

Solatube® SolaMaster® Series

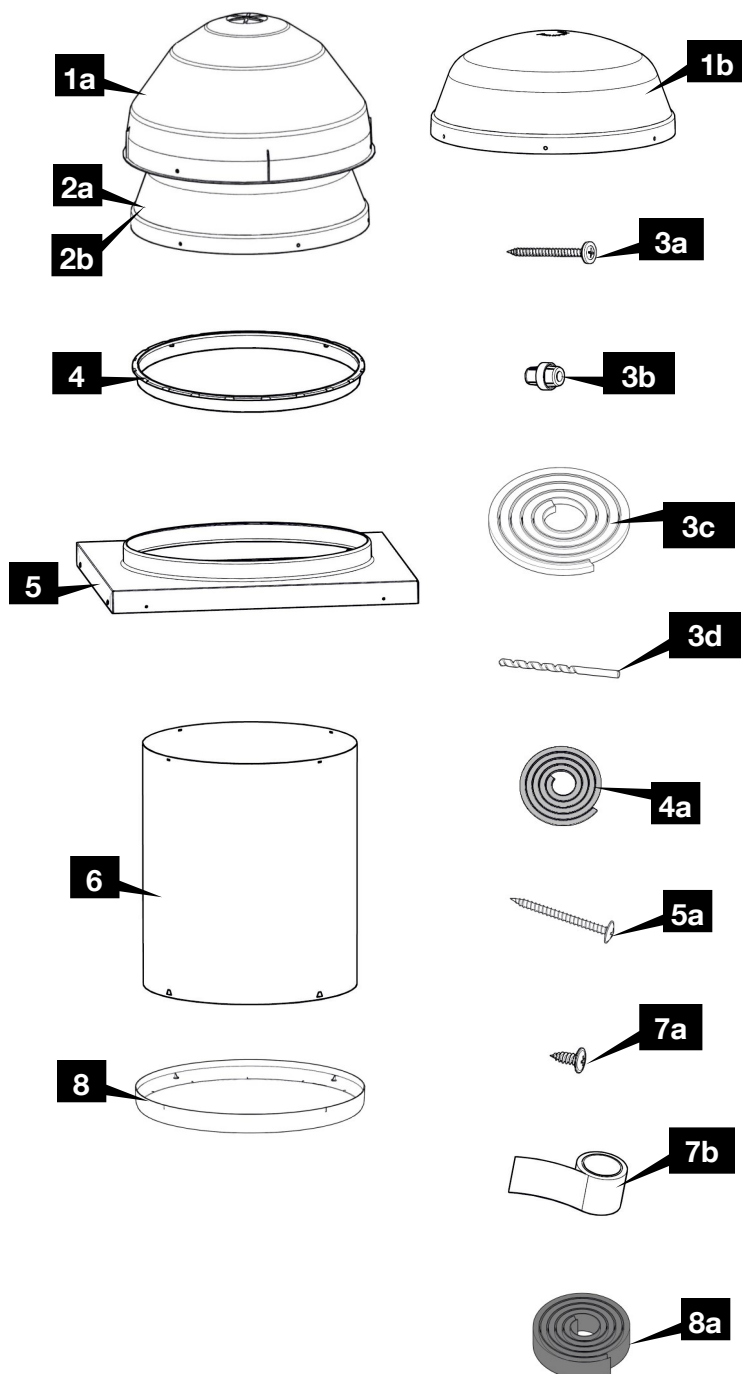
Solatube® 330 DS Daylighting System

Solatube® 750 DS Daylighting System

Installation Instructions

Open Ceiling

For Closed Ceiling, see back of this page.



Parts List *		Quantity
1	Outer Dome Options	
	a. 750 DS Dome with Raybender® 3000 Technology	(1)
	b. 330 DS Dome with LightTracker™ Reflector	(1)
2	Inner Dome Option	(1)
	a. Inner Dome for 750 DS (Optional)	(1)
	b. Inner Dome for 750 DS (Optional, Polycarbonate*†)	(1)
3	Dome Fasteners	
	a. Dome Screw #8 X 1 5/8 in (40 mm)	(4)
	b. Dome Spacer	(4)
	c. Dome Seal	(1)
4	d. Drill Bit #40 (3/32 in/2.5 mm)	(1)
	Tube Ring	(1)
5	a. Tube Ring Seal (Required for all Open Ceiling Units)	(1)
	Roof Flashing (4 in (100 mm)*†, 8 in (200 mm)*†, 11 in (280 mm)*† or Curb Cap)	(1)
	a. Flashing Screws - #10 X 2 in (50 mm)	(21)
6	Spectralight® Infinity Tubes	
	a. 24 in (610 mm) Extension Tube with Tube Fastener Kit	(1)
	b. 48 in (1220 mm) Extension Tube with Tube Fastener Kit	(1)
7	Tube Fastener Kit	(1)
	a. Tube Screws - #8 X 9/16 in (14 mm)	(5)
	b. 2 in (50 mm) Foil Tape - 18 ft (5.5 m)	(1)
8	Diffuser for Open Ceiling	(1)
	a. Diffuser Seal	(1)

Required Tools:

Saber or Reciprocating Saw	Utility Knife
Flat Bar	Caulking Gun
Tape Measure	Lumber Crayon
Screw Gun with Phillips Head	Metal Shears
Magnetic Compass	Required Safety Equipment
Hammer	

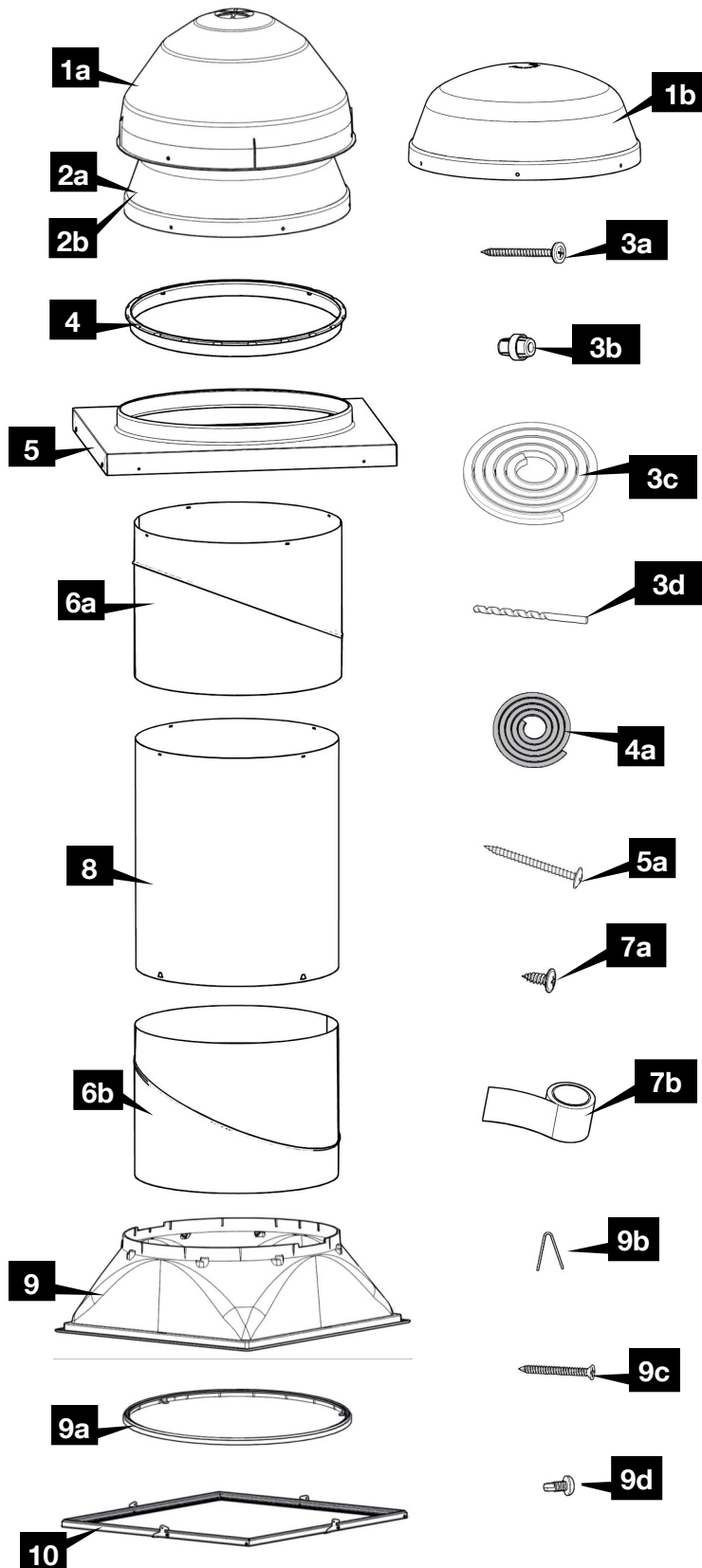
*Components shown not included in all kits, see label on box.

*†Required for High Velocity Hurricane Zone (HVHZ) areas.

For the most current Installation Instructions, please visit www.solatube.com/instructions

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Closed Ceiling



Parts List *		Quantity
1	Outer Dome Options	
	a. 750 DS Dome with Raybender® 3000 Technology	(1)
	b. 330 DS Dome with LightTracker™ Reflector	(1)
2	Inner Dome Option	(1)
	a. Inner Dome for 750 DS	(1)
	b. Inner Dome For 750 DS (Optional, Polycarbonate*†)	(1)
3	Dome Fasteners	
	a. Dome Screw #8 X 1 5/8 in (40 mm)	(4)
	b. Dome Spacer	(4)
	c. Dome Seal	(1)
4	Tube Ring	(1)
	a. Tube Ring Seal *†	(1)
5	Roof Flashing (4 in (100 mm)*†, 8 in (200 mm)*†, 11 in (280 mm)*† or Curb Cap))	(1)
	a. Flashing Screws - #10 X 2 in (50 mm)	(21)
6	Spectralight® Infinity Tubes	
	a. Top Tube with Angle Adapter	(1)
	b. Bottom Tube with Angle Adapter	(1)
7	Tube Fastener Kit	(1)
	a. Tube Screws - #8 X 9/16 in (14 mm)	(10)
	b. 2 in (50 mm) Foil Tape - 18 ft (5.5 m)	(2)
8	Spectralight® Infinity Tubes	
	a. 24 in (610 mm) Extension Tube (optional) with Tube Fastener Kit	(1)
	b. 48 in (1220 mm) Extension Tube (optional) with Tube Fastener Kit	(1)
9	Transition Box	(1)
	a. Natural Effect Lens (Optional)	(1)
	b. Transition Box Hold Down Clip	(4)
	c. Drill Tip Screw - #6 X 1 5/8 in (40 mm) (For Hard Ceiling Application Only)	(4)
	d. Drill Tip Screw - #8 X 5/8 in (16 mm)	(2)
10	Diffuser	(1)

*Components shown not included in all kits, see label on box.

*†Required for High Velocity Hurricane Zone (HVHZ) areas.

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WARNING



Do not proceed with the installation until you have read the entire instructions, including these warnings. (Use of materials or methods not authorized by Solatube International will result in an invalid warranty.)

Solatube International, Inc. (seller) assumes no responsibility or obligation whatsoever for the failure of an architect, contractor, installer, or building owner to comply with all applicable laws, ordinances, building codes, electrical codes, energy codes, fire and safety codes and requirements, roof warranties and adequate safety precautions. Installation of this product should be attempted only by individuals skilled in the use of the tools and equipment necessary for installation. Protect yourself and all persons and property during installation. If you have any doubt concerning your competence or expertise, consult a qualified expert before proceeding.



Install at your own risk!

Solatube product installations may be dangerous and include the potential for death, personal injury and property damage. The hazardous conditions include but are not limited to the following:

- **During installation, the Solatube Daylighting System's reflective tubes may focus sunlight, causing intense heat or fire. Remove protective film only after the parts have been installed. Prior to and during installation, do not leave tubes in contact with combustible materials or unattended, especially near direct sunlight. Avoid skin burns.**
- Solatube Daylighting System and Solar Star products may have sharp edges. Always wear leather or canvas gloves while handling and installing products.
- Solatube product installations require climbing and working at dangerous heights, including on ladders, scaffolding, roofs and in attic spaces. Risk of death, personal injury and property damage may result from a fall, or from falling objects. Use extreme caution to minimize risk of accidental injury, including, but not limited to the following procedures:
 - Clear area below your work space of all people, animals and other items.
 - Avoid working on surfaces that are slippery or wet.
 - Use foot-wear with excellent traction.
 - Use only strong, well supported ladders.
 - Work only in calm dry weather.
 - When in the attic, ensure that your weight is supported at all times with structurally sound framing; drywall material is not designed to carry a person's weight.
- To reduce the risk of fire, electric shock, and personal injury, basic safety precautions should always be followed when using electric tools, including always wearing safety goggles or other suitable eye protection, and ensuring work area is clear of all electrical wires, gas pipes, water pipes, and other obstacles.
- When working in the attic or other dusty areas, use of a mask or respirator is recommended to avoid lung irritation. Attic spaces may be dark, confined, and subject to extreme temperatures. Beware of sharp protruding objects. Do not attempt installation without having someone within range of your voice or close enough to come to your aid if necessary.
- Solatube products are not designed to withstand the weight of a person, tools or other objects. Walking or placing objects on the system could cause personal injury and property damage. If the product is damaged, the structural capacity may be weakened; therefore the system should be repaired immediately. For safe installation and use, do not deviate from these installation instructions.
- Additional support is recommended for long vertical and all horizontal tube runs. Review local building requirements and consult with appropriate building code official for proper material and placement of additional support. Avoid galvanic reaction (corrosion) if dissimilar metals are used.

Electrical Components

- Before installing, servicing, or cleaning unit, switch power off at service panel and lock service panel to prevent power from becoming switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device such as a tag to the service panel.

Re-Roofing

- Solatube products require special care if removed for re-roofing. In order to ensure proper removal and re-installation, please contact your Solatube International representative.

Please refer to the installation tips for the appropriate product below:



Daylighting Systems Installation Tips

These instructions are a step-by-step guide for the installation of a Solatube Daylighting System in the following conditions. For other roof types, please contact your Solatube International representative for additional information.

