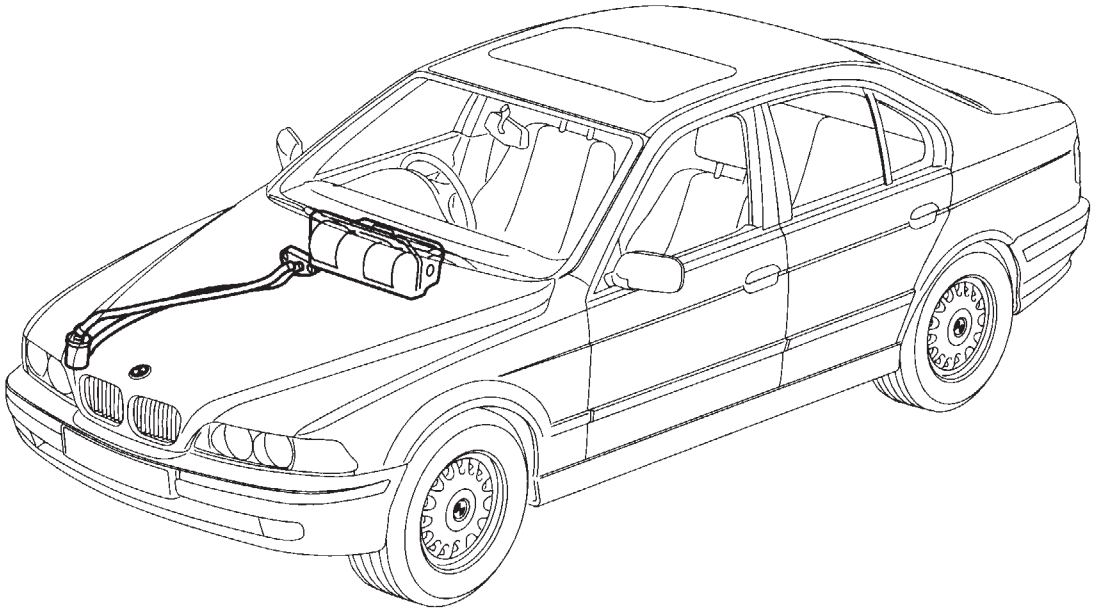
Parts and Accessories – Installation Instruction



F 39 0001 R

Automatic air conditioning system for BMW 5 Series (E39) right-hand drive with M51 or M52 engines

Specialist knowledge required.
Fitting time approx. 16 - 18 hours, depending on the condition of and equipment in the car.

Order No. 01 21 9 415 886 VII/98 Printed in Germany

source: www.ow.no

The air conditioning system may only be fitted by a specialist workshop which has the required special tools and suitable equipment for evacuating and filling the air conditioning system.

Fitting the air conditioning system will reduce the payload of the vehicle by approx. 26 kg.

All the seals and O rings are to be wetted with refrigeration machine oil before fitting.

It is a good idea not to remove the sealing stoppers in all the parts of the refrigerant circulation system until shortly before fitting since otherwise the ingress of moisture could damage the system. ◄

Ordering instructions
The control unit for the heater/air conditioning system must be ordered separately.
When placing an order a distinction must be made between the auxiliary heating system and the latent heat accumulator (see spare parts catalogue for part numbers).

Important notes on operating the air conditioning system

1. The condensation produced on the evaporator is drained from the system underneath the vehicle and, depending on the humidity level of the air, may amount to as much as 2 litres per hour.

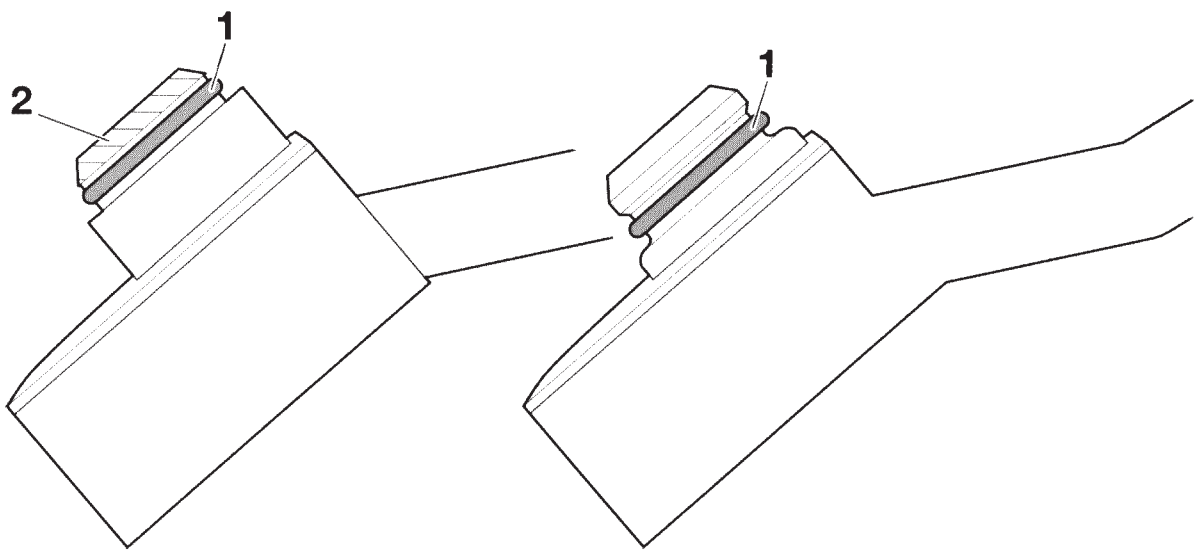
2. The air conditioning system must be started briefly at least once per month (even when the weather is cold) since otherwise it is possible that the seal on the compressor shaft will dry out, thus allowing refrigerant to escape.

3. In the event of the air conditioning system suffering any faults, for example no output of cold air despite the system being switched on, it is to be switched off and the car taken to a BMW service centre straight away.

4. Before commissioning the air conditioning system is to be given a control unit code and a modification to the central code key is to be completed by the BMW After-Sales Service outlet (otherwise the air conditioning compressor relay will not work).

The address of your nearest BMW After-Sales Service outlet for air conditioning systems is shown in the "BMW Service" directory supplied with the car.

Sealing system from/up to 09.97



F 39 64 211 R

As from 09.97 an optimised sealing system for the air conditioning system has been in use. This can be identified by the fact that in addition to the sealing ring (1) there is a plastic bush (2) on the lines. If it is necessary to replace a part, please note that only identical components may be fitted. ◄

source: www.ow.no

Tools and equipment required

MoDiC or DIS
Straight slot screwdriver
Philips screwdriver
Torx screwdriver T 25
1/2 inch torque wrench
1/2 inch reversible ratchet
1/2 inch extension
1/2 inch sockets, sizes 12 mm, 13 mm, 17 mm, 22 mm and 24 mm
1/4 inch reversible ratchet
1/4 inch extension
1/4 inch sockets, sizes 6 mm, 8 mm, 10 mm and 13 mm

Allen keys, sizes 4 mm and 6 mm
Ring spanners, sizes 6 mm, 10 mm, 13 mm, 17 mm, 19 mm and 22 mm
Open-ended spanners, sizes 11 mm, 13 mm, 15 mm, 19 mm, 22 mm, 30 mm and 32 mm
Universal knife
Primer pencil
Refrigeration machine oil
Air gun

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1. Preparatory work

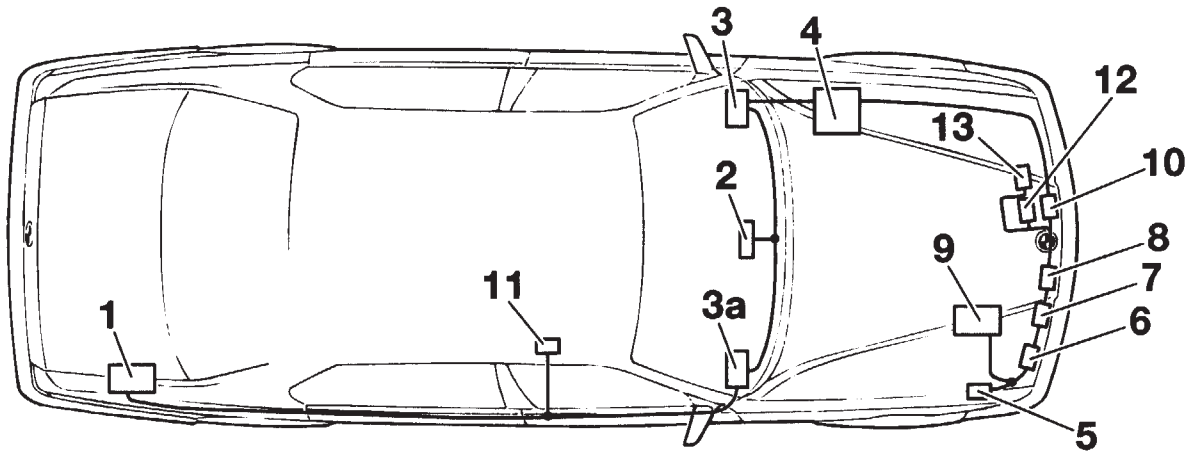

For safety reasons steering wheels with integrated airbags may only be removed by specialist BMW workshops. ◄

- Print out the error memory.
- Disconnect the battery.
- Remove the instrument panel.
- Remove the air grille.
- Remove the bottom engine casing.
- Remove the front bumper.
- Remove the mass air flow sensor and air filter.
- Drain the coolant.
- Remove the headlights on both sides.
- Remove the front skirt.
- Remove the heater unit.


To prevent coolant getting into the passenger compartment when removing the heater unit, carefully blow out the return port with compressed air (at a max. pressure of 1 bar). ◄

source: www.ow.no

2. Fitting and cabling diagram



F 39 0002 R

Legend

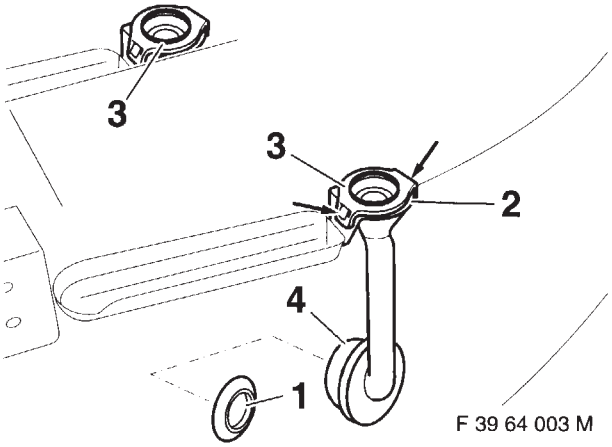
1. Battery positive pole
2. Air conditioning system control unit
3. Joint connector and relay connector

3.a Relay connector

4. Electrics box connector
5. Ground post connector
6. High/Low pressure pressostat connector
7. Double temperature switch extension cable connector
8. Additional filter connector
9. Air conditioning compressor connector
10. AUC sensor connector
11. Ground post connector
12. 108°C switch connector
13. Double temperature switch connector

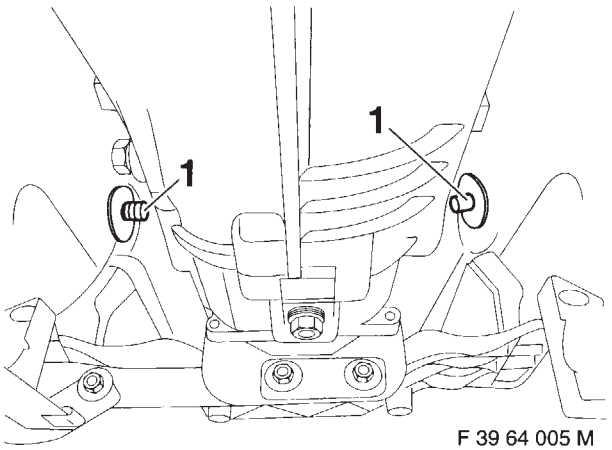
source: www.ow.no

3. To fit the condensation drain hoses



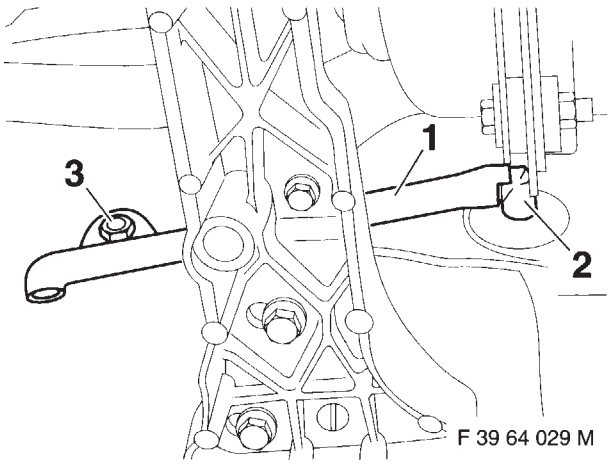
F 39 64 003 M

Remove the stoppers (1) on both sides of the car. Place the condensation drain (3) in the holder (2) and insert the standard recess (4).
Fit the lugs (see arrows).



