

62 Instruments

62 11 030	Service indicator printed circuit — replace	62 - 1
090	Temperature gage — remove and install or replace	62 - 2
130	Fuel gage — remove and install or replace	62 - 2
62 12 000	Speedometer — remove and install	62 - 3
62 13 000	Tachometer — remove and install	62 - 4
050	Clock — remove and install	62 - 4
62 14 070	Check control — remove and install	62 - 5
62 16 000	Fuel level transmitter for fuel gage — check or replace	see Group 16
071	Sender for speedometer — replace	62 - 5
62 21 000	Instrument carrier assembly — remove and install	62 - 6
62 99 ...	Light bulbs in instrument carrier — replace	62 - 6
	Troubleshooting — service indicator	62 - 51
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62 Instruments

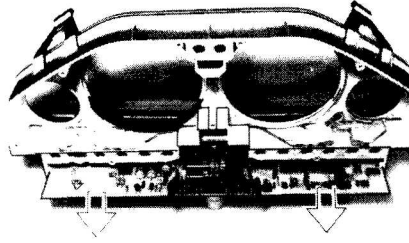
Simulator for testing instrument clusters 62 - 81

62-1

62 11 030 REPLACING PRINTED CIRCUIT FOR SERVICE INDICATOR

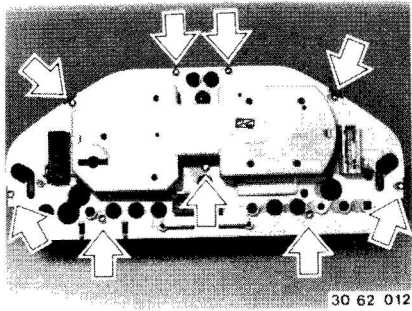
Remove and install instrument carrier assembly 62 21 000.

Pull printed circuit out of housing



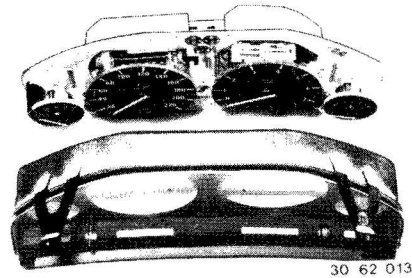
30 62 015

Unscrew bolts.



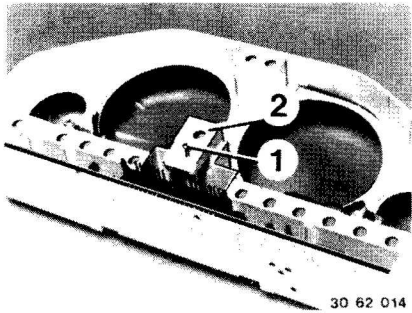
30 62 012

Take instruments with carrier out of housing.



30 62 013

Unscrew bolt (1).
Remove light duct (2).



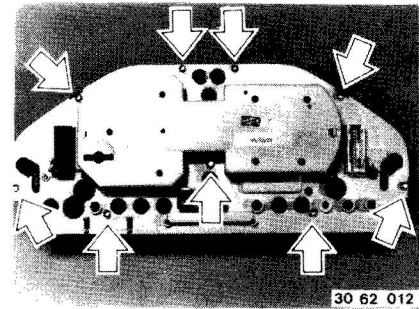
30 62 014

62 11 090 REMOVING AND INSTALLING OR REPLACING TEMPERATURE GAUGE

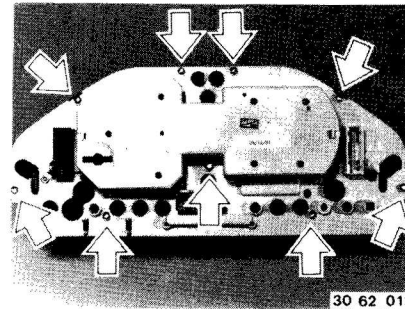
Remove and install instrument carrier assembly
62 21 000.

62 11 130 REMOVING AND INSTALLING OR REPLACING FUEL GAUGE

Remove and install instrument carrier assembly
62 21 000.



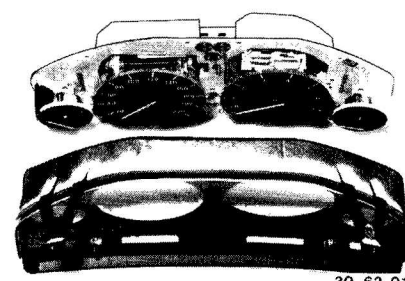
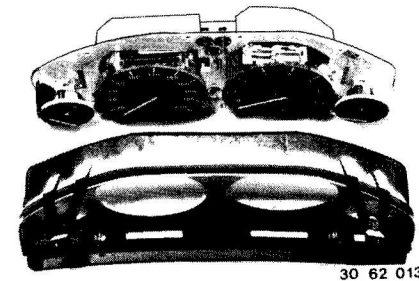
Unscrew screws.



Unscrew screws.

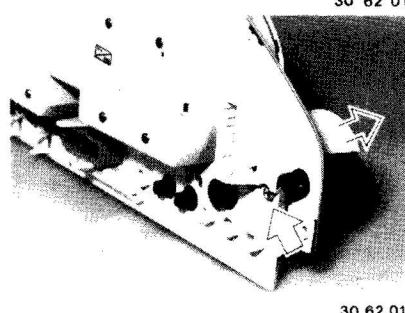
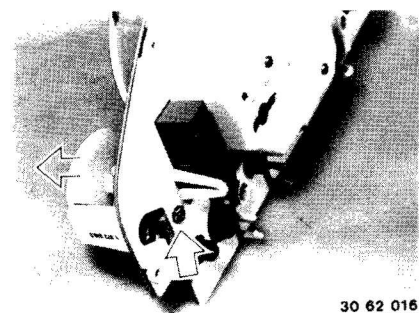
Take instruments with carrier out of housing.

Take instruments with carrier out of housing.



Unscrew nut.
Remove temperature gauge.
Installation:
Engage temperature gauge in lock.

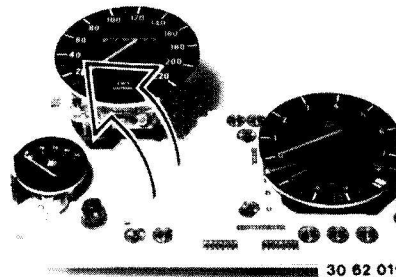
Unscrew nut.
Remove fuel gauge.
Installation:
Engage fuel gauge in lock.



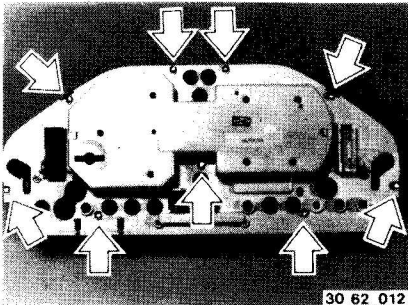
62 12 000 REMOVING AND INSTALLING SPEEDOMETER

Remove speedometer.

Remove and install instrument carrier assembly 62 21 000.

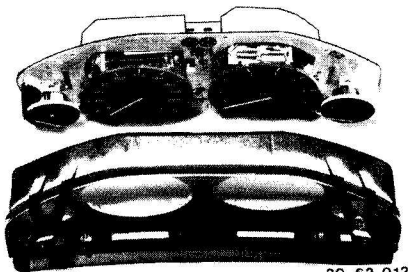


Unscrew screws.



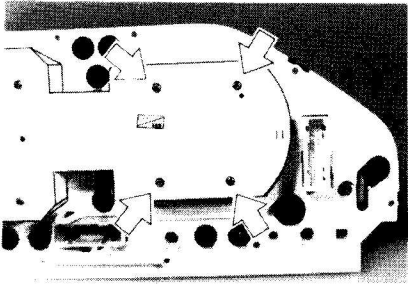
30 62 012

Take instruments with carrier out of housing.



30 62 013

Unscrew bolt.



30 62 018

62-4

62 13 000 REMOVING AND INSTALLING TACHOMETER

Remove and install instrument carrier assembly 62 21 000.

Unscrew screws.

Take instruments with carrier out of housing.

Unscrew screws.

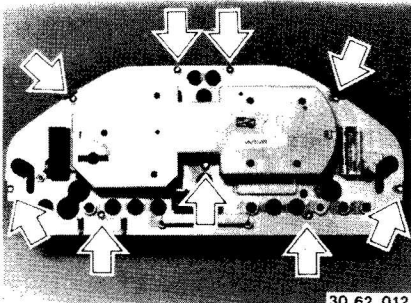
Remove tachometer.

