

# Parts and Accessories. Installation Instructions.



## Multi-functional steering wheel retrofit kit BMW Z4 (E85)

**Retrofit kit No.**            65 71 0 304 943  
                                      65 71 0 304 942

### Installation time

The installation time is approx. 1.75 hours, but this may vary depending on the condition of the car and the equipment in it.

### Important information

These installation instructions are primarily designed for use within the BMW dealership organisation and by authorised BMW service companies.

In any event the target group for these installation instructions is specialist personnel trained on BMW cars with the appropriate specialist knowledge.

All work must be completed using the latest BMW repair manuals, circuit diagrams, servicing manuals and work instructions in a rational order using the prescribed tools (special tools) and observing current health and safety regulations.

**To avoid unnecessary extra work and/or costs, if any installation or function problems occur, after a brief troubleshooting session (approx. 0.5 hours), an inquiry is to be sent straight away to the technical parts support via the Aftersales Assistance Portal (ASAP), quoting the chassis number, the part number of the retrofit kit and a precise description of the problem.**

Do not archive the hard copy of these installation instructions since daily updates are made by ASAP.

See ASAP for details of the pictograms.

All the figures show LHD cars, proceed in exactly the same way on RHD cars.

Pictograms



Denotes instructions that draw your attention to dangers.



Denotes instructions that draw your attention to special features.

◀ denotes the end of the instruction or other text.

Subject to technical modifications.

## **Installation information**

Ensure that the cables/lines are not kinked or damaged as you install them in the car. The costs incurred as a result of this will not be reimbursed by BMW AG.

Additional cables/lines that you install must be secured with cable ties.

After the installation work the retrofit kit must be programmed / coded using DISPlus or GT-1 via the **Retrofit/CIP** path.

