

Original MINI Accessories. Installation Instructions.



Auxiliary Instruments Retrofit

MINI ONE (R55, R56)

MINI COOPER (R55, R56)

MINI COOPER S (R55, R56)

MINI John Cooper Works (R55, R56)

MINI Convertible (R57)

MINI Coupé (R58)

MINI COUNTRYMAN (R60)

Retrofit kit no.:	62 11 2 150 353	Retrofit kit for one auxiliary instrument
	62 11 2 149 355	Retrofit kit for two auxiliary instruments
	62 11 2 156 978	Retrofit kit for auxiliary instruments
	62 11 2 183 406	Retrofit kit for one auxiliary instrument
	62 11 2 183 407	Retrofit kit for two auxiliary instruments

Installation time

The installation time is **approx. 1.0 hours**. 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 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, wiring 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.

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.

Do not archive the hard copy of these installation instructions since daily updates are made via ASAP!

Information for the customer

Print out the "Customer information" section at the end of the installation instructions and give it to the customer.

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. Costs arising from this will not be reimbursed by BMW AG.

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

Ordering instructions

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

- There is a choice of three different auxiliary instruments (coolant temperature, relative torque, lateral acceleration). Two instruments (on the right and left of the revolution counter) or one instrument (on the right of the revolution counter) can be installed.
- If the Portable navigation system mount (SA ZKC) and auxiliary instruments are installed simultaneously, mount **R** must also be ordered. This is not required if the previous Portable navigation system retrofit 65 90 0 429 056 (SA ZDQ) is installed at the same time.

The following fittings must be taken into account

- The instrument for displaying the lateral acceleration can only be installed on cars with **SA 210** (DSC).
- On R57 cars with **SA 6A1** (Always Open), only one instrument (on the right) can be installed.
- On LHD cars with **SA ZDQ** (Portable navigation system), only one instrument (on the right) can be installed.
- On RHD cars with **SA ZDQ** (Portable navigation system), it is not possible to install auxiliary instruments.
- On cars with **SA ZKC** (Portable navigation system), only one instrument (on the right) can be installed.

