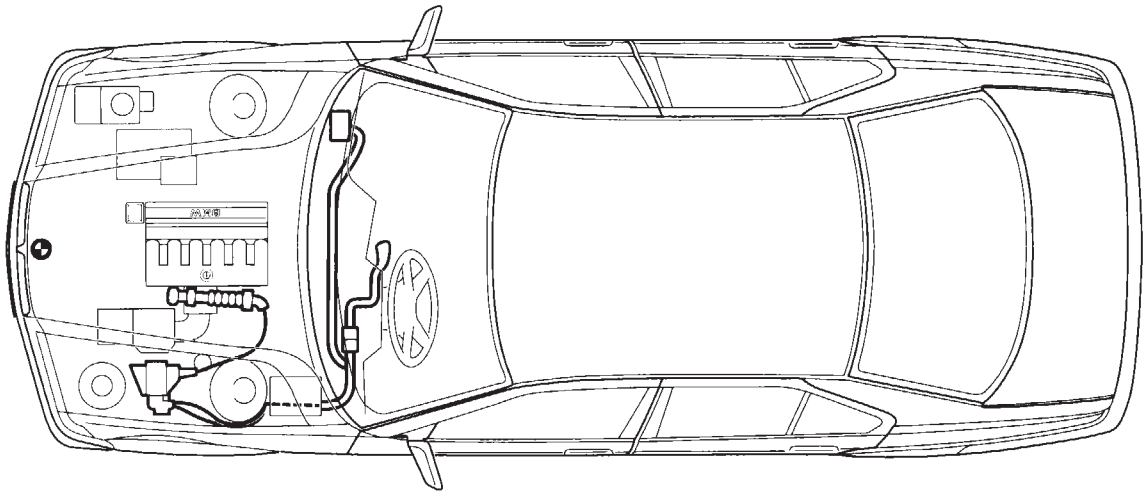
Zubehör - Einbauanleitung



F 36 62 106

Installation Instructions

Electronic Speed Control
BMW 3 Series E36

Best.-Nr. 01 29 9 787 928 IX/93 Printed in Germany

Electronic Speed Control
BMW 3 Series E36

Specialized knowledge is required.

Installation time: Approx. 3.5 hours - this may vary, depending on the condition of the vehicle and its fittings.

Remarks
Instructions and illustrations are given for left-hand drive models. Various work stages must be carried out for right-hand drive models in mirror-image fashion.

For vehicles with complete wiring harness, the connectors for control unit, operating switch, clutch switch and control motor are each tied back to the wiring harness.
A supplementary wiring harness need not be installed.

Tools and Materials Required
Regular screwdriver
Phillips screwdriver
Socket wrench, 8 mm A/F
Torx key T 10
Cranked ring spanner, 13 mm A/F
Cranked ring spanner, 10 mm A/F

Contents

Chapter

Necessary Preliminary Work
- Print out fault memory.
- Disconnect battery.
- Remove panelling for foot controls.
- Remove panelling for A-column in footwell on left.
- Remove glove compartment.

1. Removing Steering Column Panelling

F 36 62 107
Fold out lever (3) for steering column adjustment.
Remove Phillips screw (1) and take out lower part of steering column panelling (2) from below as indicated by arrow.

2. Installing Switch for Speed Control

F 36 62 108
Cut out pre-marked area (arrow) of lower steering column panelling.

F 36 62 126
Insert switch (1) as indicated by arrow into steering column guide (2).
Install operating button (3) on operating lever (4).

F 36 62 140
Note
The steering has been removed for the sake of clarity.

Push foam and cover (1) behind steering column panelling (2) as shown and install steering column panelling.

F 36 62 109
Lay cable of operating switch (1) along main wiring harness to plug-in station (2) under steering column.

3. Installing Control Unit Holder

F 36 62 110
Note
Only necessary for models with cheaper equipment version.

Remove Hexagon screws (1).
Take out fan connector box (2) from below.

F 36 62 111
Press back lug (1) with screwdriver as shown in illustration and press holder (3) down and out of the fan connector box (2).

F 36 62 112
Install fan connector box (1) on control unit holder (2) as shown in illustration, until lug snaps into place.

F 36 62 113
Secure control unit holder (1) with hexagon screws (2) and plastic split rivets (3) behind glove compartment as shown in illustration.

4. Installing Supplementary Wiring Harness

F 36 51 128
Remove hexagon sheet-metal screws (1).

F 36 64 111
Remove cover of distribution box. Remove torx screws (arrows). Lift up upper section (1) of distribution box as far as wiring harness allows.

F 36 51 129
Remove guide (1) of wiring harness in direction of arrow.

F 36 62 114
Lay supplementary wiring harness (1) from passenger compartment through distributor box along main wiring harness (2) into engine compartment at front left.
Connect earth connection **(b)** to earth support (3) X165.

Supplementary wiring harness - Overview

F 36 62 115
Colour codes
rt = red
sw = black
or = orange
bl = blue
gn = green
gr = grey
br = brown
vi = violet
ws = white
ge = yellow

Item	Connection location	Cable colour
a	Control motor M25/X70, engine compartment, front left	
b	Earth point X165, engine compartment, front left	br
c/d	Fan connector X1182, below instrument panel	vi/ge
e	Fan connector X188, below instrument panel	sw/ws
f	Only for automatic transmission: Fan connector X191, below instrument panel	br/sw
g	Fan connector X181, below instrument panel	bl/rt
h	Fan connector X197, below instrument panel	
i	Automatic transmission: Install cable bridge on connector Manual transmission: Clutch switch S32	
j	Connector for operating switch of speed control X72	
k	Fan connector X10009, behind glove compartment	br/or
l	Control unit for speed control X22, behind glove compartment	

F 36 62 116
Install branches (**c,d**) - cable colour violet/yellow - in fan connector X1182.

F 36 62 117
Install branch (**e**) - cable colour black/white - in fan connector X188.

F 36 62 118
Only for automatic transmission
Install branch (**f**) - cable colour brown/black - in fan connector X191.

Note
In vehicles with manual transmission, branch (**f**) - cable colour brown/black - must be insulated and tied back.

F 36 62 119
Install branch (**g**) - cable colour blue /red - in fan connector X181.

Note
If there is no fan connector X181, connect cable of brake light switch - cable colour blue/red - with branch (**g**).

F 36 62 121
Install branch (**h**) in fan connector box.

F 36 62 122
Vehicles with automatic transmission
Install connector (**i**) of supplementary wiring harness on cable bridge (1) and tie back with cable straps.