Built Up Flat Roof - Single Ply/Membrane - Asphalt Shingle - Low/No Pitched - Pitched - Prefabricated Curbs - Metal Roof Panels

For the most current Installation Instructions, please visit www.solatube.com/instructions

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Daylighting Systems Installation Tips (Continued)

- Allow at least 2-3 hours for the installation, particularly if this is your first installation.
- During the day, turn off all the lights in the room to see how much natural light comes in through the windows, and determine the best position for the Solatube Daylighting System. To light a specific area, place the system over the area, not in the center of the room. This will prevent the desired area from being shaded by tall objects in the room.
- Measure the distance between the roof and the ceiling. If you don't have enough tubing, contact your Solatube International representative for additional tubing.
- Avoid roof locations shaded by trees, ridges and chimneys, or near water channels or valleys. Also avoid roof areas with obstructions such as fire sprinklers, HVAC equipment, gas, water or drain pipes, air ducts or flues and make sure that the roof is adequate to endure an installation without damaging its waterproofing properties or weakening the building structure.
- All adhesives, seals and tapes are recommended to be applied to a clean and dry surface at a minimum of 70°F (21°C) for maximum performance.
- Foil tape contains a pressure sensitive adhesive and pressure must be applied at all seams for proper bonding. Foil tape is not intended for use as structural support of the extension tubes. For structural integrity use manufacturer supplied fasteners on all overlapping extension tube joints.
- Uninstalled product that is stored and exposed to excessive heat and or humidity can experience damage. Store product prior to installation in a cool dry place.



Daylight Dimmer Installation Tips

- Install Solatube Daylight Dimmer only on a properly aligned Solatube Daylighting System.
- Use only UL recognized components approved for this listing.



Light Add-On Kit Installation Tips

- This product is to be installed by qualified electricians only. Disconnect power before installation.
- "FOR USE IN NON-FIRE-RATED INSTALLATIONS ONLY."
- Thermally protected "TYPE IC" (insulation may contact housing).
- "ACCESS ABOVE CEILING REQUIRED."
- "SUITABLE FOR DAMP LOCATIONS." Use only as a component of Solatube Daylighting System products.
- "MIN. 60°C SUPPLY CONDUCTORS."
- Intended for installation with ½ in (12.7mm) minimum spacing from the fixture to cavity surfaces (side wall and overhead building member) and 1 in (25.4mm) minimum spacing to adjacent fixtures.
- Blinking light may indicate improper lamp wattage or type, or insulation is too close to fixture, or other condition causing overheating.

Caution

- Risk of fire and electrical shock. Most dwellings built before 1985 have supply wire rated 60° C.
- To reduce the risk of fire, use only:
 - Fluorescent Lamps, Medium Base - 23 Watt Maximum, Maximum Overall Length (MOL) 4 3/4 in (120 mm)
 - Compact Fluorescent (4 Pin Quad Tube) 26 Watt only
- Minimum thickness of metal tubing is 0.018 in (0.47mm)



Ventilation Add-On Kit Installation Tips

See Ventilation Add-On Kit installation instructions for tips.



Solar Star Attic Ventilation Installation Tips

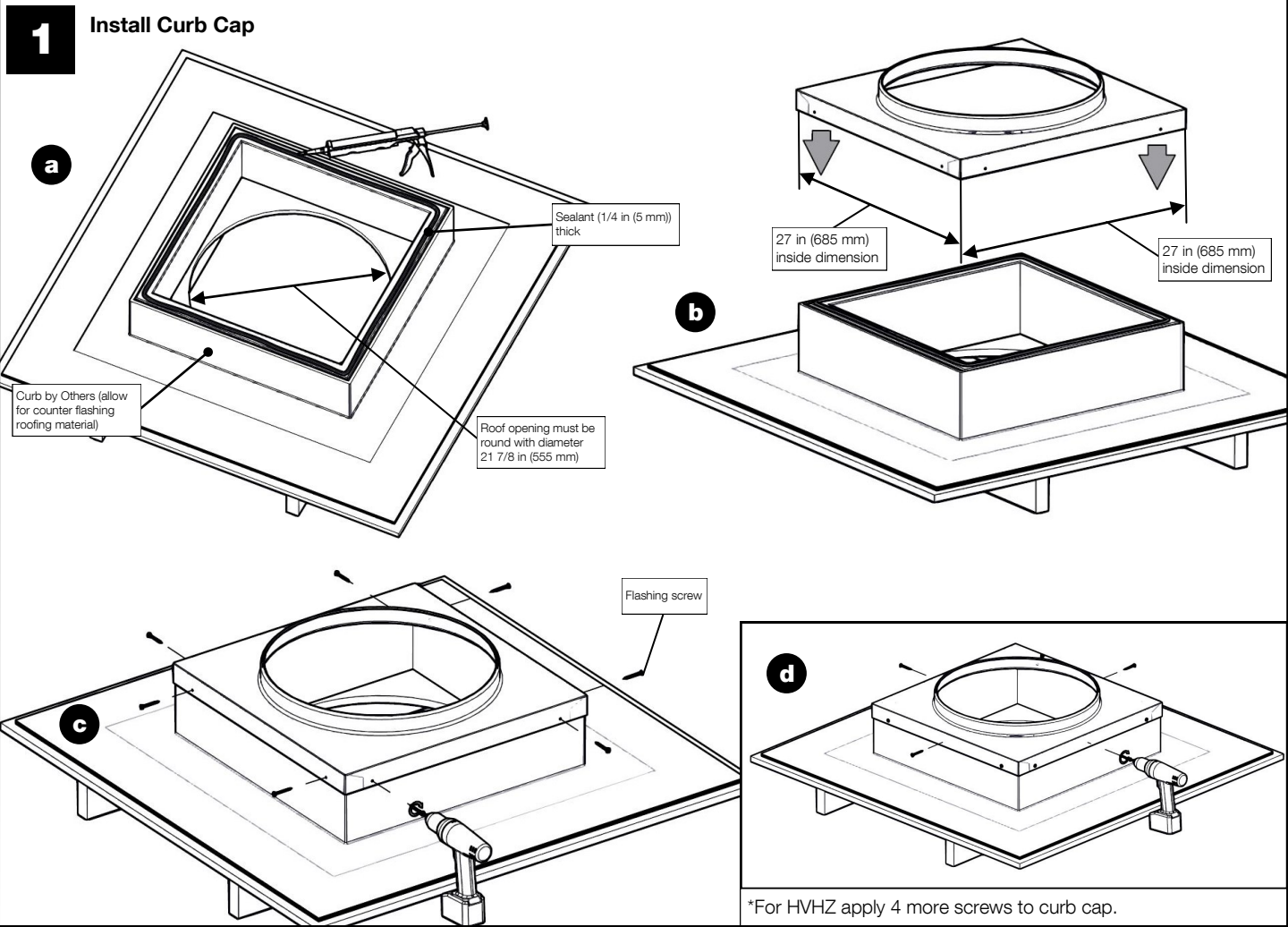
- Keep Solar Star solar panels covered until product is mounted and sealed to roof. Cover solar panel whenever motor, fan, or unit is to be serviced. Fan blade is controlled by the solar panel and may become operational when panel is exposed to sunlight.
- Solar Star products are designed for general ventilation purposes only. Do not exhaust any hazardous materials or gases such as flammable, explosive or incendiary materials.
- Solar Star products have an unguarded fan blade. Do not use Solar Star products in areas that are easily accessible.

Caution

- Carbon monoxide may be drawn into a house or attic space with the operation of Solar Star products if fuel-burning equipment is not serviced or monitored regularly. Carbon monoxide (CO) is a colorless, odorless gas that can be hazardous to your health and may cause death. Fuel-burning equipment must have proper ventilation, Solar Star products are not designed to provide ventilation for fuel-burning products.

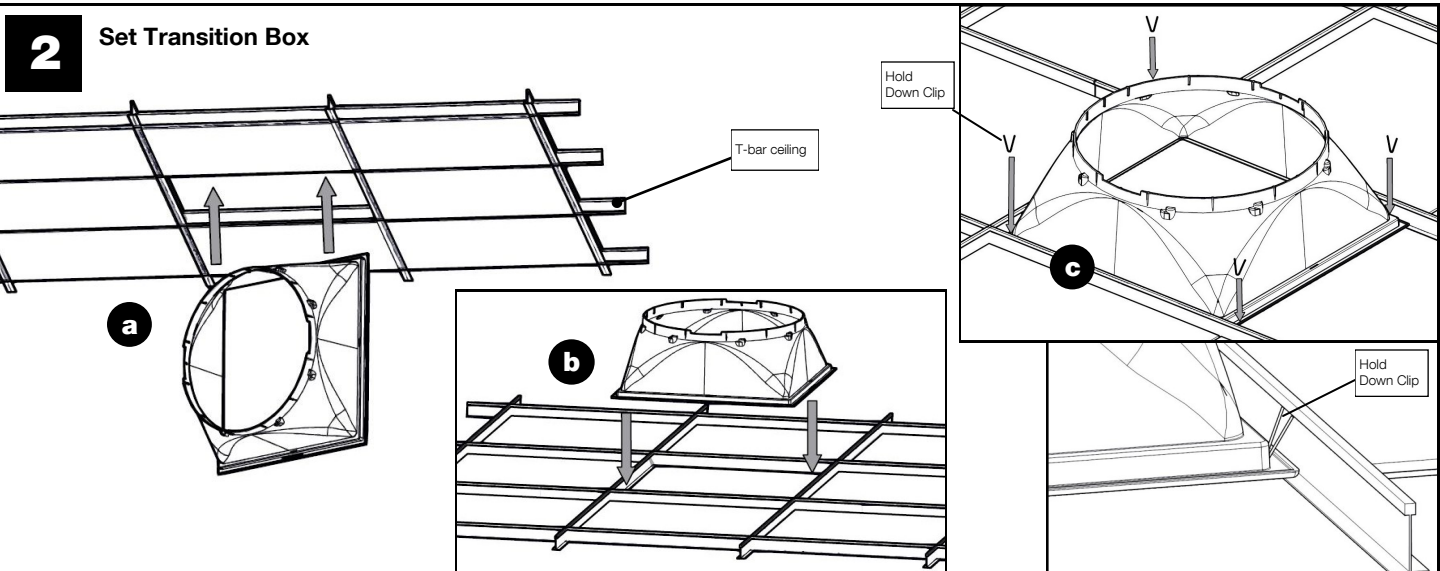
For the most current Installation Instructions, please visit www.solatube.com/instructions

Curb Cap Installation Instructions



Go to Page 10 for Open Ceiling instructions.

Closed Ceiling Installation Instructions



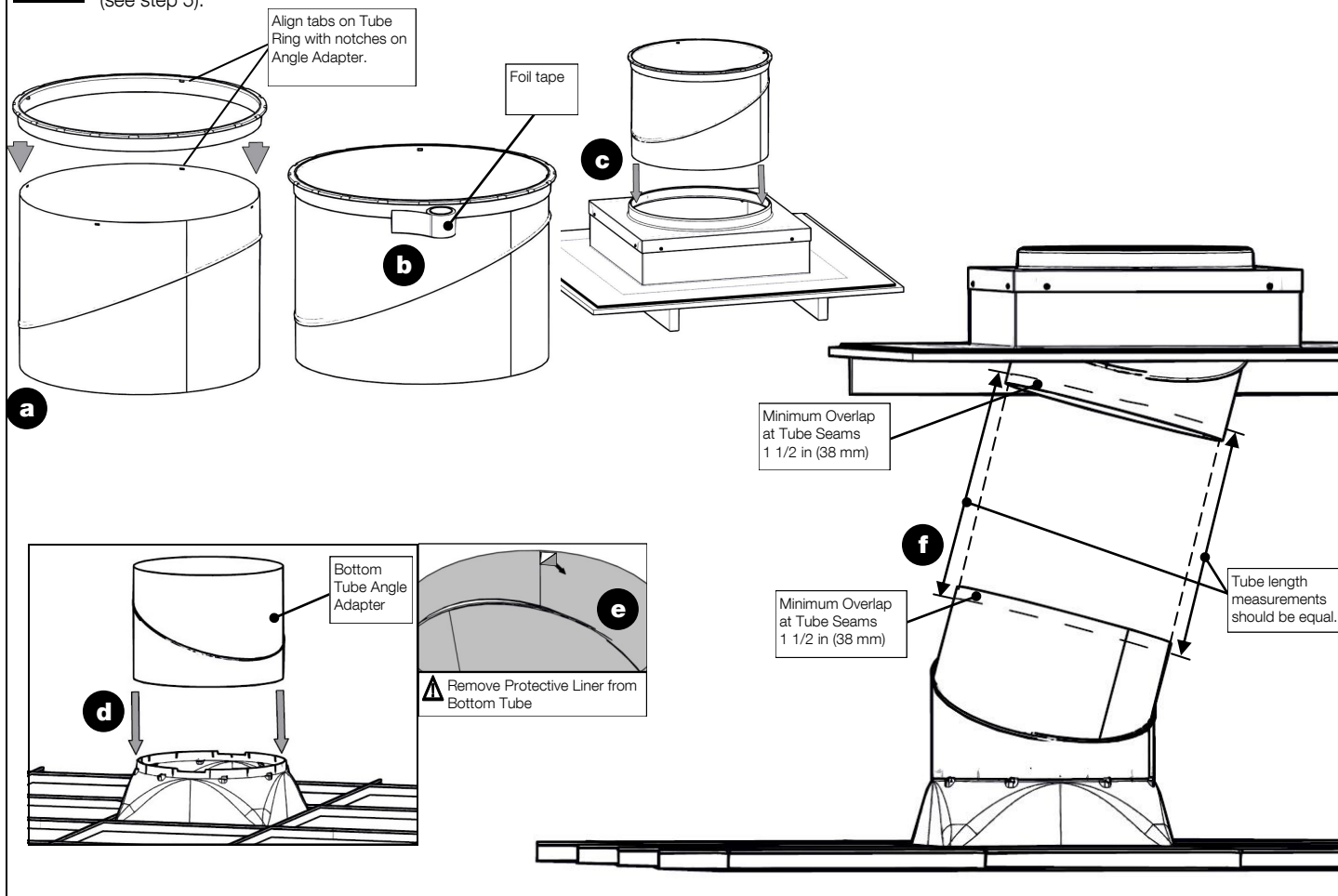
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3

Install Top and Bottom Tube Angle Adapters; Measure Tube Run

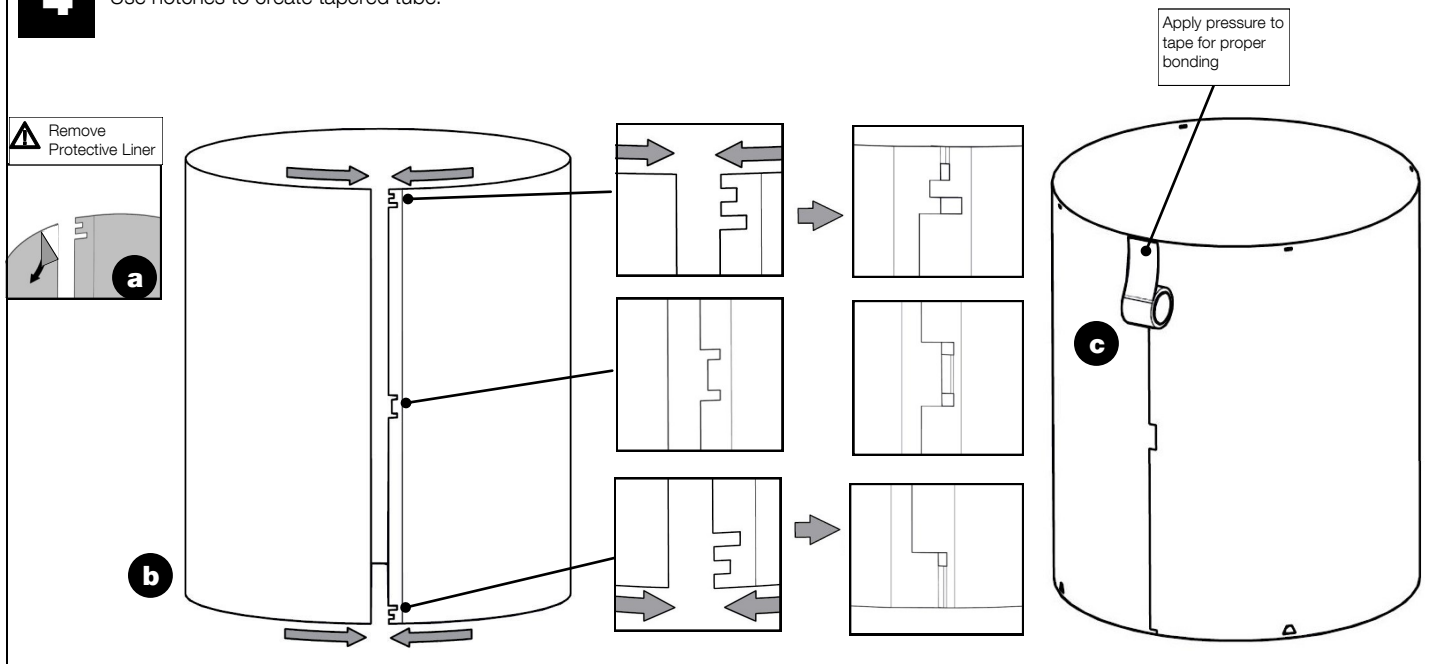
Tube ring can be installed on Top Tube with Angle Adapter or an Extension tube (see step 5).



