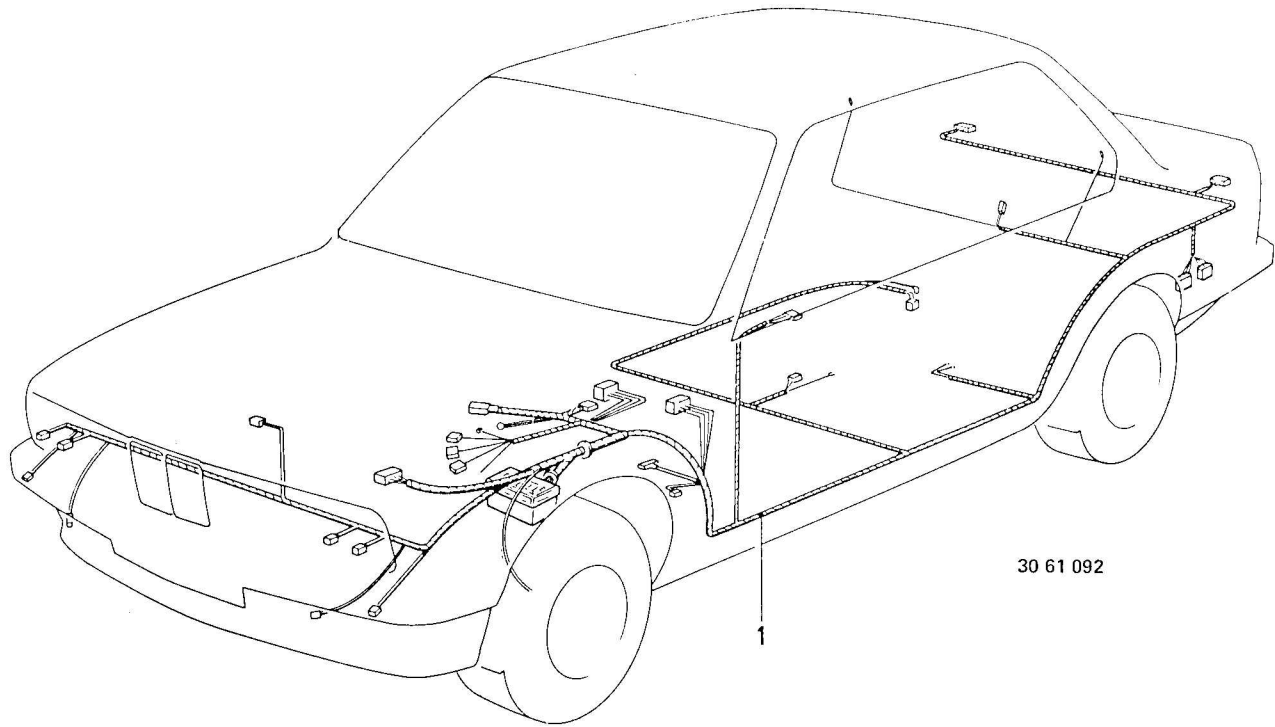


61 Electrical System

61 10	...	Main wire harness – layout drawing	61 - 1
	100	Main wire harness – replace	61 - 2
61 13	...	Plugs – remove and install	61 - 4
	...	20-pin round male plug	61 - 5
	...	8-pin round male plug	61 - 5
	...	35 and 55-pin connecting plugs	61 - 6
	021	Fuse/relay plate – replace	61 - 101
61 21	010	Battery – remove and install	61 - 201
	015	Degassing tank – remove and install or replace	61 - 201
61 31	016	Turn signal/headlight dimmer switch – replace	61 - 301
	020	Steering lock/ignition switch – remove and install	61 - 301
	028	Light switch – remove and install	61 - 302
	040	Wiper switch – remove and install	61 - 302
	045	Intensive cleaning control unit – replace	61 - 303
	051	Heater (blower) switch – remove and install	61 - 303
	060	Rear window defogger switch – remove and install	61 - 303
	070	Front/rear fog light switch – remove and install	61 - 303
	080	Hazard light switch – remove and install	61 - 303
	085	Air conditioner switch – replace	61 - 303
	095	Door lock heating control unit – remove and install or replace	61 - 304
	105	Power window automatic cutout – replace	61 - 304
	115	Power window control switch – replace	61 - 304
	205	Central lock impact switch – replace	61 - 304
	210	Door contact switch, left or right – remove and install	61 - 304
	250	Trunk light contact switch – remove and install	61 - 305
	255	Power mirror switch – replace	61 - 305
	260	Transmission switch – replace	61 - 305
	265	Program switch for automatic transmission control (EH) – replace	61 - 305
	270	Backup light switch – replace	61 - 306
	280	Oil pressure switch – remove and install	61 - 306
	282	Engine oil level switch – replace	61 - 306
	310	Stop light switch – replace	61 - 307
	313	Brake pad wear sensor – replace	61 - 307
	315	Brake fluid level switch – replace	61 - 307
	320	Parking brake indicator lamp switch – replace	61 - 307/1
	330	Glove box light switch – remove and install	61 - 308
	360	Turn signal/hazard light flasher (relay) – remove and install	61 - 308
	370	Wipe/wash control unit – replace	61 - 308
	382	Coolant level switch – replace	61 - 308
	390	Check control bulb tester (for tail and stop lights) – replace	61 - 309
	475	Power sun roof switching-over relay – replace	61 - 309
	492	Washing fluid level switch – replace	61 - 309
	...	Relay in power distributor – replace	61 - 309
61 33	040	Two-tone horn, left or right – remove and install	61 - 310
61 61	270	Windshield wiper console – remove and install	61 - 601

61-1

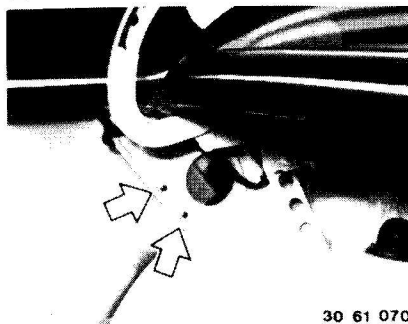
MAIN WIRE HARNESS LAYOUT DRAWING



30 61 092

61 10 100 REPLACING MAIN WIRE HARNESS

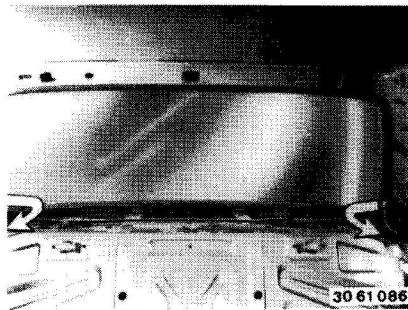
Remove windshield, front roof liner plate, center console, instrument carrier, front seats, rear seat cushion and backrest, rear side trim panels as applicable, all radiator grill sections and both entrance cover strips. Loosen and attach carpets and insulation sheets.



30 61 070

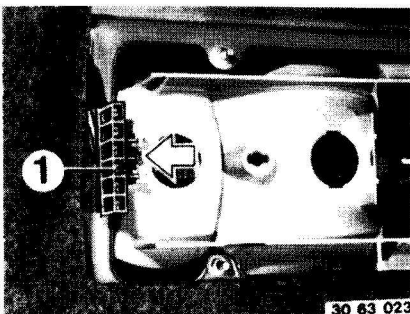
If applicable, pull off plug on bulb tester.

Lift off tail light covers on left and right side and pull off plugs.



30 61 086

Pull off rear window defogger wires on left and right sides and lead back to the main wire harness.



