



## **Electrical troubleshooting manual**

(316i, 316g, 318ti, 318tds, Series 3 – E36/5 compact 323ti)

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## Model year 1998

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### 0110.0 Introduction



### **Schematics**

The schematics divide the entire vehicle electrical system into individual circuits. Interacting electrical components are shown on one common schematic.

Switches and other components are represented in such a way that their general layout and function are self-explicit. They are arranged on the sheet such that the current path can be followed from positive (top) to negative (bottom).

**Important:** The components and wires are not drawn to scale. For instance, a lead with a length of over 1m can be shown as a lead which is only a few cm long. To ensure clear arrangement, all connectors, line branches and connected components from the fuses to the component and from the component to ground connection are not shown within the individual cells. If required, reference can be made to the cells 0670.3 Fuse Details and 0670.4 Ground Distribution where all lines are illustrated with all plug connections, line branches and connected components.

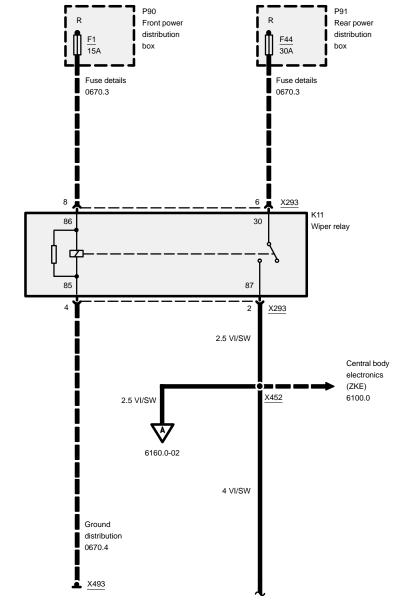
All circuit symbols used are listed and explained in the cell **0140.0 Symbols**.

In cell 7000.0 Component Location Chart all important connectors, ground points and components are listed in tabular form. It provides a precise description of the component locations in the vehicle.

In cell 7100.0 Component Location Views the locations of the connectors and components which are difficult to locate are shown in line arts or illustrations. In cell 8000.0 Solder Connector Location Views all splices are listed in numerical order and illustrations are provided to assist in locating splices on larger harnesses. In cell 8500.0 Connector Views diagrams of connectors with more than 2 pins are illustrated.

### **Example**

General conventions can be explained based on the following schematic example.





### Introduction

### **General conventions**

- 1. Switches and relays are always shown in rest position (e.g. K11).
- 2. A component shown in a dashed frame signifies that the component is illustrated only in part (e.g. P90 and P94).
- 3. A component shown in a completely drawn frame signifies that the component is illustrated in full (e.g.K11).
- 4. The dashed line between pin 8 and pin 6 at the connector X293 indicates that both pins belong to the connector X293.
- 5. The dashed line from fuse 1 to pin 8 of the connector X293 shows the positive supply of the relay K11. If required, refer to cell **0670.3 Fuse details** at fuse F1 for the complete line progression with all plug connections, line branches, wire colours and cross sections.

- 6. The dashes line with arrow at the connector X452 indicates that several wires lead to the connector X452. All lines leading to the connection are illustrated in cell **6100.0 Central body electronics (ZKE)**. An uninterrupted line with arrow indicates that only this one line leads to another circuit.
- 7. The dashes line from pin 4 of connector X293 to ground X493 shows the ground supply of the relay K11. If required, refer to cell **0670.4 Ground distribution** at ground X493 for the complete line progression with all plug connections, line branches, wire colours and cross sections.
- 8. The uninterrupted line from connector X452 with an  $\bf A$  in the open arrow is continued on Page 6160.0–02.

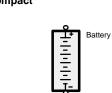
Termination of the wire 4 VI/SW from connector X452 with a wavy line indicates that the wire is continued on the opposite page.

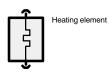




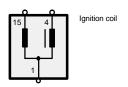
Heating element

## 0140.0 Symbols



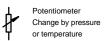


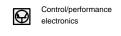




















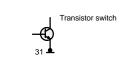
Radio





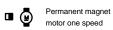








Automatic cut-out

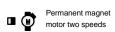


Overtemperature protection













nection for reference in component location chart

### **Symbols**



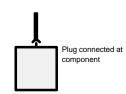
Entire component

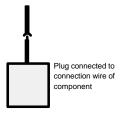


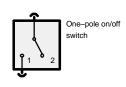


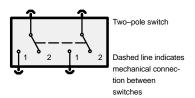




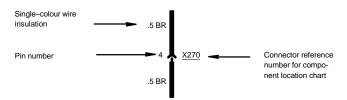


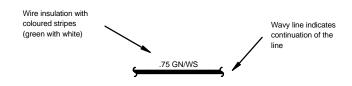


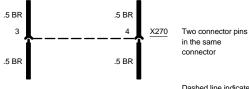




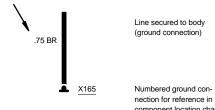
Wire colour		
BL	blue	
BR	brown	
GE	yellow	
GN	green	
GR	grey	
OR	orange	
RS	pink	
RT	red	
SW	black	
VI	violet	
ws	white	
TR	transparent	











Terminal number

15I

.5 GN/WS

Terminal number

50

30

15

4 GN

4 RT

30

"R" receives battery voltage in positions 1,

2 or 3

50

2.5 SW/GE

Designation

Battery voltage: Ignition

switch in position 3

Battery voltage: Sup-

Battery voltage: Ignition

switch in position 2 or 3

Fuse constantly con-

nected in current

path

plied constantly

Three-pole four-

2.5 VI

Terminal number

Terminal number

15I

R

31

30

15

R

Designation

Ground

Designation

plied constantly

in position 2 or 3

Battery voltage: Ignition switch in position 1, 2 or 3

Battery voltage: Sup-

Battery voltage: Ignition switch

Battery voltage: Ignition

Battery voltage: Ignition

switch in position 1, 2 or 3

switch in position 2

position switch

Component number

S2

Ignition switch 0) Off 1) Radio setting 2) Ignition 3) Start

Component designa-

tion

Details of component or operation

**Symbols** 

Contact relay

Contact relay with 2

Designation

Relay input

Relay output (coil)

Relay input (coil)

Relay output

Relay output (non-

(switched)

switched)

outputs

Terminal number

30

85

86

87

87a

Contact relay with

protective resistor

Centre-zero relay with 2 outputs













































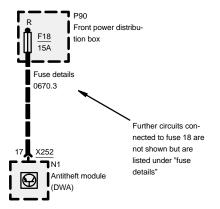


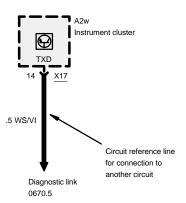


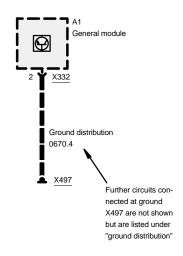


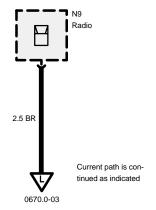


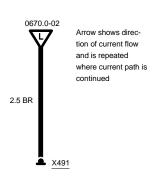
## **Symbols**



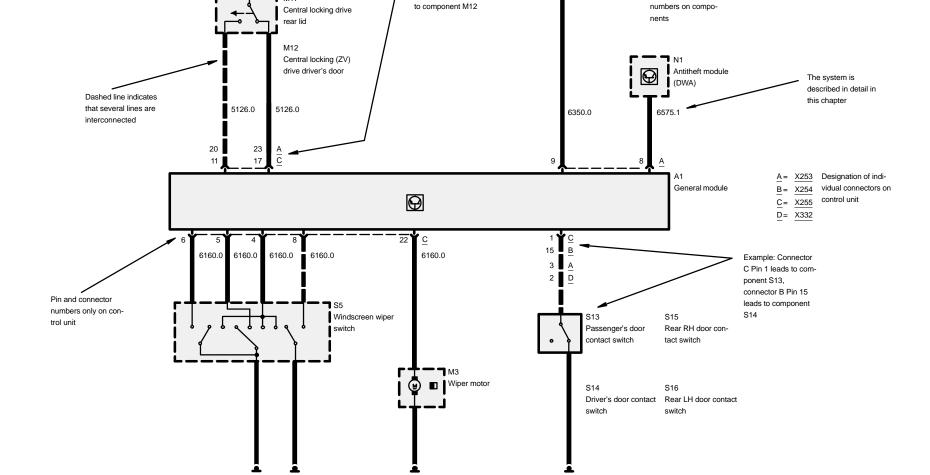












Example: Connector C Pin 17 and C Pin 11 lead to component M17, connector A Pin 23 and A Pin 20 lead

Crash alarm sensor

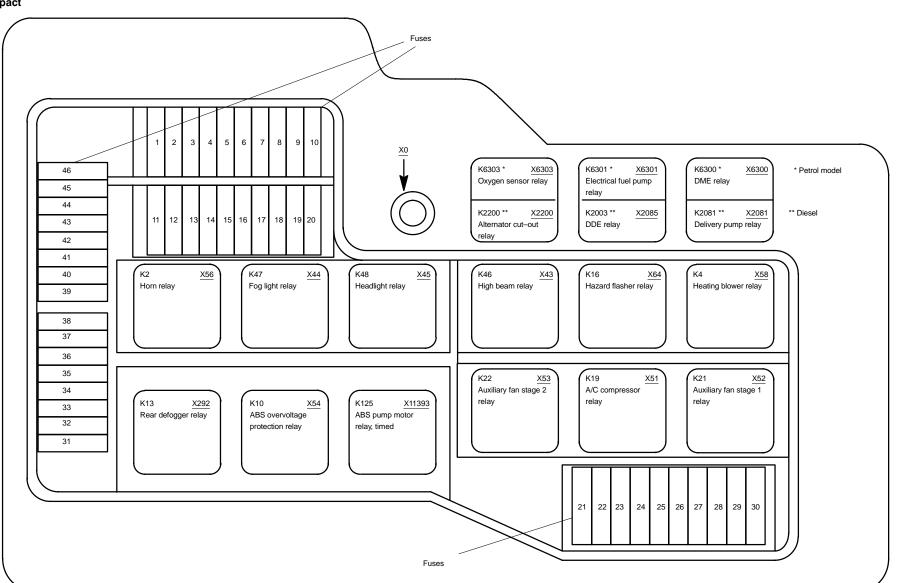
No pin and connector

Rear power distribution box

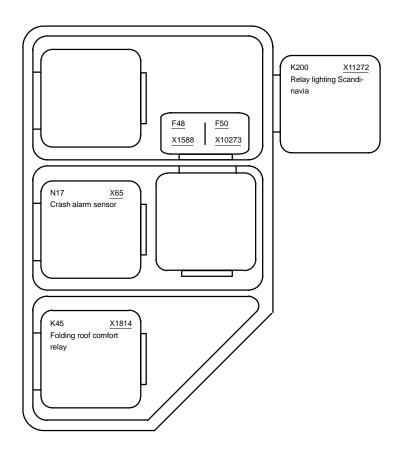
7.5A

Symbols
Block diagram

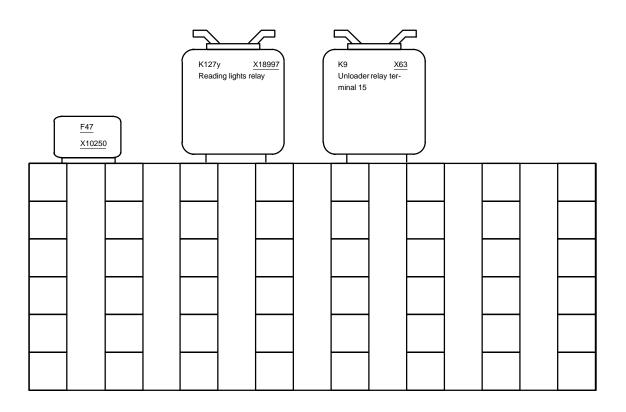
## BMW 0670.0 Power distribution chart Front power distribution box



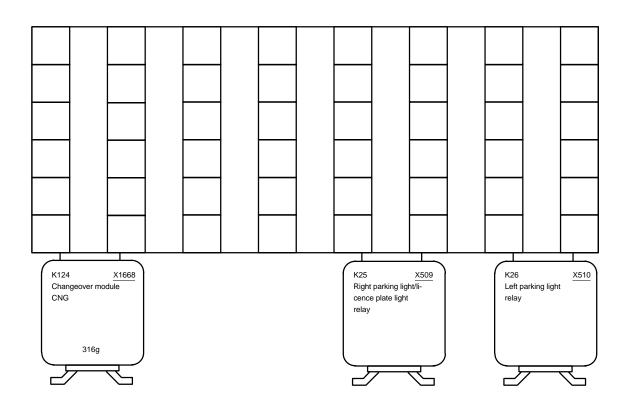
## Power distribution chart Relay carrier under LH side of dash



## Power distribution chart Connector strip under LH side of dash



## Power distribution chart Connector strip under RH side of dash



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c	)
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·	•

## BMW 0670.1 Fuse chart Fuses 1 to 29

1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   16   10   10   12   13   14   15   10   17   16   10   10   10   10   10   10   10	compact													ı	F	ıse	nuı	mb	er									_	<u> </u>	
1210.17 Engine management MS41.0 (6-cylinder M52)  1210.19 Digital motor electronics (DME M1.7.3, 4-cylinder M43)  1210.20 Digital motor electronics (DME M5.2. 4-cylinder M44)  1220.0 Preheating system  1230.0 Alternator  1240.0 Starter  1380.3 Digital diesel electronics (DDE 2.1, 4-cylinder M41)  1380.0 Engine control CNG  2460.2 Electronic transmission control (EGS A4S 310R)  2460.4 Electronic transmission control (EGS A4S 310Z)  3234.0 Airbag (AB)  3450.0 Antilock brake system (ABS)  3450.1 Automatic stability control (ASC)  5116.0 Power mirroris  5120.2 Electric seat adjustment and lumbar support  5200.2 Electric seat adjustment and lumbar support  5200.3 Heated seats  5410.1 Power tilt/silide sunroof (SHD)							5												17				t							29
1210.19 Digital motor electronics (DME M1.7.3, 4-cylinder M43)  1210.20 Digital motor electronics (DME M5.2, 4-cylinder M44)  1220.0 Preheating system  1230.0 Alternator  1240.0 Starter  1240.0 Starter  1380.3 Digital diesel electronics (DDE 2.1, 4-cylinder M41)  1380.0 Engine control CNG  2460.2 Electronic transmission control (EGS A4S 310R)  2460.4 Electronic transmission control (EGS A4S 310Z)  3234.0 Airbag (AB)  3450.1 Automatic stability control (ASC)  5116.0 Power mirrors  5126.0 Central locking system (ZKE/ZV)  5133.0 Power windows (ZKE/FH)  5200.2 Electroic seat adjustment and lumbar support			30A	15A	30A	15A	30A	30A	5A	15A	20A	30A	7.5A	7.5A		30A	15A	5A		15A	30A	5A	5A	5A	10A	5A	10A	5A	5A	7.5A
1210.20 Digital motor electronics (DME M5.2, 4-cylinder M44)  1220.0 Preheating system  1230.0 Alternator  1240.0 Starter  1360.3 Digital diesel electronics (DDE 2.1, 4-cylinder M41)  1380.0 Engine control CNG  2460.2 Electronic transmission control (EGS A4S 310R)  2460.4 Electronic transmission control (EGS A4S 310Z)  3234.0 Airbag (AB)  3450.0 Antilock brake system (ABS)  3450.1 Automatic stability control (ASC)  5116.0 Power mirrors  5126.0 Central locking system (ZKE/ZV)  5133.0 Power windows (ZKE/FH)  5200.2 Electric seat adjustment and lumbar support	1210.17	Engine management MS41.0 (6-cylinder M52)																•		•										
1220.0 Preheating system  1230.0 Alternator  1240.0 Starter  1360.3 Digital diesel electronics (DDE 2.1, 4–cylinder M41)  1380.0 Engine control CNG  2460.2 Electronic transmission control (EGS A4S 310R)  2460.4 Electronic transmission control (EGS A5S 3102)  3234.0 Airbag (AB)  3450.0 Antilock brake system (ABS)  3450.1 Automatic stability control (ASC)  5116.0 Power mirrors  5126.0 Central locking system (ZKE/ZV)  5133.0 Power windows (ZKE/FH)  5200.2 Electric seat adjustment and lumbar support	1210.19	Digital motor electronics (DME M1.7.3, 4-cylinder M43)																•		•									•	
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1360.3 Digital diesel electronics (DDE 2.1, 4-cylinder M41)  1380.0 Engine control CNG  2460.2 Electronic transmission control (EGS A4S 310R)  2460.4 Electronic transmission control (EGS A5S 310Z)  3234.0 Airbag (AB)  3450.1 Automatic stability control (ASC)  5116.0 Power mirrors  5126.0 Central locking system (ZKE/ZV)  5133.0 Power windows (ZKE/FH)  5200.2 Electric seat adjustment and lumbar support  5203.0 Heated seats  5410.1 Power tilt/slide sunroof (SHD)	1230.0	Alternator																									•			
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5116.0 Power mirrors  5126.0 Central locking system (ZKE/ZV)  5133.0 Power windows (ZKE/FH)  5200.2 Electric seat adjustment and lumbar support  5203.0 Heated seats  5410.1 Power tilt/slide sunroof (SHD)	3450.0	Antilock brake system (ABS)										•										•						•		
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5200.2 Electric seat adjustment and lumbar support  5203.0 Heated seats  5410.1 Power tilt/slide sunroof (SHD)	5126.0	Central locking system (ZKE/ZV)							•																					
5203.0 Heated seats  5410.1 Power tilt/slide sunroof (SHD)	5133.0	Power windows (ZKE/FH)														•														
5410.1 Power tilt/slide sunroof (SHD)	5200.2	Electric seat adjustment and lumbar support					•																							
540 4 - Flysta (altra assess)	5203.0	Heated seats				•																		•						
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	5410.4	Electric folding sunroof	•																											_

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6133.0	Horn								•																					
6135.0	Electronic immobiliser (EWS II)																												•	
6160.1	Wipe/wash module (WWM)			•																										
6167.1	Headlight washer system (SRA)			•																			1							
6169.0	Windscreen washer jet heaters																						T		•					
6211.0	Instrument cluster																							•				•		
6213.0	Clock																													
6300.0	Light switch																					•	•	•		•				
6312.0	Headlight/fog light											•	•			•						•	•	•		•				•
6313.0	Turn signal/hazard warning system																							•						
6314.0	Park/tail/underhoodlights																													
6320.0	Licence plate/luggage compartment lights																						T							
6322.0	Reversing lights																						T				•			
6325.0	Brake lights																													
6328.1	Trailer coupling		•																											
6330.3	Interior lights																													
6332.0	Interior																						1							
6350.0	Crash and alarm sensor											•	•													•				
6410.7	Heating control (HS)																•			•	•		T	$\exists$				$\top$		

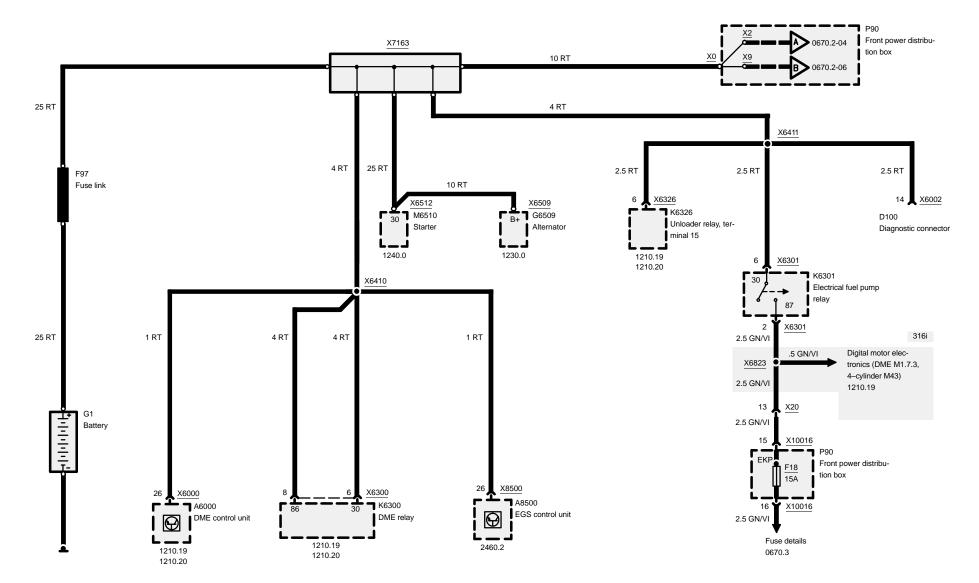
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6424.0	Rear window defogger/antenna						•																•						
6450.6	Automatic climate control (IHKS)																•			•			•						
6510.0	Radio/Stereo									•																			
6510.1	Radio/HiFi									•																			
6561.0	Cellular telephone																												
6571.0	Cruise control																											•	
6581.3	On–board computer (BC – Low)																												
6610.2	Remote control ZV/DWA							•																					
6621.0	Park distance control (PDC)																							•		•			
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1210.17	Engine management MS41.0 (6-cylinder M52)										•											•				
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5126.0	Central locking system (ZKE/ZV)						•																			
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5203.0	Heated seats																							$ \top $		
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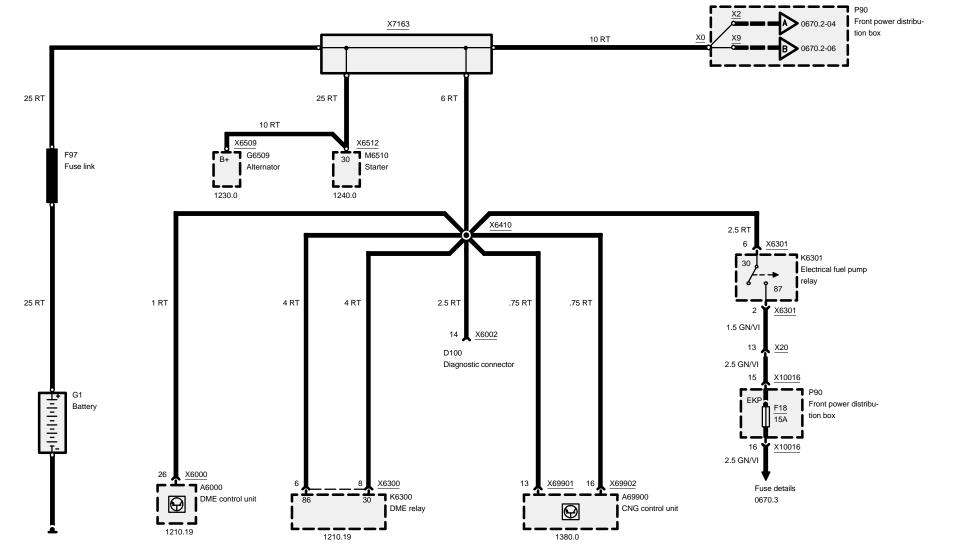
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6424.0	Rear window defogger/antenna																									
6450.6	Automatic climate control (IHKS)									•	•	•							•							
6510.0	Radio/Stereo														•											
6510.1	Radio/HiFi			•											•											
6561.0	Cellular telephone			•										•												
6571.0	Cruise control																•									
6581.3	On–board computer (BC – Low)		•														•									
6610.2	Remote control ZV/DWA													•												
6621.0	Park distance control (PDC)		•																							
																					1				$\top$	
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																					T		T		+	+
		$ldsymbol{ldsymbol{ldsymbol{eta}}}$			<u> </u>	<u> </u>	1	<u> </u>	<u> </u>			1								<u> </u>	Щ	ш	Щ			

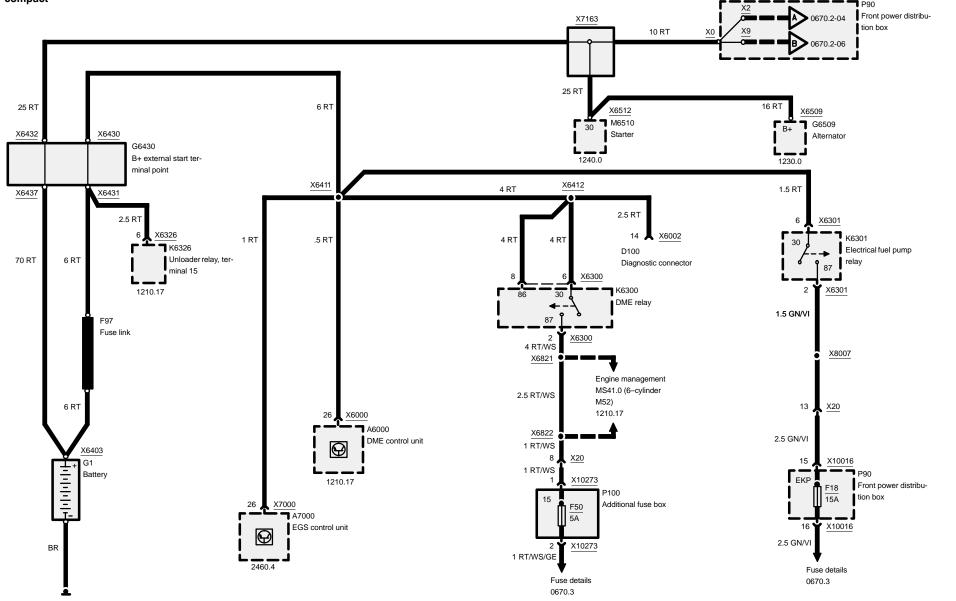
compact

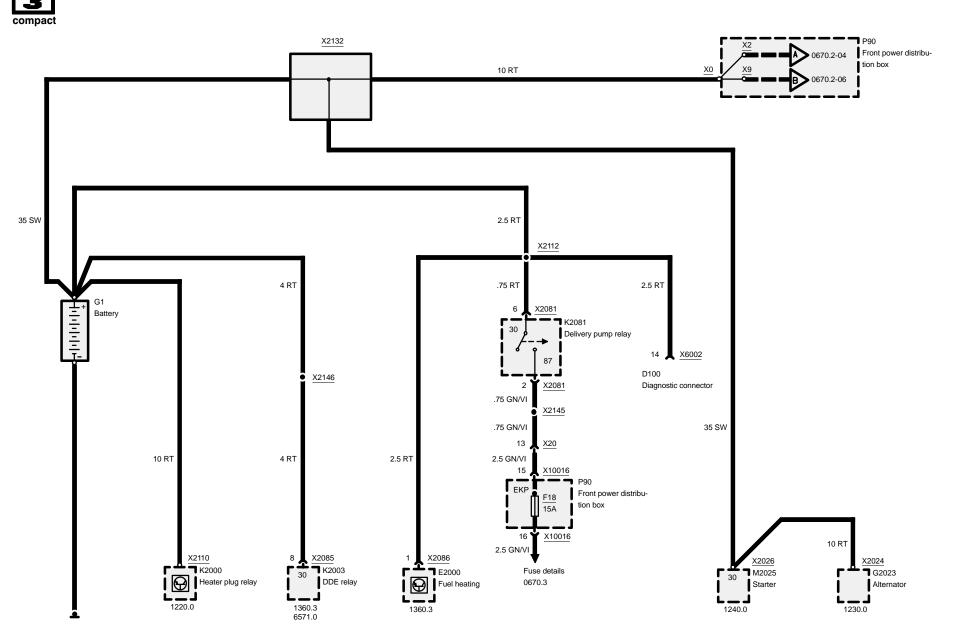


compact









**Power distribution** 

0670.2-00

0670.2-01

0670.2-02 0670.2-03

X2

X1186

30

10 RT

4 RT

0670.2-06

30

F34 15A

2.5 RT/

GN/GE

F33 10A

1.5 RT/

SW/GE

6 RT

0670.2-05

30

F32 30A

1 RT/WS

Fuse details 0670.3

F31

2.5 RT/

SW/WS

Front power distribu-

4 RT

.75 RT

F38 30A

.75 RT/

GR

F39 7.5A

4 RT/GN

X1015

4 RT

1.5 RT

X10018 7

X10018 8

1.5 RT/VI

F41 30A

tion box

6 RT

30

F35 25A

X10034

30

2.5 RT/

BL/GE

30

F36 30A

1 RT/BL

F37 10A

2.5 RT/

GN

**BMW** 

compact

4 RT

4 RT

X10015

<u>F6</u> 30A

.75 RT/

GN

1 RT/GR/

GE

19 X10016 11

F20

30A

20 X10016 12

2.5 RT/BR

4 GN/

BR

4 RT

X10030

F8

15A

2.5 RT/

WS

 $\frac{F9}{20A}$ 

2.5 RT/

BL

F10

30A

X10015 2

.5 RT/GE







X1588

F48 40A

Fuse details 0670.3

Front power distribu-

tion box

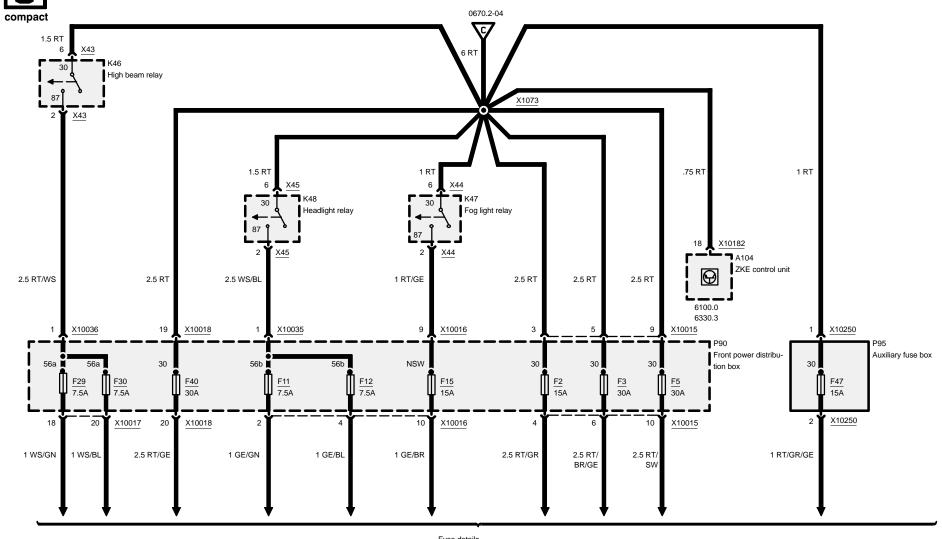
4 RT/GN

X10015

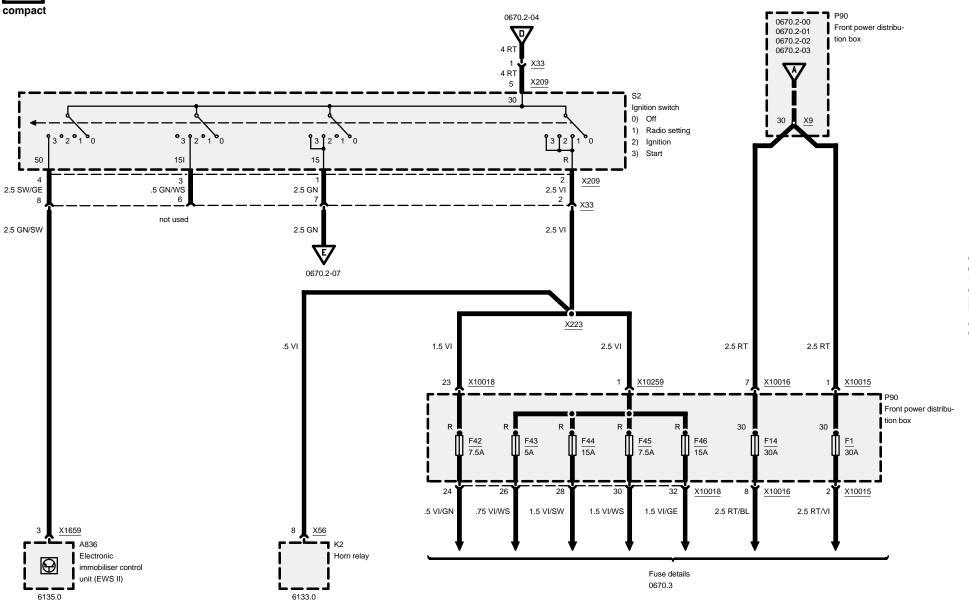
X10015

Auxiliary fuse box

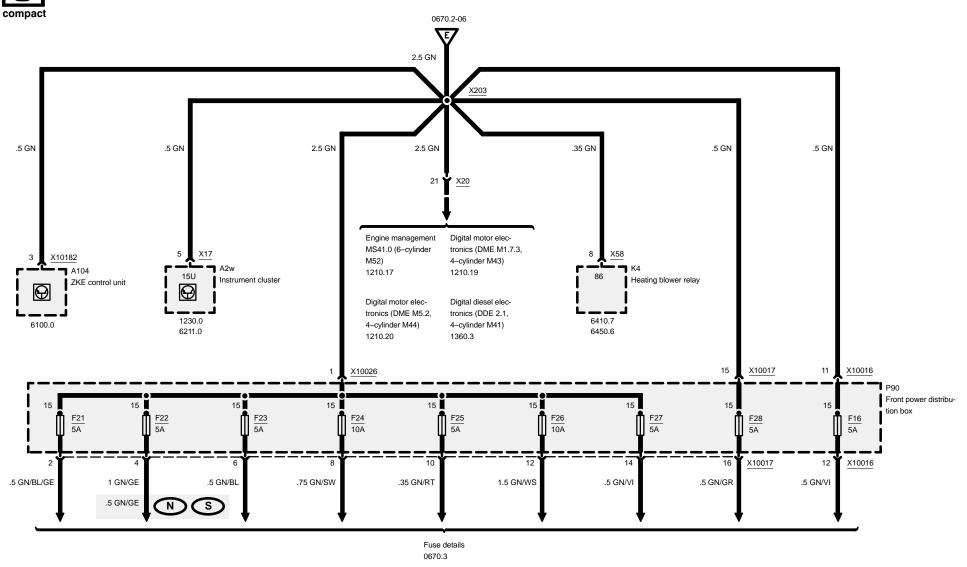


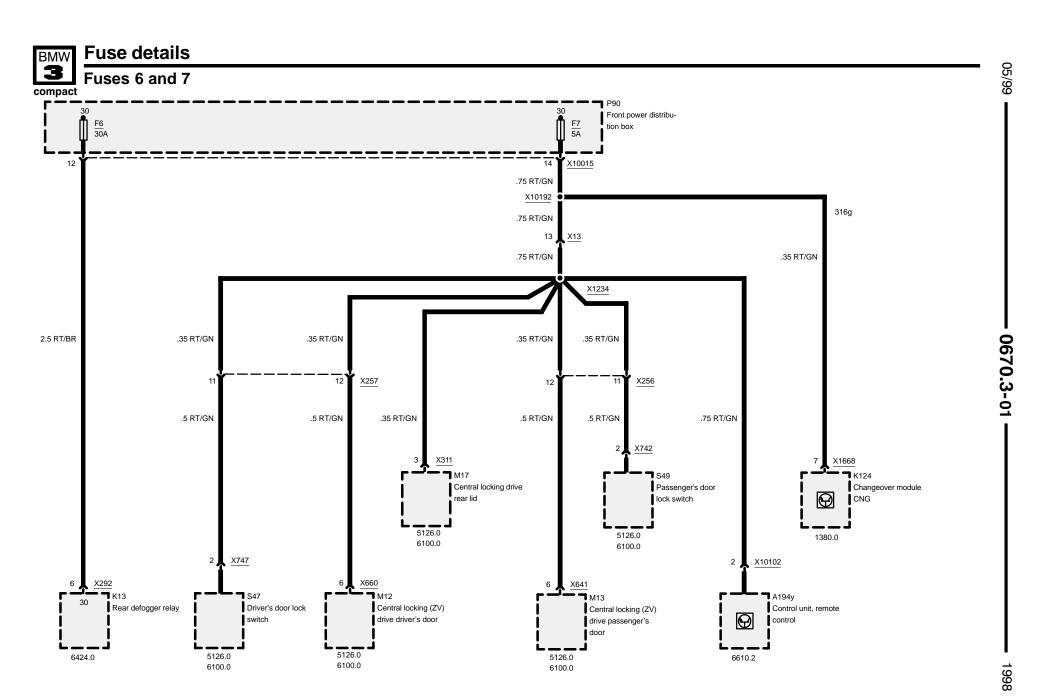


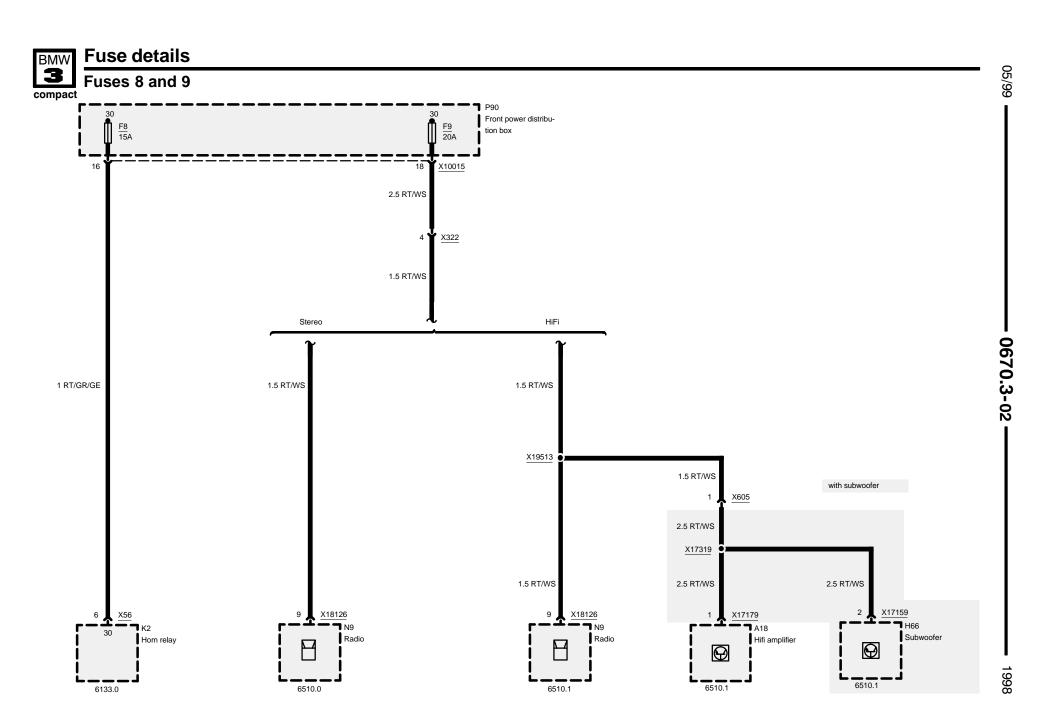
### **Power distribution**

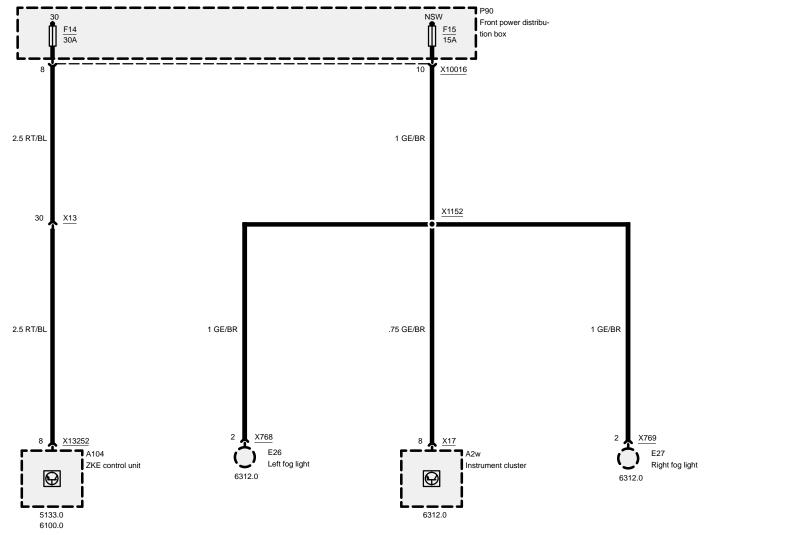


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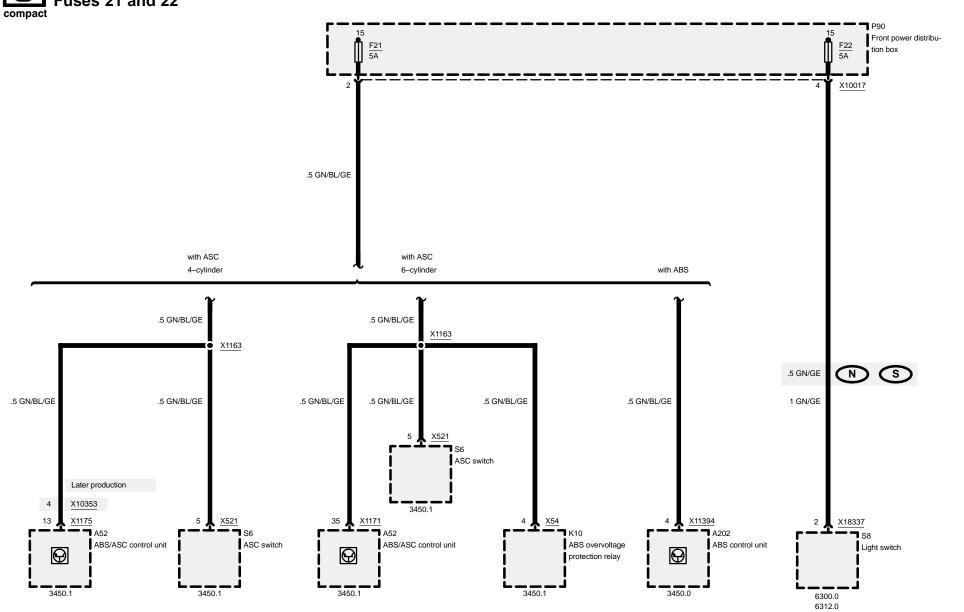






