
**Road vehicles — End-of-life activation
of in-vehicle pyrotechnic devices —**

**Part 3:
Data definitions**

*Véhicules routiers — Activation en fin de vie des dispositifs
pyrotechniques embarqués —*

Partie 3: Définition des données





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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

This second edition cancels and replaces the first edition of ISO 26021-1:2008, ISO 26021-2:2008, ISO 26021-2:2008/Cor 1:2009, ISO 26021-3:2009, ISO 26021-4:2009, ISO 26021-5:2009, which has been technically revised.

The main changes are as follows:

- restructuring of four parts into a new Part 1 document including use cases and application requirements and a new Part 3 document including data definitions;
- introduction of requirement structure with numbering and name;
- support of ISO 13400 DoIP (diagnostic communication over Internet Protocol);
- support of ISO 13400-4 DoIP diagnostic connector.

A list of all parts in the ISO 26021 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

End-of-life deployment activation of on-board pyrotechnical devices is part of a wider regime designed to ensure that pyrotechnical devices in road vehicles are scrapped in a safe and environmentally acceptable condition after their use.

The ISO 26021 series is based on the Open Systems Interconnection (OSI) basic reference model specified in ISO/IEC 7498-1^[2] and ISO/IEC 10731^[4], which structures communication systems into seven layers. When mapped on this model, the application protocol and data link framework requirements specified/referenced in the ISO 26021 series are structured according to [Figure 1](#).

[Figure 1](#) illustrates a standard-based documentation concept, which consists of the following main clusters:

- vehicle diagnostic communication framework: covers all relevant basic vehicle diagnostic communication specifications of OSI layers 7, 6 and 5;
- vehicle diagnostic communication use case framework: covers the master specification, which specifies the use cases and requirements of the subject matter of OSI layer 7;
- presentation layer framework: covers all data relevant specifications of OSI layer 6;
- conformance test plan: covers the conformance test plan requirements of the use cases and communication requirements of OSI layers 7, 6 and 5;
- lower OSI layer framework: covers all vehicle diagnostic protocol standards of OSI layers 4, 3, 2 and 1, which are relevant and referenced by the use case specific standard.

[Figure 1](#) shows the document reference according to OSI model.