62 13 050 REMOVING AND INSTALLING CLOCK

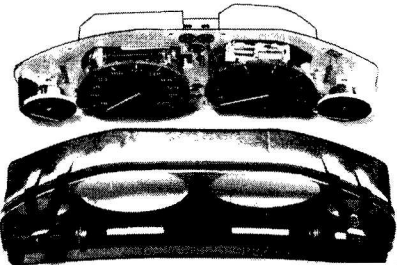
BMW 320 i / 323 i:
Disconnect retaining straps.

Remove trim

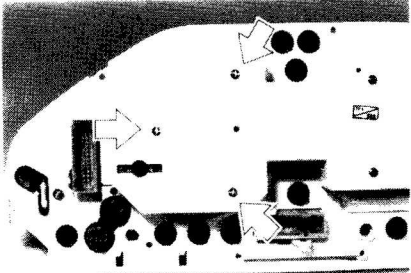
Pull off plug on clock.
Unscrew screws.
Remove clock.



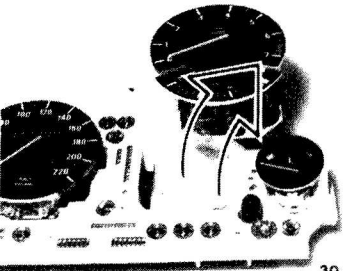
30 62 012



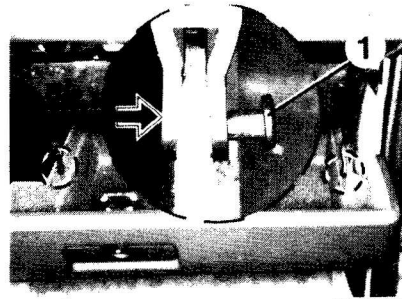
30 62 013



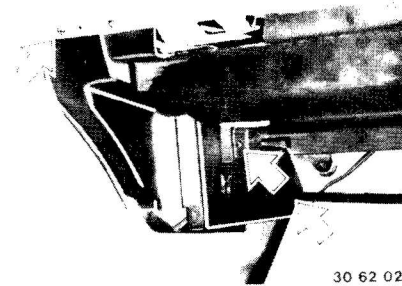
30 62 020



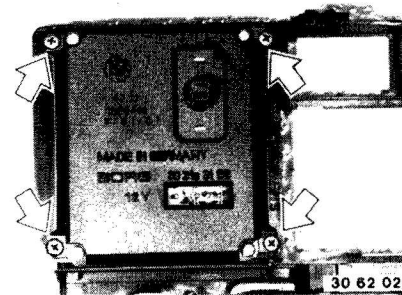
30 62 021



28 13 207



30 62 023



30 62 024

62 14 070 REMOVING AND INSTALLING OR REPLACING CHECK CONTROL

Lift check control out of plate.

Pull off plug (1).

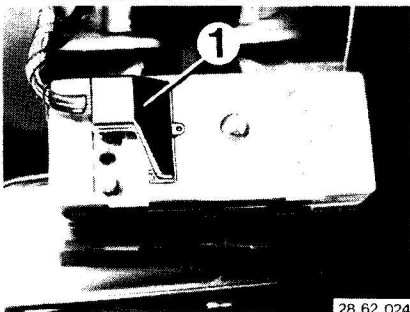
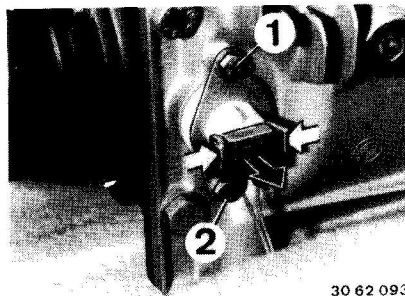
28 62 023

28 62 024

62 16 071 REPLACING SENDER FOR SPEEDOMETER

Pull off plug.
Unscrew screws (1 and 2).
Lift out sender.

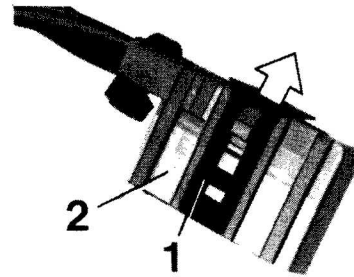
30 62 093



62-6

62 21 000 REMOVING AND INSTALLING INSTRUMENT CARRIER ASSEMBLY

Unscrew screws.
Remove trim panel.

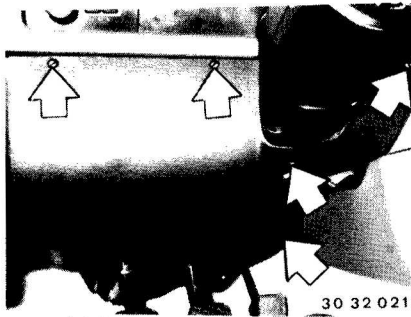


733 62 019

Lift out instrument carrier in instrument panel.
Pull off all plugs.

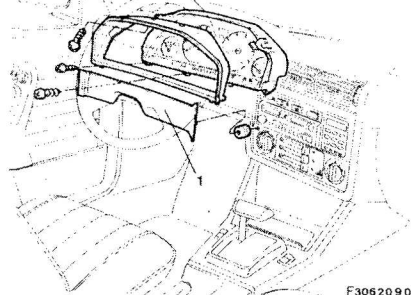
Note:

First pull out slider (1) of combination plug (2) to pull off combination plug on instrument carrier.



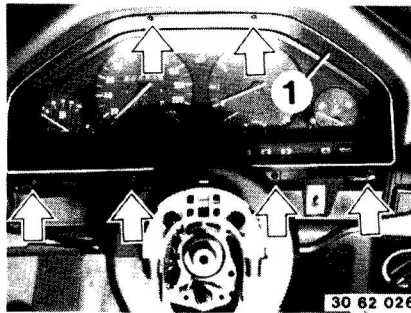
30 32 021

Unscrew mounting screws for trim panel (1) from behind.
Lift out trim panel (1).



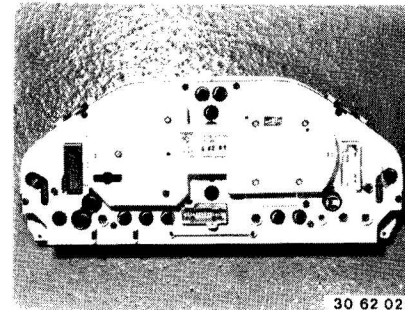
F3062090

Unscrew screws.
Lift out trim (1).
Caution!
The two inside screws must not be mixed up with outside screws (max. length: 9.5 mm)!



30 62 026

Unscrew screws.

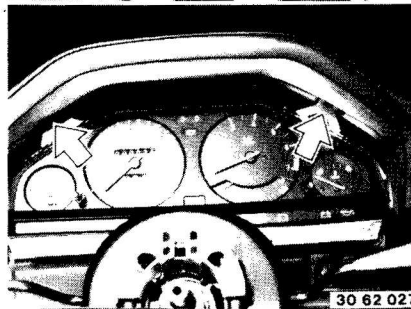


30 62 028

62 99 ... REPLACING LIGHT BULBS IN INSTRUMENT CARRIER

Remove instrument carrier assembly – see 62 21 000.

Unscrew light bulbs (bayonet sockets).



30 62 027

TROUBLESHOOTING SERVICE INDICATOR

Defect	Cause	Correction
One or more LEDs not on, i.e. break in diode series (ignition turned on)	<ul style="list-style-type: none"> - LED defective 	<ul style="list-style-type: none"> - Replace LED series of service indicator (62 11 040)
Green LEDs on while engine is running or do not go out within 2 seconds after starting	<ul style="list-style-type: none"> - Brief break in term. 15 - Signal from term. 50 (starter) interrupted or too short - Engine push started (without starter) 	<ul style="list-style-type: none"> - Check term. 15 or term. 50 - Check blue plug connection on instrument cluster - Check plug connection inside cluster - Repeat starting > 0.5 sec. - Replace SI printed circuit board (62 11 030)
Undefined coming on (flashing) of LEDs	<ul style="list-style-type: none"> - SI printed circuit board defective - Loose contact in cluster or on plug connections 	<ul style="list-style-type: none"> - Replace SI printed circuit board (62 11 030) - Check plug connections on inside and outside of cluster
1 yellow LED, 1 red LED, OIL SERVICE and INSPECTION signs come on suddenly	<ul style="list-style-type: none"> - SI printed circuit board defective - Ground connections - Wrong relay installed - Z-diode in heater wire harness defective (only E 30) 	<ul style="list-style-type: none"> - Replace SI printed circuit board (62 11 030) - Replace SI printed circuit board for clock/tachometer or economy control - Check central ground point on body (battery neg. conn.), cleaning if necessary - Check central ground point underneath instrument carrier, cleaning if necessary - Horn relay, heater blower relay and low beam relay must be diode relays - Check Z-diode (in heater wire harness close to water valve)
Yellow LED, red LED and OIL SERVICE sign on	<ul style="list-style-type: none"> - Low discharging of buffer batteries 	<ul style="list-style-type: none"> - Check charging cycle: Replace SI printed circuit board (62 11 030), if the INSPECTION sign does not light up after 1 minute. If applicable, replace SI printed circuit board for clock/tachometer or economy control.
Only INSPECTION sign on continuously	<ul style="list-style-type: none"> - Both buffer batteries discharged - SI printed circuit board defective 	<ul style="list-style-type: none"> - Check charging cycle and make reset - Replace SI printed circuit board (62 11 030) - Replace SI printed circuit board for clock/tachometer or economy control

Defect	Cause	Correction
Only 3 green LEDs and yellow LED on	<ul style="list-style-type: none"> - SI printed circuit board defective 	<ul style="list-style-type: none"> - Replace SI printed circuit board (62 11 030) - Replace SI printed circuit board for clock/tachometer or economy control
Inspection interval > 24,000 km (15,000 miles) > 11 months	<ul style="list-style-type: none"> - Distance pulse putout for tachometer - Coding plug wrong or missing - Time quartz on SI printed circuit board defective - Reset was made at wrong time 	<ul style="list-style-type: none"> - Replace tachometer - Check coding plug* - Replace SI printed circuit board (62 11 030) - See wrong resets
Oil service interval too short < 6,000 km (4,000 miles)	<ul style="list-style-type: none"> - Printed circuit board damaged 	<ul style="list-style-type: none"> - Replace SI printed circuit board (62 11 030) - Replace SI printed circuit board for clock/tachometer or economy control
Inspection interval too short < 12,000 km (8,000 miles)	<ul style="list-style-type: none"> - Coding plug wrong or missing 	<ul style="list-style-type: none"> - Check coding plug*
Resetting not possible	<ul style="list-style-type: none"> - SI resetter defective - Break in reset wire (engine plug, diagnosis plug, instrument cluster plug) - Tachometer defective 	<ul style="list-style-type: none"> - Check blue/white wire connection 7 on diagnosis plug up to power distributor (5 volts - only check with a multimeter). - Check blue plug connection 14 on instrument cluster - Replace tachometer

SERVICE INDICATOR RESETTING

All five green LEDs will come on after making an OIL SERVICE reset (regardless whether one green LED was still on or only the yellow OIL SERVICE sign).

The yellow and INSPECTION symbol lamps will come on when the green LEDs have gone out again.

TROUBLESHOOTING FUEL CONSUMPTION INDICATOR (ECONOMY CONTROL)

- EC will always display infinite fuel consumption when idling (car stopped - engine running).
- The display will be close to zero in the coasting phase with coasting shutoff, i.e. no fuel injection.

Condition	Cause	Correction
Unrealistic display, e.g. only 6 liters in 4th gear and full load	<ul style="list-style-type: none"> - Coding plug wrong - Coding plug broken 	<ul style="list-style-type: none"> - Check/replace coding plug*
EC display excessive	<ul style="list-style-type: none"> - Wrong temperature on quartz - Coding plug wrong 	<ul style="list-style-type: none"> - Replace tachometer with economy control - See coding plug table*
No display	<ul style="list-style-type: none"> - Injection signal missing - Loose plug connection - Meter failed (mechanical defect) 	<ul style="list-style-type: none"> - Check injection signal on instrument cluster plug (blue) pin 2 - Check plug connection - Replace tachometer with economy control
Display needle wanders in idle	<ul style="list-style-type: none"> - Disturbance from term. 1 	<ul style="list-style-type: none"> - Disconnect black wire of term. 1 on instrument cluster plug, pull out wire in wire harness and wrap it around the wire harness
Display needle wanders when switching on lights or operating headlight flasher	<ul style="list-style-type: none"> - Disturbance from dimmer relay 	<ul style="list-style-type: none"> - Replace low beam (dimmer) relay - Only install a diode relay, Part No. 61 31 1 373 154

TROUBLESHOOTING CHECK CONTROL

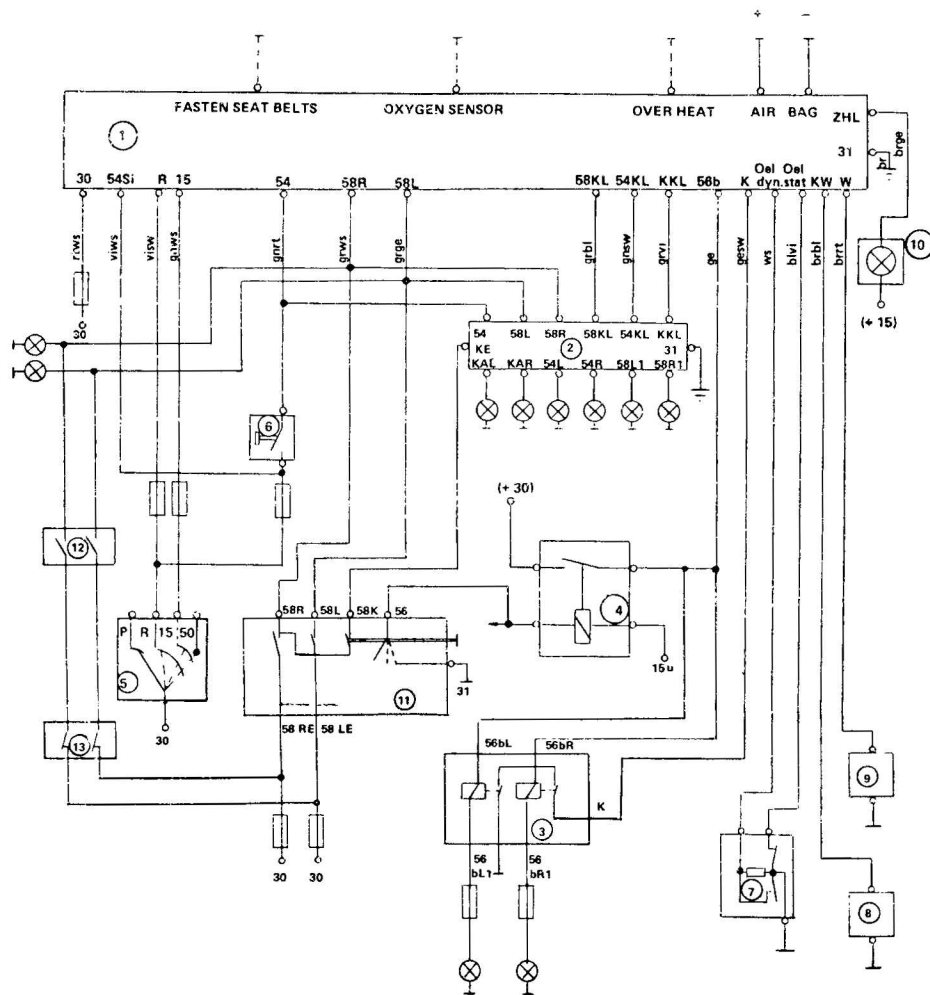
Checking Input Signals on Disconnected Plug of Check Control

Pin No. Designation	Wire Colors	Function on Car	Input Signals Test Results with Multimeter			
			Pin	Tester	Pin	Test Value
1 'R' Terminal 'R'	violet/gray	Ignition key in 'R'	1 (+)	--voltmeter--	9 (-)	= U _B
2 'ZHL' Central warning lamp	brown/yellow	Ignition turned on	2 connected with 9 (-) = central warning lamp on continuously			
3 'OH' (Japan) Overheat		Only E 28 On pin 5 for E 24/E 23	3 (-)	--voltmeter--	4 (+)	= U _B
4 '15' Terminal '15'	green/white	Ignition turned on	4 (+)	--voltmeter--	9 (-)	= U _B
5 'OX' (USA) Oxygen sensor	blue/white	Ignition turned on	5 (-)	--voltmeter--	4 (+)	= U _B
6 'AB' (USA) Air bag (+)			6 (+)	--voltmeter--	9 (-)	= U _B
7 'AB' (USA) Air bag (-)			7 (-)	--voltmeter--	4 (+)	= U _B
8 'FS' (USA) Fasten seat belts	brown/violet	Ignition turned on	8 (-)	--voltmeter--	4 (+)	= U _B
9 '31' Terminal '31'	brown	Ground	9 (-)	--voltmeter--	15 (+)	= U _B

