

# SUNAIR®

Lateral Arm Awning

## Installation Instructions



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Specifications and instructions subject to change without notice

**INSTALLATION TYPES:**

To install the SUNAIR® awning use 3/8” lag bolts. The length of the bolts should be 4 – 7” and vary in size depending on the installation. Measure the thickness of the wall. Make sure the brackets are installed into structurally sound members. Wind is the largest factor affecting the awning. Even moderate winds put great strain on the brackets and installation. Many types of installations exist. Always check with your fastener supplier for the correct bolts and size. Two lag bolts are needed for each bracket. When installing into wood make sure the bolts penetrate at least 2 ½ – 3” into solid wood.

Note:

**IMPORTANT!**

Always check to see, that the proper number of installation wall brackets are supplied with your awning. If needed, add more brackets, see chart below.

Unit size:	Number of brackets
8 – 14 ft wide	3
15 – 17 ft wide	4
18 – 20 ft wide	5
21 – 28 ft wide	6
29 – 40 ft wide	8

**WARNING!**

The Awning Arms are spring loaded and under heavy tension. Do not attempt to remove an arm or fabric without referring to special instructions.

**Roof Installation**

Use the AU18 Roof Brackets (Aluminum or Stainless) and locate the roof rafters. The face of the roof bracket should be mounted 10” back from the gutter for a flush installation. If the unit is manually operated the awning may need to overhang the gutter in order to use the crank handle. Use 4” lag bolts. Caulk the holes under and around the roof bracket to form a tight seal. This installation option is only available for asphalt shingle roofs. One roof bracket is needed for every AU10 wall bracket. A hood is recommended.

**Note:** Read supplemental installation procedures using roof brackets carefully before starting. If mounting on “FLAT” roofs, use the stainless roof brackets as they can be adjusted flat without adaptors. Special AU18AEXT extensions must be added if mounting awning on a flat roof using the aluminum brackets.

**Wall Wood Frame**

Doors and windows can be used to find the studs and headers. Make sure the bolts are long enough to anchor 3” into the stud. Always pre-drill the holes to avoid splitting the stud. Do not over-tighten the bolts or you might strip the threads. If mounting on the wall under an overhang, allow 1” between the top of the bracket and the overhang for the fabric roller tube and hood if configured.

**Wall Siding option A (pressure treated board)**

Mount a 2”x 10” pressure-treated board to the house and fasten the brackets through the board into the header or studs( longer bolts are needed). Use a 2” x 8” board if installing without a hood. Paint or trim the board.

**Wall Siding Option B (standard)**

The brackets can be installed right on the siding. The siding may become compressed under the load of the awning. Use an AU14 Bracket Spacer shaped to fit the AU10 Wall Bracket, available in 10mm or 20mm thickness. The spacer can be cut in half. Use the spacer as a fill to minimize siding compression. This option is not recommended with larger projections. With Larger projections it may be necessary to cut the siding for the bracket and use a solid spacer.

**Wall Brick Installation**

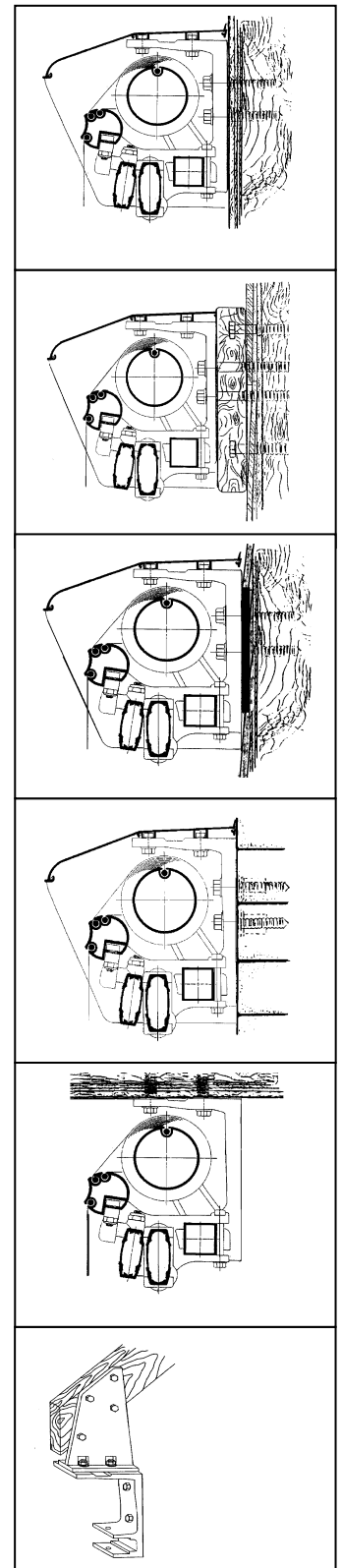
Make sure the face is structured and not just an unsupported facade. Do not bolt into top rows of bricks or close to an outside corner. Use 4” lag bolts with lead shields or bolt brackets through the brick into wood for most secure mount. If using Sleeve anchors, be careful to make sure that the threaded rod does not extend too far. Use extra brackets and Hilti epoxy type fastener system for best results (Check with your fastener supplier).

