

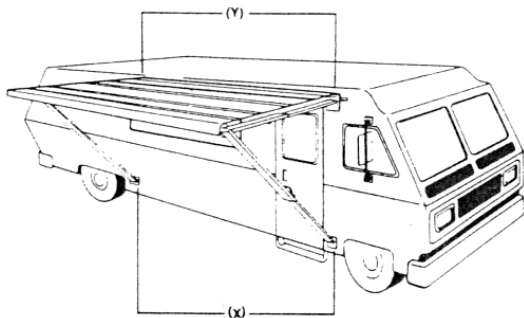


R.V. AWNING INSTALLATION AND OPERATING INSTRUCTIONS FOR TRAILERS & MOTOR HOMES WITH STRAIGHT SIDES.

READ ENTIRE INSTRUCTIONS BEFORE STARTING. FOLLOW ALL CAUTIONS, WARNINGS, AND NOTES TO PREVENT PERSONAL INJURY OR DAMAGE TO AWNING. TOOLS REQUIRED: ELECTRIC DRILL, DRILL BITS, 3/32", 1/8", 9/32", AND 3/8". EXTENSION CORD, LADDER, SOCKETS OR WRENCHES 3/8" AND 7/16". RATCHET OR SPEED HANDLE. SCREWDRIVERS: STRAIGHT SLOT AND #2 PHILLIPS, 4" C-CLAMP.

1. INSTALLATION PREPARATION

- A. Check vehicle to see if awning rail is installed. If not, mount one with rivets or screws. Seal back of rail with silicon rubber caulk or putty tape.
- B. Decide where arms will fit and not interfere with lights, vents, mirrors, etc. Must be in even feet between center of brackets and should extend over doorway.
- C. Cover any sharp projections with padding (rag or paper) and masking tape to avoid scratching holes in awning when threading into awning rail channel.
- D. Straighten and smooth awning rail. Use a screwdriver to spread one end slightly to allow easy insertion. Silicon spray or liquid soap will aid insertion.



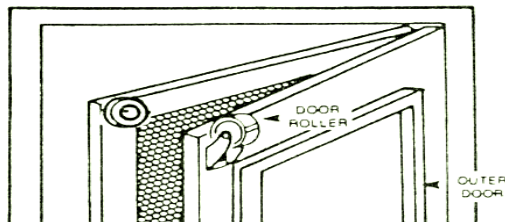
DISTANCE BETWEEN BOTTOM BRACKETS (X) MUST BE THE SAME AS BETWEEN THE TOP BRACKETS (Y) WITHIN 1/2 INCH.

2. DOOR ROLLER INSTALLATION

NOTE:

Door roller is to be installed before installing awning.

- A. To avoid damage to awning fabric, mount door roller on outside door using two #8 x 1/2" slotted hex head screws.

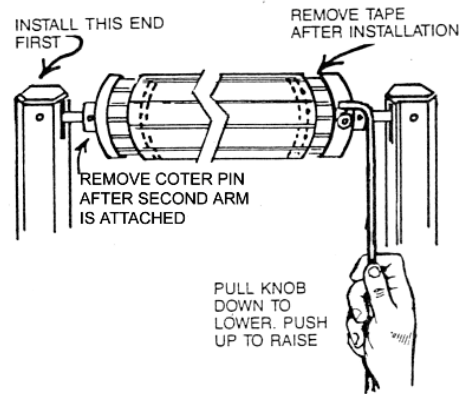


3. ATTACHING ARMS TO SPRINGS.

- A. Remove awning arms from box and determine front and back arm assemblies. Operating handles should be on the outside of the awning arms.
- B. Insert end plugs into upper arm assemblies and secure with #12 x 3/4" end plug screws. The arms should be approximately parallel.

CAUTION

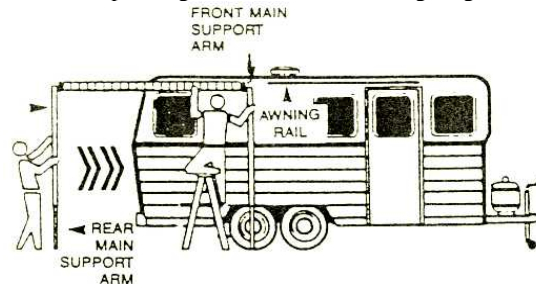
Awning springs are pre-wound at the factory. Keep awning arms in plane. Moving the arms out of plane will cause the one way clutch to resist returning to plane. Forcing the legs parallel will cause structural damage and/or personnel hazard.



