



# Parts and Accessories Installation Instructions

## Universal BMW Bluetooth Hands-Free Kit Retrofit BMW X5 (E53) from 03/02

### Important information

The retrofit kit is for use within the BMW dealership organisation only.  
Subject to technical modifications.

### Target group

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.

### Installation information

Ensure that the cables/lines are not kinked or damaged as you install them in the car.

The installed cables are to be secured with cable ties.

If the specified PIN chambers are occupied, bridges, double crimps or twin-lead terminals must be used.

### Ordering instructions

The snap-in adapter is not part of the retrofit kit and must be ordered separately.

### List of special equipment

The following special equipment must be taken into consideration when installing the retrofit kit.  
The various sections contain corresponding information.

|               |                        |
|---------------|------------------------|
| <b>SA 602</b> | On-board monitor       |
| <b>SA 609</b> | Navigation system      |
| <b>SA 661</b> | BMW Business radio     |
| <b>SA 663</b> | BMW Professional radio |

### Installation time

Approx. 7.5 hours, but this may vary depending on the condition of the car and the equipment in it.

## Pictograms



denotes instructions that draw your attention to special features.



denotes the end of the instruction or caution text.

## Retrofit kit No.

84 64 0 153 227

## Special tools required

Removal tool (00 9 341)

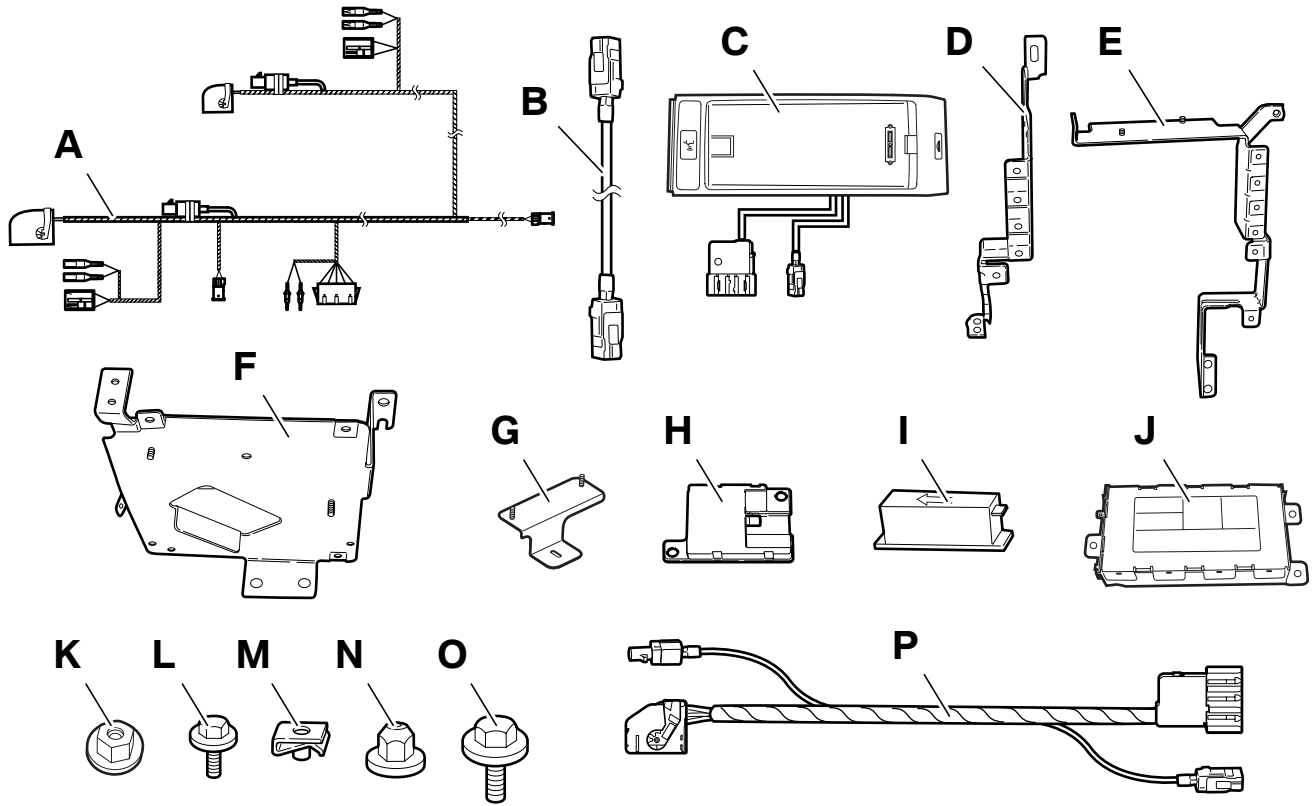
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## 1. Preparations

|   | <b>TIS instruction No.</b> |
|---|----------------------------|
| Conduct a brief test  | ---                        |
| Disconnect the negative pole of the battery                   | 12 00 ...                  |
| <b>The following components must be removed first of all:</b> |                            |
| Backrest side section, left                                   | 52 26 008                  |
| Boot trim on the left   | 51 47 151                  |
| Spare wheel (cars with SA 602/609 only)                       | ---                        |
| Rear seat bench   | 51 24 005                  |
| Front left door sill trim                                     | 51 47 000                  |
| Rear left door sill strip                                     | 51 47 030                  |
| Front left seat   | 52 .. ...                  |
| B pillar trim at the bottom left                              | 51 43 150                  |
| Pedal trim  | 51 15 185                  |
| A pillar trim in the left footwell                            | 51 43 070                  |
| A pillar trim on the left                                     | 51 43 201                  |
| Left sun visor  | 51 16 080                  |
| Interior light  | 63 31 000                  |
| Oddments box  | 51 16 200                  |
| Centre and right décor strip (cars with SA 661/663 only)      | 51 10 221                  |
| Control for heating system (cars with SA 661/663 only)        | 64 11 ...                  |
| Radio (cars with SA 661/663 only)                             | 65 11 030                  |

