Original MINI Accessories.
Installation Instructions.

Bluetooth Handsfree Facility with USB/Audio Interface Retrofit
MINI (R56)
MINI Clubman (R55)
MINI Convertible (R57)

Retrofit kit No.:   65 41 2 152 530   Bluetooth handsfree facility with USB/audio interface retrofit kit

Installation time
The installation time is **approx. 3.25 hours**. This may vary depending on the condition of the car and the equipment in it.
The specified installation time does not include time required for programming/coding.
The charge for the total costs for the programming time is to be taken into account in when calculating the retrofit costs (settlement must not be made via warranty).

Important information
These installation instructions are primarily designed for use within the MINI dealership organisation and by authorised MINI 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.

If you experience installation or function problems, limit troubleshooting to approx. 0.5 hours for mechanical or 1.0 hour for electrical work.
In order to reduce costs and avoid any additional expense, send a query immediately to the Technical Parts Support via the Aftersales Assistance Portal (ASAP).
Specify the following information:
- Chassis number,
- part number of the retrofit kit,
- a precise description of the problem,
- work steps already carried out.

Do not archive the hard copy of these installation instructions since daily updates are made by 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
All pictures show LHD cars; proceed accordingly on RHD cars.

Ensure that the cables and/or lines are not kinked or damaged as you install them in the car. The costs thereby incurred 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 occupied, bridges, double crimps must be applied or twin-lead terminals must be used.

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

Ordering instructions
The following parts are not included in the retrofit kit and must be ordered separately
(see EPC for part number and details).

- Universal charger and hands-free unit (ULF) **D**
- Hands-free microphone **U** (R57 cars only)
- Upper steering column trim **P** (R57 cars only)

Special tools required
00 9 317, Trim wedge

Table of contents

1. Preparatory work

|	ISTA no.
Disconnect negative pole of battery	12 00 ...
The following components must be removed first of all	
Radio	65 83 010
Roof operating unit	61 31 029
A-pillar trim left	51 43 201
Left sun visor with counterpart mounting	51 16 080
Driver's seat	52 13 000
Left door sill cover strip	51 47 000
Left footwell trim	51 45 180
Additionally for R57 cars	
Top section of steering column trim	32 31 004
Additionally for cars without flash adapter	
Door sill trim, right	51 47 000

2. Parts list
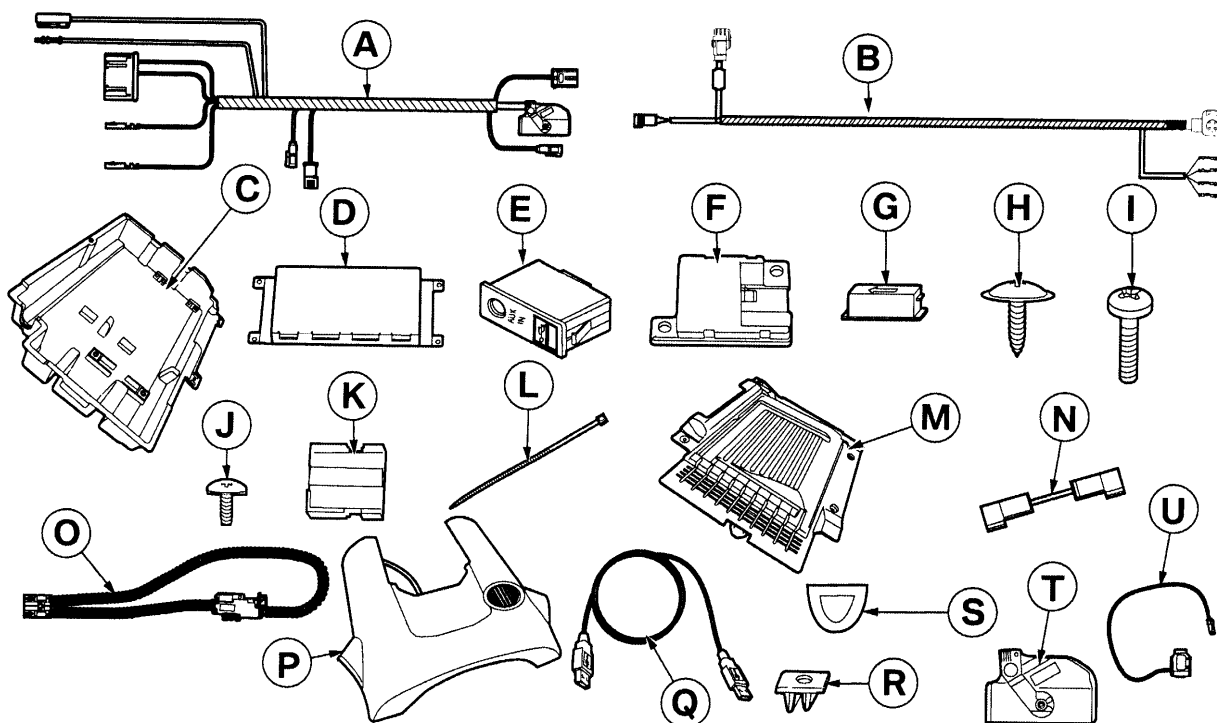
R56 0411

Legend

A Power supply wiring harness

B USB cable set

C Multifunction box

D ULF control unit (not supplied in the retrofit kit)

E USB/AUX-IN jack

F Bluetooth aerial

G Hands-free microphone

H Fillister head self-tapping screw (4.2 x 31 mm) (x 2)

I Torx screw (3 x)

Y Cross-head screw for plastic (5 x 8 mm, x 4)