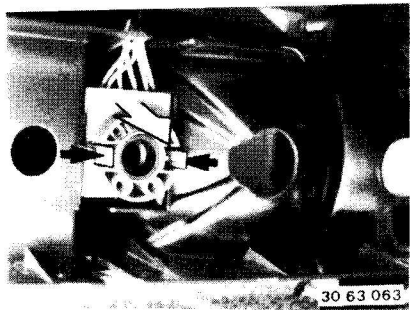
30 63 023

1988 Models On:
Unscrew covers on left and right sides. Compress clips and pull out plugs.



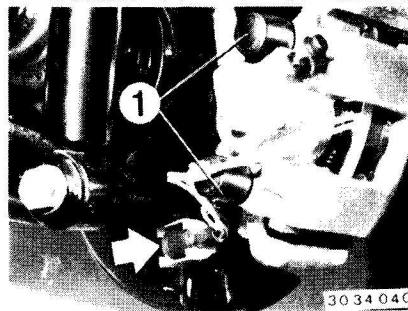
30 33 005

Pull off wires on pulse sender for the speedometer, loosen clips and guide wires into the passenger compartment.



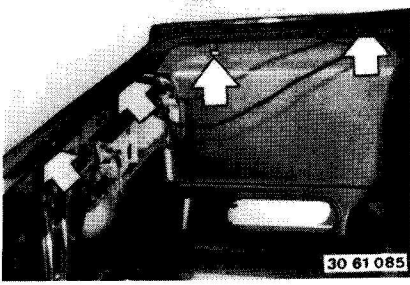
30 63 063

Lift out plugs on license plate lights. Bend open all metal holders and pull wire harness into the passenger compartment.

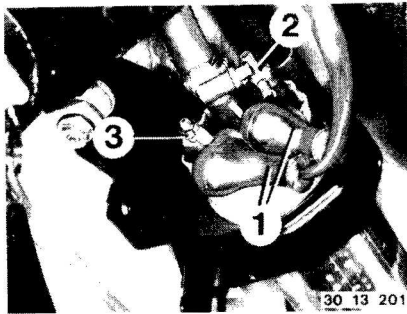


30 34 040

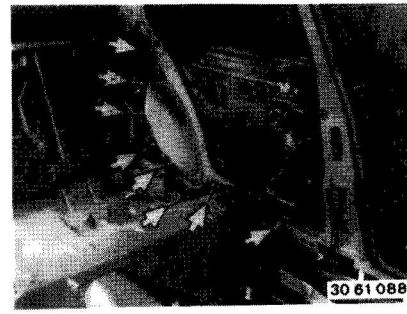
If applicable, disconnect brake pad wear indicator plug on the right-hand side and pull in wires.



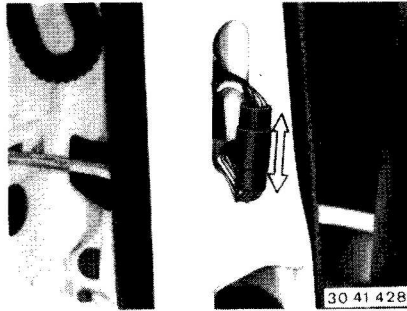
30 61 085



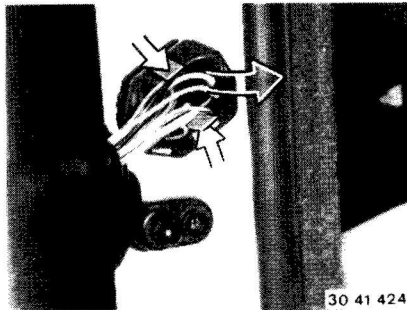
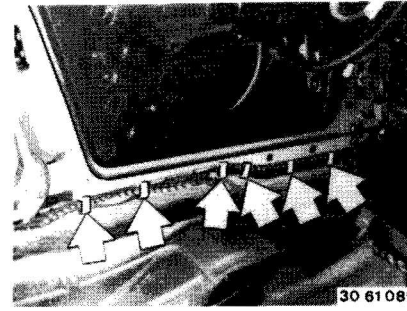
Disconnect wires on electric fuel pump and run in.



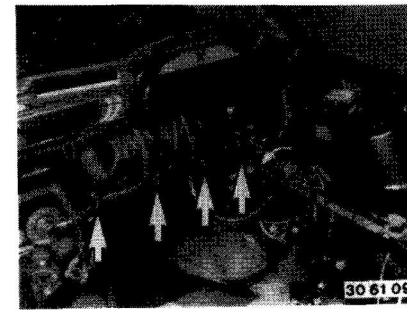
Loosen all clips and lift wire harness out of side member.



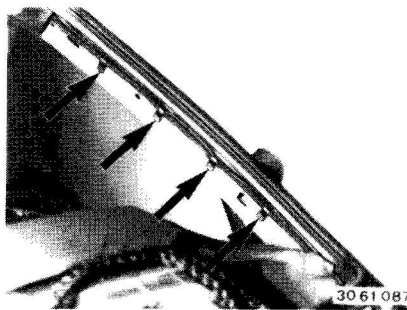
Four Door Cars:
If applicable, disconnect wires for power windows or central locks in the B pillar and lift wires out of left and right B pillars.



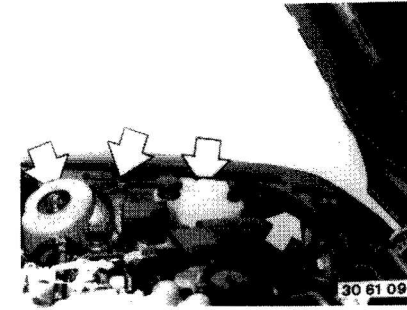
Disconnect plugs in left and right A pillars and lift wires out of A pillars.



Loosen straps.
Disconnect engine wire harness on main wire harness.
Loosen positive lead up to the power distributor.



If applicable, loosen clips and run wires for check control into the left footwell.



Disconnect wires on turn signals, headlights, coolant level switch and brake fluid level switch.
Loosen straps and lead wire harness to the power distributor.

61 13 . . . REMOVING AND INSTALLING PLUG CONNECTORS

Pull locking lever and disconnect plug.

32 61 073

Push back lockpins with special tool and press out contact sleeve or pin.

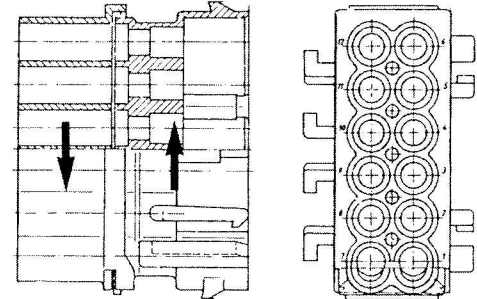
32 61 074

Push plug upper and lower sections against each other and press out contact pin or sleeve with special tool.

32 61 077

32 61 078

61 13 . . . 12 PIN PLUG RECEPTACLE



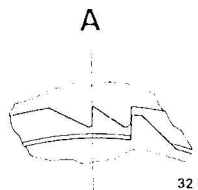
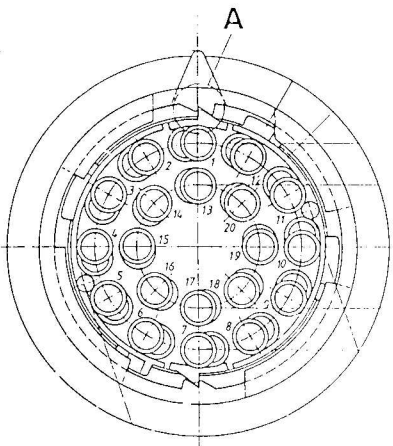
32 61 071

Push plug upper and lower sections against each other and press out contact pin or sleeve with special tool.

61-5

61 13 ... 20 PIN ROUND MALE PLUG

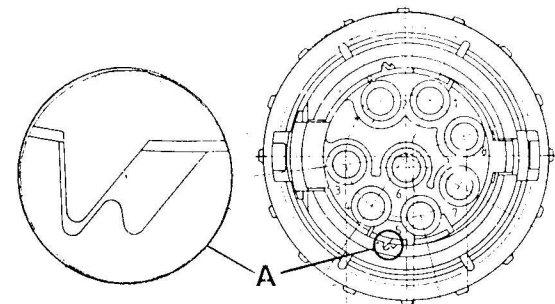
Turn plug to final catch position A and press out contact pin or sleeve with special tool.