**Ceiling Installation (standard)**

Use AU16C brackets instead of the standard wall brackets. Make sure the soffit or joists are strong enough to support the extended awning. If you have a soft soffit, you may have to cut out the area where the brackets will be installed and use a spacer.

**Ceiling Installation (using beam brackets)**

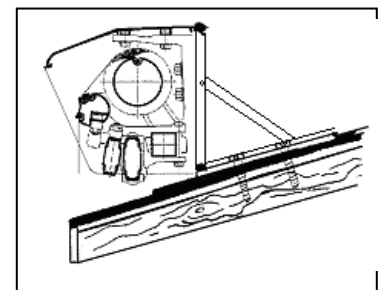
Use AU16C brackets like the standard ceiling installation. Add an additional AU45 9” beam bracket for angled beams and AU46 5” beam bracket for straight beams. One beam bracket is needed in addition to each AU16C ceiling bracket.



AU18S Stainless



AU18A Aluminum



AU18AEXT Extensions for flat roof Aluminum bracket ONLY

## BEGIN INSTALLING YOUR SUNAIR®

Always read the entire installation instruction manual prior to starting the installation. Place the awning next to the designated wall. Determine where to install the brackets. The awning has to be mounted at the proper height. For proper pitch and clearance on the awning when it is extended (7ft under the front bar), refer to the pitch chart for proper bracket installation height. The pitch chart represents the ideal mounting height. A 10ft projection awning should be mounted at 9'6" high representing a 3/12 pitch or 3" for every 12" of projection (for example, 10ft projection x 3" = 2'6", and 2'6" + 7' = 9'6"). Because the ideal pitch may not always be attained a 2/12 pitch or 8 1/2 to 9ft installation height is acceptable, with an absolute minimum installation height of 8ft at the top of the brackets.

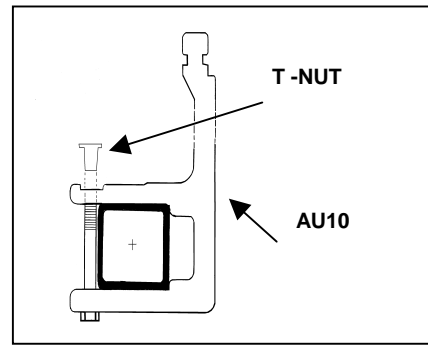
**Note:** A good rule of thumb is never to install a Lateral Arm awning below 8 feet at the top of the brackets. If only eight feet is attainable the awning projection should never exceed 10ft. When the proper installation height has been determined the brackets will have to be spaced out properly as determined by the wall structure. The outer brackets should be located inside or outside the outer arm attachment or shoulder, no further than 10" away, but not closer than 4". The third bracket should be located as close to the center or third arm (if configured on the awning) as possible. Any additional brackets should be spaced evenly and located as close to an arm as possible. On 13ft and 14 ft projection awnings, it is necessary to install one bracket outside the arm shoulder and one bracket just inside the arm shoulder while also making sure the center of the awning is supported. A 16' w x 14' p unit will need to be installed on a wood board. See the arm placement chart for bracket placement.

Make sure the brackets are not to be mounted where the arms are attached to the support tube or where the center support is located (if needed). All brackets must be in line and level in order for the unit to fit freely in the brackets. Mount the outer brackets first and use a string line to place the remaining brackets. Make sure you have the proper lag bolts and number of brackets (see previous page). If a hood is used attach the AU15 hood adapter to the AU10 bracket prior to installing the bracket on the wall (see hood option below).

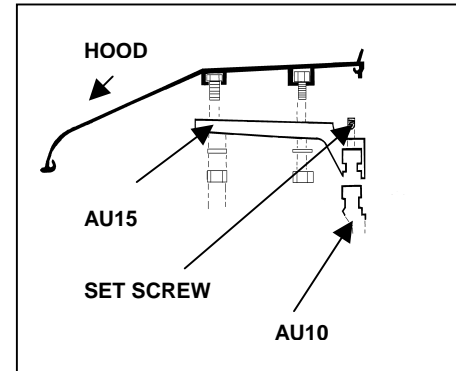
The awning can now be set into the brackets and locked in with the T-Nut and bolt (see bracket sketch above). The AU16C bracket uses an 8mm x 65mm bolt/washer with a standard nut. Make sure you use a ratchet to tighten the bolts when the awning is in retracted position (Do not over tighten).

