pathBlazer™

HEAD LIGHT MODULATOR

New Design
P115W
P115W-D

INSTALLATION GUIDE

Kisan ELECTRONICS

TECHNOLOGY for SAFETY

HEAD LIGHT MODULATORS ARE LEGAL

- in all of United States & Canada.

Below is a partial reprint of the Federal Standard 108, which makes modulators legal. No state can usurp Federal Authority, and therefore local Law Enforcement cannot issue citations for the use of modulators in their jurisdiction and expect to prevail in any Court of Law.

Department of Transportation
National Highway Traffic Safety Administration
Federal Motor Vehicle Safety Standards
49 CFR Parts 571
[Docket No. 97-57; Notice 1] Executive Order 12866

Motorcycle Headlamp Modulation System

s7.9.1 A headlamp on a motorcycle may be wired to either the upper or the lower beam from its maximum intensity to a lesser intensity provided that:
(a) The rate of modulation shall be 240 +/- 40 cycles per minute.
(b) The headlamp shall be operated at maximum power for 50 to 70 percent of each cycle
(c) The lowest intensity at any test point shall be not less than 17% of the maximum intensity measured at the same point.
(d) The modulator switch shall be wired in the power feed of the beam filament being modulated and not in the ground-side of the circuit.
(e) Means shall be provided so that both the lower beam and the upper beam remain operable in the event of a modulator failure.
(f) The system shall include a sensor mounted with the axis of its sensing element perpendicular to the horizontal plane. Headlamp modulation shall cease whenever the level of light . . . . less then 270 lux.

USA
Department of Transportation
National Highway Traffic Safety Administration
Federal Motor Vehicle Safety Standards

CANADA
Transport Canada
Motor Vehicle Standards and Research Branch
Road Safety Motor Vehicle Regulation Directorate

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OVERVIEW

OLD	NEW
P115W-S	P115W
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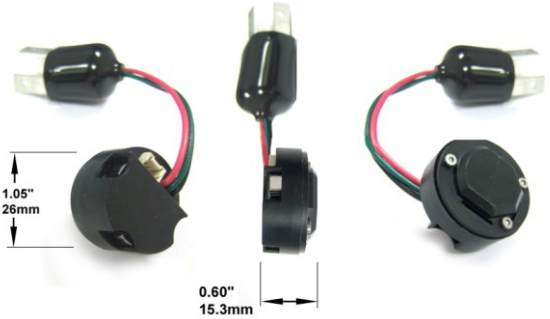
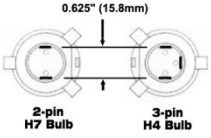
Redesigned P115W series ***pathBlazer*** is smaller, thinner and super efficient for power dissipation - resulting in simplified product application as well.



P115W:



H7 bulbs
With P43t
Expander

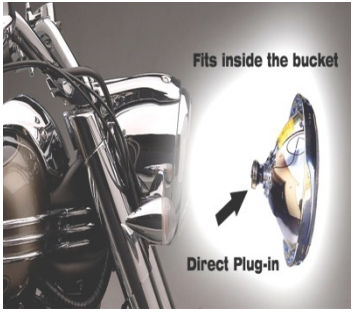
TYPICAL APPLICATION

DAYLIGHT SENSOR

- Direct plug-in for H4 (3-pin) OR H7 (2-pin) bulbs with P43t expander
- Does not requires any additional clearance space
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load not to exceed 100W rated @14.5v MAX

This is a single channel unit designed to drive the hi-beam element of H4 bulb.
H7 hi-beam bulb must have the P43t expander to match pin spacing.

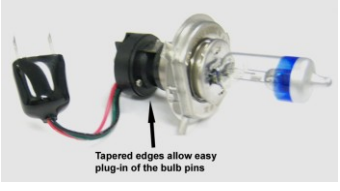
P115W INSTALLATION:



■ On most cruiser style models, the chrome bucket can be removed by simply unscrewing retaining screws from around the trim ring of the headlight assembly.

■ On models with fairing, access to the 3-pin plug of the headlamp is possible simply by reaching it from underneath the front fairing or from behind the dash. There is usually a rubber splash cover over the 3-pin plug, which can be peeled back.

Installation is simple: unplug the socket of the headlamp, insert ***pathBlazer*** on the bulb pins, and then re-connect the socket on the pig-tail extension.