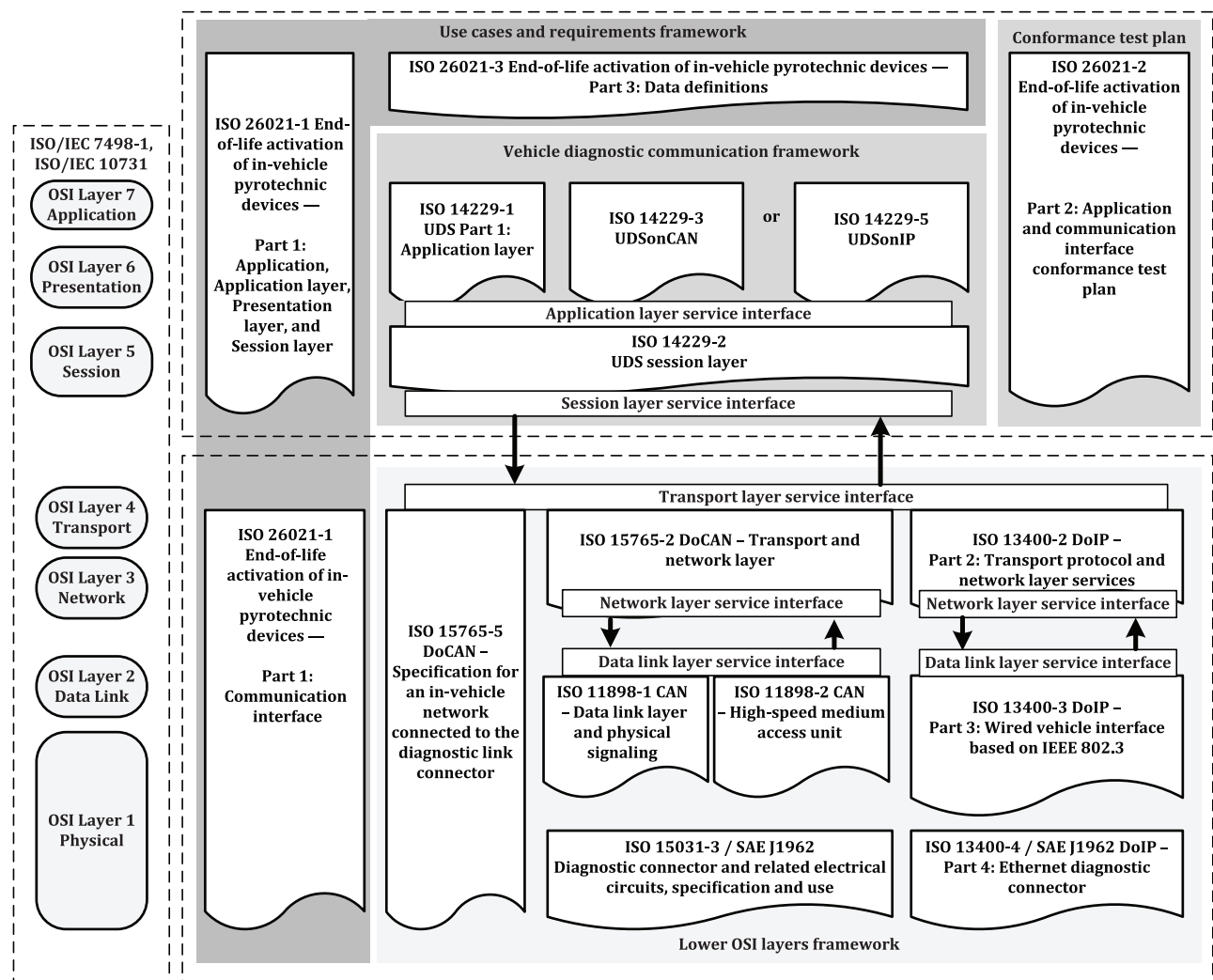


Figure 1 — ISO 26021 documents reference according to OSI model

Road vehicles — End-of-life activation of in-vehicle pyrotechnic devices —

Part 3: Data definitions

1 Scope

This document specifies all end-of-life activation of in-vehicle pyrotechnical devices identifiers, data identifiers, routine identifiers, data types, computations, and units.

This document is based on:

- new safety-relevant system technology designed into the vehicles,
- new or more effective end-of-life activation of in-vehicle pyrotechnical devices, which requires additional test data, and routine controls.

This document describes the end-of-life activation of in-vehicle pyrotechnical devices data definitions and associated technical requirements.

This document specifies:

- identifiers for end-of-life activation of in-vehicle pyrotechnical devices data definitions and associated technical requirements,
- data identifiers applicable to end-of-life activation of in-vehicle pyrotechnical devices data definitions and associated technical requirements,
- routine identifiers applicable to end-of-life activation of in-vehicle pyrotechnical devices data definitions and associated technical requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14229-1, *Road vehicles — Unified diagnostic services (UDS) — Part 1: Application layer*

ISO 15765-5, *Road vehicles — Diagnostic communication over Controller Area Network (DoCAN) — Part 5: Specification for an in-vehicle network connected to the diagnostic link connector*

ISO 26021-1:2022, *Road vehicles — End-of-life activation of in-vehicle pyrotechnical devices — Part 1: Application and communication interface*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14229-1 and ISO 26021-1:2022 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org/>

4 Abbreviated terms

DID	data identifier
MI	malfunction indicator
RCOR	routineControlOptionRecord
RCTP	routineControlParameter
SF	SubFunction
VM	vehicle manufacturer

5 Parameter specification

[Annex A](#) specifies the data identifier (DID) parameters and shall be followed.

[Annex B](#) specifies the deployment loop parameters and shall be followed.

[Annex C](#) specifies the routine control parameters and shall be followed.

Annex A (normative)

Data identifier (DID) parameter definitions

A.1 DID = NumberOfPcu

[Table A.1](#) specifies the DID, which contains the overall number of PCUs (including the mandatory fixed-address PCU) installed in the vehicle (default 1).

EXAMPLE If there is only one fixed-address PCU in the vehicle, a value of one (1) is reported. If there are two (2) additional PCUs in the vehicle, a value of three (3) is reported.

