



PRODUCT NOTICE

Bulletin Number – PSI1030

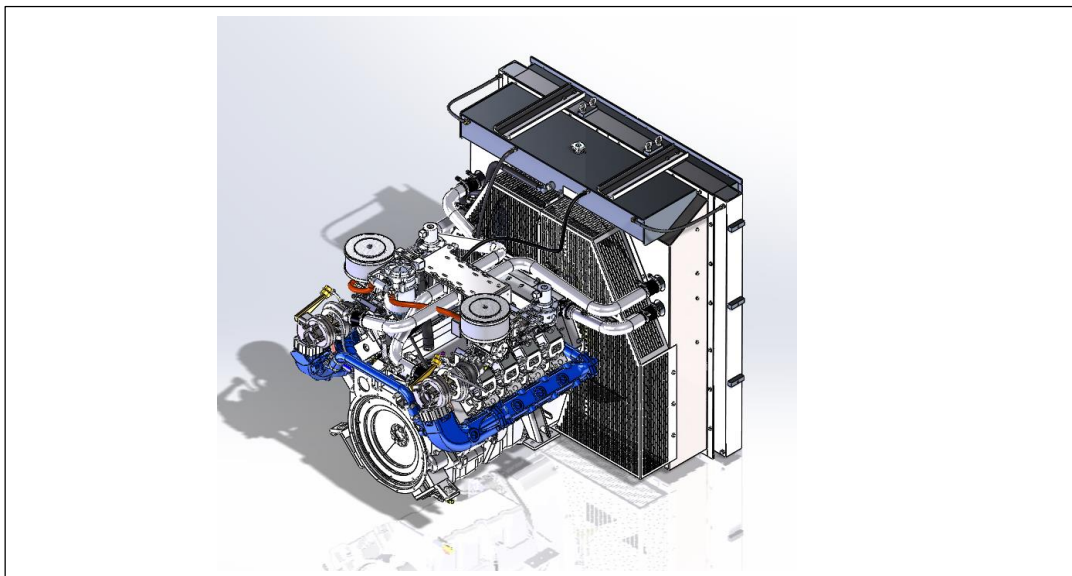
Notice Title – HD 4G Display Software

Date of Notice – 7/6/2015

Engine Displacement – PSI HD 4G V-Series Engines (14.6L, 18.3L, 21.9L)

Estimated Effective Date – 7/7/2015

When monitoring a 4G V-Series engine, there must be two 4G Displays opened. Opening two displays will allow you to monitor both the Master and Slave banks of the engine at the same time and record simultaneous plot files if needed. This **MUST** be done anytime communications are established with the engine to ensure the ECM's do not boot out of sequence due to the presence of PC communications. Failure to establish communication with both the Master & Slave ECMs and connection only to the Master may have impact on the electrical system. Instructions to connect to both banks of the engine are below. Please contact your Customer Support Engineer for any questions.



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POWER SOLUTIONS INC. SERVICE ENGINEERING GROUP AT 1-630-350-9400

Step 1) Connect **ONE** ECOM cable to the diagnostic port on the engine harness. *NOTE: These engines only require the use of one ECOM unlike the previous GCP versions that required one per bank.*

Step 2) Start the engine.

Step 3) Open a 4G Display and verify the connected (top left corner).

The screenshot displays the EDIS ECI Target Communications software interface. At the top, it shows 'Main' and 'Connected' status, along with the EControls, Inc. logo. A message indicates a 'Link error - attempting reconnect...' but is 'Connected at 19200 bps'. The main display area is divided into several sections:

- 4G Control Platform:**
 - Manifold Pressure:** A gauge showing 14.3 psia.
 - Coolant Temp:** A gauge showing 79 deg F.
 - Intake Air Temp:** A gauge showing 78 deg F.
 - Oil Pressure:** A gauge showing 0 psig.
 - Battery Voltage:** A gauge showing 24.6 volts.
 - Foot Pedal Position:** A gauge showing 0%.
 - Throttle Position:** A gauge showing 5%.
- System Variables:**
 - Engine Speed: 0 rpm
 - Min Governor Setpoint: 1450 rpm
 - Max Governor Setpoint: 1850 rpm
 - Current governor target: 1450 rpm
 - Pulse width: 0.00 ms
 - EGO1: 0.000 volts
 - EGO2: 0.282 volts
- System State:**
 - Run Mode: Stopped
 - Power Mode: Key-off
 - Fuel Type: Natural Gas
 - Fuel Supply: Off
 - Fuel/Spark inhibit input: Inactive / Normal
 - Fuel Control Mode: Open Loop
 - Governor switch state: None
 - Oil pressure state: Low - Ignored
 - Active governor type: Min
 - Active governor mode: Isochronous
- Customer Configuration Information:**
 - Cust hardware name/number: 53000090
 - Cust software name/number: 58200004-5
 - Cust governor cal name: 50&60Hz NG and LP Govs
 - Cust governor cal date: 3-12-2015
 - Engine part number: [Empty]
 - Engine serial number: [Empty]
 - Vehicle identification number: NONE
 - Displacement: 7.3 L Cylinders: 8
 - Spark system type: Coil Per Cylinder
 - Firing Order: 1 - 5 - 7 - 2 - 6 - 3 - 4 - 8 - X - X
- Software and Hardware Information:**
 - Software model: 9999999X Hardware model: 2492305A
 - Initial cal model: 9999999X Manufacture date: 11-13-2014
 - Initial cal date: 6-29-2015 Serial number: 1592
 - Current cal model: 9999999X Hour meter: 0.970 hours
 - Current cal date: 6-29-2015 Cumulative starts: 73 starts
 - Software revision: 228 34346 4 1189520756
 - Emissions Calibration Checksum: \$30D239C3
 - Total Calibration Checksum: \$25686ECE

