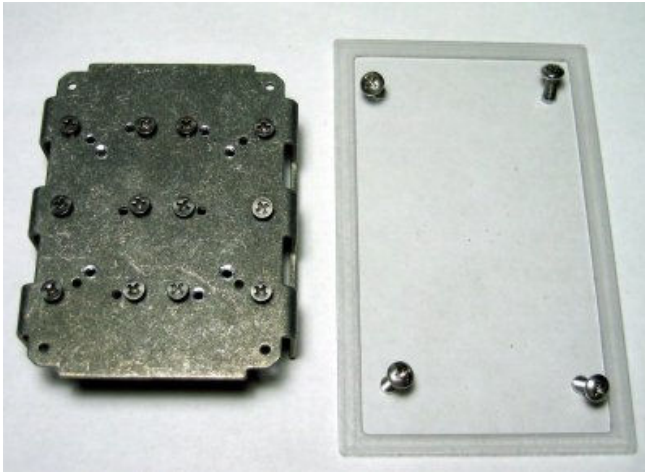


### LLK-02 LED Lighting Kit Bracket Parts



The LLK-02 LED lighting kit is specifically designed for mounting LED arrays or star-type, high power LEDs into a metal box. The LED mounting bolts allow for easy LED mounting without glue and to provide a constant pressure on the LED for good heat transfer. The aluminum bracket fits snug against the die-cast box sides to provide maximum heat transfer to the surrounding. The kit is best used with a single-gang, die-cast Thomas & Betts Red Dot Series IH type dry-tite universal box that is readily available from electrical hardware stores. This kit provides maximum performance and flexibility for LEDs lighting applications indoors or outdoors. The LLK-02 kit is also suitable for mounting instrumentation or other electronic products.

#### Specifications:

BP-LL-01 metal plate assembly:

Dimension: 2.57" (W) x 3.37" (L) x 0.77" (H)  
Material: 14 gauge aluminum (~1/16")  
Finish: Tumbled (anodised black optional)  
Hardware: 4-40 flat head SS machine bolts

WC-LL-01 Window assembly:

Dimension: 2.85" (W) x 4.60" (L) x 1/8" thick with 1/16" undercut at outer edges  
Material: 1/8" clear Lexan  
Hardware: 6-32 pan head SS machine bolts

Optional accessories:

Heatsink: TO-220 or TO-3 mounting on back.  
Enclosure: Die-cast single-gang electrical box or similar.  
LEDs: High power. 6x high power star-type, 10W max. 15W with added heatsinks.  
Onstate LI90 LED array.  
LED lens: LED light collimator (lens) and holder

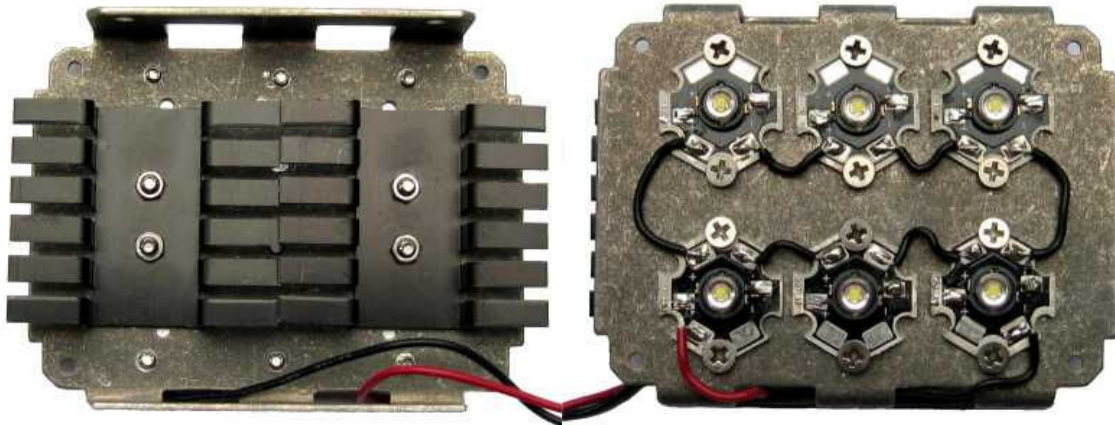
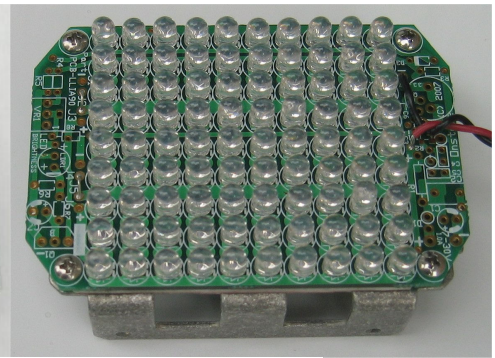
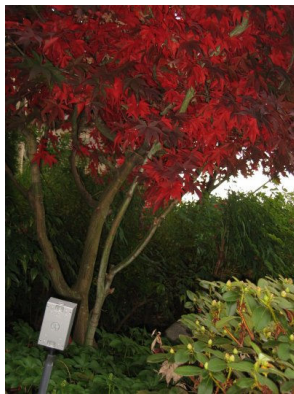
#### Installation:

Please read the appropriate data sheet prior to installation for best results. The installation should be made by a person knowledgeable in the product and conforms to all appropriate local codes. Onstate Technologies Inc. will not be responsible for injuries or damages resulting from the improper installation or use of any products sold by Onstate or its retailers. Install the product within its specification limits.

Maximise airflow to LED array for best performance. The LEDs and components get warm during operation. Do not install in an enclosed area or expose to high temperatures. LEDs are sensitive to heat and static. If the LED array is using full power in a confined location, use the appropriate heatsink and heat transfer method. Use proper care during soldering and assembly. Follow the assembly and installation instructions for quick and easy installation.

## DO NOT STARE DIRECTLY INTO THE LED ILLUMINATOR

1. Determine mounting location and mounting method for electrical box.
2. Determine power requirement for illumination required.
3. Insert metal plate diagonally half-way into die-cast box. Slide to one side inside box. Tilt plate flat. Slide to center of box. Check for fit. Press evenly and snap into place. The die-cast box is usually tapered. Some minor bending of the end tabs may be required. Bend evenly on the tab using a vice to tilt the plate tabs to the correct angle. Also a flat surface may work for minor plate bending.
4. Mount LEDs. When using a array, a heat transfer material may be required to maximise heat transfer from the LEDs to the plate. Solder LEDs in the appropriate pattern.
5. Connect the LED to the appropriate power supply and regulator. Check operating tempura of bracket and array. Extra heat sinking maybe required.
6. Insert the LED bracket into the die-cast box. Press until snug. Make sure the bracket and box metal surfaces touch.
7. Tighten cover plate. Seal conduit entry and window surfaces if using the unit in wet locations.
8. Apply power to unit.

**Product assembly:**



Bill-of-Materials for LLK-02 LED lighting kit.

Part	Application	Description
BP-LL-01-02	Bracket plate. For mounting LEDs and accessories	14 AWG aluminum plate
LLIA90	90 LED illuminator array to provide lighting.	90 LED illuminator array
LED1-6	LED lighting. High power LED	Star-type high power LED
Hardware kit	Hardware to assemble LED kit together	Various #4 and #6 stainless steel hardware
Die-cast box	Provide protection and mounting for LED bracket. single-gang, die-cast Thomas & Betts Red Dot Series IH type dry-tite universal box	Aluminum die-cast enclosure
TO-220/TO-3 heatsink	Provide extra cooling for LEDs	Large 1.75" sqr TO-220/TO-3 heatsinks
WC-LL-01	Window cover for electrical box	1/8" clear Lexan
LED driver	Provide current regulation for LEDs	LED driver and controller
Power resistor	Current limiting of regulated voltage power	1/2W-1W power resistor