

1. **Who is Zip Dee**
2. **Warranty**
  - \* Original Owner
  - \* Parts exchanged or replaced
  - \* Factory authorization
  - \* Labor excluded
- 2A. **Hardware**
- 2B. **Fabric**
  - \* Five years
  - \* Excessive fading
  - \* Cracking, peeling
  - \* Not covered: holes or stains
3. **Owner's Manual**
  - \* Received with awning
  - \* Valuable information
  - \* Registration card
4. **Difference Between Contour and Universal**
  - \* Universal Hardware Operation
  - \* Contour Hardware Operation
5. **Parts List**
  - \* Use order form and part numbers
6. **Maintenance of Awning**
  - \* Lubrication
  - \* Shaking out dirt
  - \* Tightening Screws
7. **Caring for Fabric**
  - \* Monthly brushing
  - \* Formula: 1/2 cup bleach, 1/2 cup Ivory to 1 gallon water
8. **Adjusting Spring**
9. **Bowed Roller**
10. **Replace Ratchet Stud**
11. **Accessories**
  - \* Tropic Room Screen Enclosure
  - \* Z-Lock - fits any awning
  - \* Adjustable window awning
12. **Chairs**
  - \* Stainless
  - \* Embroidery
  - \* Changing Fabric
13. **Order Form**

## WASHING.....

On a monthly basis, loosen hardened dirt and dust with a dry, medium bristle bursh, then thoroughly rinse both top and bottom with a hose. For more stubborn stains, use a mild solution of 1/2 cup Chlorox bleach and 1/2 cup of Ivory Flakes diluted in one gallon of lukewarm water.

Wash both sides of the awning with the solution while scrubbing with a soft brush. Saturate the fabric and leave the solution on for 15-20 minutes. (Keep the fabric saturated by reapplying solution as needed.) Rinse thoroughly. Repeat if necessary until most of the stains disappear.

**CAUTION:** Never use a strong detergent or stain remover such as 409 or Fantastic on your awning. These can destroy the water repellency of the fabric.



Zip Dee Inc.

# Z-LOCK

## INSTALLATION

## INSTRUCTIONS

### TOOLS REQUIRED

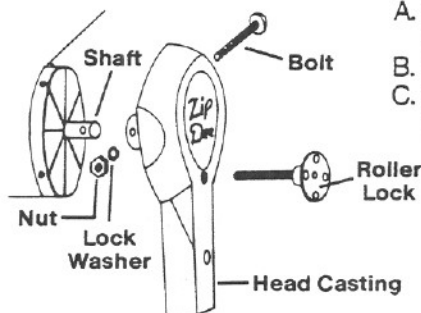
Rivet Gun  
Step Ladder  
3/8" Wrench  
#2 Phillips Screwdriver  
Hammer

Vice Grips  
Electric Drill  
5/32" or #20 Drill Bit  
Center Punch

### STEP 1

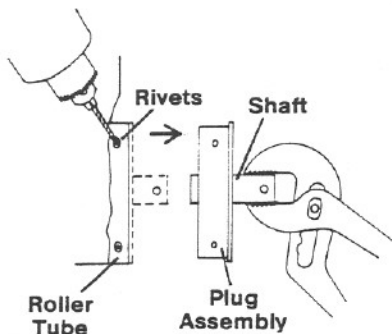
Extend awning to full open position and set rear rafter arm to keep extended.

### STEP 2



- At front end of awning remove bolt, washer, and nut securing head casting to shaft using a 3/8" wrench.
- Separate head casting from shaft.
- Rest end of roller assembly on step ladder and allow head casting and front arm to rest on ground.

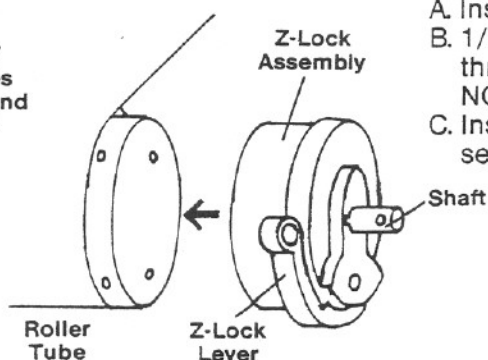
### STEP 3



- Slide fabric on roller tube back to expose four rivets in end of roller tube.
- Drill out all four rivets using a 5/32" drill bit.
- Attach Vise Grips to shaft and remove plug assembly from roller tube.

### STEP 4

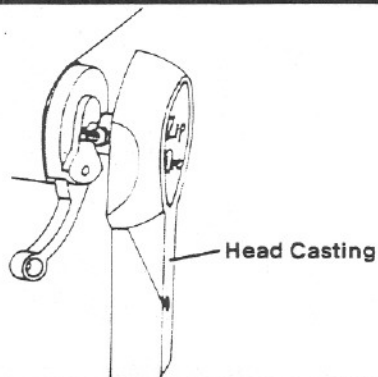
Drill NEW  
5/32" Holes  
1/2" From End  
Of Roller  
Tube



- Insert Z lock assembly into roller tube.
- 1/2" from end of roller tube drill four new 5/32" holes through roller tube into Z lock casting.  
NOTE: Do not use existing holes in roller tube.
- Insert provided rivets into each hole. Using a rivet gun secure Z lock to roller assembly.

## STEP 5

Z-Lock  
Lever  
(Facing Down)

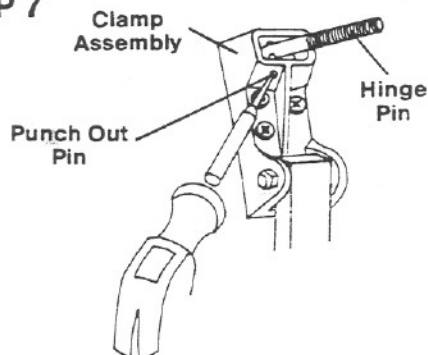


- A. Pull Z lock lever down and rotate Z lock assembly so lever is facing down.
- B. Align hole in head casting with hole in shaft.
- C. Re-attach head casting to shaft with bolt, washer and nut removed in 2A (see other side).

## STEP 6

Unscrew and remove roller locks from each end of awning.  
(Vehicles with flat side hardware only.)

## STEP 7



Remove hinge pin of clamp assembly by knocking out pin with punch.  
(Vehicles with curved hardware only.)

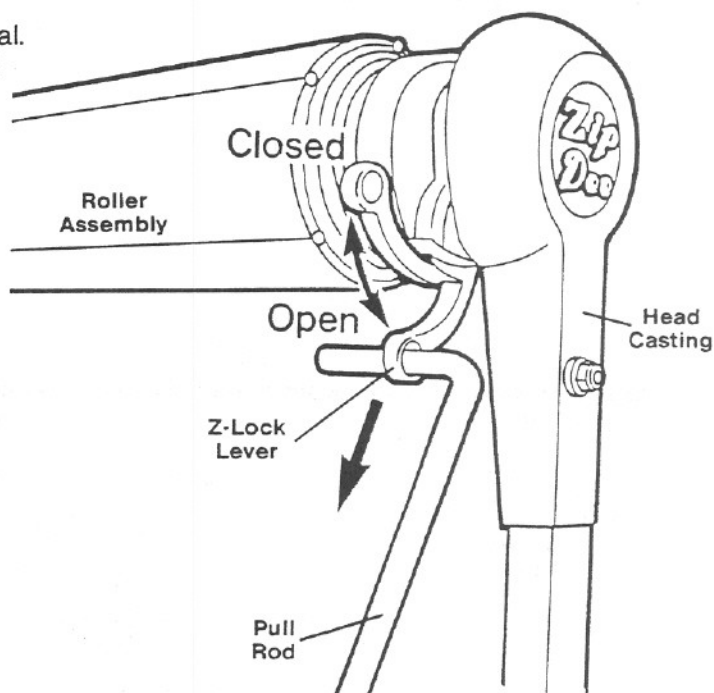
## AWNING OPERATION WITH NEW Z-LOCK

### TO EXTEND AWNING:

1. Using pull rod pull lever at end of Z lock down to open (unlock) awning.
2. Extend awning per instructions in owners manual.
3. When awning is extended, push lever up to lock awning.
4. Complete extension per instructions.

### TO RETRACT AWNING:

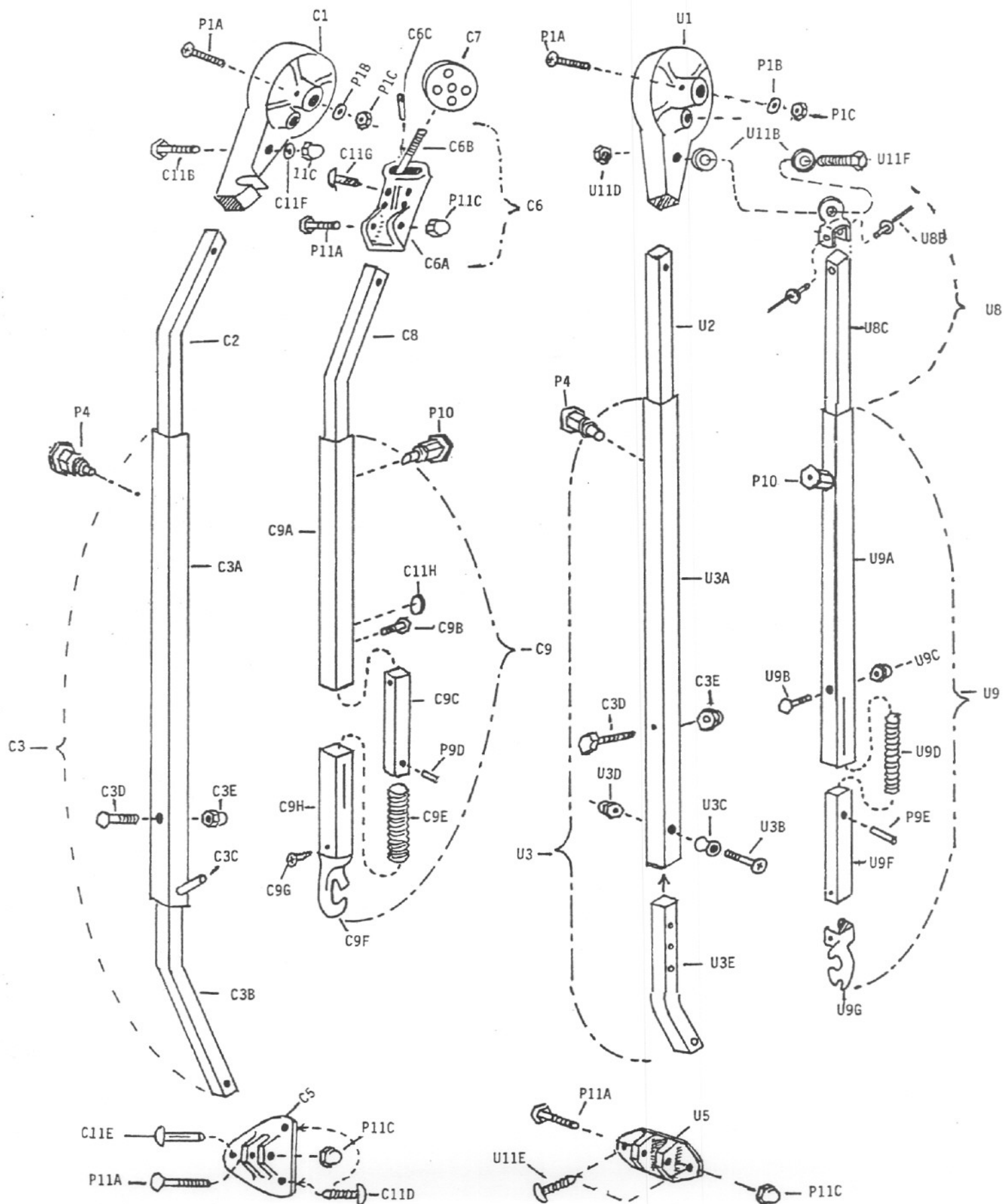
1. Follow steps 1-3 of owners manual.
2. Place Z lock lever in unlock position.
3. Retract awning per step 4 of owners manual.
4. Push lever of Z lock into closed position with pull rod.