4

Option 1: Assemble 24 in (610 mm) Extension Tube

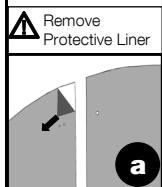
Use notches to create tapered tube.



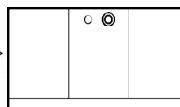
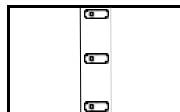
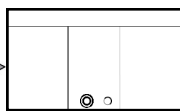
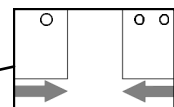
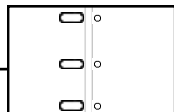
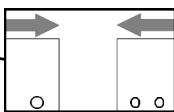
4

Option 2: Assemble 48 in (1220 mm) Extension Tube

Use slots to create tapered tube.



b



c

d

Apply pressure to tape for proper bonding

5

Assemble and Install Tube Run

a

Foil tape

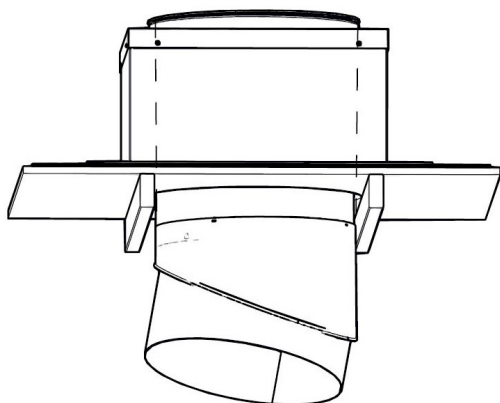
b

Tube screw

c

Alternative Tube Run

For curb heights or obstructing structural members that require an Extension Tube as the Top Tube, use configuration below:



a

Extension Tube

Top Tube Angle Adapter

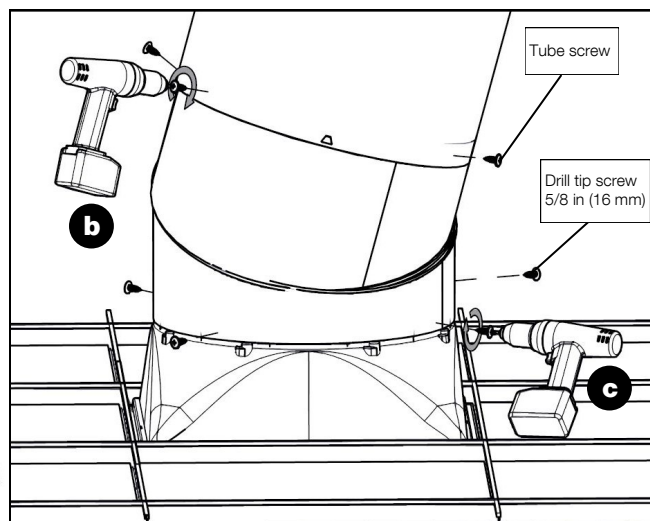
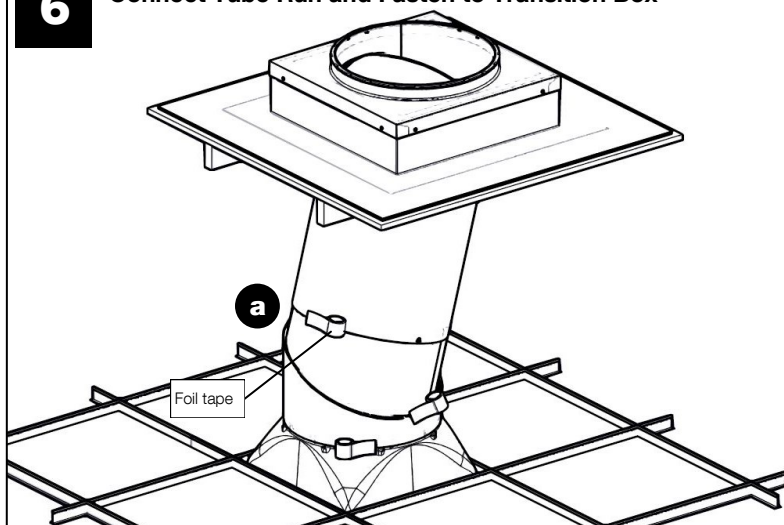
b

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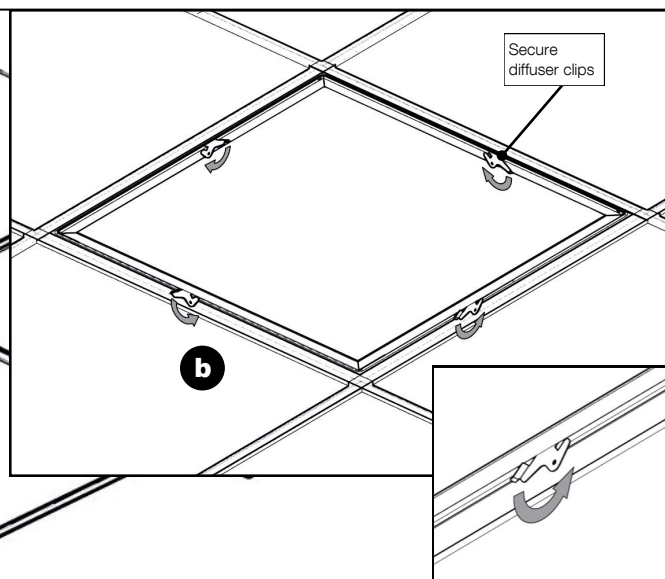
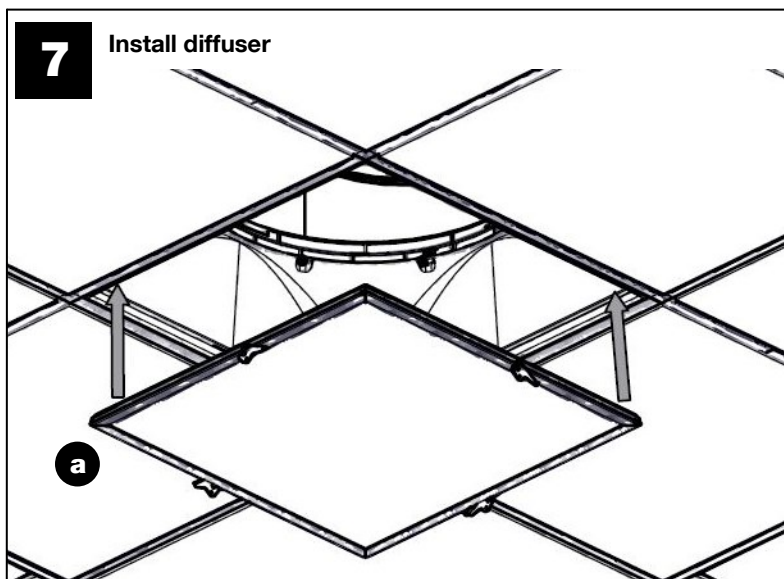
6

Connect Tube Run and Fasten to Transition Box



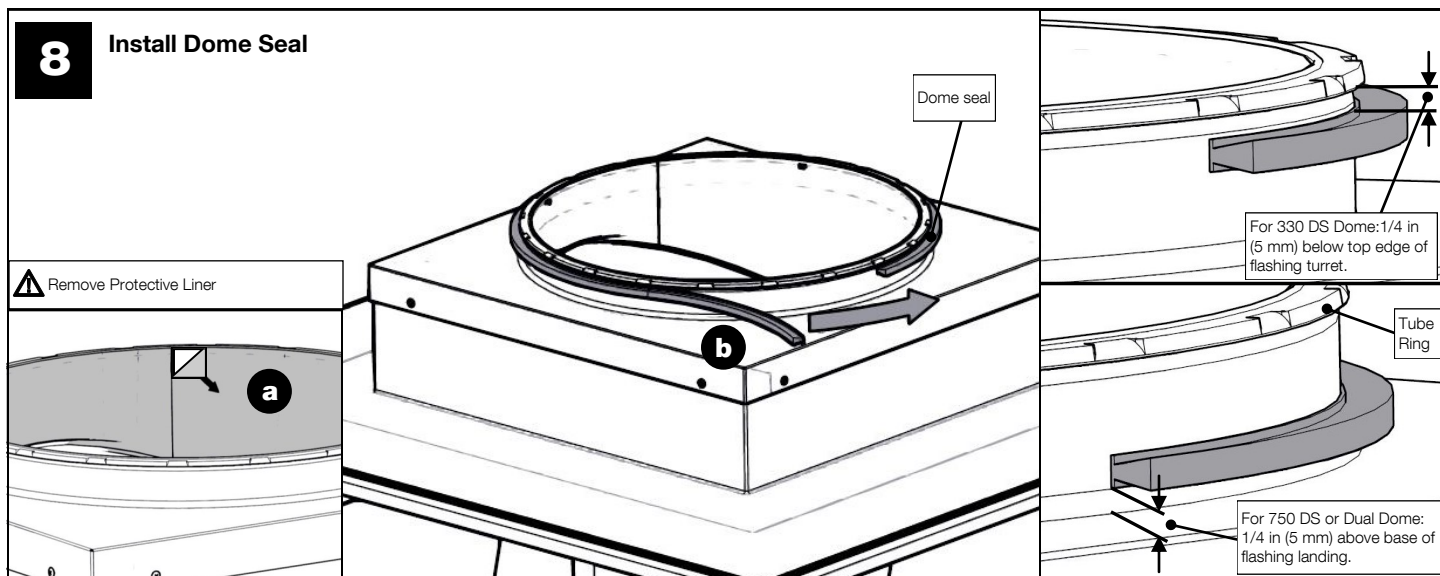
7

Install diffuser



8

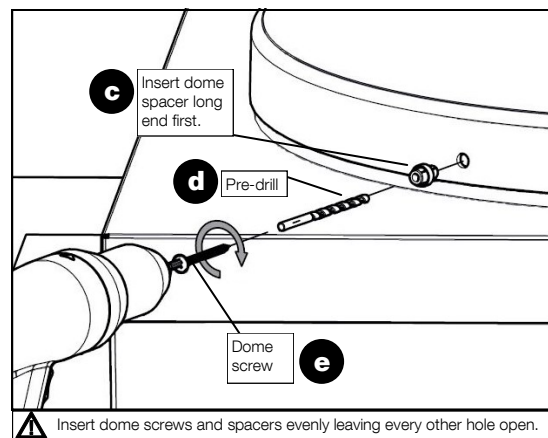
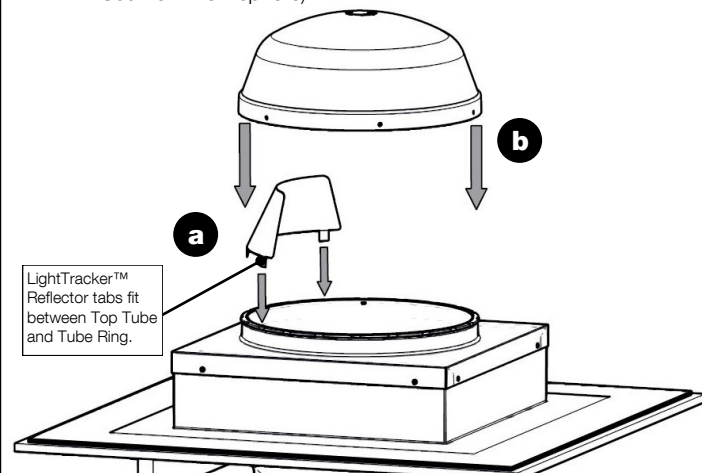
Install Dome Seal



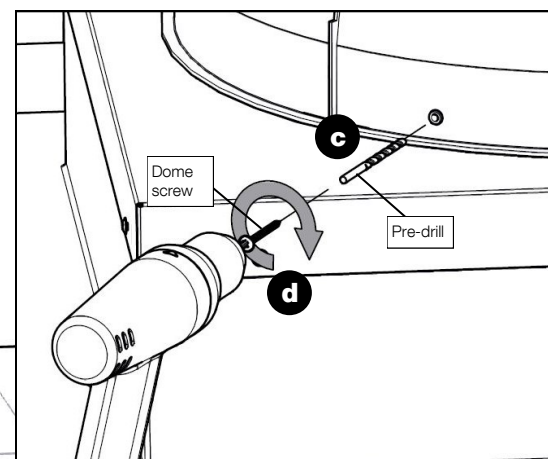
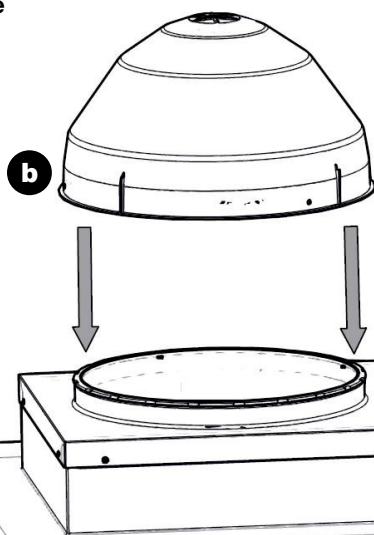
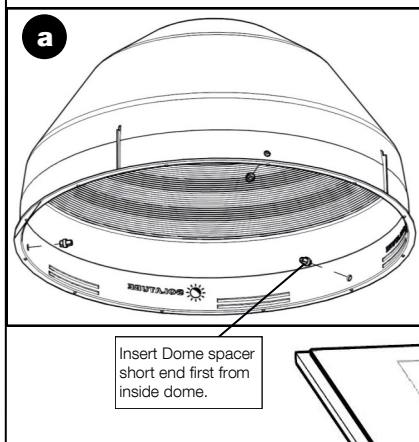
9

