Accessories - Installation Instructions

Digital Antitheft Alarm System III G
Right-Hand Drive
BMW 5 Series E34
BMW 7 Series E32

Only intended for use in BMW dealership network (HO)
Installation time for antitheft alarm system approx. 3 - 4 hours,
Installation time for multiple start interrupt system approx. 1.5 hours which can vary depending upon condition and equipment of vehicle.
Knowledge of the vehicle electrical system is required.

Best.-Nr. 01 21 9 789 223 III/95 Printed in Germany

source: www.ow.no

Notes on these installation instructions

The antitheft alarm system III G is supplied in conjunction with an electronic multiple start interrupt module and must only be operated in conjunction with this module.
It is no longer necessary to install the vehicle immobilizer contained in the installation kit from the point in time the BMW vehicle immobilization system EWS III features Thatcham homologation (concerns vehicles as of 01/95). The steps concerning the installation of the multiple start interrupt module are written in italics and do not apply to vehicles as of production date 01/95 if the BMW EWSII is homologized.

Tools and auxiliaries required

Phillips screwdriver
1/2 inch reversible ratchet
1/2 inch socket wrench insert WAF 10 mm, 13 mm
1/2 inch extension
Twist drill Ø 3 mm, 3.5 mm, 6.5 mm, 8 mm
Ring spanner WAF 7 mm, 10 mm, 13 mm
Box spanner WAF 8 mm, 10 mm
Inspection lamp
Insulation stripping pliers
Cable pliers BMW No. 81 24 9 408 449
Crimp pliers BMW on-board electrical kit I - IV
Torx screwdriver T10
Sealing compound (Silicon)
Screwdriver for slotted head screws
Hammer
Drill
Side cutters
Centre punch
Multiple slip-joint gripping pliers
Priming stick
General-purpose knife
Multimeter
Water-soluble pen
Press-out tool for 2.5 mm round contacts
Insulation tape
Round file

Contents

Section

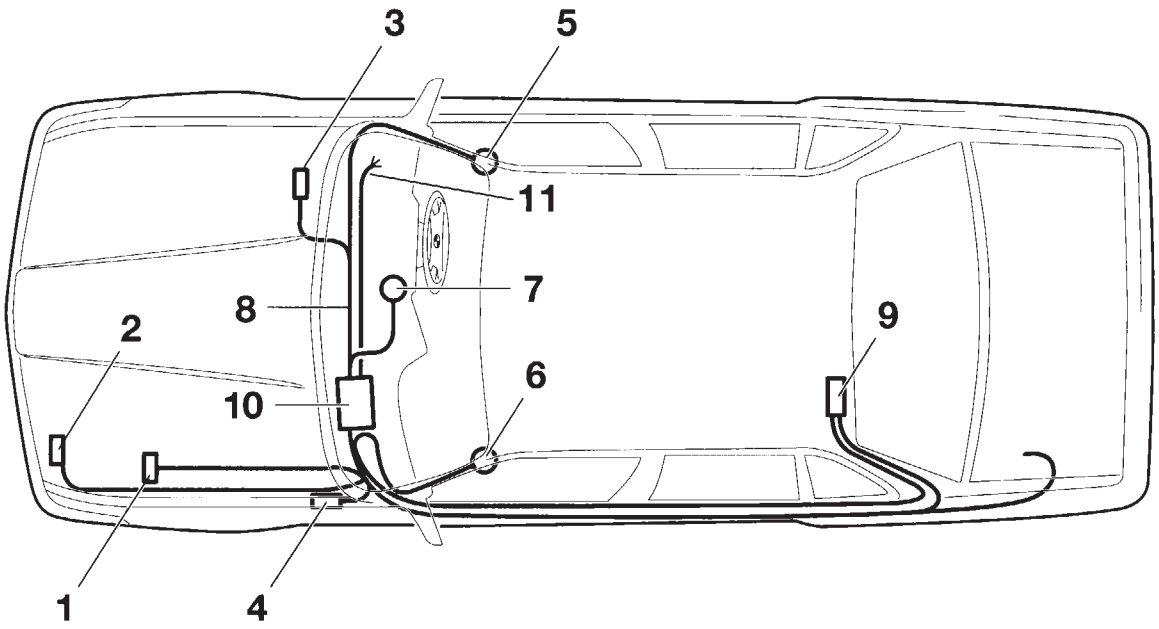
1. Necessary Preliminary work on Vehicle 2
2. Installation Overview of Components 3
3. Connection Overview of Alarm System Wiring Harness 4
4. *Connection Overview of Multiple Start Interrupt Module* 7
5. Installing Siren 8
6. Installing Engine Compartment Contact Switch 8
7. Installing Alarm System Wiring Harness 9
8. Installing Ultrasonic Sensors 14
9. Connecting Siren Wiring Harness 14
10. *Installing Multiple Start Interrupt Module* 14
11. Installing LED 15
12. Electrical Connections on Passenger's Side 15
13. Electrical Connections on Driver's Side 16
14. Function Check 17
15. Troubleshooting Table 17
16. Schematic 18
17. Notes on Customer-Specific Programming 20
18. Re-Encoding Hand-Held Transmitters with Change Code 21

1. Necessary Preliminary work on Vehicle

1. Print out defect code memories.
2. Disconnect vehicle battery(ies).
3. Remove bottom left trim panel.
4. Remove pedal assembly trim panel.
5. Remove bottom left speaker cover in footwell.
6. Remove centre ventilation grille in dashboard.
7. Remove A-pillar trim.
8. Remove sill strips (rocker panels) on left side of vehicle.
9. Release bottom area of left-hand B-pillar trim.
10. Remove rear bench seat or left single seat.
11. Remove back rest or left-hand single back rest.
12. Open cable duct in left side sill (rocker panel).
13. Remove cover of control unit carrier in rear left seat box.
14. Remove general module and relay module and release carrier plate.
15. Remove rear left luggage compartment trim.
16. Remove wiring harness covers in left of luggage compartment.

source: www.ow.no

2. Installation Overview of Components



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Key

1. Siren, (alternative 1)
2. Siren, (alternative 2)
3. Siren, (alternative 3)
4. Engine compartment contact switch on left support bracket lock of front lid
   Note
   On vehicles with standard engine compartment contact switch, this engine compartment contact switch must be installed on the right lock support bracket.
5. Ultrasonic sensor at top of right-hand A-pillar
6. Ultrasonic sensor at top of left-hand A-pillar
7. LED in ventilation grille - centre of dashboard
8. Alarm system wiring harness
9. Central alarm module in rear left seat box
10. Multiple start interrupt module
11. Multiple start interrupt module wiring harness

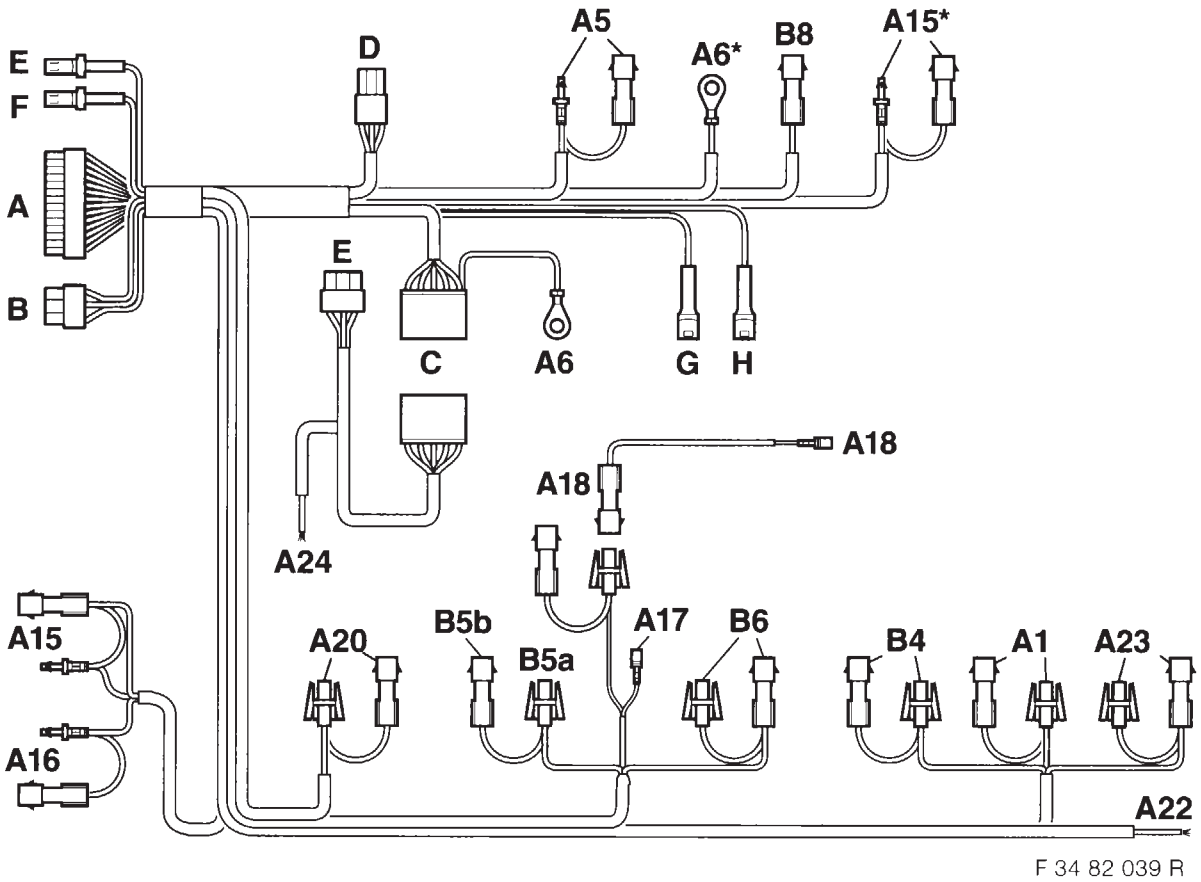
Note
Insulate all wires not required and tie back.
Deburr any holes which may be necessary in the body and coat with zinc paint to protect from corrosion.
Seal cable leadthroughs to engine compartment with suitable sealing compound.

Caution
Use the AMP connectors provided in the installation kit for making all electrical connections.
Cut through wires and crimp on the AMP connectors.

