

MegaSquirt-n-Spark_Extra Daughter Board v2

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Preliminary data. More information will be available at <<http://www.glensgarage.com/extra/>> . Support is available from glen@glensgarage.com.

P1 – Signals to/from MegaSquirt board

Pin	Wire Color	Signal Name	MSv2.2 connection	MSv3 connection
1	Brown	Water Injection Valve	X3	JS1
2	Red	Boost Control	X4	JS2
3	Orange	Output 2	See below	See below
4	Yellow	Output 1	See below	See below
5	Green	Output 4	See below	See below
6	Blue	Output 3	See below	See below
7	Violet	Shift Lights 2	U1 pin 11	JS8
8	Gray	Shift Lights 1	U1 pin 10	JS7
9	White	Barometric sensor	X7	JS5
10	Black	Table Switch	JP1-6	JS9
11	Brown	EGT output	X6	JS4
12	Red	Knock Sensor	JP1-5	JS10
13	Orange	Launch Control	JP1-4	JS11
14	Yellow	Nitrous check back	JP1-6	JS9
15	Green	Second EGO	X7	JS5
16	Blue	Not connected		
17	Violet	Not connected		
18	Gray	Not connected		
19	White	VR Sensor 2	U1 pin 11	JS8
20	Black	VR Sensor 1	U4 pin 6	Not used

Output drivers 1-4 can be used for any of the following MSnS_Extra features. Note that some uses conflict with others. For instance, water injection cannot be used with nitrous control.

Feature Name	MSv2.2 connection	MSv3 connection
Fan Control	X2 or LED18	JS0 or LED15
Water Injection pump	X2	JS0
Nitrous Control	X3	JS1
Tachometer out*	X2,X3,X4,X5,U1-15,U1-10	JS0,JS1,JS2,JS3,U1-15,U1-10
General Purpose Output 1	X4	JS2
General Purpose Output 2	X5	JS3
General Purpose Output 3	U1 pin 15 (top of R14-remove)	U1 pin 15 (bottom of R1-remove)
General Purpose Output 4	LED18	LED15

*For tachometer out, replace diode with 1k resistor

P4 – Relays and Solenoids

Pin	Signal Name
1	Boost Control Output
2	Output 1
3	Output 2
4	Output 3
5	Output 4
6	Not connected
7	Water Injection Valve Output
8	To anti-lag switch for nitrous control
9	To nitrous control relay contact
10	To nitrous solenoid

P5 – Sensors

Pin	Signal Name
1	VR Sensor 2 -
2	VR Sensor 2 +
3	VR Sensor 1 -
4	VR Sensor 1 +
5	Launch Control Switch
6	Second EGO Sensor
7	Knock Sensor
8	Table Switch

P6 – Sequential Shift Lights

Pin	Signal Name
1	+5v
2	Low
3	Medium
4	High

Note: Each LED must have a resistor placed in series with it. The current available on pin 1 may not be sufficient to power your LEDs; use a 12v source instead.

P7 – Knock LED

Pin	Signal Name
1	Knock LED Anode
2	Knock LED Cathode (flat/short lead)

P8 – Power

Pin	Signal Name	MSv2.2 connection	MSv3 connection
1	+5v	JP1-8	+5v (proto area)
2	Gnd	JP1-7	Gnd (proto area)
3	+12v	Right side of D14 (banded end)	S12 (near R57)