

Installation and Mounting Guide

Spectrum Flexible Tube Kit

Thank you for purchasing a SkylightTube from U.S. Sunlight Corp. We are committed to providing alternative energy products that can improve your everyday life and our environment.

If there is a problem with your U.S. Sunlight product call us at 1-877-50-USSUN

Spare parts, installation advice, or recommendations for professional installers in your area are only a phone call away. Professional installation may be much less than you expect, please call us to get average rates for your area.

Please note that this product is designed for asphalt shingles. If you have spanish tile, s-tile, concrete, metal or flat roof, please call us before attempting to install the product.

Before beginning the installation of your new SkylightTube, please read through the entire installation instructions and call us if you have any questions.

TOOLS REQUIRED

- Ladder
- Reciprocating saw or jig saw
- Power drill with a 1/2" – 1" inch drill bit (only one needed)
- 1 – 2" deck screw and screw bit
- Hammer & roofing nails or self tapping galvanized screws (included)
- Tin snips or wire cutters
- ASTM D 4586 Type 1 Asphalt Roofing Cement
- Measuring tape or ruler
- Pencil or chalk
- Roofing knife or box cutter
- Flat pry bar
- Sheetrock saw
- Adjustable Wrench or Pliers
- Phillips Screwdriver or Drill Bit

	Spectrum Size	Ceiling Hole Radius / Diameter	Roof Hole Radius / Diameter
2114ST	14"	7.25" / 14.5"	7.25" / 14.5"
2118ST	18"	9.5" / 19"	9.5" / 19"
2121ST	21"	11" / 22"	11" / 22"

When deciding on a location for the SkylightTube, it is important to:

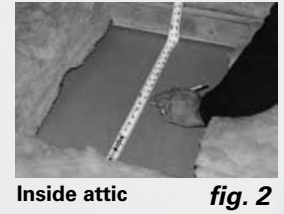
- Make sure you are locating the final position centered between two ceiling joists. If your ceiling joist spacing is less than the recommended spacing, refer to your local building code prior to cutting a rafter or ceiling joist.
18" Spectrum SkylightTube requires 19" BETWEEN rafters and ceiling joists.
21" Spectrum SkylightTube requires 22" BETWEEN rafters and ceiling joists.
- Before beginning the installation, make sure there are no obstructions in the attic space and on the roof where you would like to install the the Skylight Tube.
- Confirm the greatest distance between the ceiling hole location and the roof dome location is no more than 7½ ft. If the distance is greater than 7½ ft., order the sufficient amount of Rigid Tube Kit to accomodate your installation needs.



ATTENTION: Please consult a professional installer if you are unsure of where to locate your SkylightTube or if you do not feel comfortable with the installation process.

Step 1 - Location of the diffuser

Determine where you wish to install the SkylightTube (**fig. 1**) and from inside the attic, clear out the insulation in the desired location, center a nail or piece of wire between the ceiling joists and through the drywall so it is visible from the ceiling below. (**fig. 2**) If using wire, put a 90 degree bend in the wire so it won't drop through. (**fig. 3**) **Alternately, you can drive a nail up into the ceiling where you wish to locate the diffuser and find the location in the attic. Then find the closest center between rafters.**



Inside attic **fig. 2**



fig. 3

fig. 1

Step 2 - Cutting out the ceiling hole

Use the included template (included in the Ceiling Parts Box) for marking the ceiling hole; or simply use the ceiling frame as a template and draw the hole to be cut.

Begin cutting the circle with a drywall saw (**fig. 4**) as you get to the end of the cut hold on to the wire or nail to brace the material for removal. (**fig. 5**)



fig. 4



fig. 5



fig. 6

Step 3 - Installing the Ceiling Frame

Insert the Ceiling Frame and attach with the included 2" Ceiling Frame Screws and plastic lugs. The plastic lugs are placed on the top side of the ceiling. Fasten the screws through the holes in the ceiling frame, the ceiling and into the white plastic lugs and tighten. (**fig. 6**)

IMPORTANT: Check that your Diffuser sits flush and the magnets lock onto the ceiling frame magnets correctly. If your ceiling is not flat, you may need to loosen one or two screws slightly allowing contact of all magnets. Once this is addressed, put the Diffuser aside until Step 9, and place white screw caps into the screws to cover them.



fig. 7

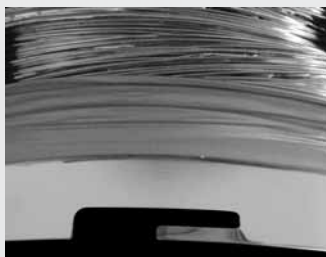


fig. 8

Step 4 - Attaching flex tube to the roof dome

Push the Stainless Steel Ring (with the flex tube installed) into the underneath of the Black Breather Frame (**fig. 7**), lining up the slots (**fig. 8**) in the Ring with the Lugs in the Breather Frame. Twist the Stainless Steel Ring to lock it into position.

