



LuminaTM Solar-Powered Retractable Awning Installation and Owner's Manual (For Aftermarket Applications)

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FURRION®

Lumina® Solar-Powered Retractable Awning Installation and Owner's Manual (For Aftermarket Applications)

Introduction

The Lumina™ Solar-Powered Retractable Awning (referred to in this manual as “the Lumina awning” or “the awning”) is a dual-acting, semi-cassette awning fully powered by an included solar panel mounted remotely from the awning. The awning is controlled by a remote with simple, one-touch buttons or a companion app downloaded on a smart device. It features a right hand side motor that can be manually overridden and operated, and independently adjustable pitch angle on each side.

The awning comes in several sizes to suit the shade and coverage needs of the user, and includes several hardware kits to accommodate multiple installation options (materials, location, etc.).

The Awning REQUIRES a 2.4GHz WiFi signal to communicate with the Furrion AwnCommand® App. It is not compatible with a 5.0GHz signal.

Read this manual before proceeding to ensure the proper options are chosen for the installation circumstances and that the operation, maintenance, and troubleshooting procedures are understood.

Additional information about this product can be obtained from lci1.com/support or by using the LippertNOW app. Replacement kits can be ordered from <https://store.lci1.com/> or by using the LippertNOW app.

The LippertNOW app is available for free on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

App Store® and iPad® are registered trademarks of Apple Inc.

Google Play™ and Android™ are trademarks of Google Inc.

NOTE: While each awning is supplied with multiple types of brackets and hardware to facilitate each possible mounting option, only the appropriate brackets and hardware for the chosen installation location and building material will be used. The remaining bracketry and hardware may be discarded or stored per customer discretion. (I.E. When choosing to install the awning directly to the side of a residence with vinyl siding, only the wall brackets and applicable hardware are required. The soffit adapter brackets, roof mounting brackets, and their associated hardware, respectively, will not be used and may be stored or discarded.)

Safety

Read and fully understand all instructions before installing or operating this product.

Adhere to all safety labels.

WARNING

THE LUMINA AWNING IS DESIGNED AS A SHADE PRODUCT ONLY. DO NOT LEAVE THE AWNING OPEN DURING PERIODS OF WINDY WEATHER.

WARNING

NEVER ATTEMPT TO REPAIR OR DISASSEMBLE ANY PART OF THE AWNING WITHOUT FOLLOWING REPLACEMENT PART PROCEDURES OR INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. TRYING TO DO SO WITHOUT PROPER INSTRUCTIONS COULD RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.

Resources Required

NOTE: It is suggested to utilize kits containing several sizes of (bits/sockets/wrenches) to select the best fit possible for the task at hand. Awning kits contain several mounting options and each requires unique tool sizes.

- Electric or cordless drill
- Measuring tape
- Appropriately sized bits
- Appropriately sized sockets or socket bits
- Phillips head screwdriver
- Open-end wrenches of appropriate sizes
- Non-permanent method of marking
- Stud Finder
- Chalk and/or chalk snap line
- Silicone sealant
- Hammer
- Bubble or laser level
- Appropriately sized Hex-Wrenches

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Parts List

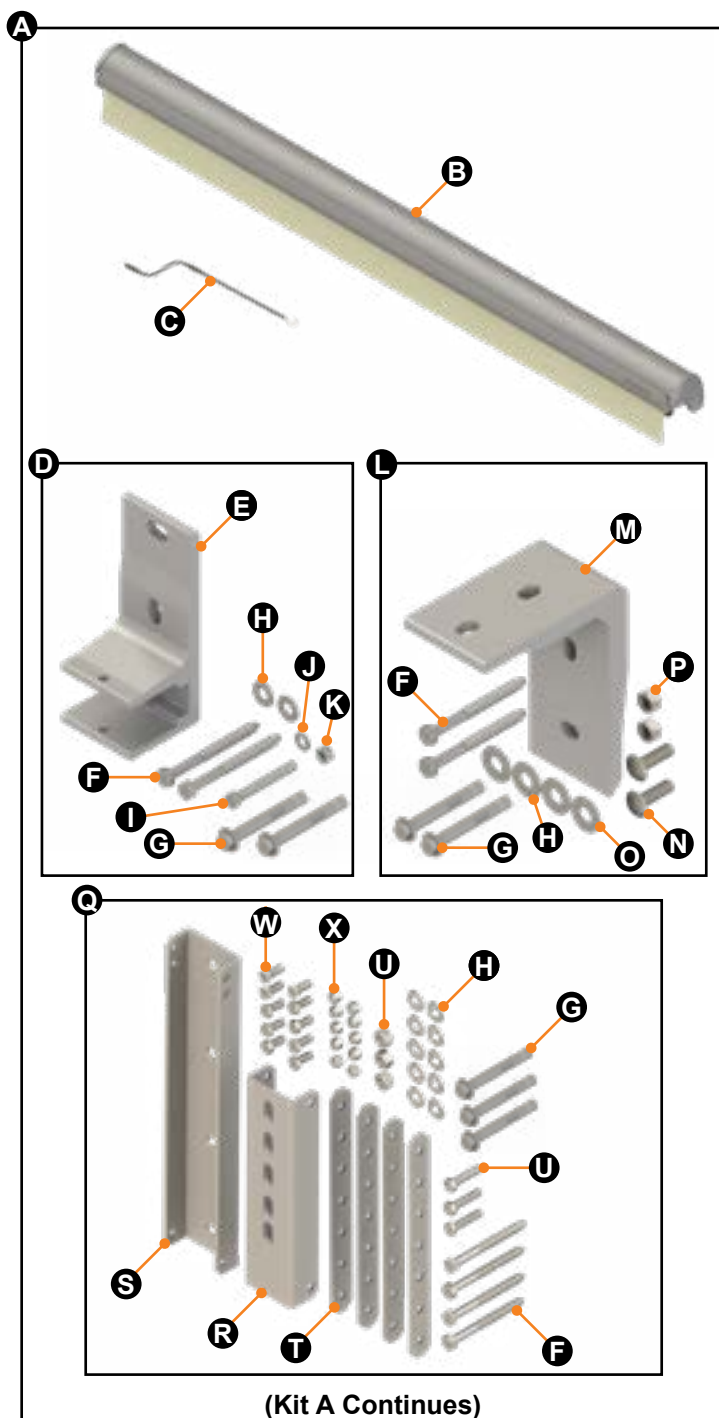
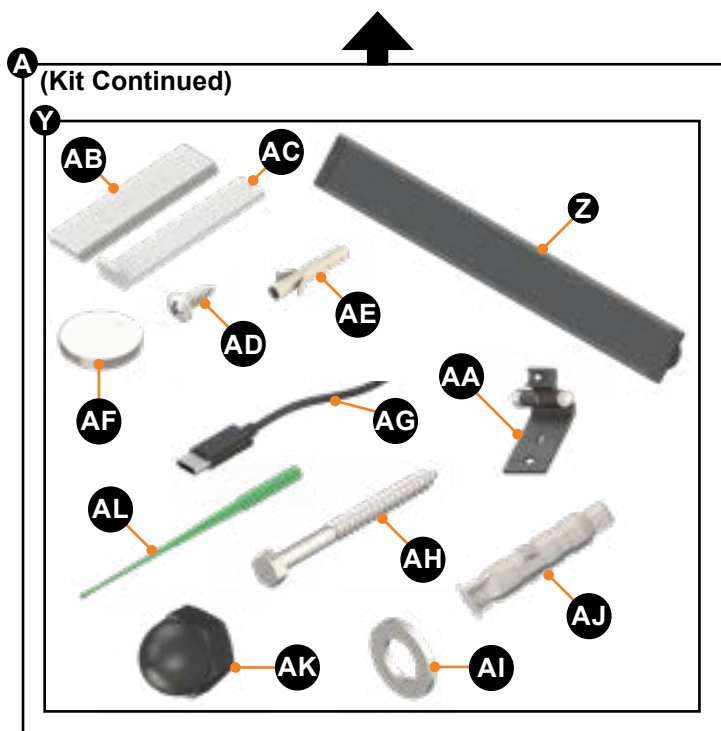


Table 1 - Parts included With Each Awning Kit

Letter	Description	Qty
Kit-A	Lumina Semi-Cassette Awning Kit	1
B	Awning	1
C	Manual Crank Handle	1
Kit-D	Wall Bracket Kit	Varies*
E	Wall Mounting Bracket	1
F	10mm x 100mm Lag Screw	2
G	M10 x 100mm Masonry Fastener	2
H	26mm x 10mm Flat Washer	2
I	M8 x 65mm Retaining Hex Bolt	1
J	16mm x 8.4 mm x 1.6mm Flat Washer	1
K	M8 Retaining Nut	1
Kit-L	Soffit Adapter Bracket Kit	Varies*
M	Soffit Adapter Bracket	1
F	10mm x 100mm Lag Screw	2
G	M10 x 100mm Masonry Fastener	2
H	26mm x 10mm Flat Washer	2
N	M12 x 45mm Carriage Bolt	2
O	24mm x 13mm x 2.5mm Flat Washer	2
P	M8 Retaining Nut	2
Kit-Q	Roof Mount Bracket Kit	Varies*
R	Awning Side Bracket	1
S	Roof Side Bracket	1
T	Pitch Arm	4
F	10mm x 100mm Lag Screw	4
G	M10 x 100mm Masonry Fastener	4
H	26mm x 10mm Flat Washer	10
U	M10 x 35mm Bolt	3
V	M10 Locking Nuts	3
W	M8 x 20mm Bolt	10
X	M8 Locking Nuts	10

NOTE: *Quantities of bracket kits and included hardware are determined by awning size. See Table 2 in this manual for quantities of bracket kits by awning size.

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**Table 1 - Parts included With Each Awning Kit
(Continued)**

Letter	Description	Qty
Kit-Y	Solar Panel Kit	1
Z	Solar Panel	1
AA	Solar Panel Mounting Brackets	2
AB	Remote	1
AC	Remote Mounting Bracket	1
AD	Remote Mounting Bracket Screws	2
AE	Remote Mounting Bracket Wall Anchors	2
AF	CR2450 Remote Battery	2
AG	12' USB-C Charging Cable	1
AH	8mm x 50mm Lag Screws	4
AI	16mm x 8mm Washers	4
AJ	10mm x 50mm Plastic Brick Anchors	4
AK	Screw Cap	4
AL	Stop Adjustment Tool	1

NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.

**Table 2 - Bracket/Hardware Kits Included by
Awning Size**

Description	Quantity by Awning Size				
	12'x10'	14'x12'	16'x12'	18'x12'	20'x12'
Wall Bracket Kit With Hardware	4	4	5	6	6
Soffit Adapter Bracket Kit With Hardware	4	4	5	6	6
Roof Mount Bracket Kit With Hardware	4	4	5	6	6

Prior to Installation

The Lumina awning and solar panel may be installed on a variety of building and/or siding materials and in several locations on a residence given the proper hardware and techniques are employed for each variable, respectively. Prior to installing the awning and solar panel, the intended installation location should be thoroughly examined for several qualities that will affect which installation procedures are to be followed. These qualities are:

- Position and size of the residence in relation to the sun's overhead travel path
- Available space and features at the desired installation location
- Choosing the appropriate mounting location
- Building material of the chosen mounting location
- Bracket locations by awning size vs. stud/brick location

The following subsections will cover details of each quality to ensure successful installation. Read each subsection and evaluate the desired installation location accordingly.

NOTE: A single story ranch-style house with a roof overhang is depicted as an example in this manual. Installation options are not limited to single story or ranch style homes. Evaluate the intended installation site and residence in conjunction with this manual and make the best decisions concerning the above qualities for a successful installation.

NOTE: Gutters are not depicted in this manual for clarity. The Lumina Awning may be installed on a house with gutters, taking into account the position of the gutters in relation to the final position and operating range of the awning, included but not limited to the potential droop of the valence into or covering the gutters when the awning is mounted to the roof above the gutters.

⚠ WARNING

THE LUMINA AWNING IS DESIGNED TO RUN SOLELY OFF OF POWER FROM THE INCLUDED SOLAR PANEL. DO NOT ATTEMPT TO HARDWIRE IT TO HOUSE POWER OR ALTER THE INCLUDED CORDS/HARNESSES IN ANY WAY. DOING SO VOIDS PRODUCT WARRANTY AND MAY LEAD TO PROPERTY DAMAGE OR PERSONAL INJURY.

Position and Size of the Residence in Relation to the Sun's Overhead Travel Path

- The Lumina Awning is powered by a remotely mounted solar panel. This panel should receive as much sunlight as possible to power the awning. It must be mounted in such a way that it is above the awning and not covered by it, and not in shade of any kind. Some variation to actual mounting surface may be needed depending on the extenuating circumstances of the install, such as mounting the solar panel to the roof and mounting the awning to the side of the house or soffits (Fig. 1), or mounting the awning on one side of the house and the solar panel around the corner on a different side of the house (Fig. 2). Keeping in mind the position and movement of the sun in relation to the residence and choosing the proper location to install the solar panel is critical to achieve intended product operation.

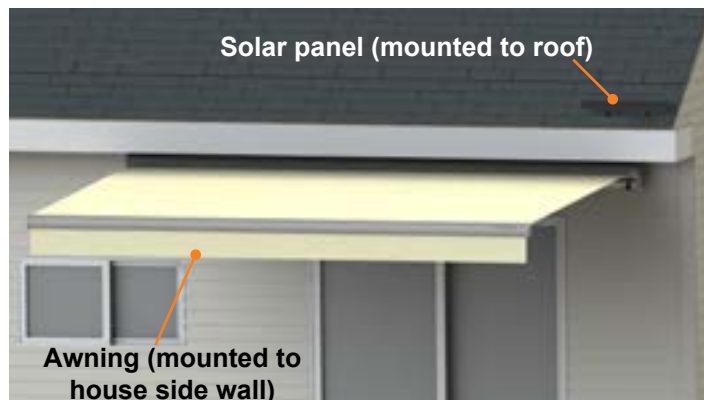


Fig.1

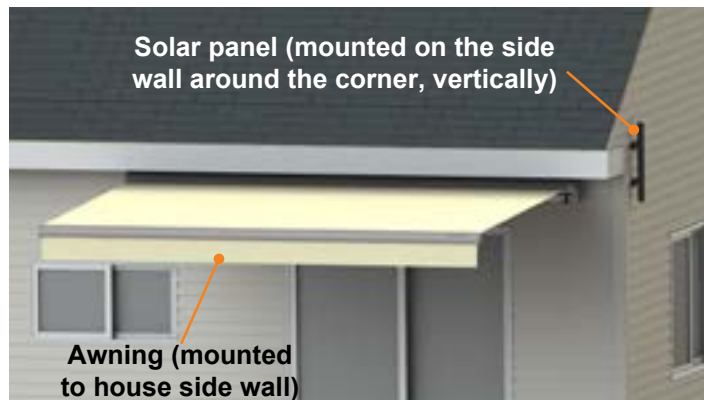


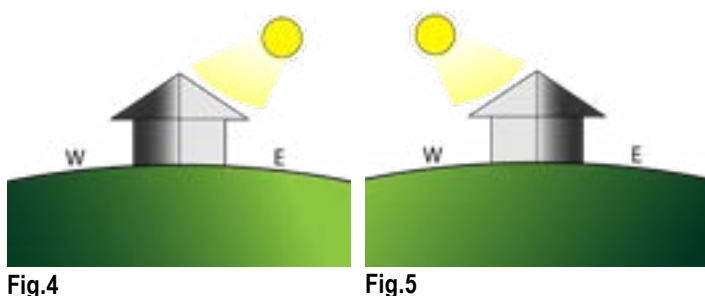
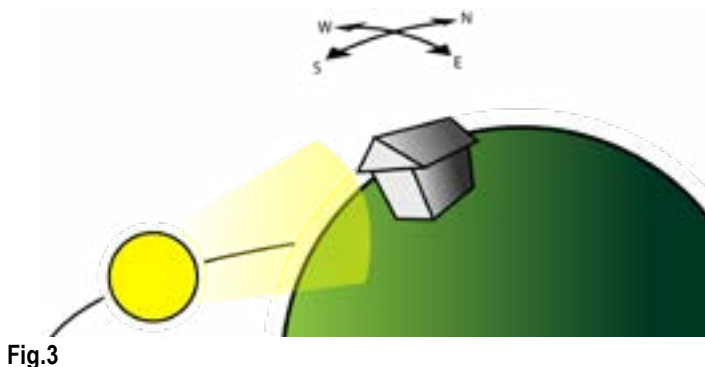
Fig.2

- Determine the facing of the wall or surface intended for awning and solar panel installation. Often the need of the awning's shade directly correlates to an abundance of natural sunlight needed by the solar panel and both will be mounted on the same surface (with the panel mounted above or not covered by the awning). However this is not always the case. The mounting installation site of the solar panel should be chosen in such a way that the panel will receive as much sunlight as possible for as long as possible, even if the awning is installed on a different surface entirely (depending on the length of available cord between the awning and panel.)

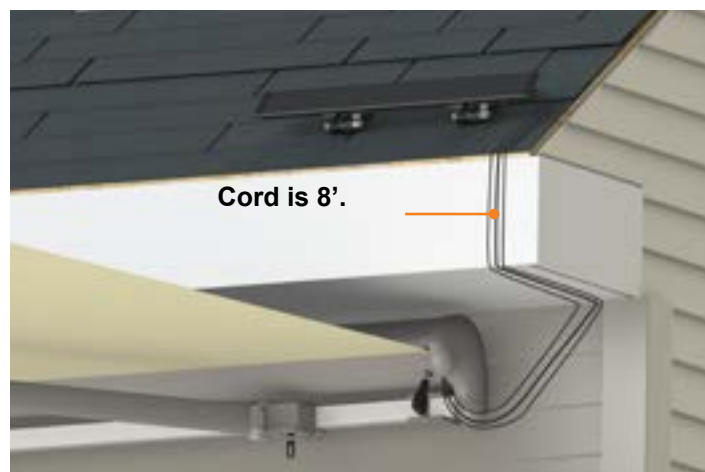
I. South facing surfaces could receive full sunlight for the entire day based on extenuating circumstances and weather (**Fig. 3**). These surfaces (roofs, walls) are often the best choice for mounting the solar panel if possible.

II. East (**Fig. 4**) or West (**Fig 5**) facing surfaces will most often receive full sunlight with clear weather for the first or second half of a day, respectively.

III. North facing surfaces are **not** recommended, as they receive little to no sunlight at all depending on the shadow cast by the residence or surface itself combined with the path and location of the sun.