## 2. Parts list

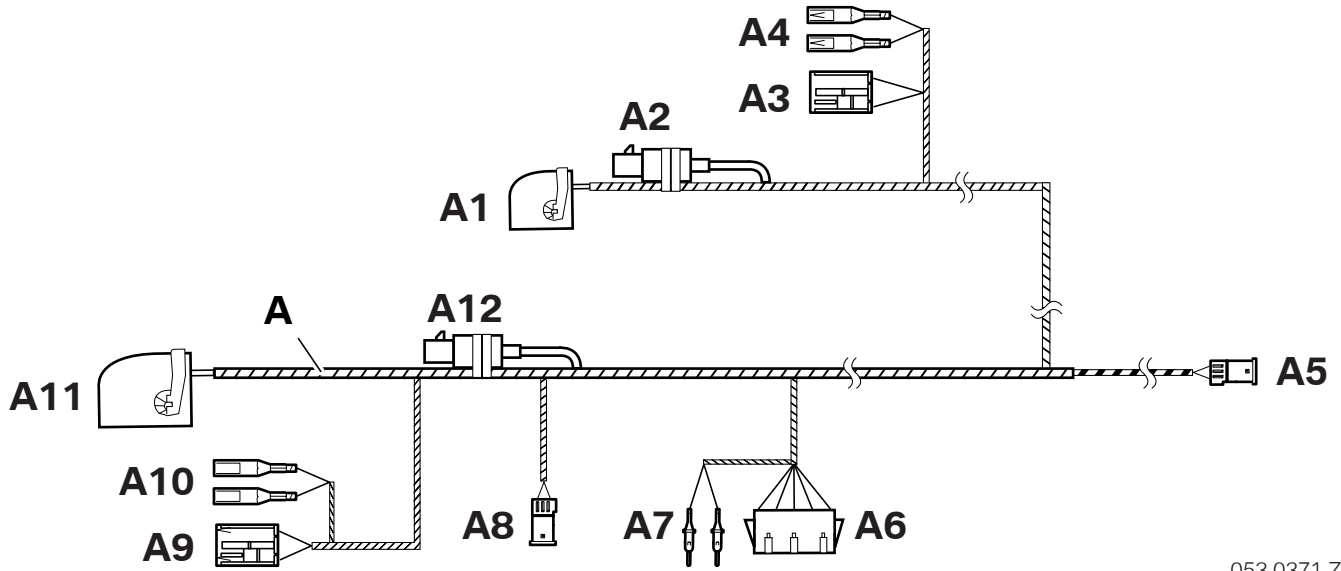


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### Legend

- A Multi wiring harness II
- B Aerial cable
- C Eject box
- D Rear base holder
- E Front base holder
- F Universal charger/hands-free electronic control unit holder
- G Holding bar
- H WDCT aerial
- I Hands-free microphone
- J ULF (universal charger/hands-free electronic control unit)
- K Hexagonal nut M6 (4x)
- L Hexagonal screw M5 x 14 (4x)
- M Speed nut M5 (4x)
- N Cap nut M5 (4x)
- O Hexagonal screw M5 x 10-ZI (4x)
- P Eject box extension

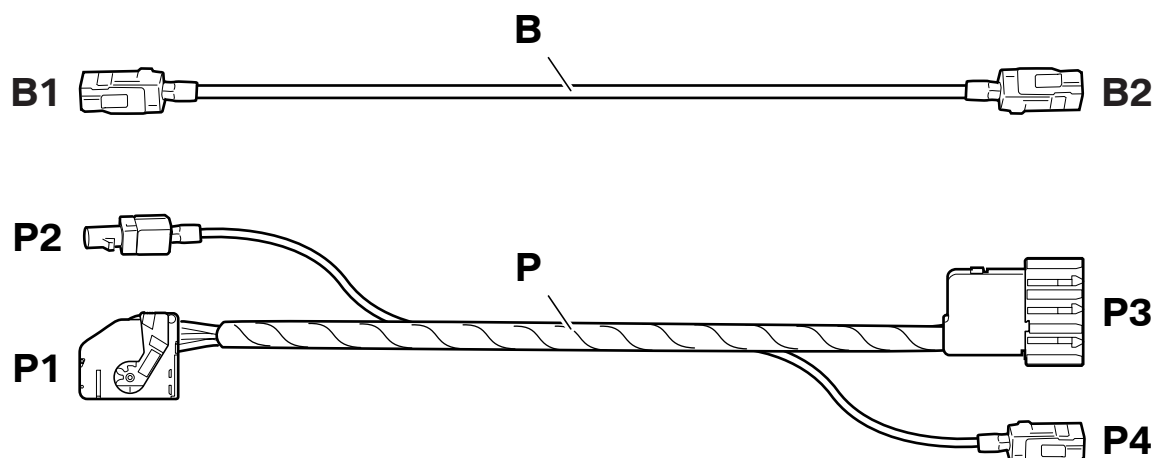
### 3. Retrofit wiring harness connection diagram



