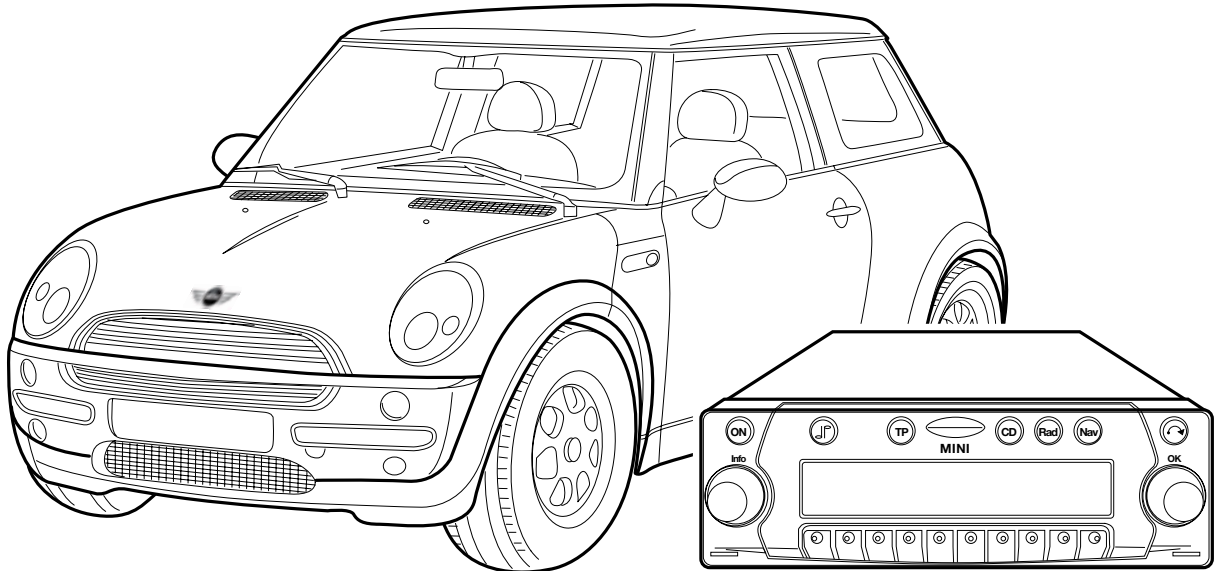




Parts and Accessories Installation Instructions



050 0077 B

Mini Traffic Pro installation kit (cars with Radio Wave only) Mini (R50/R53)

Technical and electrical knowledge required

The installation time is approx. 1.5 hours but this may vary depending on the condition of the car and the equipment in it.

Retrofit kit 65 90 0 027 973
 65 90 0 139 887

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1. Important information for the installation of the navigation radio

The navigation radio may only be installed by a specialist workshop that has the required special tools and manuals.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. Additional cables/lines that you install must be secured with cable ties.

All the figures show LHD cars, proceed in exactly the same way on RHD cars.

Item numbers refer only to the overview drawings and to the texts next to the appropriate figure.



The operating manual supplied with the kit is to be given to the vehicle keeper. ◀

Subject to technical modifications

Required tools and equipment

MoDIC III or DIS

Set of flat screwdrivers

Set of Philips screwdrivers

Angle drill

Pneumatic saw

Combination pliers

Angle cutter

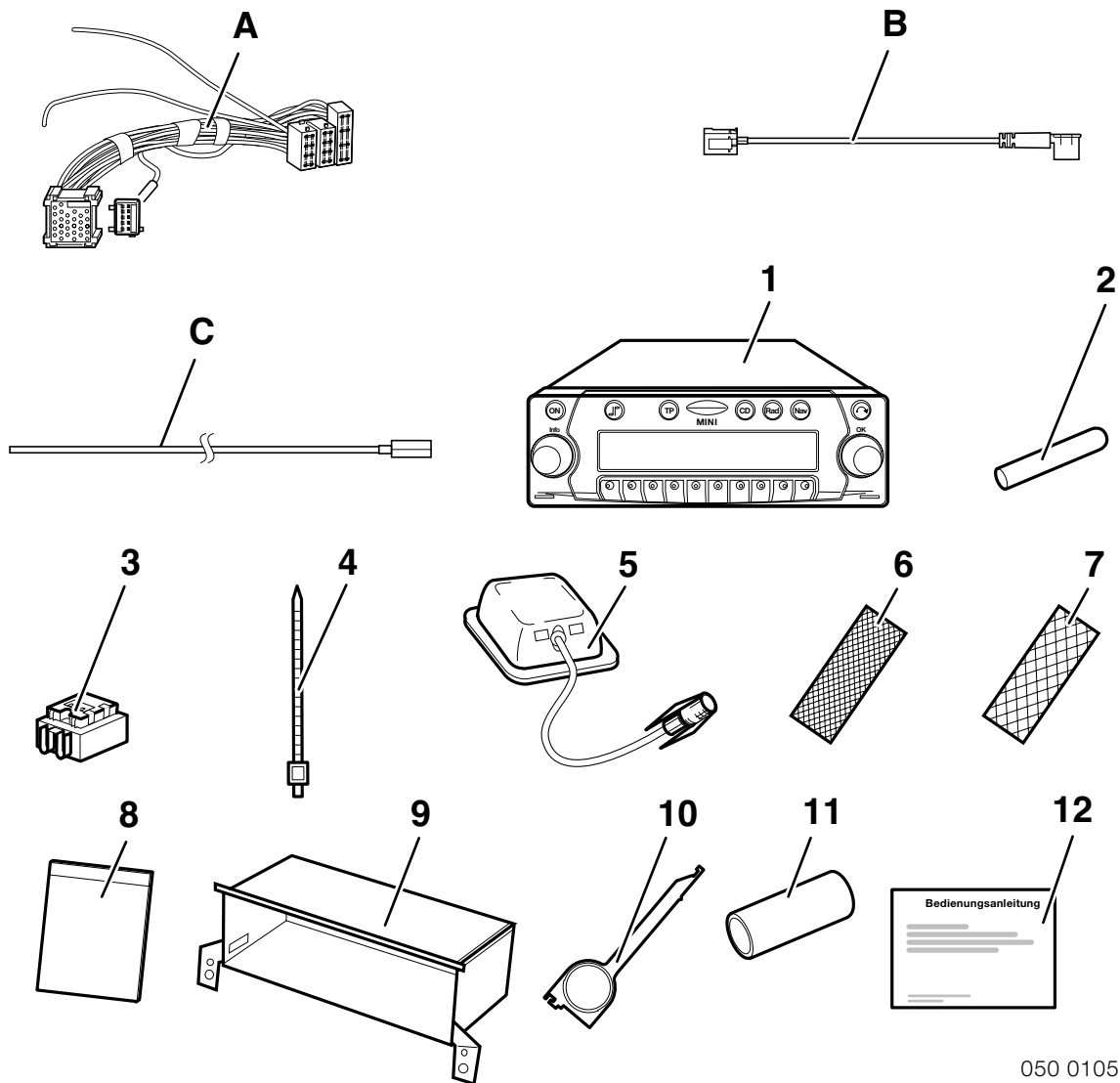
Cable lamp

Set of files

2. Preparations

| | TIS instruction No. |
|--|----------------------------|
| Print out error memory | --- |
| Disconnect the battery | 12 00 ... |
| Remove the top instrument panel cover | --- |
| Remove the cover on the passenger side | --- |
| Remove both down tubes | --- |
| Remove the radio | --- |
| Remove the front right door sill trims | --- |