- C. When both arms are installed to the roller tube end plugs, you should then remove the cotter pin that prevents the left side spring from unwinding. Do not remove the factory installed tape from the clutch assembly yet. When the cotter pin has been removed, both arms can be placed in the same plane.

4. AWNING INSTALLATION

- A. Move to end of vehicle from which awning is to be installed.
- B. Using a helper, raise awning so that arms are vertical and roller tube is approximately the same elevation as the awning rail.
- C. Extend lower part of arm so that awning is same height as awning rail using the operating handles and rest awning on ground.

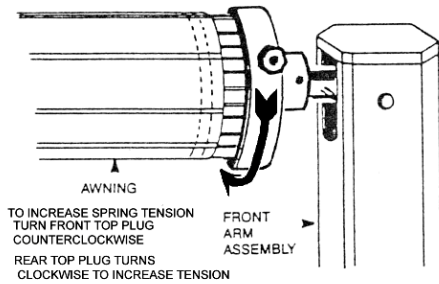


- D. Slide awning into awning rail. Helper on ground advances awning while one person guides the fabric into the awning rail. The helper should move between arms as needed.

- E. Awning is pre-wound at the factory. If turns are lost for any reason, completely unwind that side and re-apply turns in accordance with the following table:

AWNING LENGTH	NUMBER OF TURNS
8'-10'	4
11'-13'	5
14'-16'	8
17'-19'	10
20'-21'	10

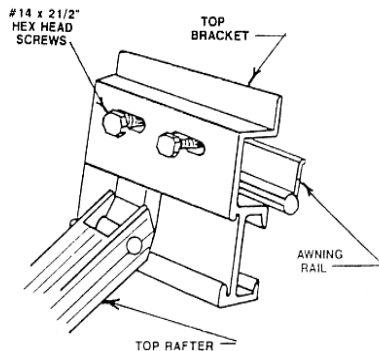
The above table assumes that the fabric is completely wrapped on the roller tube. If the fabric is fully extended, add 7 turns to the above numbers.



CAUTION
**DO NOT ATTEMPT TO APPLY
SPRING TENSION WITH YOUR BARE
HAND. USE A VISE GRIP CLAMPED
ONTO THE TOP PLUG**

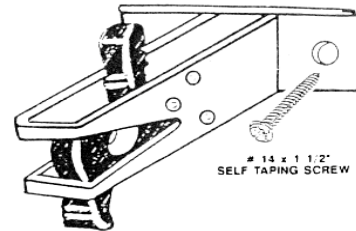
5. Top Bracket Installation

- Position awning in awning rail at desired location for installation.
- Place top brackets over awning rail similar to picture below.
- Drill 1/8" pilot holes into the roof line structure and install the first top bracket using two #14 x 2 1/2" hex head self tapping screws.
- Move to the opposite side of the awning and install the second top bracket in a manner similar to the first one



6. BOTTOM BRACKET INSTALLATION

- Drop a plumb line from the center of the top bracket and mark the spot where this line crosses the floor line.
- Locate the elevation of the top and bottom surfaces of the floor and mark a midpoint elevation across the previous plumb line.
- Center a bottom bracket on this location and drill two pilot holes for mounting screws using a 1/8" drill bit. Note: Trim molding is usually aligned with floor structure, but check to be sure of the floor elevation.
- Mount the bottom bracket using two #14 x 1 1/2" hex head screws per bracket. Ensure the bracket is mounted parallel with the floor.
- Move to the other end of the awning and install the second bottom bracket in the same manner.
- Pull the knob on one lift handle and slide one bottom upright into its corresponding top upright arm until the awning foot is level with the bottom bracket. Attach the foot into the bottom bracket.
- Repeat this procedure with the opposite side.

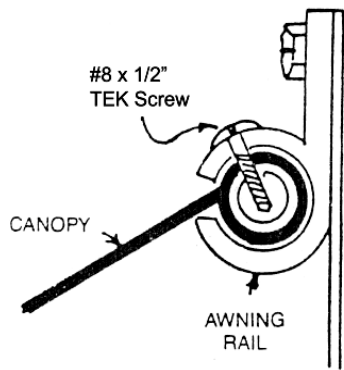


Caution: The bottom brackets carry the weight of the awning and must be mounted in a workmanlike manner.

