Engine Communication

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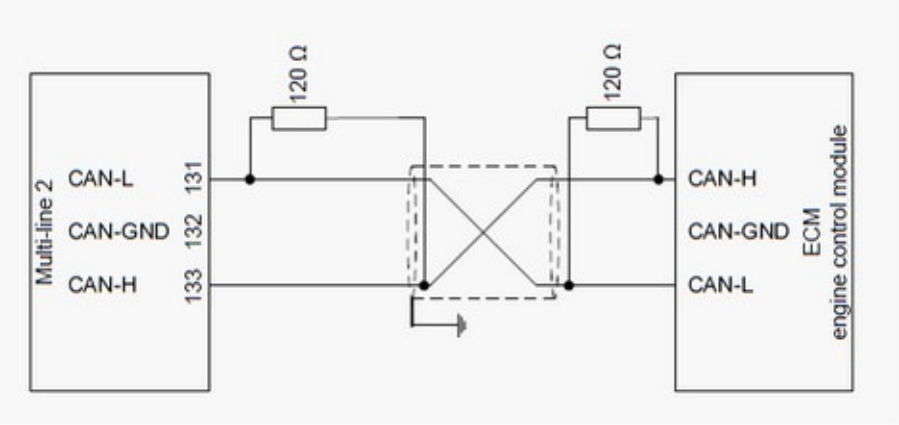
This use case is about how to configure the CAN communication between the AGC-4 device and the engine controller.

Note: Option H5 or H7 must be installed. See option H5 and H7 manual for more information.



3.2.2 Option H5

The PCB for the engine interface communication module is placed in slot #8.

Term.	Function	Description
133	CAN-H	CANbus card option H5, Engine Interface Communication
132	CAN-GND	
131	CAN-L	
130	CAN-H	
129	CAN-GND	
128	CAN-L	
127	Not used	
126	Not used	

Terminals 133 and 130 are internally connected.
Terminals 131 and 128 are internally connected.

3.2.3 Option H7

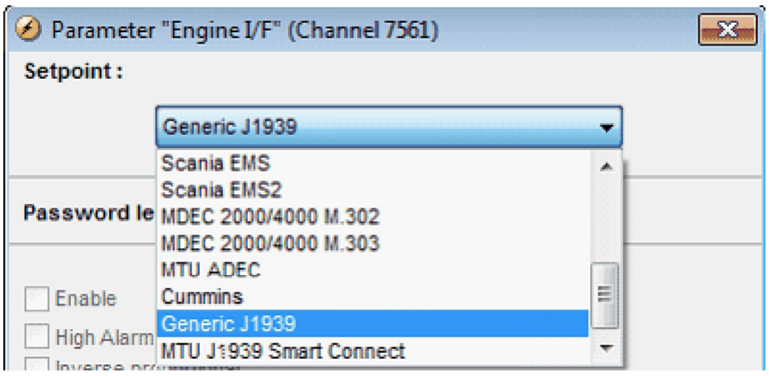
The PCB for the engine interface communication module is placed in slot #7.

Term.	Function	Description
A1	CAN-H	CAN I/F A
A2	CAN-GND	
A3	CAN-L	

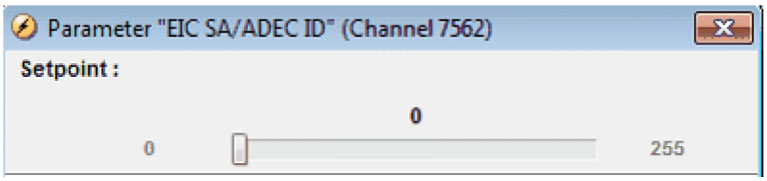
AGC-3: If option G5 is active, the option H7 cannot be activated.

