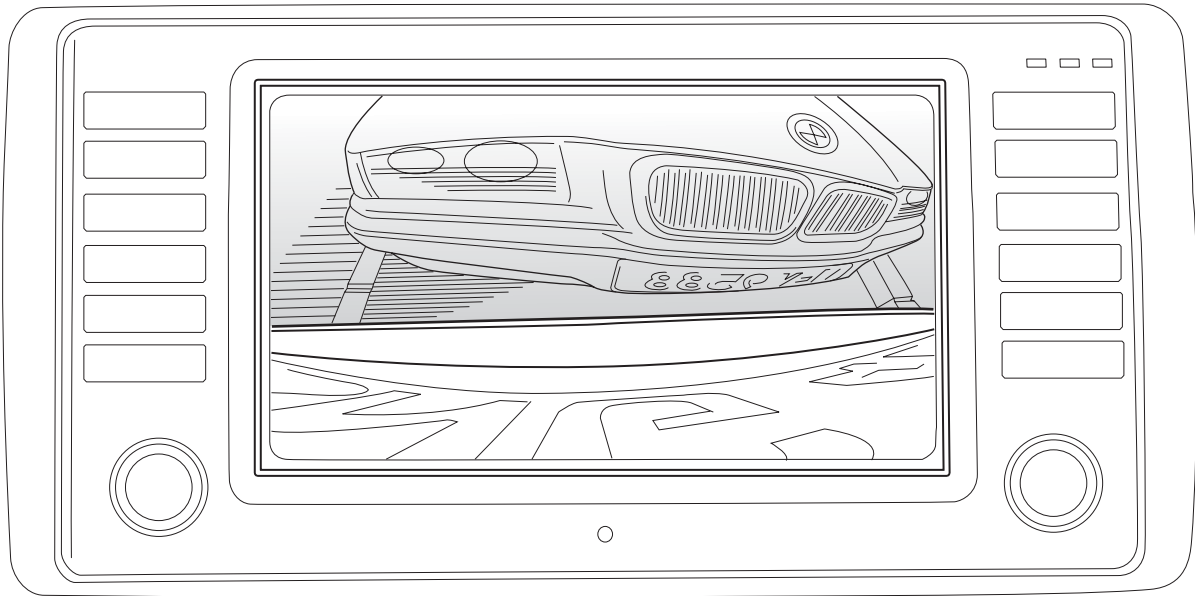




Parts and Accessories Installation Instructions



039 0411 Z

Rear-view camera retrofit BMW 7 Series (E38)

**These installation instructions are only valid for cars made after 09/99 with SA 609
(navigation system)**

The installation time is approx. 2,5 - 3 hours, but this may vary depending on the condition of the car and the equipment in it.

Retrofit kit No. 84 21 0 300 908

Contents

Section	Page
Important information.....	3
1. Preparations.....	4
2. Parts list	5
3. Connection diagram.....	6
4. Installation and cabling diagram.....	7
5. To install the rear-view camera and button.....	8
6. To install and connect the control module.....	10
7. To install and connect the wiring harness	11
8. Concluding work	12
9. Circuit diagram	13

Important information

Subject to technical modifications.

Target group

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.

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.

The rear-view camera retrofit does not require coding.

The switch-off delay (5 seconds) of the rear-view camera can be deactivated following consultation with the customer.

Pictograms



denotes instructions that draw your attention to special features. ◀

◀ denotes the end of the instruction or caution text. ◀

Information on operation

The rear-view camera is only active when reverse gear is engaged and terminal 15 is active.

