



PRO6[®] LED LIGHT BAR SYSTEM

The Pro6 LED Light Bar System is engineered to utilize the Gravity[®] LED G6 Optical Inserts, and feature the revolutionary Infinity Ring[™] System - the industry's first adjustable and configurable lighting system.

- Infinity Ring[™] System - Patent Pending Application: 14/704,736
- Powered by Patented Gravity LED G6 Optical Inserts with GRD[™] Technology
- Multiple G6 Optical Insert Beams available: Spot, Spread, & Wide-40[™]
- Maximum Tune-Ability
- High Power & High Efficiency
- Trademark Four-Tab Signature Styling



SAFETY | REGISTRATION | WARRANTY

Liability Disclaimer

KC HiLiTES Inc. takes extreme measures to engineer products with the most advanced features available in the industry and tested under the most extreme conditions - it's through this rigorous process that complementary accessories are tested and developed. KC will not be liable under any circumstances if damages are sustained due to use of unapproved mounting, improper installation and mis-use of the Pro6 LED Light Bar System.



WARNING

The Pro6 LED Light Bar was engineered, designed and tested using KC approved overhead mounts. KC assumes no responsibility for any damages sustained, due to use of mounting solutions that have not undergone the same testing of KC-Mounting Solutions.

- It is highly recommended that the installation is performed by an Authorized Dealer to ensure proper installation and wiring.
- Please exercise caution during installation. Due to the size and weight of the light system, it is recommended that the installation is performed by at least 2 people.
- Pro6 configurations of 6-Rings (or more) will include a reinforcement bumpstop assembly for added stability and vibration dampening.

PRODUCT REGISTRATION

Thank you for becoming part of the KC HiLiTES family and purchasing one of our premium KC products! With over 45 years of history in the auxiliary lighting market, you have become a part of our ever growing family, and we encourage you to register your product online to ensure you get all the benefits of owning a KC HiLiTES product.

- **Receive a unique serial number certifying your purchase**
- **Fast and Easy Returns and Warranties**
- **Special offers and promotions**
- **Exclusive access to industry events**

APPLICATION GUIDE

The Pro6 LED Light Bar is the industry's first expandable and configurable LED lighting system. This instruction manual will guide you through proper installation of your Pro6 LED Light bar to allow you to take full advantage of all its features.

General Sizing

The height of the Pro6 LED Light Bar is 6" (top to bottom) with a depth of 3" (center mount to back of light). Due to the dynamic nature of the adjustable Infinity Rings, the width of the light bar changes based on the configuration. When considering the application, please reference the size range in the table below.

APPLICATION	WIDTH (MIN-MAX) Full Radius - Straight	RADIUS POINTS	WATTAGE
#91306 - 32" PRO6 5-RING SYSTEM	32.64" - 32.88"	4	100W
39" PRO6 6-RING SYSTEM	38.85" - 39.13"	5	120W
45" PRO6 7-RING SYSTEM	45.02" - 45.38"	6	140W
#91308 - 50" PRO6 8-RING SYSTEM	51.13" - 51.63"	7	160W

APPLICATION TABLE

Vehicle Specific Applications

The following vehicle specific kits were developed with a pre-configured Pro6 - Complete with harness, switch kit, and vehicle-specific mounting brackets for the ultimate, direct bolt-on, turn-key solution. Please find the recommended configuration for your vehicle specific application.

