

# Massive Photon Generator HID System Install Guide

#### **Pre-Install Notes and Disclaimer:**

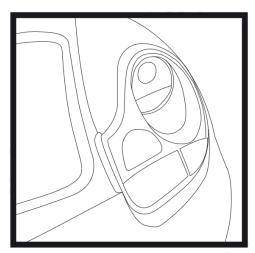
Thank you for purchasing an Enlight HID system. We are grateful for your decision to invest in high quality products, and do hope that our product will meet and exceed your expectations in every way. This is document is a GUIDE for installing this system in your vehicle. It is ONLY a guide, every vehicle is different and some vehicles may require additional steps, parts or other things you may be un-aware of for proper function on your vehicle. PROFESSIONAL INSTALLATION RECOMMENDED, if you don't know what you are doing, leave it up to somebody who does.

<u>Install and use at your own risk!</u> Enlight LLC is not responsible for any damages, injuries, fines fees, or any other unfavorable circumstances etc... resulting from or related to the use of this product. <u>All products are for Off-Road use only and are not legal for use on public roads</u>. If you use these and your car starts to fly, talk, explode, or do any favorable or unfavorable things, you have been warned! =). Enjoy!

#### Installation:

### 1a). Does your vehicle have computer-controlled headlights or No?

- The first step of the installation involves checking to see if the vehicle has a computer-controlled headlight system. This is very common on European cars and some newer vehicles. Ensure that your vehicle is completely off. Engine off, no key in the ignition, and you have allowed adequate time for the engine to cool down so that you do not get burned during installation.



- Locate the factory low beam headlight bulbs, check your owner's manual for the location and method of accessing them. Most vehicles you can access them directly from the under the hood. Some you make have to remove the front fender liners and access from the wheel well, other vehicles you have to remove the front bumper and the entire headlight assembly. Your headlights may have a circular plastic cap that must be rotated off to access the bulbs.
- Once you have located the low beam headlight bulb, disconnect the power connector from one headlight bulb such that no power can flow to the bulb (passenger or driver side is ok). Ensure that any exposed contacts do not touch any metal, cover them with electrical tape if necessary. After the bulb has been disconnected, close all doors, start the vehicle. After 10-15seconds letting the car run, turn the headlights on. At his point one headlight should be one, and the one you disconnected will be off. Check your dash or interior display system for any warning or error messages telling

you there is a headlight out. It may say "check headlight" or some other message"

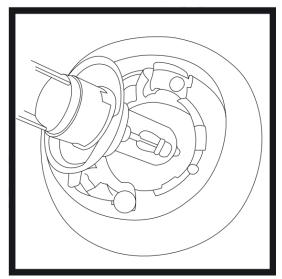
- Scenario A: No error message
  - o (suggests there is no headlight monitoring circuit and you are ready to proceed to step 2)
- Scenario B: Error message displayed
  - The vehicle has a headlight-monitoring circuit and you need the Enlight UberCAN CANBUS compatible HID system. If you try to install our standard MPG systems with a relay harness, they will not work and you may damage the ballasts or your vehicles electronic system. If you already have the Enlight UberCAN CANBUS system, you are good to go!

### 1b). Does your vehicle have Daytime Running Lights (DRL)?

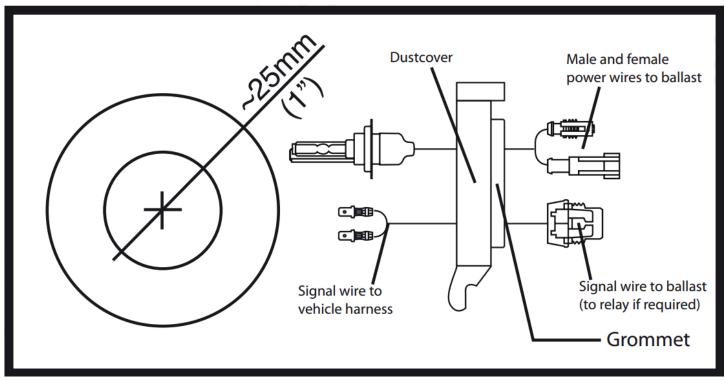
- If the vehicle has daytime running lights that operate in the same bulb that is intended to be replaced. STOP. Do not proceed with installation. Some vehicles use the low beam bulb for DRL function as well as low beam function. Using a lower bulb voltage for the dimmer DRL function, and a higher voltage for the low beam headlight function. This will cause all kinds of problems for the HID system and possibly damage your vehicle. YOU MUST FULLY DISABLE DRL FUNCTION in order to install any Enlight HID system. This is not a straight forward process and is different for every car. We do not offer support on how to disable DRL function. However we do have an alternative installation method for skilled mechanics who know how to tap into the vehicles electrical system. We will not publish this method, please contact us via email for details.

