

## **4-6 Awning Operation**

## 4-6 Awning Operation

Your motor home comes equipped with three manual awnings, a patio awning, a slide-out awning and a window awning. Zip Dee, Inc manufactures all three. An optional power awning can be purchased for the patio awning, which is manufactured by Girard RV Products, Inc. See below for basic operation of these awnings.

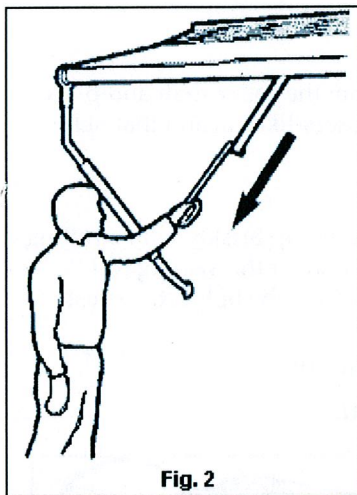
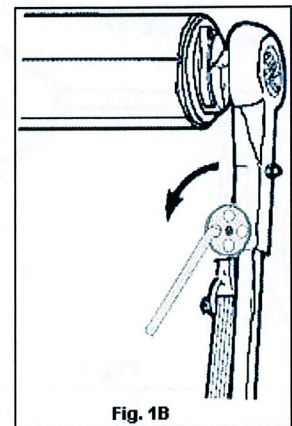
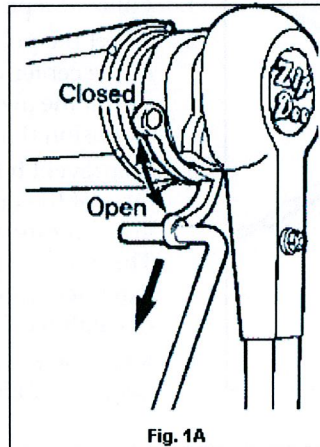
### 4-6.1 Awning Operation with Clamp Wheels

#### 4-6.1.1 Opening

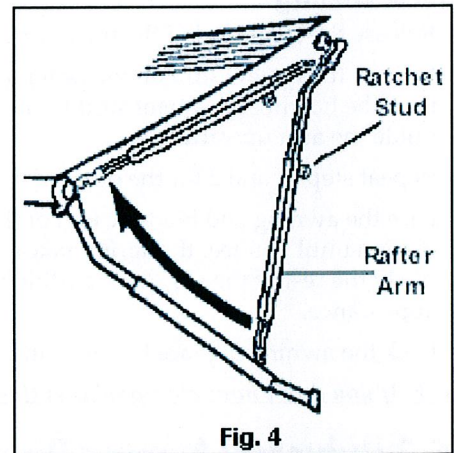
1. Insert the pull rod behind the Z-Lock lever and pull downward (Fig. 1A). This releases the awning. Then turn the clamp wheel counterclockwise and swing the assembly toward the center to free the hardware (Fig. 1B).

*NOTE: Leave Z-Lock open when awning is open to avoid damage.*

2. Insert the pull rod into the loop of the center control strap and unroll the awning by pulling it toward you (Fig. 2). Step under the awning and fold or roll the control strap toward the backside of the roller and tuck under restraining strap.

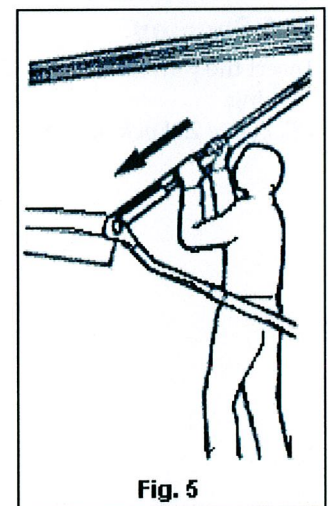


3. Release the rafter arm by pulling outward on the cap of the ratchet stud located on the upper portion of the arm (Fig. 4). Extend the arm and place the claw over the shaft of the roller.



4. Set the spring tension of the rafter arm by grasping the outer tube and pushing briskly forward in the direction of the arrow as shown in Fig. 5 until a click is heard indicating the arm is locked. At this point the awning fabric will be taut.

*NOTE: Leave Z-Lock open when awning is open to avoid damage.*





5. Raise the awning to the desired height by releasing the snap stud on the main arm and pushing up and outward on the roller assembly (Fig. 6).

REPEAT STEPS 3-6 FOR THE OTHER END OF THE AWNING.

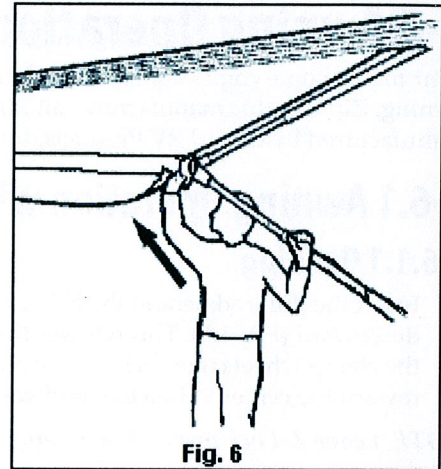


Fig. 6

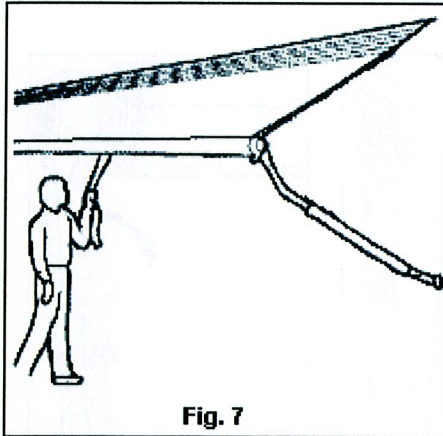


Fig. 7

**Partial Extension or "Caravan" Position**

1. Follow Steps 1 and 2 above.
2. Insert the pull rod in the loop of the center control strap and unroll the awning to the desired extension (Fig. 7).
3. To prevent billowing, hook the claw of the unextended rafter arm over the roller shaft (Fig. 4). This will require the awning be extended approximately four and one half feet.
4. Raise the awning to the desired height by following step above.

**4-6.1.2 Closing**

1. Release the snap stud of the main arm and lower the awning.
2. Release the ratchet stud on the rafter arm by pulling outward on the cap. Lift the claw from the roller shaft and place it on the height adjustment stud located on the inside of the main arm. This allows a "scissors-like" action that helps guide the arm upward.
3. Repeat steps 1 and 2 for the other end of the awning.
4. Face the awning and hold the end of the control strap firmly in one hand then push the roller up briskly with a rolling motion until you feel the spring take over. Control the speed by holding the control strap and let the awning roll freely the rest of the way. This additional force will help tighten the fabric around the roller for the tightest, neatest appearance.
5. Lock the awning in place by reversing Steps 1 and 2 of the opening procedure (Figs. 1A and 1B).

NOTE: If you don't have clamp wheels (Fig. 1B), see Universal Operation later in this manual.

**4-6.2 Universal Awning Operation**

**4-6.2.1 Opening**

1. Insert the pull rod into the Z-Lock lever and pull down (Fig. 8). This releases the awning.

NOTE: Leave Z-Lock open when awning is open to avoid damage.