Note
The cable bridge (1) is tied back to the supplementary wiring harness.

F 36 62 123
Vehicles with manual transmission
Install branch (**i**) on clutch switch (1) in direction of arrow.

F 36 62 128
Insert clutch switch (1) in opening (2) of holder on pedal block.

F 36 62 124
All vehicles
Lay branch (**j**) to steering column and install in plug connection X72 (1) of operating switch for speed control system.
Install plug connection X72 (1) in plug-in station (2).

F 36 62 125
Lay supplementary wiring harness along main wiring harness to fan connector box behind glove compartment.
Install branch (**k**) - cable colour brown/orange - in fan connector X10009.

F 36 62 127
Push control unit (1) into control unit holder (2) until lugs lock into place. Lay branch (**l**) to control unit (1) and install plug connection X22 on control unit (1).

5. Installing Control Motor

F 36 65 388
Only models with four-cylinder engine
Push control motor (1) onto holder (2) as shown in illustration and secure with hexagon nuts (4).
Push holder (3) into holder (2) as shown in illustration and secure with hexagon nuts (4).

Note
Make sure lug (5) is seated properly.

F 36 62 129
Only models with six-cylinder engine
Push holder (1) onto control motor (2).

F 32 65 269
Secure hexagon nuts (arrows).

F 32 65 270
All models
Connect Bowden cable (1) to tape (2) of control motor.

F 32 65 271
Push through Bowden cable (1) in direction of arrow until retainng spring snaps into place.

Note
The tape is guided in the Bowden cable.

F 36 62 130
Remove hexagon nuts (1) and secure control motor (2) as shown in illustration. Plug connector (3) onto control motor and lock in direction indicated by arrow. Remove hexagon nut (4) and secure holder (5) as shown in illustration. Press Bowden cable (6) into holder (5) as shown.

F 36 62 131
Only models with M40 engine
Remove flat-slot screw (2) and fold up cover (1) in direction of arrow.

F 36 62 132
Press back lugs (1) and take securing clip (2) out of throttle valve holder from below.

F 36 62 133
Lay Bowden cable (4) without twists or kinks to holder (1) on suction pipe. Lay Bowden cable (4) through bore on holder (1). Press retaining rubber (2) into bore. Press adjusting screw (3) into retaining rubber (2). Place securing clip (5) on Bowden cable (4). Install Bowden cable (4) with securing clip (5) in opening of actuating lever for throttle valve (6).

F 36 62 134
Only models with M42 engine
Lay Bowden cable (4) without twists or kinks to holder (1) on suction pipe. Lay Bowden cable (4) through bore on holder (1). Press retaining rubber (2) into bore. Press adjusting screw (3) into retaining rubber (2).

F 36 65 389
Only models with M43 engine
Remove flat-slot screws (2) and take off cover (1).

F 36 65 390
Only models with M43 engine
Lay Bowden cable (4) without twists or kinks to holder (1) on suction pipe.
Lay Bowden cable (4) through bore on holder (1). Press retaining rubber (2) into bore. Press adjusting screw (3) into retaining rubber (2).
Install Bowden cable (4) with securing clip in opening (5) of actuating lever (6) for throttle valve.

F 36 62 135
Only models with M50 engine
Lay Bowden cable (1) without twists or kinks to holder (3) on suction pipe. Lay Bowden cable (1) through bore (2) on holder (3). Press retaining rubber (4) into bore. Press adjusting screw (5) into retaining rubber (4).

F 32 65 276
Only models with M42 and M50 engine
Install securing clip (1) on Bowden cable (2).

F 36 62 136
Only models with M42 engine
Install Bowden cable with securing clip (1) in opening (2) of actuating lever for throttle valve (3).

F 36 62 137
Only models with M50 engine
Install Bowden cable with securing clip (1) in opening (2) of actuating lever for throttle valve (3).

6. Adjusting Bowden Cable

F 36 62 138
Run engine till it reaches operating temperature. With throttle valve closed and control motor shut off, adjust Bowden cable (3) with knurled nut (1) and adjusting screw (2) so that stop of throttle valve part (4) rests on stop of adjusting screw (5).

Note
Illustration shows vehicle with M40 engine. The same procedure must be followed for M42 and M50 engines.

7. Operation

F 36 62 139
A desired speed from approx. 40 km/h can be maintained and stored automatically. When the engine is turned off, the stored speed is erased.

1 ACCELERATION
Tap lever towards position 1:
The current speed is maintained and stored. Each further touching of the lever increases speed by approx. 1 km/h.

Press lever to position 1:
The vehicle accelerates without operation of accelerator pedal. When lever is released, the speed reached is maintained and stored.

2 DECELERATION
Tap lever towards position 2:
The current speed is maintained and stored. Each further touching of the lever decreases speed by approx. 1 km/h.

Pull lever to position 2:
The vehicle decelerates through automatic fuel cutout. When lever is released, the speed reached is maintained and stored.

3 RESUMING
Tap lever to position 3:
The last stored speed is again reached and maintained.

4 OFF
Tap lever towards position 4:
The speed control is switched off independently of operating or traffic situations.
Furthermore, the speed control switches off automatically:
- After the set speed is exceeded by approx. 16 km/h
- After speed drops below set speed by 8 km/h
- If brakes or clutch are operated or if automatic transmission selector is moved from D to N.

Important
Do not use the automatic speed control on winding roads, if heavy traffic does not allow constant speed, the road surface is slippery (snow, rain, ice) or the subbase is loose (stones, sand).

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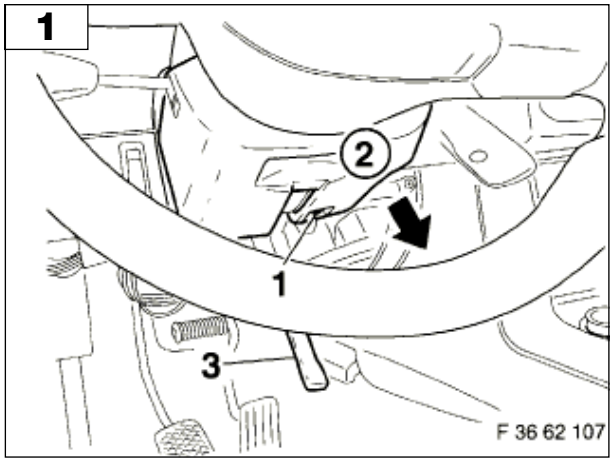
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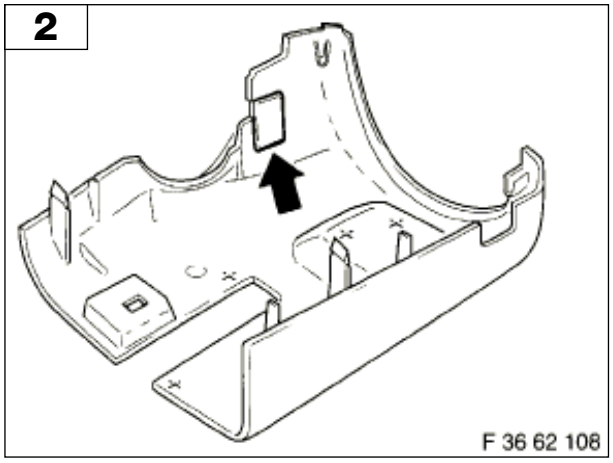
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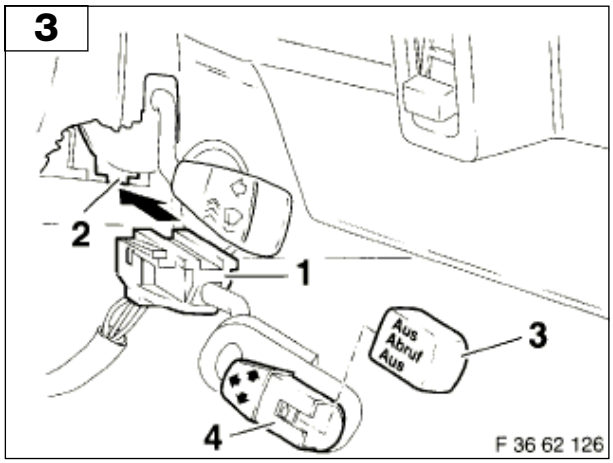
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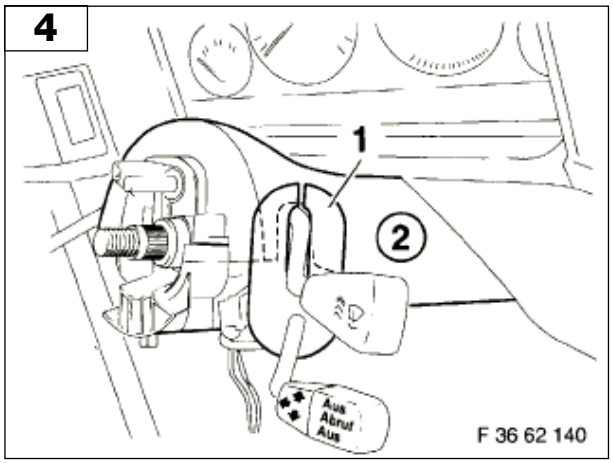
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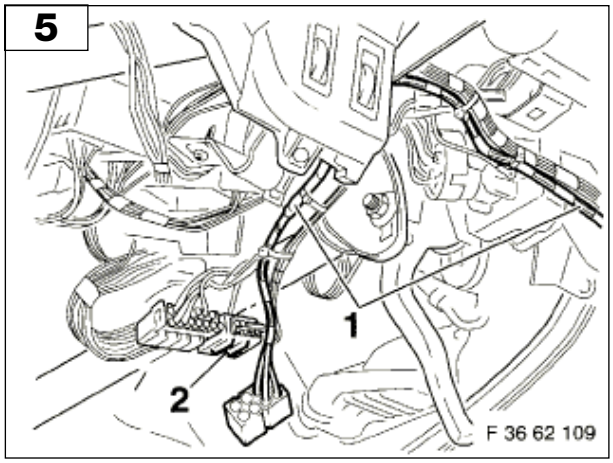
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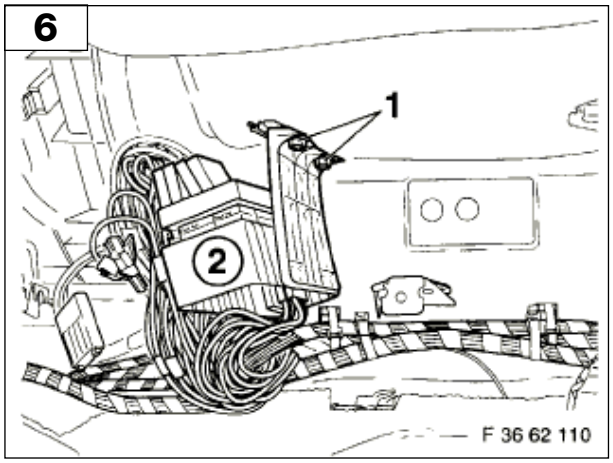
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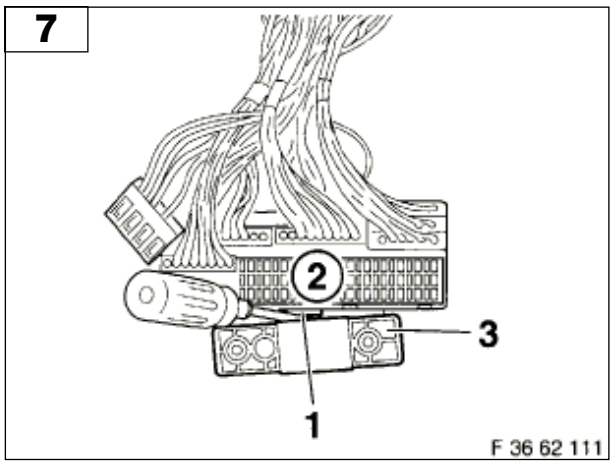
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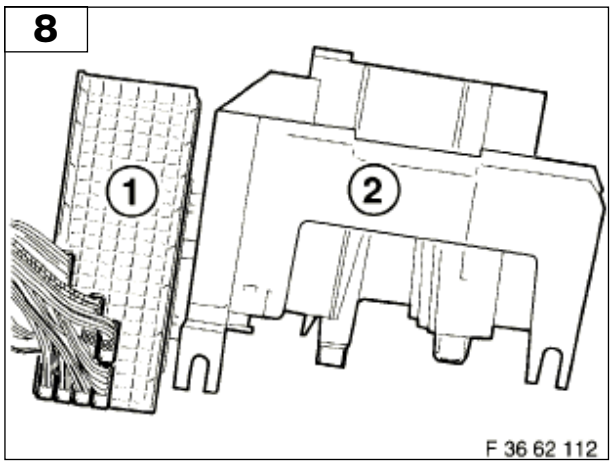
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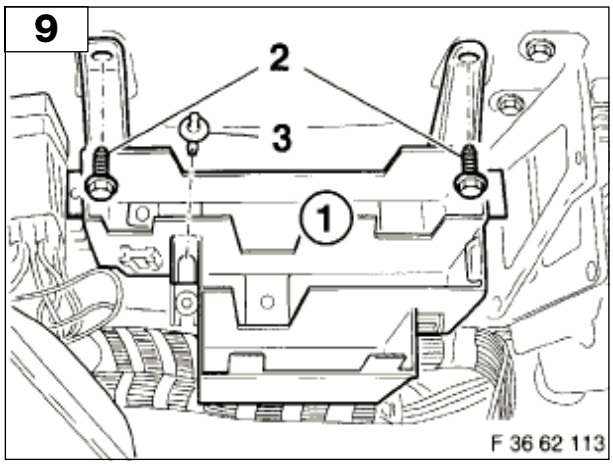

