



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) .000U
MODEL SERIES AWNING**

**Replace (XX)* with color
Replace (XX)** with length**

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**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) .000U**
Prod No.
958303540

Form No. 3308443.005 12/03
(French 3308444.003)
©2003 Dometic Corporation
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.

SPECIFICATIONS:

MODEL	18'	20'	22'	24'
Casing				
Length	18'	20'	22'	24''
Height	9''	9''	9''	9''
Width	5.25''	5.25''	5.25''	5.25''
Weight (lbs.)	216	240	264	288
Arms	2	2	3	3
Mtg Brkt Plates	2	2	3	3
Backup Plates	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			

1. GENERAL INSTRUCTIONS

The A&E LA-03 awning is designed and intended for use on Class A and higher motorhomes with straight sides. The awning is factory preset with a 20° slope. 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.

IMPORTANT: Read and understand ALL of the following steps before beginning installation.

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

2. MATERIAL REQUIREMENTS

Required parts for model 810XX18.000U & 810XX20.00U,

- (2) Bracket, Mounting
- (12) 3/8 X 3" Bolts, Carriage
- (12) Washer, Flat
- (12) Nut, Nylock
- (4) Lock Mechanism W/Set Screws
- (1) Key Fob
- (1) Gasket, 12" longer than Awning Length
- (1) Control Box Assembly
- (1) Connector, Motor
- (1) Sensor Wind
- (1) Crank, Hand

Required parts for model 810XX22.000B & 810XX24.000B

- (3) Bracket, Mounting
- (18) 3/8 X 3" Bolts, Carriage
- (18) Nut, Nylock
- (18) Washer, Flat
- (6) Lock Mechanism W/Set Screws
- (1) Key Fob
- (1) Gasket, 12" longer than Awning Length
- (1) Control Box Assembly
- (1) Connector, Motor

(1) Sensor Wind

(1) Crank, Hand

Required parts installer supplied

(3) Screws, #10 Stainless

Plate, Backup (See specification chart)

(1) Cable, Flat 4 Conductor-Max. 18'