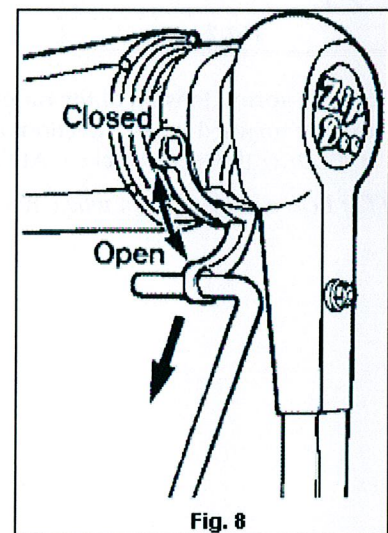


Fig. 8

2. Insert the pull rod into the loop of the center control strap and unroll the awning by pulling it toward you. (Fig. 9). Step under the awning and roll or fold the control strap toward the backside of the roller and tuck under the restraining strap.

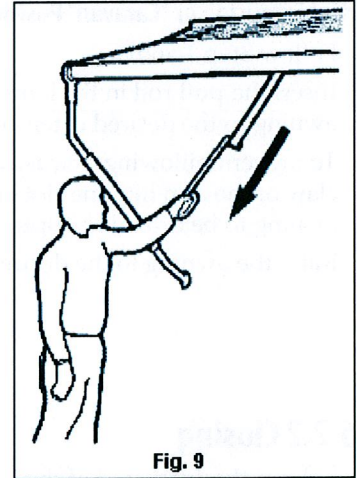


Fig. 9

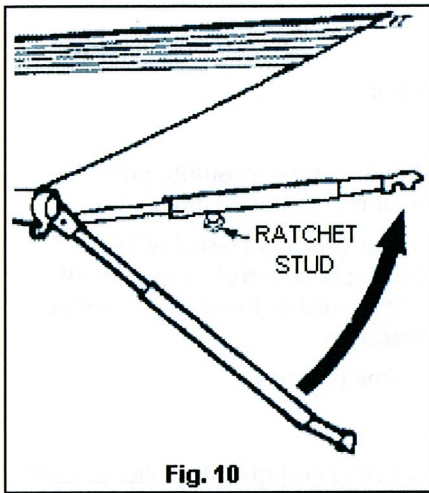


Fig. 10

3. Release the rafter arm by pulling outward on the cap of the ratchet stud. Raise the arm upward toward the case (Fig. 10). Extend the arm and set the claw shaped end into the slot of the rafter lock (Fig. 11).

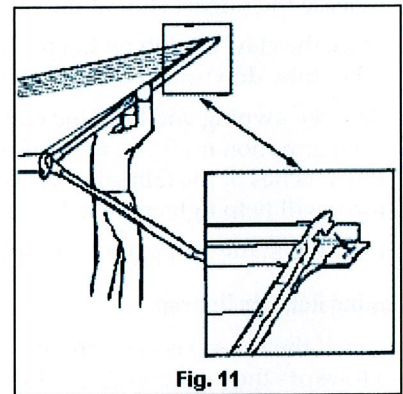


Fig. 11

4. Lock the rafter arm in position by pressing down on the steel main arm bar (Fig. 12) until the ratchet stud clicks. At this point the fabric will be taut.
5. Raise the awning to the desired height by releasing the snap stud on the main arm and pushing up and out on the roller assembly (Fig. 13).

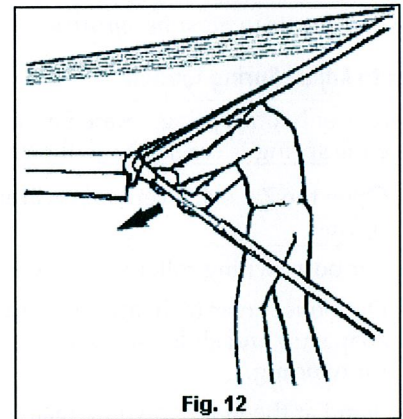


Fig. 12

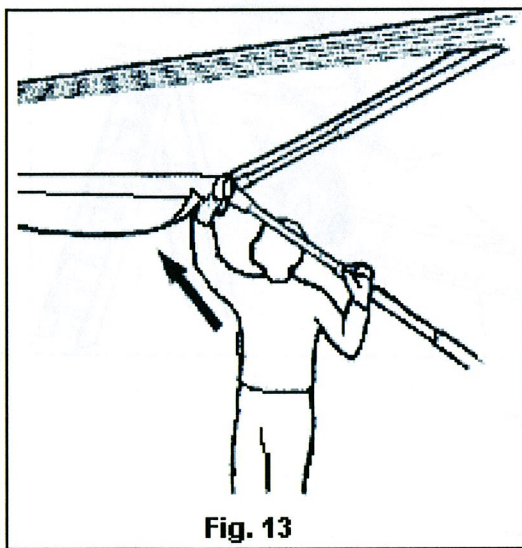


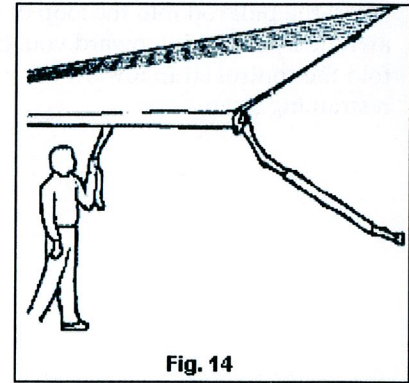
Fig. 13

*NOTE: Leave Z-Lock open when awning is open to avoid damage.*



**Partial Extension or "Caravan" Position**

1. Follow Step 1 above.
2. Insert the pull rod in the loop of the center control strap and unroll the awning to the desired extension.
3. To prevent billowing, release and raise the rafter arm (Fig. 10) and hook the claw of the arm into the slot of the rafter lock (Fig. 14). This will require the awning to be extended approximately four and one half feet.
4. Raise the awning to the desired height by following Step 5.



**4-6.2.2 Closing**

1. Release the snap stud of the main arm and lower the awning to its bottom most position.
2. Release the ratchet stud of the rafter arm and lift the claw out of the rafter hook.
3. Place the claw casting on the protruding height adjustment stud. To lock the assembly in a travel position, push the other tube downward until the ratchet stud snaps closed. Repeat Steps 1-3 for the other end of the awning.
4. Face the awning and hold the end of the control strap firmly in one hand. Push the roller briskly upward with a rolling motion until you feel the spring take over. Control the speed of closure by holding the control strap until all but 6 inches of the fabric has rolled up. Release the strap and let the awning roll freely the rest of the way. This extra force will help tighten the fabric around the roller to insure the tightest, neatest appearance.
5. Lock the awning in place by flipping the Z-lock lever into the "closed" position using the pull rod.

