



**A&E Systems®**  
by Dometic

## INSTRUCTIONS FOR INSTALLATION AND ALIGNMENT OF REPLACEMENT SPRING RAFTER

3108707.104 - 3108707.112

3108707.120 - 3108707.138

3108707.146 - 3108707.153

3108707.161 - 3108707.179

### KIT CONTAINS:

|                        |                                |
|------------------------|--------------------------------|
| Right or left hand arm |                                |
| 1 ea 31046XX.XXX       | RH or LH Spring Rafter         |
| 1 ea 3108709.365       | Spring Rafter Mounting Bracket |
| 1 ea 3108527.015       | Instructions                   |

### TOOLS REQUIRED:

|                |               |                      |
|----------------|---------------|----------------------|
| Duct Tape      | Step Ladder   | Pop Rivet Tool       |
| Measuring Tape | Drill         | Wrenches             |
| 1/8" Drill Bit | Screw Drivers | 1/8 x 3/8" Pop Rivet |

## A. GENERAL INSTRUCTIONS

The replacement of the spring rafter must be done by a qualified service technician. Care must be taken, when replacing spring rafter. Rafters are under spring tension, and will extend quickly.



**Use extreme care. Rafters under spring tension are dangerous. If not controlled, they will extend quickly. Keep hands and clothing clear of arms as personal injury may result.**



**These instructions 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.**

## B. SPRING RAFTER REMOVAL

1. The spring rafters must be secured with duct tape before they can be safely removed from the lead rail. Extend the awning 18-20 inches. See FIG. 1
2. Wrap gray tape around the rafter elbows to prevent them from extending. See FIG. 1
3. Loosen the 1/2" locknut holding the support arm to the lead rail. Slide the support arm off lead rail. See FIG. 2
4. Loosen the spring rafter bracket in the lead rail so that it can slide out of the lead rail.

FIG. 1

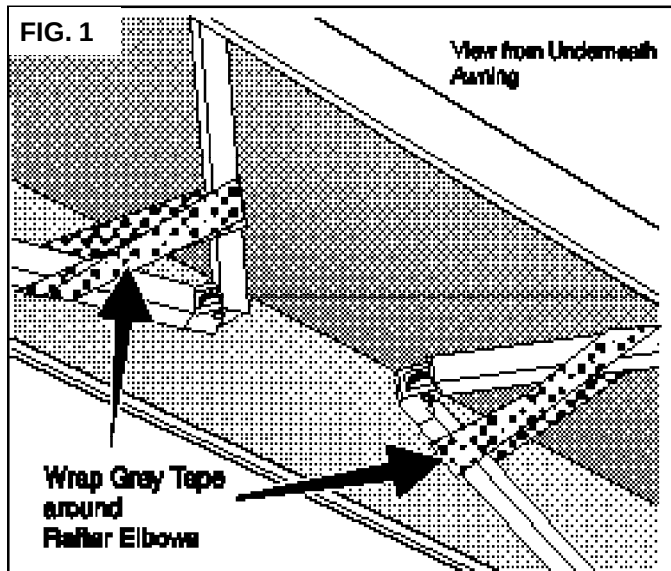
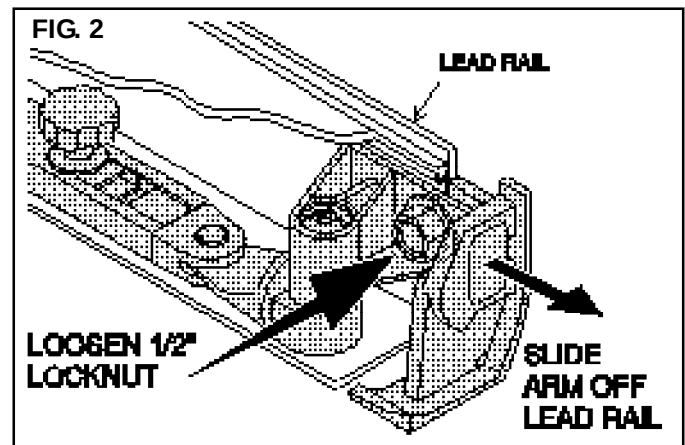