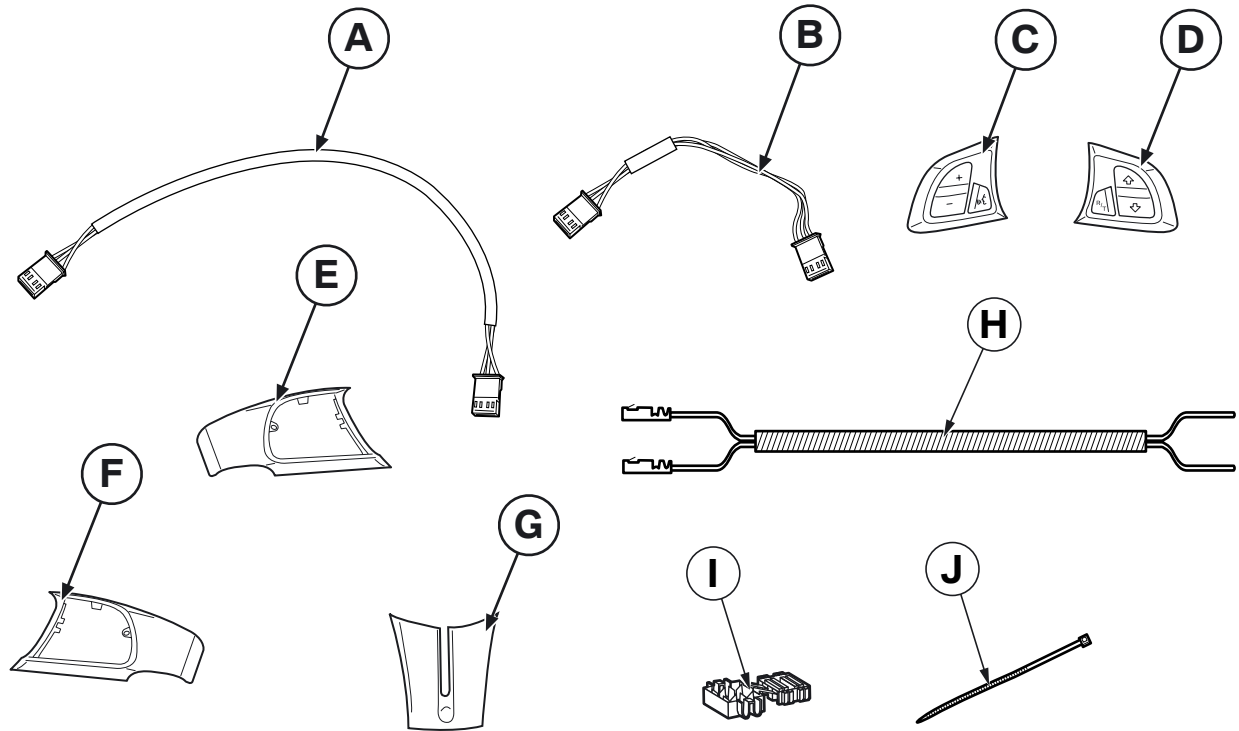
## **Special tools required**

None

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## 1. Parts list



085 0437 Z

### Legend

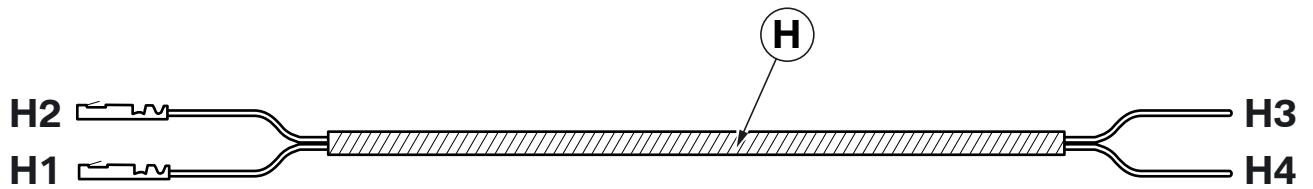
- A Adapter cable, long (connection from **C** to **D**)
- B Adapter cable, short (connection from **D** to the car)
- C Switch, steering wheel left
- D Switch, steering wheel right
- E Left switch trim
- F Right switch trim
- G Trim for steering wheel, bottom
- H Retrofit cable\*
- I Miniature connector (2x)\*
- J Cable tie (2x)\*

\* Parts marked with an asterisk are only for use on cars built before 09/03.

## 2. Preparations

	TIS No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
<b>The following components must be removed first of all</b>	
Instrument cluster (cars before 09/03 only)	62 11 280
Steering column trim, bottom section (cars before 09/03 only)	32 31 010

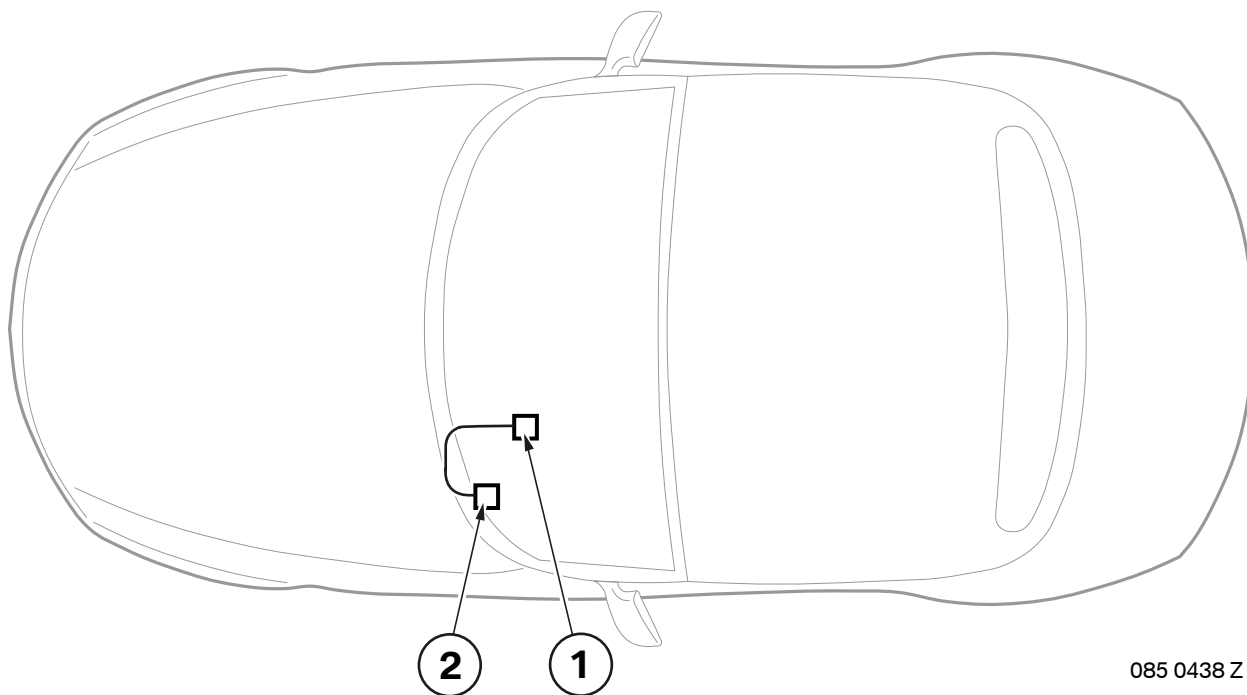
### 3. Connection diagram (cars before 09/03 only)