K SW 4-pin socket casing

L Cable tie (10 x)

M Multifunction box cover

N Adapter cable (included in cable kit **A**, only for R57 cars)

O MOST diagnostic interface (cars without flash interface only)

P Upper steering column trim (for R57 cars only, not supplied in the retrofit kit)

Q USB cable (to be given to the customer)

R Prestol cage

S Grommet

T SW 54-pin socket casing (not required)

U Hands-free microphone (for R57 cars only, not supplied in the retrofit kit)
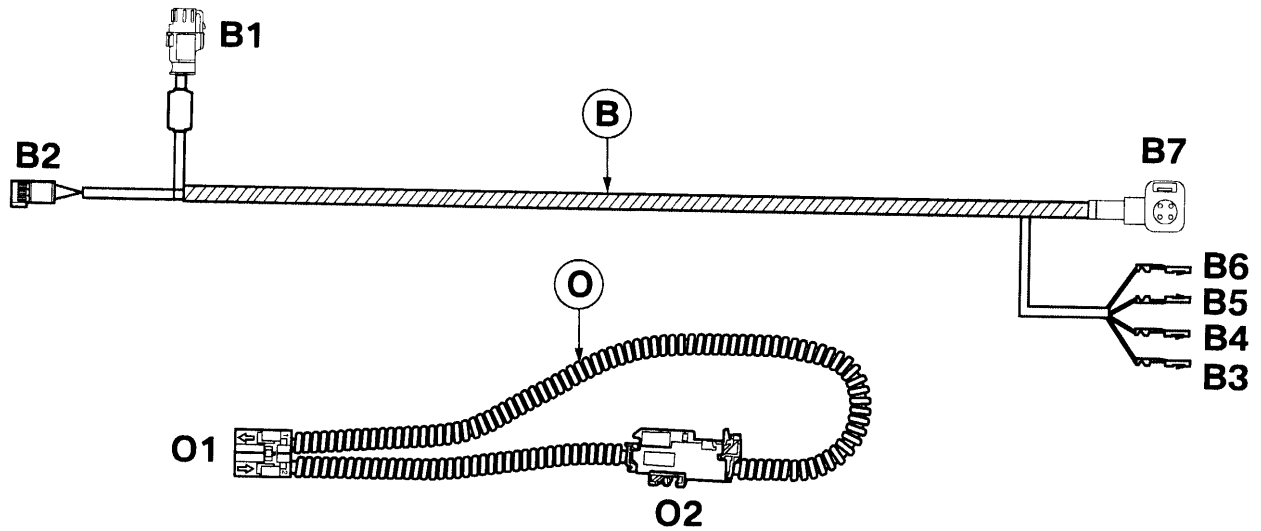
3. Connection diagram for power supply
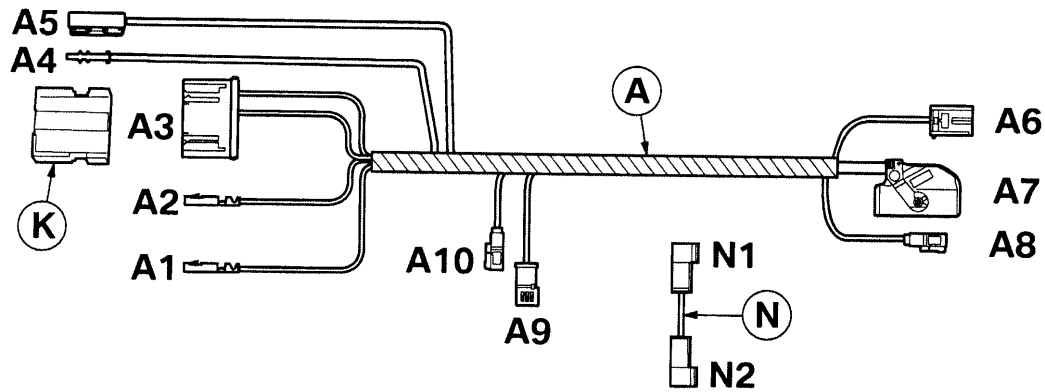
R56 0412 Z

| Branch/ Item	Designation	Signal	Cable colour/ Cross-section	Connection location in the car	Abbreviation/ Slot
A	Cable kit	---	---	---	---
A1	Socket contact	Terminal 30	RT/GN 2.5 mm²	On radio plug	X13812 PIN 15
A2	Socket contact	Terminal 31	BR 2.5 mm²	On radio plug	X13812 PIN 12
A3	4-pin plug casing, SW	---	---	To socket casing **K**	---
A4	Fibre optic cable	MOST	OR	On radio plug	X13815 PIN 2
A5	Fibre optic cable connector	MOST	GN	On disconnected fibre optic cable of radio receiver	---
A6	SW 2-pin fibre optic cable casing	MOST	---	To ULF control unit **D**	X14134
A7	GN 54-pin socket casing	---	---	To ULF control unit **D**	X17397
A8	Fakra socket casing, GN	BT Ant	---	To ULF control unit **D**	X14081
A9	SW 3-pin socket casing	Mic	---	On hands-free microphone **G**	X3564
A10	Fakra socket casing, GN	BT Ant	---	To Bluetooth aerial **F**	X14080
N	Adapter cable	---	---	R57 cars only	---
N1	3-pin plug casing, SW	Mic	---	To branch **A9**	---
N2	3-pin plug casing, SW	Mic	---	To hands-free microphone, **U**	---