VEHICLE	PRO6 APPLICATION	RECOMMENDED CONFIGURATION	#Bumpstops
#91309 - 2013-2016 CAN-AM MAVERICK	6-RING SYSTEM	Straight	-
2014-2016 POLARIS RZR	5-RING SYSTEM	Full Radius	-
2016 YAMAHA YXZ1000R	6-RING SYSTEM	Full Radius	1
#91313 - 2007-2016 JEEP JK/JKU WRANGLER	8-RING SYSTEM	Radius Every Other Link	1
#91312 - 1996-2006 JEEP TJ WRANGLER	8-RING SYSTEM	Radius Every Other Link	1
#91311 - 2010-2015 FORD F150	8-RING SYSTEM	Full Radius	1

INTRODUCTION

The Pro6 LED Light Bar is driven by an interchangeable G6 Optical Insert. Encapsulated in our race-proven Infinity Ring System. The modular linking design allows straight, partial-radius and full-radius LED Light Bar configurations to suit the needs of a specific performance application. A race-tested bumpstop is included that provides additional support and vibration dampening under extreme off-road conditions in 6-Ring and above Pro6 products.



Infinity Ring™ System
Utility Patent Pending
Appl. No. 14/704,736

Hard-coated
Polycarbonate Lens

Precision CNC'd
Stainless Steel
Countersunk
Allen Socket
Shoulder Screw



Stainless Steel
Hardware

- Powered by Patented Gravity LED G6 Optical Inserts with GRD™ Technology
- Multiple G6 Optical Insert Beams available: Spot, Spread, & Wide-40™
- Maximum Tune-Ability
- High Power & High Efficiency

Die-Cast Adjustable
End Mount

GRD

GRAVITY® REFLECTIVE DIODE



PATENTED GRD LED CORE

The Gravity® Reflective Diode (GRD) CORE™ channels every lumen from the LEDs to a precision optical reflector for maximum light efficacy. Having designed and produced performance-engineered reflector optics for over 45 years, KC developed GRD Technology to capitalize on the full potential of each LED to produce the most efficient Performance LEDs on the market.



PROPRIETARY LED POSITIONING SYSTEM

At the heart of the GRD CORE is a proprietary, multilateral LED-positioning system – A revolutionary design that creates a new dimension to LED lighting technology. Each GRD CORE™ allows for an extremely tailored light beam that is optimized for any application requirement.

PRECISION OPTICAL REFLECTOR

A light is only as good as its optics. By coupling GRD Technology with industry-leading reflector design, both the CORE and precision reflectors are optimized together to maximize the potential of the LEDs.



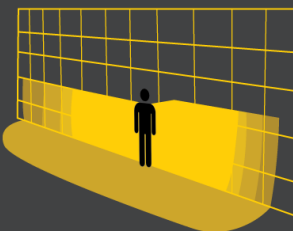
CERTIFIABLE BEAM PATTERNS: SAE/DOT/ECE

Through our GRD Technology, KC's beam patterns can conform to street legal standards. The Gravity® Series LED lights with spot, driving and fog beam patterns - will meet and exceed SAE, DOT, & ECE specifications.



GRD ADVANTAGE

GRAVITY®
GRD



FORWARD
FACING

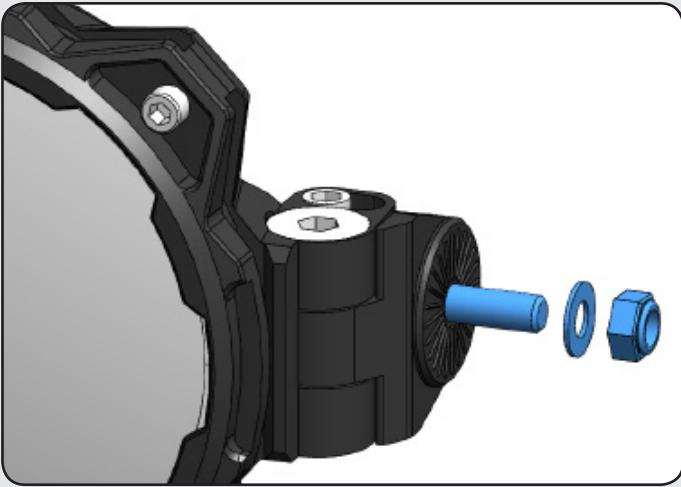


What is the GRD Advantage?