32 61 070

61 13 ... 8 PIN ROUND MALE PLUG

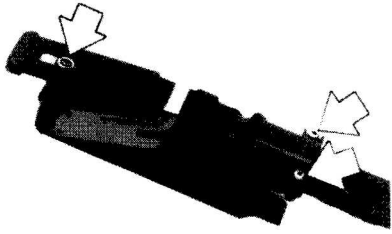
Turn plug to final catch position A and press out contact pin or sleeve with special tool.



32 61 069

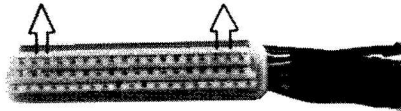
61 13 . . . 35 AND 55 PIN PLUG COUPLING

Unscrew screws and lift out contact carrier
with seal forward.



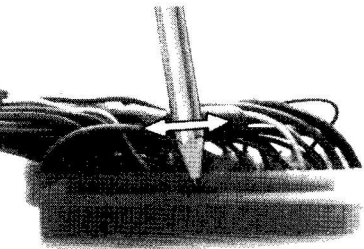
32 61 079

Push locking plate to the side and unlock.



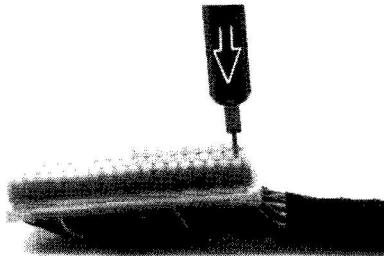
32 61 080

Connection numbers are on the edge of the
contact carrier and can be made visible by
rubbing over them with a pencil.



32 61 081

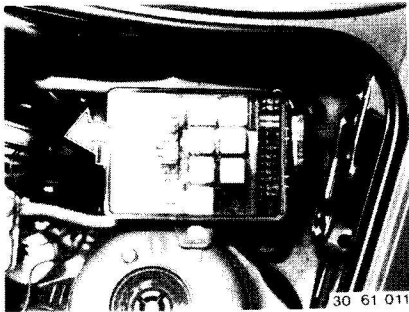
Push back contact lock with special tool and
lift out wires.



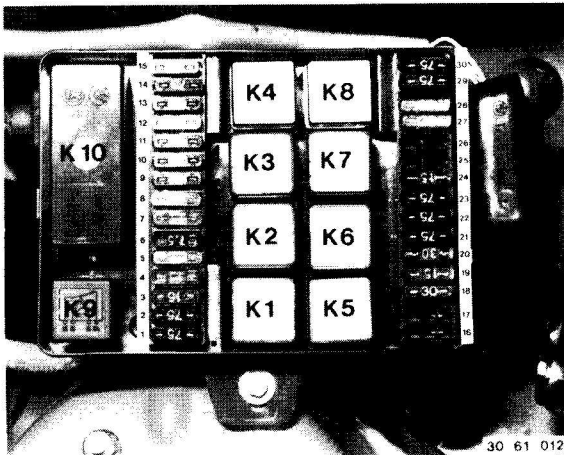
32 61 082

61 13 021 REPLACING FUSE/RELAY PLATE

Take off cover.
Pull out all relays and fuses.



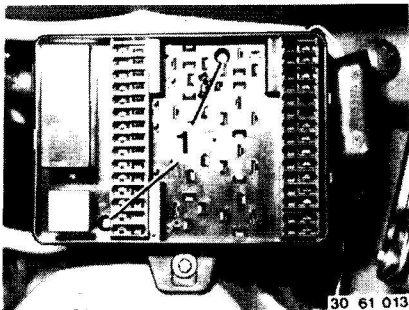
30 61 011



30 61 012

Unscrew bolts (1).
Lift fuse/relay plate.
Disconnect all wires.

Installation:
See wiring diagram for connections.



30 61 013

Fuse No. *	Amperes	Description
1	7,5	High beam, left
2	7,5	High beam, right
3	15	Extra fan 196° F
4	15	Turn signal indicator, clock light
5	(25) 30	Wipers/washer
6	7,5	Stop lights, cruise control
7	15	Two-tone horns
8	(25) 30	Rear window defogger
9	15	Engine electrics
10	7,5	Instruments, fasten seat belt warning light and buzzer, back up lights, check control
11	15	Main and aux. fuel pump
12	7,5	Radio and instruments
13	7,5	Low beam, left
14	7,5	Low beam, right
15	—	—
16	—	—
17	30	Power sliding roof, electric window lift
18	30	Extra fan 210° F
19	7,5	Mirror operation and heating
20	30	Heater blower, air conditioner
21	7,5	Interior lights, radio memory, glove box, rechargeable flashlight, clock, trunk light, fasten seat belt buzzer, ignition key warning buzzer, instrument panel lights, on-board computer
22	7,5	Left rear light, front position light left, front side marker light left
23	7,5	Right rear light, front position light right, rear side marker light, license plate lights
24	15	Hazard warning lights
25	—	—
26	—	—
27	(25) 30	Central locking system, door lock heating, on-board computer
28	(25) 30	Cigar lighter, power antenna
29	7,5	Left front fog lamp
30	7,5	Right front fog lamp

Values in brackets () until 9/84.

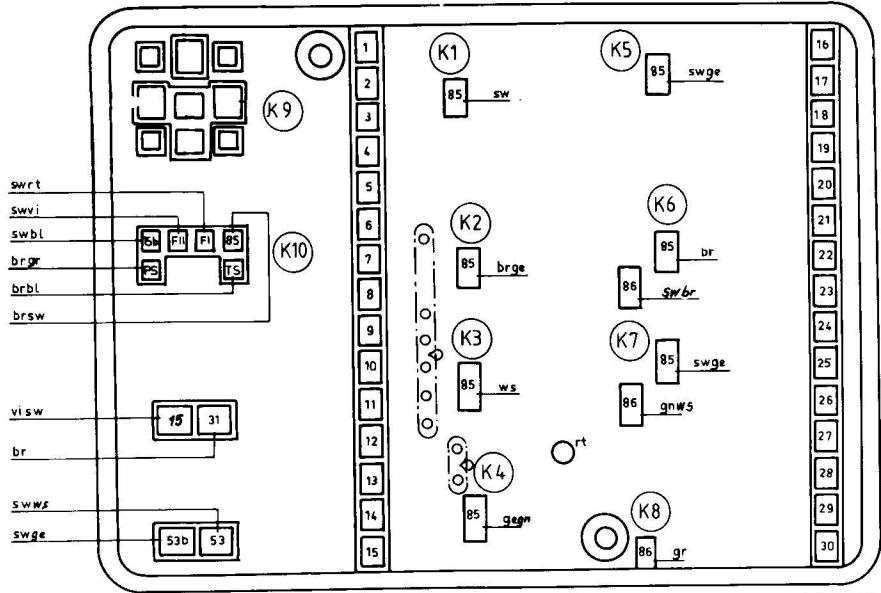
Relay *	Description
K 1	Extra fan speed I
K 2	Two-tone horns
K 3	High beams
K 4	Low beams
K 5	Power sliding roof, electric window lift
K 6	Extra fan speed II
K 7	Heater blower
K 8	Front fog lamps
K 9	
K 10	Intensive cleaner control unit

Spare Fuses (in Cover):

2 x 7,5 A
1 x 15 A
1 x 30 A

* Stamped in cover

FUSE / RELAY CONNECTIONS



30 61050

Fuse No.	Wire Colors
1	wsvi
2	wsbl
3	swgn
4	vigr
5	visw
6	vign
7	vige
8	gnbl
9	gnge
10	gnws
11	gnvi
12	viws
13	gews
14	gebl
15	—
16	—
17	wssw
18	swbl
19	gnsw
20	gnbr
21	rtgn
22	grsw
23	grgn
24	rtws
25	—
26	—
27	rtsw
28	rtge
29	gebr
30	gevi

Relays:

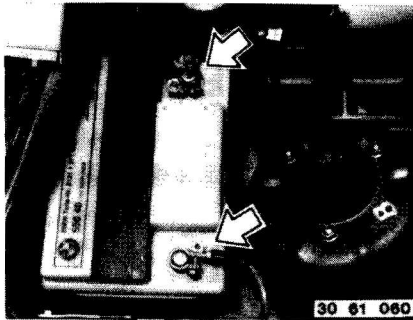
- K 1 Extra fan speed I
- K 2 Two-tone horns
- K 3 High beams
- K 4 Low beams
- K 5 Electric windows
- K 6 Extra fan speed II
- K 7 Heater blower
- K 8 Front fog lights
- K 9
- K10 Intensive cleaner control unit

Wire Color Codes:

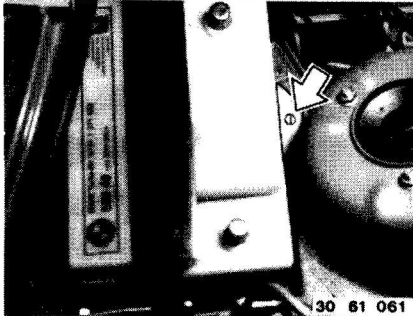
- bl = blue
- br = brown
- ge = yellow
- gn = green
- gr = gray
- rt = red
- sw = black
- vi = violet
- ws = white
- tr = transparent

61 21 010 REMOVING AND INSTALLING BATTERY

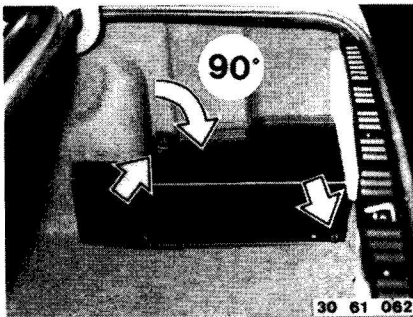
a) Installed in Engine Compartment:
 Disconnect ground lead.
 Take cap off of positive pole.
 Disconnect positive lead.



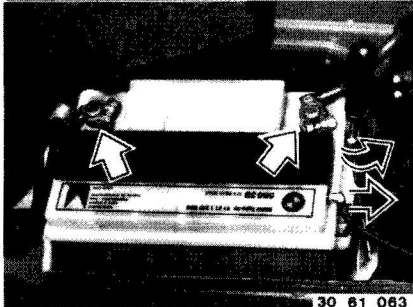
Unscrew bolt.
 Remove holder and lift out battery.



b) Installed in Trunk:
 Turn fasteners 90° and lift out trim panel.

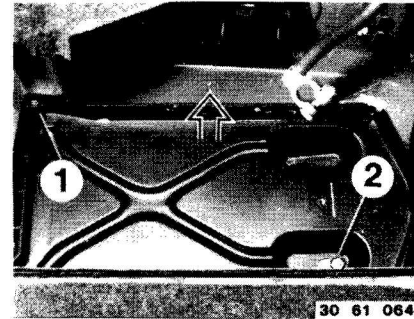


Disconnect ground and positive leads.
 Unscrew holder.
 Pull off vent hose.
 Lift out battery.

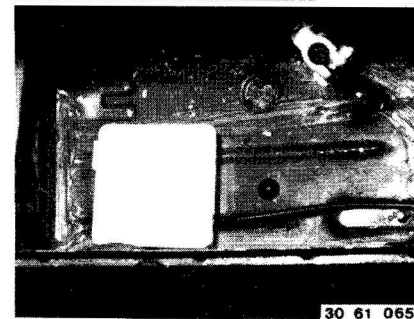


61 21 015 REMOVING AND INSTALLING OR REPLACING DEGASSING TANK

Remove battery 61 21 010 – b).



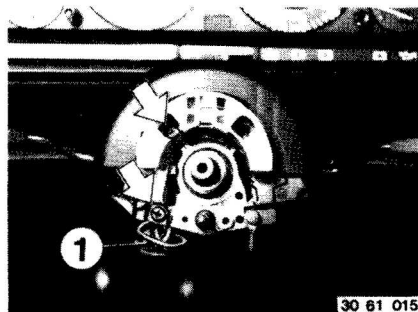
Unscrew and remove bolt (1) with nut and washer.
 Unscrew and remove nut (2) with washer.
 Lift out intermediate plate.



Lift out degassing tank.
Caution!
 Degassing tank contains battery acid.

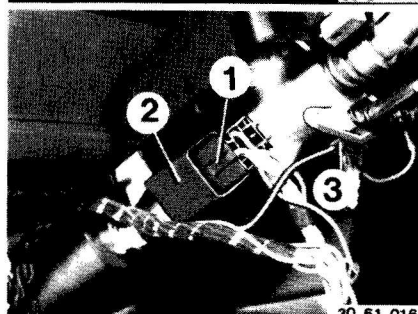
61 31 016 REPLACING TURN SIGNAL/ HEADLIGHT DIMMER SWITCH

Disconnect battery ground lead.
Remove steering wheel 32 33 000.
Remove instrument panel trim at bottom left
– 51 45 180.
Remove lower steering column casing section
– 32 31 020.



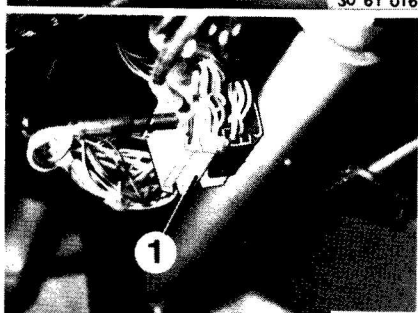
30 61 015

Unscrew screws.
Take off turn signal/dimmer switch.
Note:
Check ground wire (1).



30 61 016

Lift out plug (1) and flasher relay (2).
Pull relay off of plug.
Pull plug off of lead (3) for two-tone horns.

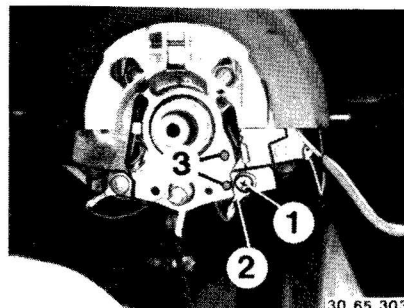


20 61 017

Cut wire straps.
Disconnect plug (1).

61 31 018 REPLACING SELECTOR SWITCH FOR CRUISE CONTROL

Disconnect battery ground lead.
Remove steering wheel 32 33 000.
Remove instrument panel trim at bottom left
– 51 45 180.
Remove lower steering column casing section
– 32 31 020.

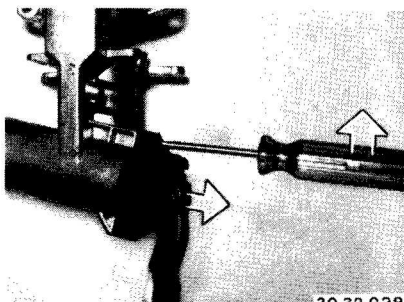


30 65 303

Unscrew screw (1) and lift out selector switch.
Cut open strap and disconnect plug.
Installation:
Also mount ground wire (2).
Both retaining tabs must protrude into bores (3).

61 31 020 REMOVING AND INSTALLING STEERING LOCK/IGNITION SWITCH

Disconnect battery ground lead.
Remove steering wheel 32 33 000.
Remove instrument panel trim at bottom left
– 51 45 180.
Remove lower steering column casing section
– 32 31 020.



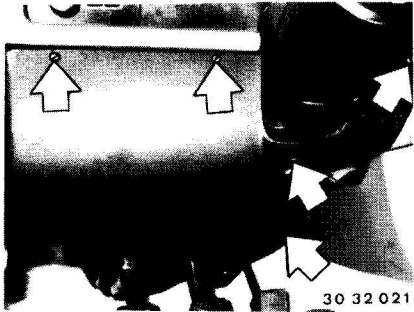
30 32 029

Press in hooks on both sides toward ignition switch and pull out the ignition switch.
Installation:
Check position between ignition switch and steering wheel lock!

