CANOPY FOLDING INSTRUCTIONS

1. When the canopy has been fully lowered, stand in front of the canopy structure and begin the folding process by pulling out two panels opposite the mast. Pull the two panels together and roll tight into the canopy.
2. Once rolled tight, pull adjacent panels out one at a time and fold to the center, alternating sides until all the panels have been pulled out from the arms and folded into the center.
3. Strap canopy to the MAST(6) with the STRAP.
   Note: Canopy may mark if it is jammed in the frame.

MAINTAINING THE SOLA FRAME & FITTINGS

1. Hose mast and frame with water periodically, more often if installation is in a salty or industrial environment.
2. Inspect the installation fitting on a regular basis and tighten if necessary.
3. Lubricate the track and slider car mechanism as needed to enhance the ease of operation. Silicon spray or WD40 is recommended.

MAINTAINING THE SOLA CANOPY FABRIC

1. Clean up spills and stains right away. Spills can be removed by using a clean, absorbent cloth.
2. For general maintenance, use a soft brush to remove dust and dry soil or wash down with clean, warm water (i.e. garden hose) every so often so dirt does not become engrained. Allow the fabric to dry naturally before closing the canopy.
3. If a thorough cleaning is necessary, sponge over the fabric using a mild soap solution (2% solution). Rinse well with plenty of water to remove all soap residues.
4. Never use detergents, cleaning fluids or solvents. Grease and oil stains may be removed by using turpentine or similar with an absorbent cloth.
5. We recommend giving the canopy a good cleaning on a more frequent basis if installed in a location where the canopy is likely to become soiled.

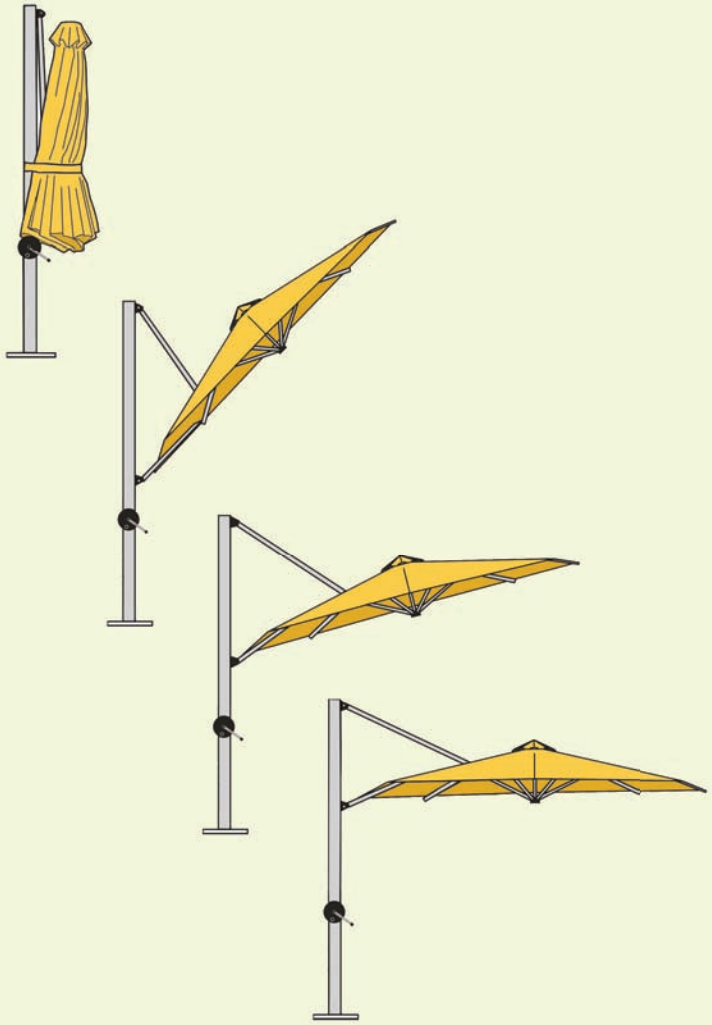
REMOVAL & REPLACEMENT OF THE SOLA CANOPY

Follow these instructions should you choose to replace your canopy with a new canopy:

1. Lower the canopy to the closed position.
2. Unsnap canopy vent cap.
3. Drill out CANOPY STRAP RIVETS x 4 (13) or take out CANOPY SCREWS from webbing at top of arms. (Depending on your model, your SOLA will have RIVETS or SCREWS, not both.)
4. Remove the button/screw at the end of each arm (16).
5. Separate Velcro strap along the MAIN CANOPY ARM (21) and remove canopy from the structure.
6. To replace the canopy, reverse the above process.