- The Solar Panel will need full sunlight for up to 3 full days (72 hours) to fully charge (and be able to operate the awning again) from total depletion. It is critical for awning operation that the solar panel receives full sunlight as often as possible to ensure it can power the awning when needed. Verify the intended installation site of the solar panel receives full sunlight for as much time throughout the day as possible with no shade cover whatsoever by observing it (the installation site) over the course of a day or more as needed depending on local weather. Remember that sun presence and location varies by season.
- If the residence has multiple stories, account for its increased shadow and reduced mounting options for the solar panel as the roof or soffits may not be viable due to limited cord length between the panel and awning. Consider installing the solar panel around the corner of the residence or in another location.
- There are up to 8' of cords included. Mount the solar panel within 8' of the awning, making sure to account for routing the cord around any corners (**Fig. 6**). See **Wiring Diagram** on page 38.



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Assessing Available Space and Surface Features at the Desired Installation Location

- **The mounting line for wall mount installations** - When installing the Lumina awning, measurements will be made and recorded based off a benchmark defined as “the mounting line” (Fig. 7A). When installing directly to the side of the house/wall, this line corresponds with the bottom edge of the wall brackets (Fig. 7B) across the length of the awning.

NOTE: Figure 7 depicts the wall brackets installed as an example.

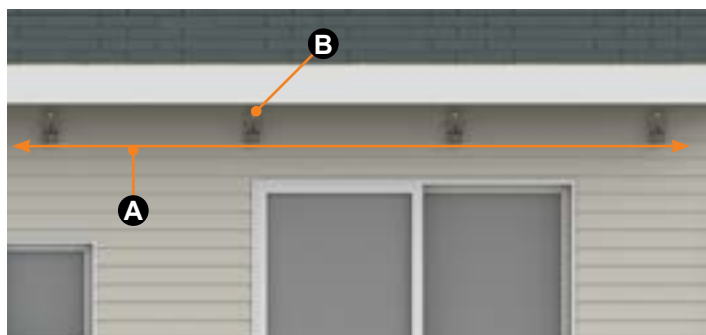


Fig.7

- There must be at least 9” of unobstructed, uninterrupted space above the entire length of the mounting line (Fig. 8). This space is allotted for the awning itself. This 9” may butt against or rest atop windows and/or patio doors so long as the 9” is not obstructed or interrupted for the entire length of the awning.

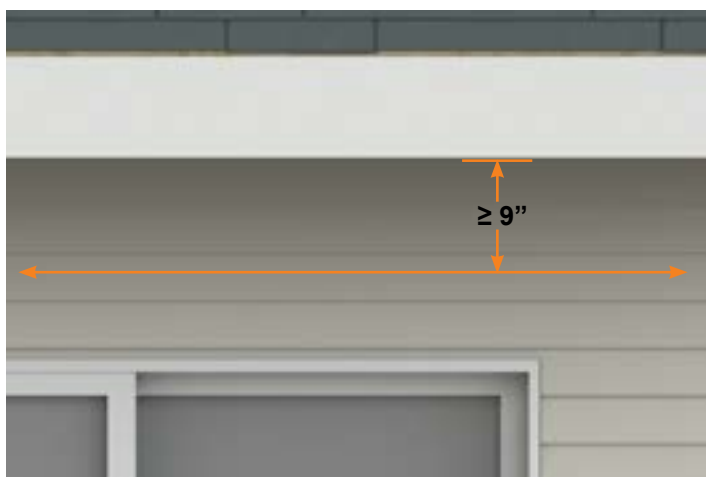


Fig.8

- Measure the height from ground/deck to the top of wall/ surface intended for installation. There must be at least 7’6” from the ground/deck of the intended install surface to the top to allow for headroom under the awning, however, 9’ is recommended for comfort and better pitch performance. (Fig. 9)(Fig. 10).

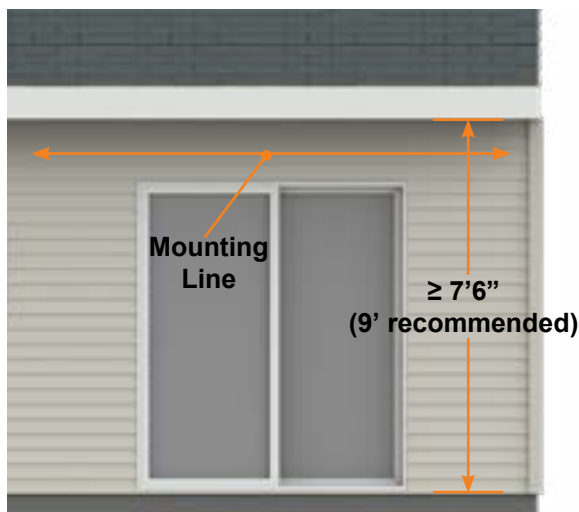


Fig.9

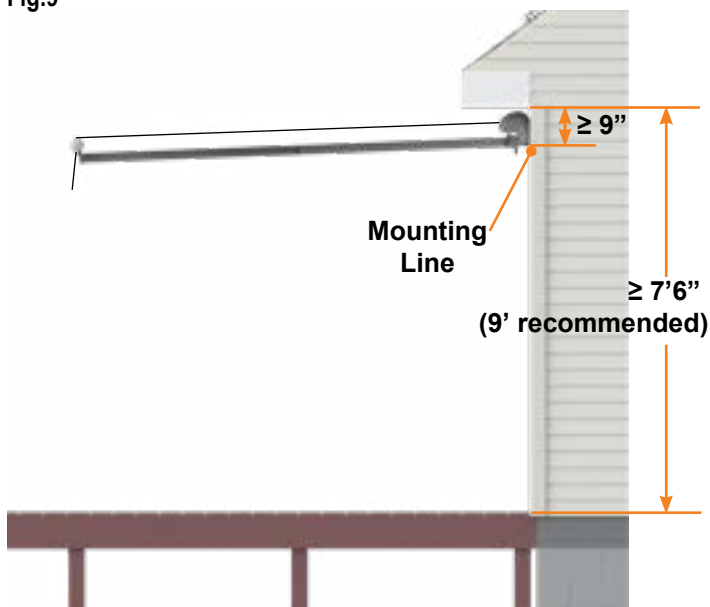


Fig.10

NOTE: When determining the height of the mounting line, remember to account for the height of persons who will utilize it. Taller persons may need additional headroom clearance for comfort.

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• The mounting line for underhang or soffit mounts -

NOTE: Mounting to the underhang/soffits requires supports within them. Check that the overhang structure has internal supports along the entire length before choosing this installation option.

When installing the Lumina awning, measurements will be made and recorded based off a benchmark defined as "the mounting line." When installing to the underside of an overhang or soffits, this line corresponds with the back edge of the soffit adapter brackets (Fig. 11).

NOTE: Figure 11 depicts the wall brackets and soffit adapter brackets and awning installed as an example.

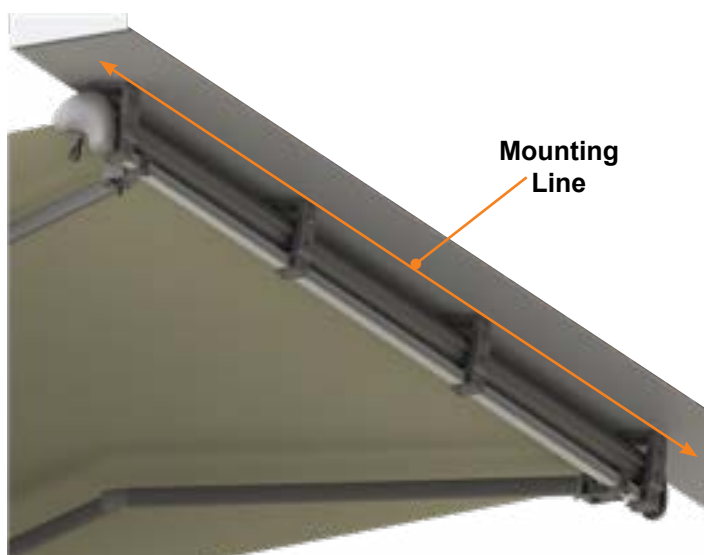


Fig.11

- There must be at least 8" of unobstructed, uninterrupted space from the edge of the underhang/soffit (Fig. 12A) to the mounting line (Fig. 12B) along the entire length of the awning. This space is allotted for the awning itself.

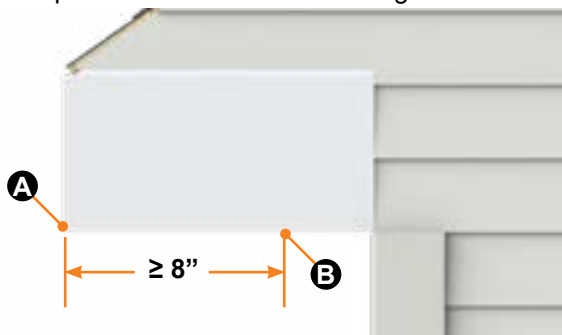


Fig.12

- Measure the height from ground to the underside of underhang/soffit intended for installation. There must be at least 7'6" from the ground/deck to the underside of the underhang/soffits to allow for headroom under the awning, but 9' is recommended (Fig. 13)(Fig. 14).

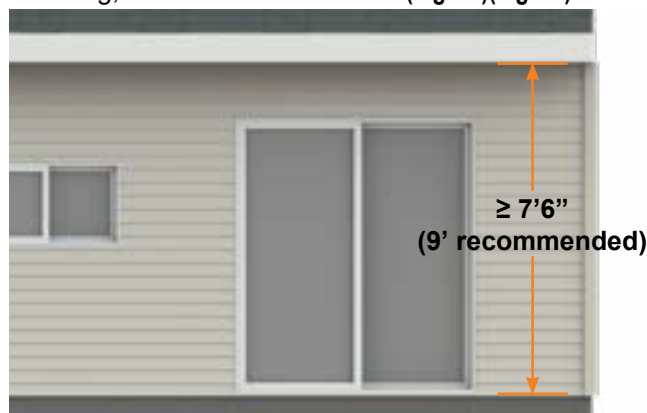


Fig.13

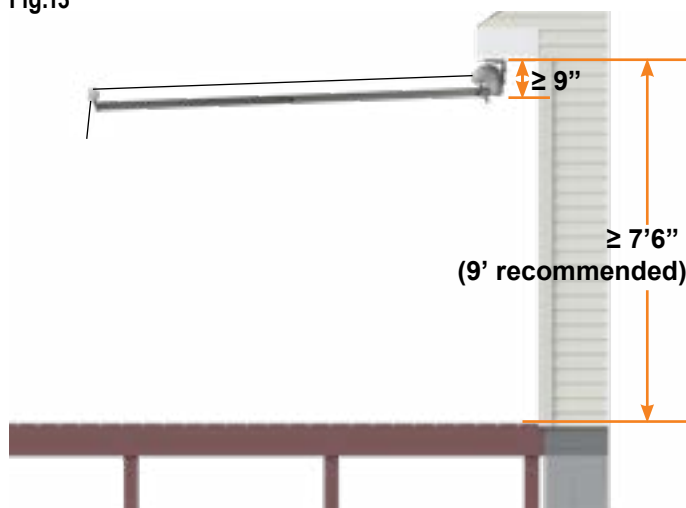


Fig.14

NOTE: When assessing the height of the overhang/soffits, remember to account for the height of persons who will use the awning. Taller persons may need additional headroom clearance for comfort.

- Additionally, regardless of the chosen mounting option, observe the intended width of the space and compare it to the awning size. Assess the intended installation surface for any unevenness, pipes, downspouts, light fixtures, bows, swells etc which may impede installation. If these obstructions are present, choose a different installation location, method, or smaller awning.

Choosing the Appropriate Mounting Location

- Based on previous criteria and any obstructions or limiting factors, determine the bracket type to be used for installation. The Lumina awning kit comes included with mounting brackets to accommodate three mounting locations:

I. Directly to the exterior sidewall (uses only wall brackets (Fig. 15A)).

II. To the underside of the underhang/soffits (uses wall brackets (Fig. 16A) and soffit adapter brackets (Fig. 16B)).

III. On top of the roof (uses wall brackets (Fig. 17A) and roof mounting brackets (Fig. 17B)).

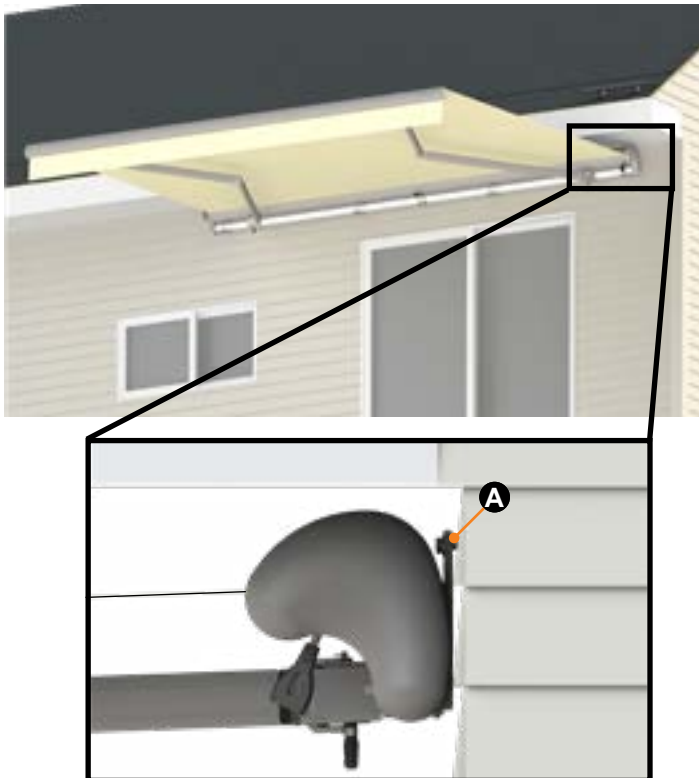


Fig.15

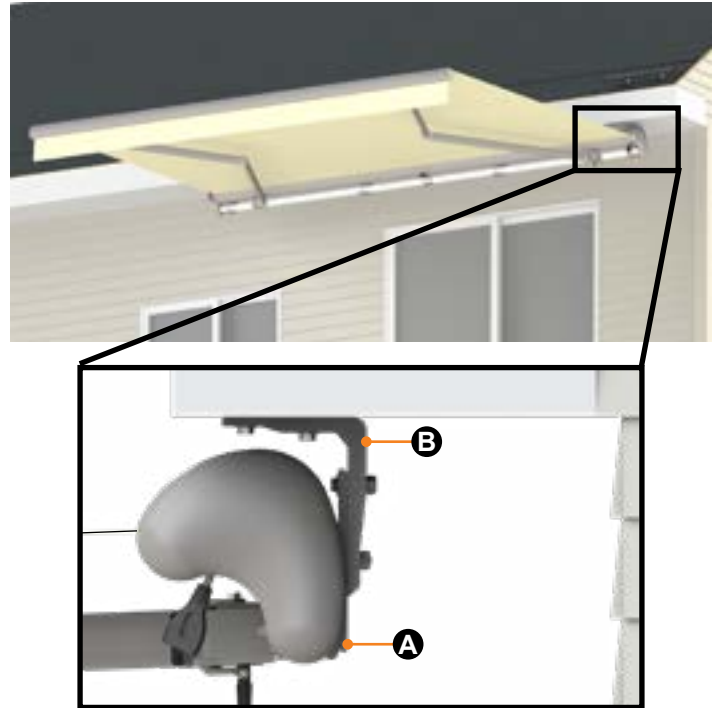


Fig.16

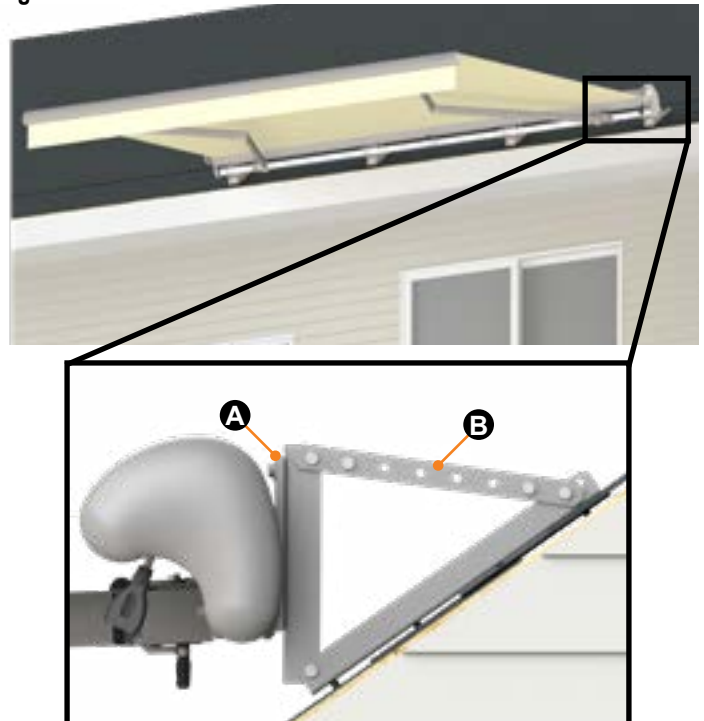


Fig.17

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Building Material of the Chosen Mounting Location

- Examine the building materials used at the intended installation location. The Lumina awning is available with included and/or optionally available hardware to accommodate underlying wood framing with several types of siding and concrete/brick.
 - Wood frame with wood, vinyl, or aluminum siding mounts (use included lag screws.)
 - Wood rafters w/ Aluminum soffits (use included lag screws.)
 - Wood rafters with shingle or aluminum panels (use included lag screws.)
 - Concrete/Brick (use included masonry fasteners.)
- For installation on siding that is ridged or layered, shims will be needed to create a flat, even surface for mounting. Shims are not included, but may be fabricated or purchased according to Figure 18.

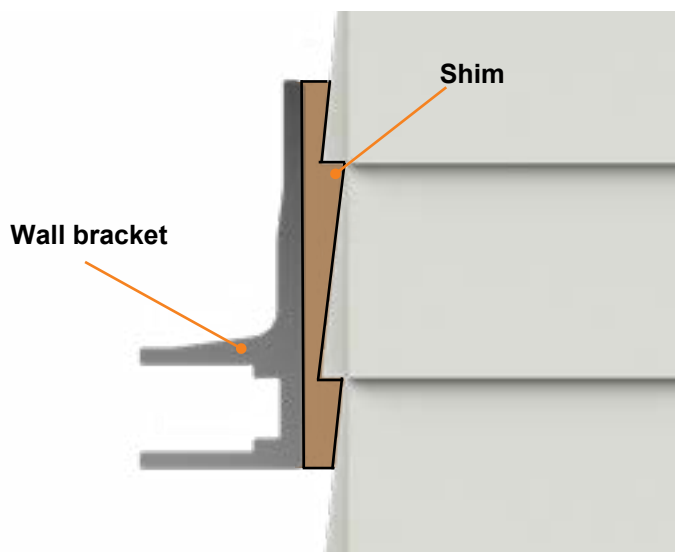


Fig.18

Bracket Locations by Awning Size Vs. Stud/Brick Location

- Use all wall brackets included with the awning kit when installing the awning. Each awning kit also includes hardware to accommodate each installation option available (underhang/soffit mount and roof mount). Each kit has a specific number of brackets and corresponding hardware included to sufficiently and securely support the awning. See **Table 2 - Bracket/Hardware Kits Included by Awning Size** on page 4 for a list of included mounting brackets and hardware in each kit by awning size.

