



# Parts and Accessories Installation Instructions

## Retrofit kit - Navigation system (not including TV function) BMW Z4 (E 85)

Retrofit kit part number: 65 90 0 301 347  
65 12 6 929 840 or 65 12 6 929 842

### Installation time:

The installation time of approx. 4.0 – 5.0 hours can vary depending on the condition and equipment of the vehicle.

### Important information:

- These Installation Instructions are mainly intended for use in the BMW dealership network and by authorised BMW After Sales Service Centers. The target group of these Installation Instructions are technical personnel trained on BMW vehicles with corresponding technical know-how.
- All work is to be carried out with the aid of currently valid Repair Instructions, schematic circuit diagrams, maintenance manuals and working instructions in rational order with the specified tools (special tools) while paying particular attention to valid safety regulations.
- Particular care must be taken when fitting cables/wiring to ensure that they are not bent, kinked or damaged.
- Jumpers, double crimp connections or parallel connections will be required if the specified pin number locations are occupied.
- All illustrations show LHD vehicles, the same procedure is to be followed analogously on RHD vehicles.
- Item numbers refer only to the overviews and texts next to the respective graphic.
- Encoding E85 vehicles:  
Before starting with the retrofit procedure, the control unit status must be checked with the CIP test program (Coding, Individualisation, Programming). If the check determines invalid statuses in one or several of the control units, they must first be updated with the "Load Software" function.
- Subject to technical modifications.



- For explanations of pictographs see EBA-CD or ASAP (After Sales Assistance Portal).
- Do not archive the printout of these Installation Instructions as daily updates are conducted through ASAP!

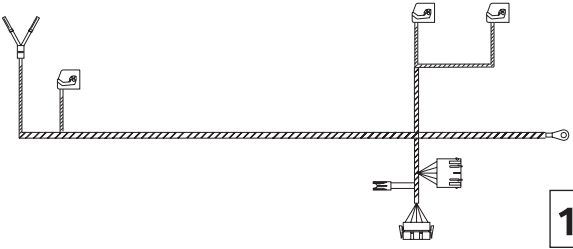
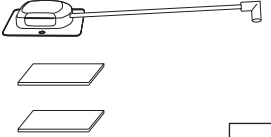
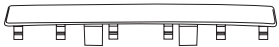
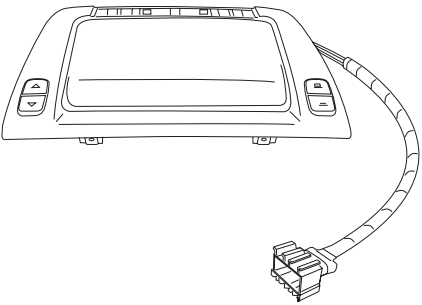
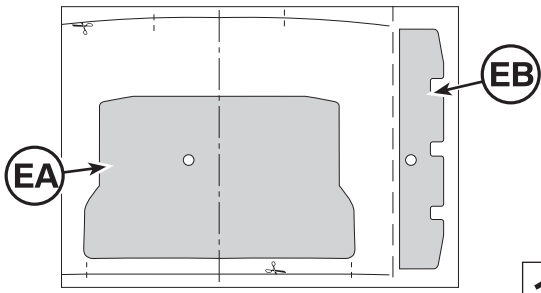
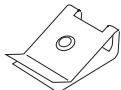
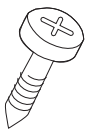
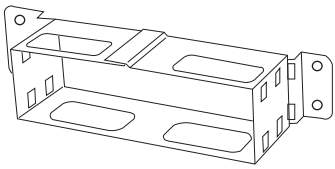

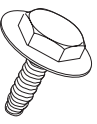
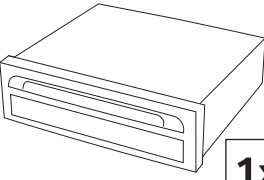
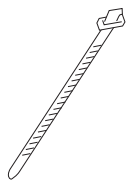
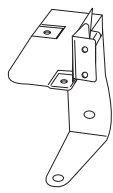
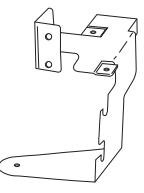
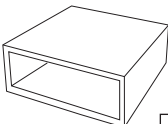
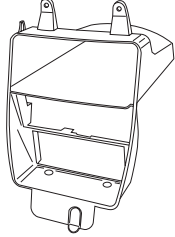

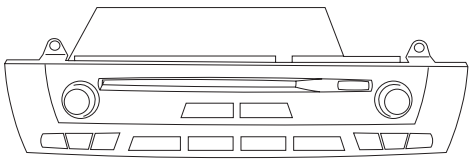
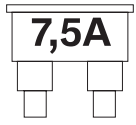
### Necessary auxiliary and special tools:

- Pneumatic saw
- Oscillating saw

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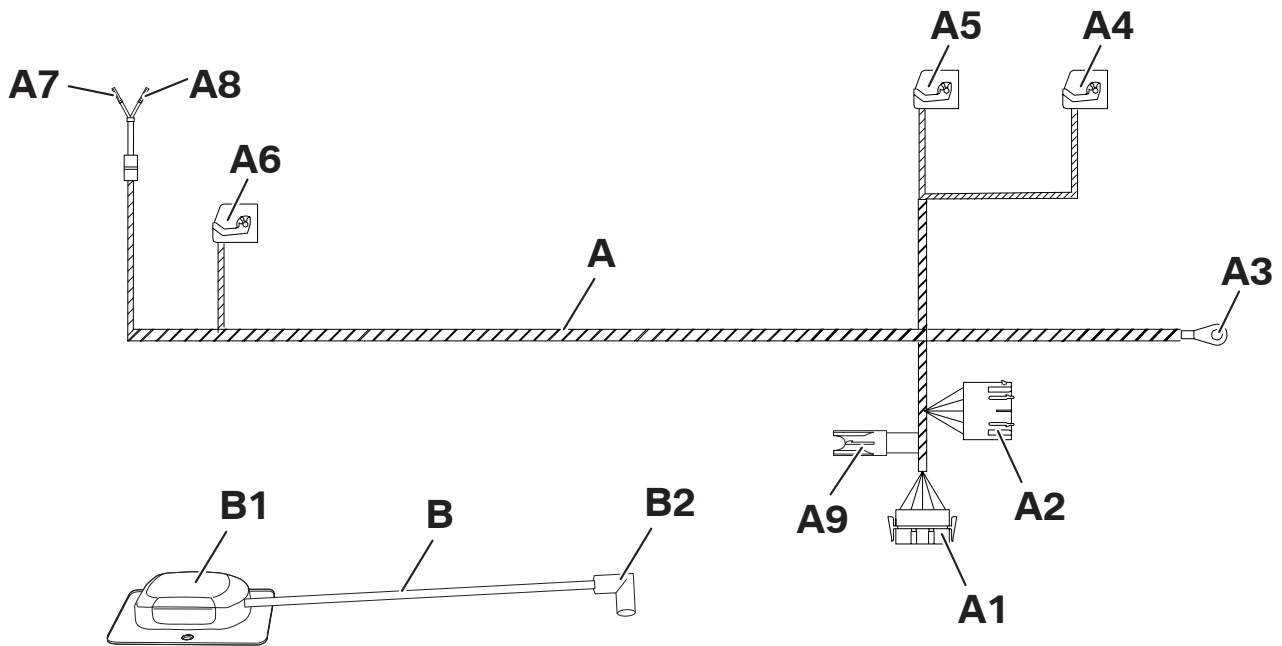
# 1. Parts Overview

