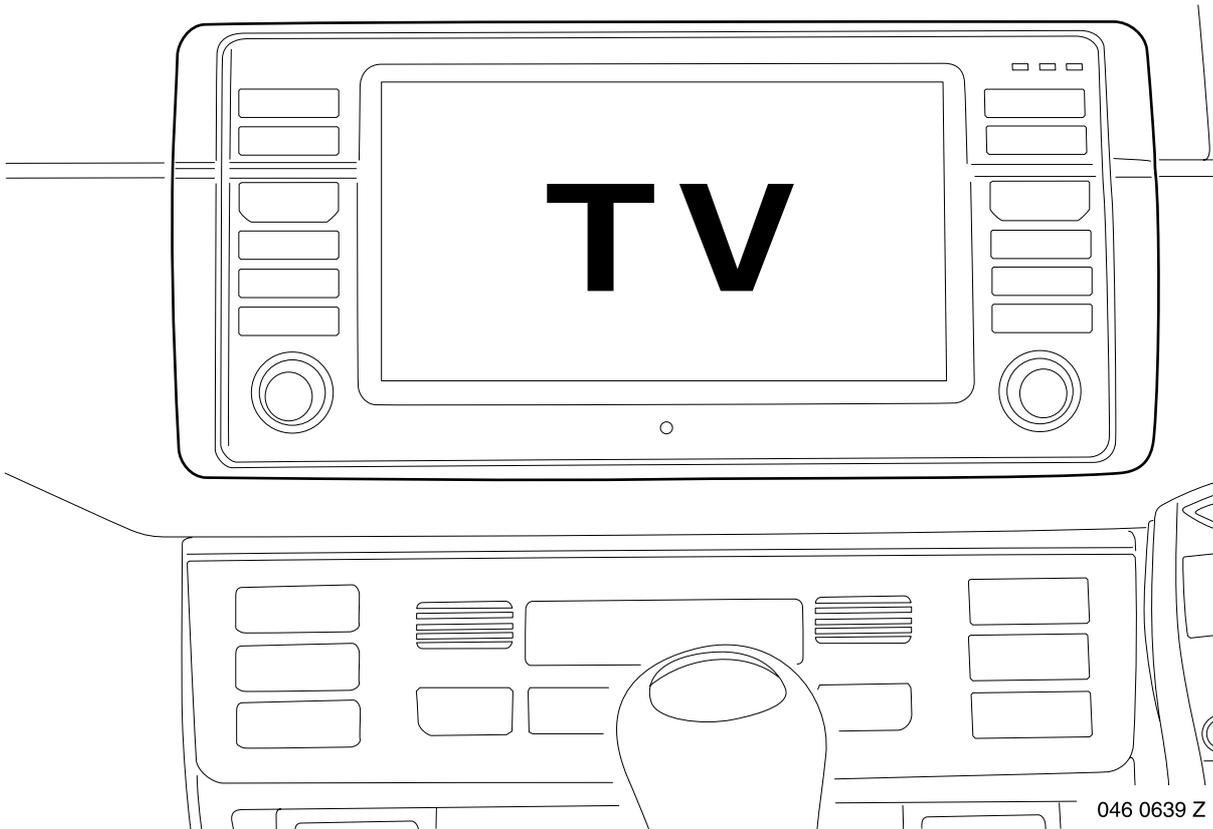




Parts and Accessories Installation Instructions



TV function retrofit kit

BMW 3 Series (E46/4 and E46/2) Saloon and Coupé only with SA 609 from 09/01

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

Retrofit kit No. 65 50 143 549

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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

The installation of the aerial is shown on the left-hand side of the bumper, proceed in the same way on the right-hand side of the bumper.

Refer to the instructions for use of Sikaflex-221 (Saloon only).

Observe the tightening torque values for screw connections. The required tightening torque values are set out in the part information system (TIS).

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.

After the installation work the retrofit TV function must be coded using DIS or MoDiC via the **Retrofit** path.

Information on operation

The TV function is only active when the car is at a standstill.

Tools required

DIS or MoDiC

Removal clips (65 5 400)