NOTE: Table 2 has been presented again on this page for reference. For bracket kit contents, see the **Parts List** section of this manual on page 3.

NOTE: While each awning is supplied with multiple types of brackets and hardware to facilitate each possible mounting option, only the appropriate brackets and hardware for the chosen installation location and building material will be used. The remaining bracketry and hardware may be discarded or stored per customer discretion. (i.e. When choosing to install the awning directly to the side of a residence with vinyl siding, only the wall brackets and applicable hardware are required. The soffit adapter brackets, roof mounting brackets, and their associated hardware, respectively, will not be used and may be stored or discarded.)

Table 2 - Bracket/Hardware Kits Included by Awning Size

Description	Quantity by Awning Size				
	12'x10'	14'x12'	16'x12'	18'x12'	20'x12'
Wall Bracket Kit With Hardware	4	4	5	6	6
Soffit Adapter Bracket Kit With Hardware	4	4	5	6	6
Roof Mount Bracket Kit With Hardware	4	4	5	6	6

- When not installing on brick surfaces, wall brackets, soffit adapter brackets, and roof mounting brackets **MUST ALWAYS** be mounted so that the lag screws penetrate wall studs or supports. When planning installation, remember that standard construction places studs/supports 16"-24" inches apart. Always find and mark studs and adjust the planned location of any mounting brackets accordingly.

- When installing on brick surfaces, masonry fasteners must always be installed into brick and never mortar. Measure and check the intended location of the brackets against the bricks on the mounting surface and ensure no fasteners will fall within $\frac{1}{2}$ " of the edge of any brick (Fig. 19). Adjust the planned location of any mounting brackets accordingly.

- Figures 20-22 depict suggested mounting bracket locations by awning size to evenly distribute weight along the awning. These mounting bracket locations are suggestions that are one variable in achieving proper installation. When choosing and marking final bracket locations during installation, remember that brackets must first and foremost be mounted to studs/rafters if not installing to brick, if installing to brick not mounted in mortar, and *then* spaced as evenly as possible along the length of the awning according to Figures 20-22.

NOTE: Brackets can not be installed where arm shoulders are located.

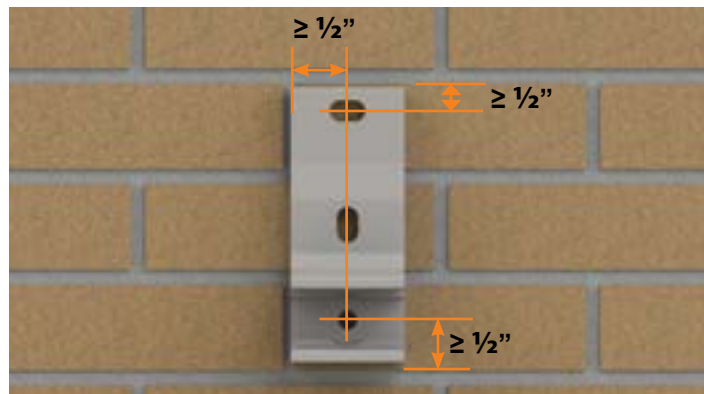


Fig.19

Suggested Bracket Positions for 12'x10' and 14'x12' Awnings

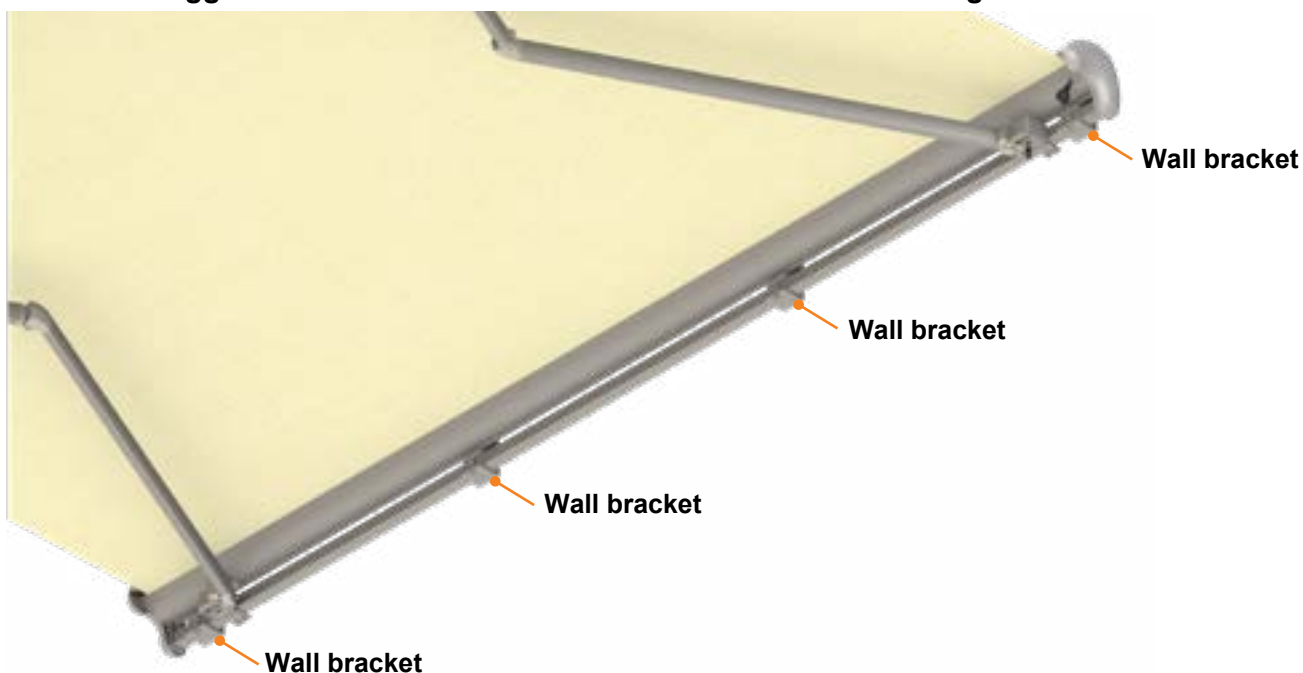


Fig.20

Suggested Bracket Positions for 16'x12' Awnings

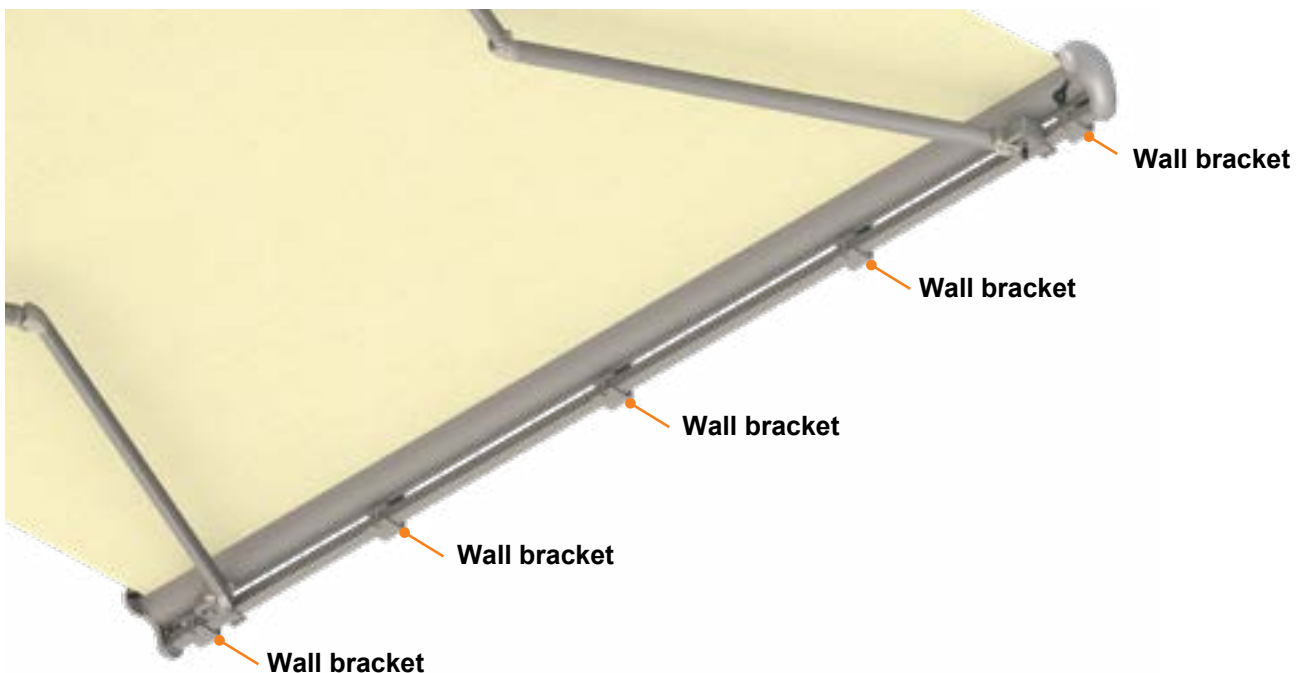


Fig.21

Suggested Bracket Positions for 18'x10' and 20'x12' Awnings

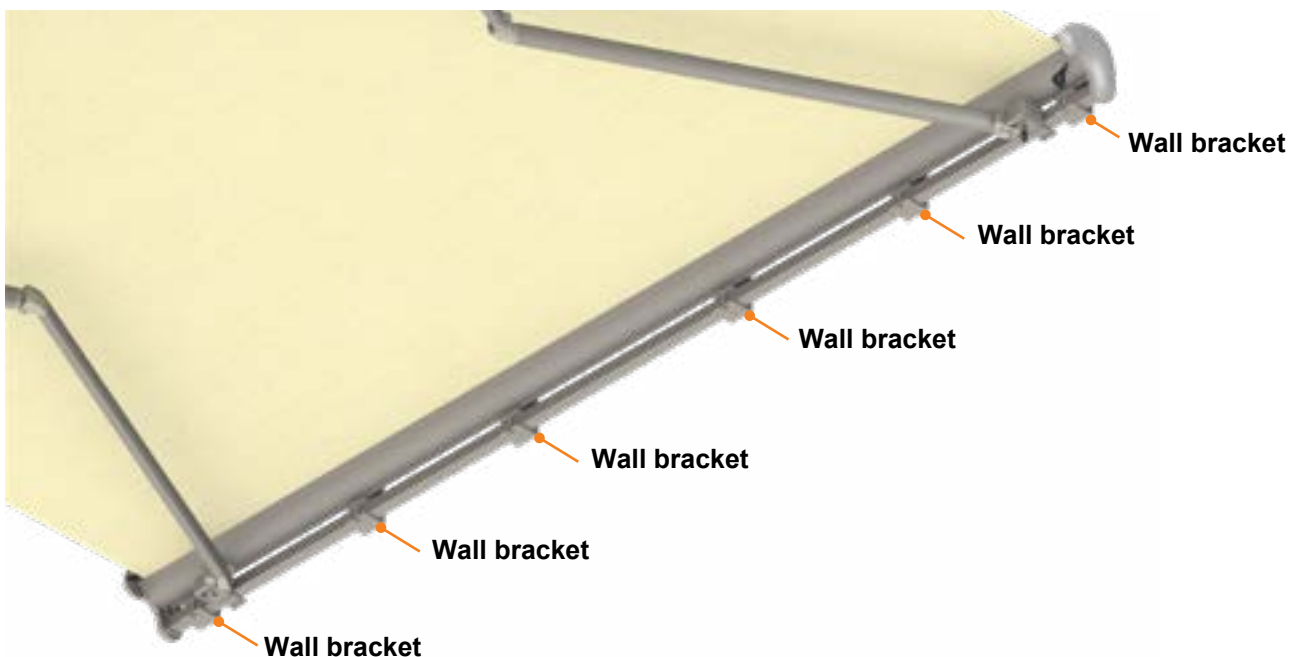


Fig.22

Installation

Preparing the Solar Panel

1. Remove the Solar Panel assembly from the box. Plug one end of the solar panel charging cable into a 5V, 2-3 amp charging block/adapter (sold separately), then plug the charging block/adapter (**Fig. 23A**) into a wall outlet. Finally, plug the other end of the solar panel charging cable into the solar panel to charge while performing the remainder of the installation process.



Fig.23

NOTE: 5V, 2-3 amp charging block/adapter sold separately.

NOTE: Seasonal changes like reduced sunlight, snow, or leaf cover can affect your solar panel's ability to charge. During these times or when using the awning for the first time each season, you may need to use the USB-C port to recharge the battery and restore full functionality. The USB-C port is not water-resistant while charging and should not be used in inclement weather, as moisture could damage the solar panel and components. When not in use, make sure the USB-C outer cap is screwed back in place to prevent moisture intrusion.

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Installing Directly to the Side of the House/Wall (Wall Brackets Only)

Option A: Installing to Wood Frame Walls With Wood, Vinyl, or Aluminum Siding

NOTE: For siding with ridges or an uneven profile, shims are required for installation. See Figure 18 for an example.

1. Measure up from the deck/patio/ground on one side of the installation location and make a mark using a non-permanent method of marking at the desired mounting height (must be at least 7'6", but 9' is recommended) (Fig. 24A). Then, measure 9" down from this mark, and make another mark (Fig. 24B). This second mark will be the beginning of the mounting line.

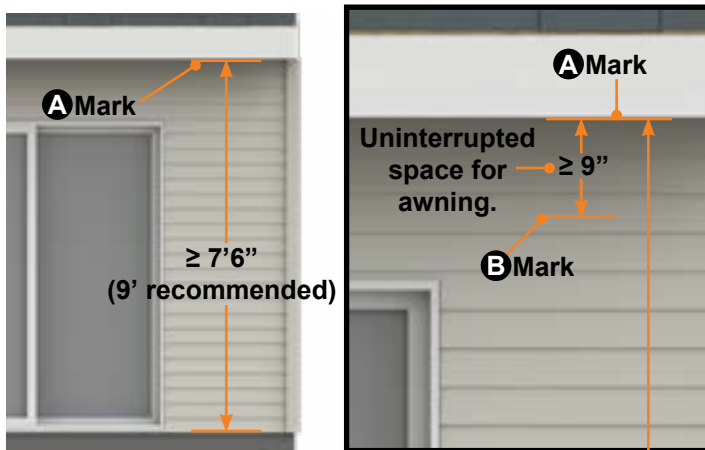


Fig.24

NOTE: When determining the height of the mounting line, remember to account for the height of persons who will utilize it. Taller persons may need additional headroom clearance for comfort.

1. Move to the other end of the mounting location and repeat the previous step, making another two marks.
2. Using chalk or a snap chalk line, horizontally connect the bottom marks previously made. Remember that this line is defined as the "mounting line," and must correspond to the bottom edge of all "F" mounting brackets.
3. Using a bubble or laser level, check that the mounting line is straight and level. If not, make adjustments as needed.

NOTE: Remember that there must be 9" of uninterrupted space above the entire length of the mounting line for the awning itself.

4. Mark the left and right ends of the awning on the mounting line (Fig. 25).

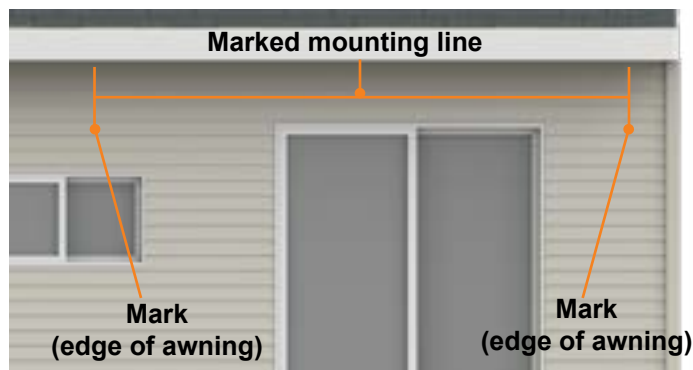


Fig.25

5. Using a stud finder, find the center of the studs along the entire length of the mounting line between the left and right sides of the awning (Fig. 26). Mark each stud center with a non-permanent method of marking.

NOTE: Awning/awning brackets must be mounted to studs first and foremost. Common construction stud spacing is normally 16" center to center, but can be 24" under certain circumstances.



Fig.26

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2. Examine the marks made at the left and right edges of the awning and the bracket positions listed in the "Bracket Locations by Awning Size vs. Stud/Brick Location" subsection of the "Prior to Installation" section of this manual (Fig. 20-22). Compare these bracket locations to the marks made identifying the studs along the mounting line. When placing brackets, remember that each bracket included with the kit must be used. Space brackets as evenly as possible across the length of the awning while ensuring that each bracket will be installed onto a stud with the mounting holes aligning to the center mark of the stud. Place each bracket appropriately, and make any adjustments as needed to the left/right positioning of the awning. Re-mark the new left and right edges of the awning as needed after adjustments. Figure 27 depicts an install for a 12'x10' awning with appropriate alignment between studs and brackets for awning size.

NOTE: Brackets can not be installed where arm shoulders are located.

3. Dry fit a wall bracket at the rightmost determined bracket location (Fig. 27A) with the bottom edge of the bracket aligning with the mounting line. Using the topmost and bottommost holes in the bracket as guides, drill two 1/4"



Fig.27

⚠ WARNING

PROPER LOCATION OF THE BRACKETS IS THE MOST IMPORTANT ASPECT OF AWNING INSTALLATION. FAILURE TO:

1. SUPPORT THE AWNING WITH EACH INCLUDED BRACKET
2. EVENLY SPACE THE BRACKETS ACROSS THE LENGTH OF AWNING (AS POSSIBLE)
3. SECURELY FASTEN ALL BRACKETS TO STUDS IN THE WALL

COULD LEAD TO AWNING COLLAPSE CAUSING SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

pilot holes into marked the stud center. Apply a bead of silicone sealant in each pilot hole.