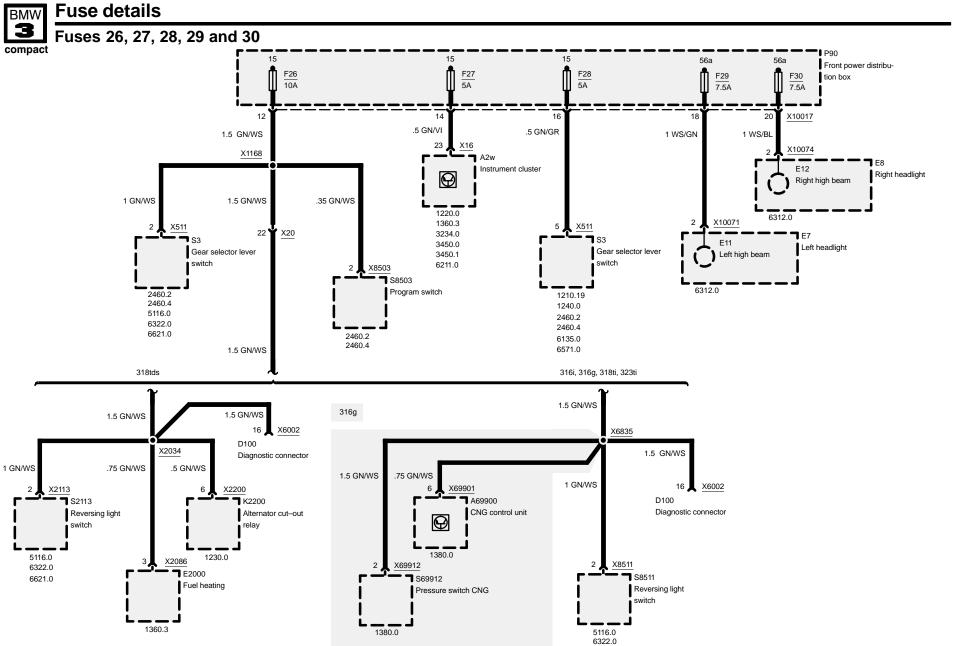


.5 GN/VI



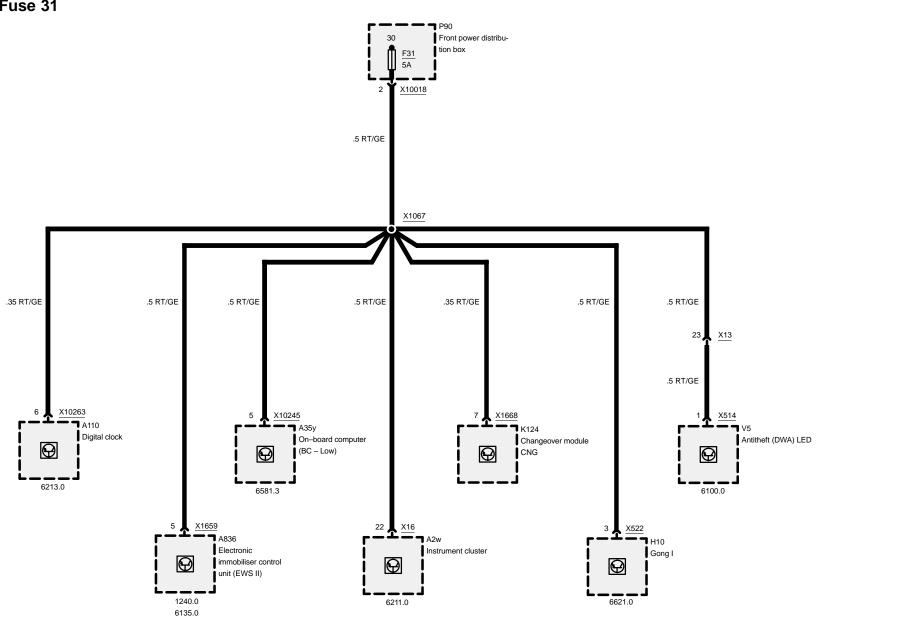
6450.6

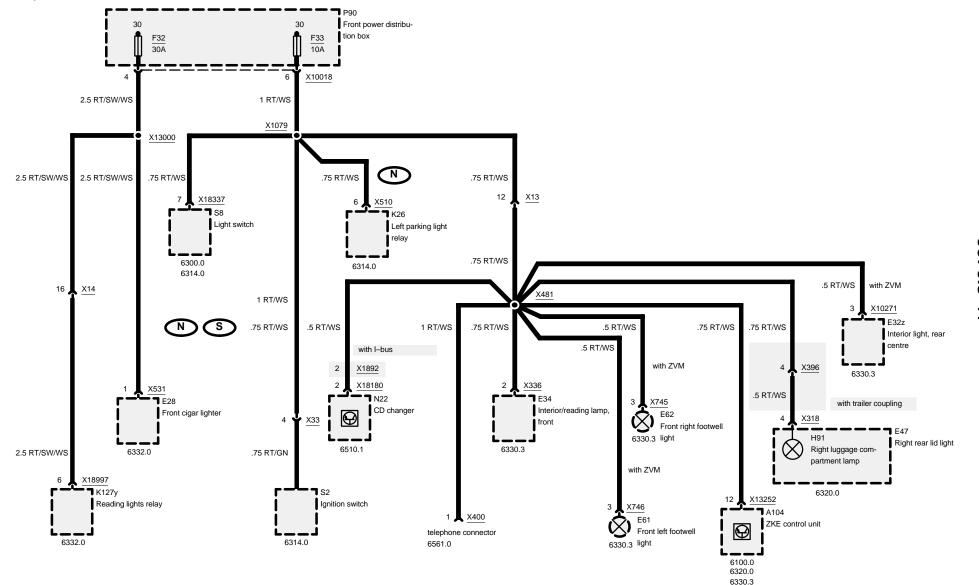


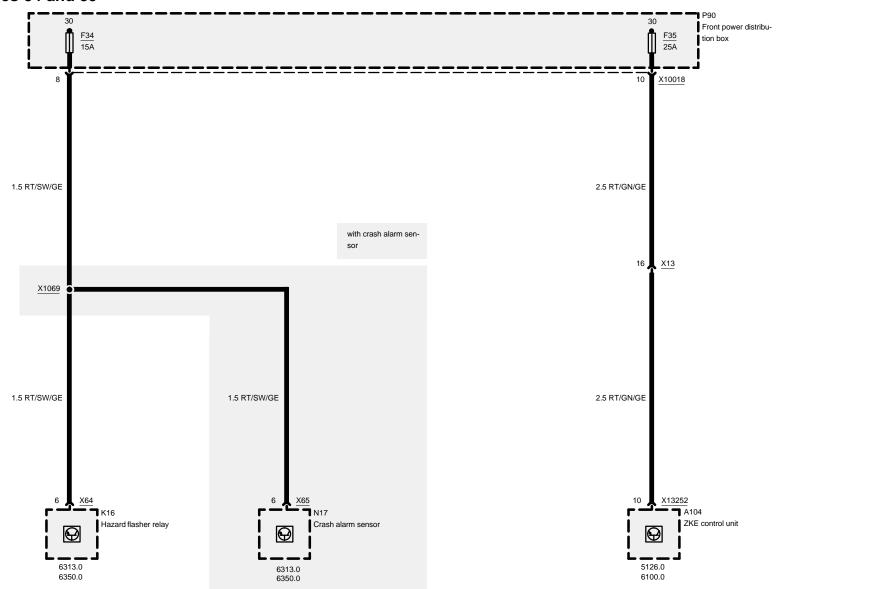


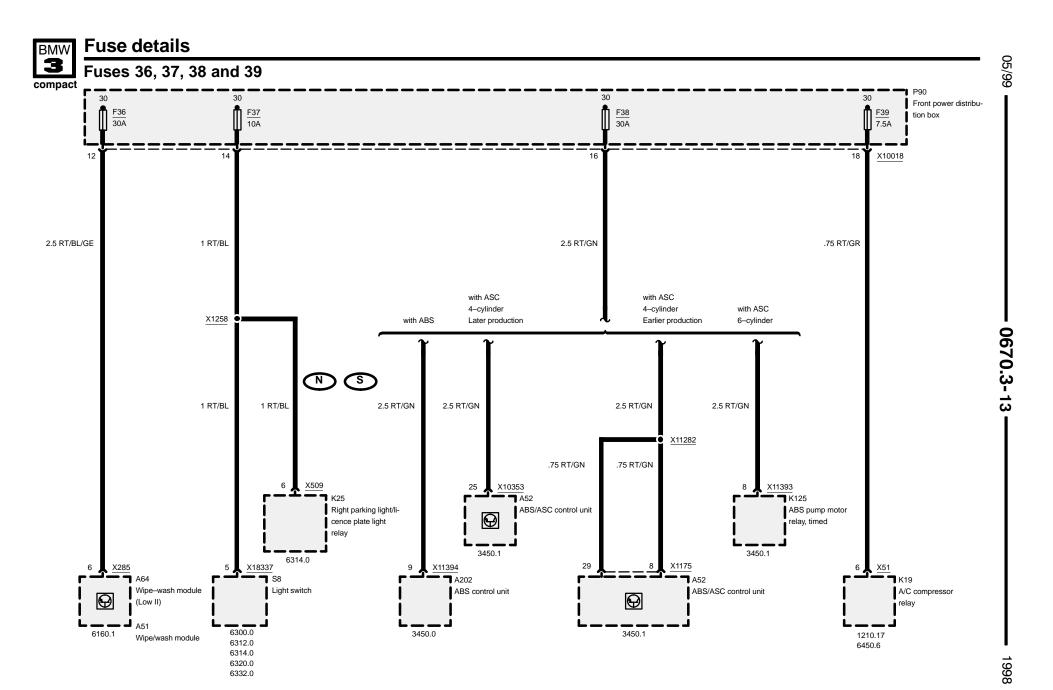
6621.0

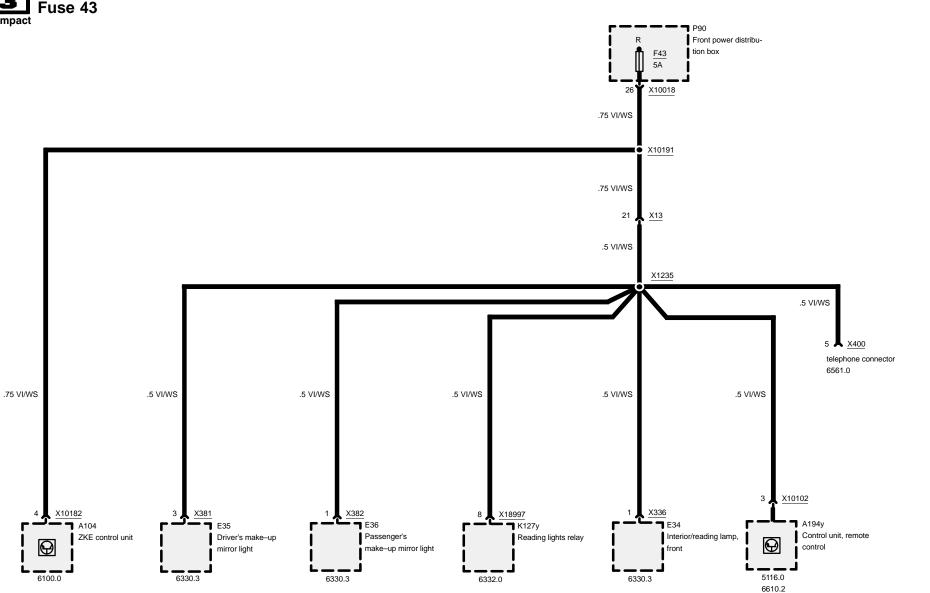
Fuse 31

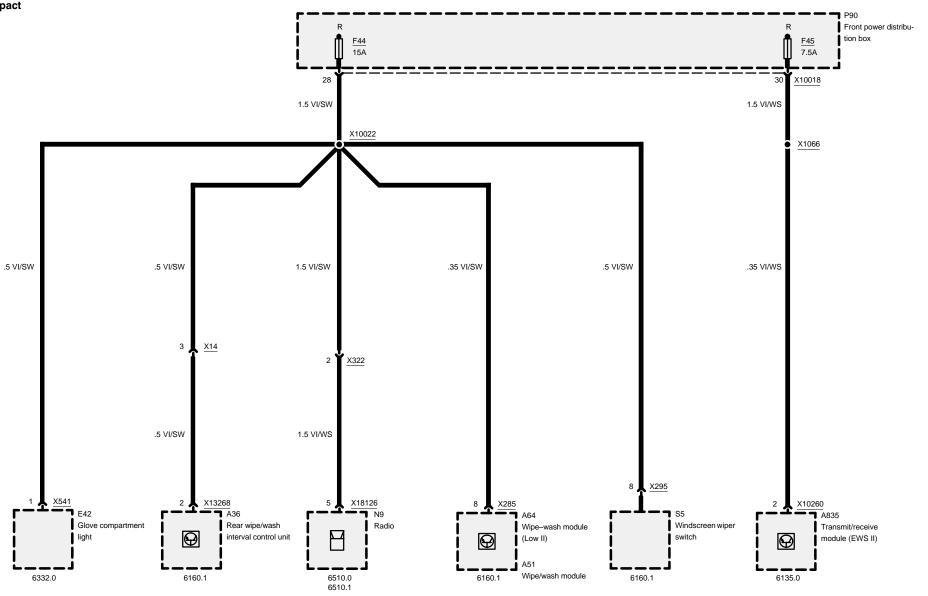


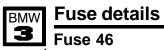




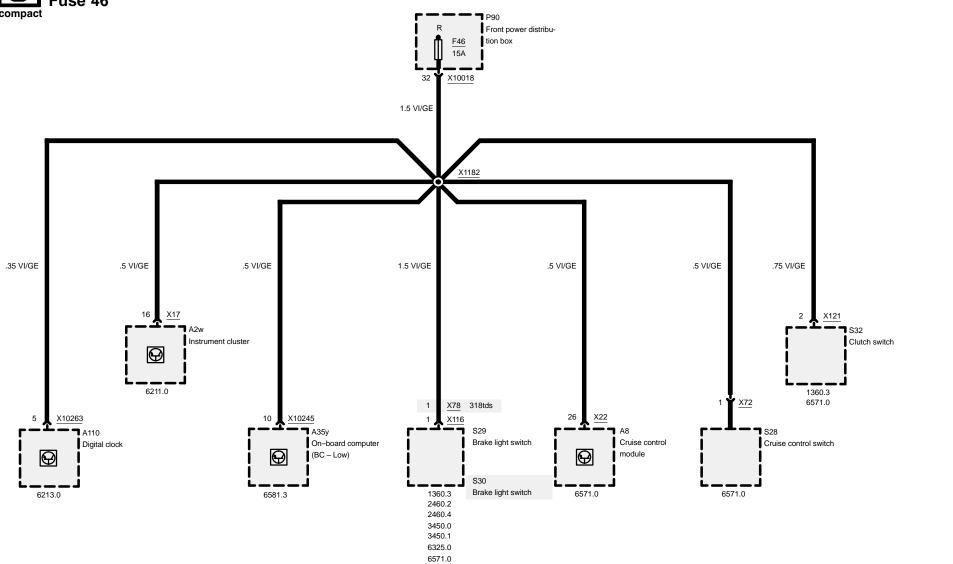


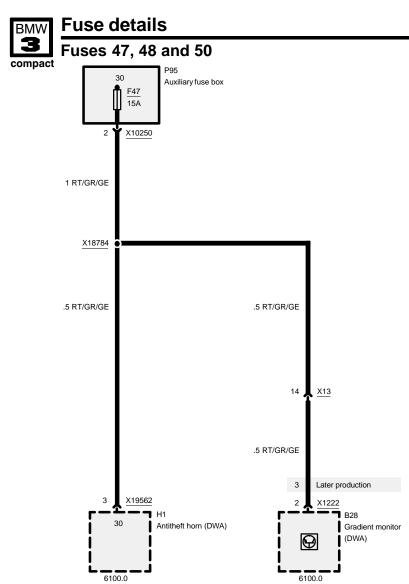


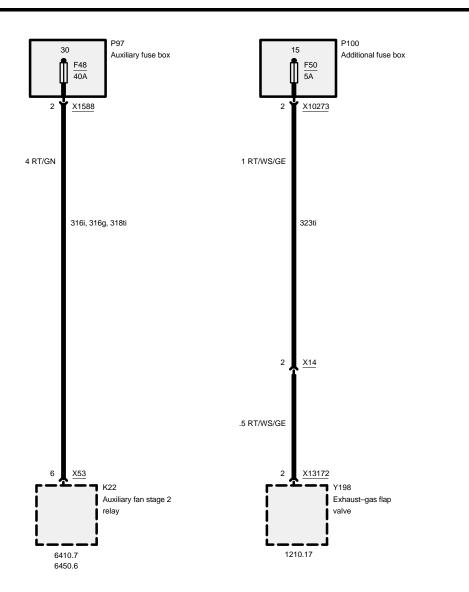




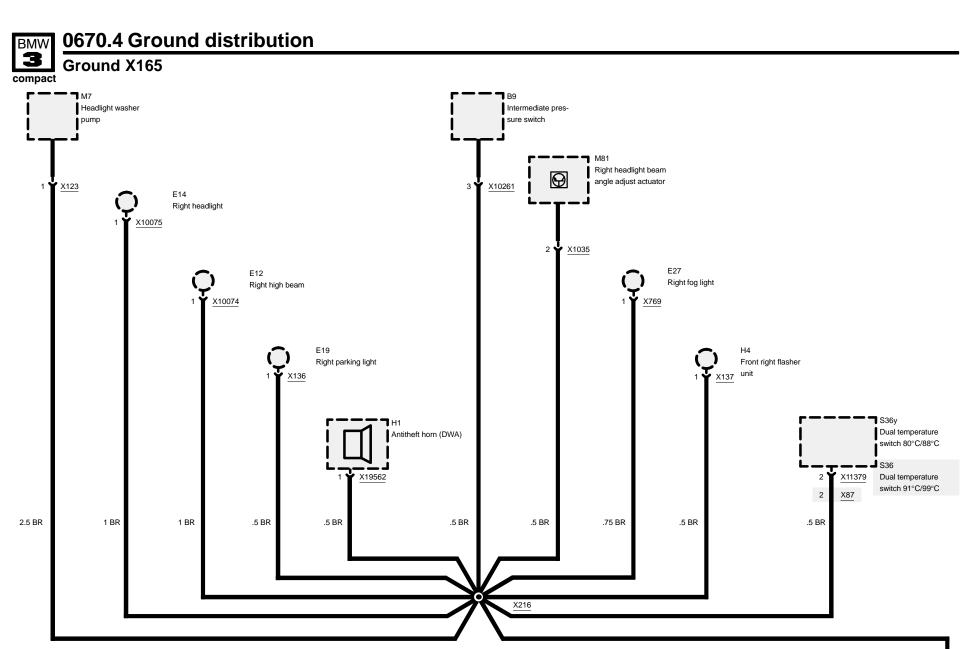


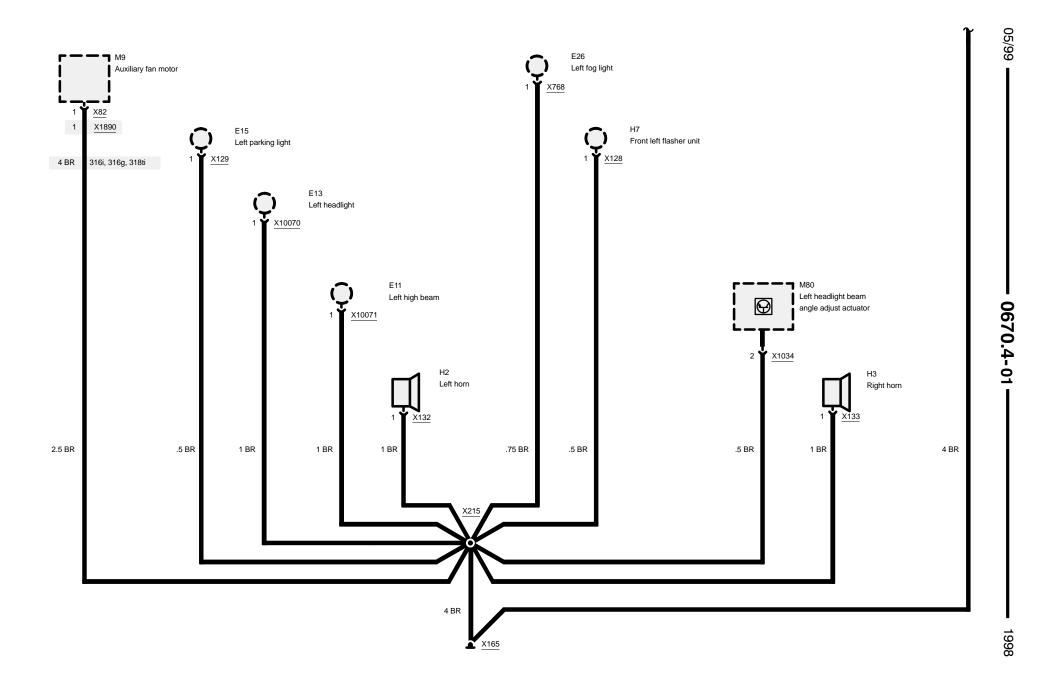


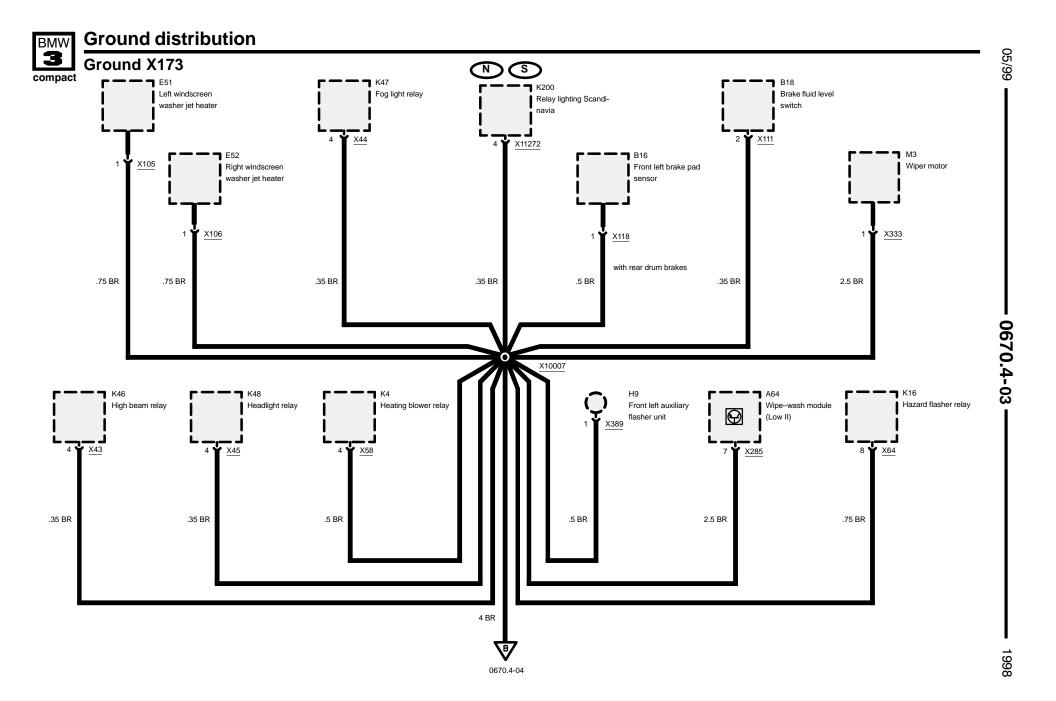


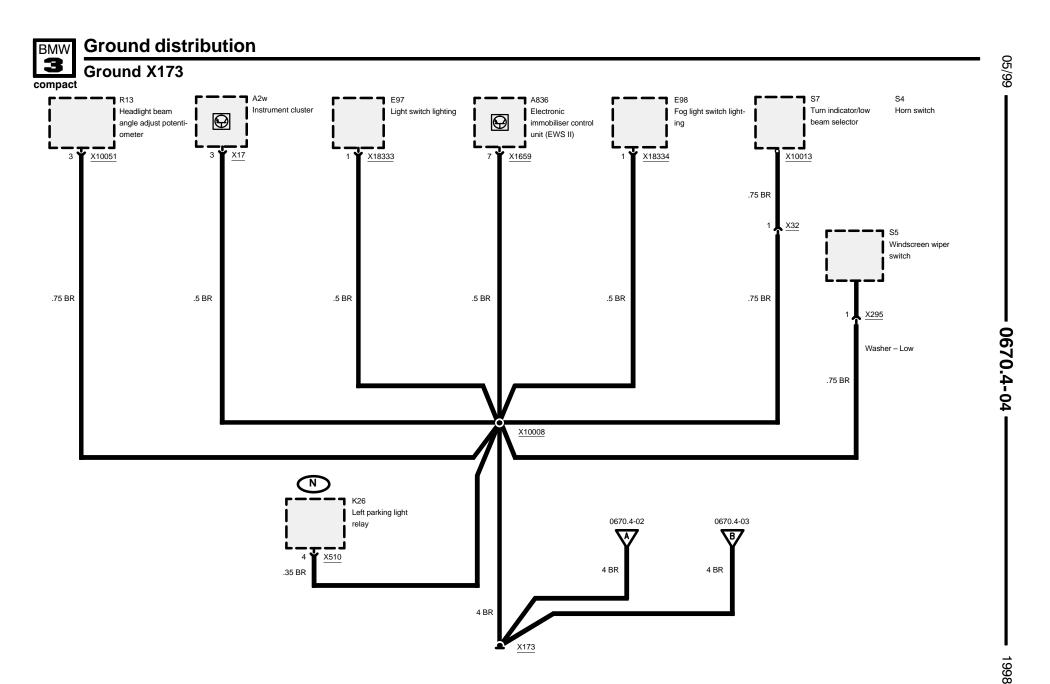


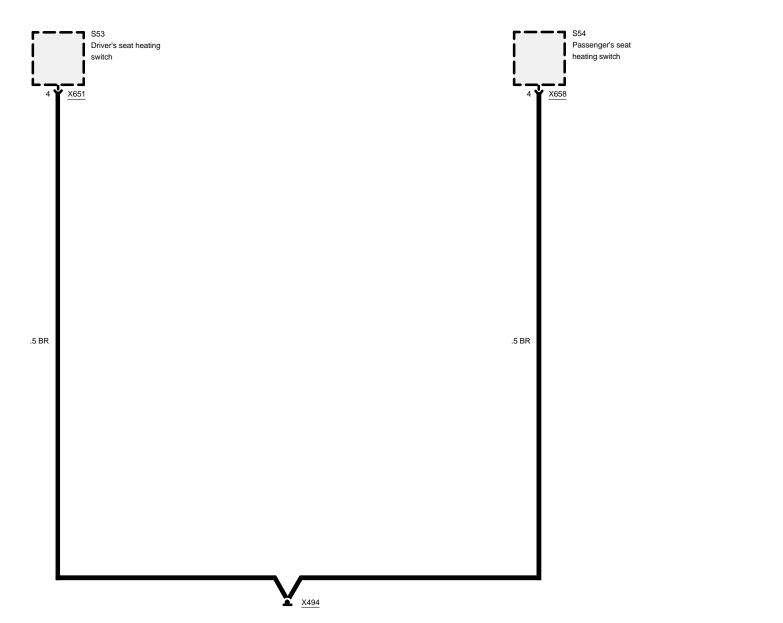






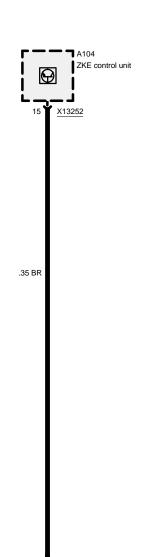


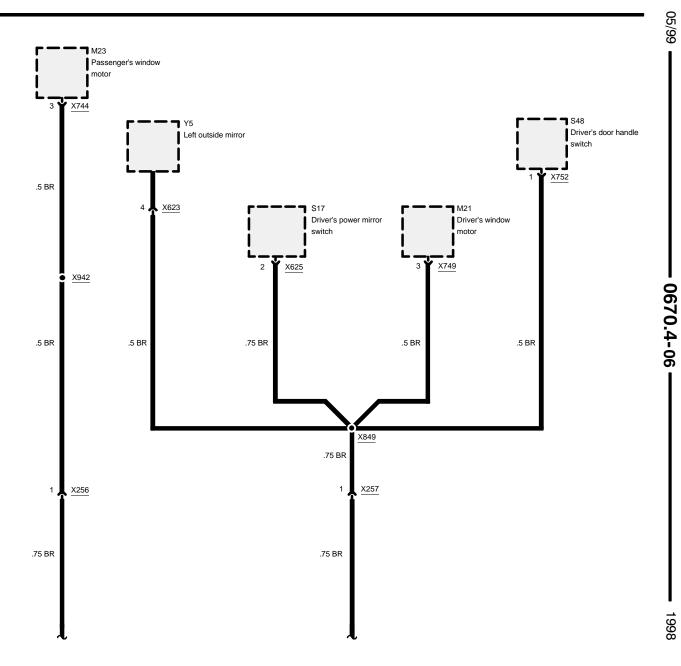


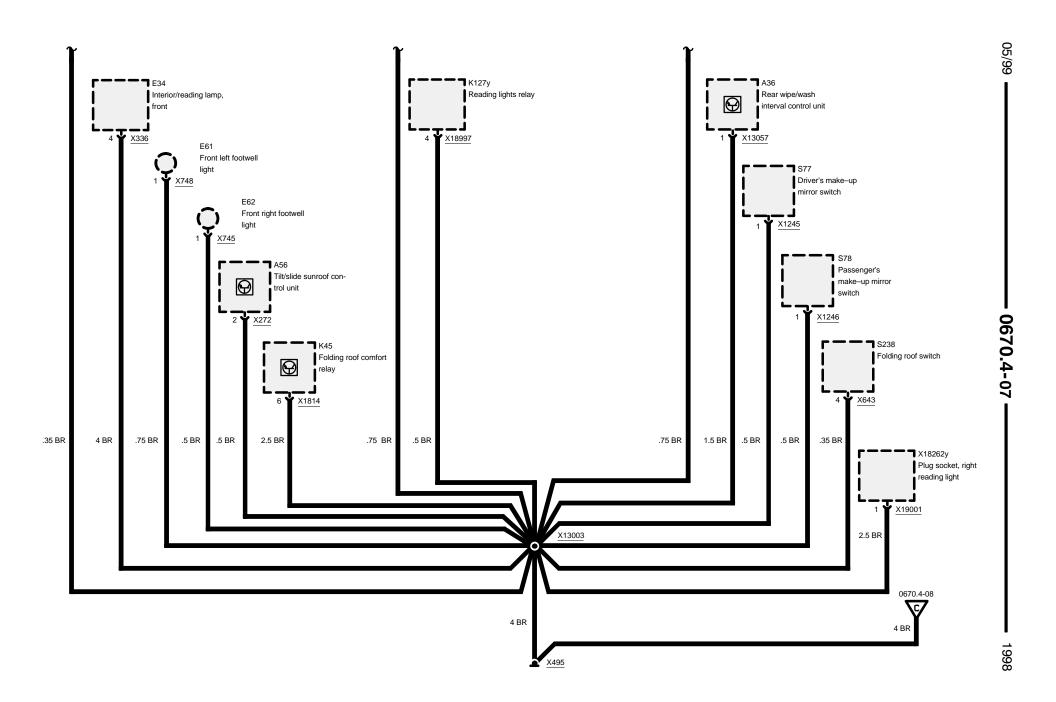


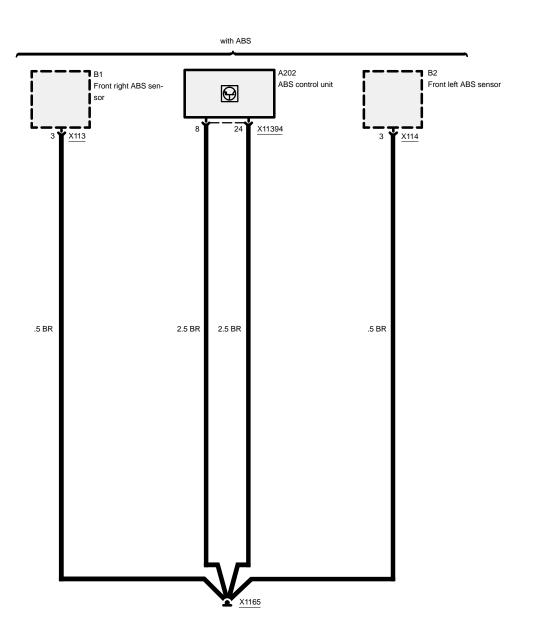


# Ground distribution Ground X495

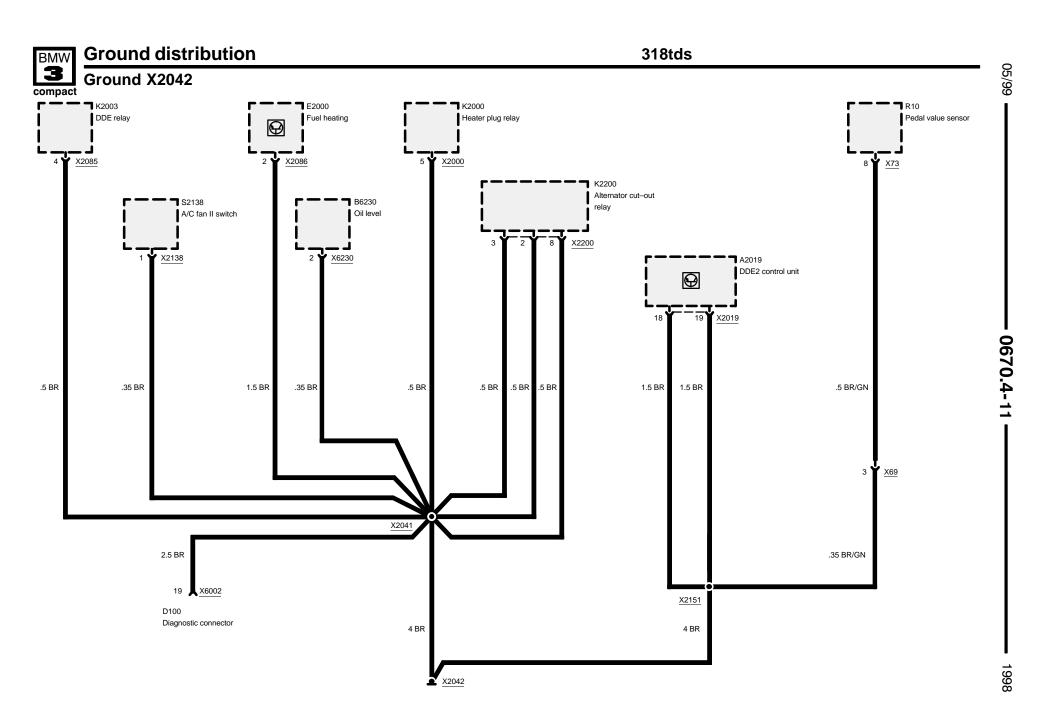


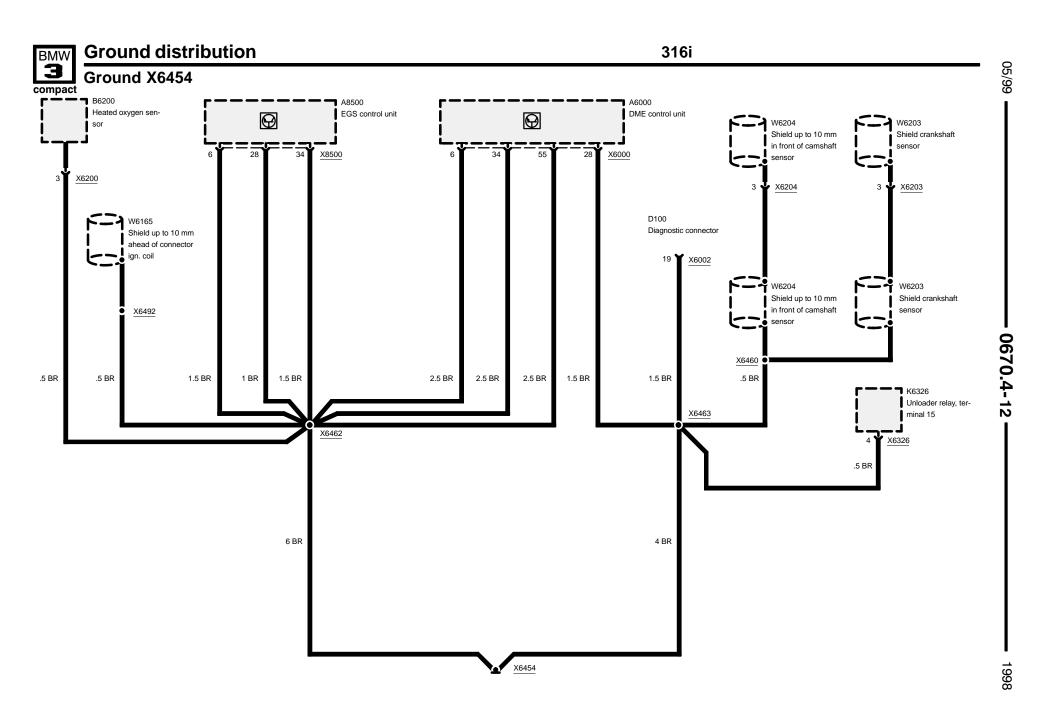


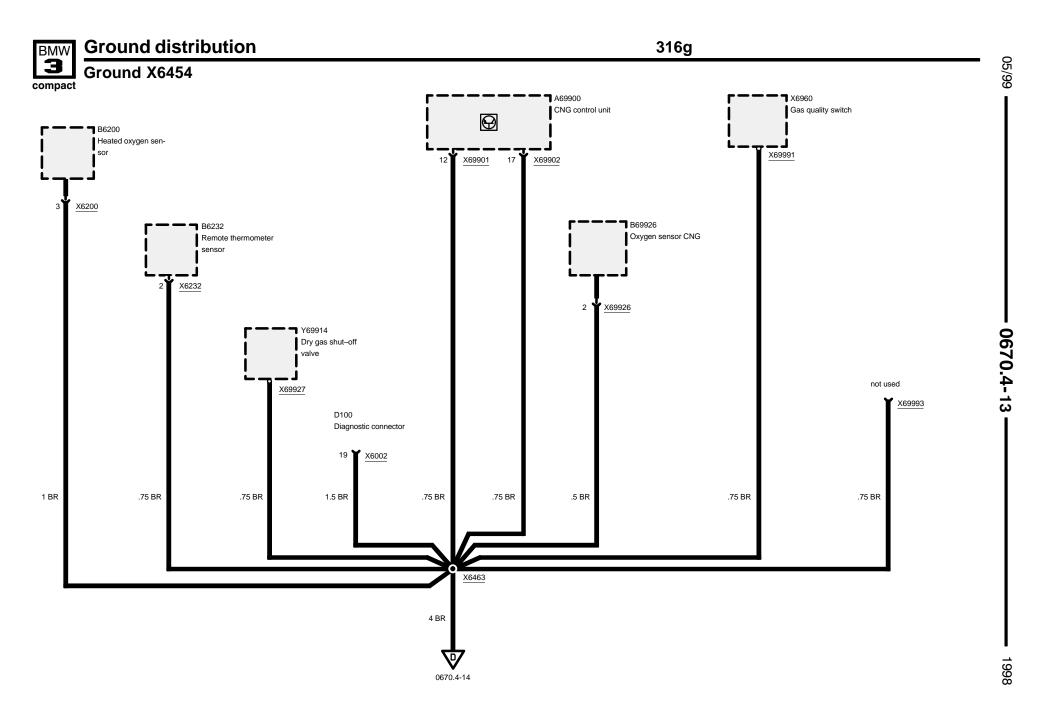


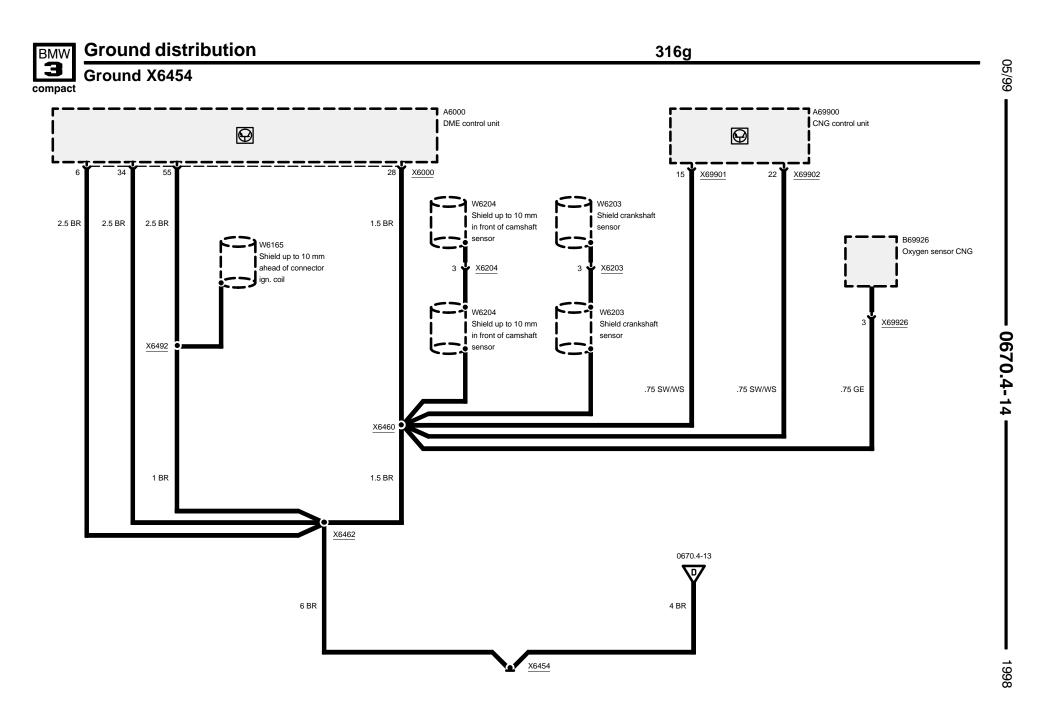


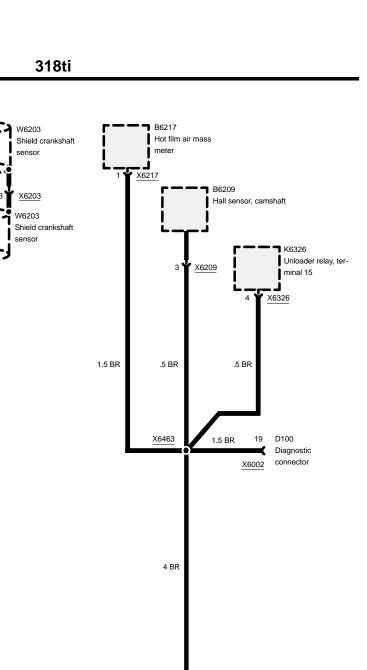
X1441











1 A6000

 $\Theta$ 

2.5 BR

1.5 BR

X6460

1.5 BR

2.5 BR

2.5 BR

DME control unit

1.5 BR

EGS control unit

.5 BR

6 BR

W6165

X6492

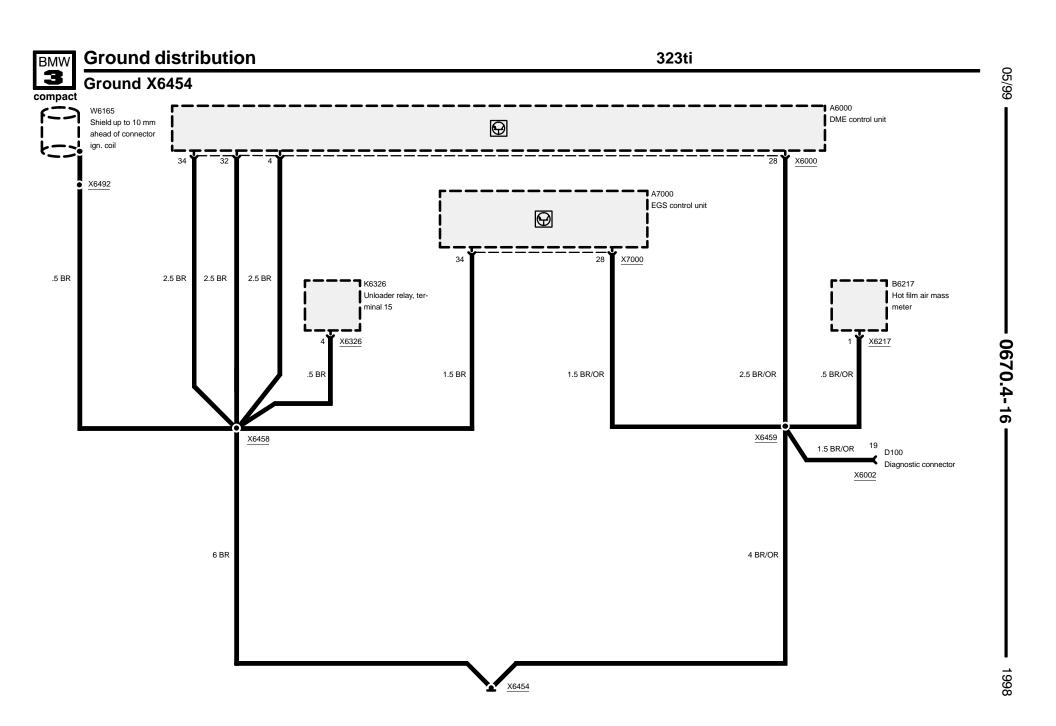
X6462

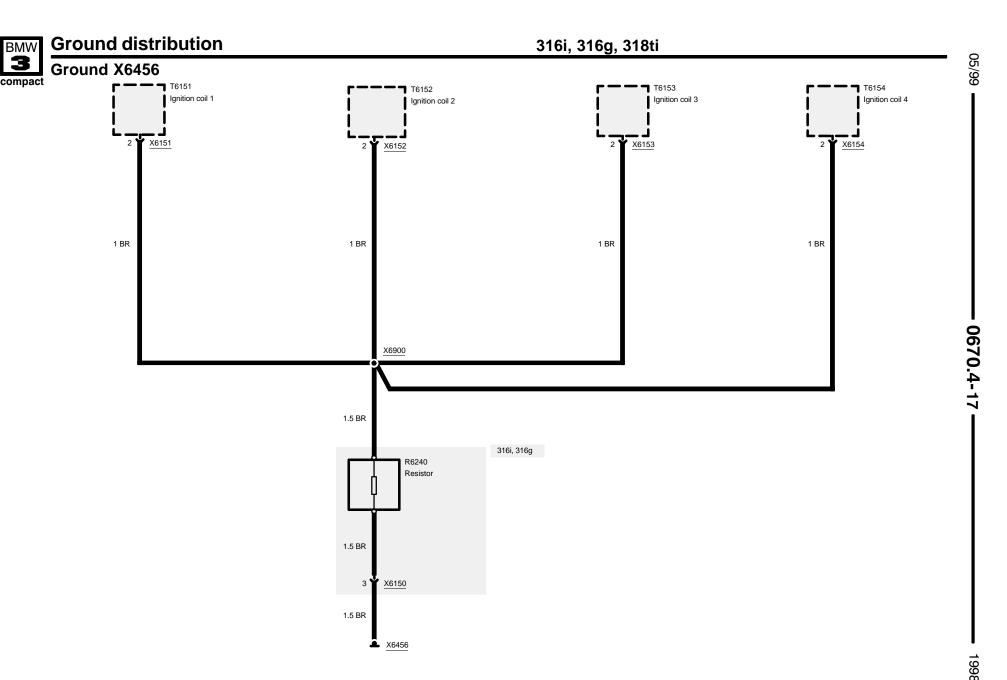
Shield up to 10 mm ahead of connector ign. coil