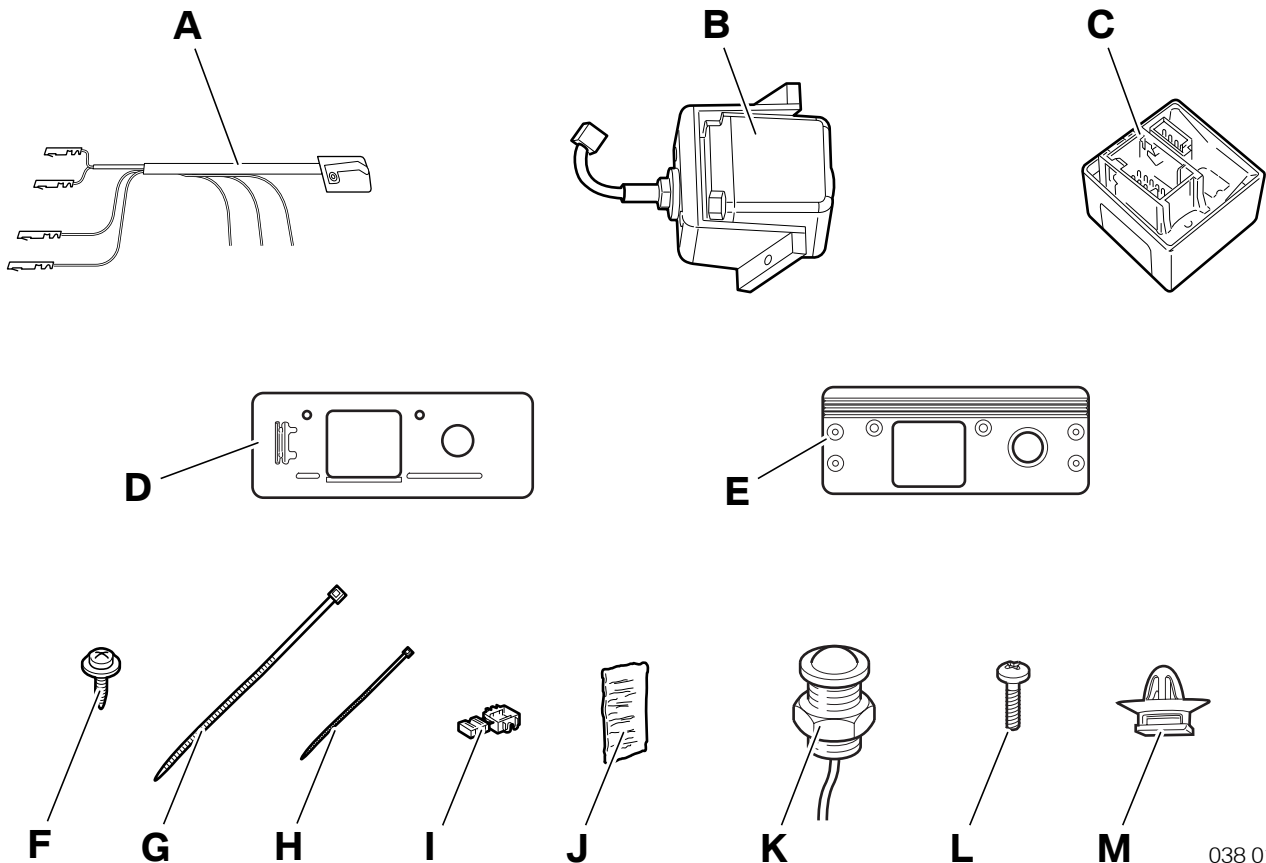
Required special tools

None

1. Preparations

	TIS instruction No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
The following components must be removed first of all:	
Trim for the boot lid	51 49 000
Rear ornamental trim	51 13 400
Boot floor trim	51 47 101
Left boot – wheel arch trim	51 47 151
Right boot – wheel arch trim	51 47 161
Rear closing panel trim	---