<p><b>A</b></p>  <p><b>1x</b></p>	<p><b>B</b></p>  <p><b>1x</b></p>	<p><b>C</b></p>  <p><b>1x</b></p>	
<p><b>D</b></p>  <p><b>1x</b></p>	<p><b>E</b></p>  <p><b>1x</b></p>		
<p><b>F</b></p>  <p>4,2 - 3</p> <p><b>5x</b></p>	<p><b>G</b></p>  <p>ST4,2 x 19</p> <p><b>5x</b></p>	<p><b>H</b></p>  <p><b>1x</b></p>	
<p><b>I</b></p>  <p>M5</p> <p><b>4x</b></p>	<p><b>J</b></p>  <p>M5 x 12</p> <p><b>4x</b></p>	<p><b>K</b></p>  <p><b>1x</b></p>	<p><b>L</b></p>  <p><b>15x</b></p>
<p><b>M</b></p>  <p><b>1x</b></p>	<p><b>N</b></p>  <p><b>1x</b></p>	<p><b>O</b></p>  <p><b>1x</b></p>	<p><b>P</b></p>  <p><b>1x</b></p>
<p><b>Q</b></p>  <p>M6 x 12</p> <p><b>4x</b></p>	<p><b>R</b></p>  <p><b>1x</b></p>	<p><b>S</b></p>  <p><b>1x</b></p> <p>085 0180 B</p>	

## 2. Preparation

	<b>TIS No.</b>
Read out fault code memories	---
Disconnect battery	12 00 ...
Remove centre air outlet nozzle	64 22 ...
Remove radio (replaced by CID control panel <b>R</b> )	65 00 ...
Remove cover for handbrake lever and centre console	51 16 ...
Remove driver's seat/rear trim panel	51 16 ...
Remove finisher under radio	51 45 ...
Remove instrument cluster	62 11 280
Remove left-hand luggage compartment trim panel	

### 3. Connection overview



085 0177 B

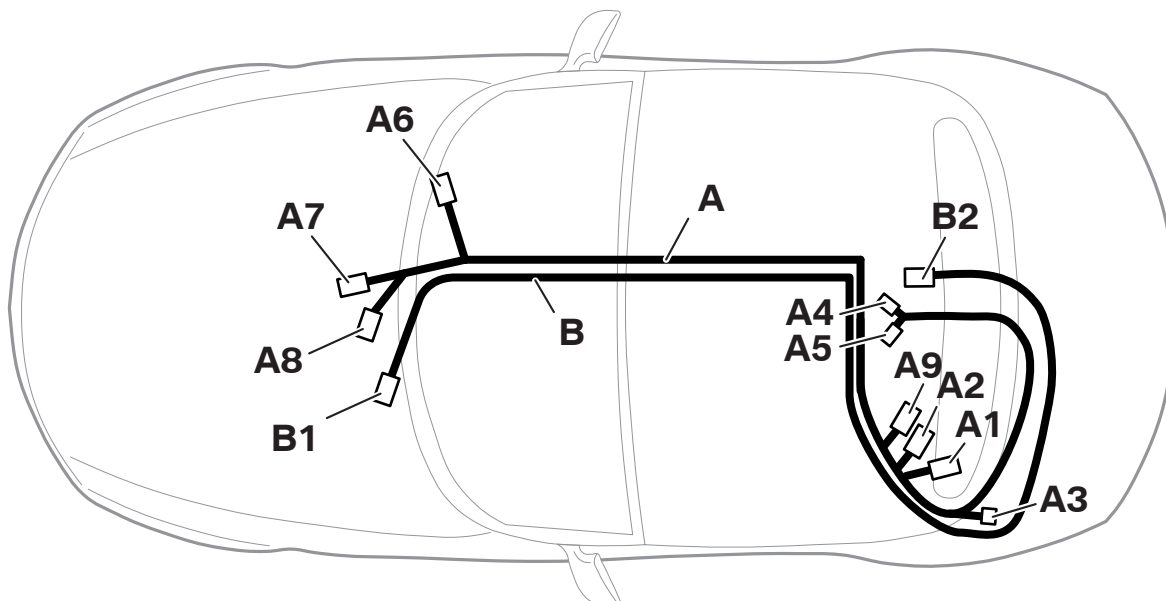
#### Navigation system wiring harness A

Item	Description	Signals	Wire colour	Connection location in vehicle	Designation/ plug-in location
a	Navigation system wiring harness				
A1	12-pin white socket housing			at connector X322 behind driver's seat	X322S
A2	12-pin white pin housing			at connector X322 behind driver's seat	X322B
A3	Cable eye Ø 6 mm			at audio ground terminal	X13016
A4	18-pin blue socket housing			at navigation computer <b>K</b>	X1313
A5	18-pin BO-VI socket housing			at navigation computer <b>K</b>	X1312
A6	18-pin white socket housing			at CID (on-board monitor) <b>D</b>	X18802
A7	Socket contact	NAV AF+	yellow/red	in 12-pin black socket housing <b>PIN 5</b> at new generation radio connector	X13598/5
A8	Socket contact	NAV AF-	yellow/brown	in 12-pin black socket housing <b>PIN 11</b> at new generation radio connector	X13598/11
A9	Fuse holder			if there is a red/green supply cable at serial plug X322S, PIN 5: Cut off the fuse holder and insulate the cables	

#### GPS aerial B

Item	Description	Signals	Wire colour	Connection location in vehicle	Designation/ plug-in location
B	GPS aerial				
B1	GPS aerial			behind instrument cluster	
B2	Coaxial connector			at navigation computer <b>K</b>	

## 4. Installation and layout diagram



085 0176 B

All wiring harnesses are to be installed as shown in the illustration and secured with cable ties.