F 39 64 005 M

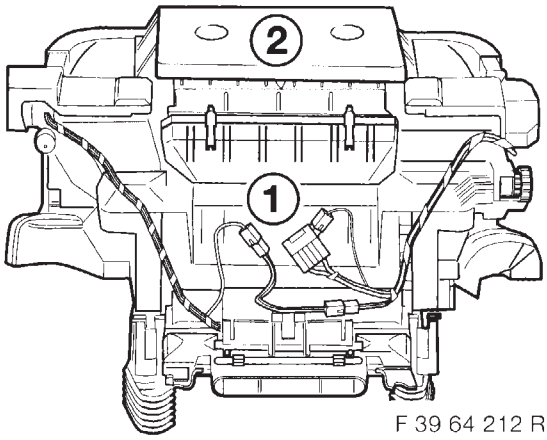
Check the condensation drain hoses (1) on the gearbox tunnel to ensure that they are correctly positioned.



F 39 64 029 M

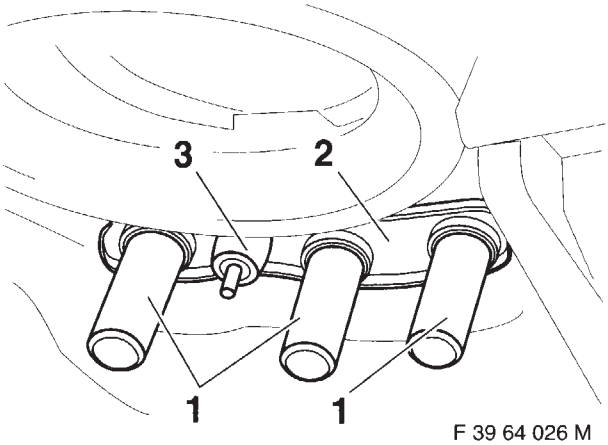
Fit the condensation drain hoses (1) to the condensation drains (2) on both sides of the car and secure them with the standard hexagonal nuts (3).

4. To fit the heater/air conditioning unit



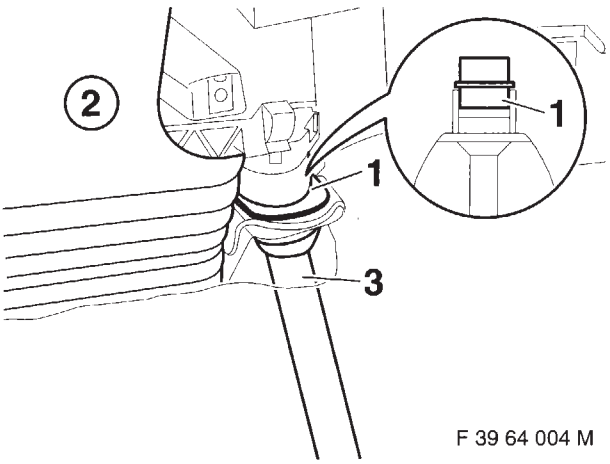
F 39 64 212 R

Before fitting the heater/air conditioning unit (1), remove the cover (2).



F 39 64 026 M

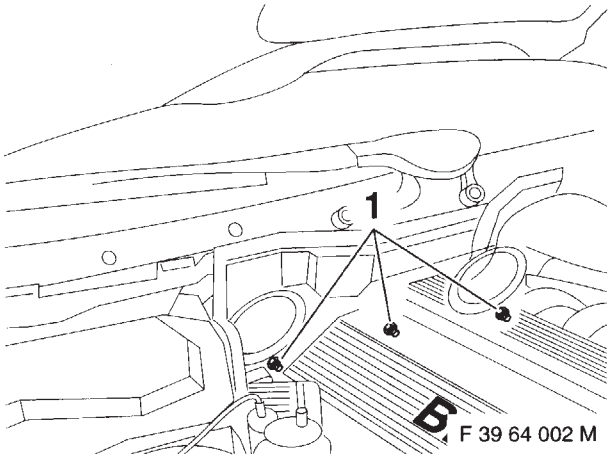
⚠ The three cooling water connectors (1) and the vacuum connector (3) must pass through the rubber sleeve (2). ◄



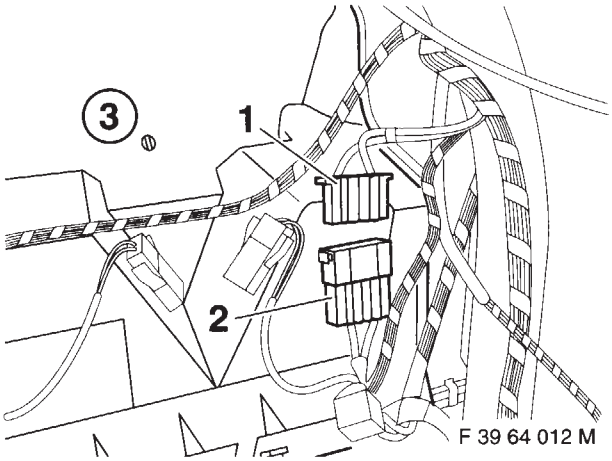
F 39 64 004 M

Insert the heater/air conditioning unit (2).
The condensation drains (1) from the heater/air conditioning unit (2) must be positioned in the funnels (3). Fit the heater/air conditioning unit by following the instructions for its removal in reverse.

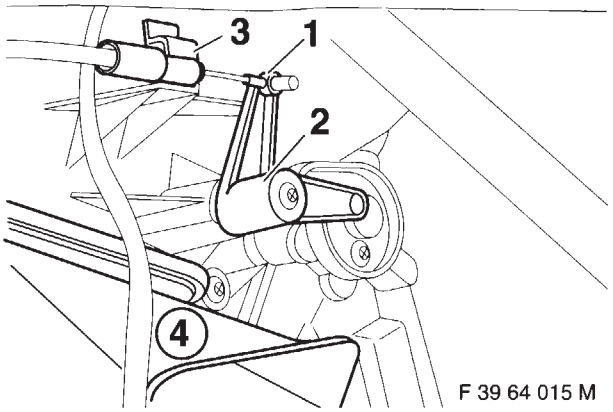
source: www.ow.no



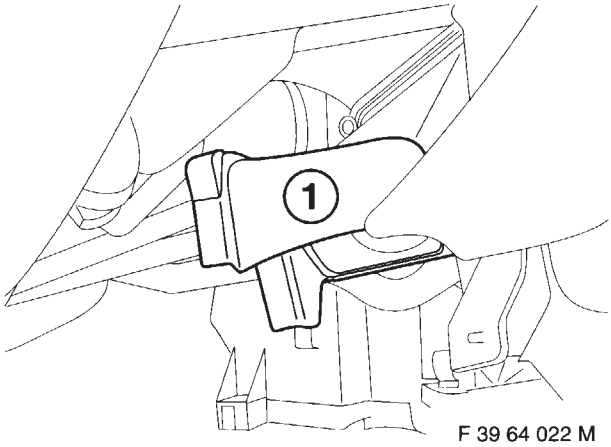
Align the heater/air conditioning unit.
Tighten the hexagonal nuts (1) on the heater/air conditioning unit.
Tightening torque for the hexagonal nuts (1) 10 Nm.



Connect the plug (1) to the counter plug (2) on the heater/air conditioning unit (3).

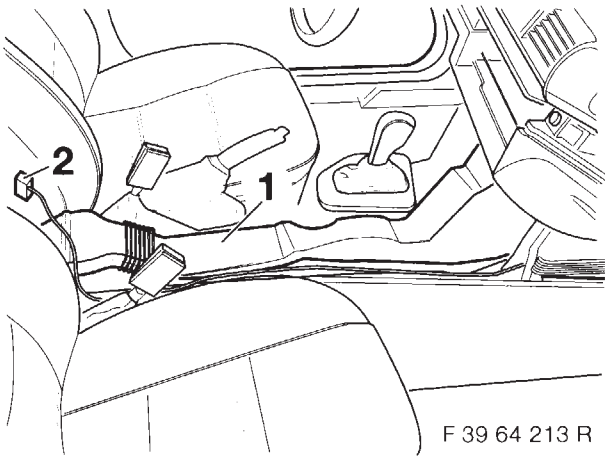


Insert the eyelet (1) in the lever (2) for the heater/air conditioning unit (4).
Insert the clip (3) and lock it.



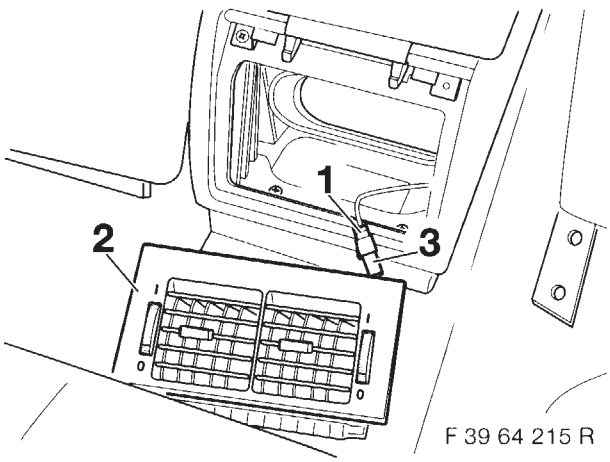
Insert the air guides (1) on both sides of the car below the instrument panel.

Fit the instrument panel by following the instructions for its removal in reverse.



Replace the existing ventilation duct (1) with the modified ventilation duct from the fitting kit and connect it up. Fit the branch (2) so that it points to the rear.

