principle of operation : speed limiter (LVV)

1 Glossary

RVV: cruise control.

LVV: speed limiter.

BVA: automatic gearbox.

ESP: Electronic stability programme.

2 Benefit

The speed limiter enables the driver to limit the speed of his vehicle on a voluntary basis.

The driver is able to drive up to the reference speed by pressing the accelerator pedal.

The driver can exceed the programmed speed by pressing the accelerator pedal beyond the "point of resistance".

The "point of resistance" is at the end of the accelerator pedal travel.

The driver can deactivate the speed limiter at any time by pressing the activation/deactivation button.

The driver is informed of his actions by a display on the instrument panel.

3 Diagram

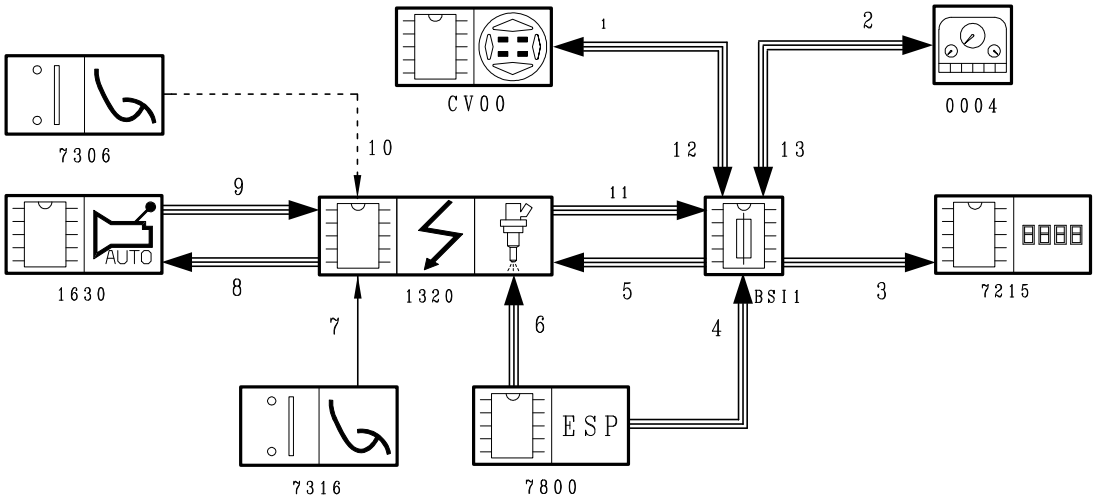


Fig. d4ep0hud.

- Fig. : 1 -

Key

:

- single arrow :
  wire connection
- triple arrow :
  multiplexed connection
- dotted arrow :
  if a manual gearbox is fitted

Components.	
BSI1.	Built-in systems interface.
CV00.	Switching module under the steering wheel.
7316.	Accelerator pedal "point of resistance" switch.
1320.	Engine ECU.
7800.	ESP ECU.
7215.	Multifunction screen.
0004.	Instrument panel.
1630.	Automatic gearbox (BVA).
7306.	Clutch switch (manual gearbox).

:

if the automatic gearbox option is fitted.

Connections.		
Connection N°.	Signal.	Nature of the signal.
1.	Audible warning control (only if the function is faulty).	BODY CAN.
2.	Speed limiter selection information . Activation of the speed limiter . Set speed . Distance unit in the BSI 1.	COMFORT CAN.
3.	Information for the speed limiter display.	COMFORT CAN.
4.	Vehicle speed information.	CAN.
5.	Value of the speed limiter reference speed . Speed limiter activation request . Position of the multi-functio	CAN.

	n dial (speed limiter / OFF / cruise control).	
6.	Vehicle speed information.	CAN.
7.	Accelerator pedal "point of resistance" switch.	WIRE.
8.	Speed limiter status information.	CAN.
9.	Automatic gearbox gear engaged information.	CAN.
10.	Clutch switch status.	ALL OR NOTHING.
11.	Engine running status . Speed limiter status . Speed limiter fault.	CAN.
12.	Speed limiter activation/deactivation . Selection of the speed limiter . Reference value + or reference value -.	BODY CAN.
13.	Unit of the reference speed displayed on the instrument panel . Speed displayed on the instrument panel.	COMFORT CAN.

:
the BSI 1 and the engine ECU are autonomous in the management of the speed limiter but they communicate with each other for mutual exchange of information and checking.

4 Description

The speed limiter uses the reference speed programmed by the driver and the vehicle speed to control the engine torque.

The speed limiter is active from 30 km/h or 20 mph.

By default the reference value is set at 30 km/h.

The current speed information is transmitted by the ESP ECU.

5 Situation

COMFORT CAN.	Situation.					
Status of the network.	Normal.					
Instrument panel status.	OFF.	ON.				
The ignition key.		Off.	Start.	Ignition.		
Engine status.				Engine	Engine	

				running.	running.	
Economy mode.						Yes.
Speed limiter.	No.	No.	No.	No.	Yes.	No.

The cruise control and speed limiter functions cannot be selected simultaneously.

The function is displayed on the instrument panel and as regards the messages on the multifunction screen.

The symbol is displayed for as long as the function is selected.