4. Repeat with each wall bracket at each determined location.

5. Install each wall bracket at the appropriate, determined location with the bottom edge of the brackets aligning with the mounting line (Fig. 28A) by securing each with two 10mm x 100mm lag screws (Fig. 28B) and two 26mm x 10mm flat washers (Fig. 28C) into the studs through the previously drilled pilot holes. Use a hand ratchet or socket wrench when tightening.

NOTE: DO NOT use an impact driver when tightening lags.

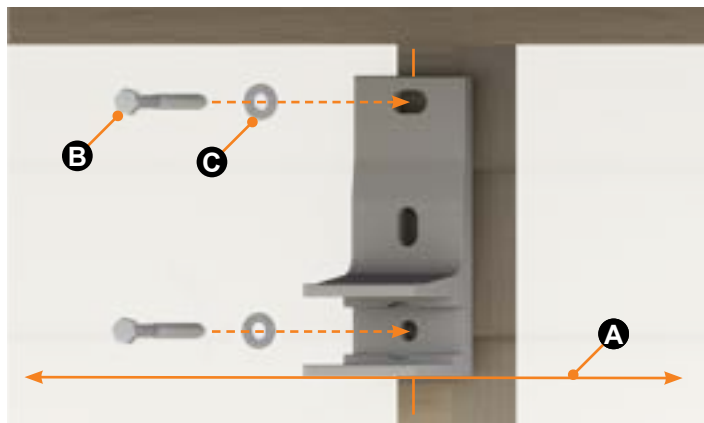


Fig.28

NOTE: Use a laser level while installing brackets to ensure each is as perfectly aligned as possible.

⚠ WARNING

FAILURE TO ENSURE BRACKETS ARE LEVEL AND ALIGNED WILL RESULT IN BOWING OF THE AWNING SUPPORT BEAM, WHICH COULD LEAD TO INSTALLATION ISSUES, AWNING FAILURE, AND AWNING COLLAPSE. SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

6. Continue to the "Final Awning Assembly" section of this manual for further installation instructions.

Option B: Installing to Concrete/Brick

⚠ WARNING

SOME BRICK WALLS MIGHT NOT BE STRONG ENOUGH TO SUPPORT AN AWNING. DO NOT ATTEMPT TO ATTACH AWNING TO VENEER BRICK WALLS OR TO "SOFT" BRICKS.

1. Follow steps 1-5 of "Option A: Installing to Wood Frame Walls With Wood, Vinyl, or Aluminum Siding" to mark the intended location of the awning with the following steps outlining the differences needed to accommodate for installation on brick or concrete surfaces.
2. Examine the marked mounting line, the marked left and right edges of the awning, and the proposed bracket locations and quantities by awning size in Figures 20-22.
3. Measure an appropriate distance from the mark denoting the right edge of the awning to the proposed center of the rightmost wall bracket, and make a mark. Dry fit a wall bracket at the mark made (with the bottom of the bracket aligning with the mounting line.) (Fig. 29A)

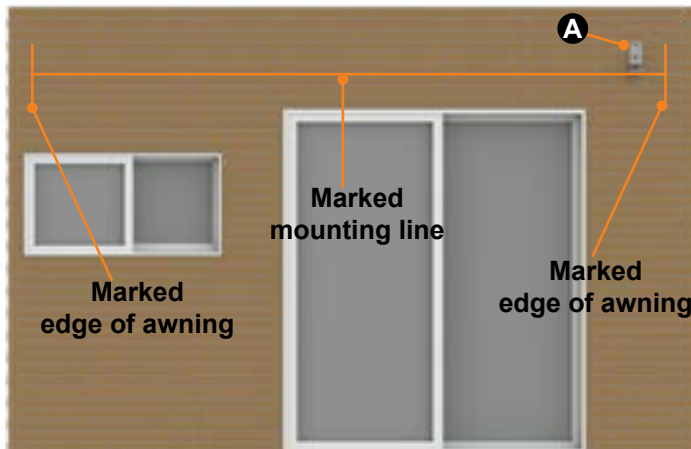


Fig.29

⚠ WARNING

DO NOT INSTALL MASONRY FASTENERS INTO THE JOINTS BETWEEN BRICKS. JOINTS BETWEEN BRICKS DO NOT HAVE ENOUGH STRENGTH TO SUPPORT THE AWNING, AND COULD LEAD TO AWNING COLLAPSE RESULTING IN PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

4. For proper support, the masonry fasteners supplied with this awning must be installed in the main body of the bricks not within 1/2" of the outer edge of any brick (Fig.30). Dry fit a wall bracket at the mark previously made, and examine the locations of the mounting holes. If any holes correspond to joints in the brick or fall within 1/2" of a brick, reposition the mounting line, left-right position of the awning, and/or bracket locations respectively as needed.

NOTE: Remember that there must be 9" of uninterrupted space for the awning itself above the mounting line.

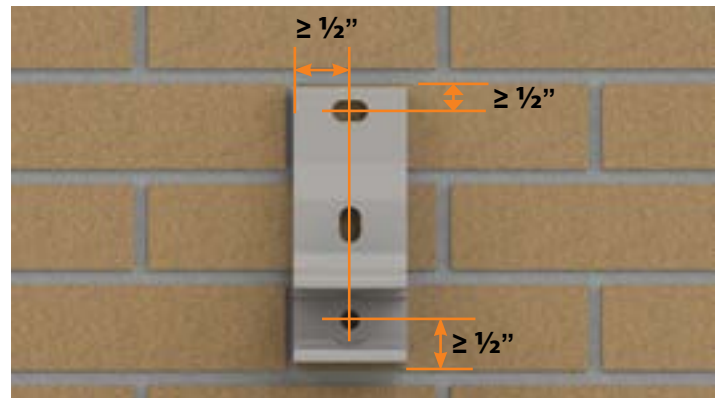


Fig.30

5. Mark the top and bottom mounting holes of the dry-fitted rightmost wall bracket.
6. Once the location of the rightmost wall bracket and mounting holes are marked, measure along the mounting line and mark the center of each proposed location of the additional wall brackets, adjusting their positions as needed to ensure even spacing across the entire length of the awning while avoiding mounting to joints in the bricks (Fig. 31).

NOTE: Brackets can not be installed where arm shoulders are located.

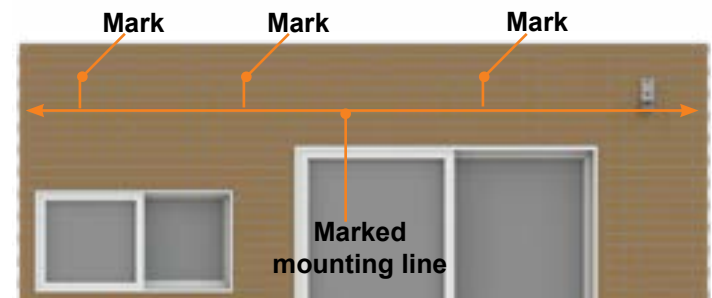


Fig.31

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⚠ WARNING

PROPER LOCATION OF THE BRACKETS IS THE MOST IMPORTANT ASPECT OF AWNING INSTALLATION. FAILURE TO:

1. SUPPORT THE AWNING WITH EACH INCLUDED BRACKET
2. EVENLY SPACE THE BRACKETS ACROSS THE LENGTH OF AWNING (AS POSSIBLE)
3. SECURELY FASTEN ALL MASONRY FASTENERS THROUGH BRICKS NOT WITHIN 1/2" OF THE EDGE OF A BRICK OR IN THE JOINTS BETWEEN BRICKS

COULD LEAD TO AWNING COLLAPSE CAUSING SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

7. Dry fit the additional wall brackets at their marked locations (Fig. 32A,B,C), and mark the top and bottom mounting holes of each bracket. Remember that no mounting hole may be less than 1/2" from the edge of any brick. Adjust as needed.

8. Drill a 1/2" pilot hole at each mounting hole mark made.

NOTE: Use a laser level while drilling holes to ensure each bracket will be as perfectly aligned as possible.

⚠ WARNING

FAILURE TO ENSURE BRACKETS ARE LEVEL AND ALIGNED WILL RESULT IN BOWING OF THE AWNING SUPPORT BEAM, WHICH COULD LEAD TO INSTALLATION ISSUES, AWNING FAILURE, AND AWNING COLLAPSE. SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

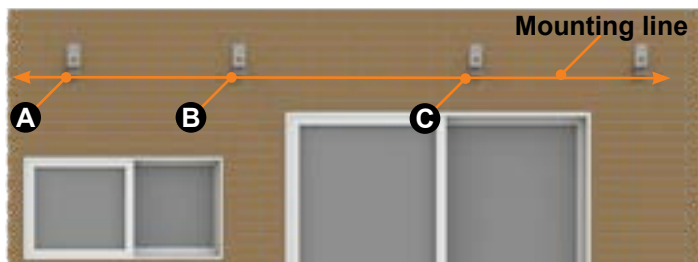


Fig.32

9. Install each bracket at the appropriate, marked location, aligning the mounting holes of the brackets to the pilot holes in the wall. Secure each bracket with two M10 x 100mm masonry fasteners (Fig. 33A).

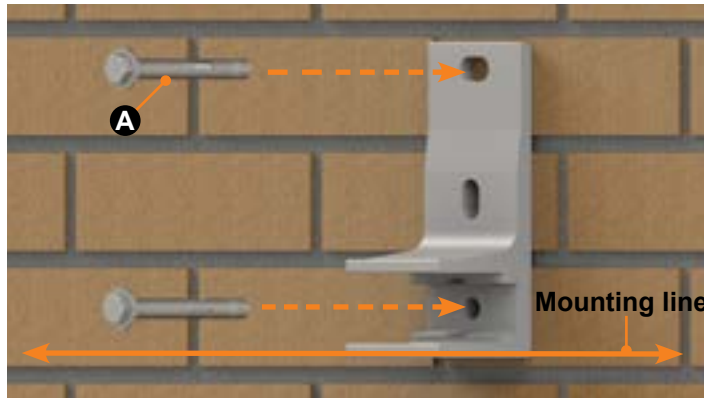


Fig.33

10. Continue to the "Final Awning Assembly" section of this manual for further installation instructions.

Installing to the Underside of the Soffits (Wall Brackets and Soffit Adapter Brackets)

NOTE: Mounting to the underhang/soffits requires supports within them. Check that the overhang structure has internal supports along the entire length before choosing this installation option.

NOTE: The Lumina Awning and Included "L" soffit brackets are intended for installation on a level overhang or soffit only. Angled overhangs or rafters are not supported.

1. Measure at least 8" back from the edge of the underside of the overhang/soffits (Fig. 34A) and make a mark (if able) (Fig. 34B). There must be 8" of uninterrupted space from the edge of the underside of the overhang/soffits along the entire length of the awning to allow space for the awning itself.

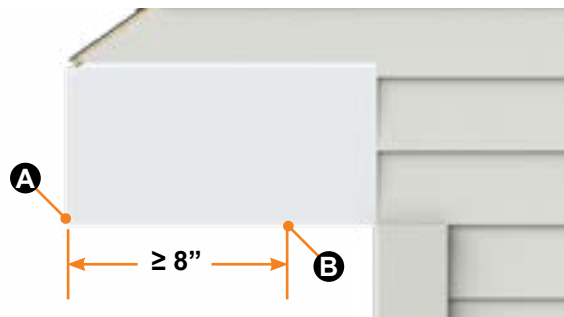


Fig.34

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2. Move to the other end of the intended mounting location roughly equal to the length of the awning, and make another mark on the underside of the overhang/soffits 10" back from the edge of the overhang.

3. Using chalk or a snap chalk line, connect the marks previously made. For the purposes of soffit or underhang installation, this line will be defined as the "mounting line," (Fig. 35A) and will correspond to the back edge of each of the "L" mounting brackets.

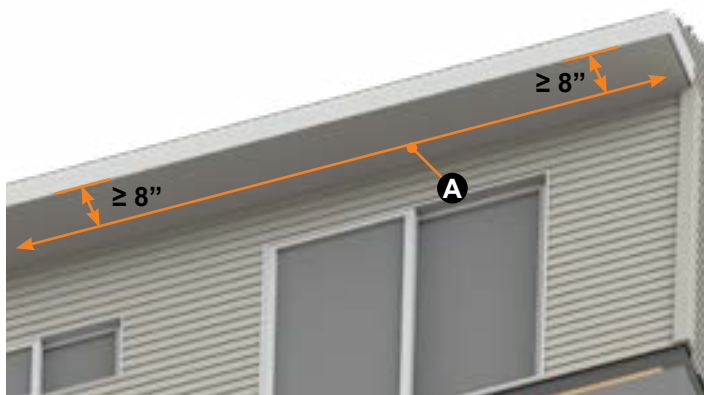


Fig.35

4. Using a bubble or laser level, check that the mounting line is straight and level. If not, make adjustments as needed.

5. Mark the left and right ends of the awning on the mounting line (Fig. 36).

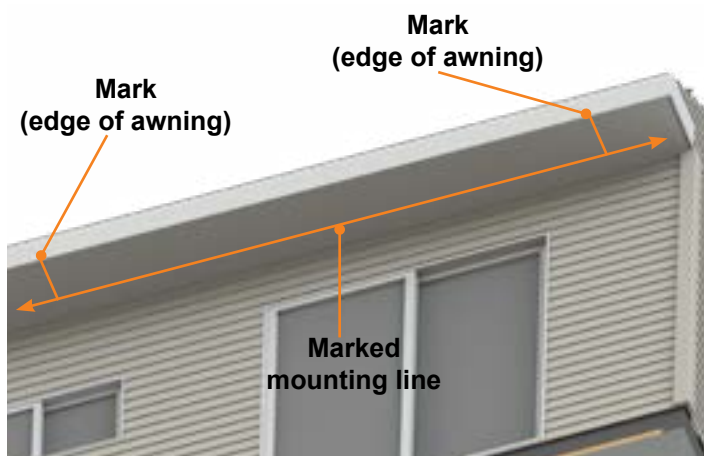


Fig.36

6. Using a stud finder, find the center of the studs along the entire length of the mounting line between the left and right sides of the awning. Mark each stud center with a non-permanent method of marking (Fig. 37).

NOTE: Awning/awning brackets must be mounted to studs first and foremost. Common construction stud spacing is normally 16" center to center, but can be 24" under certain circumstances.

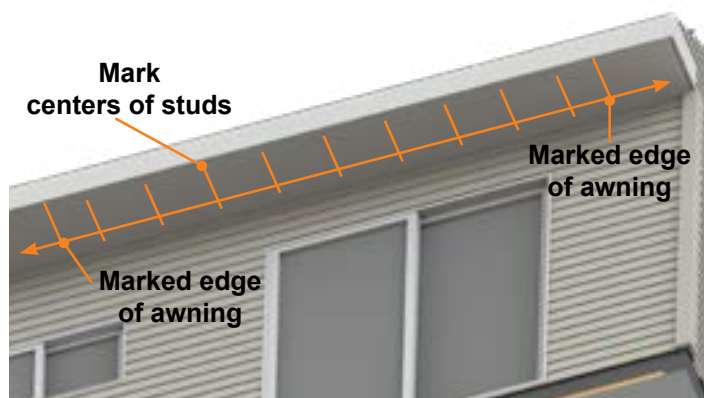


Fig.37

⚠ WARNING

PROPER LOCATION OF THE BRACKETS IS THE MOST IMPORTANT ASPECT OF AWNING INSTALLATION. FAILURE TO:

1. SUPPORT THE AWNING WITH EACH INCLUDED BRACKET
2. EVENLY SPACE THE BRACKETS ACROSS THE LENGTH OF AWNING (AS POSSIBLE)
3. SECURELY FASTEN ALL BRACKETS TO A STUD IN THE OVERHANG

COULD LEAD TO AWNING COLLAPSE CAUSING SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

⚠ WARNING

FAILURE TO ENSURE BRACKETS ARE LEVEL AND ALIGNED WILL RESULT IN BOWING OF THE AWNING SUPPORT BEAM, WHICH COULD LEAD TO INSTALLATION ISSUES, AWNING FAILURE, AND AWNING COLLAPSE. SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

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7. Examine the marks made at the left and right edges of the awning and the bracket positions listed in the "Bracket Locations by Awning Size vs. Stud/Brick location" subsection of the "Prior to Installation" section of this manual (Fig. 20-22). Compare these bracket locations to the marks made identifying the stud centers along the mounting line. When placing brackets, remember that each bracket pair (wall bracket and soffit adapter bracket) included with the kit must be used. Space bracket pairs as evenly as possible across the length of the awning while ensuring that each soffit adapter bracket will be installed onto a stud, with the mounting holes aligning to the center mark of the stud. Place each bracket appropriately, and make any adjustments as needed to the left/right positioning of the awning. Re-mark the new left and right edges of the awning as needed after adjustments. Figure 38 depicts an install for a 12'x10' awning with appropriate alignment between studs and brackets for awning size.

NOTE: Brackets can not be installed where arm shoulders are located.



Fig.38

8. Dry fit a soffit adapter bracket at the rightmost determined bracket location (Fig.38A) with the back edge of the bracket aligning with the mounting line. Drill two 1/4" pilot holes through the soffit adapter bracket mounting holes into the marked stud center. Apply a bead of sealant inside each pilot hole.

9. Repeat with each soffit adapter bracket at each determined location.

NOTE: Use a laser level while dry fitting and installing brackets to ensure each is as perfectly aligned as possible.

10. Install each soffit adapter bracket (Fig. 39A) at the determined locations with the back edge of the soffit adapter brackets aligning with the mounting line (Fig. 39B) by securing each with two 10mm x 100mm lag screws (Fig. 39C) and two 26mm x 10mm flat washers (Fig. 39D) into the pilot holes.

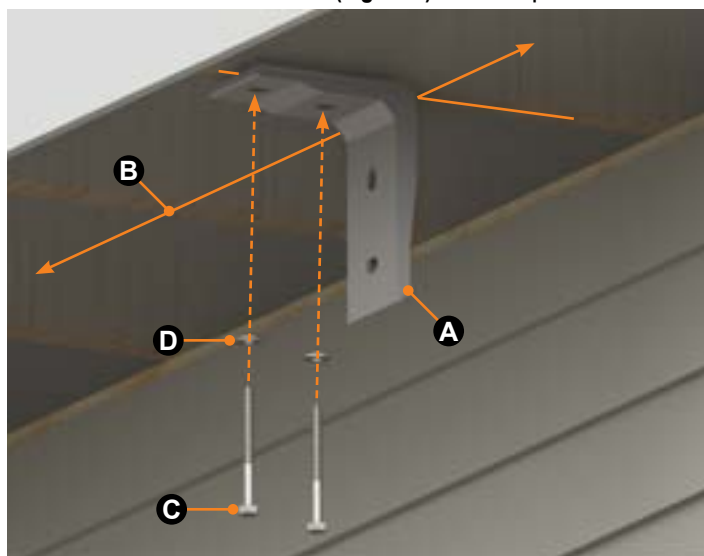


Fig.39

11. Affix a wall bracket (Fig. 40A) to each soffit adapter bracket using two M12 x 45mm carriage bolts (Fig. 40B), two 24mm x 13mm x 2.5mm flat washers (Fig. 40C), and two M8 retaining nuts (Fig. 40D).

