

Parts and Accessories. Installation Instructions.



Digital POWER Sound Module retrofit

MINI ONE (R 50)

MINI COOPER (R 50)

MINI COOPER S (R 53)

The retrofit kit is only suitable for cars with a Booster radio (SA 657).

Retrofit kit No. 82 83 0 392 529

Installation time

The installation time is 5.0 hours, but this may vary depending on the condition of the car and the equipment in it.

Important information

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

In any event the target group for these installation instructions is specialist personnel trained on MINI cars with the appropriate specialist knowledge.

All work must be completed using the latest MINI 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.

To avoid unnecessary extra work and/or costs, if any installation or function problems occur, after a brief troubleshooting session (approx. 0.5 hours), an inquiry is to be sent straight away to the technical parts support via the Aftersales Assistance Portal (ASAP), quoting the chassis number, the part number of the retrofit kit and a precise description of the problem.

Do not archive the hard copy of these installation instructions since daily updates are made by Aftersales Portal.

See ASAP for details of the pictograms.

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

Pictograms



denotes instructions that draw your attention to special features.

◀ denotes the end of the instruction or other text.

Subject to technical modifications.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. The costs incurred as a result of this will not be reimbursed by BMW AG.

Additional cables/lines that you install must be secured with cable ties.

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

Deburr holes and treat them with anti-corrosive coatings as set out in BMW directives to protect them from corrosion.

Installation information

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

List of special equipment

The following special equipment must be taken into consideration when installing the retrofit kit:

SA 657 Boost radio

SA 672 CD changer

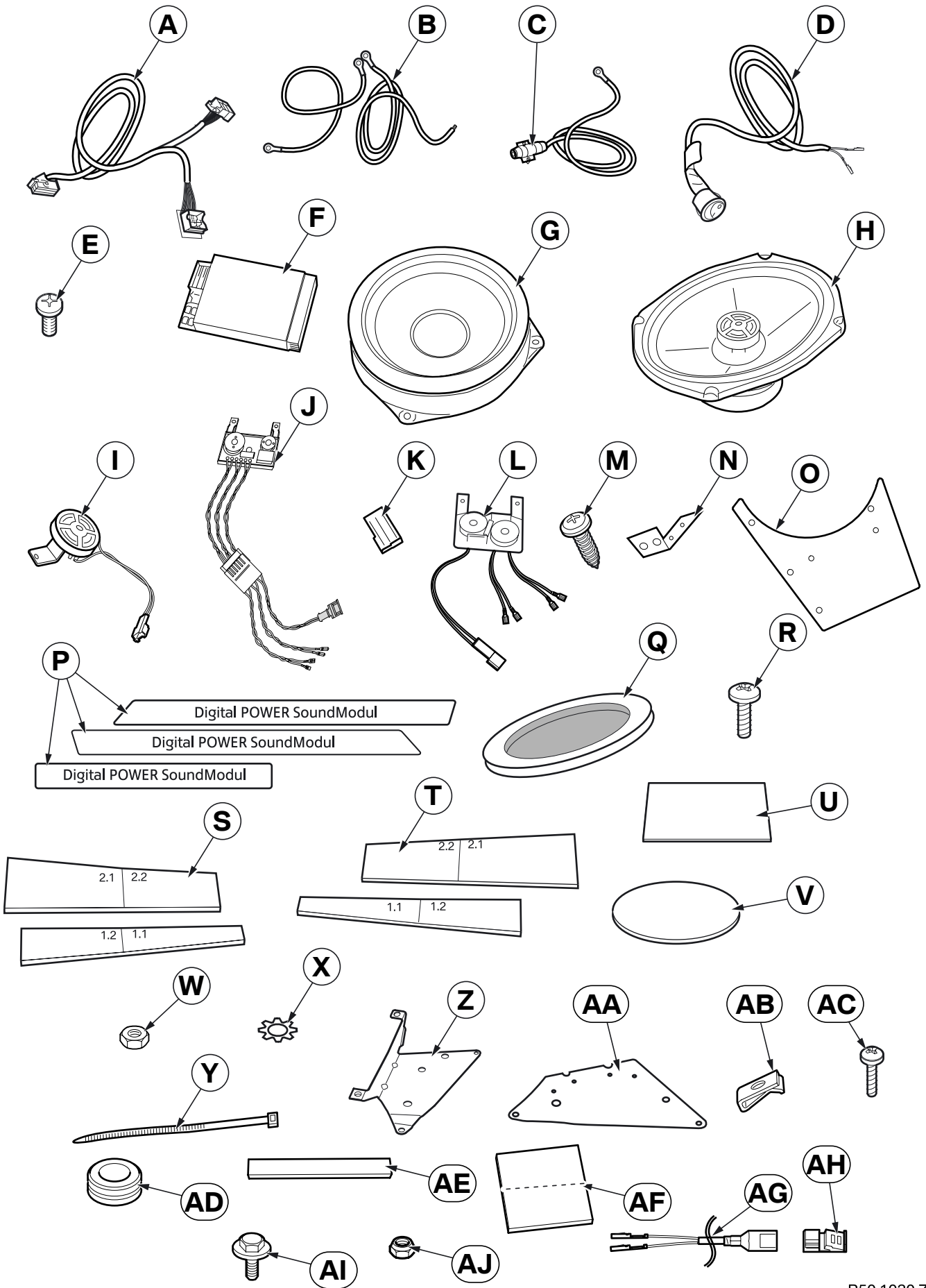
Special tools required

None

Contents

Section	Page
1. Parts list.....	4
2. Preparations.....	6
3. Frequency switch connection diagram.....	7
4. Wiring harness connection diagram.....	9
5. Installation and cabling diagram.....	11
6. To install the wiring harness and DPSM amplifier.....	13
7. To install the set of insulation mats.....	17
8. To install the frequency switch and front speakers.....	18
9. To install the frequency switch and rear speakers.....	20
10. To affix the adhesive stickers.....	21
11. Concluding work and coding.....	22
12. First use.....	23

