

# Original BMW Accessories.

## Installation Instructions.



### Rear View Camera Retrofit.

**BMW 7 Series Saloon (G11/G12)**

**BMW 5 Series Saloon (G30/G38)**

**BMW 5 Series Touring (G31)**

**Installation instructions only valid for**

- **G11/G12 cars built after 11/2016 with SA 601/SA 606/SA 609**
- **G30/G31/G38 cars with SA 508 and SA 601/SA 606/SA 609**

### Retrofit kit number

66 21 2 454 478      Rear view camera retrofit kit for G11/G12 built after 11/2016

66 21 2 450 878      Rear view camera retrofit kit for G30/G31/G38

### Installation time

The installation time is **approx. 4 hours**. This may vary depending on the condition of the car and its equipment package.

The installation time shown does not include any time spent on programming/coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (no invoicing via warranty).

### Important information

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

These installation instructions are intended for use by qualified specialist staff trained on BMW cars with the relevant expert knowledge.

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

### **If you experience installation or functional problems, restrict troubleshooting to approx. 0.5 hours for mechanical work and 1.0 hour for electrical work.**

To avoid unnecessary extra work and/or costs, send an inquiry straight away to the technical parts support team via the Aftersales Assistance Portal (ASAP).

Quote the following information:

- VIN,
- Retrofit kit part number,
- A detailed description of the problem,
- any work already carried out.

Do not archive the hard copy of these installation instructions, since daily updates are provided via ASAP.

### 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.

## Installation information

Ensure that the cables and/or lines are not kinked or damaged as you install them in the car. Costs arising from this will not be reimbursed by BMW AG.

Additional cables/wires that are installed must be secured with cable ties. If the specified PIN chambers are occupied, bridges, double crimps, or twin-lead terminals must be used.

All illustrations show LHD cars; proceed similarly on RHD cars.

After the installation work, the retrofit must be programmed / coded via the – **Conversions** – path.

## Ordering instructions

The rear view camera **B** is not included in the retrofit kit and must be ordered separately (see EPC for part number and further details).

## List of special equipment

The following special equipment must be used during the installation work:

|               |   |
|---------------|---|
| <b>SA 5AS</b> | Driving Assistant                           |
| <b>SA 5AT</b> | Driving Assistant Plus                      |
| <b>SA 5DF</b> | Active cruise control with Stop&Go function |
| <b>SA 601</b> | TV function                                 |
| <b>SA 606</b> | Navigation Business                         |
| <b>SA 609</b> | Navigation Professional                     |
| <b>SA 508</b> | Park Distance Control                       |

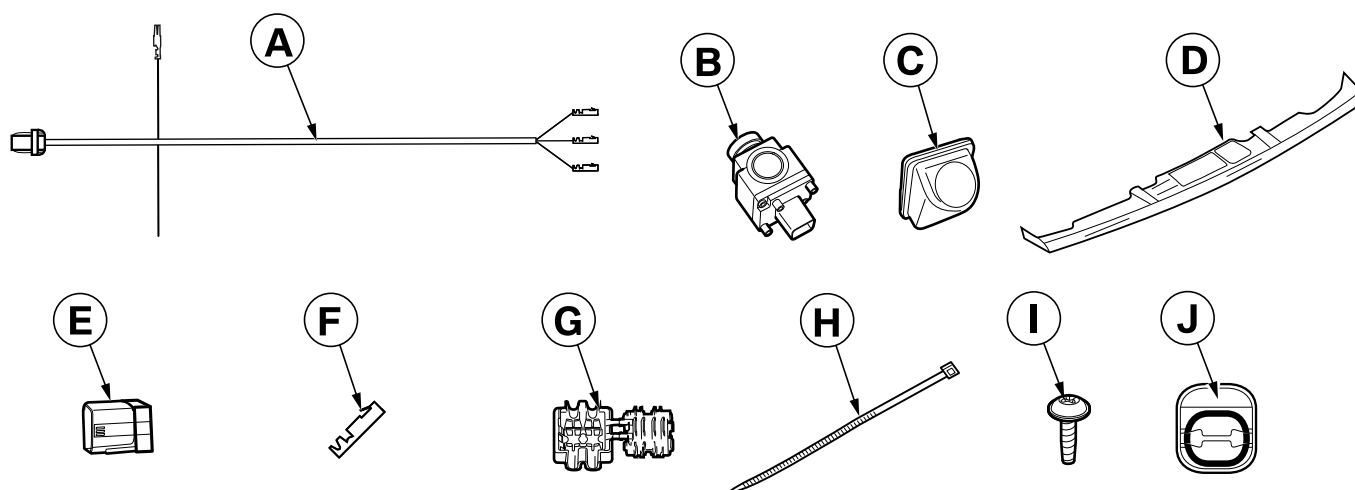
## Special tools required

Details of the special tools required can be found in the relevant ISTA repair manual.

