

Interfacing Spartan 3 ADV to MegaSquirt 3 via CAN Bus

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 ADV must be running Firmware 1.03 or newer.



Spartan 3 ADV CAN settings

Spartan 3 ADV's default CAN Baud rate is 1Mbit/s, that needs to be changed to 500kbit/s via Spartan 3 ADV's Bluetooth serial port using an Android device. Refer to Section 7 of the Spartan 3 ADV User Manual to pair Spartan 3 ADV to your Android device. Refer to Section 9 of the Spartan 3 user Manual to access Spartan 3 ADV's Bluetooth serial port. The serial command to change the Baud rate to 500kbit/s is "SETCANBAUD500000" without the quotes.

Please refer to Section 12 of the Spartan 3 ADV 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.





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



Set Fetch EGO Data to Generic





Click CAN-bus/Testmodes and select CAN Receiving

CAN red	eiving	_							_									_					
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Local	variable / chan	nel	Std/E:	xt	_	Ide	ntifier (de	c.)	Of	fset		Size	•	_	Mu	ltiply		Div	vide		Ad	d	
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1	Off	-	1	Std	-	1	0	A 7	1	0	•	3	10	-	3	1	-	1	1	•		0	* *

Set Enable receiving CAN data to On





Click on Fuel Settings and select AFR/EGO Control

AFR / EGO Control

EGO Control	Cimula		Newser	AFE	FGO Sens	or Manning	1
Algorithm	Simple	EGO Sensor Typ	narrow	Inie	ctor - Us	es Sensor	,
Use IGN events							
Ignition Events Per Step	16	Number Of Sens	ors 1	MS:	3X Inj A 🗹 🗹	EG01	
EGO Sensor Response Ti	me(ms) 50	A V		Me	V Ini P 📝	EGO1	
Controller Step Size(%)	1	1		IVIS.	ox inj b 🗠		
Use Authority Table	Off	Remember to Calibra	te and set Project P	roperties MS:	3X Inj C 🗹	EGO1	
Controller Auth +/-(%)	15	4 T				5004	_
Only Correct Above: (AFR	9.0	EGO ports		MS	sx inj D 🔮	EGOT	
And Correct Below:(AFR)	20.0	EGO 1 Port	CAN EGO	J MS:	3X Inj E 🧭	EGO1	
Active Above Coolant(°F)	160.0		500				
Active Above RPM	1300	EGO 2 Port	EGO	MS	3X Inj F 🏹	EG01	
Active Below TPS(%)	70.0	EGO 3 Port	EGO	MS	3X Ini G 🧭	EGO1	
Active Below Load(%)	90.00	EGO 4 Port	EGO	-			
Active Above Load(%)	20.00	EGO 5 Port	EGO	- MS:	3X Inj H 🧭	EGO1	
BGO Delay After Start(s)	30	EGO 6 Port	EGO	- V3	Ini 1 🔗	5004	_
PID Proportional Gain(%)	100		500		ig i 🎡	EGOT	
PID Integral(%)	20	EGO / Port	EGO	V3 I	nj 2 🧭	EGO1	
PID Derivative(%)	0	EGO 8 Port	EGO	-			
no fuel changes are made in	rosponso to ovva	n sensor readings					

Set EGO 1 Port to CAN EGO