085 0435 Z

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
H	Retrofit wiring harness	---	---	---	---
H1	Socket contact	Terminal R	V/GE 0,5 mm <sup>2</sup>	Steering column slip ring	X 10170 PIN 10
H2	Socket contact	I/K bus	WS/RT/GE 0,35 mm <sup>2</sup>	Steering column slip ring	X10170 PIN 9
H3	Cable open	I/K bus	WS/RT/GE 0,35 mm <sup>2</sup>	Light module with miniature connector	X12 PIN 21
H4	Cable open	Terminal R	V/GE 0,5 mm <sup>2</sup>	Light module with miniature connector	X12 PIN 27

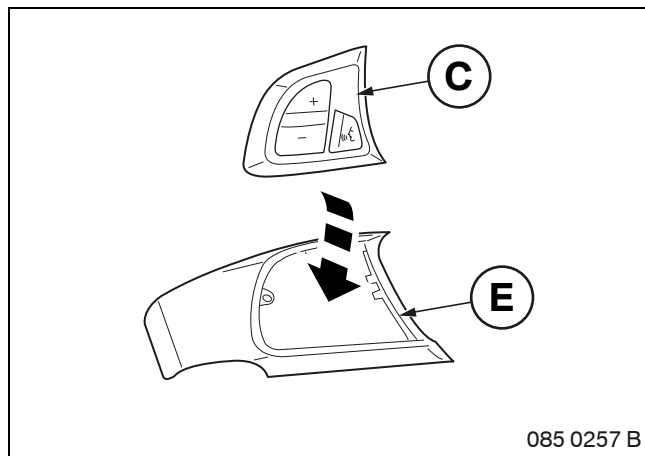
#### 4. Installation and cabling diagram (cars before 09/03 only)