(2) RJ-11 Terminal

(1) Box, Outlet Type FS-Outdoor

(2) Connector, Romex

(1) Cover, Type FS Water Tight

(1) Tube, Silicone Sealant

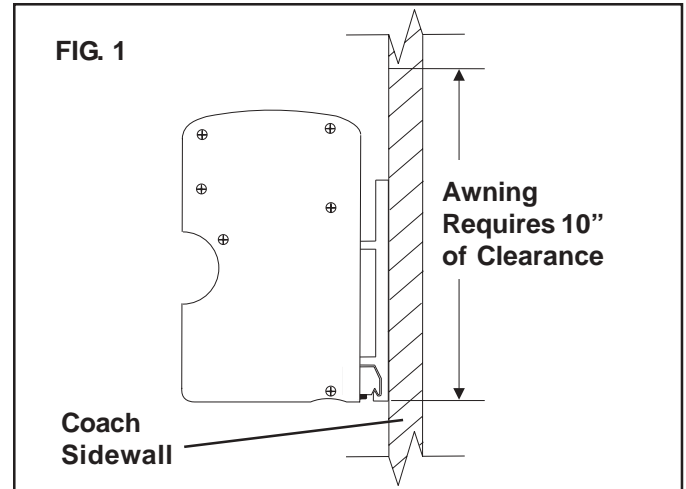
(1) Wire, 14 AWG Copper 3 Wire W/Ground

(8) Wire Nuts & Splice Connectors

Tape, Electrical

(1) GFI Receptacle

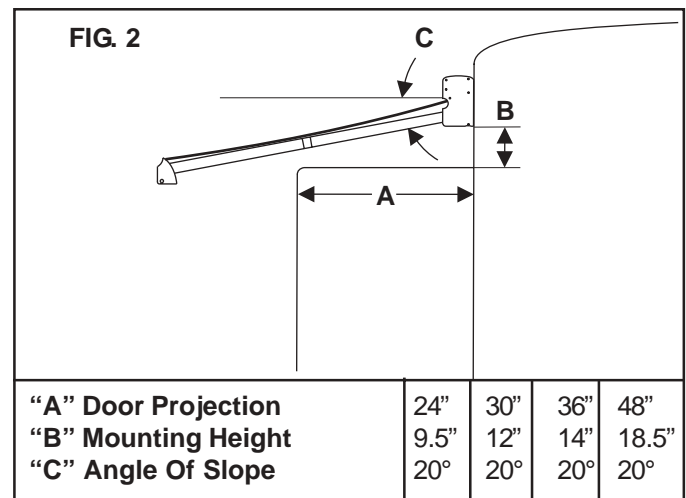
(1) Misc. 18 AWG DC Wires



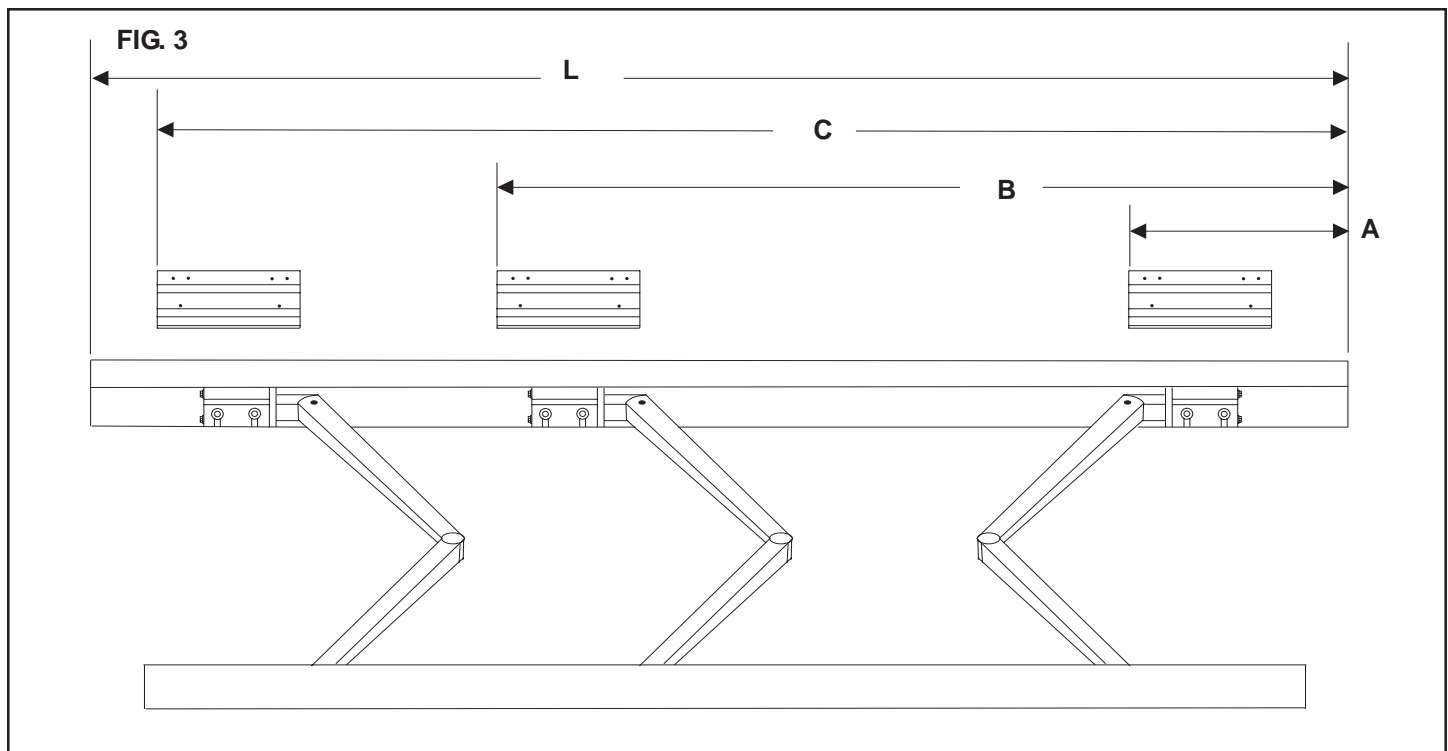
3. MOUNTING REQUIREMENTS

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).

- a. The awning requires 10 verticle inches of clear unobstructed surface along its entire length for installation. See FIG. 1. 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 8.