3. Parts list

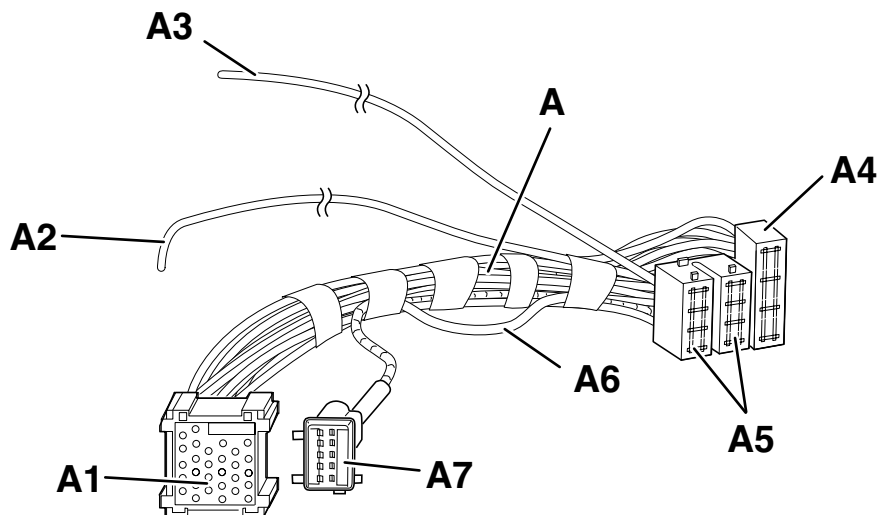


050 0105 B

Legend

- A Adapter cable
- B Aerial adapter
- C Tacho A extension
- 1 Navigation radio
- 2 Radio retaining pin
- 3 Double insulation-piercing connector (2x)
- 4 Cable tie (8x)
- 5 GPS aerial
- 6 Hook type Velcro strip*
- 7 Fleece type Velcro strip*
- 8 Rattle guard (2x)
- 9 Radio installation frame
- 10 Installation clip (2x)
- 11 Shrink hose
- 12 Owner's manual

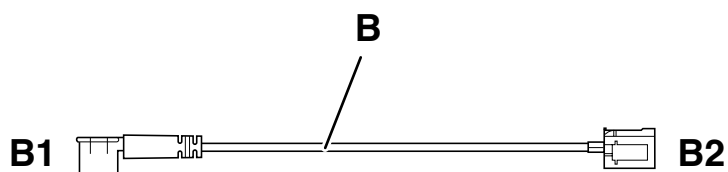
4. Adapter cable connection diagram



050 0106 B

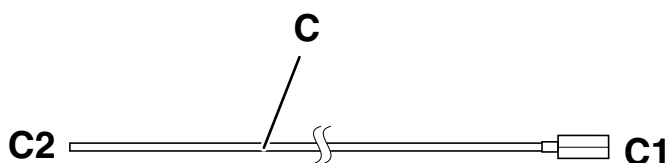
| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|----------------------------|--------------------------|------------------------------|---|---------------------|
| A | Adapter cable | --- | --- | --- | --- |
| A1 | 17-pin black plug casing | --- | --- | To black 17-pin socket casing in the centre console | X18126 |
| A2 | Open cable end | Reversing light terminal | BL/GE | To the supply cable, near the front right door sill using an insulation-piercing connector (3) (check that the signal is present) | --- |
| A3 | Open cable end | Tacho A signal | SW/WS | To open cable end C2 on the tacho A extension using an insulation-piercing connector | --- |
| A4 | 20-pin red socket casing | --- | --- | To the navigation radio in the centre console | --- |
| A5 | 16-pin black socket casing | --- | --- | To the navigation radio in the centre console | --- |
| A6 | Coding loop | --- | GE | Not to be changed | --- |
| A7 | 10-pin plug casing | --- | --- | To socket casing X13321 for the CD changer, insulate and tie back if the car has no CD changer | --- |

4. Adapter cable connection diagram



050 0100 B

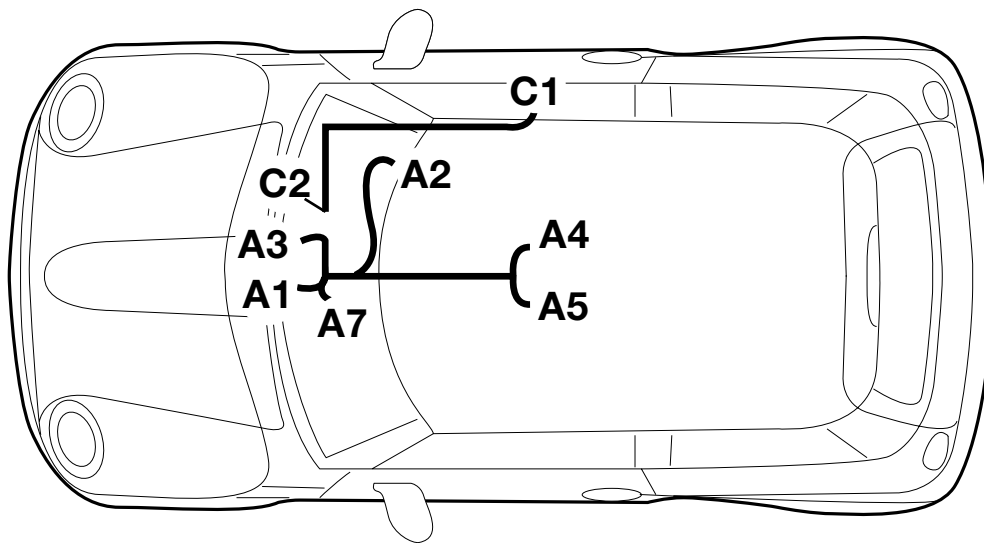
| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|---------------------------|--------|------------------------------|--|---------------------|
| B | Aerial adapter | --- | --- | --- | --- |
| B1 | Coaxial plug casing | --- | --- | To the navigation radio in the centre console | --- |
| B2 | Fakra coaxial plug casing | --- | --- | To coaxial Fakra aerial plug in the centre console | --- |



050 0101 B

| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|-------------------|----------------|------------------------------|--|---------------------|
| C | Tacho A extension | Tacho A signal | SW/WS | --- | --- |
| C1 | Plug contact | Tacho A signal | SW/WS | To DFAHR joint connector on the front right door sill | X10186 |
| C2 | Open cable end | Tacho A signal | SW/WS | To open cable end A3 on the adapter cable using an insulation-piercing connector | --- |

5. Installation and cabling diagram



050 0107 B

All the wiring harnesses are to be laid along the main wiring harness as shown in the figure and secured with cable ties.

