

SCCA Enterprises Technical Bulletin 005-2016

GEN3 Communication Cable

Some history, during initial testing we used several different brands of ECU trying to find the best balance of Cost VS Performance VS Reliability.

Performance Electronics overwhelmingly was the best fit for our GEN3 project. They have roots in unmanned government aircraft and stationary engines, where reliability is of highest importance.

Performance Electronics software, "PE Monitor" uses a type of Ethernet protocol to communicate with the ECU.

Our proprietary communication cable has a RJ45 connector on one end. Standard for LAN/ NIC card found on most PC's. The other end is a USB type "B" the panel mount receptacle on the GEN3 EFI harness. We have the COMM Cable assembled in that configuration.

2 PE3's ECU's have failed to communicate...It's extremely difficult to track down how this occurs, however there is a way that will damage the Ethernet transformer in the ECU every time.

If communication is attempted via a USB PC port.

The STD wiring on USB device provides 5VDC supply on pin #1. This will cause the PE3 Ethernet Transformer to fail. Once the transformer is damaged, it is impossible to update firmware or tune file in the flash memory chip.

Because we use the potted version of the PE3, (greatest reliability) It is nearly impossible to repair the ECU.

During initial set up or Diagnosing issues, always connect with the GEN3 kit supplied cable via LAN / NIC card RJ45 connection. If the supplied cable is damaged or lost we keep them in stock.

Never attempt to communicate with the ECU by any other means. Damage can occur and void warranty expressed or implied.

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