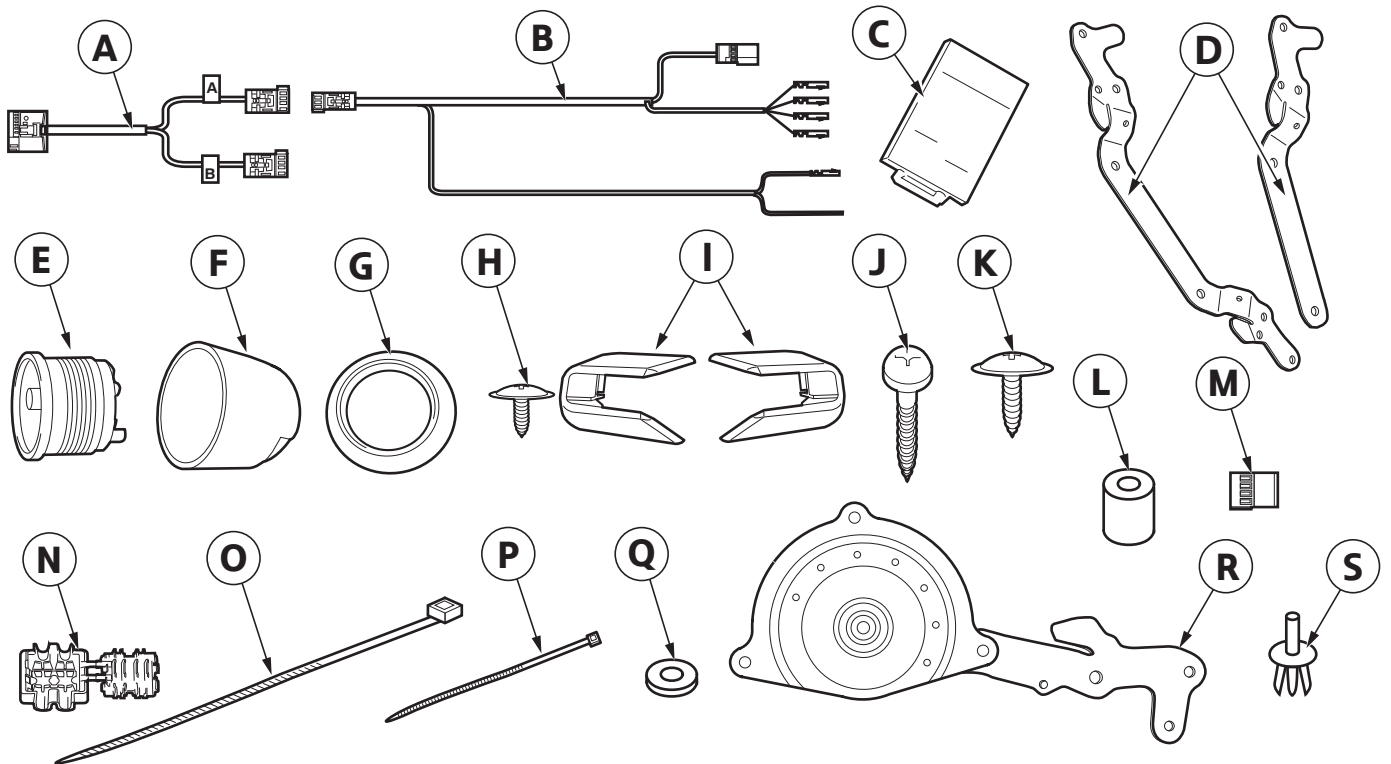
Special tools required

None

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1. Parts list



R56 0470 Z

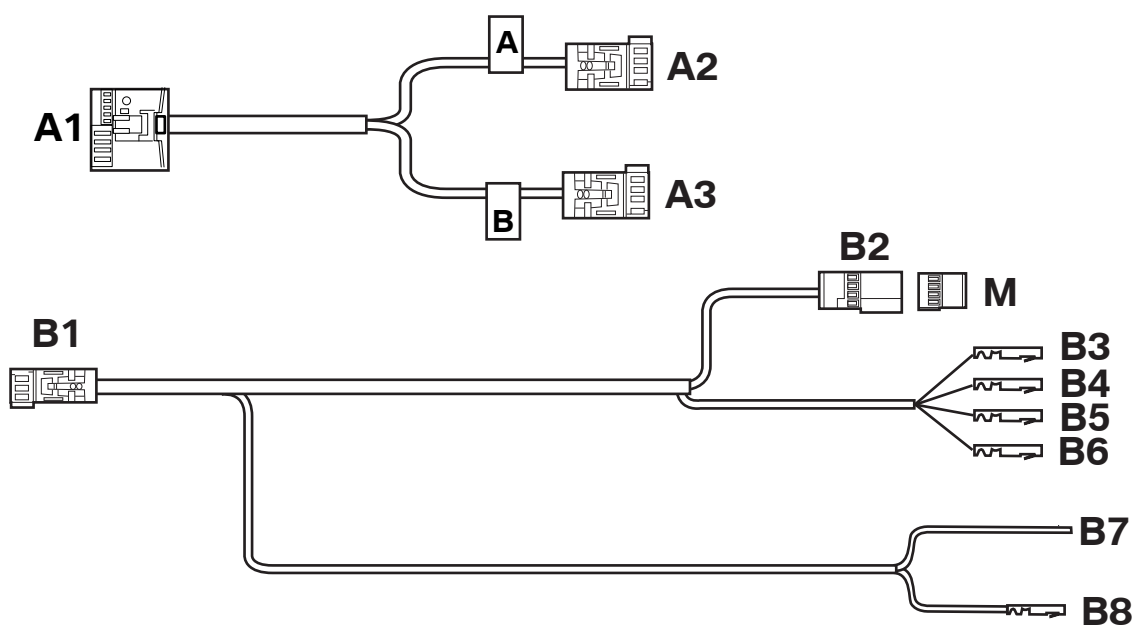
Legend

- A** Retrofit cable
- B** Retrofit cable
- C** Control unit
- D** Auxiliary instruments mount (with 1 or 2 fastening options)
- E** Auxiliary instrument (1 or 2 items, not supplied with the retrofit kit)
- F** Rear section housing (1 or 2 items)
- G** Front section housing (1 or 2 items)
- H** Phillips head screw 4.2 x 9.5 mm (1 or 2 x)
- I** Cover (1 x on the right or 2 x on the right and left)
- J** Phillips head screw 4 x 30 mm (2 x)
- K** Phillips head screw 4 x 12 mm (2 or 4 x)
- L** Spacer sleeve (2 x)
- M** SW 4-pin socket casing
- N** Miniature connector (2 x)
- O** Cable tie 292 x 4.8 mm (2 x)
- P** Cable tie 100 x 2.5 mm (15 x)
- Q** Washer 4.3 mm (2 x)
- R** Mount (only in the case of simultaneous installation with Portable navigation system mount (SA ZKC), not supplied in the retrofit kit)
- S** Rivet (2 x, only for the US market)

2. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
The following components must be removed first of all	
Revolution counter	62 10 100
Steering column shroud upper section	32 31 004
Steering column shroud lower section	32 31 020
Bottom left dashboard trim	51 45 180
Front left door sill cover strip	51 47 000