Caution
In the course of continuous updating of the electrical systems of individual models, it is possible that connector designations (X designation) and/or wire colours may change. For these reasons, when installing an alarm system, always ensure you have the latest edition of the inspection manual.

source: www.ow.no

3. Connection Overview of Alarm System Wiring Harness



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Item	Designation	Wire colour	Connection location in vehicle
A	White 24-pin connector	——	Central alarm module
A1	Branch, door contact switch, driver's side	brown/grey	**E32 and E34 with general module** General module, yellow, 26-pin connector X255, plug-in slot No. 15, brown/grey/yellow wire **Only E34 with central locking (ZV) module up to 09.91** ZV module A30, white, 26-pin connector X1217, plug-in slot No. 10, brown/grey/yellow wire **Only E34 with central locking (ZV) module as of 09.91** ZV module A30, white, 26-pin connector X13012, plug-in slot No. 4, brown/grey/yellow wire
A5	Branch, terminal R (radio position)	violet/white	Control unit carrier at rear, black, 8-pin connector X322, plug-in slot No. 2, violet/white wire
A6	Branch, ground	brown	**E34:** Ground terminal point X1160 in right area of steering column **E32:** Ground terminal point X490, in right area of steering column
A6*	Branch, ground	brown	Under rear bench seat at ground terminal point X492

source: www.ow.no

Item	Designation	Wire colour	Connection location in vehicle
A15	Branch, terminal 30	red	Control unit carrier at rear, black, 8-pin connector X322, plug-in slot No. 4, red/white wire
A15*	Branch, terminal 30	red	Behind glovebox, black 30-pin connector X15, plug-in slot No. 22, red/green/yellow wire
A16	Branch, hazard warning lights	blue/red	Behind glovebox, black, 30-pin connector X15, plug-in slot No. 15, brown/blue wire
A17	Branch, central locking system (central arrest)	yellow/blue	**E32 and E34 with general module** General module, yellow, 26-pin connector X255, plug-in slot No. 7, white/red/yellow wire **Only E34 with central locking (ZV) module up to 09.91** ZV module A30, white 26-pin connector X1217, plug-in slot No. 2 or 6, white/red/yellow wire (if necessary crimp on contact from installation kit) **Only E34 with central locking (ZV) module as of 09.91** ZV module A30, white, 26-pin connector X13012, plug-in slot No. 24, not used (if necessary crimp on contact from installation kit)
A18	Branch, central locking system (open)	green/blue	**E32 and E34 with general module** General module, yellow, 26-pin connector X255, plug-in slot No. 16, blue/red/yellow wire **Only E34 with central locking (ZV) module up to 09.91** ZV module A30, white 26-pin connector X1217, plug-in slot No. 1, blue/brown/yellow wire (if necessary crimp on contact from installation kit) **Only E34 with central locking (ZV) module as of 09.91** ZV module A30, white, 26-pin connector X13012, plug-in slot No. 25, not used (if necessary crimp on contact from installation kit)
A20	Branch, terminal 61	blue/white	**E34 up to 02/89** Under dashboard, driver's side, white 30-pin connector X15, connector plug-in slot No. 19. (Make wire and extend alarm system wiring harness) **E34 as of 02.89** Control unit carrier at rear, rear window relay K13, plug-in slot No. 6, blue/white wire **All E32 and E34 as of 06.90 with central locking (ZV) module and M50 engine** Control unit carrier at rear, rear window relay K13, plug-in slot No. 4, blue/white or blue (E32) wire
A22	Branch, luggage compartment switch	red/white	**All E34 except touring** On main vehicle wiring harness in left-side of luggage compartment, at wire for luggage compartment lights, red/white wire (switched positive) **Only E34 touring models** On main vehicle wiring harness in left-side of luggage compartment, at cable for luggage compartment lights, brown/white wire (switched negative) **E32** Front left luggage compartment, 8-pin connector X298, plug-in slot No. 4, white/brown wire
A23	Branch, rear door contact switch	brown/violet	**E32 and E34 with general module** General module, yellow 26-pin connector X255, plug-in slot No. 3, brown/violet/yellow wire **Only E34 with ZV module up to 09.91** ZV module A30, black, 15-pin connector X1216, plug-in slot No. 6, brown/violet/yellow wire

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Position	Designation	Wire colour	Connection location in vehicle
			Only E34 with central locking ZV module as of 09.91 ZV module A30, black, 4-pin connector X13014, plug-in slot No. 2, brown/violet/yellow wire
A24	Branch, engine compartment contact switch	black	Engine compartment contact switch from installation kit on right or left lock support bracket of front lid.
B	White 8-pin connector	——	Central alarm module
B4	Branch, door contact switch, passenger's side	brown/blue	**Only E32 and E34 with general module** General module, yellow 26-pin connector X255, plug-in slot No. 1, brown/blue/yellow wire **Only E34 with central locking (ZV) module up to 09.91** ZV module A30, white, 26-pin connector X1217, plug-in slot No. 11, brown/blue/yellow wire **Only E34 with central locking (ZV) module as of 09.91** ZV module A30, white, 26-pin connector X13012, plug-in slot No. 2, brown/blue/yellow wire
B5	Branch, central locking system (synchronisation for opening)	white/green	**Only E32 and E34 with general module** General module, yellow connector X255, plug-in slot No. 17, white/green/yellow wire or white/black/yellow wire. **Only E34 with central locking (ZV) module up to 09.-91** ZV module A30, white, 26-pin connector X1217, plug-in slot No. 3, white/black/yellow wire **Only E34 with central locking (ZV) module as of 09.91** ZV module A30, white, 26-pin connector X13012, plug-in slot No. 18, white/black/yellow wire **Note** When connecting contacts B5a and B5b make sure that the branch B5b is connected to the wire leading to the general or ZV module.
B6	Branch	black/white	Not used
B8	*Branch, multiple start interrupt*	*black/1*	*Behind glovebox at branch U1 identification number 1 of multiple start interrupt wiring harness*
C	Black 6-pin connector	——	Siren wiring harness
D	White 3-pin connector	——	LED wiring harness
E	Branch ultrasonic sensor	black with red identification	Central alarm module in rear left seat box, right plug-in slot on outside of connection side of central alarm module
F	Branch ultrasonic sensor	black with white iden-tification	Central alarm module in rear left seat box, right plug-in slot on inside of connection side of central alarm module
G	Branch ultrasonic sensor	black with red iden-tification	Ultrasonic sensor wiring harness
H	Branch ultrasonic sensor	black with white iden-tification	Ultrasonic sensor wiring harness

Installation note

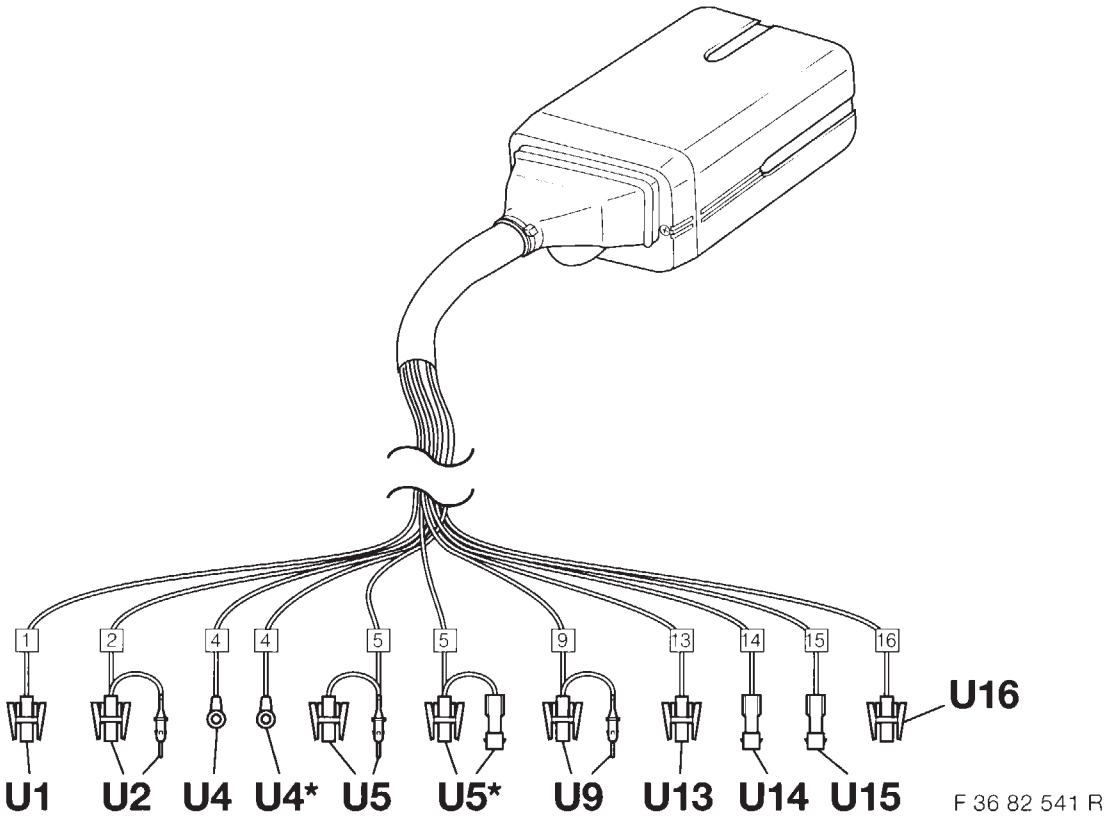
The auxiliary wiring harness is routed from the rear left seat box next to the centre tunnel forward and then back into the luggage compartment.
Branch A22 is routed along the main vehicle wiring harness into the luggage compartment.
Branches A16, C, D, G and H are routed along the main vehicle wiring harness into the front left footwell.

Caution

In the course of continuous updating of the electrical systems of individual models, it is possible that connector designations (X designation) and/or wire colours may change. For these reasons, when installing an alarm system, always ensure you have the latest edition of the inspection manual.