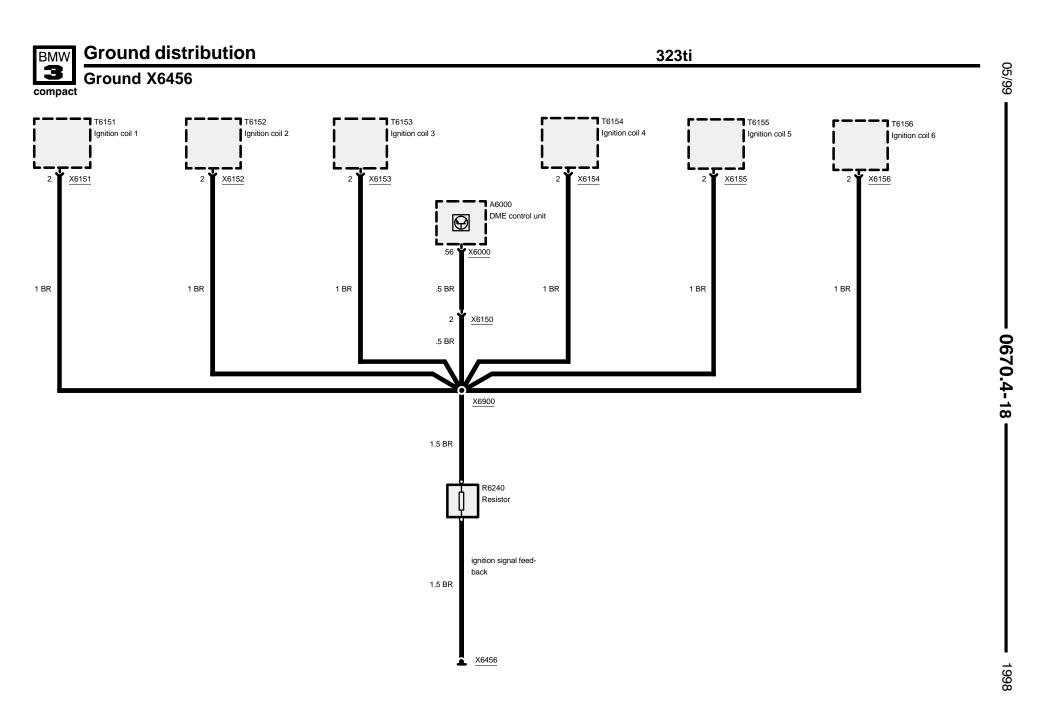
**Ground X6454** A8500

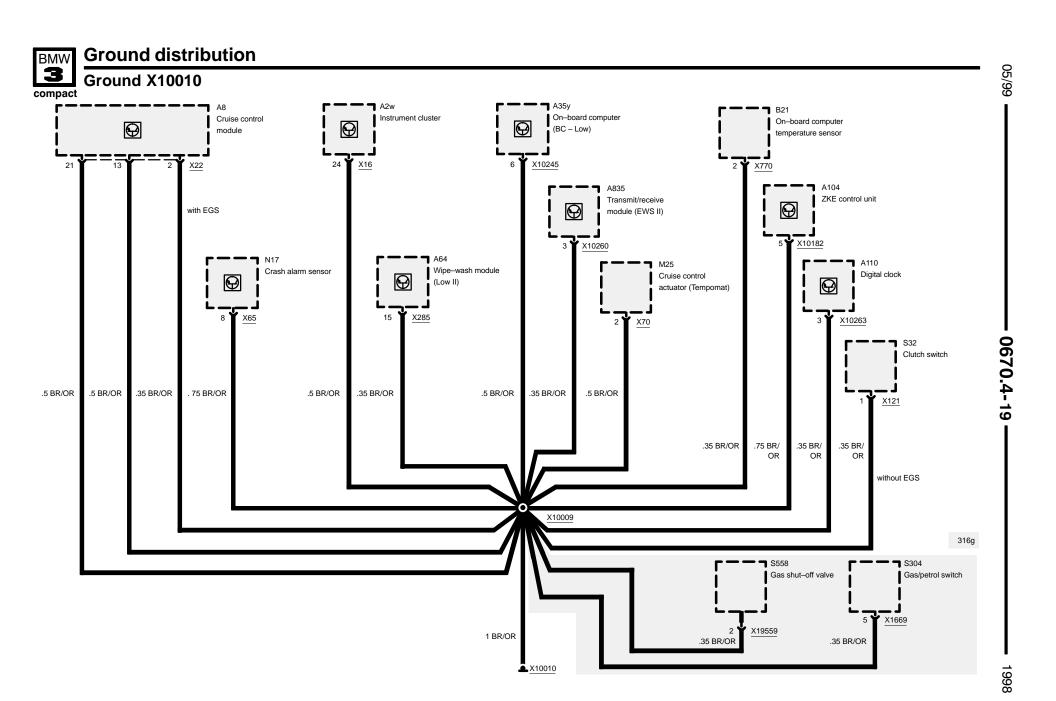
1 BR

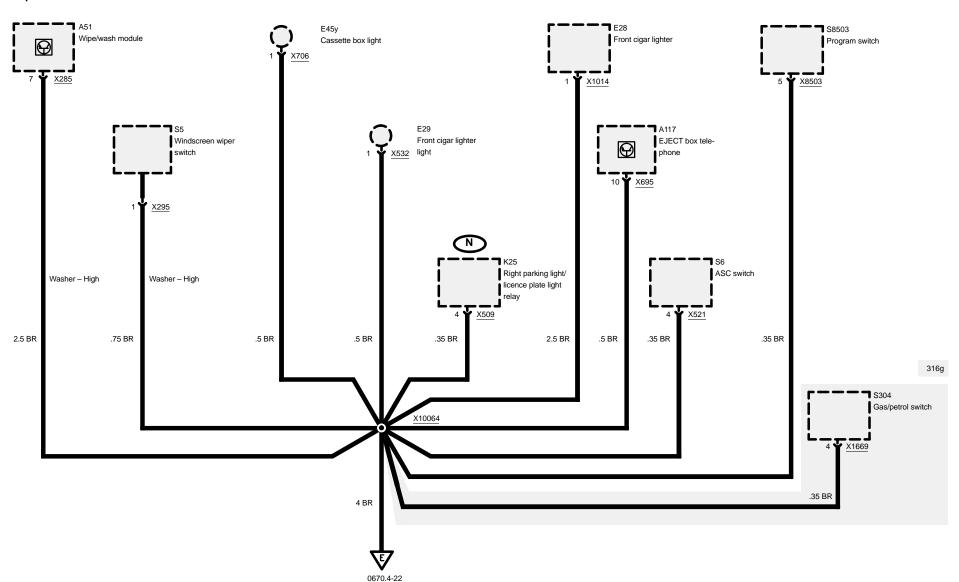
1.5 BR

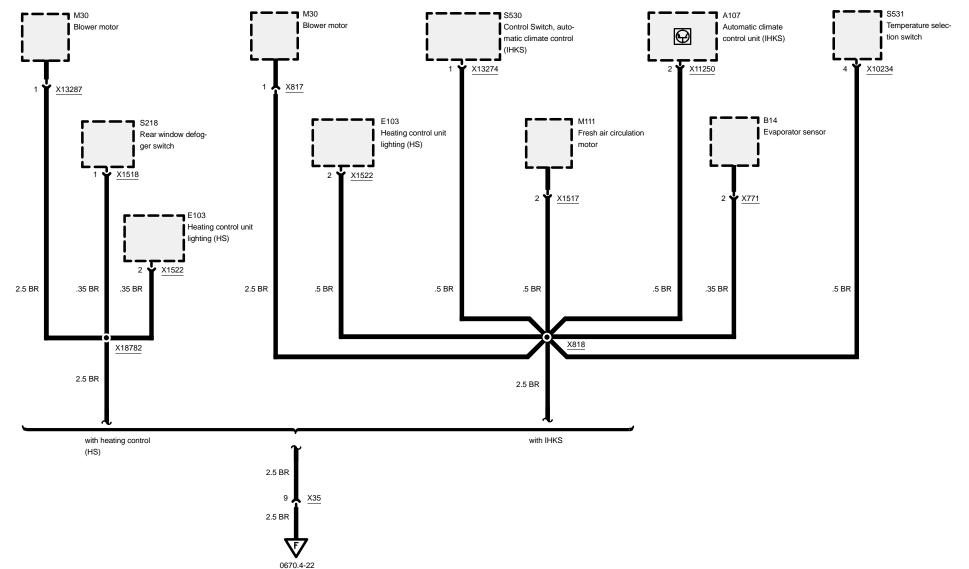


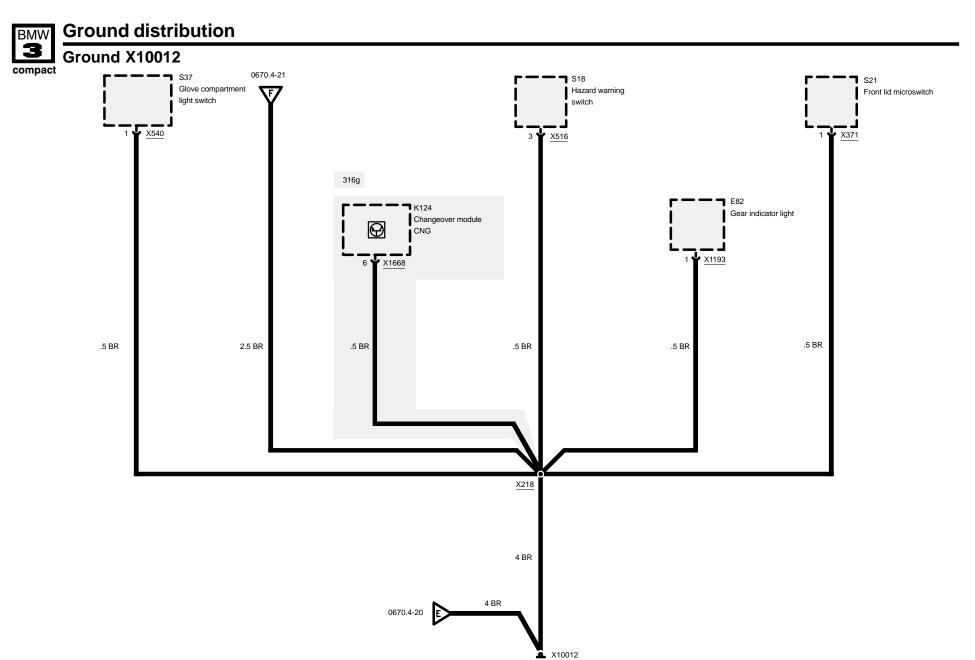






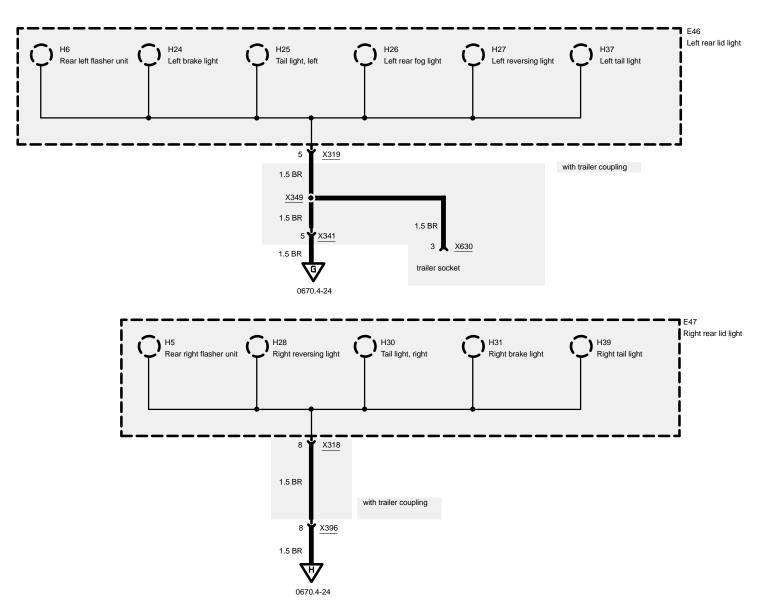






### **Ground distribution**

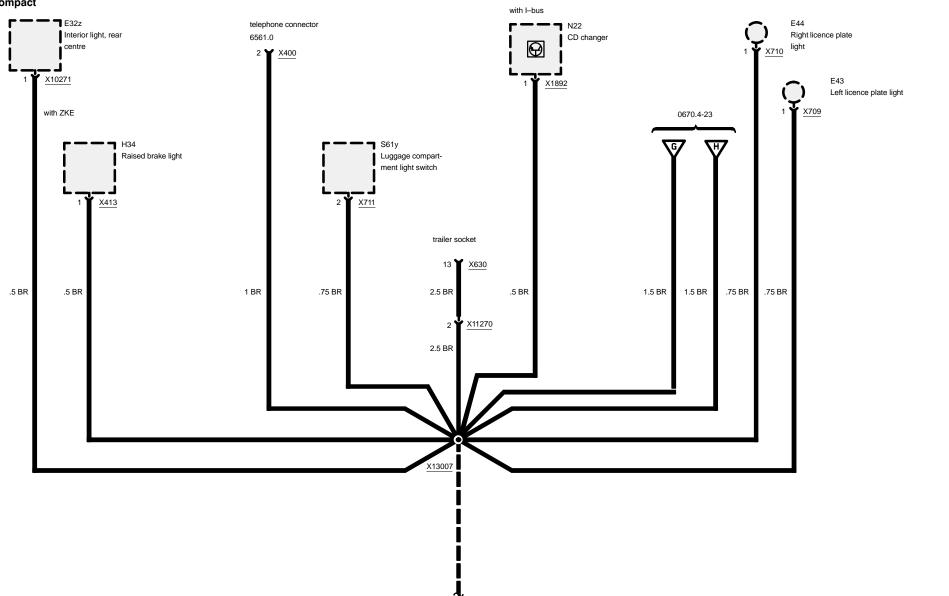
### Ground X13006

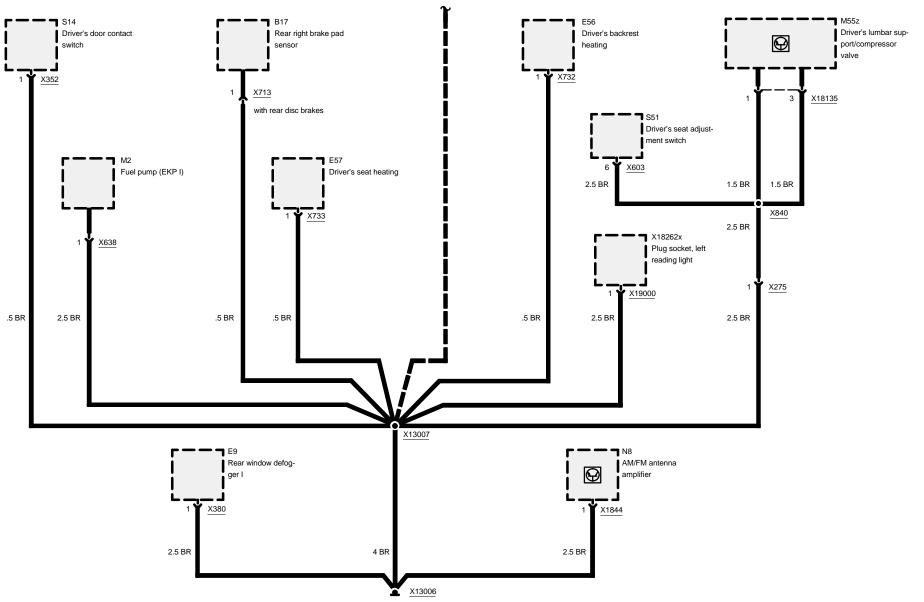


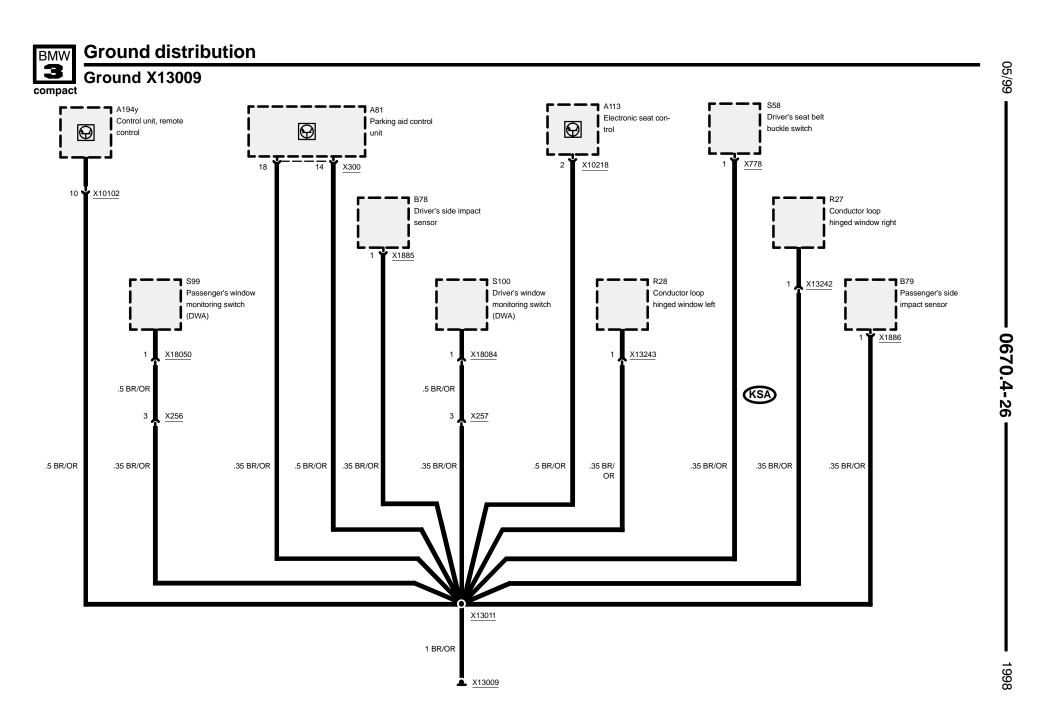


# Ground distribution Ground Mass

### Ground X13006

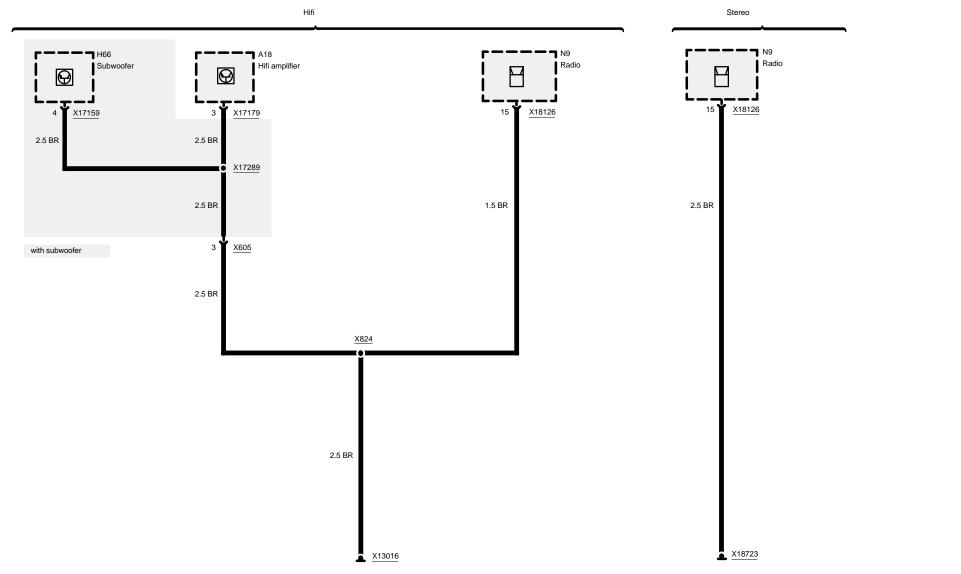


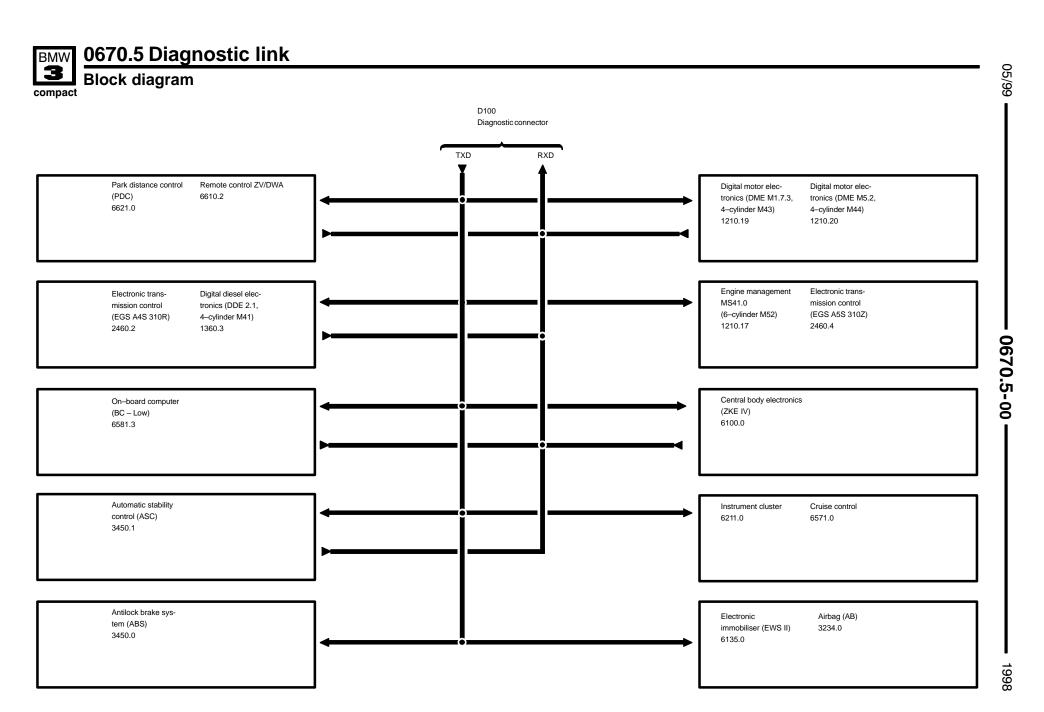




## **Ground distribution**

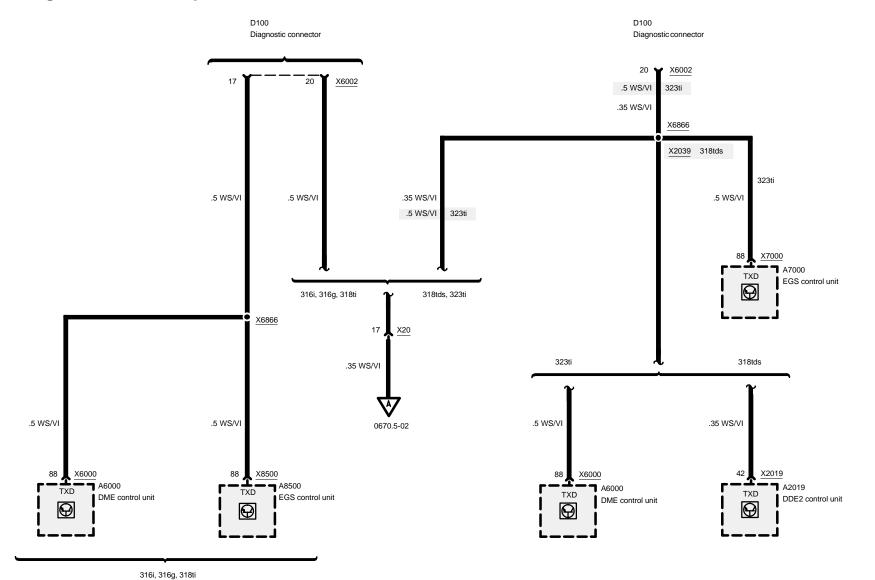
## Ground X13016 and X18723

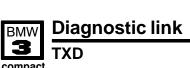


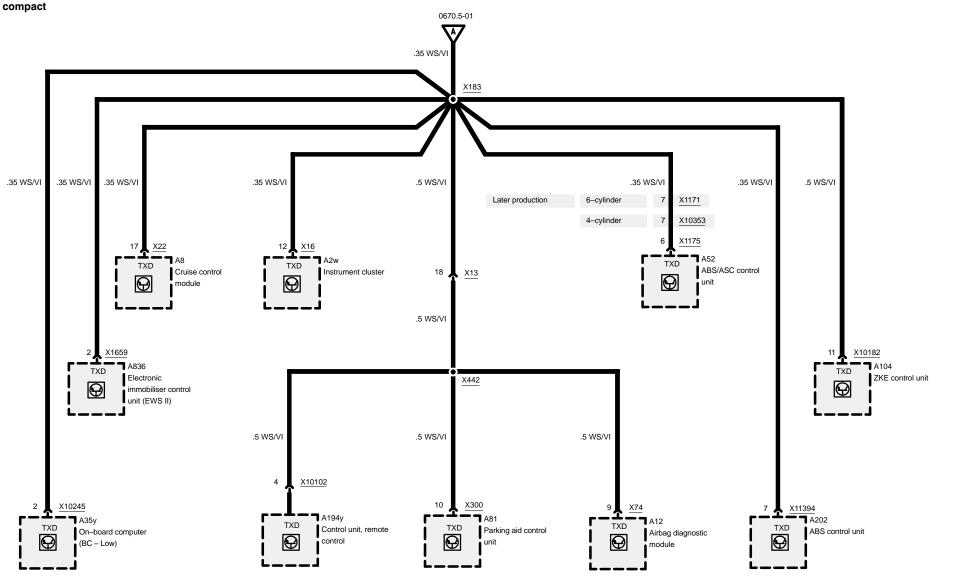


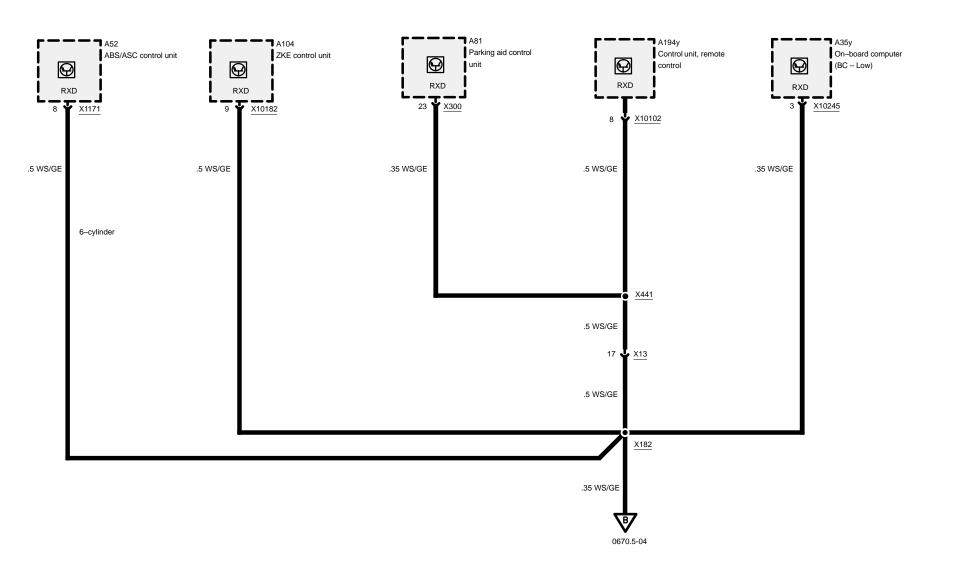
# Diagnostic link

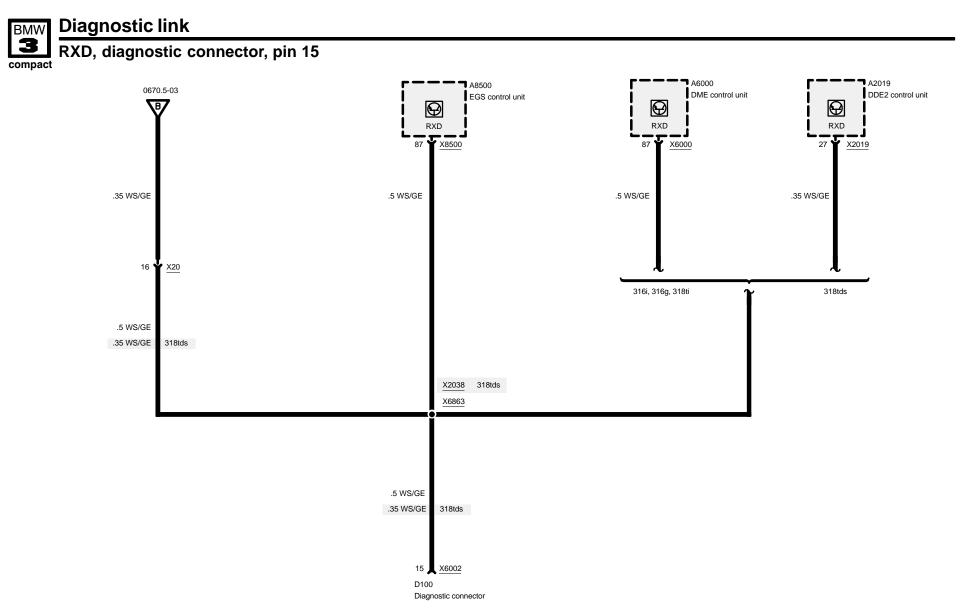
## TXD, diagnostic connector, pins 17 and 20

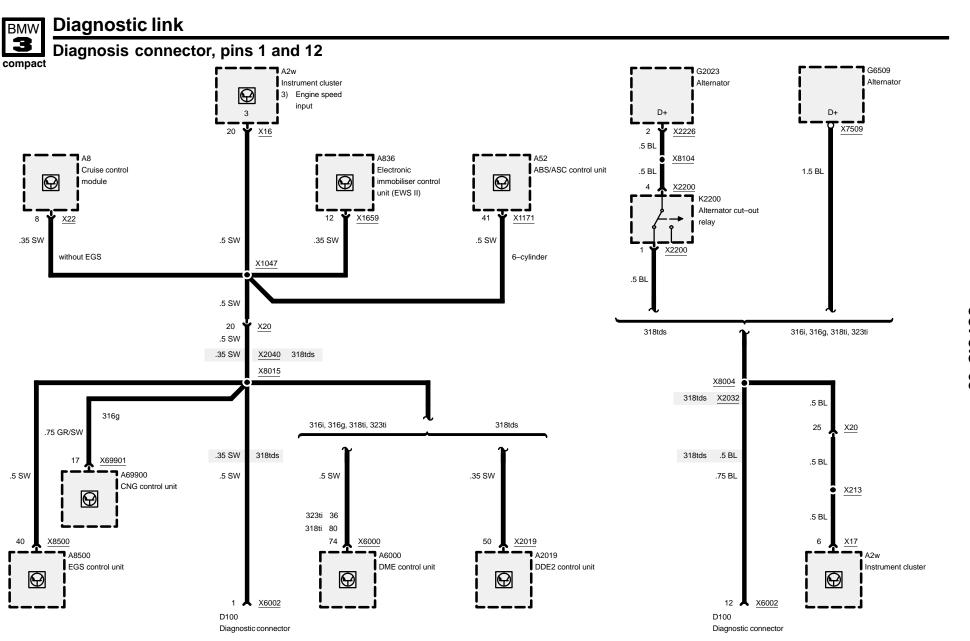


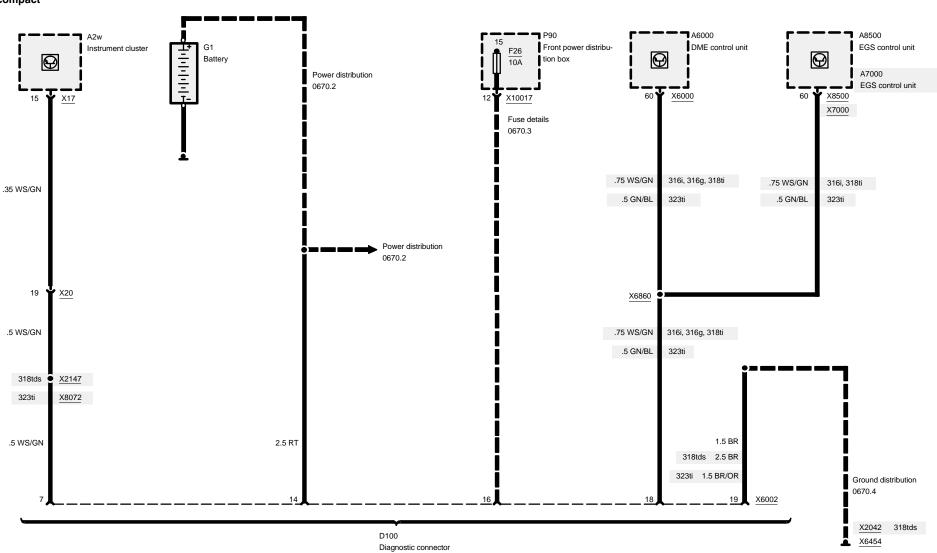




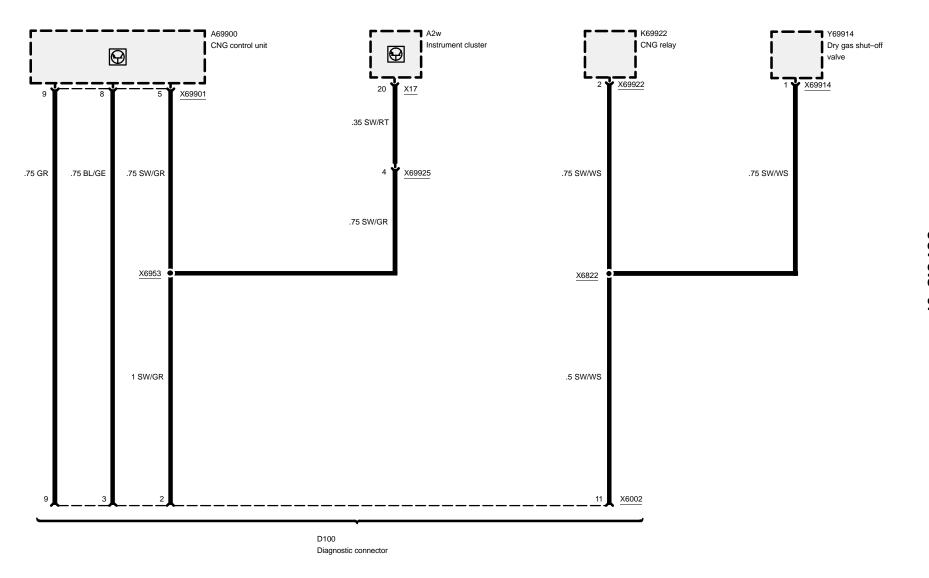




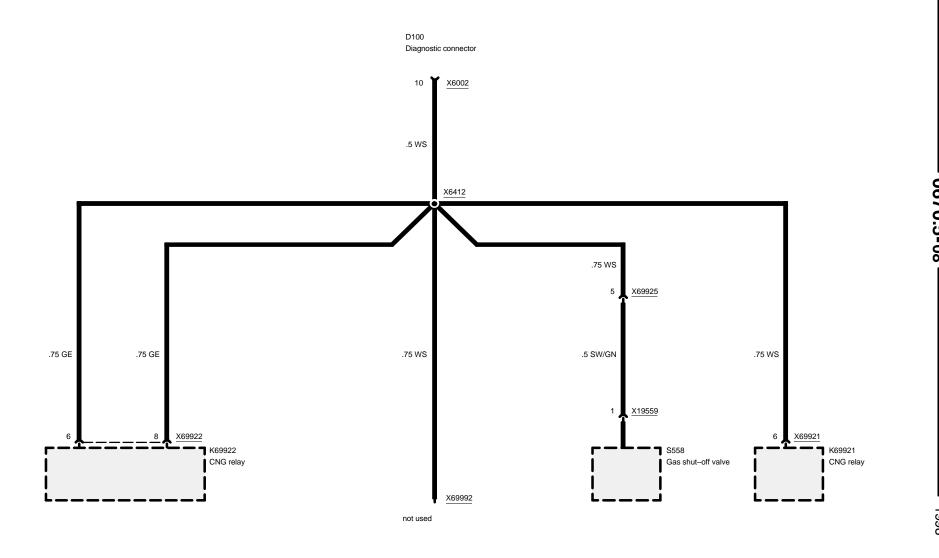




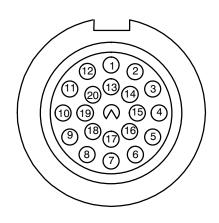
## Diagnostic connector, pins 2, 3, 9 and 11



Diagnostic link
Diagnostic connector, pin 10



# Diagnostic link Diagnosis connector (X6002)

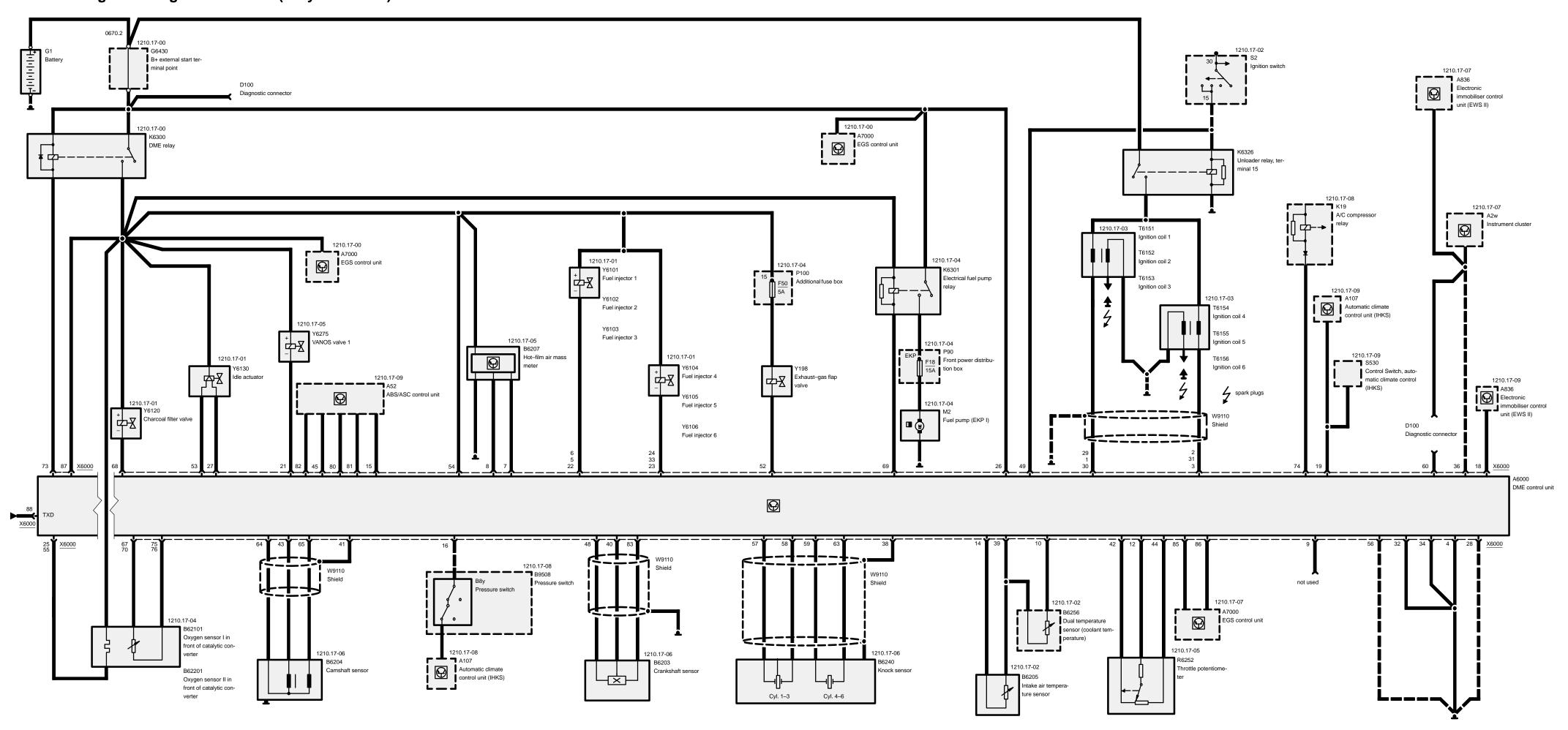


jumpers in end cap of diagnostic connector D100

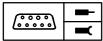




Pin number	Terminal number	Terminal description	Wire colour
1	TD	TD signal	SW
2 *		gas operation indicator	SW/GR
3 *		communication link	BL/GE
4	_	not used	
5	_	not used	
6	_	not used	
7	SI	service interval indicator	WS/GN
8	_	not used	
9 *	Kl. 31	diagnosis initialization line	GR
10 *	Kl. 30	manual opening (high pressure stop valve)	WS
11 *	Kl. 87	manual opening (low pressure stop valve)	SW/WS
12	61(D+)	charge lamp	BL
13	_	not used	
14	30	battery +	RT
15	RXD	diagnosis-data line	WS/GE
16	15S	voltage at ignition ON	GN/WS
17	TXD II	diagnosis-data line (316i, 316g, 318ti)	WS/VI
18	PGSP	programming line	WS/GN, GN/BL (323ti)
19	31	ground	BR, BR/OR (323ti)
20	TXD	diagnosis-data line	WS/VI







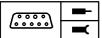
## Pin assignments

## <u>X6000</u>

Pin	Туре	Description/Function	Connection
1	Α	Ignition, terminal 1	Ignition coil, cyl. 2
2	Α	Ignition, terminal 1	Ignition coil, cyl. 4
3	Α	Ignition, terminal 1	Ignition coil, cyl. 6
4	М	Ground	Ground connection
5	Α	Injection valve, cyl. 2	Injection valve, cyl. 2
6	Α	Injection valve, cyl. 1	Injection valve, cyl. 1
7	E	Signal, air mass meter	Air mass meter
8	М	Ground, air mass meter	Air mass meter
9		Not used	
10	Е	Coolant temperature signal	Coolant temperature sensor
11		Not used	
12	E	Signal, throttle valve	Throttle potentiometer
13		Not used	
14	E	Intake air temperature signal	Intake air temperature sensor
15	Α	ASC/ABS-signal	ASC/ABS control unit
16	Α	Air conditioning ON signal	Pressure switch
17		Not used	
18	Е	Vehicle immobilization	Control unit, electronic immobilizing device (EWS II)
19	Α	Signal, auxiliary fan	A/C control unit
20		Not used	
21	Α	Signal, camshaft control	VANOS valve 1
22	Α	Injection valve, cyl. 3	Injection valve
23	Α	Injection valve, cyl. 6	Injection valve
24	Α	Injection valve, cyl. 4	Injection valve
25	М	Oxygen sensor heating	Oxygen sensor 1
26	Е	Terminal 30	Jumper cable terminal point
27	Α	Idle actuator signal	Idle actuator
28	М	Ground	Ground connection
29	Α	Ignition, terminal 1	Ignition coil, cyl. 1
30	Α	Ignition, terminal 1	Ignition coil, cyl. 3
31	Α	Ignition, terminal 1	Ignition coil, cyl. 5
32	М	Ground	Ground connection

E = Input, A = Output, M = Ground





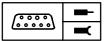
05/99 -

# Pin assignments

Pin	Туре	Description/Function	Connection
33	Α	Injection valve, cyl. 5	Injection valve
34	М	Ground	Ground connection
35		Not used	
36	Α	Engine speed signal (TD)	Instrument cluster
37		Not used	
38	М	Ground, shielding	Shield, knock sensor
39	М	Component ground	Temperature sensor
40	М	Ground	Crankshaft sensor
41	М	Ground, shielding	Shield, camshaft sensor
42	Α	Signal (–)	Throttle potentiometer
43	Е	Signal (–)	Camshaft sensor
44	Α	Signal (+)	Throttle potentiometer
45	Α	ASC signal	ASC control unit
46		Not used	
47		Not used	
48	Α	Signal (+), 5V	Crankshaft sensor
49	E	Terminal 15	Ignition lock
50		Not used	
51		Not used	
52	Α	Exhaust flap signal	Exhaust flap valve
53	Α	Idle actuator signal	Idle actuator
54	Е	Signal, >10V	DME relay
55	М	Oxygen sensor heating	Oxygen sensor 2
56	М	Ignition feedback signal	Resistor
57	Α	Signal, knock sensor cyl. 1-3	Knock sensor
58	Е	Signal, knock sensor cyl. 1-3	Knock sensor
59	Α	Signal, knock sensor cyl. 4-6	Knock sensor
60	Е	Programming voltage	Diagnostic connector
61		Not used	
62		Not used	Dual temperature switch
63	Е	Signal, knock sensor cyl. 4-6	Knock sensor
64	М	Component ground	Camshaft sensor
65	Α	Signal (+)	Camshaft sensor
66		Not used	
67	М	Oxygen sensor ground	Oxygen sensor 1







