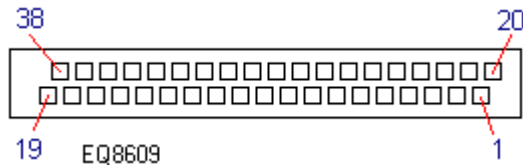


Pin Tables Copyright Equiptech

Number of ECM pins: 38



Pin	Connection	Test condition	Volts/Duty Cycle etc
1	TPS supply: t2	ignition on/running	5.0 ± 0.1
2	injectors: t1	cranking cold	11.0 to 12.0 ms
		running cold	4.0 to 4.5 ms
		cranking warm	4.0 to 4.5+ ms
		running warm	2.0 to 2.5 ms
		2000 rpm	2.0 to 2.5 ms
		3000 rpm	2.0 to 2.5 ms
		snap acceleration	6.0+ ms
3	cold start valve: t1	ignition on	nbv
		cranking	1.25 max
4	unused		
5	unused		
6	unused		
7	fuel pump relay driver : t85	ignition on	nbv
		cranking/running	1.25 max
8	OS signal: t3	ignition key on	0.4 to 0.5 volts
		engine running	200 to 1000 mv
		throttle fully open	1.0v constant
9	unused		
10	auto gearbox		
11	HES signal: t2	engine running	5.0 to 7.0
12	TPS signal: t3	ignition on/running	
		throttle closed	0.30 to 1.70
		throttle fully open	4.25+
13	sensor earth (HES: t1, CO pot: t1		
	TPS: t1, CTS: t1, AFS: t4)	ignition on/running	0.25 max
14	CTS signal: t2	ignition on/running	20°C 0.95 to 1.25
			80°C 0.20 to 0.40
15	AFS (ATS): t1	ignition on/running	20°C 0.95 to 1.25
			80°C 0.20 to 0.40
16	KS return: t1	engine running, KS active	0.25 max
17	KS signal : t2	engine running, KS active	1.0 approx
18	unused		
19	AFS signal: t2	ignition on	0.20 to 0.50
		cranking/idle	0.50 to 1.50
		2000 rpm	1.75 to 2.25
		3000 rpm	2.00 to 2.70
		snap accelerate	3.00 to 4.50
20	battery negative : t31	ignition on/running	0.25 max
21	unused		
22	unused		
23	unused		
24	auto gearbox		
25	ISCV : t1	ignition on	nbv
		engine running	
		cold:	6.0 to 6.5
		hot:	7.0 to 9.0
26	cranking supply ign switch : t50	cranking	nbv
27	ignition coil/amplifier signal: t2	ignition on	nbv
		engine running	variable
28	AFS supply: t3	ignition on/running	5.0 ± 0.1
29	earth	ignition on/running	0.25 max

Pin Tables Copyright Equiptech
ignition on/running 9.0 min

30	HES supply: t3		
31	auto gearbox		
32	SD connector		
33	unused		
34	KS shield: t3	engine running, KS active	0.25 max
35	CO pot signal: t2	ignition on/running	variable 5.0 to 0.1
36	main relay supply: t86a	ignition on/running	nbv
37	A/c compressor		
38	main relay output : t87	ignition on	nbv

< END >