▷ From 09.97 the modified ventilation duct is fitted as standard. ◁

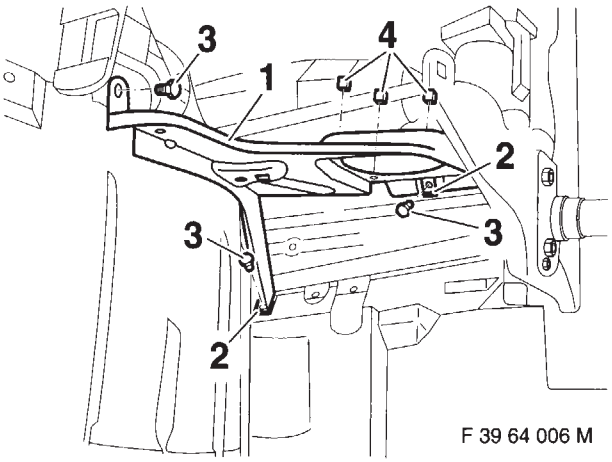


From 09.97 the modified ventilation duct is fitted as standard.

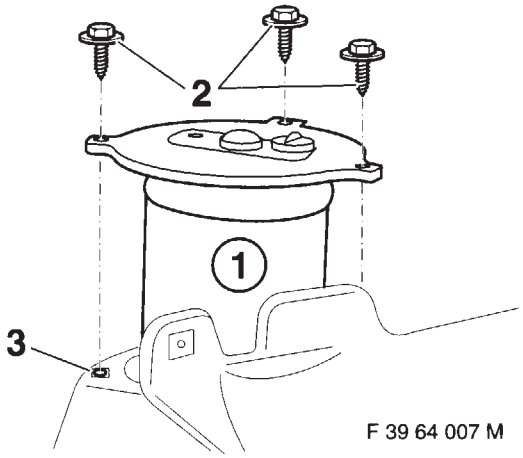
source: www.ow.no

5. To fit the drier bottle

Cars with M52 engine only

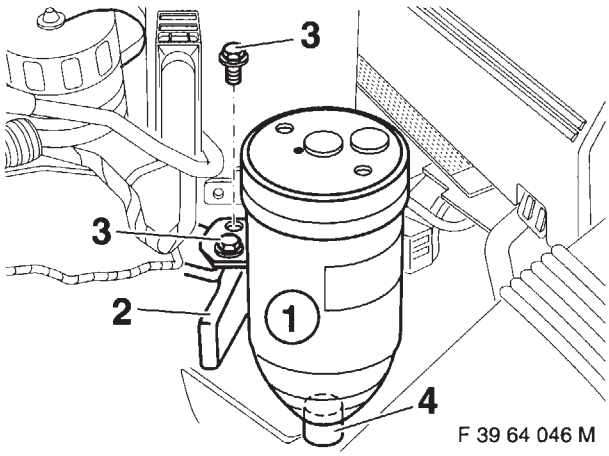


Insert the speed nuts (2).
Secure the bracket (1) using the screws (3), size M6 x 16 mm.
Insert the expanding nuts (4) into the recess in the bracket (1).
Tightening torque for the hexagonal screws 10 Nm.



Fit the drier bottle (1) as shown.
Insert the hexagonal self-tapping screws (2) in the expanding nuts (3) and tighten them.

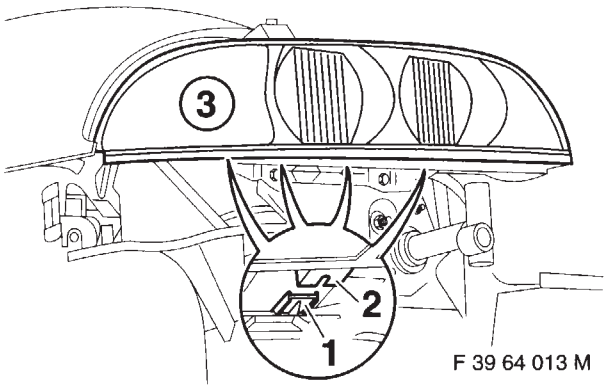
Cars with M51 engine only



Insert the rubber grommet (4).
Place the drier bottle (1) in the bracket (2) and secure it with the hexagonal screws (3).

Tightening torque for the hexagonal screws 10 Nm.

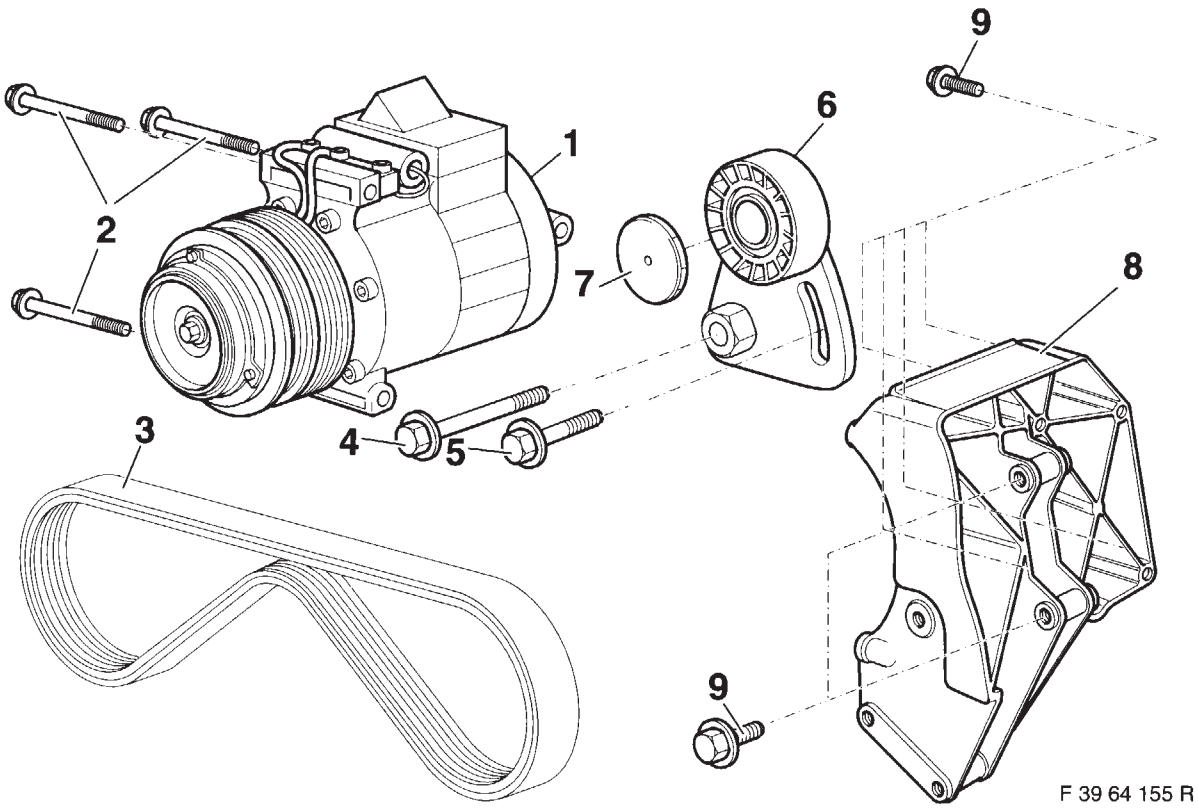
All cars



Note for fitting
When fitting the headlight (3) ensure that the lugs (1) are inserted into the guides (2).

source: www.ow.no

6.a To fit the compressor
M51 engine (diesel)



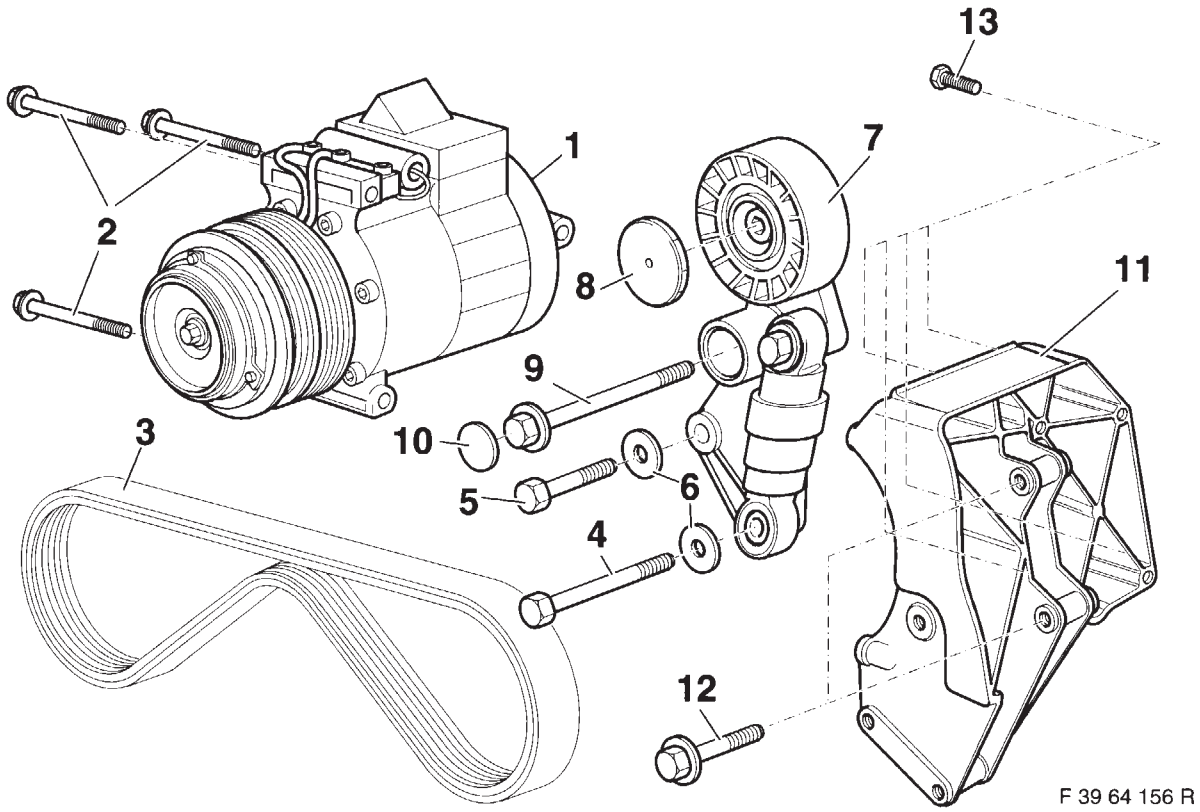
⚠ The specified screw lengths must be used. ◄

1 Compressor
2 Hexagonal screw, size M8 x 90 mm with washer (3x)
3 Belt
4 Hexagonal screw, size M8 x 40 mm with washer (1x)
5 Hexagonal screw, size M8 x 30 mm with washer (1x)
6 Tension pulley
7 Protective cap
8 Pedestal bearing
9 Hexagonal screw, size M8 x 26 mm with washer (6x)

Tightening torque for the hexagonal screws 22 Nm.

source: www.ow.no

6.b To fit the compressor M52 engine (petrol)



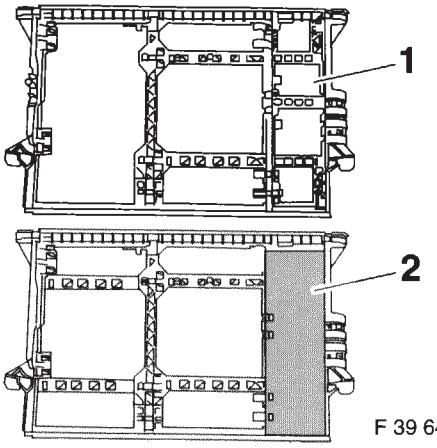
⚠ The specified screw lengths must be used. ◄

1 Compressor
2 Hexagonal screw, size M8 x 90 mm with washer (3x)
3 Belt
4 Hexagonal screw, size M8 x 75 mm (1x)
5 Hexagonal screw, size M8 x 40 mm (1x)
6 Washer (2x)
7 Belt tensioner
8 Protective cap
9 Hexagonal screw, size M8 x 85 mm with washer (1x)
10 Pedestal bearing
11 Protective cap
12 Hexagonal screw, size M8 x 55 mm with washer (2x)
13 Hexagonal screw, size M8 x 35 mm (4x)

Tightening torque for the hexagonal screws 22 Nm.

