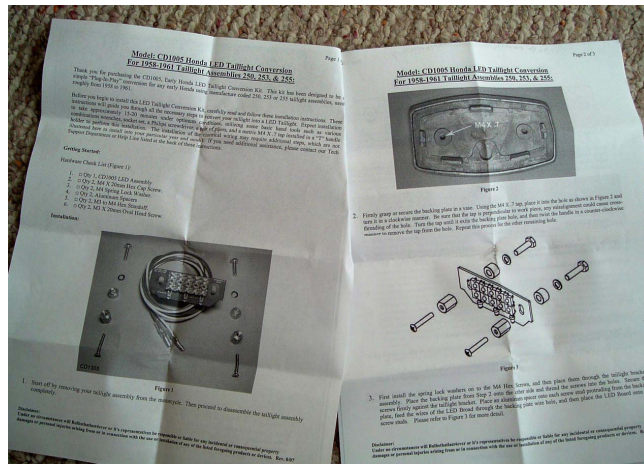


## A “MrHonda” Product Review: LED taillight conversion for 1958-61 Honda Dreams and Benly models with product code 250, 253 and 255 light assemblies.

I have previously reviewed the LED conversion kit for the “generic” Honda 268 series taillight assemblies and found the product to be very well designed and produced. The website: [www.bulbthatlast4ever.com](http://www.bulbthatlast4ever.com) has listings of the various applications and installations of LED technology, as it applies to motorcycles, for both taillights and turn signals. LEDs are reliable, low current substitutes for conventional incandescent lighting. Not only does the owner, Bruce Branstad, design and engineer the parts for particular applications, but also he creates wonderful, step-by-step instructions, covering every possible detail about how to properly install his products.



Australian Rob Simons got the ball rolling on this project, the Model CD1005 taillight conversion, which fits early Dreams and Benlys. Honda used a basic configuration shaped taillight, but then went a little crazy and built three different variants of it. When the basic light assemblies came out for the 1958-59 Dreams and Benlys (C92-95, CA95 and CB92-CB95), all used a 6v system. While all Benly models were always 6v, the 1960 and later C72-77s were upgraded to 12v systems, thus the need for two versions, electrically. A cost-effective conversion would have to be amenable to both 6v and later 12v applications, to make the tooling efforts pay off.



The original 250-product code (C-70) was used on the dry-sump Dreams, which debuted in late 1957. This design is rectangular on 3 sides and the bottom of the lens drops downward, illuminating the license plate with some extra coverage. **See above**

The second version, product code 253 (C71) was shaped as a rectangle with rounded top and bottom sides. This one is commonly seen on non-US Monkey Bikes and Benlys, but a few have been showing up on CB92s in the US. US parts books only show 255 light assemblies as correct parts for pre-63 250-305cc Dreams and Benlys, however.

**See below.**



My particular interest in this item is that I have an NOS “255” taillight lens and backing plate, but nothing else to put it into a complete unit. I was watching messages from Rob to Bruce about the possibility of doing an LED conversion to the early taillight assemblies and it appeared that Rob was going to invest in the creation of these conversions, so Bruce took up the challenge of creating a kit. I have an email message mentioning the potential and cost of building these units on April 6, 2007. On August 6, 2007 I had a completed unit sitting in my mailbox, here in Hawaii! The US version product code 255 CA71 part, is rectangular with straight sides. As mentioned above, the 255 code is for US models only, according to the US Dream, CA92/95 and CB92 parts books.

So, this is what I started with: a NOS backing plate and NOS 255 lens. Then, we install the LED kit. **See below.**



The challenge for Bruce was that there are these three different shaped backing plates and lens assemblies to approach for conversion. Additionally, there were a couple of different socket assemblies, which held the very fragile double-ended “festoon” shaped light bulbs. One socket assembly came with a very short set of lead wires, which coupled with the



harness extensions, just at the back of the light assembly and taillight bracket junction. The second backing plate assembly had a LONG set of wire leads, which extended all the way back inside the frame to join the harness connectors out of sight. The other aspect of these two light sockets was that the vertical hole spacings were slightly different. In an engineering triumph (at least to me), the conversion lighting plate design used vertically slotted holes, which allowed the light assembly to install easily in any of the three taillight applications.

