



CONNECTIONS						
MAFM1			ATTACHED EQUIPMENT ANALOG I/P			
J1 PIN NO.	COLOUR	FUNCTION	SM3/4 PIN NO.	SMC PIN NO.	SM2 PIN NO.	LOGGER / DASH
9	WHITE	0 - 1v ANALOG SIGNAL	N/C	N/C	(late) 20	CONNECT EITHER TO SUIT DEVICE
5	RED	0 - 5v ANALOG SIGNAL	37	7	(early) 20	
4	BROWN	ANALOG GND (Note 1)	22	17	(all) 21	CONNECT TO DEVICE ANALOG GND
8	YELLOW	CHASSIS GND (Note 1)				
1,2&3	BLACK	MAFM1 SUPPLY GND	SUPPLY -ve for MAFM1 (Usually VEHICLE GND)			
6&7	RED	MAFM1 +12v SUPPLY	+12v SUPPLY for MAFM1 (Usually +12v Ignition)			

CONFIGURATION FOR USE WITH AUTRONIC ENGINE MANAGEMENT					
ECU		MAFM1 SET-UP			
TYPE	FIRMWARE	USE MAFM1 ANALOG O/P	MAFM1 Fn7 SETTING ***	MAFM1 Fn9 SETTING ***	MAFM1 Fn10 SETTING ***
SMC / EVO4-8 / SUBARU MY99-00	All	1v or 5v (SMC 1v only)	2 **	10.0 **	30.0 **
SM2 (Early)	< v1.32	5v	2 **	10.0 **	30.0 **
SM2 (Early)	> v1.31	5v	2 **	10.0 **	37.2
SM2 (Late)	< v1.32	1v	2 **	10.0 **	24.1
SM2 (Late)	> v1.31	1v	2 **	10.0 **	30.0 **
SM3 / SM4 / EVO9 / SUBARU MY 01-06	All	5v	2 **	10.0 **	30.0 **

Notes:- 1. The analog output/s of MAFM1 will not function correctly unless an electrical connection is provided between MAFM1 SUPPLY GND & MAFM1 ANALOG GND (J1 pin 4, Brown). Also system accuracy degradation caused by power supply currents passing down the analog signal ground connection wire must be prevented. These two requirements can only be met by providing a single electrical connection between MAFM1 ANALOG GND & MAFM1 SUPPLY GND.

If the attached equipment has a single ended analog input (measures voltage relative to its system ground), then the above requirements can only be met if MAFM1 and the attached equipment share a common power supply (or have both power supply grounds commoned). In this situation connect MAFM1 ANALOG GND (J1 pin 4, Brown) to the analog common terminal of the attached equipment. If no analog common terminal exists, make the connection to the supply ground of attached equipment.

If the attached equipment has a differential (floating) analog input, connect its analog -ve or low input terminal to MAFM1 ANALOG GND (J1 pin 4, Brown). In this instance the attached equipment does not provide the require connection to power supply ground, necessitating additional wiring. Add a link connection between MAFM1 ANALOG GND and MAFM1 CHASSIS GND (J1 pin 8, Yellow). If MAFM1 and the attached equipment do not share a common power supply (or do not have both power supply grounds commoned) be aware of the risk that the input common mode voltage range of the attached equipment could be exceeded, resulting in its malfunction or destruction. Commoned power supply ground connections prevent this problem and is always recommended.

- 2. *** Denotes Setting required when MAFM1 is in 'AFR' (Air-Fuel Ratio Petrol) display mode.
- 3. ** Denotes MAFM1 default setting.

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Autronic
FUEL INJECTION — ADVANCED CONTROLS

Title: MAFM1 WIRING

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