1. Parts list



R50 1030 Z

1. Parts list

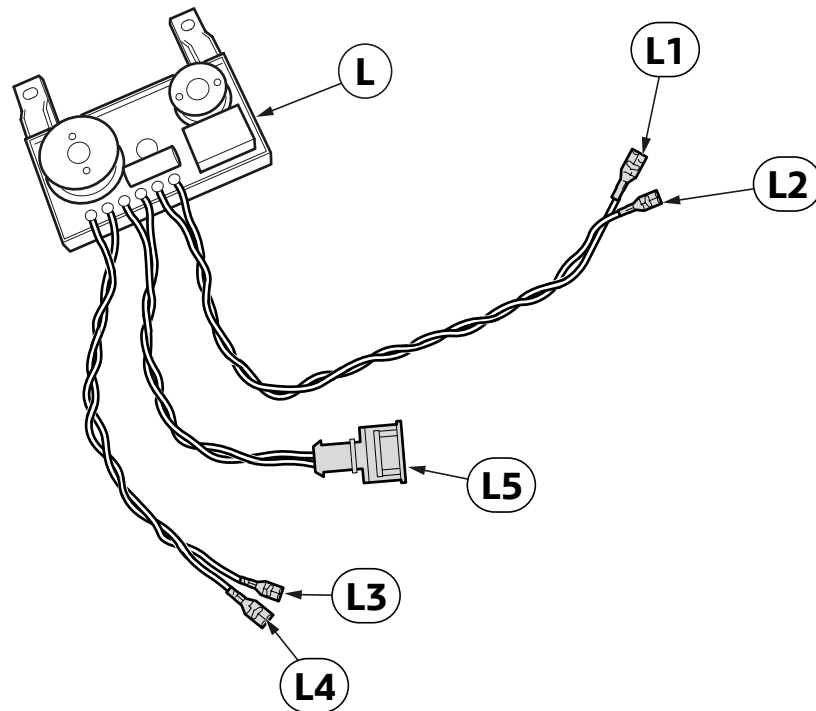
Legend

- A Adapter cable (radio/DPSM amplifier)
- B Voltage supply cable (terminal 30/31)
- C Fuse with cable
- D Surround sound switch
- E Fillister head screw M4 x 10 mm (2x)
- F DPSM amplifier
- G Front woofer (2x)
- H Coaxial rear speaker (2x)
- I Front tweeter (2x)
- J Front frequency switch (2x)
- K 2-pin plug casing (2x)
- L Rear frequency switch (2x)
- M Screw 4.2 x 16 mm (6x)
- N Fastening bracket (fuse)
- O Front frequency switch holding plate (2x)
- P Digital POWER Sound Module stickers
- Q Coaxial rear speaker seal (2x)
- R Screw M3 x 6 mm (4x)
- S Set of insulation mats for left-hand door
- T Set of insulation mats for right-hand door
- U Insulation mat for side section, left and right (2x)
- V Insulation mat for door trim, left and right (2x)
- W Hexagonal nut M4 (2x)
- X Toothed washer A4.3 (2x)
- Y Cable tie 200 x 3 mm (10x)
- Z Holder
- AA Template
- AB Speed nut 4.8 x 19-7-ZNS (2x)
- AC Fillister head self-tapping screw ST 4.2 x 16 mm (2x)
- AD Grommet (2x)
- AE Insulation strip (4x)
- AF Insulating panel
- AG Surround sound switch extension cable
- AH 2-pin socket casing
- AI Hexagonal screw with washer M5 x 12 mm (4x)
- AJ Hexagonal lock nut M5 (4x)

2. Preparations

	TIS No.
Error memory	---
Disconnect the battery	12 00 ...
The following components must be removed first of all	
Remove the radio	65 11 030
Remove the glove compartment	51 16 360
Remove the oddments box in instrument panel trim (on the driver's side)	51 16 392
Remove the door trim, left and right	51 41 000
Remove the side trim, left and right	51 43 002
Remove the front speaker	65 13 070
Remove the rear speaker	65 13 080
Remove the front tweeter	65 13 100
Rear seat fittings	52 20 070

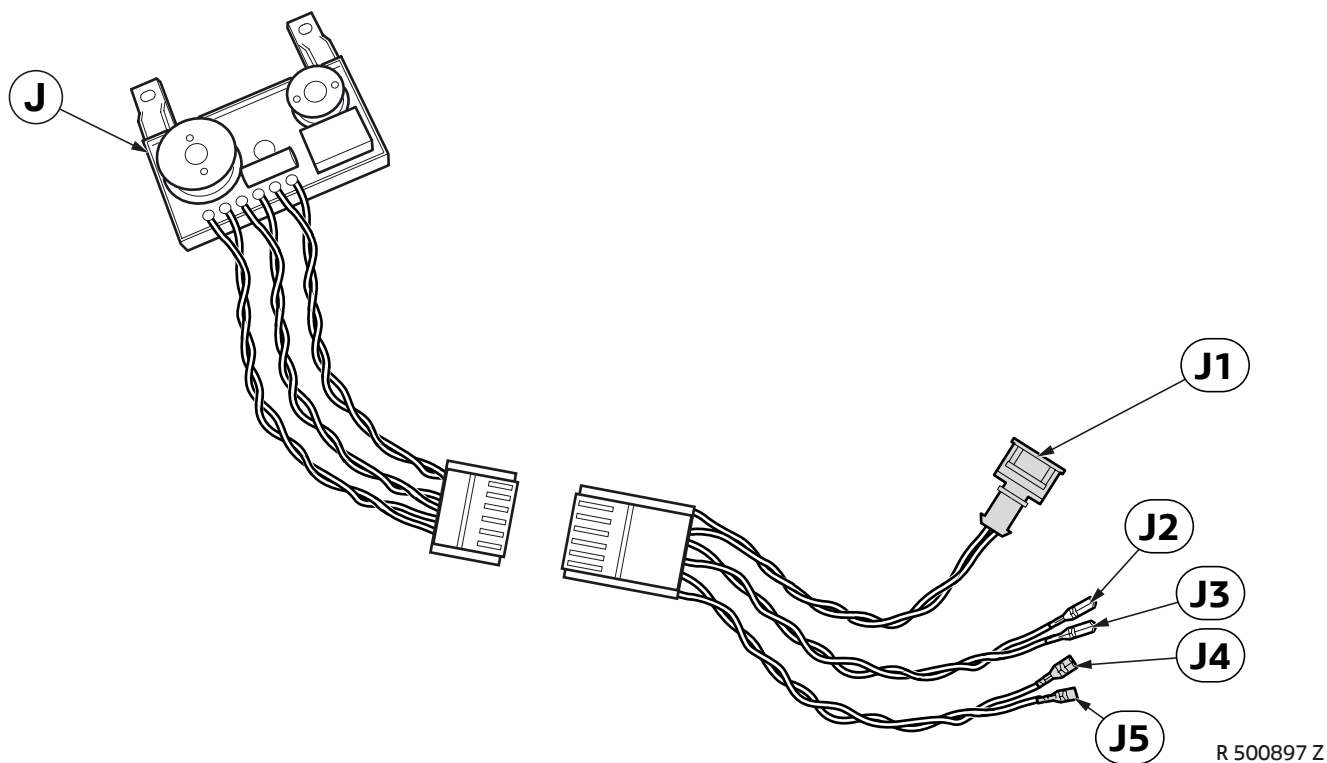
3. Frequency switch connection diagram



R 500901 Z

- L** **Rear frequency switch**
- L1** Connection contact 4.8 mm for rear tweeter, BL/RT cable
- L2** Connection contact 2.8 mm for rear tweeter, BL/GR cable
- L5** Frequency switch input connection plug
- L3** Connection contact 4.8 mm for rear woofer, BL/GR cable
- L4** Connection contact 6.3 mm for rear woofer, BL/RT cable