### Navigation system wiring harness A

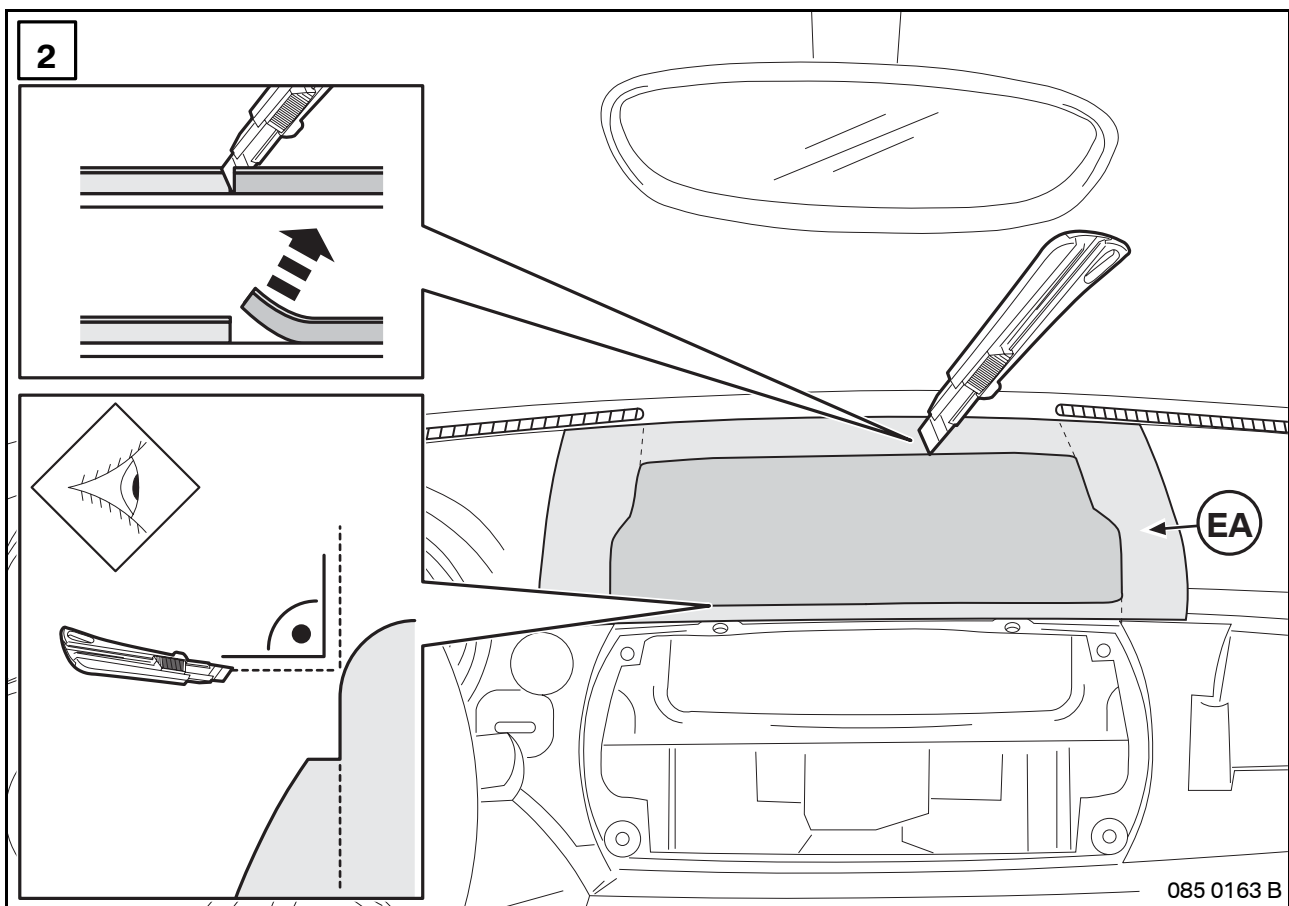
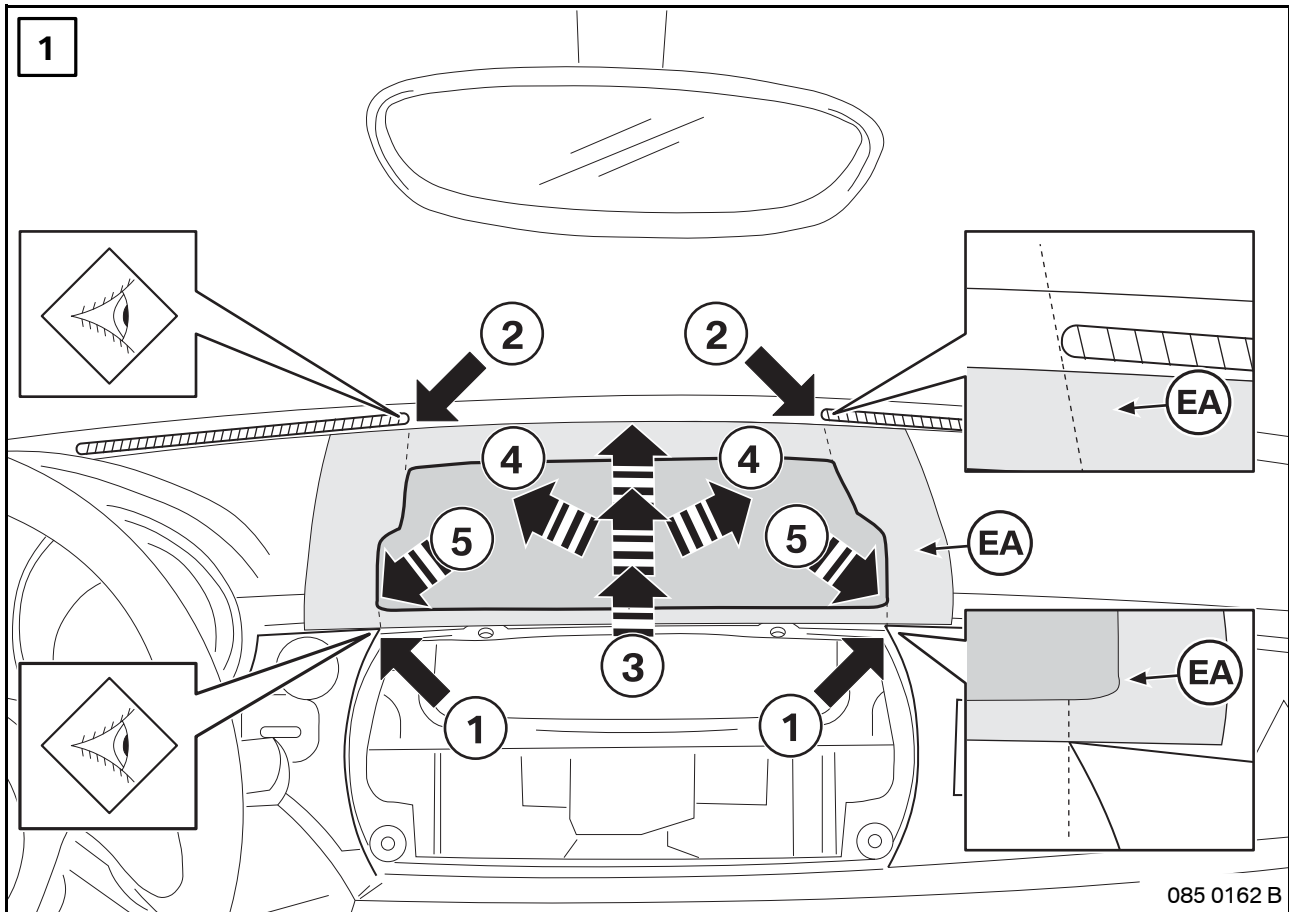
- A1 at **X322S**
- A2 at **X322B**
- A3 at audio ground terminal **X13016**
- A4 at navigation computer **X1313**
- A5 at navigation computer **X1312**
- A6 at on-board monitor **X18802**
- A7/A8 at radio connector **X13598**
- A9 fuse holder