Shademakers NZ Limited
PO Box 12904
29 Olive Road,Penrose
Auckland, New Zealand
www.shademakers.com
info@shademakers.com
Telephone:++64 9 525 2024
Fax:++64 9 525 2493

shademakers



SOLA Owner's Manual

shademakers

www. shademakers.com

PO Box 12904, Penrose, Auckland, New Zealand
29 Olive Road, Penrose, Auckland, New Zealand
info@shademakers.com

SOLA Shademaker

IMPORTANT:
Please read this entire manual before installing or operating your SOLA Shademaker.

WARRANTY

Upon receipt of your SOLA, please check to ensure you have received all the components. If anything is missing or damaged, contact your Shademakers agent.

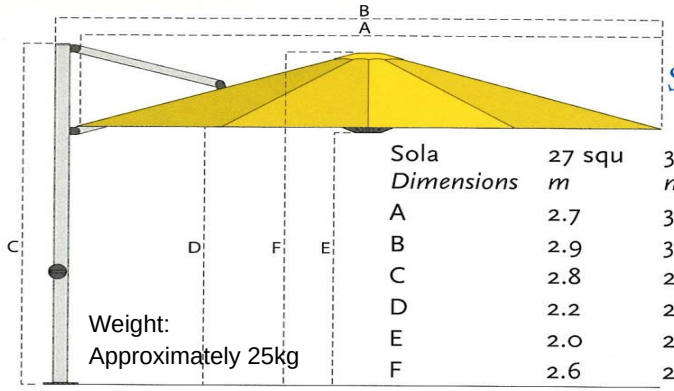
The SOLA is guaranteed by the manufacturer (Shademakers Ltd NZ) for 12 months against faulty workmanship, mechanical failure and defective materials. All acrylic canvas canopy fabrics have a five year limited manufacturer's warranty against material breakdown.

Damages resulting from an accident, careless use, or weather-related conditions are not covered under this warranty. See the enclosed Warranty Conditions for detailed conditions.

SOLA WIND RESISTANCE GUIDELINES: Light to Moderate Winds

When installed properly, the SOLA ShadeMaker is engineered to handle light to moderate wind conditions in the open canopy position. Please adhere to these common sense wind guidelines:

1. If winds are present, the SOLA should be placed in the horizontal position and the STABILIZER STRAPS (provided in the pocket on the canopy strap) should be hooked into place and cinched to provide added stability. (see diagram inside back page)
2. Do not keep the SOLA in a tilt position if you are experiencing windy conditions.
3. As winds get stronger or in anticipation of uncertain/severe weather conditions, the canopy should be lowered to the folded position and strapped to the mast.
4. The SOLA should always be left in the folded and strapped position when unattended or not in use.
5. In anticipation of and during extremely severe weather conditions, it is advisable to remove and store the entire SOLA structure to protect it from storm-related debris.



Weight:
Approximately 25kg

Specifications

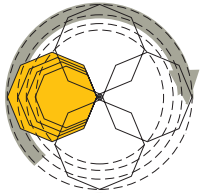
Sola	27 squ	300ct	340ct	380ct
Dimensions	*m*	*m*	*m*	*m*
A	2.7	3.0	3.4	3.8
B	2.9	3.2	3.5	3.9
C	2.8	2.7	2.8	2.8
D	2.2	2.1	2.2	2.2
E	2.0	2.0	2.1	2.1
F	2.6	2.5	2.7	2.7

TO SET THE CHILD SAFETY LOCK BUTTON

1. In any of the positions, the CHILD SAFETY LOCK BUTTON (4a) can be set by pushing the button in and turning it 90 degrees clockwise. PLEASE NOTE: It is not necessary to use the CHILD SAFETY LOCK BUTTON, however, it is recommended, particularly when children are present.

TO ROTATE THE SOLA LATERALLY THROUGH 360 DEGREES/12 POSITIONS

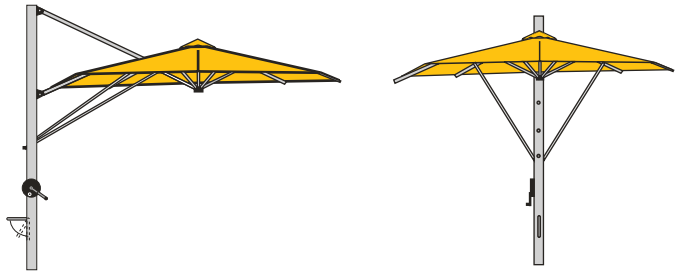
There are 12 holes on the top of the SPIGOT.



