

Do not store in area's of extreme heat or direct sunlight. Remove protective film from reflective tube at time of installation not before to preserve reflectivity.

## Installation Instructions

Read all instructions before installation

Before you begin:

Consult your local building officials and ordinances before starting your installation.

For best results, schedule your installation on a calm, dry day.

Gather the following tools and supplies for the installation:

Roofing cement	Keyhole hand saw	Plumb line	Power saw
Caulking: OSI Quad Bronze or equivalent polyurethane caulking	Safety gloves & glasses	1/8" drill bit	Extension ladder & step ladder
Carpenters pencil	Claw hammer, nails, wire	Drill & screwdriver	Drop cloth
Phillips screwdriver	Flashlight	Flat bar nail puller	Broom, dust pan

1. The day before installation, prepare the top half of the tube and flashing. If not already completed, apply the waterproofed peel and seal to the inside seam of the flashing so that all cracks along the inside seam are covered (1). Peel the paper from the dark foam seal. Attach the foam seal under the flange of the top adjustable tube starting opposite from the seam to prevent leakage (2). Peel the backing paper from the pile weather stripping and attach it to the top edge of the flashing. Always start at the side of the flashing so that it is away from the seam to ensure that there are no leaks (3).so that both ends meet with no gap between ends. This ensures no dust or insects will enter the tube from outside.



(1)



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(3)

2. Waterproof the seams on the flashing with polyurethane sealant (4). Smooth the sealant to ensure proper coverage (5). Set out the flashing to dry (6).



(4)



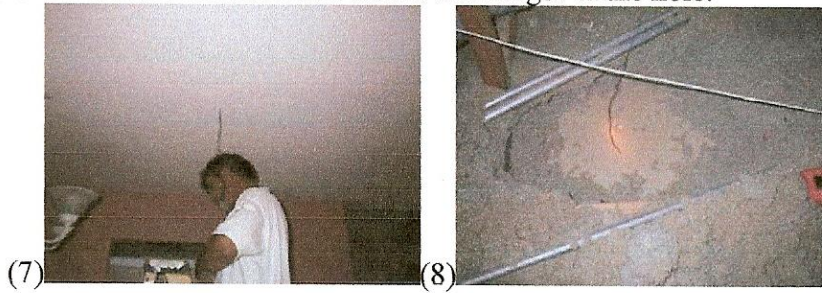
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(6)

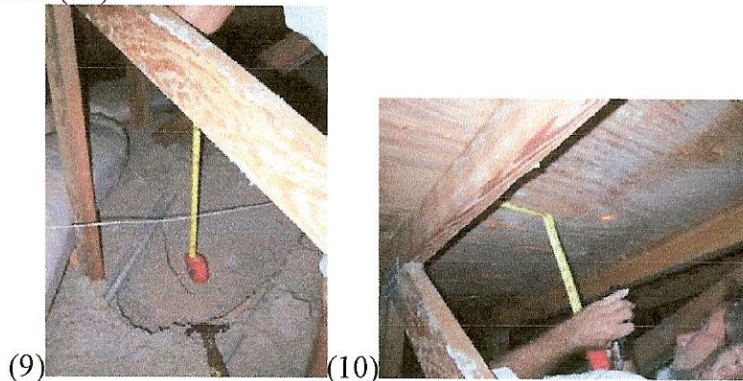
3. Determine the center placement of the light diffuser on the ceiling. To do this you can lightly tap on the ceiling to determine the approximate location of the ceiling joists. To ensure that the hole you cut does not come close to the ceiling joist, drive a nail in the ceiling at the center of the desired location. Take a wire, such as a clothes hanger, and bend it so that it is  $\frac{1}{2}$  the diameter of the dome you want to install. For example, a 10" dome requires a 5" bend in the hanger. Insert the hanger into the hole (7) and rotate in a

circle to make sure there are not obstructions. Leave the hanger in the hole.