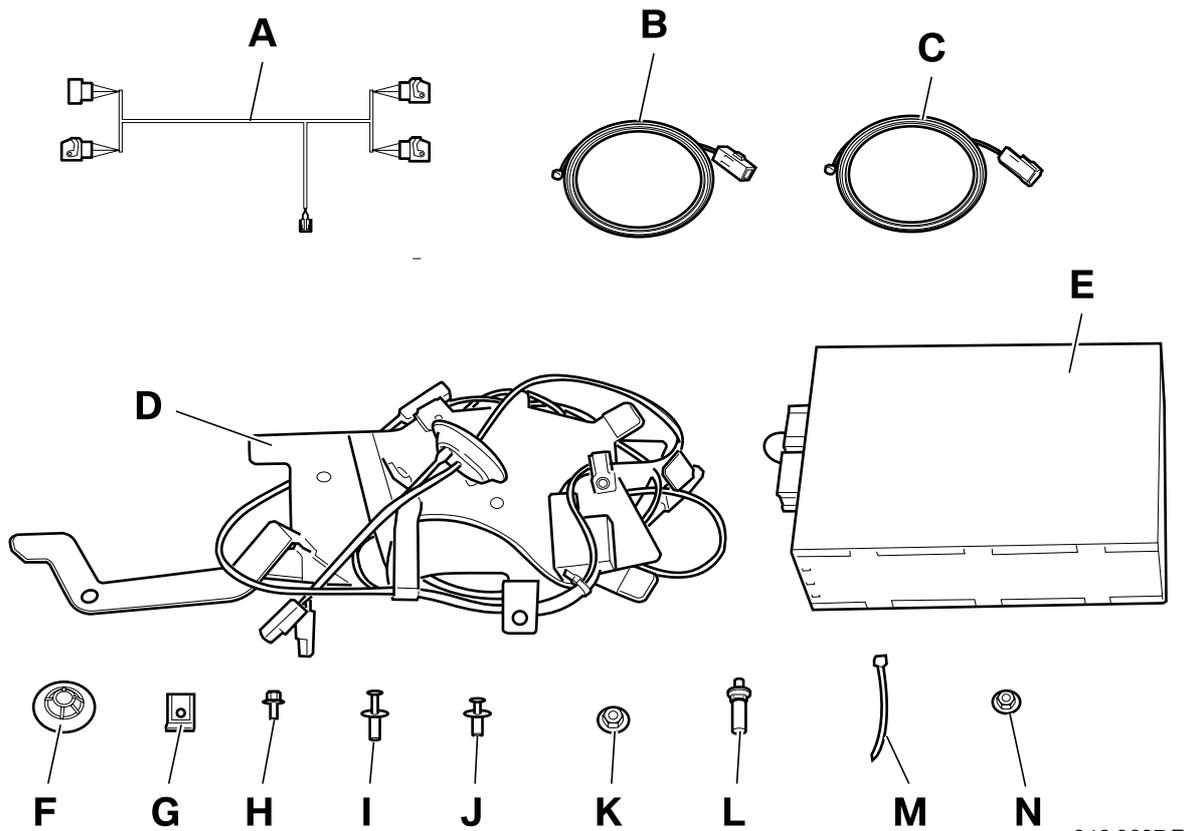
Special material required (Saloon only)

Sikaflex-221 (81 22 9 407 533)

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:	
Rear bumper	51 12 000
Shock absorbers for the bumper on both sides (cars without towing hitch only)	51 12 742
Boot floor trim	51 47 101
Boot trim on the left	51 47 151
Release the navigation computer	65 90 510
Release the radio receiver	65 11 055

2. Parts list

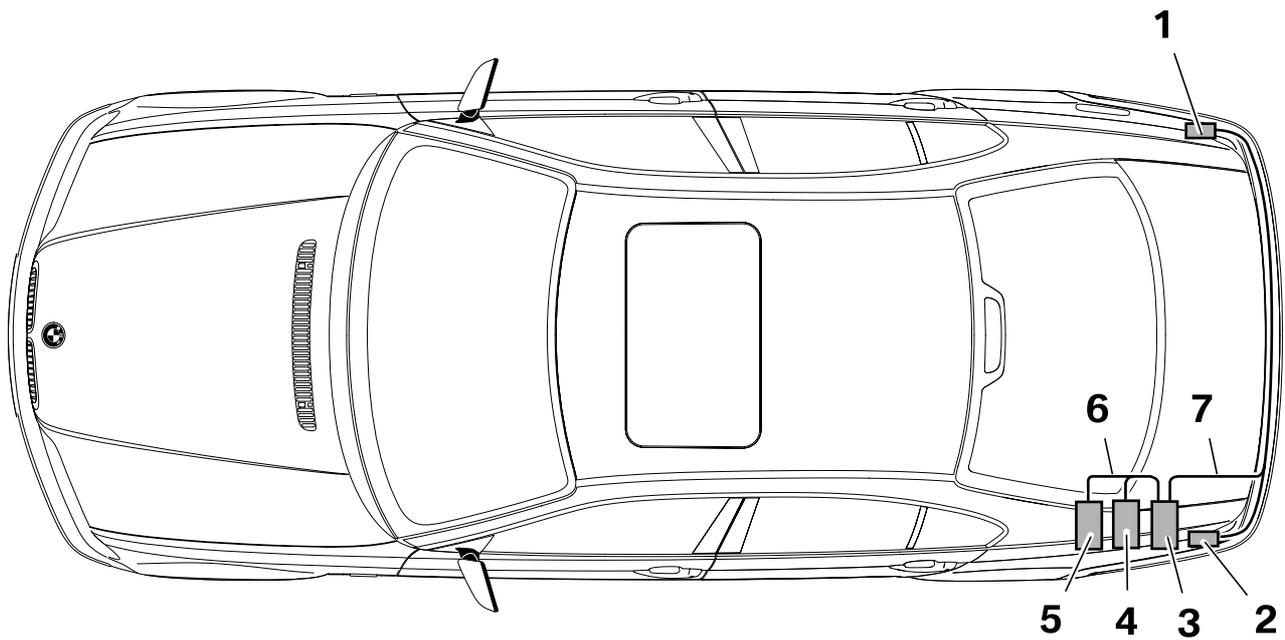


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Legend

- A** Adapter cable
- B** Aerial cable TV 1
- C** Aerial cable TV 2
- D** Aerial
- E** Video module
- F** Spacer (8x)
- G** Speed nut (1x)
- H** Hexagonal screw with washer M5x14 (3x)
- I** Expanding rivet (4x)
- J** Expanding rivet (8x)
- K** Hexagonal nut M6 (2x)
- L** Earth bolt (2x)
- M** Cable tie (15x)
- N** Hexagonal nut M5 (2x)