1. Pull out the LOCATOR PIN (25) above the TURNING HANDLE (24).
2. Raise the TURNING HANDLE (24) and rotate MAST (6) to a new position.
3. Push LOCATOR PIN (25) back in and turn it to lock it into any one of 12 positions.

TO STABILIZE THE SOLA IN MODERATE WINDS

1. The CANOPY STRAP is equipped with a pocket for the storage of two STABILIZER STRAPS. Remove them and snap the domed end of each strap around the end of the arms (19) on either side of the main arm.
2. Place the triangle of each strap over the STABILIZER TRIANGLE BUTTON on the back of the mast (5) and cinch each strap to stabilize. NOTE: Stabilizer Straps are to be used as wind strength increases, but should ONLY be used in the horizontal position, NOT in the tilt positions.



TO LOWER THE SOLA CANOPY

1. If the CHILD SAFETY LOCK (4a) is in use, turn it 90 degrees counter-clockwise until the button pops out.
2. Open WINDER HANDLE (4) and turn clockwise slightly. With right hand, lift LOCKING LEVER (3a) on WINDER (3). Now turn WINDER HANDLE (4) counter-clockwise for several revolutions until all pressure is released.
3. While holding the LOCKING LEVER (3a) up, reach up and pull out SLIDER CAR STOP PIN (26) out of hole. Continue to hold the LOCKING LEVER (3a) up while pulling down on the SLIDER CAR STOP PIN (26) or the MAIN CANOPY ARM (21) until the canopy is pulled up tight against the MAST (6).
4. Strap canopy to MAST (6) with the STRAP.

HELPFUL HINT: When beginning to wind the WINDER HANDLE (4) counterclockwise in #2 above, you may also choose to let go of the WINDER HANDLE while holding up the LOCKING LEVER (3a) and let the winder "free wheel" until all pressure is released in the canopy.

TO PROPERLY FOLD THE SOLA CANOPY

The 100% solution-dyed acrylic canopy will last longer if you fold it as it was packed and shipped. This technique is similar to the way a parachute is folded and is especially important when folding the SOLA canopy for seasonal storage or when the SOLA is to be left in the closed position for an extended period of time. Using this technique at all times will significantly extend the life of the canopy. See folding instruction sheet.

TO OPEN THE SOLA CANOPY

The following instructions will walk you through the sequential progression of opening the SOLA canopy structure as shown in the diagram on page 9. At any time, you may skip a position and open to the desired position.

OPEN TO THE FIRST POSITION

1. Remove the STRAP that holds the SOLA to the MAST (6) when in the closed position. Take note of the "parachute" folding method used to fold the canopy when closed. See TO PROPERLY FOLD THE SOLA CANOPY section on page 11 for more details.
2. Make sure your SLIDER CAR STOP PIN (26) is in the ready or horizontal position.
3. Begin turning the WINDER (3) clockwise until the SLIDER CAR STOP PIN (26) auto locates into the lowest predetermined hole. Continue winding until the canopy is taut. The canopy will now be in TILT POSITION 1.
4. The LOCKING LEVER (3a) locks automatically when you stop winding.

CAUTION: NEVER FORCE THE ARMS OPEN IF YOU FEEL RESISTANCE IN THE WINDER! If you feel resistance in the winder, you should manually pull out a few arms to help facilitate winding. Once the canopy is open, look up into the arms to confirm all four (4) SPACER BUTTONS (27) inserted. You should be able to locate four small white plastic circular "buttons", one in each of the four (4) arms closest to the MAST. If you do not see all four SPACER BUTTONS in place, contact your Shademakers agent immediately. Until you have received new SPACER BUTTONS and have all four installed, continue to manually pull out a few arms with each opening to facilitate winding open the canopy. The SOLA warranty does not cover repairs resulting from not of having four SPACER BUTTONS inserted at all times.