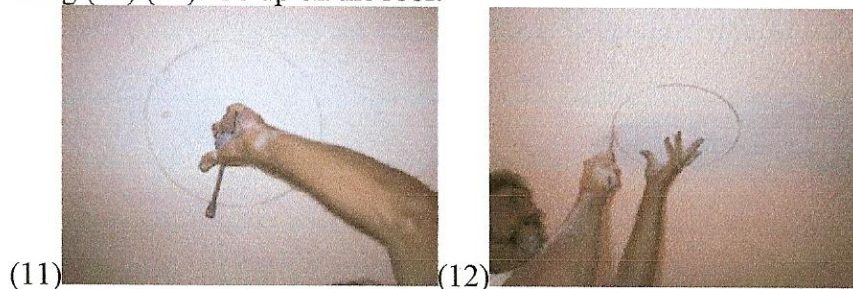


4. Go into the attic, locate the wire (8), and adjust the location to be completely clear of any roof framing. Allow clearance for ceiling anchors.

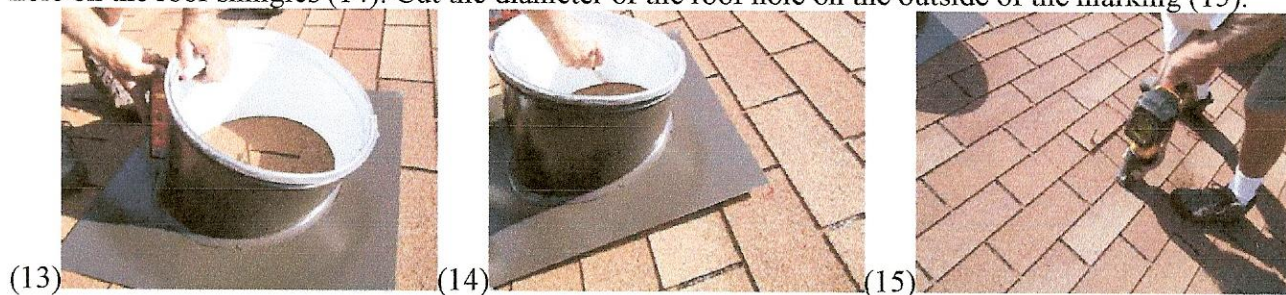
5. Using a plumb line (9), go straight up from the ceiling hole to the roof. Measure between roof rafters to ensure you are centered and drive a nail up through the roof deck and the shingles so that the nail can be easily located on the roof (10).



6. Using a keyhole saw, cut a 10", 13", or 21" diameter hole depending on the Sun-Dome™ system you are installing in the ceiling (11) (12). Go up on the roof.



7. **Shingle Roof:** Center the flashing over the protruding nail. Note any indication of the flashing not being level, as this will have an effect on the angle of the tube (13). Mark the inside circumference of the flashing hole on the roof shingles (14). Cut the diameter of the roof hole on the outside of the marking (15).



8. Use a flat bar to break the seals on the singles and a claw hammer to pull the nails inside of the template markings (16). Slide the flashing under the shingle for a test fit (17). Ensure no wood or obstructions are

present that may block the tube (18). Remove the flashing for preparation.



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(17)

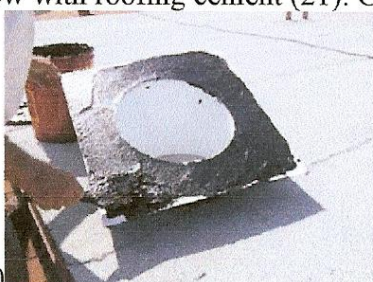


(18)

9. Install the flashing. Spread the roofing cement generously on the top (19) and underside (20) of the flashing. Next, slide the top and sides of the flashing on top of the dry-in paper under the shingles. Leave the bottom 1-2 inches of the flashing exposed, resting on the shingles. Secure the flashing to the roof by driving twelve 2-1/2" screws through the top and sides of the flashing. Do not drive screws into the exposed part of the flashing. Don't forget to seal each screw with roofing cement (21). Go to step 16.



