



TMT3978 Universal Translator
(Translating J1939 to J1587/J1708)

INSTALLATION INSTRUCTIONS

1. Remove cover from Translator. Connect +12/24Volt and Ground to appropriate wires on the Translator. If power and ground are connected properly the red LED should be on.
2. Connect the purple (Bus +) and grey (Bus -) wires from the Translator to the engine bus. When properly connected, the green LED should be on. If green LED is not on, then reverse the wires.
3. Connect the blue (Bus +) and white (Bus -) J1587/J1708 wires to your device.
4. To ensure proper operation, the J1939 bus connected to the TMT3978 Translator must have proper terminating resistors in place. The TMT3978 Translator does not include built-in terminating resistors due to the fact that it can be connected at any point of the bus, not necessarily either of the end points.
 - a. The terminating resistors are made up of two 120 Ohm resistors connected at both physical ends of the bus, connected between J1939+ and J1939- (or CAN+ or CAN-).
 - b. A properly terminated J1939 bus should see a total of approximately 60 Ohms between the J1939+ and J1939-.
 - c. If the TMT3978 Translator is being added to an existing bus, these resistors may already be in place.
 - d. If the bus is relatively short (less than 10 feet) it is possible to use only a single 60 Ohm resistor at one end of the bus, however, this does not comply with J1939 (CAN 2.0B) standards.
5. Replace cover on Translator.

TRANSLATOR WIRING

RED – Power (+)

BLACK – Ground

PURPLE – J1939 (+)

GREY – J1939 (-)

BLUE – J1708 (+)

WHITE – J1708 (-)

Supported Parameters in J1939:

PID 51: Percent Throttle Position

PID 52: Intercooler Temperature

PID 84: Wheel-Based Vehicle Speed

PID 91: Percent Accelerator Pedal Position

PID 92: Percent Engine Load

PID 94: Fuel Delivery Pressure

PID 96: Fuel Level

PID 98: Oil Level

PID 99: Oil Filter Differential Pressure

PID 100: Engine Oil Pressure

PID 101: Crankcase Pressure

PID 102: Boost Pressure

PID 103: Turbo Speed

PID 104: Turbo Oil Pressure

PID 105: Intake Manifold Temperature

PID 109: Coolant Pressure

PID 110: Engine Coolant Temperature

PID 111: Coolant Level

PID 124: Transmission Oil Level

PID 127: Transmission Oil Pressure

PID 158: Battery Voltage (Switched)

PID 166: Rated Engine Power

PID 168: Battery Potential (Voltage)

PID 172: Air Inlet Temperature

PID 173: Exhaust Gas Temperature

PID 174: Fuel Temperature

PID 175: Engine Oil Temperature

PID 176: Turbo Oil Temperature

PID 177: Transmission Oil Temp.

PID 182: Trip Fuel

PID 183: Instantaneous Fuel Rate

PID 184: Instantaneous Fuel Economy

PID 185: Average Fuel Economy

PID 186: Power Takeoff Speed (RPM)

PID 189: Rated Engine Speed (RPM)

PID 190: Engine Speed (RPM)

PID 245: Total Vehicle Distance

PID 247: Total Engine Hours

PID 250: Total Fuel Used