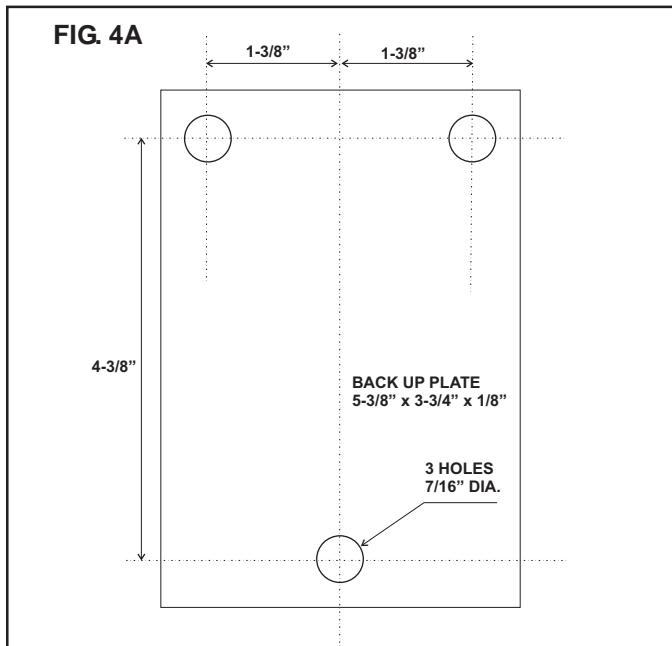
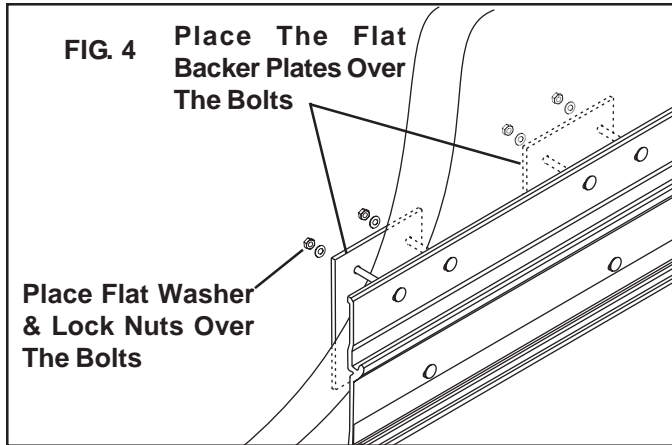


MOUNTING BRACKET LOCATION			
L = Awning Length	A	B	C
18'/216"	20"	NA	214"
20'/240"	20"	NA	238"
22'/264"	20"	150"	262"
24'/288"	20"	162"	286"



- b. 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 on page 3)

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.



- c. 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.
- d. 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.
- e. 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.

4. INSTALLATION PROCEDURE

- 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.
- Determine the distance between the mounting bracket plates from chart on page 3. Mark the location for the mounting bolts using the mounting bracket plate as a template. See FIG. 3.
- Use a 7/16" drill to bore the holes in the coach wall for the mounting bolts.
- 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.
- 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.
- Tighten all six of the mounting bolts evenly to a torque of 33 foot pounds (minimum).

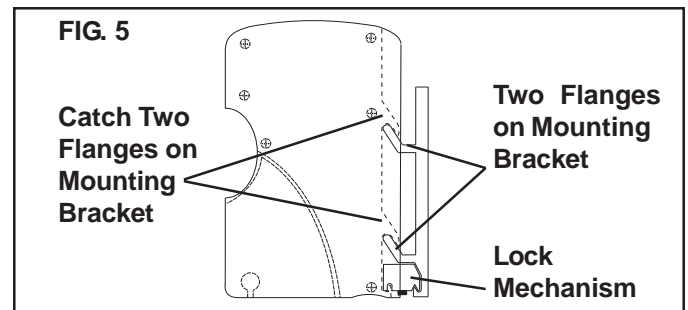
! WARNING

The unit weighs approximately 288 pounds. To prevent back injury, use a mechanical hoist to place awning on mounting brackets.

5. PLACING AWNING ON MOUNTING BRACKETS

Note: Make sure all of the mounting brackets are properly tightened. See Step 4 paragraph f.

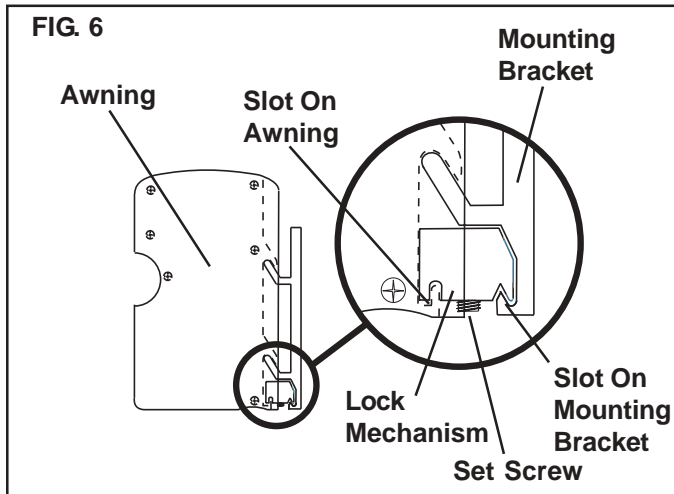
- A mechanical hoist is recommended to be used in the installation of this awning. If the awning must be lifted by hand, use a minimum of 4 persons, always wear back braces and use proper lifting technique.
- Place the awning in an upright position above the mounting brackets. Allow the awning to slide 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.
- 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.

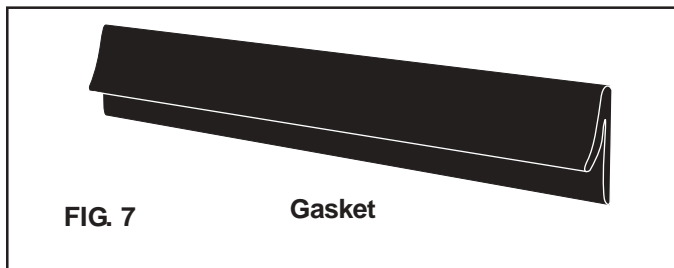
Note: Prior removal of the 2 set screws out of the locking mechanism makes their installation easier.

- d. 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.



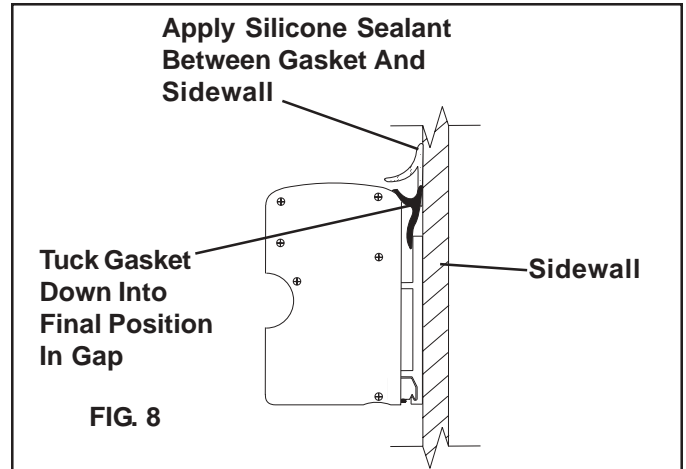
6. INSTALLATION OF THE AWNING GASKET

- a. 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.



- b. Lay the gasket full length on top of the awning case.
- c. Slide the longer side behind the case, while catching the shorter side on top. See FIG. 8

- d. Place the tip of the silicone tube behind the gasket and apply a generous bead between it and the side wall. See FIG. 8.



- e. Tuck gasket down into its final position in gap between the side wall and back of awning case.

7. INSTALLATION OF CONTROL BOX

⚠ WARNING

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

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.

- a. Location of control box should be in an accessible compartment near the right hand end of the awning. See FIG. 9.
- b. 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.