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4. Connection Overview Multiple Start Interrupt Module

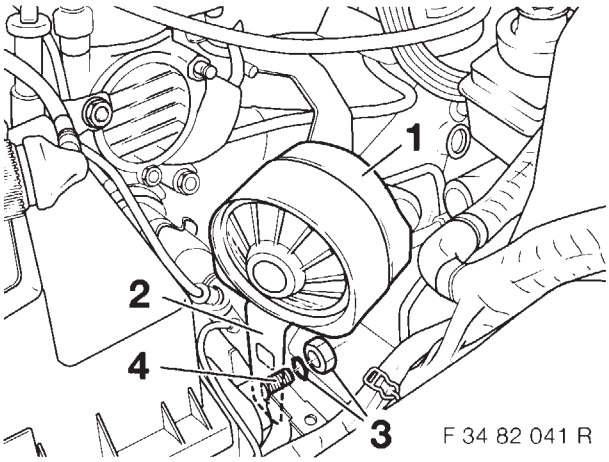


Item	Designation	Wire colour	Connection location in vehicle
U1	*Branch, central alarm module*	*black/1*	*Behind glovebox at branch B8 of alarm system wiring harness*
U2	*Branch, terminal R*	*black/2*	*At 12-pin connector X33, on steering column plug-in slot No. 2, violet wire*
U4	*Branch, ground*	*black/4*	*E34: Ground terminal point X1160 in area of steering column on right* *E32: Ground terminal point X490 in area of steering column on right*
*U4**	*Branch, ground*	*black/4*	*Ground terminal point in bottom of passenger footwell, behind carpet*
U5	*Branch, terminal 30*	*black/5*	*Under dashboard, passenger side, 30-pin black connector X15, plug-in slot No. 22, red/green/yellow wire*
*U5**	*Branch, terminal 30*	*black/5*	*At 12-pin connector X33, on steering column, plug-in slot No. 4, red/white wire*
U9	*Branch, terminal 15*	*black/9*	*At 12-pin connector X33, on steering column, plug-in slot No. 7, green wire. (Press out green wire)*
U13	*Interrupt, terminal 15*	*black/13*	*At 12-pin connector X33, on steering column, at pressed out wire of plug-in slot No. 7, green wire.*
U14	*Interrupt, terminal 15*	*black/14*	*At jumper wire of branch U9, at 12-pin connector X33, on steering column*
U15	*Interrupt, terminal 50*	*black/15*	*At 30-pin white connector, plug-in slot No. 12, black/yellow wire* ***Vehicles without 30-pin white connector:*** *Locate yellow/black wire from main wiring harness and cut through close to leadthrough to power distribution box. Connect branch U15 to end which leads to power distribution box.*
U16	*Interrupt, terminal 50*	*black/16*	***Vehicles with EWS II module:*** *At yellow, 15-pin connector X55 of EWSII module, plug-in slot No. 1, black/yellow wire in control unit carrier behind glovebox.* ***Vehicles without EWS II module:*** *At 12-pin connector X33, on steering column, plug-in slot No. 8, black/yellow wire.*

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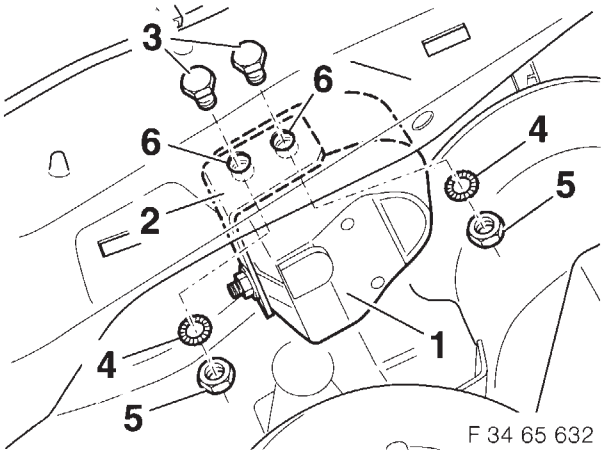
5. Installing Siren

Installation note
If there is any deviation from the proposed installation location for the siren, select a location
- which does not impair the engine cooling system and does not obstruct the front lid from closing.
- such that the integrated emergency lock is accessible.
- such that a minimum distance of 300 mm is maintained to the outer edges of the vehicle.



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Variant A (vehicles with M43 engine)
Secure siren (1) on support bracket (2) with hexagon nut and serrated lock washer (3). Remove hexagon nut fitted on front securing pin of air cleaner housing (4). Fit siren on retaining pin and secure with hexagon nut.

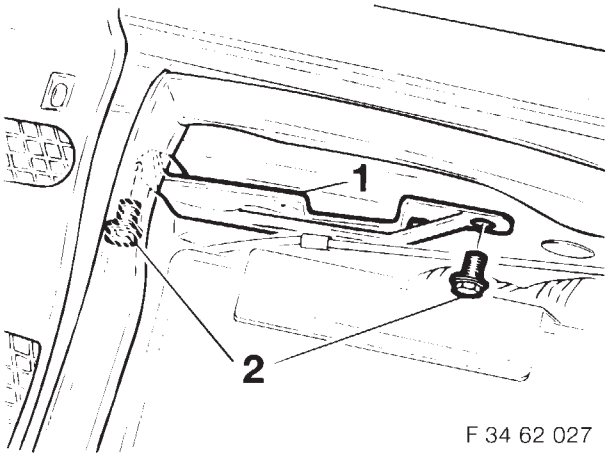


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Secure siren (1) such that it does not make contact with other components.
Make holes (6) as illustrated. Secure siren (1) with hexagon screws (3), serrated lock washers (4) and hexagon nuts (5) as illustrated. Route siren connection cable along main vehicle wiring harness to the power distribution box.

Connect siren wiring harness to siren (branch E), route siren wiring harness along main vehicle wiring harness to the power distribution box.

6. Installing Engine Compartment Contact Switch

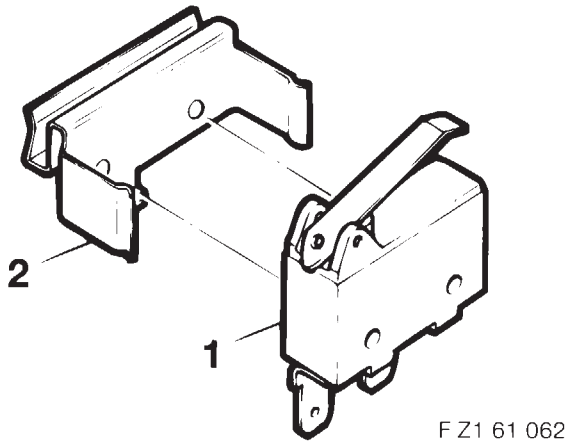


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Mark position of lock support bracket (1) with respect to body.
Unscrew hexagon screws (2) and remove lock support bracket (1).

Note
IIf front lid contact switch is installed on the left side of the vehicle, the front lid contact switch must be installed in the same way on the right side of the vehicle.

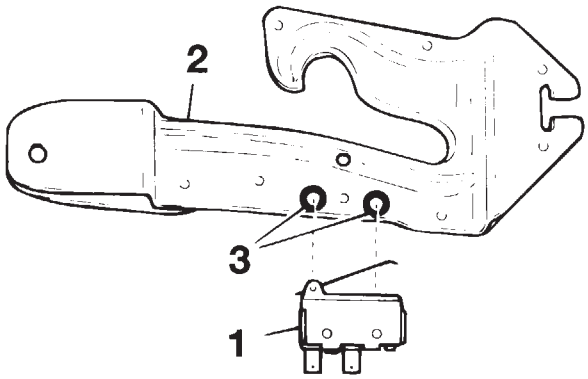
Caution
Branch A24, black wire must not be connected to the front lid contact switch already fitted.



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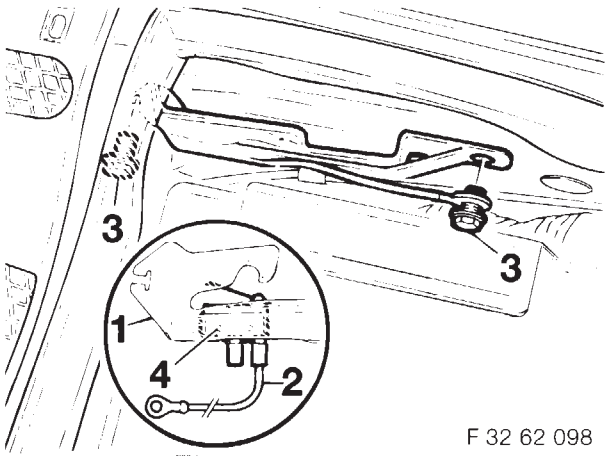
Fit contact switch (1) onto holder (2).

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Fit contact switch with holder (1) on lock support bracket (2) such that the contact switch with holder (1) engages in holes (3).

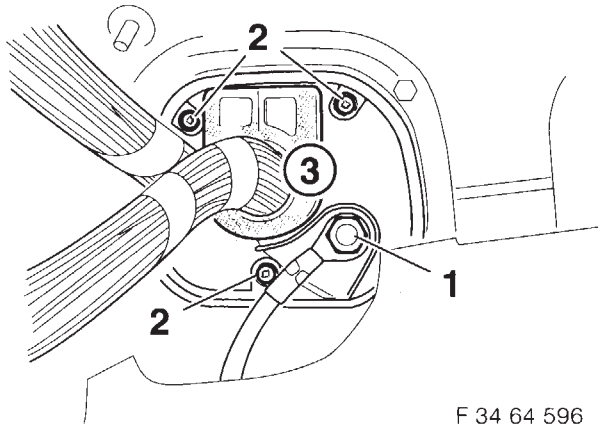


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Caution
When installing the lock support bracket (1) make sure that the ground connection (2) is connected to ground and is also connected as illustrated to the outer contact of switch (4).

Install lock support bracket (1) according to identification marks and secure ground connection (2) with one of the two hexagon screws (3) and fit on engine compartment contact switch (4).

A24 Connect branch for engine compartment contact switch, black wire to free contact of engine compartment contact switch (4).



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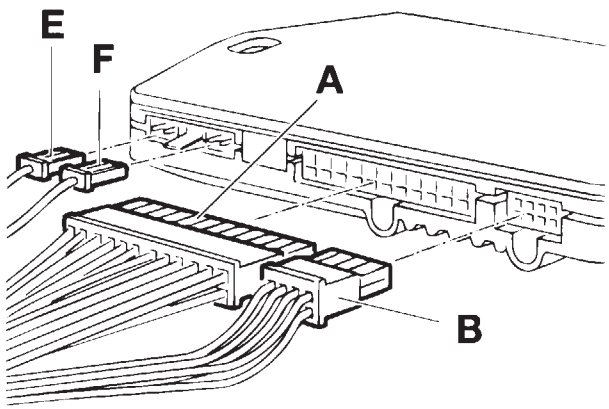
Remove bracket from front lid catch. Remove upper section from power distribution box. Remove hexagon screw (1).

Remove Torx screws (2) and press wire lead-through with wiring harness into power distribution box. Route siren wiring harness through power distribution box into vehicle interior.

