



# Installation Instructions

## For Metal Roofing

**Special Skills are required for the preparation and installation of this product.**

*Tru-Lite Tubular Skylights, Inc. recommends that a licensed insured independent contractor install the Tru-Lite Tubular Skylights in your home or office. There are a number of hazards involved for the inexperienced "Do It Yourself" installer. Handling components such as the roof flashing and aluminum tubes that have sharp edges and corners present a number of possibilities for injury. Use of tools necessary to remove the finished roofing and to cut into the roof and ceiling may expose installer to serious injury. The use of ladders to gain access to the roof and work involved may subject the installer to falls and injury. Contact with electrical lines, antenna guide wires and other obstructions could cause serious or permanent physical injury.*

**For these reasons, we disclaim any liability for customers who proceed with their own installation.**

*In your local area, installers used and recommended by Tru-Lite Tubular Skylights, Inc. are independent contractors; not employees or agents. They possess necessary experience, personnel, tools and equipment to do the job. Contractors recommended have acknowledged to us they possess a current valid contractors license and all necessary insurance coverage required by law.*

## Tools and Equipment needed

Here is a list of the required and recommend tools to perform your self-installation.

### Required tools

Ladder	Stud Finder	Tape measure
Drywall Saw	Plumb Bob	Tin Snips
Caulking Gun	Sawzall	Flat Pry bar
Flashlight	Cordless Drill	¼” screw bit and #2 Phillips bit
Carpenters Crayon	Drywall cutter	Razor Knife
Pliers	One 10d Nail	Large Trash Bag
Hammer		

➤ **NOTE: WE RECOMMENDED YOU READ THE ENTIRE INSTRUCTION MANUAL PRIOR TO INSTALLATION. IF YOU HAVE ANY QUESTIONS PLEASE CONTACT US FOR ASSISTANCE.**

## Choosing a location

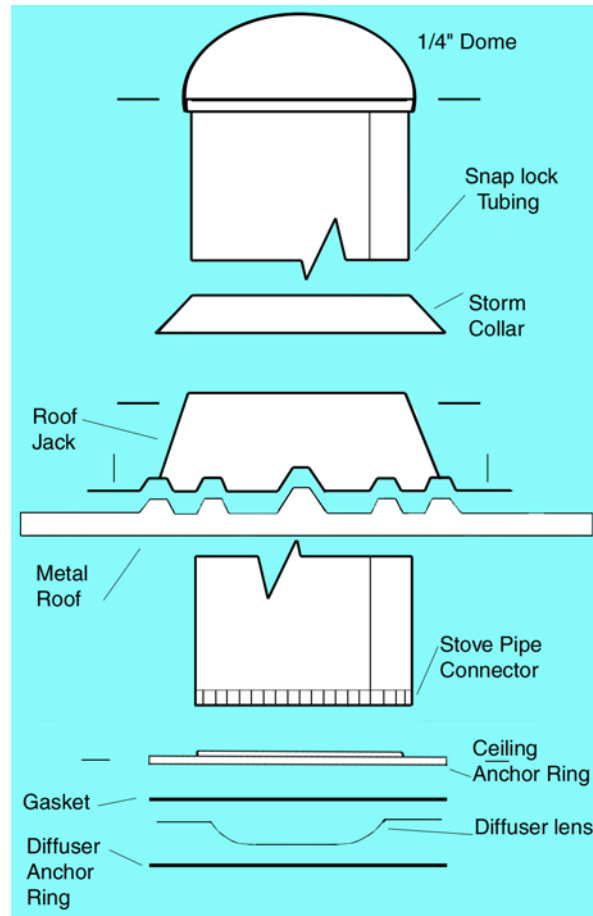
During the planning stage of your installation it is helpful to verify a few things. You may want to verify whether your home was built with a truss system. If you are installing on a Metal Building you will want to take into account the location of the perlines and main frames so you don't get shadows from the framework.

### Mark your selection

Determine how many units you need in the room to maximize the amount of light. Consider the square footage each unit covers. A 12” skylight provides up to 300 square feet of natural light. A 16” skylight provides up to 500 square feet of natural light.

Setting the skylight in the center of the room provides the most light for that room. If installing several lights the best location would be evenly spaced throughout the room.