LA-03 MODEL AWNING INSTALLATION INSTRUCTIONS

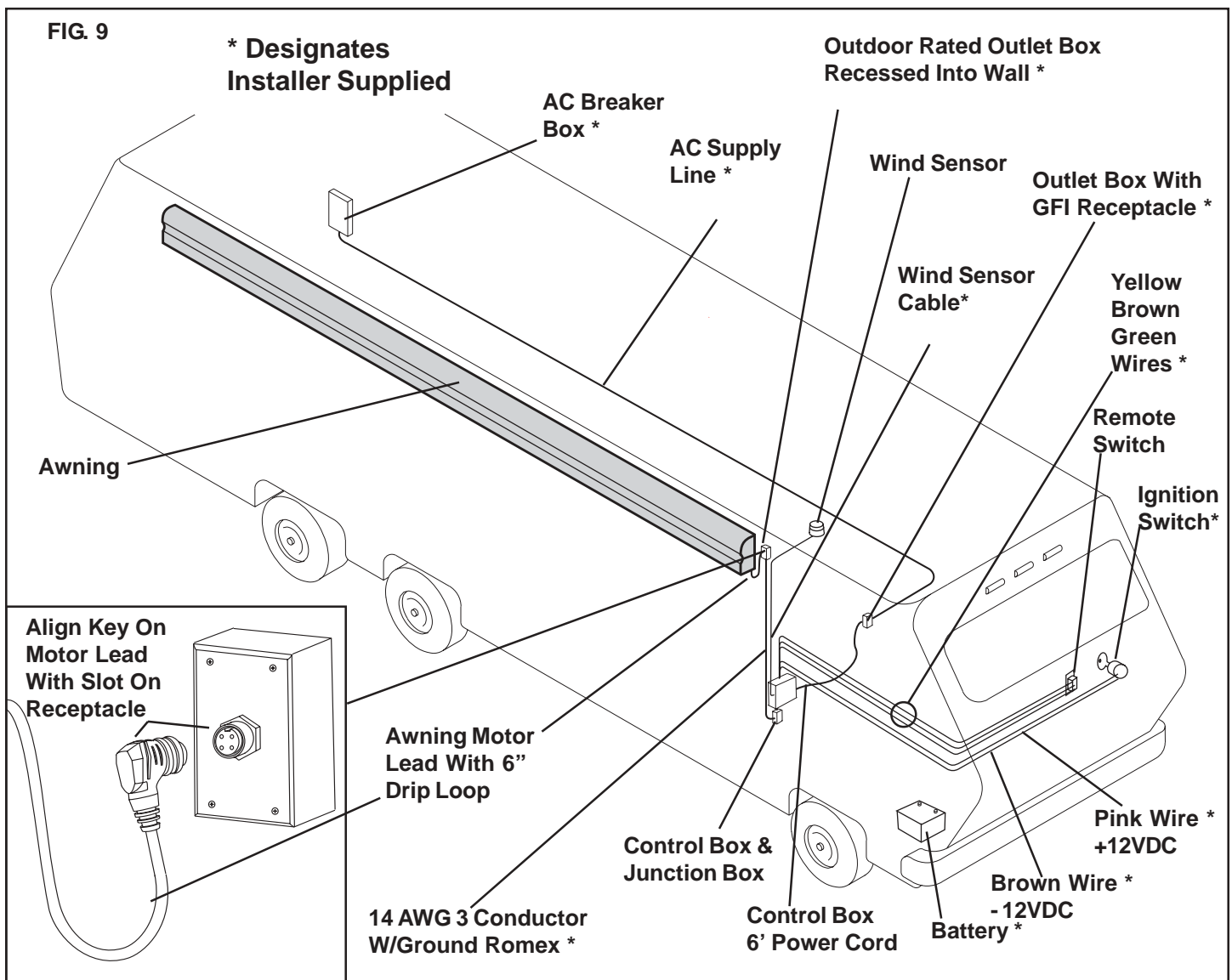
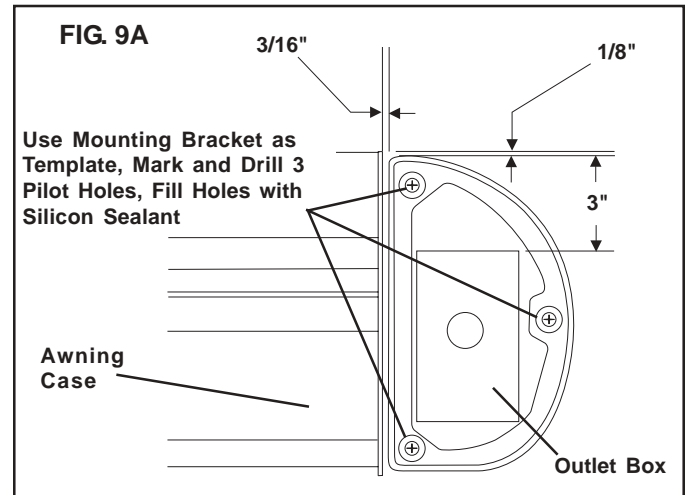
- c. Install a recessed AC outlet box (FS type outside water tight, not supplied). The electrical outlet box cover must be flush with the side wall of the coach. It must be a minimum of 1-1/8" away from the RH end plate, but not more than 1-1/4" maximum. It must be 3-1/8" down from the top of the awning case. See FIG. 9 & 9A.

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

- d. Route a 14 AWG 3 conductor w/ground copper Romex wire (not supplied) between the outlet box 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.

- e. Drill a 0.750" diameter hole in the center of the outside outlet box cover and install the 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 with wire nuts (Black - Black, White - White, Red - Red, & Green, Green w/ yellow stripe - bare copper or Ground) and tape the connections.

- f. Place the cover with the connector plug and gasket on the junction box and tighten the screws.
- g. 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.

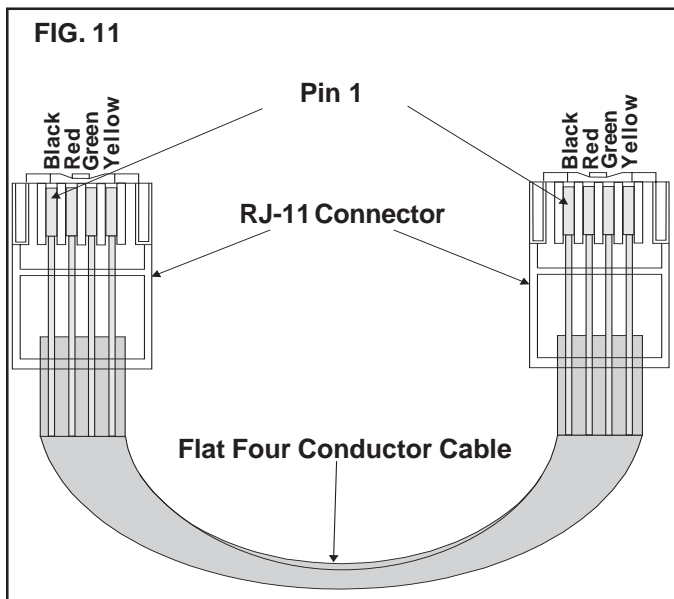
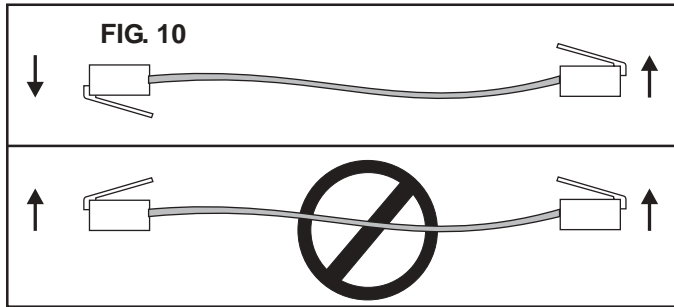
- h. Connect the Romex wire into the outlet box attached to the awning control box (Black - Black, White - White, Red - Red, & copper with the Green/Yellow) The Green/Yellow control box wire and the bare copper wire are fastened to buss strip in upper right corner of the junction box. Install the cover.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