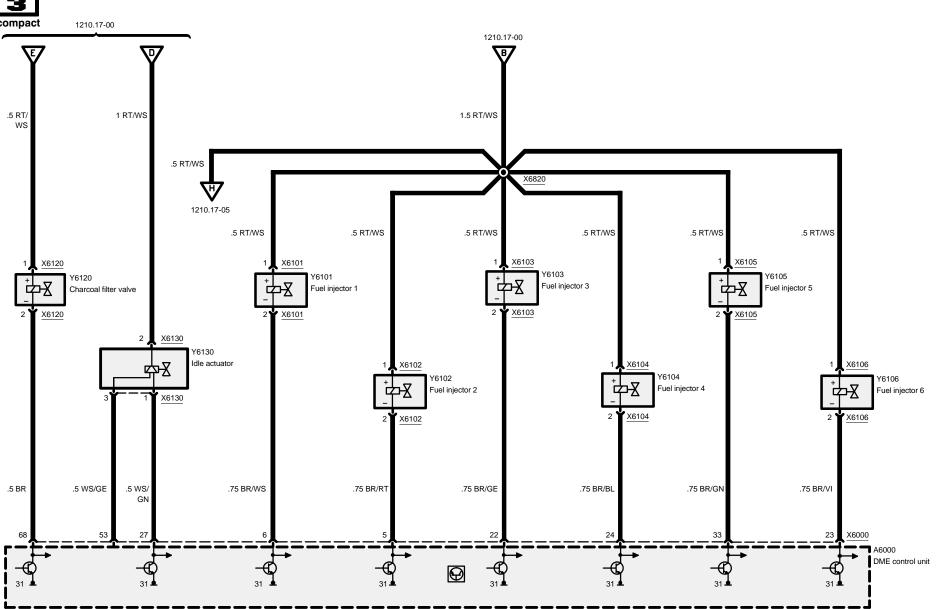
# Pin assignments

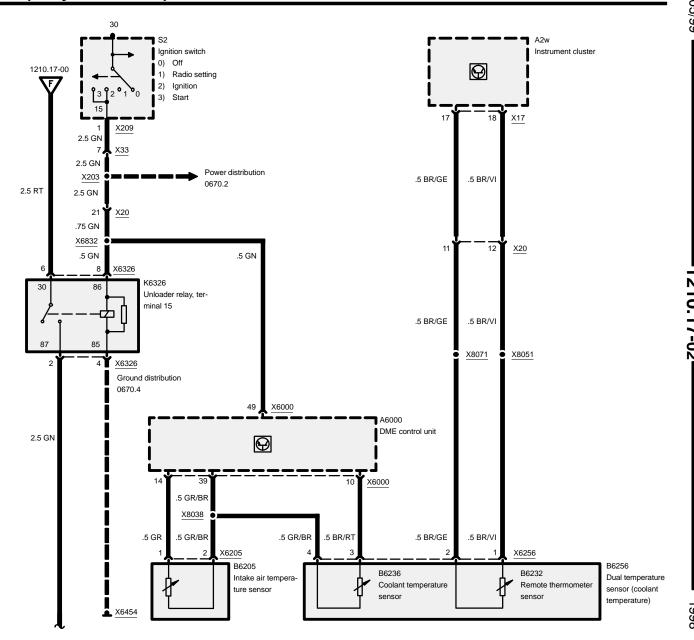
Pin	Туре	Description/Function	Connection
68	Α	Fuel tank ventilation valve	Fuel tank ventilation valve
69	Α	Relay, electric fuel pump and TR signal (crankshaft reference)	Fuel pump relay
70	М	Oxygen sensor ground	Oxygen sensor 2
71		Not used	
72		Not used	
73	Α	Relay activation	DME relay
74	Е	Compressor ON signal	Relay, A/C compressor
75	Е	Signal, oxygen sensor	Oxygen sensor 1
76	Е	Signal, oxygen sensor	Oxygen sensor 2
77		Not used	
78		Not used	
79		Not used	
80	Α	ASC signal	ASC control unit
81	Α	ASC signal	ASC control unit
82	Α	ASC signal	ASC control unit
83	E	Crankshaft signal	Crankshaft sensor
84		Not used	
85	E/A	CANCA-L	EGS control unit
86	E/A	CANCA-H	EGS control unit
87	Е	Terminal 15	DME relay
88	E/A	TxD diagnostic link	Diagnostic connector

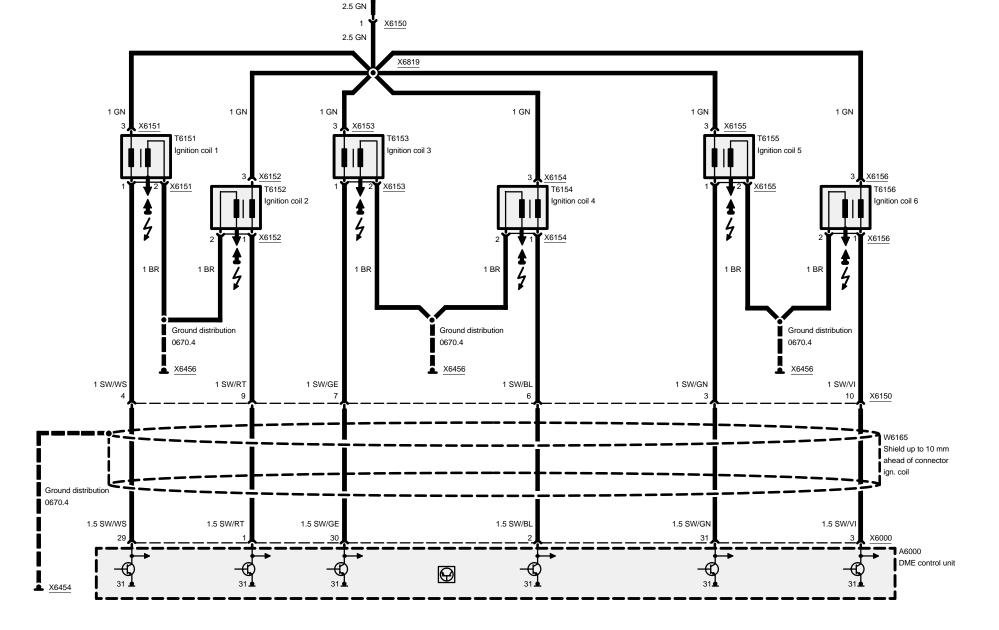


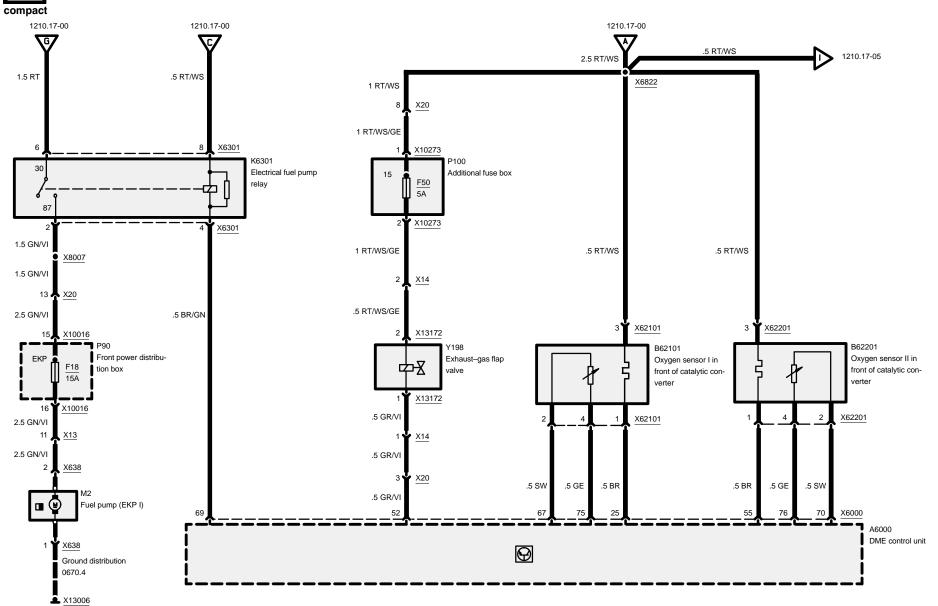
Current Power distribution 0670.2 2.5 RT 1210.17-02 **F G**6430 B+ external start terminal point X6430 X6412 4 RT 2.5 RT D100 4 RT Diagnostic connector .5 RT 1.5 RT K6300 30 DME relay 1210.17-04 X6300 4 RT/WS 1.5 RT/WS X6821 A7000 EGS control unit .5 BR .5 RT/WS .5 RT/WS 1.5 RT/WS .5 RT/WS 2.5 RT/WS 1 RT/WS .5 RT/WS 1210.17-04 1210.17-01 1210.17-01 73 X6000 DME control unit  $\Theta$ 

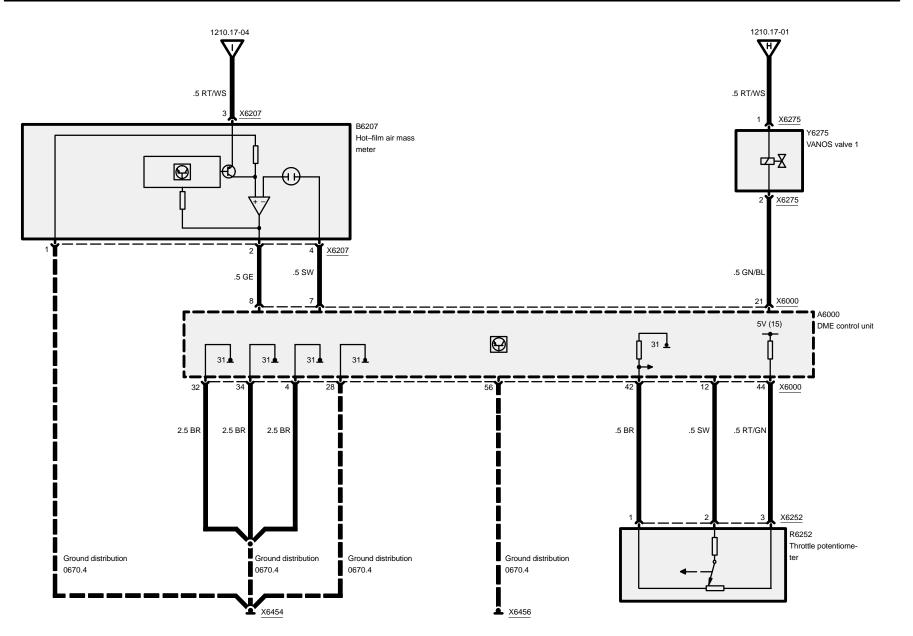


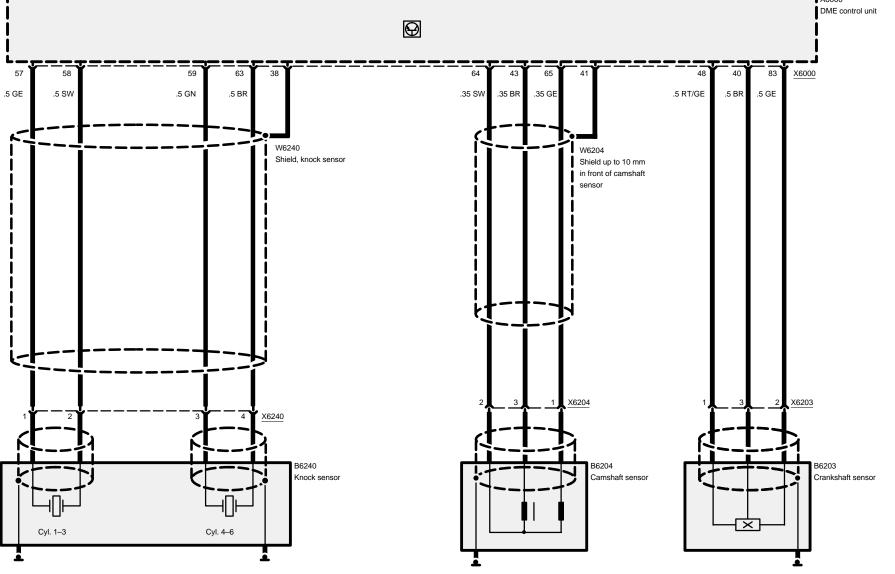




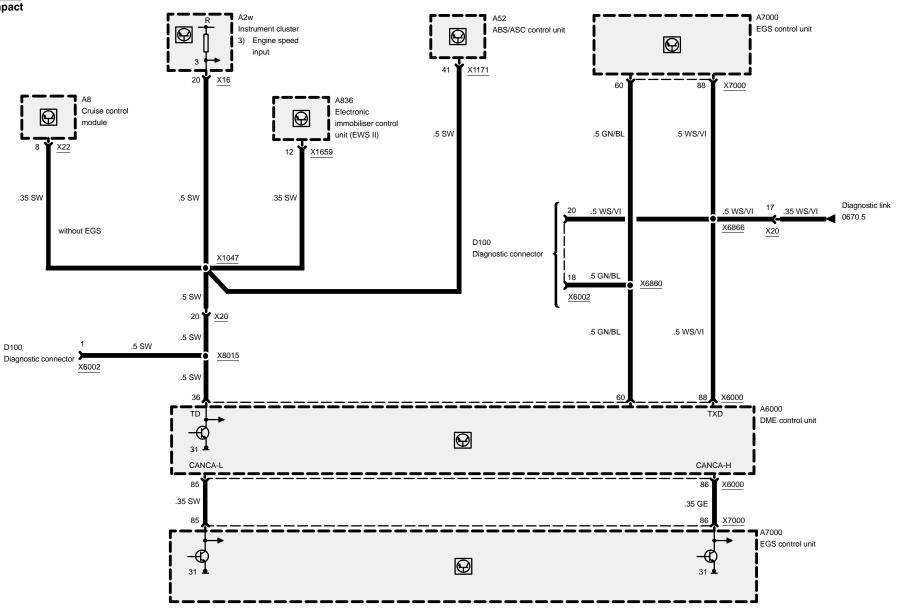




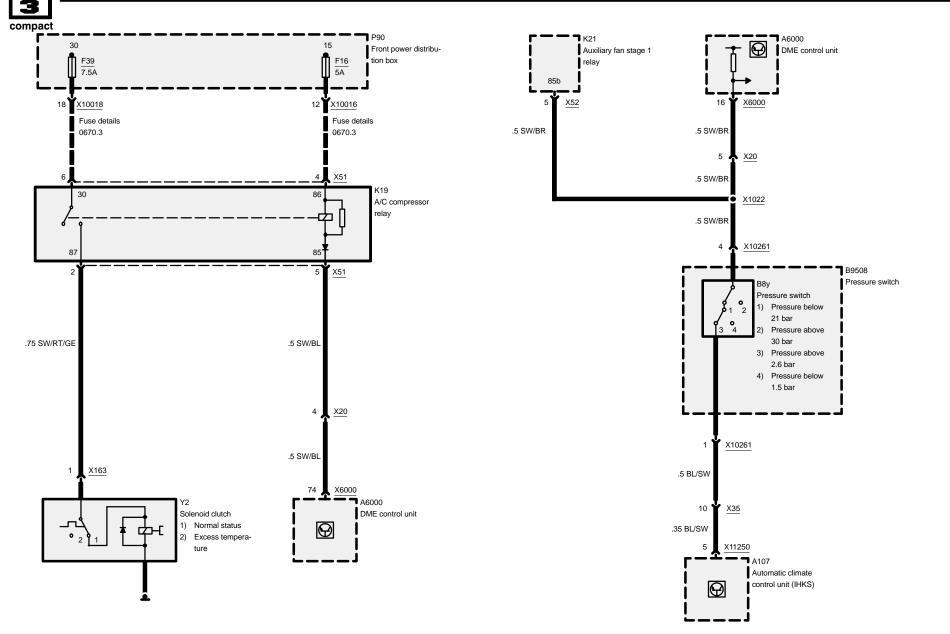


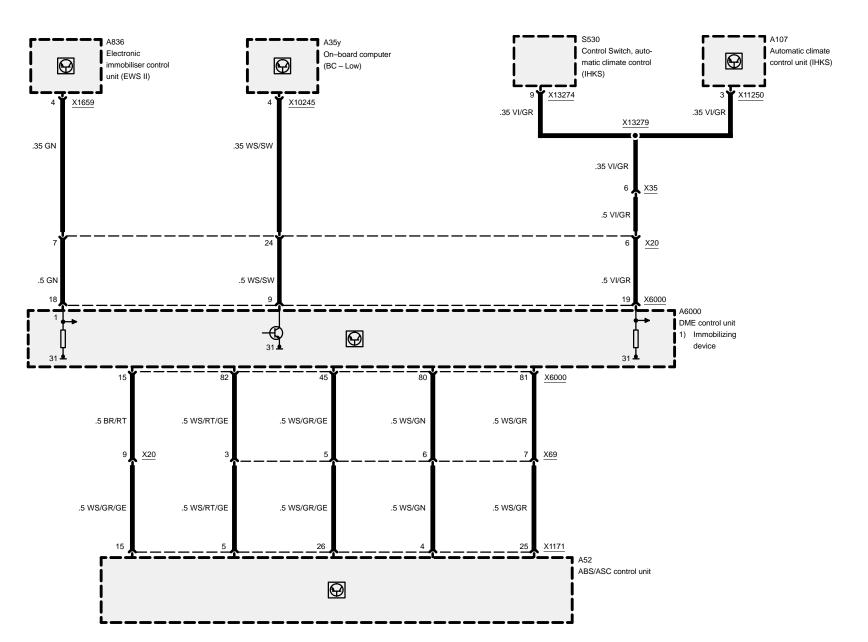


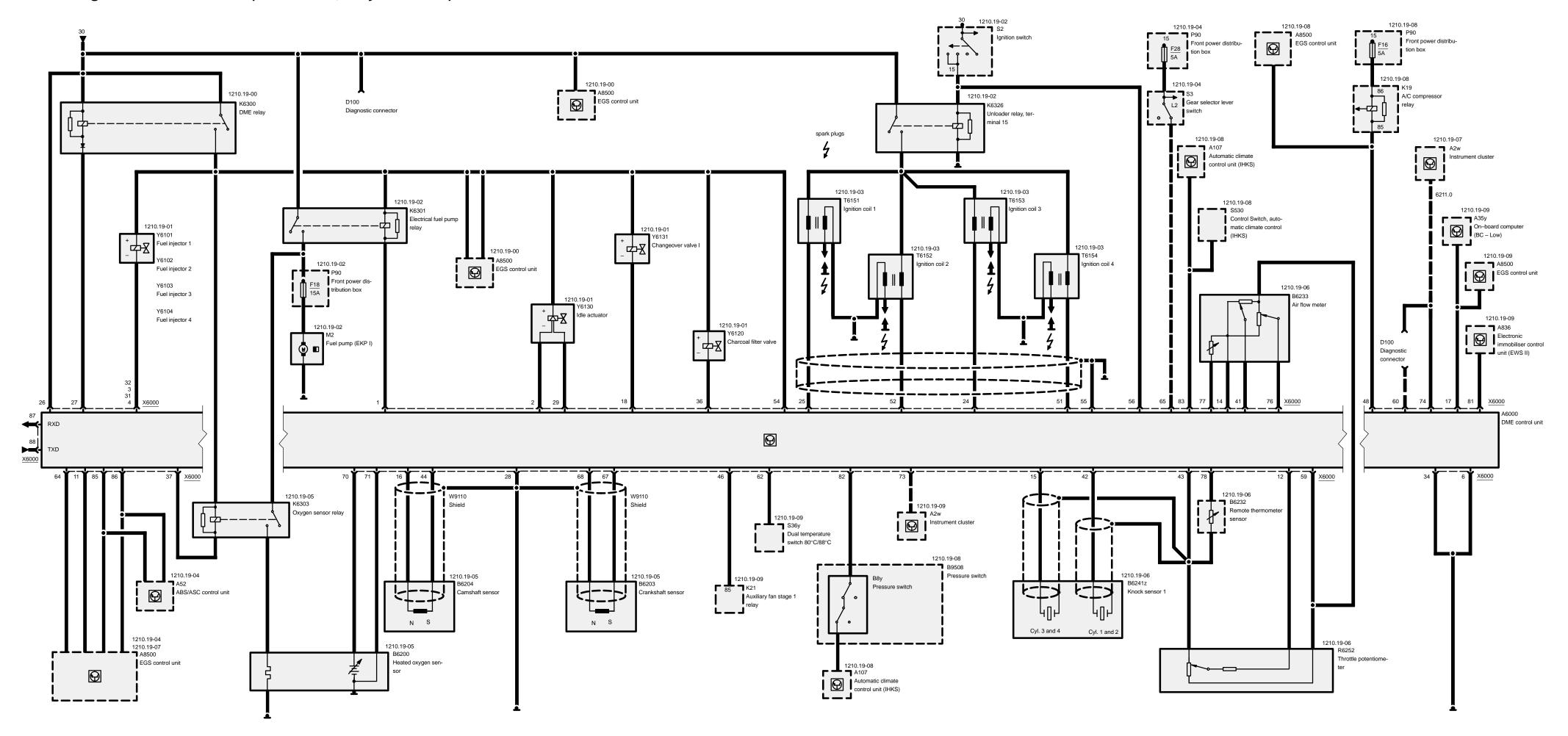




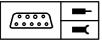












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## Pin assignments

## <u>X6000</u>

1 A Relay activation Electric fuel pump relay 2 A Idle actuator signal Idle actuator 3 A Injection signal Injection valve, cyl. 2 4 A Injection signal Injection valve, cyl. 4 5 Not used 6 M Ground, fuel injector output stages Ground connection 7 Not used 8 Not used 9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control On-board computer (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A A Citvation, DME relay 28 M Ground for electronics and sensor shielding Ground connection 30 Not used 31 A Injection signal Injection valve, cyl. 3 30 Not used	Pin	Туре	Description/Function	Connection
3 A Injection signal Injection valve, cyl. 2 4 A Injection signal Injection valve, cyl. 4 5 Not used 6 M Ground, fuel injector output stages Ground connection 7 Not used 8 Not used 9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 30 Not used 31 A Injection signal Injection valve, cyl. 3	1	Α	Relay activation	Electric fuel pump relay
4 A Injection signal Injection valve, cyl. 4  5 Not used  6 M Ground, fuel injector output stages Ground connection  7 Not used  8 Not used  9 Not used  10 Not used  11 A Throttle valve position EGS control unit  12 E Throttle valve position Throttle potentiometer  13 Not used  14 M Component ground Air flow rate sensor  15 E Signal, knock sensor cyl. 3 and 4 Knock sensor  16 M Component ground Camshaft sensor  17 A Signal, economy control (TI signal)  18 A Changeover valve 1 Changeover valve  19 Not used  20 Not used  21 Not used  22 Not used  23 Not used  24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3  25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1  26 E Permanent positive, terminal 30 B+ terminal point  27 A Activation, DME relay DME relay, terminal 85  28 M Ground for electronics and sensor shielding Ground connection  29 A Idle actuator signal  Injection valve, cyl. 3	2	Α	Idle actuator signal	Idle actuator
5 Not used 6 M Ground, fuel injector output stages Ground connection 7 Not used 8 Not used 9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal 30 Not used 31 A Injection signal	3	Α	Injection signal	Injection valve, cyl. 2
6 M Ground, fuel injector output stages Ground connection 7 Not used 8 Not used 9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Injection valve, cyl. 3	4	Α	Injection signal	Injection valve, cyl. 4
7 Not used 8 Not used 9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal 30 Not used 31 A Injection valve, cyl. 3	5		Not used	
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9 Not used 10 Not used 11 A Throttle valve position EGS control unit 12 E Throttle valve position Throttle potentiometer 13 Not used 14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Injection valve, cyl. 3	7		Not used	
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14 M Component ground Air flow rate sensor 15 E Signal, knock sensor cyl. 3 and 4 Knock sensor 16 M Component ground Camshaft sensor 17 A Signal, economy control (TI signal) 18 A Changeover valve 1 Changeover valve 19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal 30 Not used 31 A Injection signal Injection valve, cyl. 3	12	E	Throttle valve position	Throttle potentiometer
15 E Signal, knock sensor cyl. 3 and 4 Knock sensor  16 M Component ground Camshaft sensor  17 A Signal, economy control (TI signal)  18 A Changeover valve 1 Changeover valve  19 Not used  20 Not used  21 Not used  22 Not used  23 Not used  24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3  25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1  26 E Permanent positive, terminal 30 B+ terminal point  27 A Activation, DME relay DME relay, terminal 85  28 M Ground for electronics and sensor shielding Ground connection  29 A Idle actuator signal  30 Not used  31 A Injection signal Injection valve, cyl. 3	13		Not used	
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(TI signal)  18	16	М	Component ground	Camshaft sensor
19 Not used 20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Idle actuator 30 Not used 31 A Injection signal Injection valve, cyl. 3	17	Α	· ·	On-board computer
20 Not used 21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Idle actuator 30 Not used 31 A Injection signal Injection valve, cyl. 3	18	Α	Changeover valve 1	Changeover valve
21 Not used 22 Not used 23 Not used 24 A Ignition signal cyl. 3, terminal 1 Ignition coil 3 25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1 26 E Permanent positive, terminal 30 B+ terminal point 27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Idle actuator 30 Not used 31 A Injection signal Injection valve, cyl. 3	19		Not used	
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25 A Ignition signal cyl. 1, terminal 1 Ignition coil 1  26 E Permanent positive, terminal 30 B+ terminal point  27 A Activation, DME relay DME relay, terminal 85  28 M Ground for electronics and sensor shielding Ground connection  29 A Idle actuator signal Idle actuator  30 Not used  31 A Injection signal Injection valve, cyl. 3	23		Not used	
26 E Permanent positive, terminal 30 B+ terminal point  27 A Activation, DME relay DME relay, terminal 85  28 M Ground for electronics and sensor shielding Ground connection  29 A Idle actuator signal Idle actuator  30 Not used  31 A Injection signal Injection valve, cyl. 3	24	Α	Ignition signal cyl. 3, terminal 1	Ignition coil 3
27 A Activation, DME relay DME relay, terminal 85 28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Idle actuator 30 Not used 31 A Injection signal Injection valve, cyl. 3	25	Α	Ignition signal cyl. 1, terminal 1	Ignition coil 1
28 M Ground for electronics and sensor shielding Ground connection 29 A Idle actuator signal Idle actuator 30 Not used 31 A Injection signal Injection valve, cyl. 3	26	Е	Permanent positive, terminal 30	B+ terminal point
29 A Idle actuator signal Idle actuator  30 Not used  31 A Injection signal Injection valve, cyl. 3	27	Α	Activation, DME relay	DME relay, terminal 85
30 Not used 31 A Injection signal Injection valve, cyl. 3	28	М	Ground for electronics and sensor shielding	Ground connection
31 A Injection signal Injection valve, cyl. 3	29	Α	Idle actuator signal	Idle actuator
	30		Not used	
32 A Injection signal Injection valve, cyl. 1	31	Α	Injection signal	Injection valve, cyl. 3
	32	Α	Injection signal	Injection valve, cyl. 1

E = Input, A = Output, M = Ground



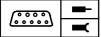


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# Pin assignments

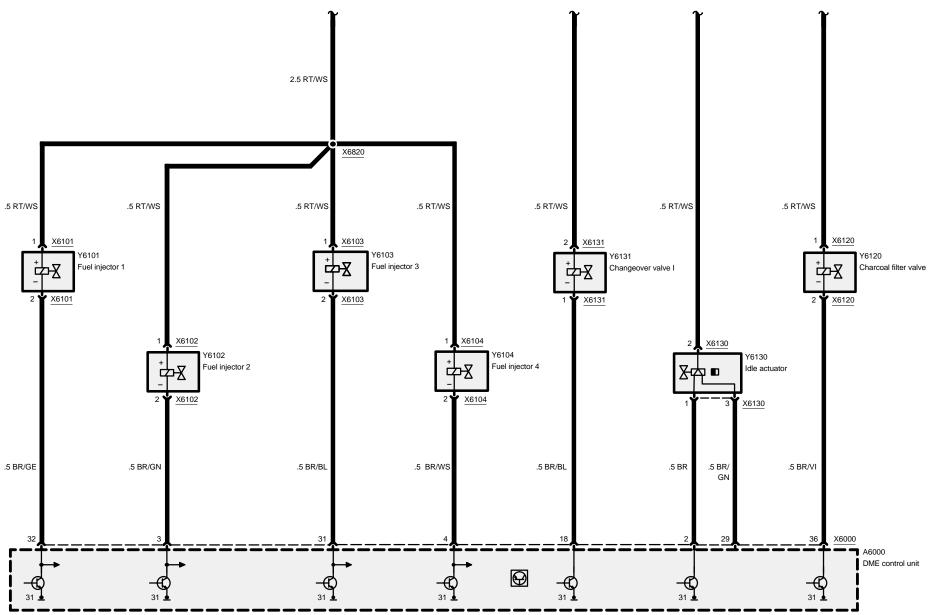
Pin	Туре	Description/Function	Connection
33		Not used	
34	М	Ground for remaining output stages (except ignition and injection valves)	Ground connection
35		Not used	
36	Α	Fuel tank ventilation valve	Fuel tank ventilation valve
37	Α	Activation, oxygen sensor relay	Oxygen sensor relay
38		Not used	
39		Not used	
40		Not used	
41	Е	Signal, air flow rate sensor	Air flow rate sensor
42	Е	Signal, knock sensor cyl. 1 and 2	Knock sensor
43	М	Sensor ground	Water-temperature sensor, throttle potenti- ometer and cover for knock sensors
44	Е	Camshaft signal	Camshaft sensor
45		Not used	
46	Α	Relay activation	Auxiliary fan relay, stage 1
47		Not used	
48	Α	A/C compressor shutdown	Relay, A/C compressor
49		Not used	
50		Not used	
51	Α	Ignition signal cyl. 4, terminal 1	Ignition coil 4
52	Α	Ignition signal cyl. 2, terminal 1	Ignition coil 2
53		Not used	
54	Е	B+ voltage	DME relay
55	М	Ground, ignition	Ground connection
56	Е	Ignition, terminal 15	Ignition lock
57		Not used	
58		Not used	
59	Α	5V component supply	Throttle potentiometer
60	Е	Programming voltage	Diagnostic connector
61		Not used	
62	Е	Signal, water temperature above 80°C	Dual temperature switch
63		Not used	
64	Е	Ignition timing intervention	EGS control unit
65	Е	Drive range P/N	Gear selector lever



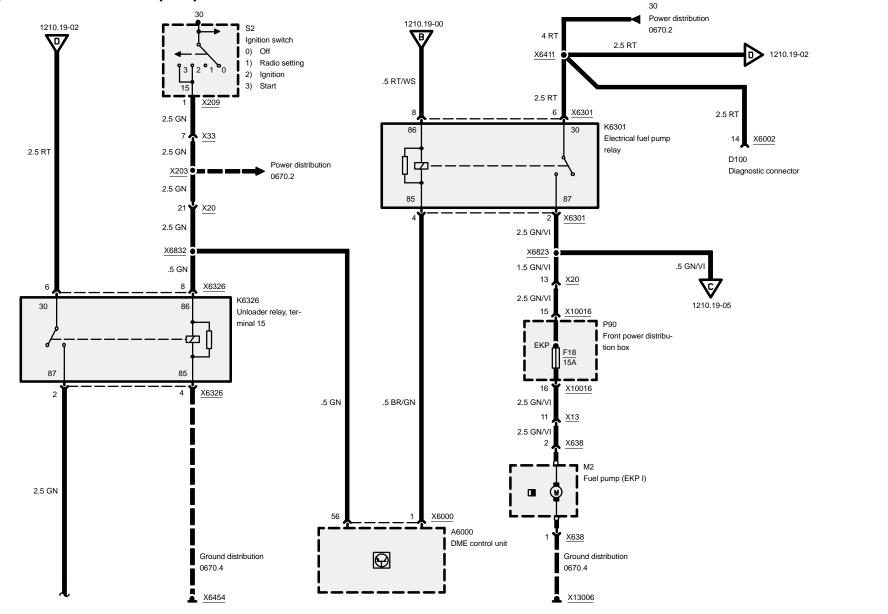


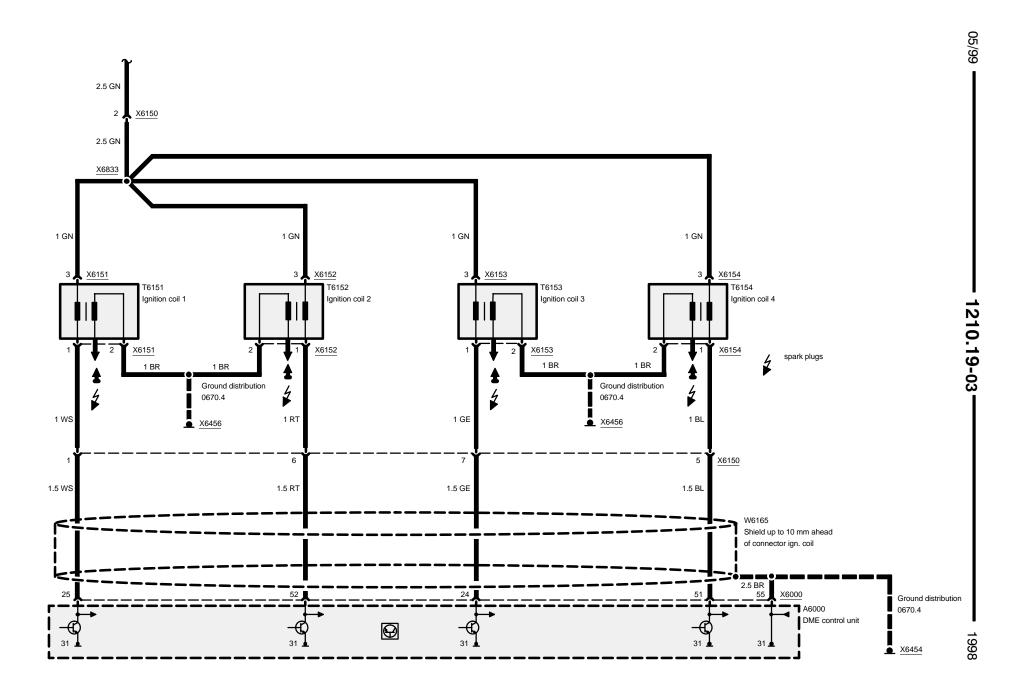
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Pin	Туре	Description/Function	Connection
66		Not used	
67	Е	Crankshaft signal	Crankshaft sensor
68	М	Component ground	Crankshaft sensor
69		Not used	
70	Е	Signal, oxygen sensor	Oxygen sensor
71	М	Component ground	Oxygen sensor
72		Not used	
73	Е	Vehicle speed signal	Instrument cluster
74	Α	Engine speed signal (TD)	Instrument cluster
75		Not used	
76	Е	Idle CO potentiometer	Air flow rate sensor
77	Е	Intake air temperature sensor	Air flow rate sensor
78	Е	Engine temperature sensor	Water temperature sensor
79		Not used	
80		Not used	
81	E	Vehicle immobilization	Control unit, electronic immobilizing device (EWS II)
82	E	Switch for A/C compressor	Pressure switch
83	Е	Air conditioning ON signal	A/C control unit
84		Not used	
85	E/A	CAN-LOW	EGS control unit
86	E/A	CAN-HIGH	EGS control unit
87	Α	RxD diagnostic link	Diagnostic connector
88	E/A	TxD diagnostic link	Diagnostic connector

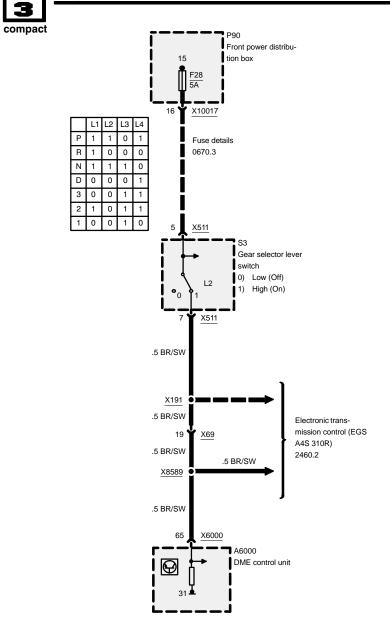


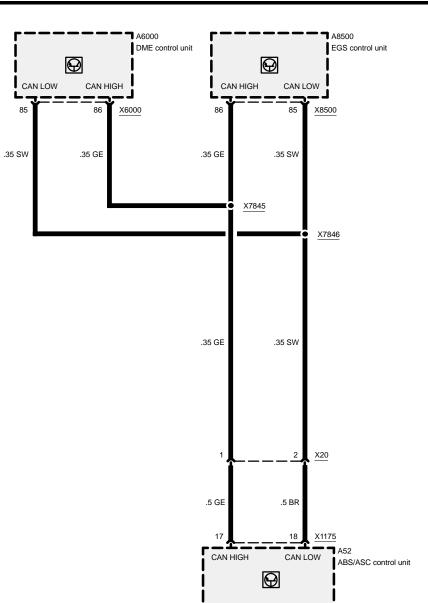
# Digital motor electronics (DME M1.7.3, 4-cylinder M43) Ignition coils and fuel pump





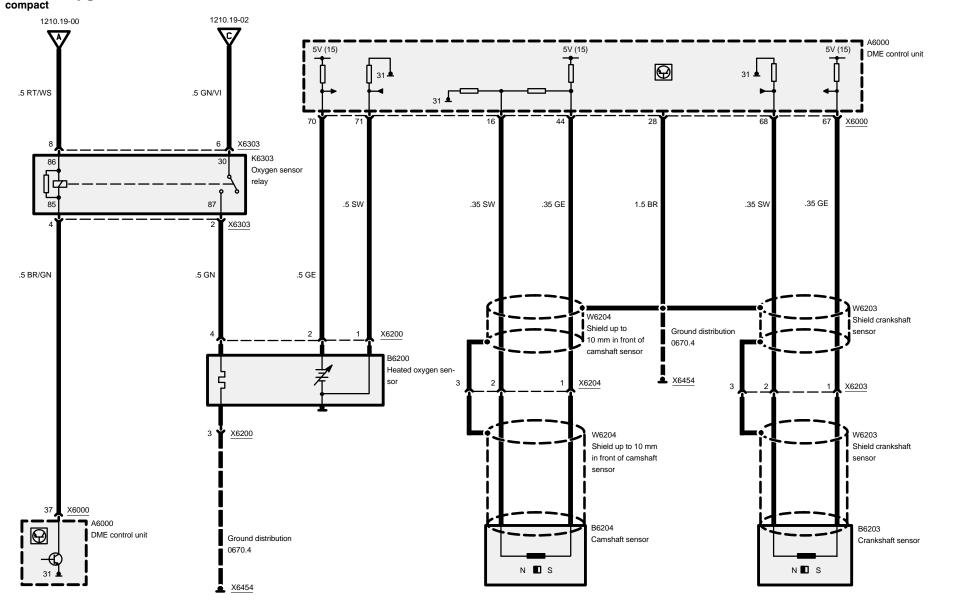


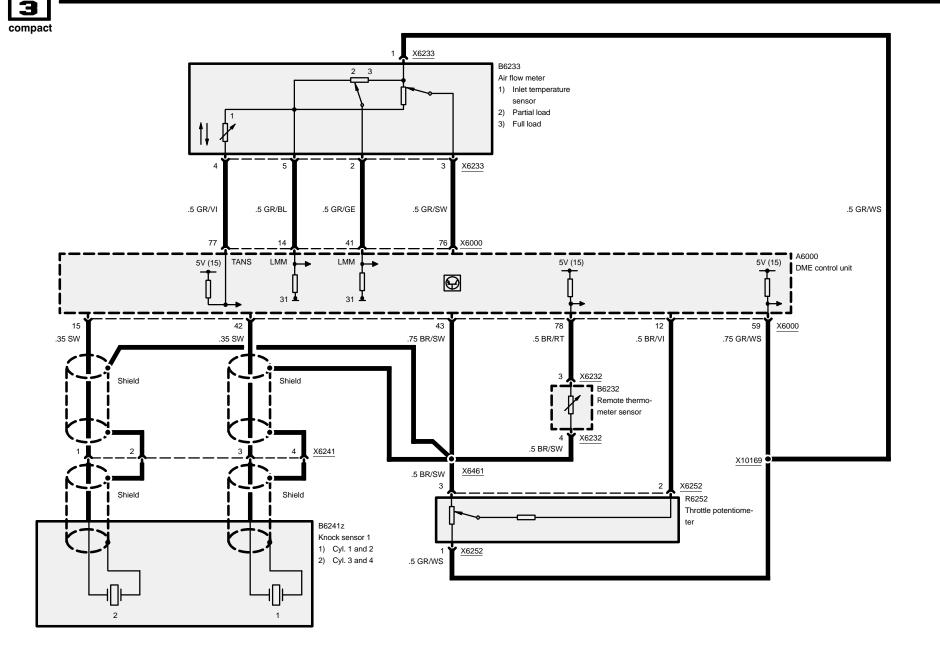




## Digital motor electronics (DME M1.7.3, 4-cylinder M43)

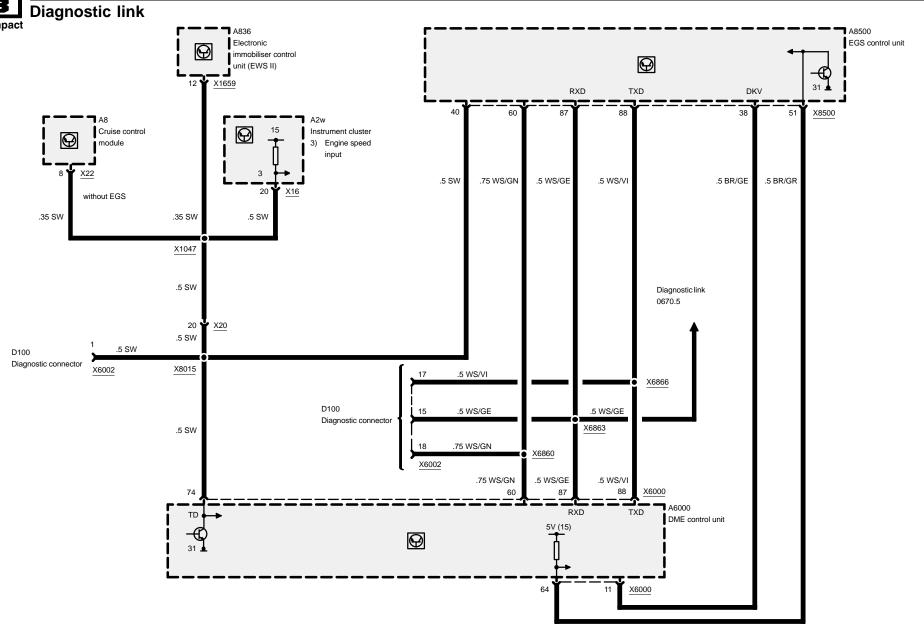
#### Oxygen sensor, shaft sensor





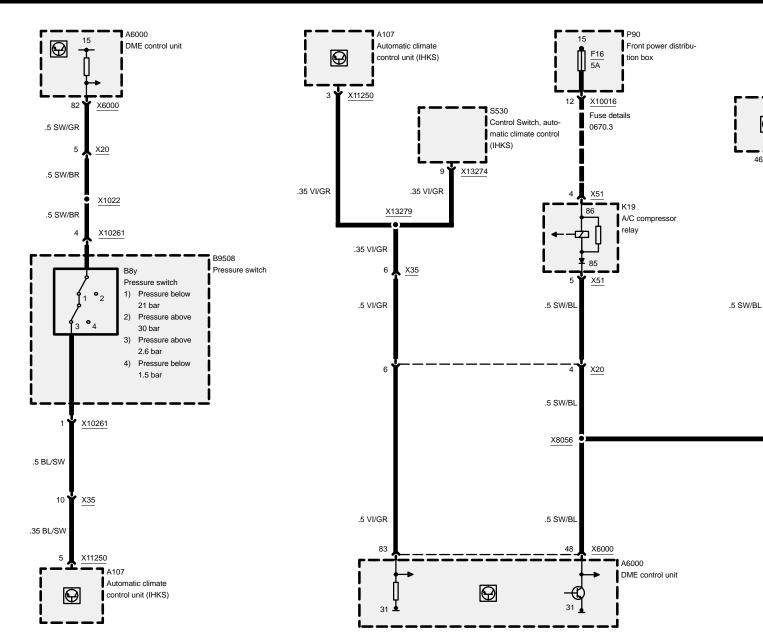


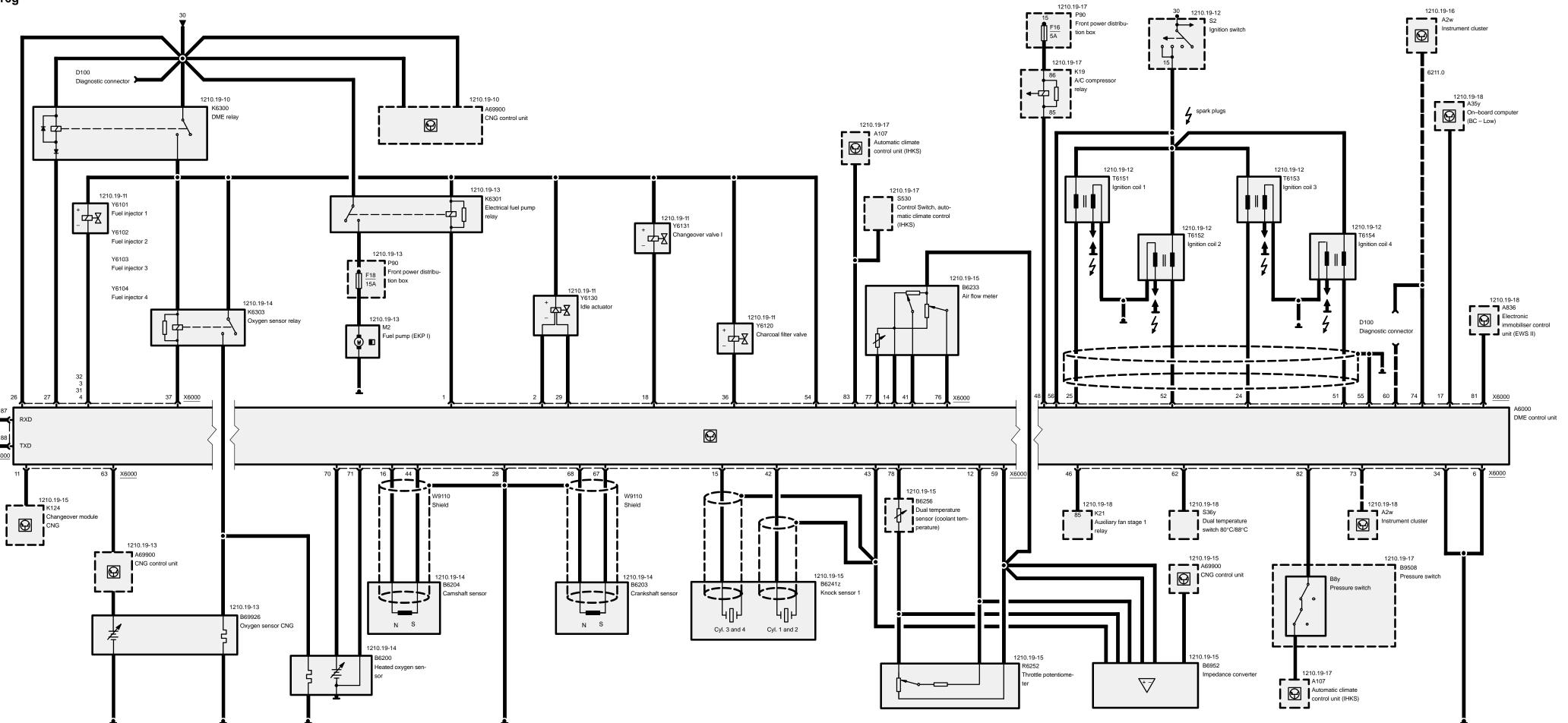
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X8500

