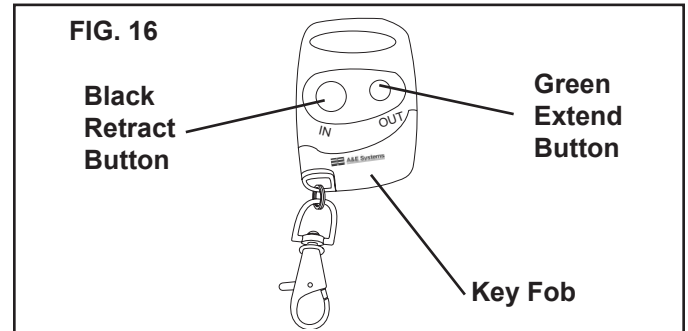
Pinch point hazards are present at the elbow joint, lead rail and shoulder bracket of the lateral arm assembly; and between the lead rail and awning case. Keep arms and hands away from these objects when opening or closing awning.

K. Adjusting Extension & Retraction

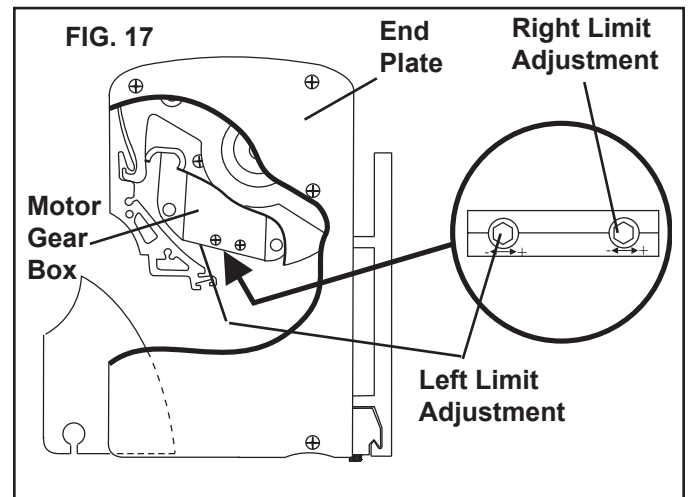
The opening and closing of the awning is factory preset at the time of manufacture. It should not be necessary to adjust the motor limits. If adjustment is required use a 5/32" (4mm) Allen Wrench with a ball tip and the following procedure:

1. Awning not fully extended:

- a. Hold the extend button on the key fob for 3 seconds and the control will continue to extend canopy. See FIG. 16.

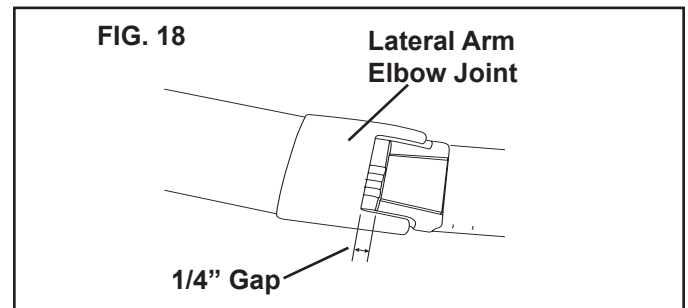


- b. Place the Allen Wrench into the left limit adjustment and turn clockwise. The canopy should extend as the adjustment is made. See FIG. 17.



Note: The left limit adjustment is above the lip on the front cover and hard to locate.

- c. Continue to adjust until the lateral arm elbow joint is 1/4" gap from its stop point. See FIG. 18.



2. Awning Over Extended:
 - a. Push the retract button on the key fob and allow the fabric to retract several inches.
 - b. Place the Allen Wrench in the left limit adjustment and turn counter clock wise 5 to six turns.
 - c. Retract and extend the canopy to determine if it is still overextending. If it is then repeat step 2.

