

ISO 15031-5:2006-01 (E)

Road vehicles - Communication between vehicle and external equipment for emissions-related diagnostics - Part 5: Emissions-related diagnostic services

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols and abbreviated terms	4
5	Technical requirements	4
5.1	General requirements	4
5.2	Diagnostic service requirements	4
5.3	Diagnostic message format	25
5.4	Allowance for expansion and enhanced diagnostic services	29
5.5	Definition of PIDs for Services \$01 and \$02	29
5.6	Format of data to be displayed	29
6	Diagnostic service definition for ISO 9141-2, ISO 14230-4, and SAE J1850	31
6.1	Service \$01 -- Request current powertrain diagnostic data	31
6.2	Service \$02 -- Request powertrain freeze frame data	35
6.3	Service \$03 -- Request emission-related diagnostic trouble codes	39
6.4	Service \$04 -- Clear/reset emission-related diagnostic information	44
6.5	Service \$05 -- Request oxygen sensor monitoring test results	46
6.6	Service \$06 -- Request on-board monitoring test results for specific monitored systems	51
6.7	Service \$07 -- Request emission-related diagnostic trouble codes detected during current or last completed driving cycle	56
6.8	Service \$08 -- Request control of on-board system, test or component	57
6.9	Service \$09 -- Request vehicle information	60
7.1	Service \$01 -- Request current powertrain diagnostic data	73
7.2	Service \$02 -- Request powertrain freeze frame data	79
7.3	Service \$03 -- Request emission-related diagnostic trouble codes	84
7.4	Service \$04 -- Clear/reset emission-related diagnostic information	87
7.5	Service \$05 -- Request oxygen sensor monitoring test results	88
7.6	Service \$06 -- Request on-board monitoring test results for specific monitored systems	89
7.7	Service \$07 -- Request emission-related diagnostic trouble codes detected during current or last completed driving cycle	99
7.8	Service \$08 -- Request control of on-board system, test or component	100
7.9	Service \$09 -- Request vehicle information	104
Annex A (normative) PID (Parameter ID)/OBDMID (On-Board Monitor ID)/TID (Test ID)/INFOTYPE supported definition		114
Annex B (normative) PIDs (Parameter ID) for Services \$01 and \$02 scaling and definition		115
Annex C (normative) TIDs (Test ID) scaling description		148
Annex D (normative) OBDMIDs (On-Board Diagnostic Monitor ID) definition for Service \$06		149

Annex E (normative) Unit and Scaling definition for Service \$06	154
Annex F (normative) TIDs (Test ID) for Service \$08 scaling and definition	177
Annex G (normative) INFOTYPEs for Service \$09 scaling and definition	178
Bibliography	185