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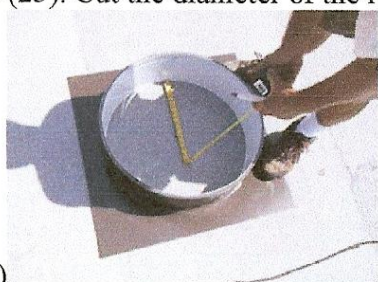


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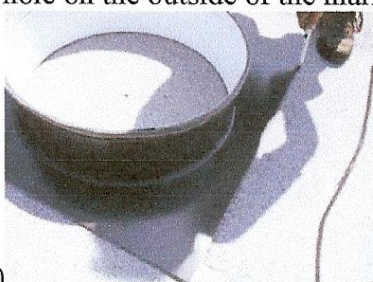


(21)

10. **Flat Roof:** Center the flashing on the protruding nail (22) and draw an outline of the flashing hole on the roof (23). Cut the diameter of the roof hole on the outside of the marking (24).



(22)



(23)



(24)

11. Install the flashing. Spread the roofing cement generously over the remaining template. Next, place the flashing and secure with 2-1/2" screws. Spread more roofing cement over the top of the secured flashing (25). Lay fabric membrane over each length of the flashing sides (26). Finally, seal the membrane with more roofing cement (27). Go to step 16.



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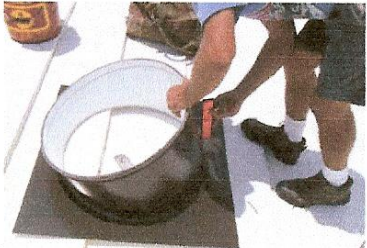


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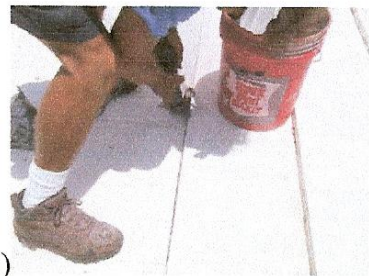
12. **Tile Roof:** Center the flashing over the protruding nail. Note any indication of the flashing not being level, as this will have an effect on the angle of the tube (28). Mark the a square larger than the outline of the flashing on the roof tiles (29). Cut along the line (30).



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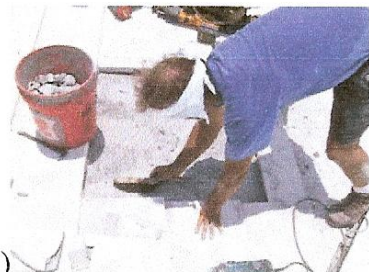
13. Remove the tiles using a claw hammer (31) and remove any supporting material (32). Clear away any debris from the roof (33).



(31)

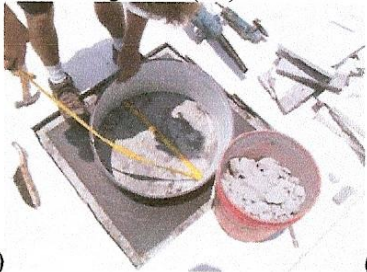


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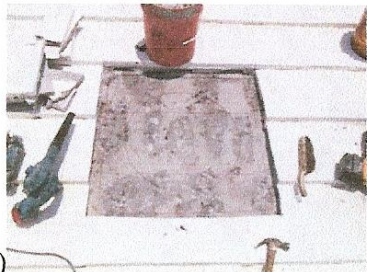


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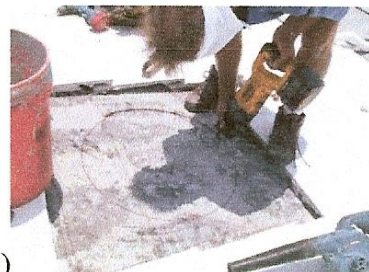
14. Center the flashing over the nail (34). Mark the outline of the flashing on the roof (35). Cut along the outside of the flashing hole (36).