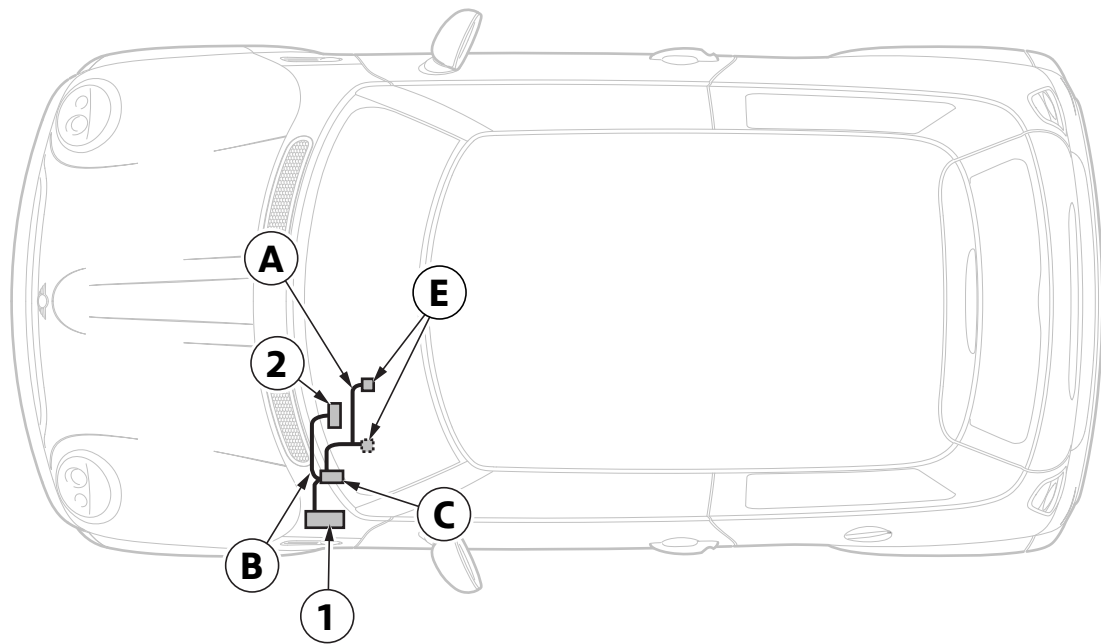
3. Connection diagram



R56 0424 Z

Item	Designation	Signal	Cable colour/ Cross-section	Connection location in the car	Abbreviation/ Slot
A	Retrofit cable	---	---	---	---
A1	SW 10+4-pin socket casing	---	---	To control unit C	---
A2	SW 8-pin socket casing Designation A	---	---	To auxiliary instrument E (see DIP switch settings)	---
A3	SW 8-pin socket casing Designation B	---	---	To auxiliary instrument E (see DIP switch settings)	---
B	Retrofit cable	---	---	---	---
B1	SW 6-pin socket casing	---	---	To control unit C	---
B2	SW 4-pin pin housing	---	---	With socket casing M to disconnected cables from the steering column switch cluster	---
B3	Socket contact	Terminal 30g	RT/GE 0.75 mm ²	Connect to steering column switch cluster	X1880 PIN 1
B4	Socket contact	Terminal 31	BR/SW 0.75 mm ²	Connect to steering column switch cluster	X1880 PIN 2
B5	Socket contact	PT-CAN H	GE/SW 0.5 mm ²	Connect to steering column switch cluster	X1880 PIN 3
B6	Socket contact	PT-CAN L	GE/BR 0.5 mm ²	Connect to steering column switch cluster	X1880 PIN 4
B7	Cable open	Terminal 15	GR 0.5 mm ²	With miniature connector N to the GR cable of the footwell module	X14261 PIN 12
B8	Socket contact	Terminal 58g	GR/RT 0.5 mm ²	Connect to the footwell module or with miniature connector N to the GR/RT cable of the footwell module	X14261 PIN 48

4. Installation and cabling diagram

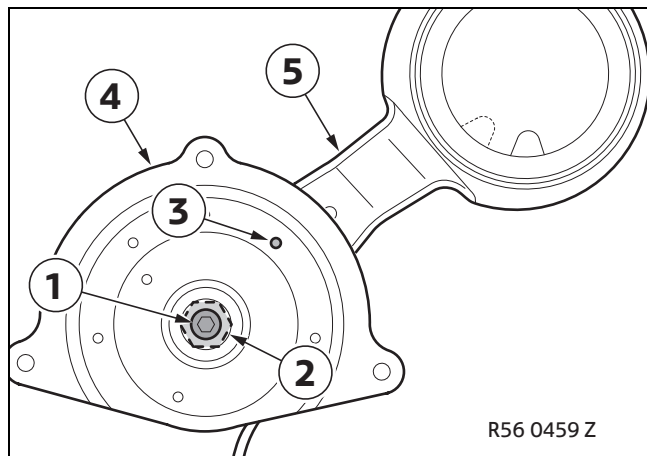


R56 0425 Z

Legend

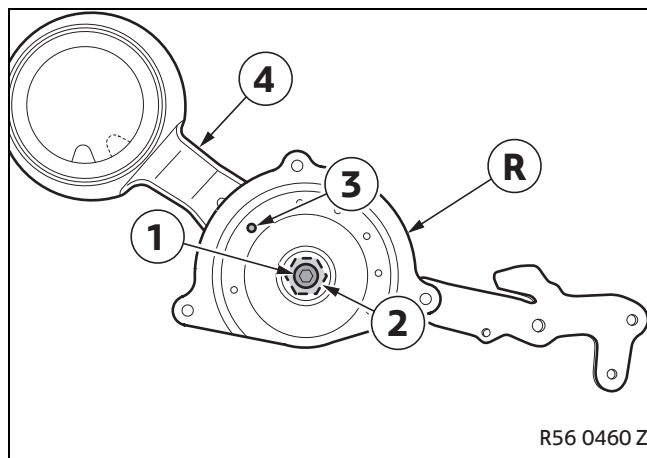
- A** Retrofit cable
 - B** Retrofit cable
 - C** Control unit
 - E** Auxiliary instrument (optionally one instrument on the right or two instruments)
-
- 1** Footwell module **X14261**
 - 2** Steering column switch cluster **X1880**

5. Mount conversion (only in the case of simultaneous installation with Portable navigation system mount (SA ZKC))



▶ When converting the mount (4) ensure that small parts (ball bearings and springs) from the lock-in member (3) do not get lost. ◀