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| Item | Description             | Signal         | Cable colour / Cross-section                                   | Connection location in the car   | Abbreviation / Slot            |
|------|-------------------------|----------------|--|--|--------------------------------|
| A    | Multi wiring harness II | ---            | ---  | ---  | ---                            |
| A1   | SW 18-pin plug          | ---            | ---  | To branch <b>P2</b> of the eject box extension                           | X4545                          |
| A2   | Fakra plug contact      | ---            | ---  | To branch <b>P4</b> of the eject box extension                           | X13322                         |
| A3   | SW 12-pin plug          | LSP            | ---  | <b>Cars with SA 661/663 only</b><br>To radio plug <b>X18126</b>          | X13598                         |
| A4   | Socket contact          | Mute<br>Tel-On | WS/BR<br>0.5 mm <sup>2</sup><br>WS/GN<br>0.5 mm <sup>2</sup>   | <b>Cars with SA 661/663 only</b><br>In radio plug                        | X18126<br>PIN 10<br><br>PIN 11 |
| A5   | SW 3-pin plug           | Mic            | ---  | To hands-free microphone   | X13293                         |
| A6   | SW 12-pin plug          | ---            | ---  | To plug <b>X400</b> on the left in the boot                              | X400                           |
| A7   | Plug contact            | NF+<br>NF-     | SW/WS<br>0.35 mm <sup>2</sup><br>SW/BR<br>0.35 mm <sup>2</sup> | To plug <b>X400</b> on the left in the boot                              | X400<br>PIN 9<br><br>PIN 10    |
| A8   | SW 3-pin plug           | ---            | ---  | To the aerial booster (optional)   | X1765                          |
| A9   | SW 12-pin plug          | LSP            | ---  | <b>Cars with SA 602/609 only</b><br>To radio receiver plug <b>X18126</b> | X13598                         |
| A10  | Socket contact          | Mute<br>Tel-On | WS/BR<br>0.5 mm <sup>2</sup><br>WS/GN<br>0.5 mm <sup>2</sup>   | <b>Cars with SA 602/609 only</b><br>To radio receiver plug               | X18126<br>PIN 10<br><br>PIN 11 |
| A11  | SW 54-pin plug          | ---            | ---  | To universal charger/hands-free electronic control unit                  | X4038                          |
| A12  | Fakra plug contact      | ---            | ---  | To standard aerial cable   | X13323                         |

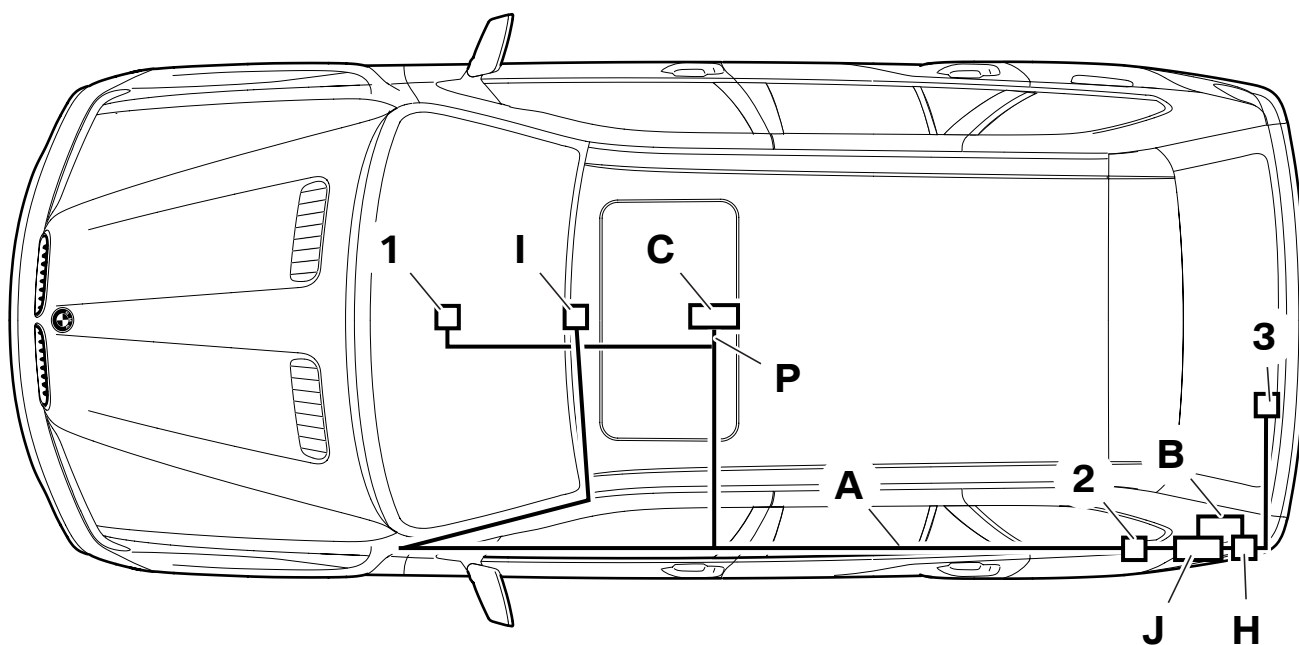
### 3. Retrofit wiring harness connection diagram



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| Item | Description             | Signal | Cable colour / Cross-section | Connection location in the car                          | Abbreviation / Slot |
|------|-------------------------|--------|------------------------------|---|---------------------|
| B    | Aerial cable            | ---    | ---                          | ---   | ---                 |
| B1   | SW Fakra socket contact | ---    | ---                          | To WDCT aerial  | ---                 |
| B2   | WS Fakra socket contact | ---    | ---                          | To universal charger/hands-free electronic control unit | ---                 |
|      |                         |        |                              |   |                     |
| P    | Eject box extension     | ---    | ---                          | ---   | ---                 |
| P1   | SW 18-pin plug          | ---    | ---                          | To eject box  | ---                 |
| P2   | SW Fakra plug contact   | ---    | ---                          | To eject box  | ---                 |
| P3   | SW 18-pin plug          | ---    | ---                          | To branch <b>A1</b> of the multi wiring harness II      | ---                 |
| P4   | SW Fakra socket contact | ---    | ---                          | To branch <b>A2</b> of the multi wiring harness II      | ---                 |