Caution: Do not swing the right side arm away from the side of the vehicle and then back toward the vehicle. The one way clutch can generate tremendous torque on the mechanism in this situation.

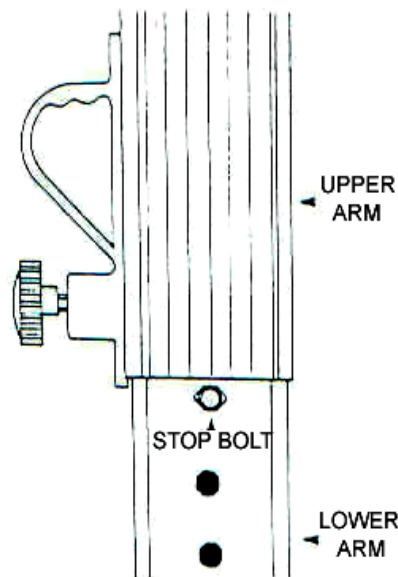
7. SECURING THE CANOPY

- Make sure arms are perpendicular to the floor line and that the awning is centered on the roller tube.
- Extend the awning several times (See Operating Instructions) to be sure that it rolls smoothly and straight. It may be necessary to slide the fabric in the awning rail to one side to allow the canopy to roll straight.
- To prevent the awning from moving, anchor each end of the awning fabric by installing #8 x 1/2" TEK (self drilling) screws through the awning rail, the fabric, and into the polyethylene rope approximately 2" from each end of the canopy.



8. STOP BOLT INSTALLATION

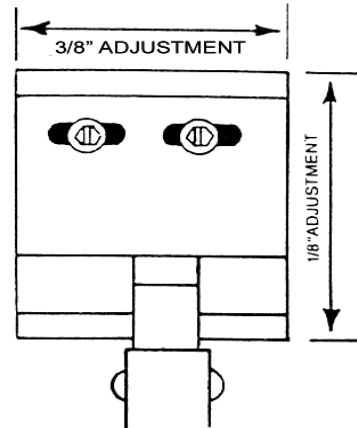
- A. To allow the awning to extend and retract correctly, it is necessary to install a stop bolt as close as possible to the bottom of each upper arm. Place a 1/4-20 x 3/8" hex head bolt with 1/4" star washer through the selected hole in the arm channel from the rear. Secure this bolt with a 1/4-20 acorn nut from the front.
- B. Repeat the stop bolt installation on the opposite side of the awning.
- C. Extend and retract the awning and observe that the finger of the top bracket does not hit the top plug #4914. If it does, move the stop bolt up one hole.



Caution: If the stop bolts are placed too high on the lower arm, there will be an excessive length of fabric unsupported before it reaches the roller tube. This section of fabric can be easily damaged while traveling by fluttering in the wind.

9. TOP BRACKET ADJUSTMENT

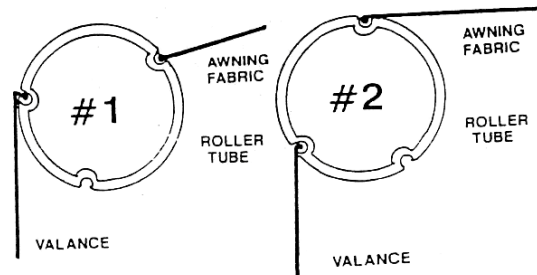
- A. After installation of stop bolts, it may be necessary to adjust the top bracket so that the finger of the top bracket does not hit the sides of the arm. Slightly loosen the mounting screws, adjust the position, and retighten mounting screws on the top bracket.
- B. Make adjustments as necessary to ensure the awning retracts full against the vehicle.



10. RAFTER LOCK KNOB INSTALLATION

- A. Fully extend the awning.
- B. Install the #4985 rafter lock knobs into the rivnut installed in each inside (small) rafter from the underside of the rafters.

