

THINK HID HEADLIGHTS ARE A BRIGHT IDEA FOR YOUR WING? SO DID I...

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Having already installed HID (High Intensity Discharge) headlights in cars before, I started wondering how they would work on my Gold Wing. Not only that, but how would I go about installing them? Here's my story...



When their 1985 Limited Edition reached 100,000 miles, author Bill McIlrath and his wife Lyn wanted something more than just an average photo of the odometer.



The stock bulb and adapter removed from the bike.



The HID bulb (right) versus the H7 bulb with adapter.

As you may or may not know, the Wing comes stock with 55-watt halogen lamps. This type of bulb produces light by passing current through a filament, which makes it turn very hot. Most of the energy it consumes simply produces wasted heat. On the other hand, 35-watt HID lights are able to provide up to three times the light output with less power consumption.

In addition, a 55-watt halogen bulb uses a continuous power draw of 10-15 amps, while the HID system uses 20 for start-ups but drops to a mere 3 amps during operation. Under normal driving conditions, the bulbs will last approximately four years (3,000 hours). That's up to four times as long as your "factory bulbs".

All of this, plus the bulbs run much cooler! I was sold. I wanted to install them at my earliest opportunity.

Roadblocks to the Conversion

Right up front, though, there were two problems with this conversion.

First, the standard H7 bulb has two prongs sticking out of the back to plug into the harness; HID bulbs come with wires attached.

Additionally, Honda put an adapter (part number 33130-MAT-611) between the bulb and the plug (this is the part the weather seal fits around). No one, that I'm aware of, makes an HID that will directly replace this setup.

Second, there is limited space near the back of the headlamp assembly where additional components need to fit. Each HID bulb requires a ballast assembly, as well as an inverter.

This problem, however, is perhaps the easiest to get beyond. What I did was to search eBay until I found some "super slim" ballast kits. These ballasts fit very nicely in the space directly on top of the fairing lowers, beneath

the headlamp assemblies.

But if you attempt this installation yourself, remember that not all HID systems have the separate inverter. Most have the ballast and inverter as a single unit (and I'm sure those are larger and, presumably, more difficult to fit in the fairing).

Getting Started

The headlight adapters consist of a plastic shell with two brass contacts and some kind of a "potting" material holding the contacts in place. I purchased three of these from Honda Directline for less than \$9 each. (Had I only bought two, you can be sure one of them would have broken during modification!)

I used a soldering iron to heat up the small end of a brass contact to melt the material around it. Then I grabbed the large end with a pair of pliers and easily extracted it. With both contacts removed, it was time for me to mark the center of the adapter and drill a small pilot hole.

Working from there, I drilled out the hole to a size that the base of the HID bulb barely fit into. The adapter and bulb have alignment tabs on the sides that need to line up with each other, and I handled this with a pair of vice grip pliers that I (not too tightly) laid on the workbench.

Binder clips were used to hold the bulb and modified adapter together while black RTV (Room Temperature Vulcanizing) Silicone Sealant was used to completely fill and seal the remaining area inside the adapter.

HID Wiring

Halogen bulbs do not have a "polarity"; therefore, HID systems must be connected correctly. Thankfully, all of the units I have installed were nearly foolproof.

The wires attached to the bulbs are color coded with connectors that can only mate with the ballast one way. The other wires connecting the ballast to the inverter have a different two-prong connector so there is, as well, no way to get that wrong.

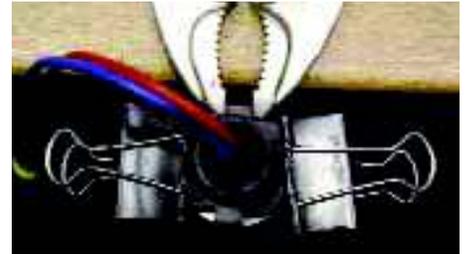
After those, all that remains are the two



Reworking the adapter, back view.



Reworking the adapter, front view.