**If Awning Rolls Up Uneven**

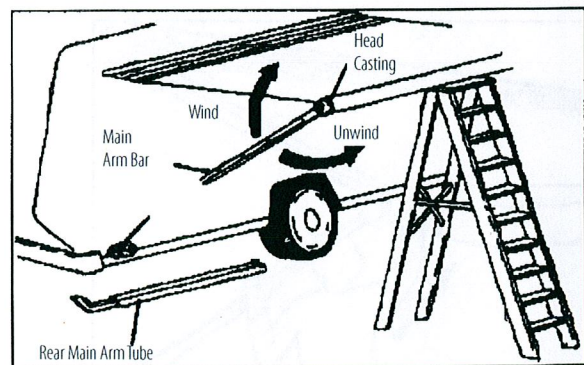
Observe if the roll-up is even and in line with the clamps (if any). If not, then unroll the awning and give the roller a slight push towards the direction it should go. If you wish to have the awning roll up more in either direction, then spiral the pull strap in that direction.

*NOTE: The strap must be spiraled around the roller. This prevents a loose roll and bunching of the fabric.*

**How to Adjust Spring Tension**

There is only one spring, located at the rear end of the awning. The winding procedure uses the main arm bar as a lever, since the spring is connected to the bar through the roller shaft and head casting.

1. Open the Z-Lock lever/levers carefully and allow the awning to open.
2. Support awning roller with ladder or with help of assistant.
3. Disconnect rear main arm from main hinge. Pull outward on snap stud and slide tube portion off from bar (to shorten arm for winding.)
4. Stand at the rear of awning facing front of vehicle and grasp main arm bar. Adjust the spring by winding clockwise to increase tension or counter-clockwise to decrease tension so that the open awning will not start to roll up until given a rolling start by hand of about 12 inches. This will eliminate the need to lock the awning open.



**▲WARNING:** The spring is under tension. Do not disconnect the bar from the head casting. The weight of the bar is enough to counterbalance the spring tension. Use of any other winding device could be dangerous if not controlled, resulting in personal injury or property damage.



- After winding, slip the main arm tube back onto the bar and reconnect it to the main hinge on the vehicle and test the tension.

**NOTE:** Leave Z-Lock lever (both ends) OPEN when awning is open to avoid damage.

#### Rafter Arm Operation

For proper rafter arm operation the ratchet stud must be correctly installed.

The ratchet stud screws into the tube using a 7/16" wrench and the flat side of the stud should face the end of the rafter tube.

The off center pin can be pushed up or down using pliers so the cap (and the pin that's attached to it) can be re-positioned.

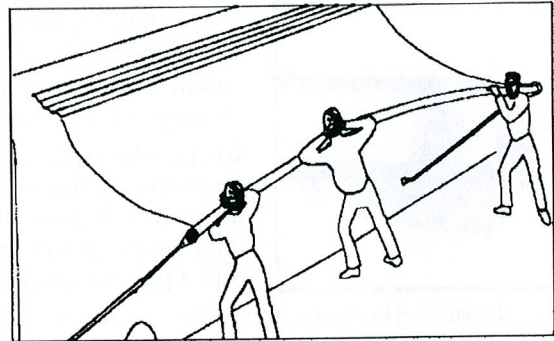
**NOTE:** The claw opening should face away from the motor home on "Universal Style hardware and TOWARDS the motor home on Contour Style hardware.

On contour hardware the ratchet stud should release easily from the counter sunk stop hole at the top of bar when opening awning.

#### How to Repair a Bowed Roller

**NOTE:** This can only be done if there is no crimp or kink in the 3" tube. If the tube is crimped, it is necessary to replace the tube.

- Unroll the awning.
- The awning should be supported and held at both ends on the shoulders of two (2) individuals, see Fig. At left. Also, the awning should be walked in toward the motor home approximately one (1) foot, to provide slack in the fabric.
- Place the bow of the roller facing up.
- A third person should hang on the tube at the center point of the bow. Doing this gradually will remove the bow.
- To check for straightness, roll the awning up. If a wobble is present, further straightening is required.



## 4-6.3 Hardware and Mechanism Maintenance

Although your Zip Dee awning requires less maintenance than any other awning, a little care (about the same amount that you give to your motor home) will keep the metal parts in top shape. The rafter arm assemblies, main arm tubes, and the awning case are anodized aluminum; the castings are high-strength aluminum alloys. To keep these parts new looking they should be cleaned once a year with a good quality non-abrasive chrome or aluminum polish.

The main arm bar and all fasteners and stress bearing shafts are stainless steel. These need only be cleaned occasionally to remove accumulated grime that might hinder their operation.

#### At the end of each season:

- Tighten any loose bolts or screws (Replace missing parts only with factory authorized replacements).
- Clean accessible hardware with non-abrasive cleaner.
- Use a silicone lubricant only on the 1/2" round shafts that protrude from each end of the roller.
- Extend all telescoping arms as far as possible to wipe off accumulated sand and dirt that can clog and scratch the protective aluminum finish. No lubrication is required on those parts.

#### Replacement Parts

Use only genuine Zip Dee replacement parts when repairs are needed. Use of substitutes may damage your awning or void your warranty. Parts may be ordered through your local Zip Dee dealer. If you need help, we are as close as your telephone or post office. Use the number and description found on the parts list in the Zip Dee booklet provided with your motor home when ordering parts and be sure to include the make, model and year of your vehicle. Warranty claims must include the damaged part. If you cannot remove the damaged parts with a replacement, you must purchase the part at full price and receive a refund (if the warranty applies) when we get the damaged part back. Take a moment to copy your hardware serial number and hardware code number from your front main arm tube here \_\_\_\_\_

All parts are sent COD unless your charge card number or check accompanies your order.



## 4-6.4 Optional Power Awning

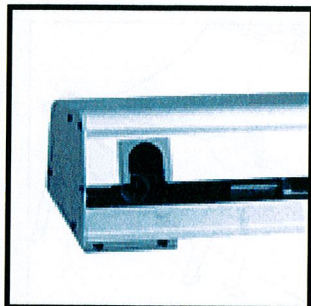
If you purchased the optional power awning by Girard RV Products, Inc. below you will find the basic operation instructions for this awning.

### 4-6.4.1 Operating Instructions

The Girard G-2000 Lateral Arm Awning incorporates the very latest in technology and design. The box awning offers total protection in all weather and features the following advanced features:

- Convenient push button operation - optional remote control for the ultimate in state of the art convenience.
- Heavy duty, lateral arms eliminate clumsy, unattractive, side support arms. The angle of the arms is adjustable from 5 to 35 degrees for maximum comfort..
- Provides 25% more shade than traditional roll-up awnings. The 100% acrylic fabric is weatherproof, permeable to air, and resistant to mildew, rotting and fading.
- Equipped with a manual crank for operation in the event of power failures.
- Exclusive wind sensor system automatically retracts awning in the event of excessively high winds.

### 4-6.4.2 Crank Operation:



A hand crank is supplied with every awning and easily telescopes from 50 to 82 inches. Simply insert the end of the crank into the receiver, which is located at either the right or left side of the awning. Push up and rotate the handle one-quarter turn clockwise, then let the handle drop about a half-inch. You should then feel the handle lodge in the receiver. You are now ready to extend the awning.