Important: When you extend the awning, if you pull it all the way out it will resemble drawing #1 below. If you leave the awning this way, you will have a natural gutter which will start water pooling. To avoid this, hold roller tube with one hand and shift the clutch knob to the roll up position. Allow the awning fabric to roll up a few inches so your awning looks like drawing #2. Tighten the rafter lock knobs (just installed) This will assist water to roll off the awning. You must still set the awning as described in AWNING USE IN THE RAIN



11. OPERATING INSTRUCTIONS

A. TO EXTEND THE AWNING

1. Loosen both rafter locking knobs and swing both travel lock fingers to a vertical position.
2. Rotate the clutch to the extend position by pulling down on the knob projecting from the clutch cap using the awning wand.
3. Engage the awning pull strap with the awning wand and draw the awning away from the vehicle.
4. Slide the end of the large rafter up the arm assembly until stopped by the slider lock, then pull the slider lock knob and continue raising the slider until it can be locked. Repeat on the opposite side of the awning.
5. Tighten both rafter locking knobs.
6. Grasp the awning lift handle with one hand and pull the lift handle knob with the other. Raise the awning arm until the awning is at the desired height. Release the lift handle knob and ensure the pin is fully engaged in one of the holes in the lower part of the arm. Repeat this procedure on the opposite side of the awning.
7. Pull down on one arm near the top and tighten the rafter locking knob. This will tighten the awning fabric. Repeat on the opposite side.

B. TO RETRACT AWNING

1. Release both rafter locking knobs.
2. Pull the slider lock knob and lower the end of the large rafter as far as it can go. Repeat on the opposite side.
3. Grasp the awning lift handle, pull the locking knob and lower one arm until it contacts the stop bolt. Repeat on the opposite side.
4. Have the awning wand immediately nearby. Pull the awning bridle to a point approximately 5 feet from the clutch. Firmly grasp the bridle near the roller tube and rotate the clutch cap to the awning retract position. Control the retraction of the awning with the bridle and when you

approach the end of the bridle, insert the awning wand in the loop and continue until the awning is fully retracted. Then remove and stow the awning wand.

5. Tighten both rafter locking knobs to prevent their loss during travel. Flip the travel lock fingers to the horizontal position to help secure the awning. At this point, the awning is ready for travel.

C. USING CARPORT FEATURE

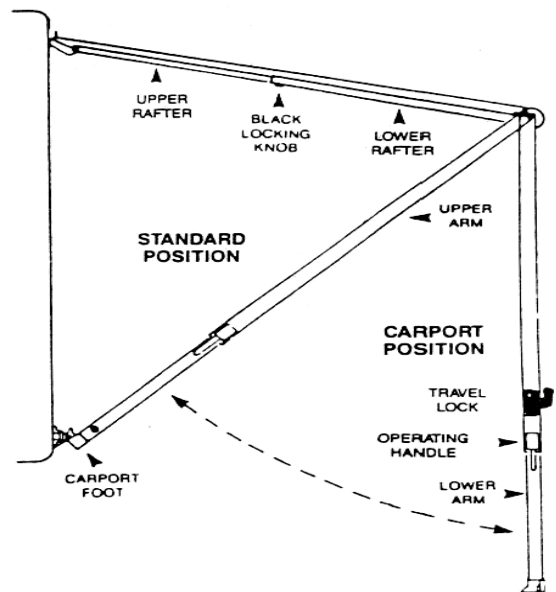
1. To place awning in carport position, first extend awning as in A. above.
2. Grasp lower arm section with one hand and release bottom bracket latch with the other hand.
3. Pull arm away from the bottom bracket and swing arm assembly away from vehicle until perpendicular to the ground.
4. Adjust arms to position awning at the proper height.
5. Drive stakes through holes in awning foot to prevent accidental movement.

WARNING:

Stakes will not prevent awning from moving in high winds.

6. Reverse above procedure to return awning to normal position.

Note: The awning clutch may need to be cycled or the rafters adjusted to allow the right hand foot to return to the bottom bracket.



D. AWNING USE IN THE RAIN

The awning must be tilted laterally to assure drainage. Lower one arm and raise the opposite arm to accomplish this. Longer awnings require more tilt. Any water ponding on the awning is unacceptable and can lead to awning collapse. The awning can also be left partially extended to reduce the possibility of water or rain damage. The awning rafters must be locked and the fabric must be taut.

WARNING

Do not walk under an awning that is full of water. Do not attempt to adjust the arms in an effort to drain the water. This will cause collapse! Use a broom and sweep water out of the awning to minimize personal hazard. Awning damage from water build up is not covered by warranty.

If the awning cannot be tilted enough to prevent water from pooling, it must be rolled up to prevent damage.