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## 1. Retrofit kit parts list (G11/G12 cars only)

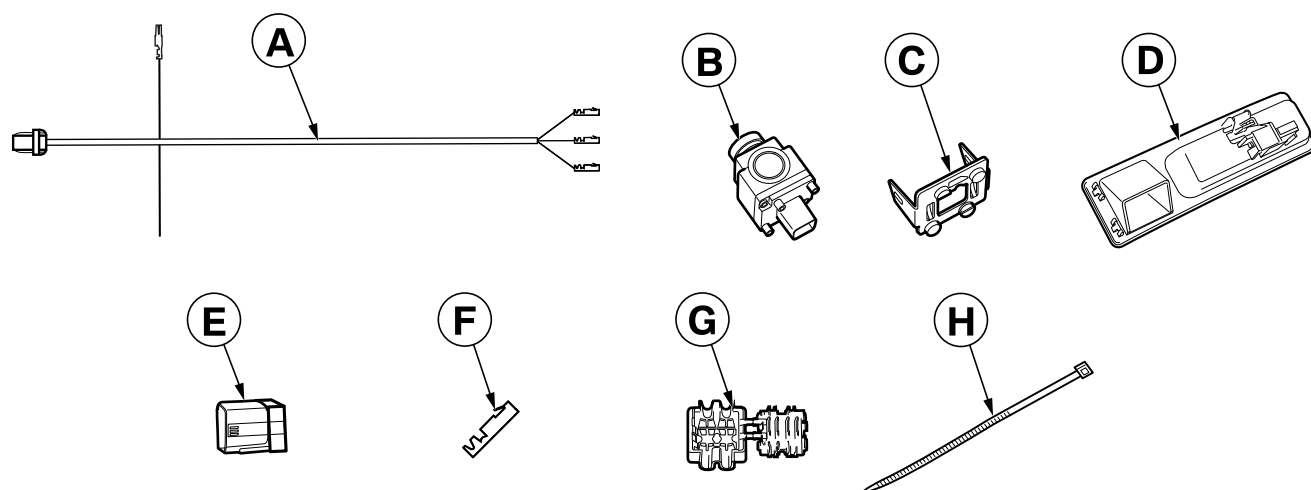


G11 0265 Z

### Legend

- A** Rear view camera retrofit wiring harness
- B** Rear view camera (not supplied in the retrofit kit)
- C** Holder
- D** Handle strip
- E** Socket housing
- F** Socket contact (3x)
- G** Miniature connector (2 x)
- H** Cable ties (20 x)
- I** Fillister head screw
- J** Retaining clip (4 x)

## 2. Retrofit kit parts list (G30/G31/G38 cars only)



G30 0066 Z

### Legend

- A** Rear view camera retrofit wiring harness
- B** Rear view camera (not supplied in the retrofit kit)
- C** Holder
- D** Tailgate button
- E** Socket housing
- F** Socket contact (3x)
- G** Miniature connector (2 x)
- H** Cable ties (20 x)

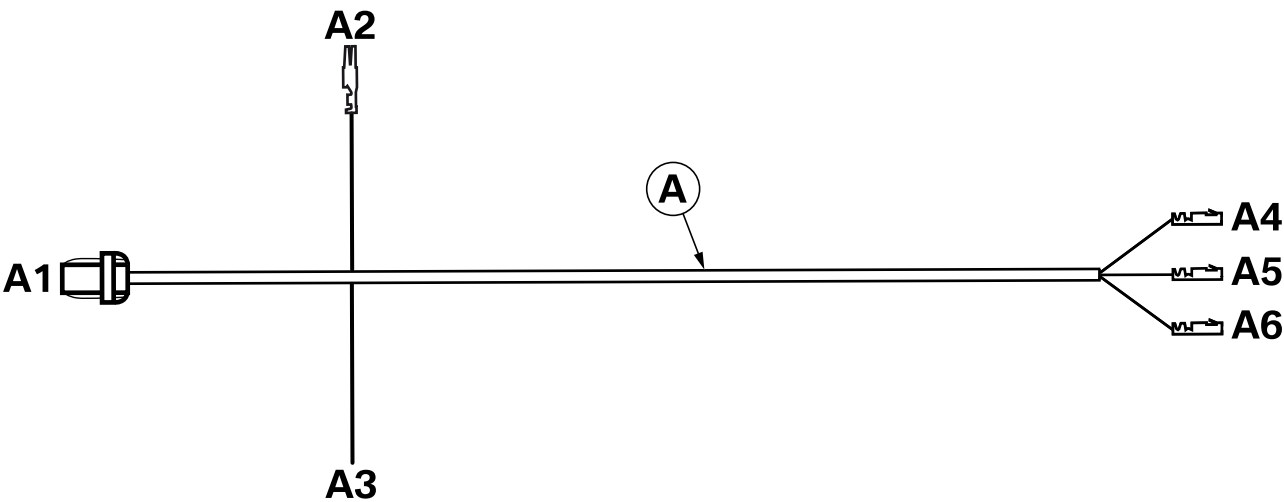
### 3. Preparatory work

|  | ISTA No.  |
|--|-----------|
| Disconnect all negative battery cables   | 61 20 900 |
| Release and disconnect various plug connections  | 61 13 ... |
| Cut, strip and crimp cables  | 61 11 ... |
| Open the plug housing and remove the contacts from various connection systems              | 61 13 ... |
| Instructions for handling the documents: Repair manual, technical data, tightening torques | 00 11 ... |
| Instructions for handling wiring harnesses and cables                                      | 61 00 ... |
|  |           |
| <b>The following components must be removed first of all</b>                               |           |
| Tailgate trim  | 51 49 000 |
| Luggage compartment wheel arch trim, right   | 51 47 161 |
| Rear seat backrest side section, right (release)   | 52 26 008 |
| Rear right (interior) door sill cover strip  | 51 47 030 |
| Bottom right dashboard trim  | 51 45 195 |
| Trim for right door pillar (bottom)  | 51 43 150 |
| Front right (interior) door sill cover strip   | 51 47 000 |
| Right footwell side trim (A-pillar)  | 51 43 075 |
|  |           |
| <b>G1x cars only</b>   |           |
| Handle strip (no longer required)  | 51 13 402 |
|  |           |
| <b>G3x cars only</b>   |           |
| Tailgate button (no longer required)   | 61 .. ... |
|  |           |
| <b>G31 cars only</b>   |           |
| D pillar trim on the right   | 51 43 ... |
|  |           |
| <b>Cars with connection to the Ethernet switch only</b>                                    |           |
| Side footwell trim (A pillar), left  | 51 43 070 |