### GPS aerial B

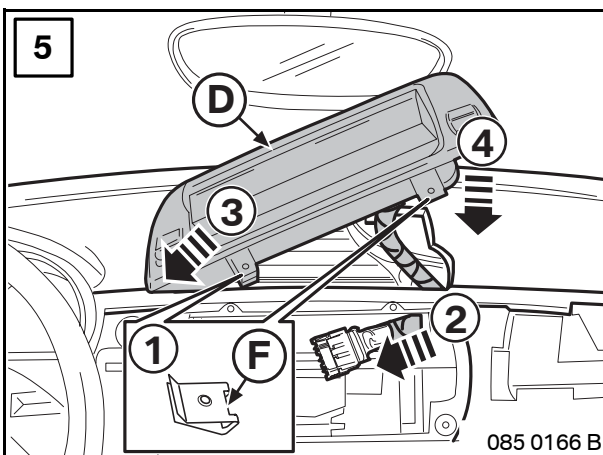
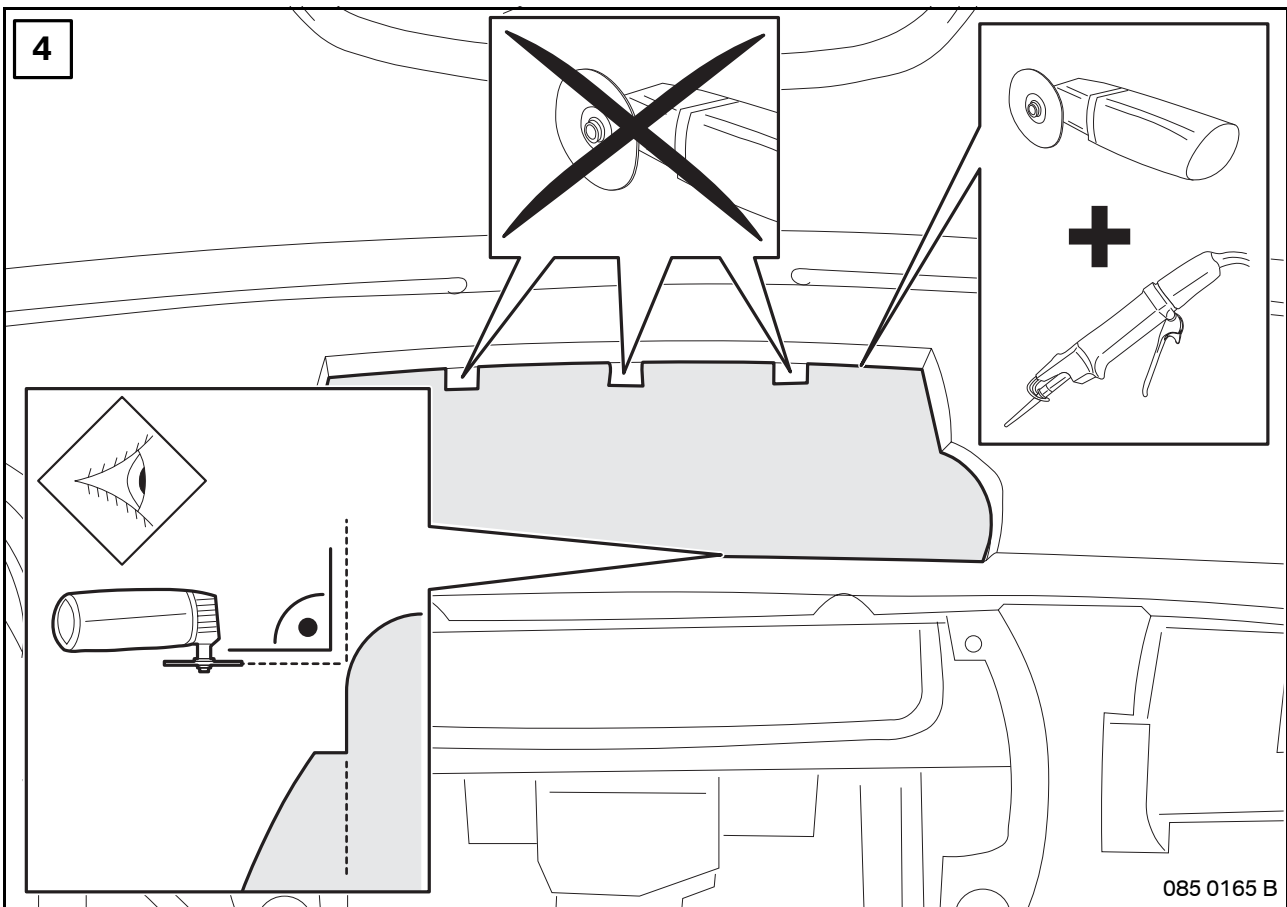
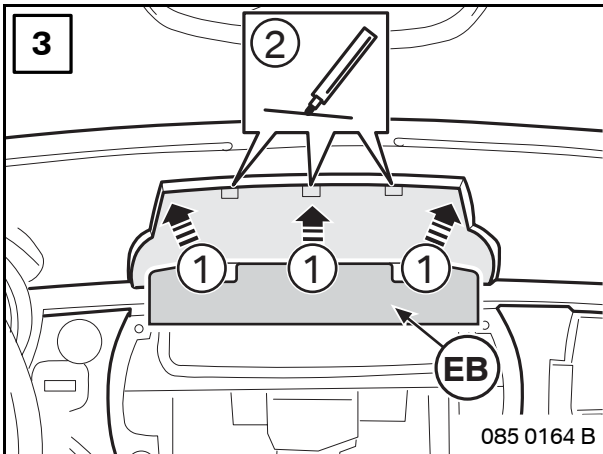
- B1 behind instrument cluster
- B2 at navigation computer