Branch **A1** to the radio plug **X18126**.

Branch **A2** to the standard wiring harness near the A pillar on the right

Branch **A3** to branch **C2**

Branches **A4** and **A5** to the navigation radio

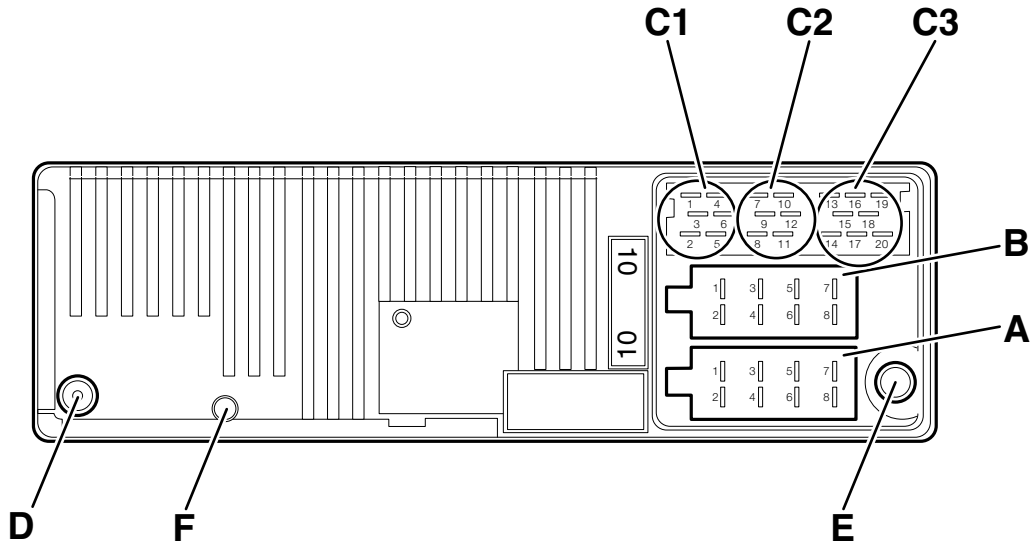
Branch **A7** to socket casing **X13321**

Branch **C1** to joint connector **X10186**

Branch **C2** to branch **A3**

Tie back any excess lengths.

6. Navigation radio connection diagram



050 0102 B

Legend

Chamber A

- 1 Speed signal (TAA)
- 2 Signal from reversing light
- 3 Telephone mute
- 4 Continuous positive (terminal 30)
- 5 Control output for automatic aerial/amplifier
- 6 Light (terminal 58G)
- 7 Switched positive (terminal 15)
- 8 Earth (terminal 31)

Chamber B

- 1 Speaker rear right+
- 2 Speaker rear right-
- 3 Speaker front right+
- 4 Speaker front right-
- 5 Speaker front left+
- 6 Speaker front left-
- 7 Speaker rear left+
- 8 Speaker rear left-

Chamber C1

- 1 LineOut rear left
- 2 LineOut rear right
- 3 Low frequency earth
- 4 LineOut front left
- 5 LineOut front right
- 6 Subwoofer LineOut

Chamber C2

- 7-12 Specific connection for CD changer

Chamber C3

- 13 Low frequency telephone input
- 14 Earth telephone input
- 15-17 Specific connection for CD changer
- 18 CD low frequency earth (AUX)
- 19 CD low frequency left (AUX)
- 20 CD low frequency right (AUX)

Jack D

Radio aerial jack

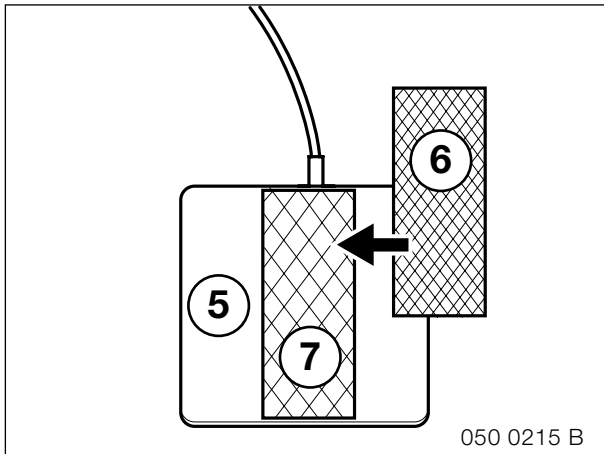
Jack E

GPS aerial jack

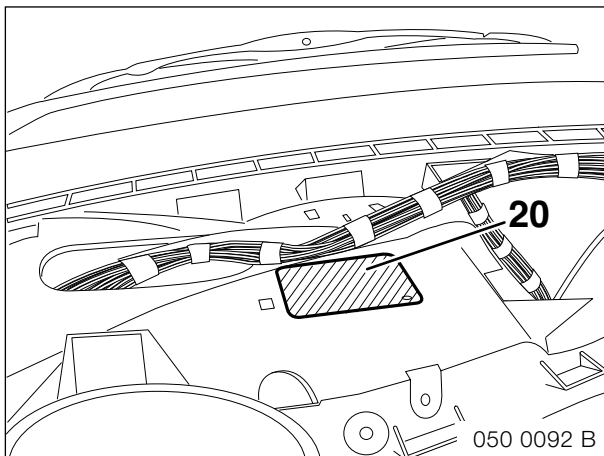
Jack F

Aerial diversity connection

7. To install the GPS aerial (LHD cars only)

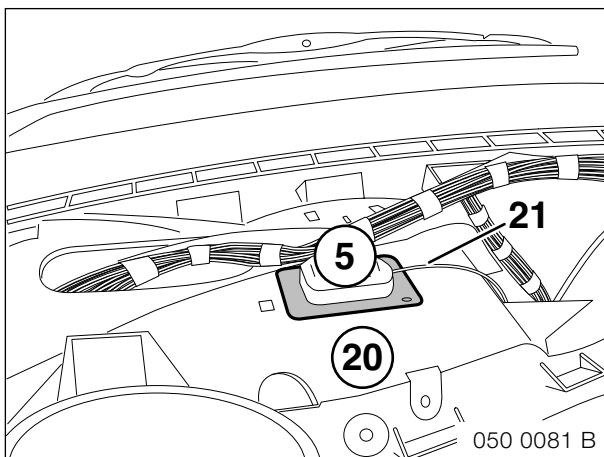


Affix the Velcro fleece strip (7) on to the centre of the GPS aerial (5).
Press the Velcro hook strip (6) on to the Velcro fleece strip (7) affixed to the GPS aerial (5).