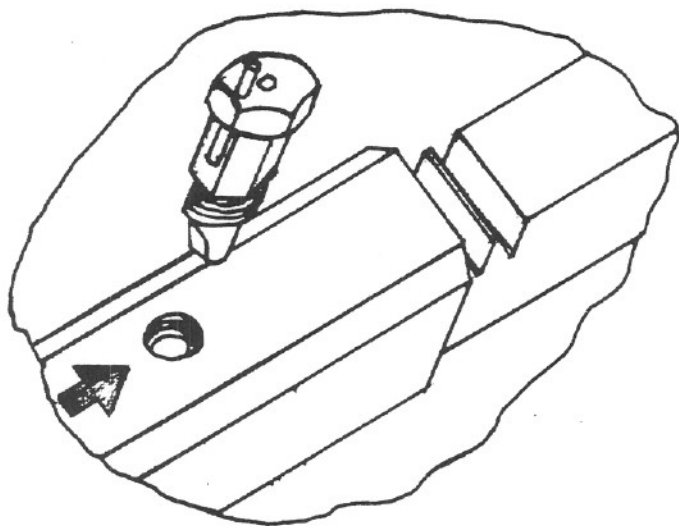
Zip Dee Inc.  
96 Crossen Avenue  
Elk Grove Village, IL 60007  
312/437-0980

# CONTOUR HARDWARE

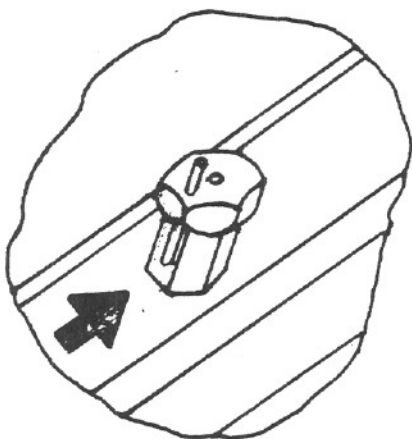
# UNIVERSAL HARDWARE



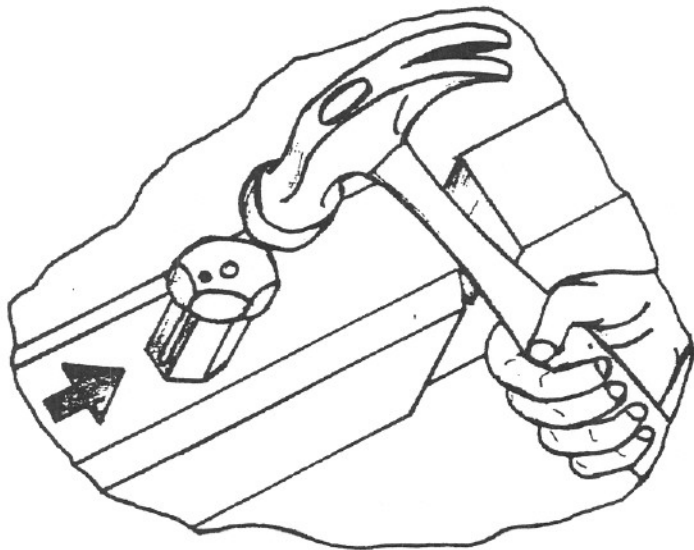
## RATCHET STUD INSTALLATION AND ALIGNMENT



FIRST,  
INSTALL RATCHET STUD  
IN ARM, SO THAT BODY  
IS FLUSH WITH TUBE  
SURFACE. DO NOT  
OVER TIGHTEN.



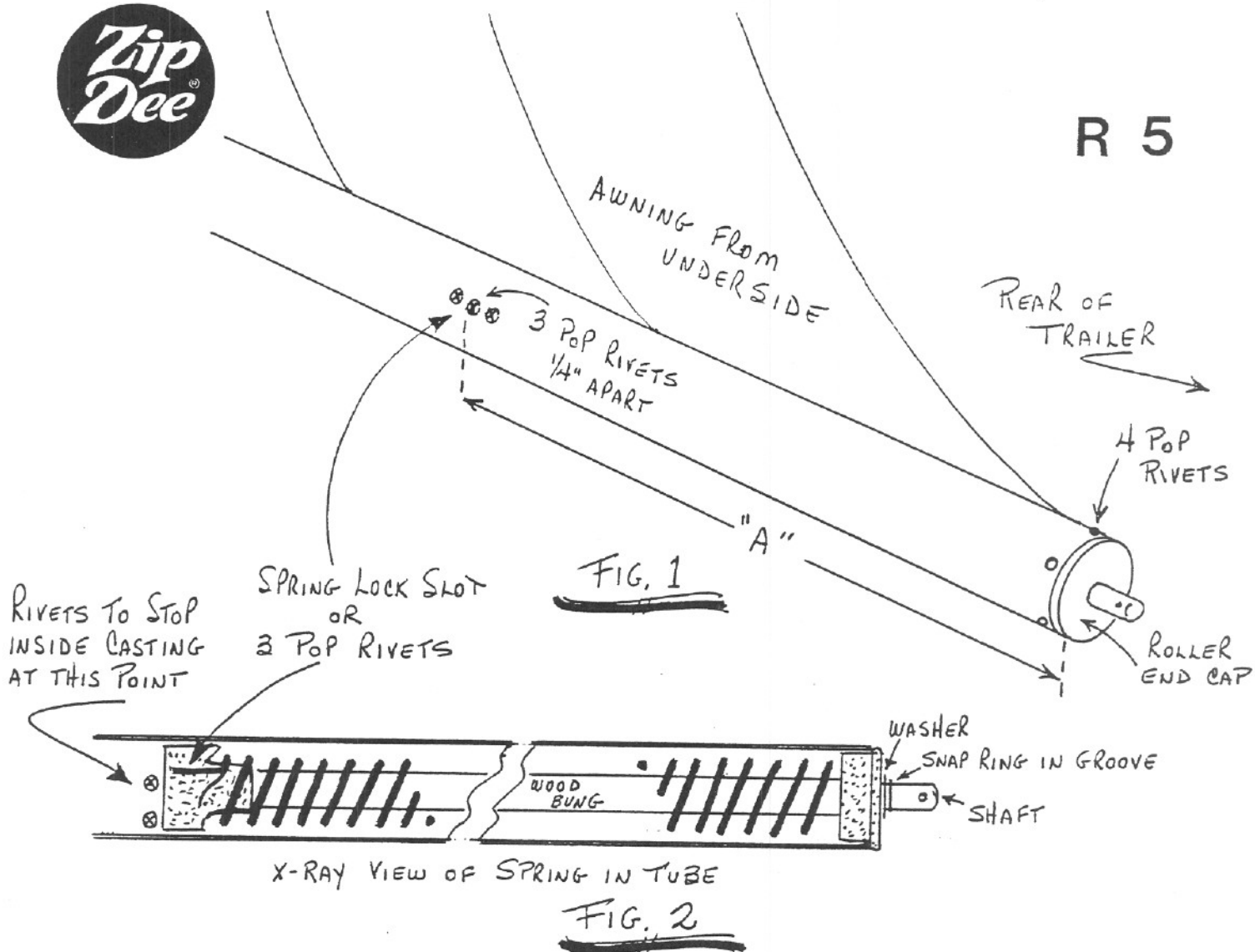
NEXT,  
PULL OUT HEX BUTTON,  
ROTATE CAP AND ALIGN  
AS SHOWN.



LAST,  
TAP IN PIN UNTIL  
FLUSH WITH TOP OF  
BUTTON.



R 5



A. TO REMOVE PRESENT SPRING:

1. Drill out 4 rivets in end cap ( 9/64 Drill)  
Check for screw at approximate 48" from roller end.  
Remove before pulling out spring (Not on awnings with valance)
2. Pull out spring assembly (vise grips)...  
Grip shaft and pull with twist motion to by-pass rivets.

B. TO INSTALL SPRING:

1. Measure distance 'A' ( Fig.2) and note distance
2. Insert spring into tube ... Drill & secure end cap (9/64 Drill)  
and 1/8 x 3/16 pop rivets.
3. If necessary, go to Step 'C'

C. TO SECURE INSIDE CASTING:

1. Check tube for spring lock slot at distance measured in Step B-1
2. If not there, then drill 3 holes..1/4" apart as shown in Fig. 1  
and insert sturdy pop rivets.
3. Wind-up as per instructions

## INSTRUCTIONS FOR WINDING TORSION SPRING

THE SINGLE TORSION SPRING IS WOUND BY TURNING THE HEAD CASTING CLOCKWISE (FACING FORWARD), USING THE STEEL SUPPORT ARM BAR AS A LEVER (SEE FIG. 1). INSERT THE BAR INTO THE HEAD AND SECURE IT IN PLACE WITH  $1\frac{1}{2}$ " BOLT, LOCKWASHER AND CAP NUT (SEE FIG. 2). BE SURE THAT THE BAR IS ALL THE WAY INTO THE HEAD SO THAT THE BOLT HOLES ALIGN.

WIND THE SPRING ACCORDING TO THE AWNING SIZE, USING THE GUIDE BELOW. ADD OR DEDUCT 2 TURNS PER FT. FOR SIZES NOT SHOWN.

17 FT. AWNING	—	28 TURNS
19 FT. AWNING	—	31 TURNS
21 FT. AWNING	—	34 TURNS

AFTER WINDING, SLIDE THE MAIN ARM TUBE ONTO THE BAR WITH THE END OF THE BAR FACING AWAY FROM THE COACH. THEN SWING THE ASSEMBLED ARM TO THE COACH AND BOLT ONTO HINGE.

NOW TEST THE SPRING TENSION AND ADJUST ACCORDINGLY. THE AWNING SHOULD NOT START TO ROLL UP UNTIL YOU GIVE THE ROLLER A SWIFT STARTING PUSH UPWARD. 12 TO 24 INCHES OF FABRIC MAY HAVE TO WIND AROUND THE ROLLER BEFORE THE SPRING TAKES OVER. BECAUSE OF VARIATIONS IN SPRING TEMPER, YOU MAY HAVE TO ADD OR DEDUCT A FEW TURNS TO REACH THE RIGHT BALANCE.

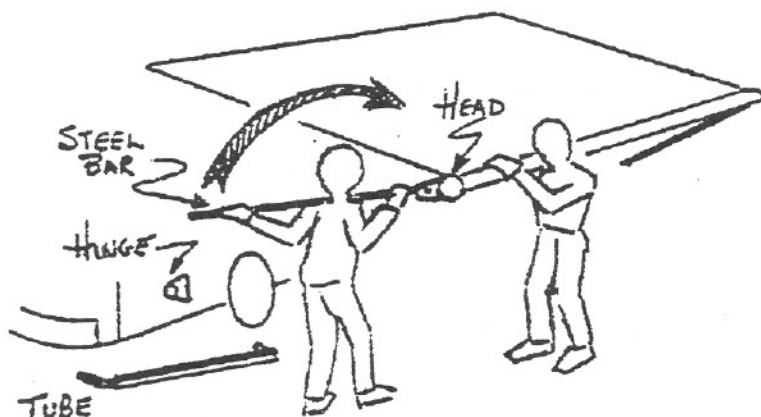


FIG. 1

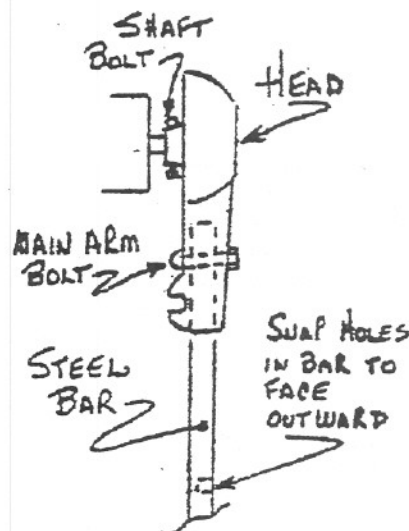


FIG. 2

CLOSE THE AWNING FOLLOWING THE INSTRUCTIONS IN THE OWNERS MANUAL. BE SURE TO RELEASE AND EXTEND THE SPRING ARMS, SETTING THE CLAWS ON THE CLAW PINS. USE THE PULL TAB TO CONTROL SPEED AND DIRECTION OF THE ROLLER AND SPIRAL THE TAB AS SHOWN IN FIG. 3 TO PREVENT CLOTH BUILD-UP. RELEASE THE TAB WHEN THE ROLLER IS ABOUT 14 INCHES FROM THE COACH, ALLOWING THE AWNING TO SNAP CLOSED.