Table A.1 — DID = NumberOfPcu

DID	Definition	Symbolic name	A_Data byte	Scaling
FA00 ₁₆	NumberOfPcu	DID_NUM_PCU	—	—
	This DID shall be read-only and shall be supported by the fixed-address PCU in the vehicle.		1	8 bit unsigned numeric 00 ₁₆ : not valid 01 ₁₆ to F0 ₁₆ : valid number F0 ₁₆ to FF ₁₆ : reserved by this document

A.2 DID = PcuHardwareDeploymentMethod

[Table A.2](#) specifies the data identifier, which contains the version of the PCU deployment method implemented by the PCU and an identification string for the PCU. This data identifier is read-only.

Table A.2 — DID = PcuHardwareDeploymentMethod

DID	Definition	Symbolic name	A_Data byte	Scaling
FA01 ₁₆	PcuHardwareDeploymentMethodVersion	DID_HW_DPLY_MV	—	—
	This parameter of the PcuHardwareDeploymentMethodVersion contains the deployment method version of the diagnostic protocol services and the sequence used for the PCU deployment.		1	8 bit unsigned character 00 ₁₆ : default value: 01 ₁₆ : ISO 26021-2 Edition 1 02 ₁₆ : ISO 26021-1 Edition 2 03 ₁₆ to FF ₁₆ : reserved by this document
	PcuIdentificationString		2 to 10	8 bit unsigned character 00 ₁₆ : default value 01 ₁₆ to FF ₁₆ : VM-specific
	This parameter of the PcuHardwareDeploymentMethod contains the PCU identification string that is assigned to the PCU by the vehicle manufacturer (VM). Additional data reserved for future use.			reserved by this document

A.3 DID = PcuAddressInfo

Table A.3 specifies the data identifier, which contains the address type (11 bit, 29 bit) and address numbers (request and response) to be used to communicate with the PCUs in the vehicle. This information is dependent upon the physical link (see ISO 15765-5). Only “normal addressing” and “normal fixed addressing” as defined in ISO 15765-5 shall be supported on CAN. This data identifier shall only be supported by the fixed-address PCU in the vehicle.

The structure defined below shall be repeated in the response message for each PCU (including the fixed-address PCU) in the vehicle. This data identifier is read-only.

Table A.3 — DID = PcuAddressInfo

DID	Definition	Symbolic name	A_Data byte	Scaling
FA02 ₁₆	PcuAddressInfo	DID_PCU_ADDR_INFO	—	—
	PcuAddressFormatId #1 This format identifier specifies the format of the 1 st PCU's address information. The 1 st PCU address information type contains the address format of the PCU to be deployed first. Address information types are defined in ISO 26021-1.		1	8 bit unsigned numeric 01 ₁₆ : 11 bit normal addressing 02 ₁₆ : 11 bit extended addressing 03 ₁₆ : 11 bit mixed addressing 04 ₁₆ : 29 bit normal fixed addressing 05 ₁₆ : 29 bit mixed addressing 06 ₁₆ : 29 bit unique addressing
	PcuRequestMsgAddr #1 This parameter contains the diagnostic request address to which the PDT shall transmit the diagnostic requests to communicate with a PCU. Depending on the address information format, this is either an 11-bit or a 29-bit CAN-identifier. The 1 st PCU request address shall be that of the PCU to be fired first. The unused most significant bits shall be padded with zeros (0).		2 to 5	32 bit unsigned numeric
	PcuResponseMsgAddr #1 This parameter contains the diagnostic response address to which the PCU will respond to the requests of the PDT. Dependent upon the address information format this is either an 11-bit or 29-bit CAN-identifier or an 8-bit K-Line address. The 1 st PCU request address shall be that of the PCU to be fired first. The unused most significant bits shall be padded with zeros (0).		6 to 9	32 bit unsigned numeric
	PcuAddressFormatId #n This format identifier specifies the format of the n th PCU's address information.		$(n - 1) \times 9 + 1$	8 bit unsigned numeric (see PCU address format #1)
	RequestMsgAddrPcu #n This is the diagnostic request address of the n th PCU in the vehicle.		$(n - 1) \times 9 + 2$ to $(n - 1) \times 9 + 5$	32 bit unsigned numeric
	ResponseMsgAddrPcu #n This is the diagnostic response address of the n th PCU in the vehicle.		$(n - 1) \times 9 + 6$ to $(n - 1) \times 9 + 9$	32 bit unsigned numeric

A.4 DID = DeploymentLoopIdTable

[Table A.4](#) specifies the data identifier, which contains the number of loop table records in this PCU. Every loop record is made up of the type and the associated status of the deployment loops supported by the PCU. This data identifier is read-only.