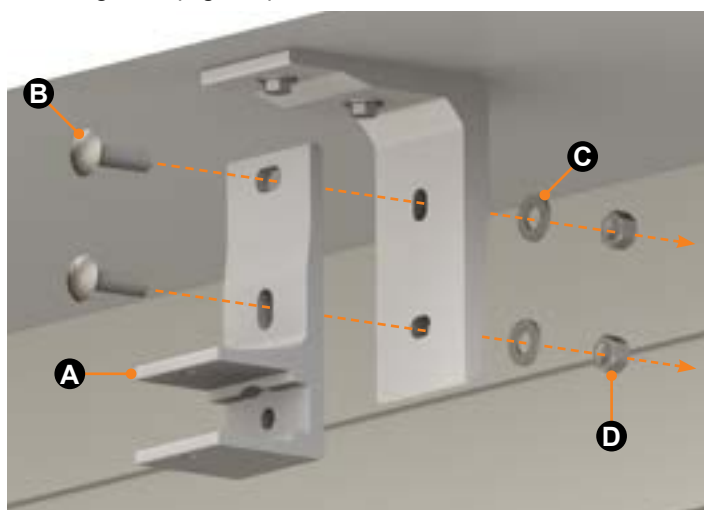


Fig.40

12. Continue to the "Final Awning Assembly" section of this manual for further instruction steps.

Installing to the Rooftop (Wall Brackets and Roof Mount Brackets)

⚠ WARNING

INSTALLING THE LUMINA AWNING TO THE ROOF INVOLVES DRILLING INTO THE ROOF. ALWAYS FOLLOW LOCAL BUILDING CODES, AND USE ADEQUATE SEALANT IN AND AROUND ALL WATER ENTRY POINTS CREATED IN THIS INSTALL. FAILURE TO DO SO COULD LEAD TO LEAKS AND WATER DAMAGE. CONSULT A LOCAL DEALER OR LICENSED CONTRACTOR FOR ASSISTANCE.

NOTE: The Lumina Awning and Included roof mount brackets are intended for installation on asphalt shingles only. Tile shingles are not supported.

1. Affix a wall bracket (Fig. 41A) to an awning-side roof bracket (Fig. 41B) using three M10 x 35mm bolts (Fig. 41C), six 26mm x 10mm Flat Washers (Fig. 41D), and two M10 locking nuts (Fig. 41E). Make sure the side of the awning side roof bracket with fewer holes is oriented downwards as depicted in Figure 41.

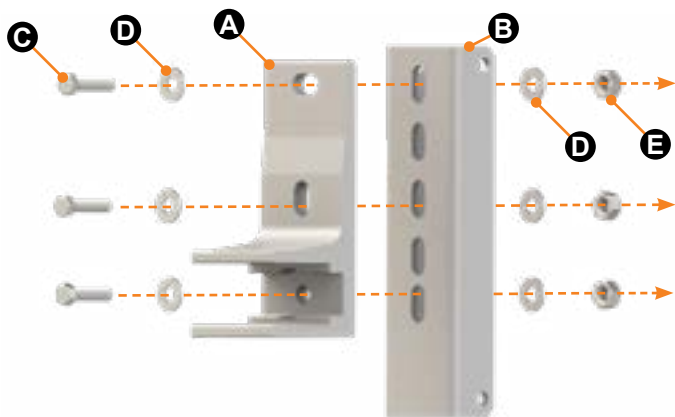


Fig.41

2. Attach a roof-side bracket (Fig. 42A) to the awning-side bracket and wall bracket assembly (Fig. 42B) at the hinge holes with two M8 x 20mm bolts (Fig. 42C) and two m8 locking nuts (Fig. 42D), one pair on each side. Do not tighten at this time to allow hinge motion.

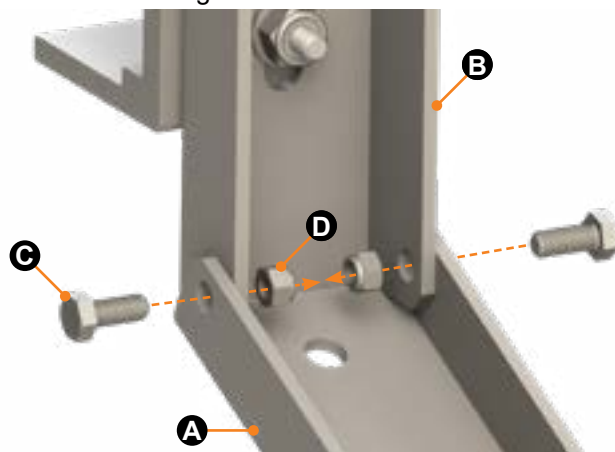


Fig.42

3. Install a bracket pitch arm (Fig. 43A) to the roof-side bracket utilizing the hole closer to the center hinge, and a second bracket pitch arm (Fig. 43B) to the awning side bracket at the top hinge hole. Attach each pitch arm using a M8 x 20mm bolt (Fig. 43C) and a M8 locking nut (Fig. 43D). Do not tighten nuts at this time to allow for bracket pitch arm adjustment as needed.

4. Repeat with two more bracket pitch arms on the other side of the roof bracket assembly.

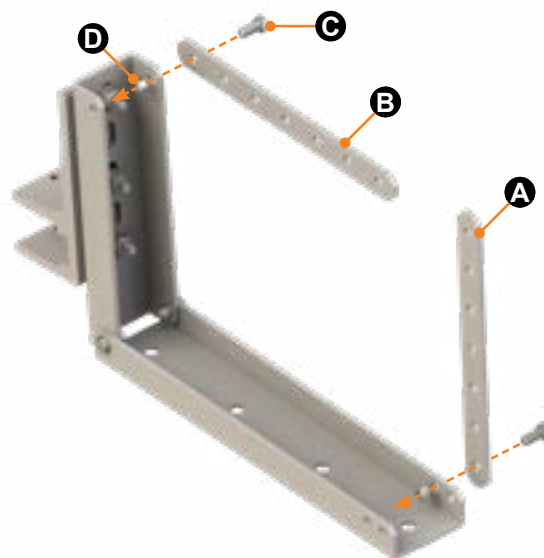


Fig.43

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5. Repeat steps 1-4 with the rest of the included roof-side brackets, awning-side brackets, pitch arms, and wall brackets.

6. Measure 3" up from the edge of the roof (Fig. 44A) and make a mark. There must be 14 1/2" of uninterrupted space above this mark (Fig. 44B) on the roof along the entire length of the awning to allow space for the roof brackets themselves. This allows for the awning to be installed on roofs with gutters and still allow access to the pitch adjustment hook.

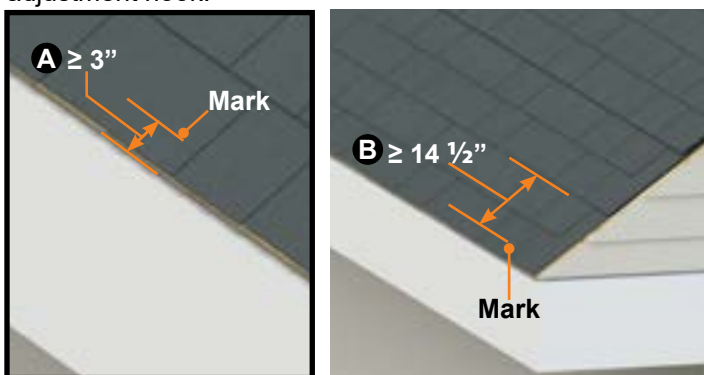


Fig.44

7. Move to the other end of the intended mounting installation roughly equal to the length of the awning and make another mark 3" from the edge of the roof.

8. Using chalk or a snap chalk line, connect the marks previously made. This line will be defined as the "mounting line" (Fig. 45A), and will correspond to the hinge edge of each of the roof mounting bracket assemblies.

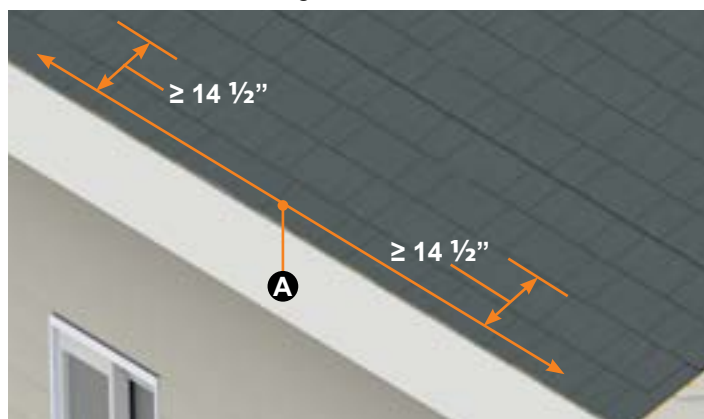


Fig.45

9. Using a bubble or laser level, check that the mounting line is straight and level. If not, make adjustments as needed.

10. Mark the left and right ends of the awning on the mounting line (Fig. 46).

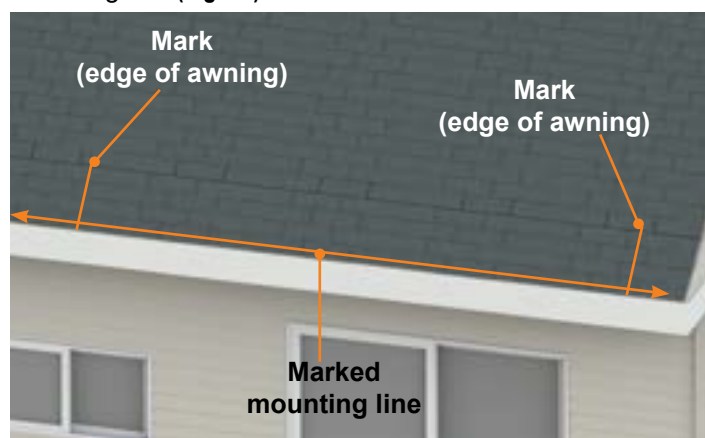


Fig.46

11. Using a stud finder or other method, find the center of the rafters along the entire length of the mounting line between the left and right sides of the awning. Mark each rafter center with a non-permanent method of marking (Fig. 47).

NOTE: Roof brackets must be mounted to rafters first and foremost. Common construction rafter spacing is can be anywhere from 12" to 24" center to center based on local building codes and regulations.

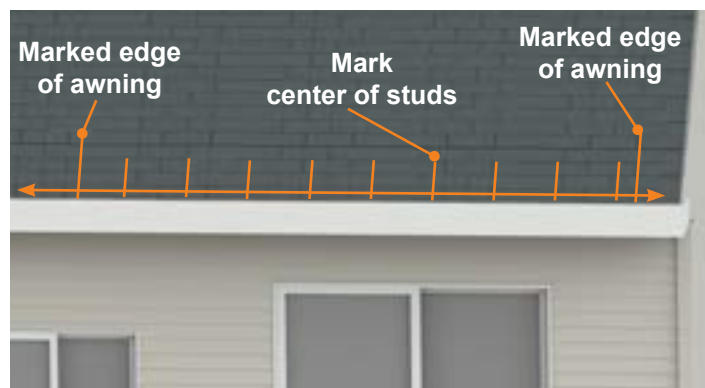


Fig.47

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12. Examine the marks made at the left and right edges of the awning and the bracket positions listed in the "Bracket Locations by Awning Size vs. Stud/Brick Location" subsection of the "Prior to Installation" section of this manual (Fig. 20-22). Compare these bracket locations to the marks made identifying the rafter centers along the mounting line. When placing brackets, remember that each bracket assembly (wall bracket and roof bracket) included with the kit must be used. Space bracket assemblies as evenly as possible across the length of the awning while ensuring that each roof bracket will be installed onto a rafter, with the mounting holes aligning to the center mark of the rafter. Place each bracket assembly appropriately, and make any adjustments as needed to the left/right positioning of the awning. Re-mark the new left and right edges of the awning as needed after adjustments. Figure 48 depicts an install for a 12'x10' awning with appropriate alignment between rafters and brackets for awning size.

NOTE: Brackets can not be installed where arm shoulders are located.



Fig.48

⚠ WARNING

PROPER LOCATION OF THE BRACKETS IS THE MOST IMPORTANT ASPECT OF AWNING INSTALLATION. FAILURE TO:

1. SUPPORT THE AWNING WITH EACH INCLUDED BRACKET
2. EVENLY SPACE THE BRACKETS ACROSS THE LENGTH OF AWNING (AS POSSIBLE)
3. SECURELY FASTEN ALL ROOF BRACKETS TO A RAFTER IN THE ROOF

COULD LEAD TO AWNING COLLAPSE, CAUSING SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

13. Place a roof mounting bracket assembly at the rightmost marked location (Fig. 48A) with the hinge edge of the roof-side bracket aligning with the mounting line. Drill a 1/4" pilot hole through each mounting hole on the roof-side bracket into the rafter.

14. Caulk into the each pilot hole with silicone.

15. Run a bead of silicone around the entire perimeter of the bottom face of the roof bracket.

16. Place the roof mounting bracket assembly on the roof in position, aligning the mounting holes with the pilot holes.

17. Secure the bracket to the roof using four 10mm x 100mm lag screws (Fig. 49A) and four 26mm x 10mm washers (Fig. 49B).

18. Add a final bead of silicone around the perimeter of the roof bracket assembly.

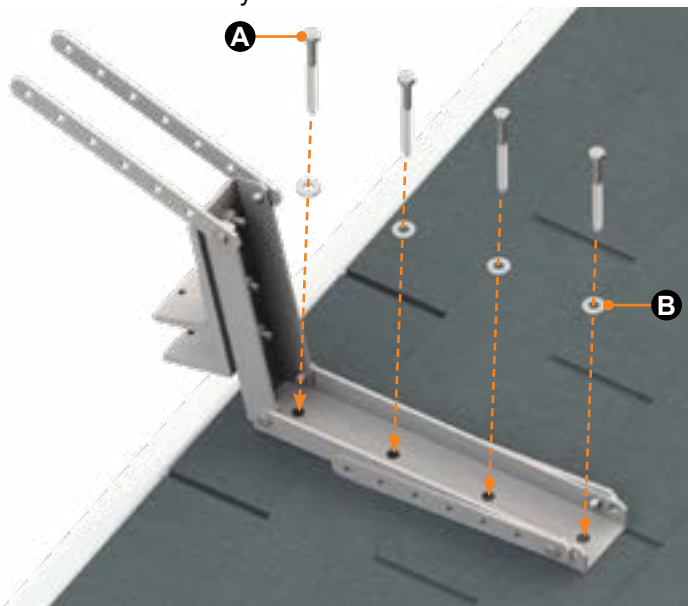


Fig.49

⚠ WARNING

FAILURE TO ADD ADEQUATE SEALANT IN THE PILOT HOLES, TO THE BOTTOM OF THE ROOF BRACKETS, AND AROUND THE ROOF BRACKETS COULD LEAD TO WATER INTRUSION AND/OR DAMAGE. ALWAYS ADD ADEQUATE SILICONE SEALANT IN THE INDICATED AREAS IN THIS MANUAL.

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19. Determine the pitch of the roof bracket by swinging the awning-side bracket/wall bracket assembly up to be as vertical as possible without allowing the awning to tip forward (Fig. 50A). Swing the roof side pitch arms and awning side pitch arms so that the holes along the arms align (Fig. 50B)(Fig. 50C).

NOTE: The roof bracket may be pitched so that the awning side tips backwards towards the roof, but **never** forwards.

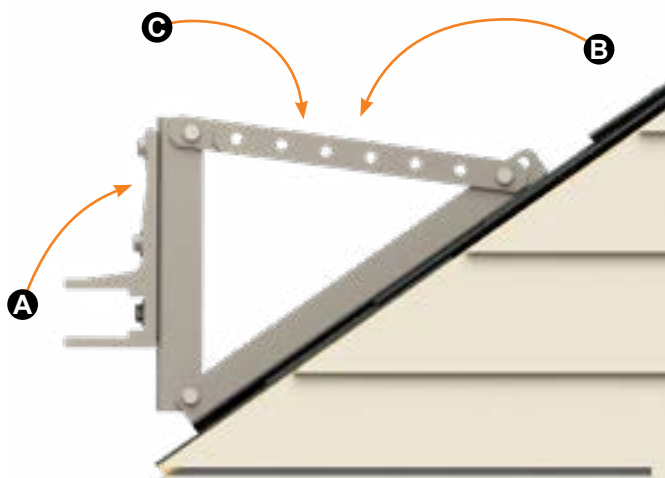


Fig.50

20. Secure one set of pitch arms together with two M8 x 20mm bolts (Fig. 51A) and two M8 locking nuts (Fig. 51B) at the desired pitch. Any set of aligned holes along the pitch arms may be used.

21. Repeat with the other side of the bracket and other set of pitch arms.

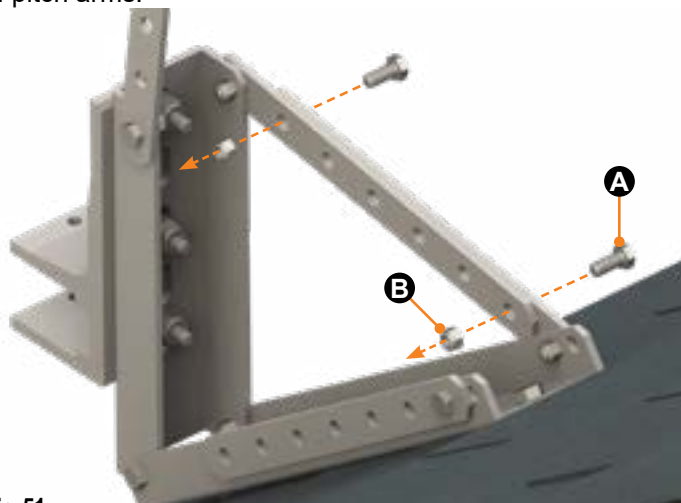


Fig.51

⚠ WARNING

PITCHING THE ROOF BRACKETS IN SUCH A WAY THAT ALLOWS THE AWNING TO TIP FORWARD MAY LEAD TO AWNING COLLAPSE.