Pin No. Designation	Wire Colors	Function on Car	Input Signals Test Results with Multimeter			
			Pin	Tester	Pin	Test Value
10 Not used	-	-	-	-	-	-
11 '58R' Tail lights right	gray/white	Tail lights on	11 (+)	-voltmeter-	9 (-)	= U _B
12 '58L' Tail lights left	gray/yellow	Tail lights on	12 (+)	-voltmeter-	9 (-)	= U _B
13 '58KL'	gray/blue	Tail lights on Bulb tester okay	13	-ohmmeter-	9 (-)	= 4.7 ohms
14 Not used	-	-	-	-	-	-
15 '30' Terminal '30'	red/white	Positive from term. 30 via fuse no.	15 (+)	-voltmeter-	9 (-)	= U _B
16 'ÖL stat.' Oil level static	blue/violet	Max. oil level and transmitter okay	16	-ohmmeter-	9 (-)	= approx. 0 ohm
17 'W' Washing fluid	brown/red	Washing fluid level and transmitter okay	17	-ohmmeter-	9 (-)	= approx. 0 ohm
18 'KW' Coolant	brown/blue	Coolant level and transmitter okay	18	-ohmmeter-	9 (-)	= approx. 0 ohm
19 Not used	-	-	-	-	-	-

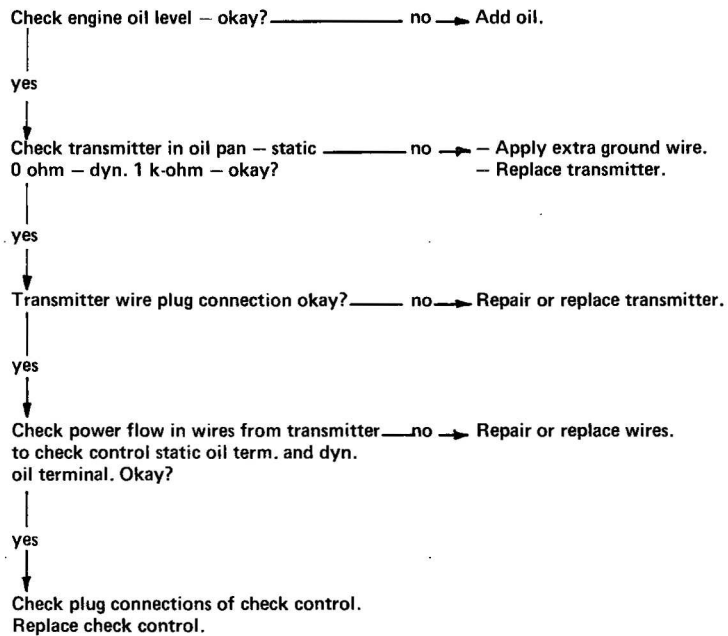
Pin No. Designation	Wire Colors	Function on Car	Input Signals Test Results with Multimeter			
			Pin	Tester	Pin	Test Value
20 'Öl dyn.' Oil level dynamic	white	Oil level and transmitter okay Min. oil level and transmitter okay	20	—ohmmeter—	9 (-)	= 1 k-ohm
			20	—ohmmeter—	9 (-)	= 0 ohm
21 '56b' Low beams	yellow	Low beams on	21 (+)	—voltmeter—	9 (-)	= U _B
22 'K' Low beam indicator	yellow/black	Low beams and bulb tester okay	22	—ohmmeter—	9 (-)	= 0 ohm
23 '54Si' Fuse monitor	violet/white	Ignition key in 'R'	23 (+)	—voltmeter—	9 (-)	= U _B
24 '54KL' Stop light indicator	green/black	Stop lights and bulb tester okay	24	—ohmmeter—	9 (-)	= 4.7 ohms
25 '54' Stop lights	green/red	Brakes applied, stop lights okay	25 (+)	—voltmeter—	9 (-)	= U _B
26 'KKL' License plate light indicator	gray/violet	License plate lights and bulb tester okay	26	—ohmmeter—	9 (-)	= 4.7 ohms

CHECK CONTROL WIRING DIAGRAM

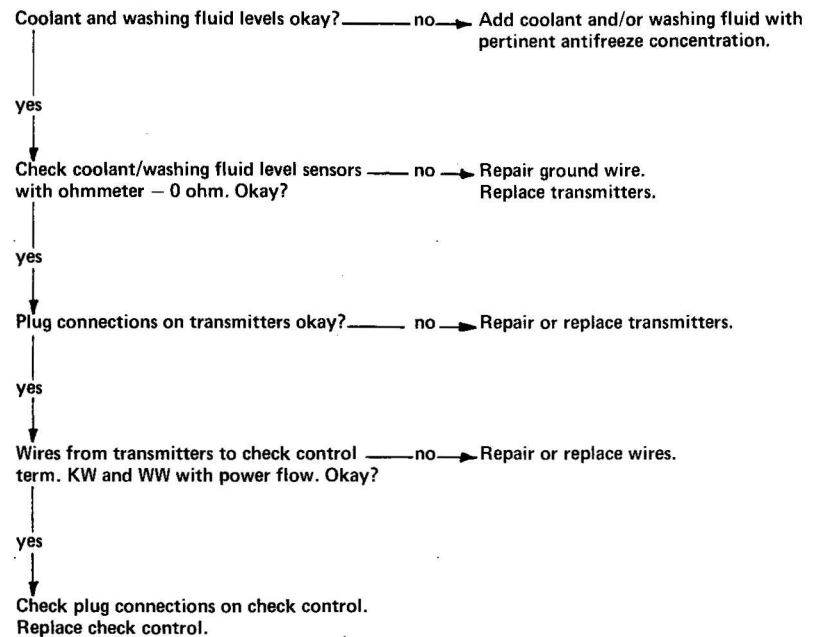


- 1 Check control
 - 2 Bulb tester (stop/tail/license plt. lights)
 - 3 Bulb tester (low beams)
 - 4 Low beam relay
 - 5 Ignition lock
 - 6 Stop light switch
 - 7 Oil level
 - 8 Coolant level
 - 9 Washing fluid level
 - 10 Central warning lamp in instr. cluster
 - 11 Light switch
 - 12 Parking light switch
 - 13 Ignition switch (parking lights)
- KAL License plate light outlet left
 KAR License plate light outlet right
 KKL Indicator lamp outlet, license pl. lights
 K Indicator lamp outlet, low beams

TEST: ENGINE OIL



TEST: COOLANT AND WASHING FLUID



TEST: STOP LIGHTS

Check both stop lights. Okay?

yes

no

Supply electric power.

no — Voltage okay in wire from stop light switch inlet to check contr. terminal 54 Si?

yes

Check wires.
Supply electric power.

no — Voltage okay in wire from stop light switch outlet to check contr. terminal 54 when stop light switch is operated?

yes

Make ground connection.

no — Term. 31 (ground) on bulb tester okay?

yes

Replace bulb tester.

no — Resistance (4.7 ohms) in bulb tester from term. 31 to term. 54 KL with stop light switch operated okay?

yes

Check or replace wires.

no — Wire from bulb tester term. 54 KL to check control term. KL okay?

yes

Check plug connections on check control.
Replace check control.

no — Power supply from ignition lock term. R to fuse F 12 okay?

yes

no — Replace 8 ampere fuse. Fuse 8 amps okay?

yes

no — Wire from fuse to stop light switch with voltage. Okay?

yes

no — Check power flow and adjustment of stop light switch. Okay?

yes

no — Voltage okay from stop light switch outlet to bulb tester term. 54 with stop light switch operated?

yes

no — Voltage okay on bulb tester outlet term. 54 L and 54 R?

