



**LIGHTLOUVER™**

**Installation Guide for the  
LightLouver™ Daylighting System**

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**Notices:**

LightLouver™ Daylighting System is a registered trademark of LightLouver LLC. Also, the LightLouver Daylighting System is protected under U.S. Patent Numbers 6,239,910 B1, 6,480,336 B2 and 6,714,352.

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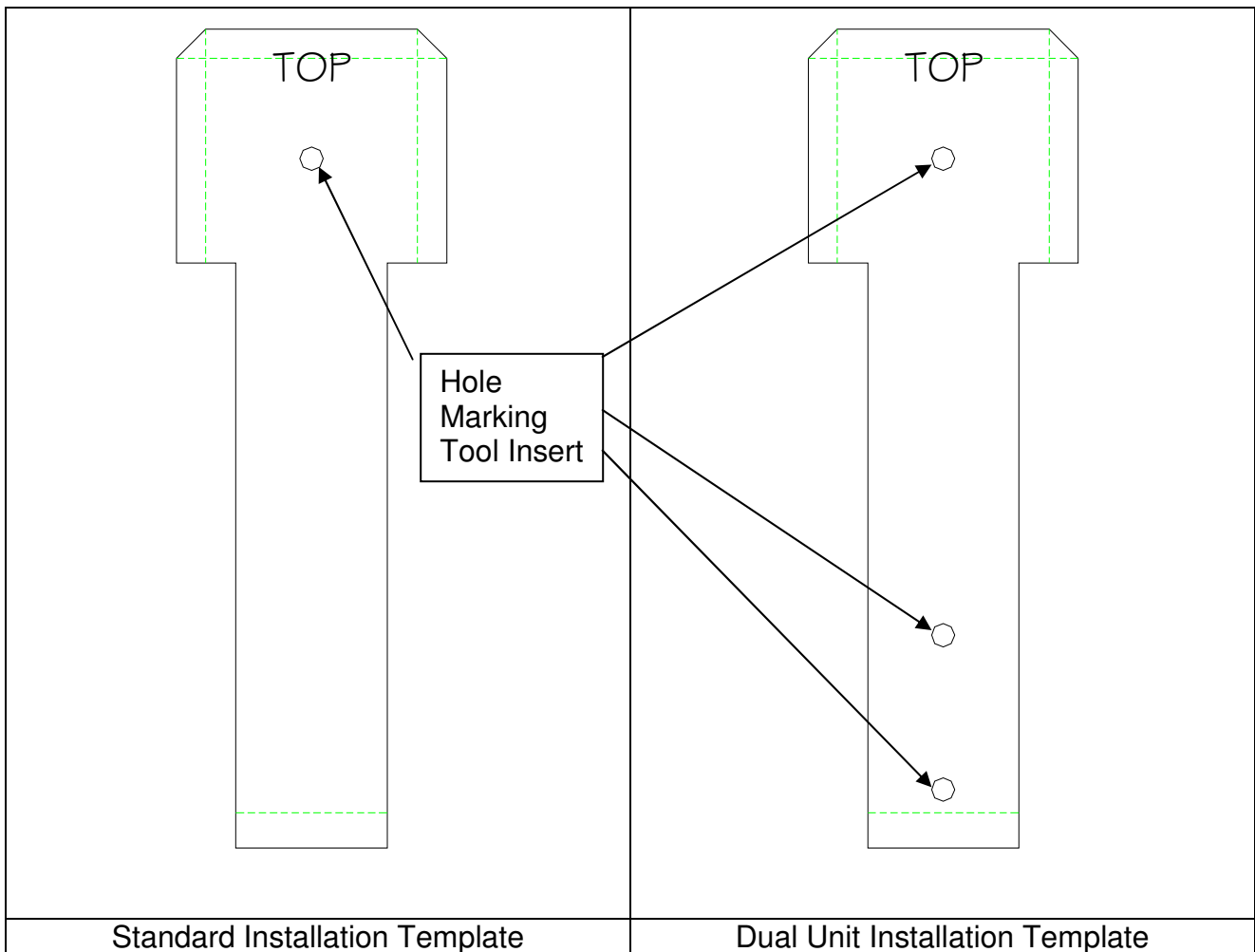
# LightLouver™ Daylighting System Installation Guide

## Introduction

This document describes the procedures and precautions that should be followed by the contractor responsible for installing the LightLouver™ Daylighting System. These recommended installation procedures and precautions should be carefully and fully followed to ensure the proper, undamaged installation of LightLouver units and to reduce the potential for harm to the LightLouver unit installers.

## Tools Required

- LightLouver installation hole locator template, shown below. One (1) template is sent to the installing contractor by LightLouver LLC.



- Battery-powered or line-powered drill with a 13/64” drill bit for the support-pivot assembly holes, if required, a 19/64” drill bit for the dual-unit U-clip support holes.
- When a dual-unit T-clip support is to be installed -- for installation of two LightLouver units in one window cavity -- a crimping tool is necessary. This tool can be purchased from the following two sources or borrowed from LightLouver LLC:
  - AVK Plier Tool – Part No. AA170 (approx. \$45.00)  
AVK Conversion Kit – Part No. AA271-1024 (approx. \$10.00)

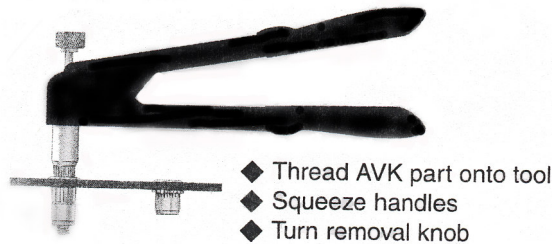
Available from:

