

## CM / CMA / HCMA / MD-HCMA – Curb Mount **Polycarbonate Skylight Installation Instructions**



WARNING: Please take the time to read through the ENTIRE instructions prior to starting any work. Not following the instructions will invalidate the warranty.

#### **TOOLS REQUIRED:**

- 2" x 4" Lumber
- #8 x 1 5/8" Truss Drywall Screws
- Crow Bar
- Drywall Saw
- Drywall Screws
- Flashing Tape
- Hammer
- Level/Plumb Bob/Square
- Plywood/Drywall
- Reciprocating Saw
- Roofing Material/Shingles
- Roofing Felt
- Safety Glasses
- Sealant & Gun
- Tape Measure
- Utility Knife





## IMPORTANT PRECAUTIONS:

Skylights are subject to condensation caused by warm moist air rising from the room below. Insulate the light shaft and other areas surrounding skylight to minimize condensation. In some cases, the light shaft may require special ventilators to remove moist air.

■ Be sure the skylight remains adequately supported by the roof if either headers or rafters are setback from edge of the rough opening to prevent roof failure and possible injury.

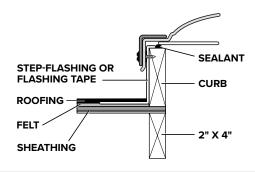
#### IMPORTANT WARNINGS:

- Do not cut roof trusses. If trusses must be cut, obtain expert guidance from an architect, structural engineer, or roof truss manufacturer. Work from professionally prepared plans.
- Support the roof with braces before cutting rafters, to prevent roof failure which can cause severe injury and structural damage.
- Obtain guidance from an architect or structural engineer, if more than one rafter is cut to prevent roof failure and possible injury.

## **IMPORTANT SAFETY NOTES:**

- Remove nails and other obstructions to prevent them from being thrown while cutting.
- Be sure electrical wires, pipes, and other building components will not be cut or damaged.
- Wear eye protection and follow safety procedures recommended by the saw manufacturer.
- To avoid injury or damage, use blocks or bracing to prevent cutout section from dropping as it is freed.
- Stay clear of cutting area while sawing; be especially careful of hand placement and falling debris on the interior, underneath the work area.

## INSTALLATION CROSS SECTION:



#### STANDARD SKYLIGHT SIZING CHART

MODEL	ROUGH OPENING width x length	OUTSIDE CURB width x length
1414	14.5" x 14.5"	17.5" x 17.5"
1422	14.5" x 22.5"	17.5" x 25.5"
1430	14.5" x 30.5"	17.5" x 33.5"
1446	14.5" x 46.5"	17.5" x 49.5"
2222	22.5" x 22.5"	25.5" x 25.5"
2230	22.5" x 30.5"	25.5" x 33.5"
2246	22.5" x 46.5"	25.5" x 49.5"
2269	22.5" x 69.5"	25.5" x 72.5"
3030	30.5" x 30.5"	33.5" x 33.5"
3046	30.5" x 46.5"	33.5" x 49.5"
4646	46.5" x 46.5"	49.5" x 49.5"

## STEP 1

Choose location for skylight installation. Consider natural light, sunshine and shade for overhead and eye-level placement. To optimize the view, the eye level is from 56" to 67" from the floor. Also consider attic obstructions including HVAC duct, gas/water pipes, and electrical devices.

## STEP 2

Determine type of light shaft desired.







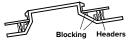
#### STEP 3

Determine header setback (optional).





# **FLARED OPENING**



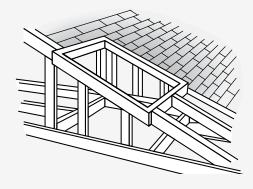
## STEP 4

Mark the planned location on ceiling. Ensure it is square and cut opening in ceiling with a drywall saw.

**IMPORTANT:** Rough openings should be made to the suggested sizes (see standard sizing chart).



## **BUILDING LIGHT TUNNEL**



In structures that have a space between the ceiling and the roof such as an attic or crawl space, a light tunnel must be built. Nailers of 2" x 4" must be used to frame the opening between the roof header and the ceiling header. These will be used for attaching the finishing material, i.e., drywall, wall board, plywood, etc. The light tunnel should be wrapped with insulation for optimum performance. Select desired shaft and frame accordingly.





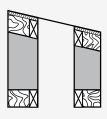
## **ANGLED SHAFT**

An angled shaft is required when when the skylight cannot be positioned directly above the area to be lighted because of existing pipes, electrical wiring, duct work, or roof limitations such as ridges or valleys. Locate the skylight as close to the desired areas as possible and then build the shaft on an angle to the ceiling opening.



## **SPLAYED SHAFT**

The splayed shaft is used to permit the greatest light exposure. This is done by making the ceiling opening larger than the roof opening.