OPEN TO THE SECOND POSITION

1. Open WINDER HANDLE (4) and turn clockwise slightly. With right hand, lift LOCKING LEVER (3a) on WINDER (3). Now turn WINDER HANDLE (4) counter-clockwise for a few revolutions to release the pressure.
2. With your SLIDER CAR STOP PIN (26) again in the ready or horizontal position, quickly pull out the pin (making sure it stays in the horizontal position), and let it slide up the SLIDER CAR (22) on its own until the pin auto locates in the next predetermined hole. It may be necessary to turn the WINDER (3) a few times until the pin auto locates. Once the pin is located in the hole, continue winding until the canopy is taut. The canopy will now be in TILT POSITION 2 for an octagona SOLA and the HORIZONTAL POSITION for a square SOLA
3. The LOCKING LEVER (3a) locks automatically when you stop winding.

OPEN TO THE THIRD POSITION

1. For an octagonal SOLA only, repeat steps 1-3 outlined above.
2. The octagonal canopy will now be in the HORIZONTAL POSITION.

HELPFUL HINT: At any time, you may skip a position and open to the desired position by turning the SLIDER CAR STOP PIN (26) parallel with the MAST (6). In this position, the pin will NOT auto locate as it passes over the predetermined holes. If you choose to pass the tilt position(s) and go directly to the horizontal canopy position, you may move the pin into the parallel position and continue winding, but be sure to turn the pin back to the horizontal position before the HORIZONTAL CANOPY POSITION is attained. If you pass the top hole, take the tension out of the canopy and then pull the SLIDER CAR STOP PIN down and into the top hole.

ABOUT THE SOLA

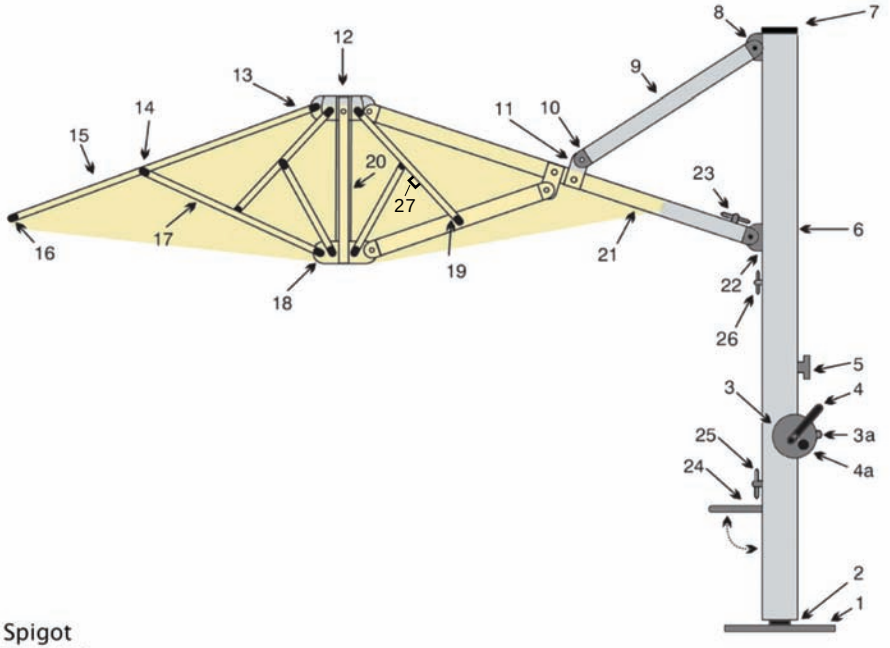
This high quality shade solution combines functionality and design in an elegant way and will provide you with years of enjoyment and satisfaction.

1. MARINE-GRADE ANODIZED ALUMINUM: Proprietary extrusions of high tensile alloy ensure long life in exposed conditions.
2. DUPONT GLASS-FILLED COMPONENTS: Proprietary moldings are of the latest development for strength and resistance to U.V. degradation.
3. 100% SOLUTION-DYED ACRYLIC CANVAS: Top quality canvas leads the world in color-fastness and quality-retention properties. Canopies are fade, rot and mold resistant.
4. MARINE-GRADE STAINLESS STEEL: The SOLA is equipped with the latest in marine-grade stainless steel hardware.

ASSEMBLY

The SOLA arrives fully assembled.