#### 4. Find the connection point for the retrofit wiring harness

| Navigation system | SA 5AS | SA 5AT/ SA 5DF | Connection on the BDC | Connection on the Ethernet switch |
|-------------------|--------|----------------|-----------------------|-----------------------------------|
| <b>SA 609</b>     |        |                | X                     |                                   |
| <b>SA 609</b>     | X      |                | X                     |                                   |
| <b>SA 609</b>     | X      | X              | X                     |                                   |
| <b>SA 609</b>     |        | X              | X                     |                                   |
| <b>SA 606</b>     |        |                | X                     |                                   |
| <b>SA 606</b>     |        | X              |                       | X                                 |
| <b>SA 606</b>     | X      | X              |                       | X                                 |
| <b>SA 606</b>     | X      |                | Retrofit not possible |                                   |

5.   Retrofit wiring harness connection diagram (cars with connection on BDC only)

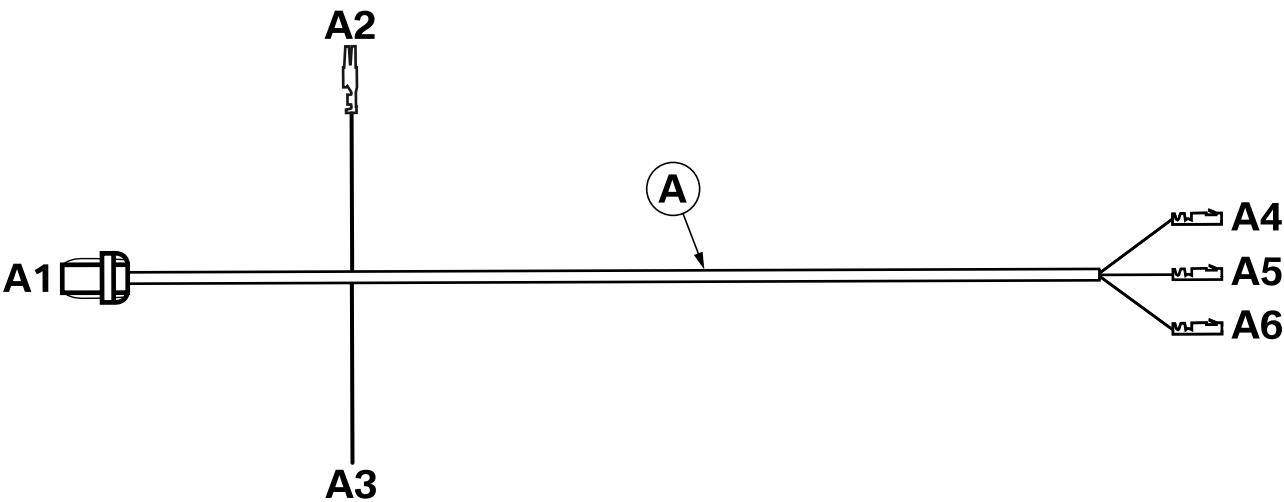


G30 0064 Z

| Item | Designation                                 | Signal      | Cable colour/<br>Cross-section | Connection location in the car                                  | Abbreviation/<br>Slot |
|------|---|-------------|--------------------------------|---|-----------------------|
| A    | Rear view camera<br>retrofit wiring harness | ---         | ---                            | ---   | ---                   |
| A1   | SW 8-pin socket housing                     | ---         | ---                            | To rear view camera <b>B</b>                                    | ---                   |
| A2   | Blade terminal contact                      | Terminal 31 | BR<br>0.35 mm²                 | On rear right ground support point                              | Z10*10B               |
| A3   | Open cable                                  | 15N_F204    | RT/VI<br>0.35 mm²              | With miniature connector <b>G</b> on the rear right<br>fuse box | Z2*3B<br>PIN 11       |
| A4   | Socket contact                              | ETH_BB_H    | GN<br>0.35 mm²                 | With socket contact <b>F</b> on BDC <b>A258</b>                 | A258*9B<br>PIN 38     |
| A5   | Socket contact                              | ETH_BB_L    | WS<br>0.35 mm²                 | With socket contact <b>F</b> on BDC <b>A258</b>                 | A258*9B<br>PIN 37     |
| A6   | Socket contact                              | ETH_WUP     | GE<br>0.35 mm²                 | With socket contact <b>F</b> on BDC <b>A258</b>                 | A258*8B<br>PIN 54     |