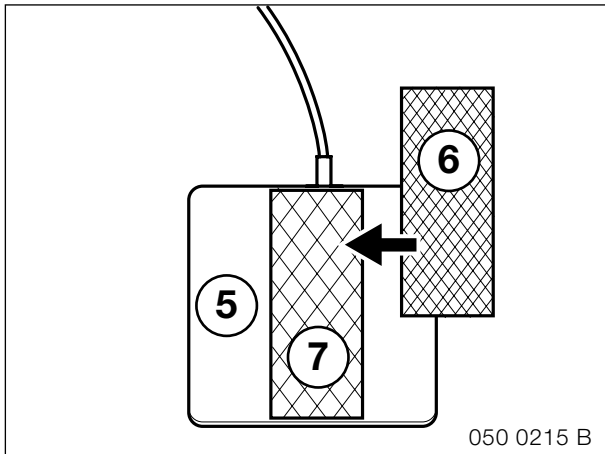
The figure shows the installation space under the top instrument panel cover. ◀

Clean and degrease the hatches areas (20).

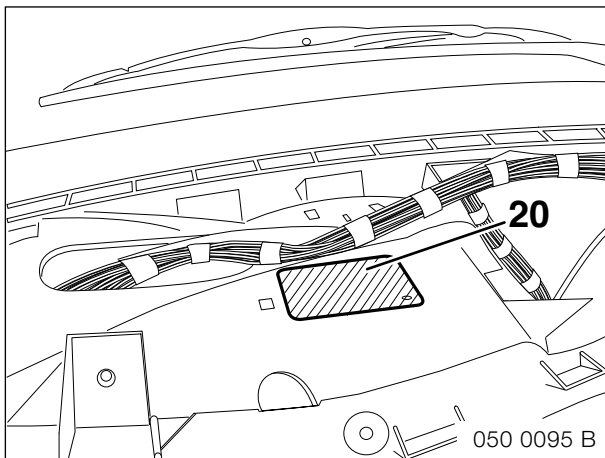


Affix the GPS aerial (5) to the instrument panel (20) using the Velcro strips.
Lay the aerial cable (21) along the standard wiring harness to the installation site of the radio and secure it with cable ties.

8. To install the GPS aerial (RHD cars only)

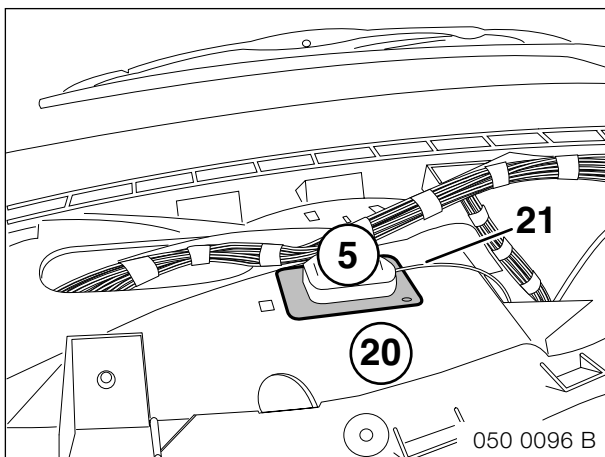


Affix the Velcro fleece strip (7) on to the centre of the GPS aerial (5).
Press the Velcro hook strip (6) on to the Velcro fleece strip (7) affixed to the GPS aerial (5).



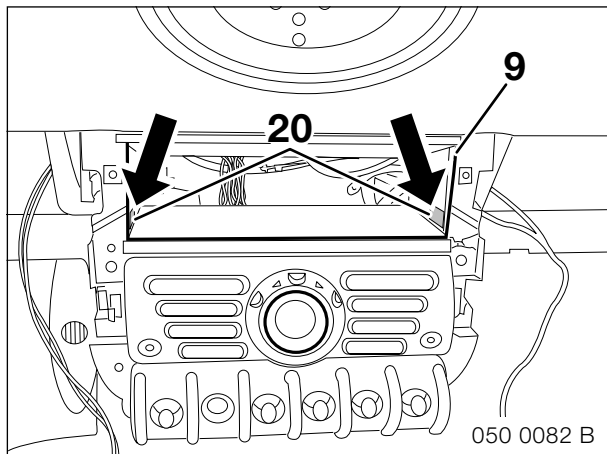
The figure shows the installation space under the top instrument panel cover. ◀

Clean and degrease the hatches areas (20).

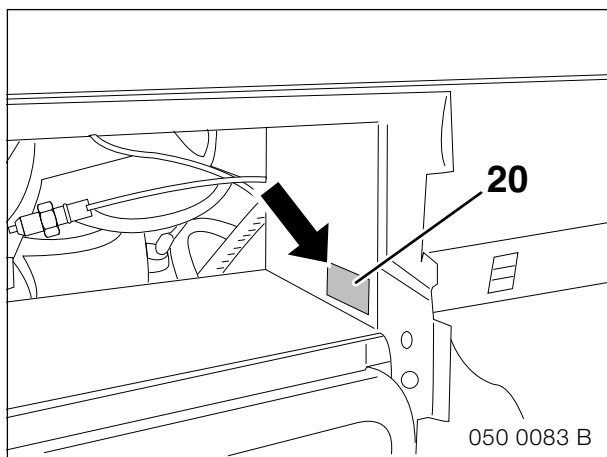



Affix the GPS aerial (5) to the instrument panel (20) using the Velcro strips.
Lay the aerial cable (21) along the standard wiring harness to the installation site of the radio and secure it with cable ties.

9. To install the radio installation frame

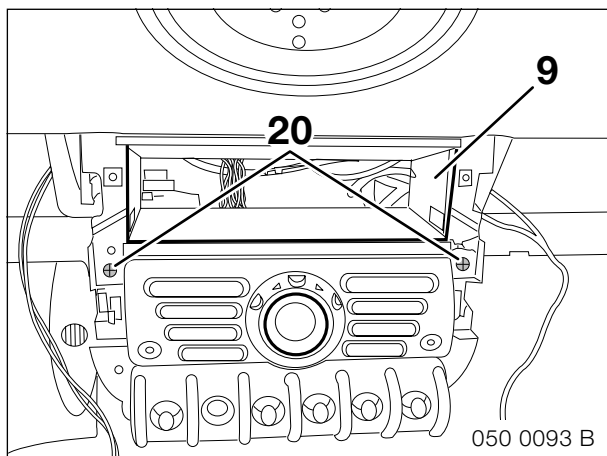


Push the radio installation frame (9) into the installation duct.
Mark the areas (20) marked with arrows using a scribe on the installation duct.
Remove the radio installation frame (9).