DIAGRAM & LEGEND



1. Spigot
2. Acetal Ring
3. Winder
3a. Locking Lever
4. Winder Handle
4a. Child Safety Lock Button
5. Stabilizer Triangle Button
6. Mast
7. Mast Cap
8. Upper End Fitting
9. Main Support Arm
10. Barrel Coupler
11. Large Strop
12. Upper Hub
13. Canopy Strap Screw
14. Small Strop
15. Small Canopy Arm
16. Small End Cap
17. Small Support Arm
18. Lower Hub & Decal
19. Canopy Arm (Stabilizers)
20. Centre Tube
21. Main Canopy Arm
22. Slider Car
23. Canopy Button
24. Turning Handle
25. Locator Pin
26. Slider Car Stop Pin
27. Spacer button

COMPONENTS, FITTINGS & HARDWARE

A. SPIGOT: The SOLA MAST (6) slides directly over the SPIGOT (1) as a sleeve. The plate of the SPIGOT is 215mm in diameter and10mm+ thick. The SPIGOT is 480mm in height and has 12 holes on the top which allow the SOLA to be rotated 360 degrees around the mast.

B. BASE PLATE: The 215mm diameter,12mm+ thick BASE PLATE is bolted to an existing concrete slab or to a wooden deck. The SPIGOT then bolts to the top of the BASE PLATE.

C. IN-GROUND FITTING: The IN-GROUND FITTING is concreted into the ground or built into newly-poured concrete. The plate of the IN-GROUND FITTING is 10mm+ thick, 215mm in diameter and 500mm in height. The SPIGOT is bolted to the top of the IN-GROUND FITTING.

D. FREE STANDING BASE: The FREE-STANDING BASE needs to be used with 4x600mm^2 pavers. Then the SPIGOT is bolted to the top of the BASE. The BASE is 1250x1250mm.

E. SPIGOT BOLTS: Four (4) countersunk SPIGOT BOLTS are used to bolt the SPIGOT to the BASE PLATE or to the top of the IN-GROUND FITTING. SPIGOT BOLTS are 20mm in length. [M10X20]

F. CONCRETE BOLTS [optional extra] : Four (4) CONCRETE BOLTS are used to bolt the BASE PLATE to an existing concrete slab or through pavers or tiles. The CONCRETE BOLTS are 75mm OR 100mm in length.

G. TIMBER BOLTS [optional extra]: Four (4) timber bolts are used to bolt the base plate through the planks to the joists. The TIMBER BOLTS are 150mm in length. (see page 8)

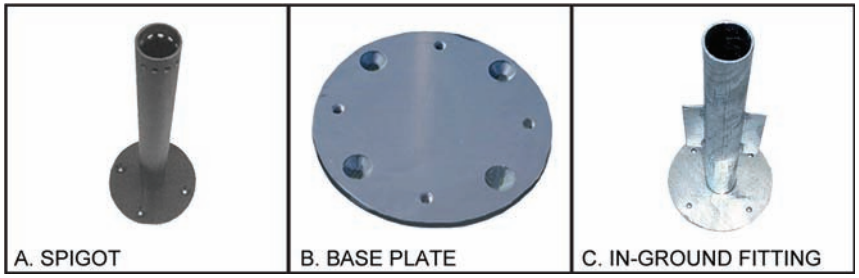
H. DECK SCREWS: There are approx 150mm long and may be used to bolt the base plate to the deck framing.

I. MAST OVER SPIGOT: This photograph shows how the mast looks when it is installed onto the SPIGOT. The SPIGOT is bolted either to a BASE PLATE or the plate of an IN-GROUND FITTING. An acetal washer (2) separates the mast from the spigot.

J. LOCATOR PIN: When the LOCATOR PIN (25) is inserted through the MAST (6) and SPIGOT (1), it locks the MAST (6) into place. The TURNING HANDLE (24) is located below the LOCATOR PIN (25). When the LOCATOR PIN (25) is pulled out, the TURNING HANDLE (24) can be lifted to rotate the MAST (6) to one of 12 holes, allowing the SOLA to rotate 360 degrees around the mast.

K. WINDER: The WINDER (3) facilitates the opening and closing of the SOLA canopy structure.

L. SPACER BUTTONS: Four (4) SPACER BUTTONS are inserted into predrilled holes on the four arms closest to the MAST. SPACER BUTTONS must be left inserted at all times as they ensure the SOLA canopy structure opens easily by not allowing the arms to get locked down. See page 10 for SPACER BUTTON details.