⚠ WARNING

FAILURE TO ENSURE BRACKETS ARE LEVEL AND ALIGNED WILL RESULT IN BOWING OF THE AWNING SUPPORT BEAM, WHICH COULD LEAD TO INSTALLATION ISSUES, AWNING FAILURE, AND AWNING COLLAPSE. SERIOUS PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

22. Tighten all locking nuts on the roof bracket assembly.

23. Repeat steps 13-21 with the remaining roof bracket assemblies at the marks made on the rafter centers along the mounting line.

NOTE: Use a laser level while installing and pitching brackets to ensure each is as perfectly aligned as possible.

24. Continue to the "Final Awning Assembly" section of this manual for further installation instructions.

Final Awning Assembly

1. Assess the weight and size of the awning, and determine how many additional people will be needed to safely hoist the awning into position and secure it. Remember that larger awnings are heavier, and will require more assistance to lift and hold in place while the awning is being secured to the wall brackets. See the Table 3 - "Awning Weight by Size" for the weight of each awning to assist in determining the number of helpers needed.

Table 3 - Awning Weight by Size

Awning Size	Approximate Weight	Suggested Number of Helpers
12'x10'	176 lbs	4
14'x12'	205 lbs	5
16'x12'	218 lbs	5
18'x12'	231 lbs	5
20'x12'	242 lbs	6

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2. Using helpers, hoist the awning (Fig. 52A)(Fig. 53A) so that the torsion bar (Fig. 52B)(Fig. 53B) slides into the gaps of each of the wall brackets. Press the entire torsion beam into the gaps.

NOTE: An awning mounted directly to the side of the residence on siding is depicted in Figures 52, 53, and 54 as an example.



Fig.52

NOTE: Valence flap is not shown in Figure 52 and 54 for clarity.

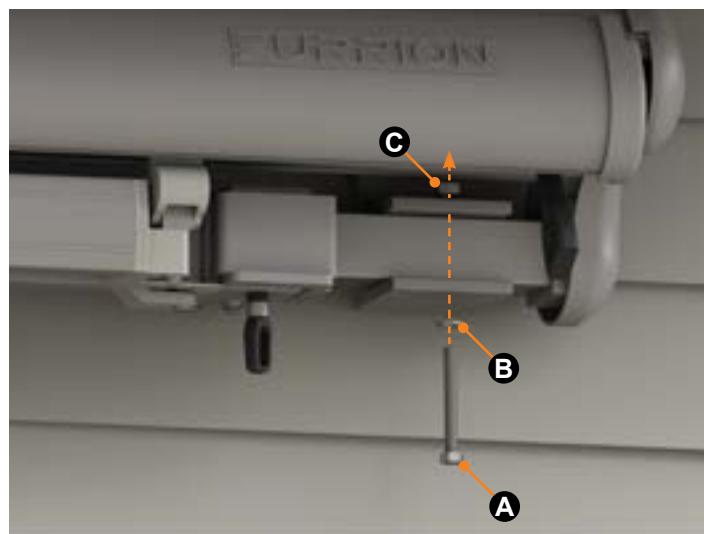


Fig.54

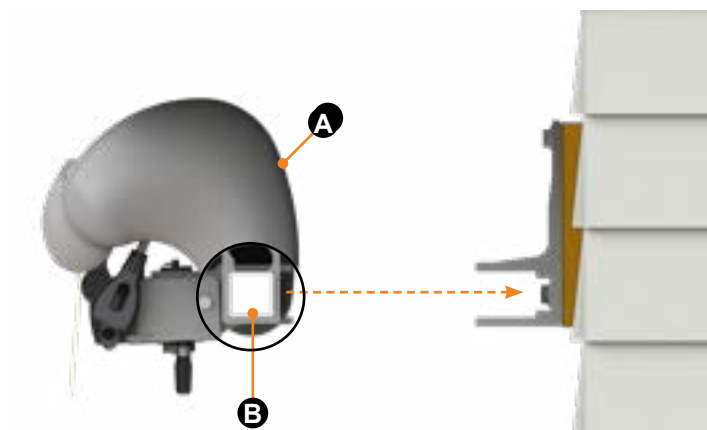


Fig.53

⚠ WARNING

FAILURE TO ACQUIRE AND UTILIZE ADEQUATE HELP WHILE HOISTING AND INSTALLING THE AWNING TO THE WALL BRACKETS COULD LEAD TO PROPERTY DAMAGE AND/OR PERSONAL INJURY INCLUDING DEATH.

Simplified view

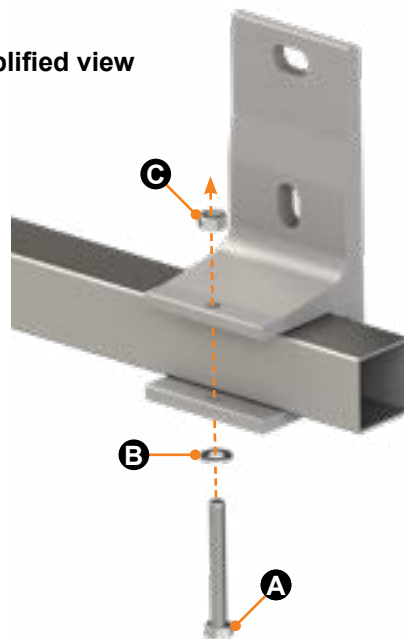


Fig.55

Solar Panel Installation

1. Review the criteria for placing the Solar Panel in the "Prior to Installation" section of this manual. Remember that placing the solar panel in such a way that it captures the most amount of sunlight possible is critical to intended product performance.

2. Double check the intended placement of the solar panel to ensure there is enough cord to reach it from the awning. There is a maximum of 8' of cord between the awning and the solar panel.

Option A: Installing to Wood Frame Walls With Wood, Vinyl, or Aluminum Siding

NOTE: The solar panel should be mounted to studs first and foremost.

NOTE: Shims may or may not be needed depending on the type of siding.

1. The solar panel (Fig. 56A) is designed so that the mounting brackets may be adjusted along the body of the panel to allow for convenient spacing when correlating the mounting holes to centers of studs. Check the distance between the centers of the mounting holes on each bracket. If needed, adjust the bracket(s) by loosening the set screw(s) (Fig. 56B) and positioning them until the center to center distance between mounting holes is 16", which correlates to common construction center to center stud spacing. Tighten the set screw again if repositioned.

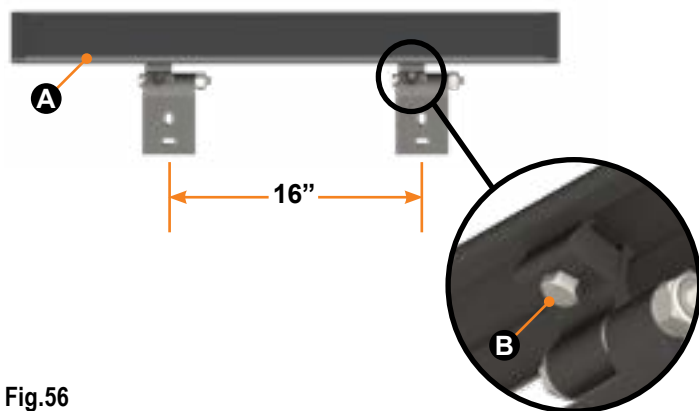


Fig.56

2. Using a stud finder or other method, locate and mark the centers of the studs at the intended solar panel installation site (Fig.57).

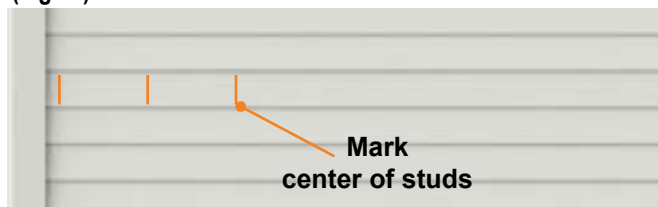


Fig.57

NOTE: The solar panel may be installed horizontally (Fig. 58) or vertically (Fig. 59) based on the position of the sun, the size of the residence, location of the studs, and/or cord length.



Fig.58

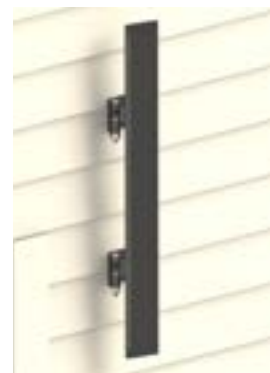


Fig.59

3. Hold the solar panel assembly against the wall with the center of the mounting holes aligned with the center of the stud mark(s). Drill a pilot hole through each mounting hole into the stud(s). Apply a bead of silicone sealant in each pilot hole.

4. Affix the solar panel to the wall with four 8mm x 50mm lag screws (Fig. 60A) and four 16mm x 8mm washers (Fig. 60B) through the mounting/pilot holes.

5. Continue to the "Final Installation" section of this manual.

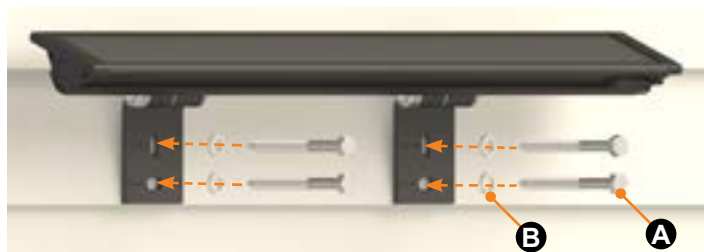


Fig.60

Lumina® Solar-Powered Retractable Awning Installation and Owner's Manual (For Aftermarket Applications)

Option B: Installing to Brick

NOTE: The solar panel should be mounted in such a way that the screws will never penetrate the joints between bricks. Always make sure that any screw is positioned ½" away from the edge of any brick.

1. Dry fit the solar panel (Fig. 61A) onto the bricks and check the position of the mounting holes, making sure that each is ½" away from the edges of any bricks. Reposition the solar panel as needed.

NOTE: The solar panel is designed so that the mounting brackets may be adjusted along the body of the panel to allow for convenient spacing when correlating the mounting holes to bricks (and not mortar). If needed while dry-fitting, adjust the bracket(s) by loosening the set screw(s) (Fig. 61B) and positioning them until no mounting hole will fall closer than ½" to the edge of a brick. Tighten the set screws again if repositioned.

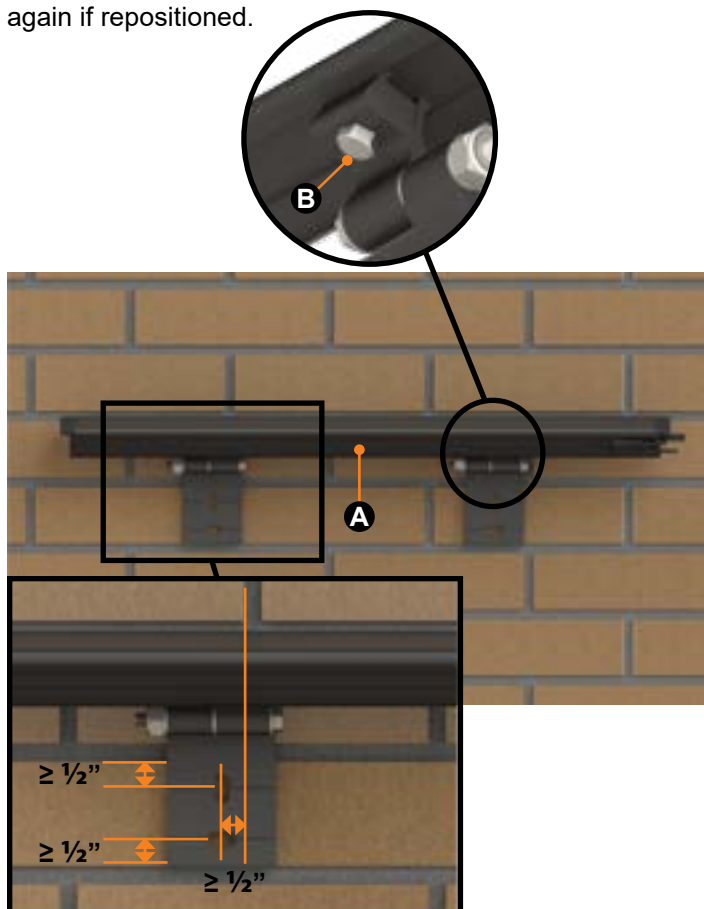


Fig.61

NOTE: The solar panel may be installed horizontally (Fig. 62) or vertically (Fig. 63) based on the position of the sun, the size of the residence, location/size of the bricks, and/or cord length.



Fig.62



Fig.63

2. Mark the positions of the mounting holes, then drill a pilot hole at each mark.

3. Insert a 10mm x 50mm plastic anchor into each pilot hole.

4. Affix the solar panel to the wall with four 8mm x 50mm lag screws (Fig. 64A) and four 16mm x 8mm washers (Fig. 64B) through the mounting/pilot holes.

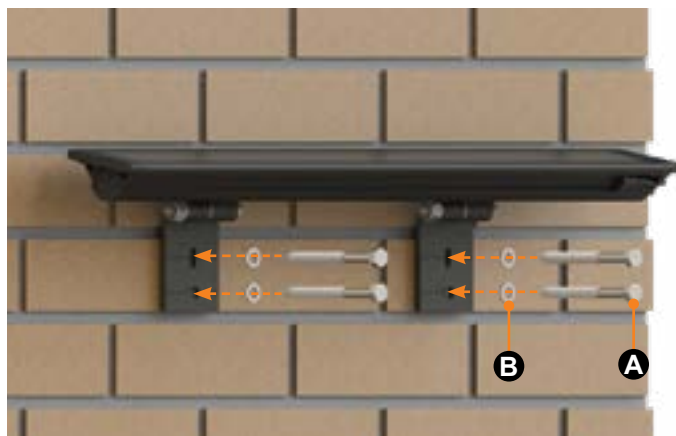


Fig.64

5. Continue to the "Final Installation" section of this manual.

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Option C: Installing to the Roof

⚠ WARNING

INSTALLING THE SOLAR PANEL TO THE ROOF INVOLVES DRILLING INTO THE ROOF. ALWAYS FOLLOW LOCAL BUILDING CODES, AND USE ADEQUATE SEALANT IN AND AROUND ALL WATER ENTRY POINTS CREATED IN THIS INSTALL. FAILURE TO DO SO COULD LEAD TO LEAKS AND WATER DAMAGE. CONSULT A LOCAL HANDYMAN FOR ASSISTANCE.

NOTE: The solar panel should be mounted to rafters first and foremost.

1. The solar panel (Fig. 65A) is designed so that the mounting brackets may be adjusted along the body of the panel to allow for convenient spacing when correlating the mounting holes to centers of studs. Check the distance between the centers of the mounting holes on each bracket. If needed, adjust the bracket(s) by loosening the set screw(s) (Fig. 65B) and positioning them until the center to center distance between mounting holes is correlates to the center to center rafter spacing of the residence (anywhere from 12"-24" based on local building codes). Tighten the set screws again if repositioned.

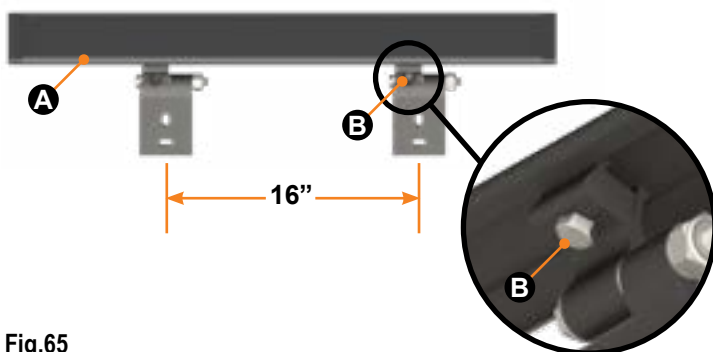


Fig.65

2. Using a stud finder or other method, locate and mark the centers of the rafters at the intended solar panel installation site (Fig. 66).



Fig.66

NOTE: The solar panel may be installed horizontally (Fig. 67) or vertically (Fig. 68) based on the position of the sun, location of the studs, and/or cord length.



Fig.67



Fig.68

3. Hold the solar panel assembly against the roof with the center of the mounting holes aligned with the center of the stud mark(s). Drill a pilot hole through each mounting hole into the stud(s).

4. Caulk into the each pilot hole with silicone.

5. Run a bead of silicone around the entire perimeter of the bottom face of the solar panel mounting brackets.

6. Affix the solar panel to the roof with four 8mm x 50mm lag screws (Fig. 69A) and four 16mm x 8mm washers (Fig. 69B) through the mounting/pilot holes.

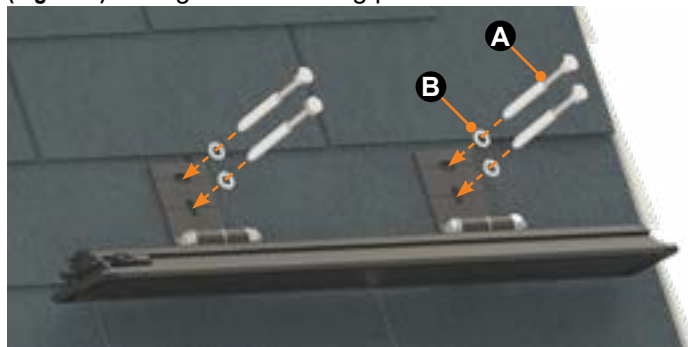


Fig.69

7. Add a final bead of silicone around the perimeter of each of the solar panel mounting brackets.

8. Continue to the "Final Installation" section of this manual.

⚠ WARNING

FAILURE TO ADD ADEQUATE SEALANT IN THE PILOT HOLES, TO THE BOTTOM OF THE ROOF BRACKETS, AND AROUND THE ROOF BRACKETS COULD LEAD TO WATER INTRUSION AND/OR DAMAGE. ALWAYS ADD ADEQUATE SILICONE SEALANT IN THE INDICATED AREAS IN THIS MANUAL.

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Final Installation

1. Plug in each harness from the solar panel to the awning. See the "Wiring Diagram" Section of this manual for more details. Secure the connections by tightening the watertight protectors around each of them.

When connecting cords, wires, and/or harnesses that are connected to the motor, leave enough slack to form a drip loop in each. The bottom of the loop should be lower than the cord's entry point into the motor, preventing rain water from traveling along the cord and into the motor (Fig. 70).