8. Wind Sensor Installation

a. 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 in a within 3° of a vertical position . It must be with in 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 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.**

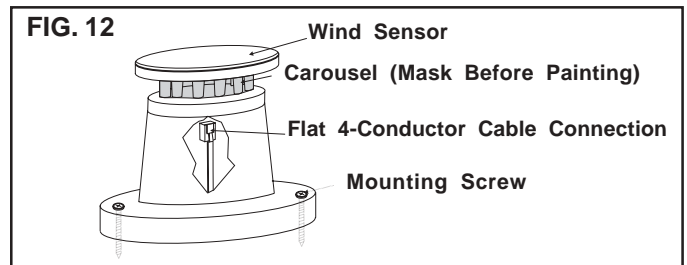
Note: RJ-11 connectors must be wired identically on both ends. Cables that have reversed RJ-11 connectors and the wind sensor is “ON” will cause the awning to retract. See FIG. 10 & 11.

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.

9. 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. See FIG. 9.

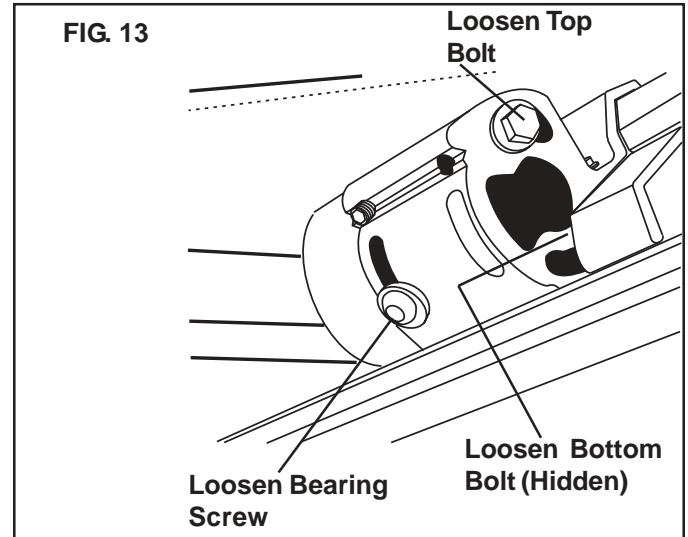
- a. The switch is a double throw triple pole momentary "ON" switch.
- b. Route three 18 AWG. copper stranded conductors Green, Yellow and Brown in color from the Awning Control Box to the location for the remote switch.
- c. Connect the Brown wire to the center terminal of the remote switch and to the brown wire on the molded plug pigtail harness of the control box.
- d. 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.
- e. Connect the Green (extend) wire to the remaining outside terminal of the remote switch and the Green wire on the molded plug pigtail harness of the control box.

10. INSTALLATION OF THE IGNITION LOCK

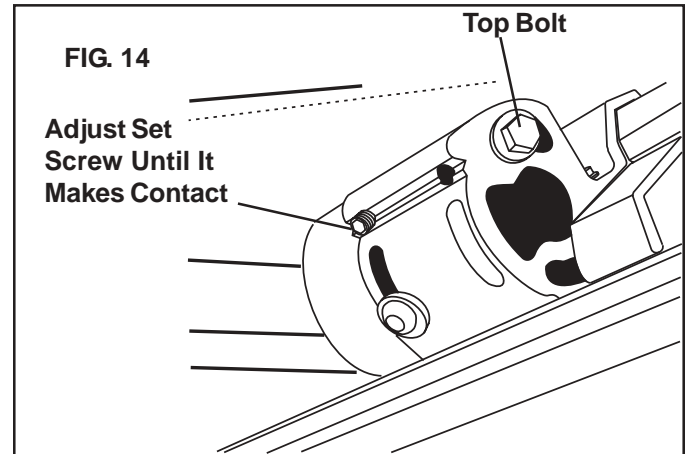
Installation of the ignition lock will prevent the extension of the awning if the engine of the motor home or tow vehicle is operating and the AC power is available to the awning. See FIG. 9. Use the following Procedure:

- a. Route a Pink and Brown 18 AWG copper wire to the ignition switch from the control box.
- b. Connect the Pink wire to the Pink pigtail wire off the control box.
- c. Connect the Pink wire to the **Positive** DC source of the ignition system (battery).
- d. Connect the Brown wire to the Brown pigtail wire off the control box.
- e. Connect the Brown wire to the **Negative** DC source of the ignition system (battery).
- f. 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 11.