### Tie back excess length.

## 5. Installing monitor

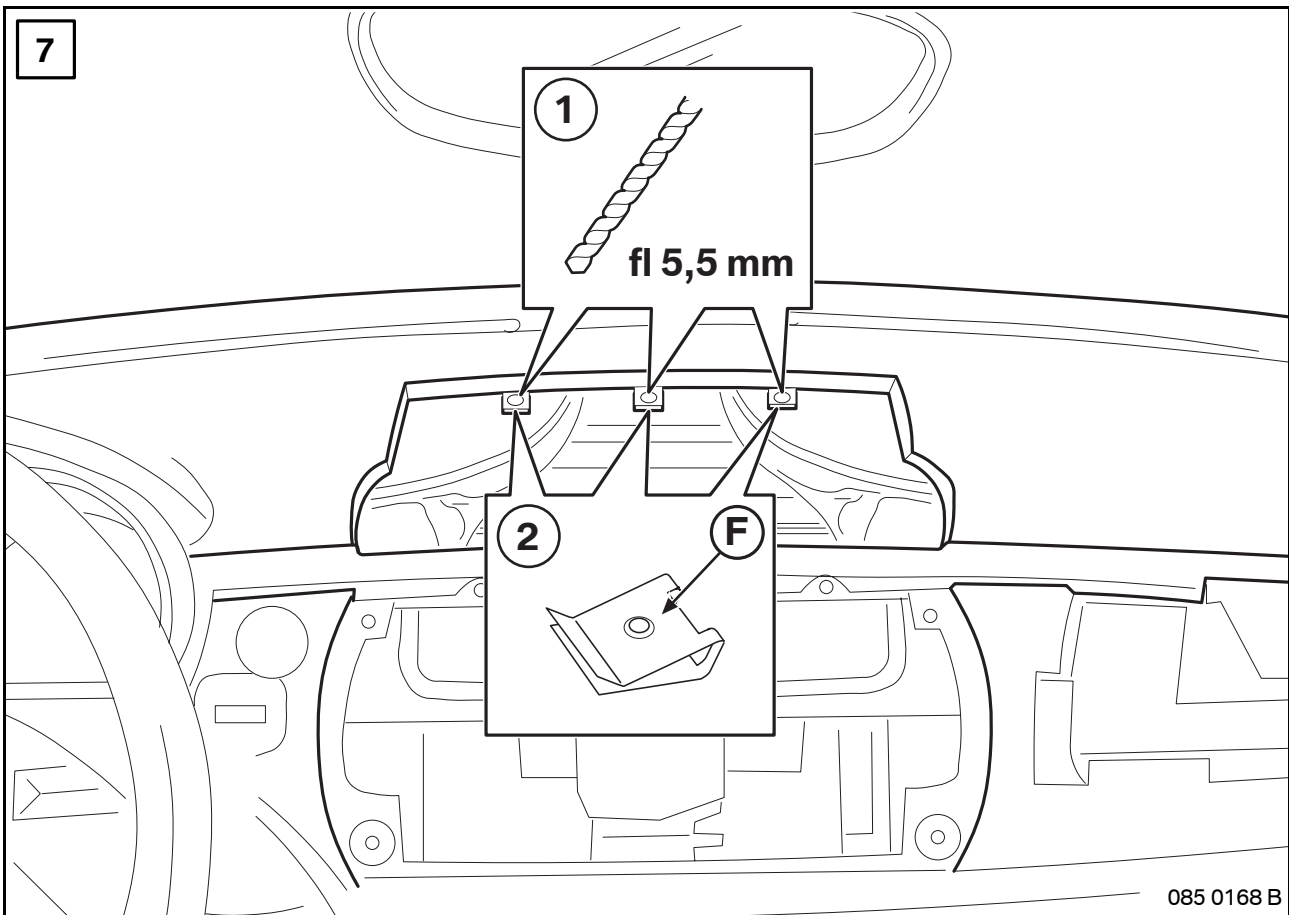
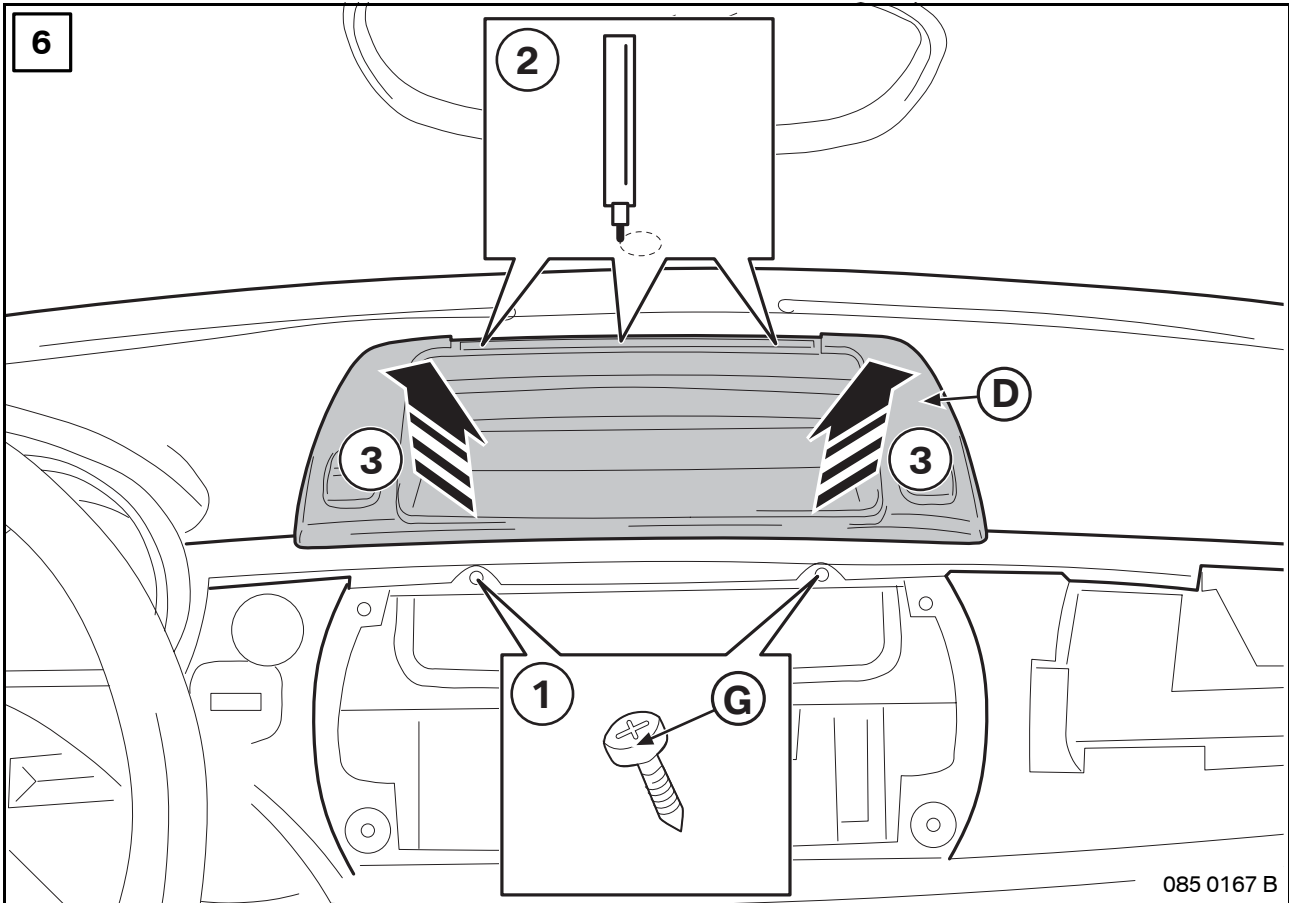