## 4. Installation and cabling diagram

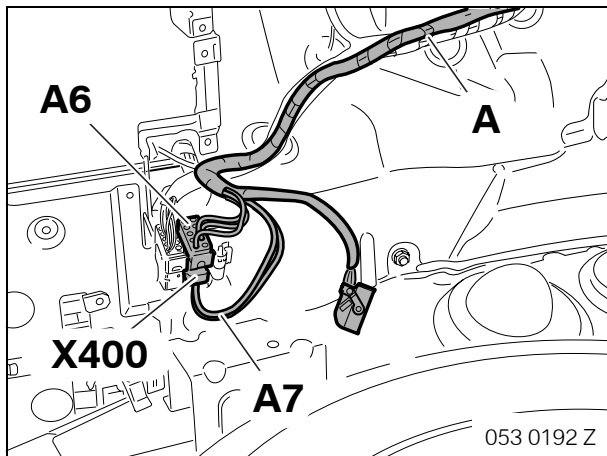


### Legend

- A Multi wiring harness II
  - B Aerial cable
  - C Eject box
  - H WDCT aerial
  - I Hands-free microphone
  - J ULF (universal charger/hands-free electronic control unit)
  - P Eject box extension
- 
- 1 Radio plug **X18126** (with SA 661/663 only)
  - 2 Audio plug **X400**
  - 3 Radio plug **X18126** (with SA 602/609 only)



## 5. To install and connect the retrofit wiring harness

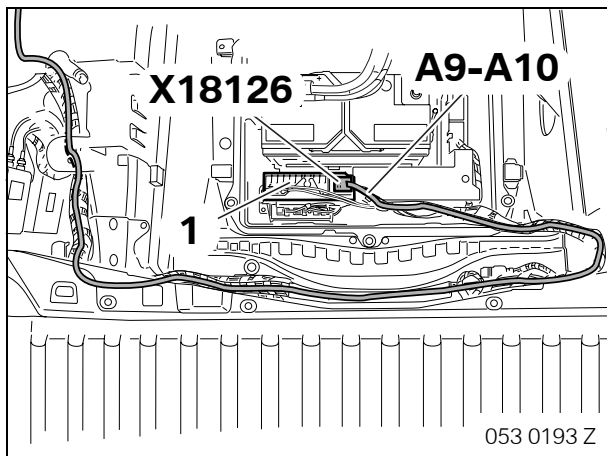


Lay the multi wiring harness **A** along the standard wiring harness.

Connect branch **A7** as follows to plug **X18126**:

- SW/WS cable in PIN 9
- SW/BR cable in PIN 10

Connect branch **A6** to plug **X400**.



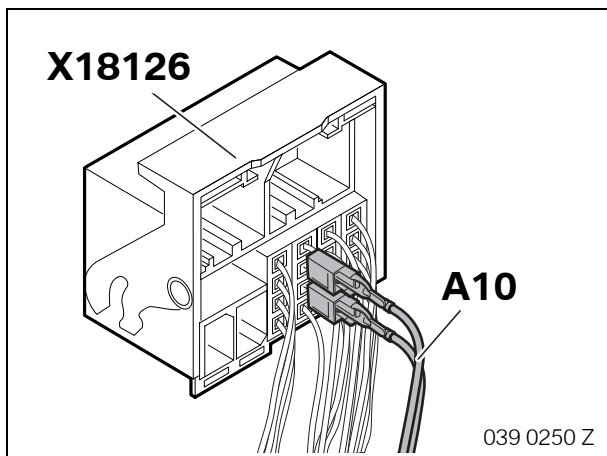
### Cars with SA 661/663 only

Insulate branches **A9** and **A10** and tie them back.

### Cars with SA 602/609 only

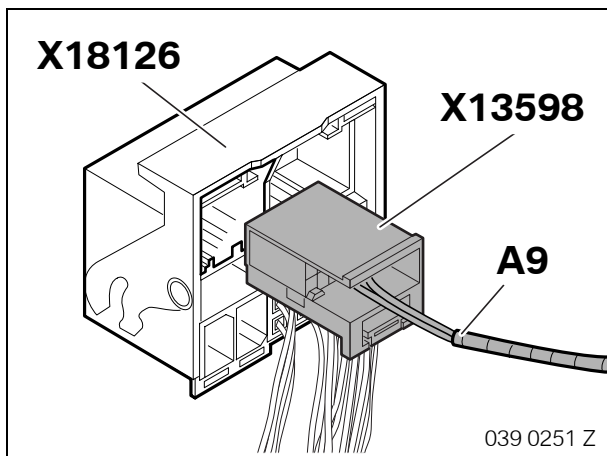
Lay branches **A9** – **A10** to plug **X18126**.

Disconnect plug **X18126** from the radio receiver (1).



Connect branch **A10** as follows to plug **X18126**:

- WS/BR cable in PIN 10
- WS/GN cable in PIN 11



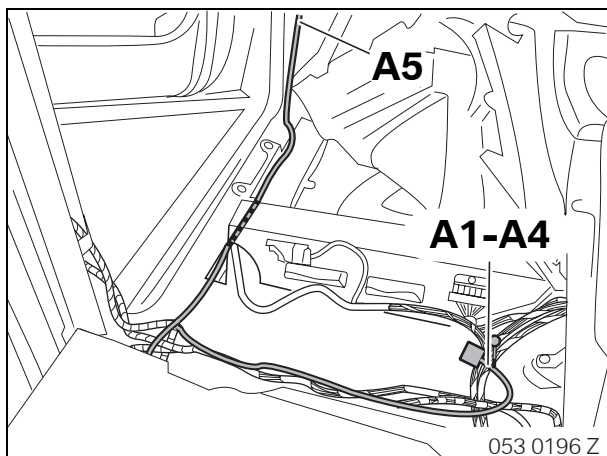
Connect branch **A9** to plug **X18126**.

Reconnect plug **X18126** to the radio receiver.