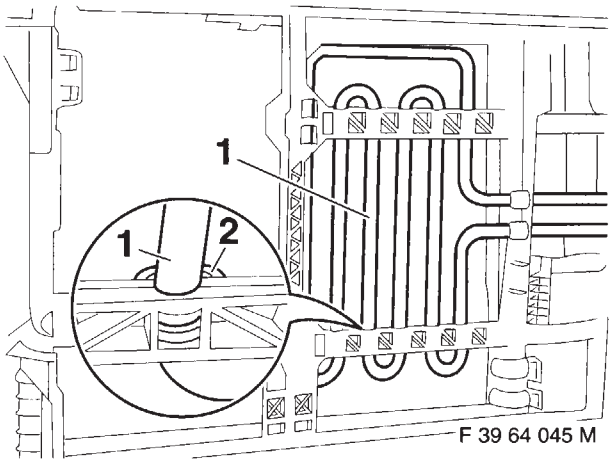
source: www.ow.no

7. To fit the condenser



F 39 64 044 M

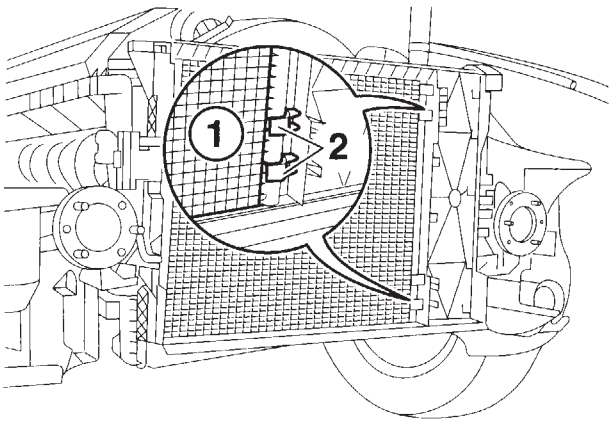
Cars with frame section (2) only.
Remove the frame section (2) and replace it with the frame section (1) from the fitting kit.



F 39 64 045 M

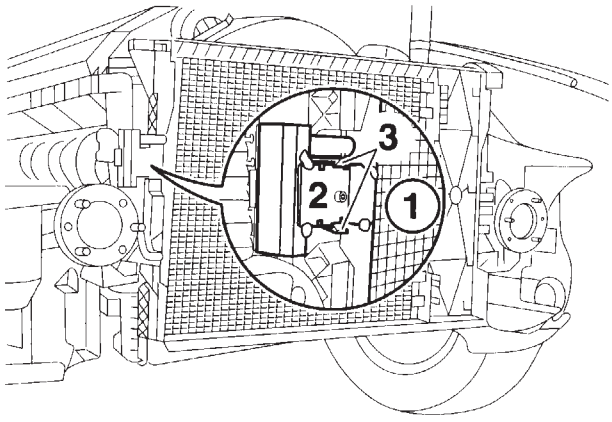
⚠ Ensure that the cooling coils (1) are inserted into the clips (2). ◄

All cars



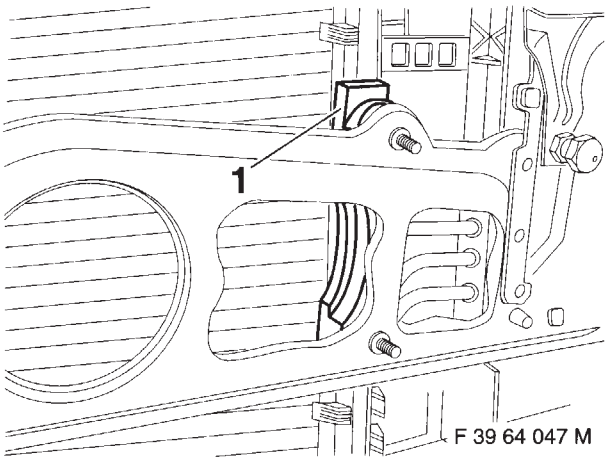
F 39 64 010 M

Insert the condenser (1) in the brackets (2).



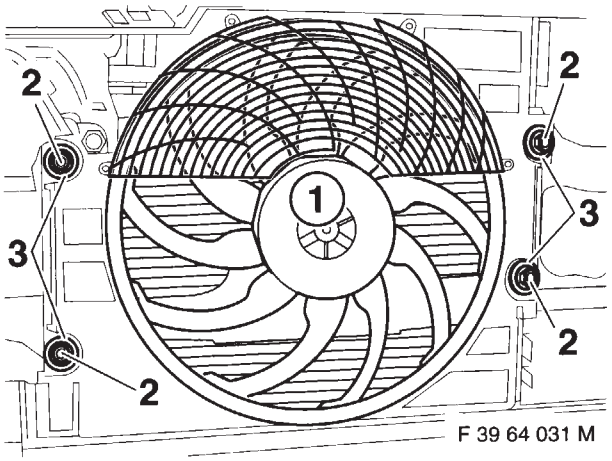
F 39 64 021 M

Carefully insert the bracket (2) for the condenser (1) in the clips (3).



F 39 64 047 M

Fit the seal (1) as shown **on the left-hand side** of the front apron.

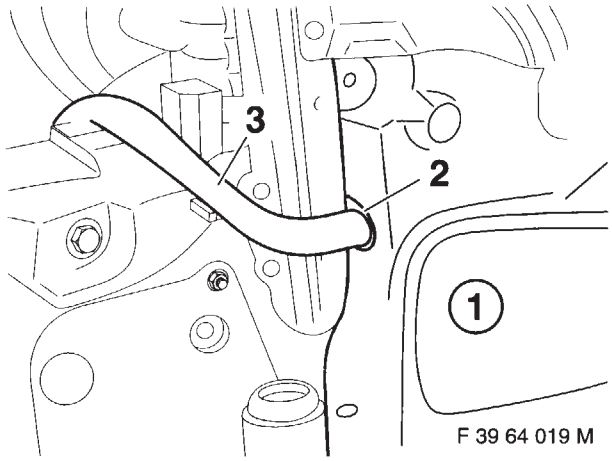


F 39 64 031 M

Fit the fan (1) as shown and secure it with hexagonal nuts (2) and sleeves (3).

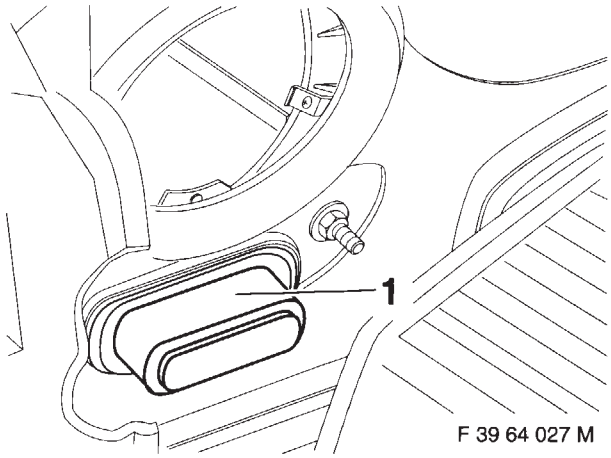
Tightening torque for the hexagonal nuts (2) 22 Nm.

source: www.ow.no

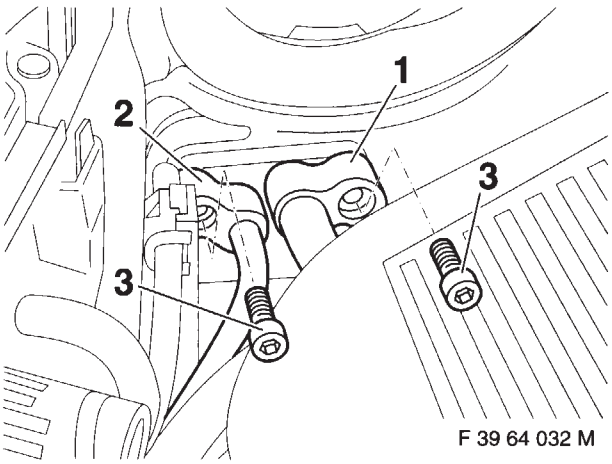


Fit the cable branch (3) from the fan through the recess (2) in the air guide (3).

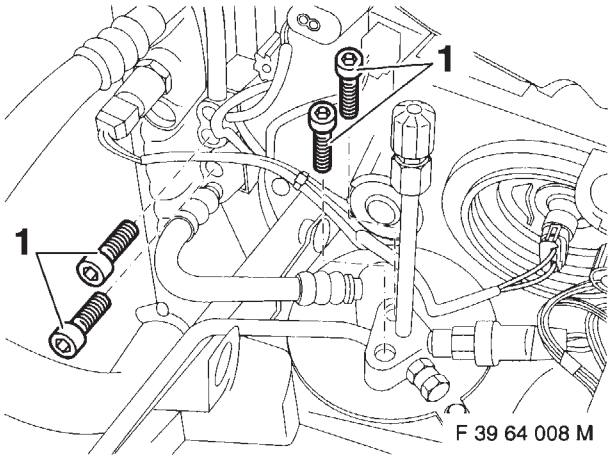
8. To fit the refrigerant lines



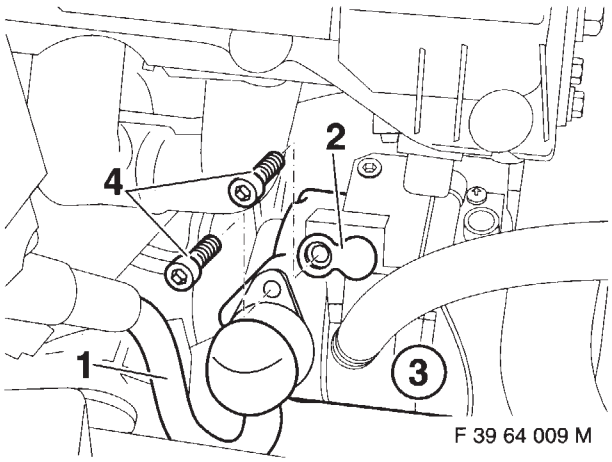
Remove the embossed cover (1).



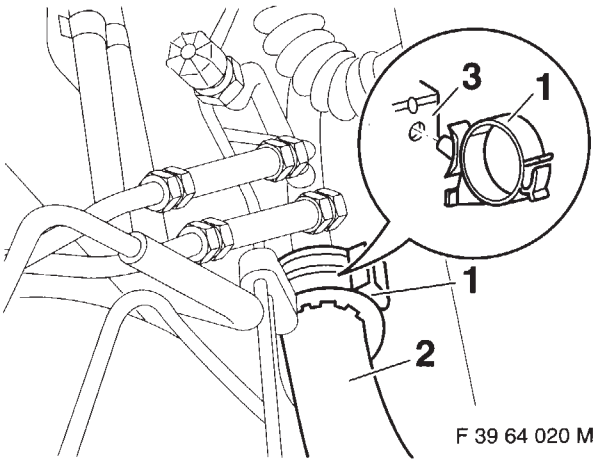
Remove the sealing stoppers from the refrigerant lines. Insert the refrigerant lines (1 and 2) with R rings. Insert the Allen bolts (3), align the refrigerant lines (1 and 2) and tighten the Allen bolts (3).
Tightening torque for the Allen bolts (3) 24 Nm.