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Step 4) Select **Comm Port** then **Configure ECOM**.

EDIS ECI Target Communications

File Page Flash **Comm Port** Pjot/Log Help

EControls, Inc.
Control and Instrumentation Specialists

Link error - attempting reconnect...
Connected at 19200 bps

4G Control Platfo

Manifold 1
20.0
15.0
10.0
5.0
0.0

Intake Air Temp | Oil Pressure
250- | 100-
200- | 80-
150- | 60-
100- | 40-
50- | 20-
0- | 0-
-50- | 0-
deg F | 78 deg F | 0 psig

System Variables | MIL
Engine Speed | 0 rpm
Min Governor Setpoint | 1450 rpm
Max Governor Setpoint | 1850 rpm
Current governor target | 1450 rpm
Pulse width | 0.00 ms
EGO1 | 0.000 volts
EGO2 | 0.292 volts

System State
Run Mode | Stopped
Power Mode | Key-off
Fuel Type | Natural Gas
Fuel Supply | Off
Fuel/Spark inhibit input | Inactive / Normal
Fuel Control Mode | Open Loop
Governor switch state | None
Oil pressure state | Low - Ignored
Active governor type | Min
Active governor mode | Isochronous

ECOM
Configure ECOM...

Customer Configuration Information
Cust hardware name/number | 53000090
Cust software name/number | 58200004-5
Cust governor cal name | 50860Hz NG and LP Govs
Cust governor cal date | 3-12-2015
Engine part number |
Engine serial number |
Vehicle identification number | NONE
Displacement | 7.3 L | Cylinders | 8
Spark system type | Coil Per Cylinder
Firing Order | 1 - 5 - 7 - 2 - 6 - 3 - 4 - 8 - X - X

Software and Hardware Information
Software model | 9999999X | Hardware model | 2492305A
Initial cal model | 9999999X | Manufacture date | 11-13-2014
Initial cal date | 6-29-2015 | Serial number | 1592
Current cal model | 9999999X | Hour meter | 0.970 hours
Current cal date | 6-29-2015 | Cumulative starts | 73 starts
Software revision | 228 | 34346 | 4 | 1189520756
Emissions Calibration Checksum | \$30D239C3
Total Calibration Checksum | \$25686ECE

Battery | Show Stats | Ctrl+S
10.0 | 20.0
0.0 | 30.0
24.6 volts

Throttle Position | 100- | 80- | 60- | 40- | 20- | 0-
0- | 5 %

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Step 5) An ECom Configuration window will appear. For **Target CAN Address**, change the “0” to a “1”, then select OK.

The screenshot displays the EDIS ECI Target Communications software interface. The main window shows a 'Main' tab with a 'Connected' status. The interface is divided into several sections:

- 4G Control Platform:** Contains gauges for Manifold Pressure (14.4 psia), Coolant Temp (75 deg F), Intake Air Temp (74 deg F), Oil Pressure (0 psig), Battery Voltage (24.6 volts), Foot Pedal Position (0 %), and Throttle Position (5 %).
- System Variables:** Lists parameters such as Engine Speed (0 rpm), Min Governor Setpoint (1450 rpm), Max Governor Setpoint (1850 rpm), Current governor target (1450 rpm), Pulse width (0.00 ms), EGO1 (0.000 volts), and EGO2 (0.102 volts).
- System State:** Shows Run Mode (Stopped), Power Mode (Key-off), Fuel Type (Natural Gas), Fuel Supply (Off), Fuel/Spark inhibit input (Inactive / Normal), Fuel Control Mode (Open Loop), Governor switch state (None), Oil pressure state (Low - Ignored), Active governor type (Min), and Active governor mode (Isochronous).
- Software and Hardware Information:** Provides details like Software model (9999999X), Hardware model (2492305A), Initial cal model (9999999X), Manufacture date (11-13-2014), Initial cal date (6-29-2015), Serial number (1592), Current cal model (9999999X), Hour meter (0.970 hours), Current cal date (6-29-2015), Cumulative starts (73 starts), Software revision (228, 34346, 4, 1189184802), Emissions Calibration Checksum (\$30D239C3), and Total Calibration Checksum (\$25686ECE).