WHEN CLOSED, THERE SHOULD BE AN EVEN AMOUNT OF EXPOSED ROLLER AT EITHER END OF THE AWNING. IF NOT, UNROLL AND CLOSE THE AWNING AGAIN, GIVING THE ROLLER A LATERAL PUSH IN THE DIRECTIONS NEEDED.

PLEASE READ THE OWNERS MANUAL CAREFULLY. IT CONTAINS IMPORTANT INFORMATION REGARDING THE CARE AND TREATMENT OF YOUR AWNING. FOR SAFETY SAKE, ALWAYS CLOSE THE AWNING WHEN THE VEHICLE IS LEFT UNATTENDED OR WHEN WEATHER THREATENS.

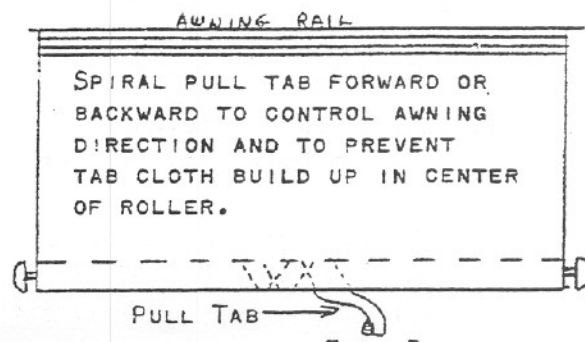


FIG. 3





## HOW TO REPAIR A BOWED ROLLER \*

R 7

\*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.

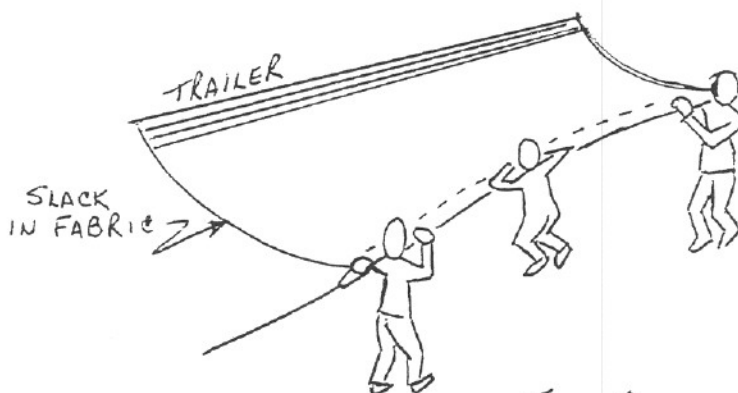
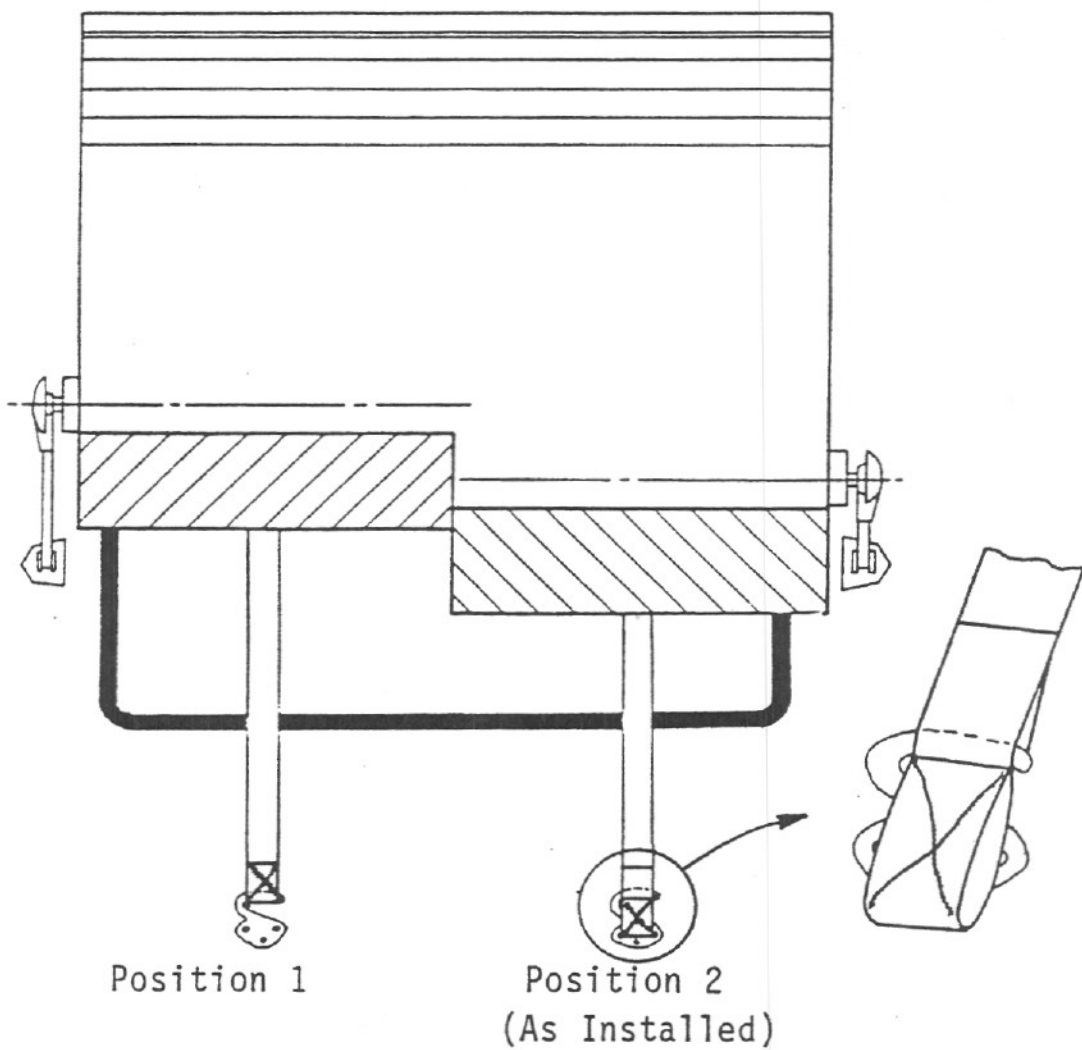