4. Connection diagram for USB/MOST

R56 0413 Z

Branch/ Item	Designation	Signal	Cable colour/ Cross-section	Connection location in the car	Abbreviation/ Slot
B	USB cable set	---	---	---	---
B1	4-pin HSD socket casing, WS	---	---	to USB/AUX-IN socket E	X17183
B2	SW 4-pin socket casing	---	---	to USB/AUX-IN socket E	X14118
B3	Socket contact	Shield	Shield 0.35 mm2	Insert in branch A7	PIN 23
B4	Socket contact	AUX_NF_GND	WS/GN 0.35 mm2	Insert in branch A7	PIN 22
B5	Socket contact	AUX_NF_R	WS/RT 0.35 mm2	Insert in branch A7	PIN 5
B6	Socket contact	AUX_NF_L	VI 0.35 mm2	Insert in branch A7	PIN 4
B7	4-pin HSD socket casing, SW	---	---	To ULF control unit D	X11575
---	---	---	---	---	---
O	MOST diagnostic connection	---	---	Cars without a flash interface only	---
O1	SW 2-pin fibre-optic cable plug	---	---	to radio receiver	X13812
O2	Flash interface	---	---	Attach to fuse holder	---

01 29 2 153 180

9/2010   (Z/Z)   7

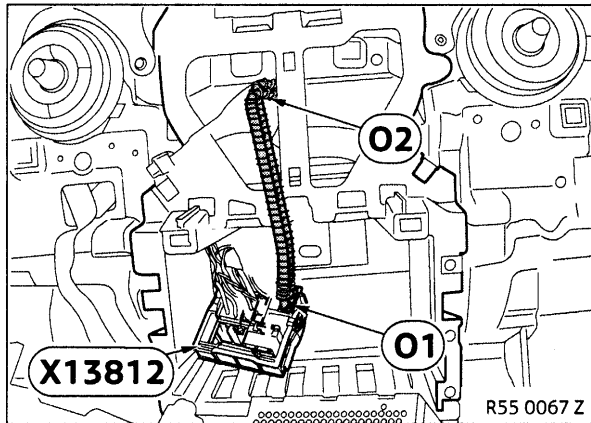## 5. Installation and cabling diagram
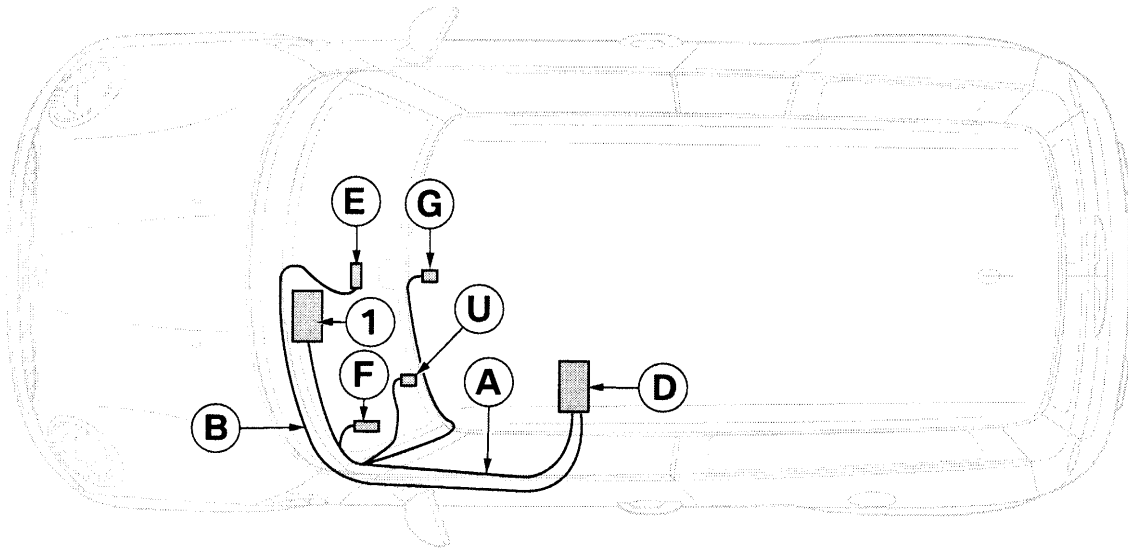
R55 0066 Z

Legend

A   Power supply wiring harness

B   USB cable set

D   ULF control unit

E   USB/AUX-IN jack

F   Bluetooth aerial

G   Hands-free microphone (R55, R56 cars only)

U   Hands-free microphone (R57 cars only)

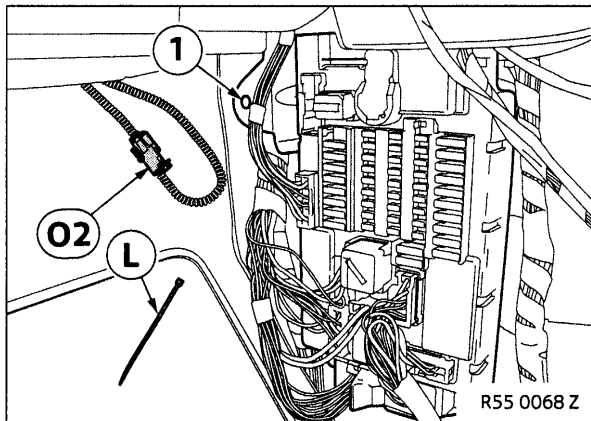**1**   Radio connectors **X13812** and **X13815**

