



# SOLAIR® INSTALLATION MANUAL



LATERAL ARM RETRACTABLE AWNING SYSTEM



# MANUAL

FABRICATION • INSTALLATION  
COMPONENT PARTS

2008 EDITION



# SOLAIR® INSTALLATION MANUAL



We're pleased to introduce a lateral arm system consistent with the high quality of our awning fabrics and hardware. The Solair offers these advantages:

- Easy to sell contemporary styling. Solair enhances any patio or storefront at reasonable cost to your customers; shades windows to protect furnishings; reduces air conditioning costs. Mounts easily to any surface; wood face, ceiling, masonry, roof, brick or wood rafter of an open overhang.
- All extruded aluminum construction.
- A variety of Somfy electric motors permits you to custom design single or multiple awning installations for residential and commercial applications. Motors can be actuated by sun and wind to save energy, increase awning life.
- Covers for Solair are simple and inexpensive to fabricate. Unit can be preassembled with cover at the shop to reduce put-up time and costs. Solair is self storing saving take-down and storage costs. Protective hood is a recommended option.
- The Solair is engineered specifically for American climatic conditions. Aluminum arms feature special corrosion free self lubricating hinges. All aluminum component parts have a special electrostatic powder coating to minimize corrosion. A special front bar coupling and angled folding arm hinges provide positive protection from strong winds.
- Folding arms with heavy duty steel springs provide a tight fabric fit. Extra rigid aluminum roller tube eliminates deflection of the roller tube in wider widths.
- Stainless steel bolts, nuts and washers.
- Tri Vantage provides full color dealer circulars to help you sell the Solair. Contact your nearest Tri Vantage office.
- Available in white, brown, desert sand and mocha powder coated finish. Taupe and Gray colors are available F.O.B. Mill.
- Ten year limited warranty.



## SOLAIR FEATURES AND BENEFITS

The Solair® Lateral-Arm Awning is TUV approved. It is type tested for quality assurance. Look for the TUV seal of approval before you buy.

Extruded aluminum front bar with powder coat finish. Engineered to reduce sagging and bowing. Especially beneficial for wider awnings.

Front bar made to accommodate valance in two positions. Visibility of aluminum face strip can be adjusted at customer's discretion.

Easy removal of valance. Excellent feature for commercial jobs, where leased property may change hands frequently, requiring a name or logo change on valance. Also, separate valances can be made to promote special sales or holidays.

Die cast aluminum front bar end caps attached with set screw. Eliminates breakage, as sometimes experienced with plastic caps (especially in cold weather). Set screw helps prevent loss.

Die cast aluminum universal front bar attachment. Increases flexibility of the arm in many directions and helps to reduce the possibility of wind damage.

Self-lubricated sleeve bushings in middle hinge and upper arm attachment. Provides for smooth noise-free operation and wear reduction.

Set screw adjustment in middle hinge. Reduces resistance by allowing a slight break in the arm when initiating retraction.

Double Cable. Twin cables are far superior to a single cable. Cable wear is reduced to a minimum, allowing heavier tension in the arm and increased lifespan.

Improved cable. Approximate 25% improvement in cable strength allows for higher spring tension and longer life.

Cable mechanism. Engineered to allow for full tension on odd arm without fabric shift. (Many competitors reduce tension on odd arms.)

Attention to detail. Critical parts are forged, not cast. 100% of the frame components are powder coated. Decorative color coordinated caps for nuts and bolt heads.

Hardened steel springs. These are more durable and provide longer life with maximum tension. Two springs on 4'2", 5'7" and 6'11" arms. Three springs on 8'7", 10'2", 11'6" and 12'6" arms.

Triple angled forged aluminum middle hinge. Engineered to increase flexibility in many directions, allowing system to absorb stress in windy situations. The upper arm attachment is also forged aluminum. Forged parts are stronger than cast.

Simplified pitch adjustment. Allows for infinite adjustment from 5° to 45°. Reduces valuable time spent on installation. Adjustments can often be made by one person.

Extruded aluminum support tube. Make a better seating between the support tube and upper arm attachment (also aluminum). Helps to reduce the noise between parts, often associated with units that use a galvanized support tube.

6063 T6 aluminum extrusions. Provides overall strength and durability. Front bar, support tube, hood and roller tube are all extruded.

Warranty. Written ten year limited warranty helps alleviate customer's fear of dealing with a "new" product.

Extruded aluminum brackets. Improves strength and quality of brackets, while reducing bulk.

Spring roller system. Especially beneficial on wide units to reduce sag of roller tube and eliminate wear of center supports.

Special arm sizes. Special arm sizes available on request. This is especially helpful in approaching condominium associations who may want to extend to the exact size of an existing deck, providing a uniform exterior look.

Special colors. Since arms are assembled domestically, the components can be painted before springs and cables are attached. Call for more information and pricing.

Stainless steel fasteners. For long life and corrosion resistance, only stainless steel fasteners are used.

Heavy duty motors. All motorized units are provided with Somfy Heavy-Duty Motors. CMO (manual override) units and environmental controls available.

Bevel gear. 3:1 gear has built-in stop to eliminate over-winding

Solair®





## SOLAIR ADVANTAGES

- First retractable to meet North American TUV standards for reliability and quality assurance.
- First to use Somfy Motors in awnings
- FREE wiring schematics available on new installations
- Gear Driven units are easily converted to motorized units in the future
- Bevel gears offer a slim-line look and a stop eliminates fabric damage that could occur from over rolling past the projection of the arm. Permanently sealed and lubricated
- Forged parts offer superior strength compared to extruded and cast parts
- All heavy duty aluminum construction. The additional aluminum and the design of the profiles minimizes deflection of the awning and sagging of the fabric
- Front bar allows customer to add an additional valance and hide the aluminum strip
- Twin galvanized cables reduce wear to a minimum and allows for greater tension to the arm
- Elliptical shaped cable radius increases tension in the springs as the arm is extended and where it is needed the most
- Angles in the forged hinges (elbows) allow each arm to flex independently, thus absorbing stress during wind gusts, helping eliminate damage
- Hinges (elbows) are equipped with permanently sealed and lubricated needle bearings
- Solair systems can operate with an odd number of fully tensioned arms, reducing the cost and weight of the awning
- Easy pitch adjustment at the upper arm attachment
- Heavy duty triple springs, packed and lubricated in a poly bag. Additional springs add to the tension of the fabric for a tailored look
- Front bar coupling has a two way movable feature that increases flexibility and relieves strain on the awning during wind gusts. It also allows the arms to move independently to reduce the tension on the awning and wall mounting brackets
- Wall mounting brackets are made of extruded aluminum: a much stronger alternative to its cast counterparts
- Aluminum support tube for flexibility, strength and quiet operation
- Four frame colors to choose from stock - White, Brown, Desert Sand & Mocha
- Custom frame colors available on request, allow 3-4 wks for delivery
- 10-year warranty on all parts, excluding motor and cover
- Front bar roller valance available upon request, allow 3-4 wks for delivery
- Choice of over 250 in stock fabrics, Dickson, Sunbrella® & Soltis Air
- Reduce energy (cooling) costs in the peak summer months
- Cylinder roof mount system offers complete protection year round

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## CROSS SECTION OF ASSEMBLED SOLAIR SYSTEM IN RETRACTED POSITION