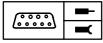












## Pin assignments

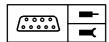
#### <u>X6000</u>

Pin	Туре	Description/Function	Connection
1	Α	Relay activation	Relay, electronic fuel pump
2	Α	Idle actuator signal	Idle actuator
3	Α	Injection signal	Injection valve, cyl. 2
4	Α	Injection signal	Injection valve, cyl. 4
5		Not used	
6	М	Ground, fuel injector output stages	Ground connection
7		Not used	
8		Not used	
9		Not used	
10		Not used	
11	Е	Forced changeover petrol mode	CNG changeover module
12	Е	Throttle valve position	Throttle potentiometer
13		Not used	
14	М	Component ground	Air flow rate sensor
15	Е	Signal, knock sensor cyl. 3 and 4	Knock sensor
16	М	Component ground	Camshaft sensor
17	Α	Signal, economy control (TI signal)	On-board computer
18	Α	Changeover valve 1	Changeover valve
19		Not used	
20		Not used	
21		Not used	
22		Not used	
23		Not used	
24	Α	Ignition signal cyl. 3, terminal 1	Ignition coil 3
25	Α	Ignition signal cyl. 1, terminal 1	Ignition coil 1
26	Е	Permanent positive, terminal 30	B+ terminal point
27	Α	Activation, DME relay	DME relay, terminal 85
28	М	Ground for electronics and sensor shielding	Ground connection
29	Α	Idle actuator signal	Idle actuator
30		Not used	
31	Α	Injection signal	Injection valve, cyl. 3
32	Α	Injection signal	Injection valve, cyl. 1

E = Input, A = Output, M = Ground



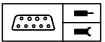




Pin	Туре	Description/Function	Connection
33		Not used	
34	М	Ground for remaining output stages (except ignition and injection valves)	Ground connection
35		Not used	
36	Α	Fuel tank ventilation valve	Fuel tank ventilation valve
37	Α	Activation, oxygen sensor relay	Oxygen sensor relay
38		Not used	
39		Not used	
40		Not used	
41	Е	Signal, air flow rate sensor	Air flow rate sensor
42	Е	Signal, knock sensor cyl. 1 and 2	Knock sensor
43	М	Sensor ground	Impedance converter and shield for knock sensors
44	Е	Camshaft signal	Camshaft sensor
45		Not used	
46	Α	Relay activation	Auxiliary fan relay, stage 1
47		Not used	
48	Α	A/C compressor shutdown	Relay, A/C compressor
49		Not used	
50		Not used	
51	Α	Ignition signal cyl. 4, terminal 1	Ignition coil 4
52	Α	Ignition signal cyl. 2, terminal 1	Ignition coil 2
53		Not used	
54	Е	B+ voltage	DME relay
55	М	Ground, ignition	Ground connection
56	Е	Ignition, terminal 15	Ignition lock
57		Not used	
58		Not used	
59	Α	5V component supply	Throttle potentiometer/volume air flow sensor and impedance converter
60	Е	Programming voltage	Diagnostic connector
61		Not used	
62	Е	Signal, water temperature above 80°C	Dual temperature switch
63	Е	Injection cutout	CNG control unit
64		Not used	
65		Not used	

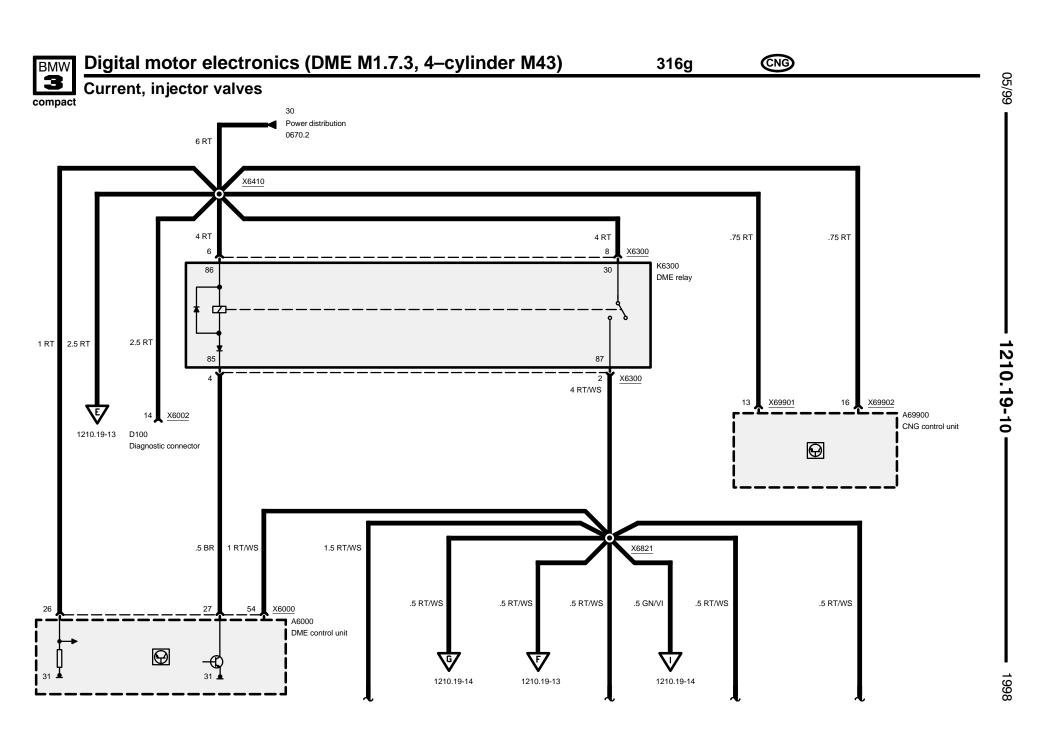


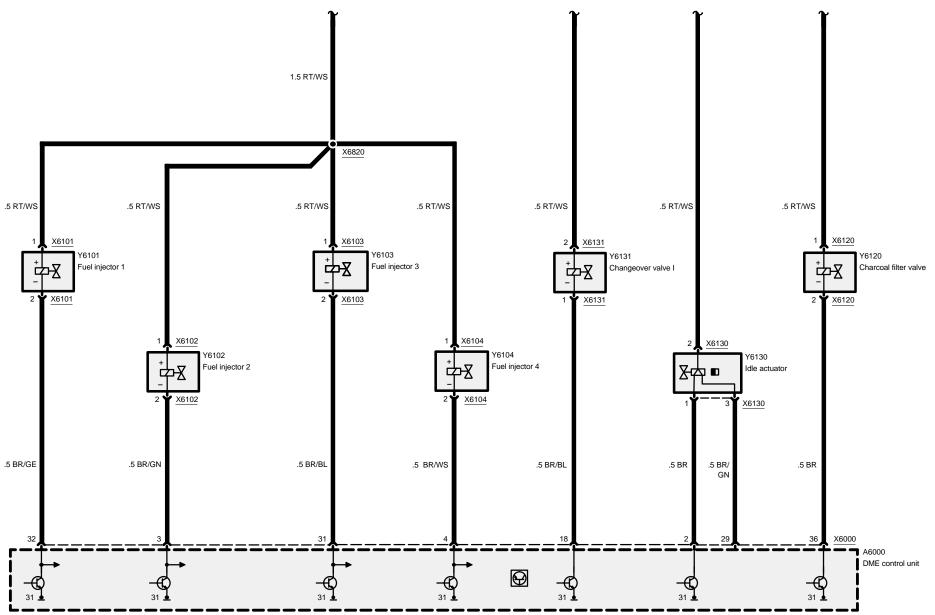


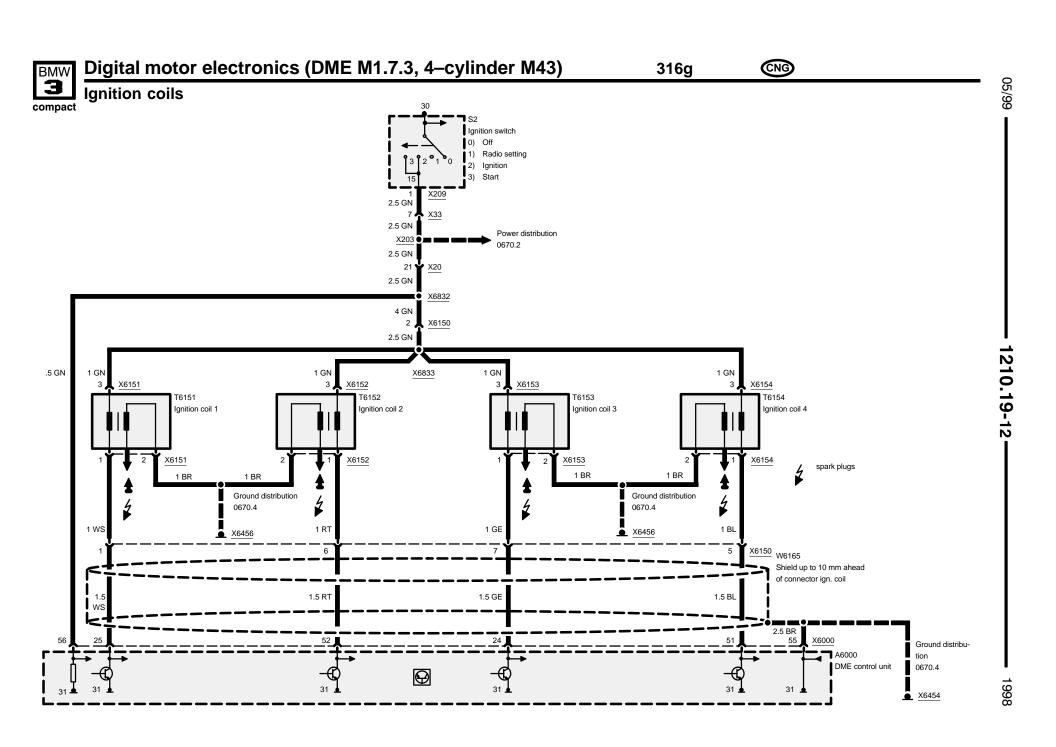


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Pin	Type	Description/Function	Connection
66		Not used	
67	E	Crankshaft signal	Crankshaft sensor
68	М	Component ground	Crankshaft sensor
69		Not used	
70	E	Signal, oxygen sensor	Oxygen sensor
71	М	Component ground	Oxygen sensor
72		Not used	
73	E	Vehicle speed signal	Instrument cluster
74	Α	Engine speed signal (TD)	Instrument cluster
75		Not used	
76	E	Idle CO potentiometer	Air flow rate sensor
77	E	Intake air temperature sensor	Air flow rate sensor
78	E	Engine temperature sensor	Water temperature sensor
79		Not used	
80		Not used	
81	Е	Vehicle immobilization	Control unit, electronic immobilizing device (EWS II)
82	Е	Switch for A/C compressor	Pressure switch
83	Е	Air conditioning ON signal	A/C control unit
84		Not used	
85		Not used	
86		Not used	
87	Α	RxD diagnostic link	Diagnostic connector
88	E/A	TxD diagnostic link	Diagnostic connector



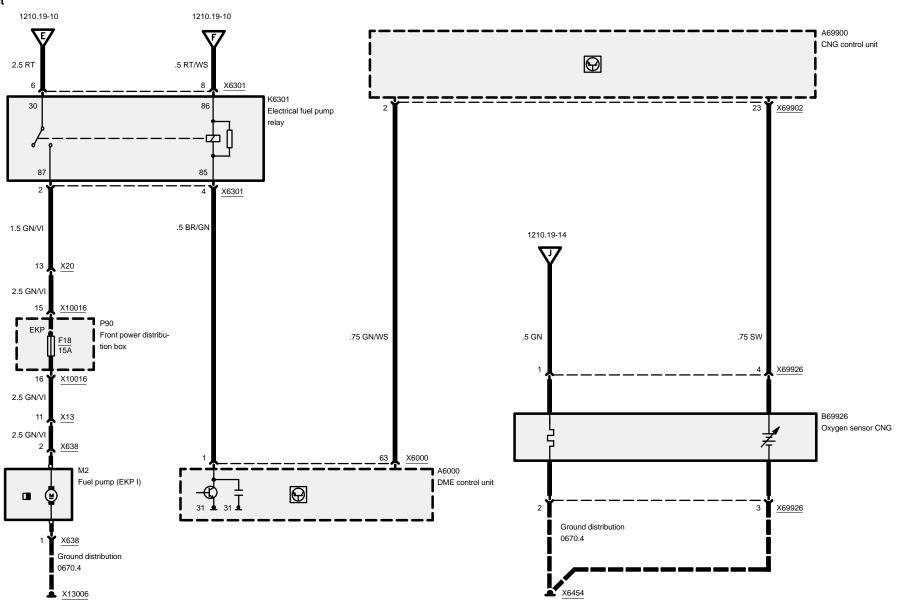




# Digital motor electronics (DME M1.7.3, 4-cylinder M43) Fuel pump

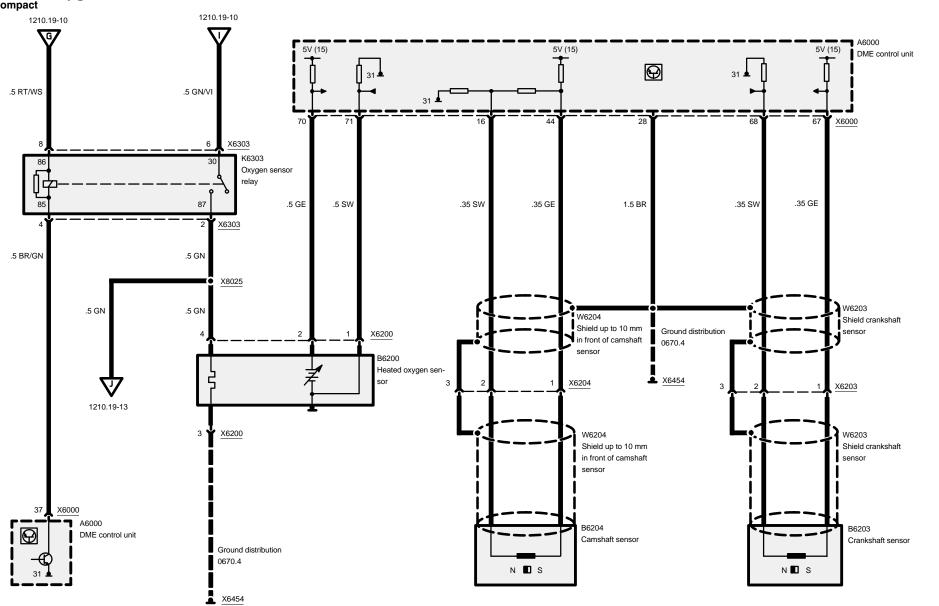
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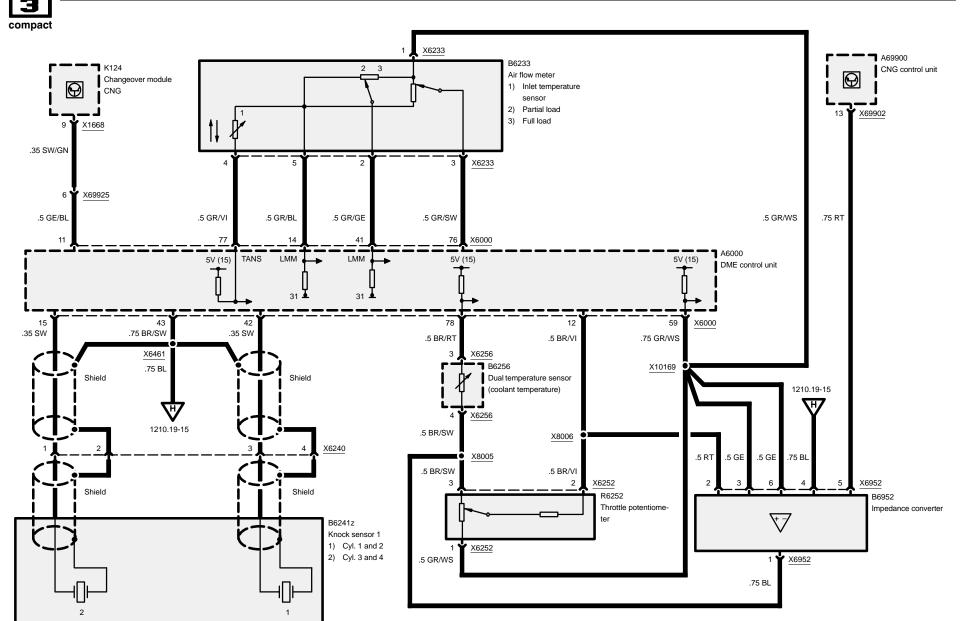


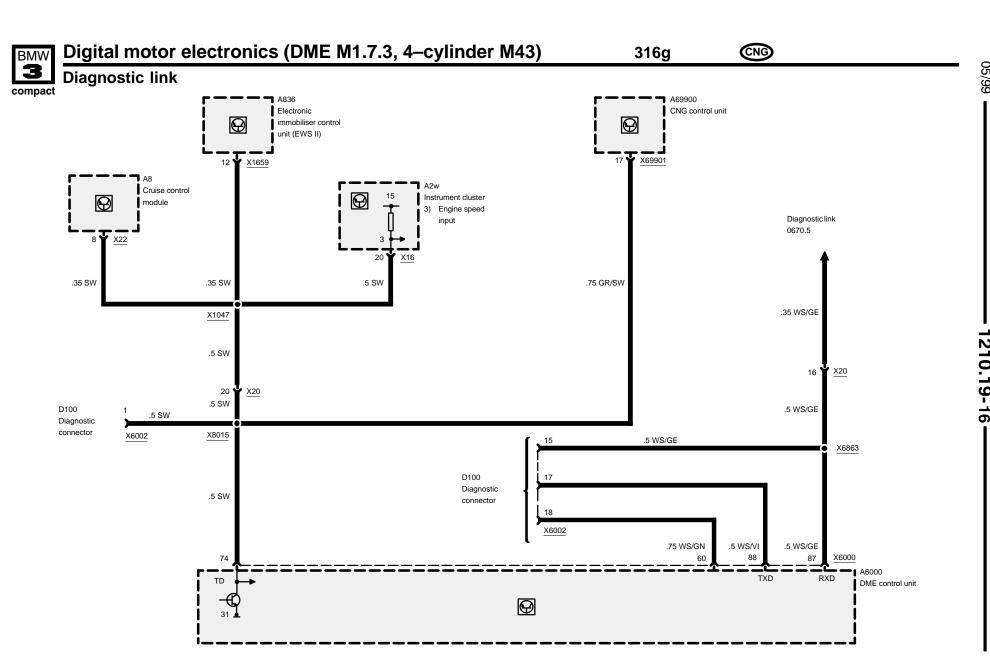


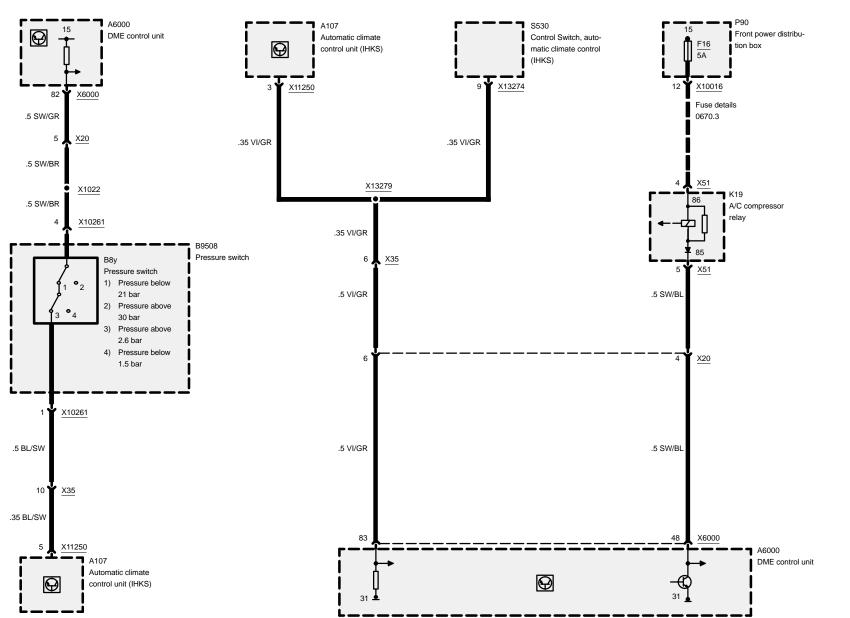
### Oxygen sensor, shaft sensor

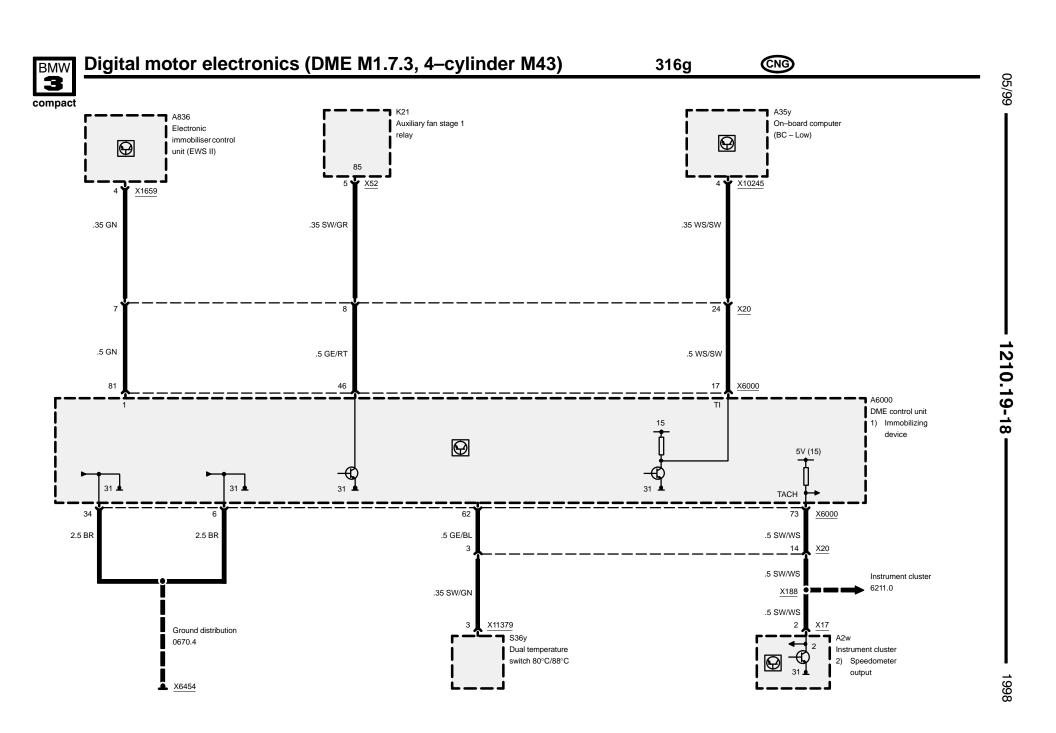


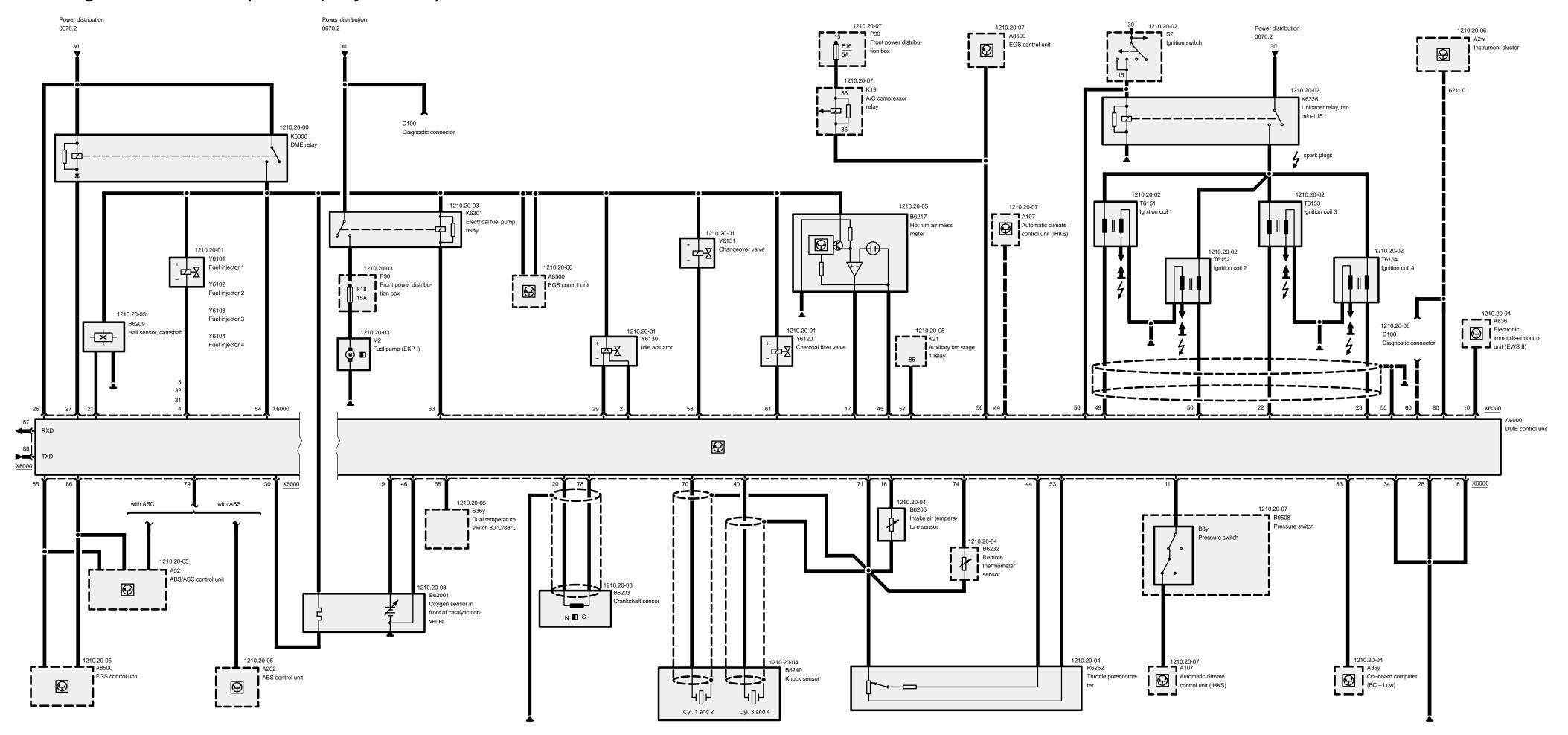
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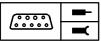












# Pin assignments

#### <u>X6000</u>

Pin	Туре	Description/Function	Connection
1		Not used	
2	Α	Idle actuator signal	Idle actuator
3	Α	Injection signal	Injection valve, cyl. 1
4	Α	Injection signal	Injection valve, cyl. 4
5		Not used	
6	М	Ground, fuel injector output stages	Ground connection
7		Not used	
8		Not used	
9		Not used	
10	Е	Vehicle immobilization	Electronic immobilizer control unit (EWS II)
11	Е	Air conditioning signal	Pressure switch
12		Not used	
13		Not used	
14		Not used	
15		Not used	
16	Е	Temperature signal	Intake air temperature sensor
17	Е	Signal input	Hot-film air mass meter
18		Not used	
19	Е	Signal, oxygen sensor	Oxygen sensor
20	М	Component ground	Crankshaft sensor
21	Е	Camshaft signal	Camshaft Hall generator
22	Α	Ignition signal, terminal 1	Ignition coil 3
23	Α	Ignition signal, terminal 1	Ignition coil 4
24		Not used	
25		Not used	
26	Е	Permanent positive, terminal 30	B+ terminal point
27	Α	Activation, DME relay	DME relay, terminal 85
28	М	Ground for electronics and sensor shielding	Ground connection
29	Α	Idle actuator signal	Idle actuator
30	М	Component ground	Oxygen sensor heating
31	Α	Injection signal	Injection valve, cyl. 3
32	Α	Injection signal	Injection valve, cyl. 2
33		Not used	

E = Input, A = Output, M = Ground





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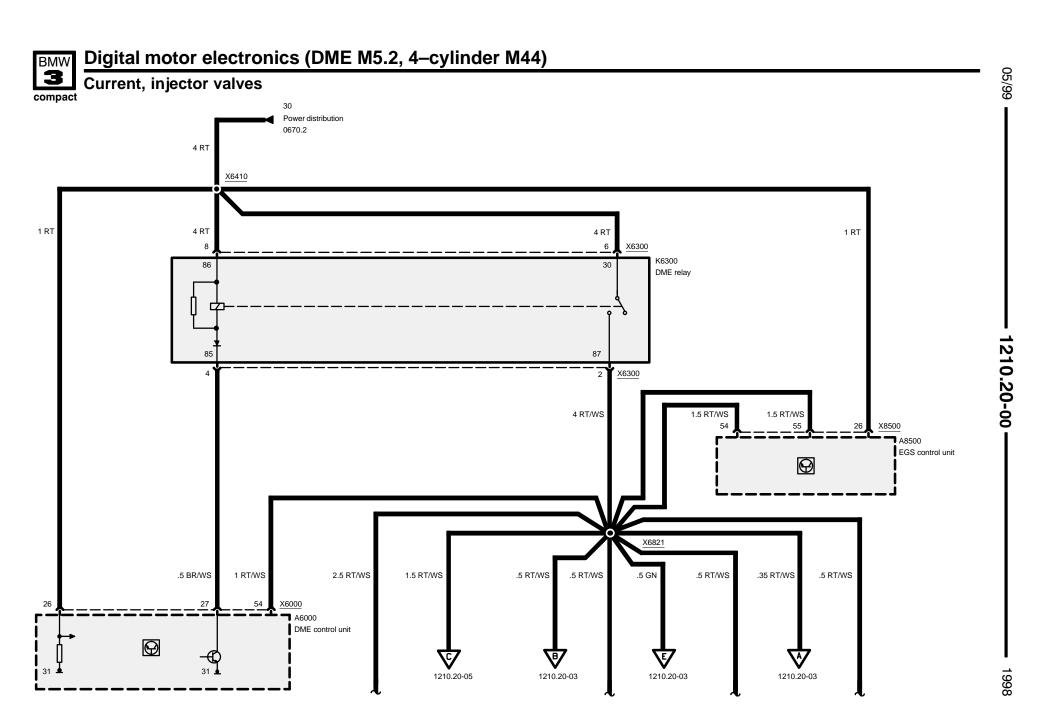
Pin	Туре	Description/Function	Connection
34	М	Ground for remaining output stages (except ignition and injection valves)	Ground connection
35		Not used	
36	Α	Air conditioning ON signal	Relay, A/C compressor
37		Not used	
38		Not used	
39		Not used	
40	Е	Signal, knock sensor cyl. 3 and 4	Knock sensor
41		Not used	
42		Not used	
43		Not used	
44	Е	Throttle valve position	Throttle potentiometer
45	М	Component ground	Hot-film air mass meter
46	Е	Signal, oxygen sensor	Oxygen sensor
47		Not used	
48		Not used	
49	Α	Ignition signal, terminal 1	Ignition coil 1
50	Α	Ignition signal, terminal 1	Ignition coil 2
51		Not used	
52		Not used	
53	Α	5V component supply	Throttle potentiometer
54	Е	B+ voltage	DME relay
55	М	Ground, ignition	Ground connection
56	E	Ignition, terminal 15	Ignition lock
57	Α	Auxiliary fan ON actuation	Auxiliary fan relay, stage 1
58	Α	Changeover valve signal	Changeover valve 1
59		Not used	
60	Е	Programming voltage	Diagnostic connector
61	Α	Signal, fuel tank ventilation	Fuel tank ventilation valve
62		Not used	
63	Α	Relay activation, terminal 85	Electric fuel pump relay
64		Not used	
65		Not used	
66		Not used	
67	·	Not used	

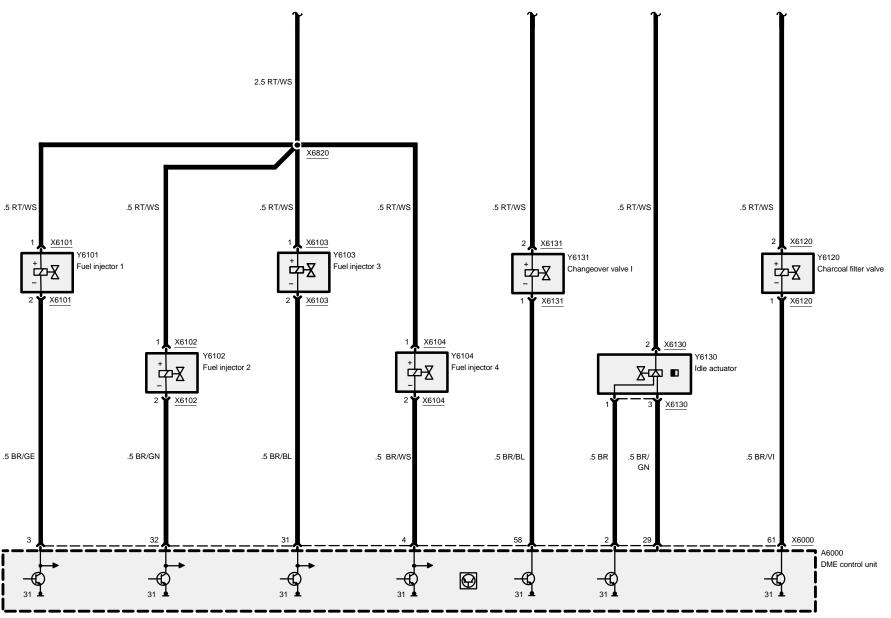




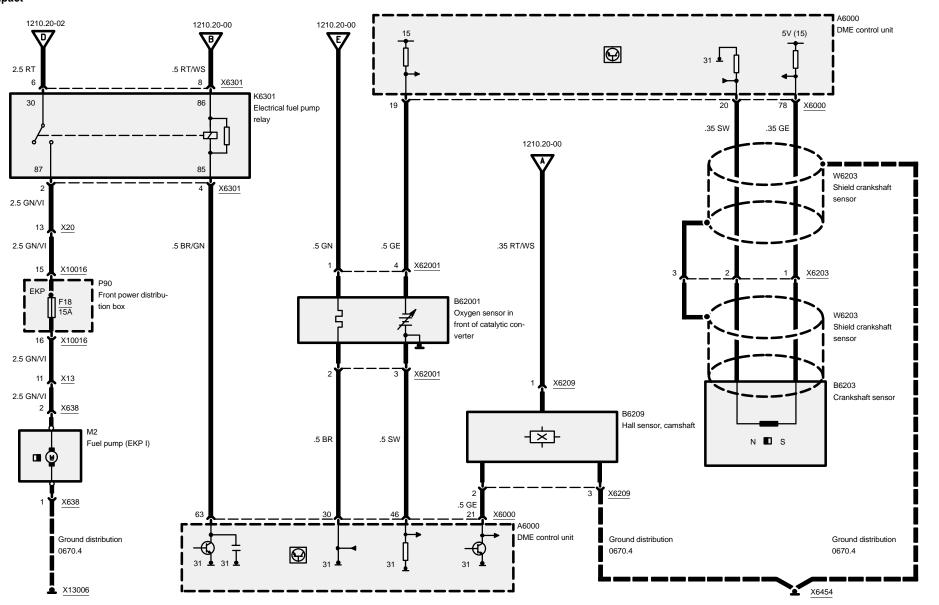
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Pin	Type	Description/Function	Connection
68	Е	Signal, water temperature above 80°C	Dual temperature switch
69	Е	Air conditioning ON signal	A/C control unit
70	Е	Signal, knock sensor cyl. 1 and 2	Knock sensor
71	М	Sensor ground	Water/intake air temperature sensor, throttle potentiometer and knock sensors
72		Not used	
73		Not used	
74	Е	Coolant temperature signal	Remote thermometer sensor
75		Not used	
76		Not used	
77		Not used	
78	Е	Crankshaft signal	Crankshaft sensor
79	Е	Wheel speed signal, rear right	ASC control unit/ABS control unit
80	Α	Engine speed signal (TD)	Instrument cluster
81		Not used	
82		Not used	
83	Е	Vehicle speed signal	On-board computer
84		Not used	
85	E/A	CAN-LOW	EGS/ASC control unit
86	E/A	CAN-HIGH	EGS/ASC control unit
87	Α	RxD diagnostic link	Diagnostic connector
88	E/A	TxD diagnostic link	Diagnostic connector



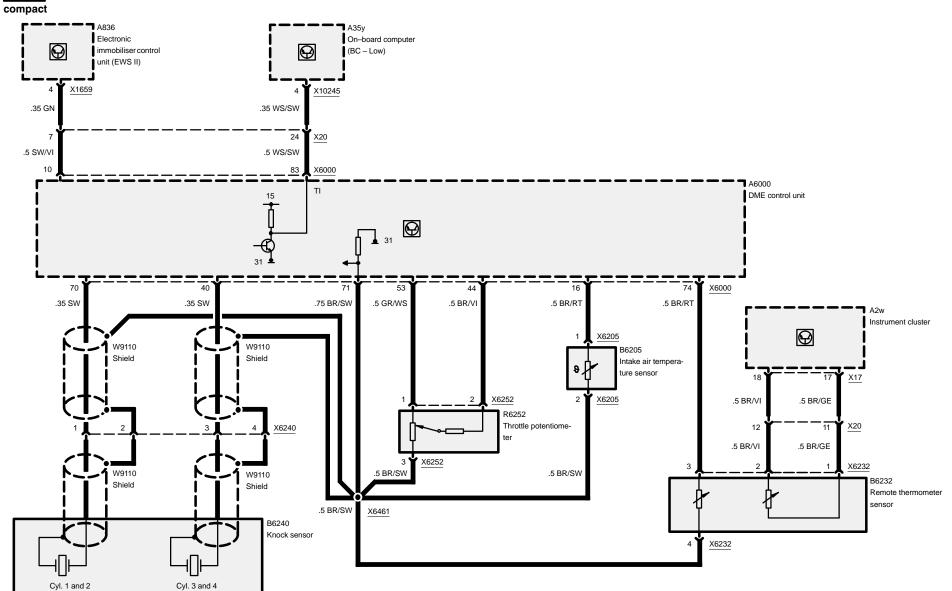


# Digital motor electronics (DME M5.2, 4–cylinder M44) Fuel pump, Oxygen sensor, shaft sensor

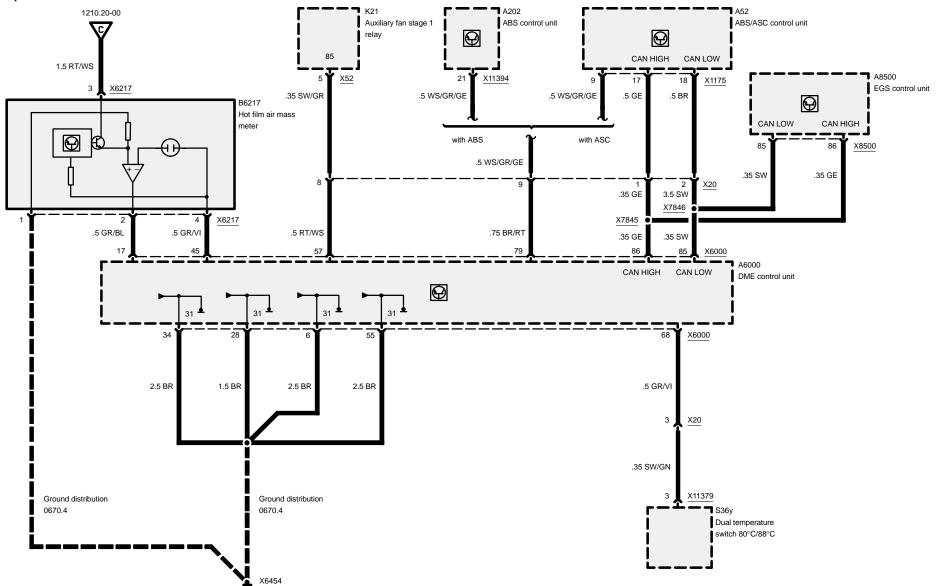




### Digital motor electronics (DME M5.2, 4-cylinder M44)



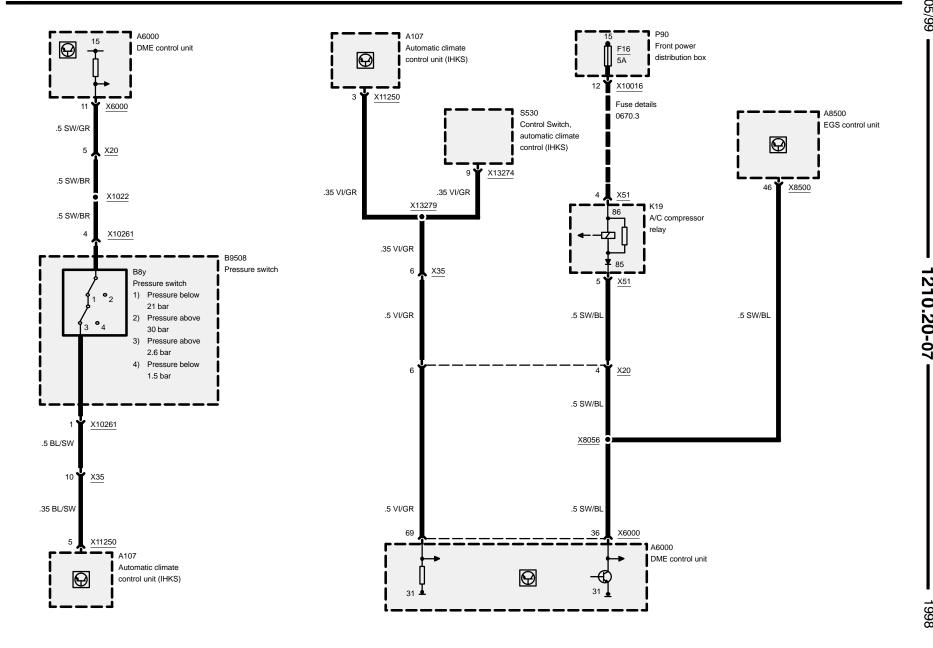
### Digital motor electronics (DME M5.2, 4-cylinder M44)