Option 1: Install 330 DS dome

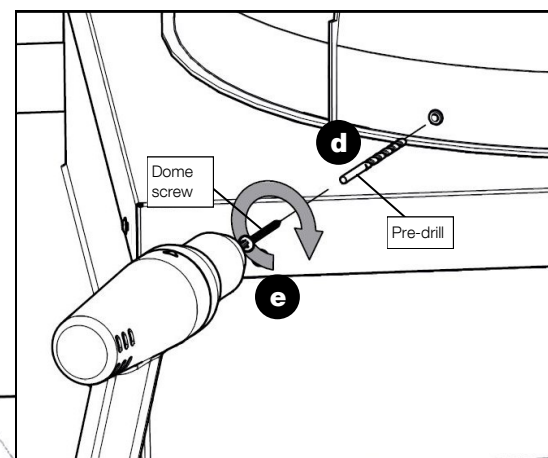
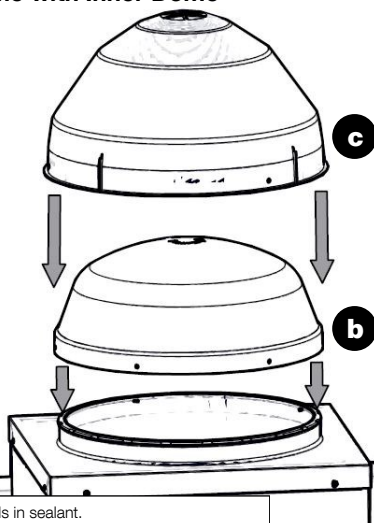
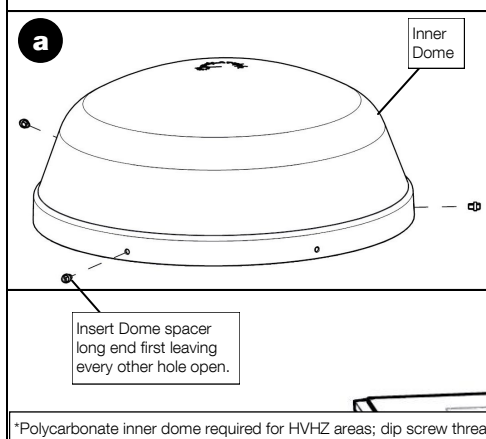
Reflective side of LightTracker™ Reflector faces South in Northern Hemisphere (North in Southern Hemisphere).



9

Option 2: Install 750 DS Dome

9

Option 3: Install 750 DS Outer Dome with Inner Dome*

*Polycarbonate inner dome required for HVHZ areas; dip screw threads in sealant.

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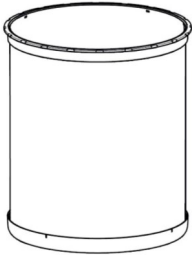
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Open Ceiling Installation Instructions

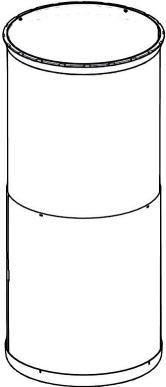
10

Determine Tube Configuration

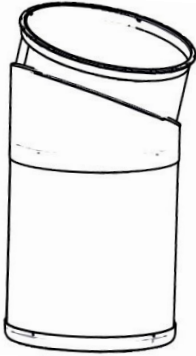
Option 1:
Single Extension Tube



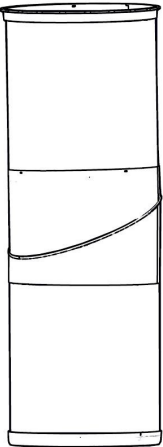
Option 2:
Additional length



Option 3:
For pitched roofs

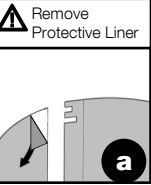


Option 4:
For tall curb heights

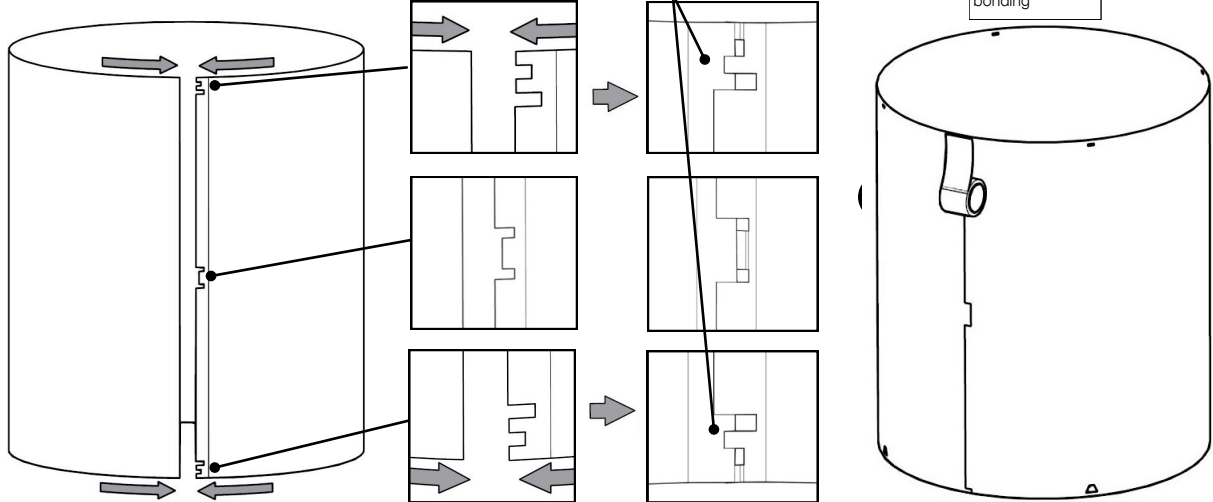


11

Option 1: Assemble 24 in (610 mm) Extension Tube

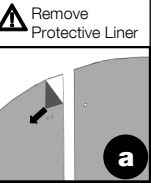

a

b

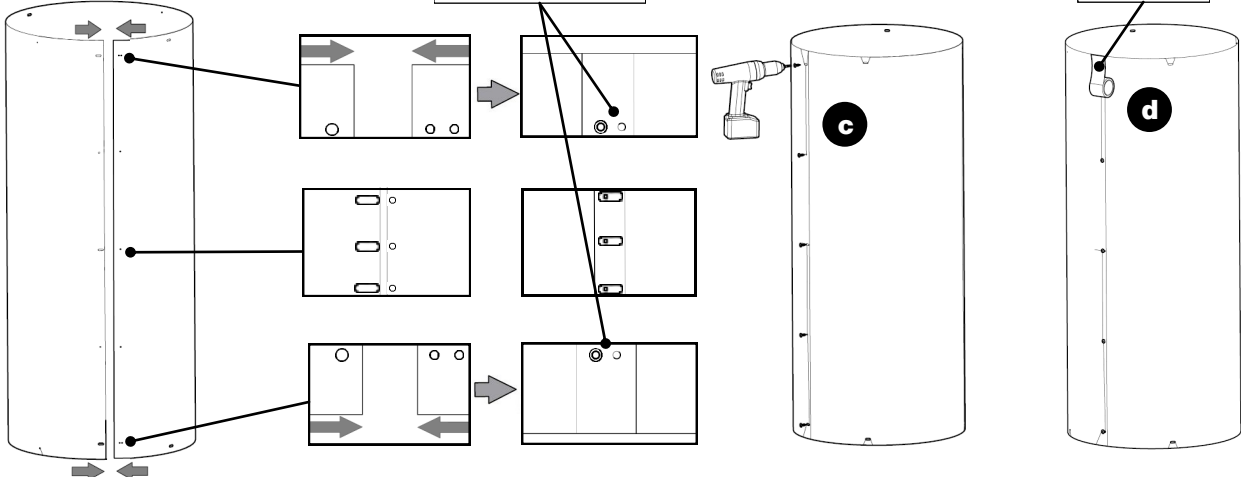


11

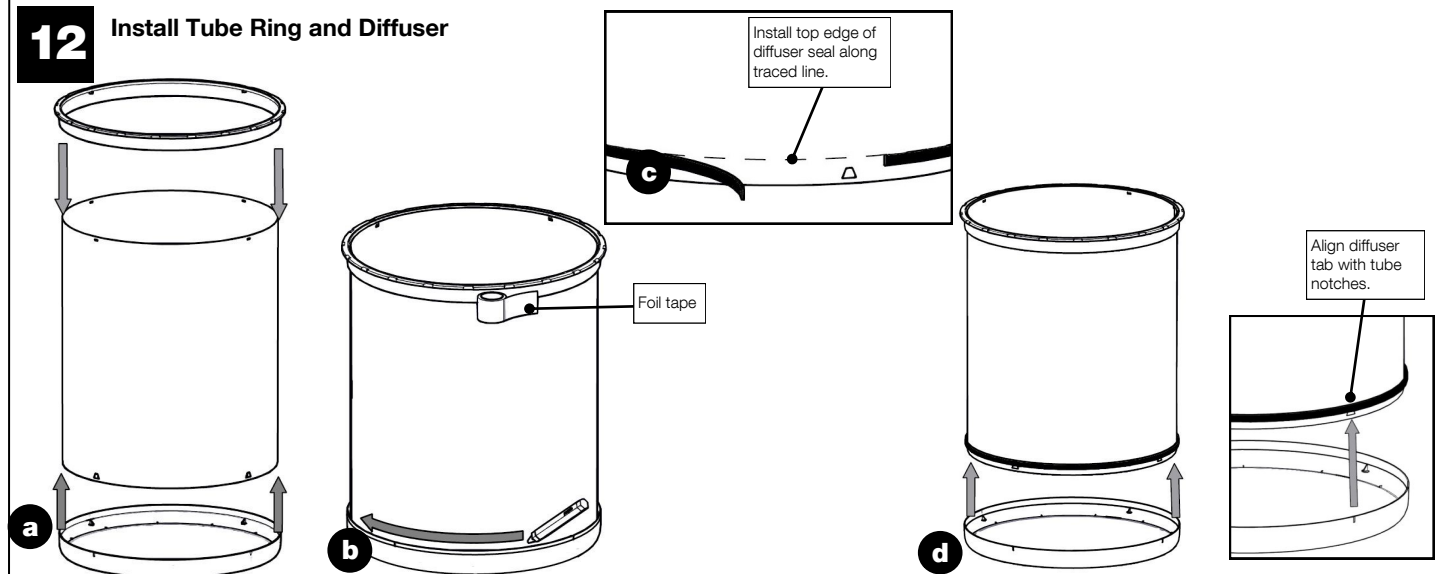
Option 2: Assemble 48 in (1220 mm) Extension Tube


a

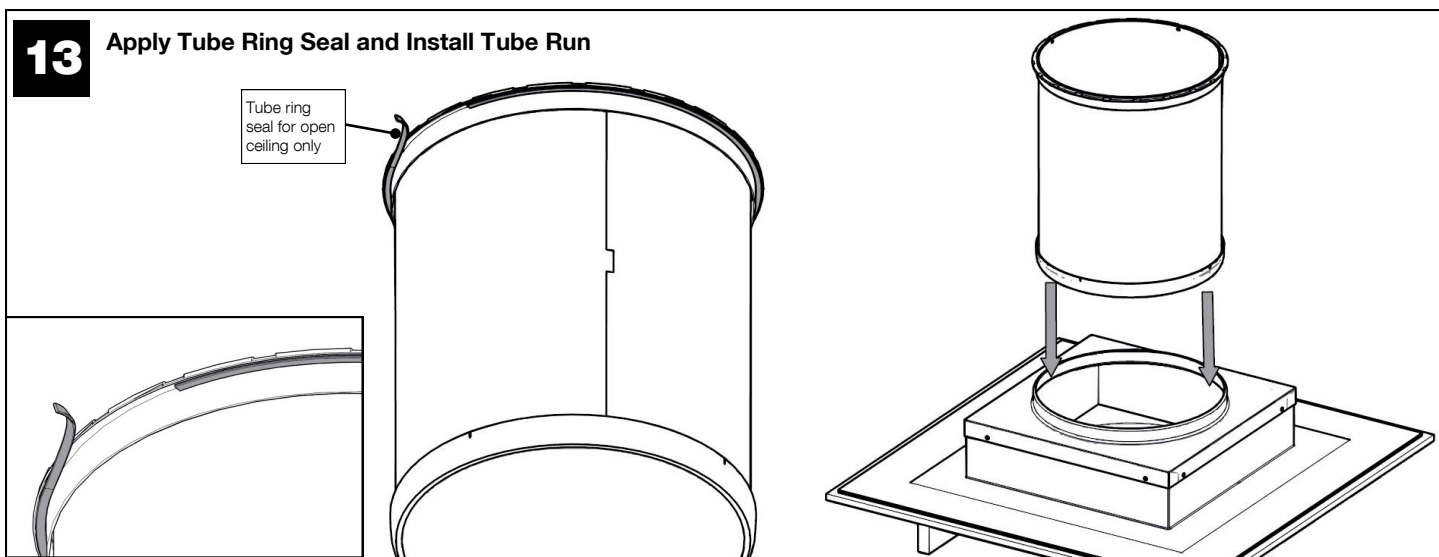
b



12 Install Tube Ring and Diffuser

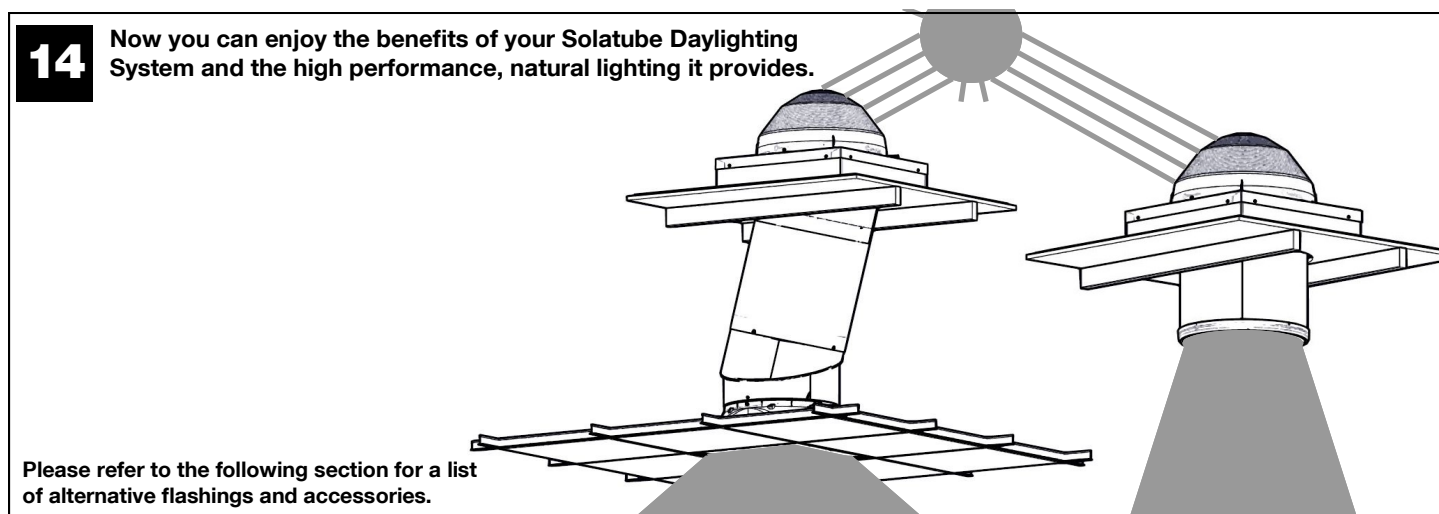


13 Apply Tube Ring Seal and Install Tube Run



Return to step 8 to complete Open Ceiling instructions.