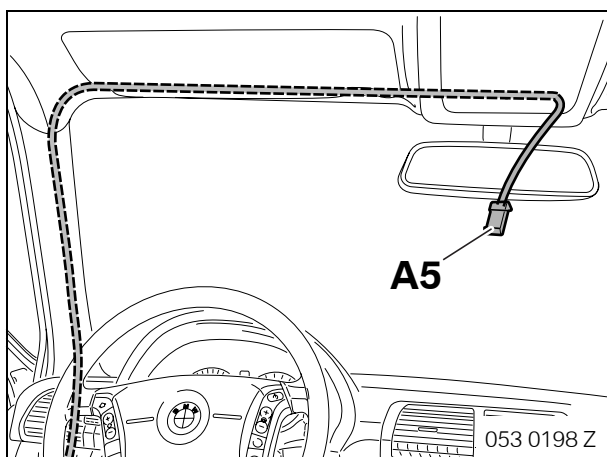
If the plug **X13598** is already in the car, the two cables from branch **A9** must be disconnected and connected to the same pins in the plug in the car **X13598**. ◀

5. To install and connect the retrofit wiring harness

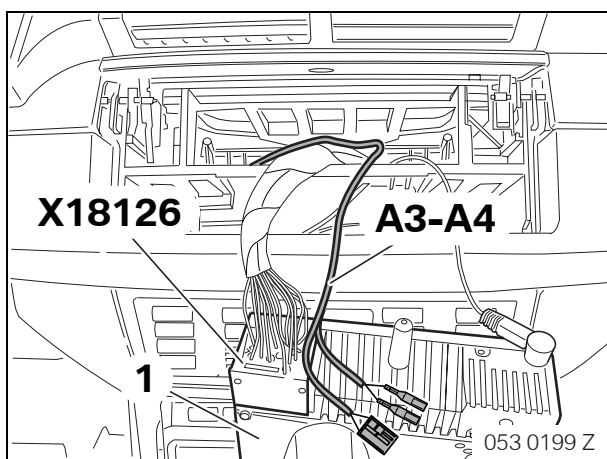


#### All cars

Lay branches **A1 – A4** to the centre console.  
Lay branch **A5** to the left A pillar.

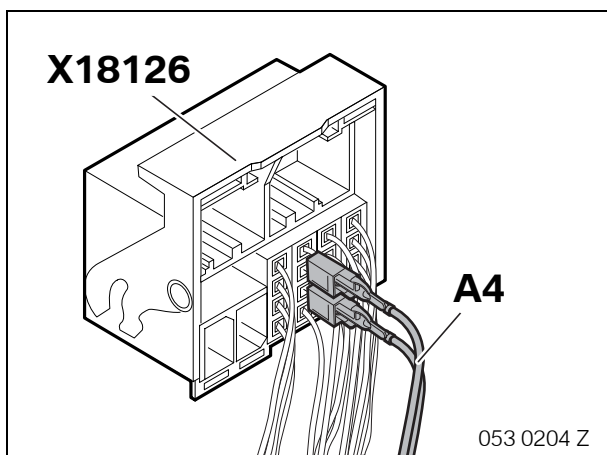


Carefully lower the headlining at the front.  
Lay branch **A5** under the headlining to the headlining console.  
Install the headlining console again.



#### Cars with SA 661/663 only

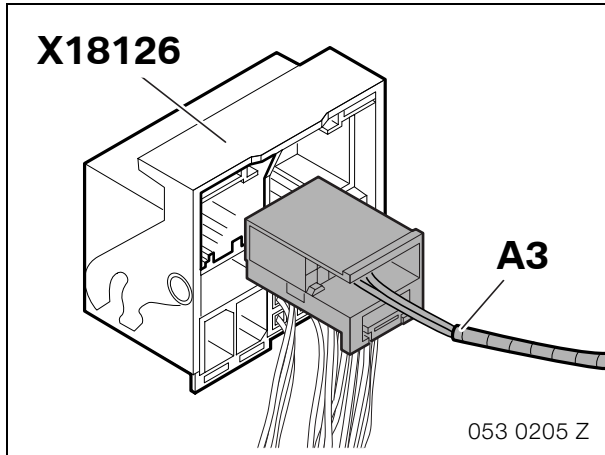
Lay branches **A3** and **A4** to plug **X18126**.  
Disconnect plug **X18126** from the radio (1).



Connect branch **A4** as follows to plug **X18126**:

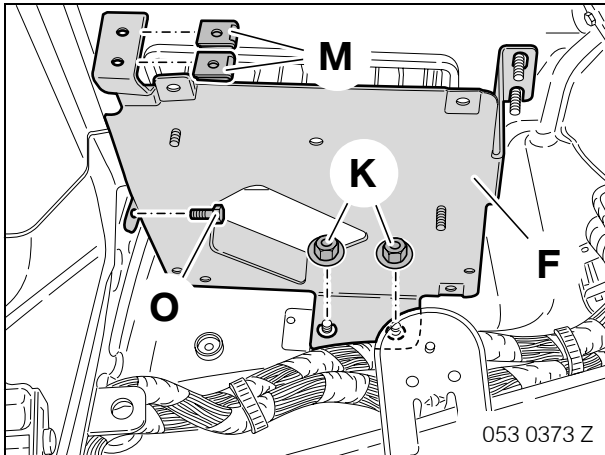
- WS/BR cable in PIN 10
- WS/GN cable in PIN 11

5. To install and connect the retrofit wiring harness



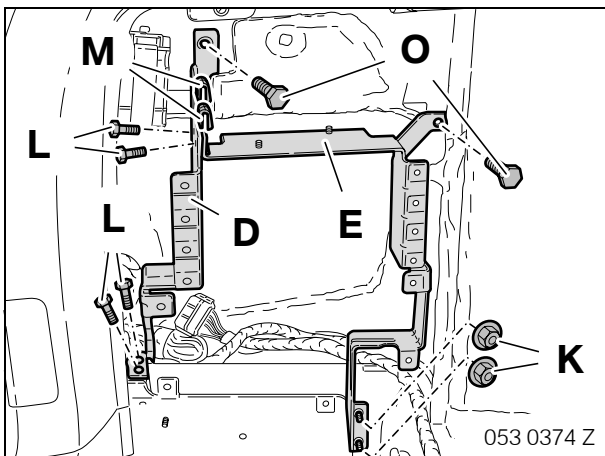
Connect branch **A3** to plug **X18126**.  
Reconnect plug **X18126** to the radio.

