

A dark blue background featuring a faint world map with a network of white lines and dots overlaid on it, suggesting global connectivity or data flow.

Introduction of Chinese Mandatory National Standard GB "Automobile Event Data Recorder"

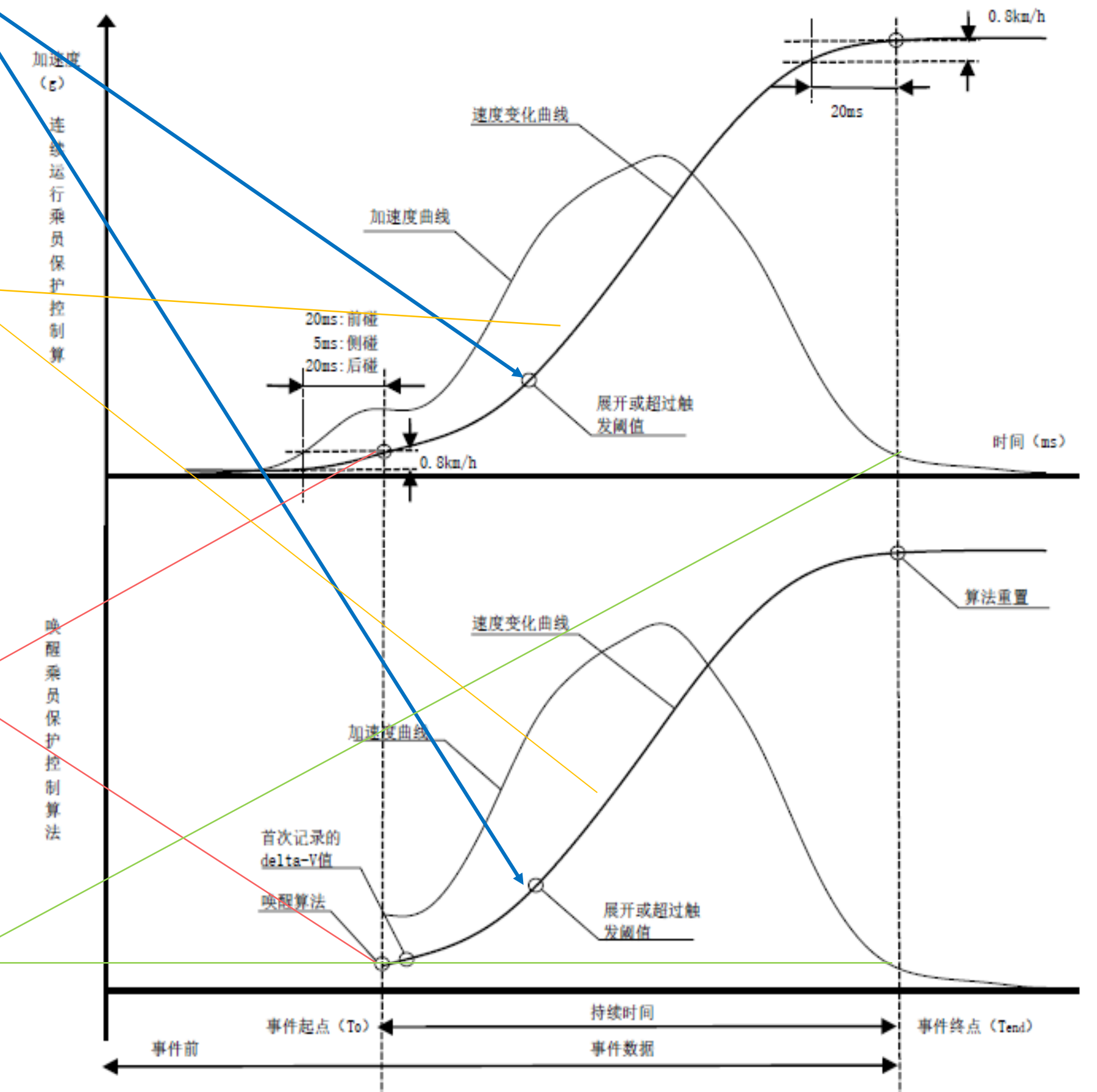
IMPACT EVENT REQUIREMENTS

Trigger Threshold

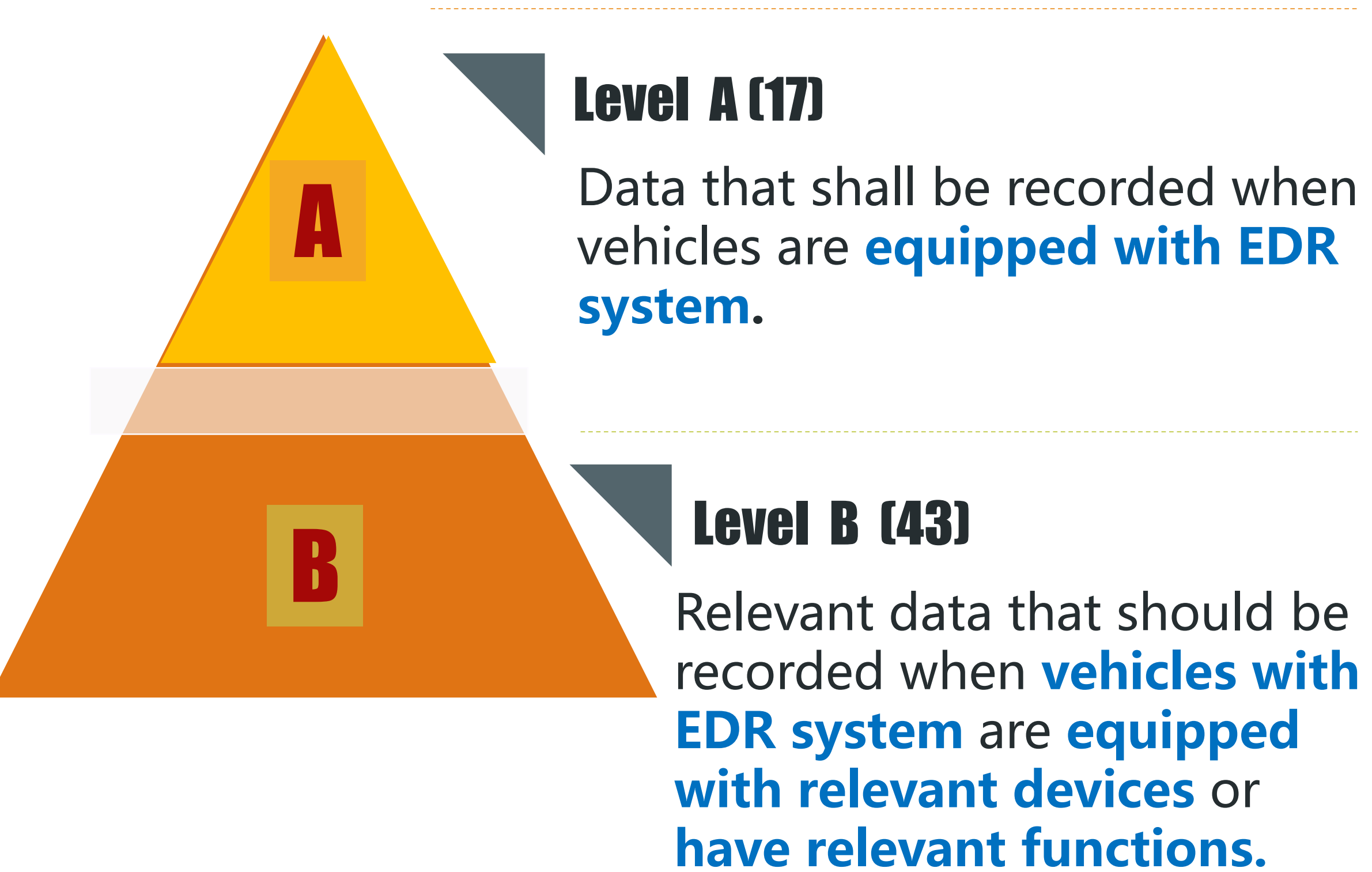
Locking Condition