14 Now you can enjoy the benefits of your Solatube Daylighting System and the high performance, natural lighting it provides.



Please refer to the following section for a list of alternative flashings and accessories.

Not all items shown in the following pages are available for all markets. Installation techniques shown may vary by region; please consult local building codes and Solatube International Representatives for guidelines.

For the most current Installation Instructions, please visit www.solatube.com/instructions

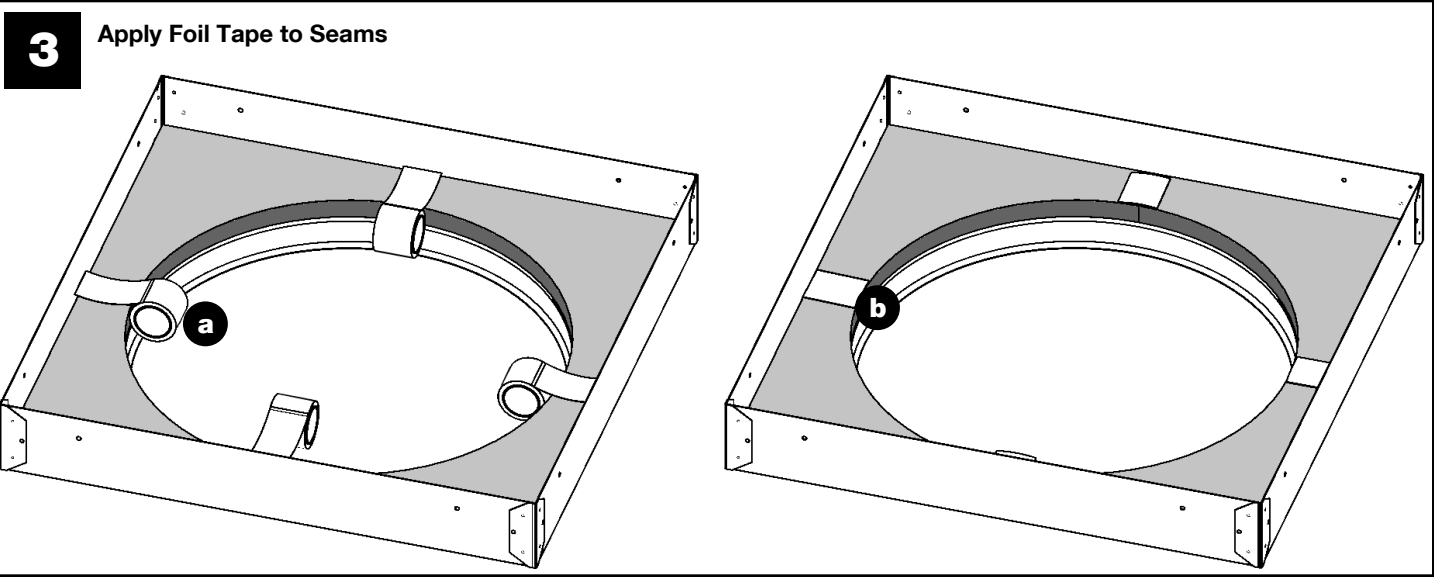
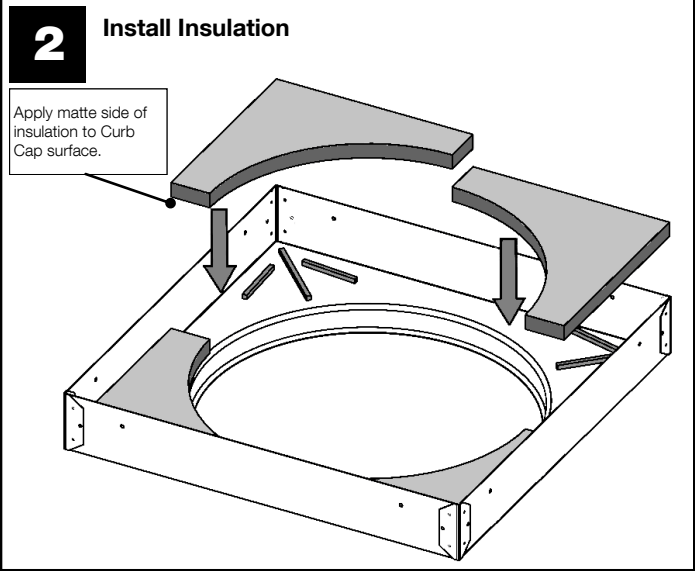
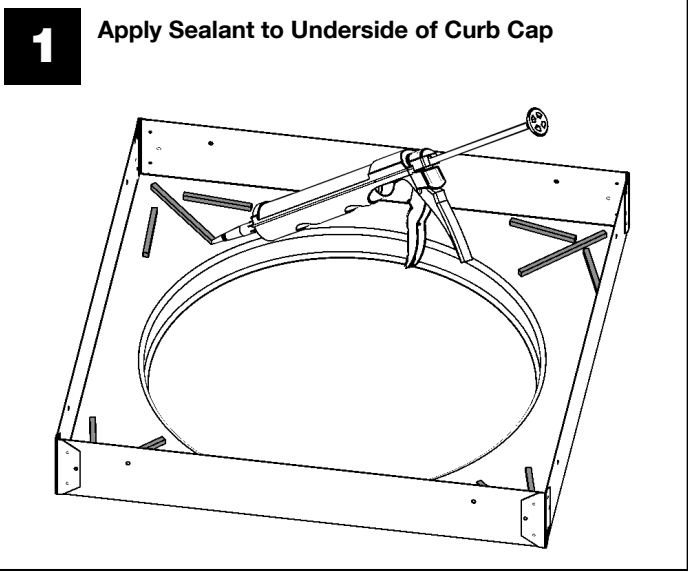
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Curb Cap Flashing Insulation

Installation Instructions Appendix

Parts List	Quantity
1 330 DS / 750 DS Curb Insulation	(4)

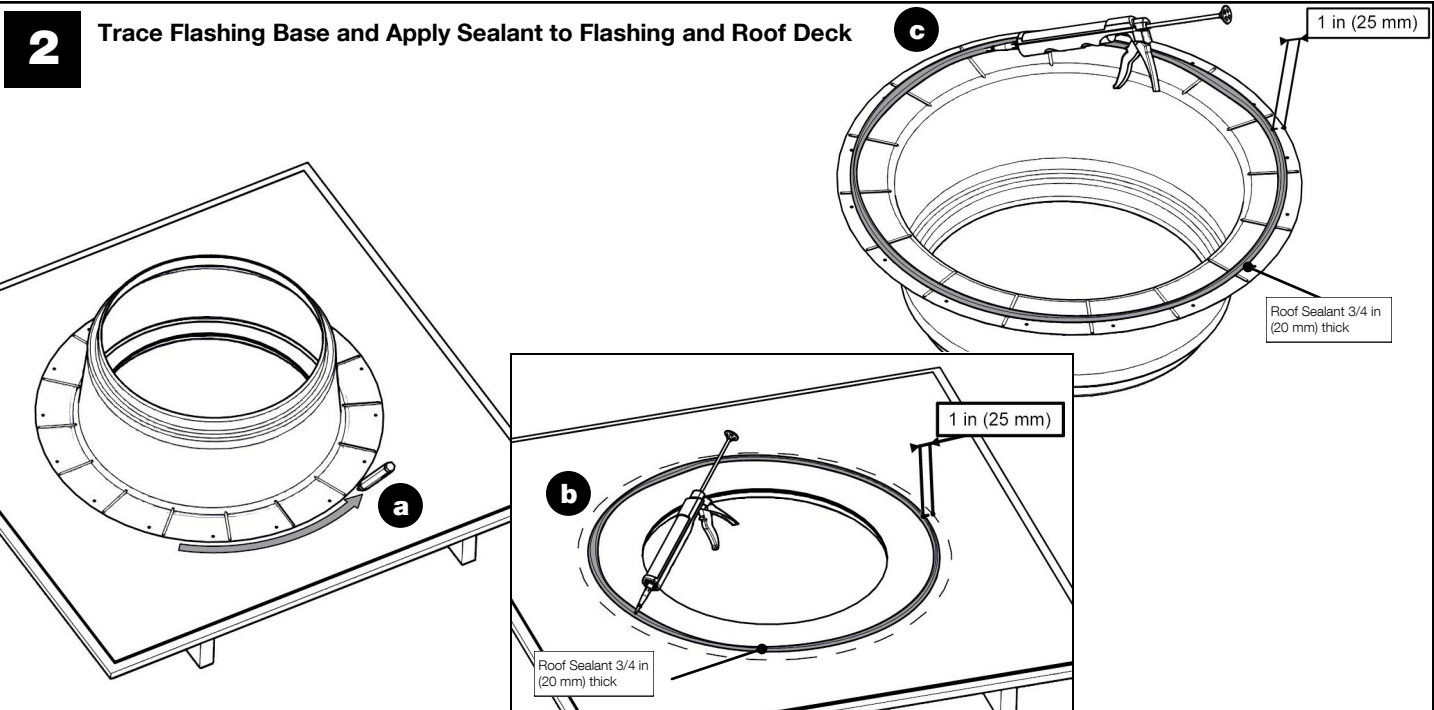
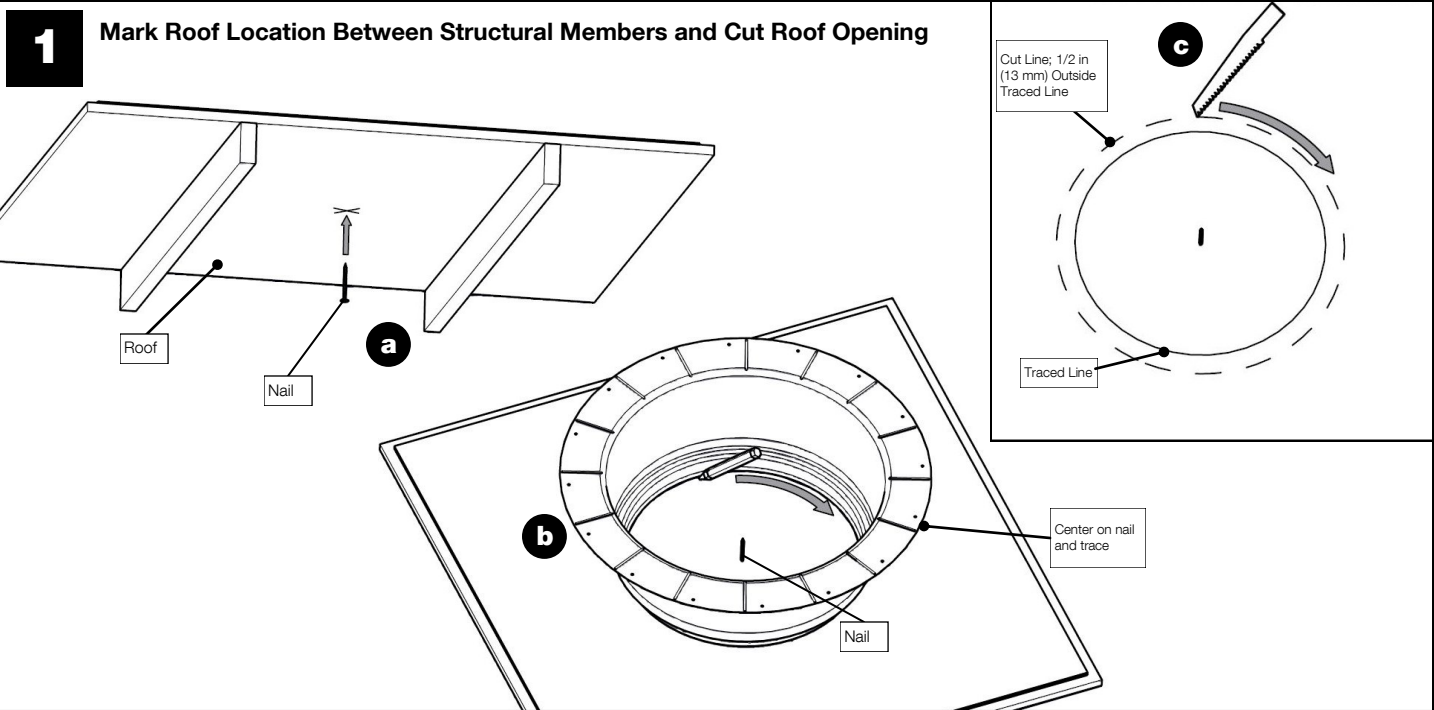
Additional Materials and Tools	Quantity
1 Roof Sealant	(1)
2 Foil Tape	(1)



Self-Flashing Installation Instructions Appendix

Parts List	Quantity
1 Self-Flashing (4 in (100 mm), 8 in (200 mm), 11 in (280 mm))	(1)
2 Flashing Screws - #10 X 2 in (50 mm)	(21)