6. Installing MOST diagnostic interface (cars without Flash interface only)

When routing fibre optic cables, make sure the bending radius is no less than 25 mm. ◄
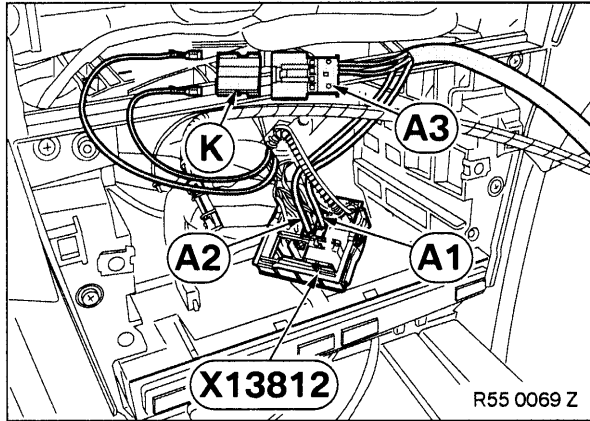
Insert branch **O1** in radio plug **X13812** (16-pin SW).

Route branch **O2** to the passenger footwell.

Route branch **O2** to the fuse holder and attach to the hole (1) using cable tie **L**.

# 7. Installing and connecting the power supply cable harness

Disconnect the following cables from plug **X13812** (black 16-pin) of the radio receiver and connect to socket casing **K** as follows:

- RT/GN cable from PIN 15 into socket casing **K** PIN 1
- BR cable from PIN 12 into socket casing **K** PIN 2

Connect branches **A1** and **A2** to plug **X13812** as follows:

- Branch **A1**, RT/GN cable, to PIN 15
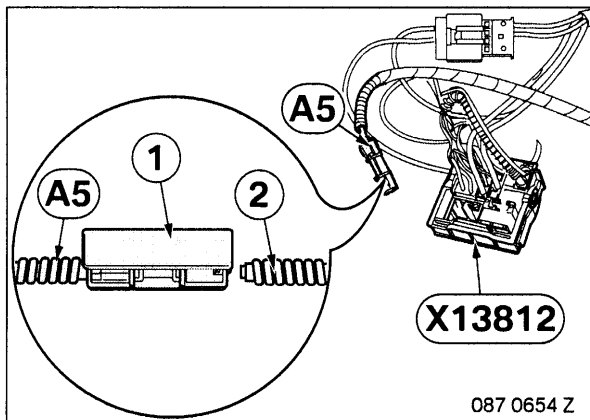- Branch **A2**, BR cable, to PIN 12

Connect branch **A3** to socket casing **K**.
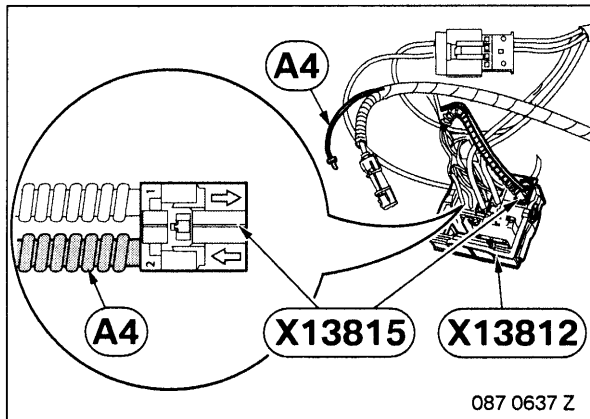
Unclip fibre optic cable casing **X13815** (SW 2-pin) from plug **X13182** (SW 16-pin) of the radio plug.
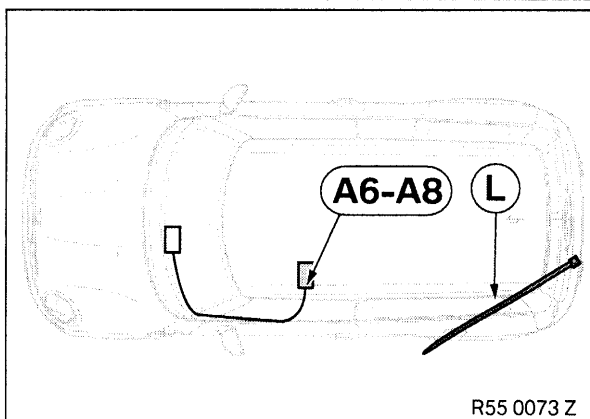
Disconnect the outgoing fibre optic cable from fibre optic cable casing **X13815** PIN 2 and connect branch **A4**, OR cable.

Clip fibre optic cable casing **X13815** into plug **X13812**.

Unlock the fibre optic cable connector (1) on branch **A5** and connect the disconnected fibre optic cable (2).
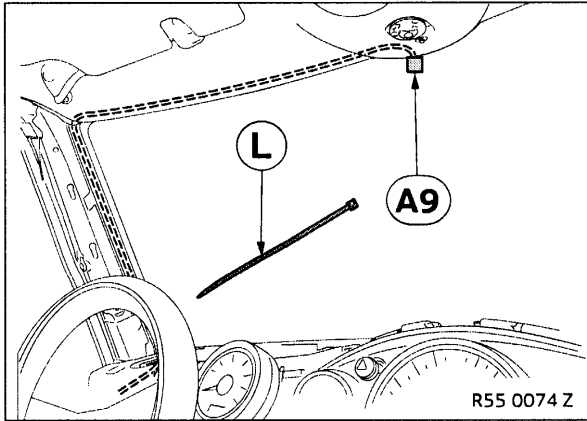
Connect plug **X13812** (SW 16-pin) to radio.

Route the branches **A6** (2-pin SW fiber-optic cable casing), **A7** (54-pin GN socket casing) and **A8** (GN Fakra socket casing) along the vehicle wiring harness to the installation location of the ULF control unit under the driver's seat.