Refer to Step 11 to enable ventilation capabilities on the roof dome before installing on the roof.

Step 5 - Cutting the roof opening

From inside the attic, locate the desired position for the flashing and dome opening. Generally, directly above the ceiling opening is optimal but this position can vary depending on your particular attic conditions - keep bends to a minimum and do not bend more than a 45° angle. Start by measuring the distance between the 2 rafters and mark the center location. (**fig. 9**) You should have a minimum distance between them to allow for a **14.5" (for 14" Spectrum), 19" (for 18" Spectrum), or 22" (for 21" Spectrum)** hole to be cut. Drive the 2" deck screw through so that it shows on the outside roof surface. (**fig. 10 and 11**)



fig. 9



fig. 10



fig. 11

From on the roof, measure 7.25" (for 14" Spetrum), 9.5" (for 18" Spectrum), or 11" (for 21" Spectrum) out and mark from both sides of the exposed screw, **(fig. 12)** repeat this at 90 and 45 degree angles to achieve a circular pattern (or use provided template as in Step 2). Then draw in the pattern with chalk. **(fig. 13)** Using a 1/2" drill bit, drill a pilot hole on the edge of the circle to fit the saw blade for cutting. **(fig. 14)** Start cutting the circle with a reciprocating saw, as you reach the end of the cut secure the material by holding onto the exposed screw so it won't fall into the attic space **(fig. 15)** Remove the disk of material and discard **(fig. 16)**

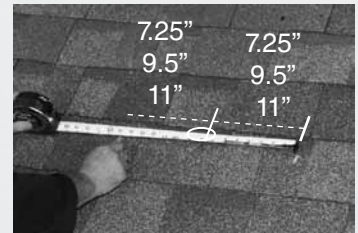


fig. 12



fig. 13



fig. 14



fig. 15



fig. 16

Step 6 - Dome Installation Preparation

Drop the flex tube into the roof opening **(fig. 17)** then set the flashing assembly into position and make a note of the outer footprint or mark with chalk. **(fig. 18)**



fig. 17

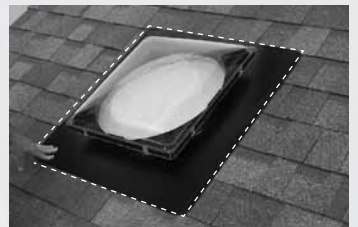


fig. 18

Step 7 - Remove the surrounding shingles

Once you know the outline of the flashing, remove the surrounding shingles with a pry bar. **(fig. 19)** Composition asphalt shingles can be installed in various sizes depending on your roof configuration so it is recommended that you remove the entire piece as you find it in the footprint of the Skylight Tube flashing **(fig. 20)** Make sure you remove enough shingles to allow the upper 2/3rds of the flashing to make direct contact with the sheathing and roof underlayment **(fig. 21)** Save all of the pieces you remove for re-installation later.



fig. 19



fig. 20

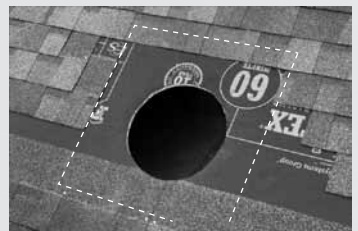


fig. 21

Step 8 - Install the flashing assembly

When you are ready to install the flashing assembly, first apply a bead of asphalt roofing cement to the underside of the flashing base. **(fig. 22)** Re-install the flex tube into the roof opening and carefully place the top of the flashing underneath the top-most row of shingles. **(fig. 23)** Line up the bottom of the flashing with the shingle line and drive screw into the center hole on the bottom as shown in **(fig. 24)** This will allow you to fine tune the angle if necessary. Use standard 1.5" roofing nails or screws (not included) to secure the flashing in place **(fig. 25)** There are 7 positions as shown in **(fig. 26)**



