Moyer Marine inc.

Installing an MMI Engine Warning & Diagnostic System

PARTS

Prerequisite: Cole-Hersee alarm system must be installed on the engine prior to installation of the Engine Warning and Diagnostic System (EWDS). The EWDS utilizes the basic alarm system sensors. The optional alarm system flow sensor is also necessary to realize full EWDS features.

Steps for installation of components on engine:

1) Disconnect the existing black Cole-Hersee alarm wire from all sensors. Retain it for connection to the EWDS later. The short black wire from the flow sensor remains grounded, do not disconnect.

2) Install the fuel pressure sensor in the fuel supply line at the carburetor inlet using the brass Tee (provided).

3) Mount the EWDS assembly on a nearby bulkhead on the carburetor side of the engine using the stainless steel pan-headed screws and stand-off tubes provided in kit.

4) The black EWDS wire identified as “GRND.” Gets connected to any good engine grounding point (suggest one of the 1/4 - 20 retaining bolts on the flywheel cover).

5) Attach the black wire terminal identified “FUEL 2” to one of the fuel sensor terminal screws.

6) Attach the orange wire terminal identified “FUEL 1” to the other fuel sensor terminal screw.

7) Attach the remaining wires to the sensor terminals and coil + post as indicated:

Blue	Oil sensor
Brown	Temp sensor
Yellow	Flow sensor
Purple	Coil +
Orange and black as described above	

8) Connect the previously removed black alarm system wire to the EWDS terminal identified “BUZZER.” Insulate or remove unused terminals in this wire.

Steps for mounting the display:

1) Select a location for the display panel. Drill two 1/2” holes using the template provided at the end of these instructions.

2) Cut out the center section leaving an oval hole.

3) Peel the tape protector off the panel back and press the panel into place.

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Tying it all together: The Ethernet patch cord connects the EWDS to the display panel. Apply dielectric grease provided in the kit to these connections.

Testing the installation: With the engine running and using a jumper wire, ground any single sensor tab to confirm panel light and buzzer operation.

Interpretation of signals

Ignition ON and before engaging starter:

- Fuel, Flow and Oil lights ON, Coil and Temp lights OFF: Condition normal.

- Coil light ON: Coil voltage low (below a nominal 9 volts) due to weak battery (if accompanied by slow cranking), or excessive resistance in primary ignition system (connections, wiring, trailer plug, etc.).

During starter cranking but before start:

- All lights OFF (except possibly Flow and Fuel as noted below): Condition normal.

- Fuel light ON (if electric fuel pump is installed): Condition normal until OPSS closes.

- Fuel light ON (if mechanical fuel pump is installed): Fuel inlet pressure to carburetor below a nominal 1 psi due to system blockage, fuel system leak, fuel shutoff valve closed, out of fuel, pump failure, etc.

- Coil light ON during cranking: Coil voltage low (below a nominal 9 volts) due to weak battery (if accompanied by slow cranking), or excessive resistance in primary ignition system (connections, wiring, trailer plug, etc.).

- Flow light ON: Raw water thru-hull closed, intake blockage, impeller failure, cooling system blockage.

After starting, raw water valve open:

- All lights OFF: Condition normal

- Fuel light ON: Fuel inlet pressure to carburetor below a nominal 1 psi due to fuel supply system blockage, fuel system leak, fuel shutoff valve closed, out of fuel, pump failure, OPSS failure (if equipped), electric pump fuse blown.

- Oil light ON: Oil pressure below a nominal 6 psi. If electric fuel pump is installed, fuel light will be on also.

- Flow light ON: Raw water intake blockage, cooling system blockage, impeller failure.

- Coil light ON: Coil voltage low (below a nominal 9 volts) due to weak battery (if accompanied by slow cranking), or excessive resistance in primary ignition system (connections, wiring, trailer plug, etc.).

- Temperature light ON: Coolant temperature has exceeded 200 degrees.

Display panel drilling template: