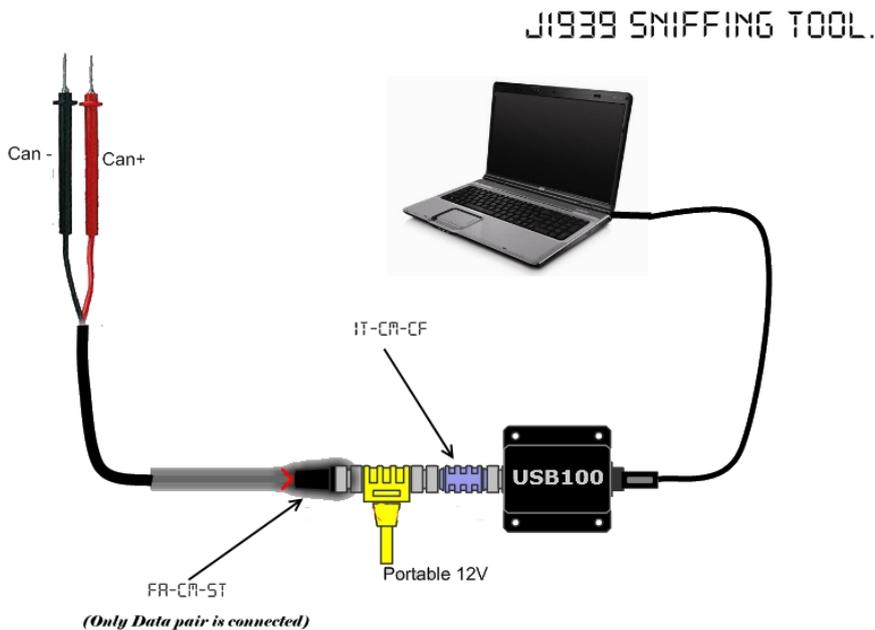# How can I tell which messages (PGNs) are being sent on the J1939 bus by an engine or genset?

Setting the USB100 in J1939 mode:

Instructions:

1. Please use Maretron N2KAnalyzer to ensure that the gateway has firmware revision 1.7.2 or later.
2. Connect the USB100 gateway's NMEA 2000 connector to the J1939 bus. The connection is the same as the J2K100 connection except that +12V power (RED) must be supplied in addition to CAN-H, CAN-L, and GND.
3. Connect the USB100 gateway's USB port to a PC.
4. Start HyperTerm on the PC, and connect to the gateway's COM port using 115200 baud, 8 data bits, no parity, 1 stop bit, no flow control
5. Type the letters "shell" followed by . You should see the "cmd>"

prompt appear.

6. At the "cmd>" prompt, type "setmode j1939raw". You should now see J1939 messages start to appear in a text format.

7. Use the "Transfer->Capture Text…" function of HyperTerm to capture the datastream for a minute or so. Please do not capture from the grey history section of the HyperTerm window as HyperTerm tends to corrupt the data there.