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



- d. 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.
- e. 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.



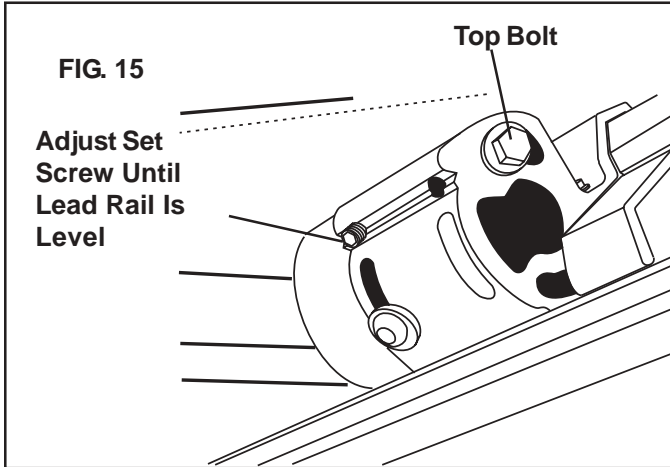
⚠ CAUTION

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.

11. ADJUSTING AWNING PITCH

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

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



- g. Retighten the top and bottom bolts and the bearing screws loosened in step c. See FIG. 13.
 h. Retract and extend awning a couple times to verify the adjustment to be correct. Repeat steps a through g if necessary.

12. ADJUSTING EXTENSION & RETRACTION

The opening and closing of the awning is factory preset at



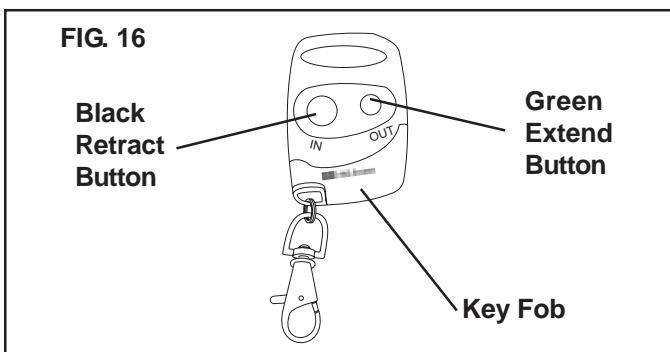
WARNING

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.

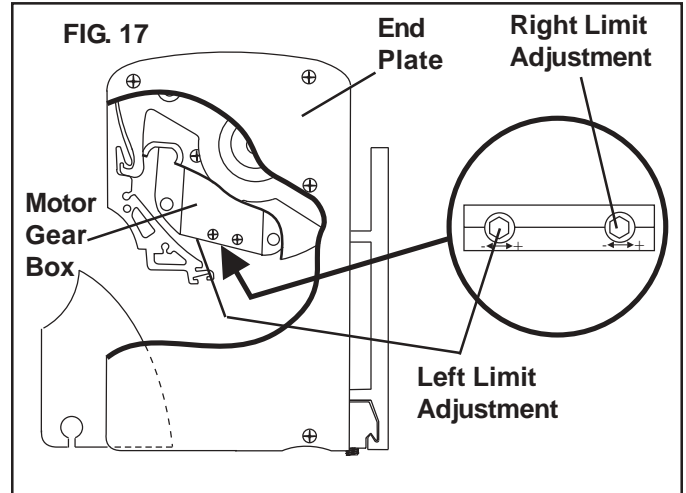
the time of manufacture. It should not be necessary to adjust the motor limits. If adjustment is required use a 5/32" (4mm) Allen Wrench with a ball tip and the following procedure:

a. Awning not fully extended:

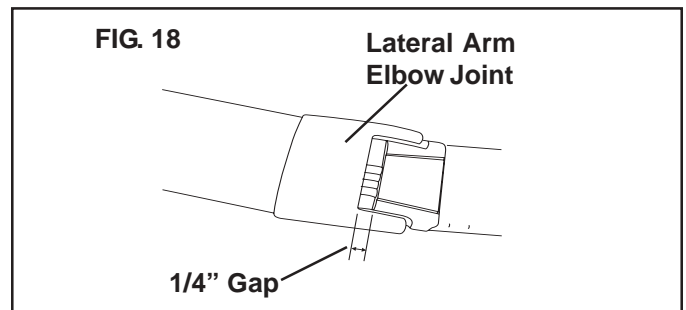
1. Hold the extend button on the key fob for 3 seconds and the control will continue to extend canopy. See FIG. 16.
2. Place the Allen Wrench into the left limit adjustment and turn clockwise. The canopy should ex-



tend 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.