To open the awning, rotate the handle in a counter clockwise direction. To close the awning, rotate in a clockwise direction. When extending awning to full extension, extend only until the elbowing arms “click” and lock themselves into place. Unrolling the awning further than this point will result in excessive slack in awning fabric. Additionally, when awning is rolled past full extension, the fabric can reverse from the bottom of the roller tube to the

top of the tube. The fabric must always roll from the bottom. If this should happen, simply crank the awning all the way out until the roller tube is exposed and continue cranking in the same direction. The fabric should then be rolling onto the bottom of the roller tube.

To open the awning, rotate the handle in a counter clockwise direction. To close the awning, rotate in a clockwise direction. When extending awning to full extension, extend only until the elbowing arms “click” and lock themselves into place. Unrolling the awning further than this point will result in excessive slack in awning fabric. Additionally, when awning is rolled past full extension, the fabric can reverse from the bottom of the roller tube to the top of the tube. The fabric must always roll from the bottom. If this should happen, simply crank the awning all the way out until the roller tube is exposed and continue cranking in the same direction. The fabric should then be rolling onto the bottom of the roller tube.

When the awning is extended to the desired position, push up on the crank handle and turn counter clockwise on quarter turn, which will release the crank handle from the housing. The crank handle can then be stored in a convenient place.

### 4-6.4.3 Motorized Operation (without wind sensor)

The motorized operation is simplicity in itself. The 110-volt motor is housed in the roller tube where it is protected from the elements.

To extend the awning all the way, move the switch to the down position.

After depressing the switch, the awning will then extend to its full projection. To retract the awning, press the switch in the up position. There is no need to hold the switch once it has been activated. To stop the awning at any point in its projection or retraction, move the switch to the middle position. The switch should be left in the center position at all times when the awning is stationary.

The motor used in the Girard G-2000 will use approximately 300 watts and will draw approximately 3 amps of power.

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**▲WARNING:** The motor in the Girard G-2000 is not designed for continuous use. In the event that the motor is used to excess, it will automatically shut off and be inoperative until the internal breaker cools down and resets. Run time is 4-5 minutes per hour. Reset time - 30 minutes to 1 hour depending on outside temperature.

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## 4-6.4.4 Wind Sensor Option:

### Wind Sensor V with Remote Control Summary

If your Girard G-2000 awning is fitted with a wind sensor, your awning is designed to retract automatically in the event of high winds. The Wind Sensor will operate as long as it has a 110 volt power supply and the wind has unrestricted access to the wind sensor cups on the roof of your coach.

To operate the awning, simply push the button, momentarily, to extend the awning. The awning will continue to open until it reaches its full extension. It will then stop automatically. Pressing the button after the awning is fully extended will retract the awning automatically. Once the awning is fully closed, it will stop automatically, and the motor will turn off. The awning can be stopped at any point, and in either direction, by pushing the button while the awning is in process of either extending or retracting.

The wind sensor is dominant and will override any manual commands in the event of excessive winds. When the wind sensor is activated, the awning will close completely. The awning will NOT re-open automatically. It must be re-opened by once again pressing the button on the wall mount switch. It is recommended, however, to use the warnings of the wind sensor and leave the awning IN until the winds subside.

### Wind Sensor V Control

#### Description

The Wind Sensor V is a single motor control designed for use on the Girard G-2000 Automatic Awning. The unit features the wind sensor control box, the wind sensor anemometer, and an attractive indoor, push-button wall mount switch. The Wind Sensor V Remote includes the additional, hand-held remote control, which is electronically integrated with the control box.

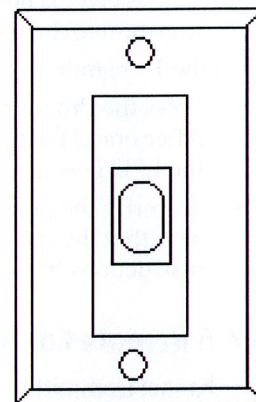
#### Operation

1. Always be sure that sufficient 110 Volt power is supplied to the awning system for correct functioning of all component parts (controller, anemometer, awning motor, etc.) i.e., be sure that either the inverter is on, the generator is functioning, or the vehicle is connected to shore power.
2. Turn the vehicle power ON and/or turn the circuit breakers to ON.
3. Push the button on the Wind Sensor V control switch to EXTEND the awning. The button can be released and the awning will continue to open until it reaches full extension. It will then stop automatically.
4. Push the button on the Wind Sensor V control switch to RETRACT the awning. The button can be released and the awning will continue to retract until it is fully closed. The awning motor will then turn off automatically.
5. Push the button during either the extend or retract mode to STOP the awning at any desired position. The button can also be used to change direction of the awning by pushing it twice.

**NOTE:** The motor supplied with your Girard G-2000 Awning is a high torque/low RPM motor, and has been carefully selected for its reliability and application compatibility. It is designed for intermittent use with a rating of 4 minutes/hour. If the motor's run-time exceeds this time period, a built-in circuit breaker will disable the motor from operation. This condition indicates normal operation of your awning system, and generally only occurs during excessive adjustment periods. If this condition should occur, please allow sufficient time (up to one hour, depending on the outside temperatures) for the motor to reset and use the manual override feature.

### Wind Sensor Function

The Wind Sensor V Controller, and the Wind Sensor V Anemometer work together to continuously monitor the wind speeds, at any given minute, around your awning. If the actual wind speed becomes GREATER than the wind speed setting of your controller, a two (2) second delay occurs, and a signal is sent to the awning motor to retract the awning. THE AWNING WILL REMAIN IN THE RETRACTED POSITION UNTIL SUCH A TIME THAT IT IS ONCE AGAIN EXTENDED BY PRESSING THE BUTTON OF THE SWITCH PANEL.





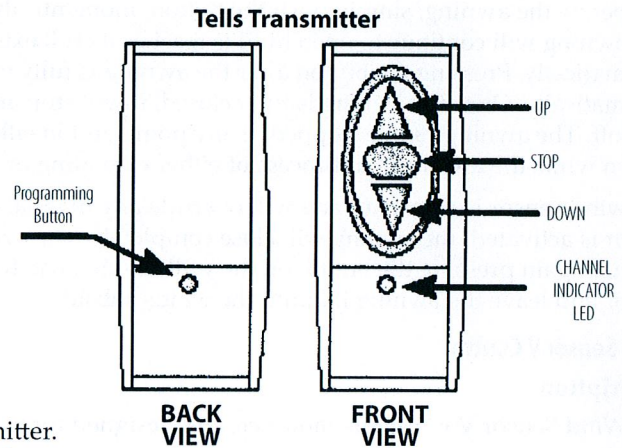
### Adjusting the Wind Speed Setting

The Wind Sensor V has been factory pre-set to a maximum wind speed of 22 MPH. Under no circumstances should this level be set at higher speeds. It is recommended, however, that you become familiar with the location of your Wind Sensor Control Box. It is usually located inside of an upper cabinet. In the event that you wish to reduce the pre-set wind speed, locate your control box and remove the four (4) Phillips screws that secure the cover. Remove the cover and notice the small dial located near the center of the box. This dial should be pointed at 22. The minimum setting will be approximately 12 MPH.

