



Relax

12v Automatic Patio Awning

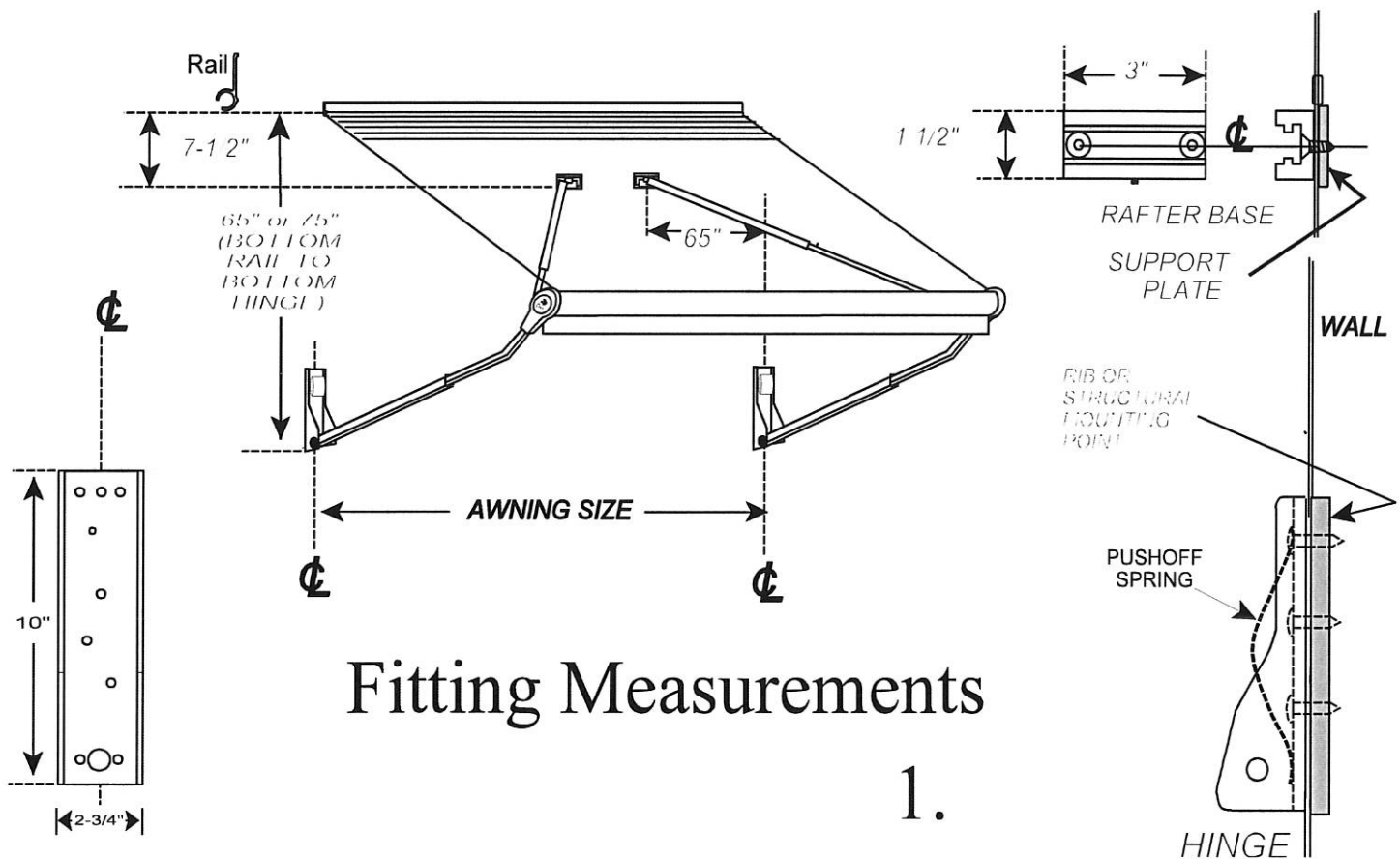
Universal Installation Instructions

Operation Instructions

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Installation Outline

1. Measuring for Fittings
2. Install Fittings
3. Install Control Board(s) and Wall Switch
4. Install Wiring
5. Attach Main Arms
6. Connect Roller to Main Arms
7. Attach Case Fabric Roller Assy. to Vehicle
8. Wind Spring
9. Attach Gas Rafter
10. Adjust out Limit
11. Connect Wiring
12. Run close Cycle
13. Lock into Rail



Fitting Measurements

1.

1. Measuring For Fittings

- a. Determine and mark the location of main arm hinges.
 - i. Bottom of hinge should be 65" or 75" below the bottom of the awning rail.
- b. Determine and mark the location of rafter bases.
 - i. Vertical centerline of rafter base should be 65" in from center of main arm hinge
 - ii. Bottom of rafter base should be 7-1/2" below the bottom of the awning rail.