fig. 22



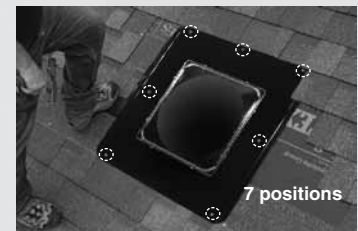
fig. 23



fig. 24



fig. 25



7 positions

fig. 26

Step 9 - Replace the shingles

Use a framing square to cut the replacement shingles to size. **(fig. 27)** Generally, you will want to reinstall each row so that they overlap the flashing up to 5 1/2 inches from the outer edge of the flashing as shown in **(fig. 28)** Trim excess material from shingles so they can fit around with the same 5 1/2 inch overlay. **(fig. 29)** Use roofing nails and asphalt roofing cement to re-attach the shingles. For ideal fit and finish, we recommend covering the flashing with shingles leaving only the bottom center area of the flashing exposed as shown. **(fig. 30)**



fig. 27

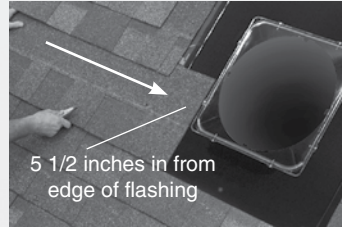


fig. 28

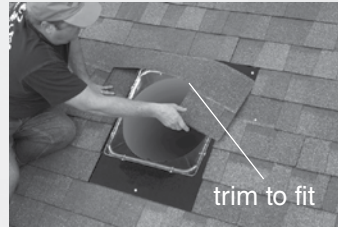


fig. 29

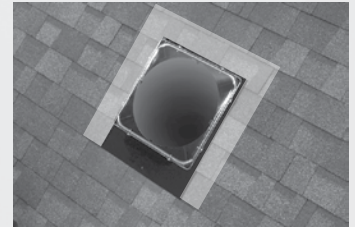


fig. 30

Step 10 - Secure the flex tube to the ceiling frame

Reach through the ceiling frame and pull the flex tube through the ceiling frame and into the room. Continue pulling until it is tight, the wires will lock onto the lip at the top of the ceiling frame. Cut the flex tube off level with the bottom of the ceiling frame. **(fig. 31)**

Fit the white plastic flex tube locking ring into position with the provided countersunk screws. Start at one end and work your way around the locking ring. Be sure to line up the 2 x recesses in the flex tube locking ring with the recesses in the ceiling frame. **(fig. 32)**

Fit the diffuser into position. Ensure you line up the magnets in the diffuser holder with the magnets on the face of the ceiling frame. **(fig. 33)**



fig. 31



fig. 32



fig. 33

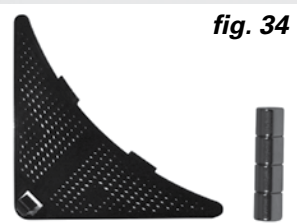


fig. 34

Step 11 - Passive Ventilation Option

4 roof dome corner vents and additional magnets are included to enable the ventilation option on the Spectrum Skylight Tubes. **(fig. 34)**

Replace the factory installed 4 roof dome corners with the ventilating roof dome corners. **(fig. 35)** Place the extra magnets as a spacer between the diffuser holder magnets and the ceiling frame magnets. This gap will create the passive ventilation into the tube and out through the roof dome. **(fig. 36)**



To replace solid dome corners to ventilating corners, pull the underside tab outwards to unlock and pull down on the tab to release the corner.

fig. 35

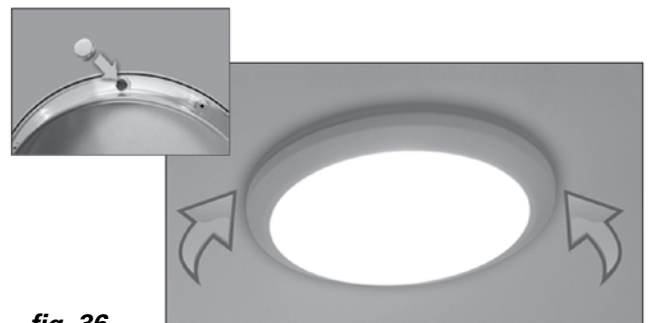


fig. 36

SPECTRUM™

SKYLIGHT TUBE

Parts List

Tel: 877-50-USSUN

www.ussunlight.com

support@ussunlight.com

1. Roof Parts

- Metal Flashing
- Clear Dome - Pre-attached to the Breather Frame
- Breather Frame - Pre-attached to the Metal Flashing
- Tabs (Blank/Blank and Blank/Vent)