FIG. 1

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

# ADJUSTABLE WINDOW AWNING



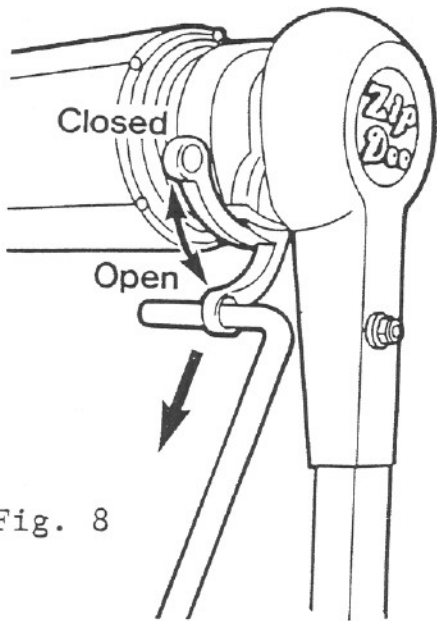


Fig. 8

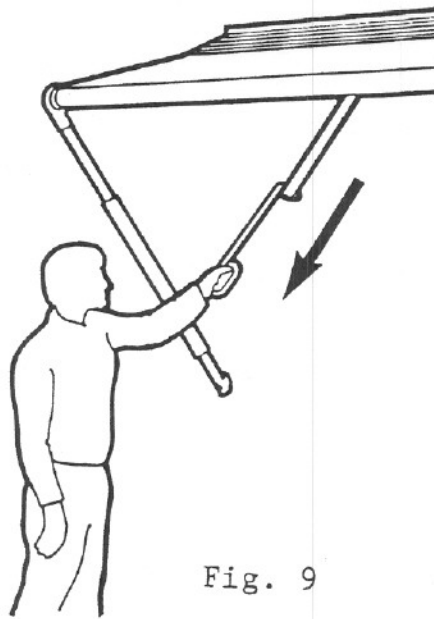


Fig. 9

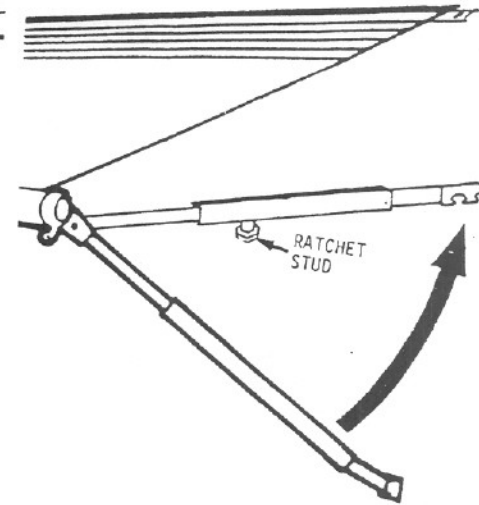


Fig. 10

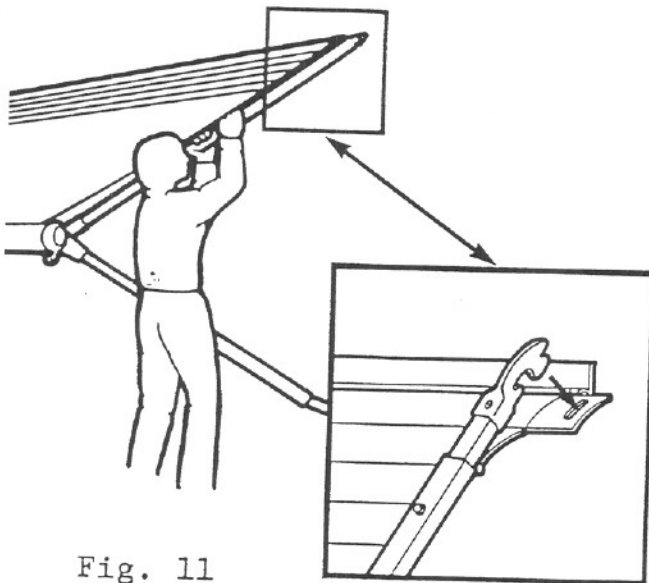


Fig. 11

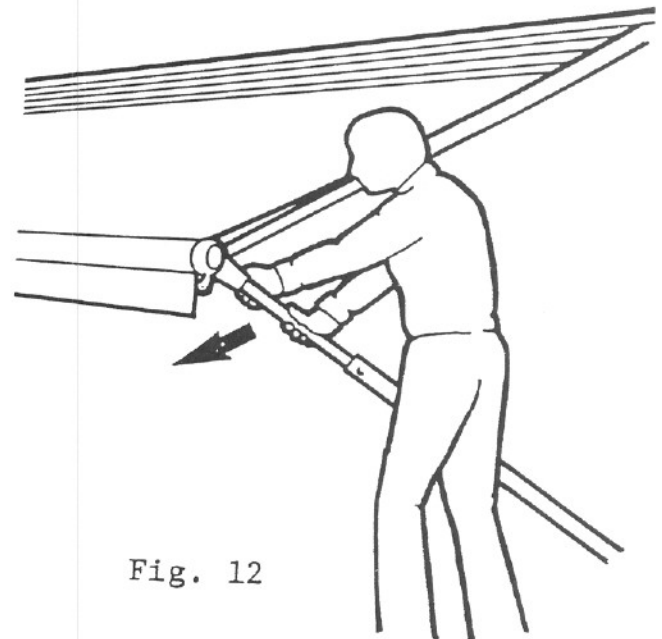


Fig. 12

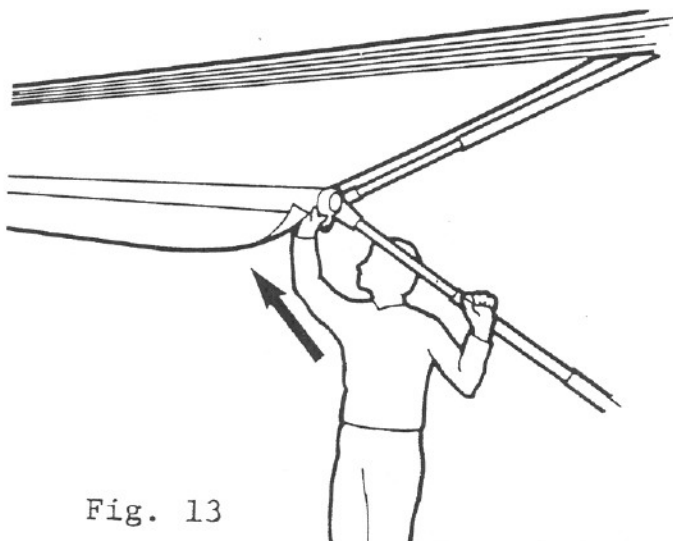


Fig. 13

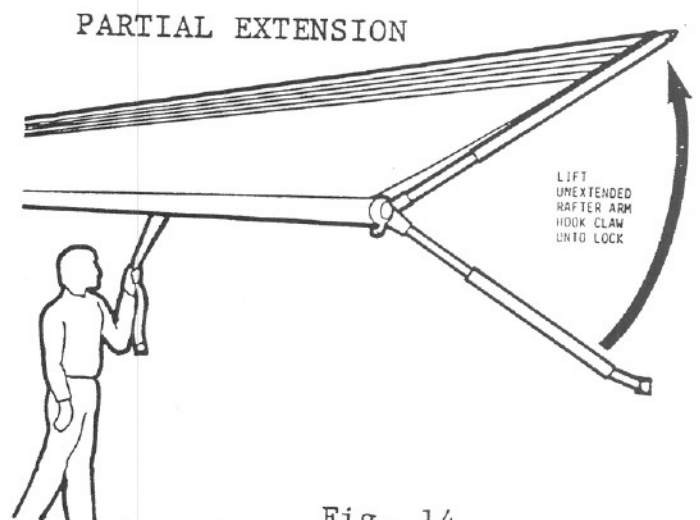


Fig. 14

HOW TO OPERATE FLAT-SIDE HARDWARE



JANUARY 1985

Zip Dee, Inc., 98 Crossen Avenue, Elk Grove Village, Illinois 60007

## MEASURING INSTRUCTIONS

PATIO AWNING MOUNTING HARDWARE IS AVAILABLE IN TWO TYPES - THE CUSTOM CONTOUR TYPE FOR CURVED SIDE COACHES....AND THE UNIVERSAL STRAIGHTSIDE TYPE WHICH IS DESIGNED TO FIT MOST FLAT SIDED COACHES.

AWNINGS HAVING CUSTOM CONTOUR HARDWARE ARE MADE TO EXACT MEASUREMENTS FROM 7 FEET TO 23 FEET LONG AS NEEDED.

AWNINGS REQUIRING UNIVERSAL STRAIGHTSIDE HARDWARE ARE AVAILABLE IN ONE FOOT INCREMENTS RANGING FROM 7 FEET TO 23 FEET IN LENGTH.

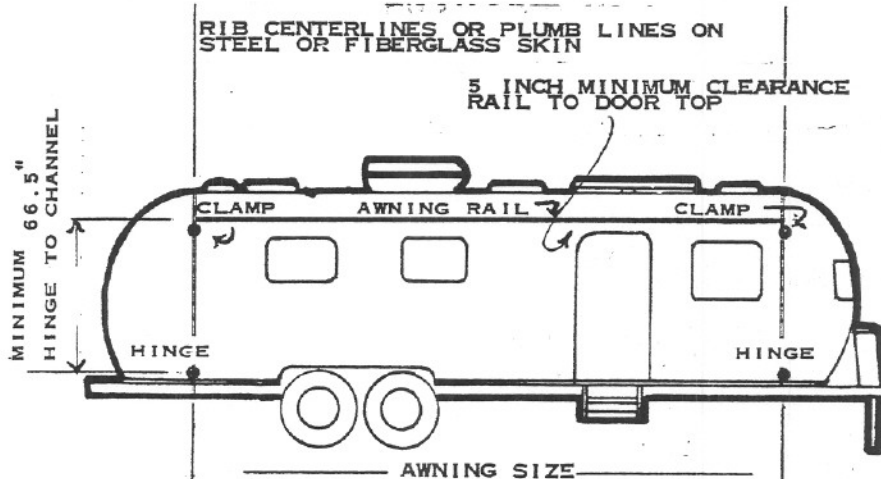
ZIP DEE WINDOW AWNINGS ARE AVAILABLE FROM 42 INCHES UP TO 21 FEET 8 INCHES. THEY ARE MANUFACTURED IN 6 INCH INCREMENTS FROM 3 FEET THRU 16 FEET. WINDOW AWNINGS FROM 16 FEET 1 INCH THRU 21 FEET 8 INCHES ARE MADE TO CUSTOMER SPECS.

FOR BOTH AWNING STYLES ( PATIO OR WINDOW ) BE SURE THAT THE SUPPORT ARMS ARE CLEAR OF VENT WINDOWS, ACCESS DOORS, PLUMBING OR ELECTRICAL WIRING, WHEEL WELLS, ETC, IN THE AREAS BEING MEASURED.

AWNING RAIL MUST BE LEVEL AND INSTALLED AT LEAST 5 INCHES ABOVE THE DOOR FRAME ON PATIO AWNINGS & A MINIMUM OF 3 INCHES ABOVE UPPER WINDOW FRAMES ON WINDOW AWNINGS. ALWAYS REFER TO INSTALLATION INSTRUCTIONS FOR SPECIFIC INFORMATION.

ON 1973 AND EARLIER AIRSTREAM COACHES THE STANDARD VENT HOOD MUST BE REPLACED WITH A ZIP DEE CUSTOM CONTOUR HOOD THAT ALLOWS THE AWNING TO LAY FLAT ON THE COACH FOR SAFE AND EASY OPERATION.

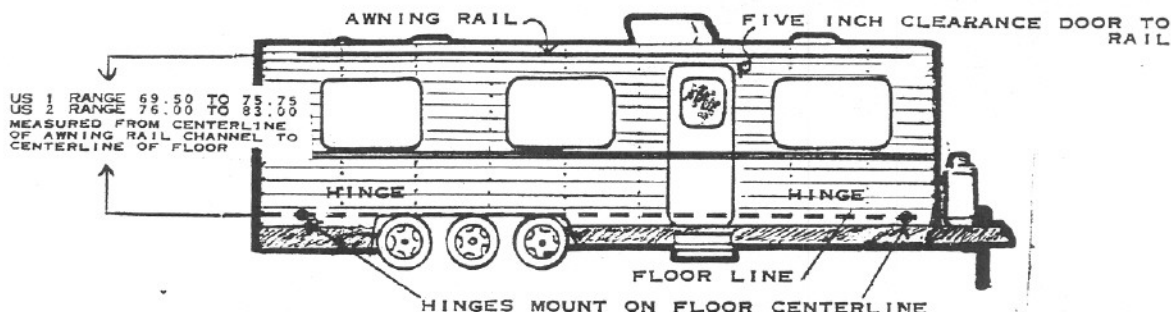
Diagram One



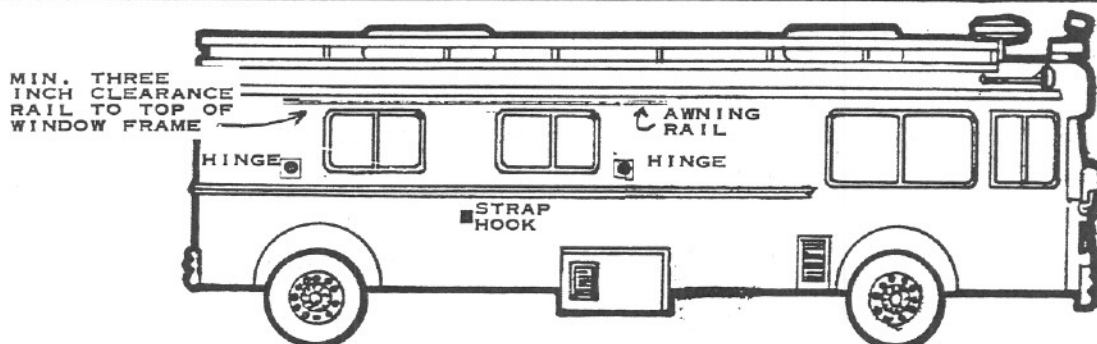
Custom Contour

Hardware

WHEN MEASURING COACHES FOR CUSTOM CONTOUR HARDWARE OR FOR WINDOW AWNINGS OVER 16 FEET, AWNING SIZE IS APPROXIMATELY EQUAL TO THE SPAN BETWEEN THE CENTERLINES OF ANY TWO STRUCTURAL RIBS OR TWO PARALLEL PLUMB LINES DRAWN ON STEEL OR STRONG FIBERGLASS SKIN (SEE DIAGRAM ONE). ZIP DEE LISTS RECOMMENDED LENGTHS AND HARDWARE SETS FOR MOST POPULAR CURVED SIDE COACHES. REFER TO THE ZIP DEE HARDWARE SELECTOR SHEET. IF YOU DO NOT HAVE THIS SHEET, WRITE OR CALL THE ZIP DEE CUSTOMER SERVICE DEPARTMENT FOR ASSISTANCE.



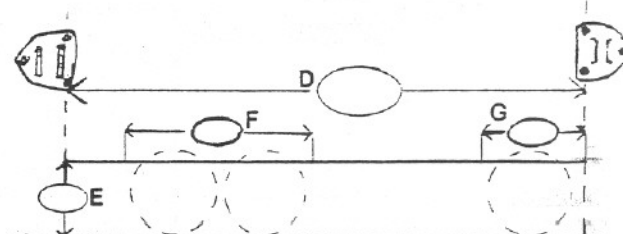
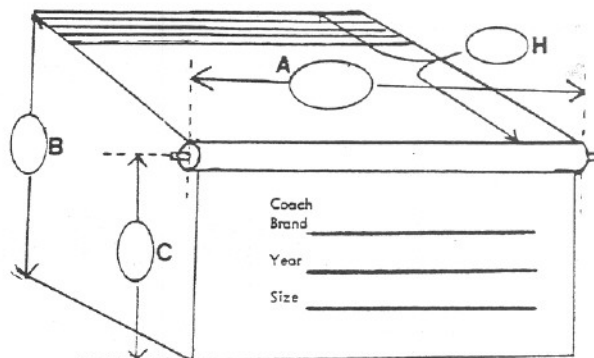
AWNING LENGTH IS MEASURED BETWEEN THE TWO PROPOSED MOUNTING POINTS. THESE MEASUREMENTS ARE TAKEN ALONG THE FLOORLINE AND MUST CONFORM TO AVAILABLE AWNING LENGTHS AND ALLOW FOR MINIMUM INSTALLATION HARDWARE HEIGHTS (EITHER US 1 OR US 2 LISTED IN DIAGRAM NUMBER TWO ABOVE).



FOR WINDOW AWNINGS UNDER 16 FEET, MEASURE ACCURATELY THE WIDTH OF THE WINDOW FRAME PLUS A MINIMUM OF 1 INCH EACH SIDE. WE RECOMMEND 6 INCHES EACH SIDE TO PROVIDE OPTIMUM COVERAGE OF BOTH GLASS AND COACH SKIN. SINCE THIS AWNING COVERS 25 INCHES OF VERTICAL VIEWING AREA (MEASURED FROM THE TOP OF THE AWNING RAIL TO THE BOTTOM OF THE AWNING VALANCE) ADJUST MOUNTING OF THE AWNING RAIL TO ACHIEVE THE DESIRED AREA OF COVERAGE. ALWAYS REFER TO THE INSTALLATION SHEET.