Note
If necessary, release cable ties of main vehicle wiring harness.

Installation note
Make sure that all seals on the power distribution box are fitted correctly. Seal any leaking points with silicone.

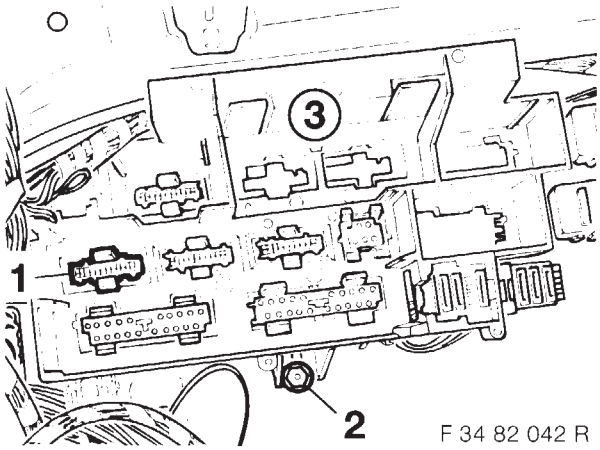
7. Connecting Alarm System Wiring Harness



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Caution
Plug in connector E, red identification, on outer right-hand side.
Plug in connector F, white identification, on inner right-hand side.
Plug connectors (A, B, E and F) into central alarm module.

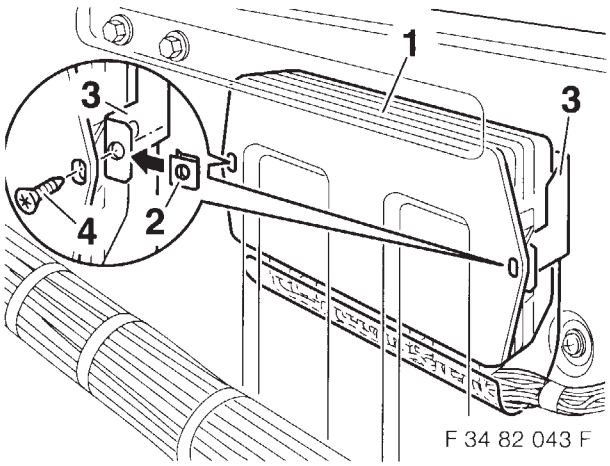
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Only models with general module
Unclip yellow 26-pin connector X255 (1) out of control unit carrier in rear left seat box.

All models
Remove hexagon nut (2) and release control unit carrier.

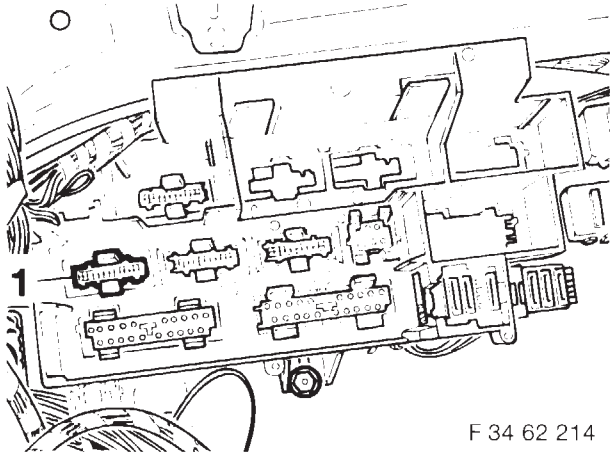


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Fit speed nuts (2) on cover (3) as shown and fit on central alarm module (1).

Caution
If suitable securing holes are not already provided in the seat box, fit central alarm module (1) in position, hold and align. Mark drilling points for screws (4). Hole diameter 5 mm.

Secure central alarm module (1) with lock screws (4) to wall of seat box.



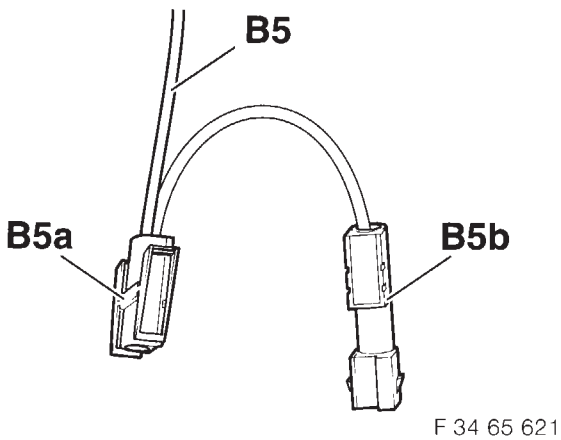
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E32 and E34 with general module
Connections at 26-pin yellow connector X255 (1).

A1 Connect branch, door contact switch, driver's side, brown/grey wire, to brown/grey/yellow wire at plug-in slot No. 15.
A17 Connect branch for central locking system (central arrest), yellow/blue wire to white/red/yellow wire at plug-in slot No. 7
A18 Connect branch for central locking system (open), green/blue wire to blue/red/yellow wire at plug-in slot No. 16.

Note
If the plug-in slot No. 16 is **not** connected, then branch A18 is connected with the adapter lead supplied.

A23 Connect branch, rear door contact switch, brown/violet wire to brown/violet/green wire at plug-in slot No. 3.
B4 Connect branch, door contact switch, passenger's side, brown/blue wire to brown/blue/yellow wire at plug-in slot No. 1.

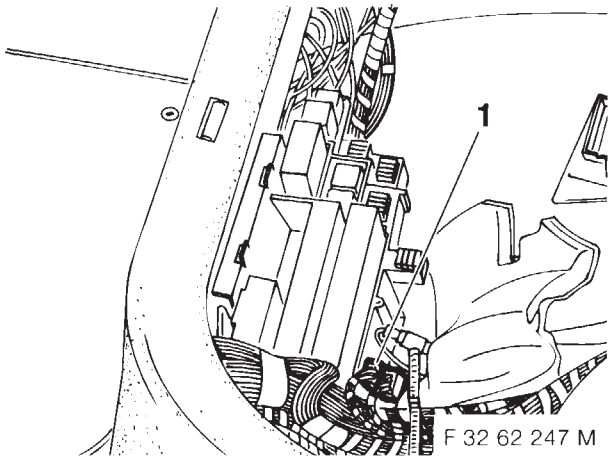


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B5 Branch for central locking system (opening synchronisation), white/green wire. Cut through white/green/yellow or white/black/yellow wire at plug-in slot No. 17.
Connect branch B5a to wire which leads to main vehicle wiring loom.
Connect branch B5b to wire which leads to general module.

Caution
Installation direction must be maintained.

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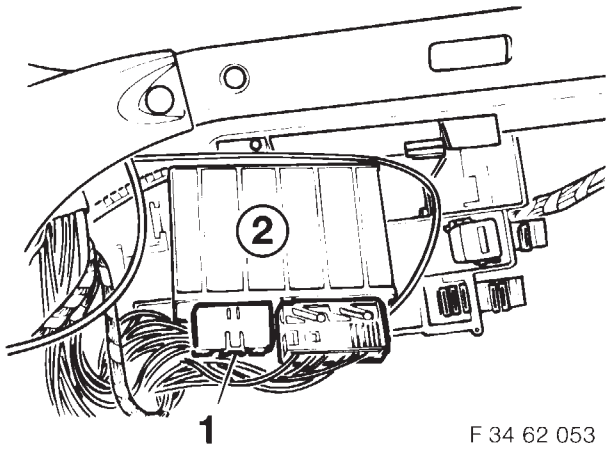


F 32 62 247 M

E32 and E34 with general module

A5 Connect branch for terminal R, violet/white wire to wire in black 8-pin connector (1) X322, control unit carrier at rear, plug-in slot No. 2, violet/white wire.

A15 Connect branch for terminal 30, red wire to wire in black 8-pin connector (1) X322 at rear of control unit carrier, plug-in slot No. 4, red/white wire.



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Only E34 with central locking (ZV) module up to 09.91

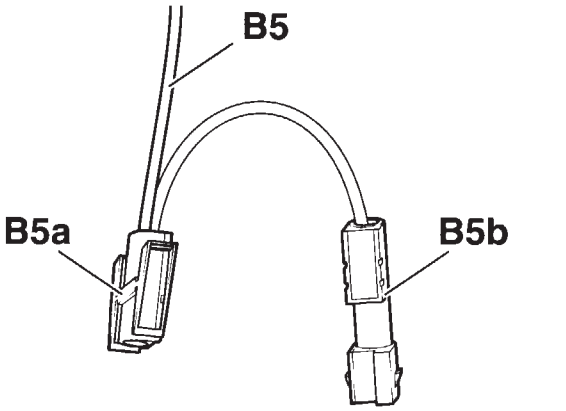
Unclip white, 26-pin connector X1217 (1) at central locking (ZV) module A30 (2).

A1 Connect branch, door contact switch, driver's side, brown/grey wire to brown/grey/yellow wire at plug-in slot No. 10.

A17 Connect branch for central locking system (central arrest), yellow/blue wire, to white/red/yellow wire at plug-in slot No. 2 or 6.

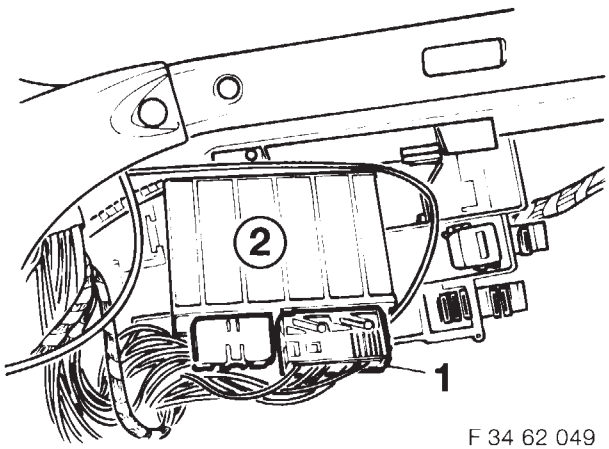
A18 Connect branch for central locking system (open), green/blue wire to blue/brown/yellow wire at plug-in slot No. 1.

B4 Connect branch, door contact switch, passenger's side, brown/blue wire to brown/blue/yellow wire at plug-in slot No. 11.



F 34 65 621

B5 Cut through branch for central locking system (opening synchronisation), white/green wire connection cable from plug-in slot No. 3, white/black/yellow wire.
Connect branch B5a to wire which leads to main vehicle wiring harness.
Connect branch B5b to wire which leads to (ZV) module.

