# SCCA Enterprises Technical Bulletin 004-2016

## GEN3 ECU Code Light

Over the past few months there has been some confusion as to the operation and functionality of GEN3 “ECU Code Light”

The “ECU Code Light” supplied in the GEN3 kit is an LED, must be wired in correct polarity

The LED Red wire 12V +to switched post of IGN switch.

The LED Black wire connected to the dash harness black wire with a female barrel connector. The black wire is connected to “Pin M-25” in the larger of the 2 ECU connectors. (34 pin connector)
When the IGN switch is “on” it provides power to the light, based on a list of parameters, If the ECU has experienced a voltage out of range (High or low) it records the event and pulses a ground on Pin M-25 that turns the light on…”displays a code”

## How the “ECU Code Light” is intended to function as of today…

- 2 second start up flash
- “on” for an internal error
- rapid flash for TPS Auto Cal Mode

## Codes

21 Injector over current
22 Coil over current
23 Digital over current
12 AT out of range
13 CT out of range
14 TPS out of range
15 MAP out of range

In the future we hope to add “WideBand out of range” and “SYNC sensor out of range”

## Diagnosing Light problems

Test the light: Check to be sure it is wired correctly, then turn on the IGN Switch and ground the black wire to a chassis ground. The light should be “on” when grounded.

Test with PE Monitor software. This will test ECU function, condition of the light and wiring.
Establish a connection to the ECU with your PC. PC will need our current version of PE Monitor installed.
• menu at the top of the screen
• Select Diagnostic
• Select Output
• Digital Outputs list to the right of the new window, Digital Output #9 is the “ECU Code Light” you can click the #9 box to flash the light or check the “turn on continuously” box and the light will stay on until you uncheck the box.
• When done testing, uncheck the “turn on continuously” box and disconnect the PC
• **Official PE Monitor as of 8-15 is V37 , never attempt to connect to an ECU with the wrong version of PE Monitor you should get a warning “wrong version of Monitor” and some cases could corrupt the tune file. ECU will then need to be reprogrammed by SCCA Enterprises or a CSR.**
• Link http://www.pe-ltd.com/joomla/images/downloads/pe3MonitorInstaller_srf_v3_04_37.zip

Test the wiring between the light and the ECU: disconnect the larger of the two ECU connectors and the black wire from the light …with an OHM meter, there should be no continuity to chassis ground or 12 Volt positive on the black wire with the female barrel connector. If there is, a wire could be crossed in the 6 pin dash harness connector or could be shorted somewhere.

**Code Verifying and Clearing**

Establish a connection to the ECU with your PC. PC will need our current version of PE Monitor installed.
• menu at the top of the screen
• Select Diagnostic
• Select System Status
• System Status will display, Item or items that have experienced out of range condition will be highlighted in yellow with number of errors.
• You can “reset error counter” in the upper left hand side of the display.
Tip: If an error occurs a couple times a season, most likely it’s not a problem. The limits to flag an error are very close to average values in regular operation. If you have errors every event, more diagnosing will be needed.

**ECU code light on all the time**

You need to check the condition of the light and wiring between the light and ECU for possible problems. If everything checks out satisfactory, there are a

couple of possibilities. More than likely the ECU will need to be returned to Performance Electronics.

**ECU code light rapid flashing**

Rapid flashing ECU Code Light means the ECU is in “TPS Auto Cal” mode
The only way to cancel this code is to complete the “TPS Auto Cal”
You need to check that there is a little slack or free play in the throttle cable. The throttle plate needs to return positively closed every time it’s opened.
Turn on IGN switch pause 2 seconds, hold the throttle wide open still for 2 seconds, release and pause for 2 seconds, hold the throttle wide open still for 2 seconds, release and pause for 2 seconds, Then turn the IGN switch off.
Turn the IGN switch back on to verify Cal was completed / the rapid flash canceled.

Other problems or concerns Contact your local CSR or Mdavies@scca.com