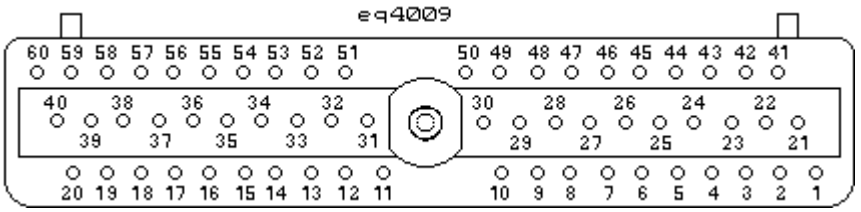
Number of ECM pins: 60



Pin	Connection	Test condition	Volts/Duty Cycle etc
1	KAM supply: t30	ignition off/on	nbv
3	VSS signal : t3	vehicle moving	switching 0 to nbv
7	CTS signal : t2	ignition on/running	20°C 3.00 to 3.20
			80°C 0.60 to 0.90
10	air conditioning		
16	earth	ignition on/running	0.25 max
17	SD connector : t3	ignition on/running	12 volts
20	earth	ignition on/running	0.25 max
21	ISCV driver : t1	ignition on	nbv
		engine running	variable
		cold:	5.0 to 11.0
		hot: (no load)	8.0 to 14.0
		hot: (load)	5.0 to 11.0
		ISCV: (almost closed)	9.0 to 12.0
		ISCV: (almost fully open)	1.0 to 4.0
22	pump relay driver : t86	ignition on	nbv
		cranking/running	1.25 max
23	octane service cable	open circuit	5.0 ± 0.1
		closed circuit	0.25 max
24	octane service cable	open circuit	5.0 ± 0.1
		closed circuit	0.25 max
25	ATS : t2	ignition on/running	20°C 3.00 to 3.20
			40°C 2.00 to 2.20
26	TPS, MAP supply : t2	ignition on/running	5.0 ± 0.1
28	PSPS : t2	PSPS open	nbv
		PSPS closed	0.25 max
29	OS signal : t3	engine running	200 to 1000 mv
		throttle fully open	1.0 volt constant
		fuel cut-off	0 volt constant
		switching frequency	1 sec intervals (approx)
31	CFSV : t1	ignition on	nbv
		snap accelerate	zero
36	EDIS SAW signal: t3	cranking/running	0 to nbv
37	supply from main relay : t87	ignition on/running	nbv
40	earth	ignition on/running	0.25 max
43	OS signal : t3	engine running	200 to 1000 mv
		throttle fully open	1.0 volt constant
		fuel cut-off	0 volt constant
		switching frequency	1 sec intervals (approx)
45	MAP signal :t3	ignition on/running	2.50 (average)
46	sensor signal return	ignition on/running	0.25 max
47	TPS signal : t3	ignition on/running	
		throttle closed	0.30 to 0.80
		throttle fully open	4.15 to 4.96
48	SD connector : t2	ignition on/running	5.0 ± 0.1
49	OS return : t4	ignition on/running	0.25 max
51	PASV : t1	ignition on	nbv
54	air conditioning		
56	EDIS PIP signal: t1	cranking/running	switching 0 to nbv
57	supply from main relay : t87	ignition on/running	nbv

58	injectors 1&2 signal : t1	ignition on	nbv
		cranking cold	11.0 to 12.0 ms
		running cold	3.0 to 3.5 ms
		cranking hot	4.0 to 4.5+ ms
		running hot	2.4 to 2.6 ms
		2000 rpm	2.4 to 2.6 ms
		3000 rpm	2.2 to 2.5 ms
		snap acceleration	6.0+ ms
		deceleration	zero
59	injectors 3&4 signal : t1	ignition on	nbv
		cranking cold	11.0 to 12.0 ms
		running cold	3.0 to 3.5 ms
		cranking hot	4.0 to 4.5+ ms
		running hot	2.4 to 2.6 ms
		2000 rpm	2.4 to 2.6 ms
		3000 rpm	2.2 to 2.5 ms
		snap acceleration	6.0+ ms
		deceleration	zero
60	earth	ignition on/running	0.25 max

< END>