### 4-6.4.5 Remote Control Programming

Normally, your remote control will come pre-programmed. However, if it is not, follow this procedure:

1. On the Control Box
  - To put the receiver in its programming mode, press the PROGRAM button and hold, until the LED lights up and then release. The Programming Button is located on the PCB Board inside the control box.
  - The receiver is now ready to memorize any transmitter/channel for a period of one (1) minute.
2. On the Transmitter
  - Press the Programming Button on the back of the transmitter. After one (1) minute, or once the receiver is programmed, the LED goes off. The transmitter is now programmed.
  - To verify the program, press the DOWN button to make sure that the awning is extending. If it does not, repeat the instructions from number one (1) above.



### 4-6.4.6 Remote Control Operation

#### Single channel transmitter:

- Press the UP, DOWN, or STOP button.
  - The programmed RTS receivers are activated.

#### Four channels transmitter:

- Select the channel of the motor module you wish to control.
  - The corresponding LED is blinking during 3 seconds (the channel is still memorized for 30s and then the transmitter returns to channel 1).
- Press the UP, DOWN or STOP button.
  - The programmed RTS receivers are activated.

#### Battery Life

The transmitters are filled with a 3V battery (type 2430) which provides about three years operation assuming 4 operations per day. When the battery becomes discharged, the control LED no longer lights up when a command is sent, and the command is not carried out. The module has an integrated backup control under the programming button. It operates by successive presses: raising, stop, lowering, stop.

#### How to Change the Battery:

- Remove the back cover of the transmitter with a screwdriver.
- Slide the battery out of its housing by pushing it with a screwdriver.
- Insert the new battery



### 4-6.4.7 Setting Motor Limits

IF THE AWNING DOES NOT CLOSE COMPLETELY, and there is no apparent binding of any awning components, then the fabric has most likely stretched or shifted slightly over time. This can be easily corrected by adjusting the motor limits. This will allow the awning roller tube to run a split second longer to draw the awning fabric in tighter.

#### The Adjustment:

- The MO (manual override) motor has manual limit switches for both the OUT (extend) and the IN (retract).
- The limit switches are adjusted by inserting the black plastic key (supplied) or a 5/32" / 4mm Allen wrench into the appropriate hole on the underside of the motor.
- The motor is usually located at the front of the awning inside the roller tube. The limit switches can be accessed by opening the awning a few feet, and are located above, at the end of the roller tube in the exposed end of the motor. These switches will appear as (2) hex shaped holes. You will also see a double arrow with a (+) and (-) sign next to each switch.
- The IN limit is the switch located closest to the vehicle side. The Girard G-2000 provides an exclusive current limiting device (MS-1) which detects the current increase as the awning box closes, and then shuts off power to the motor. This device eliminates the need or frequency for future in-bound limit switch adjustments. If this adjustment is still required however, and the awning box does not close completely, then this switch should be adjusted. To make the awning close MORE, first turn your main awning wall switch or wind sensor switch to the IN (retract) position. Place the plastic adjustment tool or Allen wrench into the switch and turn toward the (+) direction. This action will create a tighter fit as the awning box closes. Listen carefully to the motor to assure that the current limiting device has shut power off to the motor.
- The OUT limit is the switch located in the outer most location. This switch is factory pre-set so that the motor stops turning at the precise moment that the arms reach full extension. If further adjustment is required however, and to make the awning extend more and to release more fabric, first, place the main awning wall switch or wind sensor switch to the OUT (extend) position and extend the awning until the motor stops. Place the plastic adjustment tool or Allen wrench into the limit switch and turn toward the (+) arrow. The awning will "follow" as you turn. Turn switch until awning reaches full extension and the arms "click" into their locked position. To make the awning extend LESS, turn switch toward the (-) arrow, bring the awning in a few inches, then re-extend to see the new stop location.
  - To adjust IN Limits: Use the INNER most switch (+) closes more (-) closes less
  - To adjust OUT Limits: Use the OUTER most switch. (+) extends more (-) extends less.

*NOTE: If motor is mounted on LEFT end of the awning, the functions of the limit switches will be reversed.*

### 4-8.4.8 Lead Rail Adjustments

#### Lateral Shifting of Lead Rail

##### Tools Required:

- 5mm (3/16") Allen Wrench
- Phillips Screwdriver
- Rubber Mallet
- 1/8" Drill Bit and Drill Motor

The Lead Rail has shifted toward the front or toward the rear of the awning casing, preventing the awning from closing properly.

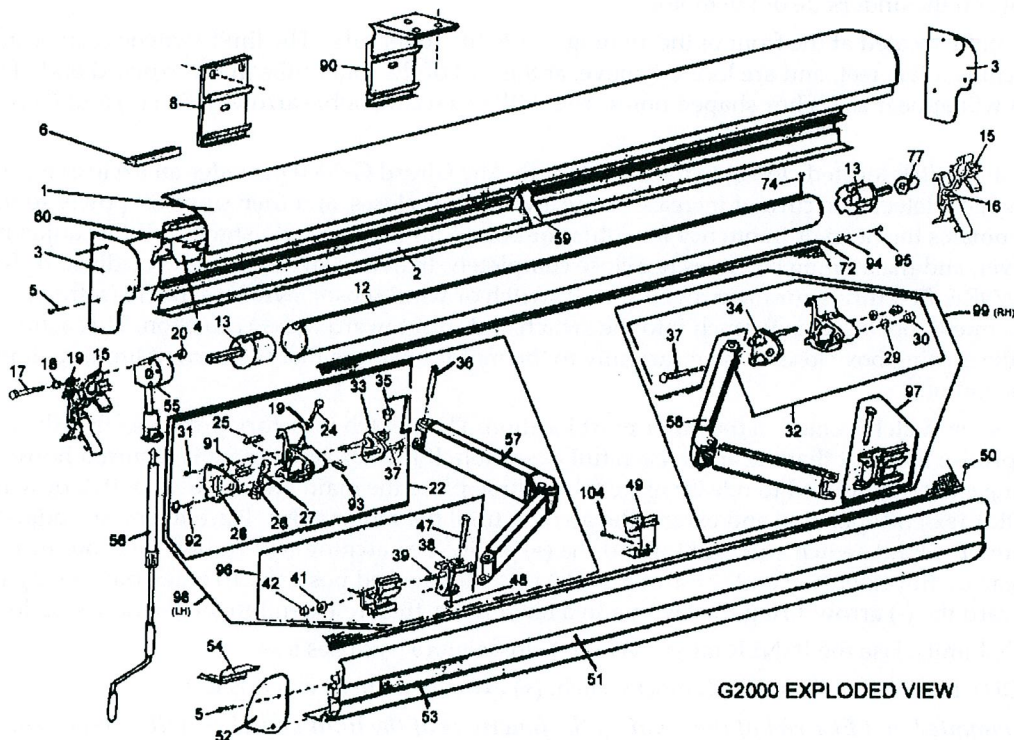
1. Open the awning about 2 feet.
2. Locate the connection bracket at the forward most portion of the arm at the Lead Rail. (Item #43 of Exploded view). Using an Allen Wrench, loosen the center set screw on this bracket, by 3/4 turn, which un-tightens this bracket from the Lead Rail. Repeat for all arms. Do NOT loosen the offset leveling screw found on the upper corner of the bracket assembly.
3. With a Phillips Head Screwdriver, remove the (2) fabric set screws (Item #50 of Exploded View) which secure the fabric to the Lead Rail.
4. Close the awning to about 4 inches and, using a rubber mallet, tap on the end of the Lead Rail, allowing it to shift relative to the fabric and arm attachments.