E. CLEANING

Mildew will not form on vinyl canopy material, but rather on dust allowed to accumulate on the canopy. Keep awning clean to prevent formation of mildew. Use cleaners compatible with vinyl fabrics to clean your awning. In extreme cases, dilute chlorine bleach solution can be used to scrub out stains however all bleach so applied should be completely rinsed from the surface immediately afterward. Concentrated exposure to bleach will damage the fabric.

Caution: Do not use caustic cleaners, mildew removers or metal cleaners on fabric as they can destroy colors and will not be covered by warranty.

12. LUBRICATION

Your Shademaker awning is intended to provide many years of service with minimal maintenance. Experience has shown that the following areas may require occasional lubrication:

- A. Apply a few drops of oil on the Spring Shaft where it emerges from the Spring end cap.
- B. Apply a few drops of oil where the Clutch cap slides on the Clutch

Shifting Block, behind the external snap ring.

- C. Apply a few drops of oil on the center of the Clutch Shift Knob where the tip of the Clutch Pin is visible.

Note: Use a lubricant such as SAE 30 motor oil.

Do not use Spray lubricants that have a volatile carrier. These volatile carrier fluids tend to wash lubricant off surfaces and leave bare spots after the carrier liquid evaporates.

13. MAINTENANCE CAUTIONS

- A. Do not remove the snap ring from the outside of the clutch in an attempt to diagnose problems. Removal of the outside snap ring will cause small parts to fall out of position. Proper clutch maintenance requires removal of the complete clutch shaft assembly from the awning. Most clutch problems are a result of inadequate lubrication.
- B. Do not tighten or loosen the Clutch Shifting Knob. This part holds the clutch T-bolt and must remain tight to properly align the T-bolt and clutch pin.
- C. Do not travel with inadequate roller spring tension. Although the clutch is intended to resist the aerodynamic forces pulling on the awning, it receives considerable assistance from spring tension. If spring tension is inadequate, the added stress may cause other components to fail or malfunction.

The logo for Shademaker features a stylized awning icon above the word "Shade" in a large, bold, serif font. Below "Shade" is the word "MAKER" in a smaller, bold, sans-serif font.

Shademaker Products Corp.