Table A.4 — DID = DeploymentLoopIdTable

DID	Definition	Symbolic name	A_Data byte	Scaling
FA06 ₁₆	DeploymentLoopIdTable	DID_DPLY_LIDT	—	—
	ACLType The PCU deployment identifies the type of ACL required by the diagnostic protocol services and the sequence used for deployment of the pyrotechnic device. It shall be incremented every time a protocol service or a data identifier is changed and is no longer backward-compatible.		1	8 bit unsigned numeric 01 ₁₆ : No_ACL_Line 02 ₁₆ : ACL_CommMode_12V 03 ₁₆ : ACL_PWM_FixedLevel_8V 04 ₁₆ : ACL_CommMode_24V 05 ₁₆ : ACL_PWM_UBattLevel_12V 06 ₁₆ : ACL_PWM_UBattLevel_24V 07 ₁₆ to FF ₁₆ : reserved by this document
	ACLMethodVersion The ACL method version identifies the version of the diagnostic protocol services and sequence used for PCU deployment. It shall be incremented every time a protocol service or a data identifier is changed in the relevant parts of the ISO 26021 series and is no longer backward-compatible.		2	8 bit unsigned character 02 ₁₆ : ISO 26021:2022 series (this document series)
	NumOfLoopTableRecords		3	8 bit unsigned numeric 00 ₁₆ : not valid 01 ₁₆ to F0 ₁₆ : number F0 ₁₆ to FF ₁₆ : reserved by this document
	DeploymentLoopId #1 This parameter contains the identification of the 1 st loop in the PCU providing the function this loop is assigned to.		4	8 bit unsigned numeric Refer to B.1 for the definition of the available loop IDs.
	DeploymentLoopStatus #1 This parameter contains the current status of the loop identified in the parameter “loop identification”.		5	8 bit unsigned numeric Refer to B.2 for the definition of the loop status information.
	DeploymentLoopId #n This parameter contains the identification of the n th loop in the PCU providing the function this loop is assigned to.		$(n \times 2) + 2$	8 bit unsigned numeric Refer to B.1 for the definition of the available loop IDs.
	DeploymentLoopStatus #n This parameter contains the current status of the loop identified in the parameter “loop identification”.		$(n \times 2) + 3$	8 bit unsigned numeric Refer to B.2 for the definition of the loop status information.

A.5 DID = DismantlerIdentification

[Table A.5](#) specifies the DID, which is used to reference the dismantler identification data. The data shall be written to the PCU prior to the execution of any loop ignition procedure. This data identifier shall

be readable and writeable. This data identifier shall be locked and be made read-only after the first successful write access.

Table A.5 — DID = DismantlerIdentification

DID	Definition	Symbolic name	A_Data byte	Scaling
FA07 ₁₆	DismantlerIdentification	DID_DISMTLID	—	—
	DismantlerNumber This parameter identifies the dismantler which executes the PCU deployment sequence.		1 to 8	8 bit unsigned numeric: reserved for future use Default: 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆
	PdtDeviceIdentification This parameter identifies the PDT deployment tool that is involved in the PCU deployment sequence.		9 to 12	8 bit unsigned numeric: reserved by this document Default: 00 ₁₆ , 00 ₁₆ , 00 ₁₆ , 00 ₁₆
	DeploymentDate Year of deployment: this parameter contains the year in which the PCU deployment sequence is executed. (07D5 ₁₆ = “2005”) If this parameter has never been successfully written before, the default value (0000 ₁₆) shall be reported when this parameter is read.		13 to 14	16 bit unsigned numeric 0000 ₁₆ : Default 0001 ₁₆ to 07D4 ₁₆ : reserved by this document 07D5 ₁₆ to FFFE ₁₆ : Year FFFF ₁₆ : reserved by this document
	Month of deployment: this parameter contains the month in which the PCU deployment sequence is executed. If this parameter has never been successfully written before, the default value (00 ₁₆) shall be reported when this parameter is read.		15	8 bit unsigned numeric 00 ₁₆ : Default 01 ₁₆ to 0C ₁₆ : Month 0D ₁₆ to FF ₁₆ : reserved by this document
	Day of deployment: this parameter contains the day of the month on which the PCU deployment sequence is executed. If this parameter has never been successfully written before, the default value (00 ₁₆) shall be reported when this parameter is read.		16	8 bit unsigned numeric 00 ₁₆ : Default 01 ₁₆ to 1F ₁₆ : Day 20 ₁₆ to FF ₁₆ : reserved by this document

A.6 DID = Reserved by this document

[Table A.6](#) specifies the range of DIDs, which are reserved by this document.