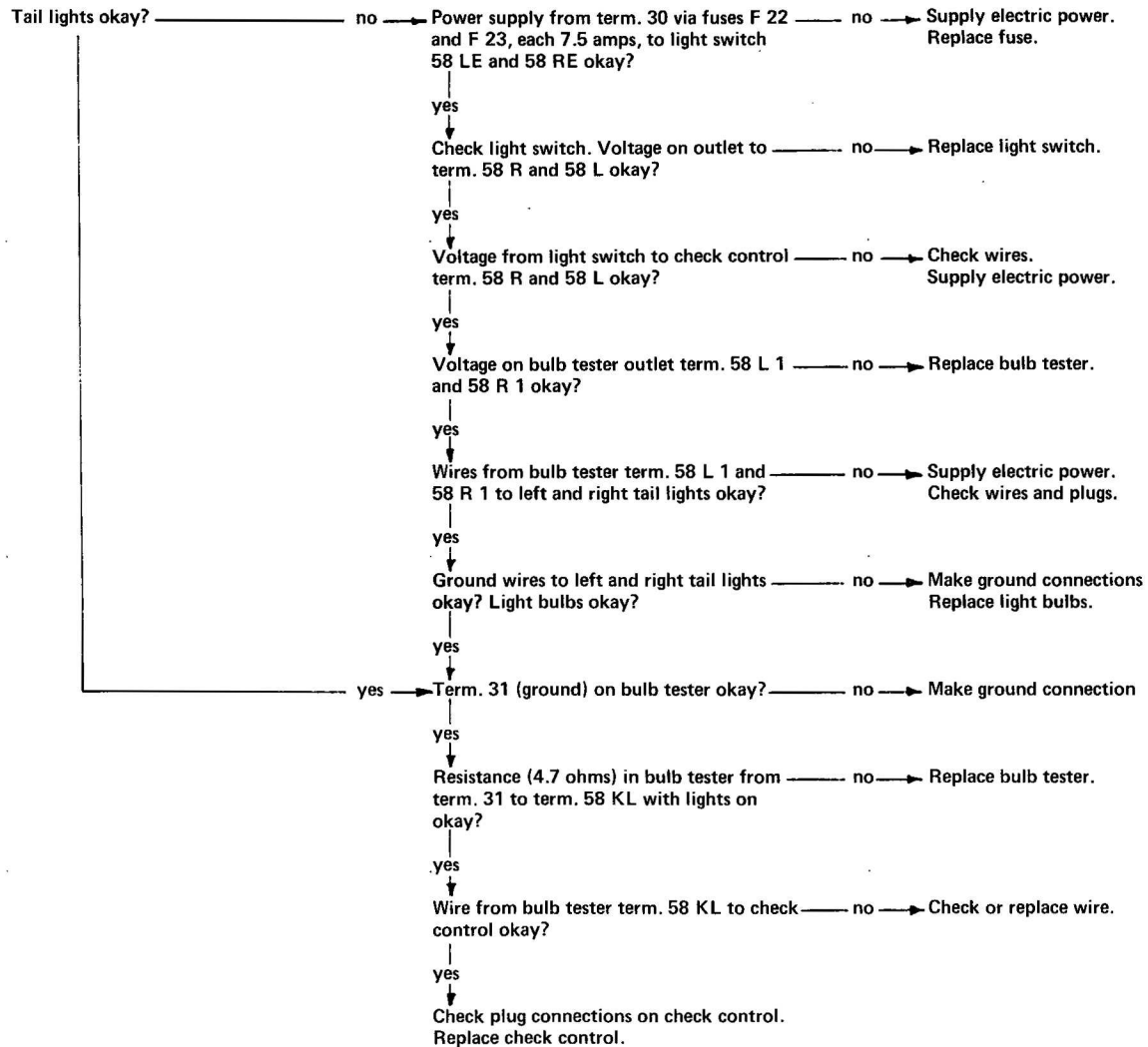
yes

no — Wires from bulb tester to stop lights okay? Supply electric power. Check wires and plugs.

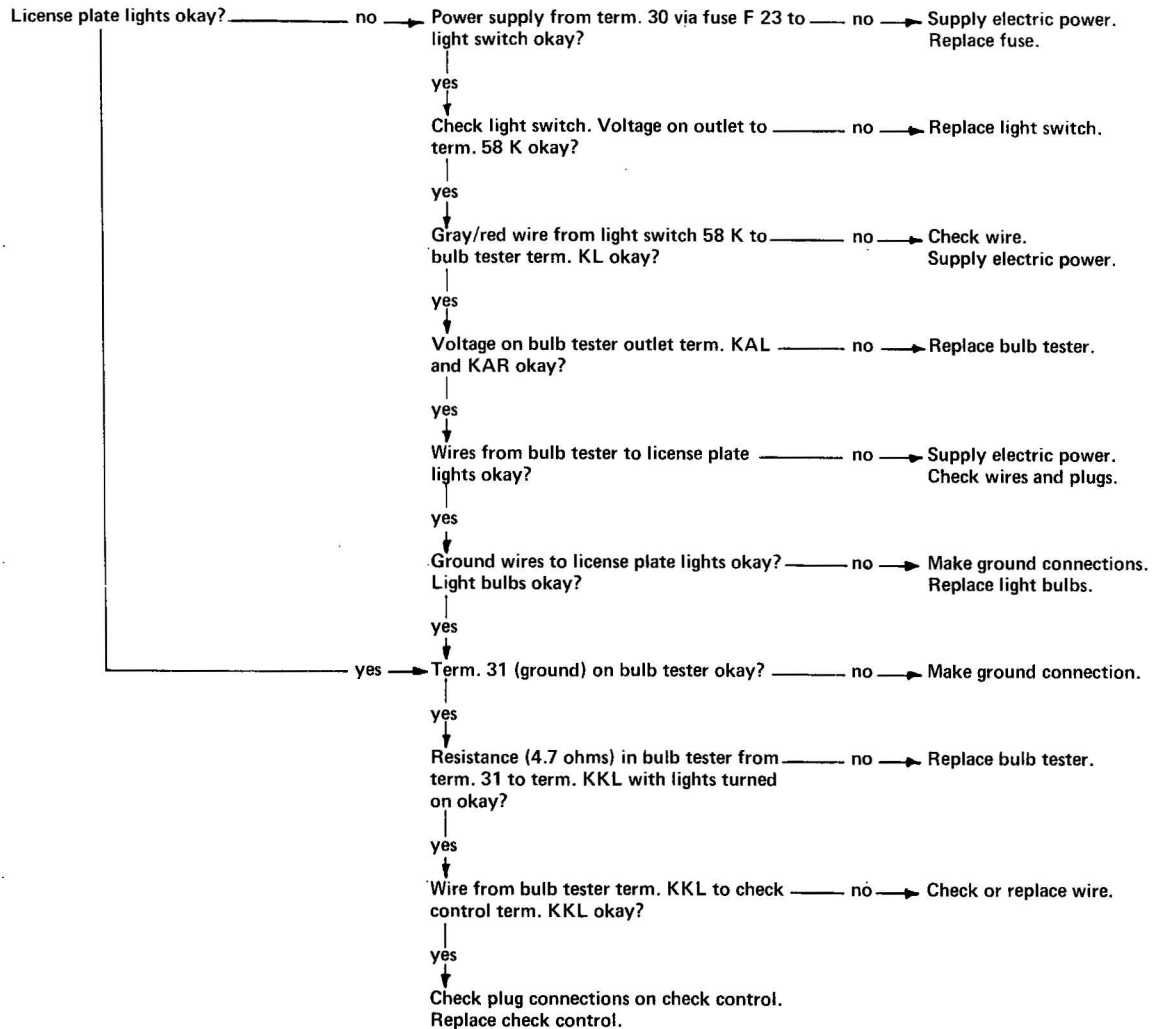
yes

no — Ground wires to stop lights okay? Light bulbs okay? Make ground connections. Replace light bulbs.

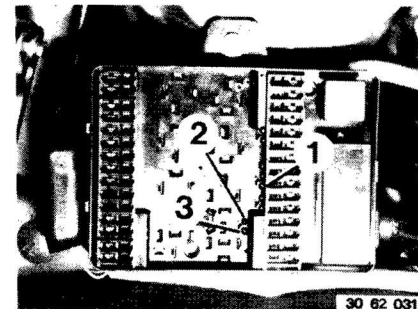
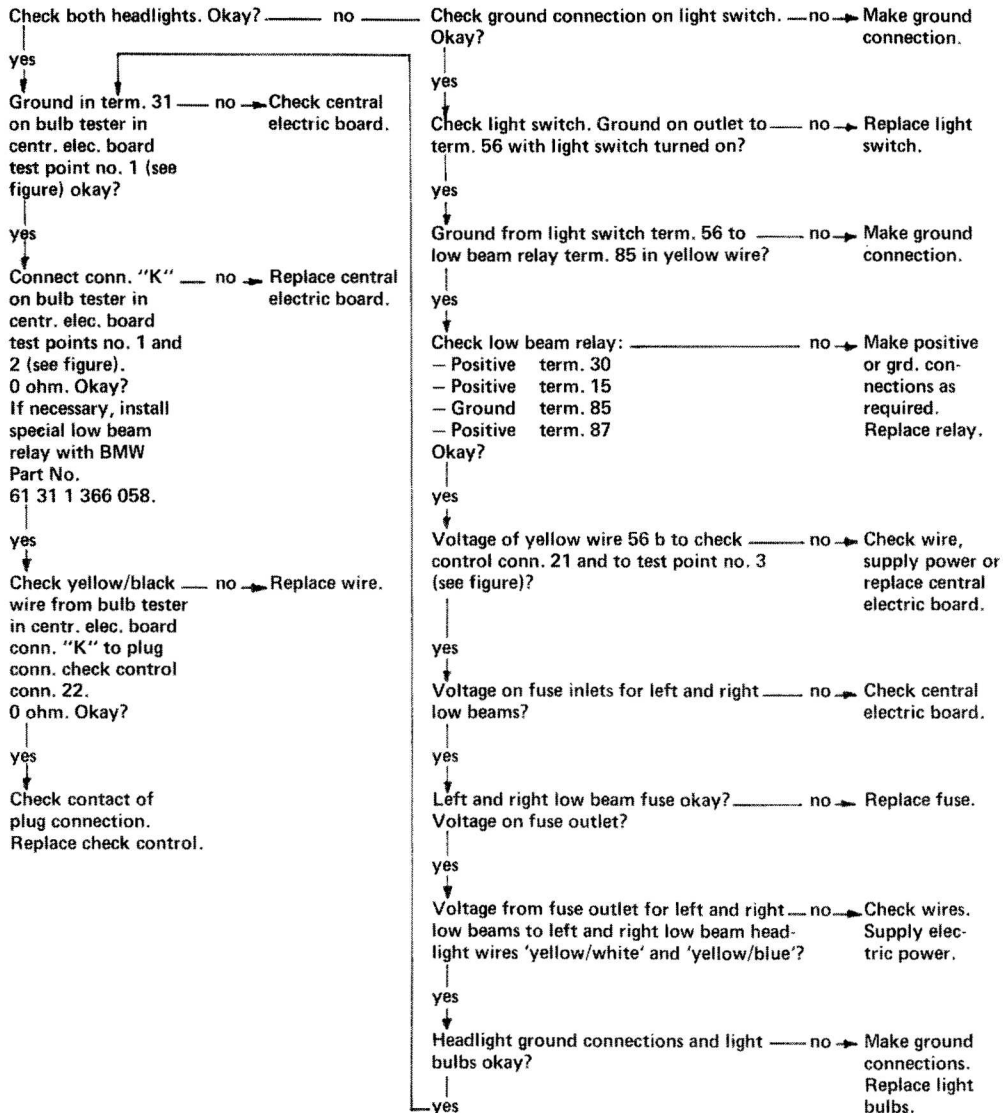
TEST: TAIL LIGHTS