***NOTE: Placing a skylight in close proximity to a ceiling fan is not recommended.***



## Warehouse Installation

Once you determine there aren't any obstructions preventing the skylight from penetrating the roof sheeting, make sure nothing is going to impede the light emitted from the skylight.

**Remember the convex jeweled diffuser spreads light though the area, so make sure no shadows or lighting loss is going to be caused by obstructions. Ideally the skylight should be centered in a bay.**

Before doing any cutting, take the roof jack up on the roof to make sure the jack profile is compatible with the metal roof profile. Adjustments of up to 3/16" can be done on site with the mastic provided.

A) While inside the warehouse, locate the placement of the skylight(s) and proceed with the following steps for each one. On a ladder or a forklift crib cut the insulation in a "X". If a 12" kit is being installed, each leg of the "X" should be slightly longer than 12". If a 16" kit is being installed, each leg of the "X" should be slightly longer than 16".

B) Once the insulation is cut, run a screw through the roof sheeting (remember the roof jack is centered on a high rib) in the center of the "X" insulation cut. This will help locate the desired skylight position on the roof.

C) Take a jack to the roof and locate the screw. Center the jack over the screw and use it to draw a circle where the roof need cut.

Using a sawzall cut the roof sheeting where the roof jack circle has been traced. The hole should be cut on the outside of the traced circle.

D) Mount the roof jack by placing it over the cut hole to determine where the mastic tape should be applied. Trace the outside edge of the roof jack on the roof sheet. Apply the mastic to the roof sheet making sure the mastic is applied continuously with no gaps.

Place the jack over the mastic. Any adjustments in the jack profile can be adjusted up to 3/16" by shaving the mastic.

E) Using the 14 (fourteen) Long Life self-drilling screws (the heads of these screws are painted white from the factory) screw down the jack by placing one in each of the pre-drilled holes.. Make sure the labeled side of the jack is facing the high side of the roof. If the roof is not a 1:12 roof pitch, the jack collar will need to be trimmed in the field to conform to the proper roof pitch. Once the jack is screwed in place, run a bead of caulk around the edge of the jack and rub it in with a finger. Check to make sure the seal is complete.

F) Next, a partial assembly needs done while inside the building. Leaving the tube unassembled, score the protective coating along each of the lock seam edges inside the reflective surface of the tube. Remove the protective plastic film, including the two strips remaining on the lock seam.

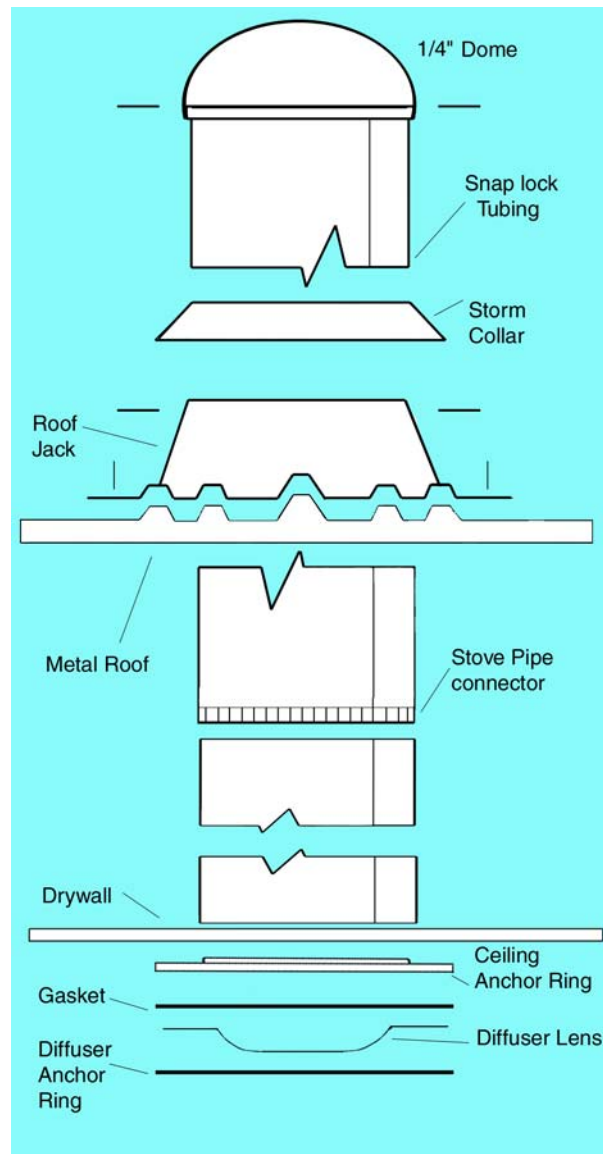
G) Assemble the tube by inserting the notched end into the locking groove. Apply slight downward pressure to obtain a firm lock. Continue with insertion of the notched end to the bottom of the tube. When fully locked, there will be a definite "click" indicating the lock has been set. Stand the tube on end and be sure both ends come together evenly. Apply a thin bead of caulk to the outside of the lock seam and spread in with a finger to seal the lock.