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



b. Awning Over Extended:

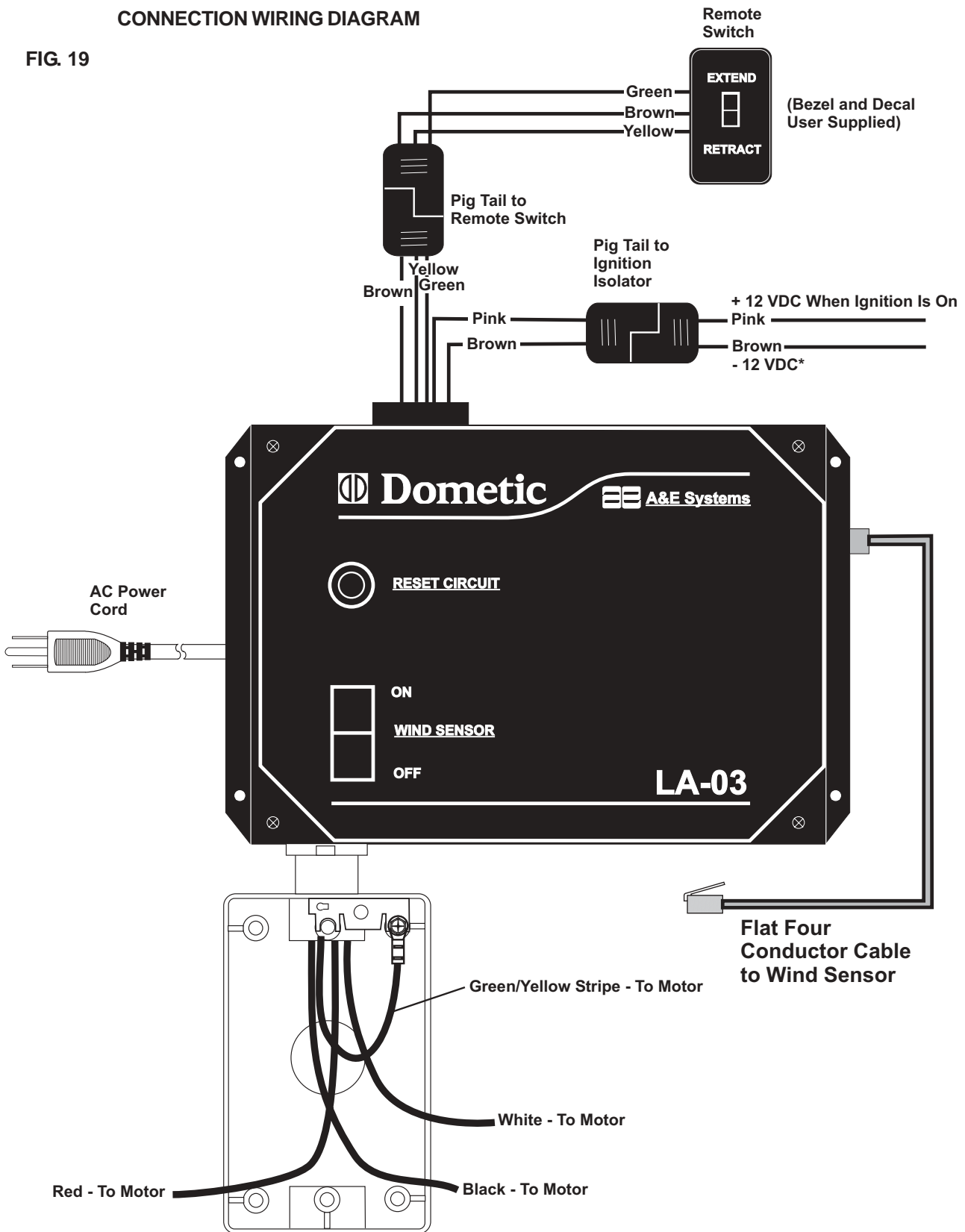
1. Push the retract button on the key fob and allow the fabric to retract several inches.
2. Place the Allen Wrench in the left limit adjustment and turn counter clock wise 5 to six turns.
3. Retract and extend the canopy to determine if it is still overextending. If it is then repeat step 2.
Note: When the canopy stops before it reaches the full extension then return to "a. Awning not fully extended" and adjust.

c. Awning Will Not Retract Completely:

1. Push the extend button on the key fob and allow the fabric to extend out several inches.
2. Place the Allen Wrench in the right limit adjustment and turn clock wise.
3. Push the retract button to check the adjustment. If awning does not close completely repeat steps 1 and 2 until awning is fully closed.

CONNECTION WIRING DIAGRAM

FIG. 19



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