FIG. 2



### REVISION

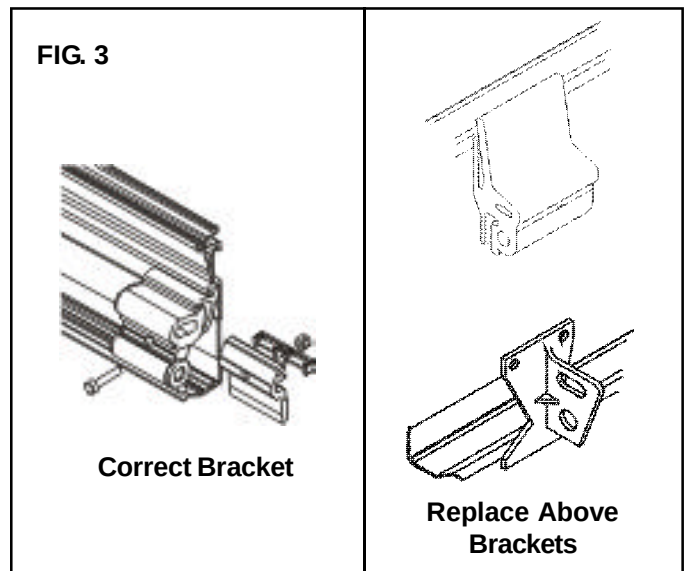
Form No. 3108527.015 05/00

Replaces 3108527.007

(French 3108984.018)

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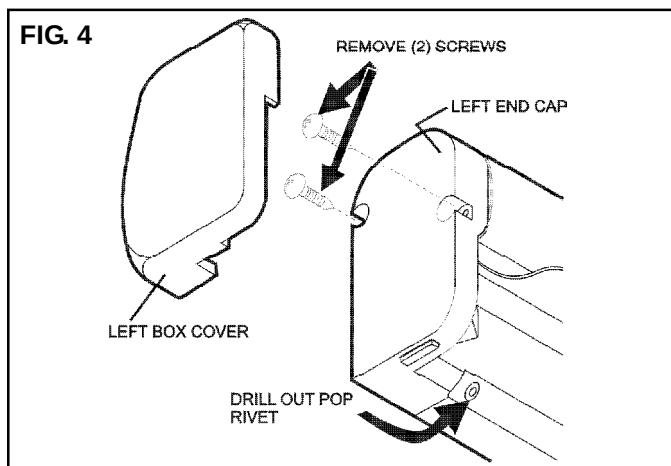
5. Remove the two nuts and other hardware that fasten the spring rafter in the case mounting bracket.
6. Remove the spring rafter bolts from the case bracket, and slide the other end out of the lead rail. Use a step ladder to support the end of the lead rail after the spring rafter is removed.
7. The Horizon Awning may have a metal casting that must be replaced before the new spring rafter can be installed. Check the case mounting bracket. If it looks like the correct bracket shown, it is not necessary to change. See FIG. 3.



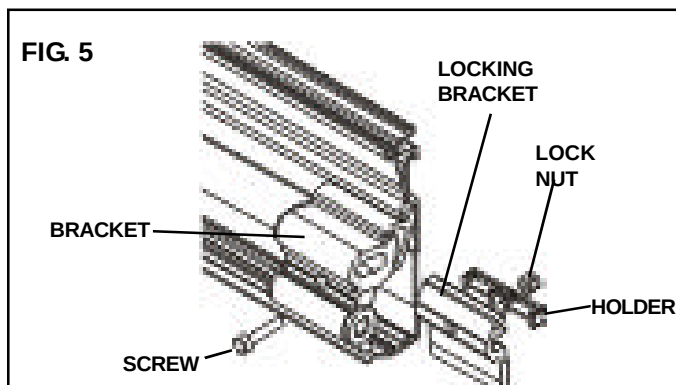
## C. REPLACING BRACKET IN CASING

### 1. Replacing Left Hand Bracket

- a. Remove left box cover and expose the left end cap. See FIG. 4.
- b. Drill out the 1/8" pop rivet and remove the screws that secure the end cap to the case. Remove the end cap from casing. See FIG. 4.



- c. Loosen the bracket and slide it to the left out of the casing.
- d. Place the screw in the hole in the new bracket and through the locking bracket. Put the lock nut into the holder and start the screw into to the nut. See figure 5.