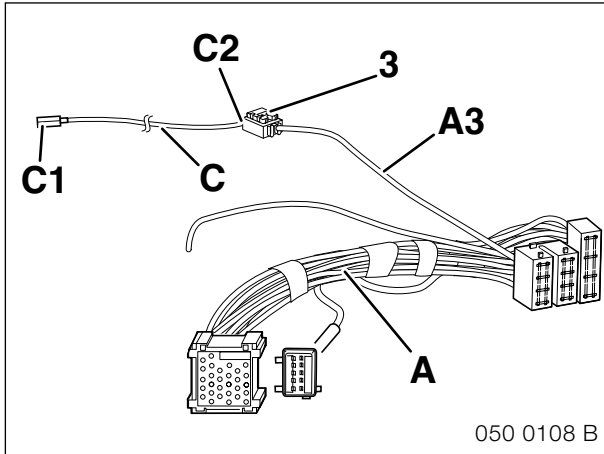
 The figure shows the right cut-out, proceed in exactly the same way on the left. ◀

Drill the marked areas (20) and cut them out with a pneumatic saw.

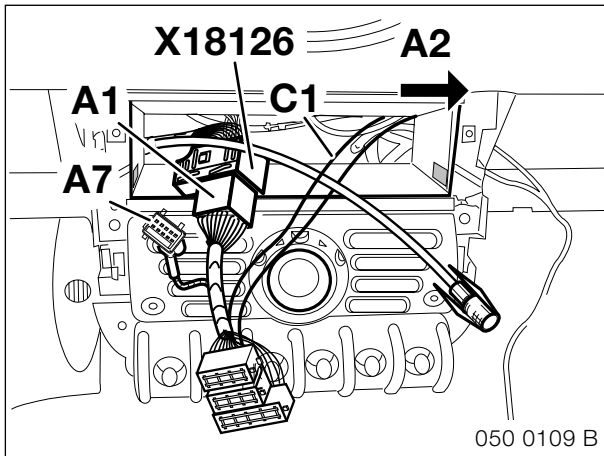


Insert the radio installation frame (9) and secure it with the existing Philips screws (20).

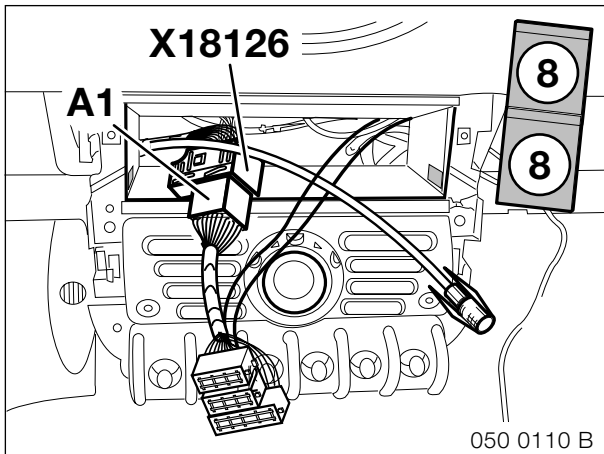
10. To install the adapter cable and connect the navigation radio (without a CD changer)



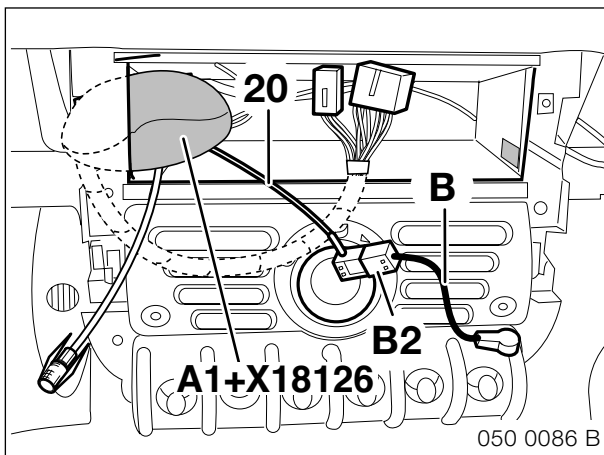
Connect the open cable end **C2**, on adapter cable **C** to the open cable end **A3**, black/white cable, on adapter **A** using an insulation-piercing connector (3).



Connect branch **A1** to the radio plug **X18126**. Lay branch **A2**, open cable end, blue/yellow cable, along the standard wiring harness to the A pillar at the front right and secure it with cable ties. Lay branch **C1** along the standard wiring harness first to the A pillar at the front left and then to the right door sill and secure it with cable ties. Tie back and insulate branch **A7**.



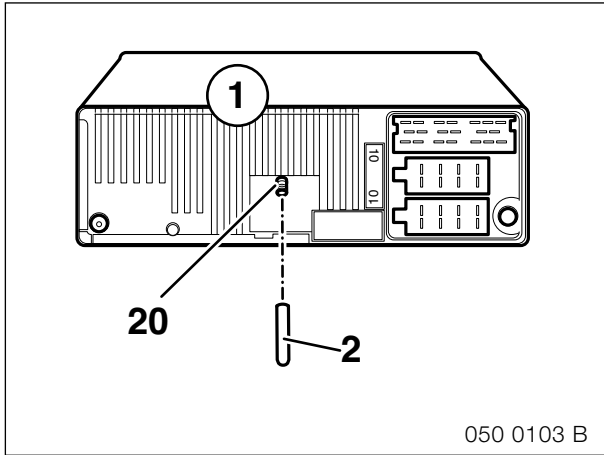
Affix a rattle guard (8) to the second rattle guard (8) and then affix them to the wiring harness so that the plug connector **A1** and **X18126** is wrapped in them.



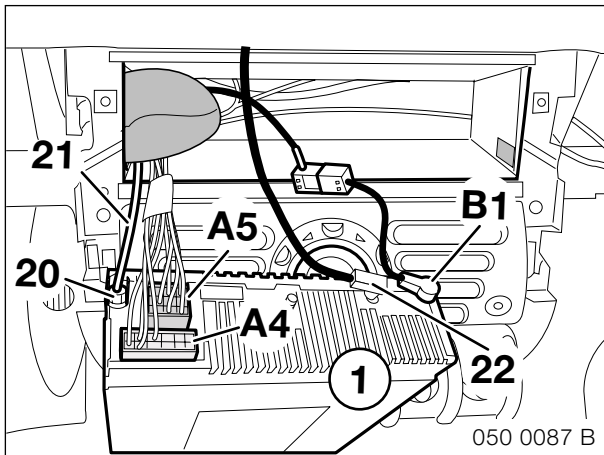
▶ Lay the wrapped plug connector **A1+X18126** behind the heating control so as to enable you to install the navigation radio. ◀

Connect branch **B2**, coaxial Fakra plug casing on the aerial adapter **B** to the existing aerial cable (30).