1) Connect J1939 CANbus wiring from DEIF control to engine CANbus

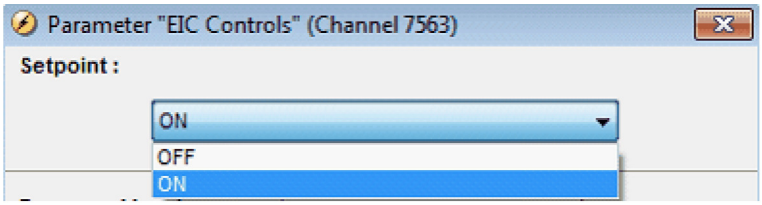
2) Set menu 7561 to the engine type. Reference option H5 and H7 manual for information on each engine type



3) Set menu 7562 to the ADEC engine ID (only applicable if “MTU ADEC” is selected in menu 7561)

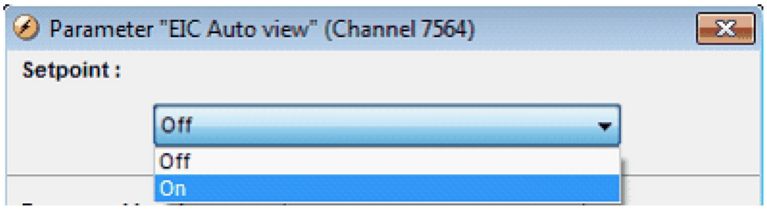


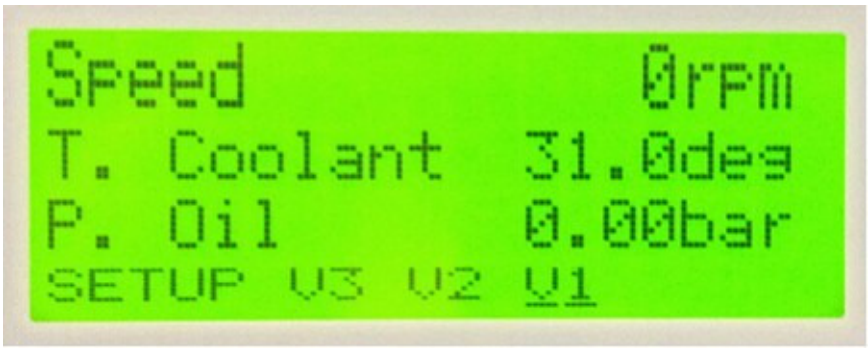
4) Set menu 7563 to “ON” if the DEIF control will issue commands to the engine; or set to “OFF” if the DEIF control will only read values form the engine (for more information on the commands that can be sent to each engine, see the option H5 and H7 manual section titled “Control commands sent to the engine”)



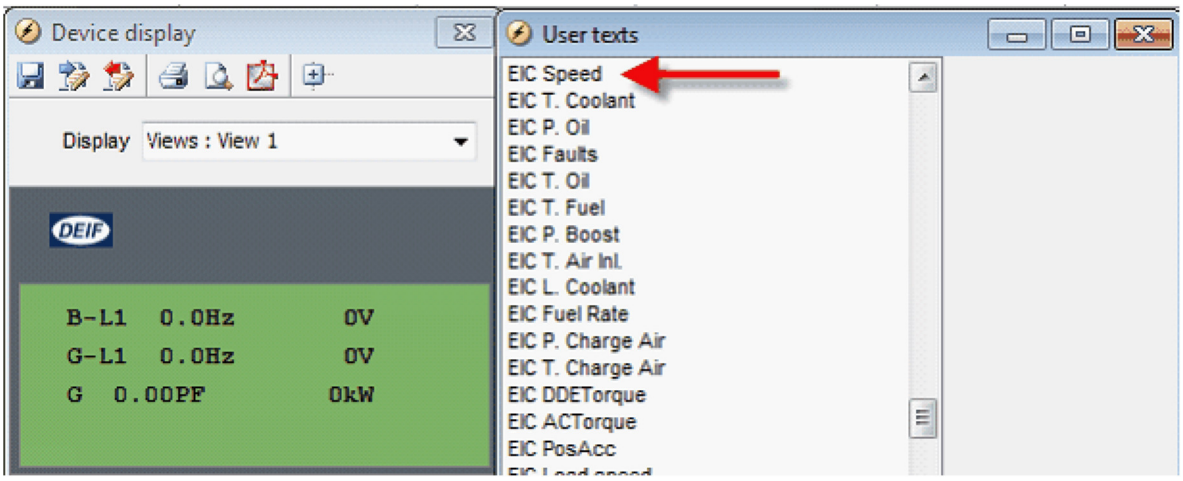
5) Set menu 7564 to “ON” to scan the J1939 network and display any values the DEIF control reads. These values are placed into new view screen(s) in V2 and V1 views. The number of new screens is dependent on the number of values the DEIF control reads from the J1939 network. The Auto view parameter is a momentary “ON”, and the value will revert to “OFF” after scanning the J1939 and creating the new view screen(s).