61-302

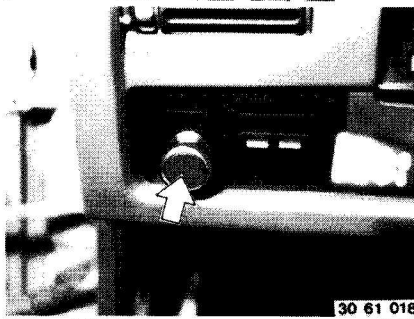
61 31 028 REMOVING AND INSTALLING LIGHT SWITCH

Disconnect battery ground lead.
Unscrew trim panel.



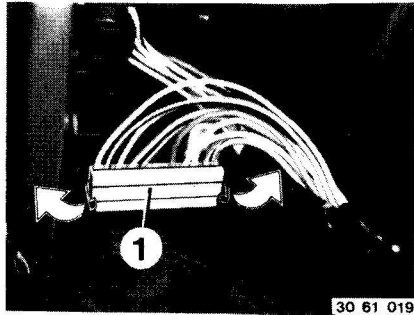
30 32 021

Unscrew control knob.



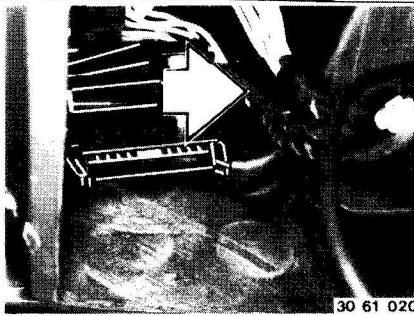
30 61 018

Pull off plug (1).



30 61 019

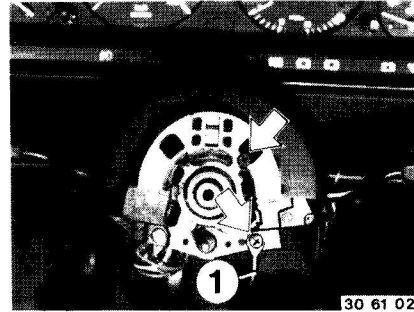
Pull out light switch.



30 61 020

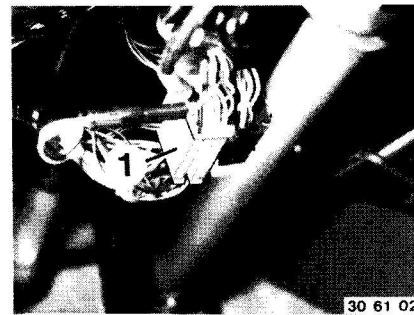
61 31 040 REMOVING AND INSTALLING WIPER SWITCH

Disconnect battery ground lead.
Remove steering wheel 32 33 000.
Remove instrument panel trim at bottom left
— 51 45 180.
Remove lower steering column casing section
— 32 31 020.



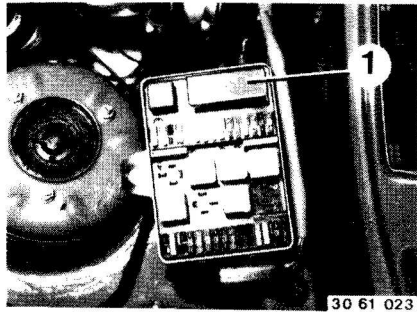
30 61 021

Unscrew screws.
Take off wiper switch.
Installation:
Also mount ground wire (1).



30 61 022

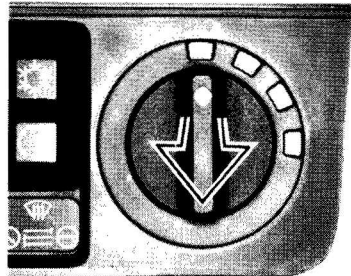
Cut off wire straps.
Disconnect plug (1).



61 31 045 REPLACING INTENSIVE CLEANING CONTROL UNIT

Lift cover off of fuse box.
Pull out control unit (1).

30 61 023



61 31 051 REMOVING AND INSTALLING HEATER (BLOWER) SWITCH

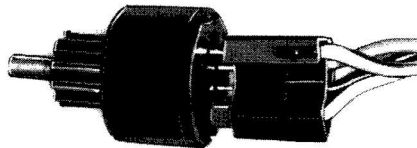
Remove radio opening mask or radio.
Pull off control knob.

30 64 196



Unscrew nut.

30 64 125



Remove blower switch.
Pull off plug.

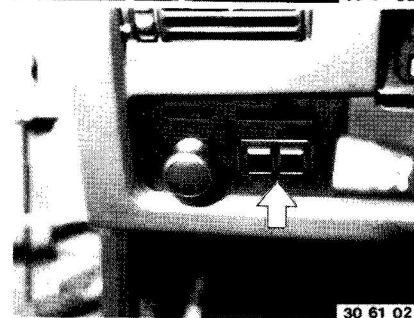
30 64 220



61 31 060 REMOVING AND INSTALLING REAR WINDOW DEFOGGER SWITCH

Pry out switch with a small screwdriver.
Pull off plug.

30 61 024



61 31 070 REMOVING AND INSTALLING FRONT/REAR FOG LIGHT SWITCH

Pry out switch with a small screwdriver.
Pull off plug.

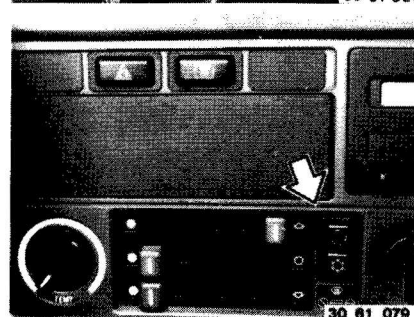
30 61 025



61 31 080 REMOVING AND INSTALLING HAZARD LIGHT SWITCH

Pry out switch with a small screwdriver.
Pull off plug.

30 61 026



61 31 085 REPLACING AIR CONDITIONER SWITCH

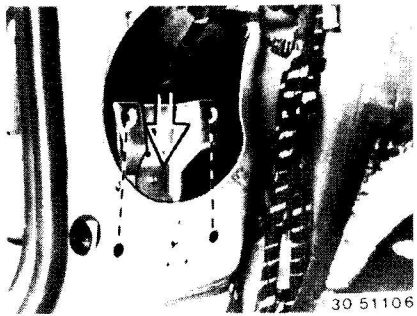
Pry out switch with a small screwdriver.
Pull off plug.

30 61 079

61-304

61 31 095 REMOVING AND INSTALLING OR REPLACING DOOR LOCK HEATING CONTROL UNIT

Remove left front door trim panel 51 41 001. Control unit is located in door at height of the door handle. Unscrew nut. Disconnect plug.

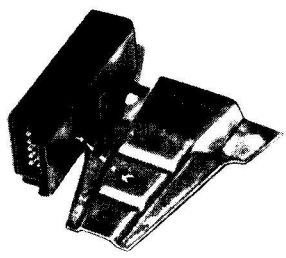


30 51 106

61 31 205 REPLACING IMPACT SWITCH FOR CENTRAL LOCKS

(Testing – see Group 51)
Take radio speaker out of left A pillar. Pull off carpet. Unscrew screws and take impact switch with holder out of opening for radio speaker. Disconnect plug.

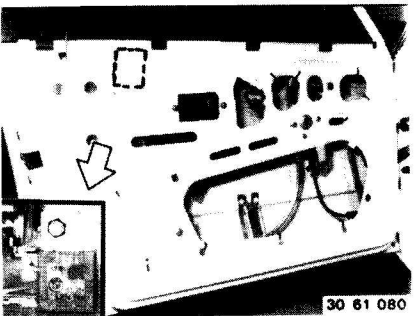
Unscrew screws. Take impact switch off of holder.
Installation:
Retaining tab must protrude into bore of holder.



