

ISO 27145-6:2015-04 (E)

Road vehicles - Implementation of World-Wide Harmonized On-Board Diagnostics (WWH-OBD) communication requirements - Part 6: External test equipment

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms, definitions, symbols, and abbreviated terms	2
3.1	Terms and definitions	2
3.2	Abbreviated terms	2
4	Conventions	3
5	Document overview	3
6	Requirements overview and principles	5
6.1	Basic principles for the graphical notation	5
6.2	Requirements clustering	5
6.2.1	Overview	5
6.2.2	Main requirements clusters	5
7	External test equipment requirements	7
7.1	General	7
7.2	Applicability of requirements according to local legislation	8
7.3	User instructions and guidelines	8
7.4	Cluster "Mechanical requirements"	8
7.5	Cluster "Electrical requirements"	9
7.6	Cluster "Communication setup" and connections	9
7.6.1	Connections	9
7.6.2	Communication setup	10
7.7	Cluster "Diagnostic messages"	12
7.7.1	Overview	12
7.7.2	Timing	12
7.7.3	Negative response handling	12
7.7.4	Error handling of no response from the vehicle	14
7.7.5	Setup of ECU list	15
7.7.6	Setting up ECU communication list	16
7.7.7	Setting up data information list	16
7.7.8	Reading DTCs	17
7.7.9	Setting up DTC information list	17
7.7.10	Clear diagnostic information	22
7.7.11	Continuously reading ECU data	22
8	Roadside inspection test equipment	23
8.1	Definition	23
8.2	Related use cases	23
8.3	Implementation requirements	24
8.3.1	Overview	24
8.3.2	Application layer	24

9	Inspection and maintenance (I/M) test equipment	25
9.1	Definition	25
9.2	Related use cases	25
9.3	Implementation requirements	25
9.3.1	General	25
9.3.2	Application layer	25
10	Repair shop test equipment	27
10.1	Definition	27
10.2	Related use cases	27
10.3	Implementation requirements	27
10.3.1	Overview	27
10.3.2	Application layer	28
11	Multiple test equipment communication	31
11.1	General	31
11.2	Behaviour of external test equipment	31
	Bibliography	32