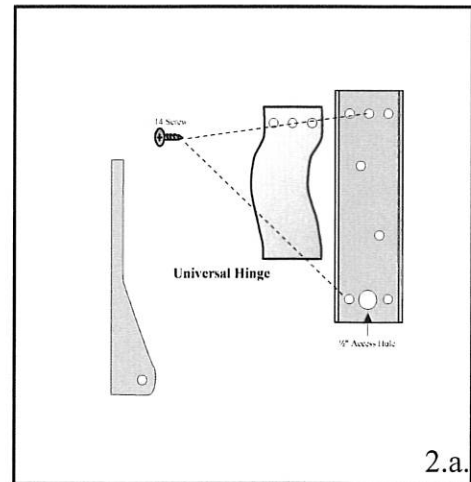
2. **Install Fittings VERY IMPORTANT:** There **MUST** be load capable structure behind both the hinges and rafter bases. We do not recomend installing this unit on fiberglass or alumminum without proper support in place behind it (Figure 1.)

a. **Main Arm Hinges**

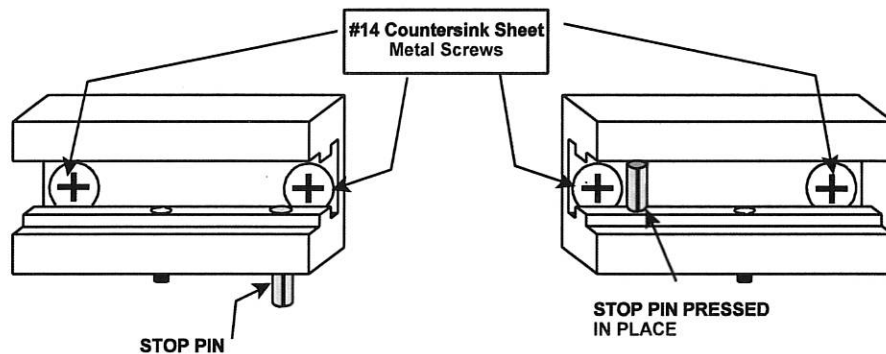
- i. Use a #8 drill bit and the 7 #14 sheet metal screws provided to attach.
- ii. Install pushoff spring to the hinge aligning it with the top 3 holes in the hinge and using the same #14 screws. (Figure 2.a.)
- iii. Drill out the ½" access hole located at the bottom of the hinge.

b. **Rafter Bases**

- i. Orient the rafter base so the stop pin is facing down and towards the center of the awning coverage space.
- ii. Use a #8 drill bit and the provided #14 countersink sheet metal screws to fasten the rafter base into place.
- iii. Use pliers to push stop pin up into place.



2.a.



2.b

3. **Install Control Board(s) and Keypad**

- a. While determining the location of your control board, keep in mind that wires will need to be run from the access holes in each main arm hinge to the board.
- b. Also note that front and rear markings assume you are installing the awning on the passenger side of the vehicle.
- c. The keypad and remote board (if applicable) attach to the main control board via CAT5 cable and may be installed at your discretion.
- d. The keypad plugs into the top of the three CAT5 ethernet ports.

4. **Install Wiring**

PLEASE CHECK AND DOUBLE CHECK ALL WIRING.

POOR WIRING IS THE MOST COMMON PROBLEM WITH THIS AWNING. EACH SENSOR IN THE ARM IS CRITICAL FOR ALL FUNCTIONS OF THE AWNING AND THEY MUST ALL BE POWERED CORRECTLY FOR THE AWNING TO WORK.

- a. Your hardware came with a length of 8-wire cable. This cable contains all the wires you need to connect the arms to the control board.
 - i. NOTE: The rear arm only requires only 6 wires.
- b. Measure and cut your needed lengths of cable and strip the jacket back on either end.
- c. Strip the tips of each wire.
- d. Use butt-connectors of the appropriate size or solder joints to connect each color wire to its corresponding wire coming off the board. The wire sizes are as follows:

RED WITH WHITE TRACER - 18 GAUGE

LARGER BLACK - 18 GAUGE

BLUE - 20 GAUGE

smaller BLACK - 20 GAUGE

YELLOW - 20 GAUGE

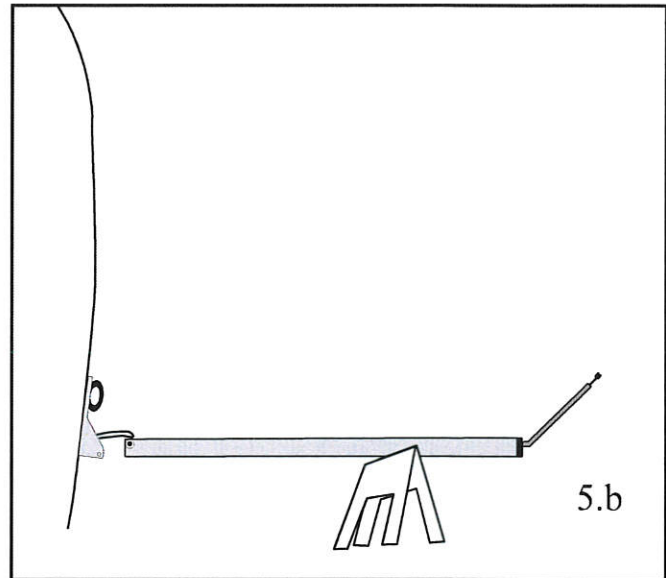
BROWN - 20 GAUGE

RED - 18 GAUGE

WHITE - 18 GAUGE

5. Attach main arms

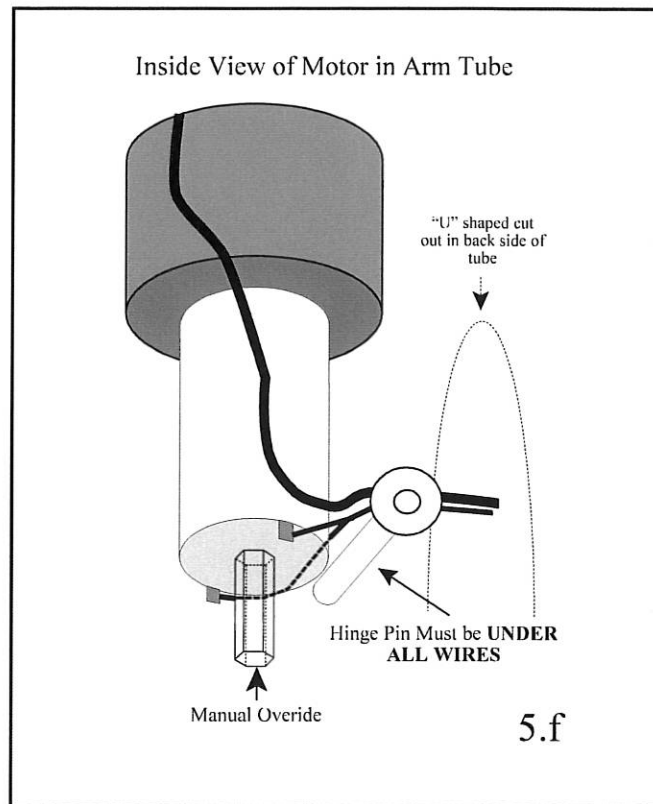
- a. The arm with a wire coming out the end of the steel bar is the front arm.
- b. Use a sawhorse (or other type of stand) to hold the arm up horizontally.
 - i. You will notice the steel bar is not centered in the arm, you want the steel bar to be closest to the top (when laying horizontally).
- c. Position the arm so the bottom opening is about a foot away from the hinge perpendicular to the trailer.
- d. Feed all the wires protruding from the bottom of the arm through the ½" access hole you drilled earlier.
- e. Have someone go inside the trailer and gently pull the wires taught as you guide it



into position in the hinge.

- f. **VERY IMPORTANT:** As you insert the hinge pin ensure that all the wires are ABOVE it. There is a manual override shaft that spins in excess of 1000 rpm located below the pin that will destroy wires on contact and cause malfunction in your awning.
- g. Insert carriage pin into the hole in the end of the hinge pin.
- h. Repeat steps 5.b - 5.g for rear arm.

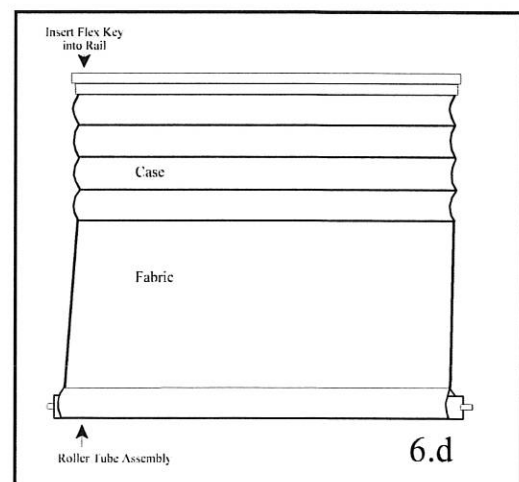
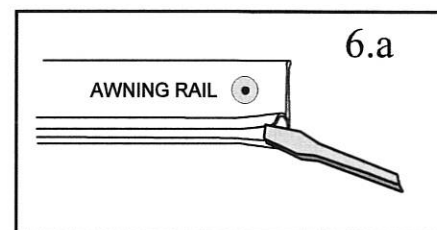
6. Attach Case Fabric Roller Assembly to Vehicle



Note:

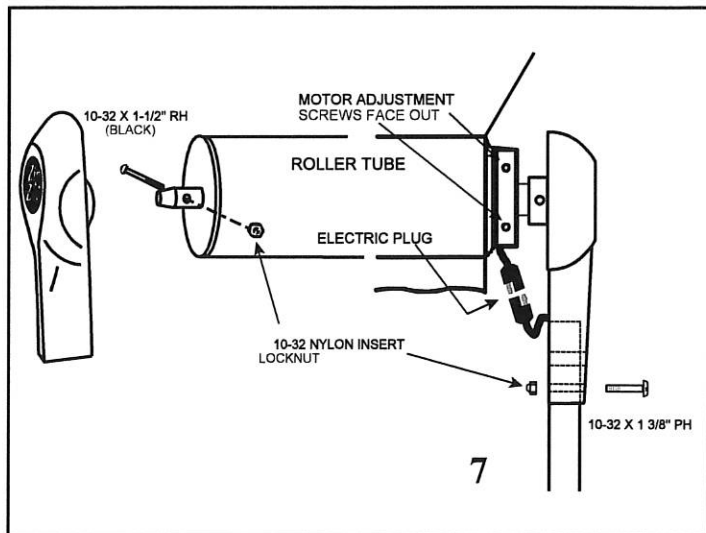
This step will require 3 able bodied people to complete. **DO NOT** use old methods of installing Zip Dee awnings where a case slat is removed for installation. The motor in the awning ships in the open position and awning must be manually unrolled during installation.