- e. Slide the new bracket into the casing. Use the tape measure to locate it the correct distance from the end of the casing. See FIG. 6 & 7

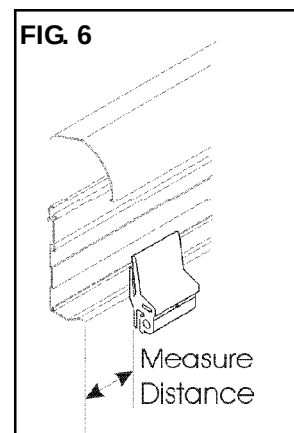


**FIG. 7**

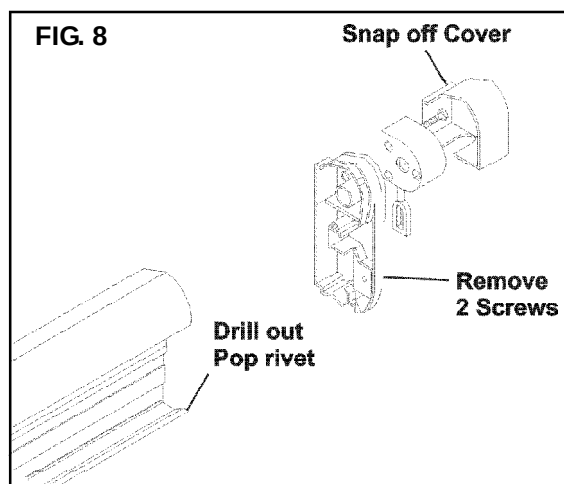
| Awning Model | Distance to Bracket |
|--------------|---------------------|
| 977XX08.XXX  | 11/16"              |
| 977XX10.XXX  | 11/16"              |
| 977XX12.XXX  | 10-1/4"             |
| 977XX13.XXX  | 12-3/16"            |
| 977XX15.XXX  | 12-3/16"            |
| 977XX16.XXX  | 12-3/16"            |

## 2. Replacing Right Hand Bracket

- Remove right box cover and expose the right end cap. See FIG. 4.
- Drill out the 1/8" pop rivet and remove the screws that secure the end cap to the case. Remove the end cap from casing. See FIG. 8.

**Note:** It is not necessary to remove the wench from the end cap.

- Loosen the bracket and slide it to the right and out of the casing.
- Place the screw in the hole in the new bracket and through the locking bracket. Put the lock nut into the holder and start the screw into to the nut. See figure 5.
- Slide the new bracket into the casing. Use the tape measure to locate it the correct distance from the end of the casing. See FIG. 6 & 7.



## D. REPLACING SPRING RAFTER

- If the correct bracket (See FIG. 3) is installed, the distance from the end of the housing to the bracket must be checked. Set the distance as shown in FIG. 8. See FIG. 6 & 7.

- Repeat the adjustment on opposite side.

- The new spring rafter must be folded and wrapped with duct tape. This will control the tension in the rafter and make installation easier. See FIG. 1.

- Slide the new spring rafter into the lead rail.

- Place the spring rafter bolts in the case bracket and secure with the hardware removed in Step B5.

**Note:** Spring arms must be aligned with each other before the Horizon Awning will open and close properly.

- Position the spring rafter in the lead rail according to the distance listed in the chart. See FIG. 9 & 10.

**FIG. 9**

| Awning Model | Distance to Set Bkt. |
|--------------|----------------------|
| 977XX08.XXX  | 8-1/8"               |
| 977XX10.XXX  | 8-1/8"               |
| 977XX12.XXX  | 17-9/16"             |
| 977XX13.XXX  | 19-7/16"             |
| 977XX15.XXX  | 19-7/16"             |
| 977XX16.XXX  | 19-7/16"             |

**Note:** The spring rafter has two configurations. Set the distance from the end of the lead rail from the dimensions listed under each picture.

- Tighten the bracket to secure the spring rafter in the lead rail. Check opposite side and adjust if needed.

- Replace the support arms on the lead rail. See FIG. 2.

- Remove duct tape from the spring rafters.

- Open and close the awning several times to check alignment and operation. Adjust brackets as necessary.

**FIG. 10**

| Awning Model | Distance to Set Bkt. |
|--------------|----------------------|
| 977XX08.XXX  | 9"                   |
| 977XX10.XXX  | 9"                   |
| 977XX12.XXX  | 18-3/8"              |
| 977XX13.XXX  | 20-1/4"              |
| 977XX15.XXX  | 20-1/4"              |
| 977XX16.XXX  | 20-1/4"              |