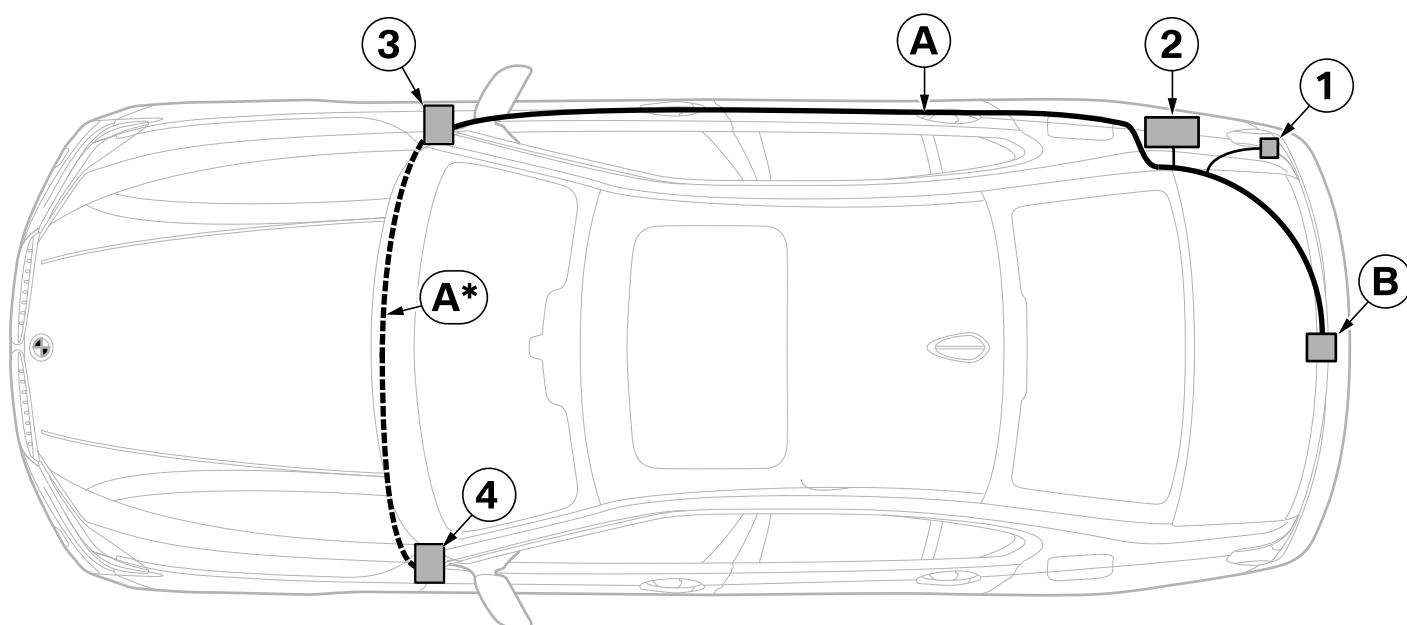
6. Retrofit wiring harness connection diagram (cars with connection on Ethernet switch only)



G30 0064 Z

| Item | Designation                                 | Signal      | Cable colour/<br>Cross-section | Connection location in the car                                  | Abbreviation/<br>Slot |
|------|---|-------------|--------------------------------|---|-----------------------|
| A    | Rear view camera<br>retrofit wiring harness | ---         | ---                            | ---   | ---                   |
| A1   | SW 8-pin socket housing                     | ---         | ---                            | To rear view camera <b>B</b>                                    | ---                   |
| A2   | Blade terminal contact                      | Terminal 31 | BR<br>0.35 mm²                 | On rear right ground support point                              | Z10*10B               |
| A3   | Open cable                                  | 15N_F204    | RT/VI<br>0.35 mm²              | With miniature connector <b>G</b> on the rear right<br>fuse box | Z2*3B<br>PIN 11       |
| A4   | Socket contact                              | ETH_BB_H    | GN<br>0.35 mm²                 | In socket housing <b>E</b>                                      | A376*4B<br>PIN 6      |
| A5   | Socket contact                              | ETH_BB_L    | WS<br>0.35 mm²                 | In socket housing <b>E</b>                                      | A376*4B<br>PIN 5      |
| A6   | Socket contact                              | ETH_WUP     | GE<br>0.35 mm²                 | In socket housing <b>E</b>                                      | A376*4B<br>PIN 1      |

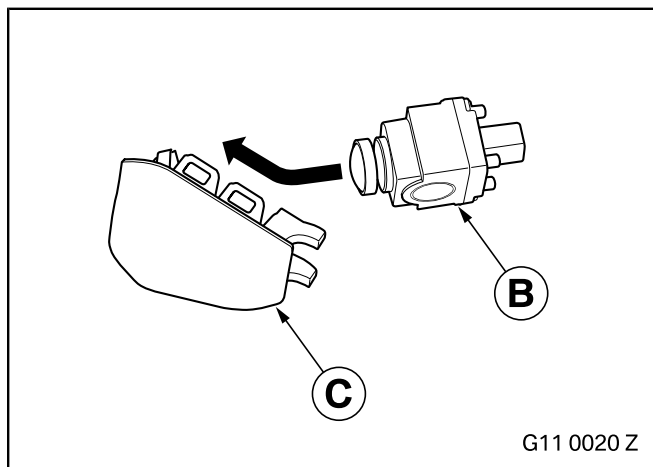
## 7. Installation and cabling diagram



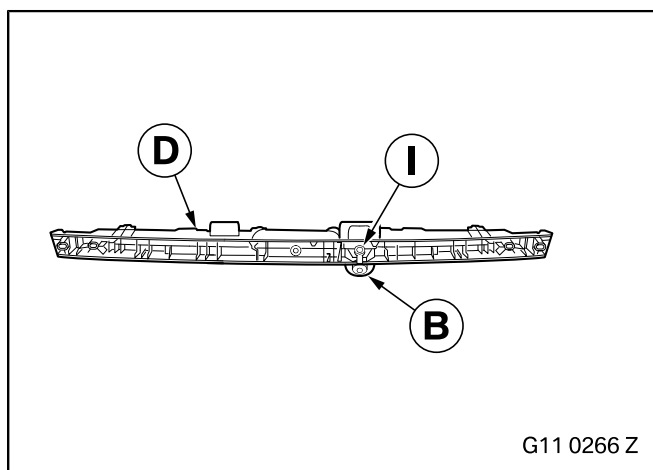
G30 0067 Z

- A** Rear view camera retrofit wiring harness
- A\*** Rear view retrofit wiring harness (cars with connection on Ethernet switch only)
- B** Rear view camera
  