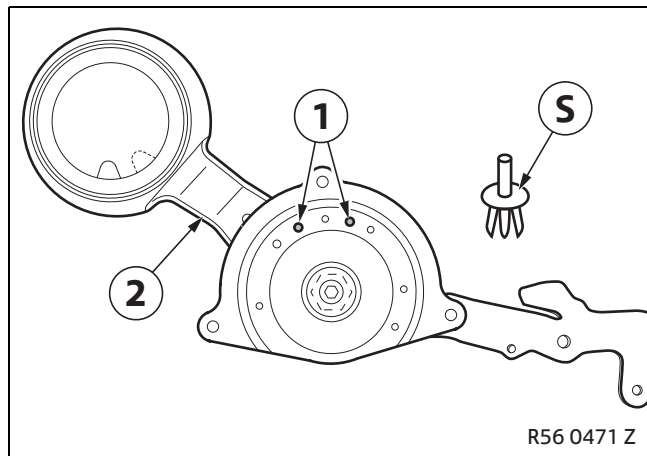
Loosen the Allen screw (1) and lock nut (2) and carefully remove the retaining arm (5).



▶ Clean the Allen screw (1) and apply screw locking agent. ◀

Attach retaining arm (4) with the Allen screw (1) and lock nut (2) to mount R; the lock-in member (3) must audibly engage when adjusted.

The installation of mount R is described in the installation instructions for the "Portable navigation system".

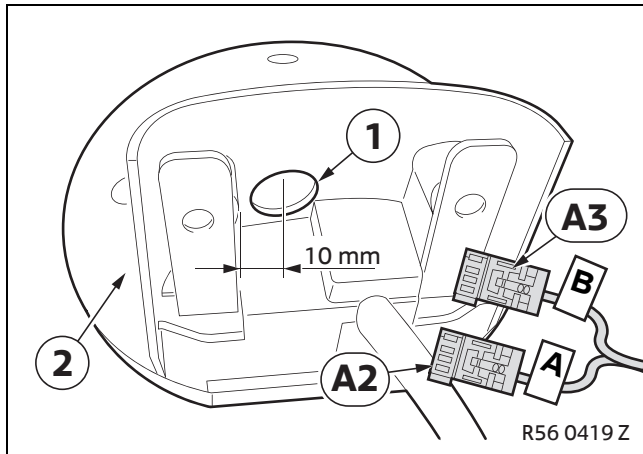


For the US market only

▶ When installing rivets S, ensure that the retaining arm (2) is located in the position shown. ◀

Place rivets S in the positions shown (1) in mount R.

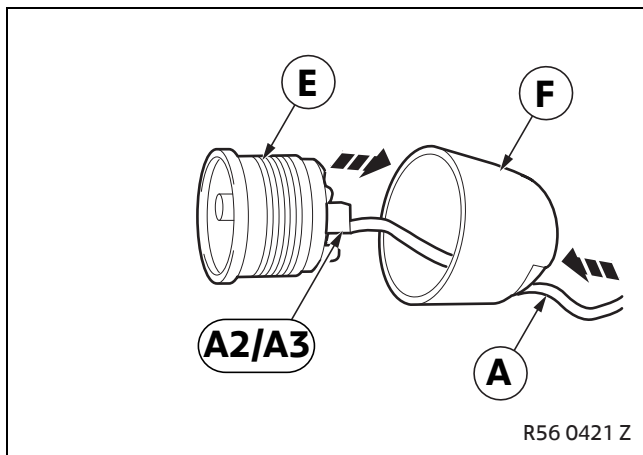
6. Fitting the auxiliary instruments



▶ See section 9 “DIP switch settings” for the assignment of branches **A2** and **A3** to the instruments. ◀

Drill a hole (1), diameter 18 mm, as per the dimensions on the rev counter (2).

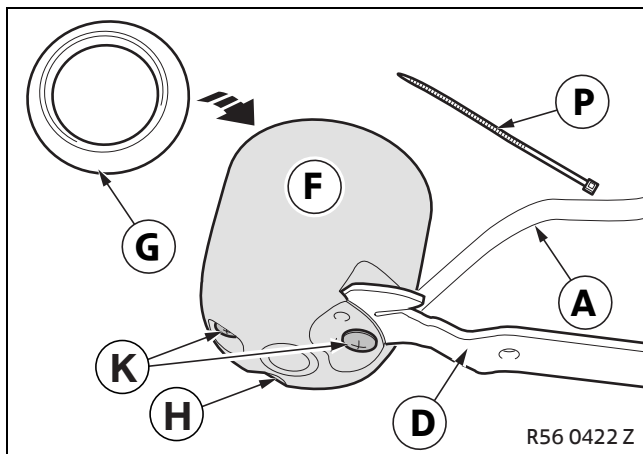
Guide branch **A2** or **A3** (when installing one auxiliary instrument) or branches **A2** and **A3** (when installing 2 auxiliary instruments) from underneath through drill hole (1).



▶ Installation is shown for the auxiliary instrument on the right. When 2 auxiliary instruments are installed, the same procedure should be followed on the left. ◀

Guide branch **A2** or **A3** of the retrofit cable **A** through the rear section housing **F** and connect to auxiliary instrument **E**.

Place auxiliary instrument **E** in the rear section housing **F** in line with the securing drill holes.