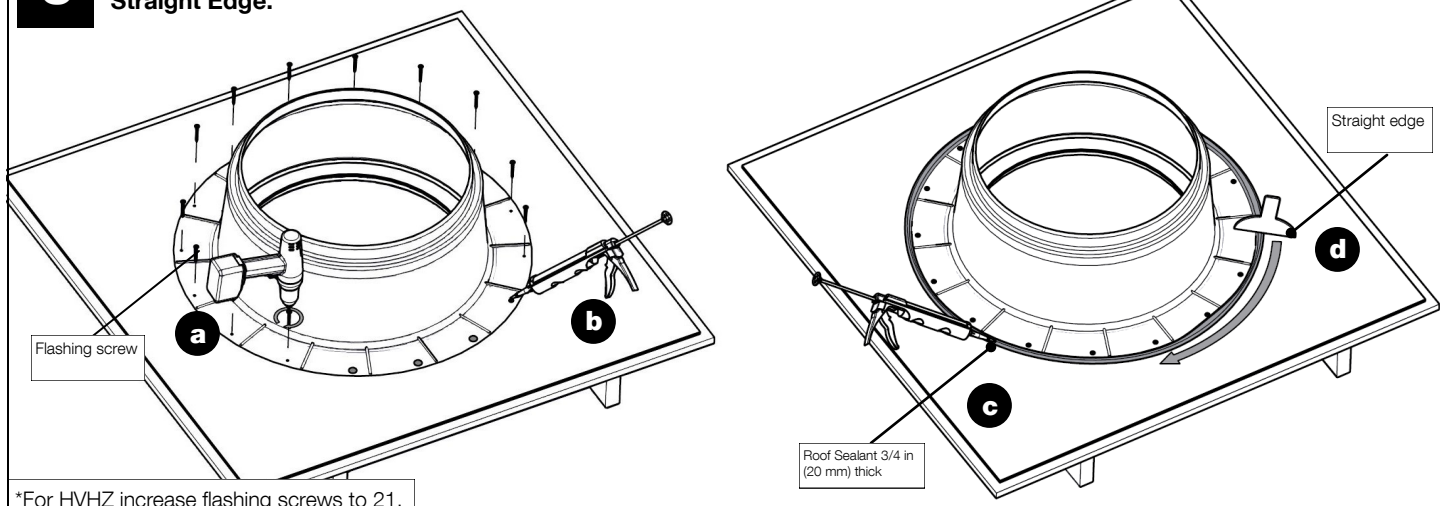
Additional Materials and Tools	Quantity
1 Roof Sealant	(3)
2 Straight Edge	(1)



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3

Fasten Flashing to Roof.* Apply Sealant and Spread Evenly Using Straight Edge.



Round Concrete Curb Cap Installation Instructions Appendix

Parts List

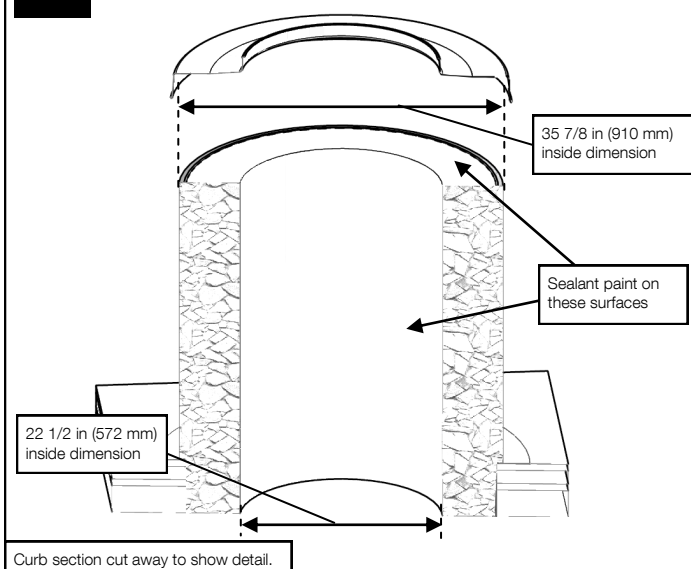
		Quantity
1	Round Curb Cap	(1)
2	Concrete Screw 3/16 in x 2 3/4 in (5 mm x 70 mm) Hex	(8)
3	Concrete Drill Bit 5/32 in x 3 1/2 in (4 mm x 89 mm)	(1)

Additional Materials and Tools

	Quantity
2 Sealant Paint (Not Provided)	

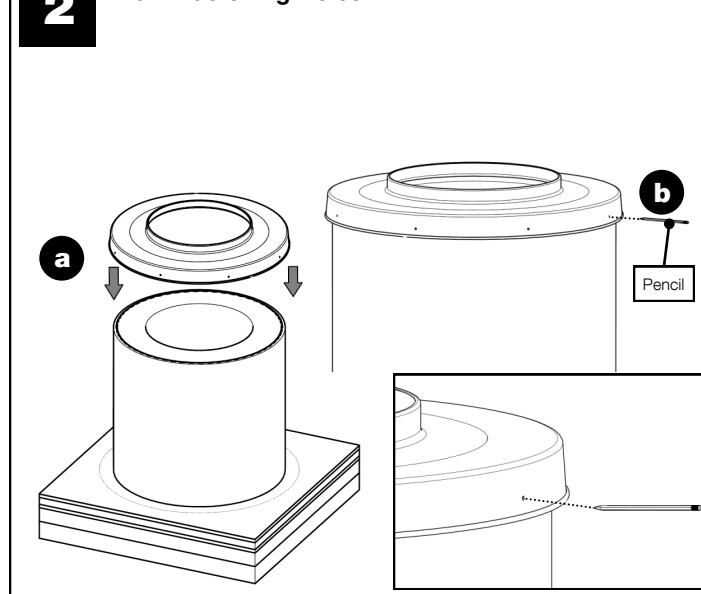
1

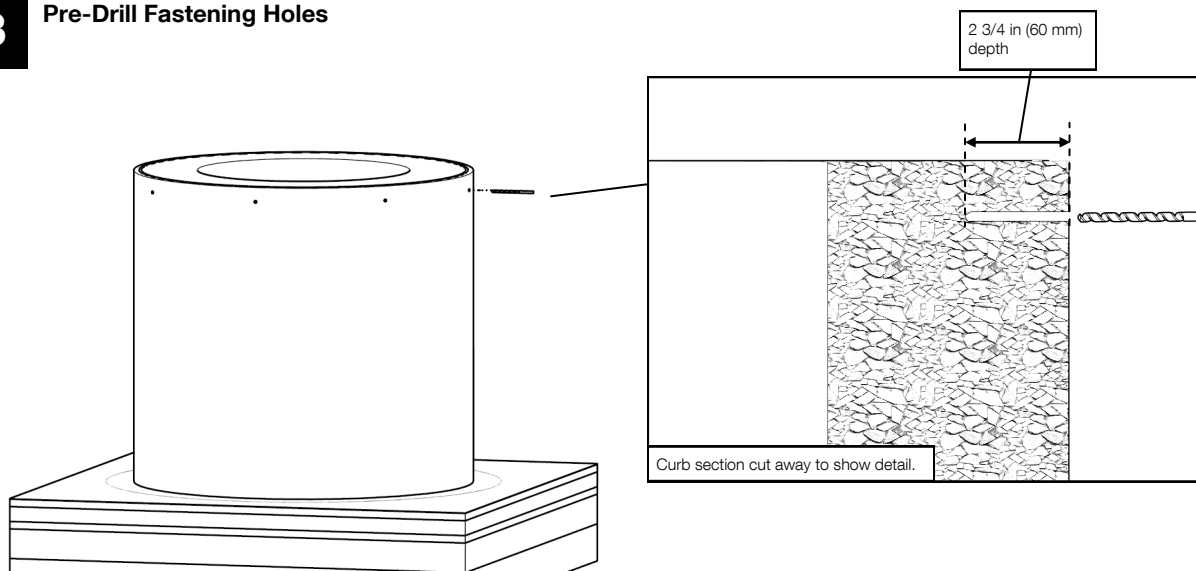
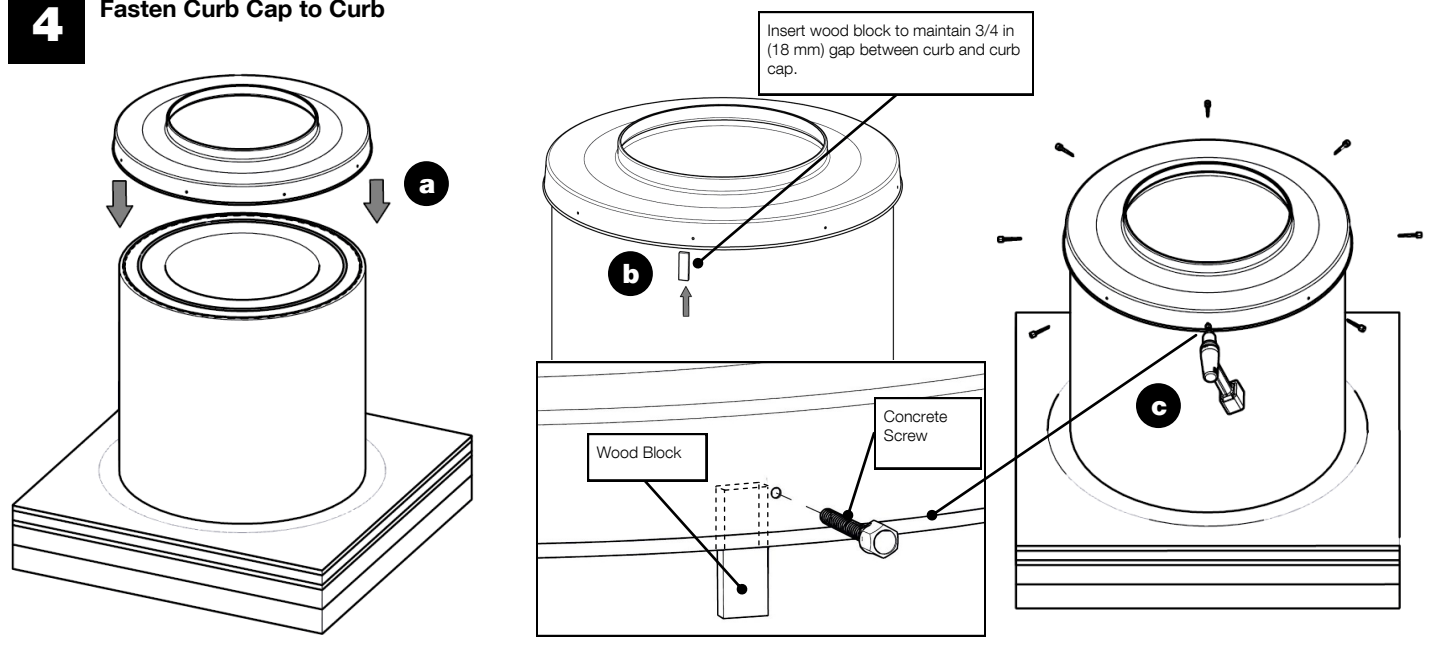
Apply Sealant Paint to the inside Walls and Top Sections of Concrete Curb



2

Mark Fastening Holes



3**Pre-Drill Fastening Holes****4****Fasten Curb Cap to Curb**

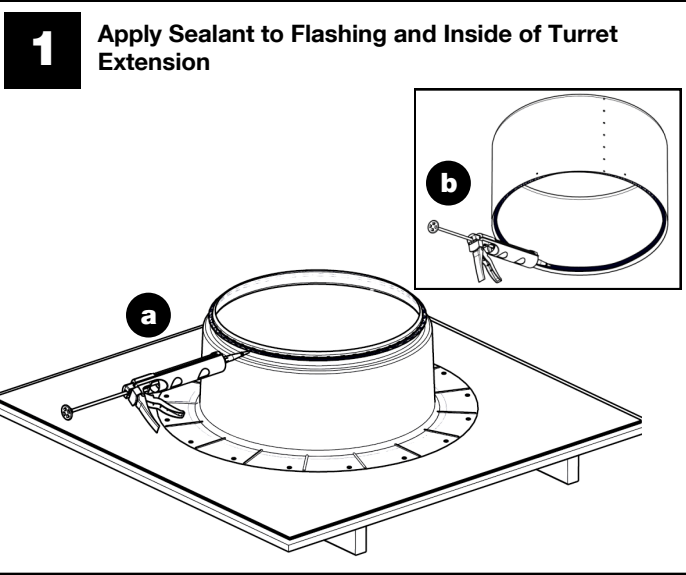
For the most current Installation Instructions, please visit www.solatube.com/instructions

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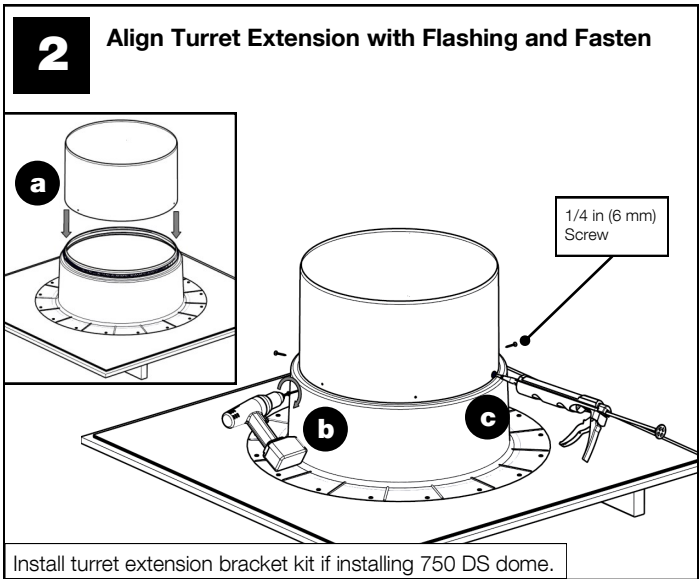
Turret Extension Installation Instructions Appendix

Parts List	Quantity
1 Turret Extension 12 in (300 mm), 24 in (600 mm), 36 in (900 mm), or 48 in (1200 m)	(1)
2 1/4 in (6 mm) screws*	(4)

