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Subject: WPR24LA205 – Email excerpt from ECU Manufacturer

Contact: Robert Paisley – ECU Manufacturer

According to the ECU manufacturer,

There are three switches that control the EFII system:

A. ECU Select Switch - this determines which ECU is in control of fuel delivery.

The ECU currently in control of fuel delivery will show a BLUE label, the ECU that is not currently in control of fuel delivery will show a GREEN label. Only one or the other ECU can be in control of fuel delivery depending on the position of this switch.

B. Two Run-up Switches - one run-up switch determines if ECU1 ignition operation is in RUN or STOP mode - if in STOP mode, the ECU label will go RED. One run-up switch determines if ECU2 ignition operation is in RUN or STOP mode - if in STOP mode, the ECU label will go RED.

Typically, the pilot would never set a run-up switch to STOP mode while in flight - these switches are to perform a run-up ignition test ("mag check") during run-up to check that all spark plugs are firing.

During flight operations, the ECU labels would never be RED. They would only be GREEN or BLUE. If ECU labels are something other than GREEN or BLUE, this indicates a wiring or voltage issue.

The two ECUs have their own separate power and ground wiring and operate as separate systems. If both ECUs are showing status indications that are other than GREEN or BLUE, this indicates that both systems are seeing power faults of some sort.

I.E. this suggests there was an upstream cause of the power fault either on the+12v supply or on the ground supply that was affecting both ECU systems (and possibly the MFD as stated in the text). The observation of the pilot suggests that three different systems experienced some type of power or ground interruption (two ECUs and the MFD). Again, this suggests a main supply wiring issue on 12v or ground that is affecting multiple systems.