30 51 104

61 31 105 REPLACING POWER WINDOW AUTOMATIC CUTOUT

Pry out switch with a small screwdriver. Pull off plug.



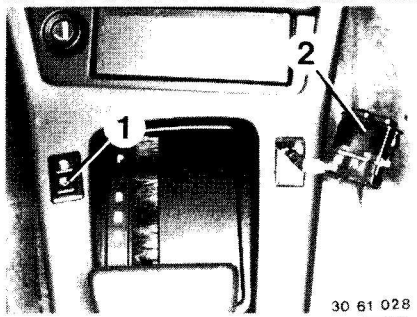
30 61 080



30 61 027

61 31 115 REPLACING POWER WINDOW SWITCH

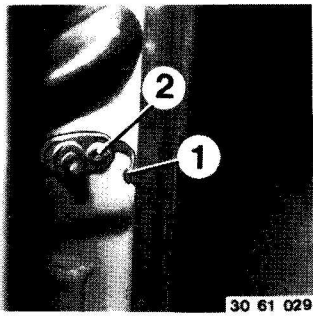
Pry out switch with a small screwdriver. Ull off plug.
Two Door:
1 = Driver's door
2 = Passenger's door



30 61 028

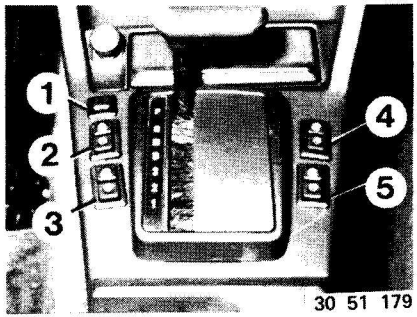
61 13 210 REMOVING AND INSTALLING LEFT OR RIGHT DOOR CONTACT SWITCH

Lift off cover (1). Unscrew screw (2). Remove switch. Pull off plug.



30 61 029

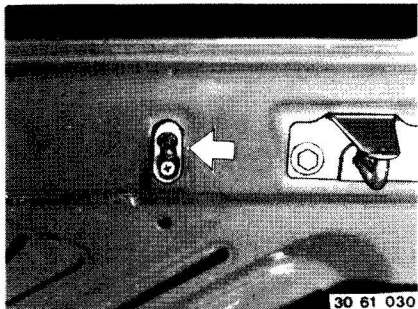
Four Door:
1 = Child safety lock
2 = Driver's door
3 = Rear door - left
4 = Passenger's door
5 = Rear door - right



30 51 179

61 31 250 REMOVING AND INSTALLING TRUNK LIGHT CONTACT SWITCH

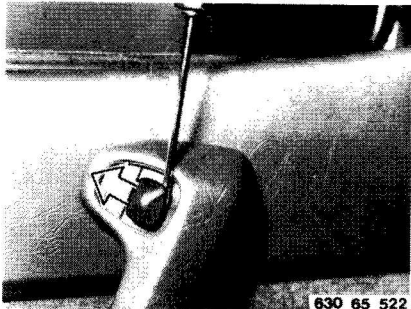
Unscrew screw.
Remove switch.
Pull off plug.



30 61 030

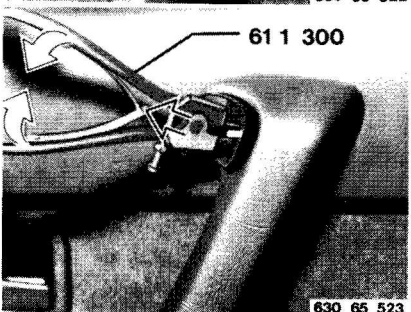
61 31 255 REPLACING OUTSIDE POWER MIRROR SWITCH

Pull off mirror adjusting button.



630 65 522

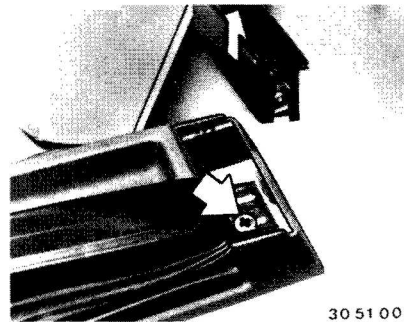
Lift out mirror switch with Special Tool 61 1 300.
Pull off plug.



630 65 523

61 31 260 REPLACING TRANSMISSION SWITCH

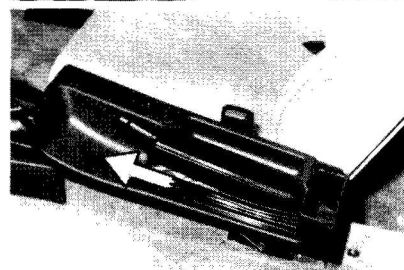
Refer to "Removing and Installing Shift Lever" - 25 16 080.



30 51 002

61 31 265 REPLACING PROGRAM SWITCH FOR AUTOMATIC TRANSMISSION CONTROL (EH)

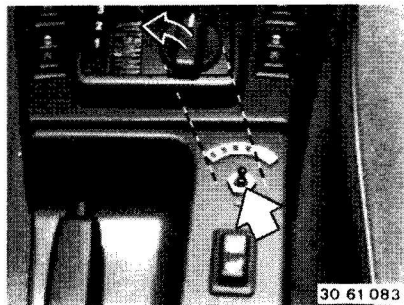
Pull out ashtray for rear seats.
Unscrew nut.



30 51 003

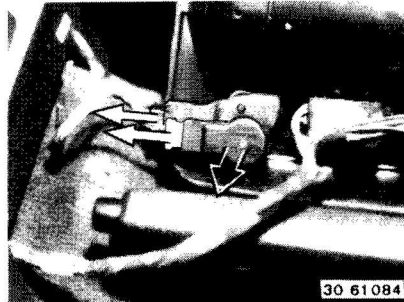
Lift off cover forward.
Pull off plug on program switch.
Pull out ashtray light.

Pull off program switch knob from above.
Unscrew nut.



30 61 083

Pull off plug and lift out switch downward.

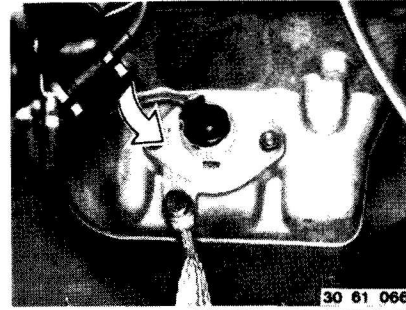


30 61 084

61 31 270 REPLACING BACKUP LIGHT SWITCH

5 Speed Manual Transmission:
Pull off plug.
Unscrew switch.

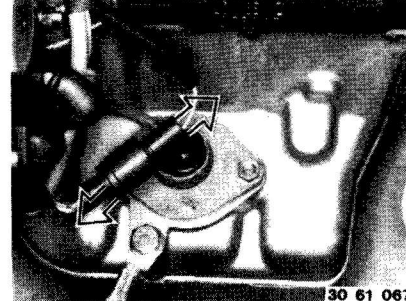
Automatic Transmission:
Backup light switch is integrated in transmission switch.



30 61 066

61 31 282 REPLACING ENGINE OIL LEVEL SWITCH

Air cleaner was removed for better presentation.
Pull plug out of holder.



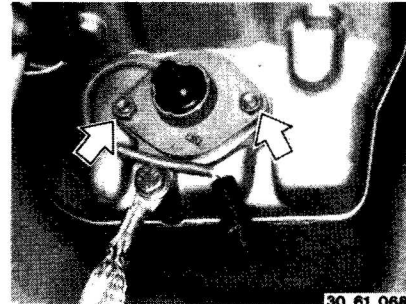
30 61 067

Disconnect plug.

61 31 280 REMOVING AND INSTALLING OIL PRESSURE SWITCH

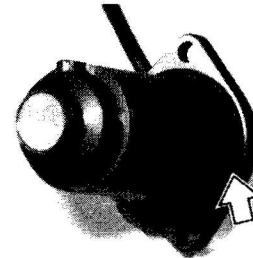
M 10 Engine:
Pull off plug.
Unscrew switch.