Remove the sealing stoppers from the condenser and drier bottle and insert the refrigerant lines with O rings into the drier bottle and condenser as shown.
Insert the Allen bolts (1), align the refrigerant lines and tighten the Allen bolts (1).
Tightening torque for the Allen bolts (1) 24 Nm.



Remove the sealing stoppers from the compressor (3) and insert the refrigerant lines (1 and 2) with O rings into the compressor (3).
Insert the Allen bolts (4), align the refrigerant lines (1 and 2) and tighten the Allen bolts (4).
Tightening torque for the Allen bolts (4) 24 Nm.

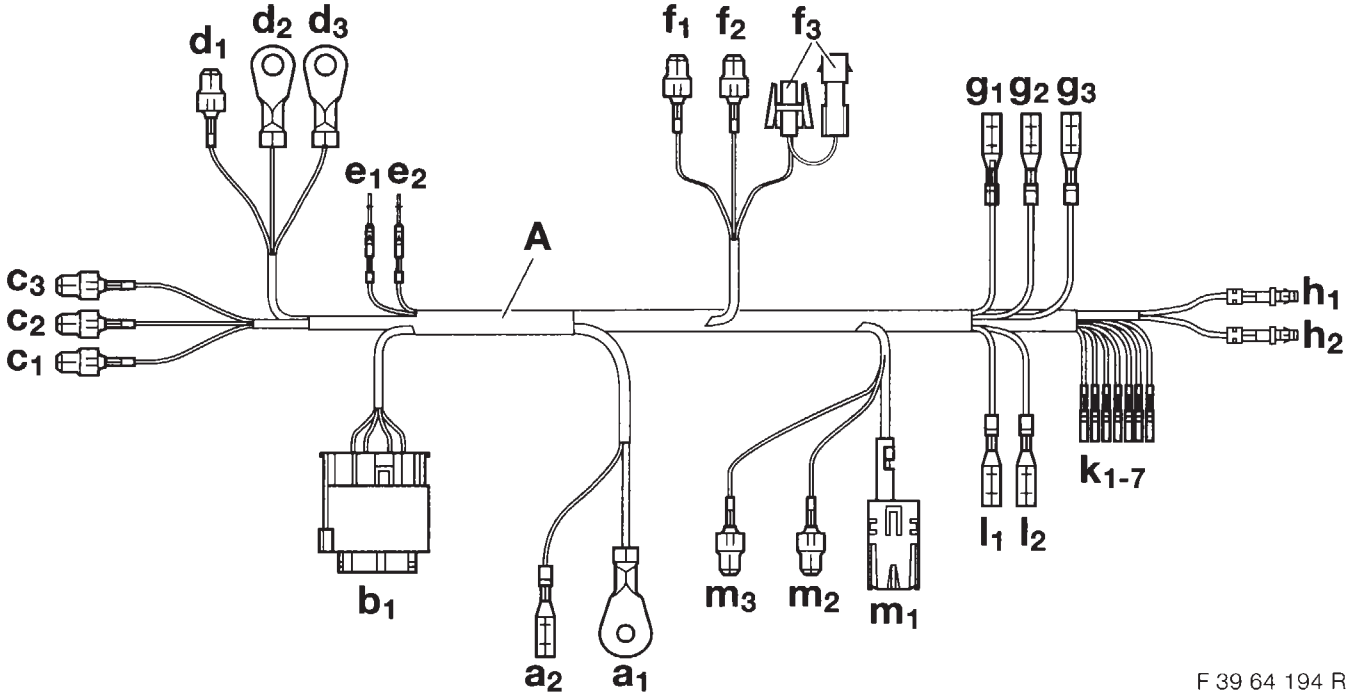


Fit the clip (1) into the hole (3).
Secure the refrigerant line (2) using the clip (1).

source: www.ow.no

9. To fit the wiring harnesses

Interior wiring harness



F 39 64 194 R

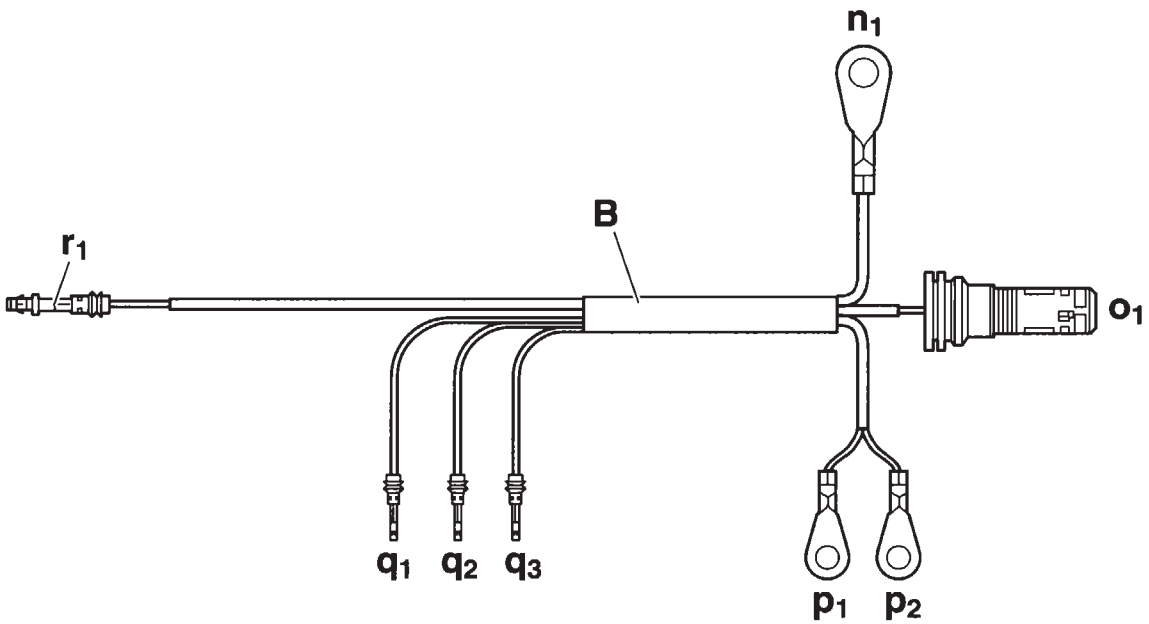
Branch	Description	Cable colour	Fitting position	Plug designation/ slot
A	Air condit. system wiring harness	——	——	——
a1	Terminal lug	red	Boot	X10210
a2	Joint connector	brown	Behind front passenger seat	X219
b1	4-pin plug	——	Fan shroud, front left, on AUC sensor	X3211
c1	Plug	red/green	Electr. box in engine compartment	X52, 6
c2	Plug	black/red	Electr. box in engine compartment	X52, 4
c3	Plug	green/yellow	Electr. box in engine compartment	X52, 8
d1	Plug	green/yellow	Electr. box in engine compartment	X1732, 2
d2	Terminal lug	red	Electr. box in engine compartment	X1732, 3
d3	Terminal lug	red/blue	Electr. box in engine compartment	X1732, 5
e1	Pin contact	black/grey	Motor plug II	X6021, 17
e2	Pin contact	black/green	Motor plug II	X6021, 19
f1	Flat contact socket	red/green, 1.5 Ø	Fuse strip/slot	X10015, 14 (7)*
f2	Flat contact socket	red/green, 2.5 Ø	Fuse strip/slot	X10015, 44 (22)*
f3	Flat contact socket	red/violet/yellow	Fuse strip/slot**	X10015, 18 (9)*
g1	Joint connector contact	green/yellow	Joint connector box	X1280
g2	Joint connector contact	green/yellow	Joint connector box	X1280
g3	Joint connector contact	green/yellow	Joint connector box	X1280
h1	Socket contact	brown	Heater/Air conditioning control unit A11	X18341, 3
h2	Socket contact	red/violet/yellow	Heater/Air conditioning control unit A11	X18341, 1
k1	Socket contact	brown	Heater/Air conditioning control unit A11	X610, 12
k2	Socket contact	yellow	Heater/Air conditioning control unit A11	X610, 13
k3	Socket contact	black/grey	Heater/Air conditioning control unit A11	X610, 15
k4	Socket contact	black/green	Heater/Air conditioning control unit A11	X610, 17
k5	Socket contact	black/red	Heater/Air conditioning control unit A11	X610, 18
k6	Socket contact	brown	Heater/Air conditioning control unit A11	X610, 25
k7	Socket contact	blue	Heater/Air conditioning control unit A11	X610, 26
l1	Joint connector contact	black/red	Joint connector box	X1022
l2	Joint connector contact	black/red	Joint connector box	X1022
m1	Flat sleeve contact	red/blue	Fuse holder behind glove box	X10017, 1
m2	Flat sleeve contact	red/green	Relay holder on the driver's side next to the steering wheel	X53, 6
m3	Flat sleeve contact	green/yellow	Relay holder on the driver's side next to the steering wheel	X53, 8

* From model year 97, use slot in brackets.

** On cars without heated spray jets (special accessory), slot No. 9 in the fuse strip is not used; in this case the double stop on branch **f3** must be cut off and fitted with the enclosed flat contact socket.

source: www.ow.no

Wiring harness for engine compartment **



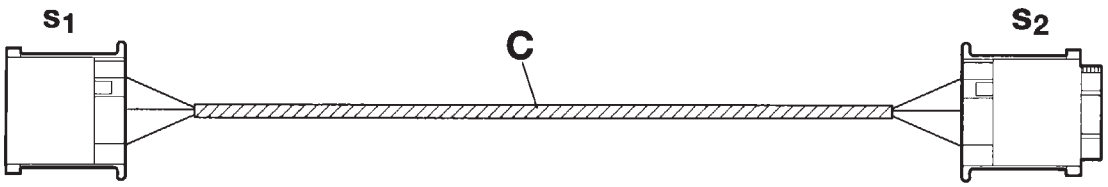
F 39 64 038 M

Branch	Description	Cable colour	Fitting position	Plug designation/ slot
B	Wiring harness	——	——	——
n1	Terminal lug	brown	Ground post	X166
o1	1-pin socket casing	black/grey	Compressor	X163
p1	Terminal lug	brown	Ground post	X1106
p2	Terminal lug	brown	Ground post	X1106
q1*	Flat sleeve contact	brown	High/Low pressure pressostat B8	X126,2
q2*	Flat sleeve contact	black/grey	High/Low pressure pressostat B8	X126,4
q3	Flat sleeve contact	brown	Double temperature switch 91°C/99°C	X87,2
r1	Socket contact	brown	Additional fan M9	X82, 1