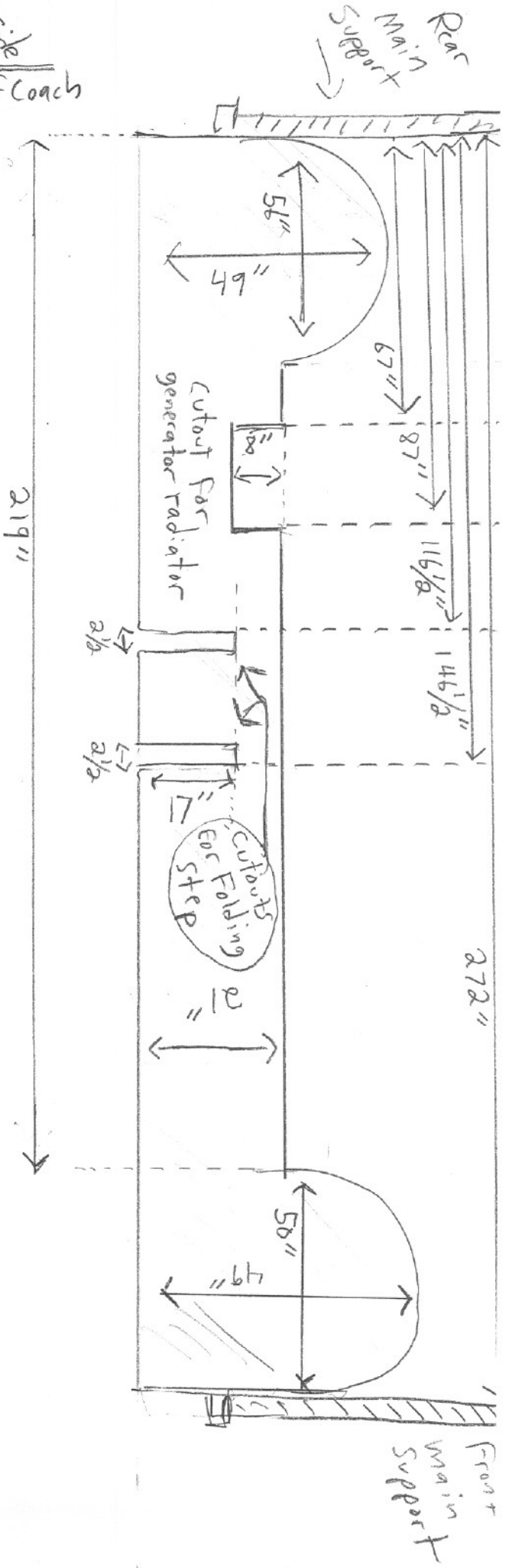
TO ORDER A CORRECT FITTING TROPIC ROOM THE FOLLOWING INFORMATION IS NEEDED

- SIZE OF AWNING AS DETERMINED BY THE LENGTH OF ROLLER. MEASUREMENT A.
- HEIGHT OF AWNING RAIL. MEASUREMENT B.
- HEIGHT OF FRONT PANEL MEASURED FROM SHAFT OF ROLLER TO LEVEL GROUND. MEASUREMENT C.
- LENGTH AND HEIGHT OF COACH SKIRT, AS MEASURED BETWEEN MOUNTING POINTS OF AWNING. MEASUREMENTS D AND E.
- LENGTH OF UPPER WHEELWELL PANELS, EXTENDING ONE INCH BEYOND WELL AT EACH END. MEASUREMENTS F AND, IF APPLICABLE, G.
- LENGTH OF AWNING SLOPE FROM AWNING RAIL TO ROLLER. MEASUREMENT H.
- CONTOUR OF COACH BODY TO INSURE A GOOD FIT OF SIDE PANELS. WE HAVE TEMPLATES OF THE CONTOUR OF MANY COACHES, INCLUDING RECENT MODELS OF AIRSTREAM AND AVION ON HAND. HOWEVER, IF YOU HAVE A CURVED SIDE COACH, IT IS BEST TO CHECK WITH US OR YOUR DEALER TO BE SURE THAT WE HAVE YOURS. MAKE, MODEL, LENGTH AND YEAR IS ALL THE INFORMATION WE NEED TO IDENTIFY A CONTOUR. A TROPIC ROOM FOR STRAIGHT SIDE COACHES CAN BE IDENTIFIED SIMPLY AS FLATSIDE.

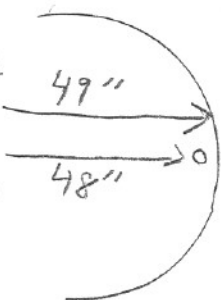


COLOR AND PATTERN OF TROPIC ROOM.

THE FABRIC PORTIONS OF OUR SCREEN ROOM ARE MADE FROM CORDURA FABRIC WHICH IS GREY IN COLOR. THIS FABRIC WAS CHOSEN FOR ITS PROVEN DURABILITY.



I would like to fasten the side panels onto the bottom flange of the coach like this



if there is a snap at the top of the wheel wells it will have to be 48" from the bottom to clear the rubrails, flange, etc.

This is my best guess at what the finished side panel would look like

Awning color is # 4749

1984 Bluebird Mandelade  
Model F 63759

Dave + Ginger Brass  
352-495-9146  
Fax 352-495-9571



ZIP DEE Inc. 96 Crossen Ave. Elk Grove Village, IL 60007(708)437-0980 (800)338-2378

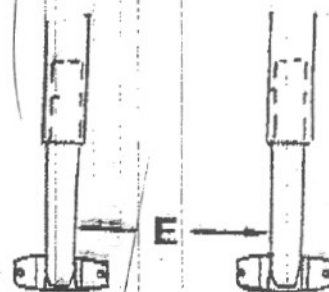
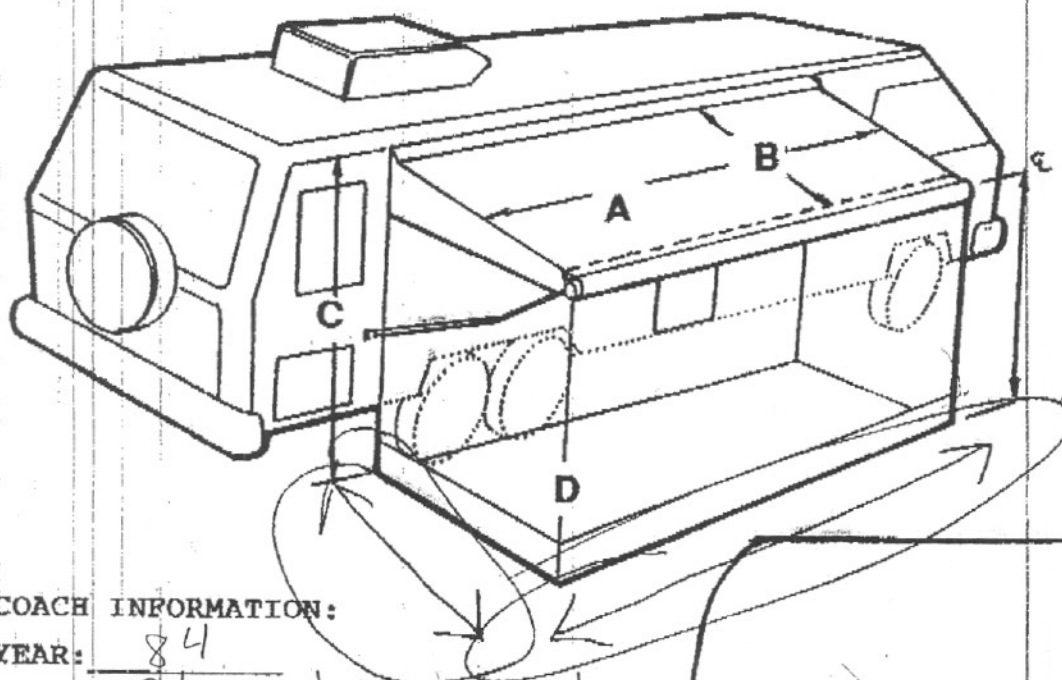
# TROPIC ROOM MEASURING INSTRUCTIONS

## TROPIC ROOM SCREEN ENCLOSURE

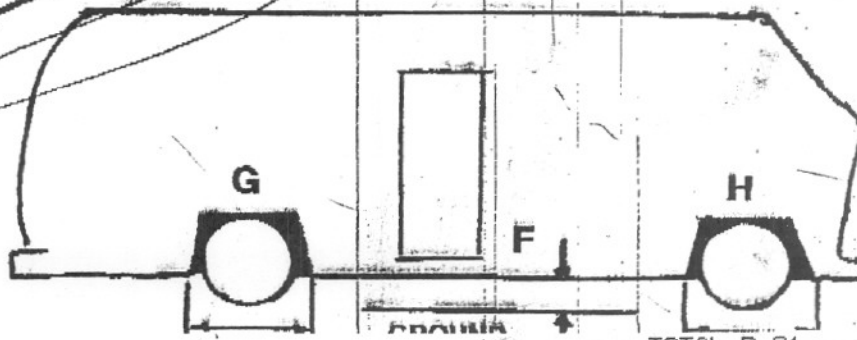
Please measure carefully to insure a correct fit for your Tropic Room. Make sure the vehicle is on a level surface adjusted as it would be under normal use conditions. Extend the awning and adjust to position for Tropic Room use. After taking the following measurements, please mark them in the corresponding blanks.

### PROVIDE THE FOLLOWING MEASUREMENTS:

- A. The width of front panel by measuring the width of the fabric (at the roller tube.) 22' 5"
- B. The depth of the side panel by measuring the awning fabric from the edge of the metal case to the seam that creates the pocket for the roller. 77 1/2"
- C. The height of the side panel measured from the bottom of the awning rail to the ground along the side of the vehicle. 111"
- D. The height of the front panel by measuring from the shaft of the roller to level ground. The awning should be fully extended as it will be in normal use. 76"
- E. The distance between the inside of the main support arms for the width of the skirt. 272"
- F. The height of the skirt from the bottom of the coach or the beginning of the bottom curve to the ground. This measurement must be lower than the bottom of the door frame. On curved sided coaches this measurement must be high enough to allow snaps to be attached to face of coach. 21"
- G. The width of the wheel well opening at its widest point. Include any flair. 52"
- H. On motorhomes, if awning extends beyond front wheel, determine the width of the wheel well opening at its widest point, including any flair. 47"



### COACH INFORMATION:

YEAR: 84BRAND: Bluebird WanderlodgeMODEL: Forward Control 63759color 4749

FRONT

TOTAL 5 04

# Zip Dee<sup>®</sup>, Inc. LIMITED WARRANTY

PLEASE READ CAREFULLY AND RETURN LOWER PORTION.

**ZIP DEE PRIDE AND CONFIDENCE STAND BEHIND THIS WARRANTY.  
OUR EXPERIENCE WILL INSURE YOUR SATISFACTION.**

ZIP DEE awning hardware is warranted to the original owner, for as long as he owns the coach, to be free from defects in workmanship or material under normal use. Any part requiring replacement will be repaired or replaced without charge if the part is returned, transportation prepaid, to the ZIP DEE factory. Damage or wear other than normal wear, which in our judgement resulted from misuse, negligence or accident, including rain and wind, are not covered by this warranty.

At your option, inspection, repair and/or replacement of defective parts may be done at any authorized dealer. However, any labor charge incurred as a result of such work is not included in this warranty.

Authorization to return parts and instructions for disassembly or packaging should be obtained from ZIP DEE by mail or telephone prior to returning any material.

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## **FIVE YEAR FABRIC WARRANTY**

Zip Dee warrants the fabric of its awnings to be free from defects in material and workmanship for a period of five years from the date of original installation. This warranty does not include damage to the fabric caused by: a) excessive moisture, b) excessive heat, c) excessive exposure to sunlight, d) excessive cracking, peeling, hardening or loss of strength for a period of five years from the date of original installation or we will supply new fabric free of charge. DOES NOT INCLUDE LABOR FOR REPLACEMENT OF FABRIC.

This warranty also does not cover damage from Acts of God or malicious mischief.

