



PRODUCT NOTICE

Bulletin Number – PSI1030

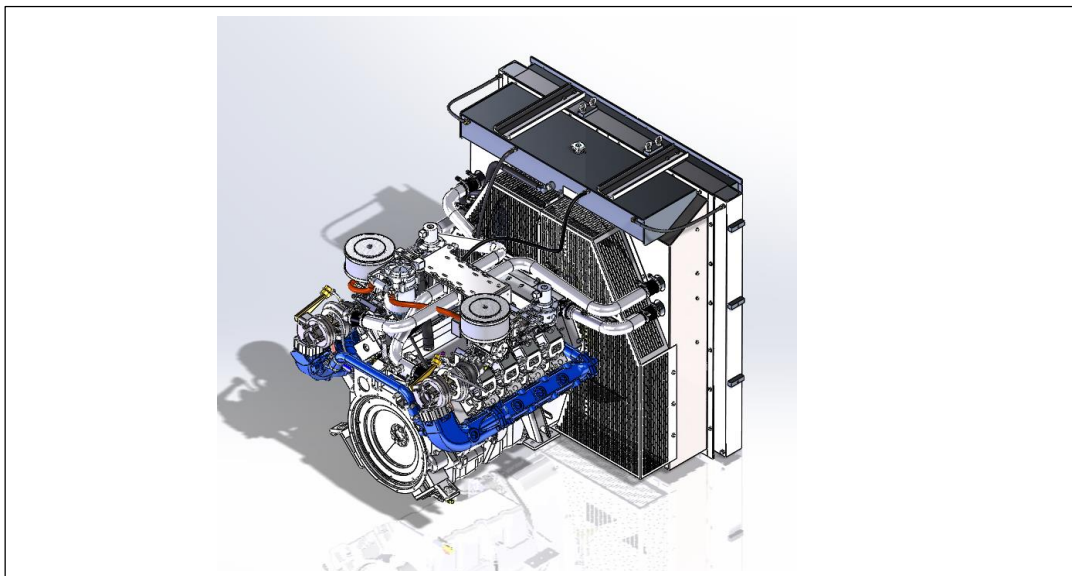
Notice Title – HD 4G Display Software

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.



IF YOU HAVE ANY QUESTIONS ABOUT THIS NOTICE PLEASE CONTACT THE
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
 - Initial cal model: 9999999X
 - Initial cal date: 6-29-2015
 - Current cal model: 9999999X
 - Current cal date: 6-29-2015
 - Software revision: 228 | 34346 | 4 | 1189520756
 - Hardware model: 2492305A
 - Manufacture date: 11-13-2014
 - Serial number: 1592
 - Hour meter: 0.970 hours
 - Cumulative starts: 73 starts
 - 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

COM1
COM2
COM3
COM4
COM5
COM6
COM7
COM8
CAN
Configure CAN...

✓ ECOM
Configure ECOM...

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

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

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

Customer Configuration Information

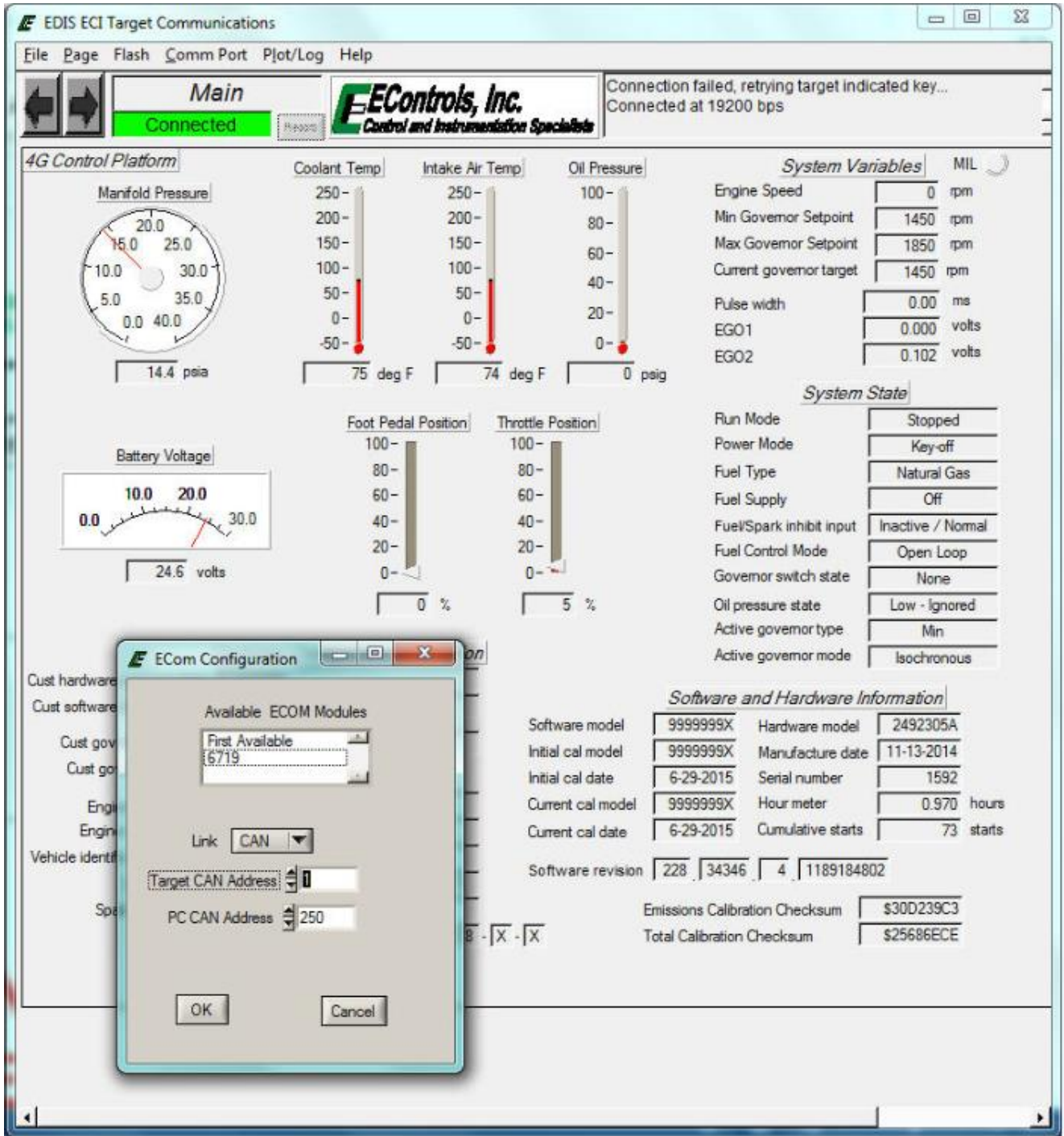
Cust hardware name/number | 53000090
Cust software name/number | 58200004-5
Cust governor cal name | 50&60Hz NG and LP Govs
Cust governor cal date | 3-12-2015
Engine part number |
Engine serial number |
Vehicle identification number | NONE
Displacement | 7.3 L Cylinders | 8
Spark system type | Coil Per 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
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Total Calibration Checksum | \$25686ECE