The goal is to maximize light efficiency by taking advantage of as much light that is emitted from the LED diode. Conventional forward-projecting LEDs have efficiency levels as low as 15%, due to inherent limited beam control - the light is under-utilized or simply undirected. When this same amount of light is paired with our GRD technology, the result is a fully leveraged LED diode with a purposefully controlled beam pattern. The GRD Advantage allows KC to achieve more across: wattage, light output and beam shape.

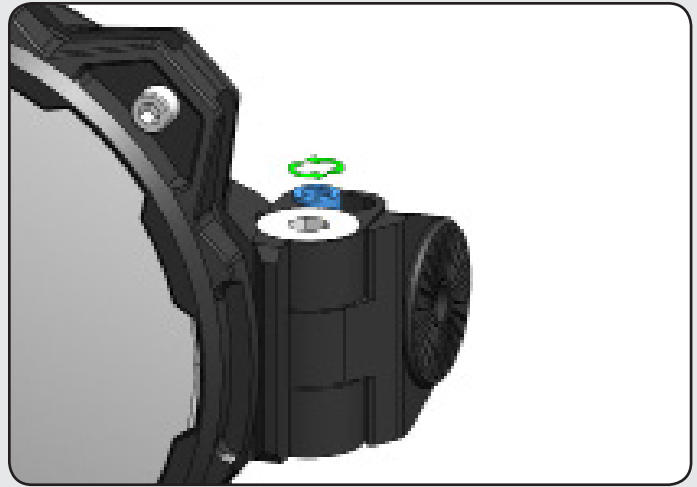
PRO6 INSTALLATION - MOUNTING TO VEHICLE

1. Remove End Mount Hardware



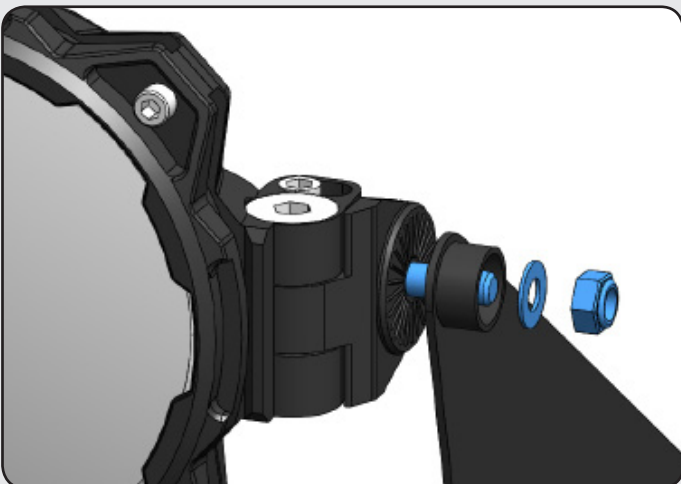
Remove the M8 Mounting hardware from End Mounts on both sides of the bar. This will allow for easier installation on fixed mounting applications.

2. Loosen End Mount Adjustment Screws



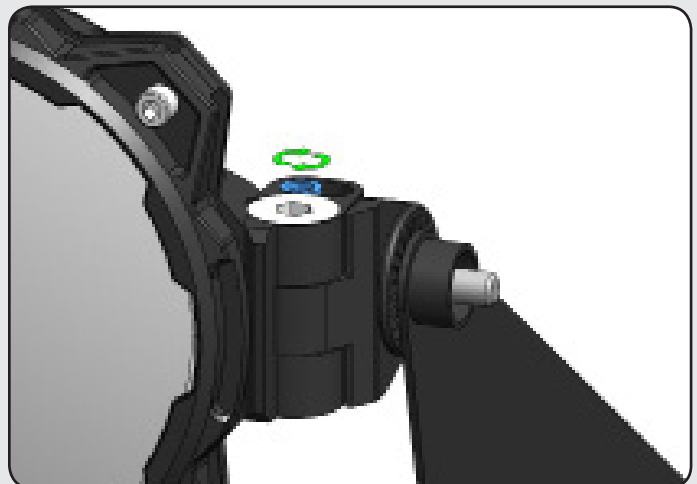
Loosen the M6 Socket-cap Adjustment Screws from End Mounts on both sides of the bar to allow alignment and self-centering.