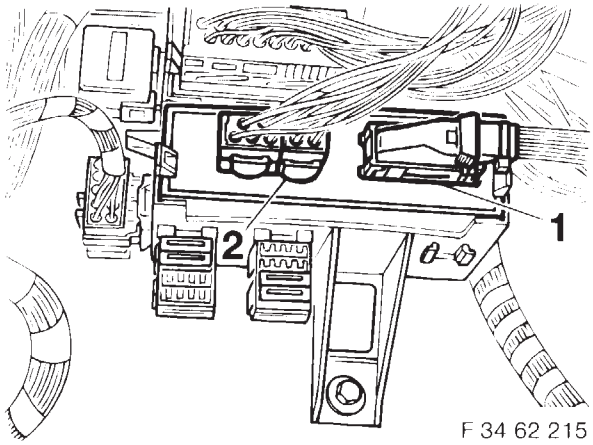


F 34 62 049

Unclip black 15-pin connector X1216 (1) at central locking (ZV) module A30 (2).

A23 AConnect branch rear door contact switch, brown/violet wire to brown/violet/yellow wire at plug-in slot No. 6.

source: www.ow.no



F 34 62 215

Only E34 with central locking (ZV) module as of 09.91
Disconnect connectors (1 and 2) from central locking (ZV) module A30.

Note

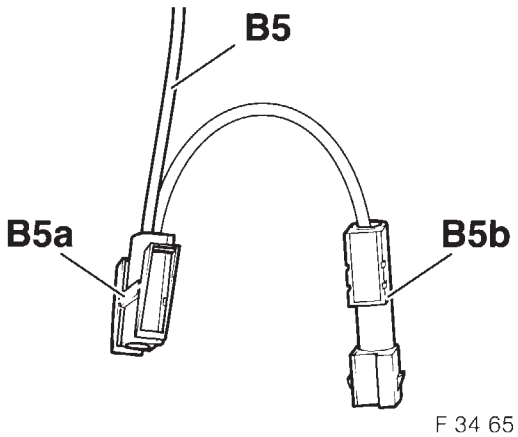
Connector (1), white, 26-pin	=	X13012
Connector (2), black, 4-pin	=	X13014

Connection to plug connector (1), white 26-pin X13012

A1 Connect branch, door contact switch, driver's side, brown/grey wire to brown/grey/yellow wire at plug-in slot No. 4. Crimp on A17 contact from installation kit and connect branch for central locking system (central arrest), yellow/blue wire, to plug-in slot No. 24.

A18 Crimp on contact from installation kit and connect branch for central locking (open) to plug-in slot No. 25.

B4 Connect branch, door contact switch, passenger's side, brown/blue wire to brown/blue/yellow wire at plug-in slot No. 2.

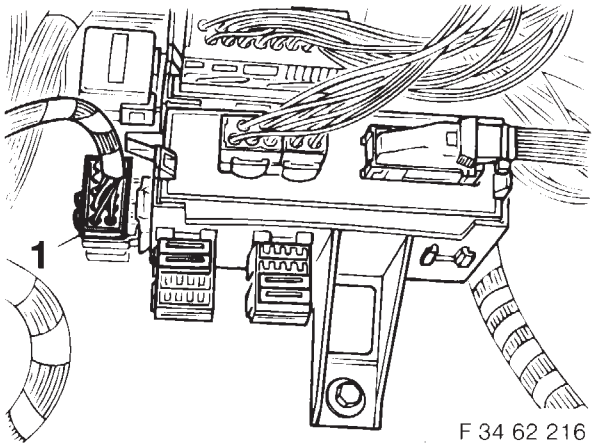


F 34 65 621

B5 Branch for central locking (opening synchronisation), white/green wire. Cut through connection cable from plug-in slot No. 18, white/black/yellow wire. Connect branch B5a to end of wire end which leads to main wiring harness.
Connect branch B5b to wire end which leads to (ZV) module.

Connection to plug connector (2), black 4-pin X13014

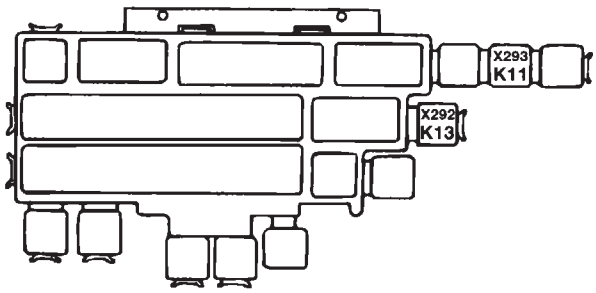
A23 Connect branch, rear door contact switch, brown/violet wire to brown/violet/yellow wire at plug-in slot No. 2.



F 34 62 216

A5 Connect branch for terminal R, violet/white wire to wire in black 8-pin connector (1) X322 at rear of control unit carrier, plug-in slot No. 2, violet/white wire.

A15 Connect branch for terminal 30, red wire, to wire in black 8-pin connector (1) X322, at rear of control unit carrier, plug-in slot No. 4, red/white wire.

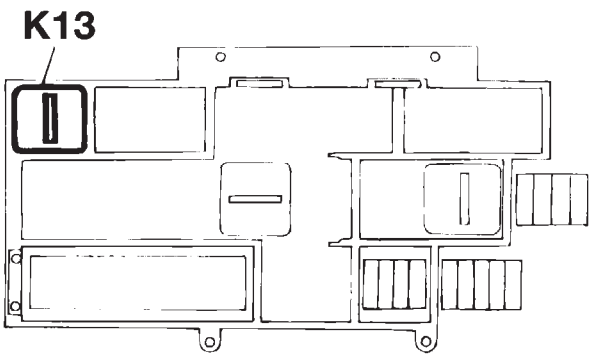


F 34 65 248

All E34 as of 02/89

A20 Connect branch for terminal 61, blue/white wire to rear window relay K13 plug-in slot No. 6 in relay carrier, blue/white wire.

source: www.ow.no



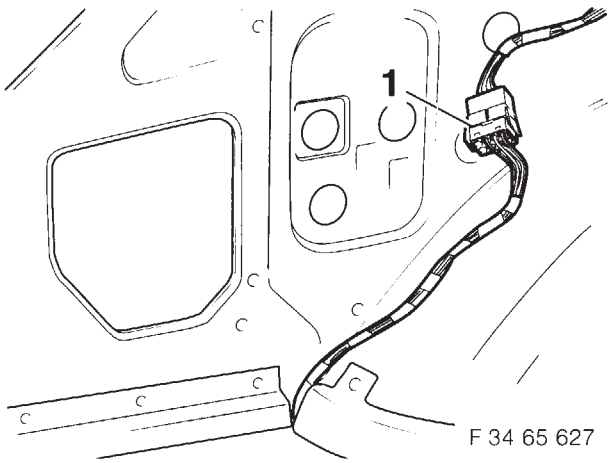
F 34 62 056

All E32
All E34 as of 06.90 with central locking (ZV) module and M50 engine

A20 Connect branch for terminal 61, blue/white wire to rear window relay K13 plug-in slot No. 4 in relay carrier, blue/white wire.

Note

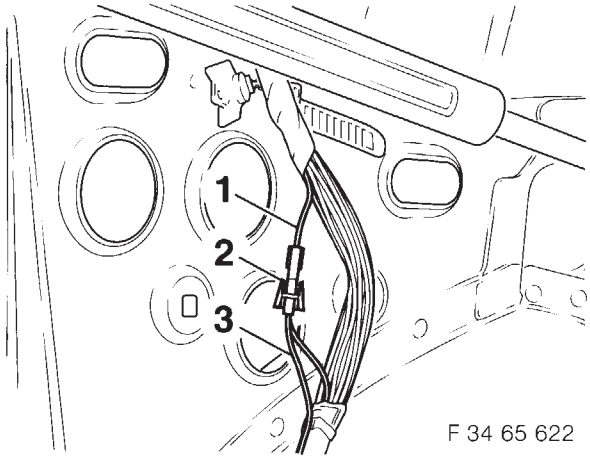
All E34 up to 02/89
Extend branch A20 and route to front left to connector X15.



F 34 65 627

Only E32

A22 Connect branch for luggage compartment switch, red/white wire to wire in black 8-pin connector X298 (1), plug-in slot No. 4, white/brown wire.



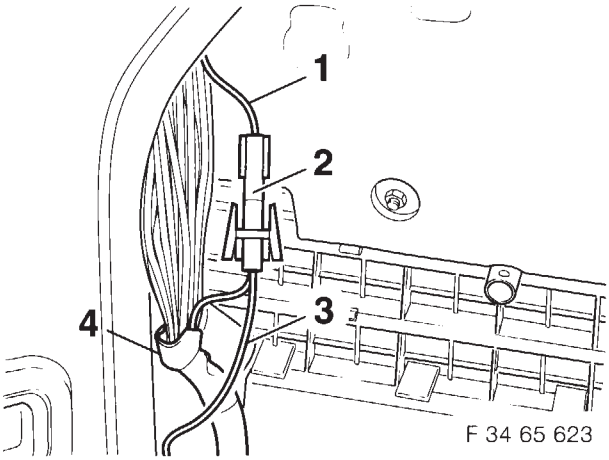
F 34 65 622

Only E34 Saloon

A22 Cut open insulation of main vehicle wiring harness in left of luggage compartment as illustrated. Connect branch A22 (2), luggage compartment switch, red/white wire to red/white wire for luggage compartment light (1) by means of 1-pole plug connection (3) as illustrated.

Note

Check switch function with multimeter since a red/white wire which permanently carries current is also fitted.



F 34 65 623

Only E34 touring models

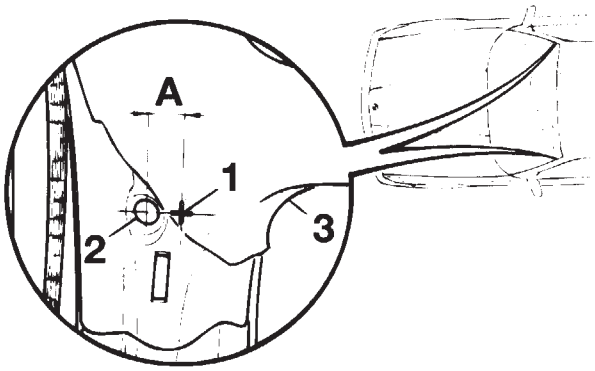
A22 Cut through insulation of main vehicle wiring harness (4) in area of left tail light as illus trated.
Connect branch A22 (2), luggage compart ment switch, red/white wire to brown/white wire for luggage compartment light (1) by means of 1-pin plug connection (3) as illustrated.