If the wiring and communication is setup properly, new view screens will be created with data from the engine. If the wiring and communication is not setup properly, there will not be any new view screens.

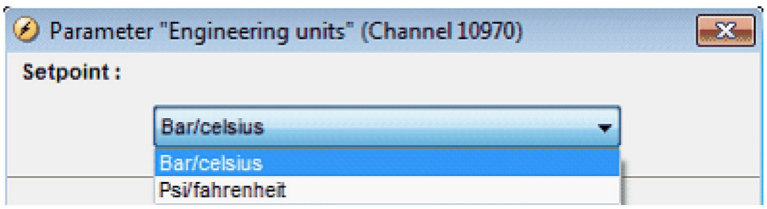




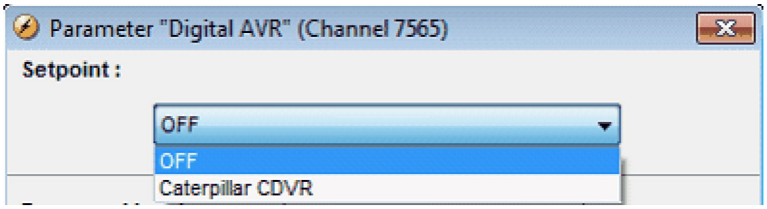
6) View screens can be manually programmed using the J1939 data by selecting values that begin with "EIC"



7) Set menu 10970 to the desired units displayed (temperature, pressure, etc.)

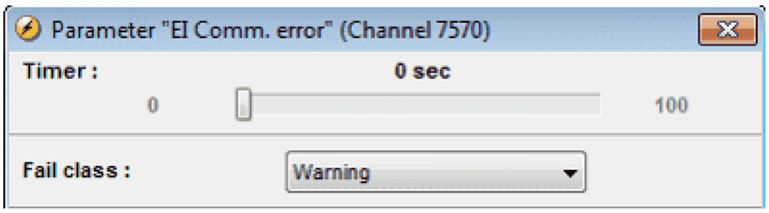


8) Set menu 7565 to "Caterpillar CDVR" if a Caterpillar CDVR voltage regulator will be biased via J1939 (Note: the CDVR must also be connected on the J1939 network)

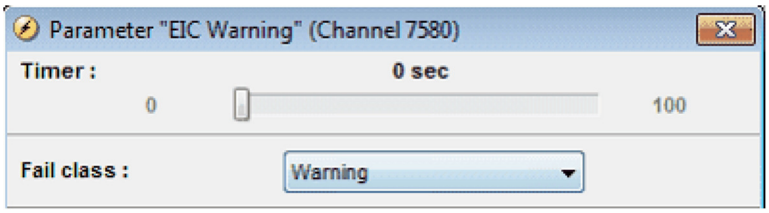


9) The J1939 values displayed by the DEIF control will also be copied into Modbus. For more information on the Modbus addresses, see the option H5 and H7 manual section titled "Modbus communication"

10) Set menu 7570 for the DEIF control to alarm when the EIC communication fails. Set the timer, fail class, and check “enable” to turn the alarm on



11) Set menu 7580 for the DEIF control to alarm when the engine has any warning present. Set the timer, fail class, and check “enable” to turn the alarm on



12) Set menu 7590 for the DEIF control to alarm when the engine has any shutdown present. Set the timer, fail class, and check “enable” to turn the alarm on