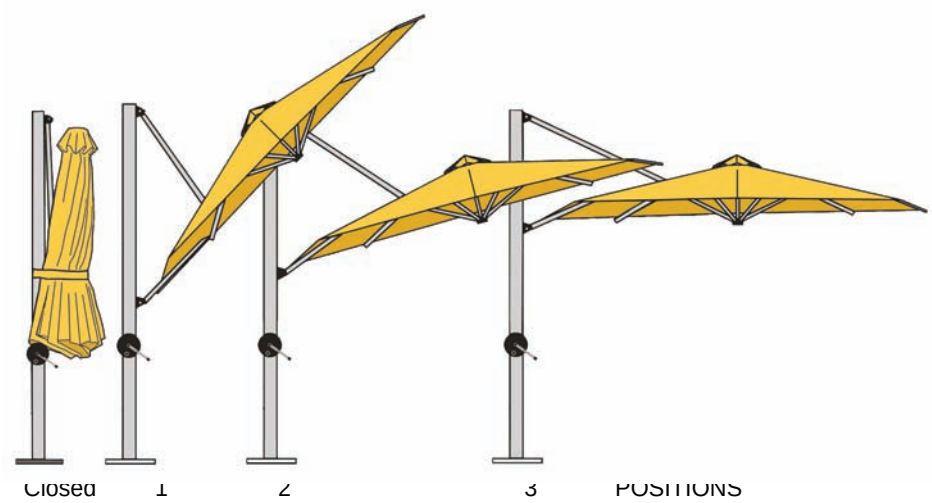
OPERATING INSTRUCTIONS

By now you have installed your BASE PLATE(S) or IN-GROUND FITTING, bolted your SPIGOT to the BASE PLATE or IN-GROUND FITTING, and have followed the earlier instructions to slide the MAST (6) over the newly mounted SPIGOT (1). The mast should be seated on the ACETAL RING (2) and the LOCATOR PIN (25) should be inserted through the MAST(6) and SPIGOT(1).

If the MAST is properly seated and the LOCATOR PIN properly inserted, the SOLA will not rotate or lift. You are now ready to operate your SOLA.

OCTAGONAL SOLA:
If you own an octagonal SOLA (3.0, 3.4 or 3.8), your SOLA has three positions
Tilt Position 1 Tilt Position 2 and Horizontal Position 3.

SQUARE SOLA:
If you own an SOLA 2.7 square, your SOLA has two positions
Tilt Position 1 and Horizontal Position 2.



POSITIONS

0 Closed Position

1 Tilt Position 1 blocks extremely angular sun (Octagonal SOLA only)

2 Tilt Position 2 blocks moderately angular sun

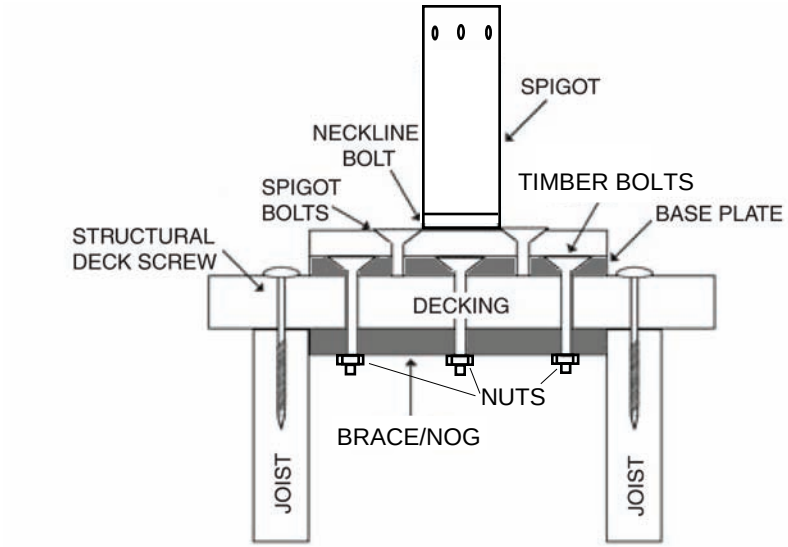
3 Horizontal Position

NOTE: Do not use the tilt positions in windy conditions.

WOODEN DECK INSTALLATION

This kit includes two (2) BASE PLATES, four (4) MACHINE BOLTS, and eight (8) DECK SCREWS.

Please carefully follow the deck installation diagram and written instructions below:



1. To fix spigot to timber deck – You will need four 10X150mm stainless countersunk bolts or similar. Attach these bolts through suitable braces or nogs securely fixed between the deck joists or beams.
2. To fix spigot to base plate on timber deck- Fix base plate as outlined in 1. above. Fit spigot to base plate using four 10X20mm stainless machine bolts provided.
3. With 4 long countersunk bolts, bolt through the spigot, decking timber, and something solid in the deck framing. Refer diagram. You may alternatively bolt the base plate as above and secure the spigot to the base plate.