An **ECom Configuration** dialog box is overlaid on the main window. It features the following fields and controls:

- Available ECOM Modules:** A list box showing 'First Available' and '6719'.
- Link:** A dropdown menu set to 'CAN'.
- Target CAN Address:** A numeric input field currently showing '0'.
- PC CAN Address:** A numeric input field showing '250'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

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Step 6) Disconnect the ECOM USB connection from your computer and reconnect. Verify slave bank connectivity by going to the Marine page and verify slave communications (see arrows below).

The screenshot displays the EDIS ECI Target Communications software interface. The top bar shows the 'Marine' page is active and 'Connected'. The main area is divided into several sections:

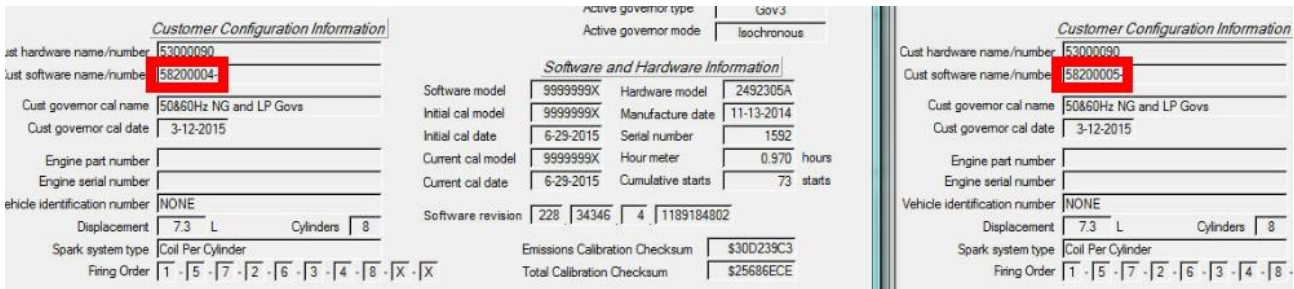
- Marine Engine Operation:** Displays various engine parameters such as Engine Speed (0 rpm), Manifold Pressure (14.31 psia), Barometric Pressure (13.95 psia), Coolant Temperature (144.6 °F), Intake Air Temperature (111.1 °F), Spark Advance (0.0 °BTDC), Pulse width (0.0 ms), Vbat (25.0 volts), Vsw (0.0 volts), FPP command (0.0 %), and TPS command (30.1 %).
- Multi-Engine CAN Communication Status:** A table showing communication status for Master, Slave 1, Slave 2, and Slave 3. A red arrow points to the Slave 1 status, which is 'None'.
- Multi-Engine Configuration:** A dropdown menu showing 'Aux PU2 Select' and 'Slave 1'. A red arrow points to this section.
- Multi-Engine Derate Coordination:** Shows settings for Multi-engine derate coordination (Enabled), Multi-engine derate reset time (0.0 sec), and Multi-engine derate logic state (Offline).
- Multi-Engine Speed Synchronization:** Shows settings for Multi-engine speed sync (Disabled), Sync switch source (Normal), and Sync command (None).
- Multi-Engine Gauge Driver Synchronization:** Shows settings for ECT multi-engine gauge sync (Disabled), ECT gauge sync deadband (20 deg F), OilP multi-engine gauge sync (Disabled), and OilP gauge sync deadband (20.0 psig). It also includes two gauge displays: ECT gauge sync'd display value (145 deg F) and OilP gauge sync'd display value (0 psig).

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Step 7) Launch a second version of 4G Display to connect to the Master. Verify both screens are connected.



Step 8) Monitor the **Cust Software Name/Number**. The **SLAVE bank will be one digit higher than the Master**. See the chart below for specific engine Master and Slave numbers.



**** Steps 1-8 should be repeated if the SLAVE 4G Display is closed while the engine is off. At no time should 4G Display be left communicating with the Master ECM on its own. You can leave the displays open while disconnecting the ECOM from the engine and reconnecting.**

You are now connected to both the Master and Slave banks on the V-Series engines.

Displacement	Master	Slave
14.6L	58200004	58200005
18.3L	58200006	58200007
21.9L	58200008	58200009

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