* Undo tied back cable on engine type M51
** Included in air conditioning wiring harness

source: www.ow.no

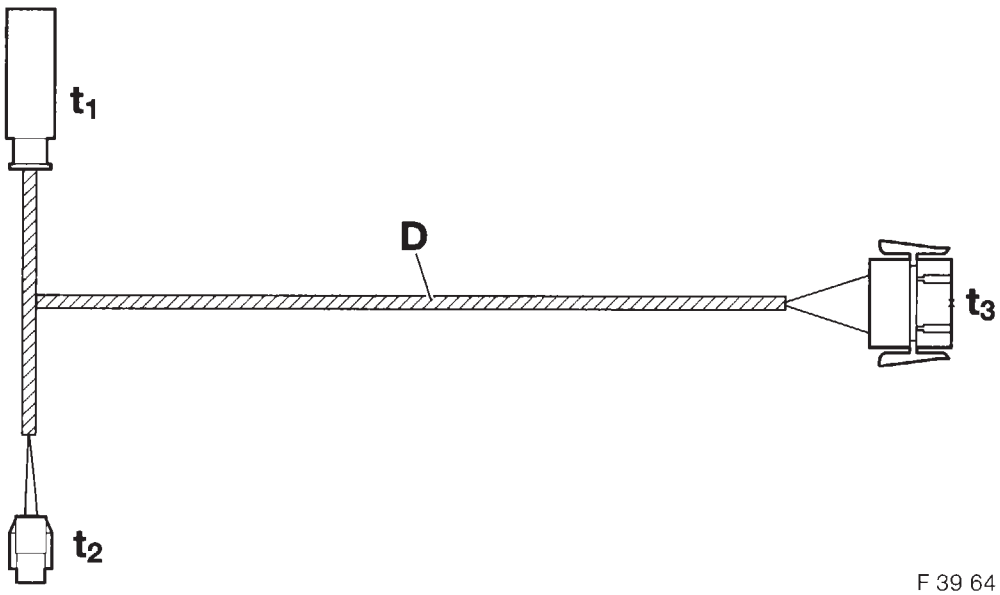
Extension cable for connecting the double temperature switch (91°C/99°C)*



F 39 64 160 R

Branch	Description	Cable colour	Fitting position	Plug designation/ slot
C	Wiring harness	——	——	——
s1	3-pole plug	——	Engine compartment front left	X87
s2	3-pole plug	——	Double temperature switch 91°C/99°C	S36

Connection cable for 108°C cut-out**

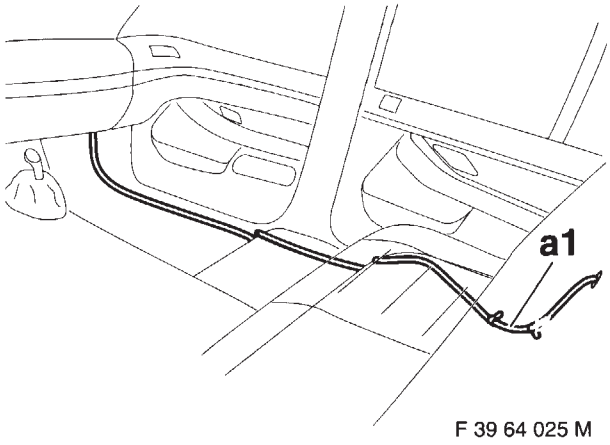


F 39 64 161 R

Branch	Description	Cable colour	Fitting position	Plug designation/ slot
D	Wiring harness	——	——	——
t1	4-pole plug	——	Engine compartment front right	X126
t2	4-pole plug	——	Engine compartment front right	B8
t3	3-pole plug	——	Schalter 108°C	S116

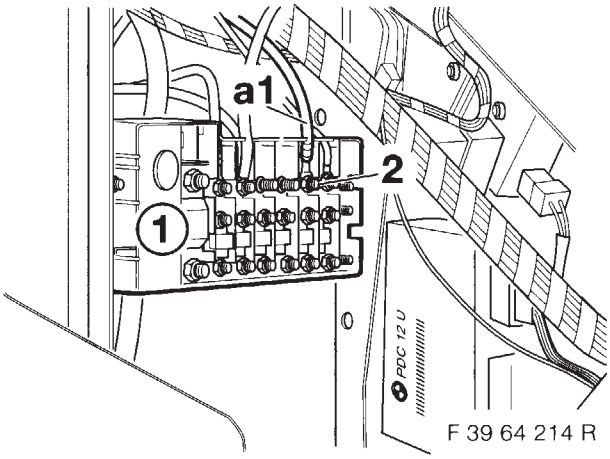
* Included in air conditioning fitting kit
** Included in air conditioning wiring harness

source: www.ow.no



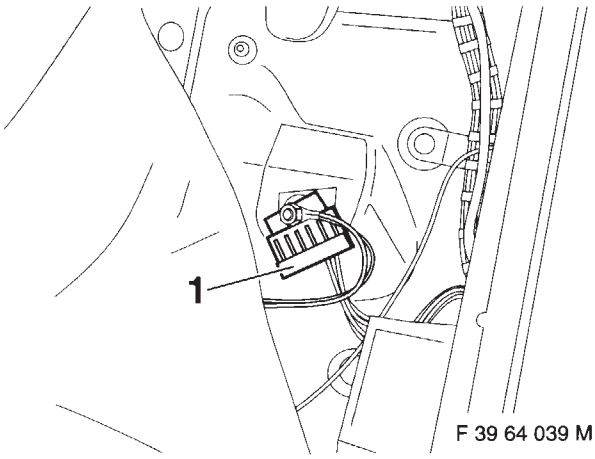
F 39 64 025 M

Fit branch **a1**, red cable, from the glove box to the right along the vehicle wiring harness to the boot



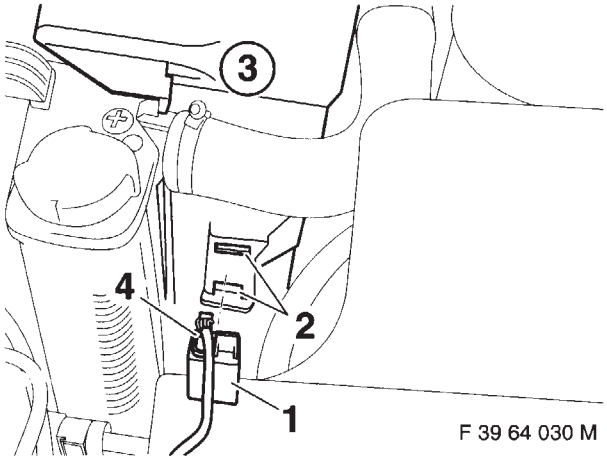
F 39 64 214 R

Connect branch **a1**, red cable, to the fuse holder X10210 (1) at the connector (2) using the enclosed 100 A fuse.



F 39 64 039 M

Connect branch **a2**, brown cable, to the ground post X219 (1) beneath the right-hand seat.

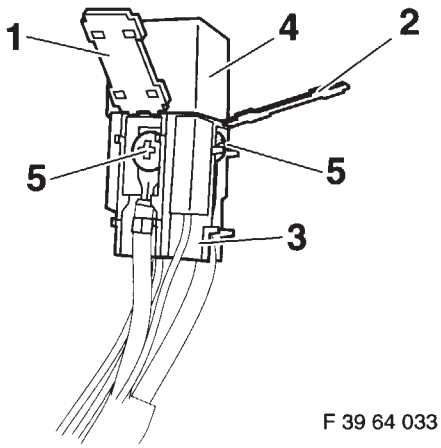


F 39 64 030 M

Fit branch **b1** along the vehicle wiring harness to the engine compartment and connect it to X3211 (4).

Fit the AUC sensor (1) in the recesses (2) in the fan shroud (3).

Tie back the excess length cables on branch **b1** in the electrics box. ◄



F 39 64 033 M

Open covers (1 and 2).

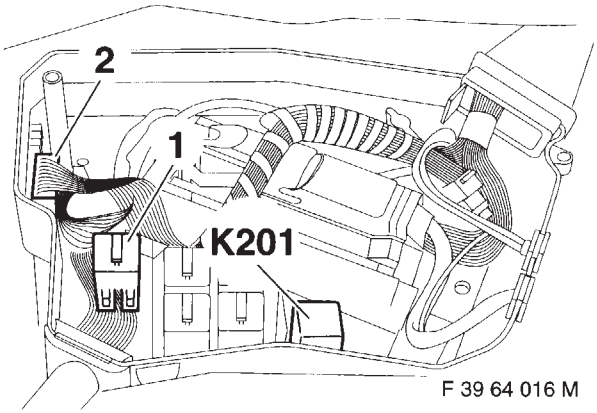
Connect branch **d1**, green/yellow cable, to relay base X1732 (3) in slot 2.

Fit the relay (4).

Connect branch **d2**, red cable, to relay base X1732 (3), slot 2 using the enclosed cheese head screw (5).

Connect branch **d3**, red/blue cable, to relay base X1732 (3), slot 5 using the enclosed cheese head screw (5).

source: www.ow.no



F 39 64 016 M

Fit relay **K201**.

Connect branch **c1**, red/green cable, to relay base X52 (1), slot 6.

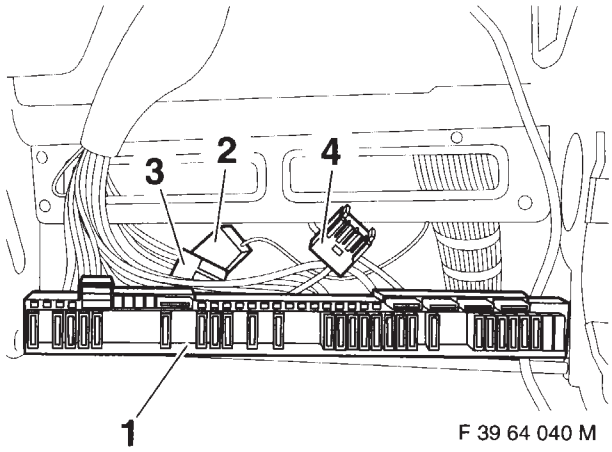
Connect branch **c2**, black/red cable, to relay base X52 (1), slot 4.

Connect branch **c3**, green/yellow cable, to relay base X52 (1), slot 8.

Connect branch **e1**, black/grey cable, to motor plug II X6021 (2), slot 17.

Connect branch **e2**, black/green cable, to motor plug II X6021 (2), slot 19.

All models



F 39 64 040 M

Connect branch **f1**, red/green cable, 1.5 diameter, to fuse strip X10015 (1), slot 14.

Connect branch **f2**, red/green cable, 2.5 diameter, to fuse strip X10015 (1), slot 44.

Connect branch **f3**, red/violet/yellow cable, to fuse strip X10015 (1), slot 18.

Connect branch **m1**, red/blue cable, to fuse strip X10017 (4), slot 1.

Note
On cars from model year 97, branches **f1 - f3** are to be connected as follows:

f1	slot	7
f2	slot	22
f3	slot	9

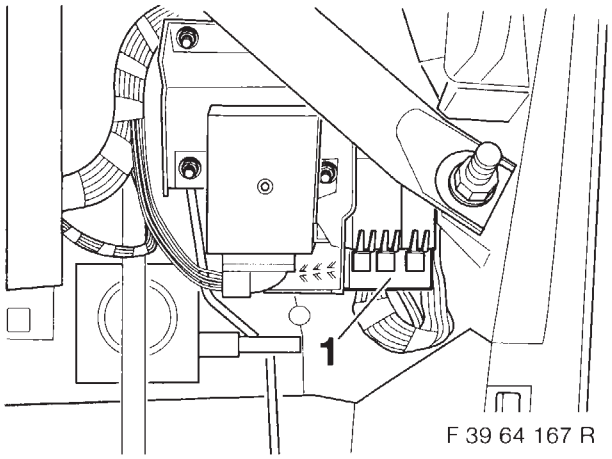
On cars without heated spray jets (special accessory), slot No. 9 in the fuse strip is not used; in this case the double stop on branch **f3** must be cut off and fitted with the enclosed flat contact socket. Otherwise cut the cable coming out of slot No. 9 and fit it with a socket and pin contact. Connect the free ends of the cable to branch **f3**.