Installation note

Route alarm system wiring harness along the main vehicle wiring harness in the cable duct of the side sill (rocker panel) forward into the passenger footwell.

source: www.ow.no

8. Installing Ultrasonic Sensors

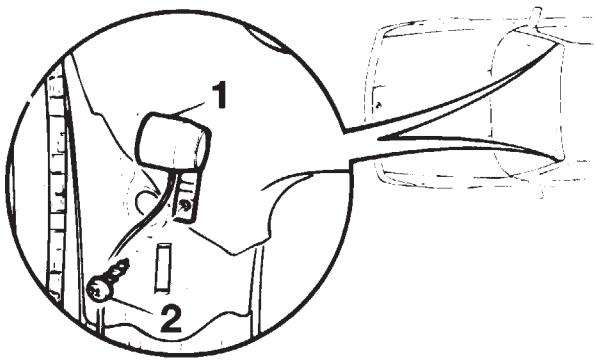


F 34 62 031

Right and left A-pillar
Mark drilling point (1) at level of centre of hole (2) at distance A = 15 mm on headliner (3).

Caution
Hole diameter 3 mm.

Drill through marked drilling point (1) and apply primer under headliner.



F 34 62 032

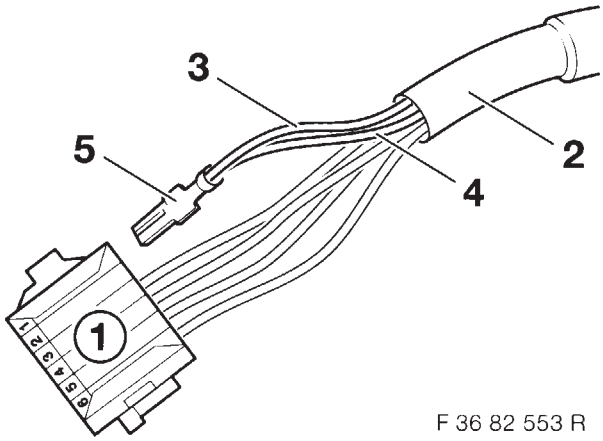
Caution
The wire ends of the ultrasonic sensors are identified by colours (colour-coded).

Red colour code = A-pillar on driver side
White colour code = A-pillar on passenger side
Screw ultrasonic sensor (1) on corresponding A-pillar with Phillips screw (2). Route wires of ultrasonic sensors (1) into left footwell.

Installation note
Route connection wire of ultrasonic sensor on right-hand side under headliner to left side and over the left-hand A-pillar to the footwell.

Connect sensor lines corresponding to colour coding to branches **G** and **H** of the alarm system wiring harness.

9. Connecting Siren Wiring Harness



F 36 82 553 R

Crimp on contacts (5) on siren wiring harness (2). Crimp together brown wire (3) with brown/red wire (4). Plug in wires as follows in 6-pin connector housing (1):

Plug-in slot No.	Wire colour
1	brown; brown/red
2	-
3	white/black
4	violet/grey
5	black
6	red

Plug together connector housing (1) with mating connector of alarm system wiring harness (branch E).

Note
Observe colour coding. Exception, plug-in slot No. 1 brown = brown and brown/red.

10. Installing Multiple Start Interrupt Module

Installation note
Divide multiple start interrupt wiring harness into two looms as follows

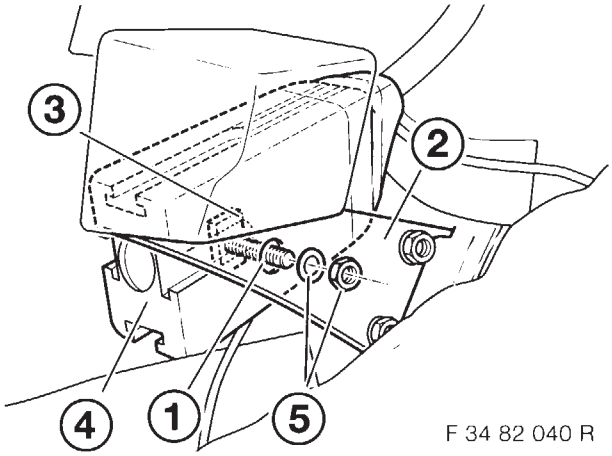
A Passenger side

U1:	*Code number 1*	*Central alarm module*
*U4**	*Code number 4 (short)*	*Terminal 31*
U5	*Code number 5 (short)*	*Terminal 30*
U15	*Code number 15*	*Interrupt terminal 50*

B Driver side

U2	*Code number 2*	*Terminal R*
U4	*Code number 4 (long)*	*Terminal 31*
*U5**	*Code number 5 (long)*	*Terminal 30*
U9	*Code number 9*	*Terminal 15*
U13	*Code number 13*	*Interrupt terminal 15*
U14	*Code number 14*	*Interrupt terminal 15*
U16	*Code number 16*	*Interrupt terminal 50*

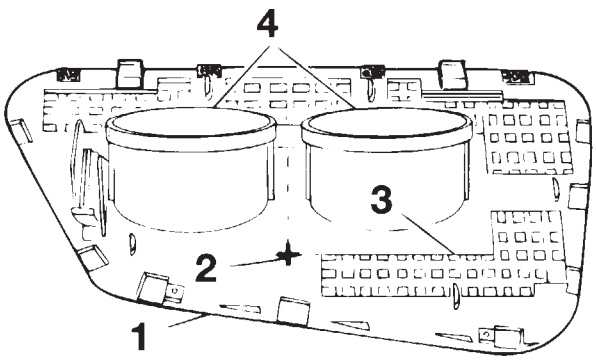
source: www.ow.no



F 34 82 040 R

Drill securing hole (1) Ø 6.5 mm in strut (2). Fit screw (3) in slot of multiple start interrupt module (4). Secure module (4) by means of hexagon nut M6 and serrated lock washer (5) to strut (2).

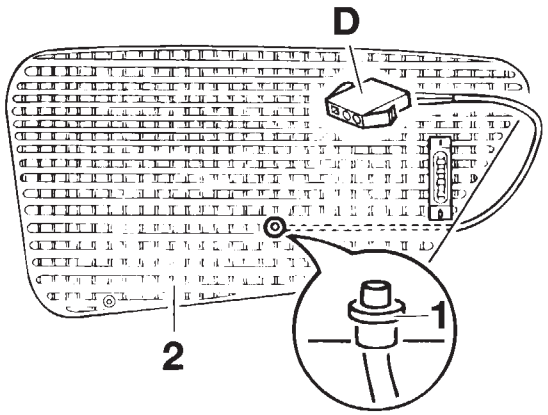
11. Installing LED



F 34 82 044 R

Mark drilling point (2) at rear of centre ventilation grille (1):
Mark extension of edge (3) on centre ventilation grille (1).
Measure centre line between air outlets (4) and mark on centre ventilation grille (1).

Caution
Hole diameter 8 mm.
Drill through drilling point (2).

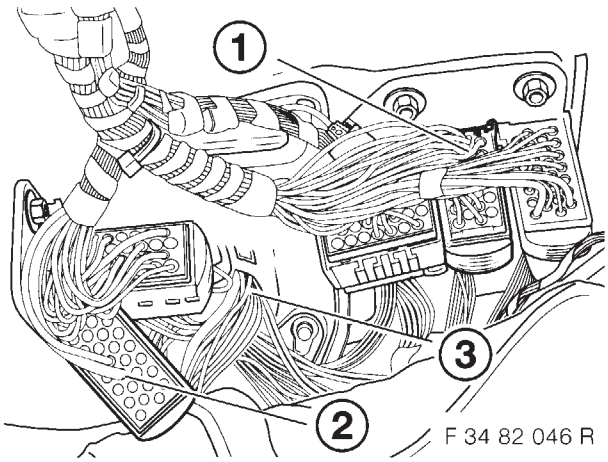


F 36 82 045 R

Insert LED (1) from above into centre ventilation grille (2).

Caution
Ensure LED is firmly fitted.
Route LED wire into left footwell and install centre ventilation grille (2).
Connect wire with same colour as in mating plug on alarm system wiring harness, in housing (D).

12. Electrical Connections Passenger Footwell



F 34 82 046 R

A15* Connect branch for terminal 30, red wire to black 30-pin connector X15 (1) plug-in slot No. 22, red/green/yellow wire. For this purpose, press out red/green/yellow wire and plug in branch A15*.

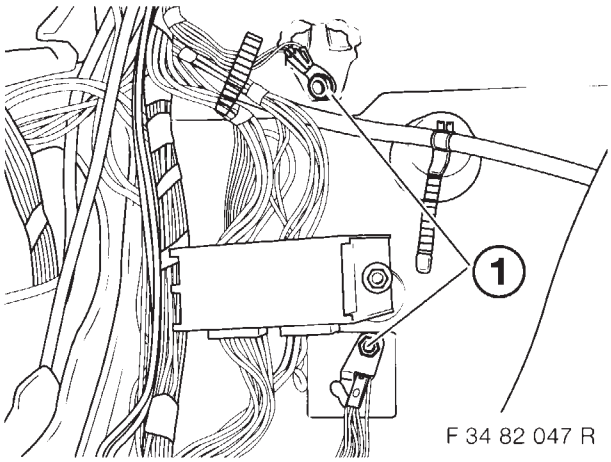
U5 *Connect branch for terminal 30, black wire to jumper wire of branch A15*. Connect pressed-out red/green/yellow wire to free end of branch U5.*

A16 Connect branch for hazard warning lights, blue/red wire to black 30-pin connector X15 (1) plug-in slot No. 15, brown/blue wire.

U15 *Connect branch for interrupt terminal 50, code number 15, to 30-pin, white connector (2), plug-in slot No. 12, black/yellow wire. Press out yellow/black wire, shorten by at least 300 mm, insulate and tie back. Plug in branch U15 in plug-in slot No. 12.*

source: www.ow.no

Vehicles without 30-pin white connector:
Locate yellow/black wire in main wiring harness (3) and cut through near the leadthrough to the power distribution box. Connect branch U15 to end which leads to power distribution box.