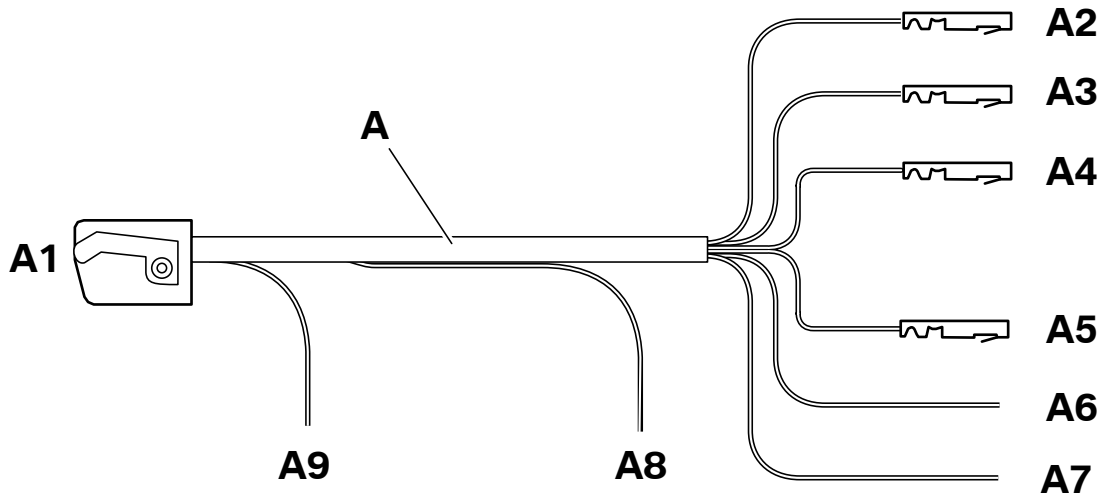
2. Parts list



Legend

- A** Wiring harness
- B** Rear-view camera
- C** Control module
- D** Mounting plate (not required)
- E** Mounting plate
- F** Screw 3.5 x 16 (6x)
- G** Cable tie 292 x 4.8 mm
- H** Cable tie 100 x 2.5 mm (20x)
- I** Miniature connector (3x)
- J** Protective strip
- K** Button
- L** Screw 3.5 x 8 mm (4x)
- M** Cable tie holder (5x)