P.O. Box 5271

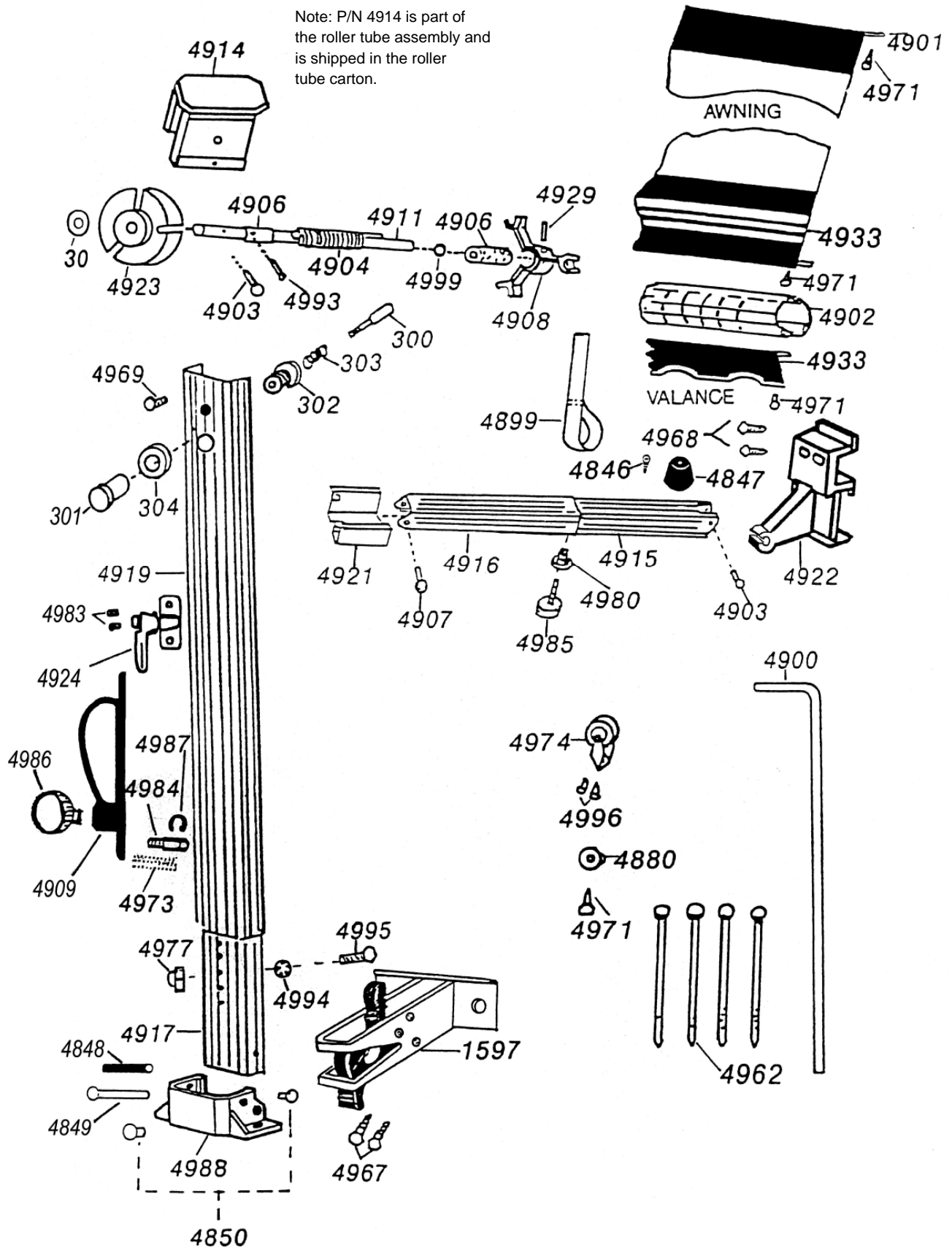
Buffalo Grove, IL 60089

Telephone (773) 955-0998

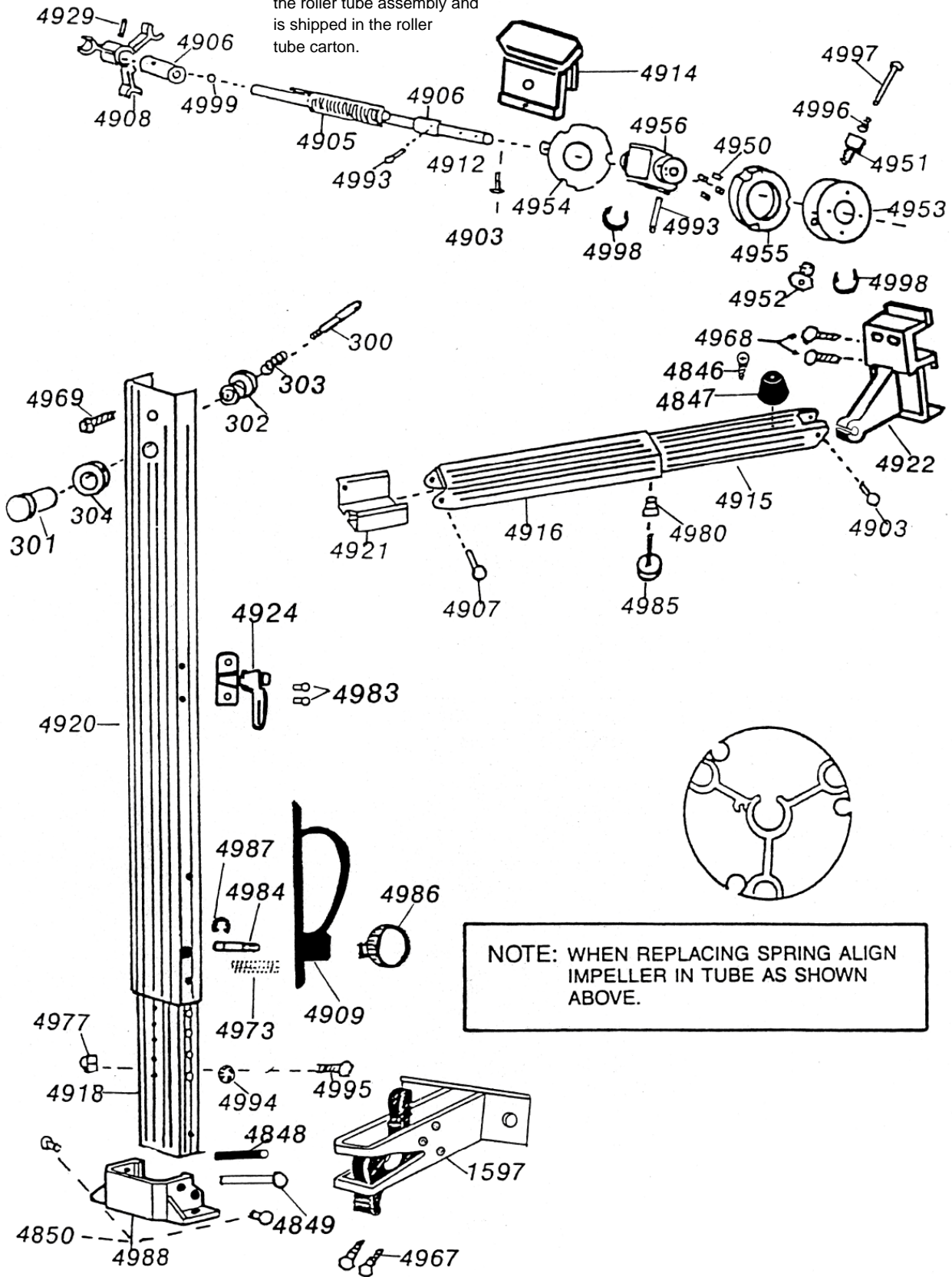
Fax (773) 955-1074

Plant located in Chicago, Illinois

Note: P/N 4914 is part of the roller tube assembly and is shipped in the roller tube carton.



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PART NUMBER	DESCRIPTION	QUANTITY	PART NUMBER	DESCRIPTION	QUANTITY
4999	1/2" STEEL BALL BEARING	2	4921	SLIDER	2
4998	1 3/8" EXTERNAL SNAP RING	2	4920	RIGHT SIDE TOP UPRIGHT	1
4997	3/16" X 1 1/2" CLUTCH PIN	1	4919	LEFT SIDE TOP UPRIGHT	1
4996	1/2" CONICAL CLUTCH SPRING	1	4918	RIGHT SIDE BOTTOM UPRIGHT	1
4995	1/4-20 X 3/8" HEX HEAD BOLT	2	4917	LEFT SIDE BOTTOM UPRIGHT	1
4994	1/4" EXTERNAL LOCK WASHER	2	4916	LARGE OUTER RAFTER	2
4993	3/16" X 1 1/2" ROLL PIN	3	4915	SMALL INNER RAFTER	2
4988	AWNING FOOT ASSEMBLY	2	4914	TOP PLUG ASSEMBLY	2
4987	1/4" EXTERNAL SNAP RING & WASHER	2	4912	1/2" X 40" RIGHT SHAFT	1
4986	BLACK HANDLE KNOB-F-5/16-18	2	4911	1/2" X 40" LEFT SHAFT	1
4985	1/4-20 X 1 1/2" MALE KNOB	2	4909	AWNING LIFT HANDLE	2
4984	5/16-18 HANDLE PIN	2	4908	SPRING IMPELLER	2
4983	3/16 X 9/16" POP RIVET	8	4907	3/16" X 1 13/16" SEMI-TUBULAR RIVET	2
4980	1/4-20 RIVET NUT	2	4906	1/2" ID ALUMINUM BUSHING	4
4977	1/4-20 ACORN NUT	2	4905	30" RIGHT HAND SPRNG	1