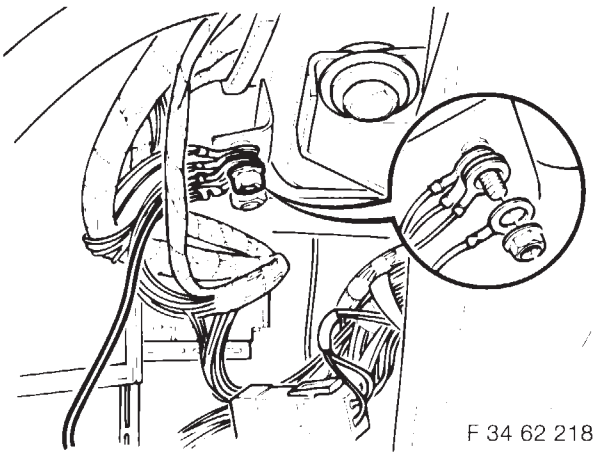
F 34 82 047 R

A6 Connect ground branch, brown wire to one of the two ground terminal points (1) on the base plate.

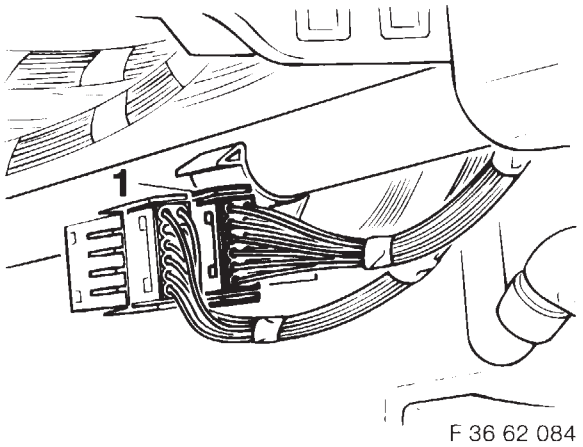
U4* *Connect ground branch, code number 4, to one of the two ground terminal points (1) on the base plate.*

U1 *Connect branch for central alarm module, code number 1 to branch B8, code number 1 of alarm system wiring harness.*

13. Electrical Connections Driver Footwell


F 34 62 218

U4 *Connect ground branch, brown wire to ground terminal point X490 in area of steering column on right.*



F 36 62 084

U2 *Branch for terminal R, identification number 2: Release 12-pin connector X33 (1) on pin contact side and press out violet wire, plug-in slot No. 2. Plug in branch U2 at plug-in slot No. 2. Connect pressed-out violet wire to branch U2.*

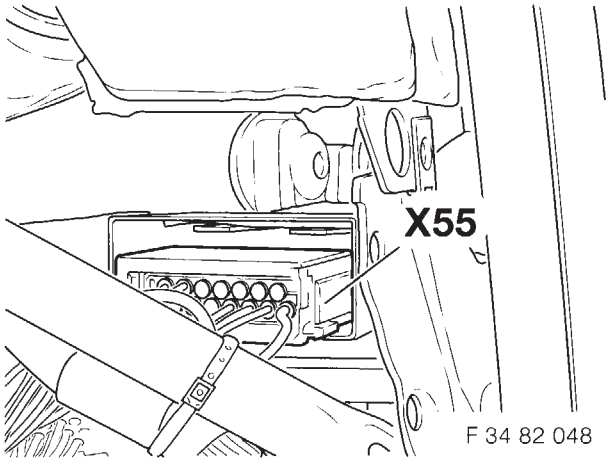
U5* *At 12-pin connector X33 on steering column, plug-in slot No. 4, red/white wire.*

U9 *Branch for terminal 15, code number 9: Press out green wire at plug-in slot No. 7. Connect branch U9.*

U13 *Connect interrupt for terminal 15, code number 13, to pressed-out green wire. Take care when routing wire to ensure that there is a minimum distance of 300 mm between connector X33 and connection U13.*

U14 *Connect jumper wire of branch U9 to 12-pin connector X33 on steering column.*

U16 ***Vehicles without EWS II module:***
At 12-pin connector X33, on steering column, plug-in slot No. 8, black/yellow wire.



F 34 82 048

Vehicles with EWS II module:

U16 *At yellow 15-pin connector X55 of EWS II module, plug-in slot No. 1, black/yellow wire under dashboard on driver's side.*

Note
Assembly of the vehicle takes place in the reverse order of disassembly.

source: www.ow.no

14. Function Check

Note
DDWA III system cannot be armed if terminal R, terminal 15 or terminal 61 are active by ignition/starter switch.

Procedure	Feedback
1. Arm DDWA III with hand-held transmitter.	LED in hand-held transmitter must light upbrightly. Doors and luggage compartment are locked at the same time.
2. Hazard warning lights flash twice together with tone signal of emergency current siren.	All current circuits (door contacts, luggage compartment or engine compartment switch) connected correctly.
3. Hazard warning lights flash twice together with tone signal of emergency current siren followed by one 3 second long tone.	One or several current circuits (door contacts, luggage compartment or engine compartment switch) open or not connected.
4. After DDWA LED lighting permanently for approx. 45 seconds in the centre console, it flashes at the clock ratio (1:1)	The arming phase is completed, the antitheft alarm system is activated.
5. Activate US sensors during 45 second arming phase with windows open by means of manual movement	DWA LED in centre console lights distinctly brighter. Initial tone signal if emergency current siren installed.
6. Check emergency current siren a) by disconnecting battery b) by disconnecting siren wiring harness from DDWA wiring harness (6-pin black connector). Note: Alarm is stopped: By connecting battery or by connecting DDWA wiring harness to siren wiring harness	Alternating tone signal because siren is equipped with batteries. (Alarm in the event of break in vehicle electrical system)
7. Check tilt sensor, raise vehicle at side with DDWA activated.	Alarm triggers.

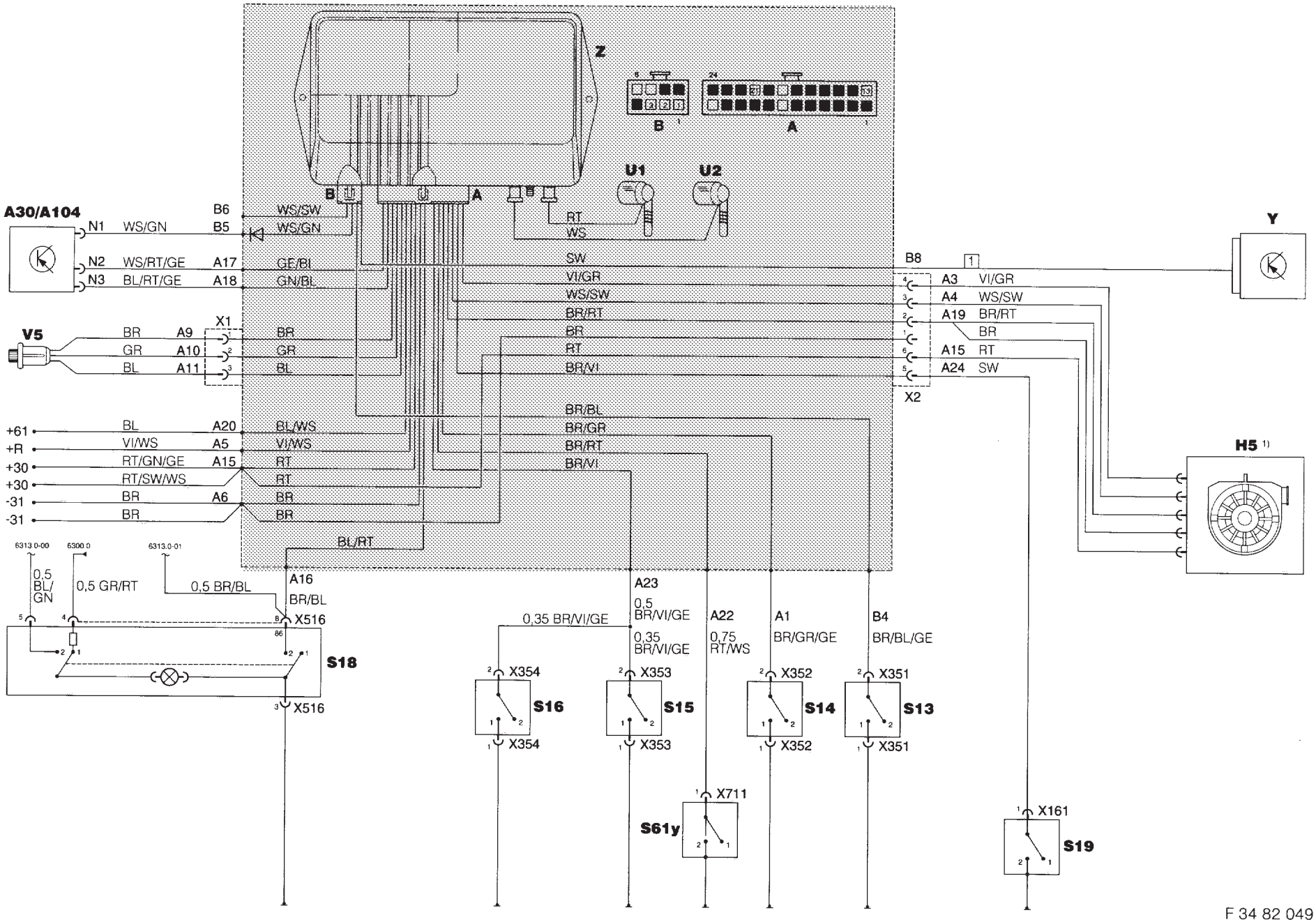
Caution
On vehicles equipped with an emergency lock, the siren can be switched off by setting the emergency lock to the "OFF" position.