## 5. Installing monitor

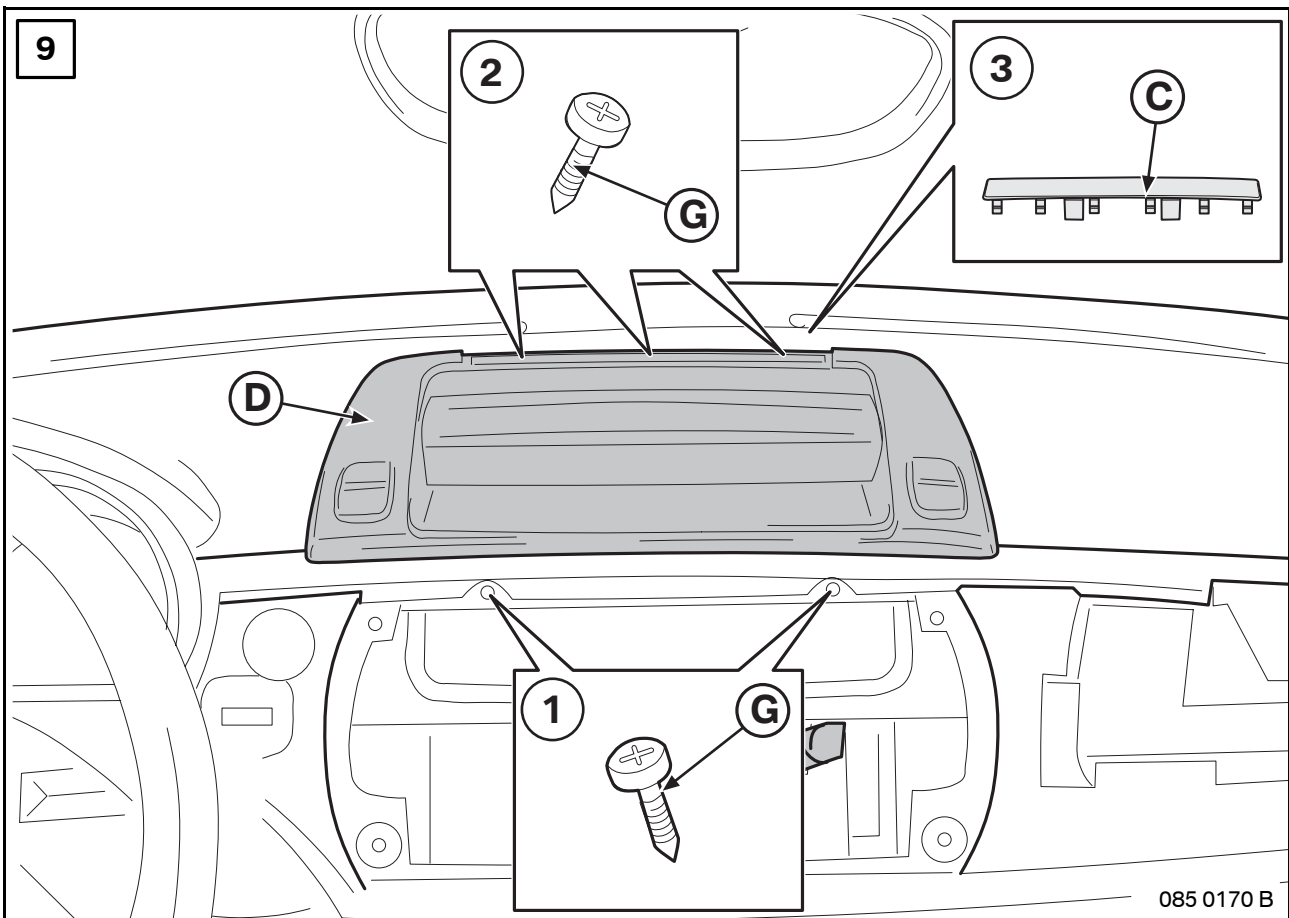
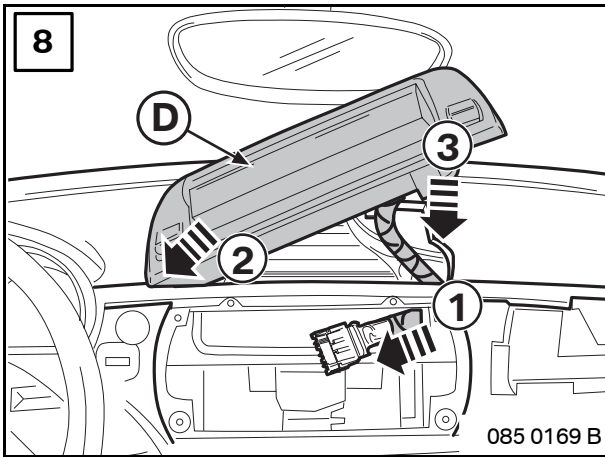




