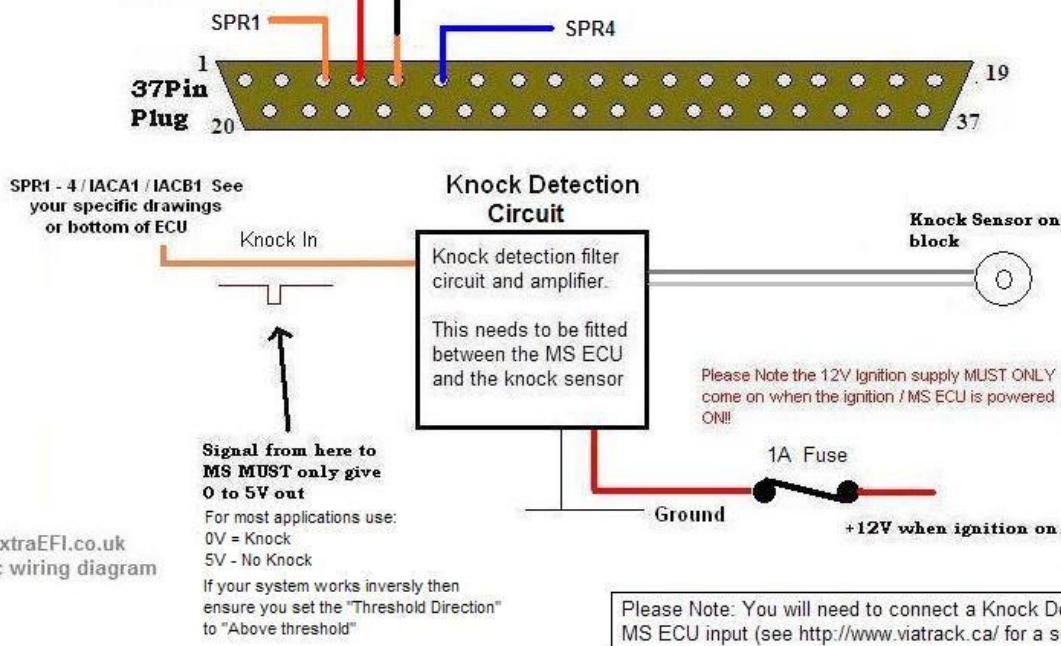


Knock Input MS2-Extra ONLY



www.ExtraEFI.co.uk
specific wiring diagram

**MegaTune go to
Extended -- Knock Threshold
Then go into Advanced --
Knock Sensor Settings**

Knock Control:

Disabled: do not use knock feedback for ignition advance control

Safe Mode: use knock retard, but keep the advance below that which caused knock. This backs the advance 1 small step back and leaves it at that until TPS or MAP changes - or knock comes back. This is "safe mode" scheme is the safest thing for a DIY set-up.

Aggressive Mode: use knock retard, but keep advance at threshold of knock occurring. That is, the program advances (up to the timing table value) if it doesn't see knock, and retards if does see knock. The difference from safe mode is that the timing can be advance all the way to the table value after knock, not just up to one step below knock. This may result in the knock returning, in which case the timing is retarded again, then advanced slowly, and so on.

Threshold Direction: This sets whether MegaSquirt recognizes a voltage above the threshold (see next item) or below the threshold is considered knock.

Threshold (V): This is the voltage from the knock sensor module which defines whether there is knock occurring or not. Note that you can define a 6-element table of rpm versus voltage instead of a single value. You define this table under 'Settings/Knock Threshold'. The GM sensor/module signal is ON/OFF, but the knock threshold value/table is there in case someone has a system they can calibrate to their car by a threshold.

Peak (V): the maximum expected voltage value on the knock signal, used in some configurations where the difference between the signal level and the maximum levels indicates the degree of knocking.

Knock Count (knocks): number knock detects required for valid detection

No Knock Above MAP (kPa): no knock retard is implemented above this MAP

No Knock Below RPM (rpm): no knock retard is implemented below this rpm

No Knock Above RPM (rpm): no knock retard is implemented above this rpm, which may be desirable if valve train noise triggers the knock sensor when knock isn't actually occurring.

Maximum Retard (deg): maximum total retard when knock occurs. This can be useful to prevent timing from being excessively retarded (avoiding potential overheating issues) if the sensor malfunctions or there are other problems with the knock sensing system.

Retard Check Time (sec): this is the time between knock retard corrections, allows short time step to quickly retard

Retard Step Size (deg): ignition retard step size when 1st knock or after stopped, make it large to quickly retard the timing and stop knock

Advance Check Time (sec): this is the time between knock advance correction (i.e., timing return to 'normal')

Advance Step Size (deg): ignition advance steps after knock has stopped

Recovery Advance (deg): this is the change in table advance required to restart advance until knock or reach table value (0 knock retard) process. This only applies in 'Safe Mode'

Knock Sensor Settings	
Knock Control	Safe Mode
Knock input pin	MS2 AD7/J54
Detection	
Threshold Direction	Below threshold
Threshold (V)	1.0
Peak (V)	5.0
Knock Count (knocks)	2
No Knock Above MAP (kPa)	70.0
No Knock Below RPM (rpm)	700
No Knock Above RPM (rpm)	3500
Retarding	
Maximum Retard (deg)	10.0
Retard Check Time (sec)	0.2
Retard Step Size (deg)	3.0
Recovery	
Advance Check Time (sec)	2.0
Advance Step Size (deg)	1.0
Recovery Advance (deg)	3.0
<input type="button" value="Fetch From ECU"/> <input type="button" value="Burn To ECU"/> <input type="button" value="Close"/>	