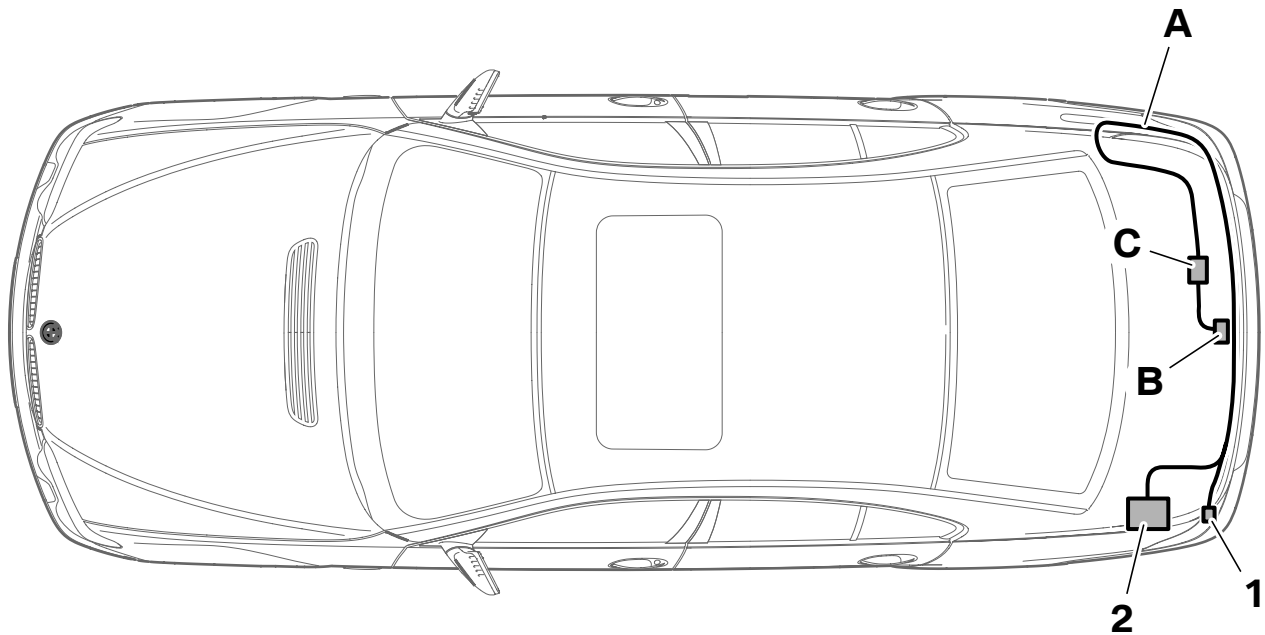
3. Connection diagram



038 0100 Z

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Wiring harness	---	---	---	---
A1	Black 12-pin socket casing	---	---	To control module, SW 12-pin plug	---
A2	Socket contact	Video +	Interior conductor (transparent) 0.50 mm ²	To video module A197 , 18-pin natural plug	X18806 PIN 13
A3	Socket contact	Video -	SW/BR 0.50 mm ²	To video module A197 , 18-pin natural plug	X18806 PIN 14
A4	Socket contact	RFS inv	SW 0.50 mm ²	To video module A197 , BL 18-pin plug	X18804 PIN 17
A5	Socket contact	TA	WS 0.75 mm ²	Not used at present. Insulate and tie back	---
A6	Cable open	Terminal 30	RT 0.75 mm ²	To video module A197 , BL 18-pin plug with miniature connector to RT/GN cable	X18804 PIN 1
A7	Cable open	Terminal 31	BR 0.75 mm ²	To video module A197 , BL 18-pin plug with miniature connector to BR cable	X18804 PIN 10
A8	Cable open	RFS	GN 0.75 mm ²	To the left tail light with miniature connector to WS/GE cable	X319 PIN 5
A9	Cable open	RFS	GN 0.75 mm ²	Not used at present. Insulate and tie back	---

4. Installation and cabling diagram



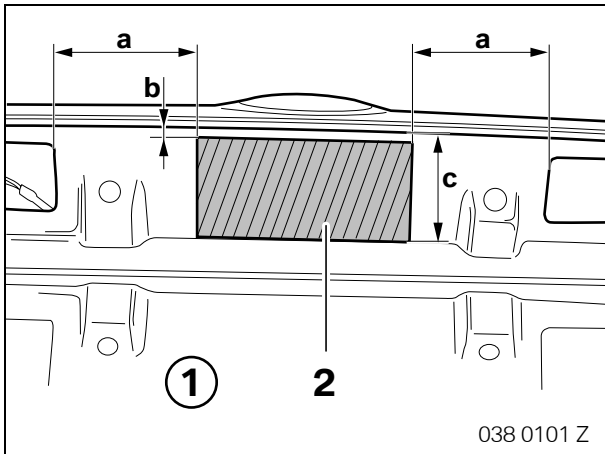
039 0338 Z

Legend

- 1** RFS signal pick-up on the left tail light
- 2** Video module

- A** Wiring harness
- B** Rear-view camera
- C** Control module

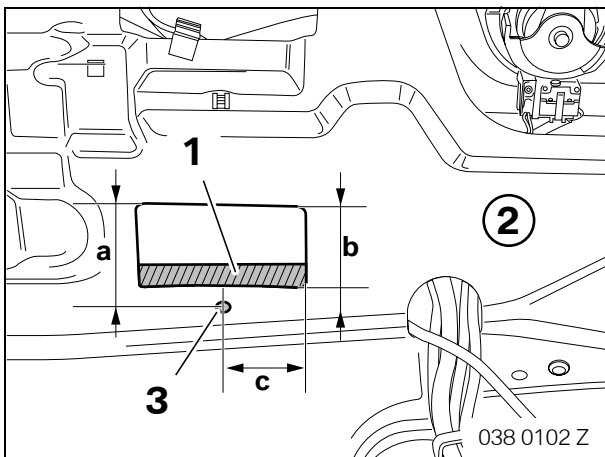
5. To install the rear-view camera and button



Mark dimensions **a – c** on the boot lid (1).

- Dimension **a** = 60 mm
- Dimension **b** = 5 mm
- Dimension **c** = 50 mm

Saw out the boot lid (1) in the marked area (2), deburr it and treat the area with preservative.

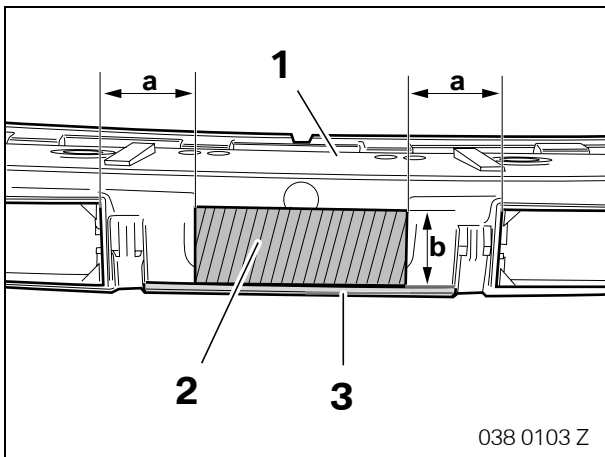


Mark dimensions **a – c** on the boot lid (2).