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These warranties are in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or any other obligation or liability on the part of ZIP DEE, Inc. No person or representative is authorized to make any other warranty or assume any liability other than what is contained in this warranty. This warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.





# IMPORTANT: REVISED INSTALLATION INSTRUCTIONS

## NEW STEP 4

- A. Remove head castings from top of main arm bar.
- B. Attach rafter arm bar to roller shaft. To correctly orient teeth on bar, slide link onto shaft fin side facing outward as shown in Fig. 4A
- C. Align hole in front head casting with hole in shaft. (To align front end with Z-Lock, pull lever down to free shaft and rotate cover so that lever is facing down as shown.
- D. Attach front head casting to roller assembly with #10-32 x 1-1/2" bolt, lock washer and nut.
- E. Attach rear head casting to roller assembly with same size bolt, washer and nut.
- F. Insert head casting onto each main arm bar. Secure with 1/4" - 20 x 1 3/8" flat head machine screw, lock washer and cap nut. (See Fig. 4B) Test to insure bar is secured by bolt.

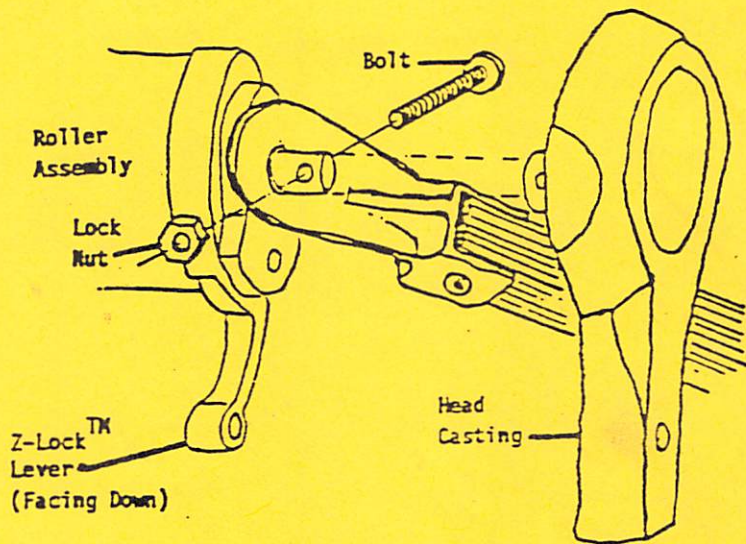


Fig. 4A

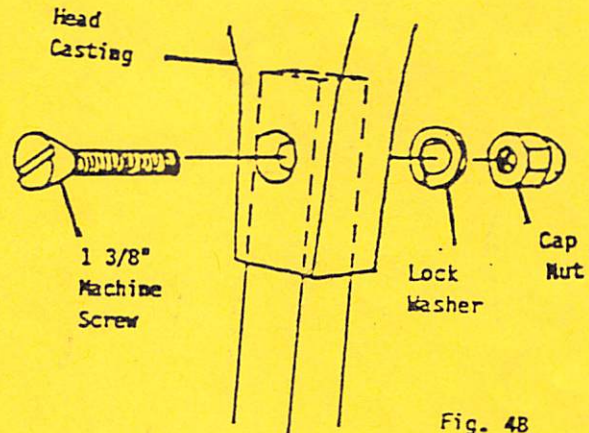


Fig. 4B

## NEW STEP 7

Skip Step 7

# INSTALLATION INSTRUCTIONS FOR

# bluebird wanderlodge

USE THESE INSTRUCTION  
ONLY WITH HARDWARE  
MARKED

## UC 6

### INSTALLATION OUTLINE

1. ASSEMBLE HARDWARE
2. INSTALL AWNING RAIL
3. MOUNT HINGES
4. ATTACH MAIN ARMS AND MARK CLAMP LOCATION
5. MOUNT CLAMPS AND ATTACH SPRING ARMS
6. ATTACH AWNING AND SECURE AWNING
7. WIND UP MAIN SPRING
8. ALIGN AWNING

### EQUIPMENT NEEDED

ONE 5 OR 6 FOOT LADDER.

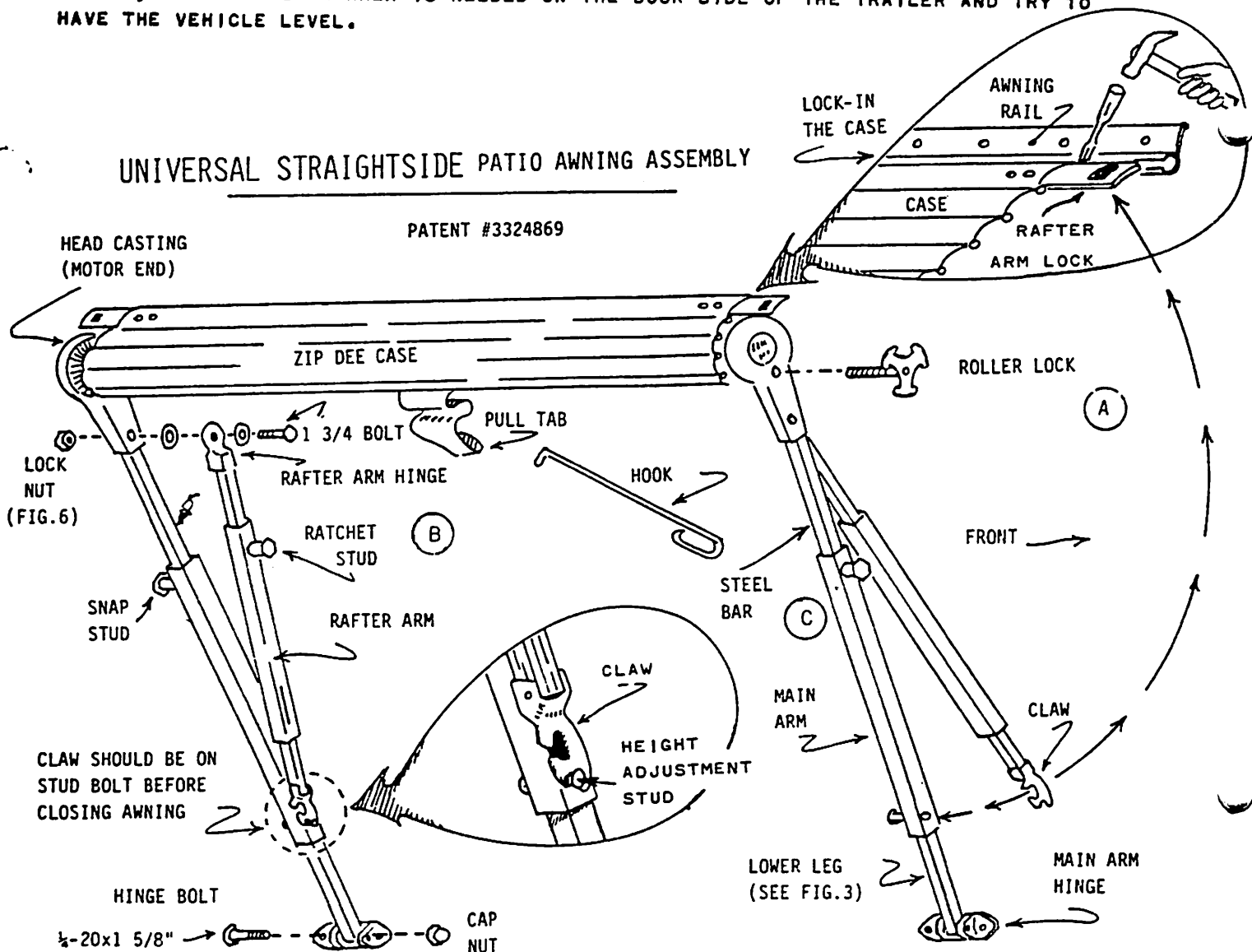
ONE ELECTRIC DRILL, 50 FOOT ELECTRIC CORD, 9/64 OR #26 AND 13/64 OR #7 TWIST DRILLS.  
PENCIL AND 8 FOOT TAPE. 2 SCREW DRIVERS - LARGE REGULAR AND MEDIUM PHILLIPS.  
TWO WRENCHES OR SOCKETS 7/16".

### WORKING AREA NEEDED

ABOUT 9 FEET OF CLEAR AREA IS NEEDED ON THE DOOR SIDE OF THE TRAILER AND TRY TO  
HAVE THE VEHICLE LEVEL.

## UNIVERSAL STRAIGHTSIDE PATIO AWNING ASSEMBLY

PATENT #3324869



STEP 1. UNPACK HARDWARE AND ASSEMBLE ARMS AS SHOWN IN FIG. 1.

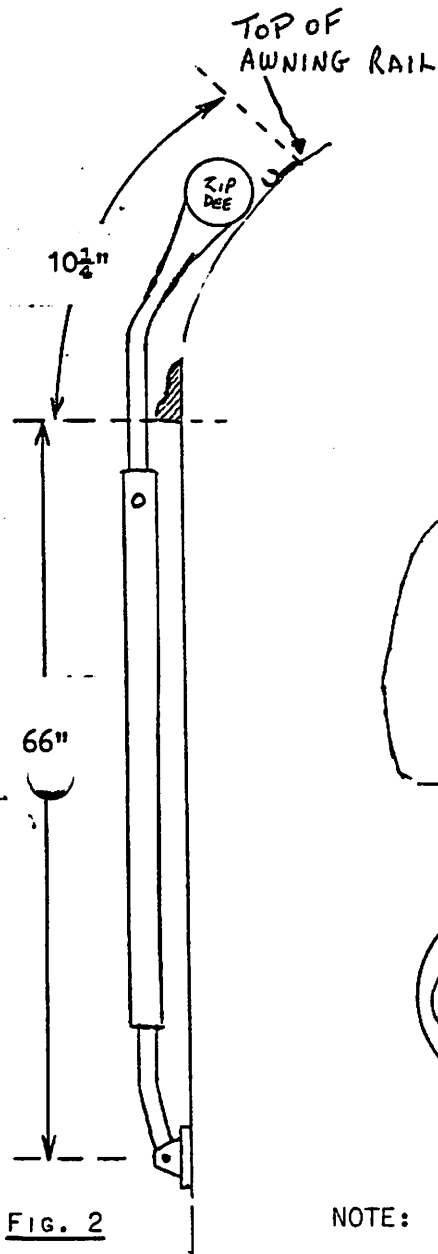


FIG. 2

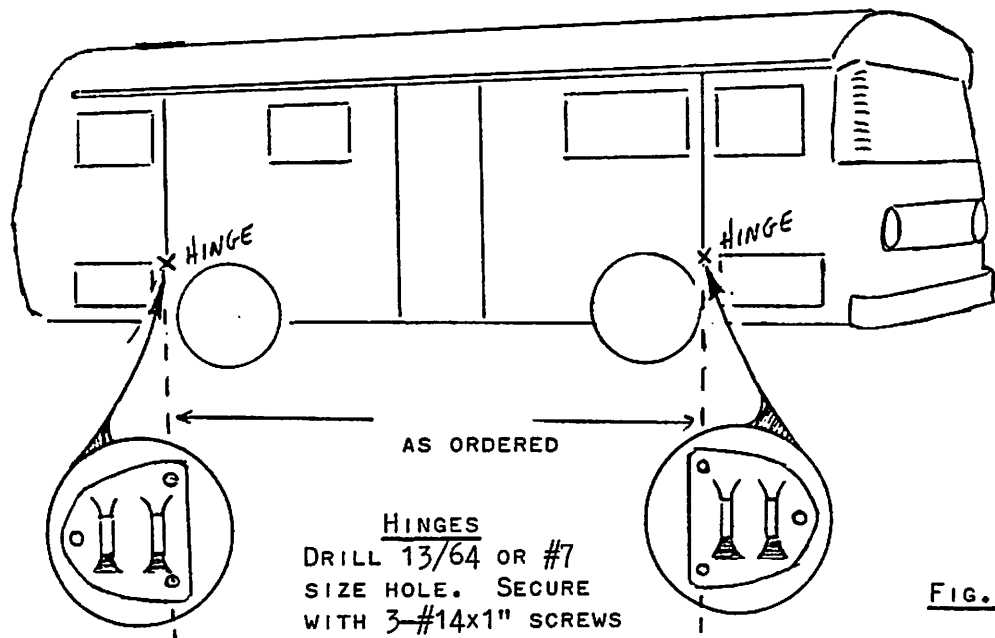


FIG. 3

NOTE: TO PREVENT LEAKS, FILL ALL DRILLED HOLES WITH SILICONE RUBBER CEMENT BEFORE MOUNTING FITTINGS.