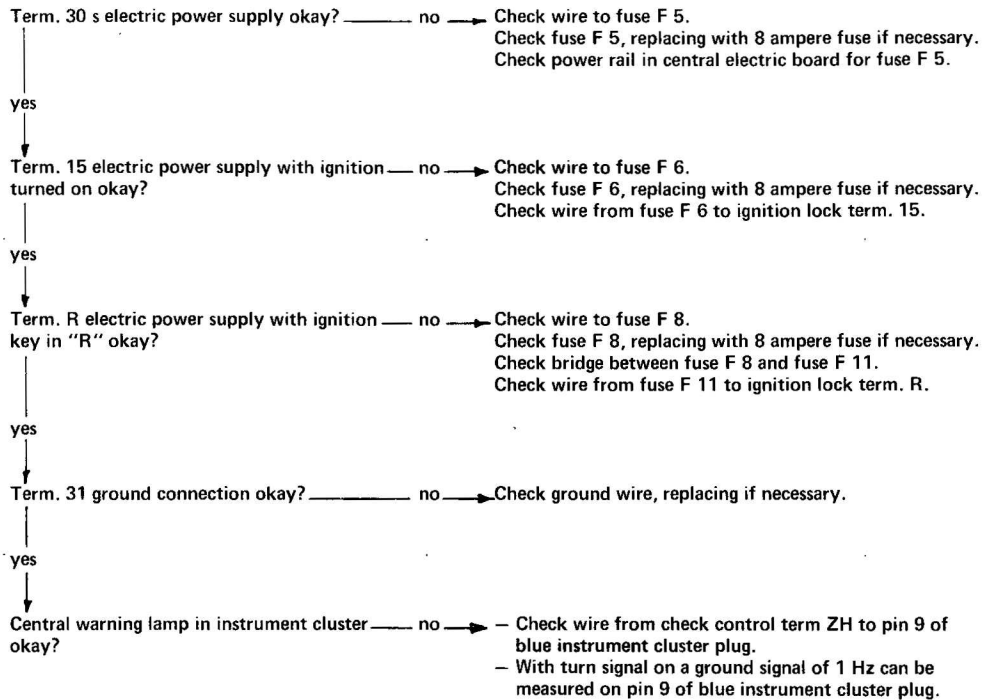
TEST: LICENSE PLATE LIGHTS



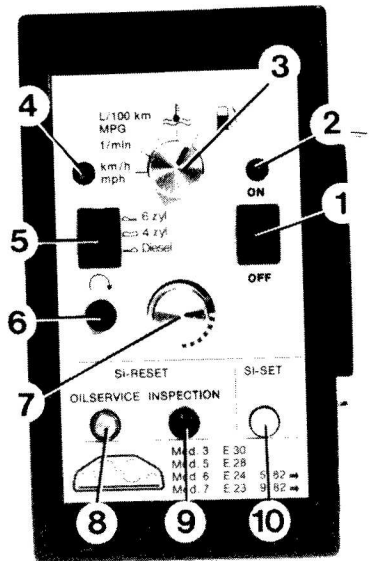
TEST: LOW BEAM HEADLIGHTS



TEST: POWER SUPPLY AND OUTLET WIRES ON CHECK CONTROL

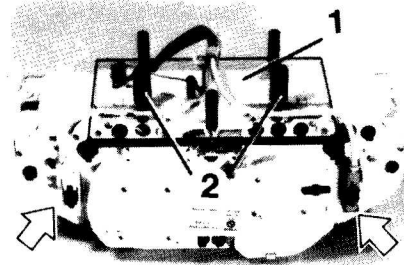


SIMULATOR FOR CHECKING INSTRUMENT CLUSTERS



30 62 033

- 1 ON / OFF switch
- 2 Power supply control lamp
- 3 Selector switch
- 4 Distance pulse control lamp
- 5 Tachometer changeover switch
- 6 Starting simulation button
- 7 Display range running off knob
- 8 Oil service reset button
- 9 Inspection reset button
- 10 SI running off and adjusting button



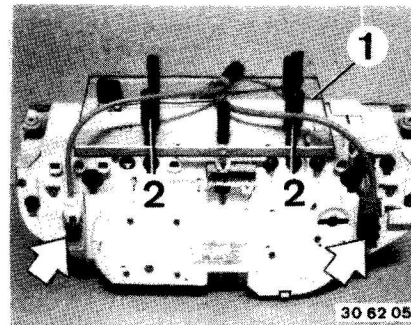
30 62 034

- 1 Checking Complete Instrument Cluster
- 1.1 Connecting Simulator
- 1.1.1 '3' Series Cars

Plug connection plate (1) of '3' series wire harness on instrument cluster and secure with clamps (2).

Caution!
Be careful not to bend the spring contacts when mounting the connection plate.

Connect blue and white plugs of wire harness on the instrument cluster.



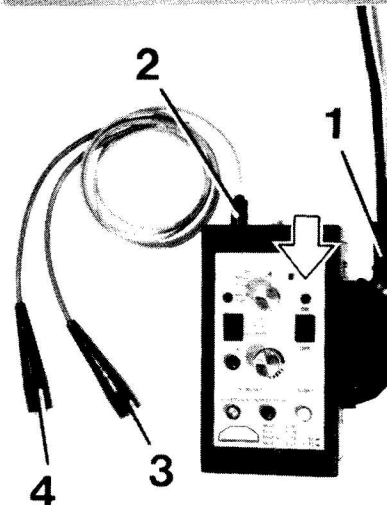
30 62 056

Second Generation Service Indicator:
Connect blue and white plugs of wire harness on the instrument cluster.

Connect lead (1) and power supply lead (2) on the simulator.

Connect red terminal (3) on B + and black terminal (4) on B - of a 12 V battery. Turn on the simulator with switch (1).

The red control lamp will not come on with battery voltage of < 11.5 V; the simulator is not ready for use.



30 62 035

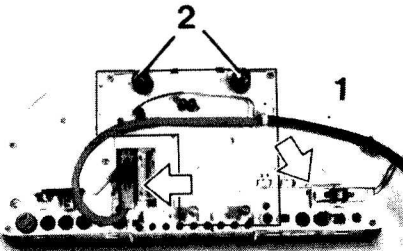
1.1.2 '5', '6' and '7' Series Cars

Plug connection plate (1) of '5', '6' and '7' series wire harness on instrument cluster and secure with clamps (2).

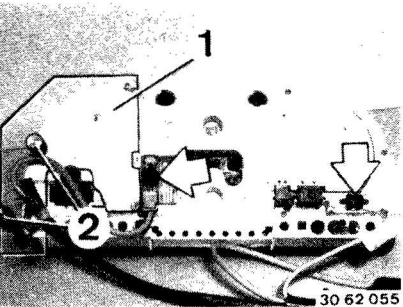
Caution!

Be careful not to bend spring contacts when mounting the connection plate.