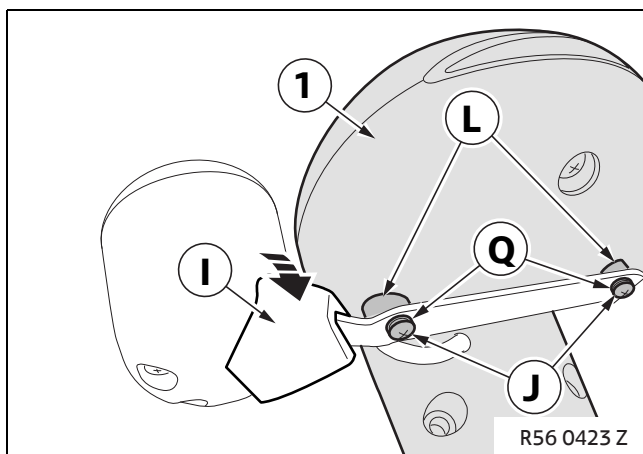


▶ Use the Phillips head screw **H**(4.2 x 9.5 mm) at the lower attachment point. ◀

Connect the auxiliary instruments mount **D** to the rear section housing **F** to line up with the securing holes and screw into place using Philips head screws **K** (4 x 12 mm) and **H** (4.2 x 9.5 mm).

Position the front section housing **G** in place and lock it by turning.

Secure retrofit cable **A** with cable tie **P** to the auxiliary instruments mount **D**.



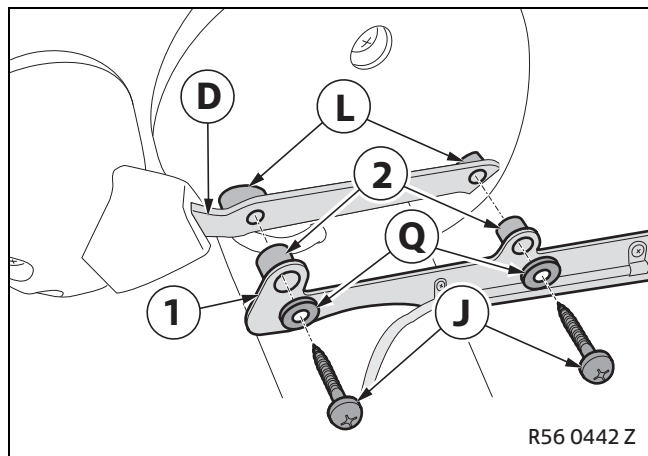
Cars without Portable navigation system (SA ZDQ) only

Push on cover **I** (the right and left covers are not interchangeable).

Unscrew the two bottom screws on the back of the revolution counter (these are no longer required).

Screw the auxiliary instruments mount **D** using spacer sleeves **L**, Phillips head screws **J** (4 x 30 mm) and washers **Q** to the revolution counter (1).

6. Fitting the auxiliary instruments

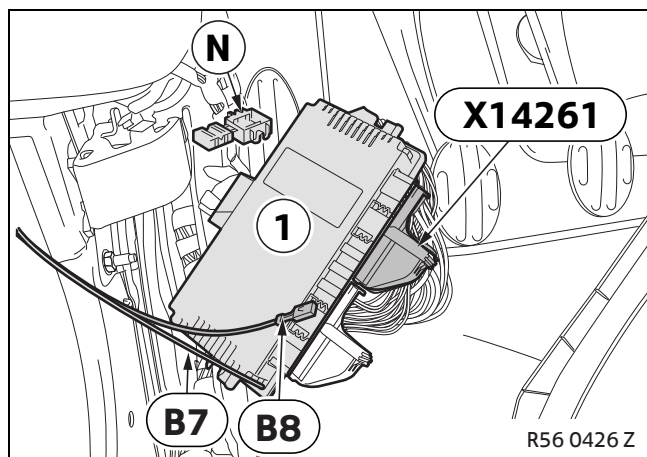


Cars with Portable navigation system (SA ZDQ) only
Saw off the spacer sleeves (2) from the Portable navigation system mount (1).

Repaint the Portable navigation system mount (1) on the cut edges.

Screw the Portable navigation system mount (1) and auxiliary instrument mount **D** using spacer sleeves **L**, Phillips head screws **J** (4 x 30 mm) and washers **Q** to the revolution counter (1).

7. Installing and connecting the retrofit cable

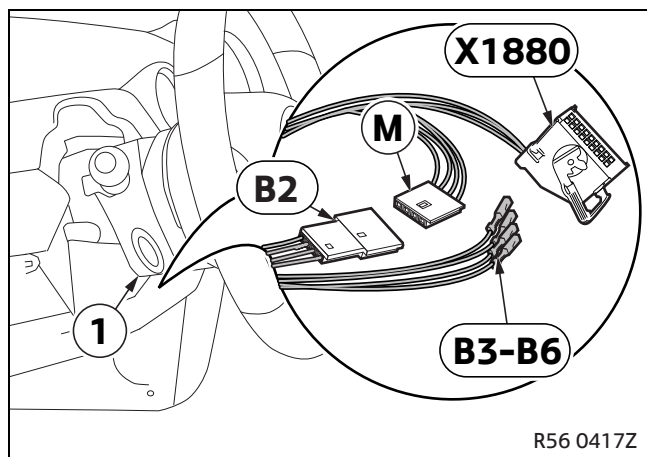


Release the footwell module (1) and socket casing **X14261** (SW 51-pin).