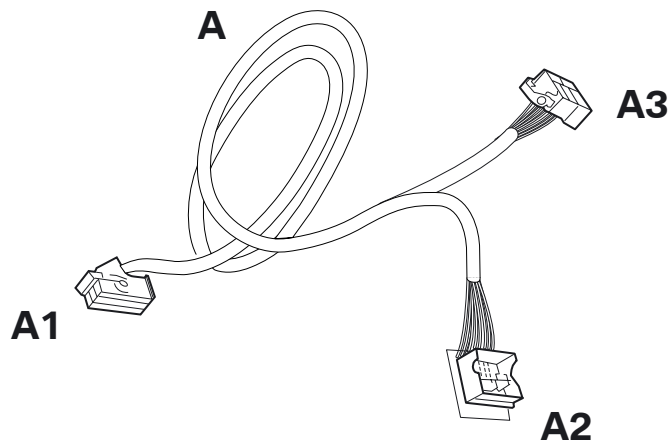
3. Frequency switch connection diagram



R 500897 Z

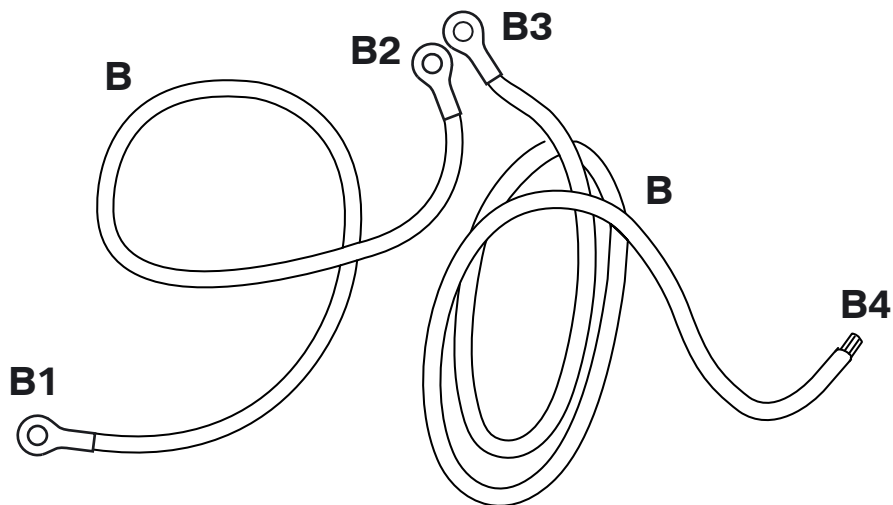
- J** Front frequency switch
- J1** Connection plug for tweeter
- J2** Connection contact for frequency switch input, BL/VI cable
- J3** Connection contact for frequency switch input, BL/GR cable
- J4** Connection contact 6.3 mm for front woofer, BL/GR cable
- J5** Connection contact 4.8 mm for front woofer, BL/VI cable

4. Wiring harness connection diagram



050 0444 B

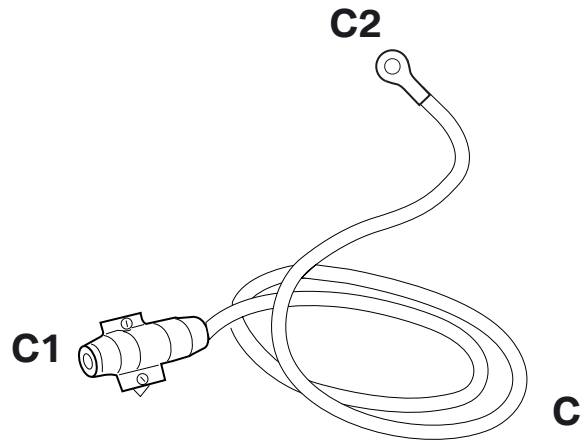
Branch	Description	Signals	Cable colours	Connection location in the car	Abbreviation/ Slot
A	Adapter cable	---	---	---	---
A1	42-pin socket casing	---	---	To DPSM amplifier F	---
A2	Plug casing	---	---	To radio connection plug	X9345
A3	Socket casing	---	---	To radio	---



050 0445 B

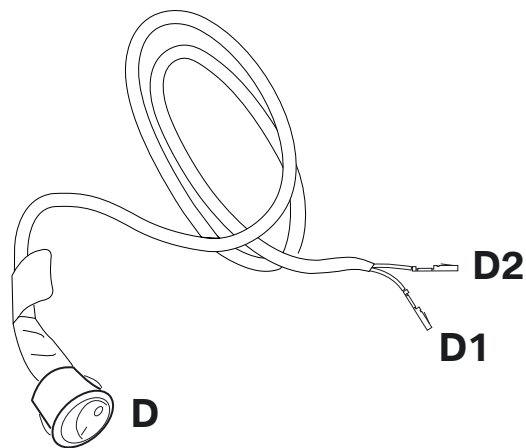
Branch	Description	Signals	Cable colours	Connection location in the car	Abbreviation/ Slot
B	Voltage supply cable	---	---	---	---
B1	Cable lug, 4.2 mm in diameter	Terminal 31	BR	To DPSM amplifier F	---
B2	Cable lug, 6 mm in diameter	Terminal 31	BR	To earth post	X494
B3	Cable lug, 4.2 mm in diameter	Terminal 30	RT	To DPSM amplifier F	---
B4	Open cable end	Terminal 30	RT	To fuse C1	---

4. Wiring harness connection diagram



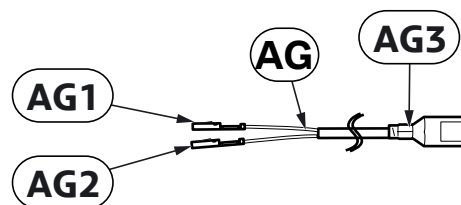
050 0446 B

Branch	Description	Signals	Cable colours	Connection location in the car	Abbreviation/Slot
C	Fuse with cable	---	---	---	---
C1	Fuse	Terminal 30	RT	To branch B4	---
C2	Cable lug, 6 mm in diameter	Terminal 30	RT	To car battery, terminal 30	---



050 0447 B

Branch	Description	Signals	Cable colours	Connection location in the car	Abbreviation/Slot
D	Surround sound switch	---	---	---	---
D1	1-pin socket contact	---	BR/SW	2-pin socket casing AH	PIN 2
D2	1-pin socket contact	---	GE/GR	2-pin socket casing AH	PIN 1