- 1** Ground post **Z10\*10B**
- 2** Rear right fuse box **Z2**, plug **Z2\*3B**
- 3** BDC **A258** (cars with connection on BDC only)
- 4** Ethernet switch **A376** (cars with connection on Ethernet switch only)

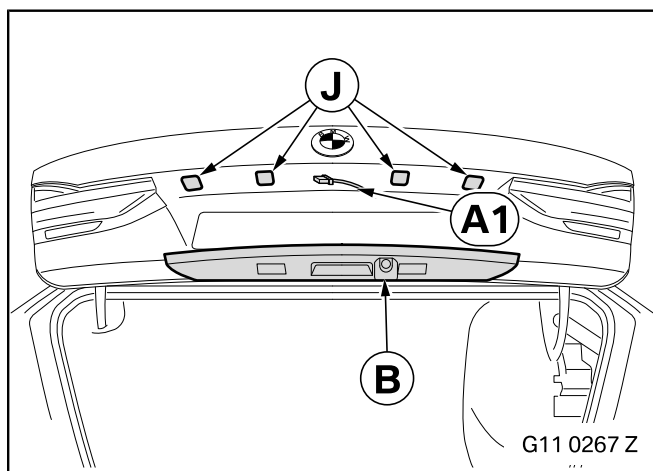
## 8. Install rear view camera (G11/G12 cars only)



Clip the rear view camera **B** into holder **C**.

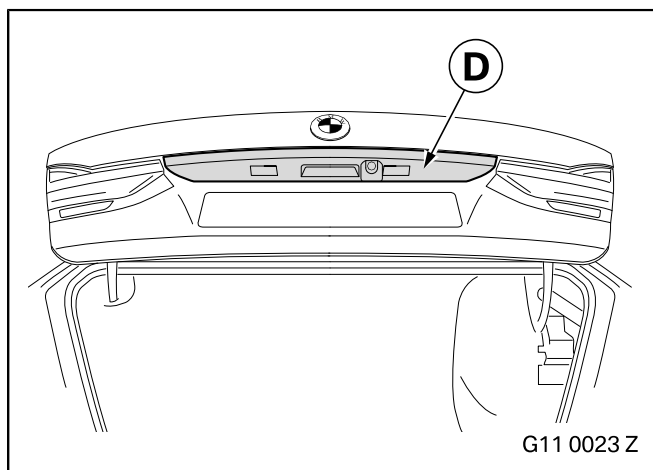


Secure the rear view camera **B** using a fillister head screw **I** to the handle strip **D**.



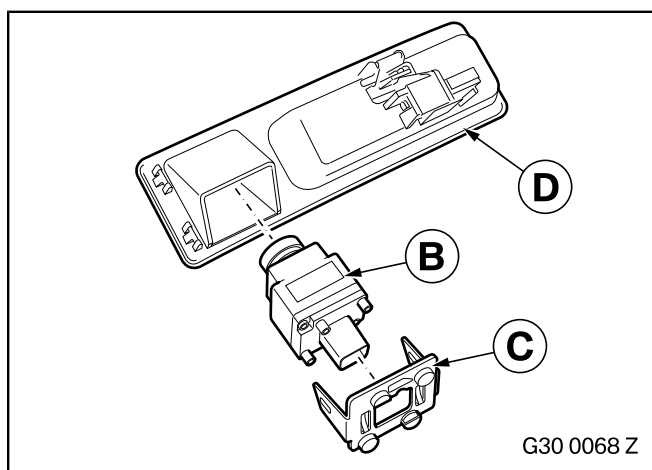
Replace the retaining clips **J**.

Route branch **A1** through the boot lid to the outside and connect it to the rear view camera **B**.

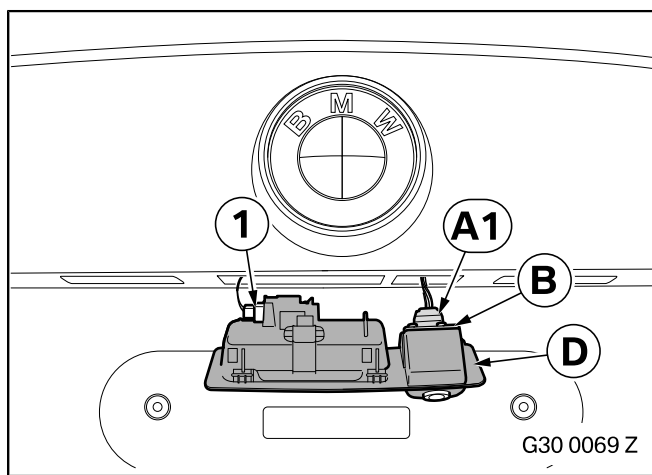


Install handle strip **D**.

## 9. Install rear view camera (G30/G31/G38 cars only)



Install rear view camera **B** with bracket **C** in the tailgate button **D**.

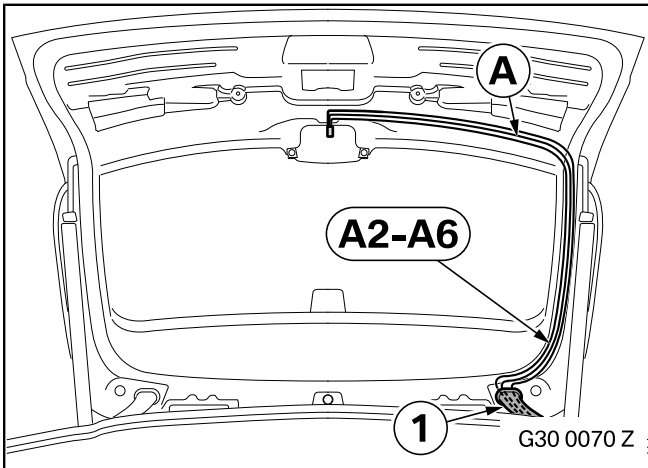


Connect branch **A1**, SW 8-pin socket housing, to rear view camera **B**.