- a. Flair open the end of the awning rail where the awning will be inserted.
- b. Position a ladder below flared end of awning rail.
- c. Have two people hold the roller assembly and allow it to unroll as a third person walks the case up the ladder to the awning rail.
- d. Carefully guide the Flex Key into awning rail while the two people holding the roller walk the awning into position between the arms.



7. **Connect Roller to Main Arms**

- a. Attach Head Castings to shafts of Roller Assembly. Use 10-32 x 1 1/2" hardened phillips head machine screws with nylock hex nuts.
- b. On the **Front** arm ensure that, when the neck of the head casting is facing down, the motor limits are facing outward.
- c. Attach the neck of each head casting to its corresponding main arm with 10-32 x 1 3/8" slotted machine screw and nylock hex nut.

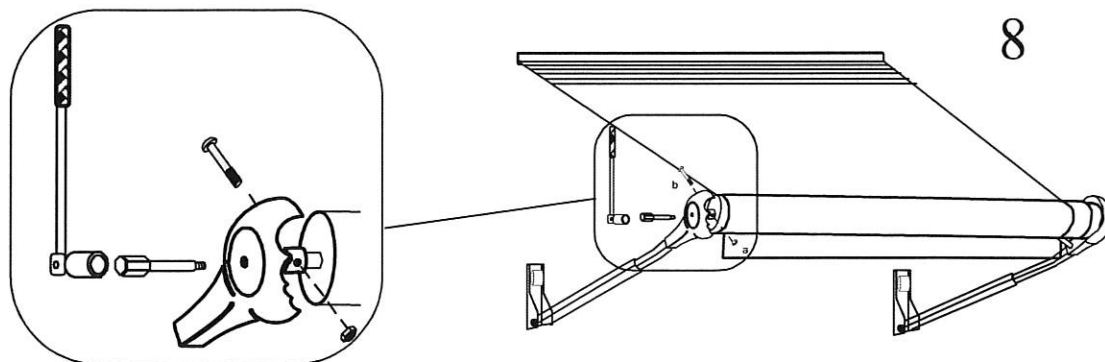


8. **Wind Spring**

- a. Insert the threaded end of the special winding insert through the hole in the Zip Dee logo of the rear head casting and screw it into the shaft of the roller.
 - i. Use a 1/2" socket to tighten until only snug. Applying excess torque may bend the machine screw that connects the shaft to the head casting.

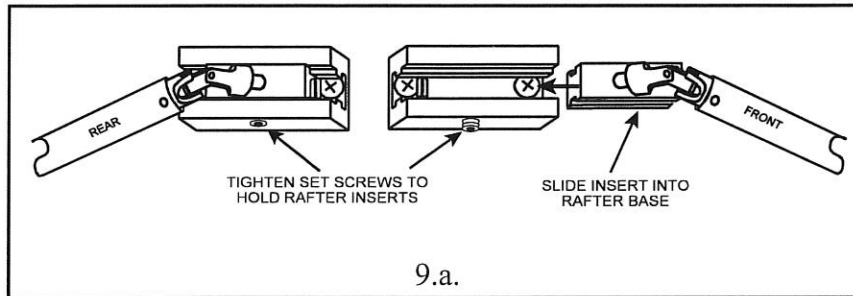
CAUTION:

IN STEPS BELOW, ALL THE TORQUE FORCE IN THE AWNING SPRING WILL BE TRANSMITTED TO THE DRIVING TOOL. **THERE ARE NO SAFETY STOPS. DO NOT RELEASE WINDING TOOL** USED WHILE IT IS CONNECTED TO THE AWNING. IT WILL SPIN RAPIDLY AND **CAN CAUSE SEVERE PERSONAL INJURY.**



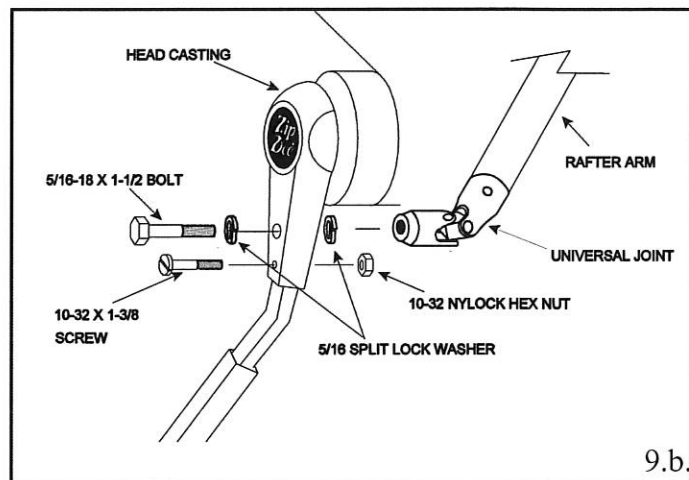
- b. Remove nylock hex nut from head bolt. Attach long breaker bar to the hex socket and apply just enough clockwise movement to relieve the pressure on the machine screw so that it can be removed. Remove head bolt and set aside.
- c. Wind the spring by rotating the wrench in a clockwise direction 23 revolutions.
- d. Use winding wrench to help align the holes in the head and shaft. Replace black head screw and nylock nut removed in step 8b.
- e. Unscrew and remove winding tool.