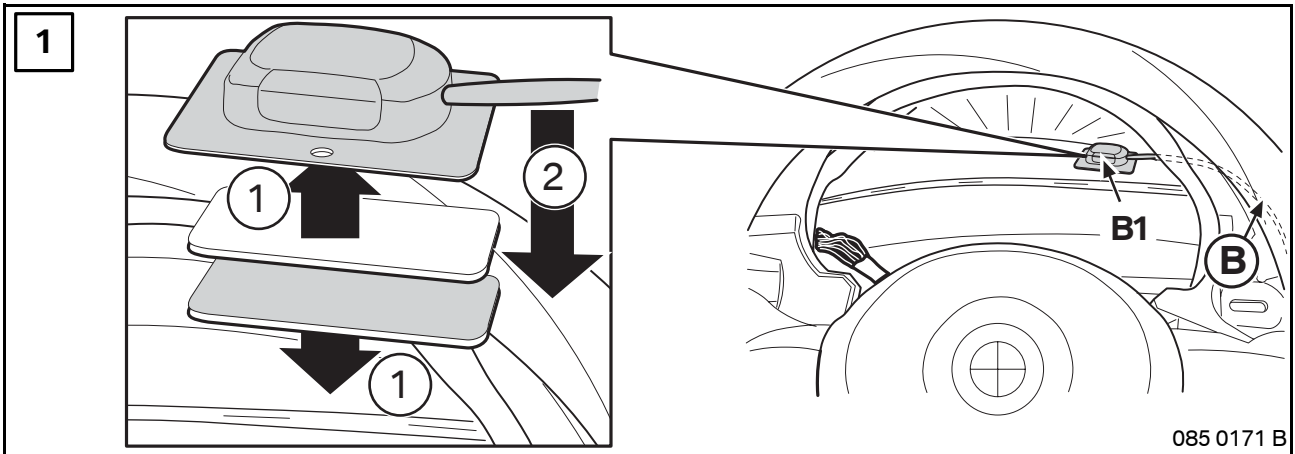
## 5. Installing monitor



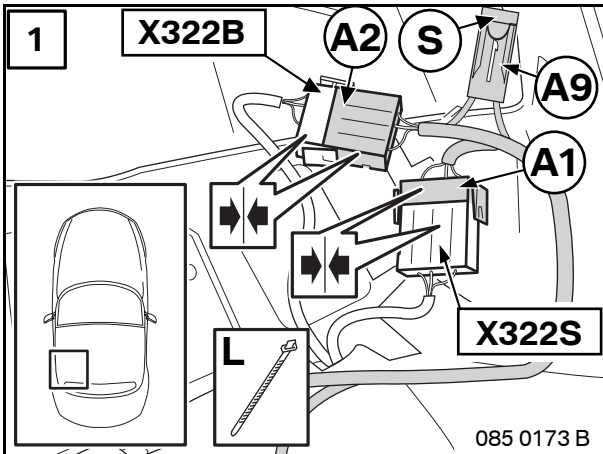
## 5. Installing monitor



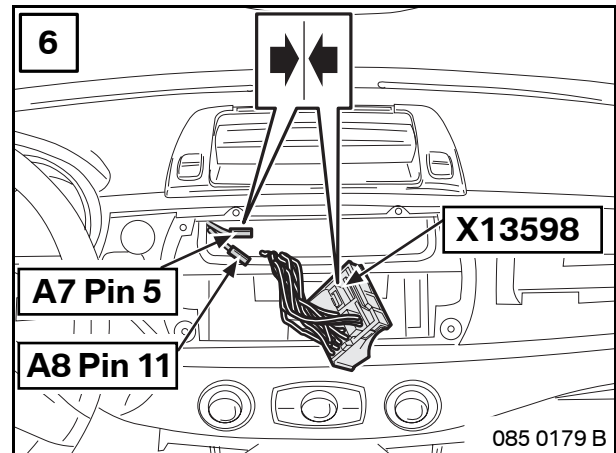
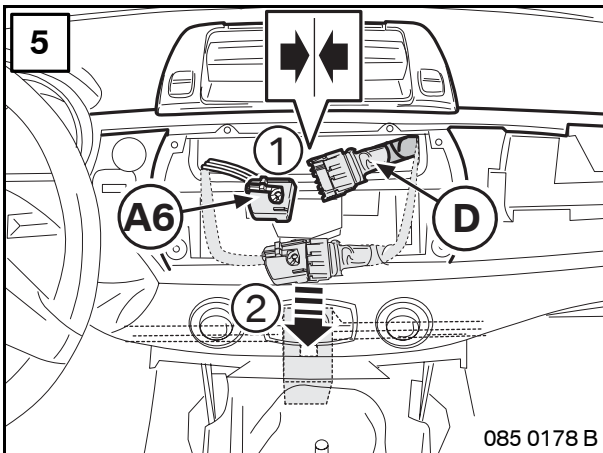
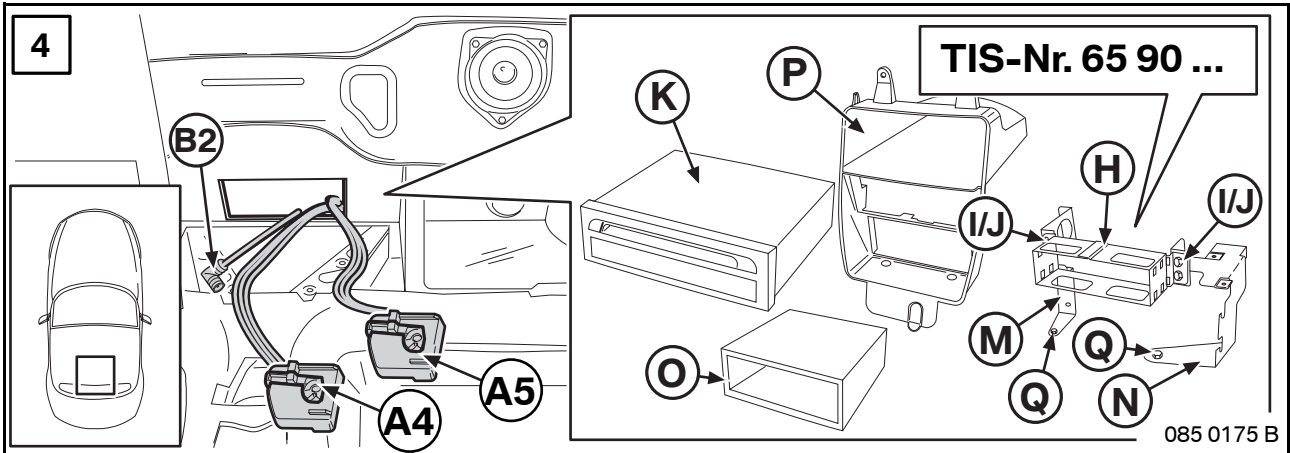
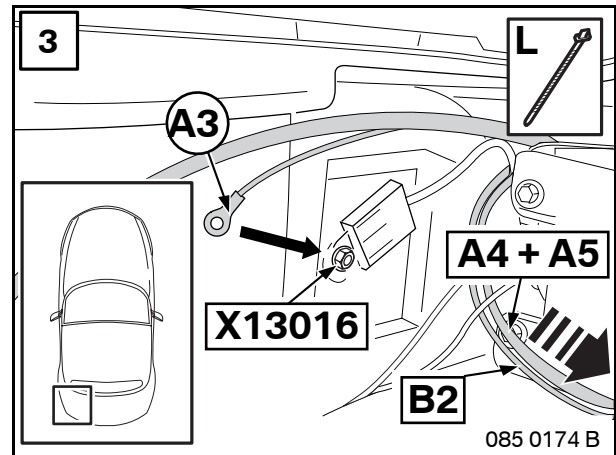
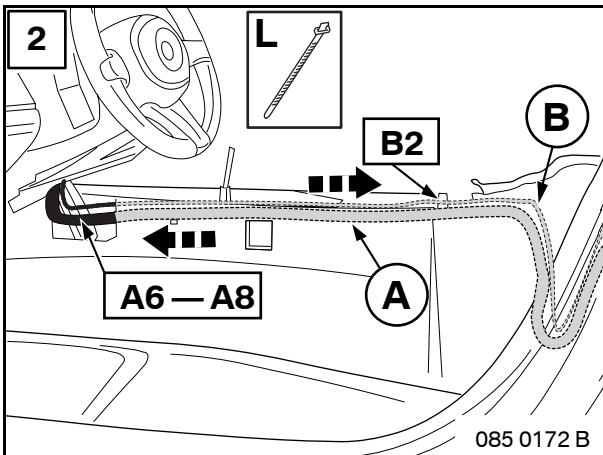
## 6. Installing GPS aerial