- Dimension **a** = 65 mm
- Dimension **b** = 50 mm
- Dimension **c** = 45 mm

Saw out the boot lid (2) in the marked area (1), deburr it and treat the area with preservative.

Drill through the boot lid (2) at the drilling position (3) using a 6 mm twist drill bit.

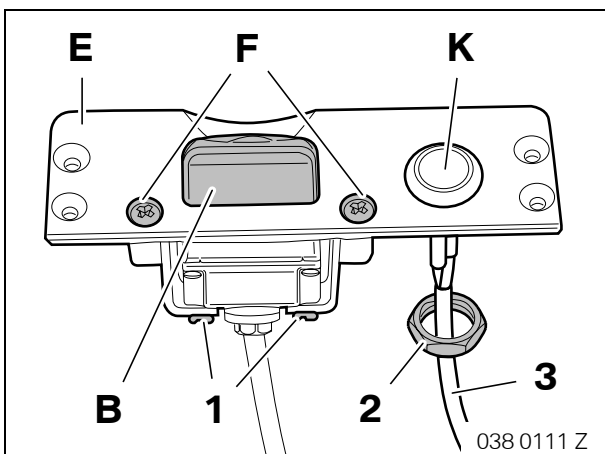



Mark dimensions **a** and **b** on the rear ornamental trim (1):

- Dimension **a** = 50 mm
- Dimension **b** = 40 mm from the inside of the web (3)

 Leave the web (3) in position. ◀

Saw out the rear ornamental trim (1) in the marked area (2) and deburr it.



 There must be a seal between the mounting plate **E** and the rear-view camera **B**. ◀

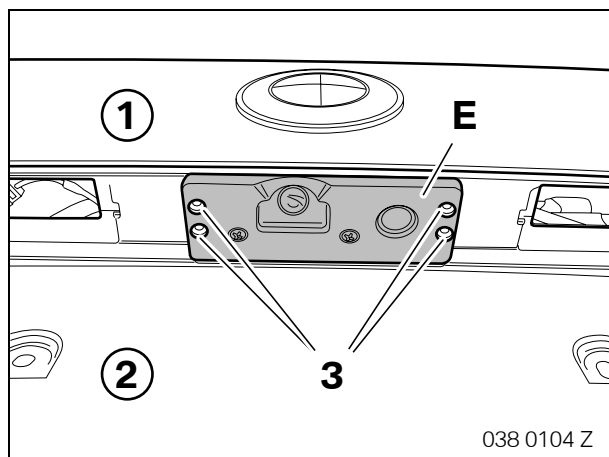
Secure the rear-view camera **B** on the mounting plate **E** with screws **F**.

Align the rear-view camera **B** using the screws (1) if necessary, at right-angles to the mounting plate **E**.

Cut the cable (3) for button **K** (not required).

Insert the button **K** into the mounting plate **E** and secure it with a union nut (2).

5. To install the rear-view camera and button



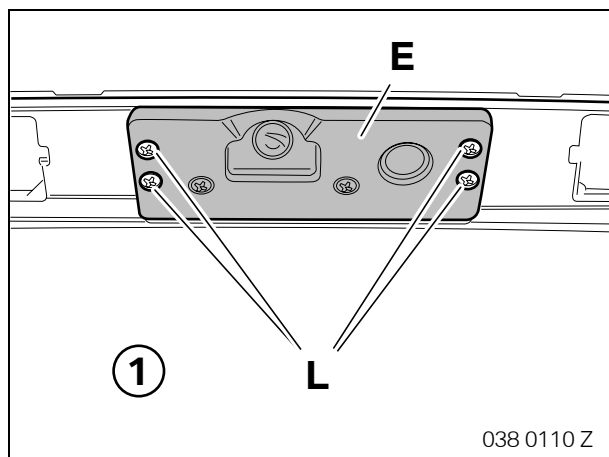
Install the rear ornamental trim (2) on the boot lid (1) temporarily.