5. Close the awning to check for proper alignment.
6. Re-open the awning to about 2 feet and re-tighten set screws at each arm connection. Finish by replacing both fabric set screws.

**NOTE:** These screws should be located approx.  $\frac{3}{4}$ " from the edge of the fabric. If the adjustment process places either of these 2 screws further than this point, drill new holes (1/8" dia), and re-install fabric screws.

7. Close the awning completely to check for final fit.



### "IN" Adjustment of Lead Rail

#### Tools Required

- 5mm (3/16") Allen Wrench
- Rubber Mallet

This adjustment may be required if the Lead Rail remains out from the awning casing at one end. The Limit Switches may need to be adjusted. Please see that section entitled ADJUSTING MOTOR LIMIT SWITCHES. Otherwise, arms may need to be adjusted as follows:

1. Open the awning about 16 inches.
2. At the selected arm, locate the connection bracket at the forward most portion of the arm at the Lead Rail (Item #43 of Exploded View). Using a 5mm (3/16) Allen Wrench, loosen the center set screw on this bracket, by  $\frac{3}{4}$  turn, which un-tightens this bracket from the Lead Rail. This bracket should now be free to slide. Do NOT loosen the offset leveling screw found on the upper corner of this bracket assembly.
3. Close awning completely and the arms will relocate themselves to the proper location. Re-open the awning just far enough to re-tighten the arm screws.

### Pivotal Adjustment of Lead Rail

#### Tools Required:

- 5mm (3/16") Allen Wrench
- 17mm (11/16) Open End Wrench



This adjustment, not being available on earlier models, affects the pivotal angle of the Lead Rail and is seldom required, as, this angle is factory preset. However, if adjustments are required, the procedures are:

1. Open the awning about 16 inches.
2. Locate the connection bracket at the forward most portion of the left/rear arm, i.e., the arm furthest from the motor. (Item #43 of Exploded View)
3. The "pivoting" style connection bracket can be identified by having one set screw in the center of the bracket, in addition to a second set screw at the upper portion of the pivoting section of the bracket assembly. The non-pivoting style bracket has two set screws, in-line, in the center of the bracket.
4. If the pivoting style bracket is present, grasp the Lead Rail with one hand and manually pivot, up and down, the Lead Rail on this bracket. It should pivot freely. If it does not pivot freely, loosen slightly, the large lock nut on the end of the horizontal bolt that fastens these two pivoting brackets together. This should free the two brackets and allow a pivot between them. Repeat for each arm, if necessary.
5. Using the awning switch and motor, close the awning to about 3". Check the angle of the Lead Rail in relation to the awning casing. The Lead Rail should approach the awning casing with the TOP portion of the Lead Rail striking the casing FIRST. From the TOP of the Lead Rail, a 10 degree angle should occur as it angles away from the awning casing. If this angle is not present, again open the awning to about 18". Locate the UPPER set screw in the pivoting portion of the connection bracket. Using a 5mm (3/16") allen wrench, turn this set screw (counterclockwise) to achieve the desired 10 degree angle. Repeat this procedure for each of the arm connections, assuring that the proper angle and "free pivot" condition is maintained.

### Height Adjustment of Arms (see Exploded View - Item No. 37)

#### Tools Required:

- 19mm (3/4") Open End Wrench
- 10mm (3/8") Open End Wrench

This adjustment may be required if, as the awning Lead Rail closes into the awning casing, the "elbow" of one of the arms is hanging downward, hitting the bottom of the casing. This adjustment is usually required after an Arm replacement.

1. Open the awning about 18 inches.
2. At the selected turn, loosen the (2) Locknuts located at the side of the upper arm connection using a 19mm (3/4") Open End Wrench.
3. See Item No. 92 in Exploded View. Locate the smaller adjustment bolt located directly under the rear Locknut that was just loosened. Place a 10mm (3/8") Open End Wrench around this bolt head, and rotate the wrench in a TIGHTEN direction to RAISE the arm. Slight rotation is all that is necessary. Likewise, LOOSENING the bolt will LOWER the arm. As this adjustment is being performed, keep in mind that after re-tightening the Locknuts, the arm will raise slightly further.
4. Tighten the (2) locknuts located on the side of the arm connection.
5. Close the awning completely, and check for proper fit.

**PITCH ANGLE:** The awning comes factory pre-set with a pitch angle of approximately 20°. This represents the minimum angle recommended for proper rain run-off. If it is desired to increase this angle, loosen the two (2) lock nuts located on the outside upper joint of each arm using a 3/4" or 19 mm wrench (see fig. 2a). Adjust the arms downward by rotating the bolt head at the bottom of the arm connection in a counter clockwise direction (looking from the bottom up) (see fig. 2b). Likewise, rotating the bolt in a clockwise direction will raise the arm. After all arms are adjusted to an equal height, re-tighten lock nuts on the side of each arm (see fig. 2c).

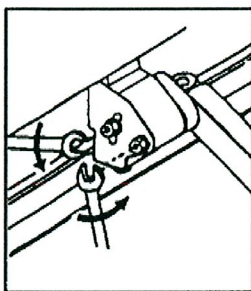


Figure 2a

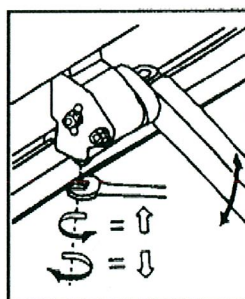


Figure 2b

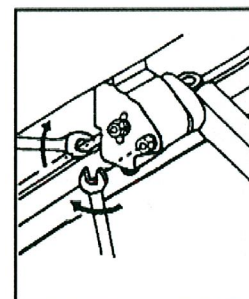


Figure 2c



#### 4-6.4.9 Care and Cleaning of the Acrylic Fabric:

Acrylic fabric should be cleaned regularly before substances such as dirt, leaves, etc. are allowed to accumulate on, and become embedded in the fabric. The fabric can be cleaned without being removed from the awning casing. Simply brush off any loose dirt, leaves, etc. Hose down and clean with cloth and a mild solution of natural soap in lukewarm water.

Rinse thoroughly to remove soap. **DO NOT USE DETERGENTS.** Allow to air dry, preferably on a warm sunny day. Should you have to retract the awning when the fabric is wet, it should be extended at the first opportunity to finish air drying.

A new acrylic fabric cleaner is now available at Girard Systems. This unique product has been specially formulated to clean all acrylic awning fabrics. Call (800) 382-8442 for ordering information.

**Warranty:** Girard Systems offers a five year warranty for its awnings to be free from defects in material and workmanship under normal and proper use. For the full warranty look in the black box material that was supplied with your coach or go to <http://www.girardrv.com>

Please remember that the Girard G-2000 Awning is a high-technology, retractable structure, and is built with a high level of pride and workmanship. All steps have been taken to provide a product of the highest quality, performance, and weather protection, including wind and rain protection. As any other investment, it should be respected and protected. It is the owners responsibility to use good judgment and assert caution when using this product in heavy weather conditions. During heavy or unpredictable rain conditions, or during strong winds, the awning should be retracted.