3. Mounting the Pro6 Light Bar to Vehicle



Safely install the Pro6 by aligning the M8 Hardware on the End Mounts to the Vehicle Mounts. (The ambidextrous design of the mounts allow for the threads to be installed in either direction.)

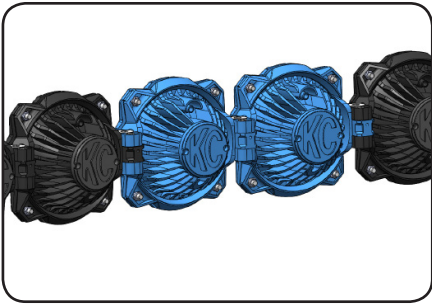
4. Level & Final Tightening Down



Set the final level and pitch of the Pro6: 1) Tighten the M8 Horizontal Mounting Hardware, allowing the Pro6 to center itself. Then, 2) Tighten the M6 End Mount Adjustment Screws to lock light into position.

PRO6 INSTALLATION - BUMP-STOP

INSTALLATION & ADJUSTMENT



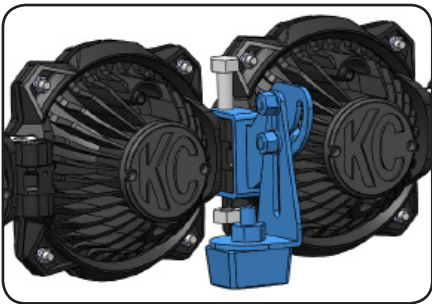
1. Positioning the Bump-stop Assembly

The Bump-stops are anchored on the pivot points between the Pro6 Infinity Ring(s). Make sure to select pivot point that will not interfere any moving parts on the vehicle.



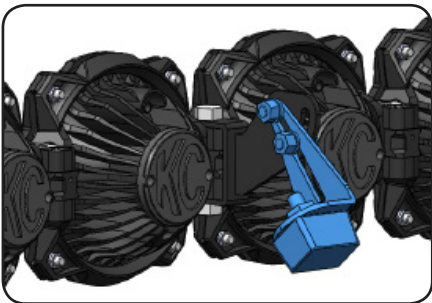
2. Removing Hardware

Once a pivot point has been selected, loosen the M6 adjustment screw (to reduce tension) and remove (only) the custom stainless steel M10 Countersunk Shoulder Bolt.



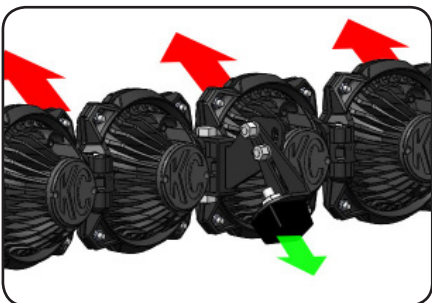
3. Attaching Bump-stop to the Pro6 LED Light Bar

Begin by re-tightening the M6 adjustment screw. Using the supplied M10 shoulder bolt and nyloc nut, firmly attach the Bump-stop Assembly to the Pro6 LED Light Bar.



4. Position Bump-stop Armature

Adjust the position angle of the Bump-stop Armature so that the face of the bushing is mated as flat as possible to the stable surface. The bushing itself can also be loosened and adjusted to help achieve a desired angle.



5. Pre-Load Bar & Final Tightening

Before the final tightening down of the Bump-stop armature, make sure to pre-load the bar to ensure tension is already achieved for maximum stability and vibration dampening. This is accomplished by lifting the bar away from the surface before tightening down the armature.