Position the mounting plate **E** in the centre.

Mark the drilling positions (3) on the rear ornamental trim (2).

Remove the rear ornamental trim (2).

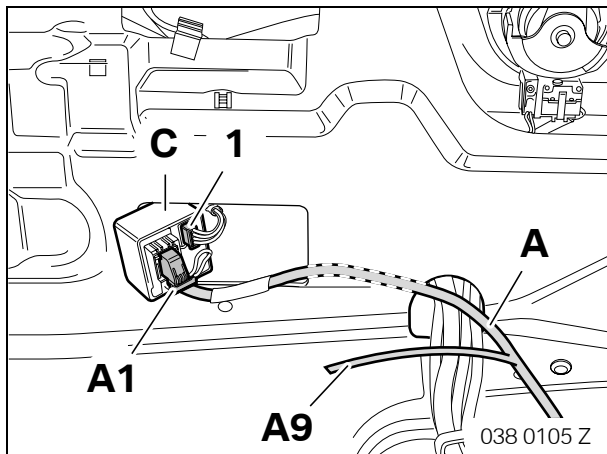
Drill through the drilling position (3) with a 3 mm twist drill.



Secure the mounting plate **E** on the rear ornamental trim (1) with screws **L**.

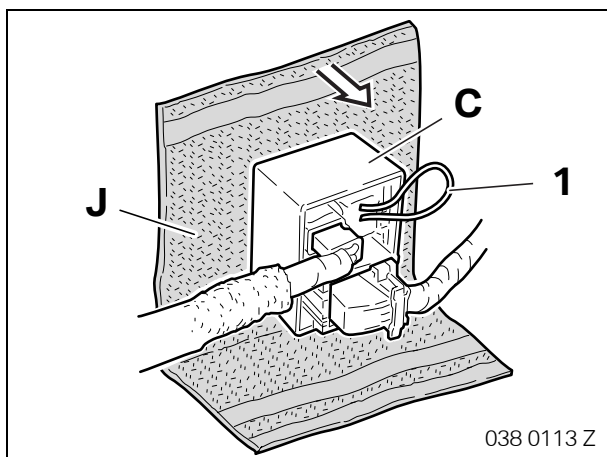
Install the rear ornamental trim (1).

6. To install and connect the control module



Connect the connection plug (1) for the rear-view camera and branch **A1** on the wiring harness **A** to the control module **C**.

Insulate branch **A9**, GN cable, and tie it back.

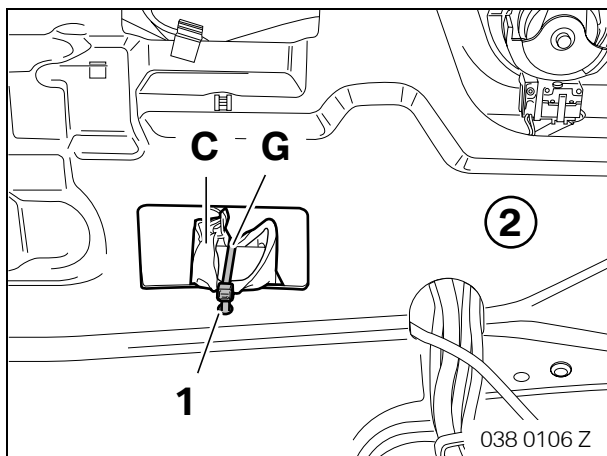


The switch-off delay (5 seconds) of the rear-view camera can be deactivated as follows.

Cut through the cable loop (1), VI/SW cable, and insulate both ends. ◀

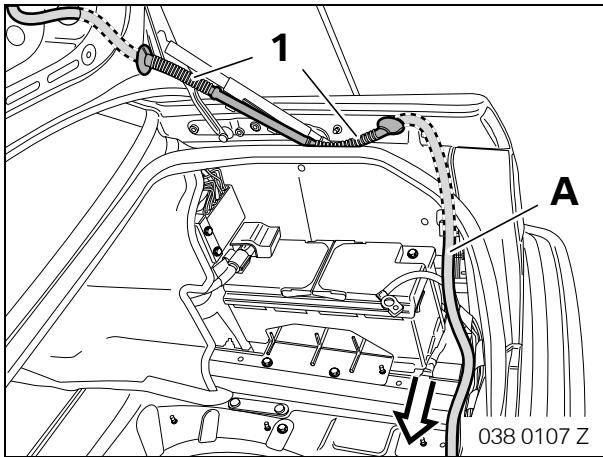
Affix the protective strip **J** on the control module **C**.