3. Installation and cabling diagram

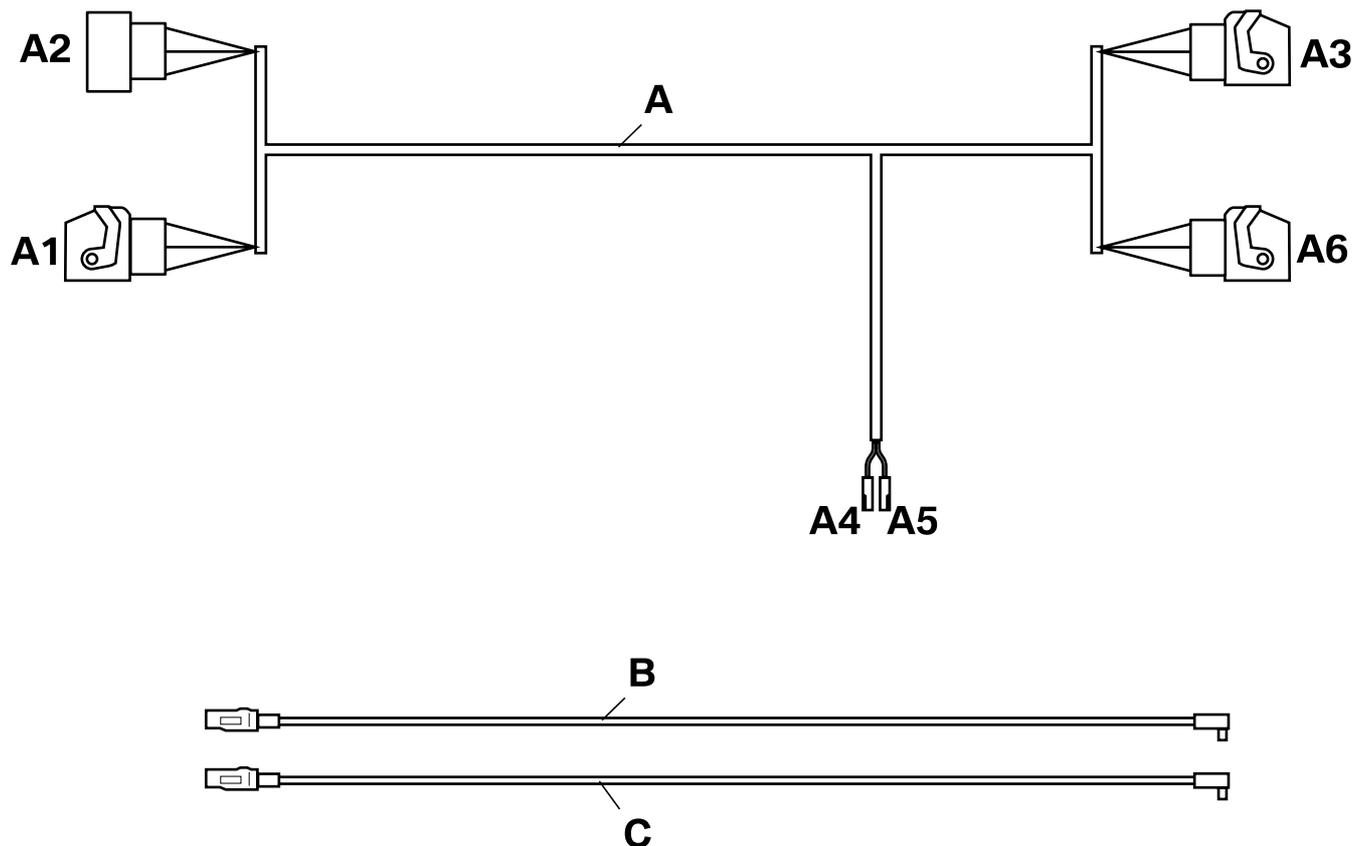


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Legend

- 1 Aerial right
- 2 Aerial left
- 3 Video module
- 4 Navigation computer
- 5 Radio receiver
- 6 Adapter cable
- 7 Aerial cables TV 1 and TV 2