## 7. Installing and connecting navigation system wiring harness



If there is a red/green supply cable at serial plug **X322S**, **PIN 5**, cut off fuse holder **A9** and insulate the cables.



## 8. Encoding



Connect battery. ◀

This system requires encoding.

To ensure the retrofit system

- is fully functional and
- to avoid malfunctions and interference with other electrical systems in the vehicle system network, this retrofit system and, if necessary, other vehicle components must be encoded and stored in the central encoding key of the IKE.

This encoding procedure is carried out automatically with the latest updated coding program in the path "**Retrofit**".

The procedure is user-prompted and attention must be paid to the text information provided while carrying out the individual steps.

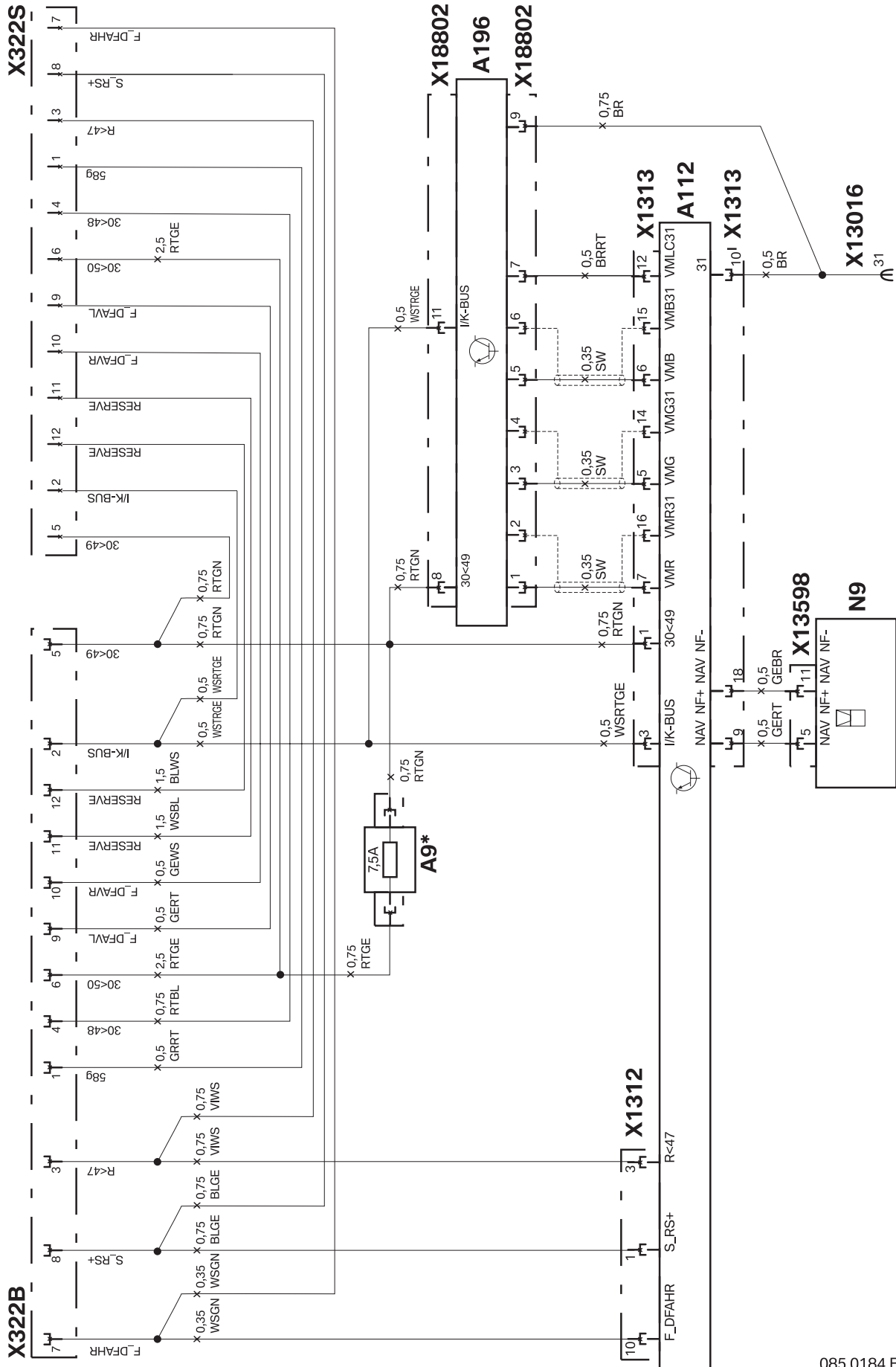
### **Procedure:**

- DIS/MoDiC: Connect to vehicle
- Ignition: "ON"
- Selection: "Encoding"
- Model series: "E85"
- Path: "Navigation retrofit"
- System: "MK III"

## **9. Concluding operations**

Reconnect all connectors and plug connections.  
Reassemble vehicle in reverse order of removal.

# 10. Circuit diagram - navigation system wiring harness A



085 0184 B

## 10. Circuit diagram - navigation system wiring harness A

### Key

A112	Navigation computer
A196	On-board monitor
N9	Radio
X322B	12-pin white socket housing
X322S	12-pin white pin housing
X1312	18-pin BO-VI socket housing
X1313	18-pin blue socket housing
X13016	Audio ground terminal
X18802	18-pin white socket housing
X13598	12-pin black socket housing

The components marked with an asterisk (\*) are only valid for this circuit diagram.  
All the other components and X designations correspond to BMW after-sales circuit diagrams.

### Wire colours

BL	Blue
BR	Brown
GE	Yellow
GN	Green
GR	Grey
OR	Orange
RT	Red
SW	Black
VI	Violet
WS	White