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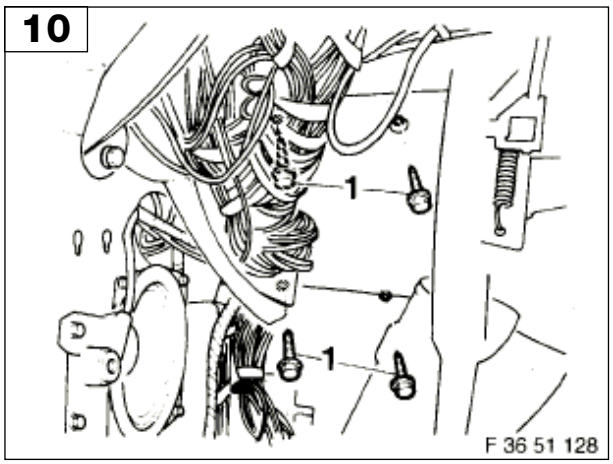

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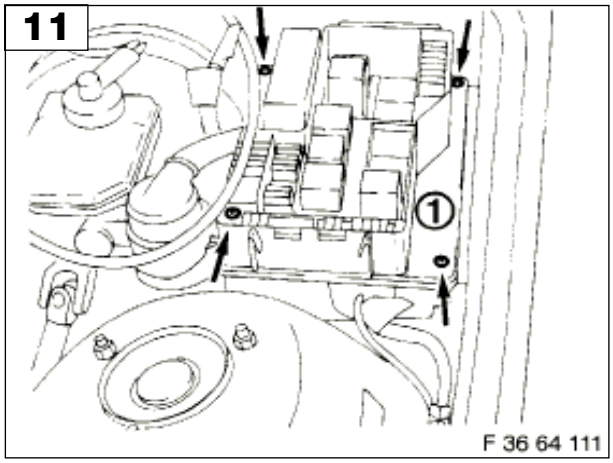

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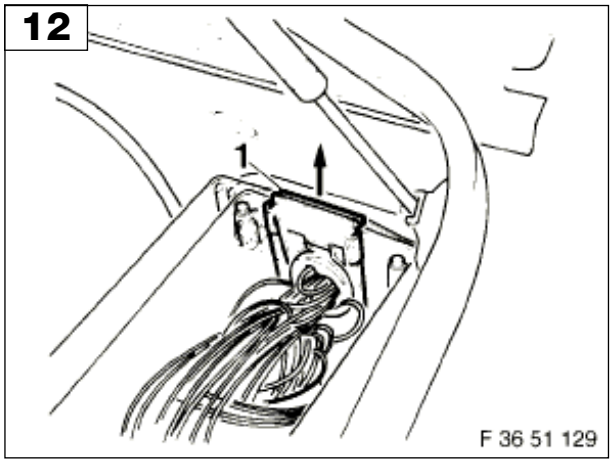

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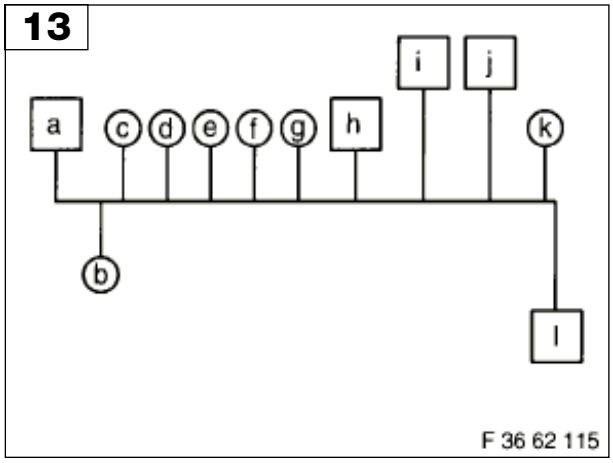

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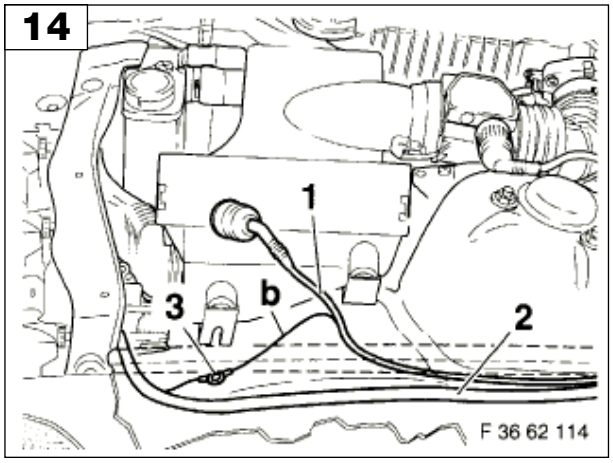

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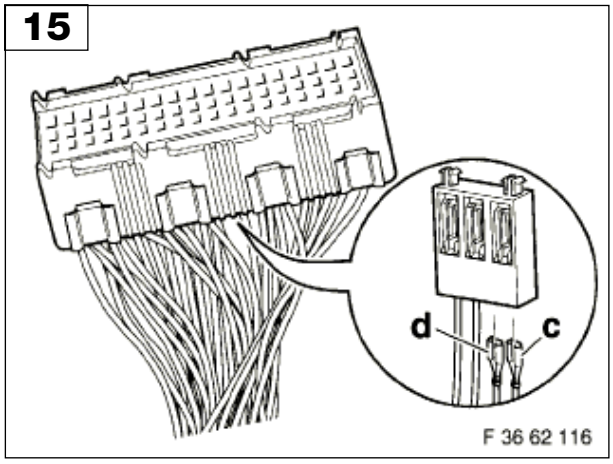