9. Attach Gas Rafter



- a. Attach a gas rafter to each rafter base by sliding inset portion attached to the end of each rafter arm into the base so that the insert is against the stop pin in the base. Lock insert in place by tightening set screws in bottom of each rafter base with 3/32 hex key.

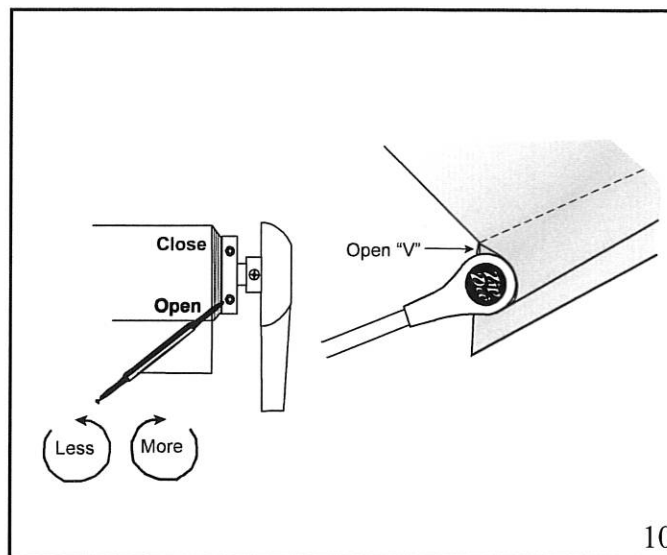
- b. **THIS STEP REQUIRES 2 PEOPLE.** Have someone compress rafter to shorten it. Remove bolt and washers from the universal joint at the end of each rafter.



Connect rafter to head casting by passing bolt through head casting and steel bar. Put one split lock washer between rafter universal joint and head casting and one between the bolt and the head casting then tighten securely to prevent rotation.

10. Adjust Out Limit

- a. Attach the plug coming off the motor at the end of the roller assembly to the plug of the emergency cable included with owners manual. Connect alligator clips to a 12v battery to roll awning completely open till it stops (if awning starts to roll up when connected, switch the polarity).
- b. The limit switches in the motor are adjusted by turning the appropriate sockets in the exposed portion of the motor at the forward end of the roller tube.



c. **DO NOT ADJUST CLOSING**

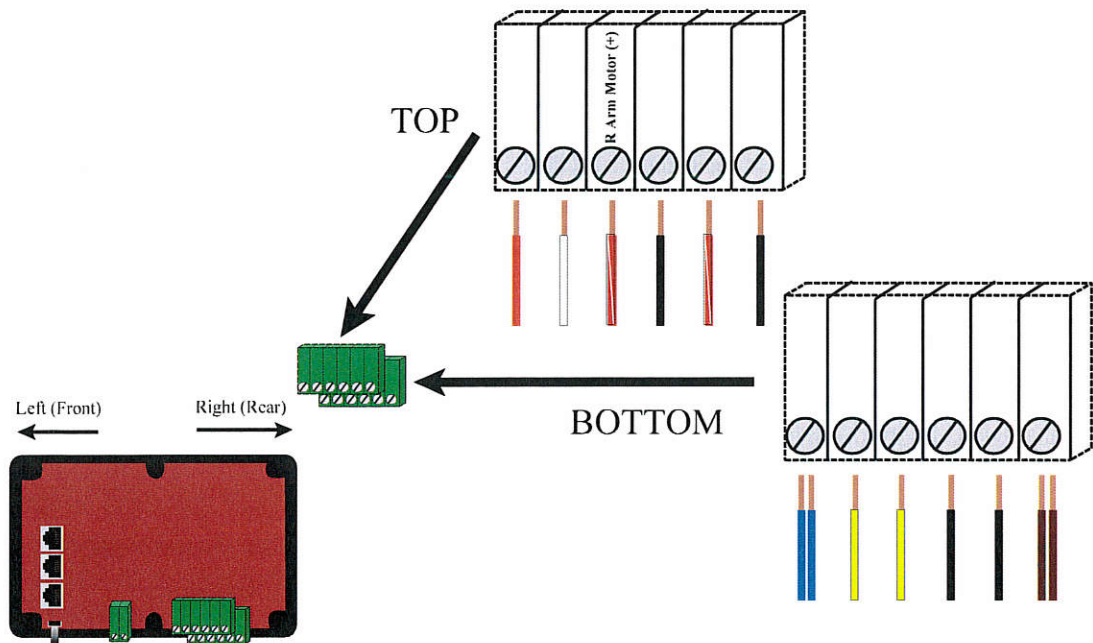
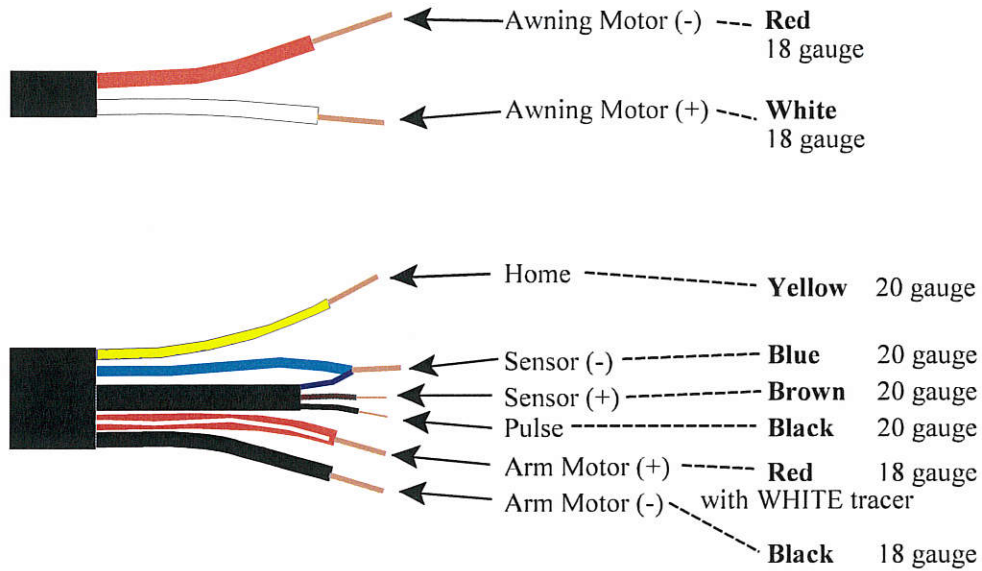
LIMIT The control board has a torque sensor that tells it when the awning is closed and ensures it is rolled up tightly to the vehicle. Adjusting the in limit can compromise this process.