Connect plug (1), SW 2-pin socket housing to tailgate button **D**.

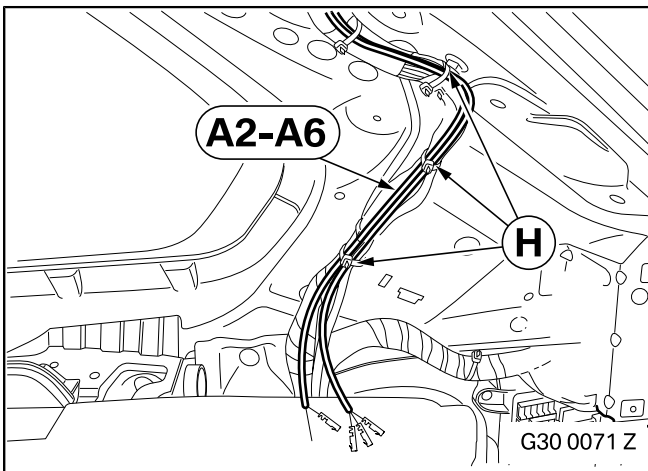
Install tailgate button **D** in the tailgate.

## 10. Route and connect the retrofit wiring harness

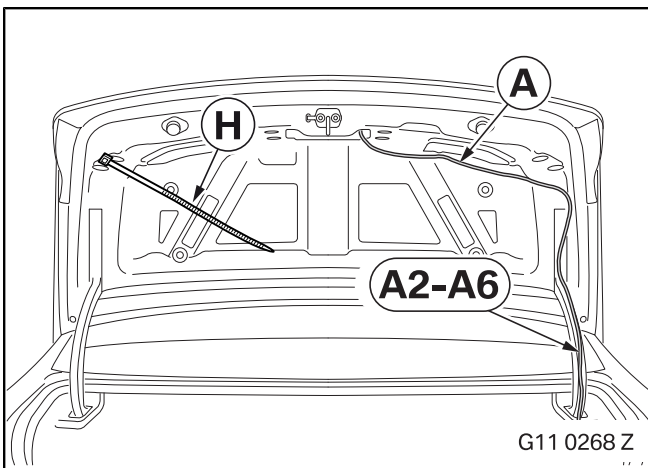


### G31 cars only

Route branches **A2-A6** of retrofit wiring harness **A** through the rubber grommet on the right (1) into the interior of the car.



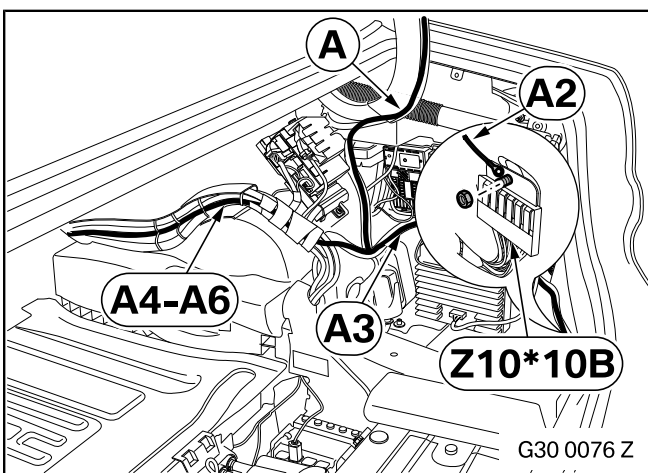
Route branches **A2-A6** along the D pillar to right-hand side of the luggage compartment and secure them to the standard wiring harness using cable ties **H**.



### G11/G12/G30/G38 cars only

Route branches **A2-A6** along the standard wiring harness to the location of the fuse box at the rear right.

Secure retrofit wiring harness **A** to the standard vehicle wiring harness using cable ties **H**.