Beginning of Event

End of Impact Event

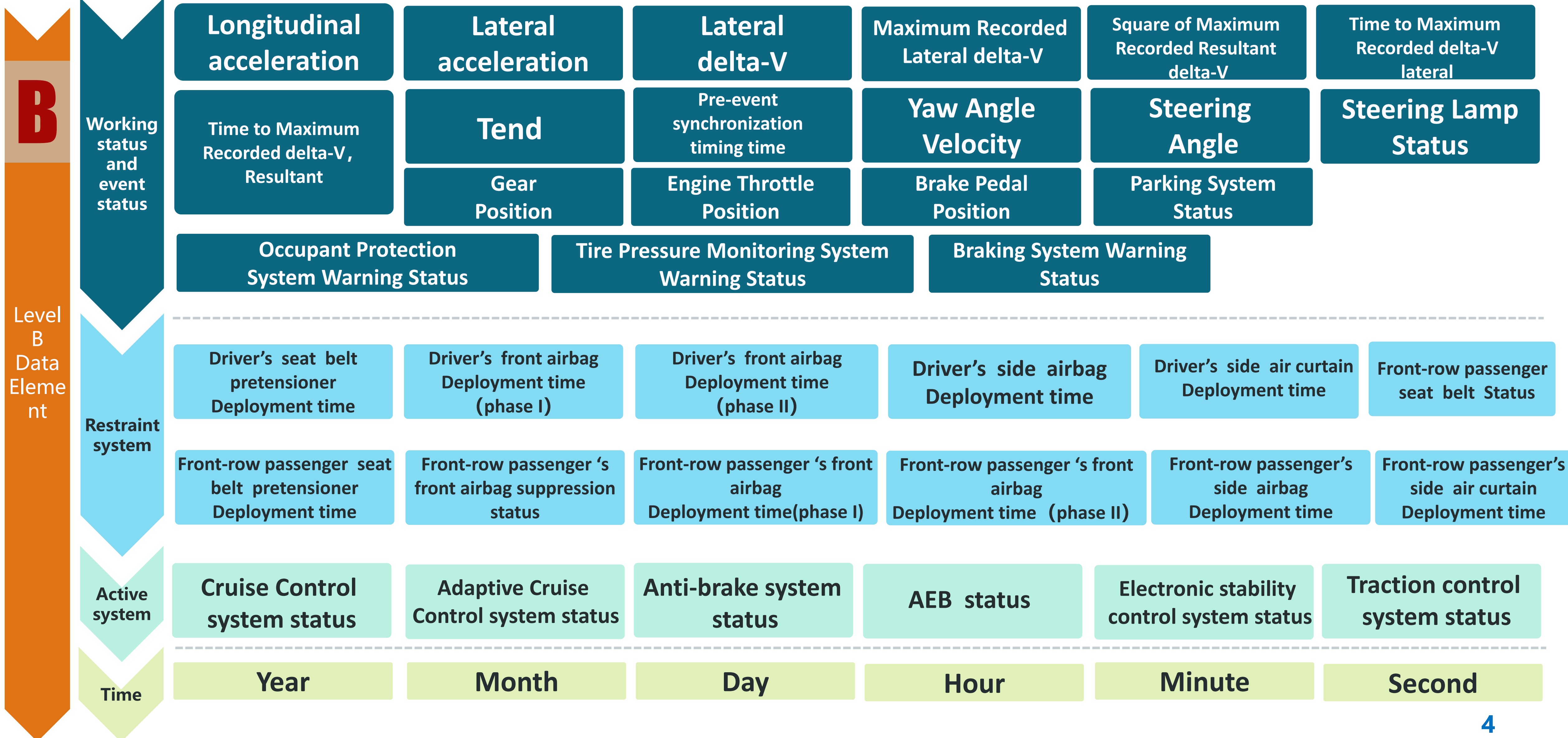


DATA RECORD REQUIREMENTS



Lateral delta-V	Maximum Recorded Lateral delta-V	Time to Maximum Recorded delta-V
Clipping Flag	Vehicle Velocity	Service brake , on or off
Acceleration pedal position%	Revolution per minute	Driver seatbelt status
Power-on cycle at event	Power-on cycle at retrieving	Complete status of event data record
Time interval from this event to the last event	VIN	
ECU hardware number that records EDR data	ECU software number that records EDR data	ECU serial number that records EDR data

DATA RECORD REQUIREMENTS



DATA RECORD FUNCTION REQUIREMENTS

Storage media and storage frequency requirements

- Non-volatile storage medium
- At least **3** times of impact event data.