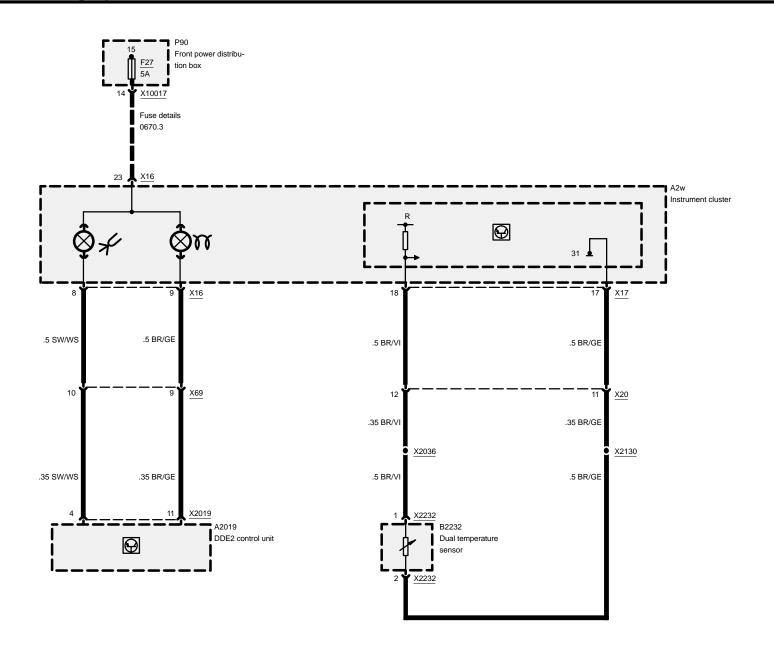
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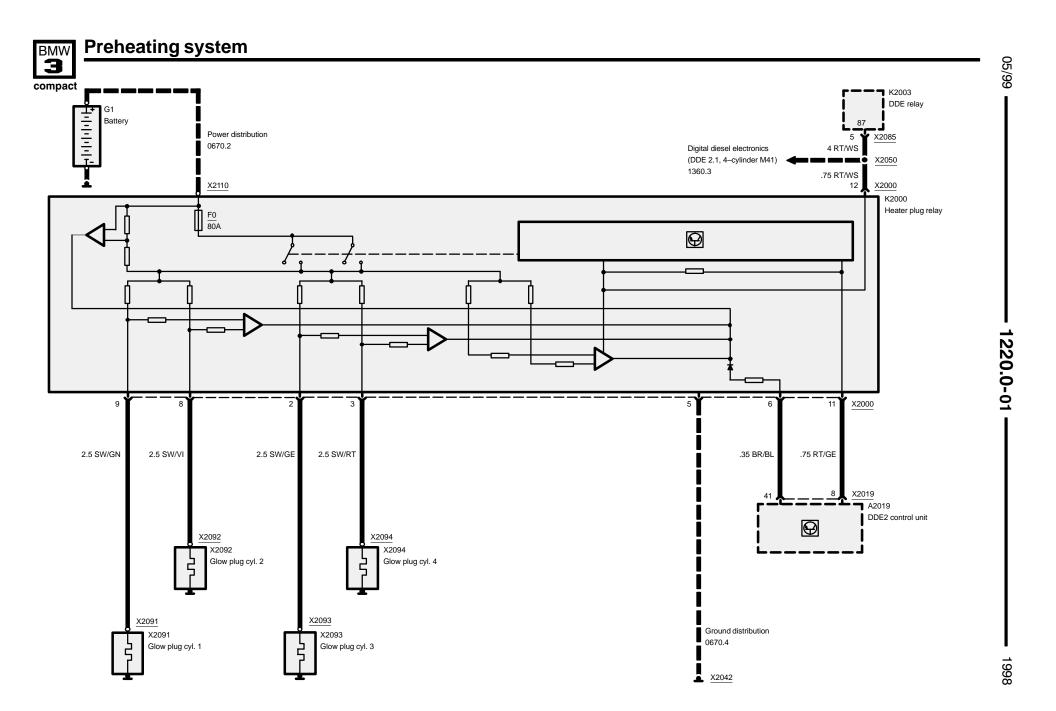
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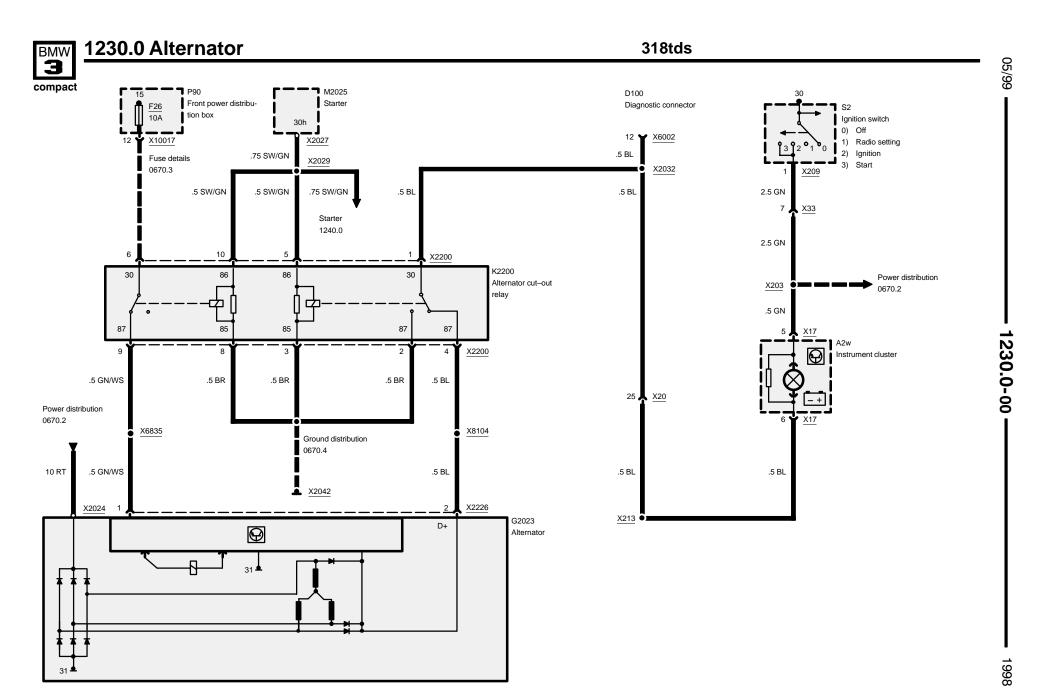
## Digital motor electronics (DME M5.2, 4-cylinder M44)

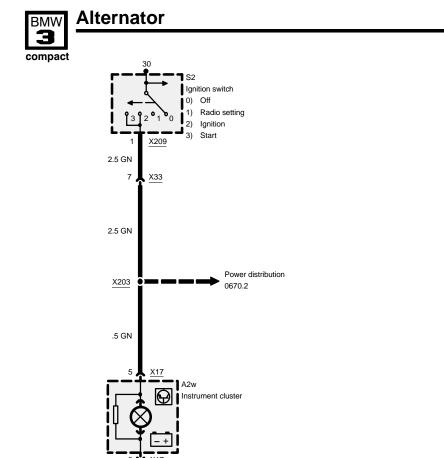


### 1220.0 Preheating system

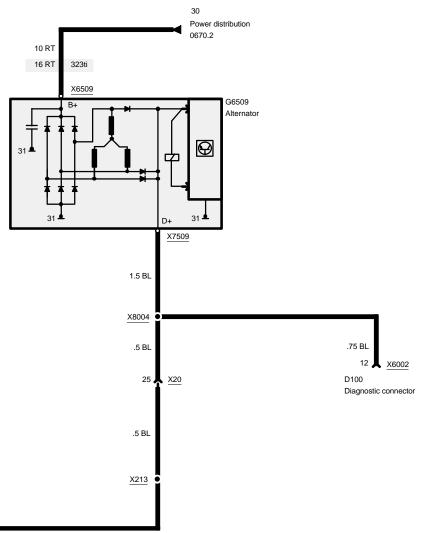


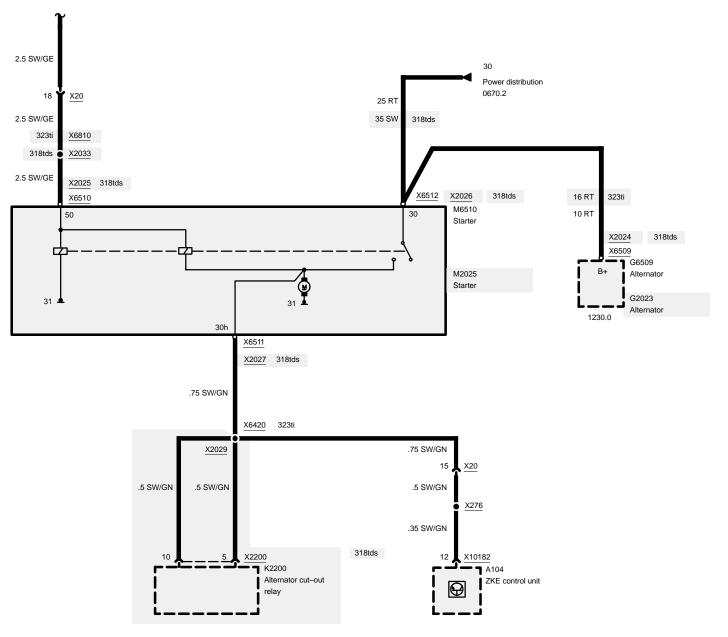


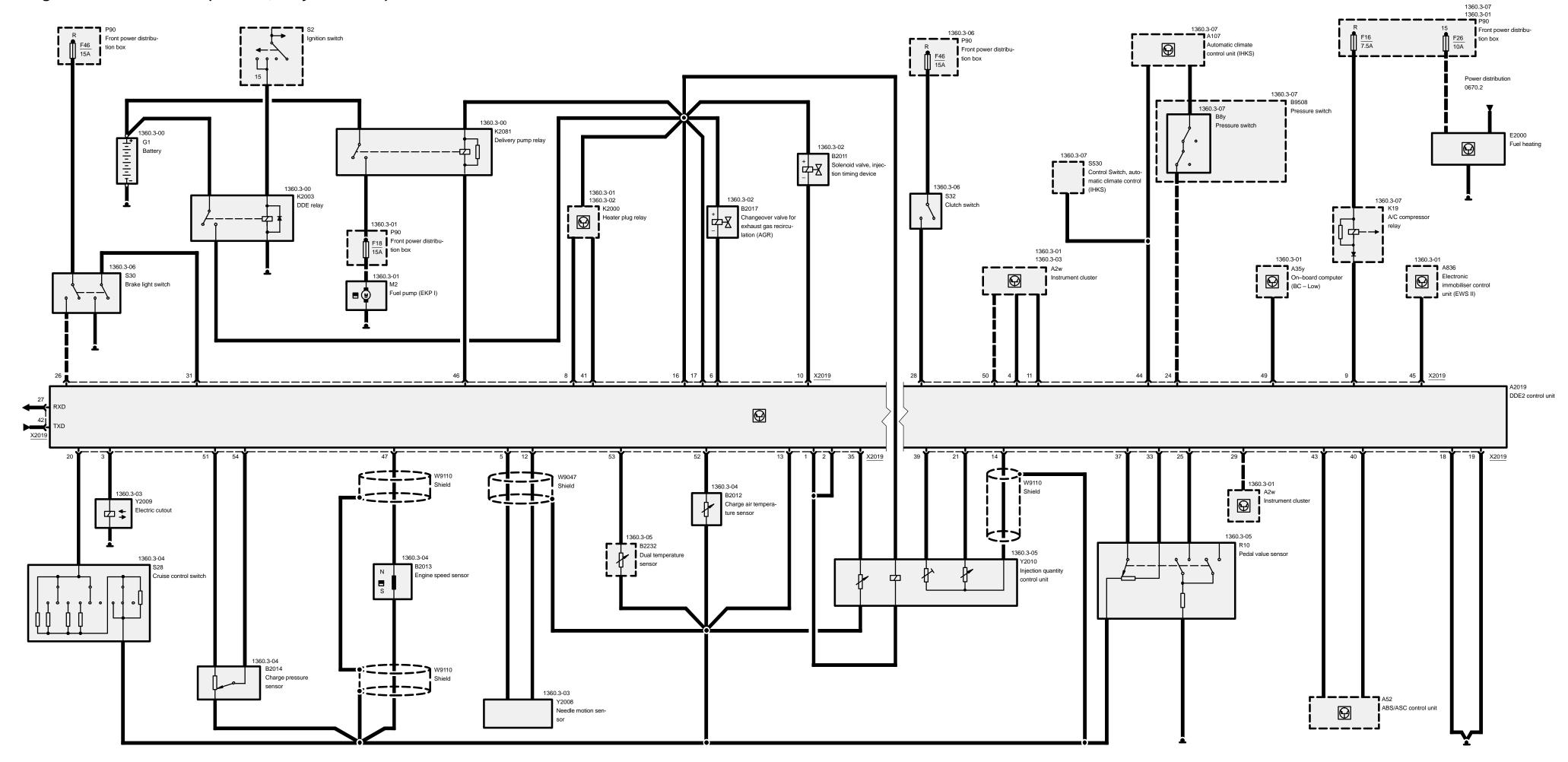




.5 BL

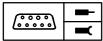










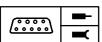


#### X2019

Pin	Туре	Description/Function	Connection
1	М	Component ground	Injection quantity actuator
2	М	Component ground	Injection quantity actuator
3	Α	Electrical cutout	Electrical cutout
4	Α	Display, digital diesel electronics	Instrument cluster
5	Α	Pointer movement sensor	Pointer movement sensor
6	Е	Changeover valve	Exhaust gas recirculation
7		Not used	
8	Е	Heating time control	Glow plug relay
9	Е	A/C compressor ON signal	Relay, A/C compressor
10	Е	Solenoid valve, injection timing device	Solenoid valve, injection timing device
11	Α	Indicator lamp, preheat	Instrument cluster
12	М	Ground, pointer movement sensor	Pointer movement sensor
13	М	Ground for shield and sensor	Shield and sensor
14	М	Ground for actuator and pedal position sensor	Injection quantity actuator
15		Not used	
16	Е	B+ voltage	Relay, digital diesel electronics
17	Е	B+ voltage	Relay, digital diesel electronics
18	М	Ground	Ground connection
19	М	Ground	Ground connection
20	Α	Cruise control (Tempomat)	Switch, cruise control (Tempomat)
21	E	Analog input, position encoder	Injection quantity actuator
22		Not used	
23		Not used	
24	Е	Signal, A/C compressor	Pressure switch
25	Е	Idle speed switch	Pedal position
26	Е	Brake light signal	Brake light switch
27	Α	RxD diagnostic link	Diagnostic connector
28	Е	Clutch signal	Clutch switch
29	Α	Road speed signal (speedometer-A)	Instrument cluster
30		Not used	
31	Е	Brake light test signal	Brake light switch
32		Not used	
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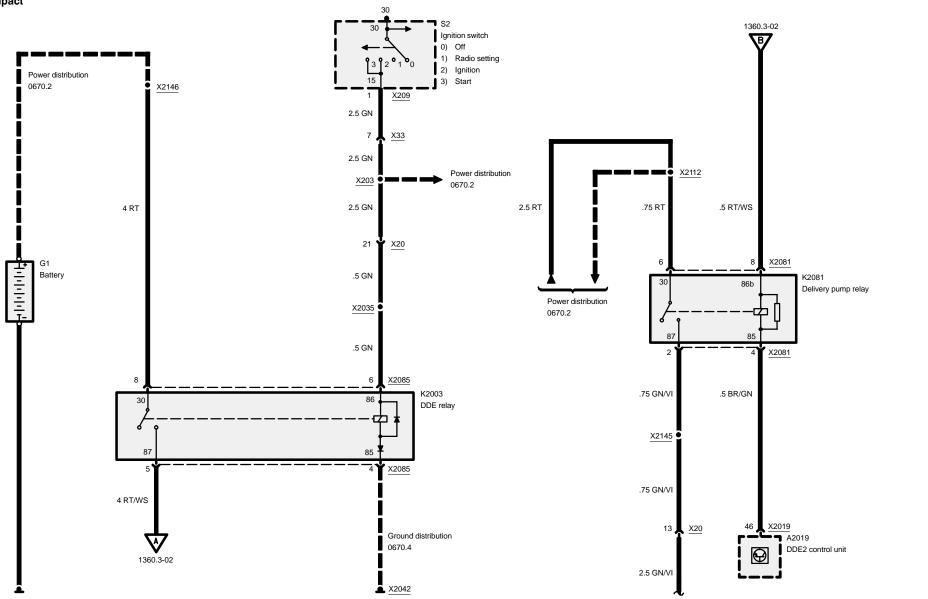
E = Input, A = Output, M = Ground



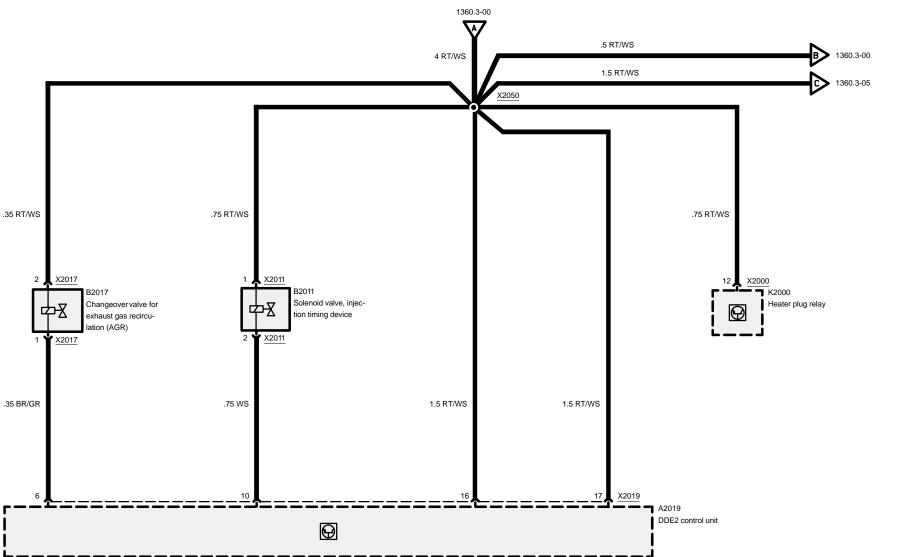


Pin	Туре	Description/Function	Connection
33	Α	Power supply, pedal position sensor	Pedal position
34		Not used	
35	Е	Fuel temperature sensor	Injection quantity actuator
36		Not used	
37	E	Analog input, pedal position sensor	Pedal position
38		Not used	
39	Α	Sensor supply; slide valve position sensor	Injection quantity actuator
40	E/A	CAN-LOW	ASC control unit
41	E	Error message	Glow plug relay
42	E/A	TxD diagnostic link	Diagnostic connector
43	E/A	CAN-HIGH	ASC control unit
44	Е	Air conditioning ON signal	A/C control unit
45	Е	Vehicle immobilization	Control unit, electronic immobilizing device (EWS II)
46	Α	Activation, terminal 85	Supply pump relay
47	Е	Speed sensor	Speed sensor
48		Not used	
49	Е	Consumption signal (TQ)	On-board computer
50	Е	Engine speed signal (TD)	Instrument cluster
51	Α	Power supply	Boost pressure sensor
52	Е	Signal, boost air temperature	Charge air temperature sensor
53	Е	Water temperature signal	Water temperature sensor
54	Е	Signal, boost pressure sensor	Boost pressure sensor
55		Not used	

### Digital diesel electronics (DDE 2.1, 4-cylinder M41)

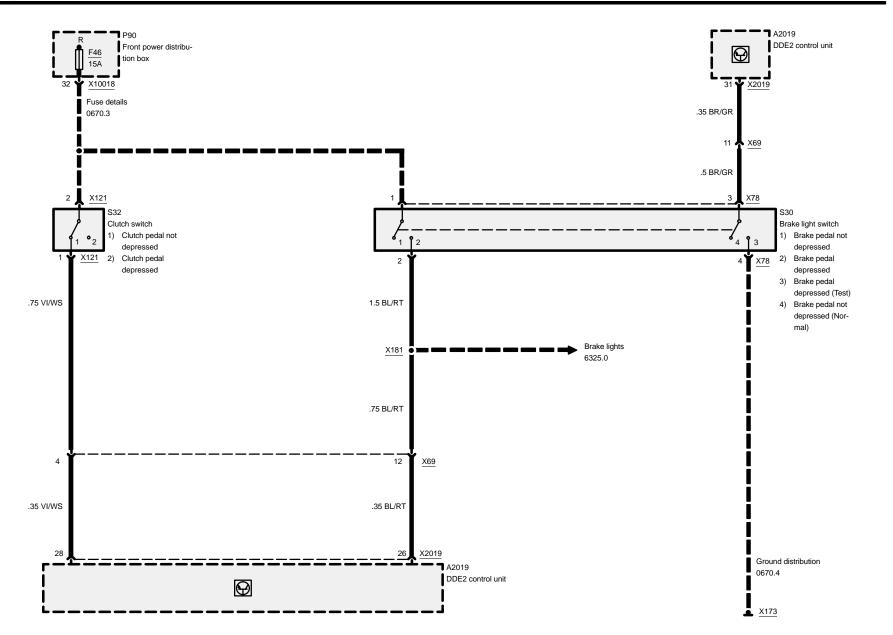


### **Digital diesel electronics (DDE 2.1, 4–cylinder M41)**



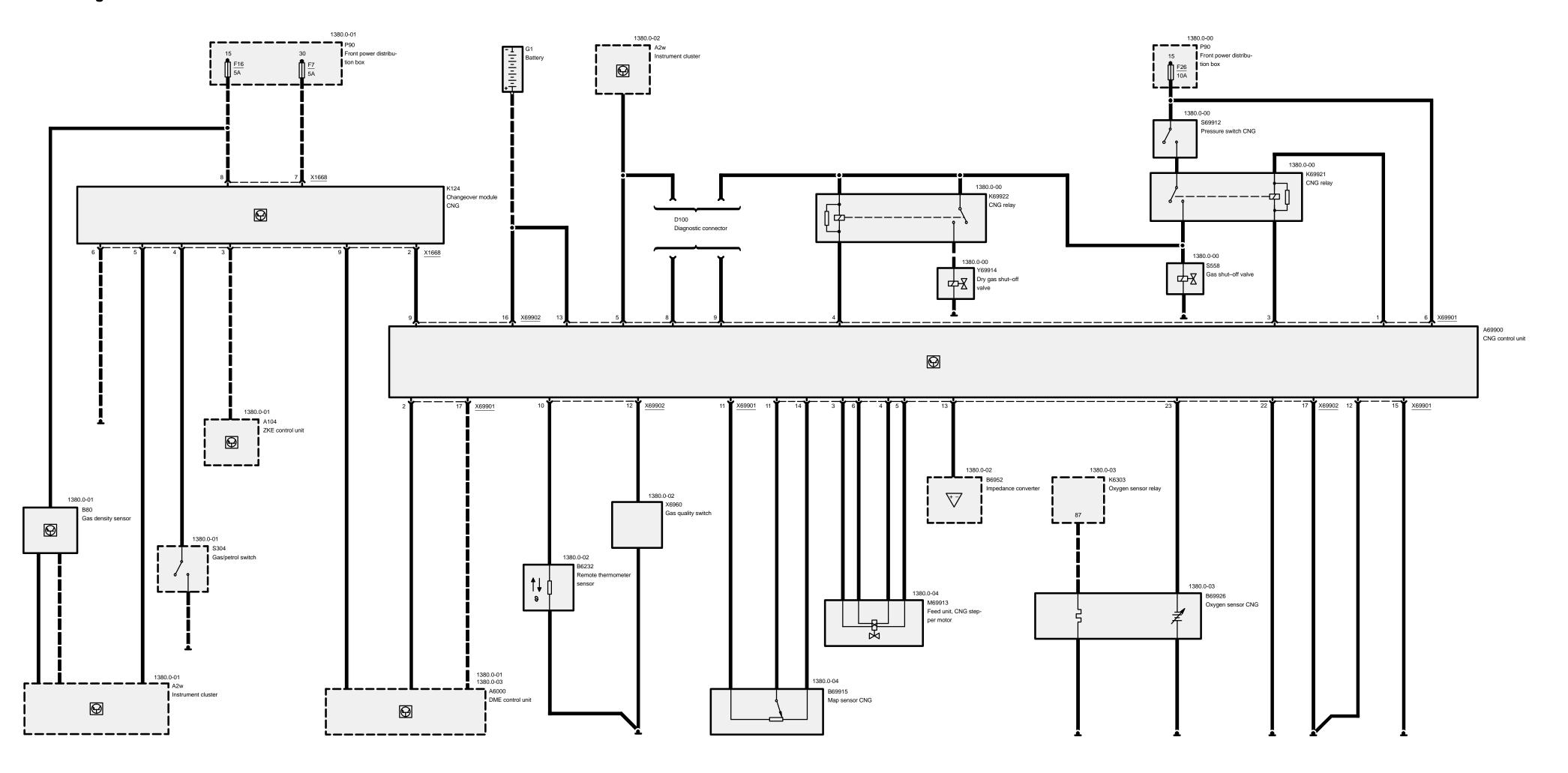
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### Digital diesel electronics (DDE 2.1, 4-cylinder M41)



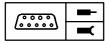
▲ X2042

control unit (IHKS)









## Pin assignments (316g)

#### X69901

Pin	Туре	Description/Function	Connection
1	Α	High pressure shut-off valve (+)	Relay for high pressure shut-off valve
2	Α	Injection cutout	DME control unit
3	Α	High pressure shut-off valve (–)	Relay for high pressure shut-off valve
4	Α	Dry gas shut-off valve (-)	Relay, dry gas shut-off valve
5	Α	Gas operation indicator/fault lamp	Instrument cluster
6	Е	Ignition, terminal 15	Fuse 26
7		Not used	
8	Α	Communication link	Diagnostic connector
9	Е	Diagnostic trigger link	Diagnostic connector
10		Not used	
11	Α	Supply voltage	Map sensor CNG
12	М	Ground, terminal 31	Ground connection
13	Е	Permanent positive, terminal 30	Battery voltage
14		Not used	
15	М	Ground, terminal 31	Ground connection
16		Not used	
17	Е	Engine speed signal (TD)	DME control unit
18		Not used	
19		Not used	
20		Not used	
21		Not used	
22		Not used	
23		Not used	
24	-	Not used	

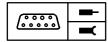
#### X69902

Pin	Type	Description/Function	Connection
1		Not used	
2		Not used	
3	Α	Metering unit (–)	Metering unit stepper motor
4	Е	Metering unit (+)	Metering unit stepper motor
5	Α	Metering unit (–)	Metering unit stepper motor

E = Input, A = Output, M = Ground

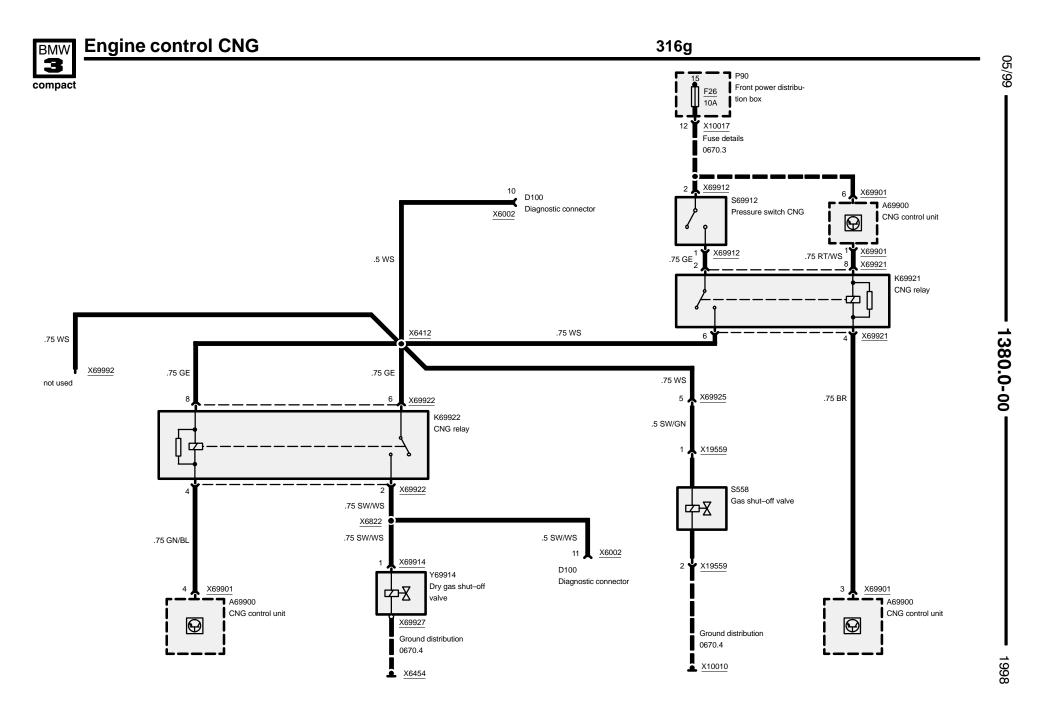


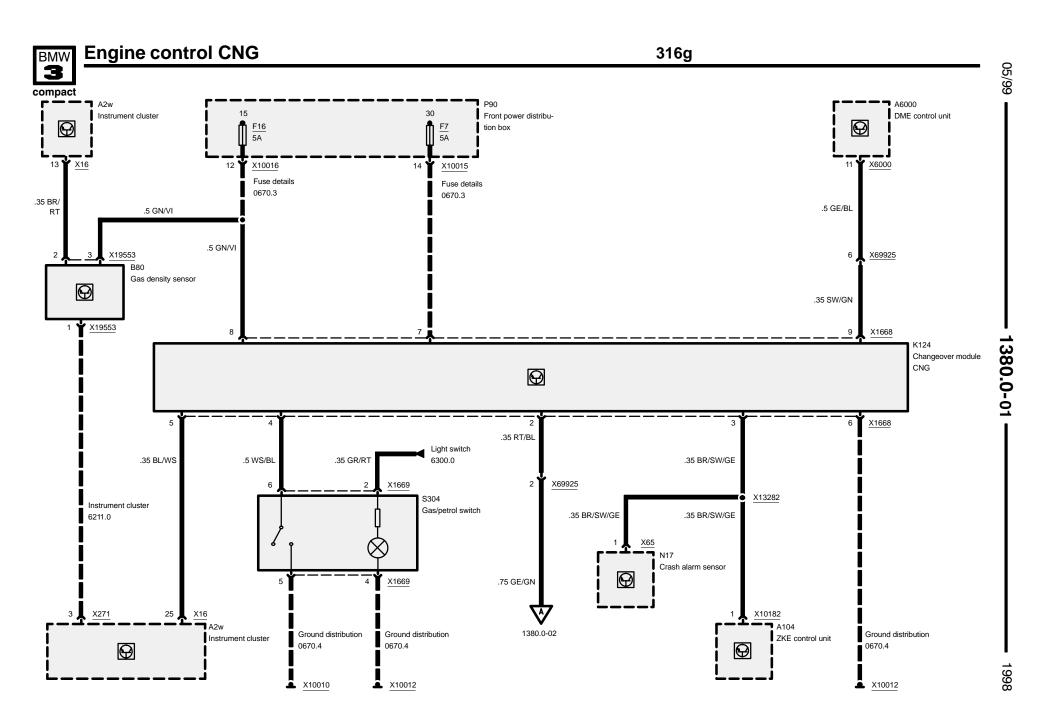


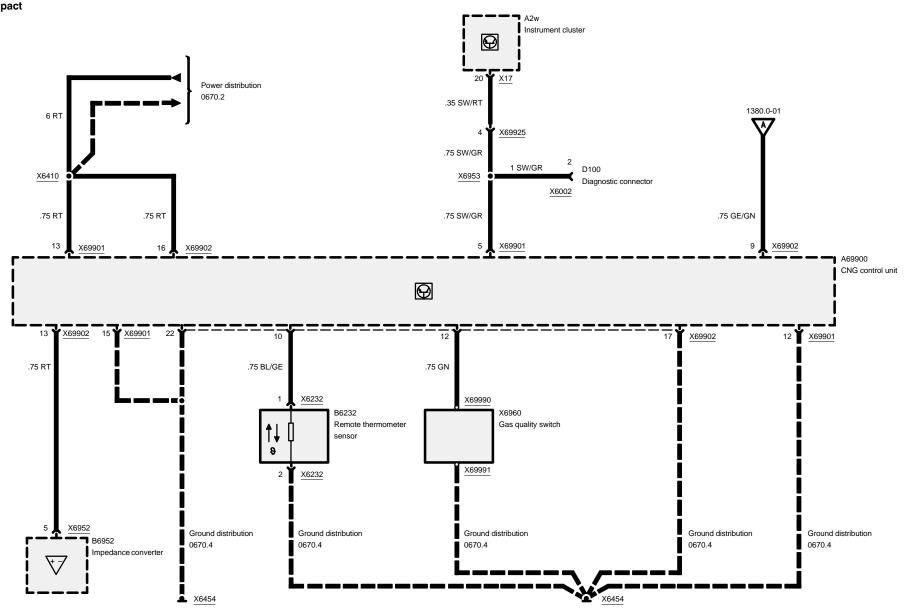


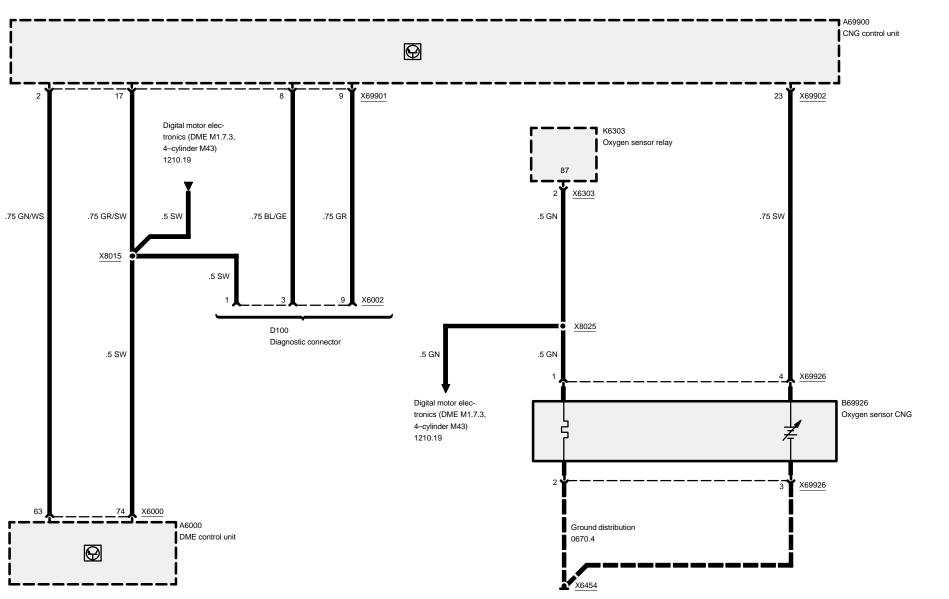
# Pin assignments (316g)

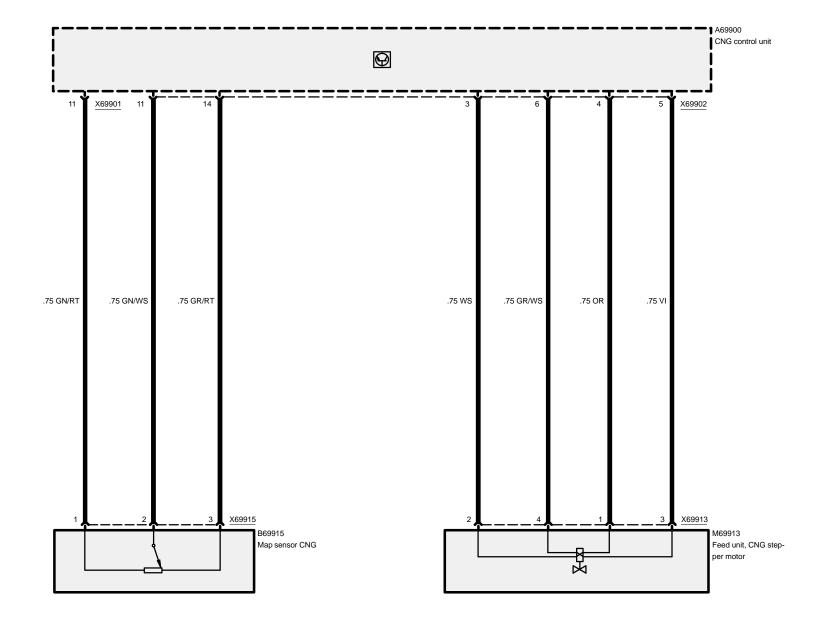
Pin	Type	Description/Function	Connection
6	Е	Metering unit (+)	Metering unit stepper motor
7		Not used	
8		Not used	
9	Е	Low=Petrol, High=Gas	Changeover module CNG
10	Е	Remote thermometer (+)	Remote thermometer sensor
11	Е	Evaluation, signal voltage	MAP sensor
12	Е	Gas quality switch	Gas quality switch
13	Е	Impedance converter	Impedance converter
14	Е	Supply voltage	MAP sensor
15		Not used	
16	Е	Permanent positive, terminal 30	Battery voltage
17	М	Ground, terminal 31	Ground connection
18		Not used	
19		Not used	
20		Not used	
21		Not used	
22	М	Ground, terminal 31	Ground
23	Е	Input (+)	Oxygen sensor
24		Not used	
25		Not used	
26		Not used	
27		Not used	
28		Not used	
29		Not used	
30		Not used	
31		Not used	
32		Not used	

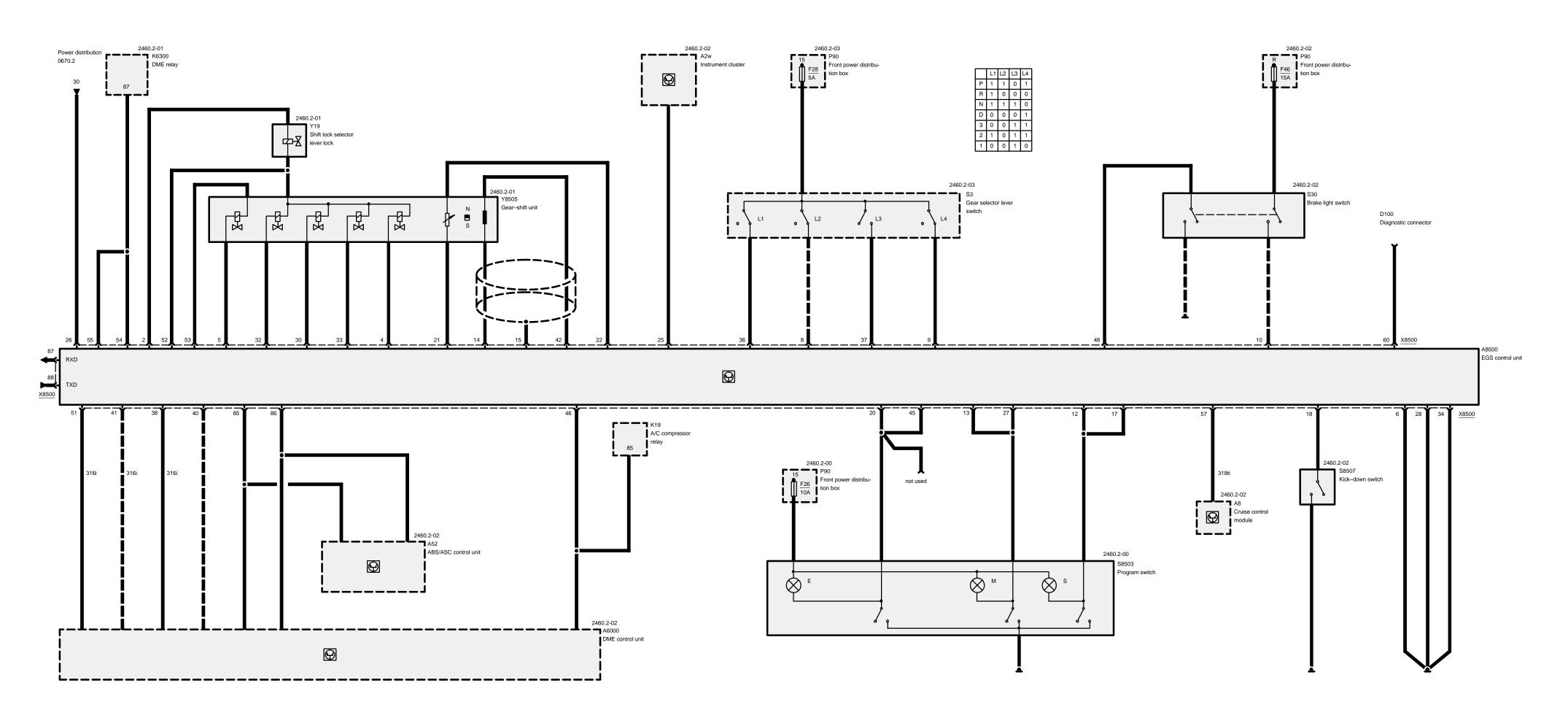






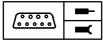










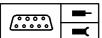


#### <u>X8500</u>

Pin	Type	Description/Function	Connection
1		Not used	
2	Α	Solenoid, P/N shift-lock	Selector lever shift-lock
3		Not used	
4	Α	Solenoid valve, band	Gearshift unit
5	Α	Pressure regulator (–)	Gearshift unit
6	М	Ground	Ground connection
7		Not used	
8	Е	Position switch L2	Selector lever switch
9	Е	Position switch L4	Selector lever switch
10	Е	Brake signal	Brake light switch
11		Not used	
12	Е	S-program	Program switch
13	Е	M-program	Program switch
14	М	rpm sensor (–)	Gearshift unit
15	М	Shield, speed sensor	Shield
16		Not used	
17	Е	S-program	Program switch
18	Е	Kick-down	Kick-down switch
19		Not used	
20	Е	E-program	Program switch
21	Е	Oil temperature sensor (–)	Gearshift unit
22	Α	Oil temperature sensor (+)	Gearshift unit
23		Not used	
24		Not used	
25	Α	Fault indicator	Instrument cluster
26	Е	B+ voltage	B+ distributor
27	Е	M-program	Program switch
28	М	Ground	Ground connection
29		Not used	
30	Α	Solenoid valve 1	Gearshift unit
31		Not used	
32	Α	Solenoid valve, converter lockup clutch	Gearshift unit
33	Α	Solenoid valve 2	Gearshift unit

E = Input, A = Output, M = Ground



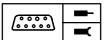


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# Pin assignments

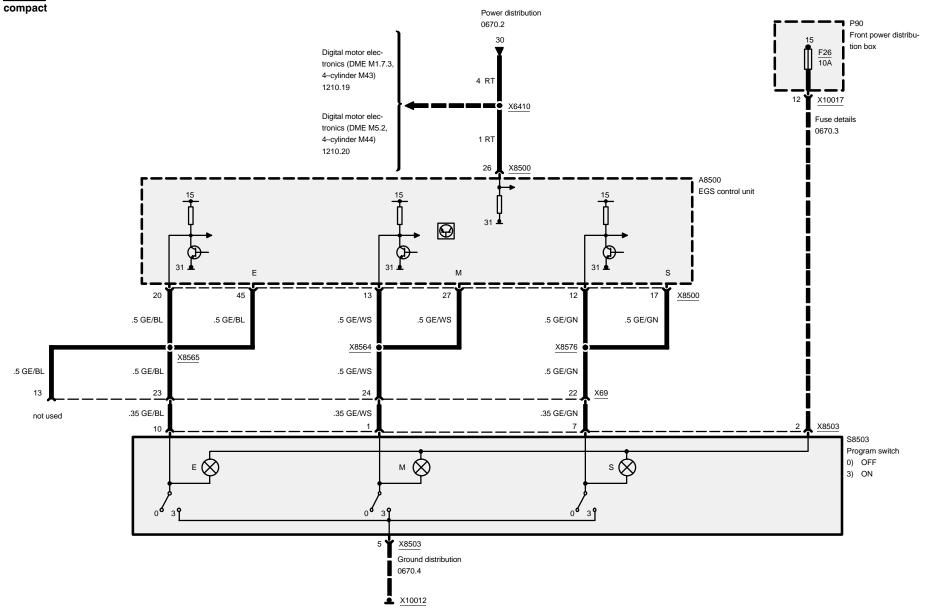
Pin	Туре	Description/Function	Connection
34	М	Ground	Ground connection
35		Not used	
36	Е	Position switch L1	Selector lever switch
37	Е	Position switch L3	Selector lever switch
38	Е	Throttle valve position	DME control unit (316i)
39		Not used	
40	Е	Fuel consumption (TI signal)	DME control unit
41	Е	Engine speed	DME control unit (316i)
42	Е	rpm sensor (+)	Gearshift unit
43		Not used	
44		Not used	
45	Е	E-program	Program switch
46	Е	Air conditioning ON signal	Relay, A/C compressor
47		Not used	
48	Е	Brake test signal	Brake light switch
49		Not used	
50		Not used	
51	Е	Engine speed	DME control unit (316i)
52	Α	Solenoid valves (+)	Gearshift unit/selector lever shift-lock
53	Α	Pressure regulator (+)	Gearshift unit
54	Е	B+ voltage	DME relay
55	Е	B+ voltage	DME relay
56		Not used	
57	Е	Cruise control (Tempomat) signal	Cruise control (Tempomat) (318ti)
58		Not used	
59		Not used	
60	Е	Programming voltage	Diagnostic connector
61		Not used	
62		Not used	
63		Not used	
64		Not used	
65		Not used	
66		Not used	
67		Not used	
68		Not used	