Connect branches **g1 - g3**, yellow/green cable, to joint connector X1280 (2).

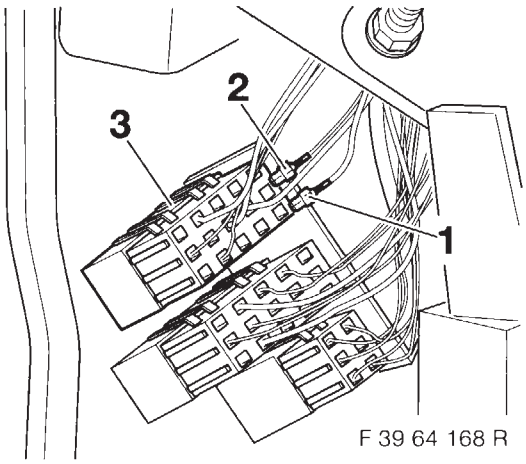
Connect branches **l1 - l3**, black/red cable, to joint connector X1022 (3).

▷ If one of the joint connectors X1280 or X1022 has already been used, an additional joint connector from the kit is to be fitted (see next point). ◄

source: www.ow.no



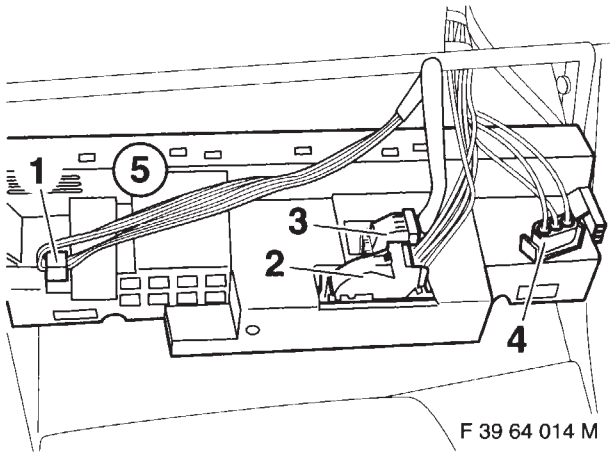
Undo the relay holder (1) on the right-hand side of the A pillar.



Connect branch **m2** (1), red/green cable, to relay base X53 (3), slot 6.

Connect branch **m3** (2), green/yellow cable, to relay base X53 (3), slot 8.

Fit the relay.



Connect branch **h1**, brown cable, to heater/air conditioning control unit A11 (5) X18341 (4), slot 3.

Connect branch **h2**, red/violet/yellow cable, to heater/air conditioning control unit A11 (5) X18341 (4), slot 1.

Connect branch **k1**, brown cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 12.

Connect branch **k2**, yellow cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 13.

Connect branch **k3**, black/grey cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 153.

Connect branch **k4**, black/green, to heater/air conditioning control unit A11 (5) X610 (2), slot 17.

Connect branch **k5**, black/red cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 18.

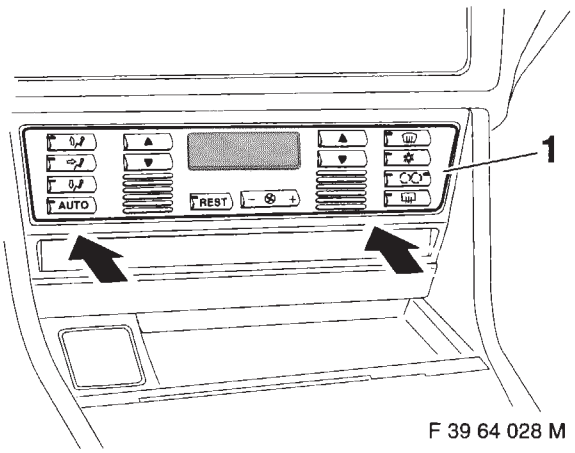
Connect branch **k6**, brown cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 25.

Connect branch **k7**, blue cable, to heater/air conditioning control unit A11 (5) X610 (2), slot 26.

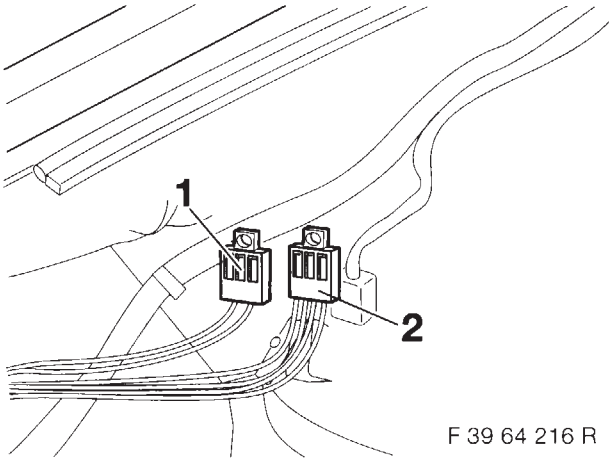
Insert plugs (1-4) into the heater/air conditioning control unit (5) and lock them.

⚠ Branches **k1** and **k6** are the same colour (brown).
Therefore you should ensure that the correct branch is connected in the correct place to the heater/air conditioning control unit by measuring the resistance (see circuit diagram on page 20). ◄

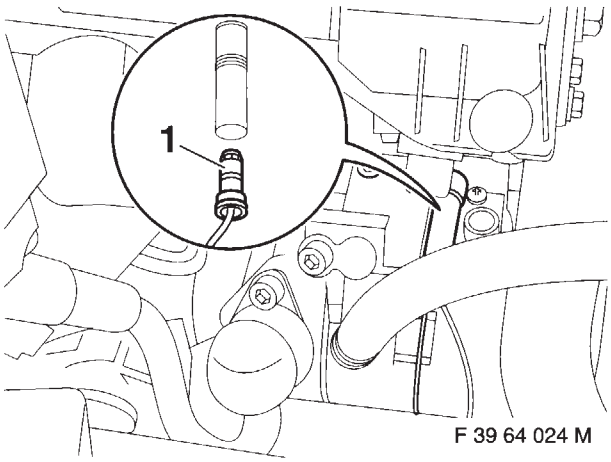
source: www.ow.no



Fit the heater/air conditioning control unit (1) in the direction indicated by the arrow.

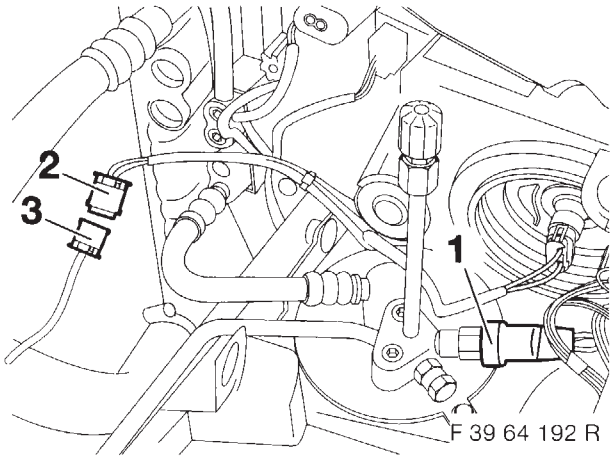


Connect branches **p1** and **p2** (1 and 2), brown cable, to ground post X1106.



Connect branch **o1** (1), black/grey cable, to compressor X163.

Secure outgoing black/grey cable to the right-hand side member using the enclosed cable clip. ◄



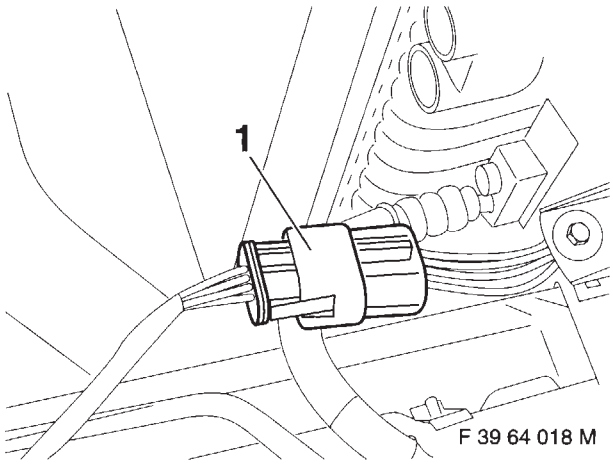
Connect branch **q1**, brown cable, to the high/low pressure pressostat B8, X126 (1), slot 2.

Connect branch **q2**, black/grey cable, to the high/low pressure pressostat B8, X126 (1), slot 4.

Plug X126 on the wiring harness to the ABS hydraulic unit is to be tied back on cars with **engine type M51**. ◄

Connect branch **q3**, brown cable, to the connector on the double temperature switch X87 (2), slot 2.

Connect extension cable **C** (3) to plug (2). Fit extension cable **C** to the double temperature switch 91°C/99°C on the top cooling water hose.



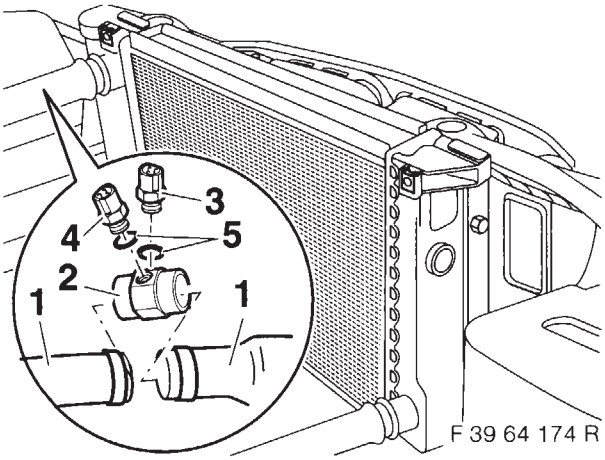
Connect branch **r1**, brown cable, to the additional fan M9 X82 (1), slot 1 and secure it to the wiring harness using a cable strap.

source: www.ow.no

10. To fit the 108°C cut-out

When the water temperature reaches a value of 108°C, the air conditioning compressor cuts out.

Engine type M51 only



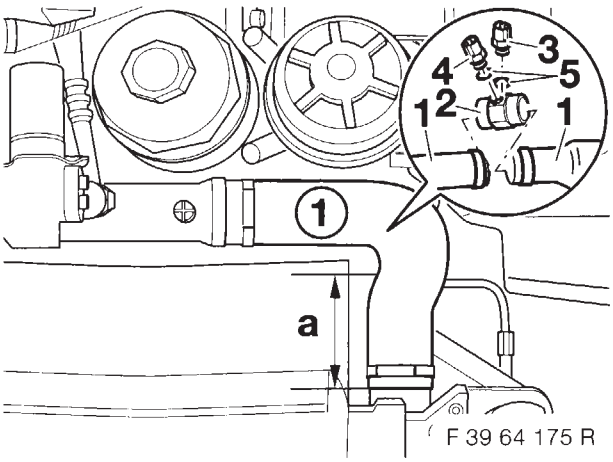
⚠ The hose connector (2) must be fitted in such a way that it is a minimum of 1.5 cm away from other parts of the car. ◄

Cut the top cooling water hose (1).