PRO6 CONFIGURATIONS

STRAIGHT | SEMI-RADIUS | FULL RADIUS

A unique feature of the Pro6 is the ability to go from a Straight configuration, to a full-radius configuration. The Infinity Ring system allows for radius adjustments at every link - depending on the application, the Pro6 can offer a multitude of configurations to provide all customization that one may need for their particular requirements.



Straight

The Pro6 LED Light Bar System comes standard straight.



Semi-Radius

For specific application, a partial radius can be configured. Here there is only 2-radiused points between 2nd/3rd and 6th/7th Infinity Rings.

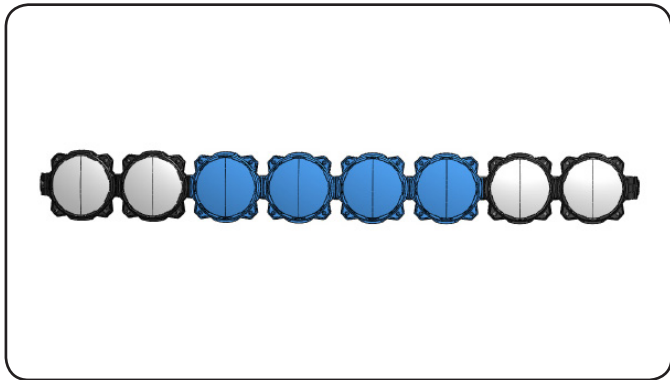


Full Radius

All the radius points have been configured giving the Pro6 LED Light Bar a full radius.

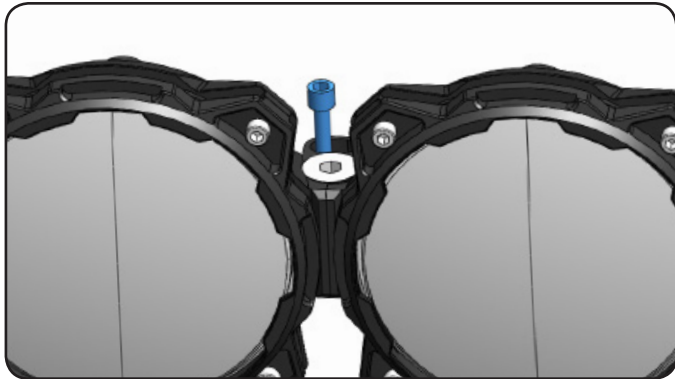
ADVANCED PRO6 ADJUSTMENTS

SETTING THE RADIUS CONFIGURATION



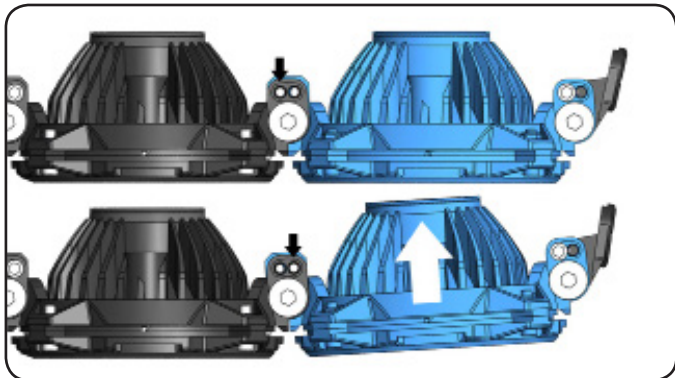
1. Preparing to set radius

Before configuring the Pro6 LED Light Bar, first reference the Application Table for the desired set-up, to identify the radius point(s) needing for adjustment.



2. Remove Adjustment Screw

Remove the M6 socket-cap adjustment screw and loosen the M10 Countersunk Shoulder bolts to allow repositioning the linked Infinity Ring assemblies easier.



3. Align Radius Position Holes

To set the Infinity Rings into a radius position, adjust the ring assembly so that the adjacent position holes are aligned.

Note: The previous straight position holes will no longer be in alignment.