15. Troubleshooting Table

Problem	Possible cause	Corrective measures
DWA cannot be armed	1. Hand-held transmitter/remote control 2. Positive connection terminal 30 to central alarm module 3. Ground connection to central alarm module	1. Replace battery for remote control, LED must light brightly when operating remote control 2. Measure voltage at DWA wiring harness branch A15. Replace fuse F35 if necessary. 3. Check DWA wiring harness branch A6 to body ground with ohmmeter. Specified value: 0 Ohm
Car check tone (tone signal after double confirmation tone while arming) sounds only on vehicles with emergency current siren	1. One door not closed 2. Rear (luggage compartment) lid open 3. Front (engine compartment) lid open 4. Check programming (are door contacts switched negative?)	Check corresponding wire connections Carry out programming procedure Luggage compartment contact E34 saloon positive, for E32 and E34 touring negative
Window regulators do not regulate (convenient closing)	Check convenient closing by means of door lock.	1. Check connections A17, A18 2. Check programming: US sensitivity: min 1 BMW window regulator: Yes 3. Replace battery in hand-held transmitter if too weak 4. Interference signals, change location
Central locking system reverses when opened with remote control	General module has problem in its electronics. Mainly effects E32 and E34 with high level of equipment.	Remove diode between branch B5a and B5b. Connect branch B5 to black 20-pin connector X25, plug-in slot No. 1, white/red wire of relay module A5.
Battery constantly discharged	Closed-circuit current too high	Maximum closed-circuit current of vehicle should be 25 mA. Check all connections.
LED of DWA does not emit light	LED defective	Check connections and supply wires of LED. Replace LED if necessary.

source: www.ow.no

source: www.ow.no



F 34 82 049 R

source: www.ow.no

16. Schematic

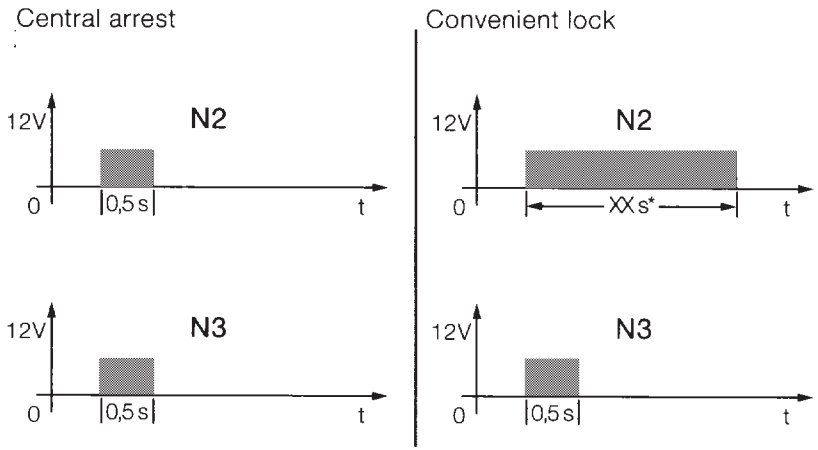
Key

A 30/A 104	ZV module/general module ZKE
H5	Siren for DDWA III
S13	Passenger door contact switch
S14	Driver door contact switch
S18	Hazard warning switch
S19	Front lid contact switch
S61y	Luggage compartment light switch
S124	Rear right door contact
S125	Rear left door contact
U1	Ultrasonic sensor, driver's side
U2	Ultrasonic sensor, passenger's side
V5	LED, DDWA III
Y	Multiple start interrupt module
Z	Central alarm module DDWA III
X1	Plug connector, 4-pin, LED DDWA III
X2	Plug connector, 6-pin, siren/horn
X161	Plug connector, 1-pin, white, near front right headlight
X168	Plug connector, 1-pin, black, left steering column
X351	Plug connector, 2-pin, black, in top of right B-pillar
X352	Plug connector, 3-pin, black, in top of left B-pillar
X516	Plug connector, 5-pin, black, centre console
X711	Plug connector, 1-pin, natural, underside of left read lid

Connections A30/A104

N1	Opening synchronisation
N2	Central locking (ZV) - central arrest
N3	Central locking (ZV) - open

DDWA Signals



*controled by remote control

17. Notes on Customer-Specific Programming

Various functions such as volume of signal tone, checking alarm circuits during the arming phase, panic circuit etc. can be adapted to personal requirements.

The relevant settings are changed by way of programming with the corresponding programming unit.
Refer to the programming unit manual for more detail.

Volume of signal tone
Adjustable in 15 stages from OFF to max. volume.

Storage and indication of alarm triggering
LED indication of alarm triggering after disarming.
ON or OFF setting possible.

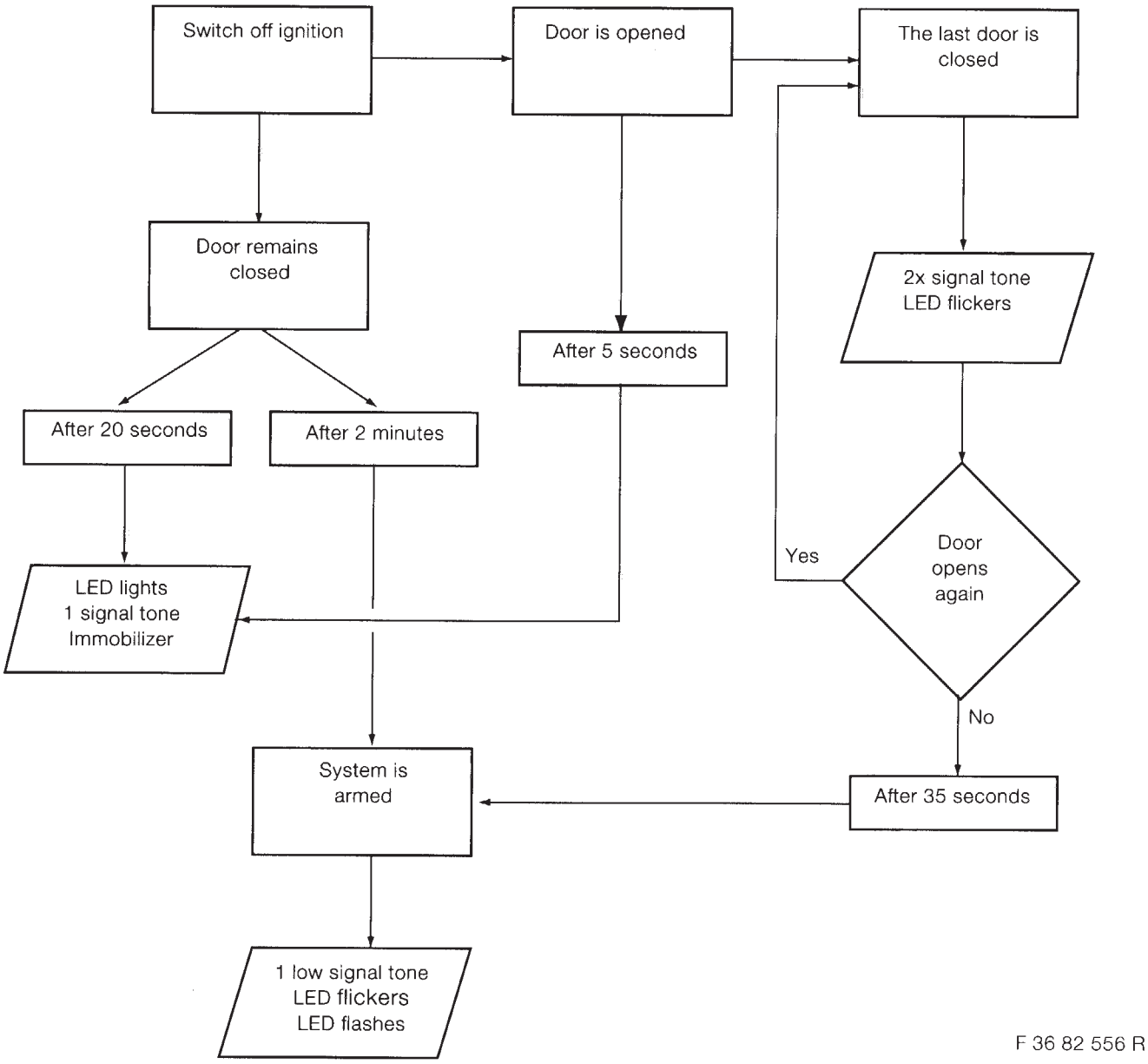
Vehicle check
Signal tone if alarm circuit not connected during arming phase.
ON or OFF setting possible.

Panic alarm
ON or OFF setting possible.
Slightly delayed opening and closing of central locking system when arming.

Self-arming
Optional self-arming of only multiple immobilizer (presetting) or of complete system including antitheft alarm system functions (passive 2)
If customer selects system 2, the system characteristics are changed considerably. See following function diagram:

Important:
These functions must be demonstrated and explained to the customer during vehicle handover because they are not included in the Owner's Handbook.

Functional diagram self-arming System 2



F 36 82 556 R

source: www.ow.no

18. Re-encoding from Hand-Held Transmitters with Change Code

Each DDWA III is capable of learning four different codes, i.e. if the original is lost, new hand-held transmitters can be programmed and used as a replacement.

Caution
All hand-held transmitters must be encoded in one operation.

BMW P/N hand-held transmitter	Country
82 92 9 402 531	Germany and export countries
	Without special regulations
82 92 9 402 876	CH, A, GB, NL
82 92 9 404 799	F

Carry out following steps in order to change the transmit codes (activation codes):

a Close driver's door and deactivate antitheft alarm system (DDWA). (Driver's door must be closed otherwise feedback to the central locking system is not possible.)

Caution
If no hand-held transmitter is available in order to deactivate the DDWA, the radio receiver (with hand-held transmitter) in cover of central DDWAIII module must be replaced.

b Remove rubber plug on upper side of central DDWA module and set slide switch to coding position.

Note
The slide switch can be set in two positions:
- Operating position (preset at factory)
- Coding position

Adjust slide switch with a small screwdriver for coding.

c Activate central alarm module with new hand-held transmitter by pressing the red ON button once.

d The central locking system is activated as a sign indicating the new code has been detected and stored correctly (the central locking system closes or opens depending on the initial status of the DWA).

Note
To program another hand-held transmitter, follow the steps **c** and **d** with the new hand-held transmitter.
The other hand-held transmitters must be operated corresponding to the status of the central locking system after coding the first hand-held transmitter:

Example:
DWA deactivated and ground connection established:
Transmitter 1 activated with ON button.
Activate transmitter 2 with OFF button.
Activate transmitter 3 with ON button.
Activate transmitter 4 with OFF button.
Up to 4 hand-held transmitters can be used in this way.

e Reset coding switch back to its initial position.

Caution
If the coding switch is reset twice instead of once, the DWAIII is reset and all stored codes will be lost. The programming procedure must be repeated from the beginning.
Finally re-install rubber plug in opening of control unit.

Note
Hand-held transmitters with fixed codes for earlier DDWA generations must still be ordered as before from BMW Sales Centres with specification of the code (82 11 9 401 529, 82 92 9 401 793, 82 92 9 401 801). However, they cannot be used for the DDWA III system.

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Verwenden Sie zu Ihrer eigenen Sicherheit ausschließlich Zubehörprodukte, die von BMW freigegeben sind.
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um aus einem BMW Ihren BMW zu machen,
hält Ihr BMW-Händler für Sie bereit.

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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.

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