(34)



(35)



(36)

15. Install the flashing. Spread the roofing cement generously over the remaining template (37). Next, place the flashing and secure with 2-1/2" screws. Spread more roofing cement over the top of the secured flashing (38). Lay fabric membrane over each length of the flashing sides. Seal the flashing membrane with more roofing cement (39). Fill in area over roofing cement with unbroken tile or cement grout. Go to step 16.



(37)



(38)



(39)

16. In order to determine the length of the tubes, drop a tape measure down to the bottom of the ceiling hole. Read the measurement at the highest point of the flashing turret (40). This measurement is what is required for the full length of the tubes. Cut the tube (41)

**If extra length is needed, follow these instructions:**

- Size the extension tube so that it fits either inside or outside of the top and bottom adjustable tubes. Mark this diameter with a pencil or marking pen.
- Peel back the protective film about 1" along the full length of the tube so that the tape will stick to the metal and not the film.

- Peel the backing paper away from the double-sided 3M™ VHB tape on the extension tube. Note: This tape sticks instantly once contact is made, and parts may not be repositioned.

- Beginning at one end, align and overlap the edge of the tube with the taped edge. Work slowly to the opposite side of the tube, and press firmly down on each side of the tube to seal the joint.

- 17.- Slide the extension tube (or tubes according to the length needed) into the top adjustable tube about 1" to 2". Next slide this extension tube component into the bottom adjustable tube.
18. When all tubes are connected, use the Tek screws on all joints, then tape the seams that are not angled with the provided foil tape (42). Note: The angled seams may need to be moved to correct for any angle in the flashing (13), or if the flashing is not directly over the ceiling hole.



(40)



(41)



(42)

19. Slide all the tubes down through the flashing until the flange is flush with the top edge of the flashing (43). The top and bottom half of the tube will need to be rotated around the angled seams to correct for any angle of where the top half of the tube and the flashing meet. Once the tube is in place, mark any excess tube extended out beyond the ceiling. Tape the angled seams with HVAC foil tape, and trim the excess (44). Replace the tube. The foam seal needs to be forced into the flashing turret so that it is level with the top of the flashing and creates a tight fit. Remove the film from the inside of the tube (45).



(43)



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(45)

20. Mount the dome on the flashing and drill 1/8" holes through the existing holes of the dome, 1/2" below the top edge of the flashing. Secure the dome with the provided four screws, including the washers and rubber o-ring (46). Do not over-tighten the screws. Once the dome is in place, seal the bottom seam on the flashing (47).

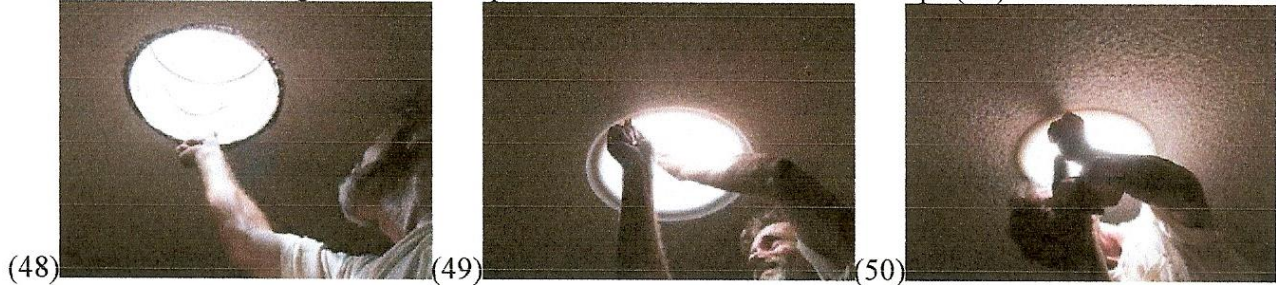


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21. Seal the bottom of the tube to the ceiling with HVAC foil tape (48). From the inside of the room, mark the location of the ceiling anchors through the diffuser holes (49). Install the ceiling anchors.
22. Secure the diffuser and gasket with the provided four screws and screw caps (50).