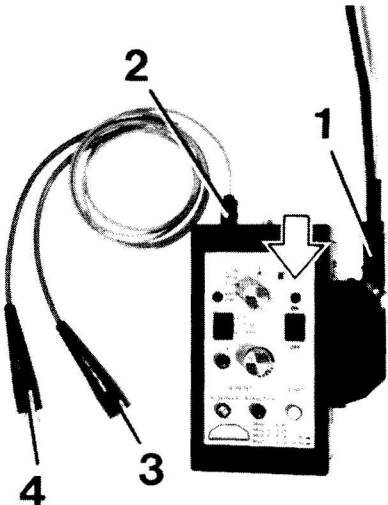
Connect blue and white plugs of wire harness on instrument cluster.



30 62 036



30 62 055



30 62 035

Connect lead (1) and power supply lead (2) on the simulator.

Connect red terminal (3) on B + and black terminal (4) on B - of a 12 V battery.

Turn on simulator with switch (1).

The red control lamp will not come on with a battery voltage of < 11.5 V; the simulator is not ready for use.

1.2 Checking

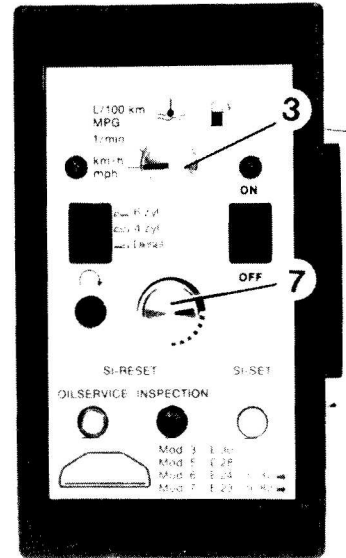
1.2.1 Speedometer

Set selector switch (3) to km/h or mph, and turn knob (7) against left stop; speedometer needle points to 0.

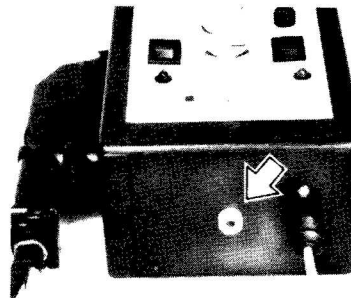
Turn knob (7) clockwise slowly; speedometer needle passes through the display range.

Note:

The simulator is designed for speedometers with a display range of 280 km/h. If the display range of a speedometer is smaller, it could happen that after reaching the final display value and increasing the frequency with knob (7) the needle would fall back to an undefined display value. When increasing the frequency again, the needle would start from this display value and pass through the display range.



30 62 037

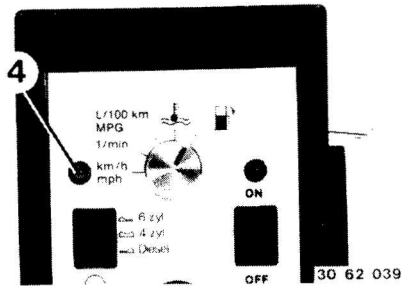


The set frequency can be measured on the yellow jack with a BMW service test unit (multimeter 14) – see operating instructions of BMW service test unit.

Yellow connection terminal
FREQ in +
in yellow jack;
Black connection terminal
FREQ in -
on B - of battery

See Specifications for test values.

30 62 038



30 62 039

Green LED (4) indicates the 100 meter pulse required for the service indicator (SI) and economy control (EC). The LED must come on and go out in 100 meter intervals (not for final display value).

(Not applicable to 2nd generation SI.)

1.2.2 Tachometer

Turn selector switch (3) to 1/min (rpm) position. Turn knob (7) against the left stop; tachometer needle points to 0.

Turn switch (5) to correct position!

Tachometer for

6 cylinder engines = 6 cyl
4 cylinder engines = 4 cyl
diesel engines = Diesel

Turn knob (7) clockwise slowly; tachometer needle moves through display range.

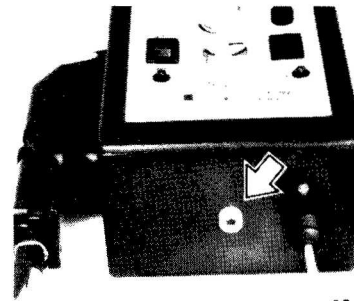
If the green LEDs are still on at the beginning of the test, cancel them when the speed exceeds approx. 600 rpm.

(Only with the 2nd generation SI.)

Note:

The simulator is designed for a tachometer with a display range of 8,000 1/min (rpm). In case of tachometers with a display range of 5,000 1/min (rpm), the needle will fall back to an undefined display value after reaching the final display value and increasing the frequency further with knob (7). If the frequency is increased even more, the needle will move through the display range again from this display value on.

30 62 040



30 62 038

The set frequency can be measured on the yellow jack with a BMW Service Tester (multimeter 14) — see operating instructions of BMW Service Tester.

Yellow connection terminal
FREQ in +
in yellow jack;
black connection terminal
FREQ in -
on B - of battery.

See Specifications for test values.

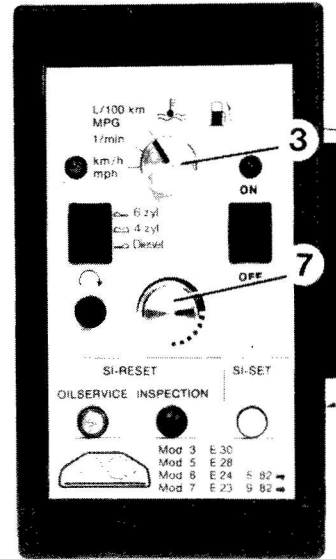
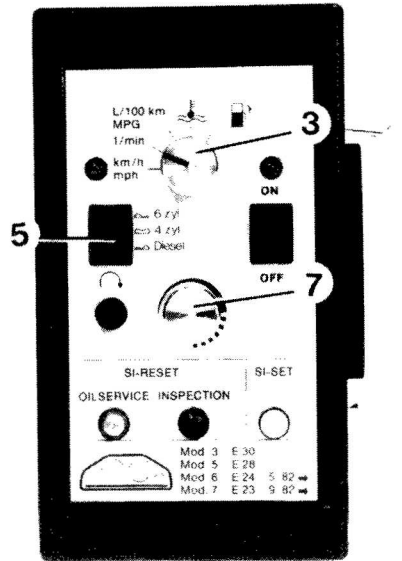
1.2.3 Economy Control (EC)

Turn selector switch (3) to L/100 km or MPG position.

Press and hold button pressed on connecting plate!
(only with 2nd generation SI)

Turn knob (7) against left stop; needle of EC points to 0 (for L/100 km) or ∞ (for MPG).

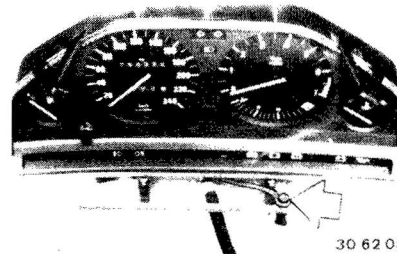
Turn knob (7) clockwise slowly; the EC needle moves through the display range to approx. ∞ (for L/100 km) or to approx. 0 (for MPG).



30 62 041

Button on connecting plate
(2nd generation SI)

'3' Series



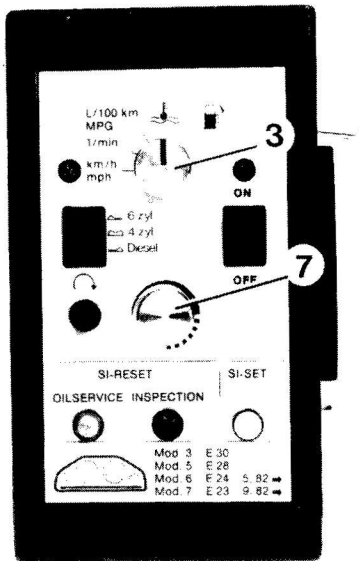
30 62 059

1.2.4 Temperature Gage

Selector switch (3) set to temperature.
Turn knob (7) against left stop; needle of temperature gage is in blue range.

Turn knob (7) clockwise slowly; needle of temperature gage passes through the display range.

Note:
Needle deflection takes place only in last third of turning range for knob (7).



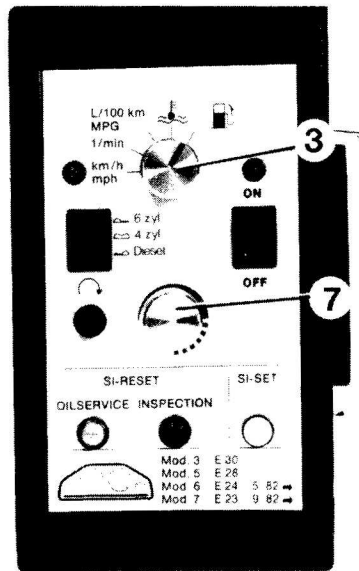
30 62 042

1.2.5 Fuel Gage

Selector switch (3) set to tank.
Turn knob (7) against left stop; needle of fuel gage points to R.