AVK Industrial Products  
25323 Ryle Canyon Road  
Valencia, California 91355-1270

Tel: 661-257-2329  
Fax: 661-257-8043  
Web Site: [www.avkfasteners.com](http://www.avkfasteners.com)

Kemper Products, Inc.  
11603 Teller Street  
Broomfield, Colorado 80020

Tel: 303-466-1494  
Fax: 303-466-0048  
Web Site: [www.KemperProducts.com](http://www.KemperProducts.com)



- HeliCoil “pop” Setting Tool for sheet metal inserts: Part No. 60931 with nose piece for 1024 thread size

Available from:

Emhart Teknologies - HeliCoil  
1402 McGaw  
Irvine, California 92614

Tel: 949-851-2298  
Fax: 949-851-2099  
Web Site: [www.emhart.com](http://www.emhart.com)

- Rolling platform with room for two people or two ladders. The rolling platform is the recommended means to access the windows receiving the LightLouver units.

- Cotton gloves. All LightLouver unit installers must wear cotton gloves to ensure no damage or marring of the reflective LightLouver slat surfaces.

## **Installation Timing and Conditions**

LightLouver units should be installed after final construction clean-up has been completed, including all wipe-downs, floor vacuuming and window washing. Also, the HVAC filters should have been recently changed in preparation for occupancy, and the indoor environment should be essentially dust-free.

## **Installation Procedures**

The following recommended procedures should be followed when installing LightLouver units:

1. Obtain a set of drawings which designate by room number or name, the number and type (size) of LightLouver units to be installed.
2. Transport from the LightLouver unit storage location the correct number and type of LightLouver units for the specific room in which the LightLouver units will be installed. Leave the LightLouver units in their shipping containers whenever possible, or enclose the units in protective wrapping if the need arises to remove individual LightLouver units for transport. Cotton gloves should be worn at all times when handling the LightLouver units to reduce the potential for finger prints on the LightLouver slats.

Care must be used in handling the LightLouver units so that little or no torque is placed on the units by the inadvertent twisting of the LightLouver unit.

3. Carefully remove the LightLouver units from the shipping container and packaging, and inspect for damage. Report any damage to the general contractor and back to LightLouver LLC.
4. Several rolls of light-blocking strip will be provided with along with the LightLouver units. One to three light-blocking strip sizes will be provided. The 0.65" high strip will always be used on the sides and top frame. The bottom frame should receive a strip large enough to fill the gap. The other strip sizes that may be provided (determined by prior field measurements) are 0.45" and 1.25". The light-blocking strip is "T" shaped and will be slid into the "T"-slots on the LightLouver frames. Cut the light-blocking strip to the length of each LightLouver frame member. For side frame members, cut the strip the exact length of the frame. For top and bottom frame members, cut the strip 1/2" longer than the length of the frame. Install -- slide-in -- the proper length light-blocking element on all four sides of the LightLouver unit. The top and bottom light-blocking elements are designed to overlap the side light-blocking elements. Therefore, install the top light-blocking element first, then install the two side light-blocking elements.

5. When installing two LightLouver units in a single window opening, a dual-unit T-clip must be installed. Mark the exact center of the window opening. Using the "handle" side of the installation template, press the edge with the two metal inserts tightly against the window and align the point of the metal inserts with the center line. With a hammer, lightly tap the two metal inserts to "mark" the hole locations. Drill the specified size (19/64") hole into the top mullion. Screw the threaded insert onto the recommended crimping tool, hold the crimping tool with the threaded insert held tight into each hole and crimp. Using the bolts provided, attach the T-Clip by bolting it to the installed threaded inserts. Continue following the directions for each half of the window.
6. Locate a rolling platform with room for two people, directly in front of the "daylight" window to receive the LightLouver unit. Alternately, place two ladders of adequate height on each side of the window receiving the LightLouver unit.
7. Place the installation template with the edge with one metal insert pressed tightly against the upper mullion and the other edge pressed tightly against the glass. With a hammer, lightly tap the metal insert to "mark" the hole location, and then drill the specified size (13/64") hole. Do this for both the top left-hand and the top right-hand mullion corners.
8. Fully extend the support-pivot assembly "pin" located on the top left and top right sides of the LightLouver unit, which would engage into the side mullion hole.
9. With an installer on each end of the LightLouver unit, guide the side of the LightLouver unit with the extended support-pivot assembly pin into the proper top left-hand or top right-hand mullion hole. For dual unit installations, ensure the longer pin is oriented to the center of the window. Dual unit installations receive pairs of LightLouver units, one with a longer pin on one side and one with no pin on one side. Make sure to install the unit with the longer pin first as this pin is used when installing the second unit.
10. With one installer holding the secured (installed) end, the second installer should bring the LightLouver unit up into the window and align the remaining unextended pin with the other mullion support hole or T-clip support hole for dual-unit installations. Extend the pin fully into the T-clip. For dual-unit installations, the 2<sup>nd</sup> unit, which should have only one support pin, should be installed with the non-pin side engaged onto the longer pin extruding from the T-clip first. Then engage the pin side of the 2<sup>nd</sup> unit into the mullion support hole.
11. Carefully lower the installed LightLouver unit into the "daylight" window. Inspect for light leakage around the LightLouver unit frame edges, and adjust the light-blocking gasket as appropriate to eliminate any light leakage and to have a uniform appearance.
12. Remove any observable smudges or marks on the LightLouver unit frame or reflective surfaces. Use only approved cleaning agents and materials – (see LightLouver Daylighting System Maintenance Guide.)