M 20 Engine:
Pull off plug.
Unscrew switch.



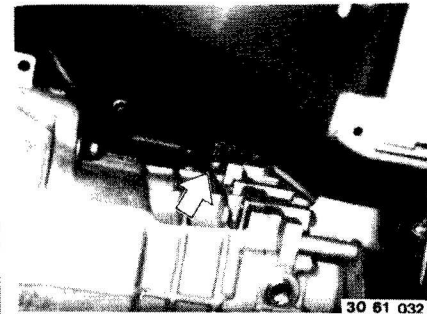
30 61 068

Unscrew nuts.
Lift level switch and let oil flow out of switch back into oil pan.

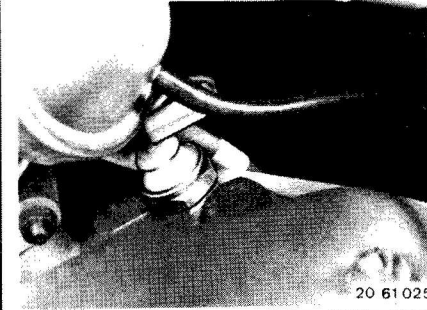


Check seal, replacing if necessary.

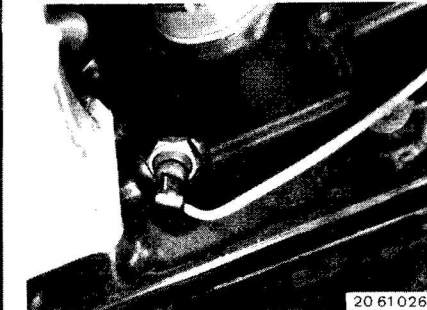
30 61 069



30 61 032



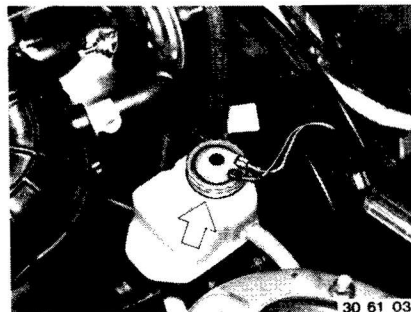
20 61 025



20 61 026

61 31 310 REPLACING STOP LIGHT SWITCH

Remove left bottom trim panel – see Group 51.
Pull off plug.

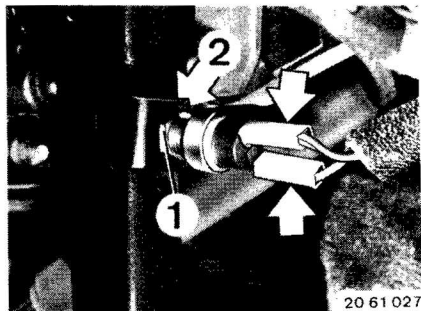


61 31 315 REPLACING BRAKE FLUID LEVEL SWITCH

Pull off plug.
Unscrew cap with integrated switch.

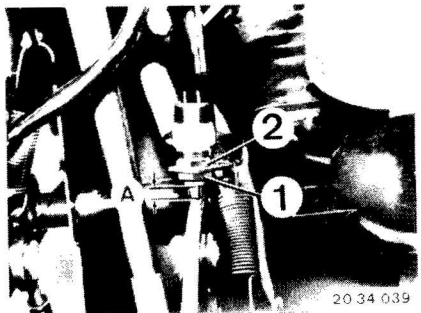
30 61 034

- a) Loosen lock nut (1).
Unscrew nut (2).



20 61 027

Adjusting:
Adjust stop light switch with nut (1) and lock nut (2) that distance A = 5 to 6 mm (0.197 to 0.236") of contact button is visible when brake pedal is released.



20 34 039

- b) Operate the brake pedal.
1 = Pull out plunger with sleeve completely.
2 = Compress clips and pull out switch downward.



32 61 026

Installation:
Insert switch as shown in 2 – adjusting is automatic.

61-30711

61 31 320 REPLACING PARKING BRAKE INDICATOR LAMP SWITCH

Lift out ashtray.



30 61 035

Unscrew screw.



30 61 036

Pull up parking brake lever.
Lift console and push forward.



30 61 037

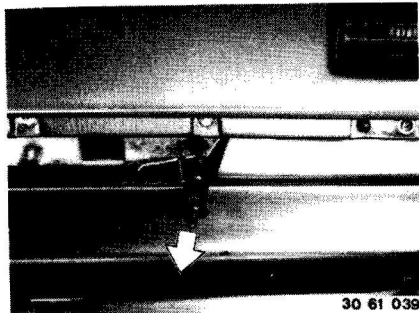
Push down spring (1) and pull out
wires.
Unscrew screw.
Remove switch.



30 61 038

61 31 330 REMOVING AND INSTALLING GLOVE BOX LIGHT SWITCH

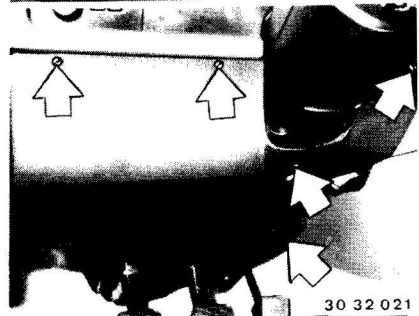
Open glove box.
Pull out switch.
Pull off plug.



30 61 039

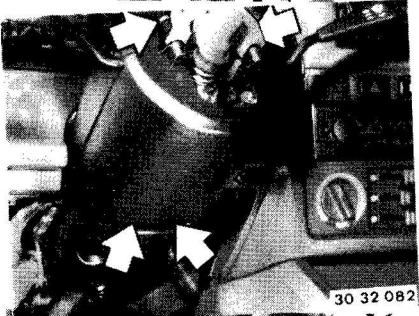
61 31 360 REMOVING AND INSTALLING TURN SIGNAL/HAZARD LIGHT FLASHER (RELAY)

Disconnect battery ground lead.
Remove steering wheel – see 32 33 000.
Remove dashboard trim panel at bottom left – see 51 45 180.
Remove lower steering column casing section – see 32 31 020.



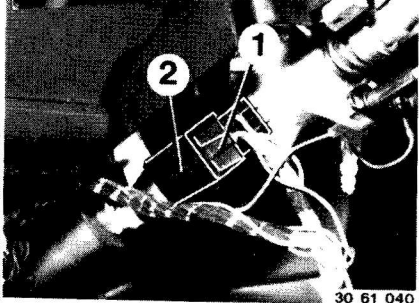
30 32 021

Unscrew casing section.



30 32 082

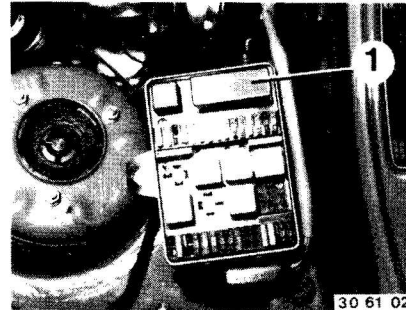
Pull off plug (1) and relay (2) on steering column.
Pull relay off of plug.



30 61 040

61 31 370 REPLACING WIPE/WASH CONTROL UNIT

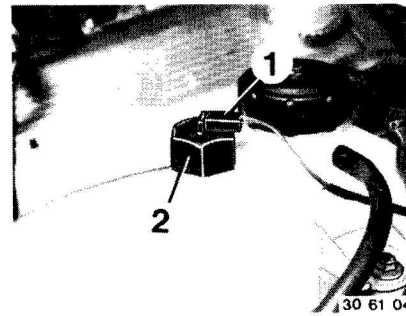
Lift cover off of fuse box.
Pull out wipe/wash control unit (1).