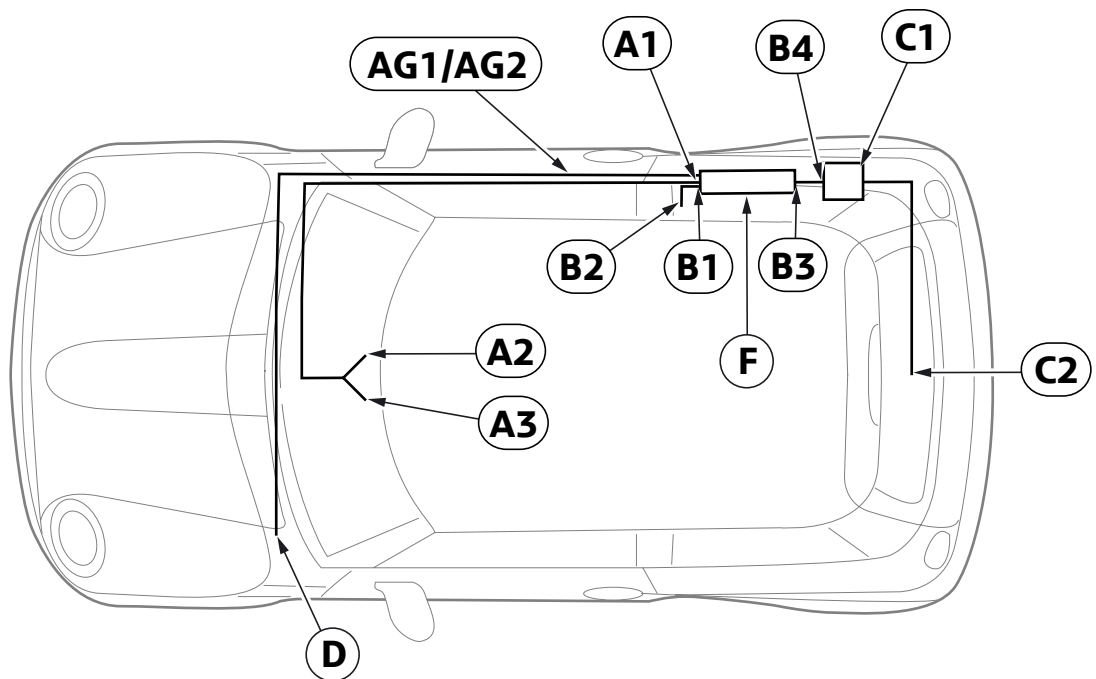


R50 1078 Z

Branch	Description	Signals	Cable colours	Connection location in the car	Abbreviation/Slot
AG	Surround sound switch extension cable	---	---	---	---
AG1	1-pin socket contact	---	BR/SW	42-pin socket casing A1	PIN 20
AG2	1-pin socket contact	---	GE/GR	42-pin socket casing A1	PIN 21
AG3	2-pin plug casing	---	---	2-pin socket casing AH	---

5. Installation and cabling diagram

MINI ONE Diesel and COOPER S



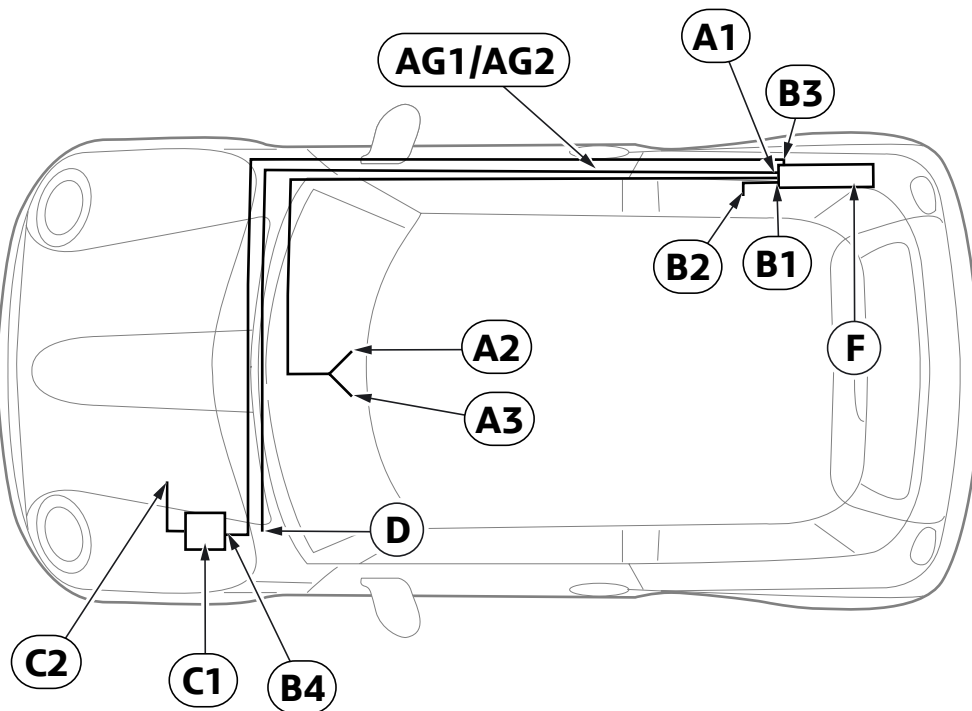
R 501024 Z

Legend

A1/B1/B3	To DPSM amplifier F
A2	To radio connection plug X9345
A3	To radio
B2	To earth post X494
B4	To fuse C1
C1	Fuse
C2	To car battery, terminal 30
D	Surround sound switch
F	DPSM amplifier
AG1/AG2	To 42-pin socket casing A1

5. Installation and cabling diagram

MINI ONE Petrol and COOPER

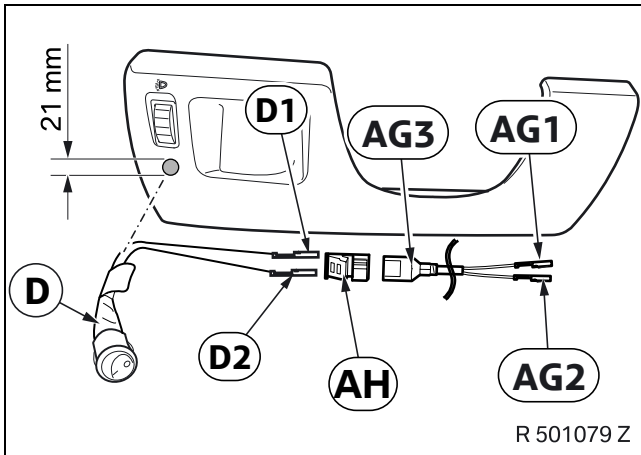


R 501025 Z

Legend

A1/B1/B3	To DPSM amplifier F
A2/A3	To radio connection plug X9345
B2	To earth post X494
B4	To fuse C1
C1	Fuse
C2	To car battery, terminal 30
D	Surround sound switch
F	DPSM amplifier
AG1/AG2	To 42-pin socket casing A1

6. To install the wiring harness and DPSM amplifier



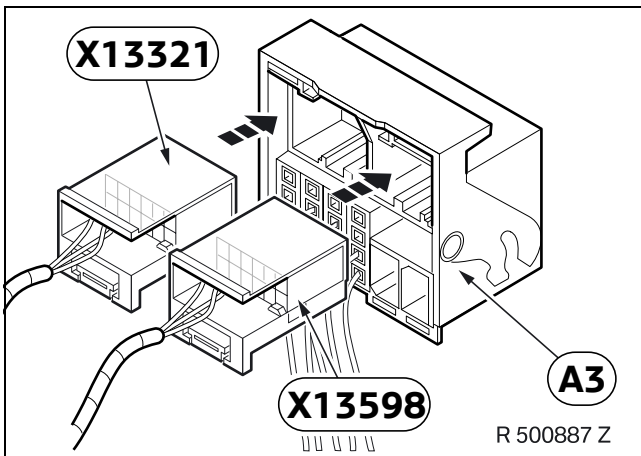
Drill a 21 mm hole in the oddments box

Secure the surround sound switch **D**.