10. To install the adapter cable and connect the navigation radio (without a CD changer)

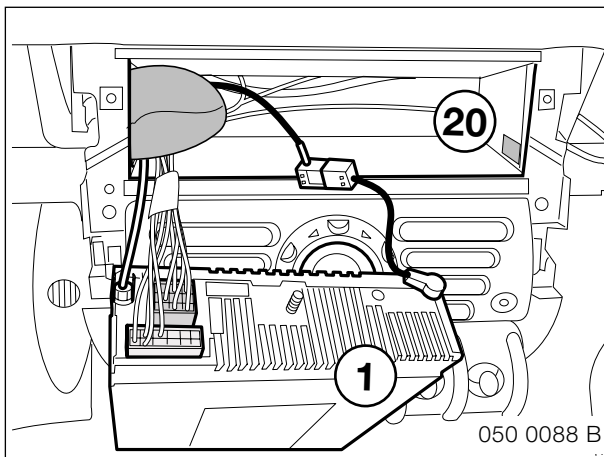


Screw the radio retaining pin (2) on to the stud bolt (20) on the navigation radio (1).



Connect branch **A5**, black 16-pin socket casing, to the navigation radio (1).
 Connect branch **A4**, red 20-pin socket casing, to the navigation radio (1).
 Connect branch **B1** to the radio aerial input.
 Connect the coaxial plug (20) on the GPS aerial cable (21) to the navigation radio (1).

▶ The coaxial aerial plug (22) must be connected on cars with aerial diversity. ◀

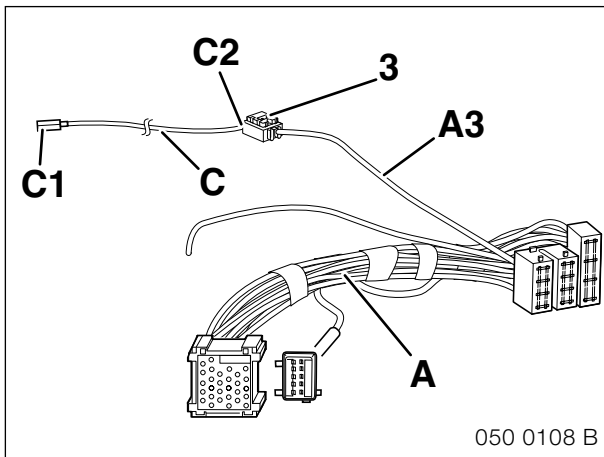


▶ Refer to the information for securing the navigation radio in the operating instructions in the section headed "Installation/Removal instructions". ◀

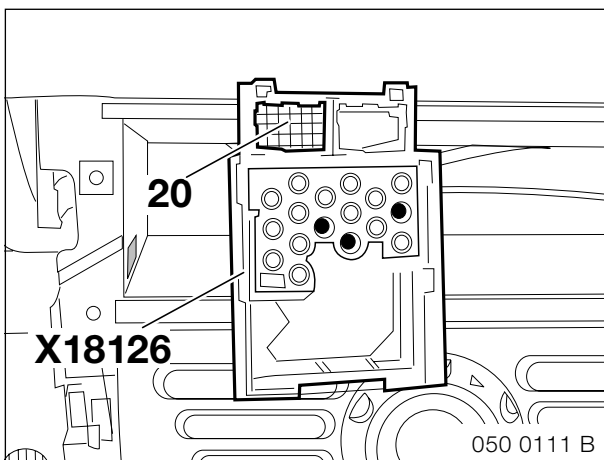
▶ As you slide in the navigation radio, ensure that you do not jam or damage any of the cables. ◀

Carefully slide the connected navigation radio (1) into the radio shaft (20) and secure it with the existing slides.

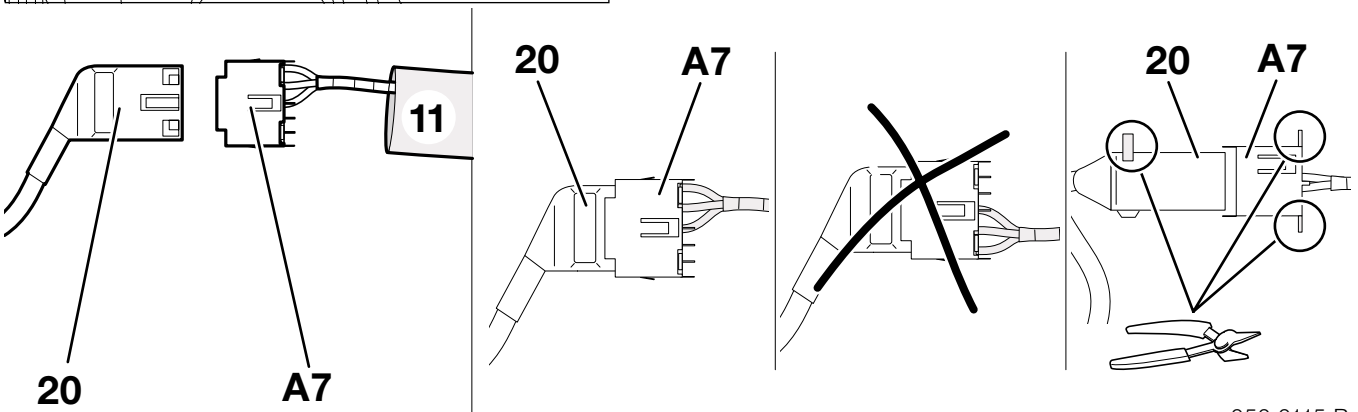
11. To install the adapter cable and connect the navigation radio (with a CD changer)



Connect the open cable end **C2**, on adapter cable **C** to the open cable end **A3**, black/white cable, on adapter **A** using an insulation-piercing connector (3).



Disconnect the 10-pin silver socket casing (20) on the CD changer plug from the black 17-pin socket casing **X18126**.



▶ As you connect the 10-pin silver plug casing (20) to branch **A7** ensure that it is correctly positioned (see figure). ◀

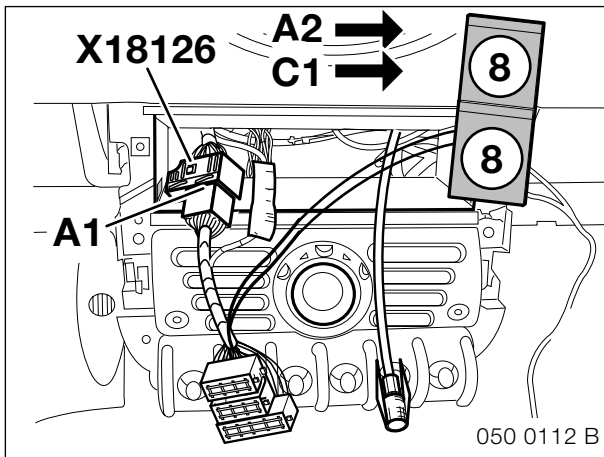
Push the shrink hose (11) over branch **A7**, silver 10-pin plug casing on adapter cable **A**, and connect the silver 10-pin socket casing (20) to the CD changer control cable.

