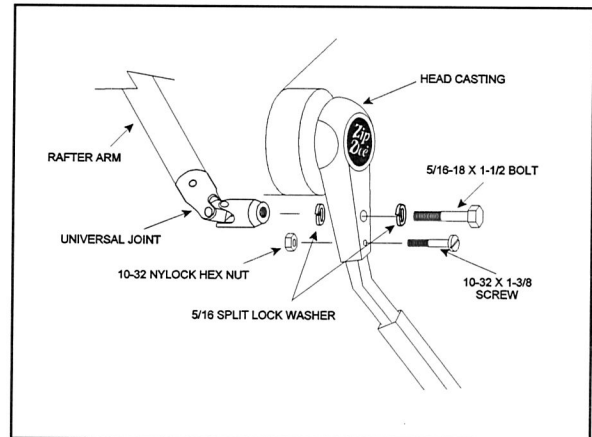
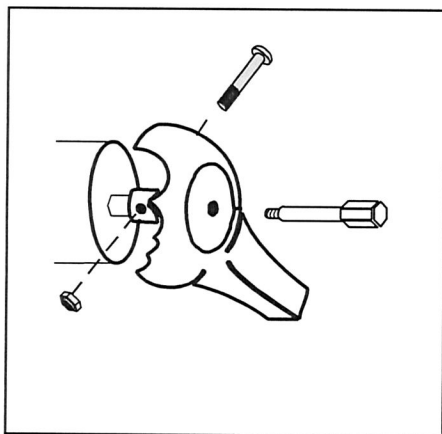


**Replacing 12v Roller Motor Instructions for Relax Awning**  
**Be Sure that you are working on the FRONT arm only. The rear arm is under spring tension and following these steps on it will cause the head casting to spin loose and may cause severe damage/harm.**

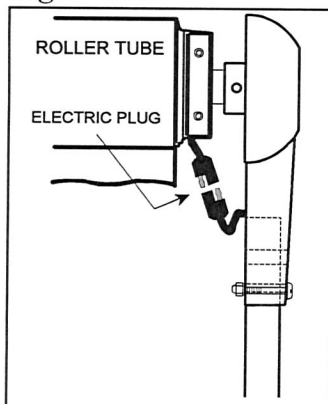
1. **Remove the gas rafter**
  - a. Use ½" wrench to remove the 5/16"-18 securing bolt from the head casting. (Figure 2)
  - b. Once free from the main arm, use a 3/32" hex key to loosen the set screw on the bottom side of the rafter base.
  - c. Slide the rafter toward the front of the vehicle until it is free from its base.
  - d. Replace securing bolt and lock washers into the universal joint on the end of the gas rafter and set



**Figure 2**



**Figure 1.c.**



**Figure 1.b.**

2. **Unroll the awning**
  - a. The new motor comes in the OPEN position, so first you must unroll the awning so the canvas is fully extended.
  - b. **IMPORTANT:** Disconnect power from the control board and unplug the arm from the motor (Figure 1.b.)
  - c. Insert winding tool and remove the head bolt. The winding tool threads into the motor shaft through the hole in the Zip Dee logo on the head casting. (Figure 1.c.)
  - d. Hand roll the awning out so the canvas is all the way extended.
  - e. Replace the head bolt and remove the winding tool (Figure 1.c.).

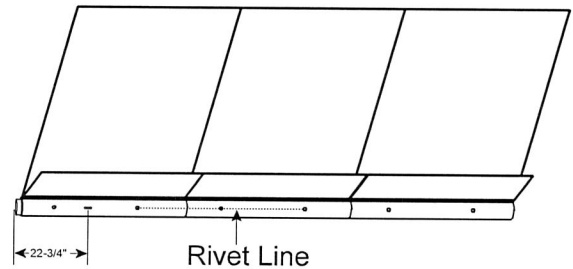
3. **Remove old motor**

- a. Remove the 10-32 screw that attaches the head casting to the steel bar and pull the entire awning off of the main arm (Figure 2). Set the main arm on the ground or on a sawhorse for the time being.
- b. Remove the 3 screws securing the motor into the tube and use the head casting to pull the motor straight out of the end of the tube. **(If the motor does not slide out easily you may need to drill out some of the fabric rivets with a 9/64" drill bit)**

4. **Add Gear Rivets to Roller Tube**

On new awnings there is a dimple pressed into the tube that the groove in the motor gear slips onto. Your new motor is a longer length than your existing motor. Since there is already fabric on your awning you will add a horizontal line of rivets (provided 5/32" x 3/8" steel dome rivets) underneath the valance to serve the same purpose.

- a. Lift the valance, you will see a line of rivets in a line all the way down the tube that secure the fabric to the tube. You want to put your gear rivets on this same line.
- b. Measure 22-3/4" from the end of the roller tube and make a mark in line with the existing rivets.
- c. Use a #20 drill bit to drill through the fabric and steel tube at your mark. Then drill a hole on the same line about 1/4" to each side of the first hole.
- d. Use a rivet gun to pop the three provided 5/32" x 3/8" long rivets into place.



5. **Install new motor**

- a. Remove the head casting from the old motor and attach it to the new motor.
- b. Be sure that when the Red logo is facing right and the neck of the head casting is facing down, the limits are visible (Under the black rubber cover). This will ensure that you can access the limit adjustments when the awning is closed against the vehicle. (Figure 4)
- c. Look inside the tube and locate the dimple for holding the motor gear in place. This dimple should line up with the groove in the motor gear.
- d. Slide the new motor with head casting into the tube and twist the white collar to line up with the screw holes in the tube. Replace the 3 screws to secure the motor in the tube.

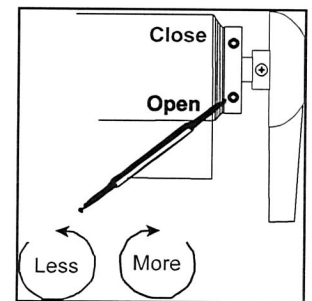


Figure 5

- e. Re-attach the head casting to the main arm and replace the 10-32 screw to secure it.
  - f. Replace any fabric rivets you removed earlier in the same holes with the provided rivets and a pop rivet gun.
6. **Attach gas rafter**
- a. Re-attach the gas rafter to the rafter base.
  - b. Compress the rafter slightly and line it up with its corresponding hole on the main arm.
  - c. Replace the 5/16"-18 bolt and lock washers.
7. **Adjust Out Limit**

## DO NOT ATTEMPT TO ADJUST THE CLOSING 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 OUTSIDE limit.
- e. Use the hex adjusting rod provided in installation kit to adjust.
- f. Looking at the motor from a top view turn clockwise for more extension and counterclockwise for less. **(If you are adjusting from the bottom counterclockwise is more and clockwise is less)**
- g. Adjust limit so the valance is fully extended and hanging straight down from the seam of the pocket. **Close the awning**
- h. Re-attach electrical power to the control board and plug the new motor into the plug on the front arm. (Figure 1.b.) Press close on the wall switch to close the awning.