I used vice grip pliers to hold the alignment tabs together, then I laid the pliers on the bench with the bulb hanging off the edge.



I filled around the base of the new bulb with sealant and allowed it to fully cure before disturbing it.



Binder clips were used to hold the adapter and bulb together.



I fed a long cable tie around between the headlights to secure the wiring and inverters inside the fairing.



The complete HID Kit for one headlamp.

wires used to connect the inverter to the bike's headlight socket. These wires end in brass tabs that need to plug in as if they were the prongs on the stock adapter. [NOTE: These wires must be connected to the proper wires in the socket!] The white/black wire in the socket is the power, or positive, connection and the green wire is the ground, or negative.

I would have preferred to solder and seal these connections—as opposed to just plugging them in—but I chose not to modify the Wing's harness. I did this so it would be possible to just unplug the two wires, remove the HID bulb, and put the factory bulb and adapter back in place. That way, the two halogen lamps could be carefully packaged and stored in a saddlebag, just in case.

Many, if not all, HID kits come with an inline fuse holder for each system. These fuses are a lower rating than the ones used in the bike's fuse panel. The kit used for this project had inexpensive fuse holders that I plan to replace with water-proof fuse holders in the near future.

Low-Beam Bulbs

Accessing the low-beam bulbs wasn't fun, but it was possible for me to do so without any disassembling of the bike. (But I did remove the plastic piece at the front, center of the fairing to make the wiring easier.)

First, I turned the forks all the way to the left so I could reach straight in to the right headlamp. Then I pulled off the plug and rubber boot to expose the spring clip that held the bulb adapter in place. Next, I released the spring, and the bulb came right out.

Lining up the tab, then holding the new bulb in place and re-seating the spring was the tricky part. I could only get one hand in there at a time. But after the bulb was finally secured, I put the boot back on the assembly. Shining a bright light up from beside the front wheel made all of this easier.

Finally, I turned the handlebar to the right and repeated the above procedure for the left bulb. I simply left the factory plugs hanging down for connection later.

Final Step and Results

I used 2"-wide self stick Velcro to mount the ballasts to the top of the fairing lowers. The rest of the wiring I bundled to the inverter and dressed up between the headlamp assemblies where all is clear of moving parts.

I found it was possible to run an 18" or longer cable tie around the fairing structure

between the two headlamp assemblies, feed the bundled wires up inside of the loop, and then pull the tie tight to hold the wires securely in place. (So far, in regard to my bike, there have been no issues from this.)

After the installation, I at first ran with one HID and one PIAA H7 bulb for the low beams. And only two days after installing this setup, I found myself behind a fellow Winger driving home in his SUV. When, the next day, he asked me if the "new" light was the one on the right, I told him it was. He said he couldn't believe how much brighter that light appeared—even in the mid-afternoon sunlight!

My friend Bob said, "In daylight, at 3:15 p.m., that halogen bulb appeared half as bright and yellow compared to the other one. That one was white!"

Now, remember, he was making this comparison to the brightest H7 bulb I could find. That's some testimonial!

Closing Thoughts

In the past, in an attempt to make my bike more visible to oncoming traffic, I installed a headlight modulator. However, it has not been without its share of problems. For one thing, it causes a buzzing in the headsets when the intercom is on. Needless to say, when my wife Lyn is on the bike with me and the intercom is on, the modulator stays turned off.

And even when Lyn is not with me (and the modulator stays on), it can still be a nuisance. That's because the modulator has an intermittent slave unit that causes the high beam connected to it to cut out once in awhile. This usually just happens when the bike hits a bump. But when it happens at night, it can be both annoying and dangerous.

I've decided that, as soon as possible, the modulator will be gone and the PIAA bulbs will be my new high beams.

Considering what Bob told me and the fact that I've already noticed approaching cars move farther away from the centerline now—with the HID lights installed—as I approach, I'm not as worried anymore about oncoming traffic seeing me!

Final Note: As with any halogen bulbs, never touch the bare bulb with your skin or the oil will shorten the lifespan of the bulb! ●

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