▶ There must be no sharp edges or corners on plug connection **A7** and (20). ◀

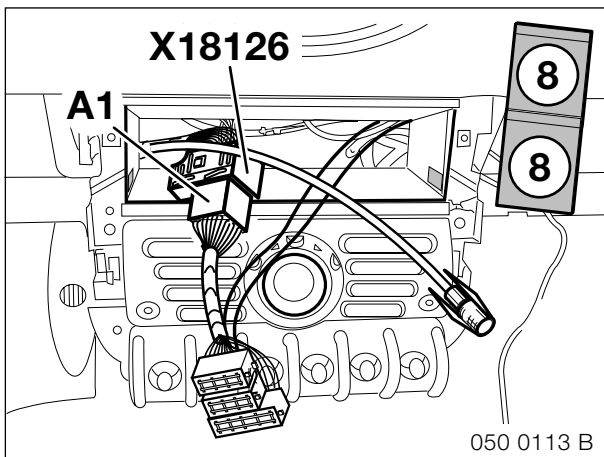
All sharp metal and plastic detents are to be removed from plug connection **A7**+(20) using an angle cutter.

Push the shrink hose (11) over the plug connection **A7** and (20) and shrink it using a hot air blower.

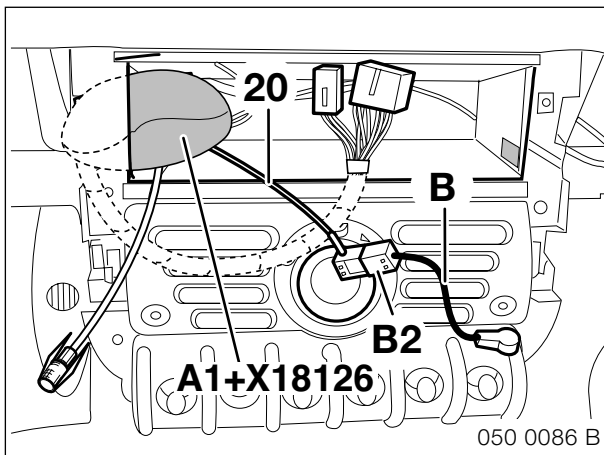
11. To install the adapter cable and connect the navigation radio (with a CD changer)



Connect branch **A1** to the radio plug **X18126**. Lay branch **A2**, open cable end, blue/yellow cable, along the standard wiring harness to the A pillar at the front right and secure it with cable ties. Lay branch **C1** along the standard wiring harness first to the A pillar at the front left and then to the right door sill and secure it with cable ties.



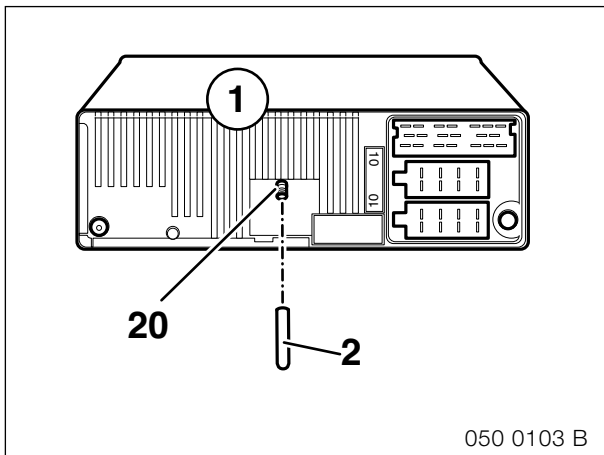
Affix a rattle guard (8) to the second rattle guard (8) and then affix them to the wiring harness so that the plug connector **A1** and **X18126** is wrapped in them.



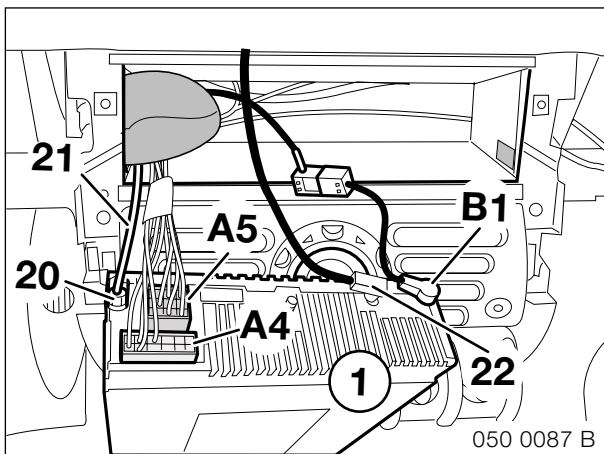
Lay the wrapped plug connector **A1+X18126** behind the heating control so as to enable you to install the navigation radio. ◀

Connect branch **B2**, coaxial Fakra plug casing on the aerial adapter **B** to the existing aerial cable (30).

11. To install the adapter cable and connect the navigation radio (with a CD changer)

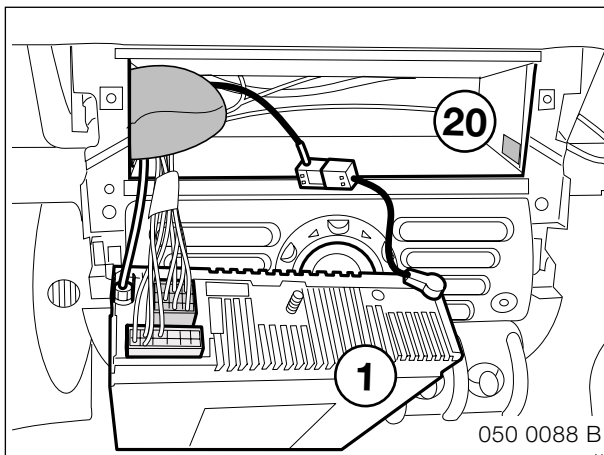


Screw the radio retaining pin (2) on to the stud bolt (20) on the navigation radio (1).



Connect branch **A5**, black 16-pin socket casing, to the navigation radio (1).
 Connect branch **A4**, red 20-pin socket casing, to the navigation radio (1).
 Connect branch **B1** to the radio aerial input.
 Connect the coaxial plug (20) on the GPS aerial cable (21) to the navigation radio (1).

▶ The coaxial aerial plug (22) must be connected on cars with aerial diversity. ◀

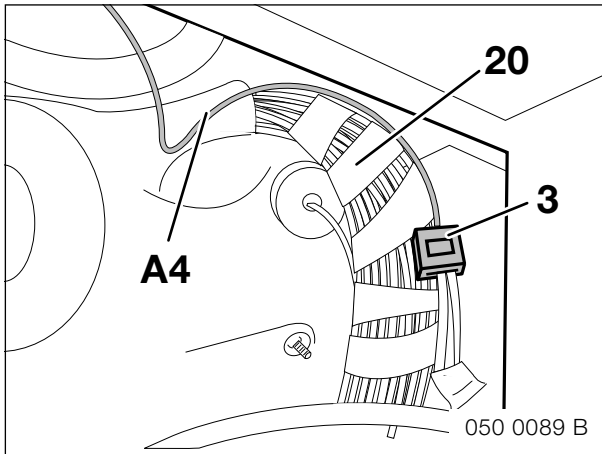


▶ Refer to the information for securing the navigation radio in the operating instructions in the section headed "Installation/Removal instructions". ◀

▶ As you slide in the navigation radio, ensure that you do not jam or damage any of the cables. ◀

Carefully slide the connected navigation radio (1) into the radio shaft (20) and secure it with the existing slides.