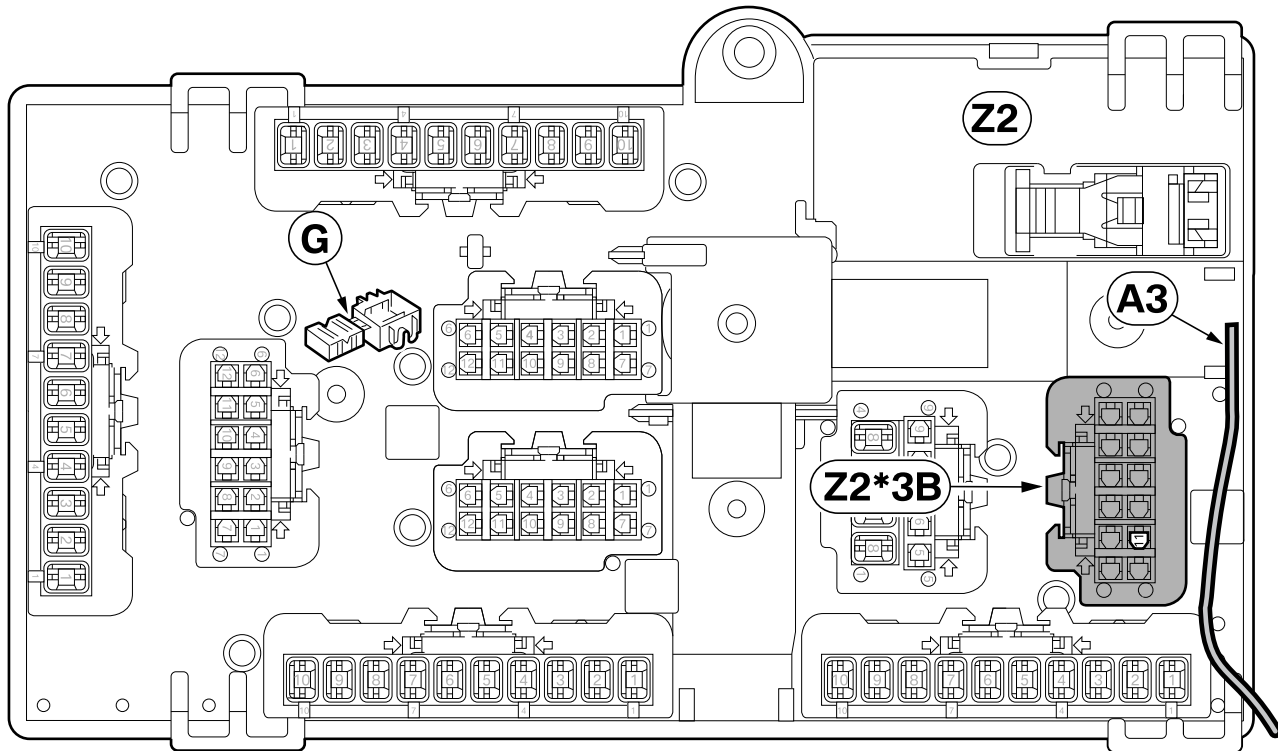


### All cars

Route branches **A4-A6** of retrofit wiring harness **A** as follows:

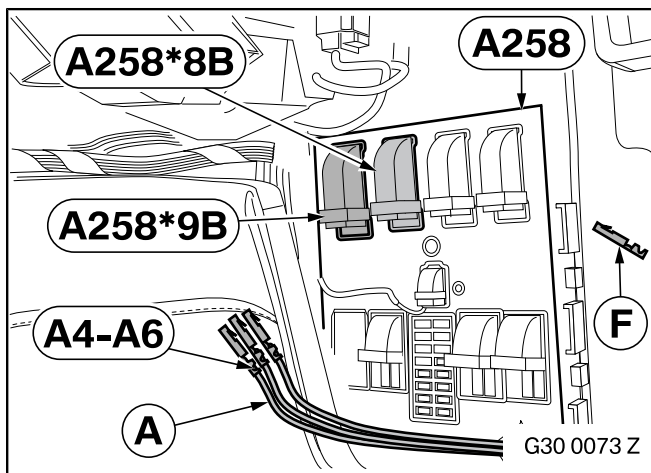
- Secure branch **A2** to rear right ground support point **Z10\*10B**.
- Branch **A3** to the rear right fuse box **Z2**
- Route branches **A4-A6** to the location of the BDC **A258** passenger footwell

## 10. Route and connect the retrofit wiring harness



G30 0072 Z

Connect branch **A3**, RTVI cable, using miniature connector **G** to the GN cable from PIN 11 on plug **Z2\*3B** on rear right fuse box **Z2**.



G30 0073 Z

### Cars with connection on BDC only (see section entitled "Find connection point")

Crimp socket contact F on branches **A4-A6** of retrofit wiring harness **A** and connect it to control unit BDC **A258** as follows:

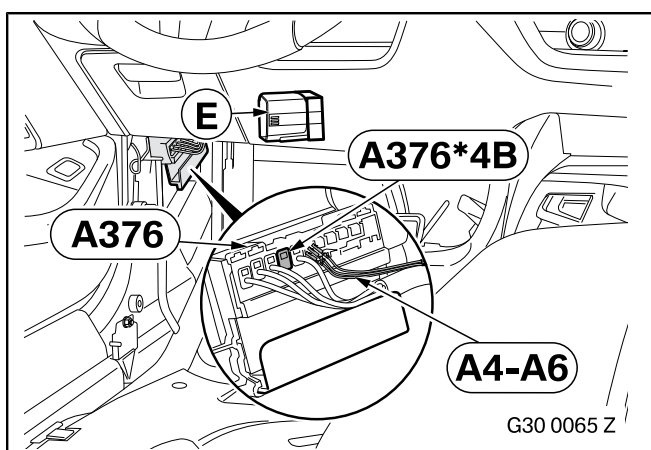
- Branch **A4**, GN cable, to PIN 38 of plug A258\*9B, SW 54-pin socket housing
- Branch **A5**, WS cable, to PIN 37 of plug A258\*9B, SW 54-pin socket housing
- Branch **A6**, GE cable, to PIN 54 of plug A258\*9B, SW 54-pin socket housing

### Cars with connection on Ethernet switch only (see section entitled "Find connection point")

Connect branches **A4-A6** as follows to socket housing **E**:

- Branch **A4**, GN cable, to PIN 6
- Branch **A5**, WS cable, to PIN 5
- Branch **A6**, GE cable, to PIN 1

Connect socket housing **E** to slot **A376\*4B**.