6 Selector

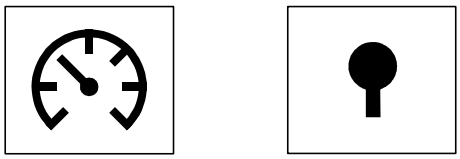


Fig. c5fp0mfc.

- Fig. : 2 -

A : symbol common to the speed limiter/cruise control.

B : speed limiter symbol.

Control stalk.	Function selected.	Display on the instrument panel.	Icon.
0.	None.	Nothing.	Nothing.
Speed limiter.	Speed limiter.	Symbol common to the speed limter/cruise control.	(A).
		Speed limiter symbol.	(B).
		Function selected and on standby symbol.	OFF.

		Reference value displayed .	130 km/h or mph. Unit of measurement.
		No reference value stored .	Dashes. Speed limiter faulty.

N.B. : When an activation request is received, if the speed limiter cannot be activated, the reference speed displayed (value or dashes on the display) flashes for 7 seconds.

The sensor incorporated in the accelerator pedal provides the "speed limiter function deactivation" information.

Each time the value is changed the current display ceases and conforms to the request of the new value received.

7 Display of speed limiter function statuses

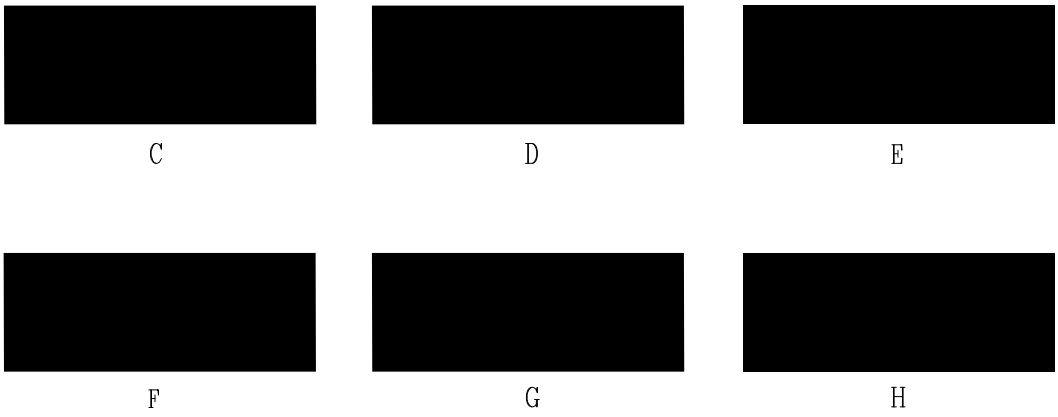


Fig. c5fp0mgd.

- Fig. : 3 -

Display.	Status of the function.	Status of the display.
(C).	Default reference value.	Set at 30 km/h.
(D).	Standby with reference value.	Permanent.
(E).	Function active and speed below the reference value.	Permanent.
	Function active and speed equal to the	

	reference value.	
(F).	Function active and speed above the reference value.	Flashing reference value.
	Function active and speed above the reference value following additional pressing of the pedal (pressing beyond the point of resistance).	Flashing reference value.
(G).	Function cannot be activated with reference value and activation request.	Flashing reference speed for 7 seconds then fixed.
(H).	Activation or reference value setting request.	Flashing dashes for 7 seconds then fixed.
	Occurence of fault.	

8 Methods of exit

When the speed limiter is active, the various means of exit are.

Conditions.	
IF.	Pressing of the activation/deactivation button.
OR.	Positioning of the multi-function dial to OFF.

The speed limiter function is faulty when the speed limiter switch is faulty.

9 Management of the km/h or mph unit

The instrument panel receives the reference speed to be displayed coded in km/h in the data frame.

The instrument panel converts the value to miles using a coefficient of approximately 1,6.

10 Effect of the automatic gearbox

The automatic gearbox ECU diffuses the following information in the network :

- the gearbox ratio engaged
- the gear selection lever position
- automatic gearbox fault information

The automatic gearbox ECU acquires the speed limiter status information (activated or deactivated).

11 Accelerator pedal "point of resistance" switch

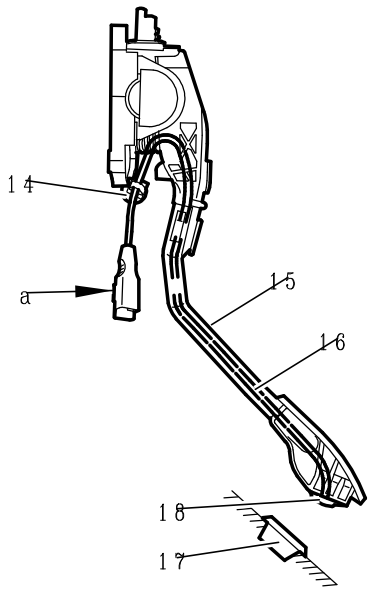


Fig. b3fp7dgc.

- Fig. : 4 -

Key
:

- a :
  connector
- 14 :
  harness attachment (clip)
- 15 :
  pedal
- 16 :
  the electrical harness
- 17 :
  stops
- 18 :
  "point of resistance" switch