## STRAIGHT SHAFT

A straight shaft from the roof to ceiling can be used. If the roof is flat, the ceiling and roof openings will be the same dimension. With a pitched roof, the ceiling opening will be slightly smaller than the roof opening.

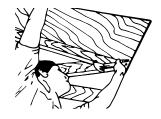
## **BUILT-UP ROOFS:**

Carefully apply hot pitch or sealant to the surrounding area and base of curb flange. Cover with rock.

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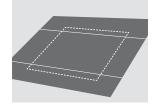
#### STEP 5

In the attic, using a plumb bob or level, plumb up from the four corners in the ceiling to the underside of the roof sheathing. Mark them by driving nails through the roof.



## STEP 6

Remove approximately 10" of the surrounding roofing material and nails from planned location. Mark perimeter of hole needed and cut opening through felt paper and roof decking.



## STEP 7

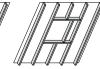
Install headers based on size of opening and rafter pattern.



Opening fits between rafters, use single headers



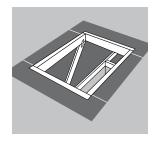
One rafter cut, use double headers



Opening ends short of the rafter, install jack rafter

#### STEP 8

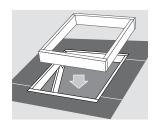
Frame out the inside of the roof opening with double headers at the top and bottom of the opening. Butt 2x4's against the outside of the truss or rafters that frame the opening, and nail into place to provide extra stability when mounting the skylight. Any rafter or truss that runs through the skylight opening must be cut to meet local building codes.



**IMPORTANT NOTE:** If the opening is too big, fill it in with the proper lumber to the suggested rough opening size or smaller.

## STEP 9

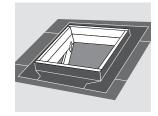
Build a curb using pressure-treated lumber (refer to chart for curb size). Curb height should be at least 3.5" high. Center the curb over opening and toe-nail to the roof deck.



#### **STEP 10**

To ensure a weather-tight installation, wrap entire curb using installation flashing tape.

**NOTE:** Install step flashing where local building code requires.



#### **STEP 11**

Replace roofing material. Apply sealant/ mastic around entire curb top. Carefully center skylight on curb and push down to ensure a good seal. Nail or screw in place through the pre-drilled holes in the side using weather-resistant fasteners. Caulk over all exposed nails and screws.

**IMPORTANT: DO NOT** use Geocel 2300® or any other incompatible sealant (see next page).





# SUGGESTED SEALANTS BUTYL SYNTHETIC RUBBER SEALANTS:

- Tremco, Inc. TremPro JS-773 Butyl Sealant Off White
- Henkle Corp. PL Ultimate Hybrid Sealant White
- Loctite Loctite Power Grab All Purpose Clear
- Liquid Nails MACCO Silicone Premium Universal Sealant Clear

**DO NOT** put roofing mastic or hot steep asphalt on the transparent plastic skylight. For best results use a high grade sealant material that has a long life. Low grade sealants should not be used.

**DO NOT USE GEOCEL 2300.** Check with the sealant manufacturer or dealer for compatibility with polycarbonate plastic.

NOTE: Compatible glazing tapes and ice/water shields may be used in place of sealants.

## CLEANING AND MAINTENANCE

When you clean your Polycarbonate skylight, use chemically compatible cleaners to ensure continued performance and product life. Your skylight(s) have a UV protective coating and are constructed of polycarbonate sheets.

- 1. Wash skylight with mild soap or cleaning agent and lukewarm water. Rinse with clear water.
- **2.** Use soft cloth or sponge when gently washing (DO NOT SCRUB), and dry gently and thoroughly with chamois or cellulose sponge.

## **Some Compatible Cleaning Materials:**

- Formula 409® (Clorox Company trademark)
- VM&P grade Naphtha
- Joy® (Proctor & Gamble trademark)
- Windex with Ammonia D® (Drackett Products trademark)
- Top Job® (Proctor & Gamble trademark)

## Some Incompatible Cleaning Agents:

- Lysol® (Sterling Drugs trademark)
- Pine Sol® (American Cyanamid trademark)

## Fresh Paint, Grease, and Glazing Compound Removal:

Remove above before drying by wiping with a soft cloth saturated with VM&P Naphtha. Then wash as in cleaning instructions.

## **Label and Sticker Removal:**

VM&P Naphtha will generally remove masking and other label adhesives. Wash afterwards as in cleaning instructions. Excessive rubbing or scraping can damage skylight surface.

**CAUTIONS:** Benzene, gasoline, acetone, or carbon tetrachloride should not be used on our skylights. Use no abrasive or alkaline cleaners. Avoid scraping with razor blades or other instruments. Do not clean skylights in direct sunlight or at elevated temperatures.