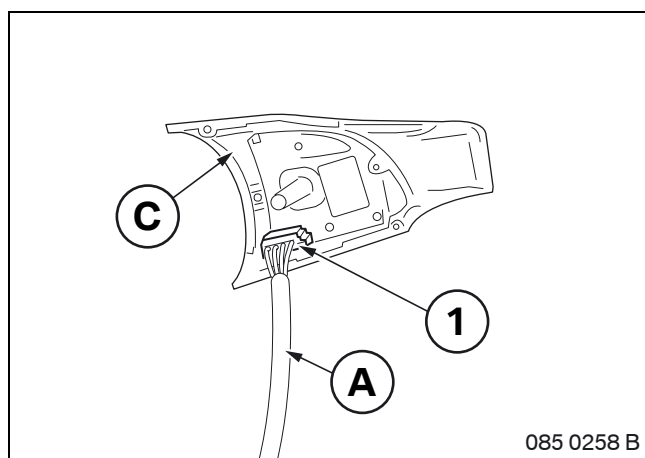
#### Legend

- 1 Multi-functional steering wheel
- 2 Light switch centre

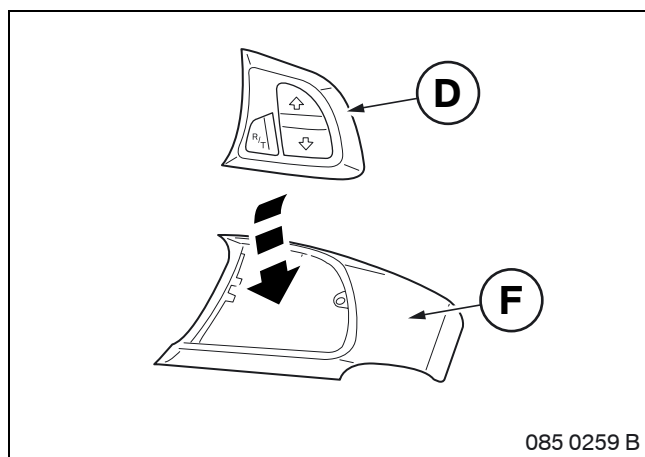
## 5. To install the retrofit kit



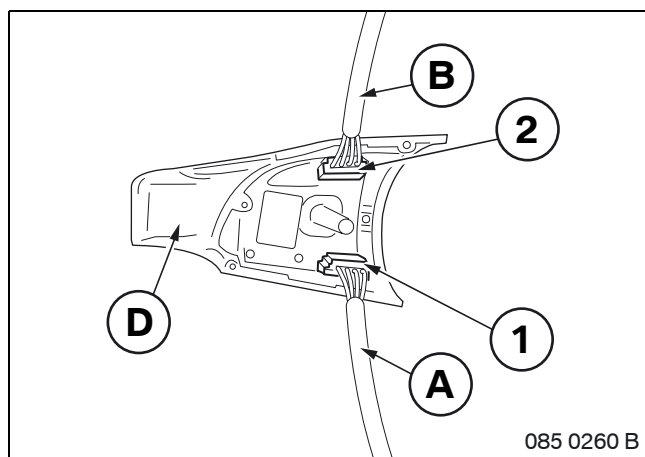
Clip switch **C** into trim **E** from above.



Connect the SW 4-pin socket casing (1) on adapter cable **A** to switch **C**.



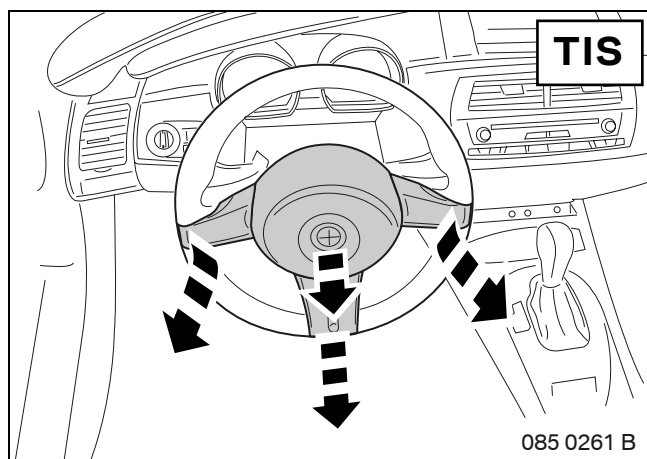
Clip switch **D** into trim **F** from above.



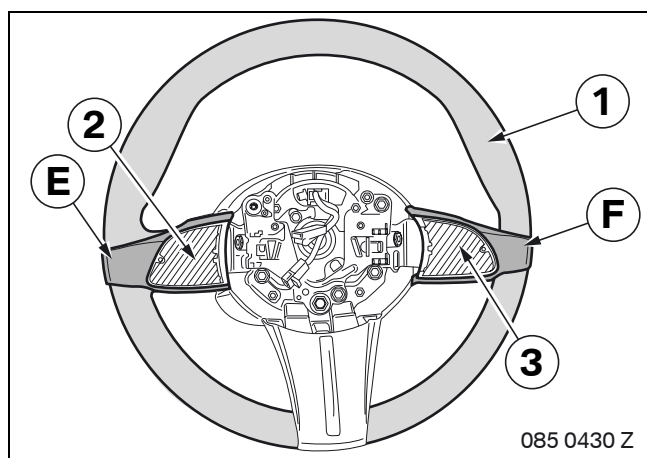
Connect the black 4-pin socket casing (1) on adapter cable **A** and the violet 4-pin socket casing (2) on connection cable **B** to switch **D**.



5. To install the retrofit kit



Remove the airbag unit and covers.