Secure cable harness with cable ties **L**.
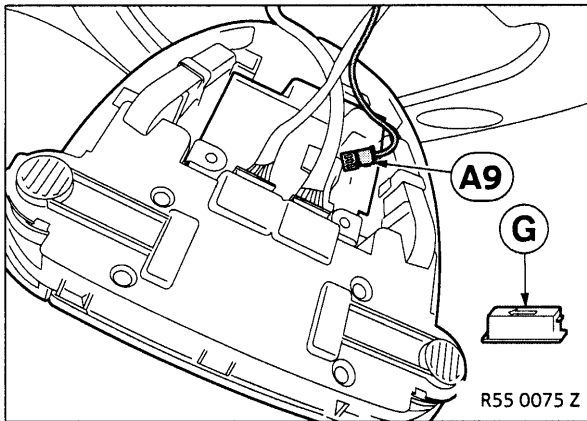
8.   Installing and connecting the microphone

R55 0074 Z

R55/R56 cars only

⚠️ Ensure that branch **A9** is routed behind the head air-bag. ◄

Route branch **A9** (SW 3-pin socket casing) along the vehicle wiring harness to the installation site of the hands-free microphone in the roof operating unit.
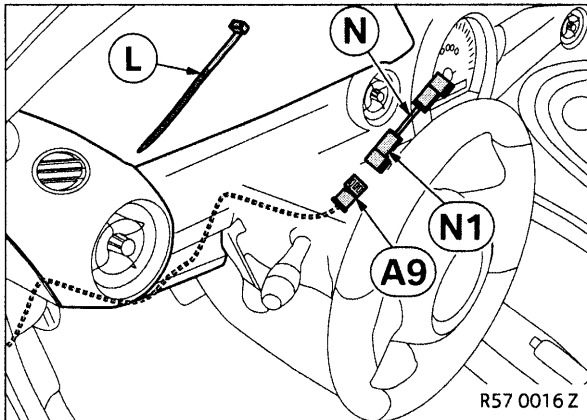
Secure cable harness with cable ties **L**.

R55 0075 Z

▷ The arrow on the hands-free microphone **G** must point to the front of the car when installed. ◄

Clip hands-free microphone **G** into roof operating unit.
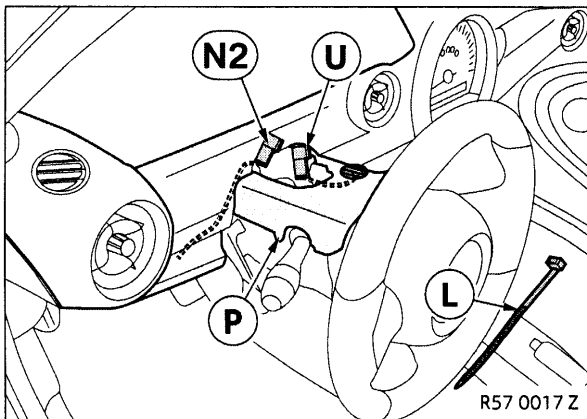
Connect branch **A9** to hands-free microphone **G**.

R57 0016 Z

R57 cars only

⚠️ Ensure that branch **A9** does not touch any moving parts of the steering column. ◄

Route branch **A9** (SW 3-pin socket casing) along the vehicle wiring harness to the steering column.

Connect branch **N1** from adapter cable **N** to branch **A9**.

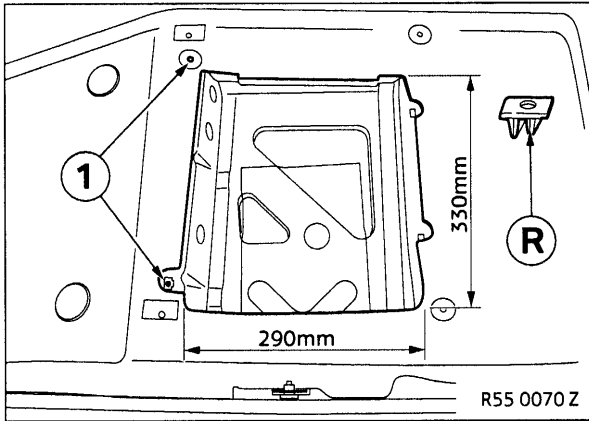Secure cable harness with cable ties **L**.

R57 0017 Z

Clip hands-free microphone **U** into steering column trim **P**.

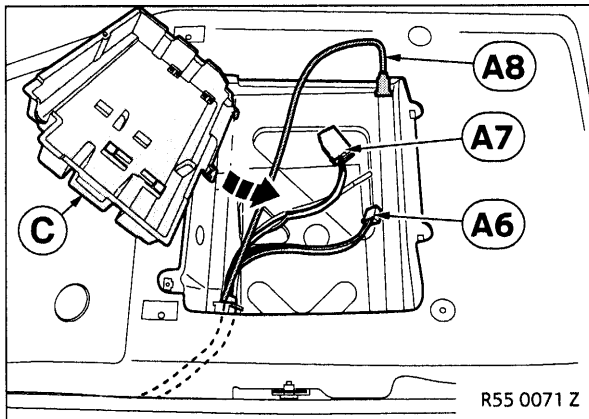Connect branch **N2** from adapter cable **N** to hands-free microphone **U**.

Tie back excess cable and install the steering column trim **P**.