The kit comes with: *one CD1005 LED conversion assy, two 4x20mm hex cap screws, two 4mm lock washers, two aluminum spacers, two Hex standoffs tapped 3mm on one end and 4mm on the opposite end, and two 3x20mm oval head screws.* All metric parts are ISO thread, which lead to one small problem. The thread pitch on the Honda backing plate is threaded at a 4x.75mm pitch, which is an old JIS thread pitch. In 1967, the move was made to go to all ISO thread pitches, so the 4mm size was reconfigured to .70mm pitch. This is an infinitesimal change, but a change nonetheless. So, to begin the process (with disassembled taillight assembly) is to rethread the holes to a 4x.70mm thread pitch. I was able to start the bolts into the holes and screw them almost all the way through the backing plate, by hand. The bolts stopped just as it passed through the material and gave a definite impression that there was a thread interference going on between the two parts. So, I dug out my handy Mac tools metric tap and die set, which I have owned for many years, and gently, tapped the holes out to .70mm thread pitch. The instructions suggest putting the plate in a vise and then carefully tapping the hole, while watching for any signs of cross threading or heading in a direction that isn't perpendicular to the plate surface. This is the extent of the modifications required to install the plate assembly!



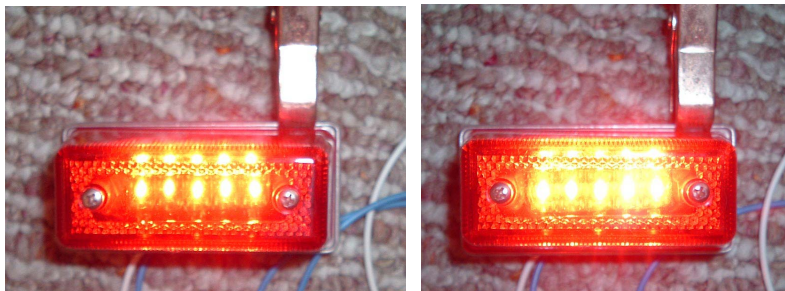
The bolts will now thread into the back of the backing plate, with plenty of length to accommodate the thickness of a license plate bracket, which fits in the recess of the plate. Slide the lock washers and the round spacers over the bolts and then insert the LED assembly onto the bolts. Depending on the configuration of your backing plate, the LED assembly will have to be moved up or down on the slotted holes. The double-ended hex standoffs screw down onto the ends of the 4mm bolts, to secure the LED plate in place.

After that, you install the lens packing and line up the lens, which is then secured with the two remaining 3mm screws.

The original Honda wiring socket had a small tapered grommet, which pushed into the backing plate, preventing moisture from entering the light assembly. The LED kit did not come with a grommet, so I zipped up to ACE Hardware and browsed through their stock of grommets, until I found a suitable \$.23 item. The groove in the grommet is a little narrow for the backing plate, but a little shoving around with a small tipped screwdriver, got it into place. When I brought the backing plate and grommet back home, I found that I needed to make a cut into one side of the grommet, so I could slip it over the wires, then push it back in place inside the backing plate hole. While not absolutely watertight, it made a big difference in reducing the gap around the wires, where they exited the backing plate, previously. **See below.**



How does it work? Well, it is good to know that you don't have to worry about failing filaments again, no matter what this unit is bolted onto. You can see the difference below between the tail light portion, **at left**, then with the brake light added in **on the right**.



Note: I am using a 1AMP battery charger for this demonstration!

**Here's the license plate's view below:**



Lighting up the world, one taillight at a time!

Obviously, this is a rather niche market item. The lenses and backing plates are getting very scarce, although there are people who can cast small parts like this, for a low production run, to help keep the owners of these early Dreams and Benlys in correct, period type light assemblies.

Bruce is to be commended again, for taking time and using his expertise to create a solution to address the failures of the frail Benly and Dream light assemblies. All you need to do is to round up a backing plate and a matching lens. Ask for either 6v or 12v LED plates and you are all set for a safe, highly visible ride down memory lane.

Bill Silver [www.vintagehonda.com](http://www.vintagehonda.com)

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*P.S. After I wrote this review and sent it back to Bruce, he replied with an email highlighting the challenges and frustrations of designing and producing all the kit pieces. It is easy for many people to think that you can just call up a CAD-CAM program, put in some dimensions and push a button and out it all comes, in a moment. Yes, technologies are available to do the design work, but real people have to be involved in the production side and having access to these people and the machines to put a low-production item, like this, into reality takes focus, good connections in the industry and more than a little bit of luck! Bruce invested his own funds to obtain a benchtop CNC machine with 3-D digitizer to help further the project along. With help from his PCB producer and a friendly machinist, it all finally came together in this successful venture. Congratulations again, Bruce, for a job well done.*

*Bill Silver [www.vintagehonda.com](http://www.vintagehonda.com)*