Table A.6 — DID = Reserved by this document

DID	Description	Symbolic name	A_Data byte	Scaling
FA03 ₁₆	reserved by this document	RESRVD	—	—
FA04 ₁₆	reserved by this document	RESRVD	—	—
FA05 ₁₆	reserved by this document	RESRVD	—	—
FA08 ₁₆ to FA0F ₁₆	reserved for future use	RESRVD	—	—

Annex B (normative)

Deployment loop parameter definitions

B.1 DeploymentLoopId parameter definitions

DeploymentLoopIds shall be specified in [Table B.1](#).

Table B.1 — DeploymentLoopId definitions

Identifier	DeploymentLoopId definition
00 ₁₆	This value is reserved by this document.
01 ₁₆	airbag driver side frontal 1 st stage
02 ₁₆	airbag left side frontal 1 st stage
03 ₁₆	airbag right side frontal 1 st stage
04 ₁₆	airbag driver side frontal 2 nd stage
05 ₁₆	airbag left side frontal 2 nd stage
06 ₁₆	airbag right side frontal 2 nd stage
07 ₁₆	airbag driver side frontal 3 rd stage/vent
08 ₁₆	airbag left side frontal 3 rd stage
09 ₁₆	airbag right side frontal 3 rd stage
0A ₁₆	airbag passenger side frontal 1 st stage
0B ₁₆	airbag passenger side frontal 2 nd stage
0C ₁₆	airbag passenger side frontal 3 rd stage/vent
0D ₁₆	airbag left side frontal 3 rd stage
0E ₁₆	airbag right side frontal 3 rd stage
0F ₁₆	airbag passenger frontal 1 st stage — centre
10 ₁₆	airbag passenger frontal 2 nd stage — centre
11 ₁₆	airbag passenger frontal 3 rd stage/vent — centre
12 ₁₆	1 st pretensioner — driver side
13 ₁₆	1 st pretensioner — left side
14 ₁₆	1 st pretensioner — right side
15 ₁₆	2 nd pretensioner — driver side
16 ₁₆	2 nd pretensioner — left side
17 ₁₆	2 nd pretensioner — right side
18 ₁₆	1 st pretensioner — passenger side
19 ₁₆	2 nd pretensioner — passenger side
1A ₁₆	1 st pretensioner passenger — centre
1B ₁₆	2 nd pretensioner passenger — centre
1C ₁₆	1 st pretensioner — 2 nd row — left
1D ₁₆	2 nd pretensioner — 2 nd row — left
1E ₁₆	1 st pretensioner — 2 nd row — right
1F ₁₆	2 nd pretensioner — 2 nd row — right
20 ₁₆	1 st pretensioner — 2 nd row — centre

Table B.1 (continued)

