

SAE J1939-71
BROADCAST MESSAGES [P. 370]

October 8, 2005

	FUNCTION	RATE	SECTION
1	Electronic Retarder Controller #1 [ERC1]	100 msec.	5.3.3
2	Electronic Brake Controller #1 [EBC1]	100 msec.	5.3.4
3	Electronic Transmission Controller #1 [ETC1]	10 msec.	5.3.5
4	Electronic Engine Controller #2 [EEC2]	50 msec.	5.3.6
5	Electronic Engine Controller #1 [EEC1]	5-30 msec.	5.3.7
6	Electronic Transmission Controller #2 [ETC2]	100 msec.	5.3.8
7	Electronic Axle Controller #1 [EAC1]	500 msec.	5.3.9
8	Turbo Charger: <ul style="list-style-type: none"> • Turbocharger lube oil pressure 1 • Turbocharger speed 1 	1 sec.	5.3.11
9	Electronic Engine Controller #3 [EEC3] ??	250 msec.	5.3.13
10	Retarder Configuration ??	5 sec. max.	5.3.15
11	Engine Configuration ??	5 sec. max.	5.3.17
12	Shutdown ??	1 sec.	5.3.18
13	Engine Temperature: <ul style="list-style-type: none"> • Engine coolant temperature • Fuel temperature • Engine oil temperature 1 • Turbo oil temperature • Engine intercooler temperature • Engine intercooler thermostat opening 	1 sec.	5.3.28
14	Engine Fluid Level/Pressure: <ul style="list-style-type: none"> • Fuel delivery pressure • Extended crankcase blow-by pressure • Engine oil level • Engine oil pressure • Crankcase pressure • Coolant level 	500 msec.	5.3.29
15	Power Take-Off Information: <ul style="list-style-type: none"> • Power takeoff oil temperature • Power takeoff set speed 	100 msec.	5.3.30
16	Cruise Control / Vehicle speed	100 msec.	5.3.31
17	Fuel Economy: <ul style="list-style-type: none"> • Fuel rate • Instantaneous fuel economy • Average fuel economy • Throttle position 	100 msec.	5.3.32
18	Tire Condition: <ul style="list-style-type: none"> • Location • Tire pressure 	10 sec.	5.3.34

	<ul style="list-style-type: none"> • Tire temperature 		
19	Ambient Conditions: <ul style="list-style-type: none"> • Barometric pressure • Cab interior temperature • Ambient air temperature • Air inlet temperature • Road surface temperature 	1 sec.	5.3.35
20	Inlet/Exhaust Conditions: <ul style="list-style-type: none"> • Particulate trap inlet pressure • Boost pressure • Intake manifold 1 temperature • Air inlet pressure • Air filter differential pressure • Exhaust gas temperature • Coolant filter differential pressure 	??	5.3.36
21	Vehicle Electrical Power: <ul style="list-style-type: none"> • Net battery current • Alternator current • Alternator potential (voltage) • Electrical potential (voltage) • Battery potential (voltage), switched 	1 sec.	5.3.37
22	Transmission Fluids: <ul style="list-style-type: none"> • Clutch pressure • Transmission oil level • Transmission filter differential pressure • Transmission oil pressure • Transmission oil temperature 	1 sec.	5.3.38
23	Axle Information: <ul style="list-style-type: none"> • Steering axle temperature • Drive axle location • Drive axle lift air pressure • Drive axle temperature 	1 sec.	5.3.39
24	Brakes: <ul style="list-style-type: none"> • Brake application pressure • Brake primary pressure • Brake secondary pressure • Parking brake actuator status 	1 sec.	5.3.40
25	Retarder Fluid: <ul style="list-style-type: none"> • Hydraulic retarder pressure • Hydraulic retarder oil temperature 	1 sec.	5.3.41
26	Dash Display: <ul style="list-style-type: none"> • Washer fluid level • Fuel level • Fuel filter differential pressure 	1 sec.	5.3.42