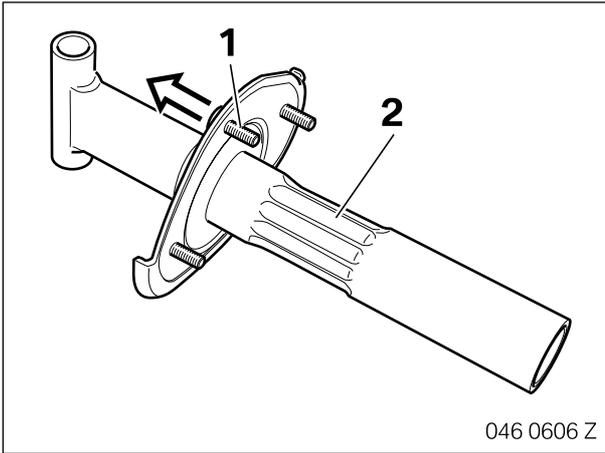
4. TV function connection diagram



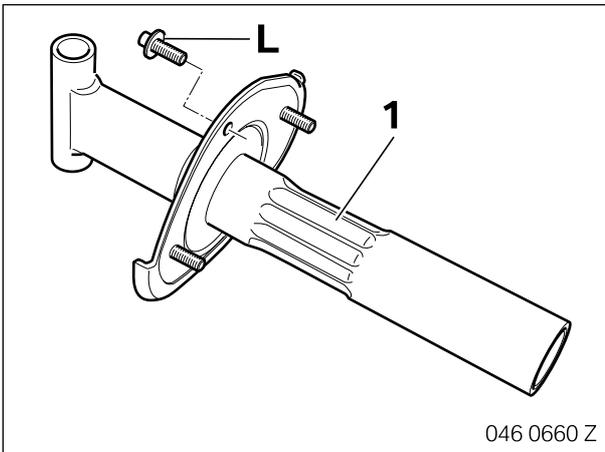
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Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Adapter cable	---	---	---	---
A1	18-pin BL socket casing	---	---	To navigation computer A112	X1313
A2	18-pin BL plug casing	---	---	To the plug on the standard wiring harness, 18-pin BL socket casing	X1313
A3	18-pin BL socket casing	---	---	To video module A197	X18804
A4	Socket contact	TVNF+	GE 0.5 mm ²	To radio receiver N9 12-pin natural socket casing	X13648 PIN 11
A5	Socket contact	TVNF-	BL/GE 0.5 mm ²	To radio receiver N9 12-pin natural socket casing	X13648 PIN 12
A6	18-pin natural socket casing	---	---	To video module A197	X18806
B	Aerial cable TV 1	---	---	Between aerial and video module A197	---
C	Aerial cable TV 2	---	---	Between aerial and video module A197	---

5. To adjust the shock absorbers on both sides (cars without towing hitch only)



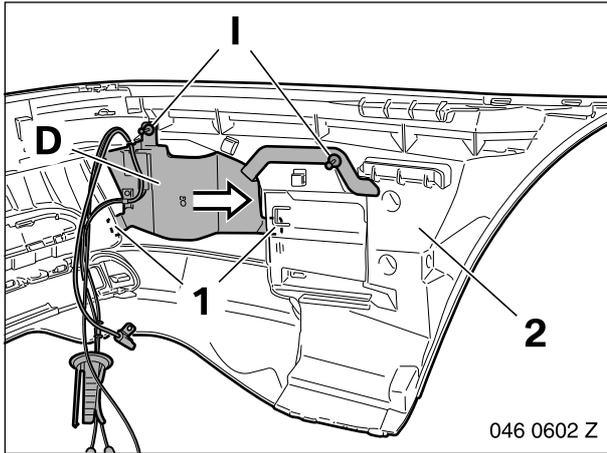
Press the top securing screw (1) out of the shock absorber (2).



Press the earth bolt **L** into the shock absorber (1) as shown.

Install the shock absorber (1) in the vehicle.

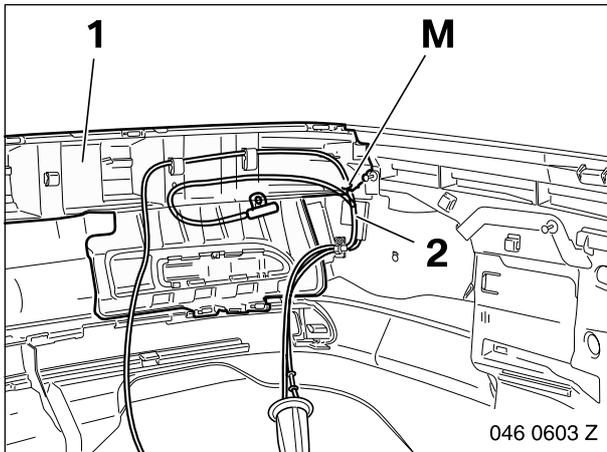
6. To install the aerial



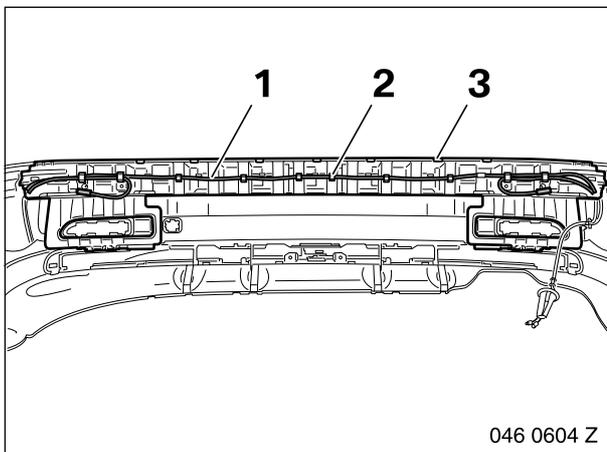
Coupé only

Connect the aerial **D** with the journal (1) between the interior and exterior shell of the bumper (2).

Secure the aerial **D** to the existing holes using expanding rivets **I**.

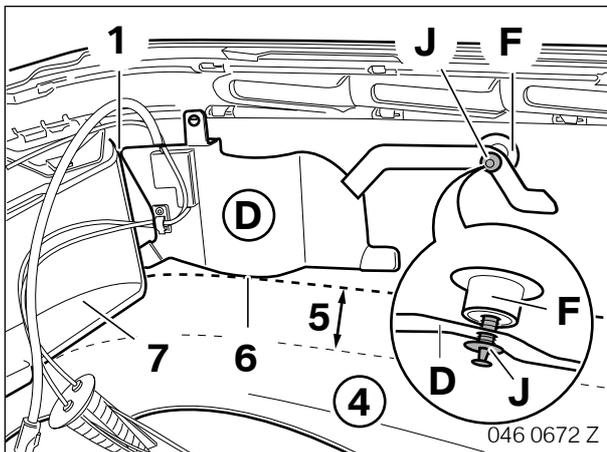


Secure the aerial connection cable (2) to the existing hole in the holder (1) using a cable tie **M**.