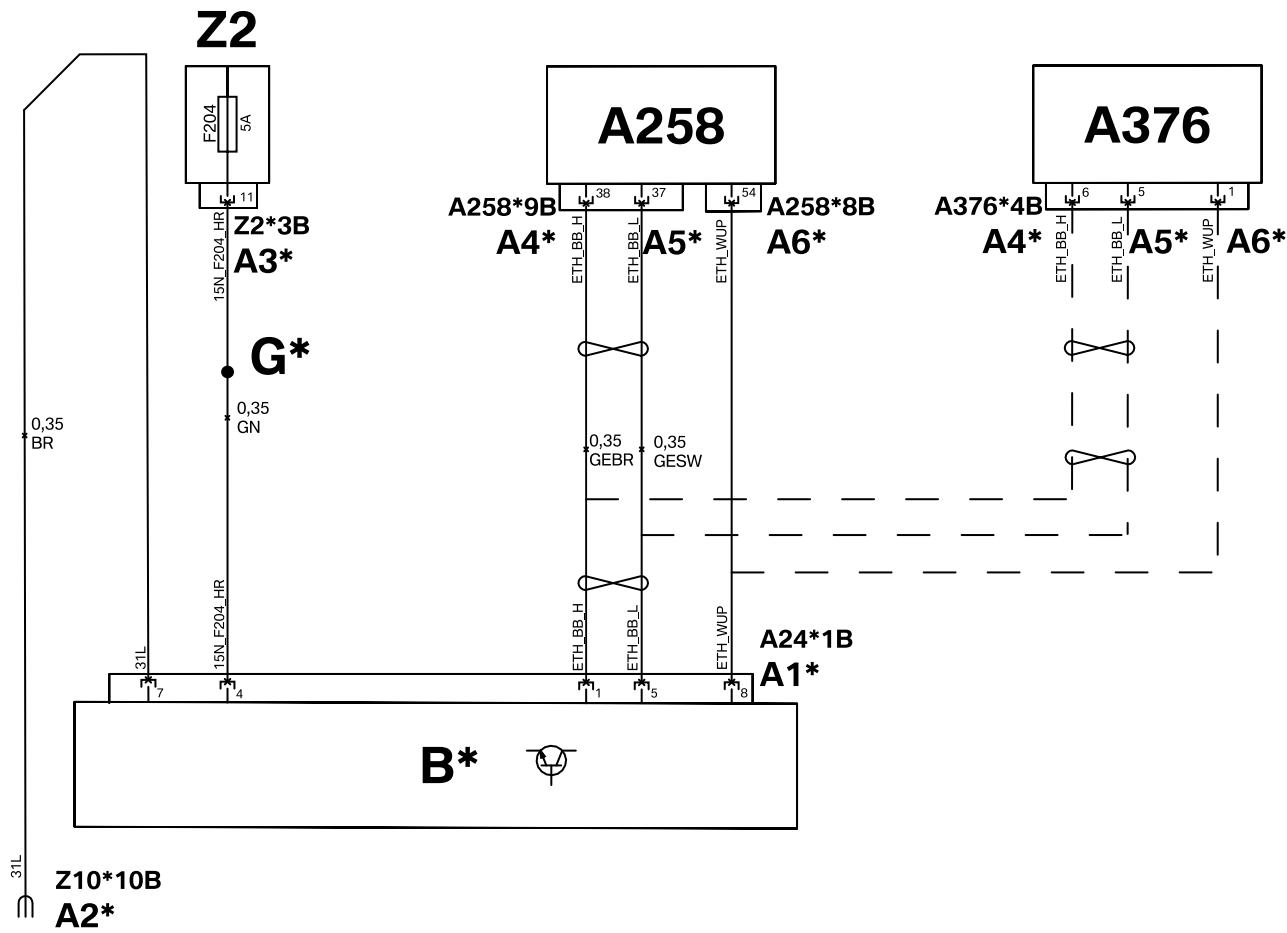
G30 0065 Z

## 11. Concluding work and coding

The retrofit system requires programming/coding.

- Connect the battery
- Connect the battery charger to the car
- Connect the car to the ISTA workshop system
- Open the ISTA/P car programming facility
- If using ISTA/P, please refer to the instructions provided in the ISTA/P application documentation
- Select the "Rear view camera" retrofit via the - **Conversions** - path and work through the created action plan
- If necessary, carry out a car test using the ISTA system and note or work through any entered error memory
- Conduct a function test
- Re-assemble the car

12. Wiring diagram



G30 0074 Z

Legend

- A1\*** SW 8-pin socket housing, plug **X24\*1B**, of rear view camera **B\***
- A2\*** Blade terminal contact, to ground connection **Z10\*10B**
- A3\*** Open cable, with miniature connector **H\*** to plug **Z2\*3B** in the rear right fuse box **Z2**
- A4\*** Socket contact, to plug **A258\*9B** on control unit BDC **A258** or to plug **A376\*4B** on Ethernet switch **A376**
- A5\*** Socket contact, to plug **A258\*9B** on control unit BDC **A258** or to plug **A376\*4B** on Ethernet switch **A376**
- A6\*** Socket contact, to plug **A258\*8B** on control unit BDC **A258** or to plug **A376\*4B** on Ethernet switch **A376**
- B\*** Rear view camera
- G\*** Miniature connector
- Z2** Rear right fuse box
- Z2\*10B** Rear right ground support point
- A258** BDC control unit (cars with connection on BDC only)
- A376** Ethernet switch (cars with connection on Ethernet switch only)

All of the designations marked with \* apply only to these installation instructions or this wiring diagram.

Cable colours

|    |          |      |             |    |             |
|----|----------|------|-------------|----|-------------|
| BL | Blue     | GR   | Grey        | RT | Red         |
| BO | Bordeaux | L-GN | Light green | SW | Black       |
| BR | Brown    | NT   | Natural     | TR | Transparent |
| GE | Yellow   | OR   | Orange      | VI | Violet      |
| GN | Green    | RO   | Pink        | WS | White       |