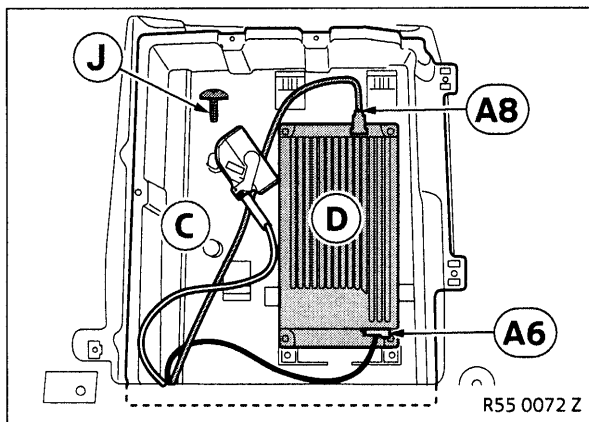Secure cable harness with cable ties **L**.

9. Installing and connecting the ULF control unit

Mark these dimensions on the carpet and cut out. Clip Prestol cages **R** over holes (1) in floor pan.
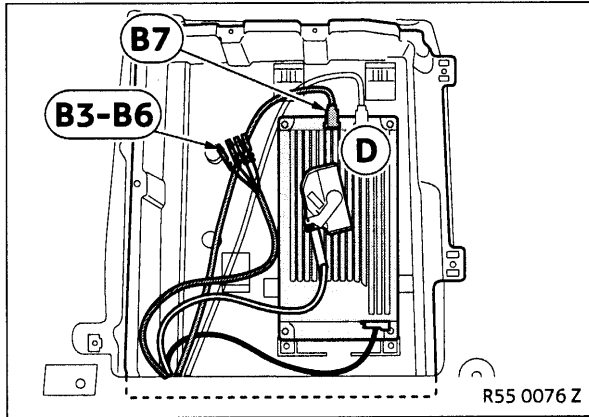
330mm

290mm

R55 0070 Z

Lay multifunction box **C** onto the floorpan.

Route branches **A6–A8** to the multifunction box.

R55 0071 Z

Place ULF control unit **D** in multifunction box **C** and secure with screws **J**.

Connect branch **A6** (2-pin SW fiber-optic cable casing) and branch **A8** (Fakra socket casing GN) to ULF control unit **D**.

R55 0072 Z

## 10. Installing and connecting the USB cable set

Route the branches **B3–B6** and branch **B7** (4-pin SW HSD socket casing) to the installation location of the ULF control unit **D**. Connect branch **A4** to the ULF control module.
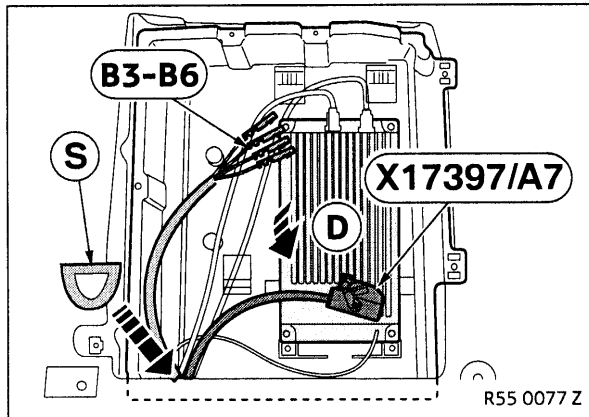
Connect branches **B3–B6** to branch **X17397/A7** (GN 54-pin socket casing) as follows:

- Branch **B3**, shield, in PIN 23
- Branch **B4**, WS/GN cable, in PIN 22
- Branch **B5**, WS/RT cable, in PIN 5
- Branch **B6**, VI cable, in PIN 4

Connect branch **X17397/A7** to ULF control unit **D**.
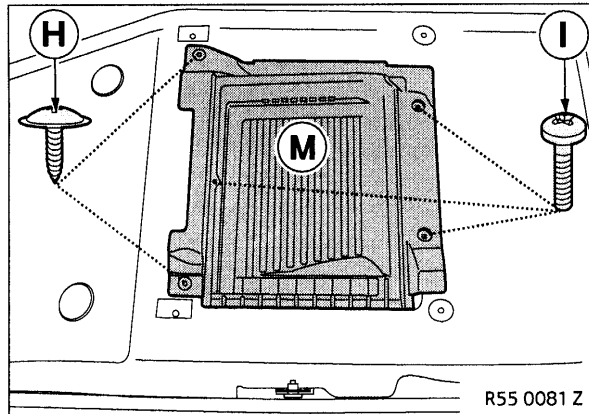
Insert cover of multifunctional box M under carpet toward the outside of the car and secure with Torx screws I and self-tapping screws HH.
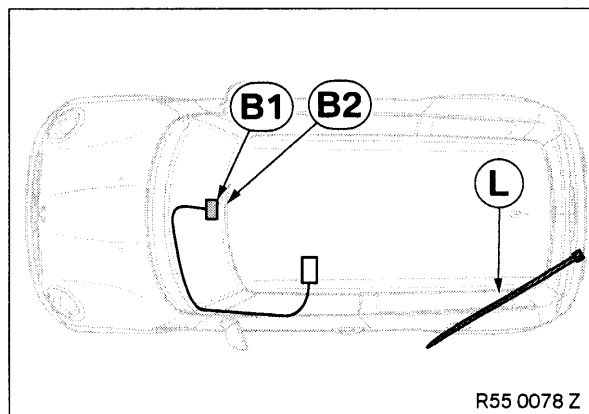
Route branches B1 (HSD socket casing, 4-pin WS) and B2 (socket casing, 4-pin SW) along the vehicle wiring harness to the centre console.

Secure cable harness with cable ties **L**.