Lay the aerial connection cable (1) in the holding lugs (2) of the holder (3) to the right-hand side.

Install the right-hand aerial.



Saloon only

Install the spacer **F** to the aerial **D** using an expanding rivet **J**.

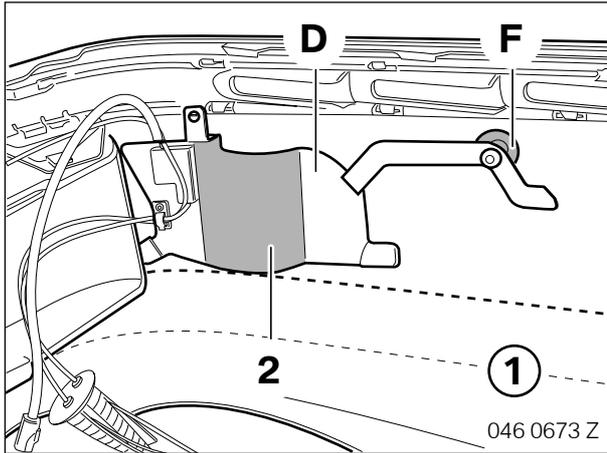
Place the aerial **D** on the bumper (4) as shown:

- Contact point (6): Aerial **D** flush with the shaped section of the bumper (5)
- Contact point (1): Aerial **D** butt-to-butt with the holder (7)

Align the aerial **D** so that the spacer **F** lays on the bumper (4) without being stressed.

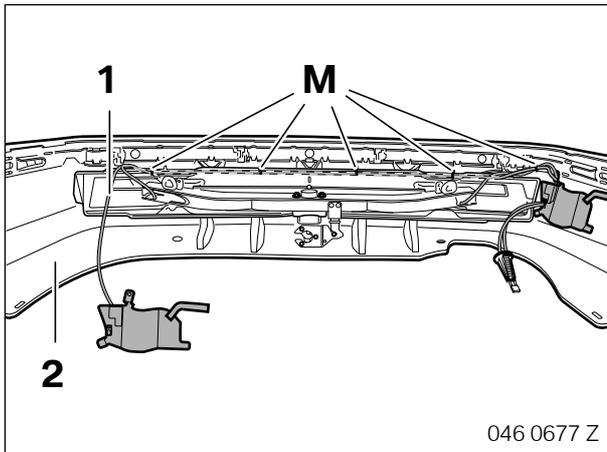
Remove the aerial **D**.

6. To install the aerial



 Clean the gluing areas. Use the contact points (see above) and follow the instructions for use for Sikaflex-221. ◀

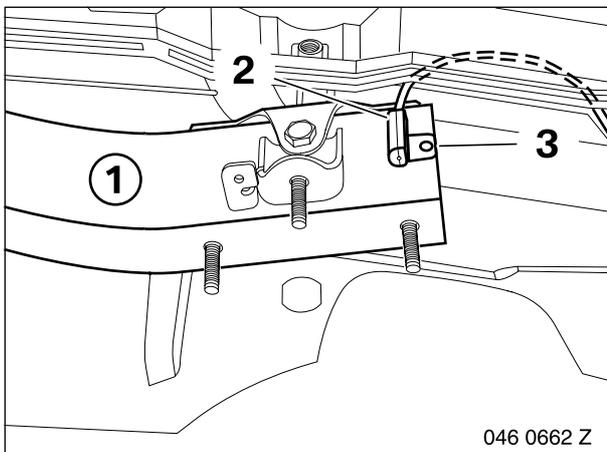
Affix the aerial **D** in the marked area (2) and to the spacer **F** on the bumper (1) using Sikaflex-221.



Lay the aerial connection cable (1) to the right-hand side of the bumper.

Secure the aerial connection cable (1) to the existing holes in the bumper (2) using cable ties **M**.

Install the right-hand aerial.