■ The end with 3-slots has tapered guides to allow easy insertion of the bulb pins, which helps with blind installations.

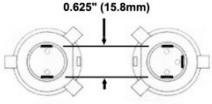
■ For small buckets, locate the socket & pig-tail connection such that it clears the mounting frame of the chrome nacelle.

Daylight sensor gets plugged in next. Push the mini-plug of the Daylight Sensor in until it clicks in place.

■ The photo-eye of the sensor can be mounted directly on the top of the chrome nacelle. A split bushing is provided. Or it can be routed to go out thru' the existing grommet and mounted on the dash or fairing or zip-tied to an existing cable or bracket. Following pages show the mounting instructions for the Daylight Sensor.

P115W-D:

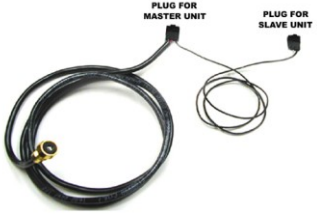
DIRECT PLUG-IN FOR



H7 bulbs With P43t Expander

DAYLIGHT SENSOR

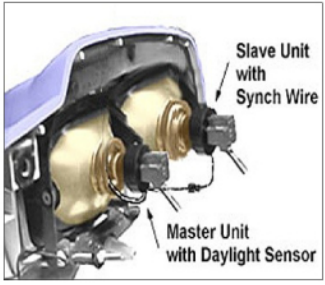
TYPICAL APPLICATION



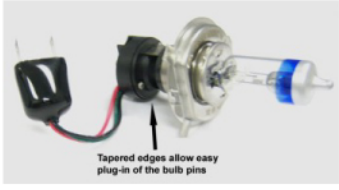
- Dual Headlights: H4 (3-pin) OR H7 (2-pin) bulbs with P43t expander
- Does not require any additional clearance space
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load not to exceed 100W @14.5v for each bulb MAX

Both ***pathBlaze***r units must be hooked-up with the SYNC wire of the Daylight Sensor to modulate both bulbs together – as required by the DOT regulations.

P115W-D INSTALLATION:



On most models, access to the 3-pin connectors of the headlamp bulbs is possible simply by reaching it from underneath the front fairing or from behind the dash. There is usually a rubber splash cover over the pins of the bulb, which has to be peeled back.



Installation is simple: unplug the socket of each headlamp, insert ***pathBlazer*** on the bulb pins, and then re-connect the sockets to the pig-tail extensions. Each unit can be plugged on either of the headlamps.

■ The end with 3-slots has tapered guides to allow easy insertion of the bulb pins, which helps with blind installations – like Goldwing.

Note which unit is MASTER and which one is SLAVE - they are labled.

■ Daylight Sensor has to be plugged into the Master unit, and the Sync wire must be plugged into the Slave unit.

LED headlight bulbs: The 3-pin pig-tails of each of the Master and Slave units are plugged into the socket of the LED bulbs.

Following pages show the mounting instructions for the Daylight Sensor.

MOUNTING DAY LIGHT SENSOR:

Day Light Sensor should be mounted on the dash or fairing. It ***should not be facing the front*** of the motorcycle, in order to avoid false triggers at night from on-coming vehicles.

You can zip-tie the Sensor to a brake cable or a bracket, as long as it receives unobstructed sunlight. The sense head is sealed to be waterproof.

You can also choose a permanent mount in fairing or side pockets.

FLUSH MOUNT

❶ Chose an appropriate location for the Daylight Sensor - it faces skyward and should receive unobstructed sunlight.

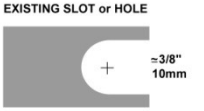
❷ Start with a small pilot hole. Finish with a 3/8" -enlarged a little- (10mm) hole.

❸ Feed the Sensor from behind the panel.

❹ Insert the Split Bushing around the cable, as shown.

❺ Move the Bushing up toward the threaded neck of the Sensor.

❻ Push the assembly firmly in the hole, until it locks-in - ***do not pull the cable.***

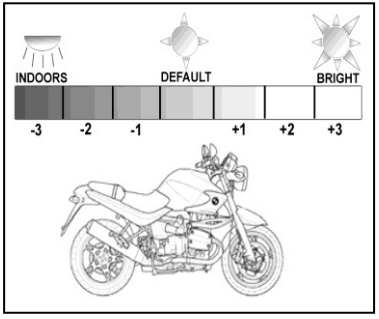


The sensitivity is adjustable for different levels of daylight. Depending on the location you have chosen to mount the Sensor. Or due to seasonal changes in weather conditions you may want to choose a different level. Instructions are described in more detail on the next page.