10. Installing and connecting the USB cable set

R55 0079 Z
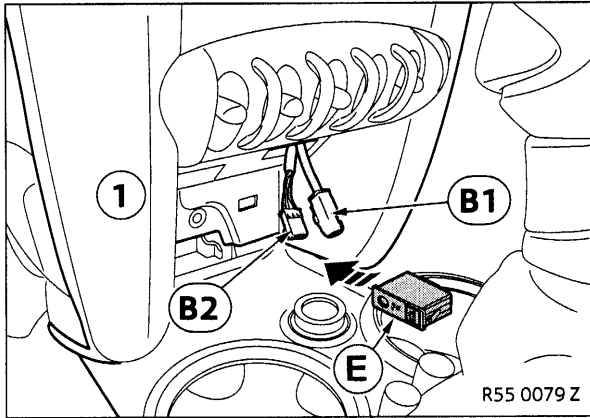
Connect branches **B1** and **B2** to USB/AUX-IN jack **E**.

Clip USB/AUX-IN jack into trim (1).

11. Installing and connecting the Bluetooth aerial

R55 0082 Z
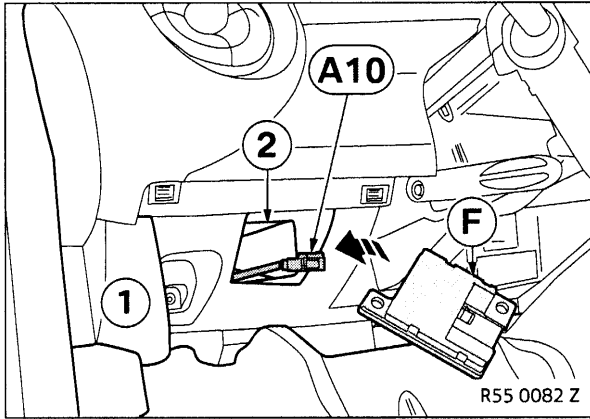
Guide branch A10 through the opening in the instrument panel support (1) and connect to Bluetooth aerial F.

Push Bluetooth aerial into the opening (2) of the instrument panel support as shown.

12. Concluding work and coding

The retrofit system requires programming/coding.

- Connect the battery
- Perform vehicle test using ISTA system and pay attention to and, if necessary, process the fault memory that has been entered
- Change to vehicle programming ISTA/P
- Select retrofit "USB/Audio (SA6ND)" via the – **Retrofit** – path and carry out the generated plan of action
- For the operations with ISTA/P, please observe the instructions in the ISTA/P application documentation
- Register the mobile phone (see section 14 or 15)
- Conduct a function test
- Re-fit the car components as required