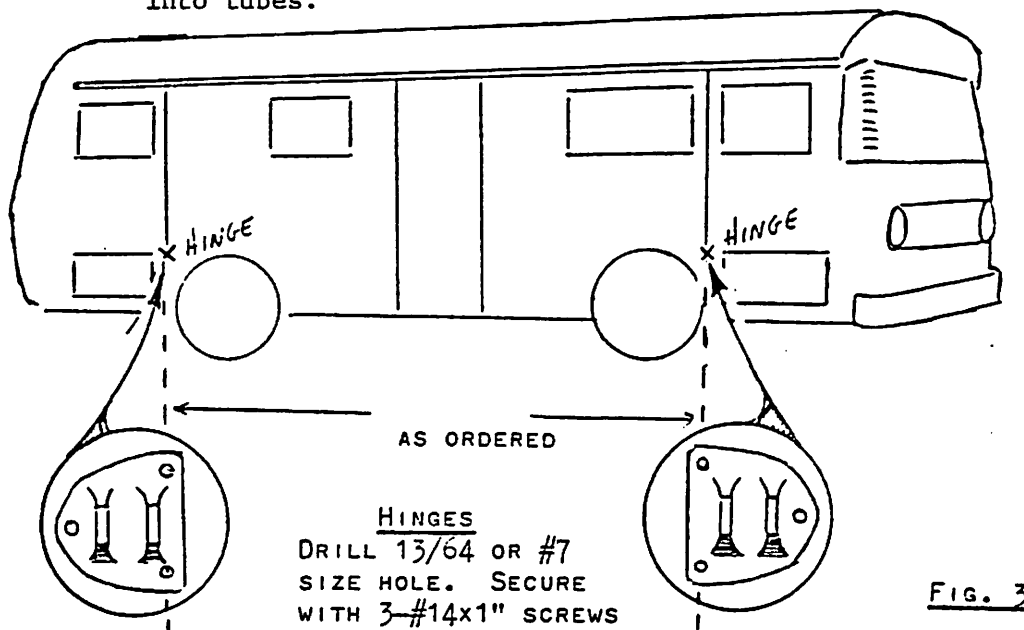
STEP 2. STRIKE LEVEL CHAULK LINE AND MOUNT AWNING RAIL AS SHOWN IN FIG. 2, USING THREAD CUTTING SCREWS PROVIDED. SEAL EACH HOLE AND TOP OF RAIL WITH SILICONE RUBBER CEMENT TO PREVENT LEAKS.

STEP. 3 DETERMINE HINGE HEIGHT AS SHOWN IN FIG. 2 & 3. MOUNT HINGES ON RIBS (OR PLUMB LINE).



#### STEP 4. MOUNT HINGES & MAIN ARM

- A. Mount main arm hinges at the center line determined in step 3A (Fig. 3) Space hinges so that the distance between the centers of the hinges is equal to the size awning ordered.  
Mount with #14 x 1-1/2" stainless steel sheet metal screws.
- B. Attach main arms to hinges as shown in Fig. 1, (snap studs to outside with notches forward) using 1/4-20 x 1-5/8" stainless steel bolts and cap nuts. Insert stainless steel main arm bars into tubes.



#### STEP 5. INSTALL AWNING ROLLER ASSEMBLY

- A. Remove awning roller from shipping tube.
- B. Remove rafter arm key locks (Fig. 4A) and connecting key (Fig. 4B) from each end of case as shown in Figure 4. Discard the key locks.
- C. Attach head casting to each end of roller as shown in Fig. 6.  
DO NOT attach rafter arms.
- D. With main arms laying away from coach, (Fig. 5) attach awning roller assembly to arms by slipping head castings onto main arm bars. See Fig. 6. Bolt arms to casting using 1/4-20 x 1-3/4" bolts. Bolts will be loose since rafter arm hinges are not yet attached. Screw in roller locks until threaded studs are snug against roller ends.
- E. Place ladders at each end of arms near coach and lift awning assembly to awning rail.
- F. Insert connecting key from each end of roller assembly so that bead end of extrusion slips into awning rail groove and key groove slips around bead at end of case slot until they butt at center of awning.
- G. Insert the slotted rafter arm key locks (packed in the parts bag) into end of core and secure with (2) 1/8" stainless steel blind rivets (Figure 4).
- H. Loosen roller locks and allow awning to open gently (Fig. 5).

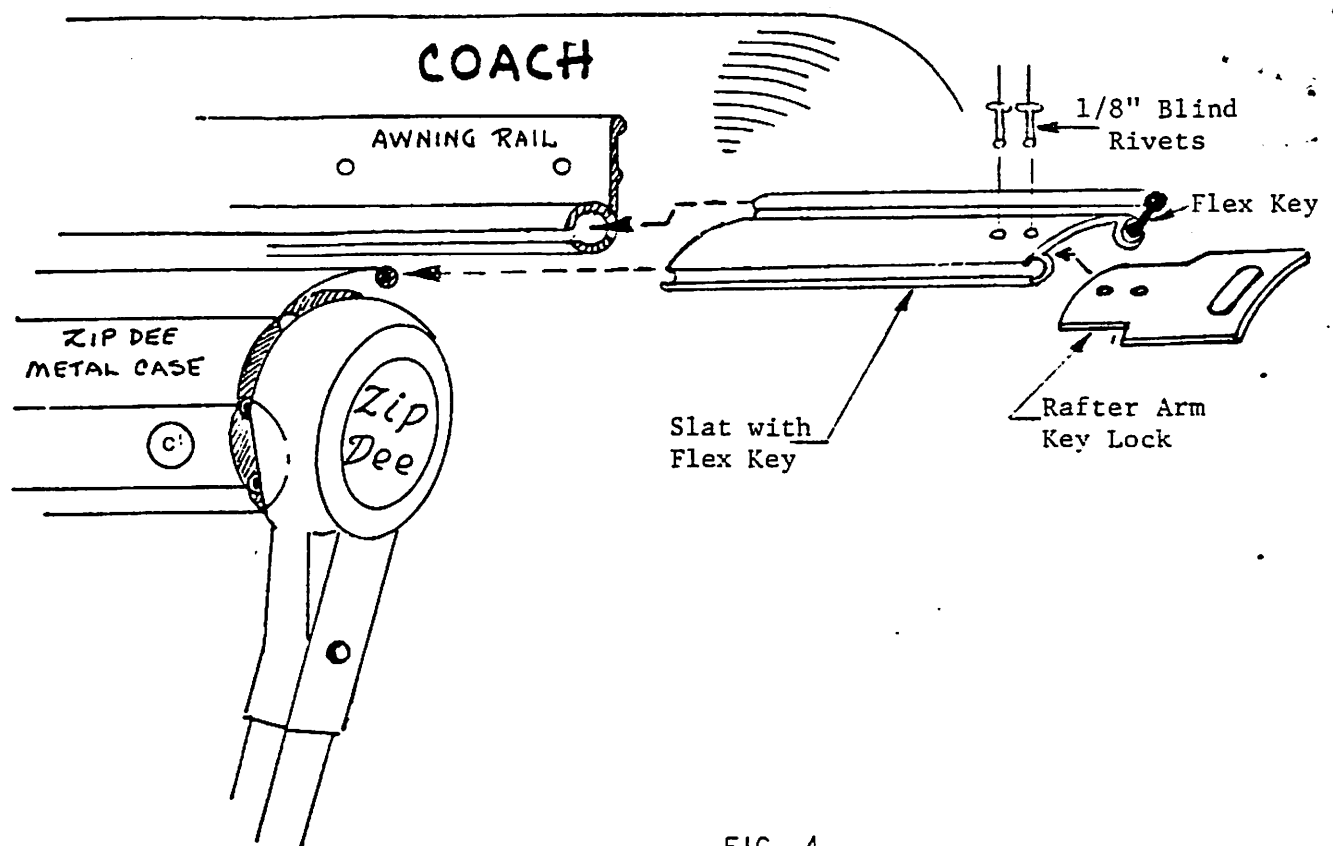


FIG. 4

#### STEP 6. WIND SPRING AND CONNECT RAFTER ARM

- A. SUPPORT ROLLER AS SHOWN IN FIG. 5, AND DISCONNECT REAR MAIN ARM AT HINGE CASTING. SLIP TUBE ASSEMBLY FROM STEEL BAR.
- B. WIND THE TORSION SPRING (THERE IS ONLY ONE), USING THE STUD BAR AS A LEVER (FIG. 5), THE NUMBER OF TURNS SHOWN IN THE WINDING GUIDE BELOW. AN ADDITIONAL 10 TURNS WILL HAVE BEEN PUT ONTO THE SPRING ON OPENING. ADD OR DEDUCT 2 TURNS PER FOOT FOR SIZES NOT SHOWN.
- C. AFTER WINDING, SLIP TUBE ASSEMBLY BACK ONTO BAR AND ATTACH ADJUSTMENT LEG TO BASE HINGE WITH  $1/4$ -20 x  $1-5/8$ " BOLT AND CAP NUT.
- D. REMOVE  $1/4$ -20 x  $1-3/4$ " HEAD BOLTS AND ATTACH RAFTER ARMS TO INSIDE OF EACH HEAD CASTING AS SHOWN IN FIG. 6. USE  $2-1/2$ " x  $1/32$ " STAINLESS WASHERS ON EACH SIDE OF RAFTER ARM HINGE AND SECURE WITH HEAD BOLT AND LOCK NUT. BE SURE BOLT ENGAGES NYLON PORTION OF NUT BUT ALLOWS FREE MOVEMENT OF RAFTER ARM.

- E. SLIDE RAFTER ARM TUBE ONTO BAR WITH THE SLOT IN TUBE FACING AWAY FROM MAIN ARM AND HOOK CLAW ONTO PROTRUDING ADJUSTMENT STUD. LOCK ARM IN POSITION BY PUSHING TUBE DOWNWARD TOWARD STUD, COMpressing the SPRING, UNTIL RATCHET STUD ENGAGES RECESS IN BAR.