## 4-6.4.10 Troubleshooting

*NOTE: These troubleshooting tips are offered to you for informational purposes and it is recommended that the following adjustments be made by an authorized service center. This guide will, however, allow you to become more familiar with your awning and will provide you with adequate knowledge in the event of an emergency.*

PROBLEM	SOLUTION
Lead Rail is binding on side of awning casing, i.e. is offset from awning casing.	Open awning about three (3) feet. Loosen both set screws on each arm at their point of connection to the lead rail. Remove both fabric set screws located at each end of the lead rail. The lead rail is now ready to be shifted. Close the awning to about four (4) inches and, using a rubber mallet, tap on the end of the lead rail to move the rail over. Check for proper alignment, retighten the set screws, and replace the fabric set screws. For more information see LATERAL SHIFTING OF LEAD RAIL.
One part of the box (opposite end from motor) does not close tightly. Motor end closes correctly.	See "IN AND OUT ADJUSTMENT OF LEAD RAIL."
After above adjustment, one end of box (opposite end from motor) STILL does not close tightly. Motor end closes correctly.	On later model awnings, a "pivotal" adjustment of the lead rail is available. This means that the lead rail is allowed to PIVOT on its connection bracket to the awning ARMS. First, check that this option is present. If so, check that the lead rail is free to pivot on its pivot bolt. If not, loosen the lock nut on the pivot bolt by 1/2 turn. Additionally, check that the pivot angle is correct.
The motor will not operate.	Check that the GFI circuit breaker in the vehicle is turned on. Also, if the vehicle is equipped with an awning main power switch, located inside the cabinets, check that it is turned on. The 110V motor in the Girard awning is for intermittent use only (4 Min Per Hour) and is designed to "temporarily cut out" if it is used to the point of overheating. In this event, the motor must be allowed to cool, to provide time for its built-in circuit breaker to reset. Please allow up to one hour, depending on outside air temperature, for this cool down period. The manual crank can be used during this period.
The motor will not operate, or the motor will operate long enough for the awning to extend 10 to 12 inches and then stops.	The motor is not receiving enough amps, i.e., the inverter output is low. Check that a minimum of 10 amps is running. If not, turn on the generator or go to shore power.
The fabric is loose when the awning is fully extended, i.e., the roller keeps turning after the awning arms have locked open.	The motor "OUT" limits need to be re-set (see Setting Motor Limits section) to ensure that the motor stops when the arms are fully extended and locked.
The box does not close completely, i.e., the motor stops before the lead rail has retracted completely (on either end) into the awning casing. There is no apparent binding of the awning components.	Your awning is equipped with a MO (manual override) motor which has manual limit settings. The "IN" limit may need to be re-set to allow the box to close tighter. See "Setting Motor Limits" section.
As the awning is closing, the "elbow" of one or more of the arms is hanging downward, preventing the case from closing.	Open the awning about 18 inches. At the selected arm, loosen the two (2) large lock nuts located at the side of the upper arm connection. Locate the smaller adjustment bolt head directly under the REAR lock nut and rotate SLIGHTLY UPWARD to raise the arm. Retighten lock nuts. NOTE: After re-tightening lock nuts the arm will raise slightly further. See Height Adjustment of Arms.



### 4-6.4.11 Adjustments

#### Adjusting Motor Limit Switches

##### Tools Required

Black plastic key provided with awning or 4mm Allen Wrench

##### PROCEDURE

The limit switches are adjusted at the factory, prior to shipment, such that the awning motor stops at the EXACT moment the awning box closes. Likewise, the awning motor is set to stop at the EXACT moment that, while opening, the elbowing arms "click" into an outward locked position. Occasionally, after shipment and installation, the motor rotational limits "creep" out of adjustment. It is always wise to check the motor limits after installation to assure that the awning is opening and closing correctly. Additionally, over a period of time the awning fabric can stretch, causing the need for simple motor limit adjustments.

**VERY IMPORTANT:** Extreme care must be taken when setting the "IN" limits of the motor, such that the motor turns off EXACTLY the same time the box closes. Otherwise, the motor will continue to run, as it has not reached its limit. This condition, if not corrected, will substantially reduce motor life. Turn the awning switch OFF.

If adjustments are required, please follow these instructions:

1. The BMO (Manual Override) motor has limit settings for both the OUT direction (projection) and the IN direction (retraction).
2. Limit switches are adjusted using the black plastic key (provided) or a 4mm Allen Wrench.
3. Open the awning a few feet and locate the awning motor, installed standard at the right end of the awning (front end). It is a cylindrical motor mounted inside the awning roller tube. The limit switches are mounted inside the black casing at the exposed end of the motor. Notice at the limit switches a BLACK arrow and a RED arrow, both with a (+) plus and (-) sign. The actual limit switch is the recessed hole next to the corresponding arrow.
4. The IN limit is the BLACK arrow. To make the awning close MORE, first turn the main awning wall switch or Wind Sensor switch to the IN (retract) position. At the motor, insert the tool and turn the switch next to the BLACK arrow in the direction of the (+) sign. ¼ turn represents approximately 1" of the awning movement. This action will create a tighter fit as the awning box closes. To make it close LESS, turn in the direction of the (-) sign. See Fig. 1.

*NOTE: If the awning motor is installed on the LEFT end of the awning, the actions of the red and black arrows will be reversed.)*

#### FOR MOTORS WITH BLACK PLASTIC CASINGS ONLY

To adjust IN Limits: Use switch next to BLACK arrow (+) closes more (-) closes less

To adjust OUT Limits: Use switch next to RED arrow (+) extends more (-) extends less

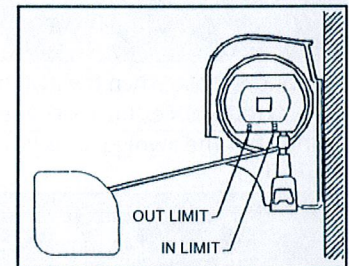


Fig. 1 Motors with Black Plastic Casings

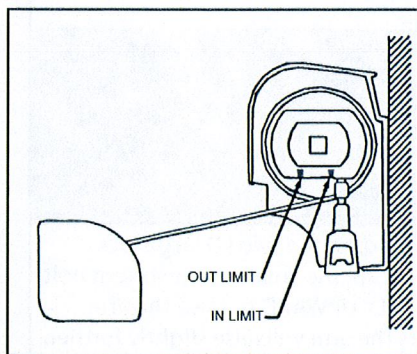


Fig. 2 Motors with Silver Aluminum Casings

#### FOR MOTORS WITH SILVER ALUMINUM CASINGS:

To adjust IN Limits: Turn the switch located toward the REAR of the motor. (+) closes more (-) closes less.

To adjust OUT Limits: Turn the switch located toward the FRONT of the motor. (+) extends more (-) extends less.

The OUT limit is the RED arrow. To make the awning extend MORE and release more fabric, first turn the main awning wall switch or the Wind Sensor switch to the OUT (extend) position and extend the awning to its maximum position. Proceed by turning the limit switch next to the RED arrow in the direction of the (+) sign. To make the awning extend LESS, turn the switch in the (-) direction. See Fig. 1.