- d. The open limit is the **BOTTOM** one with an arrow facing **UP**.
- e. Use the hex adjusting rod provided in installation kit to adjust.
- f. Turn clockwise for more extension and counterclockwise for less.
- g. Adjust limit so the valance is fully extended and hanging straight down from the seam of the pocket while an open "v" is visible behind the roller tube.
- h. **DO NOT SET OPEN ENOUGH TO FORM A "GUTTER"**
 - i. Zip Dee never recommends having your awning out in the rain.
 - ii. In the event that it does rain on your awning, however, rainwater needs to be able to roll over the tube.

11. Attach Wiring

- a. Disconnect power from the control board by unplugging the small green terminal block.
- b. Use appropriate sized butt-connectors or solder and heat shrink the wires you ran inside the coach earlier in the installation to the corresponding colored arm wires that you pushed through the access holes in the hinges.

**Note: Awning motor wires are
for front arm only**



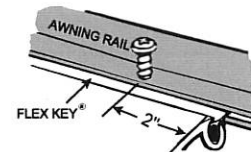
12. Run Close Cycle

- a. Press close on the keypad. Arms should drop a few inches. As soon as both arms have retracted, the awning motor should start to roll up till the awning is tight against the coach. Status light on the keypad should now be on "Close"
- b. Every sensor in the awning is re-calibrated upon completion of every close cycle. **ANY TIME THERE IS A GAP IN POWER**, no other function of the awning will work until an initial close cycle is run.

13. Lock in Rail

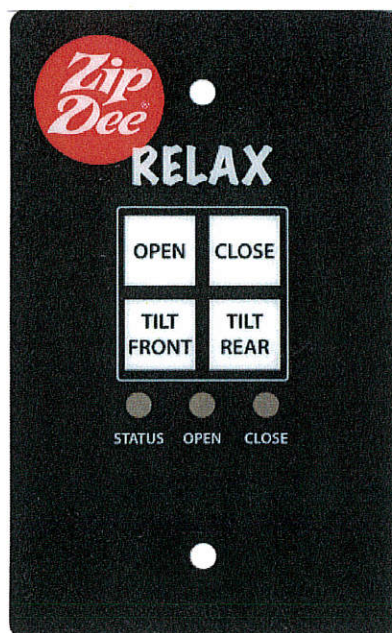
- a. While awning is closed against the coach, slide entire awning to front/rear til arms are straight up and down.
- b. Using a ladder, drill a 1/8" hole into top of each end of the awning rail about 2" in from the end of the flex key in the rail.
- c. Use #6 x 1/2" screws provided in installation kit to screw through awning rail into the Flex Key.

Note: If you are having trouble moving the awning while closed against the vehicle, use the provided emergency cable to unroll the awning motor slightly.



Operation Instructions

Zip Dee Relax 12v



Operation of this awning is fairly straightforward and self-explanatory, but this guide will highlight the important details and give some tips on mastering its use. Please read through this guide carefully and familiarize yourself with all the functions of the awning before attempting to use.