Fit the temperature switches (3 and 4) with the seals (5) as shown.

Fit the hose connector (2) and hose clips.

Engine type M52 only



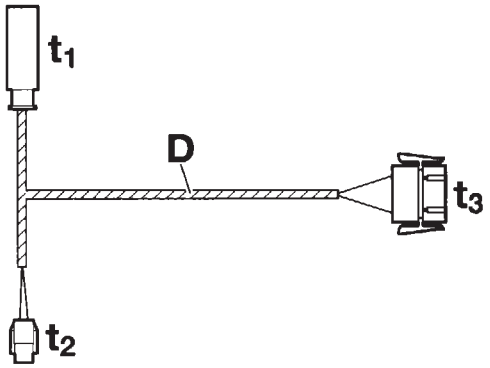
⚠ The hose connector (2) must be fitted in such a way that it is a minimum of 1.5 cm away from other parts of the car. ◄

Mark dimension **a** on the top cooling water hose (1) and cut it.
Dimension **a 70 mm**

Fit the temperature switches (3 and 4) with the seals (5) as shown.

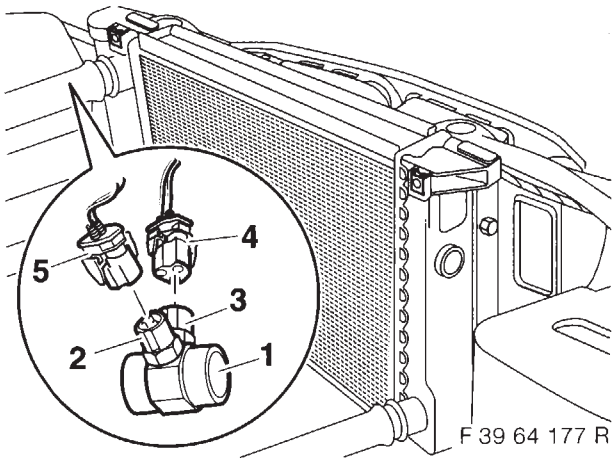
Fit the hose connector (2) and hose clips.

All models



108°C cut-out connection cable
Connect branch **t3** to 108°C temperature switch
Connect branch **t2** to high/low pressure pressostat
Connect branch **t1** to vehicle wiring harness, plug X126.

Fit branches **t1** and **t2** to the fitting position for the drier bottle, branch **t3** to the fitting position of the 108°C temperature switch.

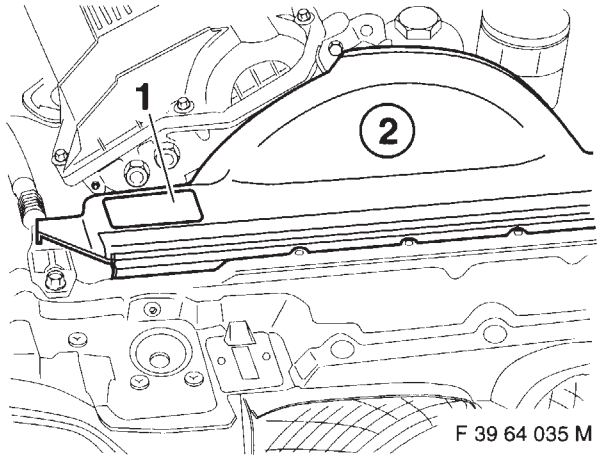


⚠ When fitting these parts ensure that the socket casings (4 and 5) are freely accessible and do not scrape against or make contact with parts of the car. ◄

Connect the 3-pin socket casing (4) which has two connectors (2 x cable colour black/grey) to the 108°C temperature switch (3) which has two connectors.
Connect the 3-pin socket casing (5) from the extension cable **C**, which has three connectors to the double temperature switch (2), which has three connectors.
Align the hose connector (1), tighten the hose clip.

source: www.ow.no

11. Concluding work



Affix the fill volume plate (1).
Fill the cooling system as described in the service information and check it for leaks.

Evacuate and fill the air conditioning system.
See fill volume plate for fill volume.

Conduct a leak and function test on the air conditioning system.

We recommend that as an additional safety check you examine the car for signs of water entry in the area around the air conditioning unit.

Depending on the equipment in the car, various slots may already be in use. Check the use of the fuse slots on the car owner's manual and insert the appropriate fuse if necessary.
For safety reasons, only use the prescribed fuses.

Check all the plug connectors which were undone to fit the air conditioning system to ensure that they have been reconnected properly.

Check all the functions of the electrical system.

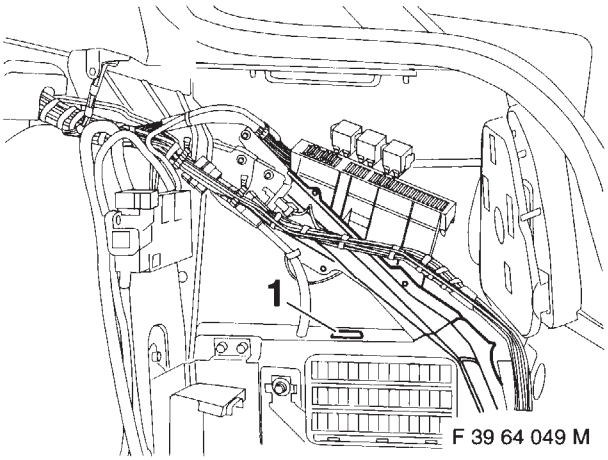
Check the headlight adjustment.

12. Coding

The coding process is to be completed using the current coding software.

Procedure

- Connect DIS/MoDiC to the car
- Turn the ignition "ON"
- Select **"ZCS coding"**
- Confirm date entry with "Y" (MoDiC only)
- Select **"6 Series E39"**
- Select **"2 Upgrade"**
- Select **"3 IHKA"**
- Start automatic coding (confirm with **"Y"**)
- Disconnect the car battery for at least 10 seconds, then reconnect it and conduct a function test.

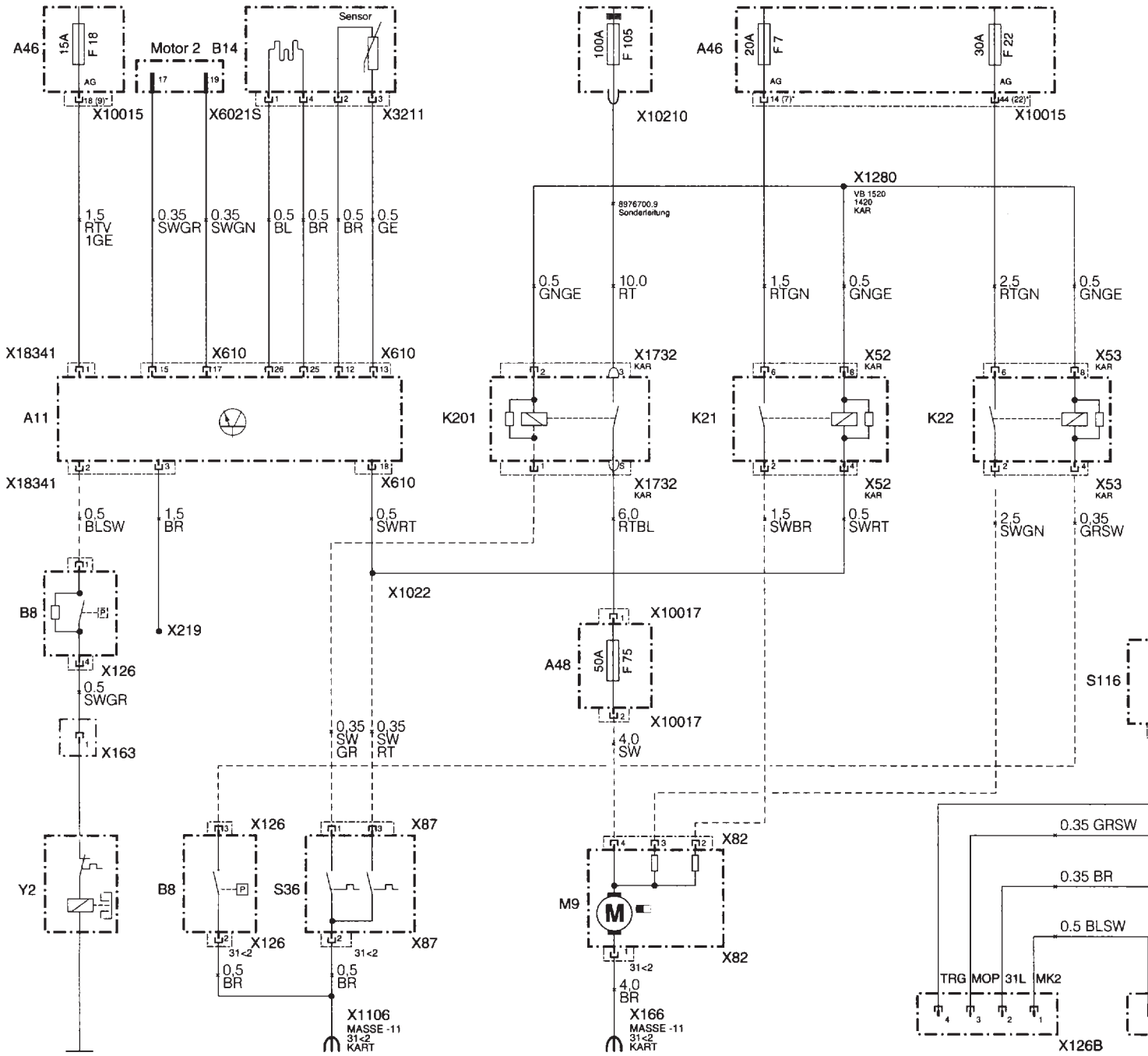


Delete the old coding label (1) with a pen. Print out the coding label (1) with the new code and affix it next to the old coding label.

source: www.ow.no

source: www.ow.no

13. Wiring diagram/Legend



B8	High/low pressure pressostat
M9	Motor for additional fan
Y2	Magnetic coupling
A11	IHR/IHKA
A46	Fuse holder I
A48	Fuse holder III
K21	Relay for additional fan plug I
K22	Relay for additional fan plug II
S36	Double temperature switch 91°C/99°C
X52	Relay for additional fan plug I
X53	Relay for additional fan plug II
X82	Motor for additional fan
X87	Temperature switch 91°C/99°C
B14	AUC sensor
K201	Relay for additional fan plug III
S116	Temperature switch 108°C
X126	Medium pressure pressostat
X163	Magnetic coupling
X166	Ground II
X219	Connector 31 VI
X610	Control unit for SLA 26
X1022	Connection additional fan 1
X1106	Ground II A
X1280	Connector 15A20
X1732	Relay for additional fan plug III
X3211	AUC sensor
X6021	Motor plug II
X10015	Fuse holder I A46
X10017	Fuse holder III A48
X10096	Temperature switch 108°C
X10210	KS 30 U
X18341	IHKA-IHKR

* The assignment in fuse holder A46 has changed on cars from model year 97. See connection changes in brackets.

----- Cables for air conditioning preparation already in the car.

F 39 64 191 R

Important information !

For your own safety please use only accessory products released by BMW.

BMW will not guarantee for products of any kind not released by BMW.

To turn a BMW,

into your very own BMW your BMW dealer will provide you with a wide range of BMW accessories.

source: www.ow.no