## 6. To install and connect the universal charger/hands-free electronic control unit



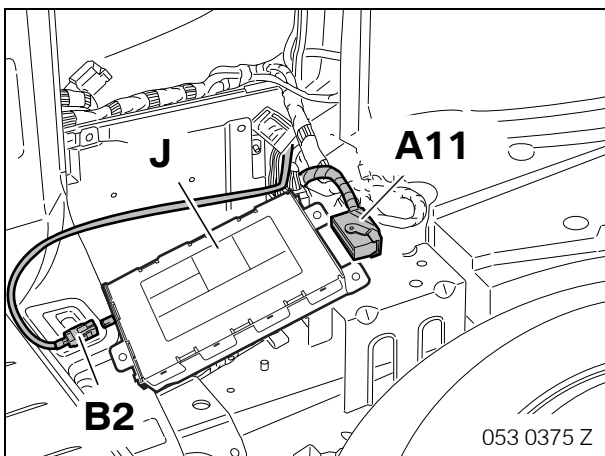
Use the hexagonal nuts **K** and hexagonal screw **O** to screw on the universal charger/hands-free electronic control unit holder **F** in the boot on the left.

Push the speed nuts **M** onto the universal charger/hands-free electronic control unit holder **F**.

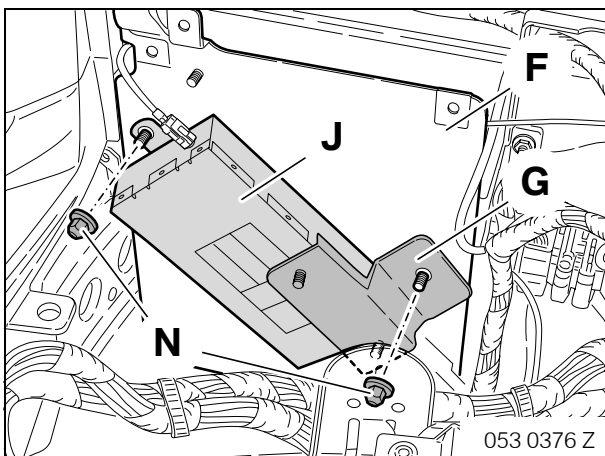


Push the speed nuts **M** onto the front base holder **E** and use hexagonal screws **L** to screw onto the rear base holder **D**.

Use hexagonal screws **L** and **O** and hexagonal nuts **K** to screw on the rear base holder **D** and the front base holder **E** in the boot on the left.

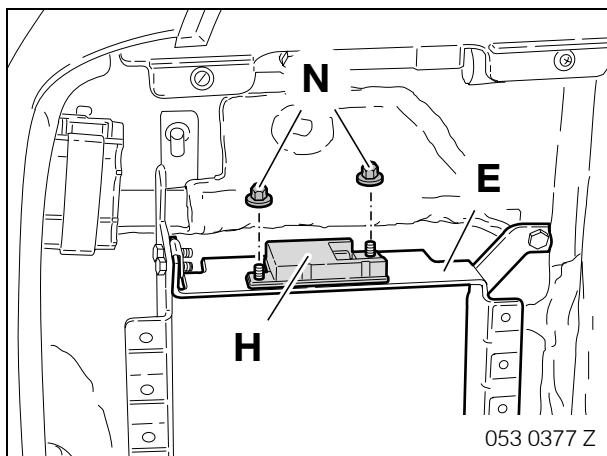


Connect branches **A11** and **B2** to the universal charger/hands-free electronic control unit **J**.

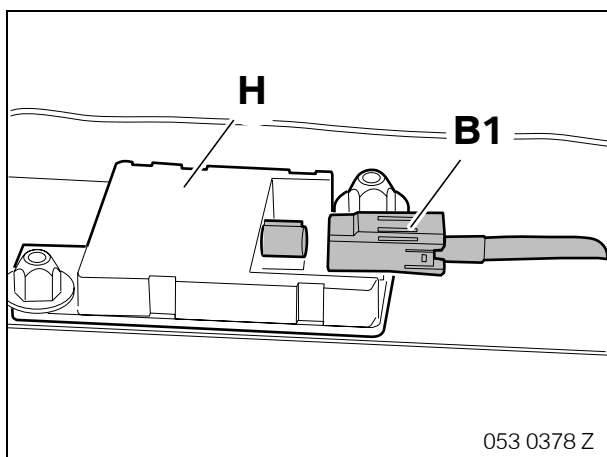


Place the universal charger/hands-free electronic control unit **J** and holding bar **G** against the universal charger/hands-free electronic control unit holder **F** and screw on using the cap nuts **N**.

6. To install and connect the universal charger/hands-free electronic control unit

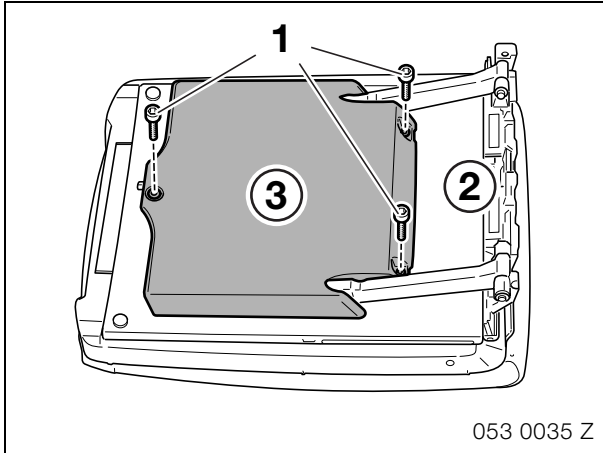


Use the cap nuts **N** to screw the WDCT aerial **H** onto the front base holder **E**.