Identifier	DeploymentLoopId definition
21 ₁₆	2 nd pretensioner — 2 nd row — centre
22 ₁₆	1 st pretensioner — 3 rd row — left
23 ₁₆	2 nd pretensioner — 3 rd row — left
24 ₁₆	1 st pretensioner — 3 rd row — right
25 ₁₆	2 nd pretensioner — 3 rd row — right
26 ₁₆	1 st pretensioner — 3 rd row — centre
27 ₁₆	2 nd pretensioner — 3 rd row — centre
28 ₁₆	belt-force limiter — driver side
29 ₁₆	belt-force limiter — left side
2A ₁₆	belt-force limiter — right side
2B ₁₆	belt-force limiter — passenger side
2C ₁₆	belt-force limiter — passenger — centre
2D ₁₆	belt-force limiter — 2 nd row — left
2E ₁₆	belt-force limiter — 2 nd row — right
2F ₁₆	belt-force limiter — 2 nd row — centre
30 ₁₆	belt-force limiter — 3 rd row — left
31 ₁₆	belt-force limiter — 3 rd row — right
32 ₁₆	belt-force limiter — 3 rd row — centre
33 ₁₆	headbag — driver side — roof mounted
34 ₁₆	headbag — passenger side — roof mounted
35 ₁₆	headbag — right side — roof mounted
36 ₁₆	headbag — left side — roof mounted
37 ₁₆	headbag — 2 nd row — left — roof mounted
38 ₁₆	headbag — 2 nd row — right — roof mounted
39 ₁₆	headbag — 3 rd row — left — roof mounted
3A ₁₆	headbag — 3 rd row — right — roof mounted
3B ₁₆	sidebag (curtain) — driver side
3C ₁₆	sidebag (curtain) — passenger side
3D ₁₆	sidebag (curtain) — left side
3E ₁₆	sidebag (curtain) — right side
3F ₁₆	sidebag (curtain) — 2 nd row — left
40 ₁₆	sidebag (curtain) — 2 nd row — right
41 ₁₆	sidebag (curtain) — 3 rd row — left
42 ₁₆	sidebag (curtain) — 3 rd row — right
43 ₁₆	sidebag — driver side — door mounted
44 ₁₆	sidebag — passenger side — door mounted
45 ₁₆	sidebag — left side — door mounted
46 ₁₆	sidebag — right side — door mounted
47 ₁₆	sidebag — 2 nd row — left — door mounted
48 ₁₆	sidebag — 2 nd row — right — door mounted
49 ₁₆	sidebag — 3 rd row — left — door mounted
4A ₁₆	sidebag — 3 rd row — right — door mounted
4B ₁₆	seatbag (cushion) — driver side — seat mounted
4C ₁₆	seatbag (cushion) — passenger side — seat mounted

Table B.1 (continued)

Identifier	DeploymentLoopId definition
4D ₁₆	seatbag (cushion) — left side — seat mounted
4E ₁₆	seatbag (cushion) — right side — seat mounted
4F ₁₆	seatbag (cushion) — 2 nd row — left — seat mounted
50 ₁₆	seatbag (cushion) — 2 nd row — right — seat mounted
51 ₁₆	seatbag (cushion) — 3 rd row — left — seat mounted
52 ₁₆	seatbag (cushion) — 3 rd row — right — seat mounted
53 ₁₆	kneebag — driver side
54 ₁₆	kneebag — passenger side
55 ₁₆	kneebag — left side
56 ₁₆	kneebag — right side
57 ₁₆	kneebag — passenger side — centre
58 ₁₆	footbag — driver side
59 ₁₆	footbag — passenger side
5A ₁₆	footbag — left side
5B ₁₆	footbag — right side
5C ₁₆	footbag — passenger side — centre
5D ₁₆	-not assigned-
5E ₁₆	active headrest — driver side
5F ₁₆	active headrest — passenger side
60 ₁₆	active headrest — left side
61 ₁₆	active headrest — right side
62 ₁₆	active headrest — passenger side — centre
63 ₁₆	active headrest — 2 nd row — left
64 ₁₆	active headrest — 2 nd row — right
65 ₁₆	active headrest — 2 nd row — centre
66 ₁₆	active headrest — 3 rd row — left
67 ₁₆	active headrest — 3 rd row — right
68 ₁₆	active headrest — 3 rd row — centre
69 ₁₆	battery clamp — main battery
6A ₁₆	battery clamp — 2 nd battery
6B ₁₆	battery clamp — 3 rd battery
6C ₁₆	battery clamp — 4 th battery
6D ₁₆	roof-airbag front — left
6E ₁₆	roof-airbag front — right
6F ₁₆	bag in belt — driver side
70 ₁₆	bag in belt — passenger side
71 ₁₆	bag in belt — left side
72 ₁₆	bag in belt — right side
73 ₁₆	bag in belt — passenger side — centre
74 ₁₆	bag in belt — 2 nd row — left
75 ₁₆	bag in belt — 2 nd row — right
76 ₁₆	bag in belt — 2 nd row — centre
77 ₁₆	bag in belt — 3 rd row — left
78 ₁₆	bag in belt — 3 rd row — right

Table B.1 (continued)