*NOTE: If the awning motor is installed on the LEFT end of the awning, the actions of the red and black arrows will be reversed.*

*NOTE: Never set outward limits such that slack fabric occurs after full extension of the arms. Adjust the limit switches such that the motor stops at the EXACT time that the elbowing arms "click" into a locked position.*



### 4-6.4.12 Adjusting the Awning Pitch Angle

#### Tools Required:

19mm (3/4") Open End Wrench

The awning comes factory pre-set with a pitch angle of approximately 20 degrees. If it is desired to increase the angle, loosen the (2) lock nuts located on the outside upper joint of each arm using a 3/4" or 19mm wrench. See Fig. 2a. Adjust the arms DOWNWARD by rotating the bolt head at the bottom of the arm connection in a CLOCKWISE direction (looking from the bottom up). See Fig. 2b. Likewise, rotating the bolt in a COUNTER CLOCKWISE direction will RAISE the arm. After all arms are adjusted to the desired height, re-tighten lock nuts on the side of each arm. See Fig. 2c

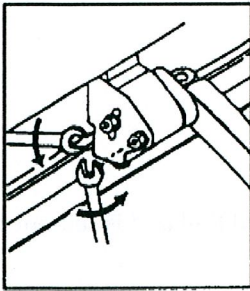


Figure 2a

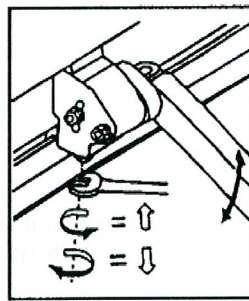


Figure 2b

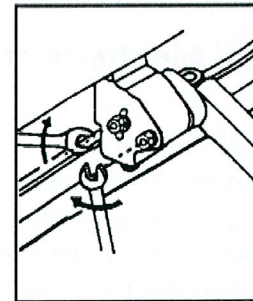


Figure 2c

### 4-6.4.13 Lead Rail Adjustments

#### Lateral Shifting of Lead Rail

#### Tools Required:

- 5mm (3/16") Allen Wrench
- Phillips Screwdriver
- Rubber Mallet
- 1/8" Drill Bit and Drill Motor

The Lead Rail has shifted toward the front or toward the rear of the awning casing, preventing the awning from closing properly.

1. Open the awning about 2 feet.
2. Locate the connection bracket at the forward most portion of the arm at the Lead Rail. (Item #43 of Exploded View). Using an Allen Wrench, loosen the center set screw on this bracket, by 3/4 turn, which un-tightens this bracket from the Lead Rail. Repeat for all arms. Do NOT loosen the offset leveling screw found on the upper corner of the bracket assembly.
3. With a Phillips Head Screwdriver, remove the (2) fabric set screws (Item #50 of Exploded View) which secure the fabric to the Lead Rail.
4. Close the awning to about 4 inches and, using a rubber mallet, tap on the end of the Lead Rail, allowing it to shift relative to the fabric and arm attachments.
5. Close the awning to check for proper alignment.
6. Re-open the awning to about 2 feet, and re-tighten set screws at each arm connection. Finish by replacing both fabric set screws.

**NOTE:** These screws should be located approx. 3/4" from the edge of the fabric. If the adjustment process places either of these 2 screws further than this point, drill new holes (1/8" dia) and re-install fabric screws.

7. Close awning completely to check for final fit.

### 4-6.4.14 "IN" Adjustment of Lead Rail

#### Tools Required:

- 5mm (3/16") Allen Wrench
- Rubber Mallet



This adjustment may be required if the Lead Rail remains out from the awning casing at one end. The Limit Switches may need to be adjusted. Please see that section entitled ADJUSTING MOTOR LIMIT SWITCHES. Otherwise, arms may need to be adjusted as follows:

1. Open the awning about 16 inches.
2. At the selected arm, locate the connection bracket at the forward most portion of the arm at the Lead Rail (Item #43 of Exploded View). Using a 5mm (3/16) Allen Wrench, loosen the center set screw on this bracket, by  $\frac{3}{4}$  turn, which un-tightens this bracket from the Lead Rail. This bracket should now be free to slide. Do NOT loosen the offset leveling screw found on the upper corner of this bracket assembly.
3. Close awning completely and the arms will relocate themselves to the proper location. Re-open the awning just far enough to re-tighten the arm screws.

#### 4-6.4.15 Pivotal Adjustment of Lead Rail

##### Tools Required:

- 5mm (3/16") Allen Wrench
- 17mm (11/16) Open End Wrench

This adjustment, not being available on earlier models, affects the pivotal angle of the Lead Rail and is seldom required, as, this angle is factory preset. However, if adjustments are required, the procedures are:

1. Open the awning about 16 inches.
2. Locate the connection bracket at the forward most portion of the left/rear arm, i.e., the arm furthest from the motor. (Item #43 of Exploded View).
3. The "pivoting" style connection bracket can be identified by having one set screw in the center of the bracket, in addition to a second set screw at the upper portion of the pivoting section of the bracket assembly. The non-pivoting style bracket has two set screws, in-line, in the center of the bracket.
4. If the pivoting style bracket is present, grasp the Lead Rail with one hand and manually pivot, up and down, the Lead Rail on this bracket. It should pivot freely. If it does not pivot freely, loosen slightly, the large lock nut on the end of the horizontal bolt that fastens these two pivoting brackets together. This should free the two brackets and allow a pivot between them. Repeat for each arm, if necessary.
5. Using the awning switch and motor, close the awning to about 3". Check the angle of the Lead Rail in relation to the awning casing. The Lead Rail should approach the awning casing with the TOP portion of the Lead Rail striking the casing FIRST. From the TOP of the Lead Rail, a 10 degree angle should occur as it angles away from the awning casing. If this angle is not present, again open the awning to about 18". Locate the UPPER set screw in the pivoting portion of the connection bracket. Using a 5mm (3/16") Allen Wrench, turn this set screw (counterclockwise) to achieve the desired 10 degree angle. Repeat this procedure for each of the arm connections, assuring that the proper angle and "free pivot" condition is maintained.

#### 4-6.4.16 Height Adjustment of Arms

(see Exploded View - Item No. 37)

##### Tools Required:

- 19mm (3/4") Open End Wrench
- 10mm (3/8") Open End Wrench

This adjustment may be required if, as the awning Lead Rail closes into the awning casing, the "elbow" of one of the arms is hanging downward, hitting the bottom of the casing. This adjustment is usually required after an Arm replacement.

1. Open the awning about 18 inches.
2. At the selected arm, loosen the (2) Locknuts located at the side of the upper arm connection using a 19mm (3/4") Open End Wrench.
3. See Exploded View Item #92. Locate the smaller adjustment bolt located directly under the rear Locknut that was just loosened. Place a 10mm (3/8") Open End Wrench around this bolt head, and rotate the wrench in a TIGHTEN direction to RAISE the arm. Slight rotation is all that is necessary. Likewise, LOOSENING the bolt will LOWER the arm. As this adjustment is being performed, keep in mind that after re-tightening the Locknuts, the arm will raise slightly further.
4. Tighten the (2) locknuts located on the side of the arm connection.
5. Close the awning completely, and check for proper fit.