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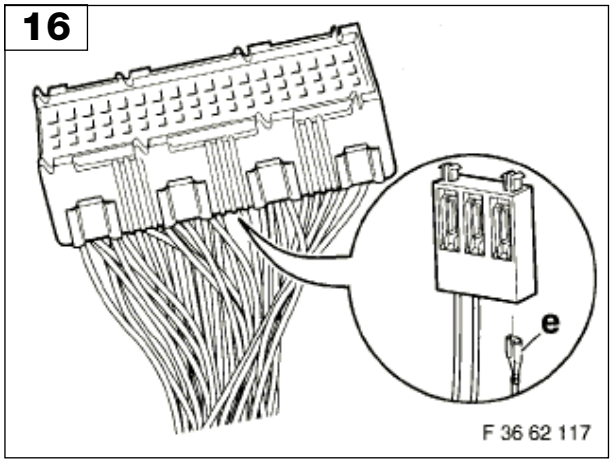

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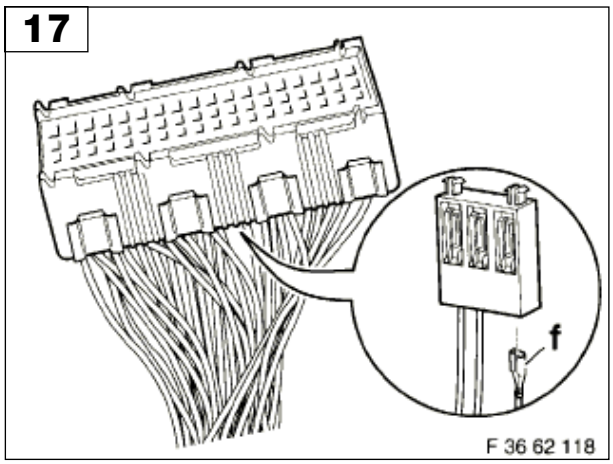

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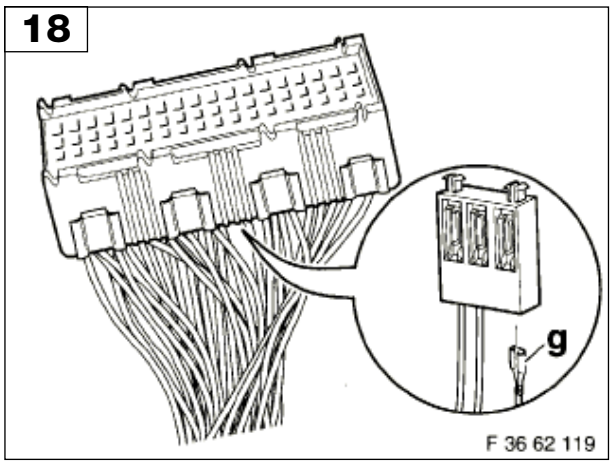

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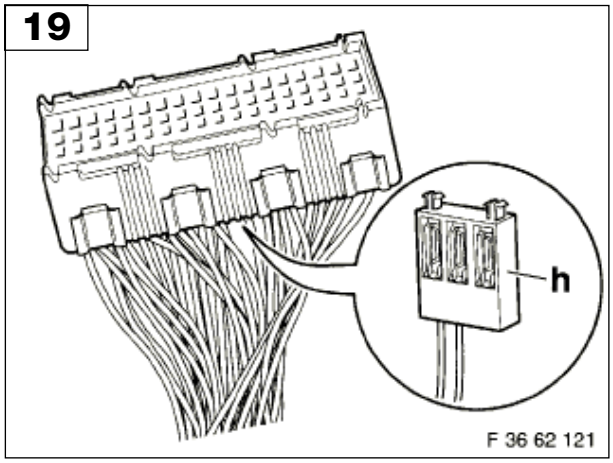

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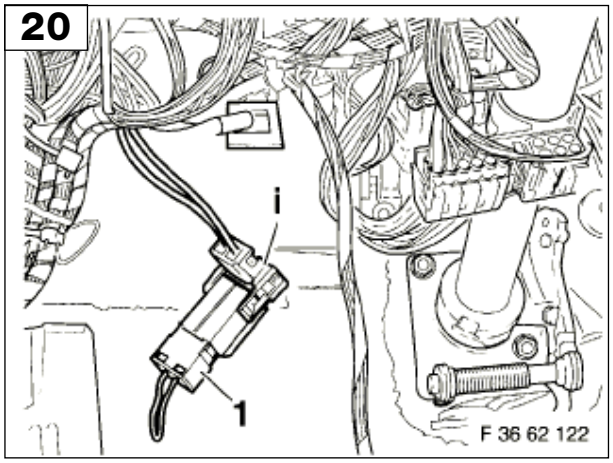

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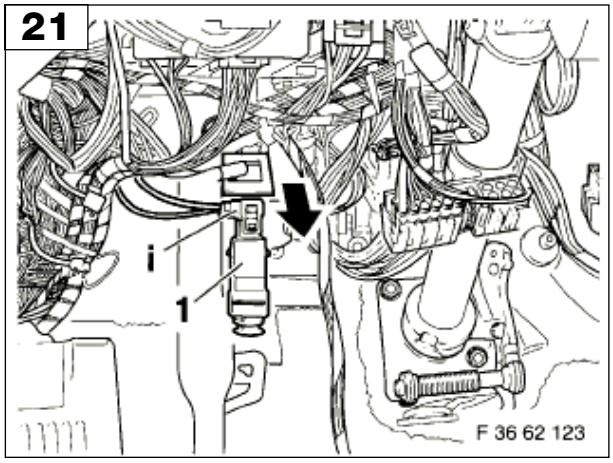