Should PIN 48 already be occupied, connect branch **B8** using miniature connector **N**. ◀

Connect branches **B7** and **B8** as follows to socket casing **X14261**:

- Branch **B7**, GR cable, with miniature connector **N** to the grey cable of PIN 12
- Connect branch **B8**, GR/RT cable, to PIN 48



Route branches **B2–B6** to the steering column switch cluster (1).

Disconnect plug **X1880**, SW 18-pin on the steering column switch cluster (1) and unlock it.

Disconnect the following cables from plug **X1880** connect them to the same pins in socket casing **M**:

- RT/GE cable from PIN 1 to PIN 1
- BR/SW cable from PIN 2 to PIN 2
- GE/SW cable from PIN 3 to PIN 3
- GE/BR cable from PIN 4 to PIN 4

Connect branch **B2** to socket casing **M**.

Connect branches **B3–B6** as follows to plug **X1880**:

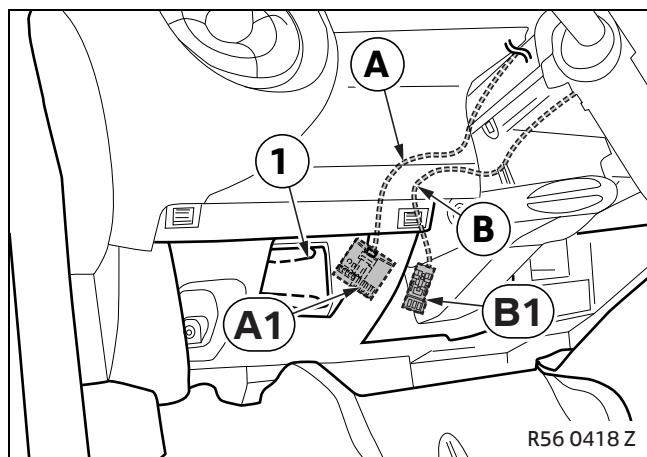
- Branch **B3**, RT/GE cable, to PIN 1
- Branch **B4**, BR/SW cable, to PIN 2
- Branch **B5**, GE/SW cable, to PIN 3
- Branch **B6**, GE/BR cable, to PIN 4

Connect plug **X1880** to the steering column switch cluster (1).

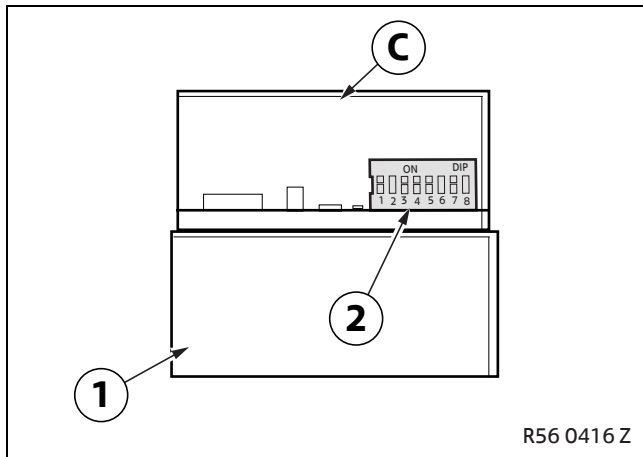
⚠ Note the cable routing on the steering column, taking any measures to protect against rubbing as necessary. ◀


Fit the pre-mounted revolution counter with the auxiliary instruments into the car.

Route branches **A1** and **B1** of retrofit cables **A** and **B** to the control unit (1) installation point.



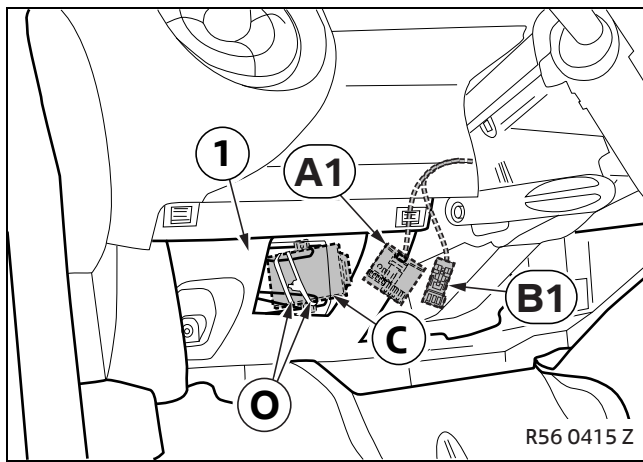
7. Installing and connecting the retrofit cable



 Disconnect the connection plug of control unit **C** before opening the cover (1). ◀

Open the cover (1) of control unit **C**.

Set the engine type/vehicle and auxiliary instruments installed on the switch unit (2) (see DIP switch settings, sections 9 and 10).



Connect branch **A1** and **B1** to control unit **C**.

Secure control unit **C** with cable ties **O** to the instrument panel (1).