Connect branches **D1** and **D2** to the 2-pin socket casing **AH**.

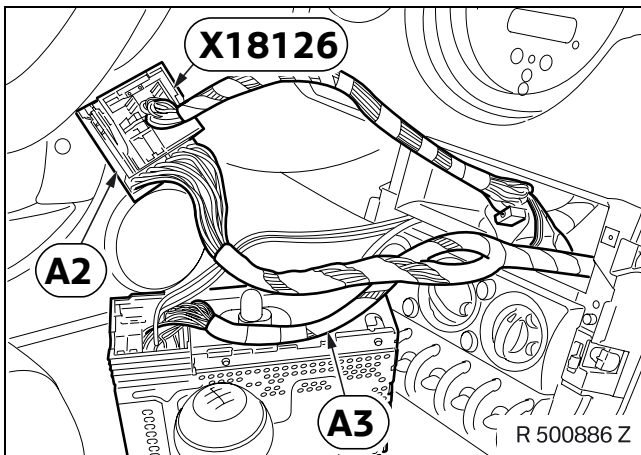
Connect socket casing **AH** to branch **AG3**

Route branches **AG1** and **AG2** to the installation site of the DPSM amplifier **F**.



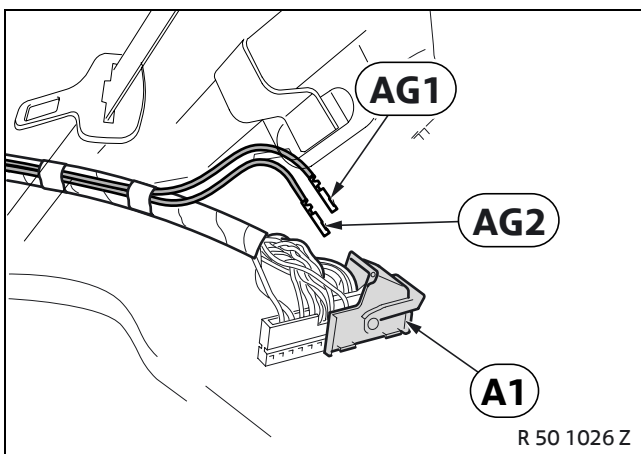
Cars with SA 672 or telephone only

Connect connection plug **X13321/X13598** to branch **A3**.



Connect branch **A2** to plug **X18126**.

Connect branch **A3** to the radio.

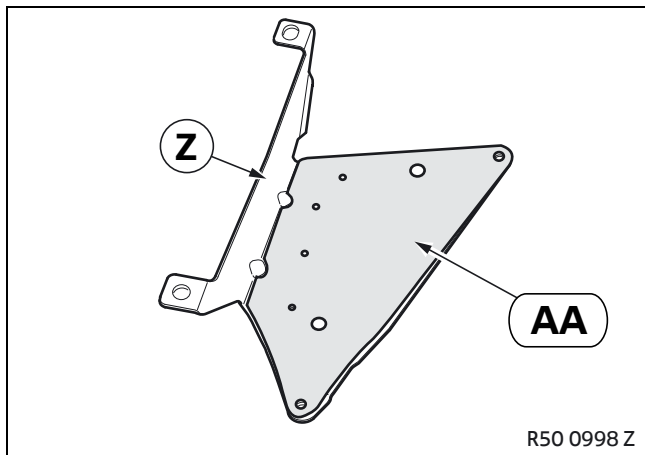


Route branch **A1** to the installation site of the DPSM amplifier **F**.

Connect branches **AG1** and **AG2** to branch **A1** as follows:

- **AG1**, BR/SW cable to PIN 20
- **AG2**, GE/GR cable to PIN 21

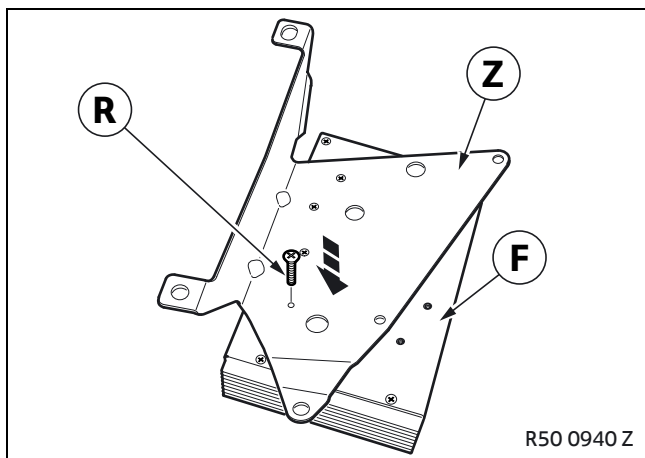
6. To install the wiring harness and amplifier



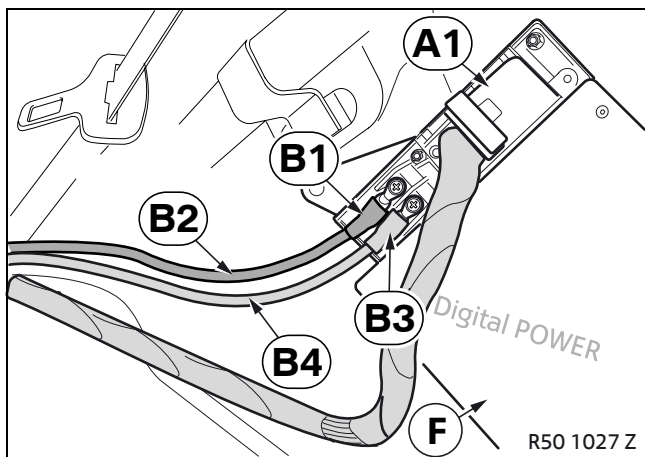
Place the drilling template **AA** on the holder **Z** and mark the holes.

Drill the holes using a 4 mm twist drill bit.

Countersink the holes on the inside of the holder.



Secure the DPSM amplifier **F** to the holder **Z** using the screws **R**.



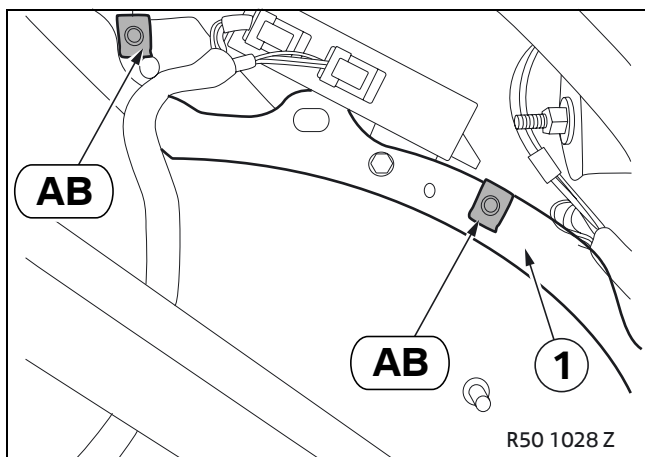
Connect branch **A1** to the DPSM amplifier **F**.

Connect branch **B1** to terminal 31.

Connect branch **B3** to terminal 30.