	<ul style="list-style-type: none"> Engine oil differential pressure Cargo ambient temperature 		
27	Alternate Fuel #1: <ul style="list-style-type: none"> Blower bypass valve position Gas supply pressure 	500 msec.	5.3.43
28	Auxiliary Water Pump Pressure	1 sec.	5.3.44
29	Water in Fuel Indicator	10 sec.	5.3.45
30	Engine Fluid Level/Pressure #2: <ul style="list-style-type: none"> Injection control pressure Injection metering rail 1 pressure Injector timing rail 1 pressure Injector timing rail 2 pressure 	500 msec.	5.3.46
31	Alternator Speed [P. 388]	1 sec.	5.3.49
32	High Resolution Vehicle Distance: <ul style="list-style-type: none"> High resolution total vehicle distance High resolution trip distance 	1 sec.	5.3.34
33	Wheel Speed Information <ul style="list-style-type: none"> Front axle speed Relative speed; front axle, left wheel Relative speed; front axle, right wheel Relative speed; rear axle 1, left wheel Relative speed; rear axle 1, right wheel Relative speed; rear axle 2, left wheel Relative speed; rear axle 2, right wheel 	100 msec.	5.3.56
34	Fan Drive: <ul style="list-style-type: none"> Estimated percent fan speed Fan drive state 	1 sec.	5.3.58
35	CAB Message #1 [CM1]: <ul style="list-style-type: none"> Requested fan speed 	1 sec.	5.3.59
36	Supply Pressure: <ul style="list-style-type: none"> Pneumatic supply pressure Parking and/or trailer air pressure Service brake air pressure, circuit #1 Service brake air pressure, circuit #2 Auxiliary equipment supply pressure Air suspension supply pressure 	1 sec.	5.3.75
37	Wheel Application Pressure – High Range Info [EBC3]: <ul style="list-style-type: none"> Brake application pressure high range, front axle, left wheel Brake application pressure high range, front axle, right wheel Brake application pressure high range, rear axle #1, left wheel Brake application pressure high range, rear axle #1, right wheel Brake application pressure high range, rear axle #2, left wheel Brake application pressure high range, rear axle #2, right wheel Brake application pressure high range, rear axle #3, left wheel Brake application pressure high range, rear axle #3, right wheel 	100 msec.	5.3.76

38	Alternator Temperature: <ul style="list-style-type: none"> • Alternator bearing 1 temperature • Alternator bearing 2 temperature • Alternator winding 1 temperature • Alternator winding 2 temperature • Alternator winding 3 temperature 	1 sec.	5.3.82
39	Intake Manifold Information #1: <ul style="list-style-type: none"> • Turbo charger 1 boost pressure • Turbo charger 2 boost pressure • Turbo charger 3 boost pressure • Turbo charger 4 boost pressure 	500 msec.	5.3.83
40	Intake Manifold Information #2: <ul style="list-style-type: none"> • Intake manifold 2 temperature • Intake manifold 3 temperature • Intake manifold 4 temperature 	1 sec.	5.3.84
41	Engine Temperature #2: <ul style="list-style-type: none"> • Engine oil temperature 2 • Engine ECU temperature 	1 sec.	5.3.85
42	Exhaust Port Temperature #1: <ul style="list-style-type: none"> • Exhaust gas port 1 temperature • Exhaust gas port 2 temperature • Exhaust gas port 3 temperature • Exhaust gas port 4 temperature 	1 sec.	5.3.86
43	Exhaust Port Temperature #2: <ul style="list-style-type: none"> • Exhaust gas port 5 temperature • Exhaust gas port 6 temperature • Exhaust gas port 7 temperature • Exhaust gas port 8 temperature 	1 sec.	5.3.87
44	Exhaust Port Temperature #3 <ul style="list-style-type: none"> • Exhaust gas port 9 temperature • Exhaust gas port 10 temperature • Exhaust gas port 11 temperature • Exhaust gas port 12 temperature 	1 sec.	5.3.88
45	Exhaust Port Temperature #4: <ul style="list-style-type: none"> • Exhaust gas port 13 temperature • Exhaust gas port 14 temperature • Exhaust gas port 15 temperature • Exhaust gas port 16 temperature 	1 sec.	5.3.89
46	Exhaust Port Temperature #5: <ul style="list-style-type: none"> • Exhaust gas port 17 temperature • Exhaust gas port 18 temperature • Exhaust gas port 19 temperature • Exhaust gas port 20 temperature 	1 sec.	5.3.90
47	Main Bearing Temperature #1:	1 sec.	5.3.91