* 3/4 in (20 mm) screws for 48 in (1200 mm) Turret Extension Only



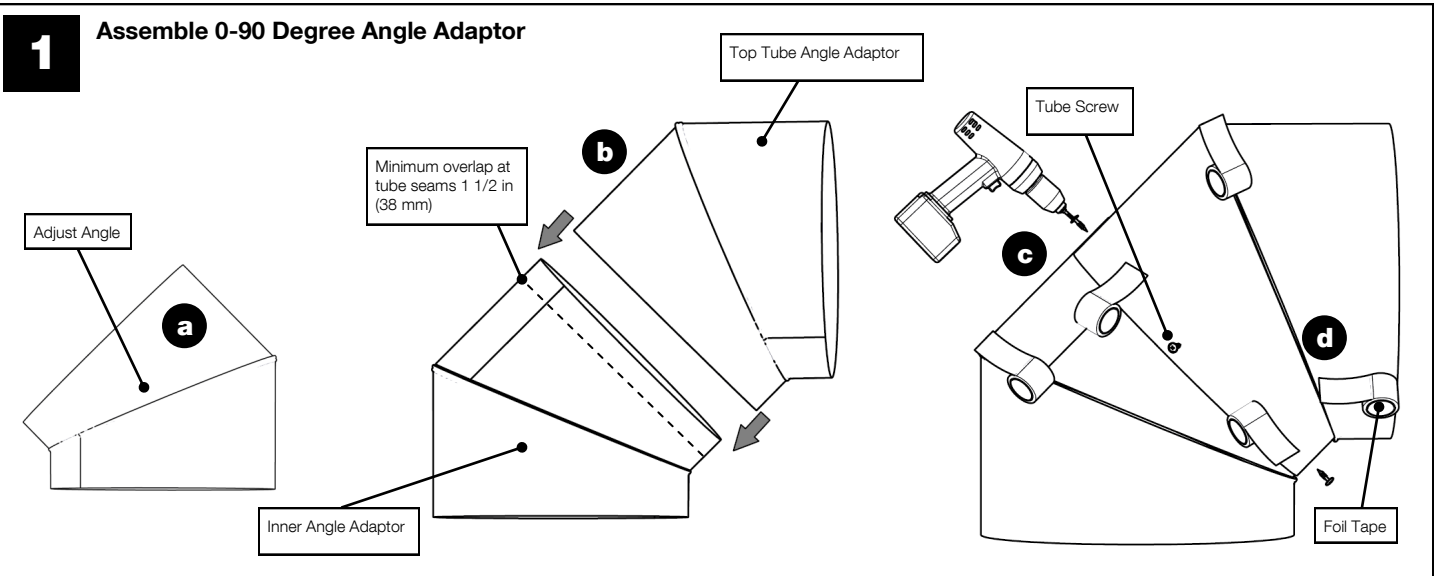
Additional Materials and Tools	Quantity
1 Roof Sealant	(1)



0-90 Degree Extension Tube Installation Instructions Appendix

Parts List	Quantity
1 Top Tube Angle Adaptor	(1)
2 Inner Angle Adaptor	(1)
3 Tube Screws - #8 X 9/16 in (14 mm)	(8)
4 Foil Tape - 2 in (51 mm) X 6 ft (2 m)	(2)

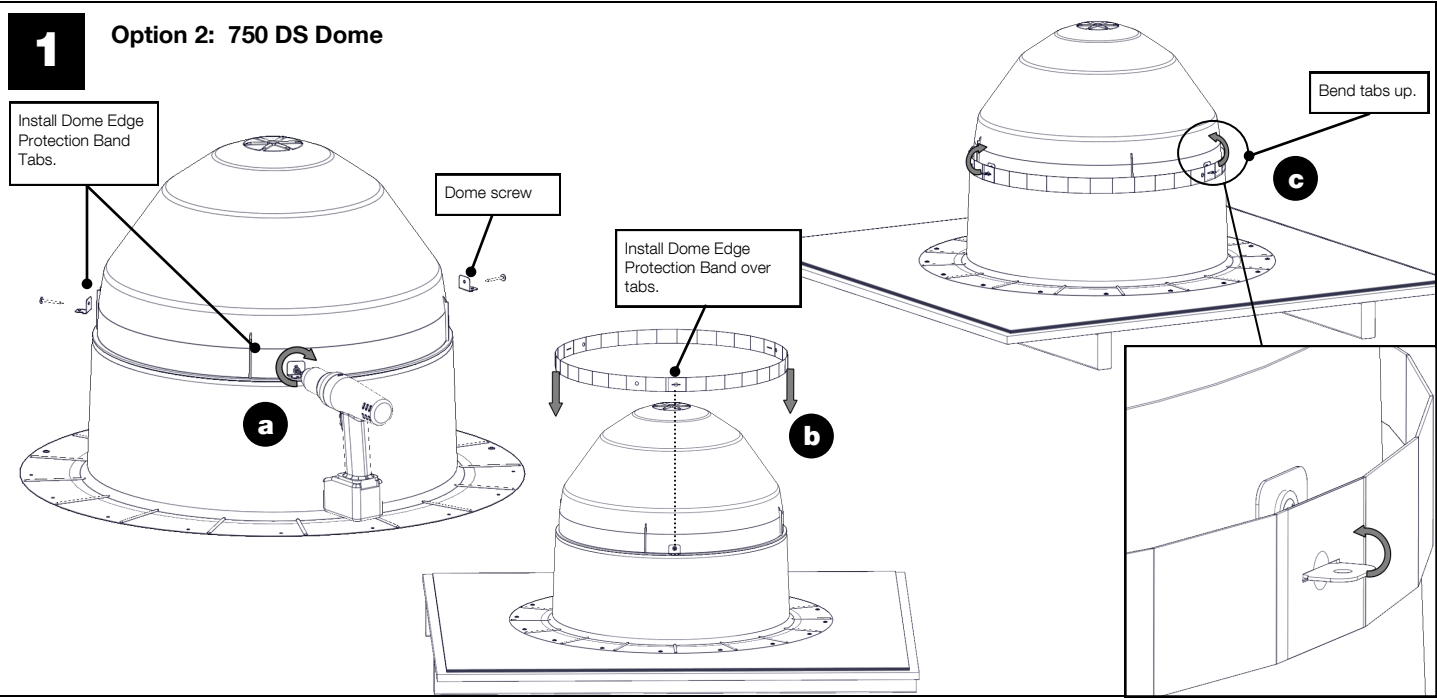
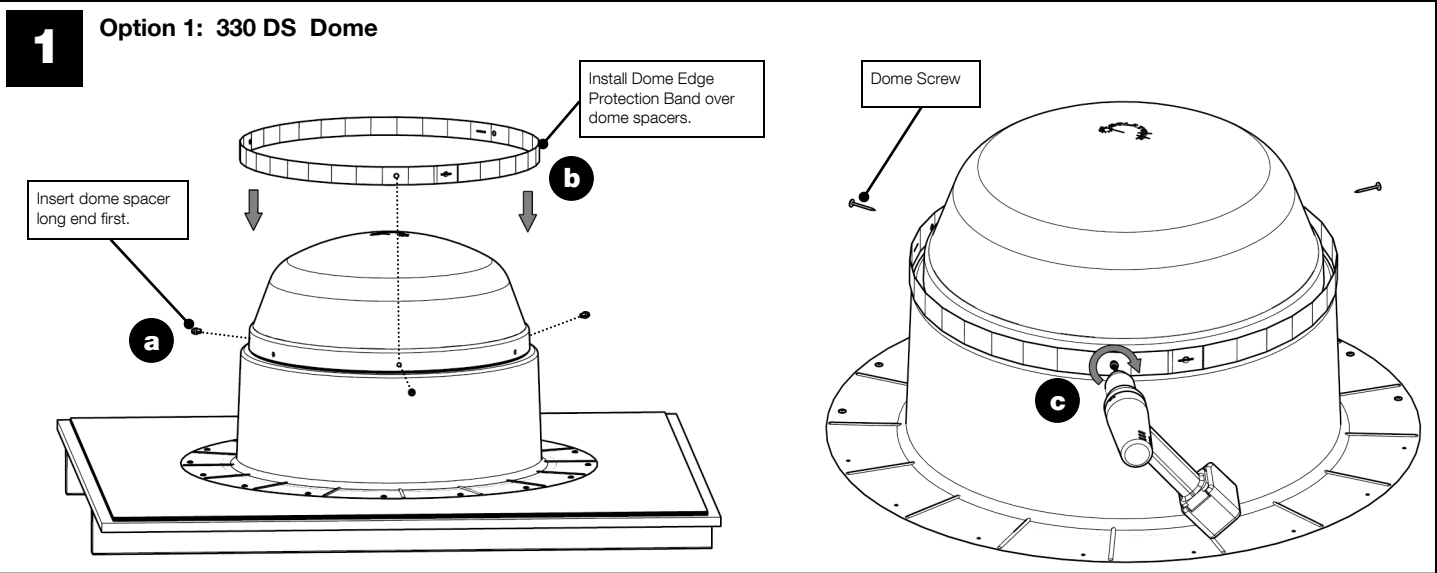
Additional Materials and Tools	Quantity
1 None	



Dome Edge Protection Band Installation Instructions Appendix

Parts List		Quantity
1	Dome Edge Protection Band	(1)
2	Dome Edge Protection Band Tab	(3)

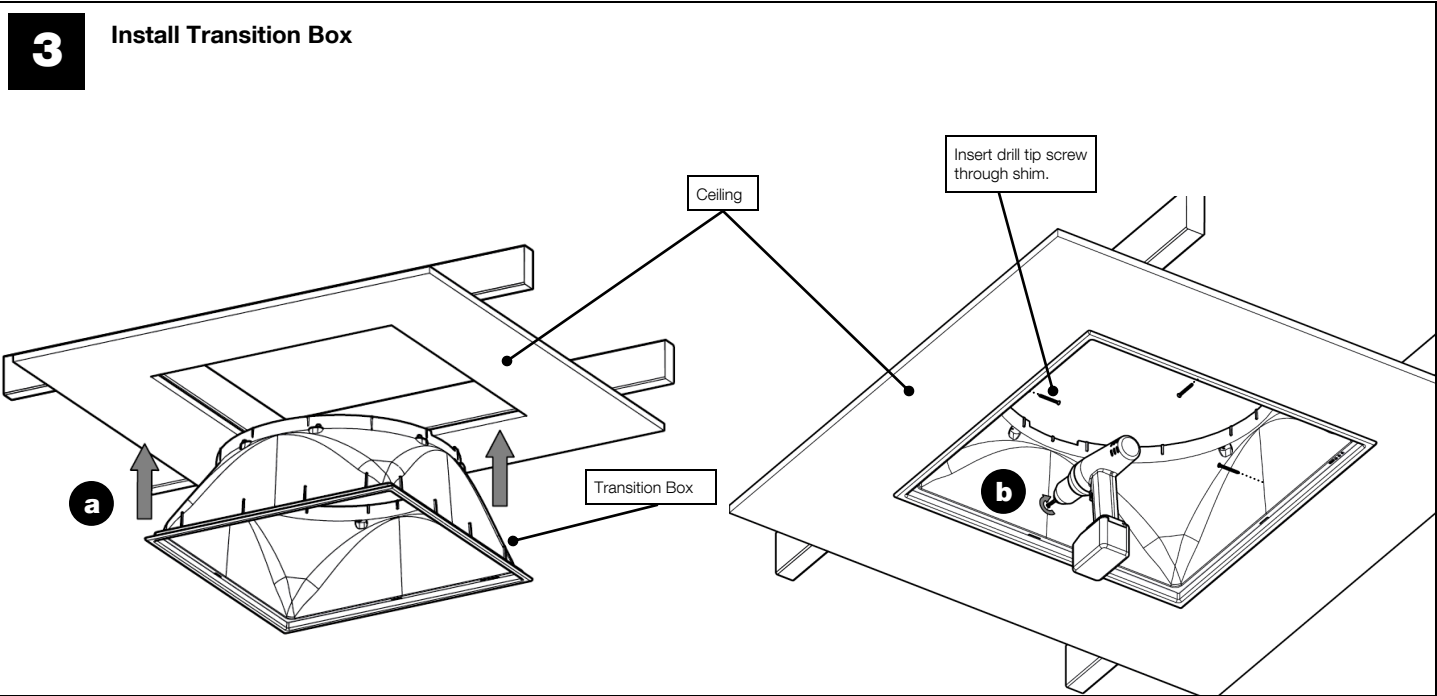
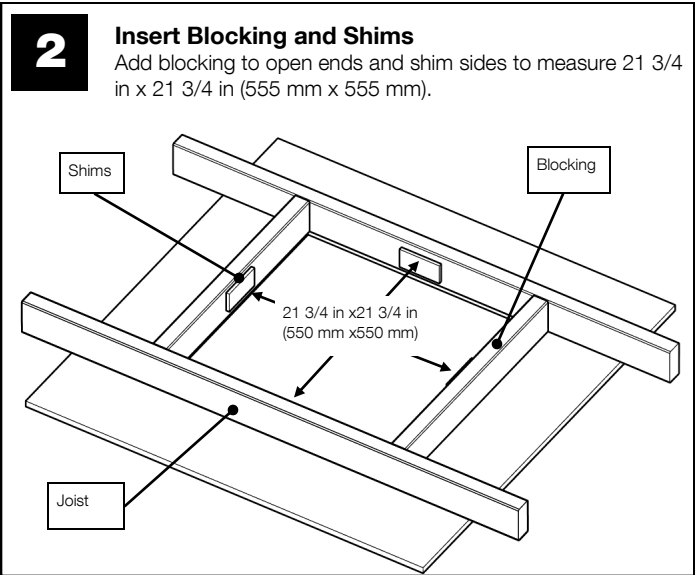
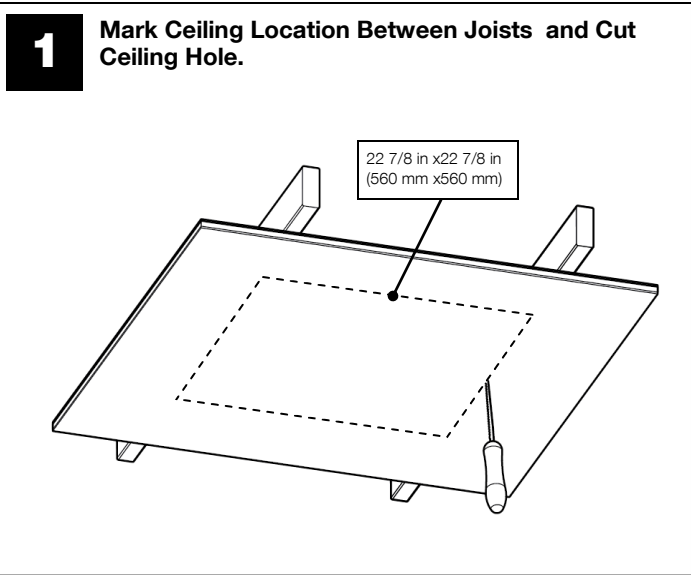
Additional Materials and Tools		Quantity
1	None	



Hard Ceiling Installation Instructions Appendix

Parts List		Quantity
1	Transition Box	(1)
2	Drill Tip Screw 1 5/8 in (40 mm)	(4)

Additional Materials and Tools		Quantity
1	Wood Blocking	(2)
2	Shims	(4)



Suspension Wire Kit Installation Instructions Appendix

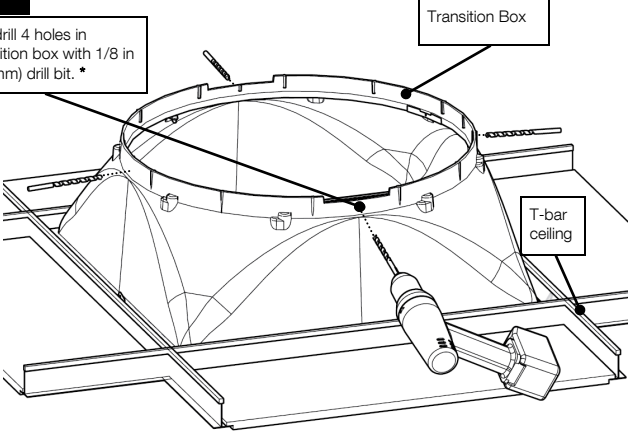
Parts List	Quantity
1 16 Gauge Galvanized Wire 50 ft (15.25 m)	(1)
2 Anchor Bolts	(4)
3 Eye Bolt #8 1/8 in (25 mm) with Nut and (2) Washer	(4)

Additional Materials and Tools	Quantity
1 Drill Bit 1/8 in (3 mm)	(1)

1

Pre Drill Transition Box

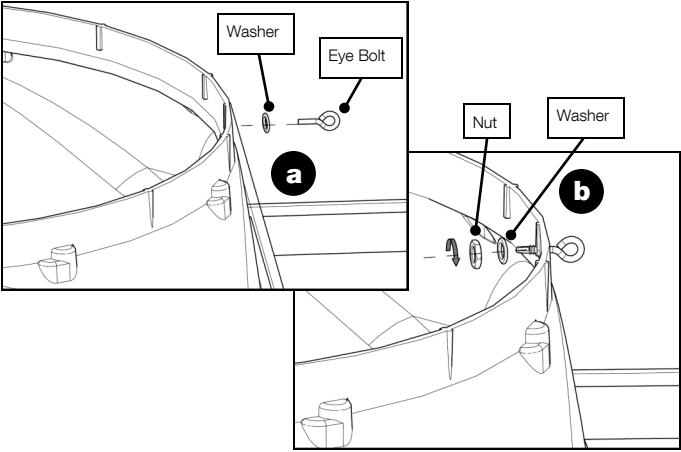
Pre drill 4 holes in transition box with 1/8 in (25 mm) drill bit. *



* Position holes to allow for natural effect lens.
* Bottom tube removed to show detail. Drill holes with bottom tube installed.