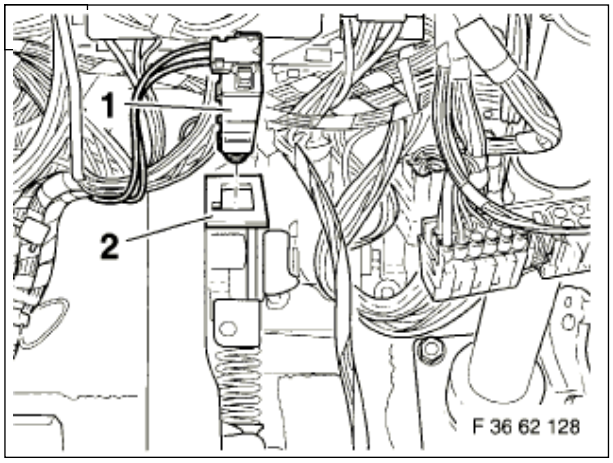

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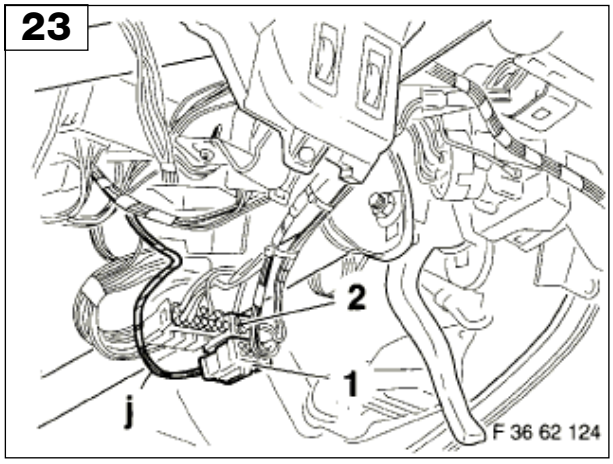

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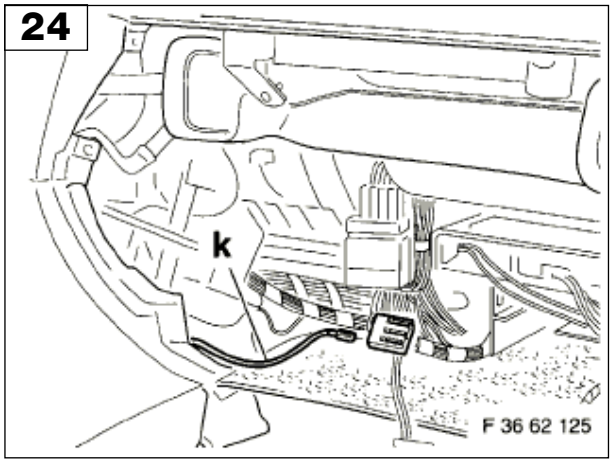

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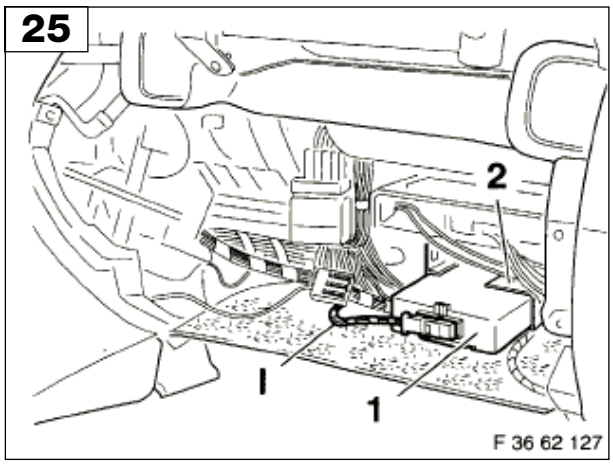

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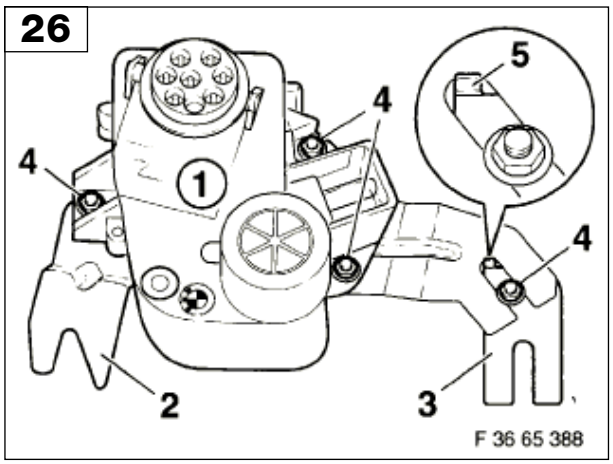

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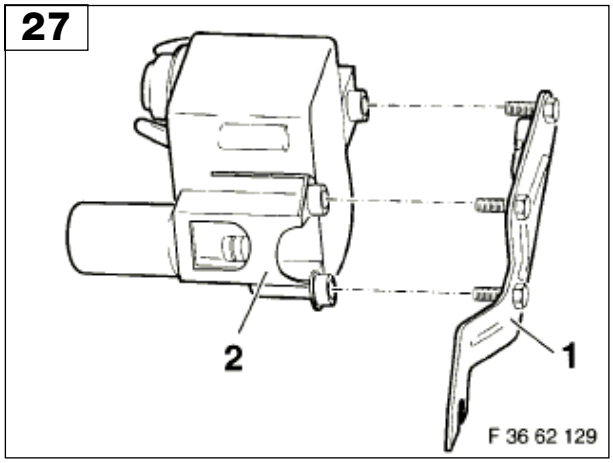

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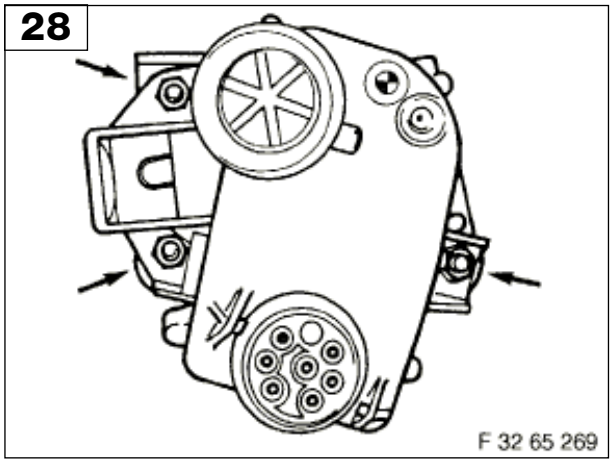