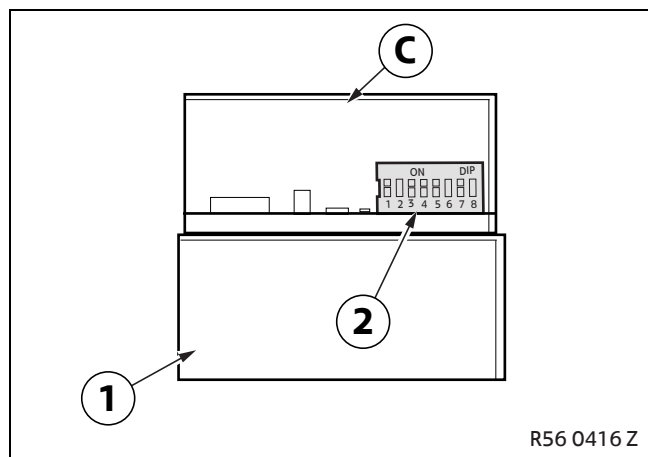
8. Concluding work and coding

This retrofit system does not require coding.

- Connect the battery
- Conduct a brief test
- Conduct a function test
- Re-fit the car components as required

The section entitled "Customer information" must be printed out and given to the customer.

9. DIP switch settings for control unit No.: 62 11 2 149 550 (not for R60)



 Disconnect the connection plug of control module C before opening the cover (1). ⚠

Open the cover (1) of control unit C.

The following settings can be made on the switch unit (2) of control unit C.

Switches 1 to 3:

Engine type/choice of vehicle

Switches 4 to 8:

Choice of auxiliary instruments that are connected to branch **A2** (designation A) or **A3** (designation B) of retrofit cable A

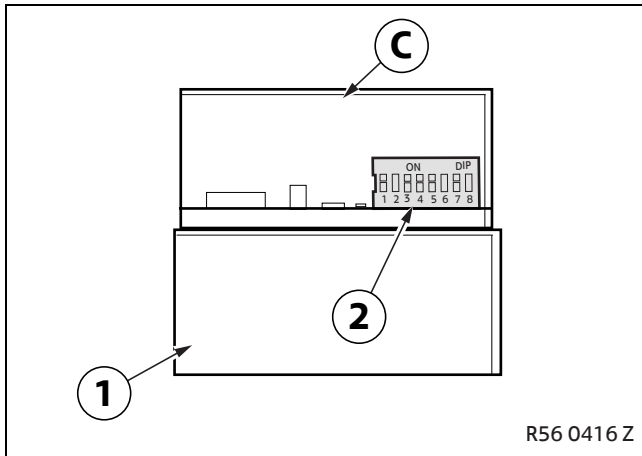
Switches 1 to 3 (vehicle/engine type)


DIP								Engine type/vehicle
■	■	■						ONE (N12B1400)
■	■							COOPER (N12B1600)
■		■						COOPER S (N14B1600)
■		■	■					JCW (N14B16T0)
■	■	■						JCW Tuning Kit (building on N14B1600)
■	■							COOPER D (W16D1600)

Switches 4 to 8 (auxiliary instruments)

DIP								Auxiliary instruments
			■	■	■	■	■	A2: Water temperature A3: Torque
			■	■	■	■	■	A2: Water temperature A3: lateral acceleration
			■	■		■	■	A2: Torque A3: lateral acceleration

10. DIP switch settings for control unit No.: 62 11 2 183 410



 Disconnect the connection plug of control module C before opening the cover (1). ⚠

Open the cover (1) of control unit C.

The following settings can be made on the switch unit (2) of control unit C.

Switches 1 to 4:

Engine type/choice of vehicle

Switches 5 to 8:

Choice of auxiliary instruments that are connected to branch **A2** (designation A) or **A3** (designation B) of retrofit cable A

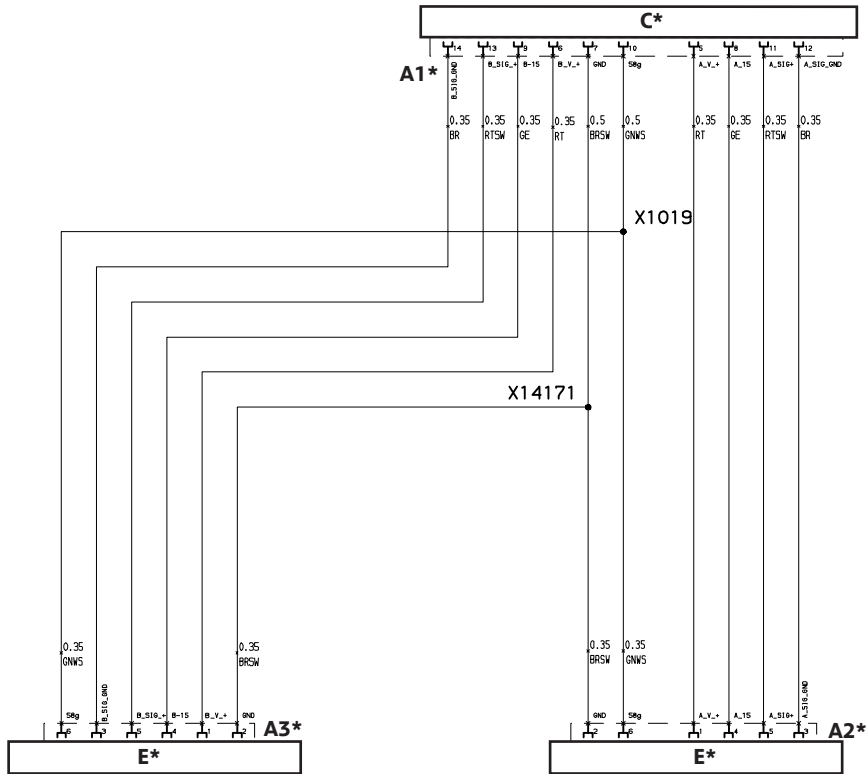
Switches 1 to 4 (vehicle/engine type)