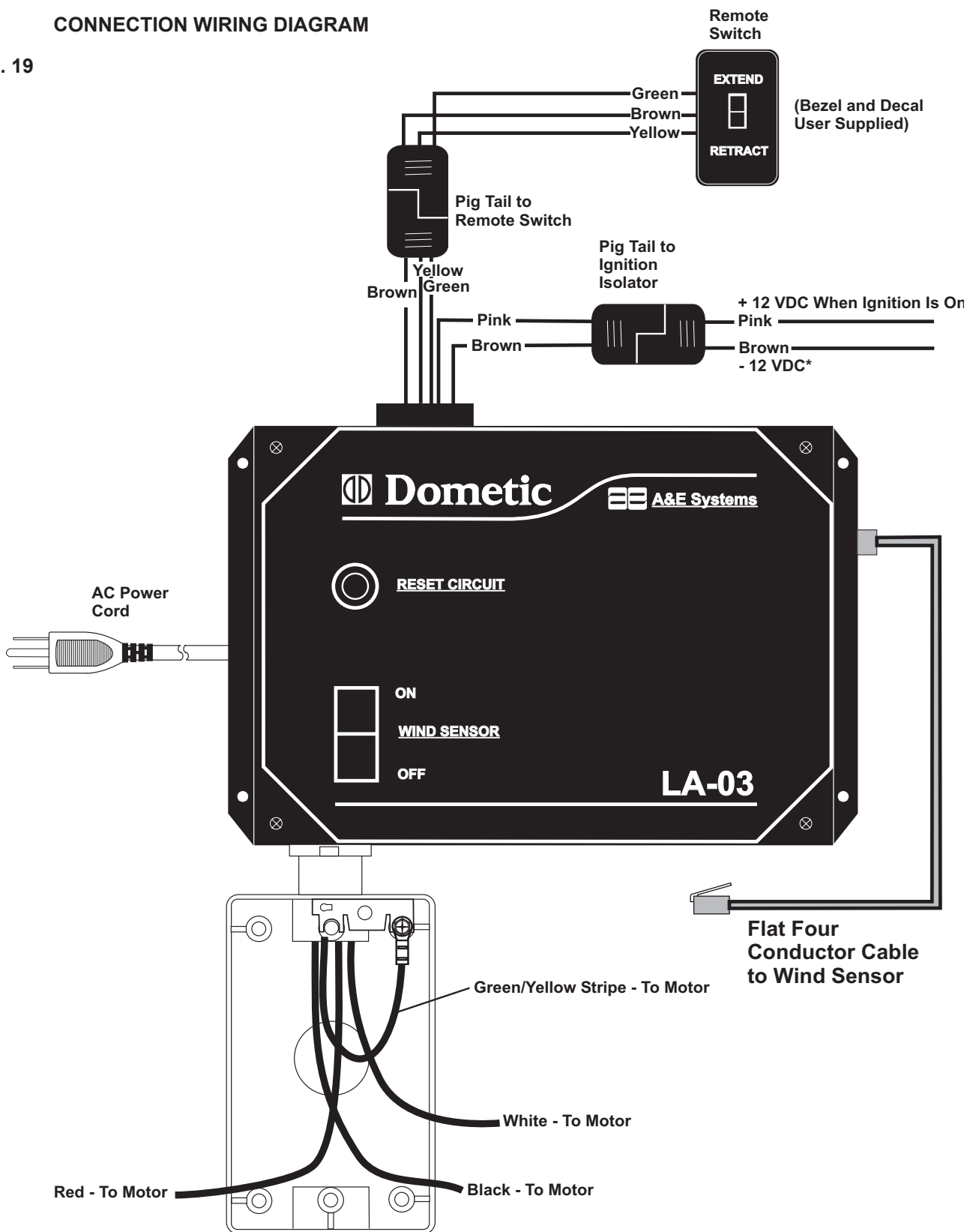
Note: When the canopy stops before it reaches the full extension then return to “1. Awning not fully extended” and adjust.

3. Awning Will Not Retract Completely:
 - a. Push the extend button on the key fob and allow the fabric to extend out several inches.
 - b. Place the Allen Wrench in the right limit adjustment and turn clock wise.
 - c. Push the retract button to check the adjustment. If awning does not close completely repeat steps a and b until awning is fully closed.

Note: If the adjustment of the limit causes over retraction of the awning, the controls will turn the motor off.

CONNECTION WIRING DIAGRAM

FIG. 19



*The negative (-) battery post must be connected to chassis, if the chassis is used for a DC ground.