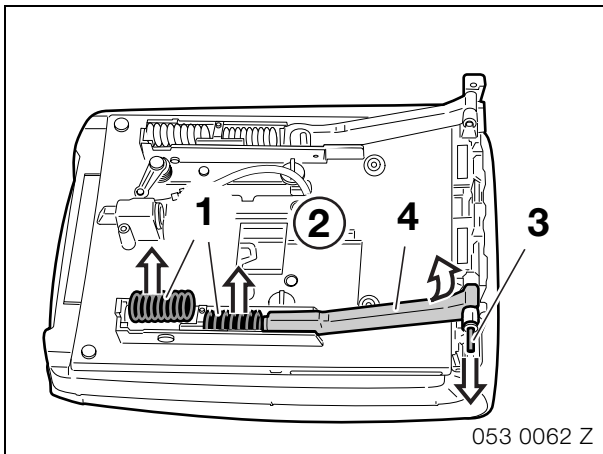


Connect the branch **B1** to the WDCT aerial **H**.

## 7. To install and connect the eject box

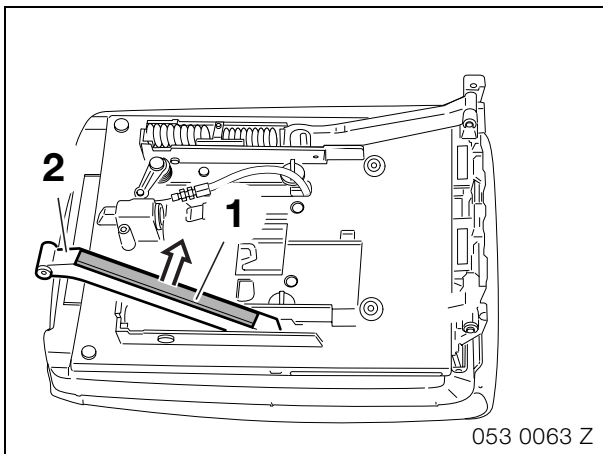


Undo the screws (1) and take the cover (3) off the armrest (2).

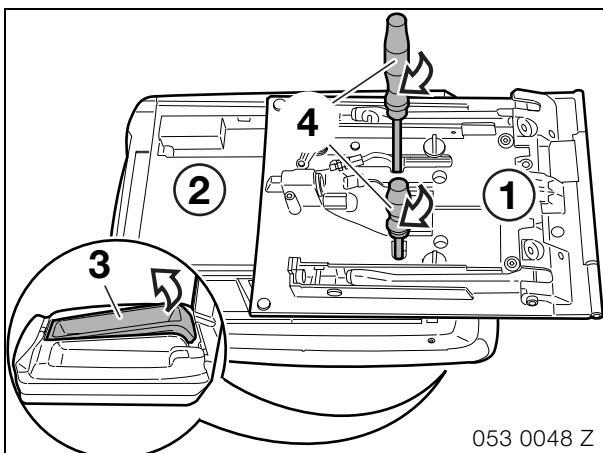


Take the springs (1) out of the armrest (2).

Remove both bolts (3) with a punch and pull the guide arm (4) upwards.



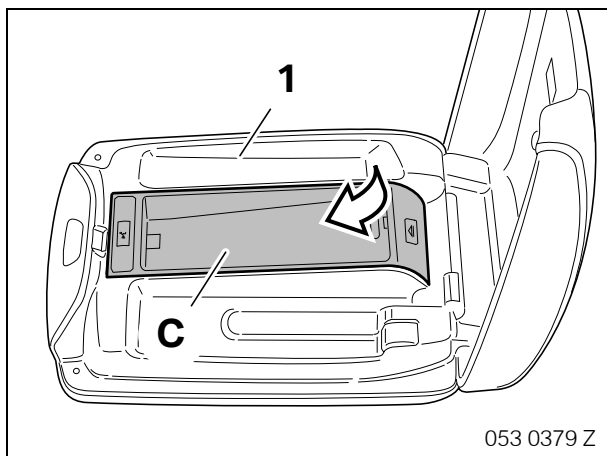
Unclip the cover (1) from the guide arm (2).



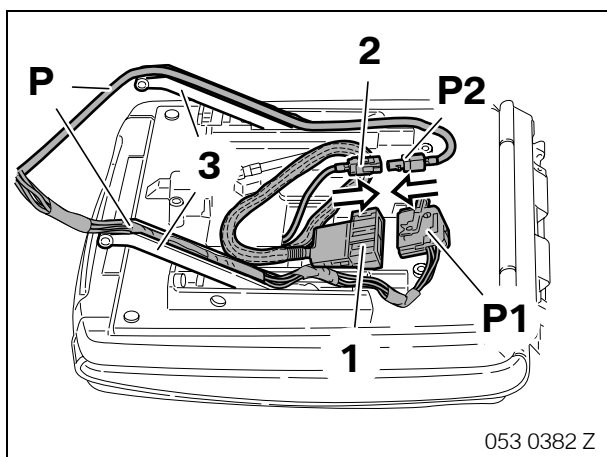
Pull the slide plate (1) on the armrest (2) backwards as far as it will go.

Release the retaining pins on the oddments box (3) with two screwdrivers (4) and unclip the oddments box (3).

7. To install and connect the eject box

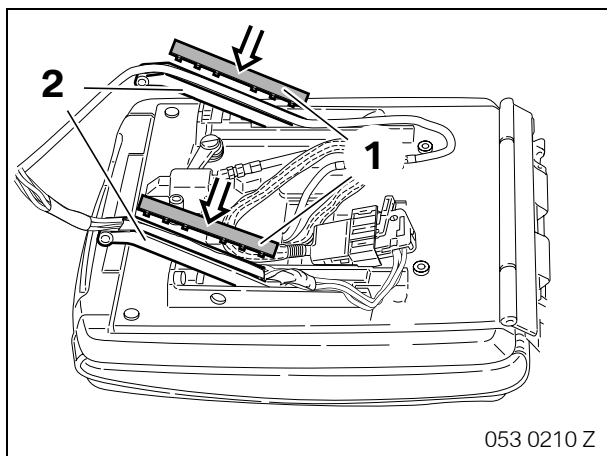


Clip the eject box **C** into the armrest (1).