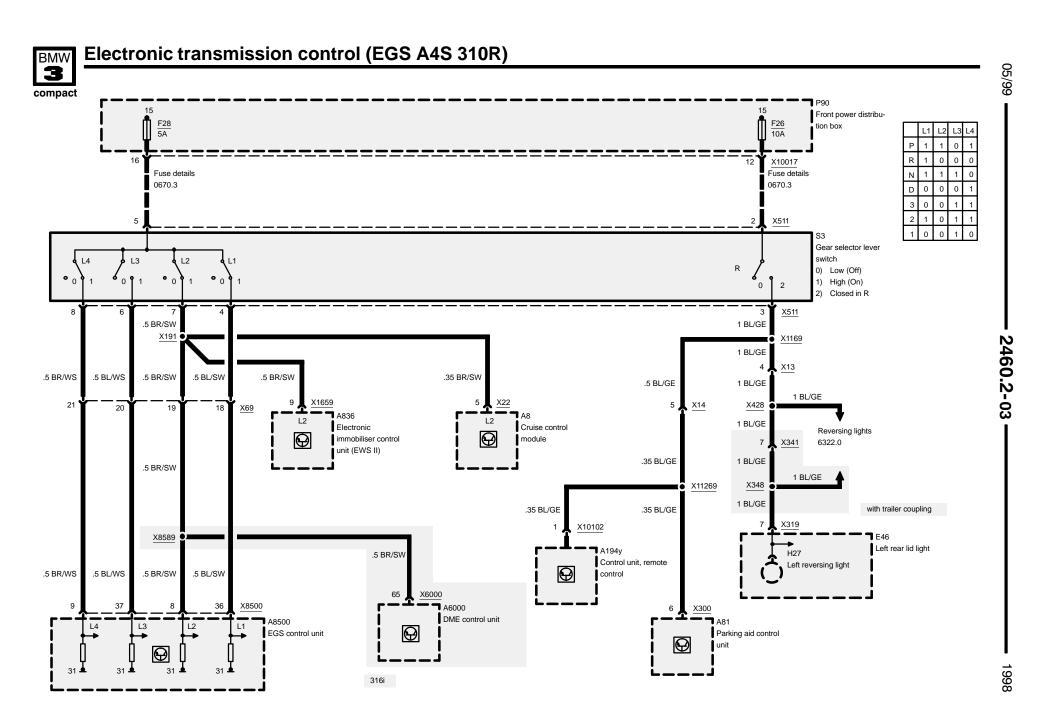
Pin	Type	Description/Function	Connection
69		Not used	
70		Not used	
71		Not used	
72		Not used	
73		Not used	
74		Not used	
75		Not used	
76		Not used	
77		Not used	
78		Not used	
79		Not used	
80		Not used	
81		Not used	
82		Not used	
83		Not used	
84		Not used	
85	E/A	CAN-LOW	DME/ASC control unit
86	E/A	CAN-HIGH	DME/ASC control unit
87	Α	RxD diagnostic link	Diagnostic connector
88	E/A	TxD diagnostic link	Diagnostic connector

### **Electronic transmission control (EGS A4S 310R)**

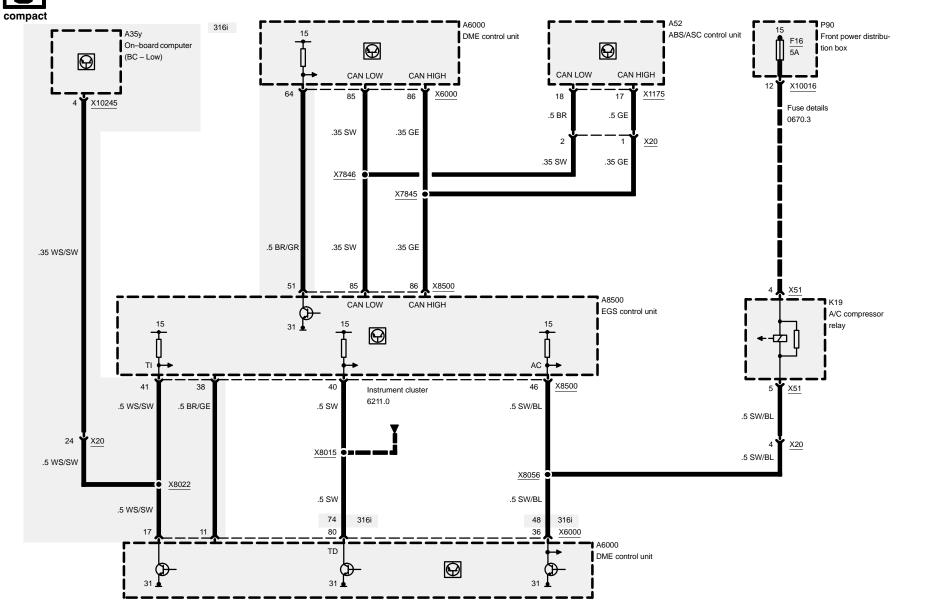


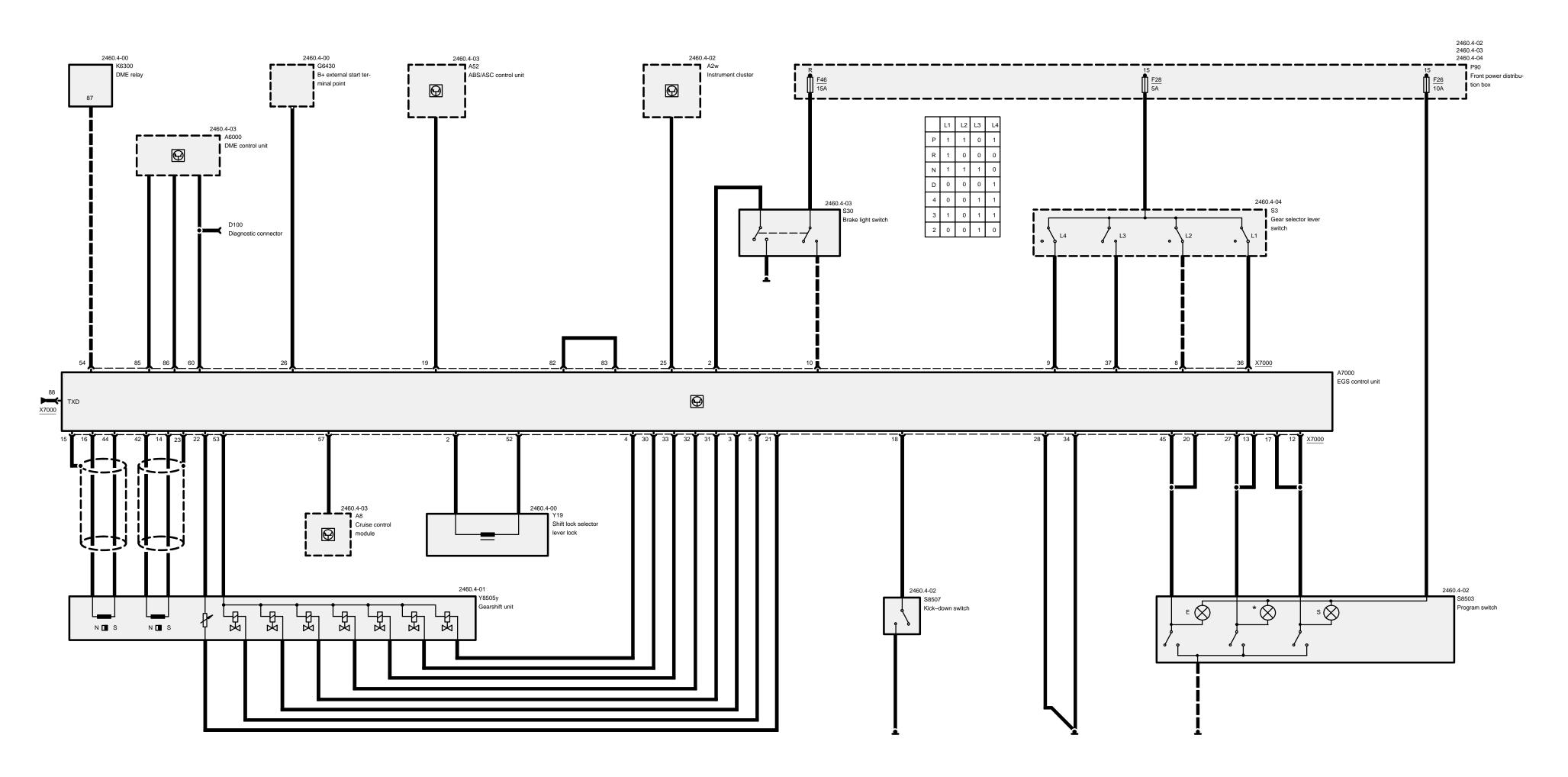
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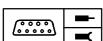








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## Pin assignments

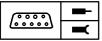
#### <u>X7000</u>

Pin	Туре	Description/Function	Connection
1		Not used	
2	Α	Shift-Lock (+)	Selector lever lock
3	Α	Solenoid valve 5	Gearshift unit
4	Α	Solenoid valve, converter lock-up clutch	Gearshift unit
5	Α	Pressure regulator (–)	Gearshift unit
6		Not used	
7		Not used	
8	Е	Position switch L2	Gear selector lever
9	Е	Position switch L4	Gear selector lever
10	Е	Brake signal	Brake light switch
11		Not used	
12	E	S-program	Program switch
13	E	*-program	Program switch
14	E	rpm sensor, output (–)	Gearshift unit
15	М	Shield, speed sensor	Shield
16	E	rpm sensor, turbine (+)	Gearshift unit
17	E	S-program	Program switch
18	E	Kick-down signal	Kick-down switch
19	Е	ASC signal	ASC control unit
20	Е	E-program	Program switch
21	Е	Oil temperature sensor, NTC	Gearshift unit
22	М	Ground, oil temperature sensor	Gearshift unit
23	М	Shield, speed sensor	Shield
24		Not used	
25	Α	Fault indicator	Instrument cluster
26	E	Terminal 30	Jumper cable terminal point
27	Е	*-program	Program switch
28	М	Ground, electronics	Ground connection
29		Not used	
30	Α	Solenoid valve 1	Gearshift unit
31	Α	Solenoid valve 4	Gearshift unit
32	Α	Solenoid valve 3	Gearshift unit
33	Α	Solenoid valve 2	Gearshift unit

E = Input, A = Output, M = Ground





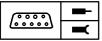


# Pin assignments

Pin	Туре	Description/Function	Connection
34	М	Power ground	Ground connection
35		Not used	
36	Е	Position switch L1 Gear selector lever	
37	Е	Position switch L3	Gear selector lever
38		Not used	
39		Not used	
40		Not used	
41		Not used	
42	Е	rpm sensor, output (+)	Gearshift unit
43		Not used	
44	Е	Turbine speed sensor (-)	Gearshift unit
45	Е	E-program	Program switch
46		Not used	
47		Not used	
48	Е	Brake test signal	Brake light switch
49		Not used	
50		Not used	
51		Not used	
52	Α	Shift-Lock (–)	Selector lever lock
53	Α	Positive supply, solenoid valves	Gearshift unit
54	Е	B+ voltage	DME relay
55		Not used	
56		Not used	
57	Е	Cruise control (Tempomat) signal	Control unit, cruise control (Tempomat)
58		Not used	
59		Not used	
60	Е	Programming voltage	Diagnostic connector
61		Not used	
62		Not used	
63		Not used	
64		Not used	
65		Not used	
66		Not used	
67		Not used	
68		Not used	



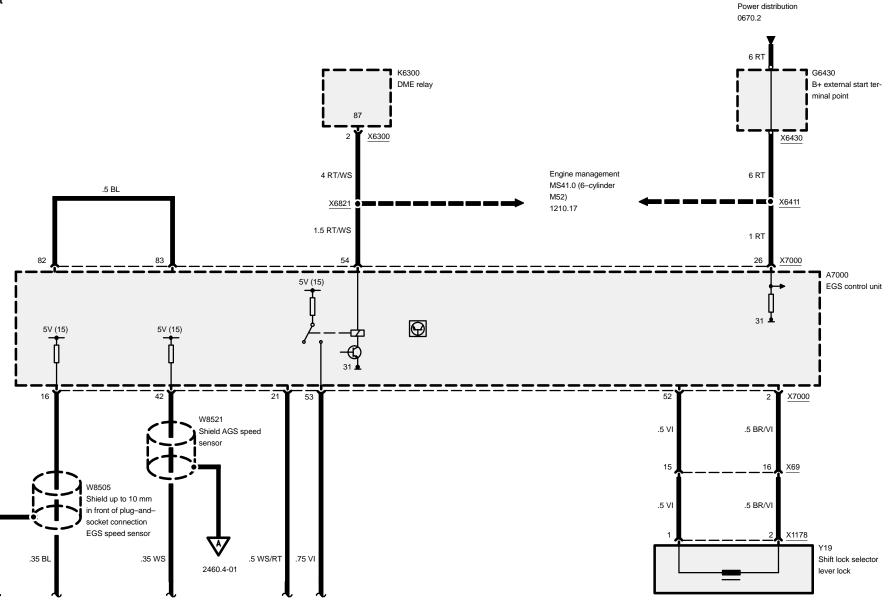
compact



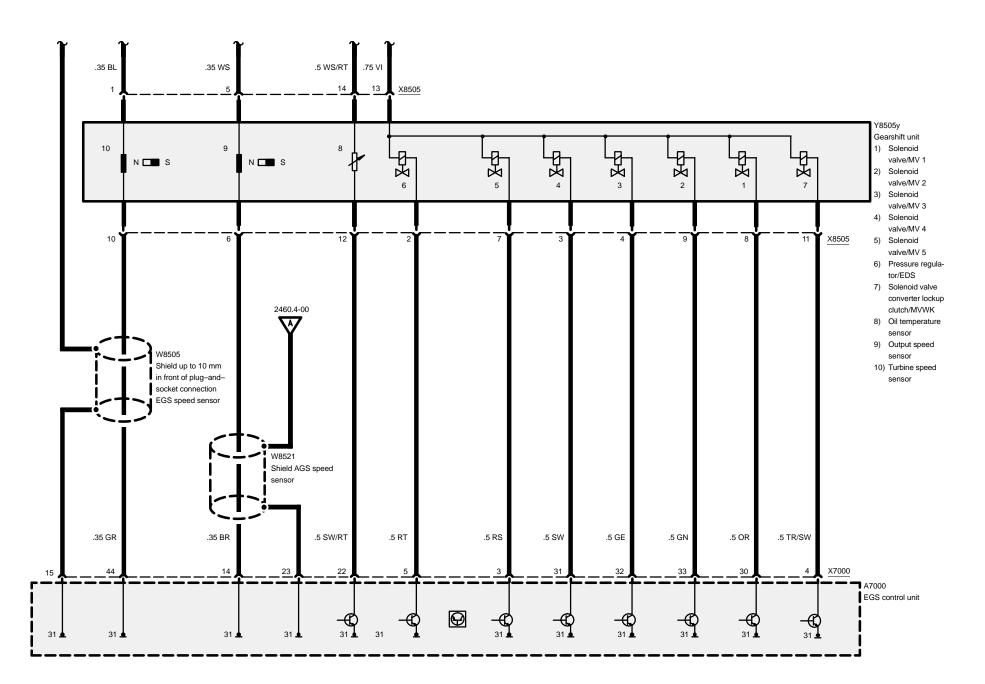
## Pin assignments

Pin	Туре	Description/Function	Connection
69		Not used	
70		Not used	
71		Not used	
72		Not used	
73		Not used	
74		Not used	
75		Not used	
76		Not used	
77		Not used	
78		Not used	
79		Not used	
80		Not used	
81		Not used	
82	E/A	Jumper	
83	E/A	Jumper	
84		Not used	
85	E/A	CANCA-LOW	DME control unit
86	E/A	CANCA-HIGH	DME control unit
87		Not used	
88	E/A	TxD diagnostic link	Diagnostic connector

### **Electronic transmission control (EGS A5S 310Z)**

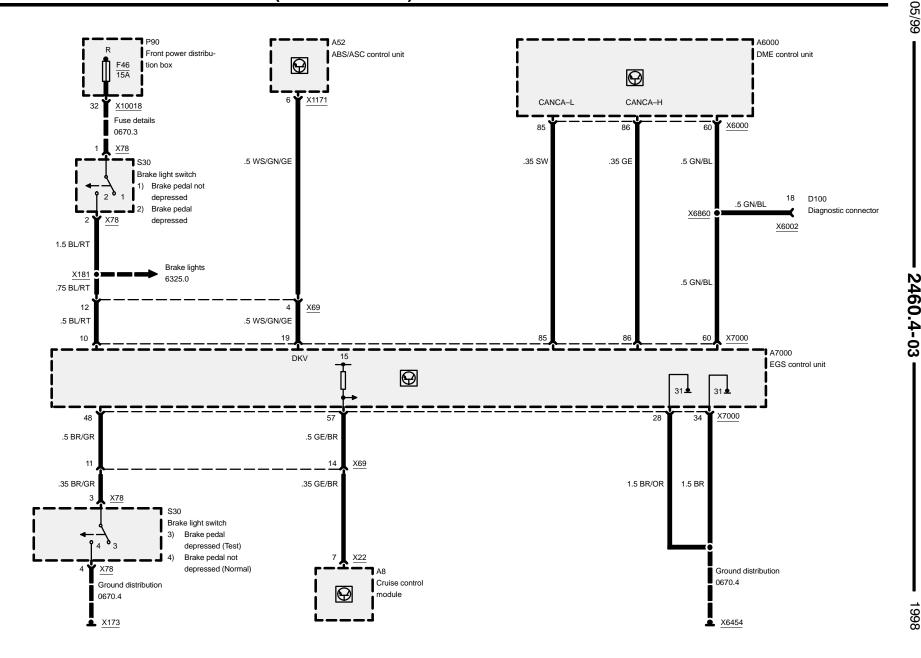




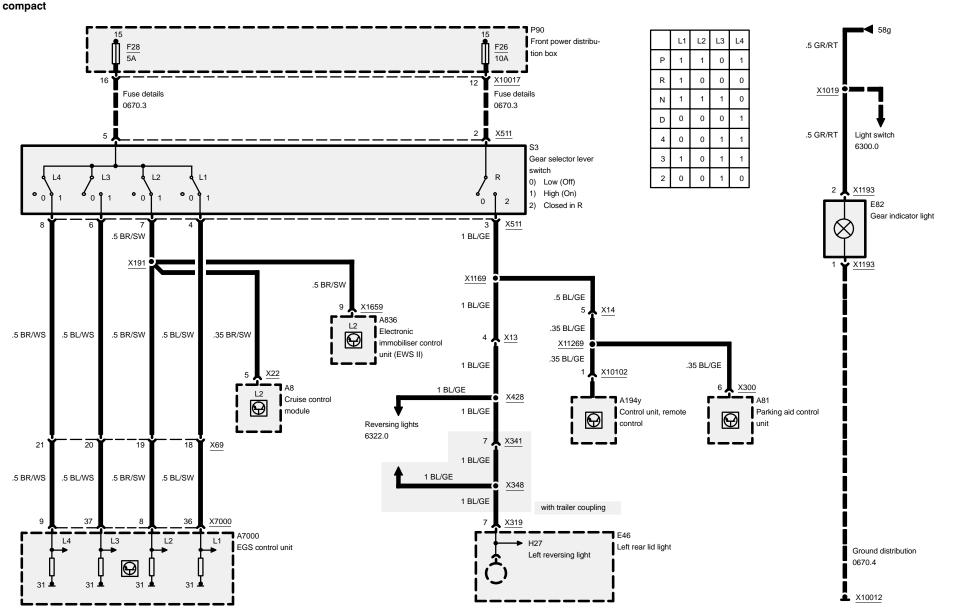


X10012

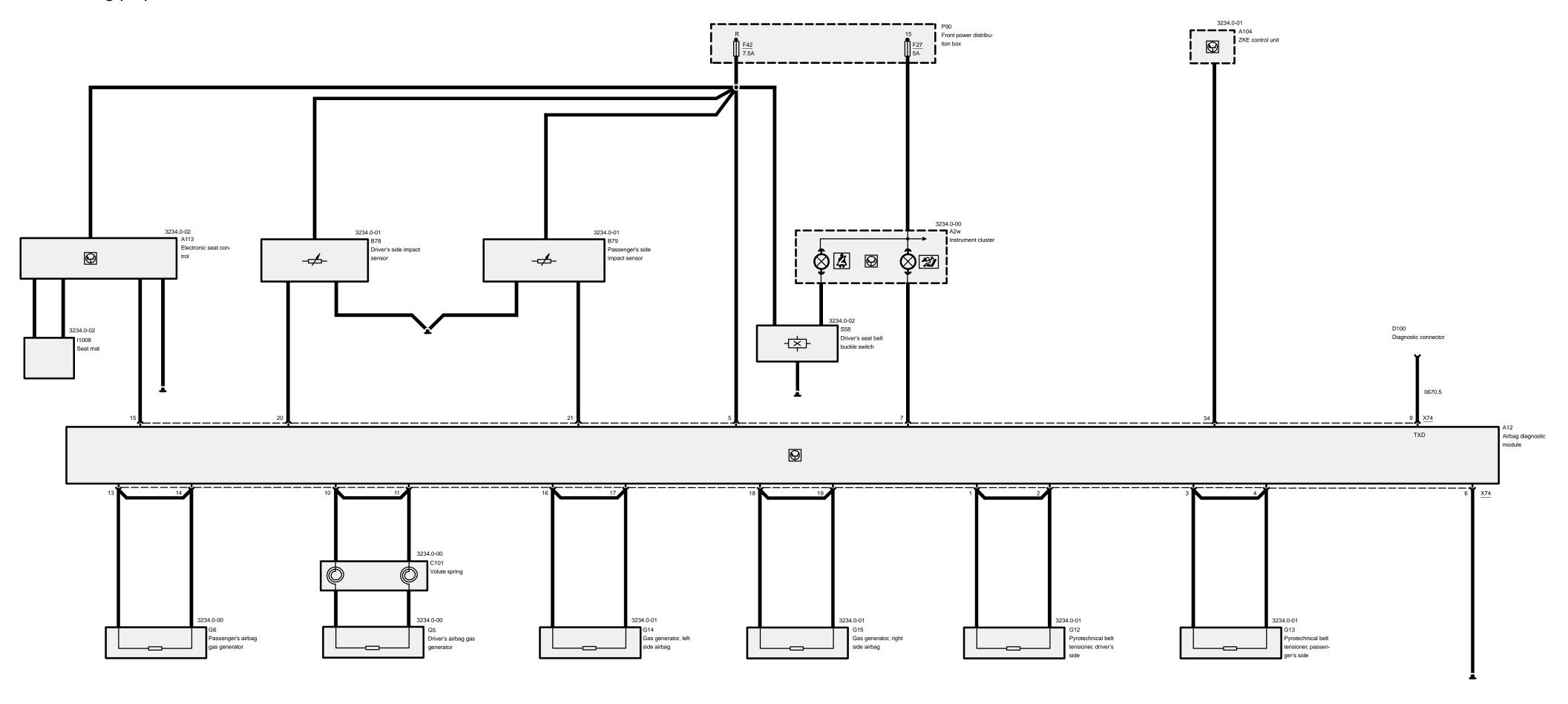
### **Electronic transmission control (EGS A5S 310Z)**



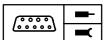
### **Electronic transmission control (EGS A5S 310Z)**



3234.0 Airbag (AB) 3234.0 — 1998



**1**998



### Pin assignments

### <u>X74</u>

compact

Pin	Туре	Description/Function	Connection
2	Α	Pyrotechnical belt tensioner	Pyrotechnical belt tensioner, driver's side
3	Α	Pyrotechnical belt tensioner	Pyrotechnical belt tensioner, driver's side
4	Α	Pyrotechnical belt tensioner	Pyrotechnical belt tensioner, front passenger's side
5	Α	Pyrotechnical belt tensioner	Pyrotechnical belt tensioner, front passenger's side
6	Е	Supply voltage	Power distribution box, fuse 42
7	М	Ground	Ground connection
8	Α	Airbag warning lamp	Instrument housing
9		Not used	
10	E/A	TxD diagnostic link	Diagnostic connector
11	Α	Airbag (+)	Inflator assembly, driver's airbag
12	Α	Airbag (–)	Inflator assembly, driver's airbag
13		Not used	
14	Α	Airbag (+)	Airbag inflator assembly, front passenger's side
15	Α	Airbag (–)	Airbag inflator assembly, front passenger's side
16	Е	Seat occupancy electronics	Seat occupancy electronics
17	Α	Inflator assembly	Inflator assembly, left side airbag
18	Α	Inflator assembly	Inflator assembly, left side airbag
19	Α	Inflator assembly	Inflator assembly, right side airbag
20	Α	Inflator assembly	Inflator assembly, right side airbag
21	Е	Seat occupancy	Seat occupancy, driver's side
22	Е	Seat occupancy	Seat occupancy, front passenger's side
23		Not used	
24		Not used	
25		Not used	
26		Not used	
27		Not used	
28		Not used	
29		Not used	
30		Not used	
31		Not used	

E = Input, A = Output, M = Ground



## Pin assignments

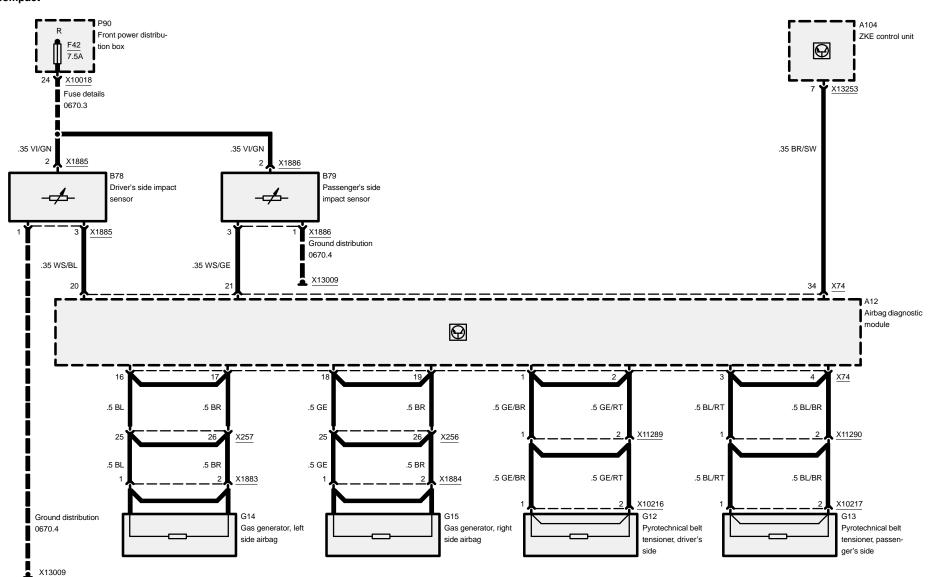
Pin	Type	Description/Function	Connection
32		Not used	
33		Not used	
34		Not used	
35	Α	Crash signal	ZKE control unit/central locking module (ZVM)

X1441



#### Airbag (AB)

#### Side airbag



0670.4

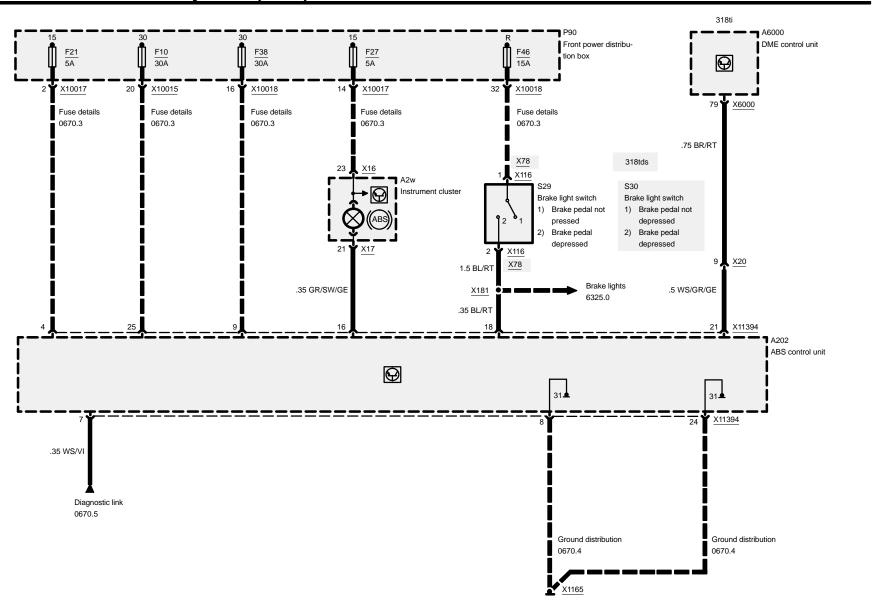
X13009

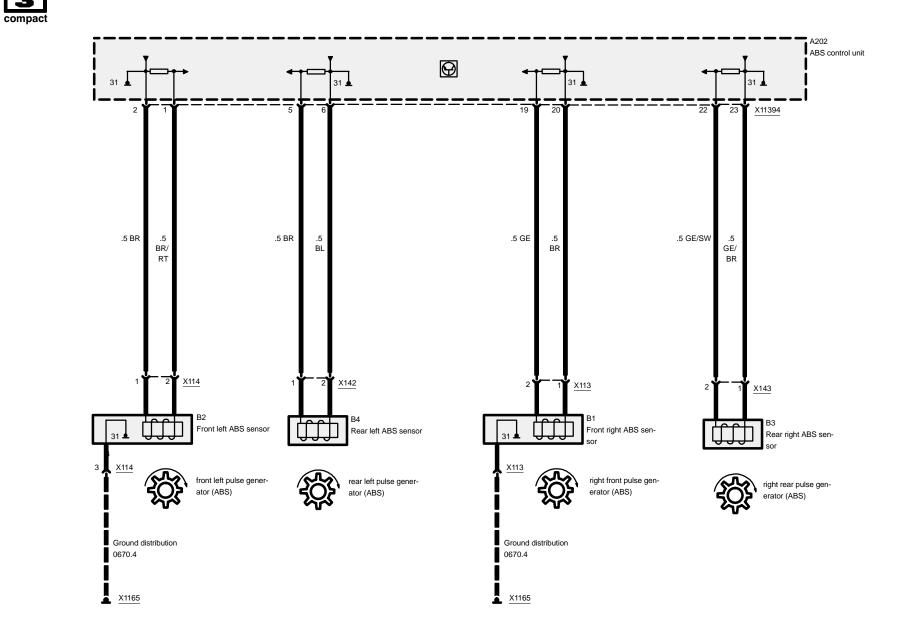
module

0670.4

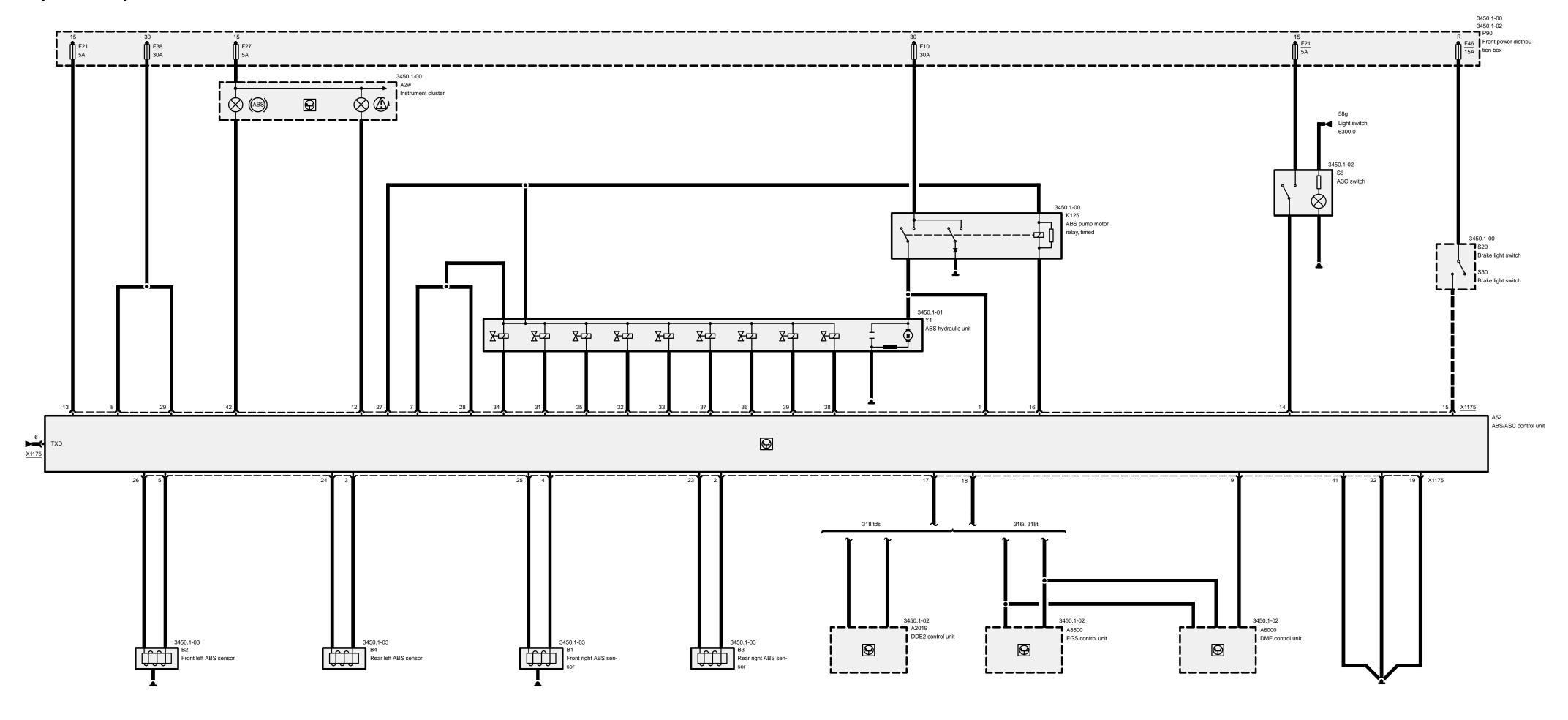
X13009

### 3450.0 Antilock brake system (ABS)

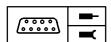




### 4-cylinder Earlier production







### Pin assignments (4-cylinder earlier production)

### <u>X1175</u>

Pin	Type	Description/Function	Connection
36	Е	Pump signal	ABS pump motor relay
37	Е	Signal, speed sensor, rear right	Speed sensor, rear right
38	Е	Signal, speed sensor, rear left	Speed sensor, rear left
39	Е	Signal, speed sensor, front right	Speed sensor, front right
40	Е	Signal, speed sensor, front left	Speed sensor, front left
41	E/A	TxD diagnostic link	Diagnostic connector
42	Α	ABS signal	ABS hydraulic unit
43	Е	Terminal 30	Fuse 38
44	Α	Speed signal, rear right	DME control unit
45		Not used	
46		Not used	
47	Α	ABS signal	Instrument cluster
48	Е	Terminal 15	Fuse 21
49	Е	ASC ON signal	ASC switch
50	Е	Terminal 54	Brake light switch
51	Α	ABS pump motor relay	ABS pump motor relay
52	E/A	CAN-HIGH	EGS/DME/DDE2 control unit
53	E/A	CAN-LOW	EGS/DME/DDE2 control unit
54	М	Component ground	Ground connection
55		Not used	
56		Not used	
57	М	Component ground	Ground connection
58	Α	Speed sensor ground, rear right	Speed sensor, rear right
59	Α	Speed sensor ground, rear left	Speed sensor, rear left
60	Α	Speed sensor ground, front right	Speed sensor, front right
61	Α	Speed sensor ground, front left	Speed sensor, front left
62	Α	ABS signal	ABS pump motor relay
63	Α	ABS signal	ABS hydraulic unit
64	E	Terminal 30	Fuse 38
65		Not used	
66	Α	Separating valve	ABS hydraulic unit
67	Α	Inlet valve drive, rear left	ABS hydraulic unit
68	Α	Activation, outlet valve, rear left	ABS hydraulic unit
	_		

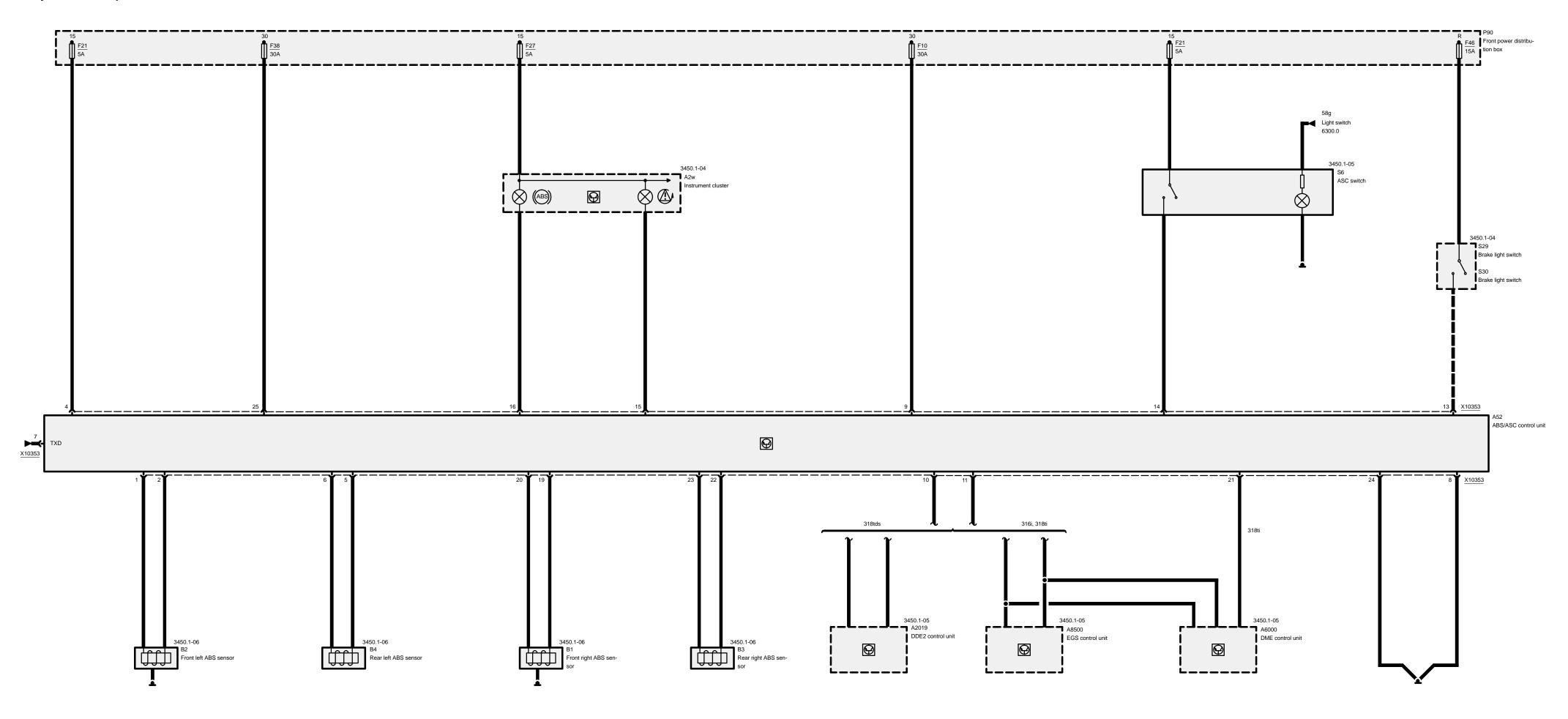
E = Input, A = Output, M = Ground

1998

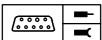
# Pin assignments (4-cylinder earlier production)

Pin	Type	Description/Function	Connection
69	Α	Inlet valve drive, rear right	ABS hydraulic unit
70	Α	Activation, outlet valve, rear right	ABS hydraulic unit
71	Α	Activation, outlet valve, front left	ABS hydraulic unit
72	Α	Activation, outlet valve, front right	ABS hydraulic unit
73	Α	Inlet valve drive, front left	ABS hydraulic unit
74	Α	Inlet valve drive, front right	ABS hydraulic unit
75		Not used	
76	М	Component ground	Ground connection
77	Α	ABS signal	Instrument cluster

### 4-cylinder Later production





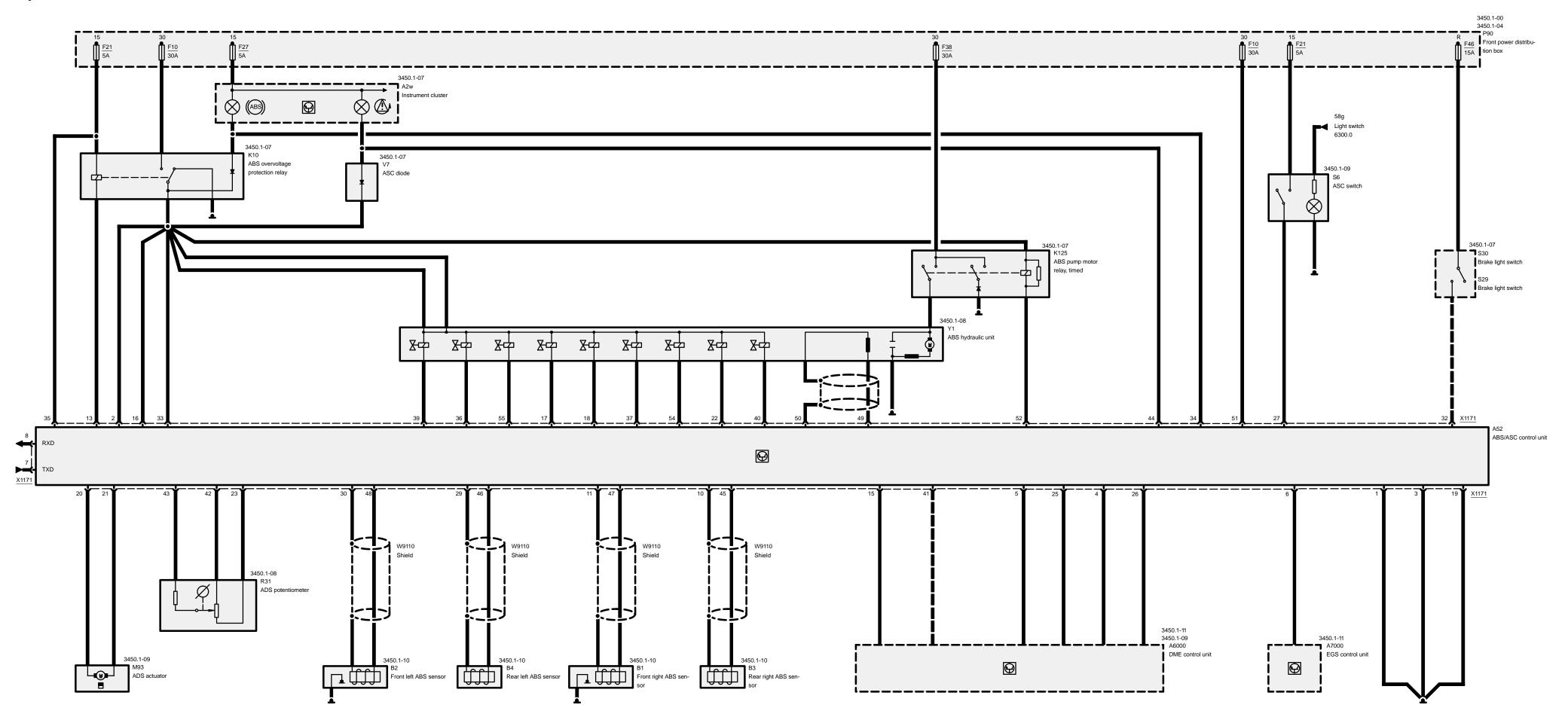


## Pin assignments (4-cylinder later production)

#### X10353

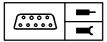
Pin	Type	Signal	Description/Function	Connection
1	Α	VL-	Ground, speed sensor, front left	Speed sensor, front left
2	Е	VL+	Signal, speed sensor, front left	Speed sensor, front left
3			Not used	
4	Е	15<21	Terminal 15	Fuse 21
5	Α	HL-	Ground, speed sensor, rear left	Speed sensor, rear left
6	Е	HL+	Signal, speed sensor, rear left	Speed sensor, rear left
7	E/A	TXD	TxD diagnostic link	Diagnostic connector
8	М	31L	Component ground	Ground connection
9	Е	30<10	Terminal 30	Fuse 10
10	E/A	CAN-	CAN-	EGS/DME/DDE2 control unit
11	E/A	CAN+	CAN+	EGS/DME/DDE2 control unit
12			Not used	
13	Е	KL.54	Terminal 54	Brake light switch
14	Е	ASCS	ASC ON signal	ASC switch
15	Α	WLASC	ASC warning lamp	Instrument cluster
16	Α	WLABS	ABS warning lamp	Instrument cluster
17			Not used	
18			Not used	
19	Α	VR-	Ground, speed sensor, front right	Speed sensor, front right
20	Е	VR+	Signal, speed sensor, front right	Speed sensor, front right
21	Α	RROUT	Speed signal, rear right	DME control unit
22	Е	HR+	Signal, speed sensor, rear right	Speed sensor, rear right
23	Α	HR-	Ground, speed sensor, rear left	Speed sensor, rear right
24	М	31L	Component ground	Ground connection
25	Е	30<38	Terminal 30	Fuse 38

### 6-cylinder









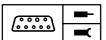
# Pin assignments (6-cylinder)

### <u>X1171</u>

Pin	Туре	Description/Function	Connection
2	М	Component ground	Ground connection
3	Е	Operating voltage	ABS overvoltage protection relay
4	М	Component ground	Ground connection
5	Е	Signal, traction control system	DME control unit
6	Α	EML signal	DME control unit
7	Α	Transmission intervention	EGS control unit
8	E/A	TxD diagnostic link	Diagnostic connector
9	Α	RxD diagnostic link	Diagnostic connector
10		Not used	
11	Α	Ground, speed sensor, rear left	Speed sensor, rear right
12	Α	Ground, speed sensor, front right	Speed sensor, front right
13		Not used	
14	Α	ABS overvoltage protection relay	ABS overvoltage protection relay
15		Not used	
16	Α	ASC signal	DME control unit
17	Е	Operating voltage	ABS overvoltage protection relay
18	Α	Inlet valve drive, rear left	ABS hydraulic unit
19	Α	Activation, outlet valve, rear left	ABS hydraulic unit
20	М	Component ground	Ground connection
21	Α	ADS actuator	ADS actuator
22	Α	ADS actuator	ADS actuator
23	Α	Inlet valve drive, front right	ABS hydraulic unit
24	Е	ASC throttle valve potentiometer	ASC throttle valve potentiometer
25		Not used	
26	E	Signal, engine drag torque control	DME control unit
27	Α	Throttle valve position	DME control unit
28	E	Signal, ASC switch	ASC switch
29		Not used	
30	Α	Ground, speed sensor, rear left	Speed sensor, rear left
31	Α	Ground, speed sensor, front left	Speed sensor, front left
32		Not used	
33	E	Terminal 54	Brake light switch
34	E	Operating voltage	ABS overvoltage protection relay