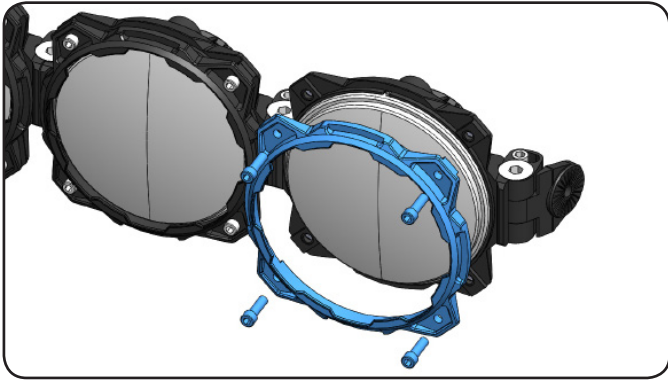
4. Set Adjustment Screw

Re-apply the M6 socket-cap adjustment screw(s) into the newly aligned radius position holes and re-tighten the M10 Countersunk Shoulder bolts.

Note: Make sure to hand-tighten the screws before using tools to prevent cross threading, and avoid over-tightening the M6 hardware to prevent stripping.

ADVANCED PRO6 ADJUSTMENTS

G6 OPTICAL INSERT REMOVAL & CLOCKING



1. Dis-assemble Infinity Ring

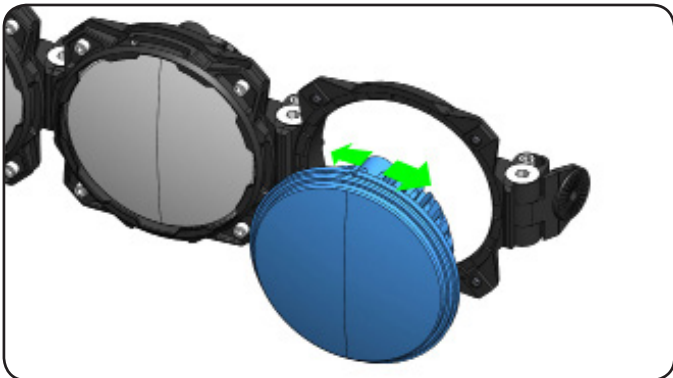
To remove or rotate G6 Optical Insert, loosen and remove the four M6 Socket Allen-Cap Screws and remove Front Ring.

Caution: Once loosened, the G6 Optical Insert could fall out and sustain or cause damage to light or vehicle.



2. G6 Insert Removal/Replace

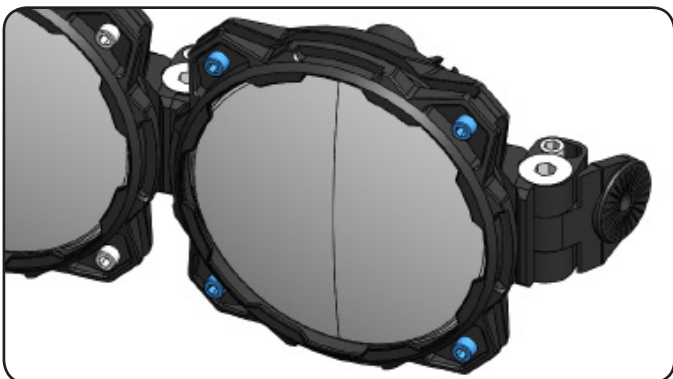
After the front ring has been removed, to remove or replace the G6 Optical Insert - simply locate the connection to the harness, and unplug the connector.



3. G6 Insert Clocking

The G6 Optical Inserts have an indexing tab - that when used in conjunction with the Infinity Ring System, it allows the G6 Inserts to be clocked in 22.5° increments.

Note: If the indexing tab on the G6 Insert is not seated with the Infinity Rings correctly, the rings will not fasten together.



4. Re-assemble Infinity Rings

After the desired adjustment is in place, re-assemble the front ring with the M6 Socket Allen-Cap Screws.