H) Stand the tube on its end with the stovepipe end up. Place the ceiling anchor ring firmly over the crimped end of the tube and screw in place using the pre-drilled holes in the ceiling anchor ring. Use four of the eight silver self-drilling screws provided. Place the diffuser gasket on top of the ceiling anchor ring, followed by the diffuser, and finally snapping down the finishing ring holding all in place.

Using a ladder or forklift cage from the inside of the building, slide the tube up through the hole in the metal roof and the roof jack. The excess insulation will need to be cut away, but leave it as tight as possible to the tube. Push the tube up until the ceiling anchor ring is against the insulation. While the tube is held in place from the inside, install four of the silver self-drilling screws through the jack and tube on the roof. This will secure the tube in place.

I) On the roof screw the tube to the jack make sure the caulking on the lock seam on the tube has not been jeopardized. Caulk the top of the jack and tube transition, as well as the four screws securing the tube to the jack. Slide the storm collar around the exposed tube above the jack and caulk in place.

J) Place the dome over the end of the tube. Firmly press down on the dome to compress the dome gasket and screw in through the pre-drilled holes in the dome using the three remaining screws provided. Run a bead of caulk around the dome and tube transition. Check for weather tightness.



### Tenant Finish \* assuming the ceiling is drywall

Choose the installation location and mark your selection just as you would for the warehouse. Using a stud finder, locate the roof truss/joist closet to each desired location. You'll need approximately 6 1/4" from the center of each adjoining truss/joist to allow tubing to pass through the ceiling material. Once you've determined where it is to be placed, hammer a medium sized nail through the ceiling into the space above. Remove the nail & push the probe through the hole.

Enter the "attic area and locate the general area where Tru-Lite is to be installed. Locate the probe you inserted and push aside any and ALL insulation from the area to expose the drywall on the ceiling. Double check your measurements to be sure you have the 6 1/4" clearance mentioned before. If not enough clearance, rethink your placement and measure again.

Using a plumb bob, attach the top of the string to the underside of the roof and align it with the probe to assure a straight line to the roof.

Go back to the "Warehouse Finish" section and put a screw into the roof as instructed in "B" .

Complete instructions C, D, E

With a Tenant Finish you'll probably need more than one (1) tube, so complete instructions F & G to assemble the number of tubes or partial tubes you'll need.

## Cutting the Ceiling

Locate the hole you pushed the probe into. Use a circle drywall-scoring tool and mark the circle to be cut out. As an alternative, you could use the inside diameter of the Ceiling Anchor Ring as a template to trace the circle to be cut. Once you have the circle marked you will need to **ADD ½"** to the diameter to allow the ring to seat into the drywall.

Using tape or pushpins, attach a large trash bag to the ceiling on three sides around the area to be cut out. This gives you a place to watch what you're doing and still catch the mess. To prevent the drywall from falling to the floor outside the bag, put the drywall knife inside the bag and grasp it from the outside, allowing you to control where the dust falls. You can discard the drywall circle in the bag with the rest of the waste.

## Attaching the Ceiling Anchor Ring

Snap apart the Ceiling Anchor Ring, Prismatic Diffuser and Finish Ring.

Place the Ceiling Anchor Ring into the cut hole attaching it with the screws and backer tabs, included, screwing the screws into the precut holes.

Once the screw is completely inserted, place the backer tab over the screw and tighten until snug against the drywall. Repeat this step for all screws and backer tabs.