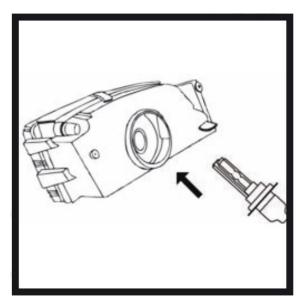
### 2). Remove factory bulbs and replace with Enlight ARC series HID Bulbs (DO NOT TOUCH GLASS!!!)

- Now that you have located your headlight bulbs, make sure everything is off and cool. Remove the bulb from the socket.
- H1,H3,H4,H7 Bulb type: There is a small wire clip that must be un-latched in order to remove the bulb.
- 9005,9006,9007, H8,H9,H10,H11,H13, 880 Bulb Type: Rotate the bulb counter-clockwise to release it from the socket. Sometimes this can take a bit force if the socket is tight.



- If the headlights have a plastic dust cover that over the bulbs. Now is the time to drill a 25mm diameter hole (approx. 1") in the center of the cap. Generally a stepped drill bit works well for this.
- Feed the Enlight ARC Series bulb harenss and harenss through the hole in the cap as shown in the picture below. DO NOT TOUCH THE GLASS OF THE BULB.We recomment leaving the foam protector on the glass during this step.
- Flex the silicone grommet such that the slit in the circumfernce of the grommet fits snugly into the rim of the hole you have drilled making a good seal.
- Connect the signal wires on the ARC bulb harness to the cars factory headlight plug. DO THIS ONLY ON ONE SIDE OF THE VEHICLE, the same side that the battery is locted on. This is because the relay harness only uses one trigger signal. If you have an Enlight UberCAN system, connect the signal wires on both sides of the vehicle as no relay harness is used.



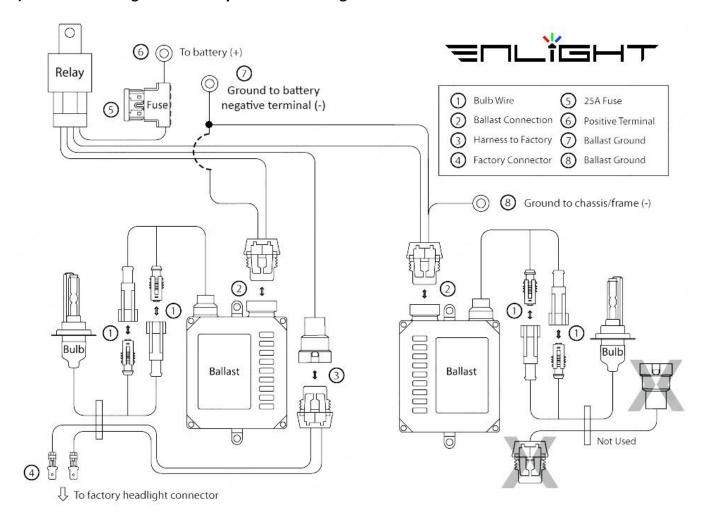


- If the vehicle does not have dust caps, simply install the ARC bulb into the headlight socket in the reverse order that they were removed. Also connect the signal wires per instructions above.
- If the vehicle has dust caps, take the newly fitted assembly and install the ARC bulb into the headlight socket. Then tuck the signal wires safely inside the housing and re-install the dust cover.