Identifier	DeploymentLoopId definition
79 ₁₆	bag in belt — 3 rd row — centre
7A ₁₆	rollover bar #1
7B ₁₆	rollover bar #2
7C ₁₆	rollover bar #3
7D ₁₆	rollover bar #4
7E ₁₆	active anti-submarining — driver seat
7F ₁₆	active anti-submarining — passenger seat
80 ₁₆	active anti-submarining — left seat
81 ₁₆	active anti-submarining — right seat
82 ₁₆	active anti-submarining — passenger seat — centre
83 ₁₆	active anti-submarining — seat 2 nd row — left
84 ₁₆	active anti-submarining — seat 2 nd row — right
85 ₁₆	active anti-submarining — seat 2 nd row — centre
86 ₁₆	active anti-submarining — seat 3 rd row — left
87 ₁₆	active anti-submarining — seat 3 rd row — right
88 ₁₆	active anti-submarining — seat 3 rd row — centre
89 ₁₆	pedestrian protection — hood lifter — front left
8A ₁₆	pedestrian protection — hood lifter — front right
8B ₁₆	pedestrian protection — hood lifter — rear left
8C ₁₆	pedestrian protection — hood lifter — rear right
8D ₁₆	pedestrian protection — a-pillar left
8E ₁₆	pedestrian protection — a-pillar right
8F ₁₆	pedestrian protection — wind screen
90 ₁₆	pedestrian protection — bumper left
91 ₁₆	pedestrian protection — bumper centre
92 ₁₆	pedestrian protection — bumper right
93 ₁₆	active steering column
94 ₁₆	front screen — emergency release
95 ₁₆	rear window — emergency release
96 ₁₆	pedestrian protection — wind screen release — left
97 ₁₆	pedestrian protection — wind screen release — centre
98 ₁₆	pedestrian protection — wind screen release — right
99 ₁₆	pedestrian protection — vent — left
9A ₁₆	pedestrian protection — vent — right
9B ₁₆	high-voltage disable — first
9C ₁₆	high-voltage disable — second
9D ₁₆	front hinge — left door
9E ₁₆	rear hinge — left door
9F ₁₆	front hinge — right door
A0 ₁₆	rear hinge — right door
A1 ₁₆	air condition — 1 st stage
A2 ₁₆	air condition — 2 nd stage
A3 ₁₆	vehicle-specific device #1
A4 ₁₆	vehicle-specific device #2

Table B.1 (continued)

Identifier	DeploymentLoopId definition
A5 ₁₆	vehicle-specific device #3
A6 ₁₆	vehicle-specific device #4
A7 ₁₆	vehicle-specific device #5
A8 ₁₆	sidebag inside — driver side — seat mounted
A9 ₁₆	sidebag inside — passenger side — seat mounted
AA ₁₆	sidebag inside — left side — seat mounted
AB ₁₆	sidebag inside — right side — seat mounted
AC ₁₆	farside (centre) airbag — 1 st row
AD ₁₆	sidebag outside — driver side — seat mounted
AE ₁₆	sidebag outside — passenger side — seat mounted
AF ₁₆	sidebag outside — left side — seat mounted
B0 ₁₆	sidebag outside — right side — seat mounted
B1 ₁₆	sidebag outside — 2 nd row - left - seat mounted
B2 ₁₆	sidebag outside — 2 nd row - right - seat mounted
B3 ₁₆	high-voltage disable — third
B4 ₁₆	high-voltage disable — fourth
B5 ₁₆	high-voltage disable — fifth
B6 ₁₆	high-voltage disable — sixth
B7 ₁₆	3 rd pretensioner — driver side
B8 ₁₆	3 rd pretensioner — passenger side
B9 ₁₆	3 rd pretensioner — left side
Ba ₁₆	3 rd pretensioner — right side
BB ₁₆	3 rd pretensioner — 2 nd row — left side
BC ₁₆	3 rd pretensioner — 2 nd row — right side
BD ₁₆ to BF ₁₆	reserved by this document
C0 ₁₆ to EF ₁₆	vehicle manufacturer-specific
F0 ₁₆ to FF ₁₆	reserved for future use

B.2 DeploymentLoopStatus parameter definitions

The DeploymentLoopStatus shall be defined as in [Table B.2](#) if the corresponding bit is set to “1”.

