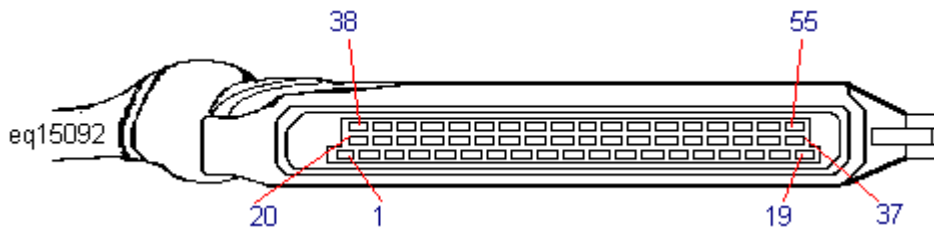


Number of ECM pins: 55



Pin	Connection	Test condition	Volts/Duty Cycle etc
1	coil negative: t1 (cyls 1 & 4)	cranking primary switching dynamic volt drop	nbv 200 min 2.0 max
2	earth	ignition on/running	0.25 max
3	main relay driver: t10	ignition on cranking/running	nbv 1.25 max
4	unused		
5	CFSV : t1	ignition on engine running, active	nbv switching 0 to nbv
6	tachometer (if fitted)		
7	MAP signal : t3	WOT/ignition on Idle speed	4.35 1.5 approx
8	unused		
9	VSS signal : t3	ignition on vehicle moving	nbv HE signal, when actuated
10	OS signal return : t4	engine running	0.25 max
11	CAS return : t1	cranking/running	0.25 max
12	sensor supply MAP: t1, TPS: t1	ignition on/running	5.0 ± 0.1
13	diagnostic socket : tC2,C3	ignition on no major faults major faults	nbv 0.25 max 0.25 max
14	earth	ignition on/running	0.25 max
15	ISCV : t3	ignition on engine running	nbv 30 to 40%
16	diagnostic socket : tC1		
17	injectors (pulse) : t1	ignition on/running cranking cold running cold cranking warm running warm snap acceleration	nbv 3.0+ ms 3.0 ms 2.4+ ms 2.0 ms 6.0+ ms
18	battery positive: t30	ignition off/on	nbv
19	earth	ignition on/running	0.25 max
20	coil negative: t2 (cyls 2 & 3)	cranking primary switching dynamic volt drop	nbv 200 min 2.0 max
21	unused		
22	diagnostic socket : tC2, C3	ignition on no major faults major faults	nbv 0.25 max
23	unused		
24	unused		
25	CTS signal : t2	ignition on/running	20°C 3.0 to 3.5 80°C 1.0 to 1.3
26	sensor return ATS: t1, CTS: t1, MAP: t2, TPS: t2, VSS: t3	ignition on/running	0.25 max
27	ATS signal	ignition on/running	20°C 3.0 to 3.5
28	OS signal : t3	ignition key on engine running throttle fully open	0.4 to 0.5 200 to 1000 mv 1.0 constant

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29	TPS signal : t3	ignition on/running	
		closed	0.3
		fully open	5.0 approx
30	CAS signal : t2	cranking:	AC 2.0v+ (peak to peak)
		Idle:	AC 11.0v+ (peak to peak)
		cruise:	AC 14.0v+ (peak to peak)
31	unused		
32	A/C		
33	ISCV : t1	ignition on	nbv
		engine running	duty cycle 30 to 40%
34	A/C		
35	unused		
36	unused		
37	supply from main relay : t4	ignition on/running	nbv
38	unused		
39	unused		
40	unused		
41	unused		
42	unused		
43	unused		
44	unused		
45	unused		
46	unused		
47	unused		
48	unused		
49	unused		
50	unused		
51	unused		
52	unused		
53	unused		
54	unused		
55	unused		

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