Turn knob (7) clockwise slowly; needle of fuel gage passes through display range.

Note:
Needle deflection takes place only in last third of turning range for knob (7).



30 62 043

1.2.6 Service Indicator

SI

Car engine starting can be simulated with starting button (6).

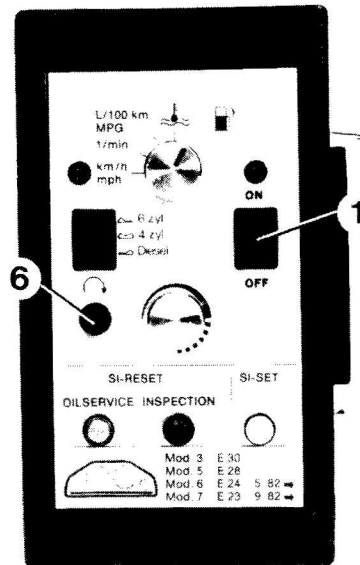
Press and hold starting button (6) at least two seconds before releasing.
The green LEDs for SI go out.

SI — 2nd Generation

The LEDs of SI begin to light up several seconds after switching on (switch at ON).

The green LEDs go out when reaching a speed of approx. 600 rpm.

LEDs are turned on again each time the simulator is switched off and on again afterwards.



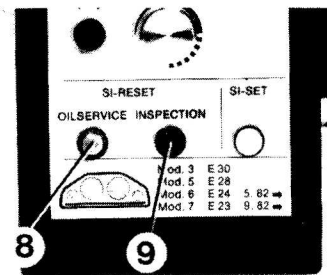
30 62 044

SI can be reset with buttons (8 and 9).

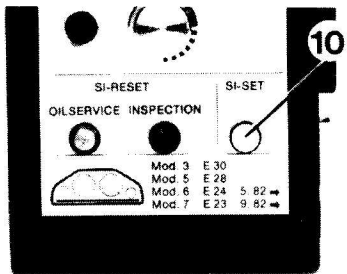
Button 8: OIL SERVICE reset
Button 9: INSPECTION reset

The pertinent interval will be cancelled by pressing a button briefly.

The time of resetting is indicated by a lamp in the pertinent button.



30 62 045



30 62 046

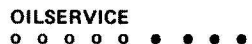
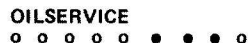
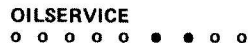
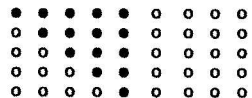
The SI can be adjusted with button (10).

The SI runs off at intervals of about 10 seconds by pressing button (10).

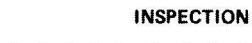
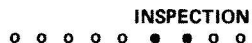
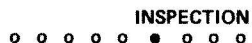
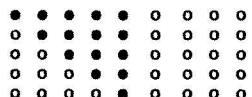
This diagram shows the run-off of SI.

Note:

The BMW 524 td has two OIL SERVICES between each inspection.



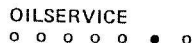
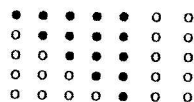
RESET



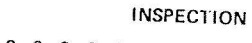
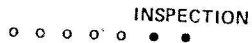
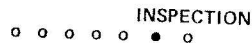
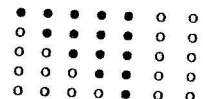
RESET

30 62 032

Chronological Run-off of Service Indicator (SI – 2nd Generation):



RESET



RESET

This sketch shows the run-off of 2nd generation SI.

Note:

BMW 524 td cars have two oil services after each inspection.

Oil Service Interval:

– Resetting "OIL SERVICE"

"OIL SERVICE" sign and yellow (possibly red) LED on.

Brief reset (8) will cancel the display.

All five green LEDs come on.

– Resetting "INSPECTION"

"INSPECTION" sign and yellow (possibly red) LED on.

Long reset (9) will cancel the display.

All five green LEDs come on.

The time counter is not influenced!
Time counter can be reset with a second reset (9).

– Resetting "TIME SYMBOL"

"TIME SYMBOL" and one or more green LEDs on.

Long reset (9) will cancel the time symbol and time counter.

Green LEDs are not influenced!

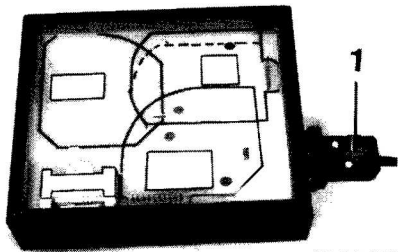
Distance counter can be reset with a second reset (9).

2 Checking Instruments Separately

2.1 Connecting Simulator

2.1.1 '3', '5', '6' and '7' Series Cars

Connect plug (1) and '3' series wire harness on adapter for instruments.

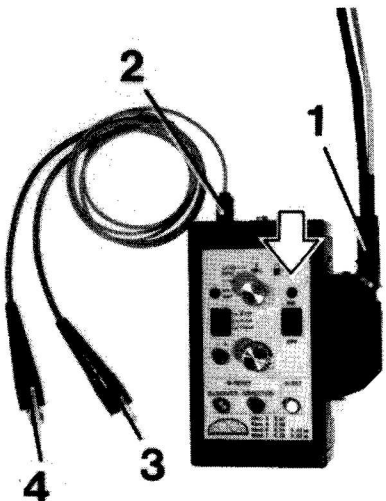


30 62 047

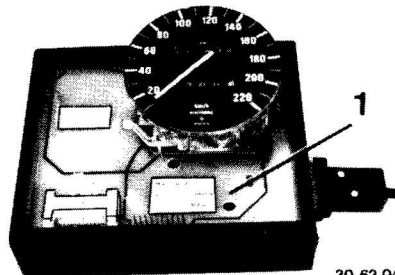
Connect lead (1) and power supply lead (2) on simulator.
Connect red terminal (3) on B + and black terminal (4) on B - of a 12 V battery.

Turn on simulator with switch (1).

The red control lamp will not come on with a battery voltage below 11.5 V; the simulator is not ready for use.



30 62 035



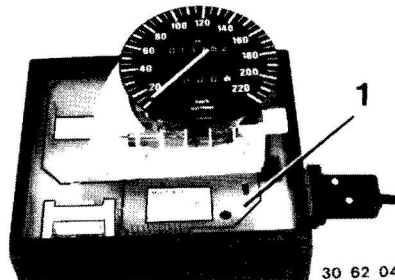
30 62 048

2.2 Checking

Disassemble instrument carrier — see Group 62.

2.2.1 Speedometer

Connect speedometer on adapter (1).
Check as described in 1.2.1.
'3' Series Cars



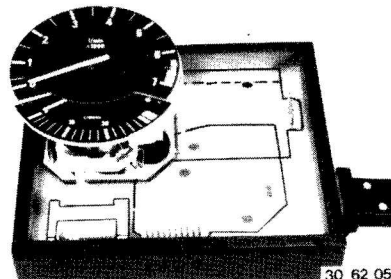
30 62 049

'5', '6' and '7' Series Cars

2.2.2 Tachometer and Economy Control (EC)

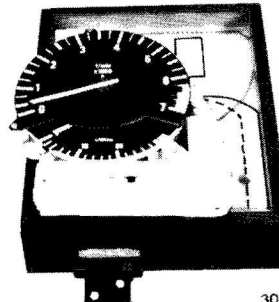
Connect tachometer, with or without EC, or clock with EC on adapter (1).
Check as described in 1.2.2 or 1.2.3.

Note:
Connect coding plug.
'3' Series Cars



30 62 050

'5', '6' and '7' Series Cars



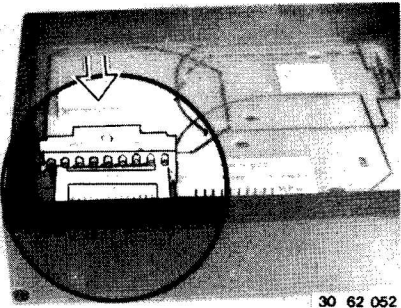
30 62 051

2.2.3 LEDs and Light Bulbs for SI Signs
(Not with 2nd Generation SI)

'3' Series Cars:

Connect printed circuit board.

All LEDs and both light bulbs must come on.

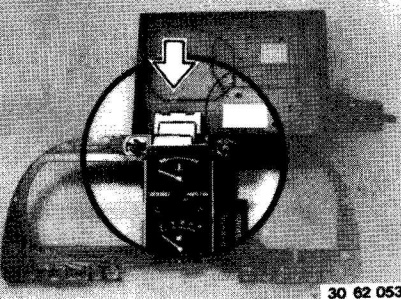


30 62 052

'5', '6' and '7' Series Cars:

Connect plug of printed circuit board.

All LEDs and both signs must light up.



30 62 053