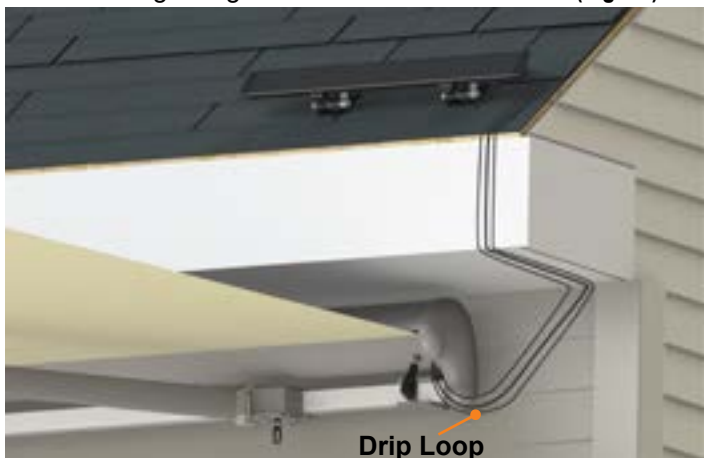


Fig.70

2. Install the wall holder for the remote in a cool dry place inside the residence where the remote will be stored.

NOTE: Do not allow the remote to get wet.

Pairing the Remote

1. Make sure the solar panel has adequate power to operate the awning, and is fully wired and connected to it.

2. Open the back panel (Fig. 71A) of the remote (Fig. 71B) exposing the battery and the "P2" buttons.

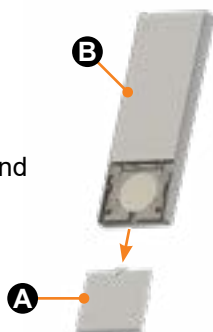


Fig.71

3. Press and hold the pairing button (Fig. 72A) on the side of the solar panel (Fig. 72B) for three seconds. The LED (Fig. 72C) will illuminate solid to indicate the panel is in pairing mode.

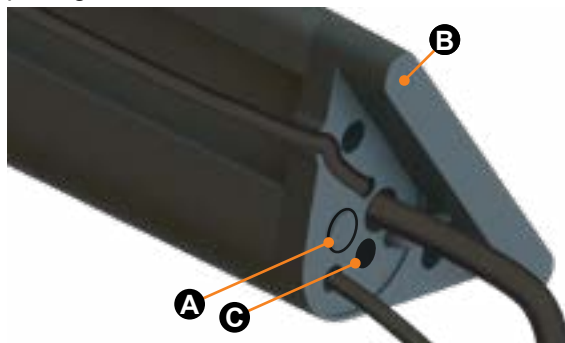
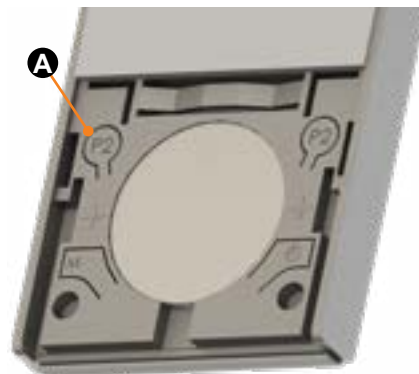


Fig.72

4. Press the left P2 button (Fig. 73A) on the back of the remote once. The LED on the remote will flash. After the flash, press the left P2 button a second time and the remote LED will flash again.



NOTE: Do not press the right P2 button. Nothing is connected to it inside the remote.

Fig.73

5. Press the "Extend" (downwards facing arrow) button on the remote (Fig. 74A). The motor will jog (extend the awning once, stop, then retract), and the remote LED will flash four times. The remote has been successfully paired.

6. Test the remote by pressing the "Extend" button and letting the awning extend 1-2'. Once the awning reaches 1-2' extension, press the "Stop" (horizontal line) button (Fig. 74B).

7. Finally, press the "Retract" (downwards facing arrow) button (Fig. 74C) and let the awning fully retract.

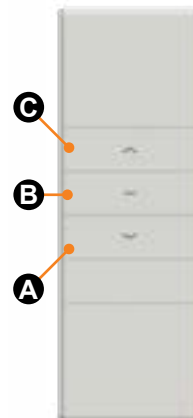


Fig.74

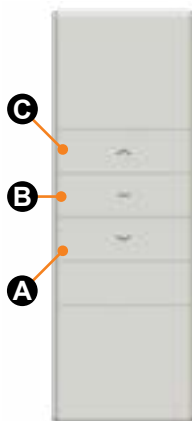
Testing for Proper Operation

⚠ WARNING

BEFORE OPERATING THE AWNING MAKE SURE THAT NO OBJECTS OR PERSONS ARE AROUND OR ARE IN THE PATH OF THE AWNING AS IT EXTENDS AND/OR RETRACTS. PROPERTY DAMAGE OR SERIOUS PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

NOTE: The extend and retract stop limits of the Lumina awning come pre-set out of the box. Do not attempt to adjust them. In the very unlikely event the stop limits need to be adjusted, refer to "Troubleshooting" section of this manual.

1. Test the operation of the awning and pairing of the remote by pressing the "Extend" button (downwards facing arrow) (Fig. 75A) on the remote once. Do not hold the button or press it again. The awning should open to full extension and stop on its own. Monitor this process carefully to ensure the awning full extends and does not overextend.



NOTE: "Full extension" of the awning is achieved when the fabric is taught and does not droop or sag, and the lateral arms are bent but not locked at the elbow joints (Fig. 76).

NOTE: If pressing the "Extend" button makes the awning retract, and the "Retract" button makes it extend, the motor direction signal is reversed. In this condition, the wind sensor will not function properly. To fix this, hold the pairing button on the solar panel for 10 seconds. The motor will jog three times. Then, release the pairing button. The solar panel LED will flash three times.

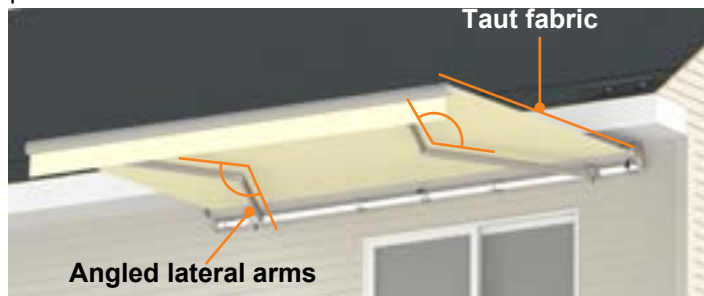


Fig.76

2. At any time during the extension process if it is required to halt extension for any reason (safety, overextension, etc) press the "Stop" button (horizontal line) (Fig. 75B) on the remote. Power will cut to the motor and the awning will stop moving.

NOTE: Do not allow the awning to open past the point where the fabric sags (Fig.77A) and/or begins to wrap under the roll tube (Fig. 78A). This is referred to as "overextension." If the awning begins to overextend, immediately press the "Stop" button on the remote. Then press the "Retract" button (upwards facing arrow) (Fig. 75C) until the awning is fully retracted. Navigate to the "Troubleshooting" section of this manual and set or reset the extend stop of the awning.

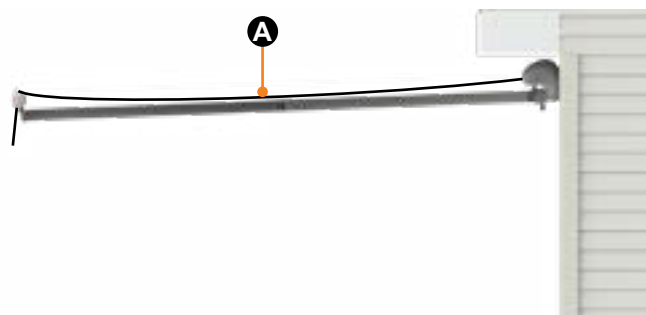


Fig.77

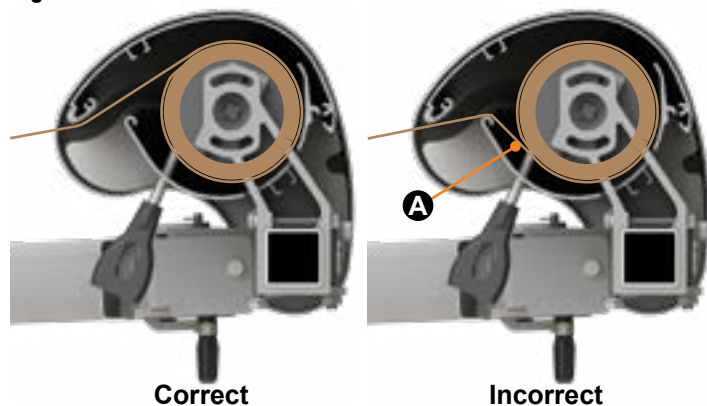


Fig.78

3. Once the awning has reached full extension and come to a complete stop, press the "Retract" button (upwards facing arrow) (Fig. 75C) on the remote. The awning should fully retract and come to a rest. As with testing for full extension, if at any time an emergency stop is needed while the awning is in motion, press the "Stop" button on the remote.

Syncing the App

Before operation, the Furrion AwnCommand® app should be installed on a smart device then synced with the Mini Hub, Smart Wind Sensor, Wi-Fi, and remote. This syncing allows use of the wind sensor feature which is an important safety feature protecting the awning from unintended exposure to moderate or severe winds. Syncing to the app also allows the awning to be controlled by the smart device. Download the AwnCommand app and follow the pairing instructions to sync all parts of the awning.

NOTE: The Lumina Awning operates on a 2.4GHz frequency. Make sure your router and network are tuned to 2.4GHz to allow the app to sync and control the awning.

WARNING

AWNING MUST NOT BE EXTENDED OR OPERATED UNDER WINDY CONDITIONS. WIND SENSOR MUST BE CONNECTED AND PAIRED VIA WI-FI TO FUNCTION. FAILURE TO DOWNLOAD THE AWNCOMMAND APP AND PAIR THE AWNING TO THE WIND SENSOR COULD LEAD TO PROPERTY DAMAGE OR PERSONAL INJURY.

Operation

⚠ WARNING

BEFORE OPERATING THE AWNING MAKE SURE THAT NO OBJECTS OR PERSONS ARE AROUND OR ARE IN THE PATH OF THE AWNING AS IT EXTENDS AND/OR RETRACTS. PROPERTY DAMAGE OR SERIOUS PERSONAL INJURY INCLUDING DEATH COULD OCCUR.

⚠ WARNING

NEVER OPERATE ANY EQUIPMENT THAT PRODUCES HEAT OR FLAMES DIRECTLY UNDERNEATH OR IN CLOSE PROXIMITY TO ANY PART OF THE AWNING. DOING SO COULD LEAD TO PROPERTY DAMAGE OR PERSONAL INJURY AS A RESULT OF FIRE.

COMMON EQUIPMENT THAT PRODUCES HEAT INCLUDES BUT IS NOT LIMITED TO:

- BARBECUE GRILLS
- PATIO OR SPACE HEATERS
- PORTABLE OR STATIONARY FIREPLACES.

⚠ WARNING

RAIN WATER OR SNOW COLLECTING ON THE FABRIC COULD LEAD TO COLLAPSE DUE TO INCREASED WEIGHT. ALWAYS RETRACT THE AWNING DURING PERIODS OF HEAVY RAIN AND/OR SNOW.

⚠ WARNING

NEVER EXTEND OR LEAVE THE AWNING EXTENDED DURING PERIODS OF WINDY WEATHER.

⚠ CAUTION

NEVER ATTEMPT TO HANG ITEMS FROM ANY PART OF THE AWNING EXCEPT FOR APPROVED ACCESSORIES SUPPLIED BY THE MANUFACTURER.

Using the Remote Control

The Lumina awning comes with a one-touch remote that is pre-programmed to the awning. When operating the remote, one touch of a button is all that is required to perform the intended operation. There is no need to press a single button twice or hold a button down.

1. To extend the awning, press the "Extend" button (downwards facing arrow) (Fig. 79A) once. The awning will extend until it reaches the preset extend stop limit.
2. To retract the awning, press the "Retract" button (upwards facing arrow) (Fig. 79B) once. The awning will retract until it reaches the preset retract stop limit.
3. To stop the awning at any point while it is in motion, press the "Stop" button (horizontal line) (Fig. 79C) once. Pressing this button will cut power to the motor and halt any further awning motion until another button on the remote is pressed.

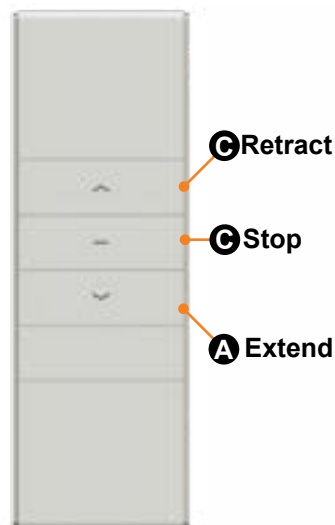


Fig.79

NOTE: Always monitor the awning while it is in motion. If at any point the fabric becomes saggy and loops under the roll tube as opposed to on top of it, immediately stop the awning by pressing the "Stop" button and reverse the motion of the awning until the fabric rolls back up on top of the roll tube (Fig. 77)(Fig. 78).

NOTE: The lateral arms of the awning should never become fully straight so that the elbow joints lock. They should always remain slightly bent, even while the awning is at full extension (Fig. 76).

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Adjusting the Pitch

NOTE: The pitch of the lateral arms may be adjusted independently at each arm for greater control.

1. Extend or retract the awning until it is approximately four feet (4') open (Fig. 80A).
2. Choose which side of the awning is in need of pitch adjustment, and move to the shoulder bracket (Fig. 80B) (Fig. 80C) and pitch loop (Fig. 80D) (Fig. 80E) of the corresponding lateral arm.

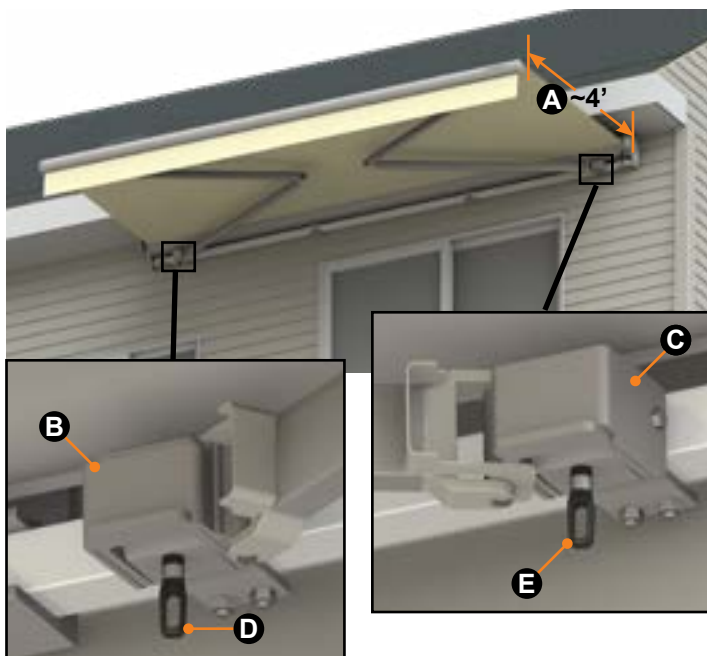


Fig.80

⚠ CAUTION

DO NOT ADJUST THE SLOPE OF THE AWNING TO AN ANGLE GREATER THAN 20°. UPWARDS OR DOWNWARDS FROM A HORIZONTAL POSITION

⚠ CAUTION

DO NOT ADJUST THE PITCH OF THE AWNING WHILE IT IS EXTENDED MORE THAN FOUR FEET (4'). THE STRESS ON THE LATERAL ARMS FROM THE WEIGHT OF THE FRONT BAR AS ADDITIONAL FORCE IS APPLIED COULD LEAD TO PRODUCT DAMAGE.

3. Insert the manual crank handle hook (Fig. 81A) into the pitch loop on the chosen shoulder bracket.

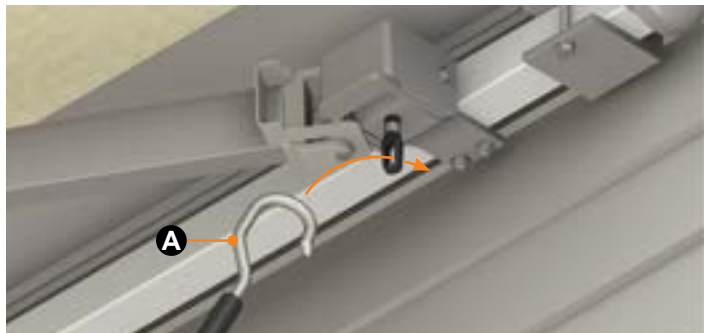


Fig.81

4. Turn the crank handle (Fig. 82A) clockwise to adjust pitch upwards on the chosen side.



Fig.82

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5. Turn the crank handle (Fig. 83A) counter-clockwise to adjust the pitch downwards on the chosen side.



Fig.83

6. Extend or retract the awning as desired.

⚠ WARNING

IF USING THE AWNING DURING LIGHT RAIN, ALWAYS ADJUST THE PITCH OF THE AWNING TO ALLOW WATER TO DRAIN OFF OF THE FABRIC. FAILURE TO DO SO COULD ALLOW WATER TO POOL LEADING TO AWNING COLLAPSE.

Manual Operation

⚠ WARNING

BEFORE OPERATING THE AWNING MAKE SURE THAT NO OBJECTS OR PERSONS ARE AROUND OR ARE IN THE PATH OF THE AWNING AS IT EXTENDS AND/OR RETRACTS.

1. Insert the manual crank handle hook (Fig. 84A) into the manual crank loop (Fig. 84B) located on the right-hand side of the main body of the awning.