DIP								Engine type/vehicle
■	■	■	■					ONE (N12B1400) ONE (N162B16K0)
■	■	■	■					COOPER (N12B1600) COOPER (N16B16M0) ONE (N16B16U0)
■	■	■	■					COOPER S (N14B1600) COOPER S (N18B16M0) COOPER D (W16D1600)
■	■	■	■					JCW (N14B16T0)
■	■	■	■					JCW Tuning Kit (building on N14B1600) JCW Tuning Kit (building on N18B16M0)
■	■	■	■					ONE D (W16D16U0) ONE D (N47C16K1)
■	■	■	■					COOPER D (N47C16U1) COOPER D (N47C20K1)
■	■	■	■					COOPER SD (N47C20U1)

Switches 5 to 8 (auxiliary instruments)

DIP								Auxiliary instruments
				■	■	■	■	A2: Water temperature A3: Torque
				■	■	■	■	A2: Water temperature A3: lateral acceleration
				■	■	■	■	A2: Torque A3: lateral acceleration

11. Wiring diagram



R56 0428 Z

Legend

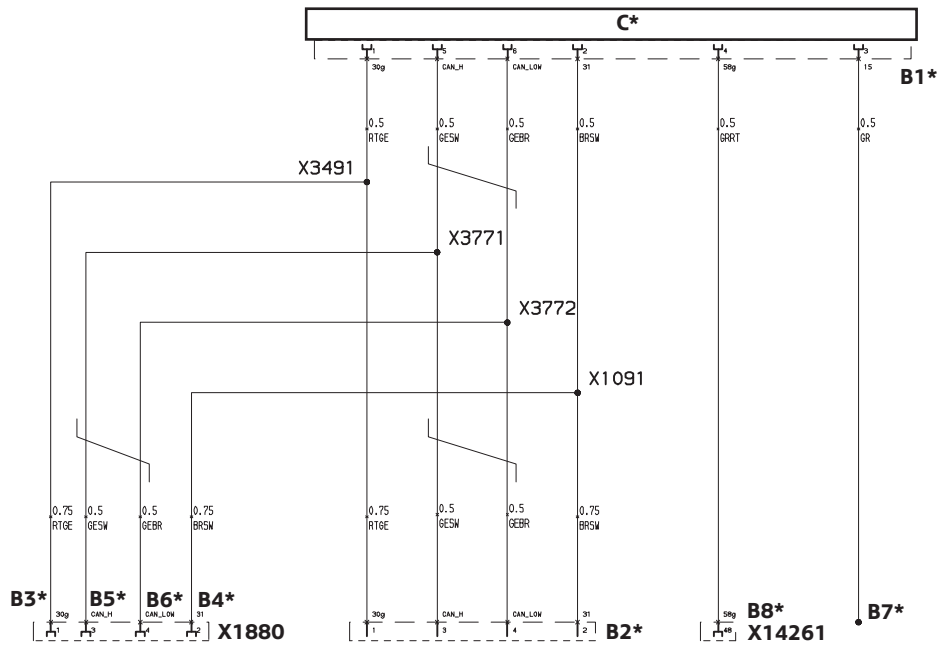
- A1*** SW 10+4-pin socket casing
- A2*** SW 8-pin socket casing (designation A)
- A3*** SW 8-pin socket casing (designation B)
- C*** Control unit
- E*** Auxiliary instrument
- X1019** Terminal 58g connector
- X14171** Earth connector

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

Cable colours

- | | | | |
|----|--------|----|-------|
| BR | Brown | RT | Red |
| GE | Yellow | SW | Black |
| GN | Green | WS | White |

11. Wiring diagram



R56 0427 Z

Legend

- B1*** SW 6-pin socket casing
- B2*** SW 4-pin pin housing
- B3*** Socket contact in plug **X1880**
- B4*** Socket contact in plug **X1880**
- B5*** Socket contact in plug **X1880**
- B5*** Socket contact in plug **X1880**
- B7*** Cable open
- B8*** Socket contact in plug **X14261**

C* Control unit

- X1091** Earth connector
- X1880** SW 18-pin socket casing
- X3491** Terminal 30g connector
- X3771** CAN High connector
- X3772** CAN Low connector
- X14261** SW 51-pin socket casing


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

Cable colours

- | | | | |
|----|--------|----|-------|
| BR | Brown | RT | Red |
| GE | Yellow | SW | Black |
| GR | Grey | | |

12. Customer information

Pictograms

 Denotes instructions that draw your attention to special features.

◀ Denotes the end of the instruction.

Display instrument coolant temperature

The coolant temperature is controlled as a function of the engine load. This can lead to fluctuations in the coolant temperature display, depending on the engine's operating status.

Display instrument relative torque

The display instrument shows how high the torque currently exerted on the crank shaft is in relation to the maximum nominal torque.

On engines with turbochargers, you are also told about the use of the overboost function (relative torque is temporarily higher than 100 %).

On drives at high altitudes, both the maximum output and the maximum torque decline, which means that the maximum pointer movement will also not be reached.

Display instrument lateral acceleration

The lateral acceleration display is only active after a few metres of driving.

 The control and warning lights present as standard in the car must continue to be monitored. ◀