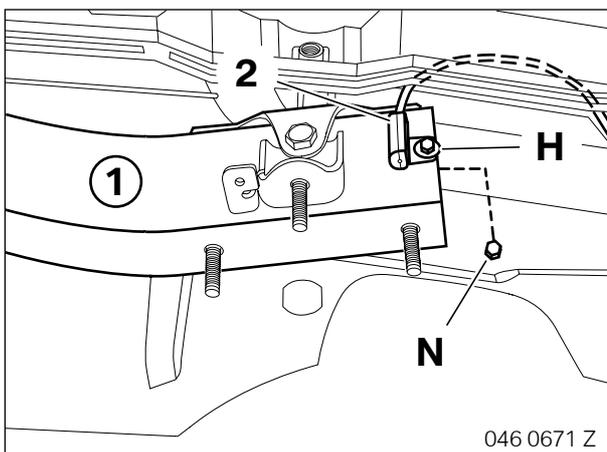


Cars with towing hitch only

 The lugs on the capacitor (2) must finish flush with the support (1). ◀

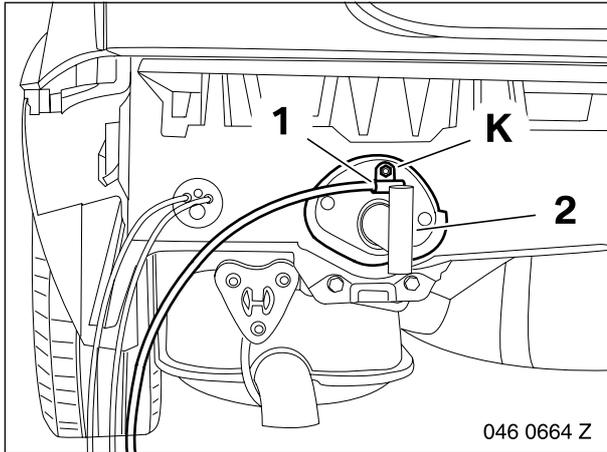
Position the capacitor (2) in the centre as shown, and mark the hole on the support.

Drill the hole in the support (1) with a 5.5 mm drill bit.



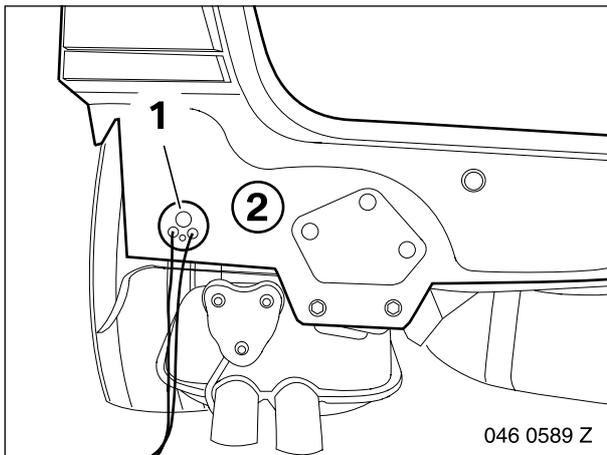
Secure the capacitor (2) to the hole in the support (1) using a hexagonal screw **H** and hexagonal nut **N**.

6. To install the aerial



Cars without a towing hitch only

Secure the capacitor to the shock absorber (2) using a hexagonal nut **K**.



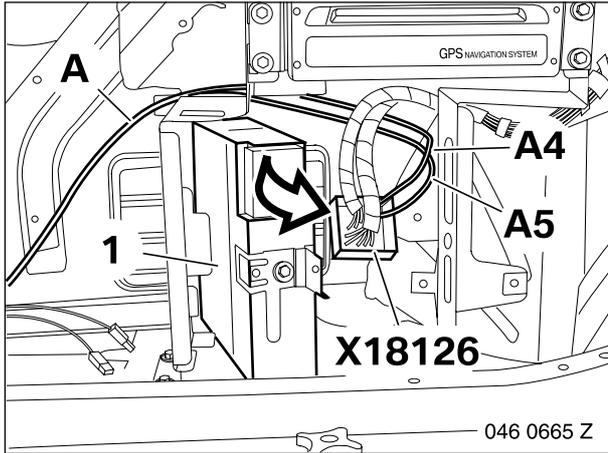
All cars

Remove the sealing stopper from the left rear panel (2).

Insert the cable grommet with the aerial cables (1) into the exposed opening.

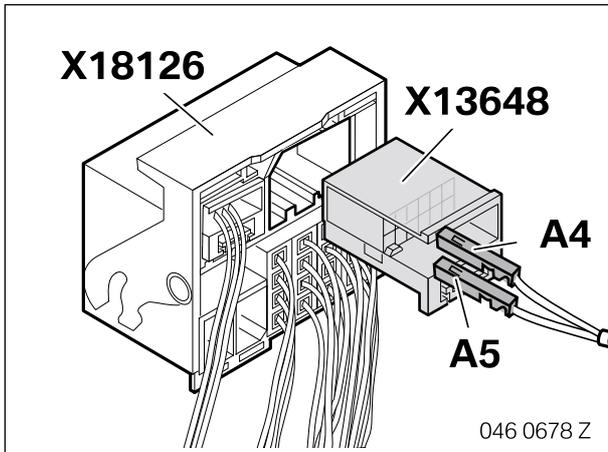
Install the bumper.

7. To install and connect the TV function wiring harness; to install the video module



Lay branches **A4 - A5** on the adapter cable **A** to the radio receiver (1).

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



Cars with a CD changer

Disconnect the existing natural colours plug **X13648**.

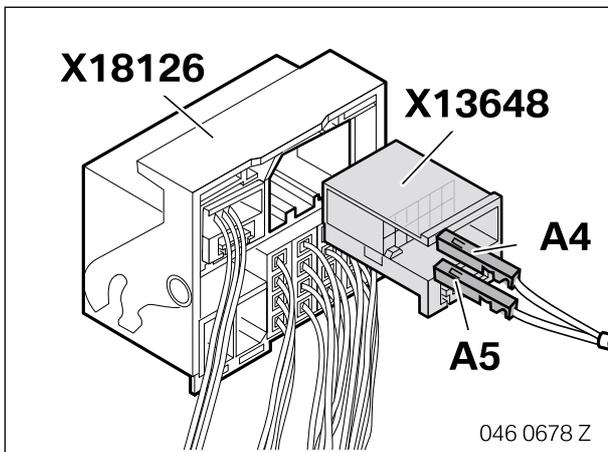
Connect branches **A4 - A5** to plug **X13648** as follows:

- Branch **A4**, GE cable in PIN 11
- Branch **A5**, BL/GE cable in PIN 12

Connect plug **X13648** to plug **X18126**.