INSTALLATION OPTIONS & GUIDELINES

To ensure longevity, correct installation is essential. There are three standard installation options which provide the best stability for the SOLA. Depending on your situation, you will require one or more of the following SOLA installation components.

1. CONCRETE PATIO
   one (1) BASE PLATE (B), four (4) CONCRETE BOLTS (F), one (1) METRIC CONCRETE DRILL BIT, one (1) SPIGOT (A), four (4) SPIGOT BOLTS (E), and one (1) ALLEN WRENCH (M6).
2. IN-GROUND FITTING
   one (1) IN-GROUND FITTING (C), one (1) SPIGOT (A), four (4) SPIGOT BOLTS (E), and one (1) ALLEN WRENCH (M6).
3. WOODEN DECK
   one (1) BASE PLATE (B), four (4) TIMBER BOLTS (G) or four (4) DECK SCREWS (H), one (1) SPIGOT (A), four (4) SPIGOT BOLTS (E) and one (1) ALLEN WRENCH (M6).

FREE STANDING BASE OPTION: If it is not feasible to mount your SOLA to a concrete patio, wooden deck or in ground, you may have purchased, or need to purchase, the optional BASE. This base is an acceptable alternative but will not offer the same level of stability as the three standard installation options. We do not recommend the use of the FREE-STANDING BASE for the SOLA 3.8 (3.8m Octagonal). If using this BASE, the wind guidelines change from LIGHT to MODERATE WINDS to LIGHT WINDS ONLY.

INSTALLATION INSTRUCTIONS

To ensure proper installation, please carefully follow these instructions before installing your BASE PLATE or IN-GROUND FITTING:

PROPER ALIGNMENT OF THE SOLA

If the exact position of the SOLA canopy (when in the open position) is important to you, it is imperative that the installation fitting (BASE PLATE or IN-GROUND FITTING) is properly aligned. Please read the instructions below to assure that your canopy hangs in the desired position.

BASE PLATE: The BASE PLATE has four (4) countersunk holes and (4) tapped holes. The tapped hole bolt pattern on the BASE PLATE must be lined up square to whatever you are aligning your SOLA with (i.e. the side of your house, the edge of your patio, etc.). See Diagram A below. The countersunk holes on the SPIGOT will then match the tapped holes on the BASE PLATE and the SOLA canopy will hang in the desired position (PRIMARY MAST & CANOPY POSITION). If the BASE PLATE is not aligned properly, you will not achieve your intended PRIMARY MAST & CANOPY POSITION.

IN-GROUND FITTING: The IN-GROUND FITTING has four (4) tapped holes. The tapped hole bolt pattern on the IN-GROUND FITTING must be lined up square to whatever you are aligning your SOLA with (i.e. the side of your house, the edge of your patio, etc.). See Diagram B below. The countersunk holes on the SPIGOT will then match the tapped holes on the IN-GROUND FITTING and the SOLA canopy will hang in the desired position (PRIMARY MAST & POSITION). If the IN-GROUND FITTING is not aligned properly, you will not achieve your intended PRIMARY MAST & CANOPY POSITION.