Note! Programming of Daylight Sensor's sensitivity IS NOT REQUIRED. In most cases the default factory setting will suit most common riding environment.

SENSITIVITY PROGRAMMING

During this procedure ***pathBlazer*** captures the available light and resets the threshold in its memory.



❶ Find a location or time of the day when you wish to **BEGIN** modulation. You can fine-tune the On/Off triggers from the default setting, as shown.

❷ Turn the Hi-beam ON first, then turn the ignition ON (3) times quickly.

■ If your bike allows the hi-beam *only with engine running*, you may have to start the bike in lo-beam and then flick to hi-beam (3) times quickly

■ The confirmation of the new setting is: Hi-beam flashes 4 times
If you don't get this confirmation, try it once more – a little faster.

■ Once set and confirmed by 4 flashes, the new Setting will remain in permanent memory of the processor. It is not affected even if the battery is disconnected or the ***pathBlazer*** unit is un-plugged.

■ If you attempt the Sensitivity Adjustment in a very dark setting – beyond the DOT specified limits – the setting will revert back to default level.
This will be confirmed as: Hi-beam flashes 8 times.

Note! To avoid unintended reprogramming of Daylight Sensor's sensitivity, DO NOT start the engine with the hi-beam on. During cranking, the battery voltage can drop out and simulate the "3-time ignition on" sequence.

FAQ:

Q: My ***pathBlazer*** won't modulate in Lo-beam. Why?

A: All plug-in versions of ***pathBlazer*** are designed to modulate in the Hi-beam only. Even for the splice-in versions, we highly recommend for the Hi-beam modulation. It is much easier to control the modulation –if you don't want to modulate- in daytime with the Hi-beam switch.

Q: My bike has dual headlamps and they both work together. I installed the dual ***pathBlazer***. With switch in Hi-beam position, they flash only for short while. May be about 8 or 10 times. What's wrong?

A: 8 flashes indicate an error code. Either the Daylight Sensor and/or the SYNC wire are not plugged-in OR they are not making a good contact.

Q: After I install the ***pathBlazer*** there's interference and I can't put the chrome nacelle or the fairing back on. What's wrong?

A: The original socket for the bulb in many cases is quite large. You may have to release each of the female pins from the plastic housing of the socket and plug them on the pig-tail. This will eliminate the bulky socket.

Q: I have installed my ***pathBlazer*** according to the instructions, but it won't modulate. Why?

A: ***pathBlazer*** circuit is designed to be on by default. Properly connected and programmed Daylight sensor forces the unit to modulate. Check connections, including the splice-in versions for the correct polarity and make sure you are in sufficient daylight with Hi-beam on.

Q: Is this thing legal?

A: Yes, it is legal in all of United States and throughout Canada. A summary of the Federal Code is printed on the inside cover of this booklet.

LIMITED WARRANTY

Kisan warrants this product to be free of manufacturing defects for a 1-year period after the original date of consumer purchase. A purchase receipt or other proof of original retail purchase will be required. This warranty does not include damage to the product resulting from accident, misuse, improper installation or operation or unauthorized repair or alteration. If the product should become defective within the warranty period, we will elect to repair or replace it free of charge at our option. Parts and/or replacement product supplied under the warranty may be new or rebuilt.

The consumer's sole remedy shall be such repair or replacement as is expressly provided above, and ***Kisan*** shall in no event be liable for any incidental or consequential damages arising out of the use of; or inability to use this product for any purpose whatsoever.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state.

If you have to return the product for warranty service, please contact our service department to obtain a R.M.A. (Return Merchandise Authorization) number and instructions on how to pack and ship the product to us.

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This Installation Guide is intended to provide you with general application related procedures. There are just too many different makes and models to be able to cover every specific condition you may encounter with your own motorcycle. We do our best to tell you how to handle most applications but we must depend on your good judgement for dealing with the rest.

Therefore, we strongly urge you to think carefully about what could happen to you and your bike if you use any tools, parts, fastening methods, routing or procedure not described in this Guide. Please read the manual in its entirety

For faster response, please visit the FAQ section in the **pathBlazer** product section of our website: www.kisantech.com

Kisan ELECTRONICS

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