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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.



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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 'EControls by INNOVATION CONTROLS' and 'Marine Connected'. The main area is divided into several sections:

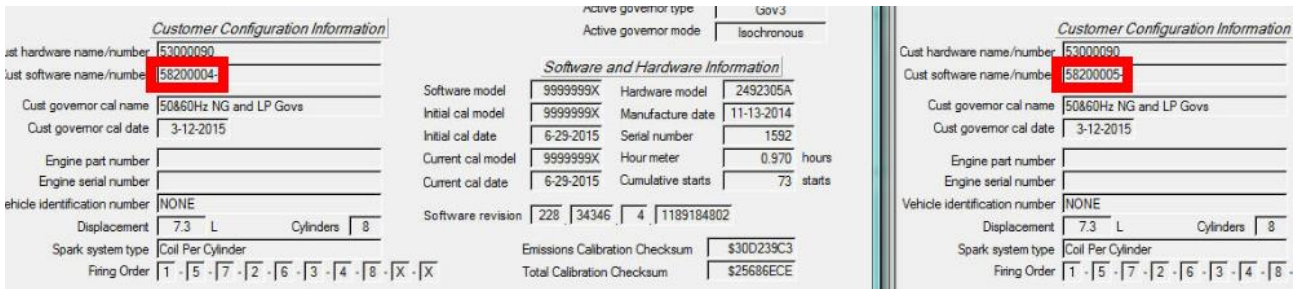
- Marine Engine Operation:** Displays various engine parameters such as Engine Speed (0 rpm), Manifold Pressure (14.31 psia), Barometric Pressure (13.95 psia), Coolant Temperature (144.6 °F), Intake Air Temperature (111.1 °F), Spark Advance (0.0 °BTDC), Pulse width (0.0 ms), Vbat (25.0 volts), Vsw (0.0 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'.
- Marine Speed Control (MSC) Network Information:** A table showing MSC parameters such as MSC cruise command (Not Available), MSC increment/decrement status (Inactive), MSC set/clear status (Inactive), MSC multi-engine sync command (Not Available), MSC throttle override command (Not Available), MSC FPP non-linear mode (N/A - Use Default), MSC FPP non-linear mode idle latch (N/A - Use Default), MSC RPM target (0 rpm), MSC RPM accel target (0 rpm / sec), MSC KPH target (0.0 kph), and MSC KPH accel target (0.00 kph / sec).
- Multi-Engine Configuration:** A dropdown menu showing 'Aux PU2 Select' and 'Slave 1'. A red arrow points to this dropdown.
- Multi-Engine Derate Coordination:** A section with 'Multi-engine derate coordination' set to 'Enabled', 'Multi-engine derate reset time' set to '0.0 sec', and 'Multi-engine derate logic state' set to 'Offline'.
- Multi-Engine Gauge Driver Synchronization:** A section with 'ECT multi-engine gauge sync' set to 'Disabled', 'ECT gauge sync deadband' set to '20 deg F', 'OilP multi-engine gauge sync' set to 'Disabled', and 'OilP gauge sync deadband' set to '20.0 psig'. Below this are 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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