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

Install the radio receiver.



Cars without a CD changer

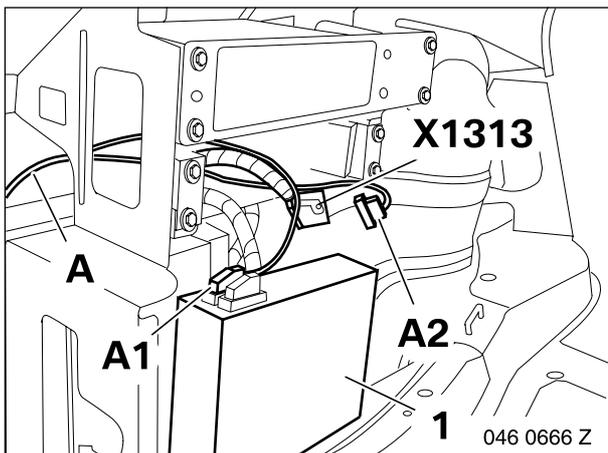
Connect branches **A4 - A5** to the enclosed natural coloured plug **X13648** as follows:

- Branch **A4**, GE cable in PIN 11
- Branch **A5**, BL/GE cable in PIN 12

Connect plug **X13648** to the free slot in plug **X18126**.

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

Install the radio receiver.



All cars

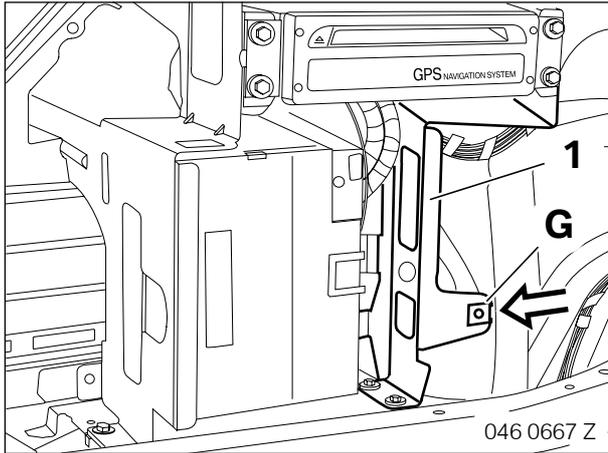
Disconnect the blue plug **X1313** on the navigation computer (1).

Connect the adapter cable **A** as follows:

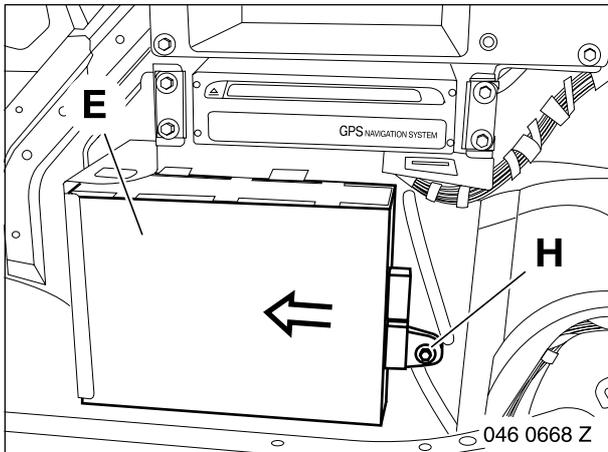
- Branch **A2** to plug **X1313**
- Branch **A1** to the navigation computer (1)

Install the navigation computer (1).

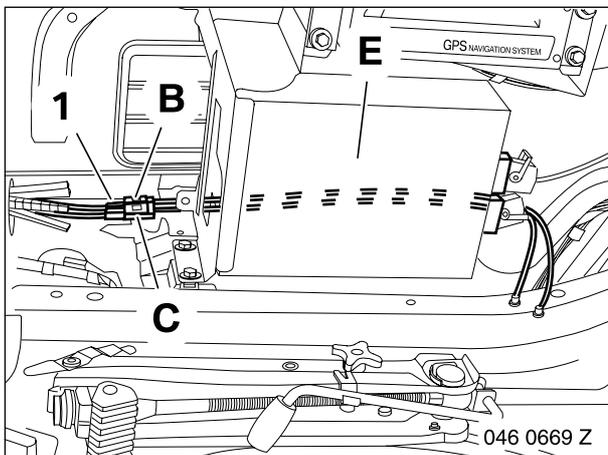
7. To install and connect the TV function wiring harness; to install the video module



Place the speed nut **G** on the module holder (1).

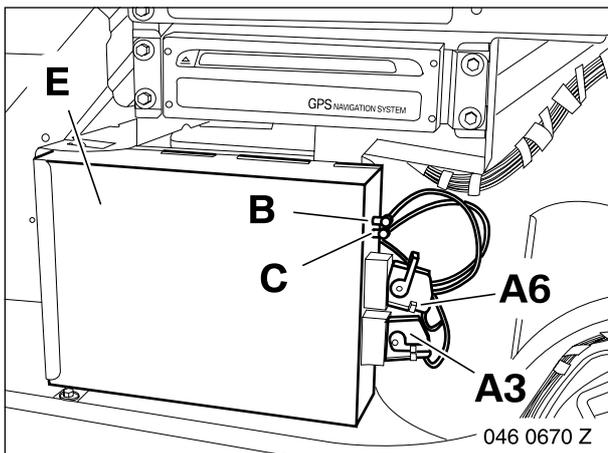


Secure the video module **E** into the module holder and secure it with the hexagonal screw **H**.