### INFORMATION

**The Protective film on the inside of the tubes must be peeled away from top to bottom.**

**To clean the Dome, use only mild soap & water with a soft cloth.(no abrasives)**

**The 10” Sun-Dome® System is generally sufficient to light up an area of 100 sq ft. No more than four extension tubes are recommended.**

**The 13” Sun-Dome® System is generally sufficient to light up an area of 250 sq ft. No more than five extension tubes are recommended.**

**The 21” Sun-Dome® System is generally sufficient to light up an area of 500 sq ft. No more than nine extension tubes are recommended.**

### NOTE

Be careful not to stretch the Closed Cell Foam Seal that is adhered the top of the Tube

It is best to apply some lubricant to the Closed Cell Foam Seal, such as dish soap, (no mineral based lubricant) for easier installation.

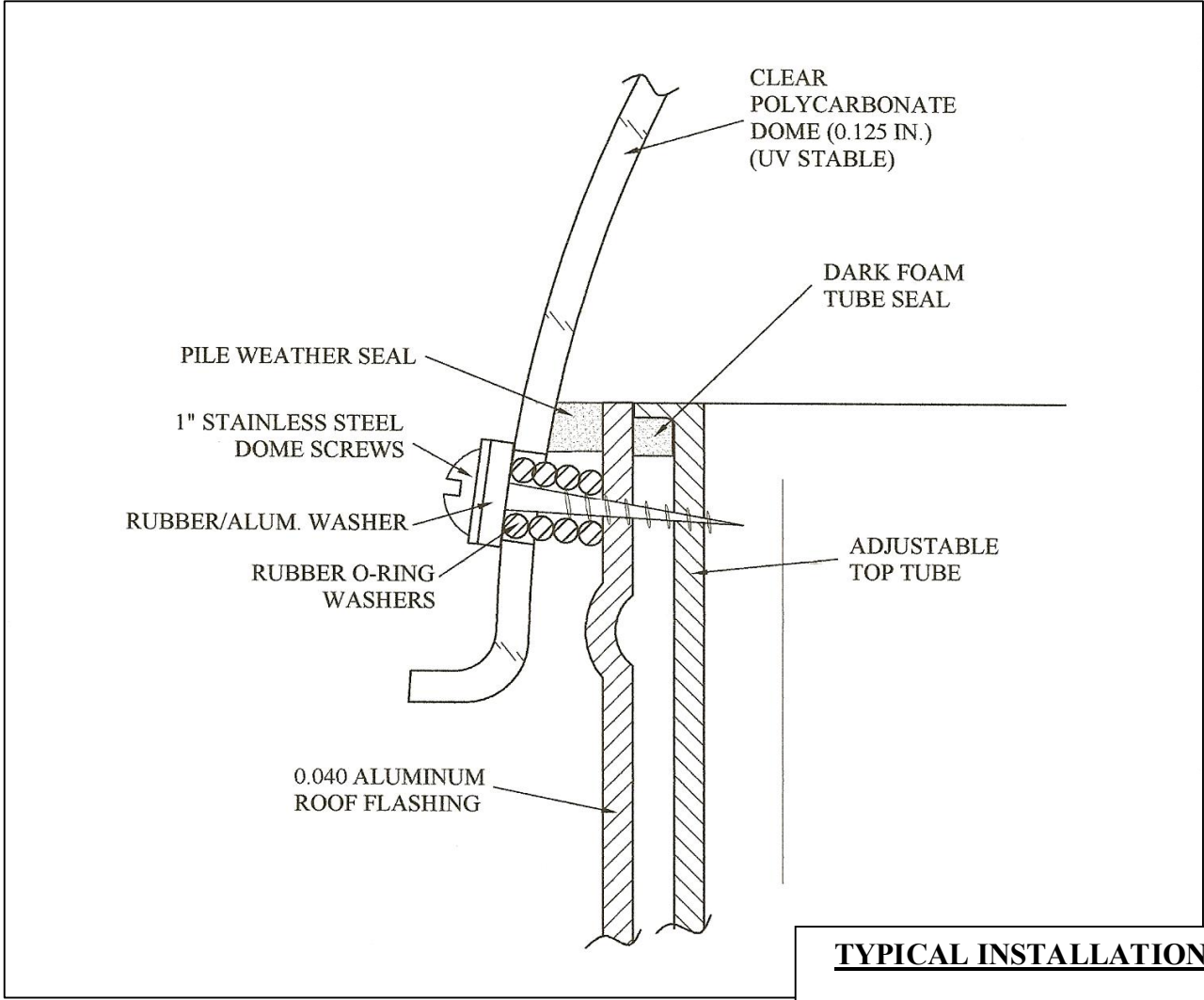
Carefully push the Closed Cell Foam Seal down into the flashing barrel so that it is flush with the top of the flashing.