2

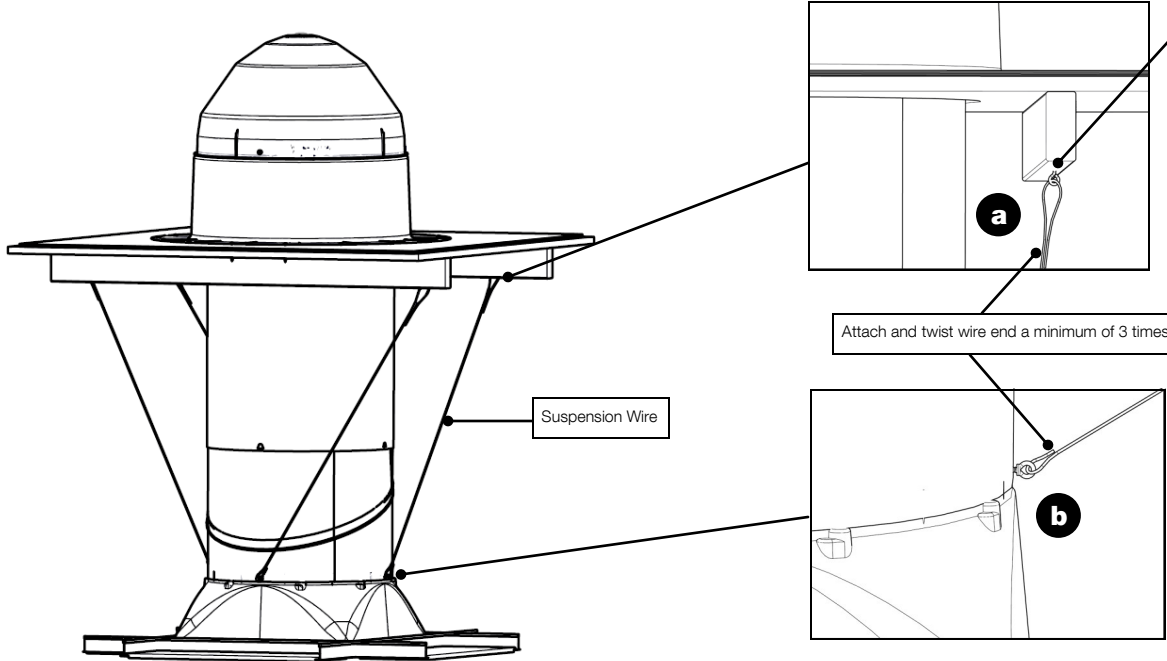
Install Eye Bolts



Washer, Eye Bolt, Nut, Washer

3

Attach Anchor Bolts and Install Suspension Wire



Suspension Wire

Attach anchor bolts to roof framing member and attach suspension wire.

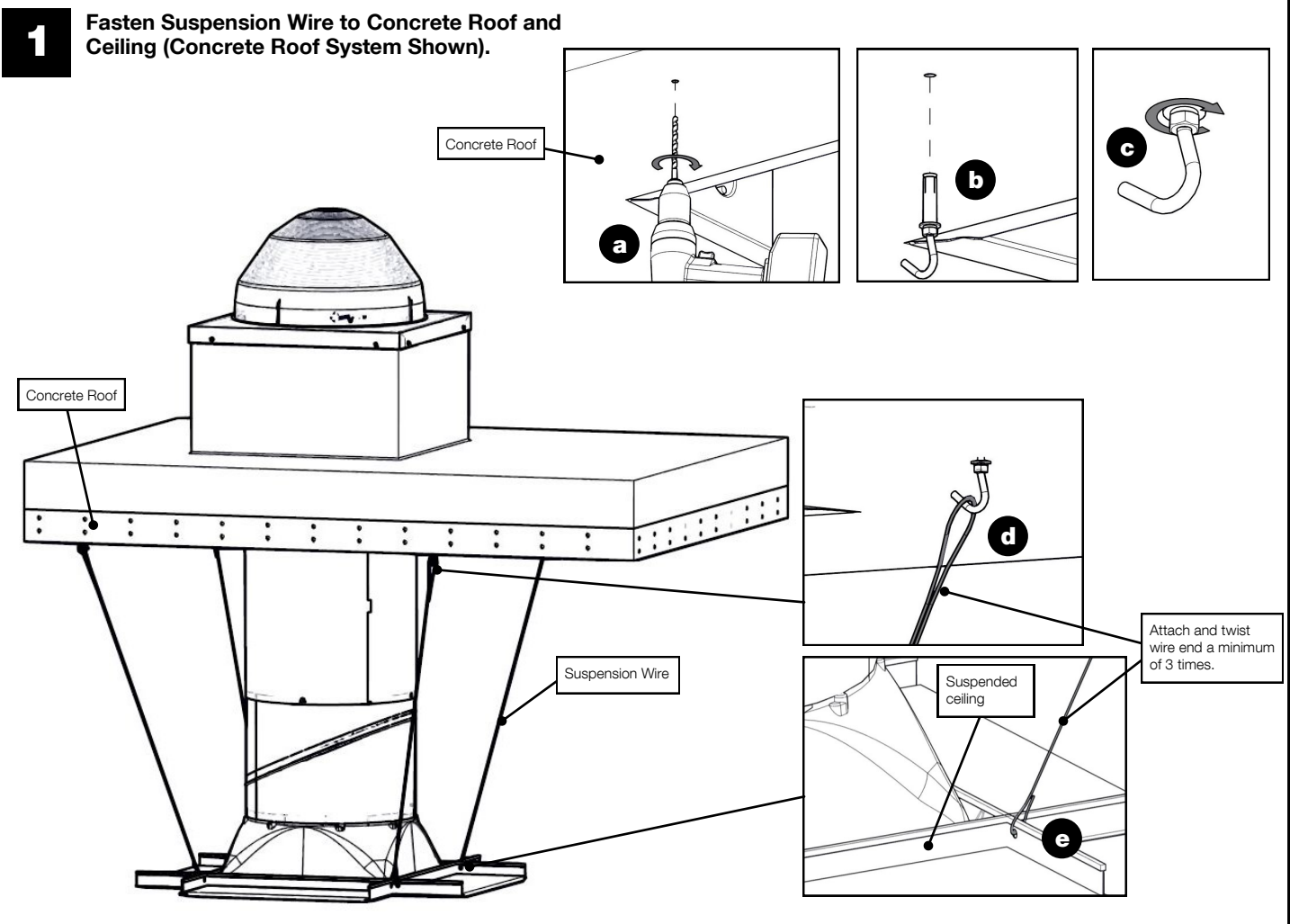
Attach and twist wire end a minimum of 3 times.

Suspension Wire Kit for Suspended Ceiling

Installation Instructions Appendix

Parts List	Quantity
1 16 Gauge Galvanized Wire 50 ft (15.25 m)	(1)
2 Expanding Bolt (M6)	(4)

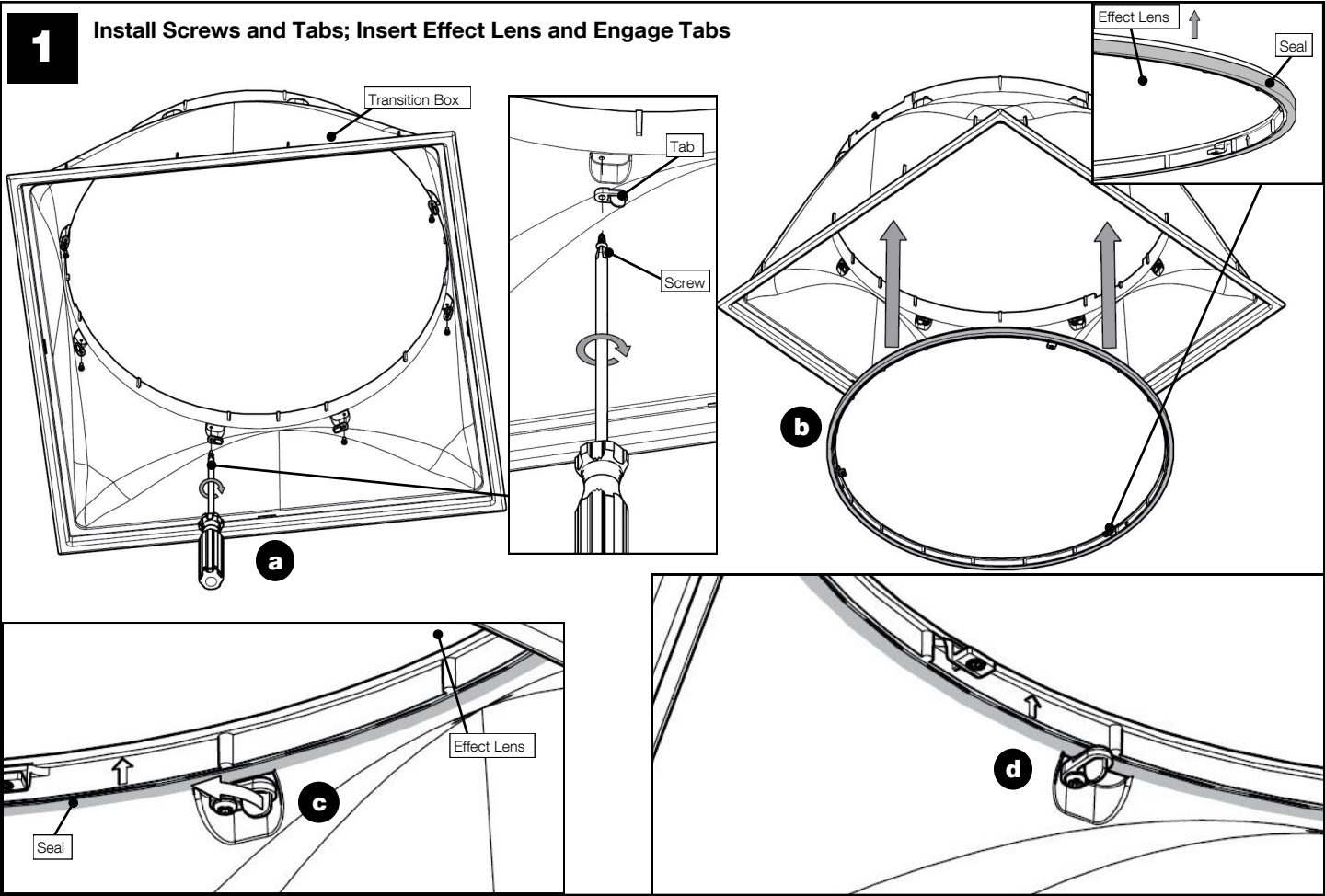
Additional Materials and Tools	Quantity
1 Concrete Drill Bit 7/16 in (11 mm)	(1)
2 Concrete Hammer Drill	(1)



Natural Effect Lens Installation Instructions Appendix

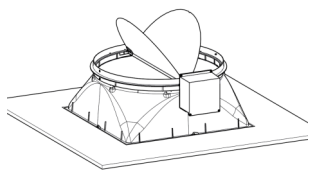
Parts List *		Quantity
1	330 DS/750 DS Natural Effect Lens	(1)
2	Screw #6 X 3/8 in (10 mm)	(8)
3	Natural Effect Lens Tab	(8)

Additional Materials and Tools		Quantity
1	None	



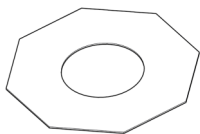
Solatube Solamaster® Series Accessories

Add more function by upgrading your Solatube Daylighting System with any of these great accessories.



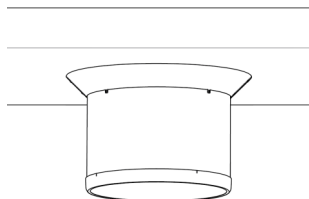
Daylight Dimmer

Because you don't need 100% of the light 100% of the time, the innovative Solatube Daylight Dimmer easily controls the amount of daylight entering a room with the convenience of a switch. Our patented variable butterfly baffle controls the light output.



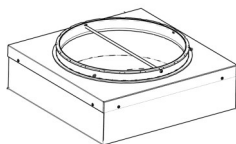
Flashing Insulator

This insulating material helps to reduce condensation in cold climates when the flashing is exposed to a humid interior space. The insulator is affixed to the flashing base and the top tube slips through the opening, which provides a seal between the interior and metal flashing.



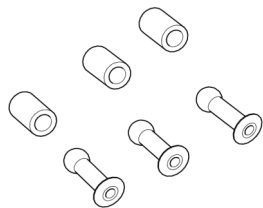
Open Ceiling Trim Ring

For use with the Solatube 330 DS and 750 DS Open Ceiling Configurations. The trim ring provides a finished appearance to the installation.



Security Bar

This stainless steel bar insets into the flashing turret across the diameter of the opening. The bar is fastened using rivets and inhibits entry through the dome.



Dome Security Kit

This kit consists of three rivets with nylon spacers, which replace dome screws. The dome security kit reduces the possibility of the dome being removed.

Notes



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