Connect the aerial cable (1) to the same coloured TV aerial cables 1 **B** and TV 2 **C**.

Lay the aerial cables TV 1 **B** and TV 2 **C** to the video module **E**.



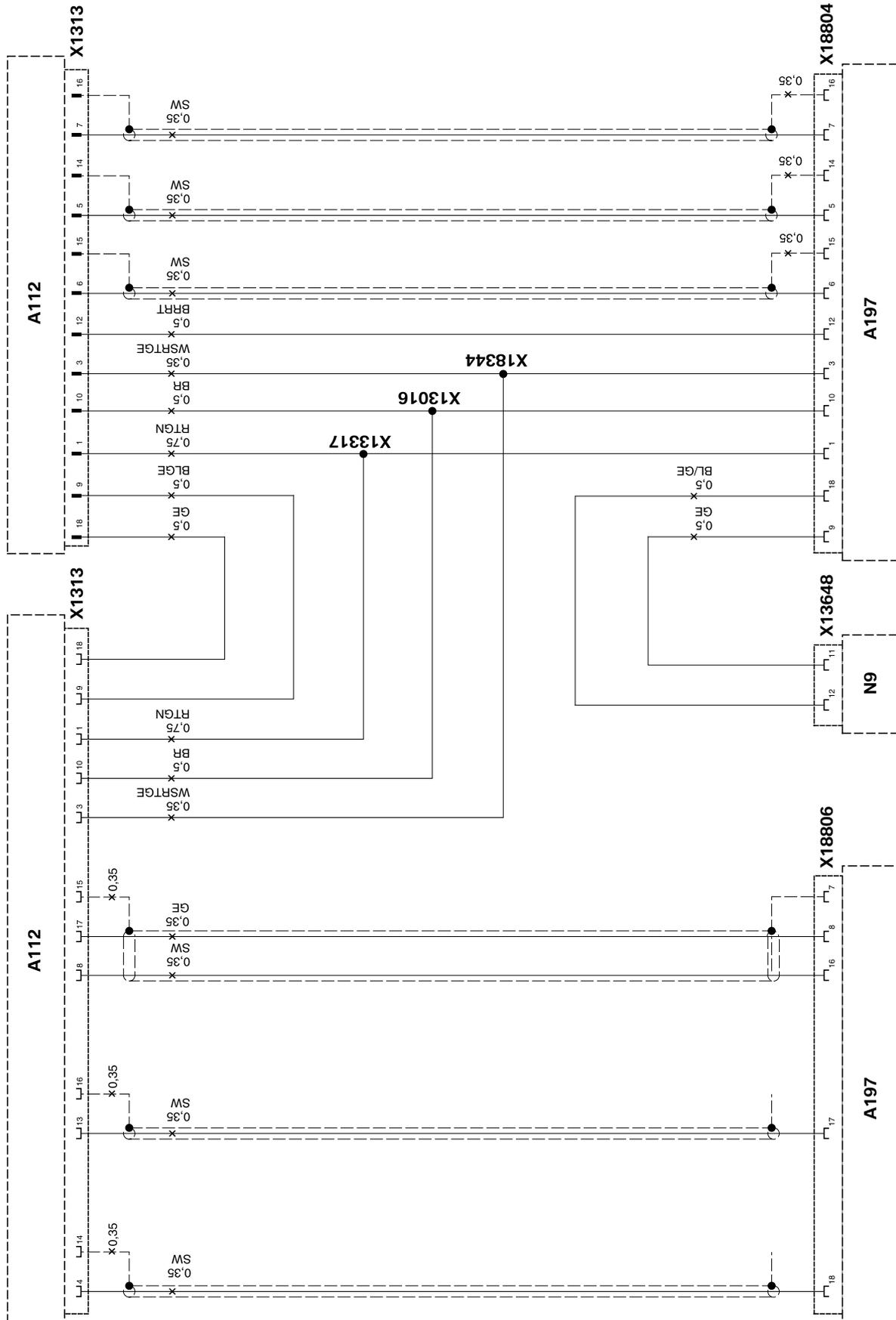
Connect branches **A3** and **A6** to the same coloured cables on the video module **E**.

Connect the aerial cables TV 1 **B** and TV 2 **C** to the video module **E**.

8. Concluding work and coding

- Re-assemble the car
- Connect the battery
- Encode the TV function using DIS or MoDiC via path **Retrofit**.
- Check the function of the TV function

9. TV function circuit diagram



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9. TV function circuit diagram

Legend

A112 Navigation computer

A197 Video module

N9 Radio receiver

X1313 Blue 18-pin socket casing on the navigation computer and blue 18-pin plug casing to the standard wiring harness

X13016 Terminal 31 connector

X13317 Terminal 30 connector

X13648 12-pin natural socket casing on the radio receiver

X18344 I bus connector

X18804 Blue 18-pin plug on the video module

X18806 Natural coloured 18-pin plug on the video module

Cable colours

RT red

SW black

GN green

BR brown

GE yellow

WS white

BL blue