Roof Dome



2. Tube Parts

- Option 1 - Flexible Tube
- Option 2 - Rigid Tube
 - A. Upper Ring
 - B. 2 ft. Straight Tube Sections
 - C. Angle Adapter

Option 1



Option 2



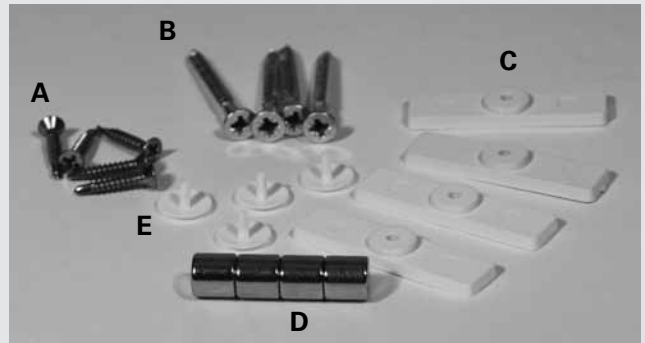
3. Ceiling Parts

- Ceiling Frame
- Diffuser/Diffuser Holder
- White Plastic Locking Ring
- Screw Packet
 - A. Locking Ring Screw
 - B. Ceiling Frame Screws
 - C. Plastic Lugs
 - D. Diffuser Magnet (available for passive ventilation option)
 - E. Screw Caps

Ceiling Lens



4.





WARRANTY

Manufacturer's Limited Warranty

Manufacturer warrants that certain of its product components are free from defects of workmanship and/or materials for a period of time commencing on the date of original purchase and continuing as noted hereafter: (a) roof flashing for a period of ten (10) years (b) flexible tubing for a period of ten (10) years (c) ceiling lens diffuser house for a period of ten (10) years.

Disclaimer

Except as expressly set forth herein, all Manufacturer's products, including components thereof, are sold "AS IS" without warranty of merchantability, fitness for intended purpose, or other warranty, express or implied. In no event shall Manufacturer be liable for the loss of profits, indirect, special, incidental, consequential or other similar damages, including but not limited to any claim or demand arising out of the installation, furnishing, or functioning of a product or use by purchaser or any third party. The warranty terms and conditions detailed above do not extend to misuse, neglect, abuse, alteration, exposure to extreme weather conditions, lightning strikes, physical damage to any product, or damages caused by transportation or installation of any product. Manufacturer explicitly does not warrant any labor, shipping, or service fees incurred by purchaser for the replacement, repair, or exchange of any product or product components claimed under the above warranty terms and conditions.

Warranty Claims

Warranty claims shall be submitted in writing to Manufacturer at its principal place of business. Claims shall include a copy of the original purchase invoice, purchaser's name, address, telephone number, and e-mail address, and such other particulars as are necessary to describe the claimed defect. If requested by Manufacturer, purchaser shall ship the claimed defective component(s) to Manufacturer's principal place of business, FOB destination, freight prepaid, for evaluation. As to any product component determined by Manufacturer to contain a defect covered by its warranty, Manufacturer reserves the right, at its discretion, to repair or replace the defective component, or rebate a portion of the purchase price prorated based on the balance of the warranty term.

General

This limited warranty contains all of the terms and conditions of Manufacturer's warranty of the purchased product and its components. No representation, arrangement, or agreement not appearing herein shall be binding on Manufacturer. This limited warranty is issued in and shall be governed by the laws of the State of Nevada.

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REGISTRATION

WE WOULD LOVE TO HEAR FROM YOU!

To register please visit our website: www.ussunlight.com

or simply fill out this form and mail to:

923 Tahoe Blvd. Suite 110 | Incline Village, Nevada 89451

Name _____ Phone _____

Address _____

City _____ State _____ Zip _____

Email _____ Would you like to be included in our newsletter? Y or N

Product Name _____ Date of Purchase _____

Purchased From _____ Name of Installer _____ (self)

Phone # of Installer _____ How satisfied are you with the install? Not Satisfied Somewhat Very

Comments _____