30 61 023

61 31 382 REPLACING COOLANT LEVEL SWITCH

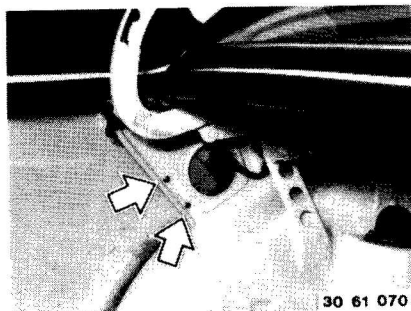
Pull off plug (1).
Unscrew coupling nut (2).
Pull out level switch.



30 61 042

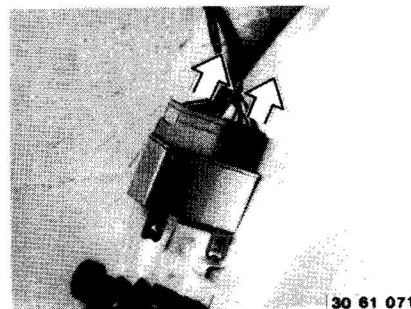
61 31 390 REPLACING CHECK CONTROL BULB TESTER (for Tail and Stop Lights)

Remove trunk trim panel on left side wall – 51 47 210.



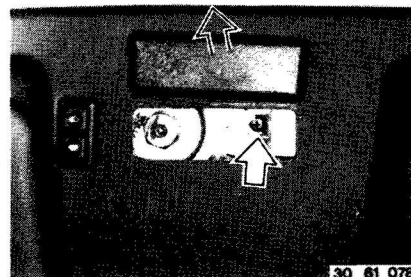
30 61 070

Unscrew screws.



30 61 071

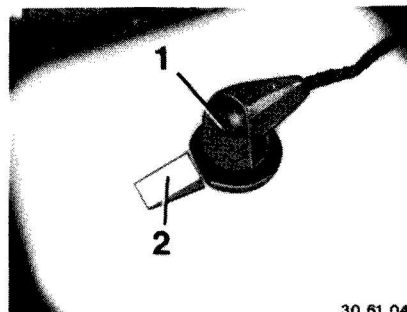
Pull off plug on bulb tester and remove bulb tester.



30 61 078

61 31 475 REPLACING POWER SUN ROOF SWITCHING-OVER RELAY

Lift off cover.
Unscrew screw and pull out relay.
Installation:
Connect wires that colors match.

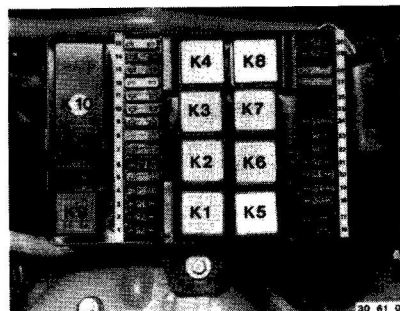


30 61 043

61 31 492 REPLACING WASHING FLUID LEVEL SWITCH

Remove washing fluid tank, if full.
Pull off plug with cap (1).
Pull out level switch.

Installation:
Flat side faces connector (2).



30 61 012

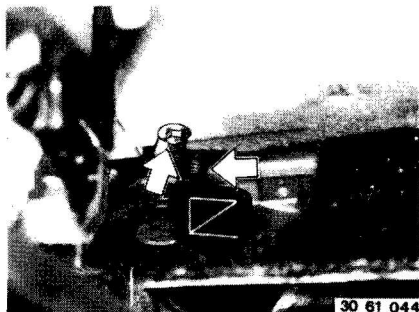
61 31 . . . REPLACING RELAYS IN POWER DISTRIBUTOR

Relay As Stamped in Cover	Description
K 1	Extra fan stage I
K 2	Two-tone horns
K 3	High beams
K 4	Low beams, rear fog lights
K 5	Seat heating, power sun roof, power windows
K 6	Extra fan stage II
K 7	Heater blower, rear window defogger, power mirrors
K 8	Front fog lamps
K 9	Rear fog lights (F, CH)
K 10	Intensive cleaning control unit

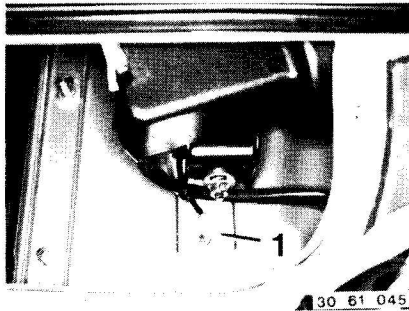
61-310

61 33 040 REMOVING AND INSTALLING LEFT AND RIGHT HORNS

Remove front engine splash guard — see
51 47 490.
Pull off plug with cap.
Unscrew screw.

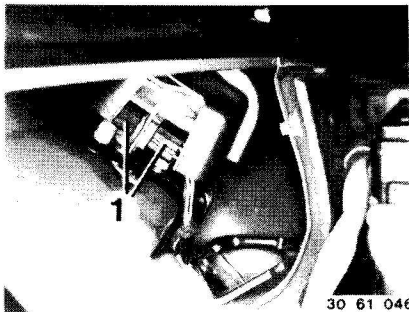


61 - 601

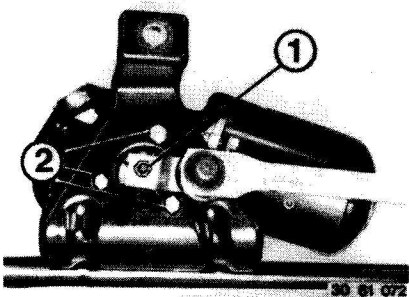


61 61 270 REMOVING AND INSTALLING WINDSHIELD WIPER CONSOLE COMPLETE WITH WIPER MOTOR

Remove heater motor 64 11 210.
Remove bracket (1).



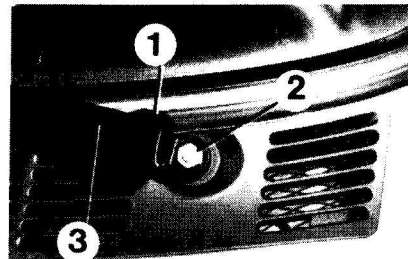
Disconnect plug (1).



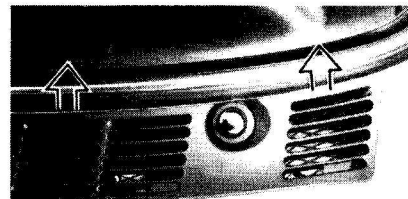
In Installed State:
Unscrew nut (1) and pull off linkage.
Unscrew bolts (2) and lift out motor.



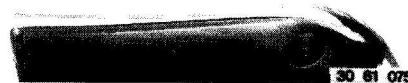
Open clamps (1) on blower shell at front and rear, left and right.
Disconnect air circulation flap (2) on left and right sides.
Lift out blower shell.



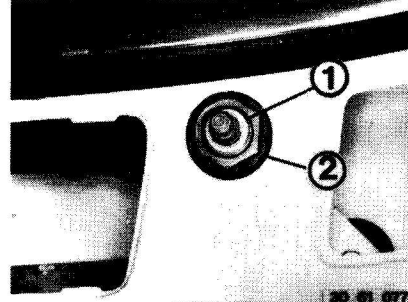
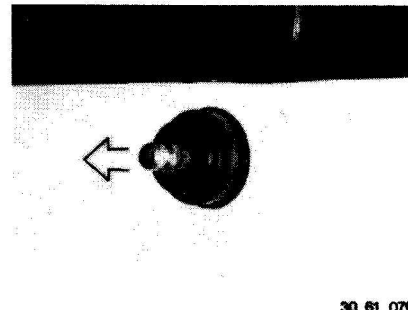
Removing Both Wiper Arms:
Lift out cover (1).
Unscrew nut (2).
Take off wiper arm (3).



Lift out grill.
Disconnect both linkages on left mount.



Take off cover



On Both Mounts:
Unscrew nut (1).
Take off washer (2).
Remove console.