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Interfacing with MAN MMDS series engines

MAN engines (MMDS Series) transmit and industry standard data protocol known as J1939. The J1939 protocol is an industrial protocol that was originally developed for the engine manufactures but has now worked it's way into other industries.

MAN transmits this data onto a two-wire circuit known as a CAN bus (Controlled Area Network) CAN buses are used in almost all industries known today. The two wires in the circuit are designated as Can-high or Can-H and Can-Low or Can-L. CAN-H & CAN-L are not to be interpreted as data and ground it is what is known as a differential signal. The wire color designation is (rule of thumb) yellow for CAN-H and green for CAN-L, most manufactures follow this rule. For more detail info about J1939 go to: <http://www.kvaser.com/index.htm>

Embedded in the J1939 data string is all the relative engine parameters ex: oil pressure, oil temp, coolant temp and so on however along with the normal data MAN does also transmits error codes.

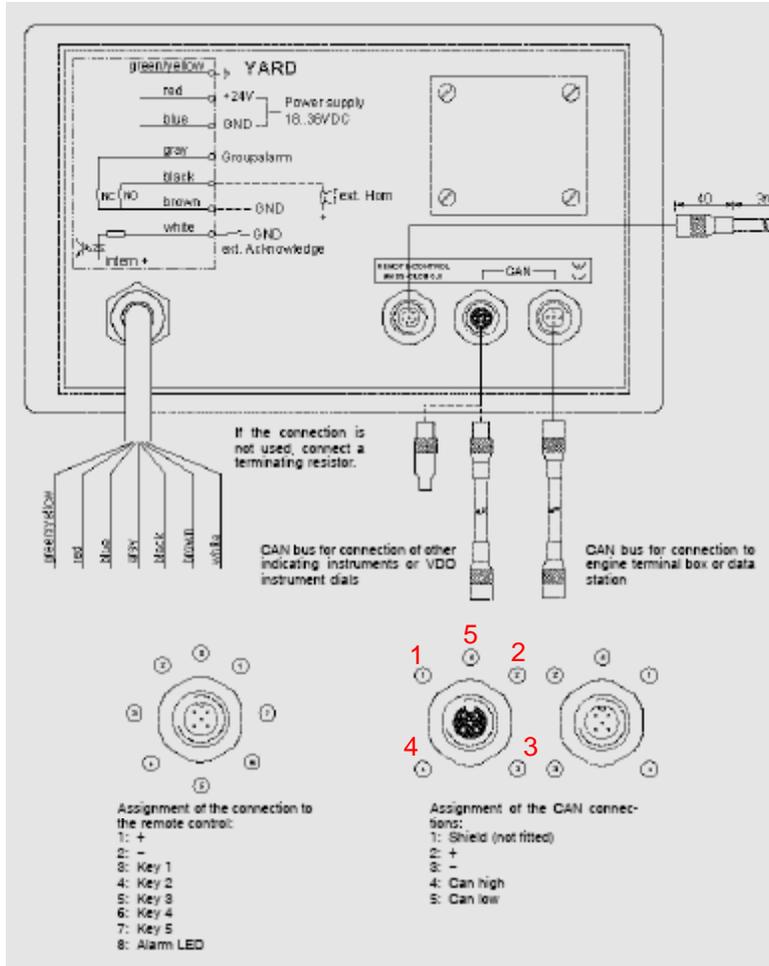
For reading MAN J1939 data there is a 5 Pin connector located on the backside of the MMDS Display (See photo). The four pins you need to be concerned with are:

- 4 is CAN H
- 5 is CAN L
- 2 is 12 VDC
- 3 is Ground





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To read the MAN J1939 data you will need a CAN to Serial converter to plug into the serial communication port on the PC. The one that you must use is manufactured by B & B Electronics <http://www.vehicleinterface.com/product.asp?sku=HDV100A1> no other converter will work with FT NavVision software. If you have a twin-engine application FT NavVision will see J1939 data coming in on two ports. FT NavVision is configured to read the lower Com port as the port engine and the higher Com port as the stbd engine. If FT NavVision recognizes the data the needles in the instruments will be light gray in color if it fails to see the data the needles will be dark gray in color.

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18730 Lenaire Dr • Miami, FL 33157 • Tel 305-251-7547 • Fax 305-238-6800

www.atmmarin@bellsouth.net



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The following schematic shows you how to pick of the data and power from the wire side of the MMDS display.

