

MMC EVO ECU pinout cross reference (working copy)

Crossreference SM4 - Volvo 960 6-cyl Motronic 4.4
Manual transmission

SM4 OEM Signal:	SM4 Pin:	Mux board	Motronic ECU Pin:	Contact	Ignition firing 1,5,3,6,2,4
			1	A	Not used
			2	A	Knock sensor front signal
Air temp	23		3	A	Autronic air temp signal, Air mass power ground
			4	A	Not used Air mass signal
Sensor GND	22		5	A	Ground Autronic airtemp, airmass signal ground
Cyl Pulse -Ve	40		6	A	Cyl pulse -Ve
Output 3 / Stepper 3	20		7	A	Fan 1 low speed
			8	A	Not used
O/P Inj 4	16		9	A	Injector cyl 6
O/P Inj 1	17		10	A	Injector cyl 1
Output 1 / Stepper 1	7		11	A	Idle engine pin 3 opening signal
I/P Ign SW	1		12	A	Ignition switch
GND	29		13	A	Power ground
GND	29		14	A	Ground heater O2 sensor front
+5 Volt TPS Supply	36		15	A	Trottle pos sensor 5 volt
I/P TPS	21		16	A	Trottle pos sensor signal
			17	A	Ground knock sensor front & rear
Sensor GND	22		18	A	Analog ground sensors
			19	A	O2 sensor rear signal ground
Cyl Pulse +Ve	25		20	A	Cyl pulse +ve
Cyl ref +Ve	26		21	A	Cyl ref signal
Output 4 / Stepper 4	35		22	A	Fan 2
O/P Inj 3	31		23	A	Injector cyl 3
O/P Inj 5	4		24	A	Injector cyl 2
Output 2 / Stepper 2	34		25	A	Idle engine pin 1 closing signal
12 Volt Supply	15		26	A	12 Volt Hot all time
RAM Memmory + 12 volt power	30		26	A	12 power all time
			27	A	Not used 12 volt injector power
GND	29		28	A	Ground
Linked to A 28			29	A	Ground heater O2 sensor rear
			30	A	Knock sensor rear
I/P Coolant	9		31	A	Water temp sensor
			32	A	O2 sensor front signal
			33	A	O2 sensor front signal ground
			34	A	O2 sensor rear signal
			35	A	Not used
			36	A	12 volt ref sensor

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Output 7	42		37	A	Valve airpump ground to activate
O/P Inj 2	32		38	A	Injector cyl 5
PWM 1	28		39	A	EVAP Valve Ground to activate 0-33 % duty
			40	A	Not used
Output 6	13		41	A	EFI relay ground to activate
			42	A	Ground
O/P Inj 6	18		43	A	Injector cyl 4
			1	B	Not used Accelerometer
			2	B	Not used Automatic transmission ecu ignition retard level 2 &3
			3	B	Not used Automatic transmission ecu ignition retard level 1 &3
			4	B	Not used Automatic transmission ecu acknowledge ign retard low whne request has been received.
			5	B	Not used
			6	B	Not used
O/P Inj 7 / Sw I/P 2	3		7	B	Check engine
			8	B	Analog ground sensors
I/P Analog 2-3	38		9	B	Signal pressure sensor condensor
		Grey	10	B	Ignition cyl 5
		White	11	B	Ignition cyl 1
			12	B	Not used Automatic transmission ecu, signal load frequensy increase with rpm 6 signals/cycle
		Black	13	B	Ignition cyl 2
		Yellow	14	B	Ignition cyl 3
			15	B	Not used
			16	B	Not used
			17	B	Not used
I/P HSI 3	39		18	B	Speedometer 40 hz at 20 km/hr
Output 6	13		19	B	Fuel pump relay Ground to activate
			20	B	Not used Automatic transmission ecu TPS signal 0-5 volt
Output 8	12		21	B	Tacho 4 signals cycle
			22	B	Not used
PWM 2	14		23	B	Engine temp gauge 20 degrees = 40 Hz, 100 degrees = 21 Hz
			24	B	Not used Automatic transmission ecu gounded to increse IAC when in gear
O/P Inj 8 / Sw I/P 3	2		25	B	Low pressure switch AC Input AC request
			26	B	Not used Automatic transmission ecu malfunction codes
			27	B	Not used
Analog ground	22		28	B	Analogue ground pressure sensor
5 Volt sensor Supply		Red Small	29	B	Analogue pressure sensor condensor 5 volt power
			30	B	Not used
			31	B	Not used
			32	B	Not used
			33	B	Not used
		Green	34	B	Ignition cyl 6
		Blue	35	B	Ignition cyl 4
			36	B	Not used diagnose

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			37	B	Not used
Output 7	42		38	B	Relay Pair pump
			39	B	Not used
Output 5	27		40	B	Relay AC
			41	B	Not used
			42	B	Not used
			43	B	Not used
Ignition O/P 1	5	Green			
Ignition O/P 2	6	Yellow			
Ignition O/P 3	19	White			
Ignition O/P 4	33	Blue			