Table B.2 — DeploymentLoopStatus definitions

Bit position	Bit value	DeploymentLoopStatus status definition	Cvt
0 to 1		Reserved by this document These bits are reserved by this document for future definitions. Default value = 00 ₂	M
2		Operating status CAUTION — External deployment is required. 0 ₂ Active: the PCU is in operating mode (default value). 1 ₂ Not active: the PCU is not in operating mode. The deployment is not successful.	U

Table B.2 (continued)

Bit position	Bit value	DeploymentLoopStatus status definition	Cvt
3		Deactivation status	U
		CAUTION — External deployment is required.	
0 ₂		Activated: the pyrotechnic device is activated by software or by a switch and connected (default value).	
		Not activated: the pyrotechnic device is deactivated by software or by a switch and disconnected.	
1 ₂			
4		Not installed status	U
		The pyrotechnic device is installed, e.g. by a removable seat (default value).	
		The pyrotechnic device is not installed, e.g. by a removable seat (no action required).	
0 ₂			
1 ₂		Deployed status	M
		Not deployed: the pyrotechnic device is not deployed by a PDT. The warning lamp shall be switched off.	
0 ₂		Deployed: the pyrotechnic device is deployed by a PDT. No additional work is required. The warning lamp shall be switched on.	
1 ₂			
6		Normal deployed status	U
		This bit reserved by this document for a future definition (default value).	
		This bit reserved by this document for a future definition.	
0 ₂			
1 ₂		Failure status	U
		No failure: there is no electrical fault in the firing loop (default value).	
0 ₂		Failure: an electrical fault in the firing loop, e.g. interrupted, short to ground, has deactivated this loop.	
		CAUTION — External deployment is required.	

Annex C (normative)

Routine control parameter definitions

C.1 Definition of routine identifiers and names

[Table C.1](#) specifies a RID #, supported routineControlType, RID name, symbolic name, and a definition. The symbolic names provide the possibility. e.g. to make a unique reference to diagnostic description information in case a diagnostic service is not yet implemented using the RIDs specified in this document. Symbolic names use the character set ISO/IEC 8859-1 in the range of 30₁₆ to 39₁₆ (0, 1, ... 9), 41₁₆ to 5A₁₆ (A, B, ... Z), and 5F₁₆ (_).

Table C.1 — RoutineIdentifier

RID #	Supported RCTP	RID name	Symbolic name	Definition	Cvt
E200 ₁₆	see Table C.2	ExecuteSPL	RID_EXSPLRI_	This value shall be used to convert a program module to an executable form.	M
E201 ₁₆	see Table C.3	DeployLoopRoutineId	RID_DLRI_	This value shall be used to initiate the deployment of the previously selected ignition loop.	M
E202 ₁₆ to E2FF ₁₆	—	SafetySystemRoutineIds	RESRVD	This range of values shall be reserved for the definition of routines implemented by safety-related systems.	M

C.2 RoutineControlOption data parameter definitions

RoutineControlOption data parameters shall be defined as in [Tables C.2](#) and [C.3](#).

Table C.2 — RoutineControlOption data parameter for ExecuteSPL

RCTP #	Definition	A_Data byte	Scaling
00 ₁₆ to FF ₁₆	SPLConversionId This parameter contains the identification of the SPL conversion method to be executed by the scrapping module loader program. This RoutineControlOption shall be readable and writeable.	1	8 bit unsigned numeric 00 ₁₆ : load SPM to RAM without conversion 01 ₁₆ : load SPM to RAM with conversion 02 ₁₆ to FF ₁₆ : reserved by this document

Table C.3 — RoutineControlOption data parameter for DeployLoopRoutineId

RCTP #	Definition	A_Data byte	Scaling
00 ₁₆ to FF ₁₆	LoopId #1 to #M This parameter contains the identification of the loop that shall be deployed next by the PCU.	1	8 bit unsigned numeric 00 ₁₆ : no loop 01 ₁₆ to FF ₁₆ : number of loops

Bibliography

- [1] ISO 3779, *Road vehicles — Vehicle identification number (VIN) — Content and structure*
- [2] ISO/IEC 7498-1, *Information processing systems — Open systems interconnection — Basic reference model*
- [3] ISO/IEC 8859-1, *Information technology — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1*
- [4] ISO/IEC 10731, *Information technology — Open Systems Interconnection — Basic Reference Model — Conventions for the definition of OSI services*