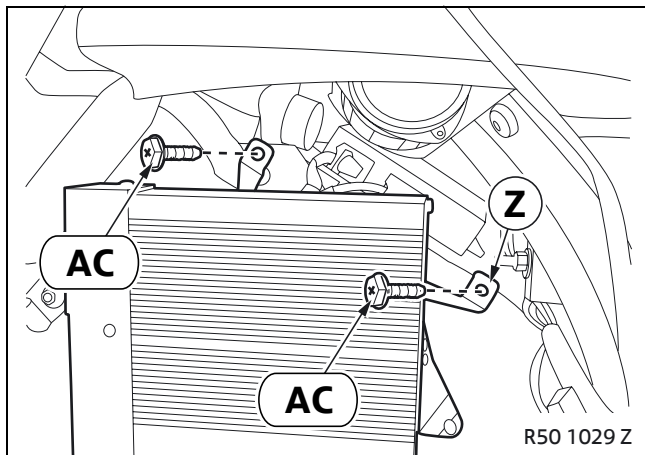
Route branch **B2** to earth post **X494**.

Route branch **B4** to the installation site of the battery.

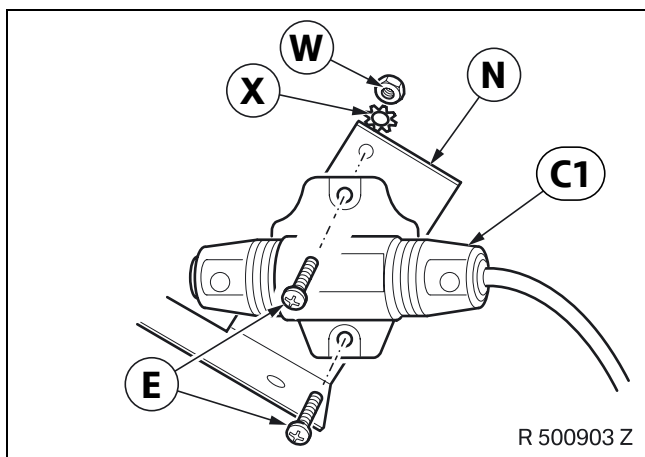


Fit the speed nuts **AB** to the holes on the body plate (1) in the boot at the rear right (behind the cover).

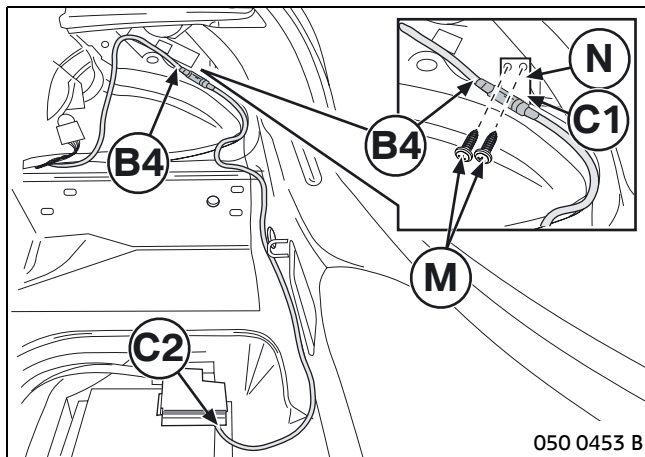
6. To install the wiring harness and amplifier



Secure the holder **Z** using speed nuts **AC**.



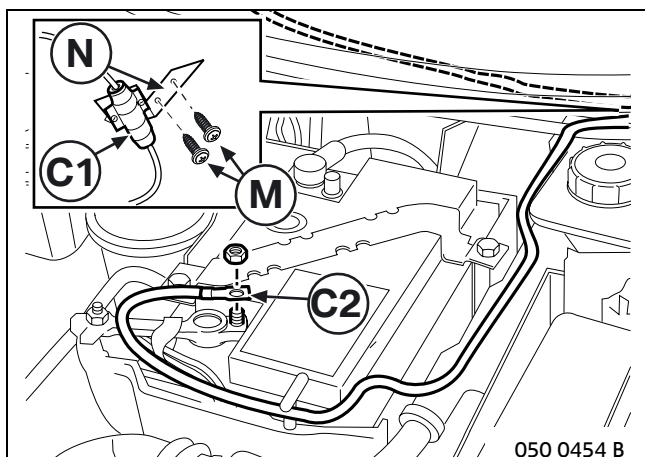
Secure the fuse **C1** to the mounting bracket **N** with fillister head screws **E**, toothed washers **X** and hexagonal nuts **W**.



R53 and R50 models with diesel engines only

Connect branch **C2** to battery pole terminal 30.
Connect branch **B4** to fuse **C1**.

Secure the fuse **C1** with the mounting bracket **N** and screws **M** to a suitable position on the side panel.

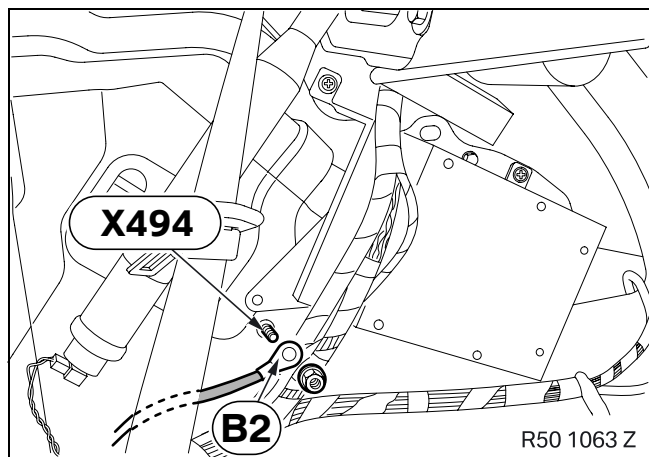


R50 models with petrol engines only

Connect branch **C2** to battery pole terminal 30.

Secure the fuse **C1** with the mounting bracket **N** and screws **M** to the side panel on the left below the bonnet hinge.

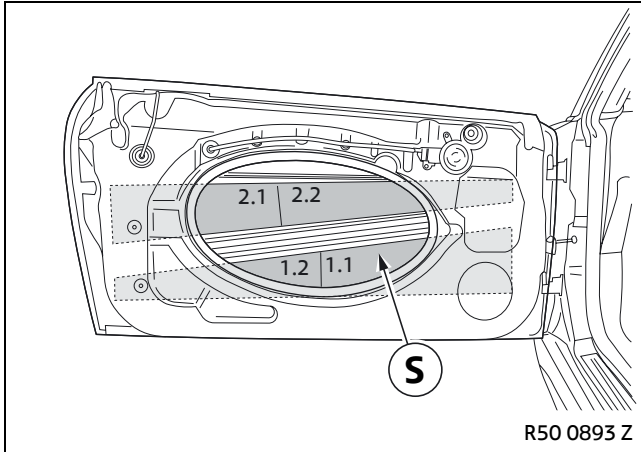
6. To install the wiring harness and amplifier



All cars

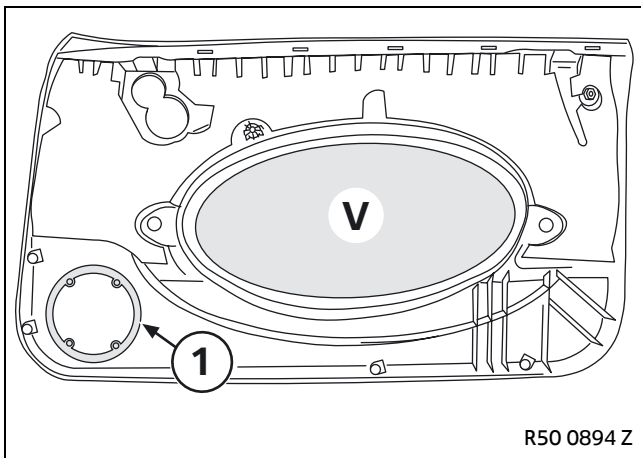
Connect branch **B2** to earth post **X494**.