## Setting the diffuser lens

With the Ceiling Anchor Ring secured in place, you will **temporarily** install the Prismatic Diffuser lens, leaving the plastic bag on it. Place the lens over the Ceiling Anchor Ring and snap on the Finish Ring.

➤ **NOTE:** *Be sure to leave the protective bag over the lens to prevent damage when cutting the roof opening.*

## Building the Dome Tube

### Assembling the dome tube section

See "G" and follow the instructions. The tubing comes with a plastic coating to prevent damage during transit. Score the coating on both sides of the snap lock seams, pry up the edge and peel it off. Peel the coating off the surface of the tubing. Line up the edges of the snap lock seam down the length and apply pressure at the center of the tube. The sections will lock into place. If you need to unlock them during the installation process, lay the tube down horizontally; put pressure on the center of the snap lock seam and it will pop apart. **SKIP H & J THEY'RE COVERED ELSEWHERE.**

Once the tubes are assembled, you'll need to remove the protective coating from the inside of the tube if you haven't done it already. Pry up the corner and peel it off **ALL** tubes.

### **Attaching the dome**

Remove dome from its protective bag. Remove the three set screws for attaching the dome. You'll be able to distinguish these from the others because of the neoprene gasket under the head.

Set one tube section on the ground with the corrugated end down. Using a pair of pliers compress the top of the snap lock seam going down approximately ½".

Use your tape to measure the distance from the ceiling to the top of the roof jack. You will need to add six inches (6") to the measurement to allow for proper spacing between the dome and storm collar. Each section of tubing is 22" in length when assembled properly. Using the measurement you just took, determine how many sections of tubing will be required. Line up the snap lock seams on the tubes. If you haven't assembled, all the tubes needed for this installation go back to the instructions for assembling the tubes and complete the job.

### **Elbows**

If elbows are required for your installation you will need to prepare the elbows for installation similar to the tube preparations. Remove the protective film from inside the elbows.

The elbows can be turned in 2 locations to achieve the appropriate angles necessary for the installation. Ensure that the protective film is removed from these joints to allow for easy adjustments.

### **Cutting tube to length**

If you need to cut some length off the bottom tube, it is easier to do while the tube is unassembled.

*If it is necessary to cut a length of tubing, follow these steps.*

Assemble the bottom tube. Fit the tube that needs cut together with another section by placing the crimped end into a smooth end.

Measure from the connecting seam toward the smooth end of the tube and mark the tube.

Mark the tube in several locations around the span to assure an accurate cut.

You will be adjusting the length of tubing needed for the job by cutting from the smooth end. Take the tube you need to cut apart and lay it flat on a solid surface.

Using your tin snips, follow the marks you made and cut the tube down to correct length.

Complete the assembly directions for the cut tube as you would for the other tubing sections.

### **Connecting the Sections**

Now that the tubes are assembled, insert the bottom (crimped) end of the tube with dome attached, into the smooth end of another tube and slide it up toward the top until it is firmly in place. Continue until all the tubes you need for the job are attached.

Using the Aluminum Foil Tape, remove the backing and apply it on the seam (centered) between the sections on the outside of the tubes at each horizontal junction.

Apply pressure to firmly attach the tape.

Once the tape is started, continue the taping process until the tape has overlapped itself at least 2”.

The tube sections need to be secured using the short sheet metal screws in the screw packet.

A minimum of three screws should be used at each junction.

Ensure the screws are applied to the overlapping section of the tubing and go completely through to the inside tube section.

### **Inserting the Tube section**

While on the roof, raise the combined tube sections with the dome on the top and slide them into the opening in the roof jack. If the tube sections will not slip through the opening easily, trim the roof jack as appropriate and try again.

Once the tubes have been inserted in the roof jack and you are able to look through the dome you must line up the tubes with the gasketed channel in the Ceiling Anchor Ring. You may need to turn the tube sections to best align the bottom of the tubes with the Ceiling Anchor Ring. The tube section should touch the ring all the way around to ensure a proper seal in the ring.

With the tube sections sitting in the channel of the Ceiling Anchor Ring you will need to attach the Domed tube to the roof jack using the included sheet metal screws. The screws should be placed 1” below the top rim of the roof jack in a 3-way pattern.