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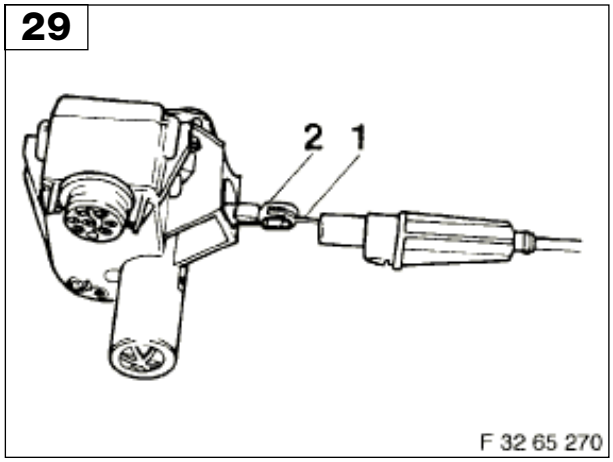

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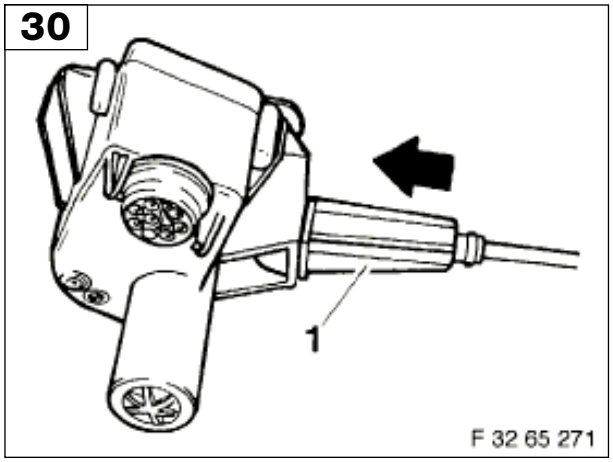

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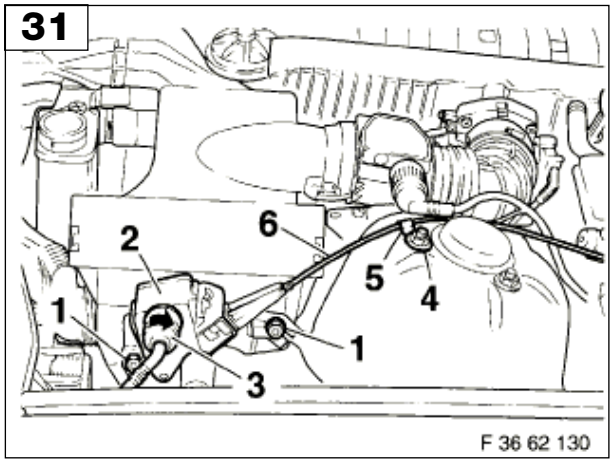

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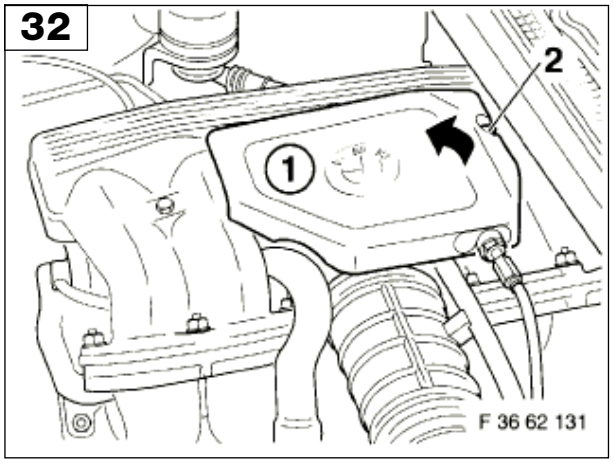

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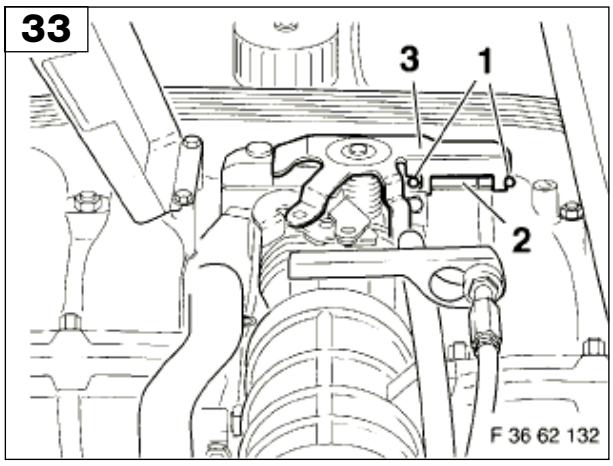

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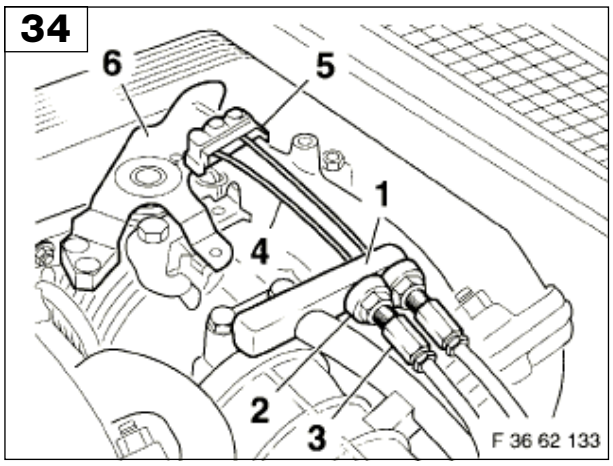

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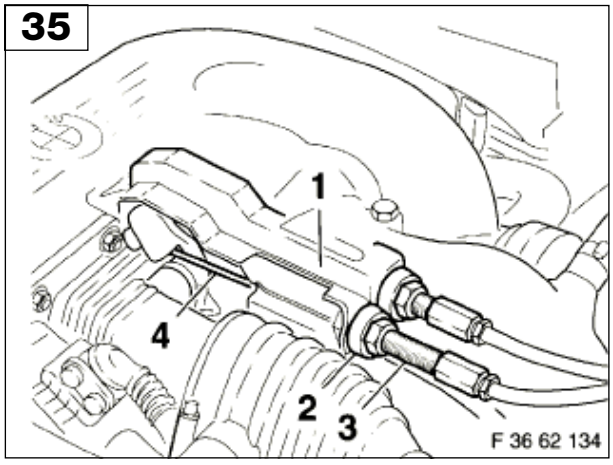