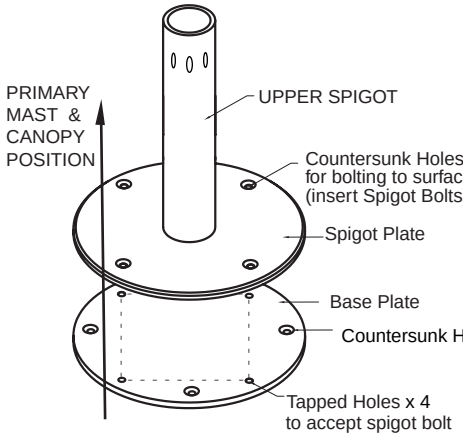


Diagram A
BASE PLATE ALIGNMENT

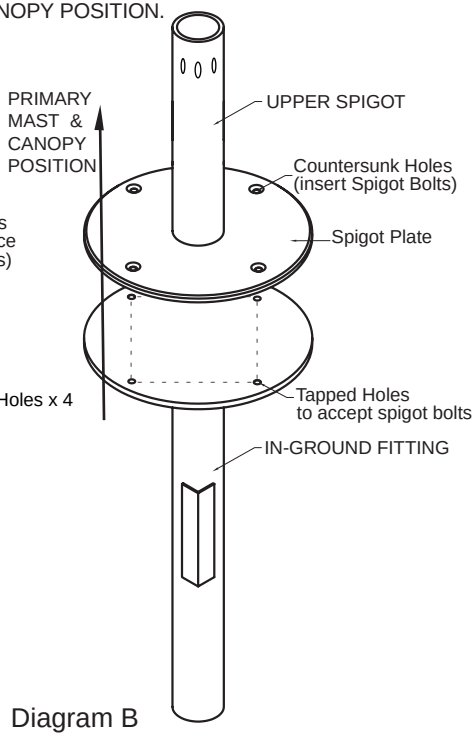


Diagram B
IN-GROUND FITTING ALIGNMENT

IMPORTANT: If the exact position of the SOLA canopy (when in the open position) is important to you, it is imperative that the installation fitting (BASE PLATE or IN-GROUND FITTING) is properly aligned. Please read the instructions above in detail to assure proper alignment.

CONCRETE PATIO INSTALLATION

This requires a BASE PLATE, four (4) CONCRETE BOLTS, and one (1) METRIC DRILL BIT.

1. Bolt the BASE PLATE to an existing concrete slab (or through tiles adhered to a concrete slab) using CONCRETE BOLTS similar to "F" on page 5. You will also need a drill bit.
   Note: If bolting through tiles bolts should be a minimum 100mm long.
   (IMPORTANT: SEE PAGE 6 FOR ALIGNMENT INSTRUCTIONS.)
2. Bolt the SPIGOT(1) to the BASE PLATE using the four (4) SPIGOT BOLTS and ALLEN WRENCH. Insert the SPIGOT BOLTS downward through the flanged holes in the SPIGOT base and screw them into the threaded holes in the top BASE PLATE. Make sure they are very tight.
3. Slide MAST (6) over newly mounted SPIGOT (1). Make sure the MAST seats on the ACETAL RING (2).
4. Insert LOCATOR PIN (25) through MAST (6) and SPIGOT (1). You are now ready to operate your SOLA. See OPERATING INSTRUCTIONS.
5. To remove the SOLA for seasonal storage or to move it to another BASE PLATE or IN-GROUND FITTING, simply undo the four (4) SPIGOT BOLTS and remove the SPIGOT(1) from the BASE PLATE, leaving an unobtrusive BASE PLATE on your patio.

IN-GROUND FITTING INSTALLATION

This requires one (1) IN-GROUND FITTING. The IN-GROUND FITTING needs concreting in the ground as per the diagram below. The hole size recommended assumes the terrain is thick clay. Should the terrain be fine soil or sand, the hole size should be increased. The recommended installation requires 0.4 cubic metres of concrete for silty or fine soil and 0.2 cubic metres of concrete for heavy clay.

The IN-GROUND FITTING may also be built into newly poured concrete. For a perfect flush mount, set the plate of the fitting slightly more than 10mm below the final surface grade. When you add the 10mm thick SPIGOT to the plate, the SPIGOT will be flush with the concrete.

1. Once installed and the concrete has cured, bolt SPIGOT to the top BASE PLATE using the four (4) SPIGOT BOLTS and ALLEN WRENCH. Insert the SPIGOT BOLTS downward through the flanged holes in the SPIGOT base and screw them into the threaded holes in the plate of the IN-GROUND FITTING. Make sure they are very tight.
2. Slide MAST (6) over newly mounted SPIGOT (1). Make sure the MAST seats on the ACETAL RING (2).
3. Insert LOCATOR PIN (25) through MAST (6) and SPIGOT (1).
4. You are now ready to operate your SOLA. See OPERATING INSTRUCTIONS.
5. To remove the SOLA for seasonal storage or to move it to another BASE PLATE or IN-GROUND FITTING, simply undo the four SPIGOT BOLTS and remove the SPIGOT from the IN-GROUND FITTING.

IMPORTANT: (1) When concreting the IN-GROUND FITTING in place, take care not to get slurry in the screw threads. Either apply tape over the holes on both sides of the fitting, or place the SPIGOT BOLTS in the threads and withdraw them when the concrete is set. (2) Make sure that the IN-GROUND FITTING is perfectly level. (3) Allow the concrete to cure for the appropriate cure time for your area before installing the SOLA onto the fitting.