12. To connect the reversing light signal

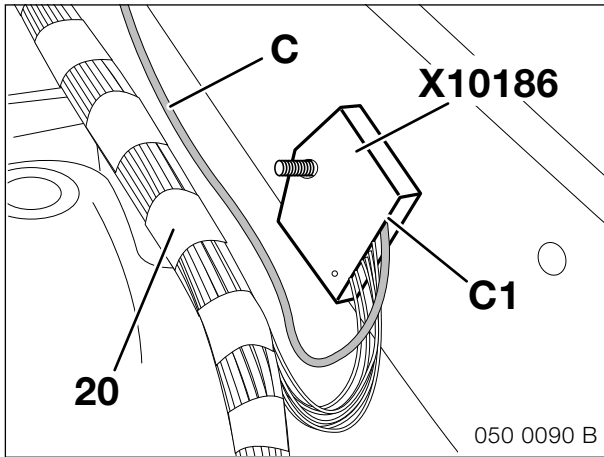



▶ The figure shows the standard wiring harness (20) on the A pillar at the front right. ◀

Since the standard wiring harness (20) contains several blue/yellow cables, check whether the reversing light signal is present.

Connect the open cable end **A4**, blue/yellow cable, to the reversing signal cable, blue/yellow cable, on the standard wiring harness (20) using an insulation-piercing connector (3).

13. To connect the tacho A signal



 The figure shows the main wiring harness (20) at the door sill on the right. ◀

Connect branch **C1** on the tacho A extension **C** to joint connector DFAHR signal **X10186** in the free slot.

If there is no free slot, cut off plug contact **C1** and connect it to one of the green/black DFAHR signal cables using an insulation-piercing connector (3).

14. Coding

This system is not diagnostics-capable and must not be coded.

15. Concluding work

Connect battery

Complete the commissioning process

Reassemble the car by following the instructions for its dismantling in reverse order

Print out error memory

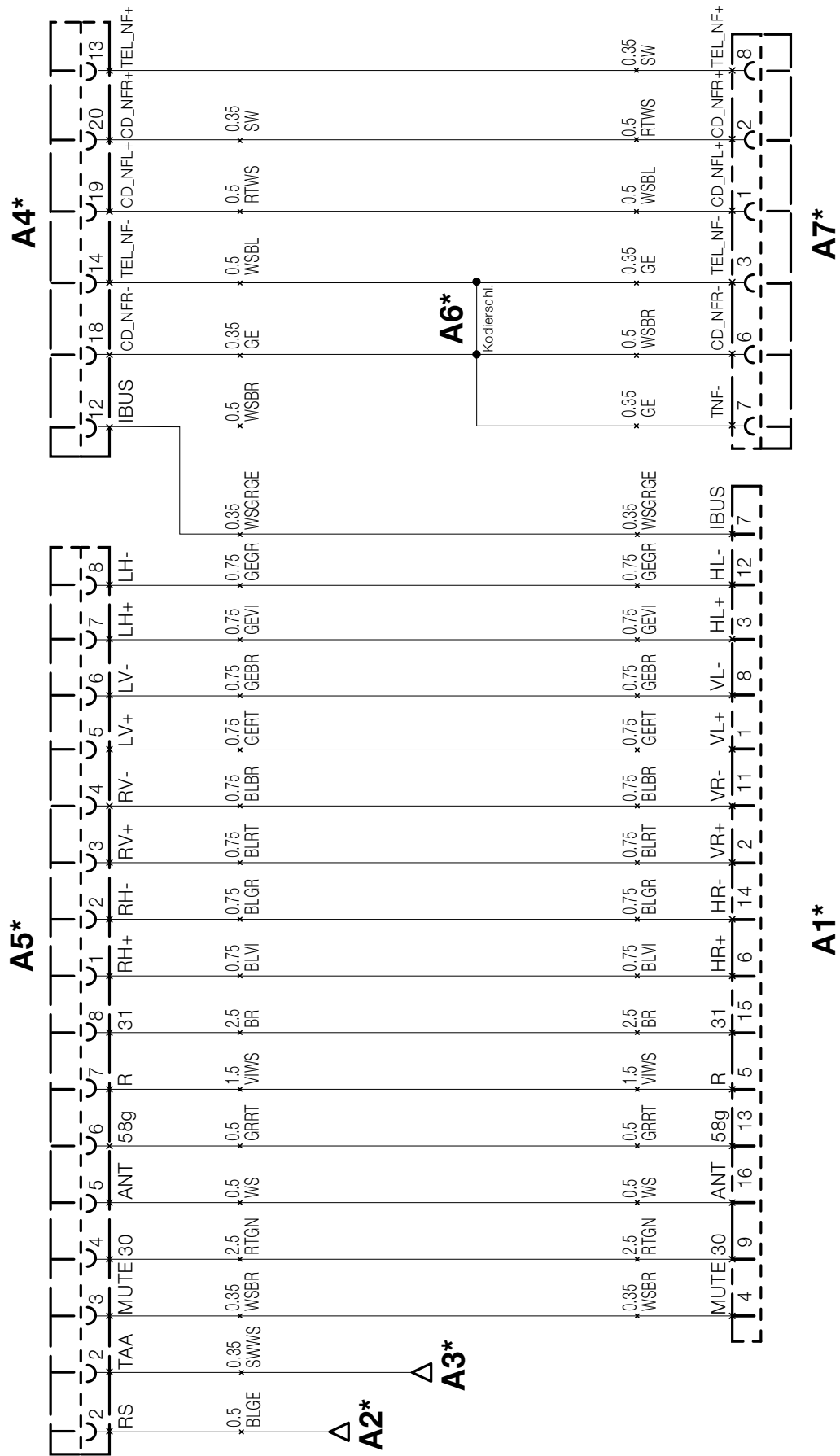
16. Language selection and commissioning

See enclosed **BMW Traffic Pro operating instructions**

17. Owner's manual

See enclosed **BMW Traffic Pro operating instructions**

18. Adapter wiring harness circuit diagram



050 0114 B

18. Adapter wiring harness circuit diagram

Legend

| | |
|------------|---|
| A1* | 17-pin black plug casing |
| A5* | 16-pin black socket casing (chambers A+B) |
| A2* | Open cable end (reversing light terminal) |
| A3* | Open cable end (tacho A signal) |
| A6* | Yellow coding loop (not required) |
| A7* | 10-pin plug casing |
| A4* | 20-pin red socket casing |

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

Cable colours

| | |
|----|----------|
| RT | = red |
| SW | = black |
| GN | = green |
| BR | = brown |
| GE | = yellow |
| WS | = white |
| VI | = violet |
| GR | = grey |
| BL | = blue |