Cut off any excess lengths.



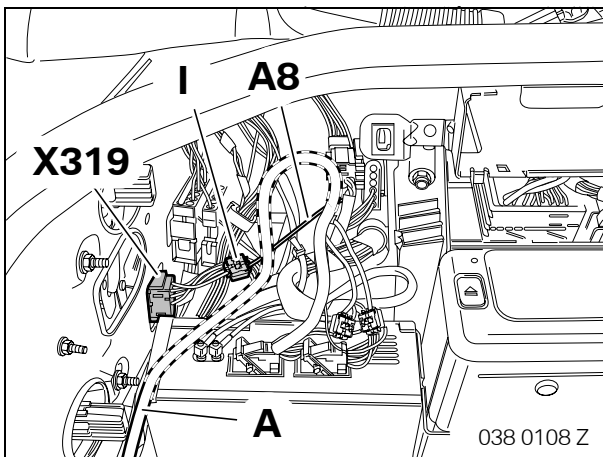
Use a cable tie **G** to secure the control module **C** to the hole (1) in the boot lid (2).

7. To install and connect the wiring harness



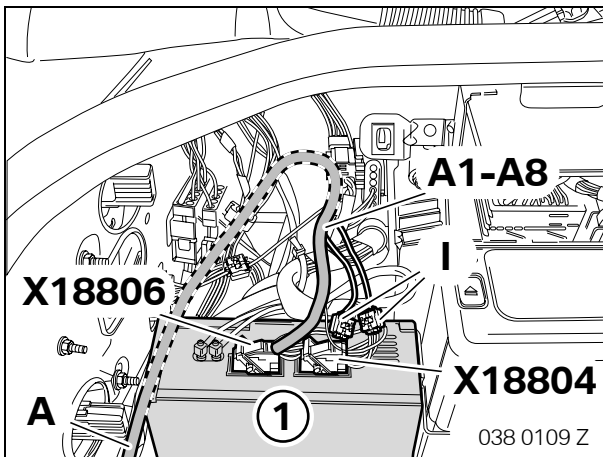
Thread the wiring harness **A** through the cable grommet (1) into the boot.

Lay the wiring harness **A** along the standard wiring harness to the left side of the boot.



Remove the insertion tool.

Connect branch **A8**, GN cable, on the wiring harness **A** to the WS/GE cable on plug **X319** (PIN 5) using a miniature connector **I**.



Disconnect plug **X18804** and plug **X18806** from the video module (1).

Connect the branches of the wiring harness **A** into the blue plug **X18804** as follows:

- Branch **A4**, SW cable, in PIN 17
- Branch **A6**, RT cable, with miniature connector to the RT/GN cable of PIN 1
- Branch **A7**, BR cable, with miniature connector to the BR cable of PIN 10

Connect the branches of the wiring harness **A** into the natural coloured plug **X18806** as follows:

- Branch **A2**, interior conductor (transparent), in PIN 13
- Branch **A3**, SW/BR cable, in PIN 14

Insulate branch **A5**, WS cable, and tie it back.

Connect plugs **X18804** and **X18806** to the video module (1).

