



MONICO, INC. TRANSLATOR

J1939 to Modbus Protocol Converter

Application

The J1939 Translator is a plug & play **Protocol Converter** product which converts J1939 protocol to Modbus RTU protocol. It is used in applications where engine data is to be transferred from J1939 to a PLC, J1939 to a Man-Machine Interface (MMI, see Monico MoniTrend product) and from J1939 to a remote monitoring devices (see Monico SatData product).

Compatible Engines and Controls

- Detroit Diesel
- Cummins
- Cat Marine
- John Deere
- Perkins 1300 EDI
- Deutz-EMR

Standard Equipment

- Translator Display Gauge.
- Translator Power & Communications Cable.

Features

- Automatic J1939 Detection and Configuration.
- Standard Modbus RTU, 2 wire, RS485 Output.
- Plug and play Operation.

Installation

- Mount the Translator in a panel.
- Connect the Translator cable to the J1939 data highway.
- Connect the Translator cable to the RS485 Modbus Master device.
- Connect the Translator cable to the 12 to 24 Vdc power.
- Begin scanning Translator Modbus addresses as shown on the Modbus Data Map (partial example below) to receive engine data. Please retrieve the full data map from the Monico Web Site at www.monicolc.com.



Modbus Register	Parameter	Cat Marine	John Deere	Cummins	Detroit Diesel	Deutz EMR	Perkins 1300 EDI
40001	Percent Load at Current Speed	Y	Y	Y	Y	Y	Y
40002	Actual Engine Per Cent Torque			Y	Y		Y
40003	Engine Speed	Y	Y	Y	Y	Y	Y
40004	Total Engine Hours Fraction	Y	Y	Y	Y	Y	Y
40005	Total Engine Thousands of Hours	Y	Y	Y	Y	Y	Y
40006	Electric Potential	Y		Y	Y		
40007	Battery Potential Voltage (switched)		Y				Y
40008	Engine Oil Level			Y	Y		
40009	Coolant Level				Y		Y

Optional Companion Products

- **MoniTrend** Man-Machine Interface for local data acquisition, trending and historical archiving.
- Caterpillar **CCM Translator** for gathering engine information from the Caterpillar data highway.
- **SATSCADA** Satellite system for worldwide data transmission and display via the Internet.