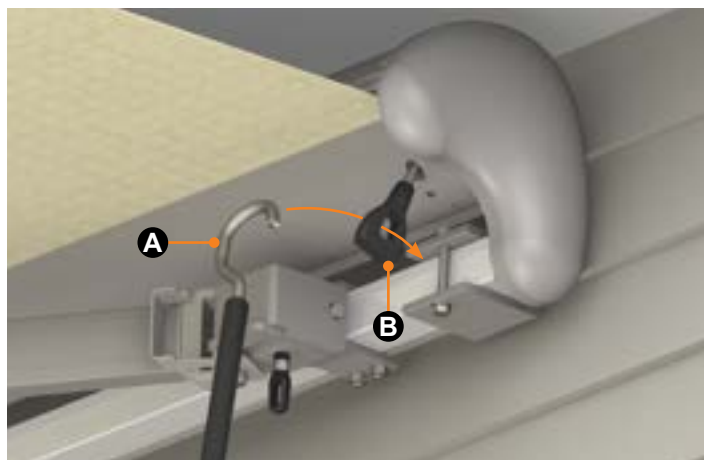


Fig.84

2. Turn the crank handle (Fig. 85A) clockwise to extend the awning.

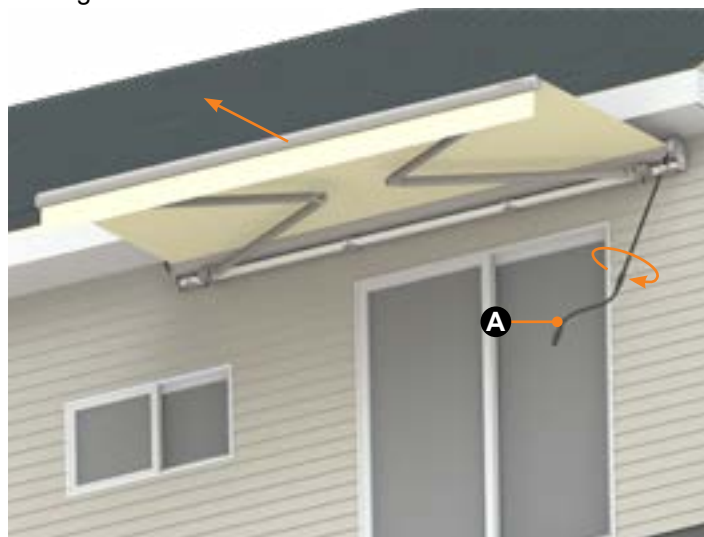


Fig.85

3. Turn the crank handle (Fig. 86A) counter-clockwise to retract the awning.



Fig.86

NOTE: When extending the awning, do not overextend it to the point where the fabric rolls under the roll tube (Fig. 87) and/or becomes saggy (Fig. 88).

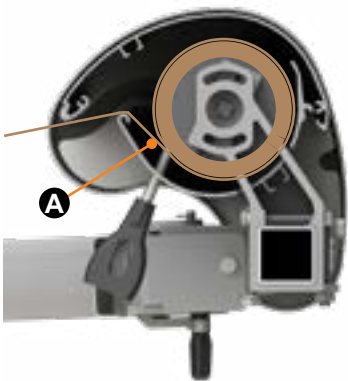


Fig.87

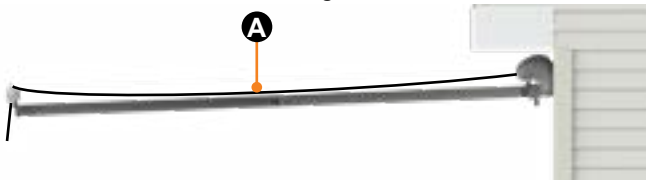


Fig.88

Troubleshooting

Troubleshooting Table

What is happening?	Why?	What should be done?
Fabric wrinkles when awning is extended/retracted.	Extra thickness around the hem on both ends of the fabric may cause wrinkling after long periods of not using the awning.	Leave the awning open in warm weather to minimize wrinkling over a period of time. Check that fabric is centered on roll tube and front bar.
Lateral arms/elbows are not even when awning is retracted.	Each lateral arm is supported individually and may not be even.	If unevenness is excessive, Check that fabric is centered on roll tube and front bar.
Fabric is not centered on the roll tube and/or the front bar.	Fabric has shifted, various other reasons.	<ol style="list-style-type: none">1. Press the "Stop" button on the remote.2. Unplug the awning from the solar panel.3. Manually extend the awning until the steel roll tube is fully exposed.4. Shift the fabric over on the roll tube and then on the front bar until it is centered.5. Manually retract the awning until the lateral arms 'lock' and the fabric becomes tight. Make sure the fabric rolls on top of the roll tube and not underneath it.
Fabric gathers more to one side on the roll tube as the awning retracts.		

What is happening?	Why?	What should be done?
Awning will not function.	Power issue.	Check that all wiring joints are fully connected and secure.
		Verify the solar panel has been charged by adequate solar exposure or by plugging it in for an hour.
	Remote issue.	Are lights illuminating on the remote? If not, remove the remote battery, reinsert it, and try again. If there is still no light, replace the battery.
		If awning has sufficient power and remote is lighting up when buttons are pressed, re-sync the remote to the awning.
Remote is not working	No lights on remote when buttons are pressed, and/or awning does not operate when buttons on the remote are pressed	Remove Remote battery then reinsert it. If remote is still not lighting up, replace remote battery.
		If remote battery is good, re-sync remote to awning.
		Check awning power
Awning extends but will not retract	Issue with the extend/retract stop limits.	Reset the extend/retract stop limits. See the "Adjusting the Extend and/or Retract Stop Limits" section in this manual.
Awning retracts but will not extend		
Awning continues to extend after reaching full extension, overextends, and fabric begins to sag.		
Awning does not stop at the correct, preset extend/retract stop limit when operated.		
Awning extends when pressing the upwards facing arrow on the remote or the "Close" button on the app.	Motor direction signal is reversed.	Hold the pairing button on the solar panel for 10 seconds. The motor will jog three times. Release the pairing button. Solar panel LED will flash three times.
Awning retracts when pressing the downwards facing arrow on the remote or the "Open" button on the app.		

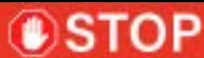
De-pairing the Remote From the Solar Panel

In the unlikely event the remote needs to be de-paired from the solar panel, remove the back panel from the remote and press the left P2 button once. The motor will jog once. Press the "Extend" button (downwards facing arrow) on the remote, and the remote LED will flash once. Press the left P2 button on the backside of the remote once more, and the motor will jog again, the remote LED will flash four times. The remote is now de-paired from the solar panel.

Resetting the Solar Panel to Factory Default

To reset the solar panel to factory settings, press and hold the pairing button on the side of the solar panel for 14 seconds. The motor will jog four times and the solar panel LED will flash four times. The solar panel has now been reset to factory settings, and will go into a "deep sleep." Press the pairing button once to "wake up" the solar panel.

Adjusting the Extend and/or Retract Stop Limits



THE EXTEND AND RETRACT STOP LIMITS COME PRESET WITH THE AWNING AND SHOULD RARELY OR NEVER NEED ADJUSTMENT UNLESS THE MOTOR HAS BEEN REPLACED. DO NOT ADJUST THE LIMITS UNLESS THERE IS AN ISSUE EXTENDING AND/OR RETRACTING THE AWNING AS OUTLINED IN THE "TROUBLESHOOTING TABLE" SECTION OF THIS MANUAL OR IF THE MOTOR HAS BEEN REPLACED. CONSULT A TRAINED PROFESSIONAL BEFORE ATTEMPTING TO ALTER THE PRESET STOPS IN ANY WAY.

NOTE: It is required to set the extend and retract stop limits after replacing the motor.

1. Examine the underside cover of the awning on the right side when facing it. Locate the two holes (Fig. 89A) (Fig. 89B) below the manual crank loop (Fig. 89C).

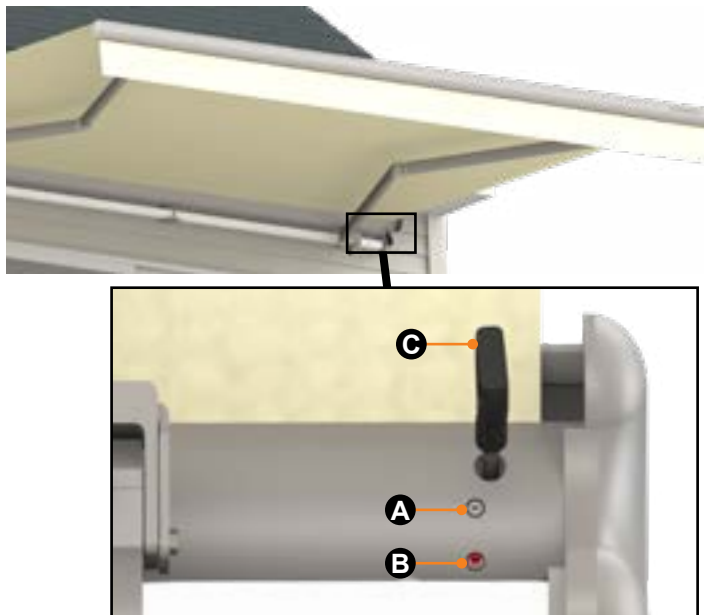


Fig.89

2. With a flashlight, look into each of the two small holes and find the two 4mm hex-head screws on the motor; one white in color (Fig. 89A), and the other red (Fig. 89B). The white screw will be in the "top" hole closest to the manual crank loop, and the red will be in the "bottom" hole.

3. The WHITE screw adjusts the extend stop limit of the motor. Adjust the limit by using the included hex wand (Fig. 90A). Turn the wand clockwise (towards the printed (+) symbol on the internal motor) to move the stop farther from the awning and lengthen the max extension point of the awning. Turn the wand counter-clockwise to bring the stop closer to the awning.

NOTE: Do not position this stop so that it is past the overextension point of the awning. When the awning is overextended, the fabric will sag (Fig. 88) and potentially begin to roll up under the roll tube instead of above it (Fig. 87).

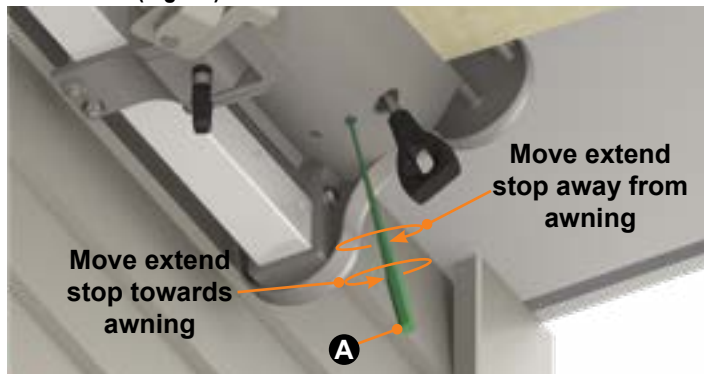


Fig.90

4. The RED screw adjusts the retract stop limit of the motor. Adjust the limit by using the included hex wand (Fig. 91A). Turn the wand counter-clockwise (towards the printed (+) symbol on the internal motor) to move the stop closer to the awning and close it tighter when fully retracted. Turn the wand clockwise to move the stop farther from the awning.

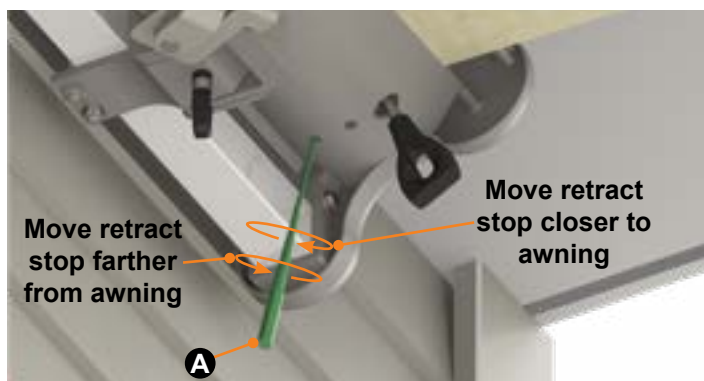


Fig.91

Maintenance

Scan the QR code here to the Sunbrella® website for basic and advanced fabric cleaning instructions including removal of heavy and/or stubborn stains, oil spills, and retreating procedures.



⚠ CAUTION

BLEACH CAN DETERIORATE FABRIC IF LEFT ON THE FABRIC FOR EXTENDED PERIODS OF TIME. RINSE THE FABRIC THOROUGHLY TO REMOVE ALL BLEACH SOLUTION.

⚠ CAUTION

BLEACH IS AN IRRITANT. USE GLOVES, SAFETY EYEWEAR, AND OTHER PPE WHEN HANDLING THE SOLUTION.

Cold Climate Storage With Snow and/or Ice

NOTE: In areas with cold weather that will experience snowfall and/or ice buildup, removal of the valence flap is recommended during the colder months to protect the fabric.

1. Using a hex-head wrench, loosen the screw (Fig. 92A) securing the end cap (Fig. 92B) to the end of the front bar on one side.

2. Slide off the front bar end cap.

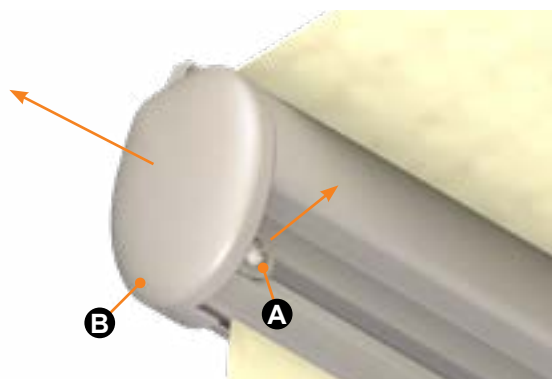


Fig.92

3. Remove the set screw (Fig. 93A) from the aluminum fabric lock (Fig. 93B) with a hex-head wrench.

4. Slide the aluminum fabric lock out from the valence channel.

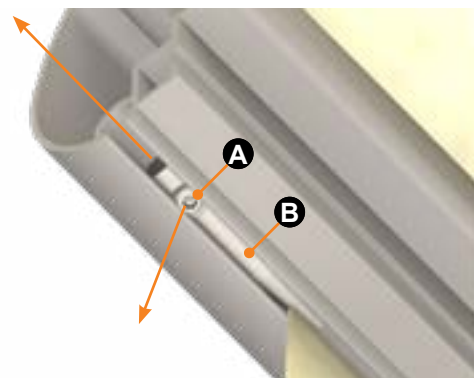


Fig.93

5. Repeat steps 1-4 on the other side of the front bar.

6. Slide the valence (Fig. 94A) out of the front bar valence channel.

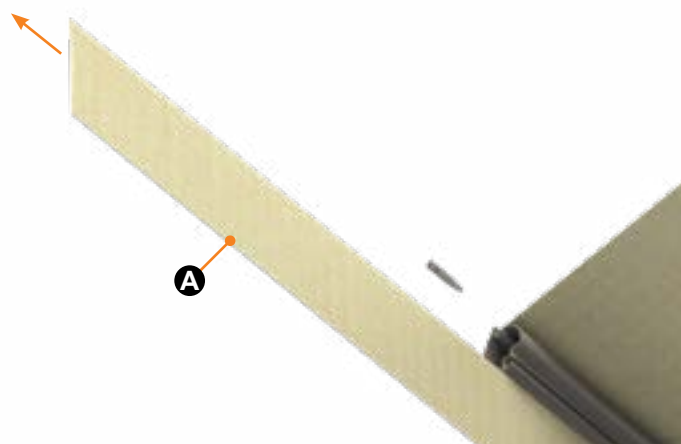


Fig.94

7. Reinsert the aluminum fabric locks and set screws in the front bar for safekeeping.

8. Reinstall the front bar end caps and tighten the set screws.

9. Neatly roll and store the valence in a warm, dry place.

Wiring Diagram

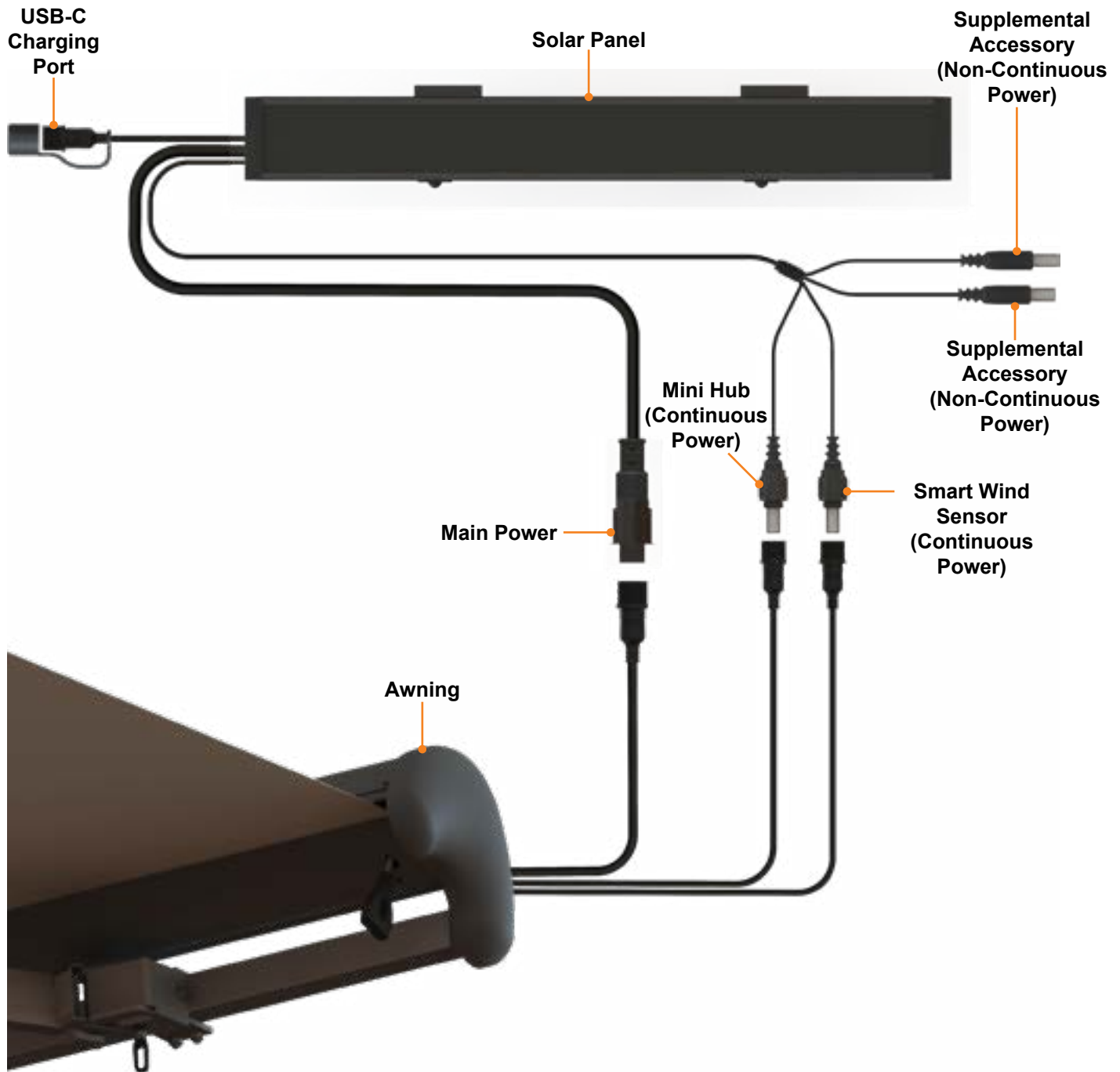


Fig.95

[illegible]