7. To install the set of insulation mats



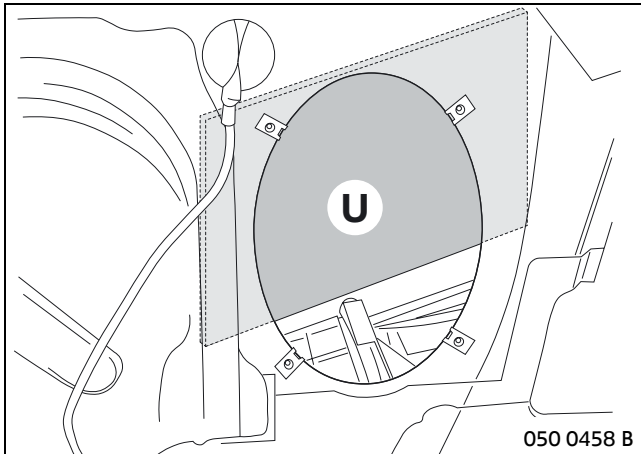
Affix the set of insulation mats **S** to the inside of the left-hand door.

Affix the set of insulation mats **T** to the inside of the right-hand door.



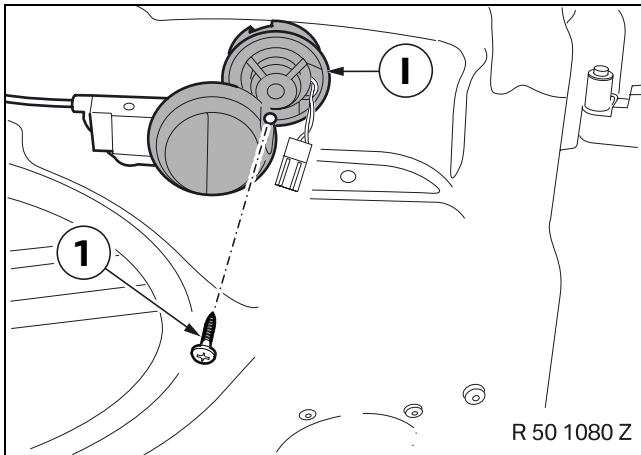
Affix the insulation mat **V** to the inside of the door trims.

If there is a seal (1), remove it.



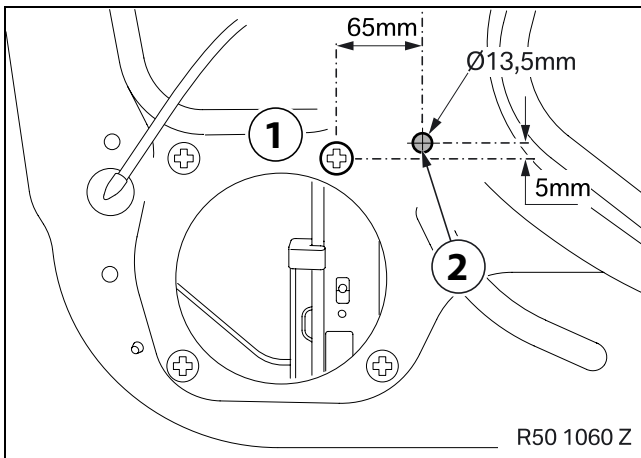
Affix the insulation mat **U** to the side section behind the installation site for the rear speakers.

8. To install the frequency switch and front speakers



Install the tweeter **I** using the existing screw (1).

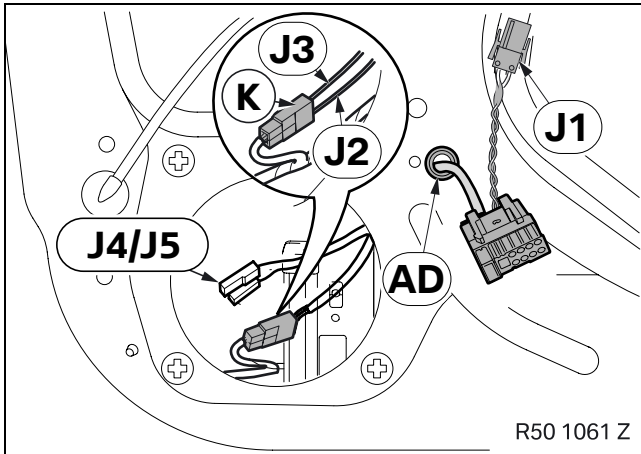
- ▶ Tie back the cable for the original tweeter (no longer required). ◀



Mark the dimensions on the inside of the door (1) as follows and centre punch at the drilling position (2).

Use a 13.5 mm twist drill bit to drill through the inside of the door (1) at the drilling position (2).

- ▶ Deburr the hole and treat it with anti-corrosive coatings as set out in BMW directives to protect them from corrosion. ◀

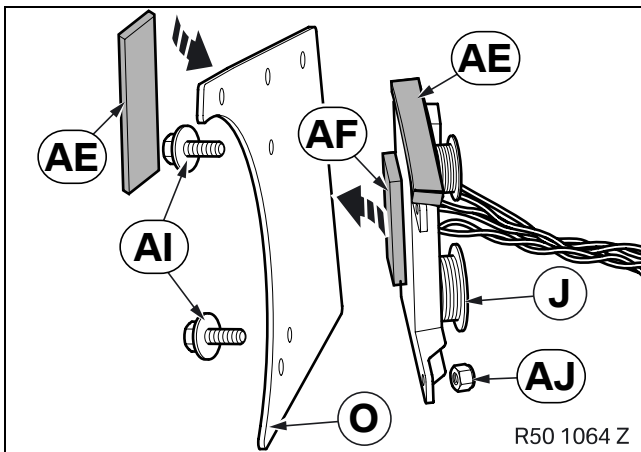


Insert the grommet **AD** into the hole.

Thread branch **J2-J5** through the existing grommet **AD**.