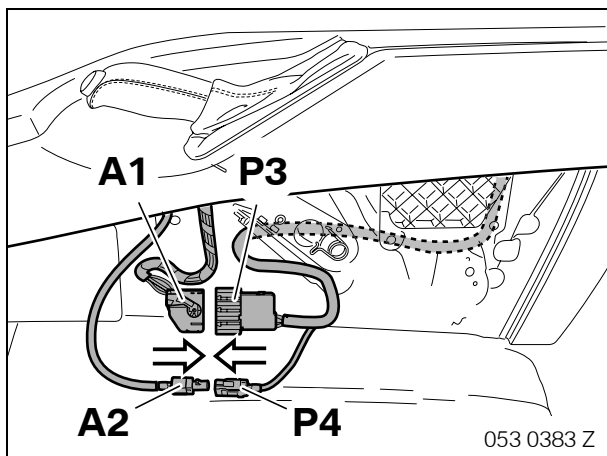


Connect the branch **P1** to the plug (1) of the eject box.  
Connect the branch **P2** to the Fakra plug (2) of the eject box.

Insert the eject box extension **P** into the guide arms (1) as shown.



Clip the covers (1) into the guide arms (2).

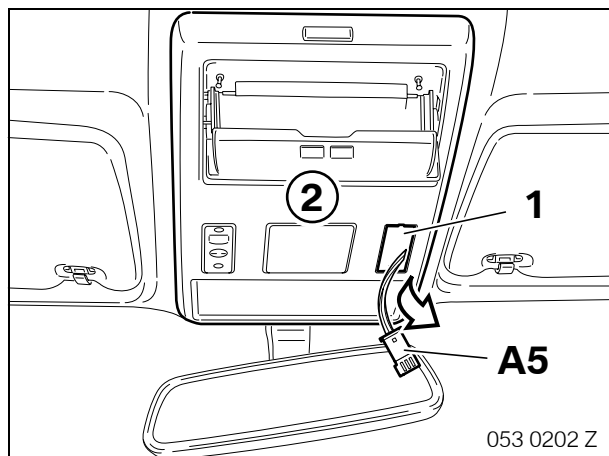


Install the armrest back on to the centre console.

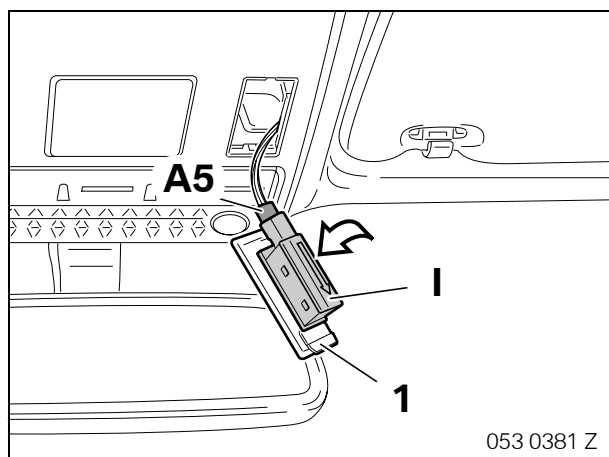
Connect branch **P3** to branch **A1**.

Connect branch **P4** to branch **A2**.

## 8. To install the hands-free microphone

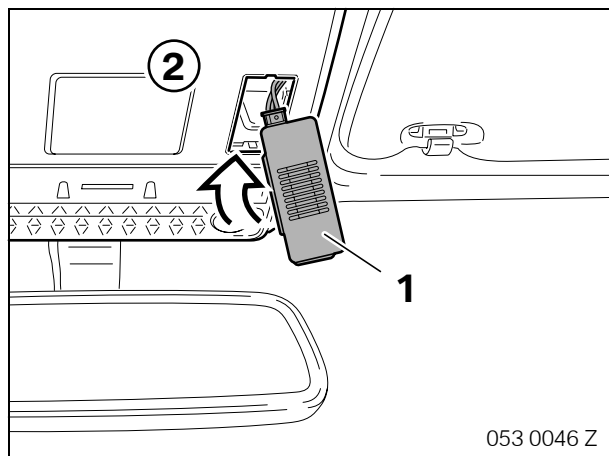



Thread branch **A5** through the microphone opening (1) in the headlining console (2).



Clip the hands-free microphone **I** into the microphone trim (1) removed previously.

Connect branch **A5** to the hands-free microphone **I**.



 The arrow on the hands-free microphone **I** must point to the front of the car. ◀

Clip the microphone trim (1) into the headlining console (2).



## 9. Concluding work



This retrofit system requires coding and must be coded using the "Retrofit" path. ◀

- Connect battery
- Conduct a brief test with DISPlus/MoDiC III/GT1.
- Synchronize the mobile phone and the universal charger/hands-free electronic control unit
- Activate the Bluetooth function of the mobile phone (see the mobile phone owner's manual)
- Press and hold the push-to-talk button for about 1 second whilst switching on terminal R
- Release the push-to-talk button. The radio display shows "**BT PAIRING**" and the MID or on-board monitor displays "**BLUETOOTH PAIRING**".



The checklamps on the MID or on-board monitor flash during the connection phase. ◀

- Activate the "Locate Bluetooth Devices" menu on the mobile phone (see the mobile phone owner's manual). This process may take a few minutes.
- Work through additional menus in accordance with the instructions displayed on the mobile phone
- When prompted to do so, enter the 4 digit "**BLUETOOTH PASSKEY**" (see the sticker on the owner's manual) using the mobile phone keypad
- The radio, MID or on-board monitor displays "**PAIRING SUCCEEDED**" to confirm that synchronisation has been carried out correctly
- Switch off the ignition – the connection is terminated
- Conduct a function test
- Assemble the car again following the instructions to dismantle it in reverse order

## 10. Circuit diagram



If required, the circuit diagram for the multi wiring harness II can be referred to in the “Multi Wiring Harness II Circuit Diagrams” installation instructions, PN: 01 29 0 146 546, in TeTis or the EBA CD. ◀