#### WINDING GUIDE

17 FT. AWNING....	18 TURNS
19 FT. AWNING....	20 TURNS
21 FT. AWNING....	22 TURNS
23 FT. AWNING....	24 TURNS

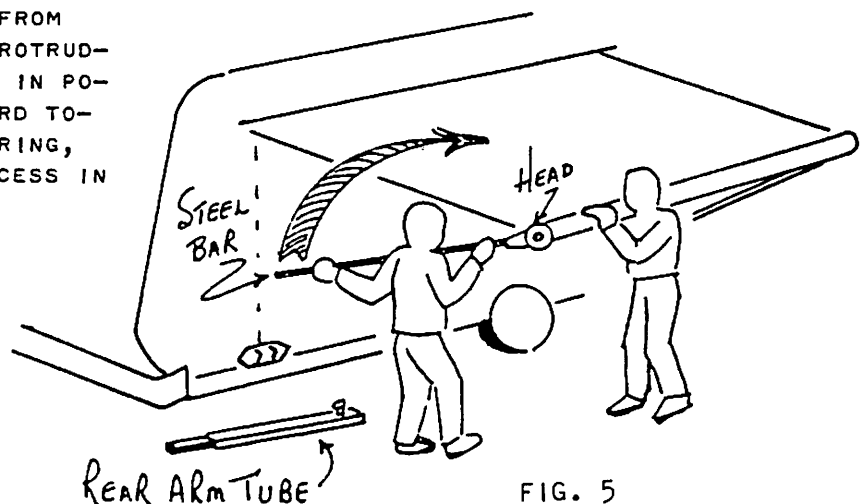
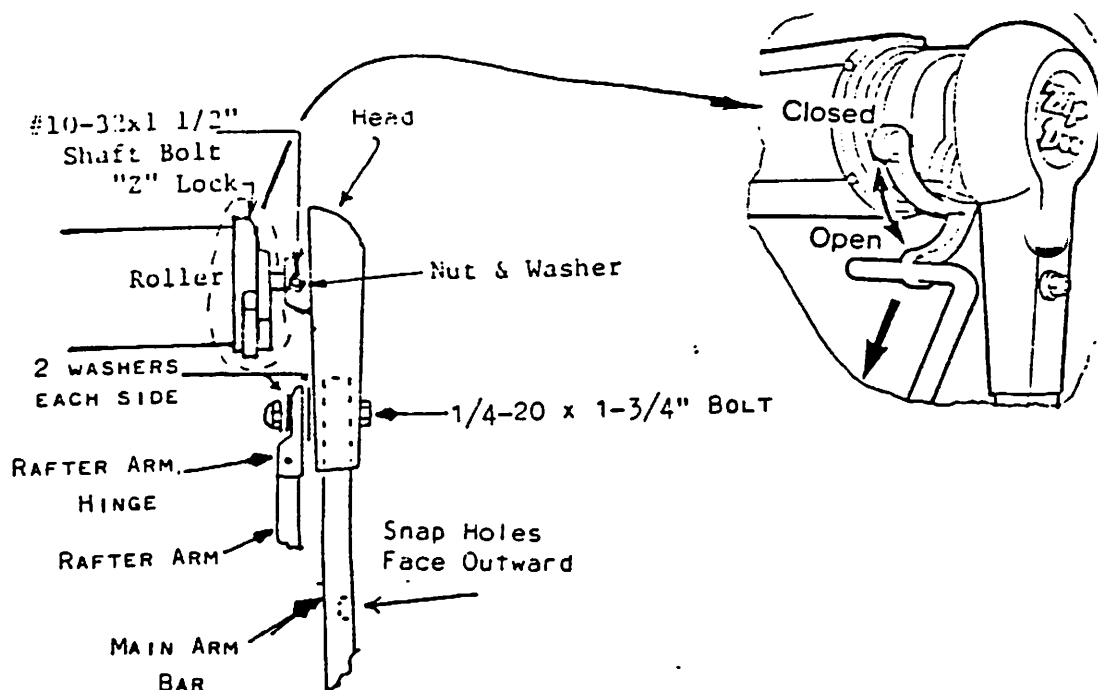


FIG. 5

FIG. 6



### STEP 7 FINAL CHECKOUT; ALIGN AND LOCK CASE

NOW TEST THE SPRING TENSION AND ADJUST ACCORDINGLY. THE AWNING SHOULD NOT START TO ROLL UP UNTIL YOU GIVE THE ROLLER A SWIFT STARTING PUSH UPWARD. 12 TO 24 INCHES OF FABRIC MAY HAVE TO WIND AROUND THE ROLLER BEFORE THE SPRING TAKES OVER. BECAUSE OF VARIATIONS IN SPRING TEMPER, YOU MAY HAVE TO ADD OR DEDUCT A FEW TURNS TO REACH THE RIGHT BALANCE.

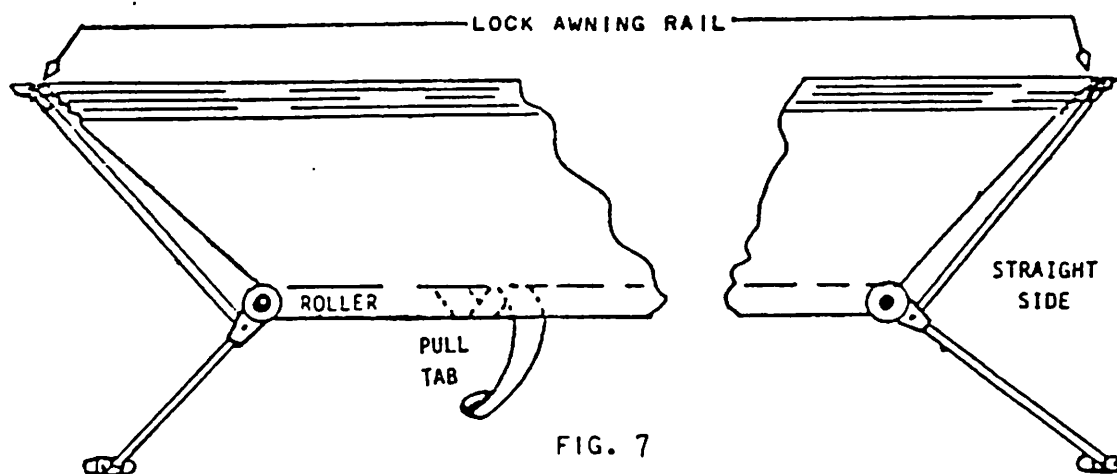


FIG. 7

USE THE PULL TAB TO CONTROL SPEED AND DIRECTION OF THE ROLLER AND SPIRAL THE TAB AS SHOWN IN FIG. 7 TO PREVENT CLOTH BUILD-UP. RELEASE THE TAB WHEN THE ROLLER IS ABOUT 14 INCHES FROM THE COACH, ALLOWING THE AWNING TO SNAP CLOSED.

WHEN CLOSED, THERE SHOULD BE AN EVEN AMOUNT OF EXPOSED ROLLER AT EITHER END OF THE AWNING. IF NOT, UNROLL AND CLOSE THE AWNING AGAIN, GIVING THE ROLLER A LATERAL PUSH IN THE DIRECTION NEEDED.

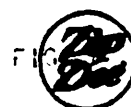
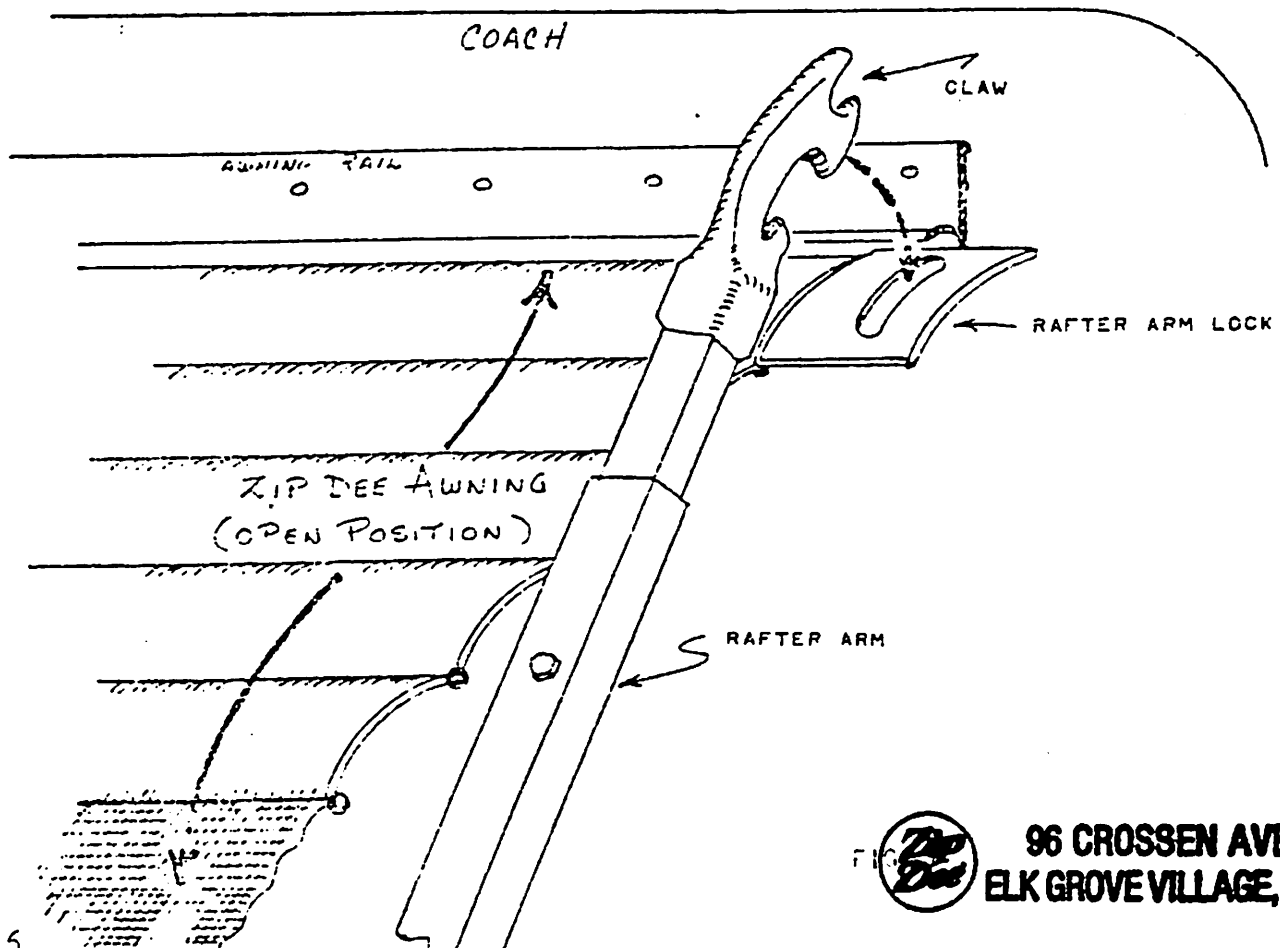
AFTER THE CASE AND ROLLER HAVE BEEN CENTERED AND THE ARMS ARE PLUMB AND PARALLEL, LOCK THE CASE IN POSITION BY CLOSING THE AWNING RAIL AT EACH END AS CLOSE AS POSSIBLE TO THE END OF THE KEY EXTRUSION AS SHOWN ABOVE AND IN FIG.1.

### OPERATION OF UNIVERSAL FLATSIDE AWNING

1. LOCK THE AWNING IN PLACE FOR TRAVEL BY TURNING THE ROLLER LOCK (SEE FIG. 1/A) CLOCKWISE UNTIL IT ENGAGES WITH THE DIMPLES IN THE ROLLER PLUG CASTINGS. TURN THE ROLLER LOCK COUNTER-CLOCKWISE SO IT WILL PASS THE EARS OF THE ROLLER PLUG CASTING AND ALLOW THE AWNING TO BE UNROLLED.
2. WITH THE AWNING FULLY UNROLLED, RELEASE THE RATCHET STUD (FIG. 1/B) ON THE RAFTER ARM. SWING THE ARM TOWARD THE CASE AND ENGAGE THE HOOK SECTION OF THE CLAW IN THE RAFTER LOCK (FIG. 8). MAKE SURE THE PIN ON THE RATCHET STUD CAP IS ORIENTED AT THE ARROW ON THE RAFTER ARM TUBE. LOCK THE RAFTER ARM AT EACH END BY PRESSING DOWN ON STEEL MAIN ARM BAR (FIG. 1/C), MAKING THE FABRIC TAUT, UNTIL THE RATCHET STUD ENGAGES.
3. RAISE AWNING TO DESIRED HEIGHT BY RELEASING SNAP STUD ON MAIN ARM AND PUSHING UP AND OUT ON ROLLER ASSEMBLY.
4. REPEAT PROCEDURE AT OTHER END OF AWNING.

### CLOSE DOWN

1. LOWER AWNING TO BOTTOM POSITION BY RELEASING SNAP STUD AND DROPPING ROLLER ASSEMBLY.
2. RELEASE RATCHET STUD ON RAFTER ARM AND LIFT THE CLAW OUT OF THE RAFTER LOCK.
3. PLACE ARM CLAW CASTING ON PROTRUDING STUD ADJUSTMENT AS SHOWN INSET IN FIG. 1/C. TO LOCK ASSEMBLY, PUSH TUBE IN DIRECTION OF HEIGHT ADJUSTMENT STUD UNTIL RATCHET STUD ENGAGES. REPEAT AT OTHER END OF AWNING.
4. ROLL AWNING AGAINST COACH USING THE PULL TAB TO GUIDE THE AWNING (FIG. 7).
5. LOCK ASSEMBLY IN PLACE BY TURNING ROLLER LOCKS CLOCKWISE UNTIL THEY ENGAGE THE ROLLER PLUG CASTINGS.



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