Storage coverage mechanism requirements

- **Unlocked event** data should be overwritten by subsequent un-locked event data, in chronological order.
- **Locked event** data should not be overwritten by data from subsequent events.
- **For unlocked events**, the manufacturer is allowed to set other storage coverage mechanisms.

Power-off storage requirements

- data **before T_0 and after T_0 to (150 ± 10) ms** should be recorded.

DATA RETRIEVAL REQUIREMENTS

1 Unified data retrieval connector

GB/T 34589-2017 "Road Vehicles diagnostic connector"

Unified data retrieval protocol

2

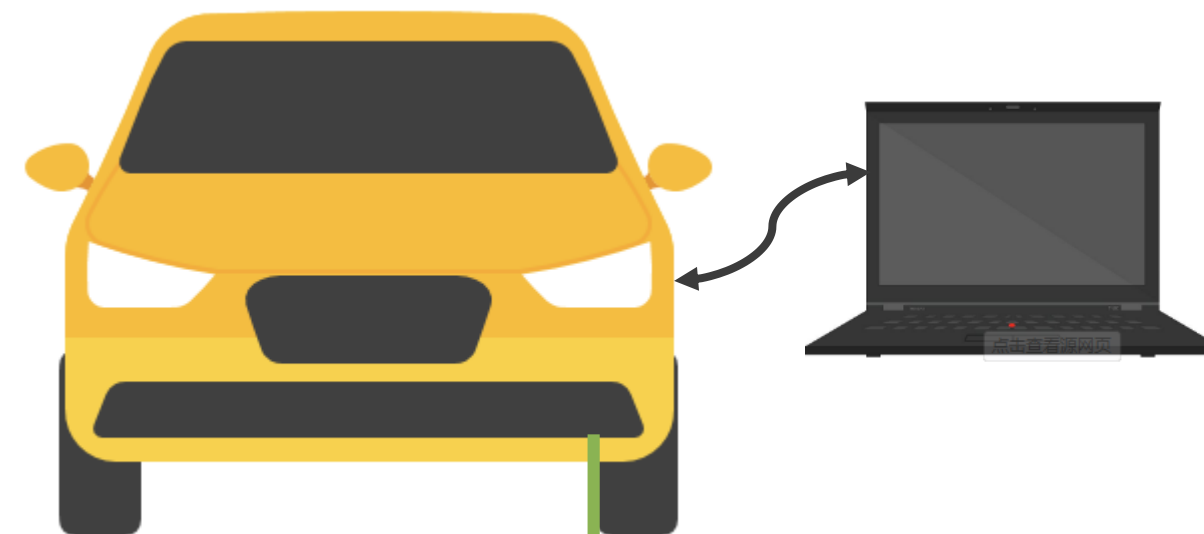
- ✓ Use diagnostic service 0x22 "ReadDataByIdentifier " in ISO 14229 "Road Vehicles unified diagnostic service " to retrieve EDR data.
- ✓ compatible with CAN bus and k-line.
- ✓ Compatible with functional addressing and physical addressing
- ✓ Compatible with 11-bit and 29-bit CANID

3 Unified data retrieval ID

0xFA13, 0xFA14 and 0xFA15

Where,

0xFA13 for the most recent event,
0xFA14 for the second event from the bottom,
0xFA15 for the third event from the bottom.



Unified data arrangement

4

Unified **data range, accuracy, resolution** and **data arrangement order**

ID (1)(2)(3)	Signal Name	Unit	Record Level	Length of Single Signal (bit)	Length of Single Signal (byte)	Number of Single Event Signals (#)	Length of Single Event Signal (Byte)	Serial Number of Byte	Conversion Formula	Unobtainable Value	Fault or Invalid Value
0xFA13	Longitudinal delta-V	km/h	A	8	1	26	26	0-25	E=N-150	FF ₁₅	FE ₁₅
	Maximum recorded longitudinal delta-V	km/h	A	8	1	1	1	26	E=N-150	FF ₁₅	FE ₁₅
	Time to maximum recorded delta-V, longitudinal	ms	A	7	1	1	1	27	E=N*2.5	FF ₁₅	FE ₁₅
0xFA14	Clipping flag	ms	A	16	2	1	2	28-29	E=N 1 st byte: longitudinal acceleration clipping flag; 2 nd byte: lateral acceleration	FFFF ₁₅	FFFE ₁₅
0xFA15											

6

C-EDR

THANK YOU!