4974	DOOR PROTECTOR WHEEL	1	4904	30" LEFT HAND SPRING	1
4973	1/2" X 5/8" HANDLE SPRING	2	4903	3/16" X 1 3/8" SEMI-TUBULAR RIVET	2
4971	#8 X 1/2" PHILLIPS PAN HD TEK SCREW	4	4902-XX	AWNING ROLLER TUBE, XX LENGTH	1
4969	#12 X 3/4" HEX HD SELF TAPPING SCREW	2	4901	1/4" LDPE ROPE	1
4968	#14 X 2 1/2" HEX HD SELF TAPPING SCREW	4	4900	AWNING WAND	1
4967	#14 X 1 1/2" HEX HD SELF TAPPING SCREW	4	4899	AWNING PULL STRAP	1
4962	ANCHOR PINS	4	4880	NYLON SCREEN DOOR PROTECTOR	1
4956	CLUTCH SHIFT BLOCK	1	4850	3/16 X 1/2" SEMI-TUBULAR RIVET	4
4955	CLUTCH SHIFT RING	1	4849	1/4" X 2 3/4" SEMI-TUBULAR RIVET	2
4954	CLUTCH LOCK PLATE	1	4848	1/4" X 1 1/2" RUBBER TUBE	2
4953	CLUTCH CAP CAGE ASSEMBLY	1	4847	PLASTIC BUMPER	2
4952	CLUTCH SHIFT KNOB	1	4846	#8 X 1/2" PHILLIPS PAN HD SCREW	2
4951	CLUTCH T-BOLT	1	1599	COMPLETE CLUTCH SHAFT ASSEMBLY	NA
4950	3/8 X 1/2" CLUTCH ROLLER	4	1598	COMPLETE SPRING SHAFT ASSEMBLY	NA
4933	5/32" LDPE ROPE X (AWNING WIDTH)	2	1597	QUICK RELEASE BOTTOM BRACKET	2
4930	1/2" FLAT WASHER	2	304	SLIDER LOCK RING	2
4929	3/16" X 1 1/8" ROLL PIN	5	303	SLIDER LOCK SPRING	2
4927	1/8 X 2 1/2" COTTER PIN	1	302	SLIDER LOCK BUSHING	2
4924	TRAVEL LOCK ASSEMBLY	2	301	SLIDER LOCK KNOB	2
4923	SPRING END CAP	1	300	SLIDER LOCK PLUNGER	2
4922	TOP BRACKET ASSEMBLY	2			