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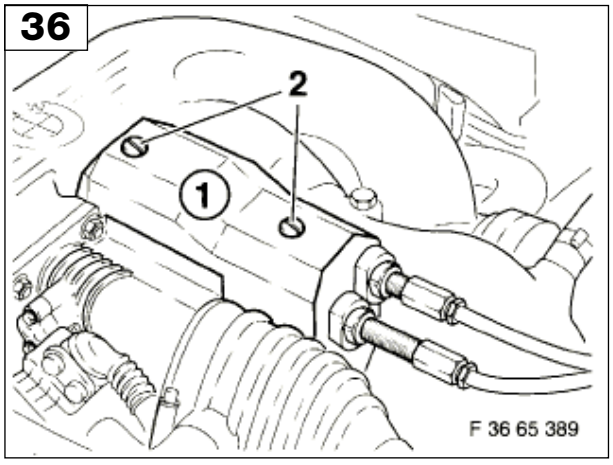

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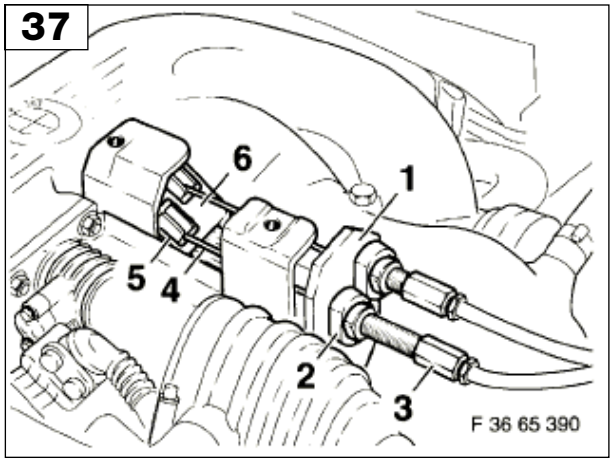

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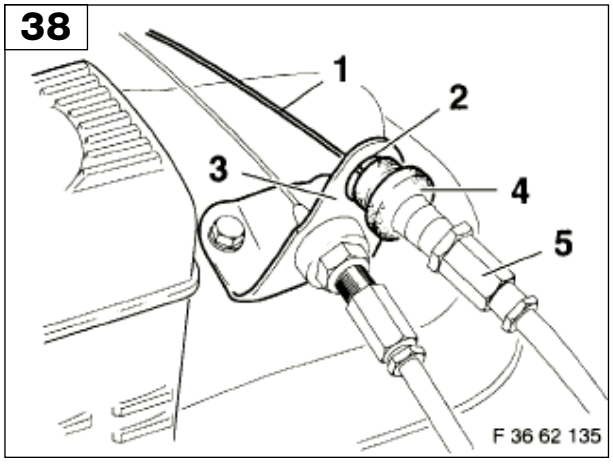

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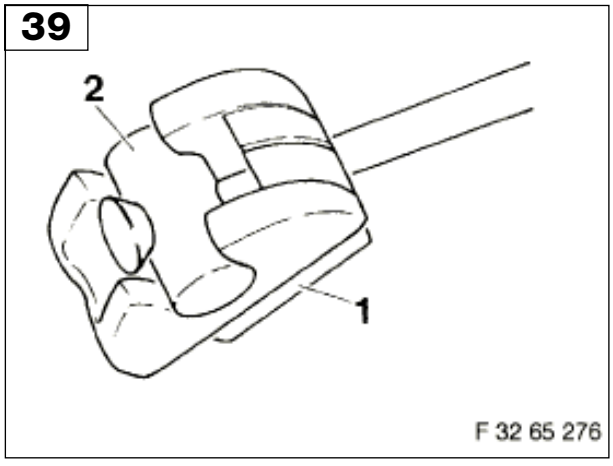

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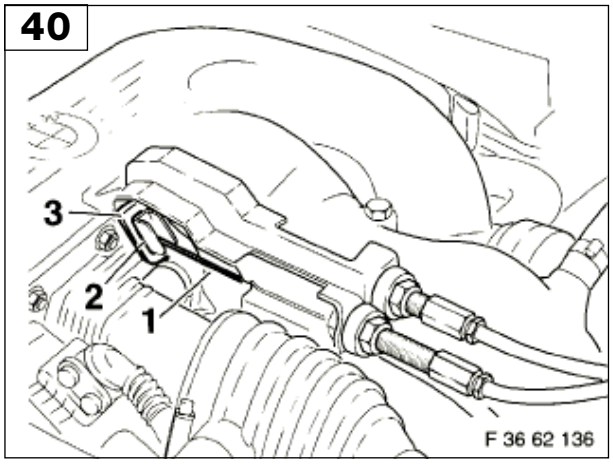

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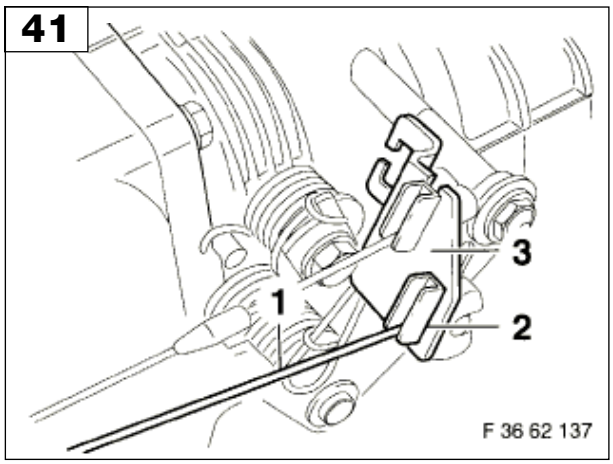

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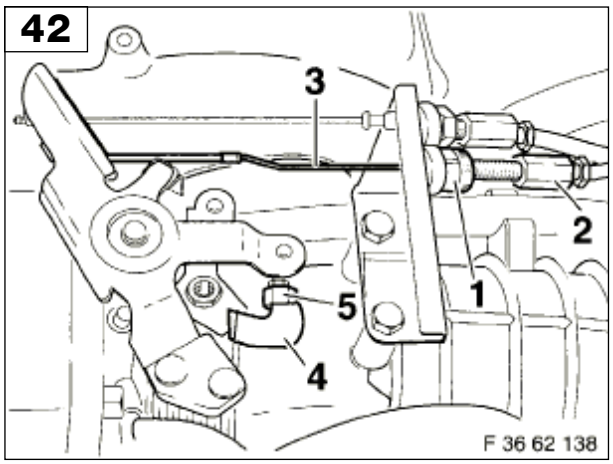

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