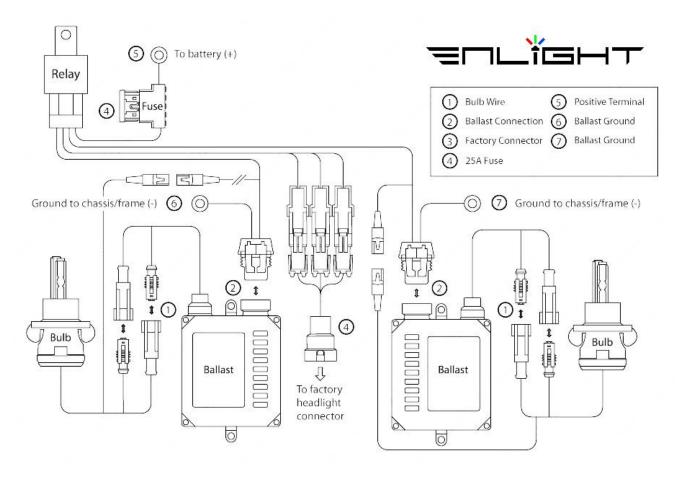
### 3). Mount Ballasts Using Supplied Hardware

- Identify a suitable location to mount the ballast. Use the supplied bolts and washers to mount brackets to the ballasts. Find a bolt on the vehicle that can be used to mount the brackets. Secure brackets tightly to the chassis. This can be tricky sometimes to find a good location. You will likely need to bend the brackets or fold them in various orientations to fit. Make sure the ballasts to not wiggle around or make contact with any moving parts in the engine bay. Also DO NOT MOUNT NEAR ENGINE EXHAUST COMPONENTS.

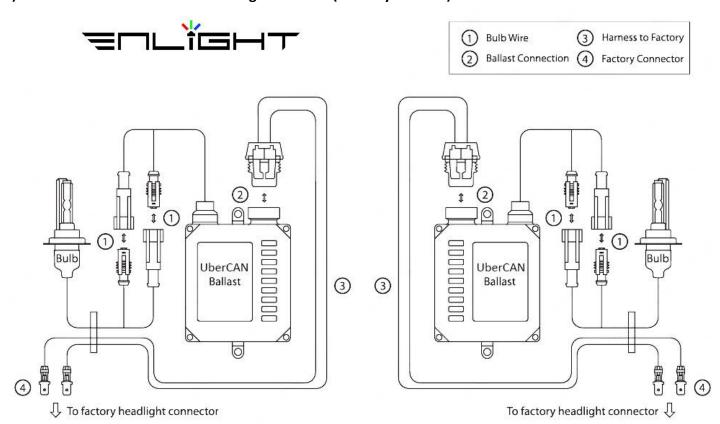
### 4a). Install MPG Single Beam Relay Harness Via Diagram Below



## 4b). Install Bi-Xenon Relay harness Via Diagram Below (H4, H13, and 9007 Bulb types only)



## 4c). Connect UberCAN Ballasts Via Diagram Below (no relay harenss)



ATTENTION!!! Make sure you select gound points that have excellent direct metal connectivity to the chassis. DO NOT USE PAINTED OR COATED BOLTS OR BOLT HOLES. The ballasts will be damaged if the grounds are not sufficent.

ATTENTION!!! For UberCAN systems, please make note that polarity to the ballasts must be correct in order for them to work. Make sure the +12V signal from the factory headlight connecter (#4 in the diagram) is connected to the RED wire of the harness, and connects to the + side of the Ballast. If its reversed it will not work.

# 5). Test Functionality

- After all connections have been properly made, turn the headlights on from inside the car. Make sure that the newly installed system turns on and everything is functioning properly. You shoud see the light! LET SYSTEM RUN FOR 2-3 MINUTES BEFORE SHUTTING OFF! This helps break in the bulbs and ballasts. YOU MAY SEE SOME COLOR SHIFTING AND FLASHES! Do not worry, this is normal for the first few cold-startups. After a few days of use, this will go away.
- If one or both of the headlights does not turn on, double check all connections. Especially for UberCAN systems, make sure the polarity to the ballasts is correct. Ensure that all grounds are making proper electical contact to the battery.

### 6). Clean-Up

- Make sure all wires and components are FIRMLY secured. Do not allow any components to wiggle around or hang. Use the supplied zip ties to secure all wires away from moving parts or heat sources.
- Re-install all factory covers, hardware or other comonents that were removed during installation per-factory specification

# 7). BE MADE FULL OF LIGHT, AND ENJOY MASSIVE AMOUNTS OF PHOTONS. (send us some pictures too!)