### HOOD OPTION:

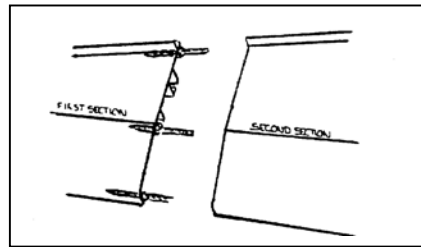
The hood should be mounted before the awning is set in the brackets. Slide the head of each bolt into the front or back groove of the hood (one for each bracket until it reaches approximately the position of the corresponding bracket. Attach the hood end covers with the Phillips screws supplied to the left and right edge of the hood. Place the hood on top of the adapters and insert the hood bolts through the adapter. Attach the washers and nuts and tighten (see hood assembly sketch above). The AU14 hood bracket which is a 3/4" wide Bracket similar to the AU10 wall bracket is used in combination with the AU15 to support the hood where the hood is spliced or unsupported by a wall bracket. For example, use the AU14 & AU15 on in the center of a two arm awning when all 4 install brackets are used near both arms. To splice two pieces of hood together use the aluminum pins supplied. Insert the pins in the same slots as the hood end cap screws. Note: It is sometimes necessary to install one awning bracket close to the splice for support.



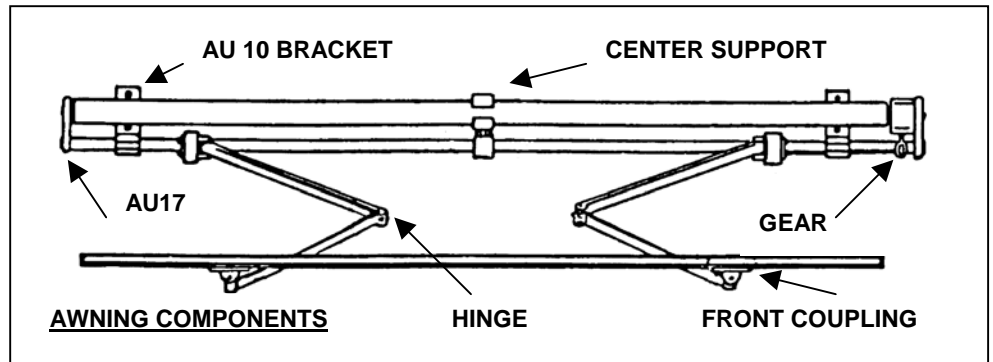
### BRACKET ASSEMBLY



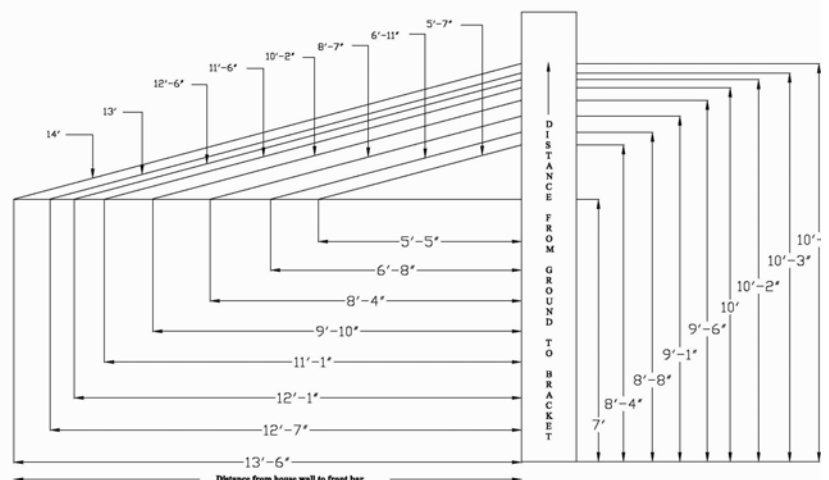
### HOOD ASSEMBLY



### HOOD SPLICING



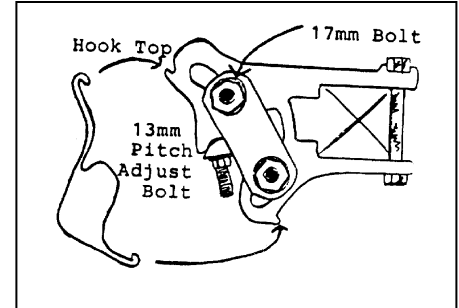
### PITCH CHART AND IDEAL MOUNTING HEIGHT