Basic Operation

- **Open-** To open your awning, simply press the “OPEN” button. The awning will roll out and the arms will come out to their full extension.
- **Tilt-** This awning has the ability to tilt to the front or rear to allow for water runoff. In order to use the tilt function, the awning must be completely open (the green light must be lit up above “OPEN” on the wall switch). Press the “TILT” button (front or rear) and the awning will drop the corresponding side. To un-tilt, press the same “TILT” button.
- **Close-** The awning is designed to be able to close from any position by pressing the “CLOSE” button. If the awning is tilted, do not be alarmed that only one arm begins to retract, the awning will level itself out before both arms continue to retract in unison.

Tips and Advanced Operation

- **Interrupting-** Any button on the keypad will pause the awning in any process that it is performing. Once the process is interrupted, you can either continue the process it was performing by pressing the corresponding button (eg. If you stop the awning when it is halfway out, and want it to open the rest of the way, press “OPEN”) or you can close the awning at any time by pressing “CLOSE”.
- **Partial Open Position-** This awning is unique in that it has support against the wind in any partially open position. This allows you to open your awning in confined spaces. Simply press **any button** to stop the open process at the desired extension. Note: From a partially open position, the tilt function is not available. “OPEN” will continue to open the awning to its fully open position, “CLOSE” will close the awning, but “TILT” will produce no result.
- **Partial Tilt-** By default, when you press the “TILT” button, the corresponding arm drops 10 inches. If you desire less tilt, you can interrupt the process by pressing any button. When the awning is partially tilted, you can either continue to tilt the awning by pressing the same “TILT” button, open it back to its full open position by pressing “OPEN”, or close it by pressing “CLOSE”.
- **Reset-** The awning is designed so all of the sensors recalibrate every time it completely closes. If the awning seems to be working improperly, run a complete close cycle to reset it.
- **Power Cycle:**

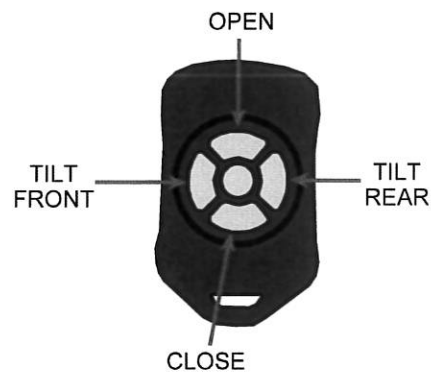
Very Important

Any time there is a gap in power to the awning, RUN A CLOSE CYCLE before attempting any other functions on the awning. This allows all the sensors to reset and ensures that the awning knows its position and will function properly.

Optional Remote:

Note:

The remote operates the same way as the keypad. However the center button will not stop any process of the awning.



Troubleshooting

If you are experiencing problems with this awning please contact Zip Dee before attempting work on the awning.

Zip Dee is open Mon-Fri 8am-4:15pm (excluding national holidays).

847-437-0980

800-338-2378

In the event that your awning is stuck in an open position at a time not during Zip Dee's hours of operation please adhere to the following guideline to manually retract your awning.

Emergency Manual Operation

1. Disconnect electrical connections.
 - a. Turn off or unplug the power input to the control board.
 - b. Unplug the motor wire from the FRONT arm to the motor (Figure A).

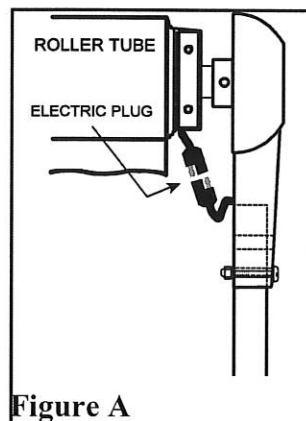


Figure A

2. Remove Gas Rafter.
(Figure B)
 - a. Use ½" wrench to remove the securing bolt from the head casting.
 - b. Spin the entire gas rafter counter-clockwise to un-thread it from the rafter base.
 - c. Replace securing bolt and lock washers into the universal joint on the end of the gas rafter and set aside.

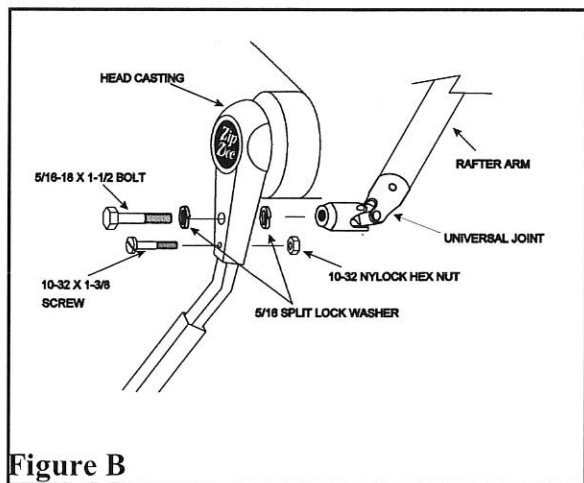


Figure B

3. Insert winding tool and remove the Head Bolt
 - a. Winding tool threads into the motor shaft through the hole in the Zip Dee logo on the head casting. (Figure C)

