

Interfacing Spartan 3 to MegaSquirt 3

Your Megasquirt 3 ECU must be running Firmware 1.5.1 or newer, earlier firmwares have fewer user adjustable CAN settings. If you find that you are missing CAN options in Tuner Studio; you are most likely running a firmware older than 1.5.1

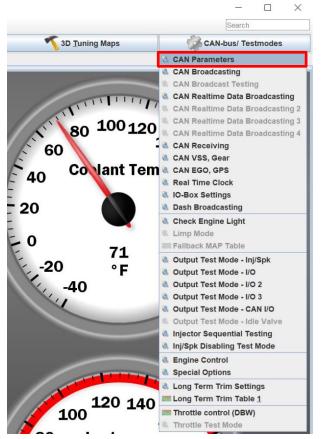
Spartan 3 CAN settings

Spartan 3's default CAN Baud rate is 500kbit/s and the default CAN Format is 0 and the default CAN ID is 1024. The default settings do not need to be changed for a single Spartan 3 install. When installing multiple units, each unit needs to be assigned a unique CAN ID via USB-serial.

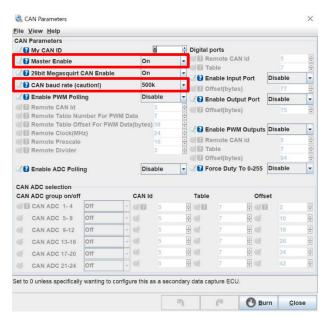
Please refer to Section 12 of the Spartan 3 User manual regarding the CAN Termination Resistor.



MegaSquirt 3 Tuner Studio settings



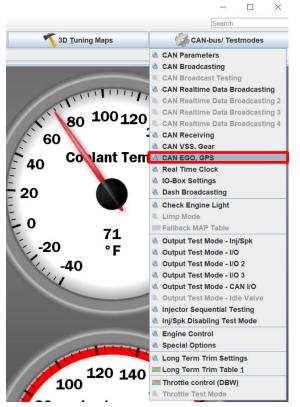
Click CAN-bus/Testmodes and select CAN Parameters.



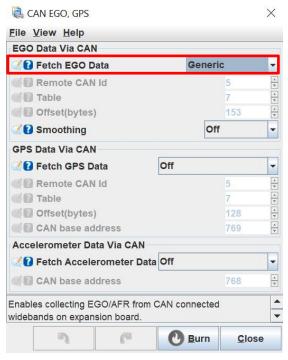
Set Master Enable to On. Set CAN baud rate to 500k.

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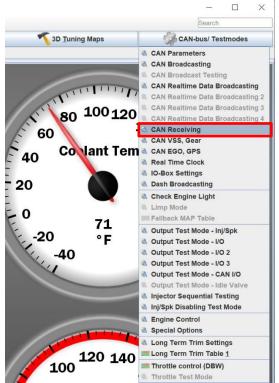


Click CAN-bus/Testmodes and select CAN EGO, GPS



Set Fetch EGO Data to Generic





Click CAN-bus/Testmodes and select CAN Receiving

	ceiving																				
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Set Enable receiving CAN data to On





Click on Fuel Settings and select AFR/EGO Control

AFR / EGO Control

X File View Help AFR / EGO Control -Narrow Band -AFR / EGO Sensor Mapping **Algorithm** Simple BGO Sensor Type Injector - Uses Sensor Use EGO Delay Table Use IGN events -MS3X Inj A 🔮 EGO1 • Ignition Events Per Step 16 + Number Of Sensors 1 EGO Sensor Response Time(ms) 50 MS3X Inj B 🚅 EGO1 • 4 Controller Step Size(%) 1 Off Remember to Calibrate and set Project Properties 🔮 🛿 Use Authority Table -EGO1 MS3X Inj C 🧭 • Controller Auth +/-(%) 15 ÷ EGO1 MS3X Inj D 🦪 • Only Correct Above: (AFR) 9.0 4 EGO ports And Correct Below:(AFR) 20.0 4 MS3X Inj E 🧭 EGO1 • EGO 1 Port CAN EGO • Active Above Coolant(°F) 160.0 4 EGO 2 Port EGO EGO1 MS3X Inj F 🥑 4 • Active Above RPM 1300 EGO 3 Port EGO 4 Active Below TPS(%) 70.0 MS3X Inj G 🧭 EGO1 • 4 Active Below Load(%) 90.00 EGO 4 Port EGO MS3X Inj H 🧭 EGO1 20.00 4 4 4 4 4 4 4 • Active Above Load(%) EGO 0 EGO 5 Port EGO Delay After Start(s) 30 EGO EGO 6 Port V3 Inj 1 C EGO1 • PID Proportional Gain(%) EGO 7 Port EGO **PID** Integral(%) V3 Inj 2 EGO1 • PID Derivative(%) 0 EGO 8 Port EGO . None - no fuel changes are made in response to oxygen sensor readings. -Simple - This method of closed-loop EGO control is well-suited to use with a narrowband O2 sensor. (1) C Burn Close

Set EGO 1 Port to CAN EGO