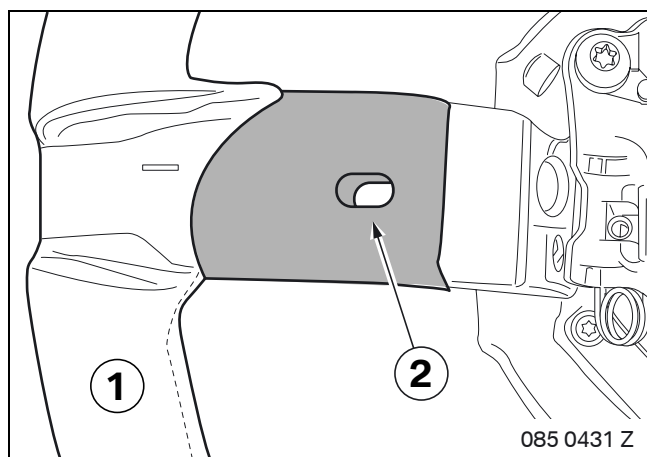


**Cars before 09/03 only**

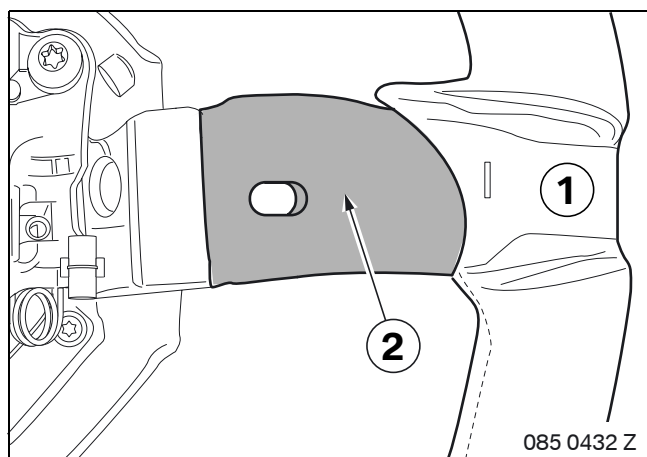
Clip the trims **E** and **F** on to the steering wheel (1) into its installation position.

Mark sections (2) and (3) on the steering wheel (1).

Remove the trims **E** and **F** again.

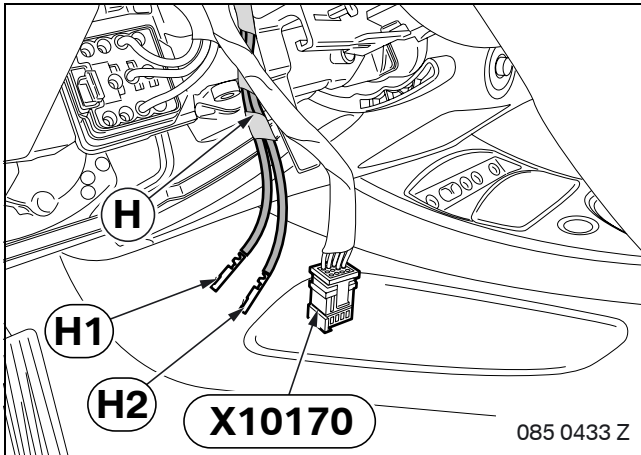


Cut the rigid foam off the steering wheel spoke (1) in area (2).



Cut the rigid foam off the steering wheel spoke (1) in area (2).

## 5. To install the retrofit kit



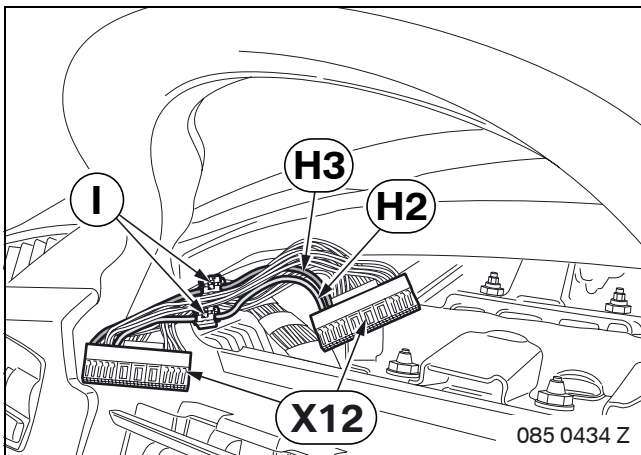
Disconnect plug **X10170** from the slip ring.