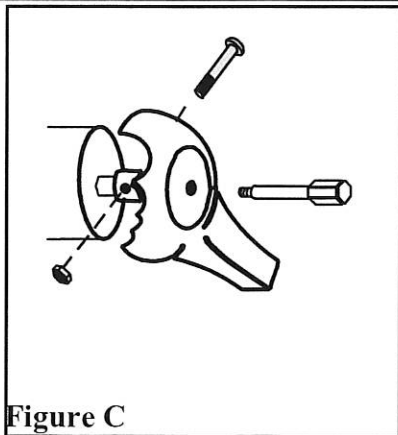
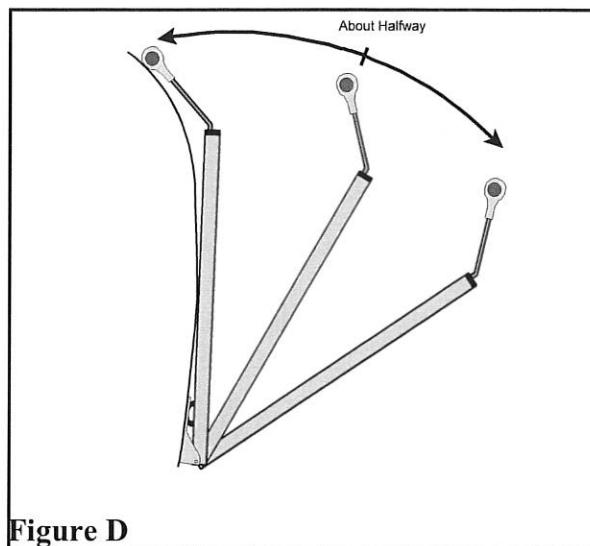
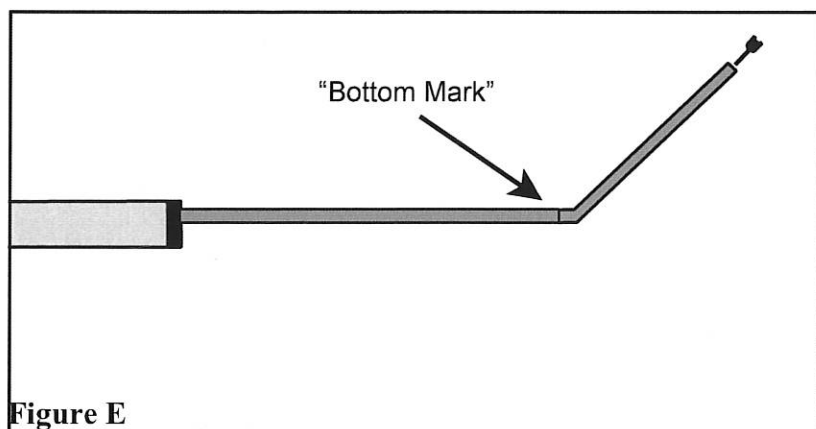


Figure C

4. Hand roll the awning about half way closed. (Figure D)
5. Replace the Head Bolt and remove the winding tool.
 - a. **It is important that you remove the winding tool before the next step or you could break the threaded section of the tool.**

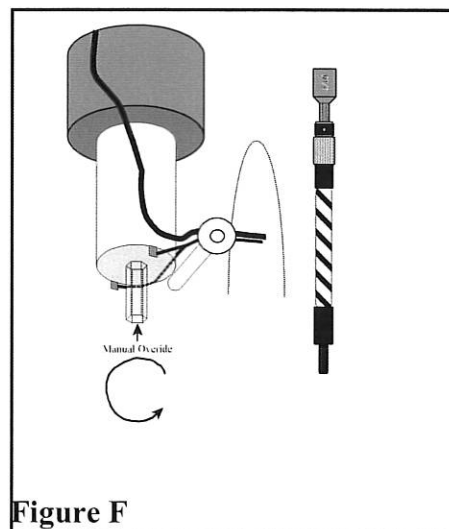


6. Locate the “Bottom Mark” on the steel main arm bars. (Figure E)



- a. Mark will be a scribe mark on all 4 sides of the bar.
- b. This is the mark that tells you where to stop retracting the arms.
- c. **If you retract the arms past this mark you will DAMAGE important sensors located at the bottom of the arm.**

7. Lower the arms halfway.
 - a. Fit the provided Emergency Hex Drive onto the manual override shaft in the opening at the bottom of the arm. (Figure F)
 - b. Lower one arm about halfway to the “Bottom Mark” by spinning it counter-clockwise.
 - i. **Only lower HALFWAY. Too much pitch in the awning can cause damage to the Head Castings and shafts.**
 - c. Lower the other arm completely to but **NOT PAST** the “Bottom Mark.” (Figure E)
 - d. Lower the first arm completely to but **NOT PAST** the “Bottom Mark.” (Figure E)



8. Insert winding tool and remove the Head Bolt (repeat step 3).
9. Hand roll the awning all the way up to the vehicle.
10. Replace the Head Bolt and remove the winding tool.
- 11. Call Zip Dee at next available convenience. 847-437-0980**