SHADEMAKER'S 5 YEAR LIMITED WARRANTY

Shademaker Products Corp. warrants the Shademaker Automatic Roll-Up Awning for a 5-year period from the date of purchase to the original owner. Shademaker will repair or furnish replacement parts for any part found to be defective by our inspection within the time allowed by this warranty.

The company may allow labor charges for installation of a replacement part less than 90 days old based on a flat rate schedule with prior consent. Charges for travel time and mileage are not covered by this warranty.

Warranty Coverage:

- 1) Roller Tube: Warranted not break or bend if not subjected to water pooling on the awning fabric or high winds for 5 years from date of purchase.
- 2) Support Arms & Rafter: Warranted not to fail if not subjected to water pooling or high winds 5 years from date of purchase.
- 3) Spring & Clutch Assemblies: Warranted not to break or pull loose if not subjected to water pooling, high winds or overwinding, 5 years from date of purchase.
- 4) Awning Fabric: Warranted against excessive fading. Ultra-violet rays will cause a slight color change under normal use.

Excessive peeling, cracking, hardening, or loss of strength while used under normal conditions and not subjected to high winds or water pooling.

Mildew (Mildew will form on dirt that has not been removed from the awning fabric.

Not Covered Under the Warranty:

- 1) Any product failure caused by improper installation.
- 2) Damage while traveling due to the awning not being properly stored.
- 3) Any damage or failure that results from an accident, purchasers abuse, improper maintenance, neglect, or failure to operate and use the awning in accordance with the instructions in the owner's manual.
- 4) Any part not manufactured or sold by Shademaker Products Corporation.

Limited Warranty

Shademaker Products will replace or repair defective parts at no charge during the first 12 months after original purchase. From the 13th month through the 60th month the cost of replacement or repair of defective parts will be pro-rated according to the length of use. Exclusive of applicable taxes, labor, and shipping.

PROVISIONS:

Note: Shademaker Products uses computer sales records to verify warranty eligibility. Keep your sales receipt as proof of purchase, as it may be asked for in the future.

1. The awning installation has been completed correctly.
2. Accident, carelessness, storm, water pooling, wind, or normal conditions did not cause the damage.
3. The damaged part is returned to Shademaker Products prepaid.
4. To return a part, you must get a return authorization number from Shademaker Products. This authorization number must be on the outside of the return package, or our receiving department will refuse receipt.
5. If repairs or replacements are made under warranty, the parts will be returned transportation prepaid.

Shademaker Products shall be liable only to the extent and time expressed in this warranty. This warranty is to the original owner and is non-transferable.

You have the option of requesting that Shademaker Products ship replacement parts at full retail price on a COD basis. This will expedite shipping replacement parts to enable you to repair your awning more quickly. When Shademaker Products receives the defective parts and makes a determination if this falls in the scope of your warranty, Shademaker will issue any credit to the original owner.