	<ul style="list-style-type: none"> • Main bearing 1 temperature • Main bearing 2 temperature • Main bearing 3 temperature • Main bearing 4 temperature 		
48	Main Bearing Temperature #2: <ul style="list-style-type: none"> • Main bearing 5 temperature • Main bearing 6 temperature • Main bearing 7 temperature • Main bearing 8 temperature 	1 sec.	5.3.92
49	Main Bearing Temperature #3: <ul style="list-style-type: none"> • Main bearing 9 temperature • Main bearing 10 temperature • Main bearing 11 temperature 	1 sec.	5.3.93
50	Turbocharger Information #1: <ul style="list-style-type: none"> • Turbocharger lube oil pressure 2 • Turbocharger 2 speed • Turbocharger 3 speed • Turbocharger 4 speed 	1 sec.	5.3.94
51	Turbocharger Information #2: <ul style="list-style-type: none"> • Turbocharger 1 compressor inlet temperature • Turbocharger 2 compressor inlet temperature • Turbocharger 3 compressor inlet temperature • Turbocharger 4 compressor inlet temperature 	1 sec.	5.3.95
52	Turbocharger Information #3: <ul style="list-style-type: none"> • Turbocharger 1 compressor inlet temperature • Turbocharger 2 compressor inlet temperature • Turbocharger 3 compressor inlet temperature • Turbocharger 4 compressor inlet temperature 	1 sec.	5.3.96
53	Turbocharger Information #4: <ul style="list-style-type: none"> • Turbocharger 1 turbine inlet temperature • Turbocharger 2 turbine inlet temperature • Turbocharger 3 turbine inlet temperature • Turbocharger 4 turbine inlet temperature 	1 sec.	5.3.97
54	Turbocharger Information #5: <ul style="list-style-type: none"> • Turbocharger 1 turbine inlet temperature • Turbocharger 2 turbine inlet temperature • Turbocharger 3 turbine inlet temperature • Turbocharger 4 turbine inlet temperature 	1 sec.	5.3.98
55	Turbocharger Wastegate: <ul style="list-style-type: none"> • Turbocharger 1 wastegate drive • Turbocharger 2 wastegate drive • Turbocharger 3 wastegate drive • Turbocharger 4 wastegate drive • Turbocharger wastegate actuator control air pressure 	100 msec.	5.3.99

56	Engine Auxiliary Coolant: • Engine auxiliary coolant pressure • Engine auxiliary coolant temperature	500 msec.	5.3.103
57	Engine Electrical System/Module Information • Electrical load	100 msec.	5.3.104
58	Engine Information: • Pre-filter oil pressure • Exhaust gas pressure • Rack position • Natural gas mass flow • Instantaneous estimated brake power	100 msec.	5.3.105
59	Fuel Leakage	1 sec.	5.3.106
60	Supply Pressure #2: • Externally supplied air pressure	1 sec.	5.3.108
61	Engine Fuel/Lube systems: • Engine oil level remote reservoir • Fuel supply pump inlet pressure • Fuel filter (suction side) differential pressure	500 msec.	5.3.112
62	Laser Leveling System Vertical Position Display Data ?????	100 msec.	5.3.134
63	Laser Leveling System Vertical Deviation ?????	50 msec.	5.3.135
64	Modify Leveling System Control Set Point ?????	50 msec.	5.3.136
65	Laser Receiver Mast Position ?????	50 msec.	5.3.137
66	Laser Leveling System Blade Control ?????	50 msec.	5.3.138
67	Laser Tracing Position ?????	50 msec.	5.3.139
68	Adaptive Cruise Control [ACC1] ??: • Speed of forward vehicle • Distance of forward vehicle • Adaptive cruise control set speed • Adaptive cruise control status • Road curvature	100 msec.	5.3.141
69	High Resolution Wheel Speed: • Front axle, left wheel speed • Front axle, right wheel speed • Rear axle, left wheel speed • Rear axle, right wheel speed	20 msec.	5.3.142
70	Tachograph [TCO1] ??: • Tachograph 1, 2, 3 & 4 status • Tachograph output shaft speed • Tachograph vehicle speed	50 msec.	5.3.143 P. 428