Connect branches **J2** and **J3** to plug casing **K** as follows:

- Connect the BL/VI cable to the GE/RT cable (chamber 2)
- Connect the BL/GR cable to the GE/BR cable (chamber 1)



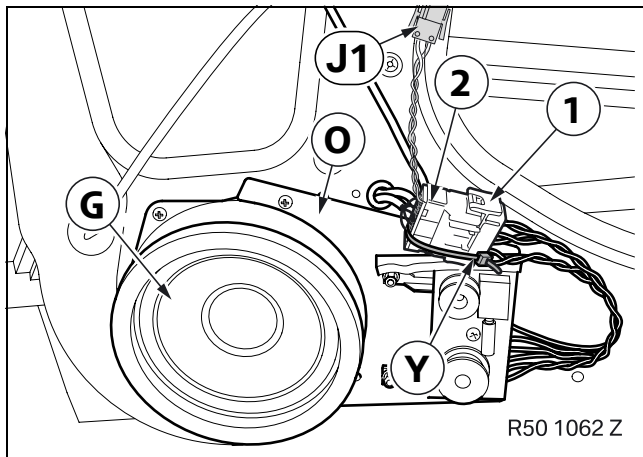
Cut the insulation mat **AF** in the centre.

Affix one half of the insulation mat **AF** to the rear of the frequency switch **J**.

Secure the frequency switch **J** to the holder **O** using hexagonal screws **AI** and hexagonal nuts **AJ**.

Affix the insulation strip **AE** to the top of the frequency switch **J** and the rear of the holder **O**.

8. To install the frequency switch and front speakers



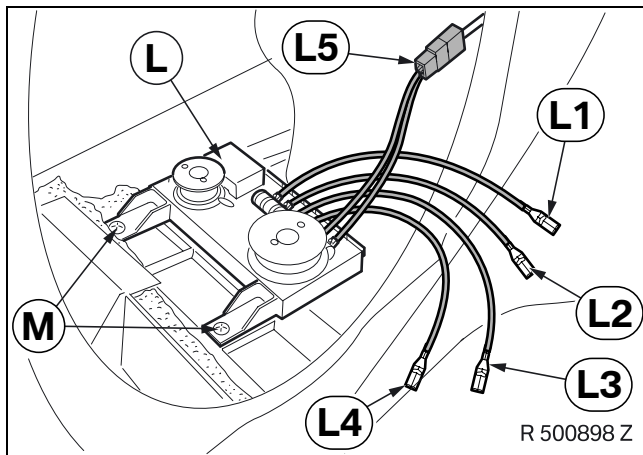
Connect branches **J4** and **J5** to the woofer **G**.

Install the holder **O** with the speaker **G**.

Connect the plug casing (1) to the socket casing (2) and secure them to the holder **O** with a cable tie **Y**.

Route branch **J1** to the tweeter and connect it.

9. To install the frequency switch and rear speakers



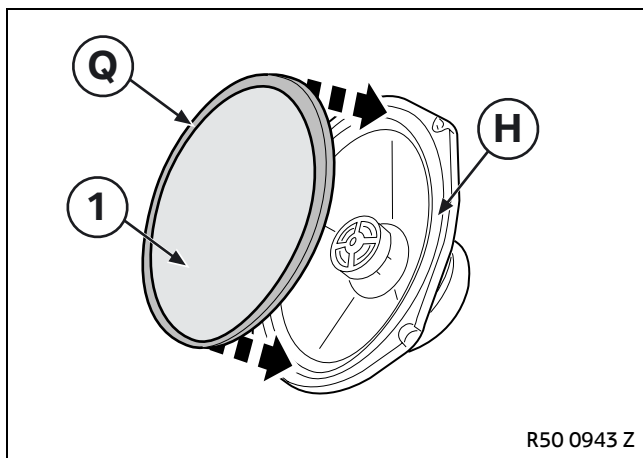
Secure the frequency switch **L** using screws **M**.

Connect branch **L5** to the original speaker connection.

Connect branches **L1** and **L2** to the tweeter.

Connect branches **L3** and **L4** to the woofer.

Install the speakers as described in **TIS RA 65 13 080**.



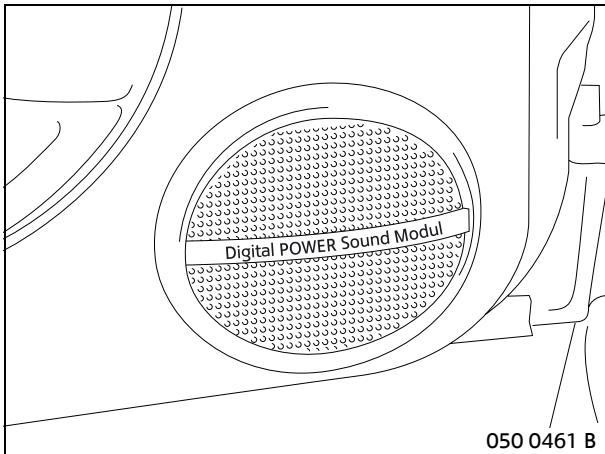
Remove the inside (1) of the seal **Q**.

Affix the seal **Q** on the coaxial speaker **H**.

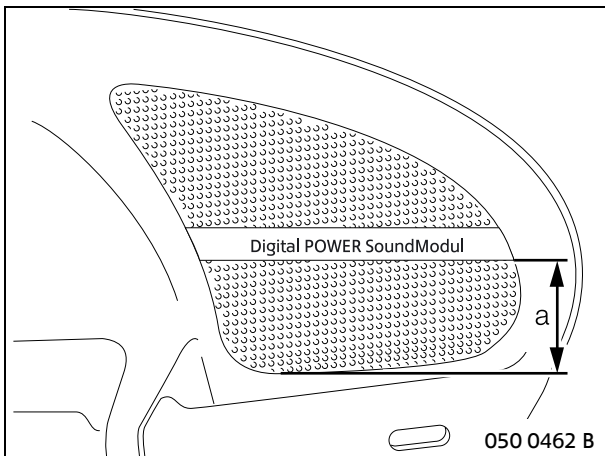
10. To affix the adhesive stickers

To ensure that the adhesive stickers bond permanently, it is essential to use the following procedure to affix them.

- 1 The speaker trims must be dry, clean, dust-free and grease-free. The temperature must be at least +15 °C when you affix the stickers.
- 2 First clean the areas to which the labels are to be affixed with methylated spirits.
- 3 Leave the cleaned areas to dry for approx. 15 minutes.
- 4 Remove the backing foil from the stickers and affix the stickers as shown in the figures below.
- 5 The adhesive stickers achieve their maximum bonding strength after approx. 48 hours.



Affix the stickers horizontally and centrally to the front speaker trims.



Affix the stickers horizontally and approx. 86 mm (a) from the bottom of the rear speaker trims.

11. Concluding work and coding

This retrofit system does not require coding.

- Connect battery
- Conduct a brief test
- Conduct a function test
- Re-assemble the car

12. First use



After you switch on the radio, set the volume control on the radio to low so that the delayed activation of the DPSM amplifier does not result in an extremely high volume. ◀

To prevent damaging the audio system the DPSM amplifier is fitted with a delayed activation system. The DPSM amplifier will be activated approximately 2 seconds after the radio is switched on.

Make sure that you inform the customer of this when you hand the car back to him.

Further information about setting the radio to obtain perfect reproduction from the Digital POWER Sound Module **is provided in the additional owner's manual.**