**Note:** With the awning installed at the proper pitch, you will lose some projection (see above)

## ADJUSTMENT:

All SUNAIR® awnings with fabric are adjusted at the plant. The pitch will need to be adjusted after installation. The following guidelines should be followed when adjusting the pitch. Extend the awning to its fullest projection and loosen the 17mm lock nuts on the Slide Unit. When raising or lowering the pitch, the arm should be supported by lifting the front bar to assure the front adjustment bolt will not be stripped. Now, turn the 13mm arm adjustment bolt/nut at the front/bottom of the bracket clockwise to raise the arm or counter clockwise to lower the arm (see SUNAIR® slide unit sketch). Tighten the 17mm lock nuts after the arm is adjusted.

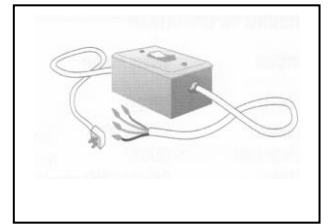


SUNAIR® Slide Unit

If you change the pitch on an awning with a center support, change the position of the cradle. A 1/2" gap should exist between the lower lip of the Center Support cradle and the fabric (see Center Support sketch). Loosen the 5/32" bolt on the front, change the slot and retighten the bolt. Make sure the Center Support is on a seam.

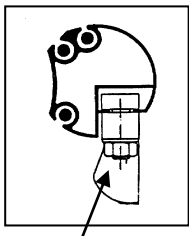


The arms should work together as a unit. If one arm closes or retracts before the other, the front bar arm attachment for that arm should be adjusted slightly outward or toward the end of the front bar until the arms function properly together. Extend the awning about 24". Loosen the two 8mm front coupling nuts on the arm that closes early. Slide the coupling about 1/2" towards the end of the awning or to the point when the elbows or hinges are even. Re-tighten the bolts. Repeat if necessary. (see front coupling sketch and awning component sketch).

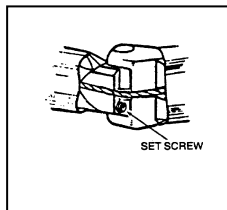


Cable Tester for Motor  
Order # 500176020086

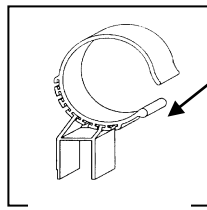
The set screw in the hinge has been pre-set, exposing the proper number of threads and limits the arms from excessive play in the wind when the awning is extended. If the motor or gear hesitates when retracting, reset the set screw to expose one or more threads. If the arms have excessive play or move too easily from slight wind gusts, the set screw should be set flush. Small projection awnings and three-four arm systems with more tension may require one or two more threads exposed (see hinge sketch below).



8mm  
Nuts

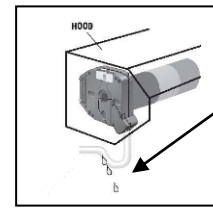


Hinge



AU61C Center Support

1/2" gap  
between the  
lower lip of  
the cradle  
and fabric



Form a "drip  
loop" on the  
motor cable.

AU123 Front Coupling

## Specialty tools needed:

The following tools are needed to adjust and mount the awnings.

- 1/2" Socket/Ratchet for Brackets AU10 Bolt
- 1/2" Open End Wrench to attach the Hood (if ordered)
- 17mm Socket for Slide Unit (to change pitch)
- 13mm Socket (deep socket) for Front Arm Attachment/Pitch Adjustment and AU16C brackets
- 10mm Socket/Wrench for gear adjustment (if necessary)
- Phillips Screwdriver to attach hood end covers

## IMPORTANT about motors!

Always check the limits when you are extending and retracting the awning for the first time to make sure they are properly set. Most limits are set at the plant initially but sometimes the "factory" limits may change during shipping. Should adjustment be necessary, please refer to the motor instruction sheet supplied. If the limits are not set properly as the awning is extended for the first time the fabric may get damaged by the center support (if configured). The motor cable should also not act as a direct conduit for the water to enter the head. Install a "line drip loop" to divert water away from the head (SEE ABOVE). Also, do not cut the RTS power cord less than 18", as the cable serves as the antenna for the RTS receiver. If mounting two RTS radio motorized units next to each other install the motors at opposite ends to minimize interference between motors. Before the electrician wires the motor, it is very important to read the motor wiring instructions carefully. A tester cable kit is recommended when testing all "hard wire" motors. The tester cable kit is available for purchase (See tester cable middle right).