Connect branches **H1** and **H2** to plug **X10170** as follows:

- Branch **H1**, VI/GE cable, to PIN 10
- Branch **H2**, WS/RT/GE cable, to PIN 9

Connect plug **X10170** to the slip ring.

Route the retrofit cable **H** along the standard wiring harness to the light switch centre.

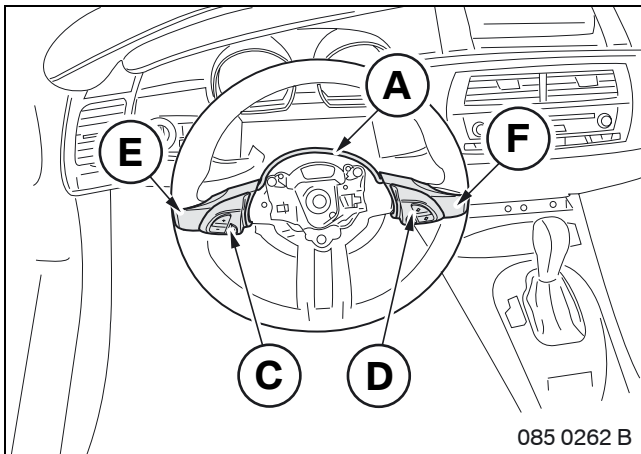


Disconnect plug **X12** from the light switch centre and open it.

Connect branches **H3** and **H4** to the cable from plug **X12** as follows using a miniature connector:


- Branch **H3**, WS/RT/GE cable, to the same coloured cables in PIN 21
- Branch **H4**, VI/GE cable, to the same coloured cables in PIN 27

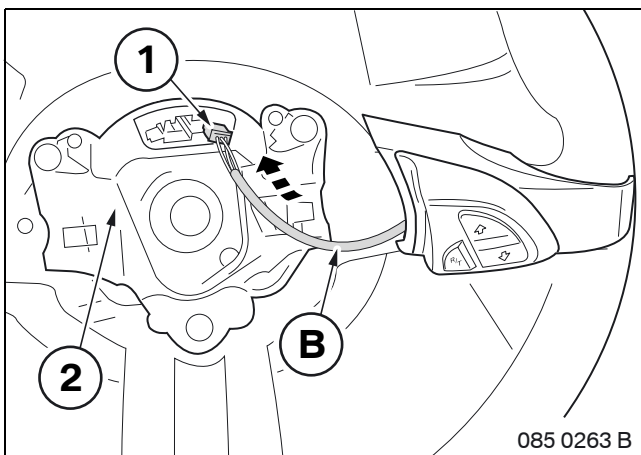
Close plug **X12** and connect it to the light switch centre.



### All cars

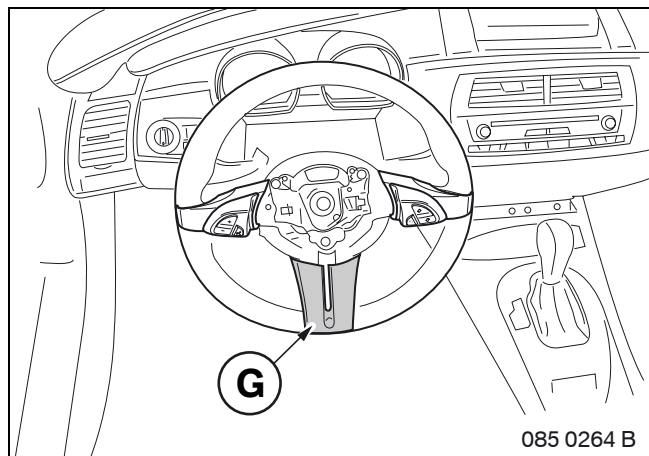
Fit switch **C** with trim **E** and switch **D** with trim **F** to the steering wheel.

 Route adapter cable **A** so it does not get crushed. ◀



Connect the white 4-pin socket casing (1) on connection cable **B** to the steering column (2).

5. To install the retrofit kit



Install trim **G**.

## 6. Concluding work and coding



This retrofit system requires coding. ◀

- Connect the battery
- Encode/program the retrofit using DISPlus or GT-1 via path **Retrofit/CIP**
- Conduct a brief test
- Conduct a function test
- Re-assemble the car



The circuit diagram for the multi-functional steering wheel connection is available in DISPlus or GT-1 if required. ◀