



ECU Software/Firmware/USB Driver Information

READ THIS BEFORE USE!

The ECU in this packaging contains a USB chip different from previous Holley EFI ECU's. This USB chip uses an "HID" driver. Drivers for this are already present on PC's and laptop computers. Due to this, there is no USB driver that is required to be installed to communicate with this ECU via the Holley EFI software installation disk. When the ECU is plugged into the computer, it should automatically install the USB HID driver. Note that these ECU's can be identified on the sticker on the back as having a revision level of "J" (or higher alphabetically) (older ECU's had no revision level). Note that when installing the software, it WILL show the installation of a Silicon Labs USB driver. This is needed for older ECU's using this software version.

This ECU requires software version 2.2.0.3 or greater (disk should be included with this ECU). This software should also be used only with firmware versions 587 or greater, with this version being installed on this ECU. This is a "V2" version of software and firmware.

Software version 2.2.0.3 can also be used with older ECU's as well. If doing so, make sure to update the firmware to version 587 or greater.

If you are installing this software on an older version ECU, follow these steps:

1. It is advised (not required) to disconnect your computer from the internet when performing all of the following installation.
2. Insert the CD. It should automatically load and start the installation process. You may get a dialog box saying the program is from an unknown publisher. Select "yes" and continue. Follow the instructions on the screen. At the end you should get a message saying the software was successfully installed.
3. After the software is successfully installed, connect the black USB cable (included with the ECU) to the ECU and laptop (cable will screw into the USB port on the ECU). You do NOT need any other portion of the ECU harness connected. The ECU does NOT have to be powered for this step. Once connected, you should get a "found new hardware" message at the lower right portion of the screen, followed by a "hardware successfully installed" message.

NOTE: You will not be able to load a calibration file or communicate with the ECU until the ECU is wired and powered. This step just loads the USB drivers.

NEW PARAMETERS IN SOFTWARE VERSION 2.2.0.3. READ!!

There are new crank and cam sensor parameters for magnetic type pickups in software version 2.2.0.3. These only have an effect on ECU's that are marked with "Rev J" on the label on the back (which the ECU included in this packaging is). These parameters have no effect on older ECU's which can be identified by the fact that they have no Revision level on their labels. If you have an older ECU, enter a value other than 0.00 volts so that a warning message stops appearing.

The new variables are found in the following area in the System Parameters ICF:
Ignition Parameters > Ignition Type = "Custom" > Under "Configure"

If the Crank Sensor, "Sensor Type" = Magnetic, or the Cam Sensor, "Sensor Type" = Magnetic, the following new Variables appear for either:

- "Minimum Signal Voltage" – This parameter defines what the signal strength must be for the ECU to recognize it as valid for the crank, cam, and IPU speed inputs. Anything below this threshold is considered background noise. This value can be set between 0 and 5V and the higher the setting, the more noise is rejected and the stronger the signal has to be before the ECU considers it valid. Practically speaking, the sensor's signal at the lowest speed (during cranking for instance) defines how high you can set this. Obviously, if you only have a voltage level of 0.5V during cranking, you do not want to set it to 1V because the actual signal will be ignored. It is advised to start with a value of .35 Volts. If there is a problem picking up a signal during cranking, lower this value .05 Volts at a time until you get reliable triggering during cranking (valid engine speed), then multiply this value by 0.75. If there is a problem with noise causing false pulses, you can try increasing this value.

This parameter can also be found in the "Input/Output ICF", as well when the Input Type is set to "IPU Speed". Follow the information above to select this value.

- "Filtering" – This is a variable that controls the new hardware based filtering used to help throw out short duration noise on the crank and cam inputs. A value of 1 represents the minimum filtering and 16 is the maximum filtering. Practically speaking, the sensor's maximum frequency in combination with its strength determines how high you can set this. A 60-2 or 36-1 pattern generates a high frequency signal and you would almost never need anything greater than 8, and anything over 4 should be used with caution. For single pulse per fire crank signals and cam signals, the frequency is lower and you can get away with more filtering. If you use a filtering value that is too high, valid pulses can be filtered out at high engine speeds causing sync errors. You do not have to be under load to test for this. You might notice as you increase the crank filtering levels, you will have to increase the inductive delay values to keep timing from retarding at high speeds, since by its nature the filtering introduces a slight delay.