**IMPORTANT: NEVER USE A MINERAL BASED LUBRICANT WITH THE FOAM SEAL SPONGE STRIP.**

### WARNING

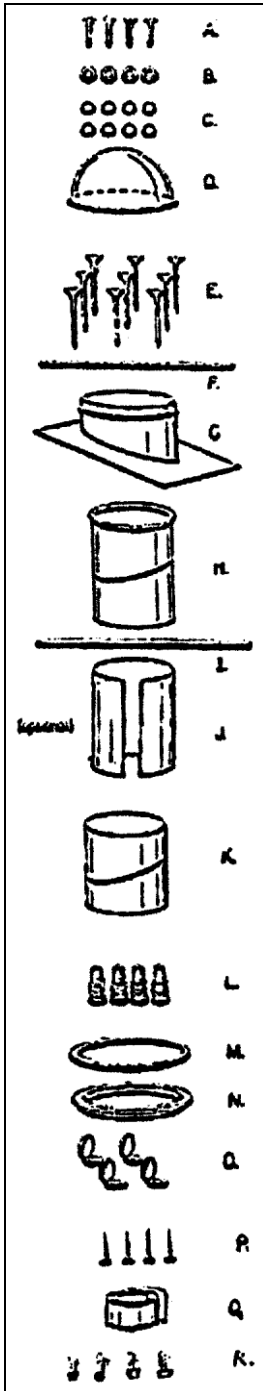
Units are not designed to withstand the weight of a person, tools or other objects. Walking or placing objects on this system could cause personal injury and/or property damage.

Do not allow tubes to be left out in sun with the PVC protective film still in the tube, because heat from the sun will melt it to the reflective interior and cannot be removed and that will ruin the tube.



**TYPICAL INSTALLATION**

**DOME & TOP TUBE  
PROFILE (N.T.S.)**



## COMPLETE PARTS LIST FOR SUN-DOME®

	<u>10"</u>	<u>13"</u>	<u>21"</u>
A.	4	5	8
B.	4	5	8
C.	16	20	32
D.	1	1	1
E.	16	20	24
F.	1	1	1
G.	1	1	1
<i>[Available for flat roofs, 2-3/12 pitched roofs, 3.5-4/12 pitched roofs, 5-6/12 pitched roofs, 7-8/12 pitched roofs, and curb caps.]</i>			
H.	1	1	0 <sup>1</sup>
I.	1	1	1
J.	opt.	opt.	opt.
<i>[Not included as part of standard kit.]</i>			
K.	1	1	0 <sup>2</sup>
L.	4	4	6
M.	1	1	1
N.	1	1	1
O.	4	4	6
P.	4	4	6
Q.	1	1	1
R.	12	12	8
S.	0	0	20

**Dome screws come assembled with washers & O-rings.**

**Diffuser screws come assembled with anchors & screw caps.**

**All kits include 10 Year Warranty, Warranty Registration Form, Instructions.**

**Dade County Hurricane Impact Approval and 2 Brochures.**

**All kits also include an inside Turret Seal (adhesive) pre-applied.**

1. Note: Extension Tubes are available as an option, per job situation.
2. Note: 21" Kit Tubes are straight. 21" Kit Elbows optional.