8. Concluding work

- Connect the battery
- Conduct a brief test

Check the function of the rear-view camera as follows:

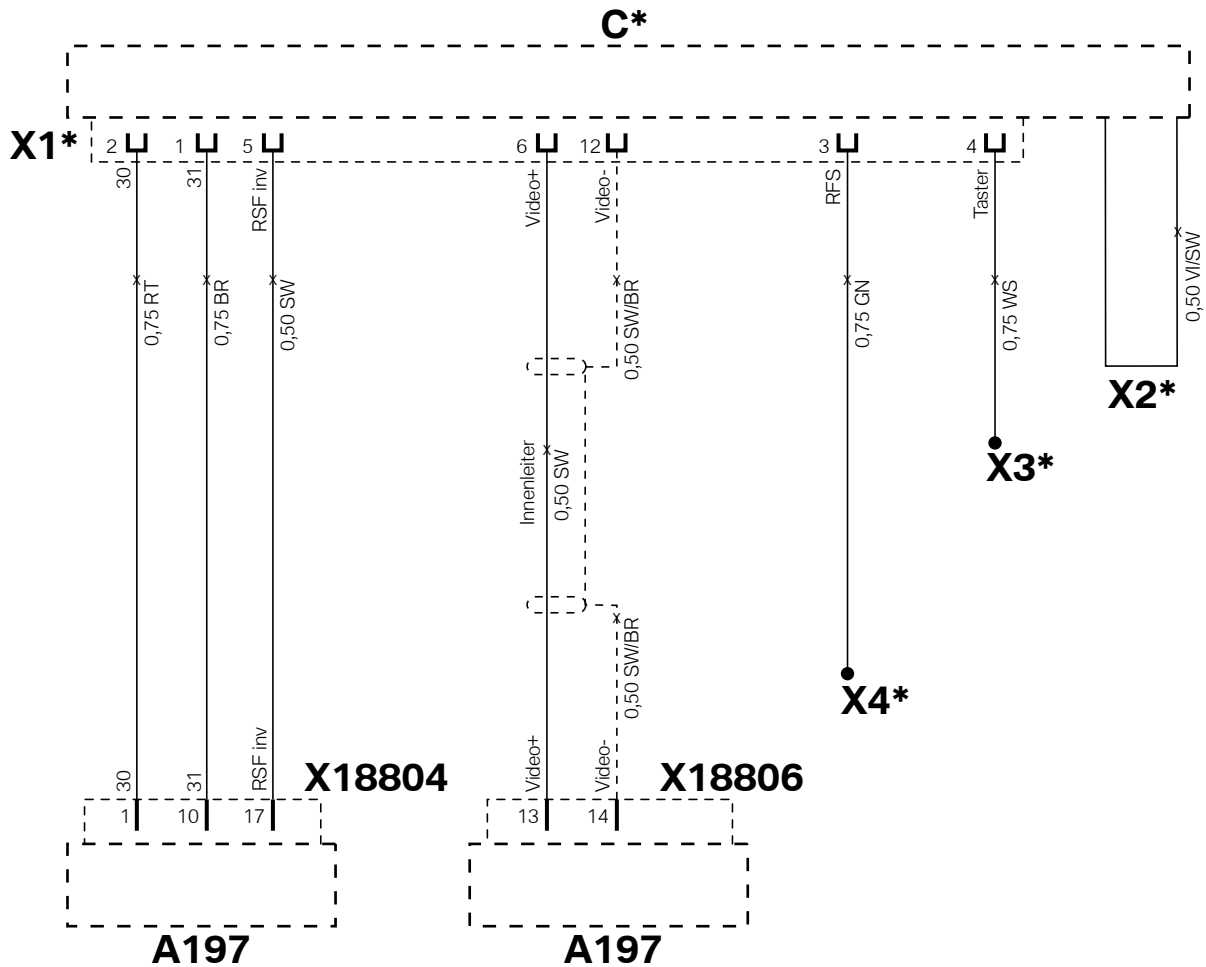
- Switch on the ignition
- Engage reverse; an image must appear on the on-board monitor
- Disengage reverse gear

If you have cut through the VI/SW cable loop on the control module, the on-board monitor must change over immediately.

If you **did not** cut through the VI/SW cable loop on the control module, the on-board monitor must change over after about 5 seconds.

- Re-assemble the car

9. Circuit diagram



053 0571 Z

Legend

A197	Video module	X3*	Socket contact
C*	Control module	X4*	Cable open
X1*	SW 12-pin plug	X18804	BL 18-pin plug
X2*	Cable loop	X18806	18-pin natural plug

All the designations marked with an asterisk (*) apply only to these installation instructions or this circuit diagram

Legend

BL	blue	RT	red
BR	brown	SW	black
GE	yellow	VI	violet
GN	green	WS	white