▷ The coding (Retrofit USB/Audio (SA6ND)) must be performed. ◄

13. Circuit diagram
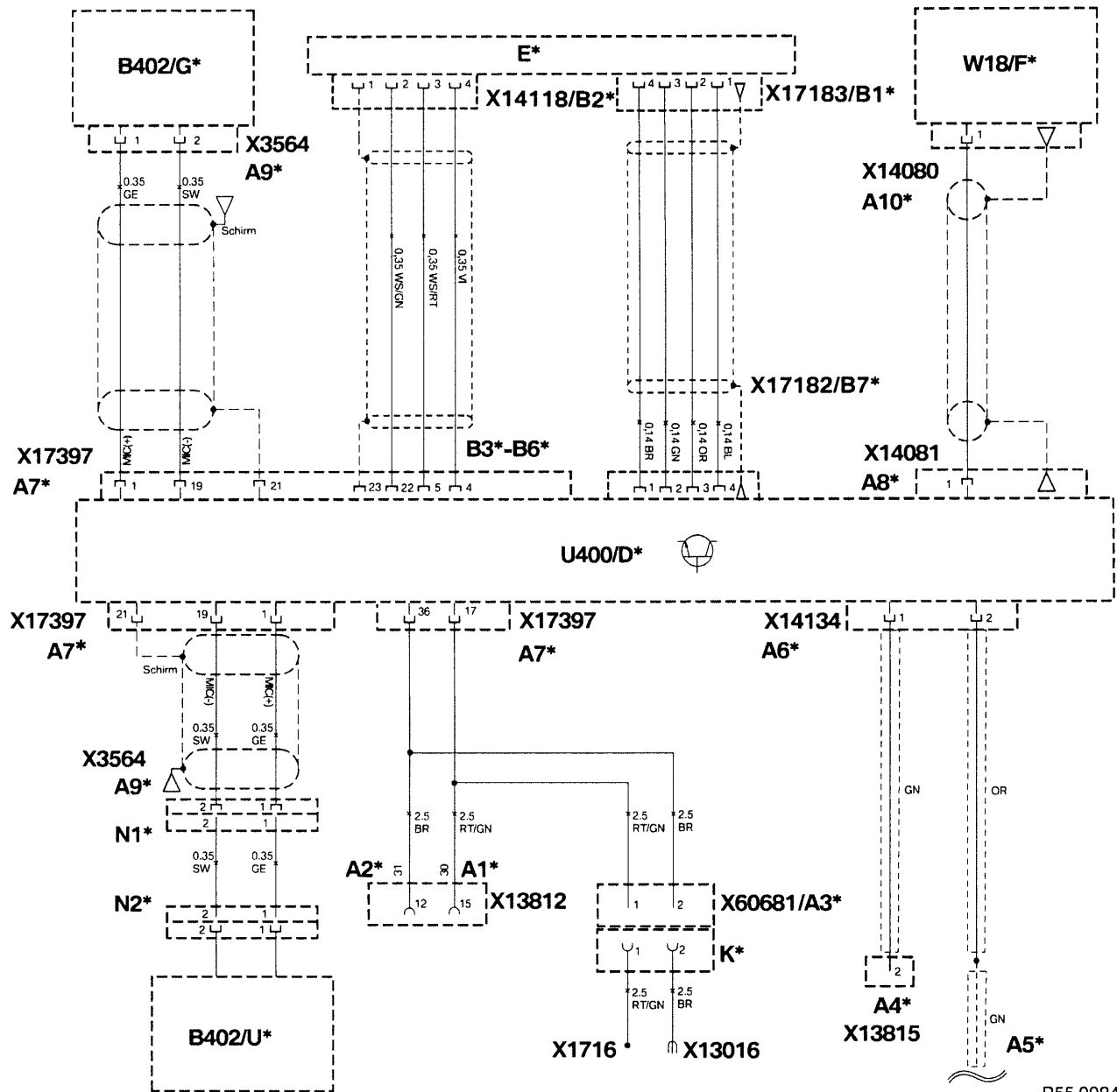
13. Circuit diagram

Legend

A1*	Socket contact
A2*	Socket contact
A3*	4-pin plug casing, SW **X60681**
A4*	Fibre optic cable
A5*	Fibre optic cable connector
A6*	SW 2-pin fibre optic cable casing **X14134**
A7*	54-pin GN socket casing **X17397**
A8*	Fakra socket casing GN **X14081**
A9*	3-pin socket casing SW **X3564**
A10*	Fakra socket casing GN **X14080**
B1*	4-pin HSD socket casing, WS **X17183**, to USB/AUX-IN jack **E***
B2*	SW 4-pin socket casing **X14118**, to USB/AUX-IN jack **E***
B3*–B6*	Cables pinned into **X17397/A7***, on ULF control unit **D***
B7*	4-pin HSD socket casing WS, **X17183**, on ULF control unit **D***
B402/G*	Hands-free microphone
B402/U*	Hands-free microphone (R57 cars only)
E*	USB/AUX-IN jack
K*	SW 4-pin socket casing
N1*	3-pin SW plug casing (R57 cars only)
N2*	3-pin SW plug casing (R57 cars only)
U400/D*	ULF control unit
W18/F*	Bluetooth aerial
X1716	STVB HiFi
X13016	Earth post
X13815	SW 2-pin fibre-optic cable socket casing

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

Cable colours

BL	Blue		RT	Red
BR	Brown		SW	Black
GE	Yellow		VI	Violet
GN	Green		WS	White
OR	Orange			

14. Registering the mobile phone in the car (cars with SA 609 only)

▷ The registration, also known as "pairing" can only be carried out if the encoding has been successful. The Bluetooth code required for the pairing process can be any number with between 1 and 16 digits.
When registering your phone, you are prompted by your mobile phone and/or car to confirm or enter the registration.
The type and sequence of displays or prompts may vary depending on your mobile phone's or car's software version For example, the sequence for entering the Bluetooth passcode on your mobile phone and car control system may vary.
Please note the respective prompts on your mobile phone and/or car and follow the menu. ◀

After installing the universal electronic charger/hands-free module, the mobile phone should be paired as follows:

- Switch on ignition and call up start menu

- Select the following menu options in the control display and confirm by pressing the MINI joystick:
  >Setup<
  >Settings<
  >Bluetooth<
  >Telephone<
  >Pair new phone<
  >Continue pairing<

- Activate Bluetooth on mobile phone

- On the >**My devices**< or >**Found devices**< tab, select the >**Search for devices**< menu option on the mobile phone

- Select Bluetooth name of the car on the mobile phone

▷ Depending on your type of mobile phone, you may first be requested by either the control display or the mobile phone to enter the passcode. ◀

- Enter a >**passkey**< (any 1–16-digit passcode) on the mobile phone and confirm

- Enter the same >**passcode**< via the MINI joystick and confirm

- Wait for a few seconds then switch off ignition

- Exit the menu option >**Bluetooth**< on the mobile phone

The mobile phone is now paired.

▷ If the mobile phone could not be successfully paired, switch off the ignition and quickly repeat the entire process. ◀

15. Registering the mobile phone in the car (cars with SA 6FC only)

▷ The registration, also known as "pairing" can only be carried out if the encoding has been successful.
The Bluetooth code required for the pairing process can be any number with between 1 and 16 digits.
When registering your phone, you are prompted by your mobile phone and/or car to confirm or enter the registration.
The type and sequence of displays or prompts may vary depending on your mobile phone's or car's software version For example, the sequence for entering the Bluetooth passcode on your mobile phone and car control system may vary.
Please note the respective prompts on your mobile phone and/or car and follow the menu. ◄

After installing the universal electronic charger/hands-free module, the mobile phone should be paired as follows:

- Switch on the ignition
- Press the following buttons on the radio:
  >MENU<
  >TEL<
  >BT<
  >SEARCH<
- Activate Bluetooth on mobile phone
- On the >**My devices**< or >**Found devices**< tab, select the >**Search for devices**< menu option on the mobile phone
- Enter a >**passkey**< (any 1–16-digit passcode) on the mobile phone and confirm
- >Press **ADD**< button on radio
- Enter the same >**passcode**< on the radio and confirm with >**OK**<
- Wait for a few seconds then switch off ignition
- Exit the menu option >**Bluetooth**< on the mobile phone

The mobile phone is now paired.

▷ If the mobile phone could not be successfully paired, switch off the ignition and quickly repeat the entire process. ◄