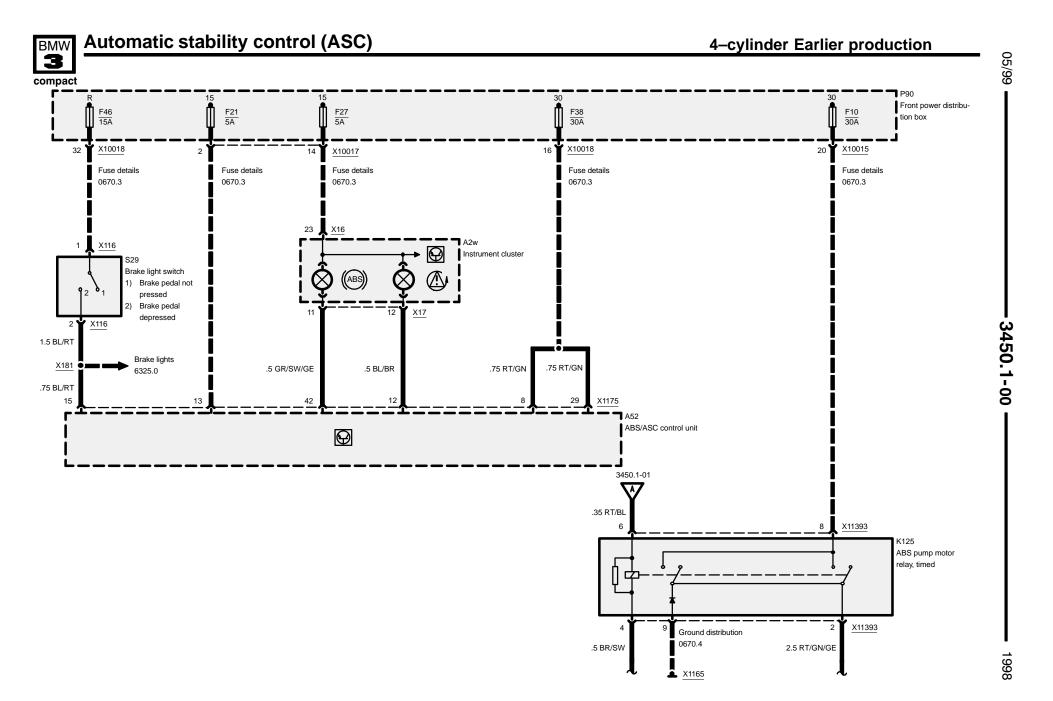
E = Input, A = Output, M = Ground

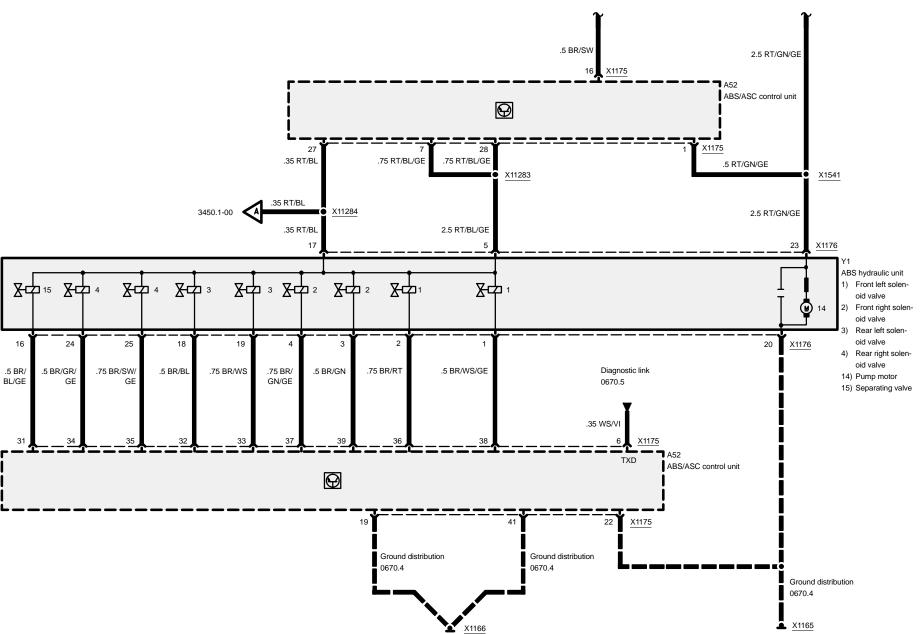
1998

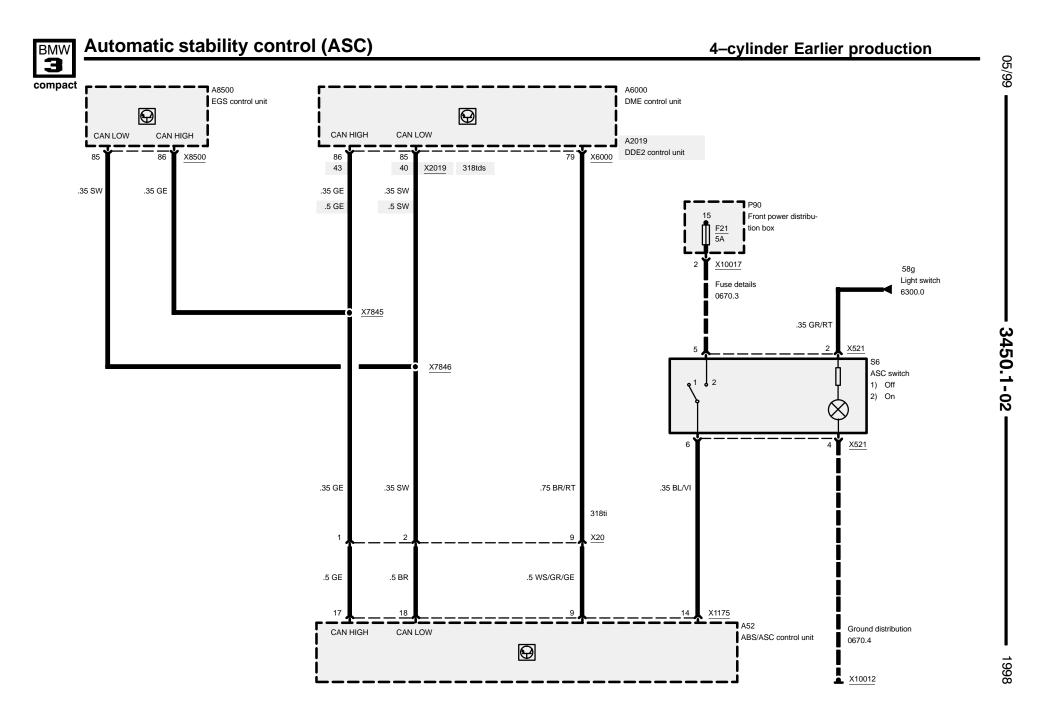


# Pin assignments (6-cylinder)

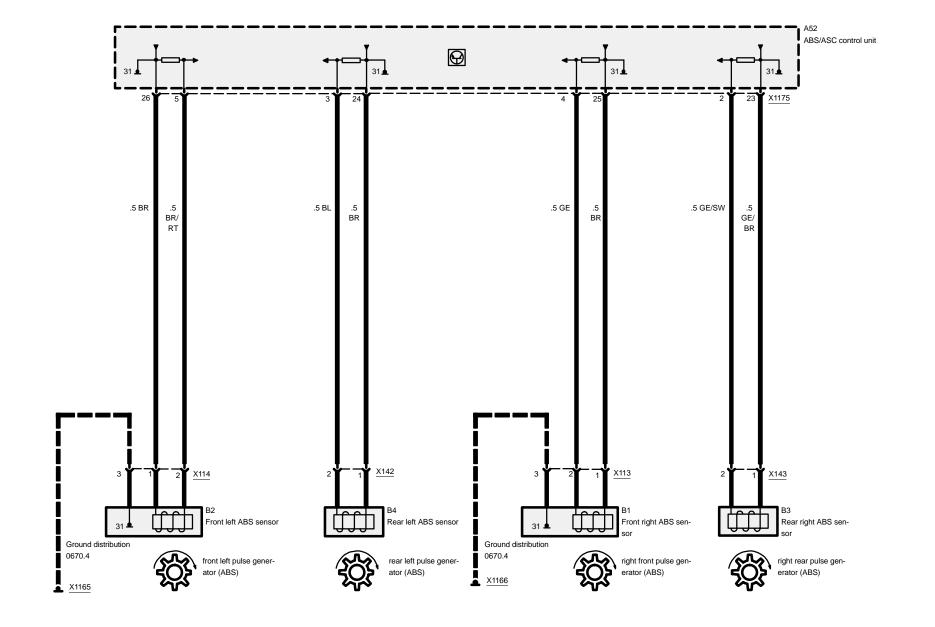
Pin	Type	Description/Function	Connection
35	Α	Activation, ABS warning lamp	Instrument cluster
36	Е	Terminal 15	Fuse 21
37	Α	Separating valve	ABS hydraulic unit
38	Α	Activation, outlet valve, front right	ABS hydraulic unit
39		Not used	
40	Α	Inlet valve drive, rear right	ABS hydraulic unit
41	Α	Inlet valve drive, front left	ABS hydraulic unit
42	Е	Vehicle speed signal	DME control unit
43	Е	ASC throttle valve potentiometer	ASC throttle valve potentiometer
44	Е	ASC throttle valve potentiometer	ASC throttle valve potentiometer
45	Α	ASC warning lamp drive	Instrument cluster
46	Е	Signal, speed sensor, rear right	Speed sensor, rear right
47	Е	Signal, speed sensor, rear left	Speed sensor, rear left
48	Е	Signal, speed sensor, front right	Speed sensor, front right
49	Е	Signal, speed sensor, front left	Speed sensor, front left
50	Е	Signal, pump motor sensor	ABS hydraulic unit
51	Е	Shield, pump motor sensor	ABS hydraulic unit
52	Е	Voltage supply (+)	Fuse 10
53	Α	ABS pump motor relay	ABS pump motor relay
54		Not used	
55	Α	Activation, outlet valve, front left	ABS hydraulic unit
56	Α	Activation, outlet valve, rear right	ABS hydraulic unit

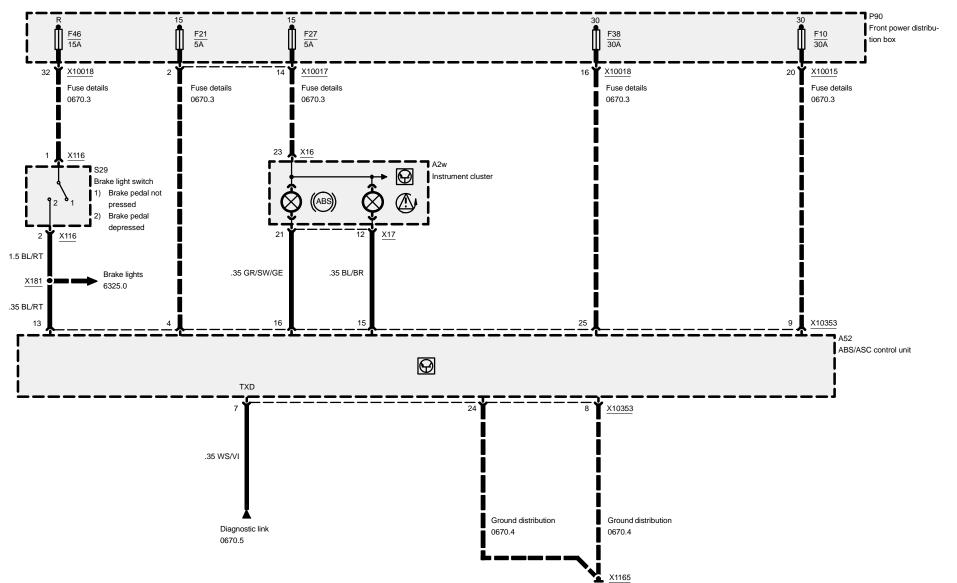


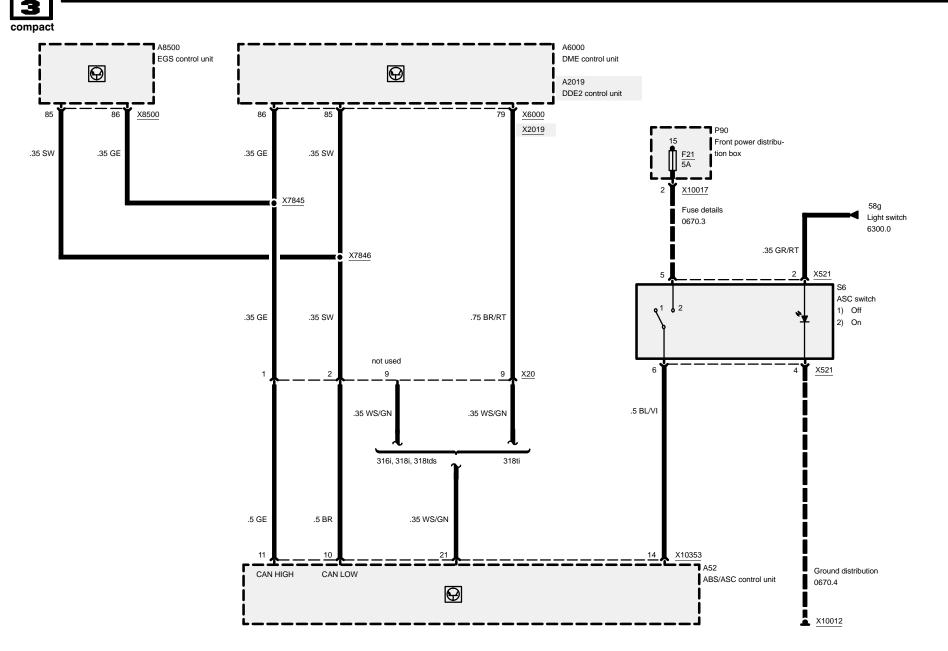




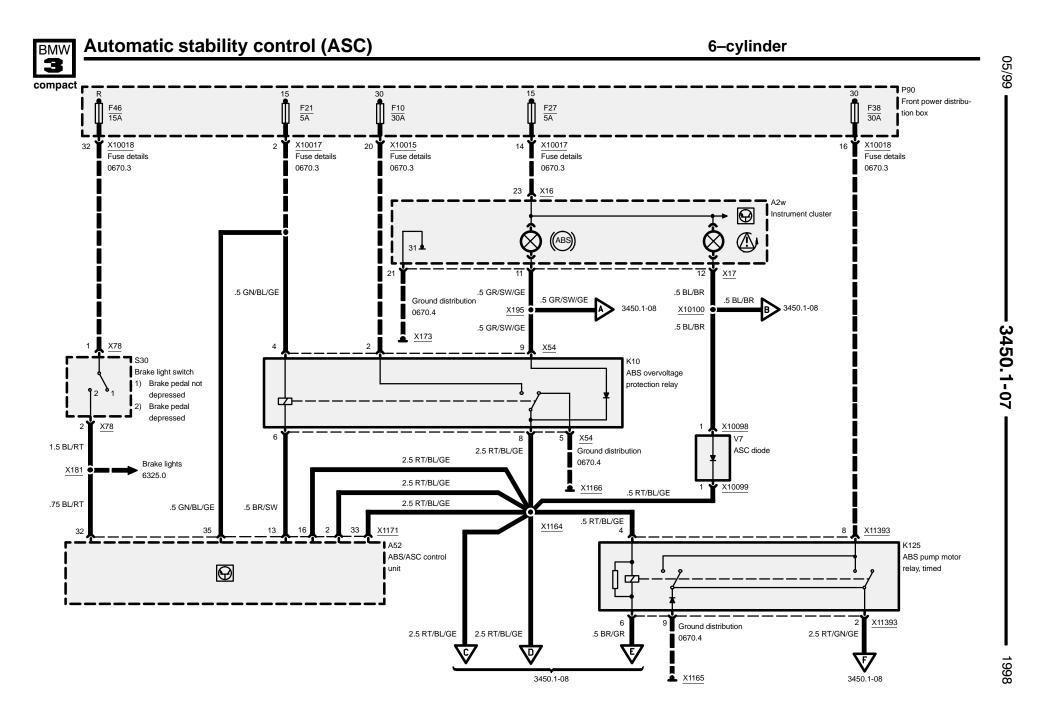
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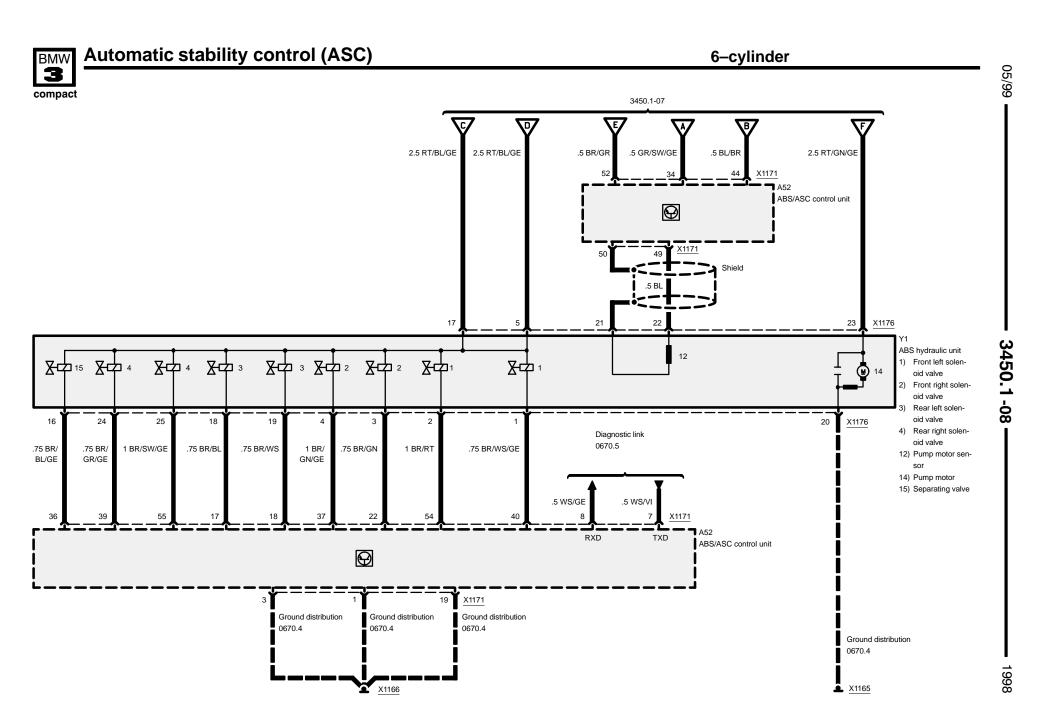






compact





30A

X10015

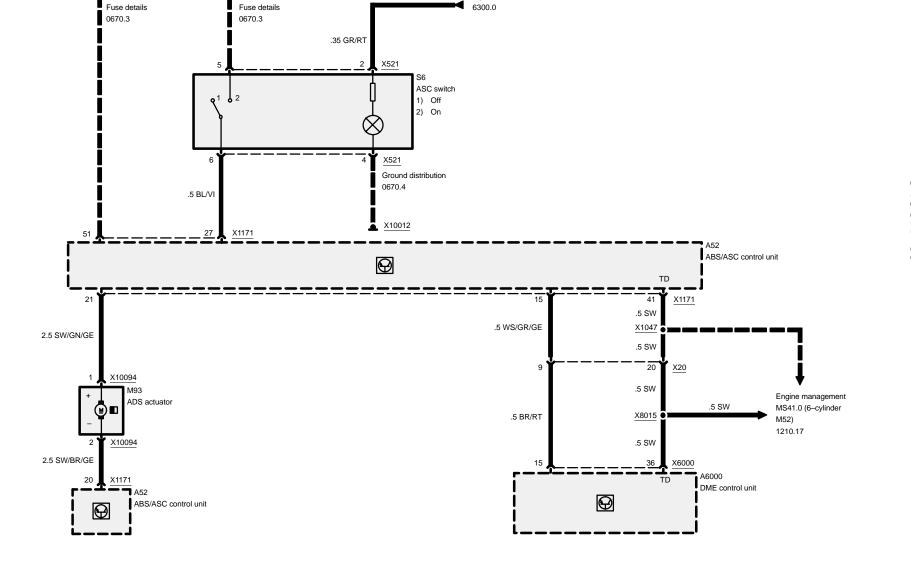
Front power distribu-

F21 5A

X10017

BMW **3** 

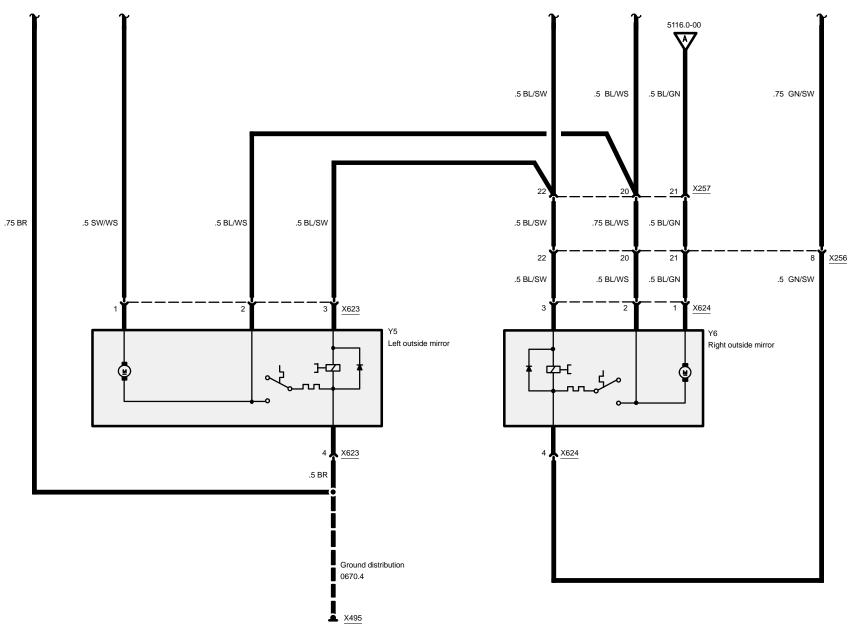
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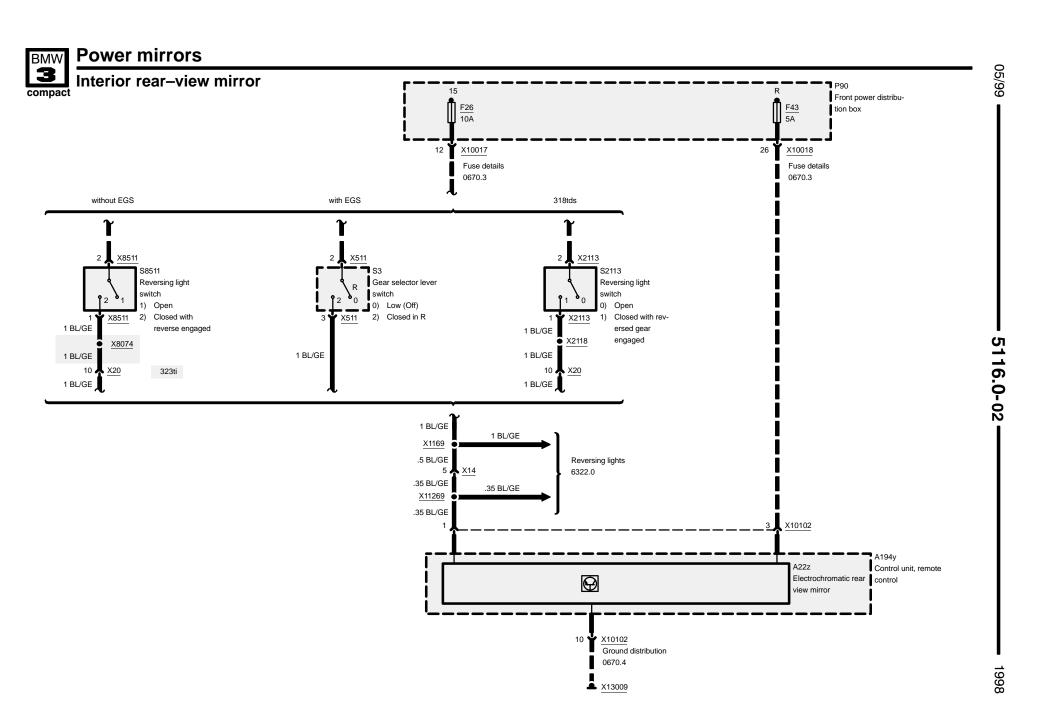


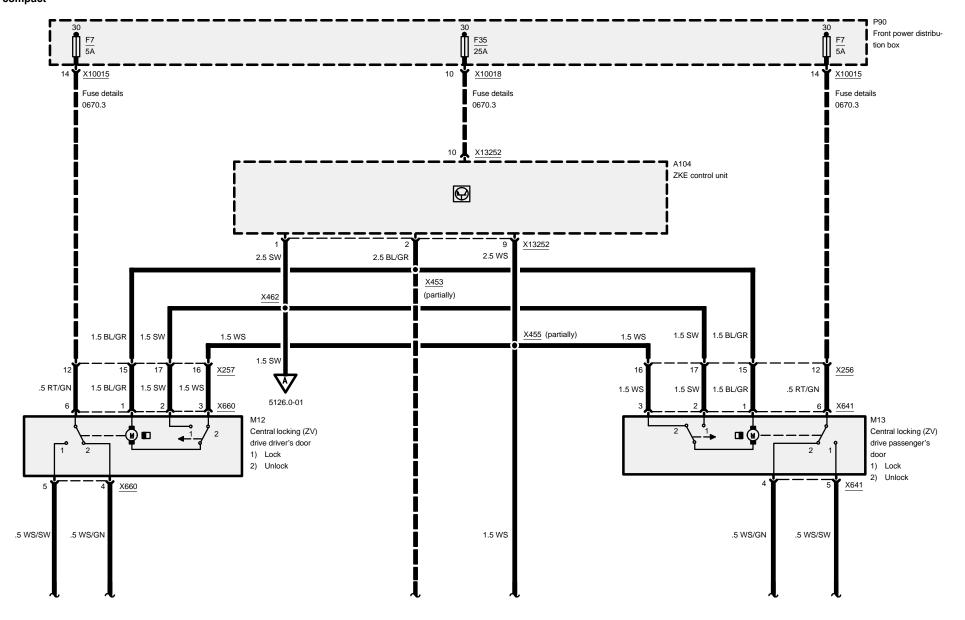
58g

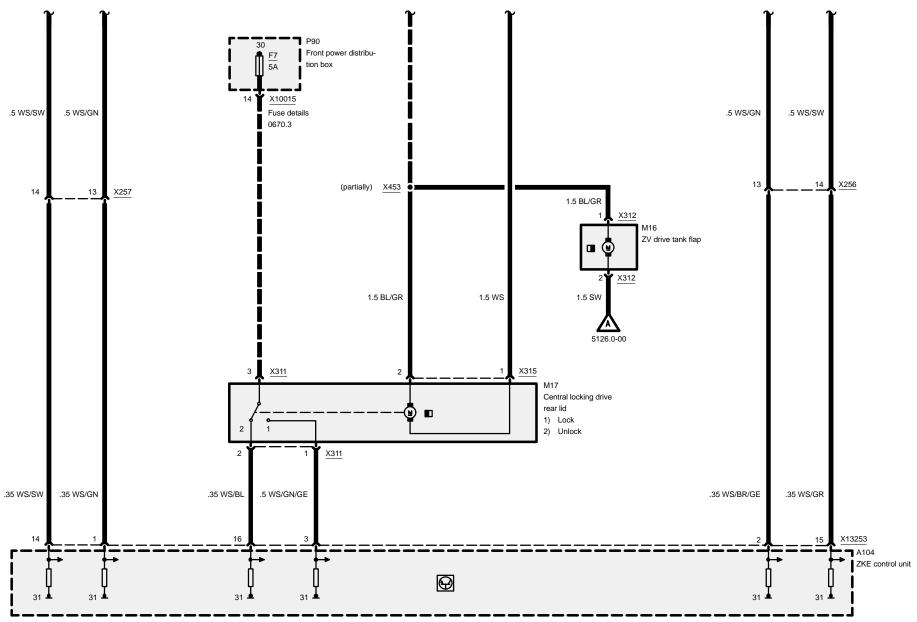
Light switch

compact

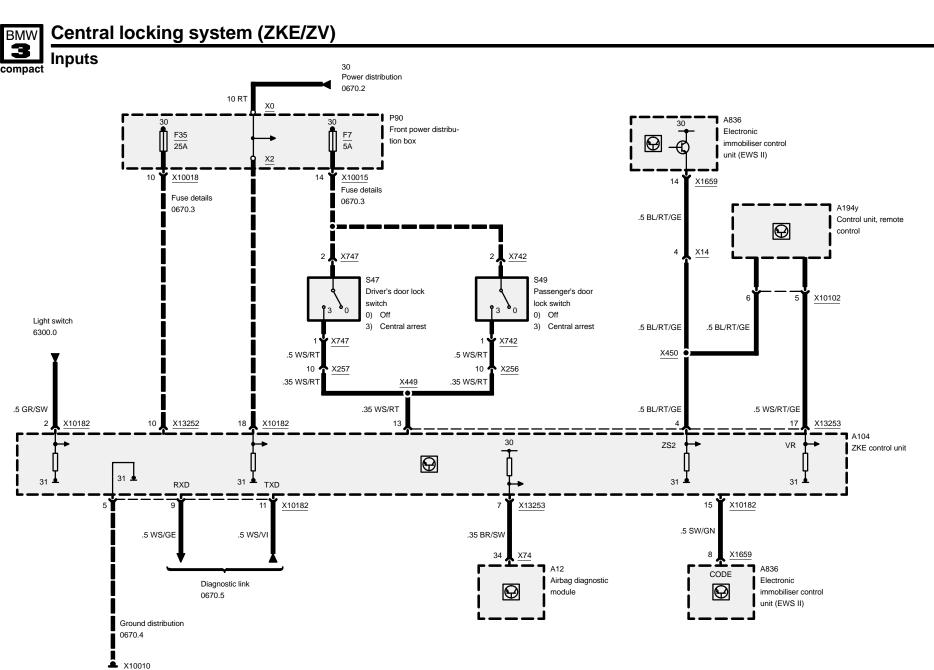




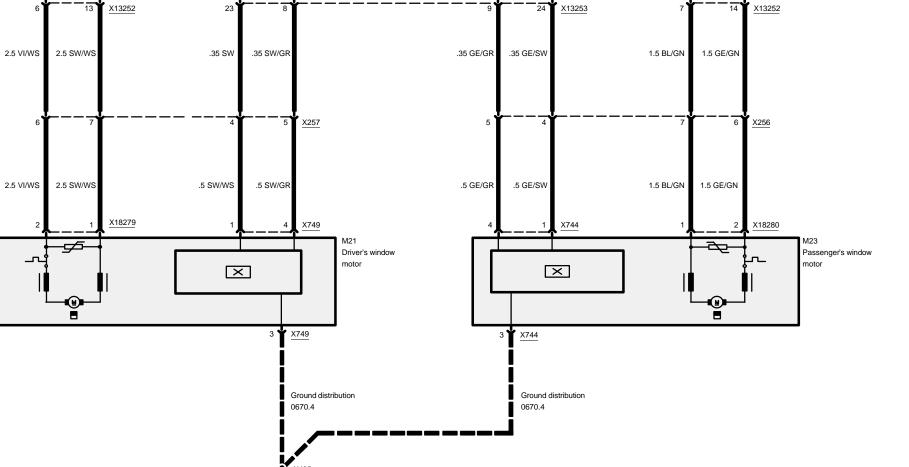








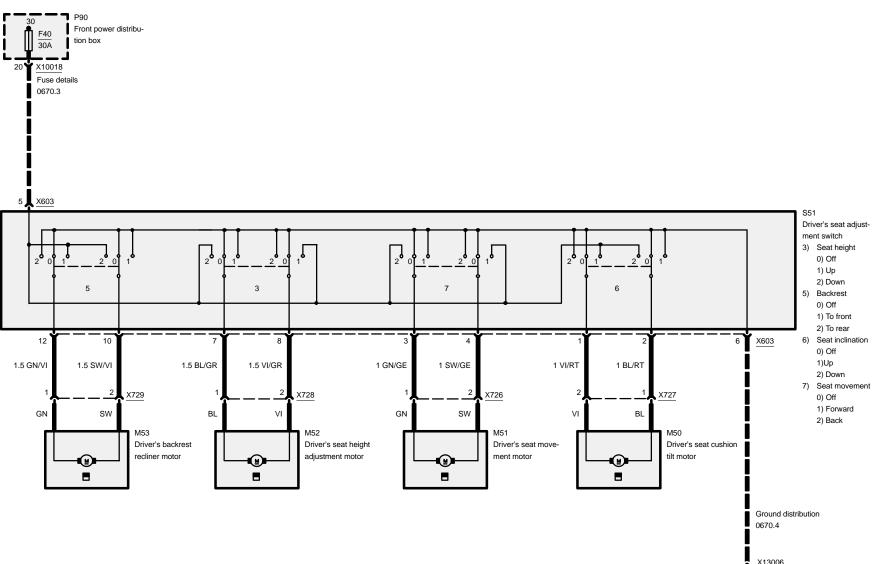
A104 ZKE control unit



 $\Theta$ 

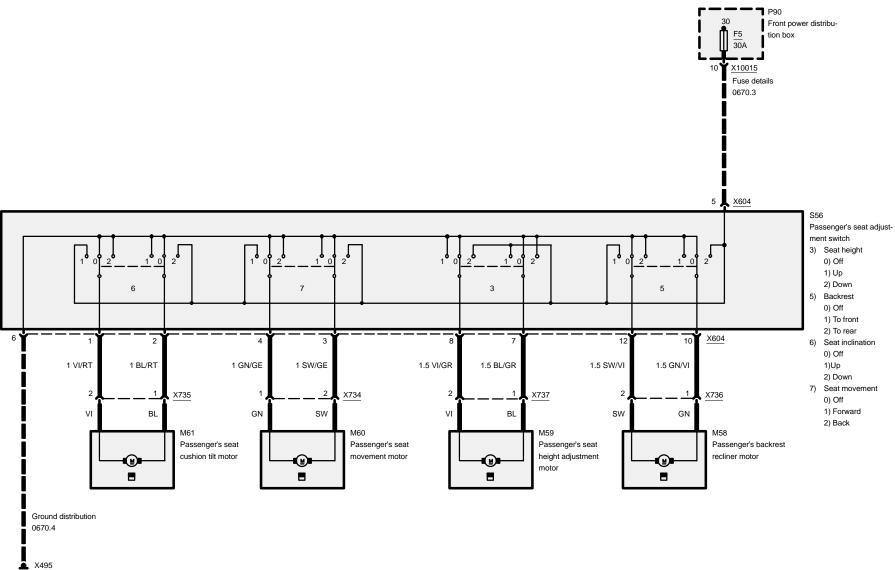
X13006

### 5200.2 Electric seat adjustment and lumbar support Driver's seat **Driver's seat**

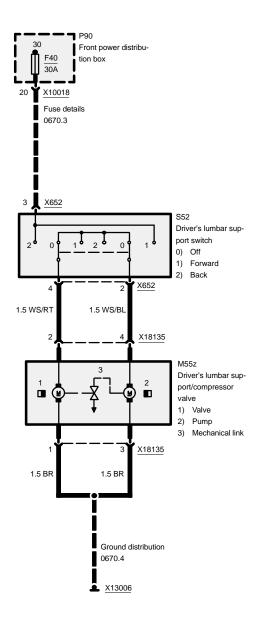




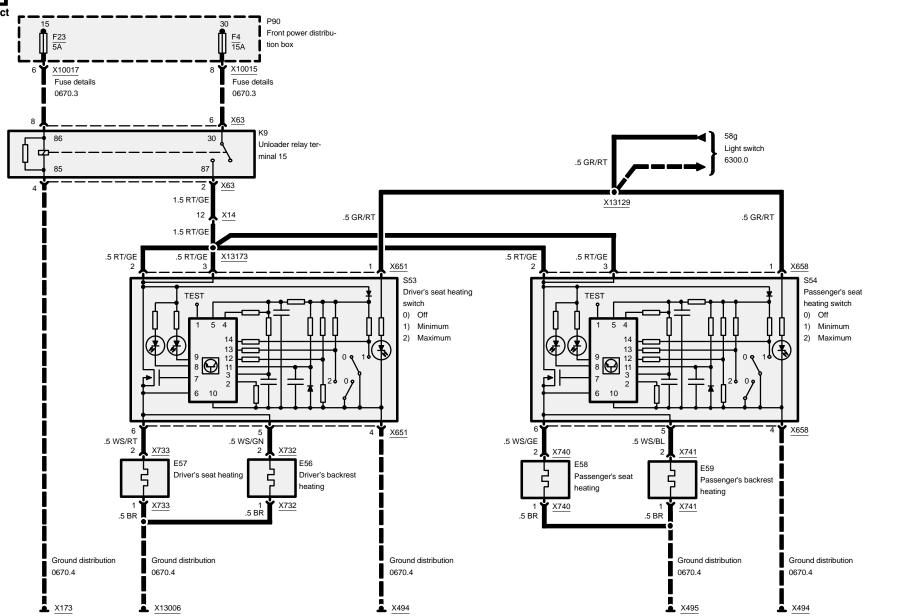
# Electric seat adjustment and lumbar support Passenger's seat

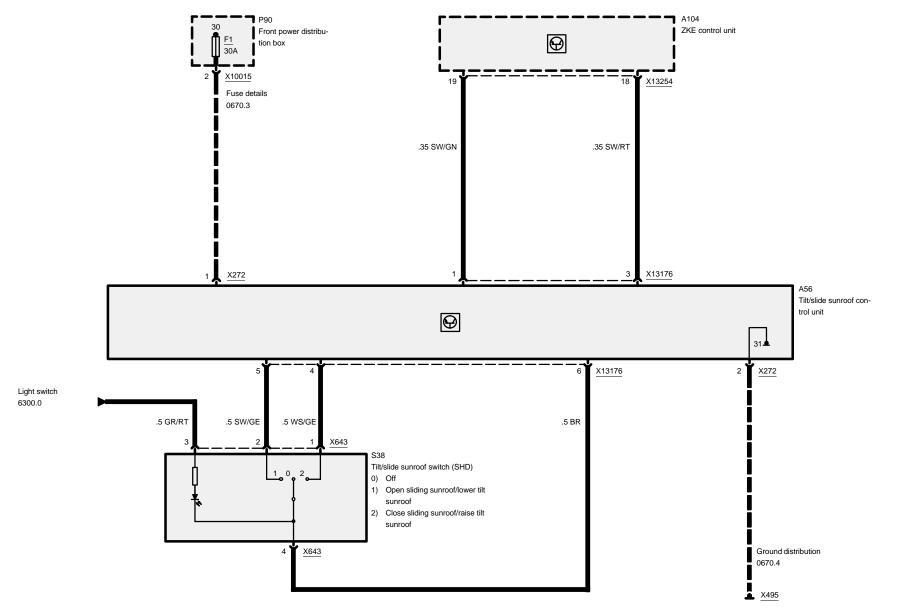


# Electric seat adjustment and lumbar support Driver's lumbar support



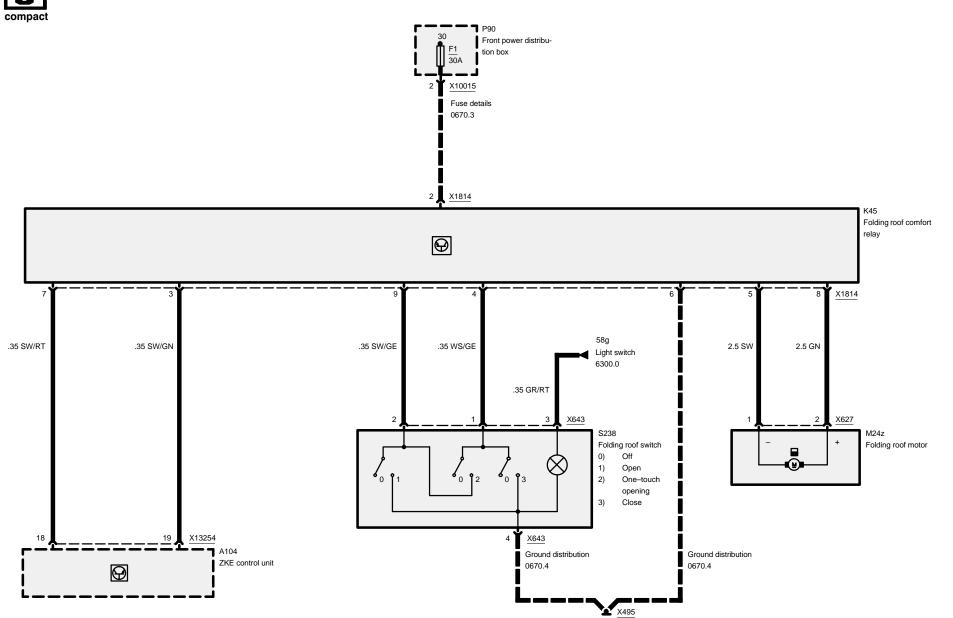
#### 5203.0 Heated seats

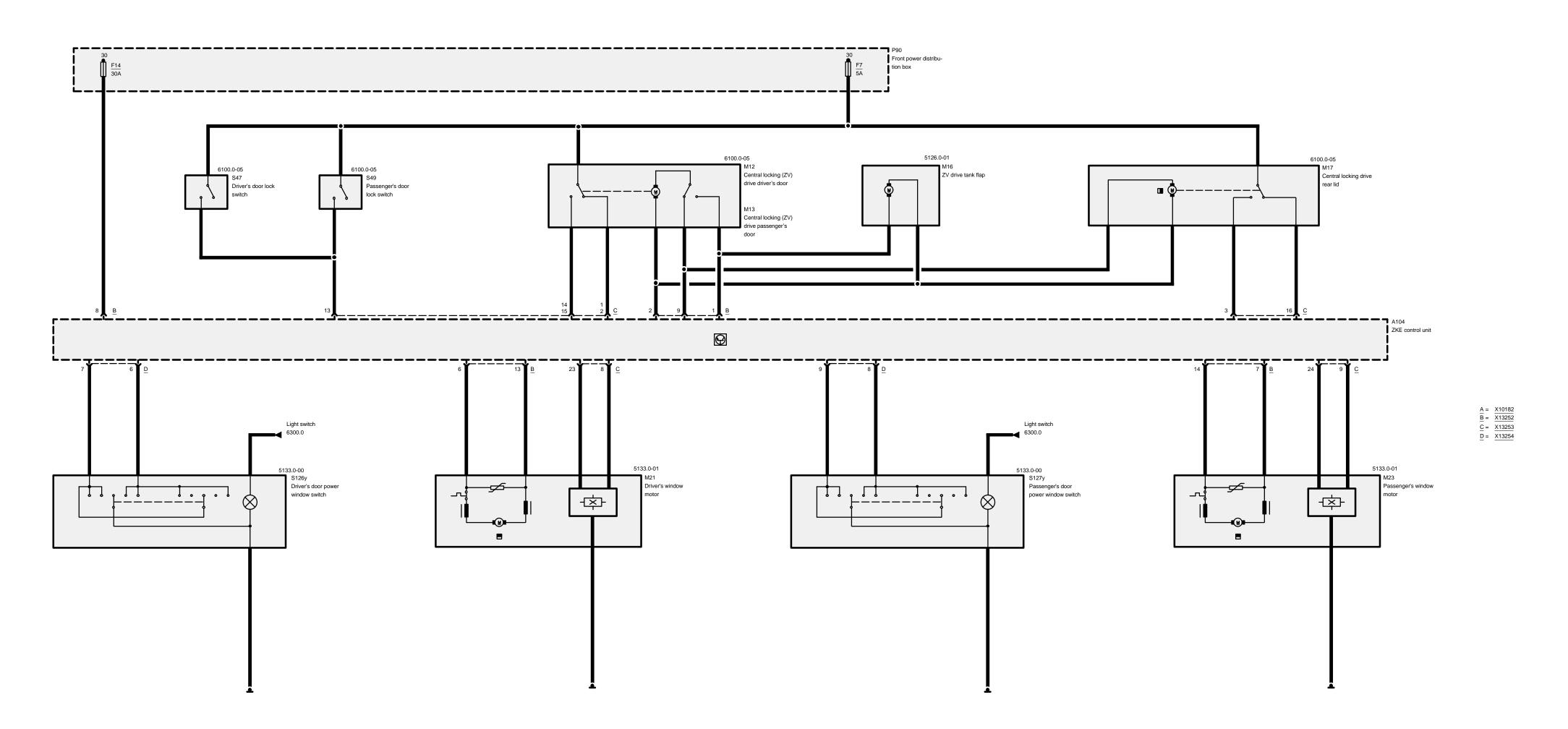


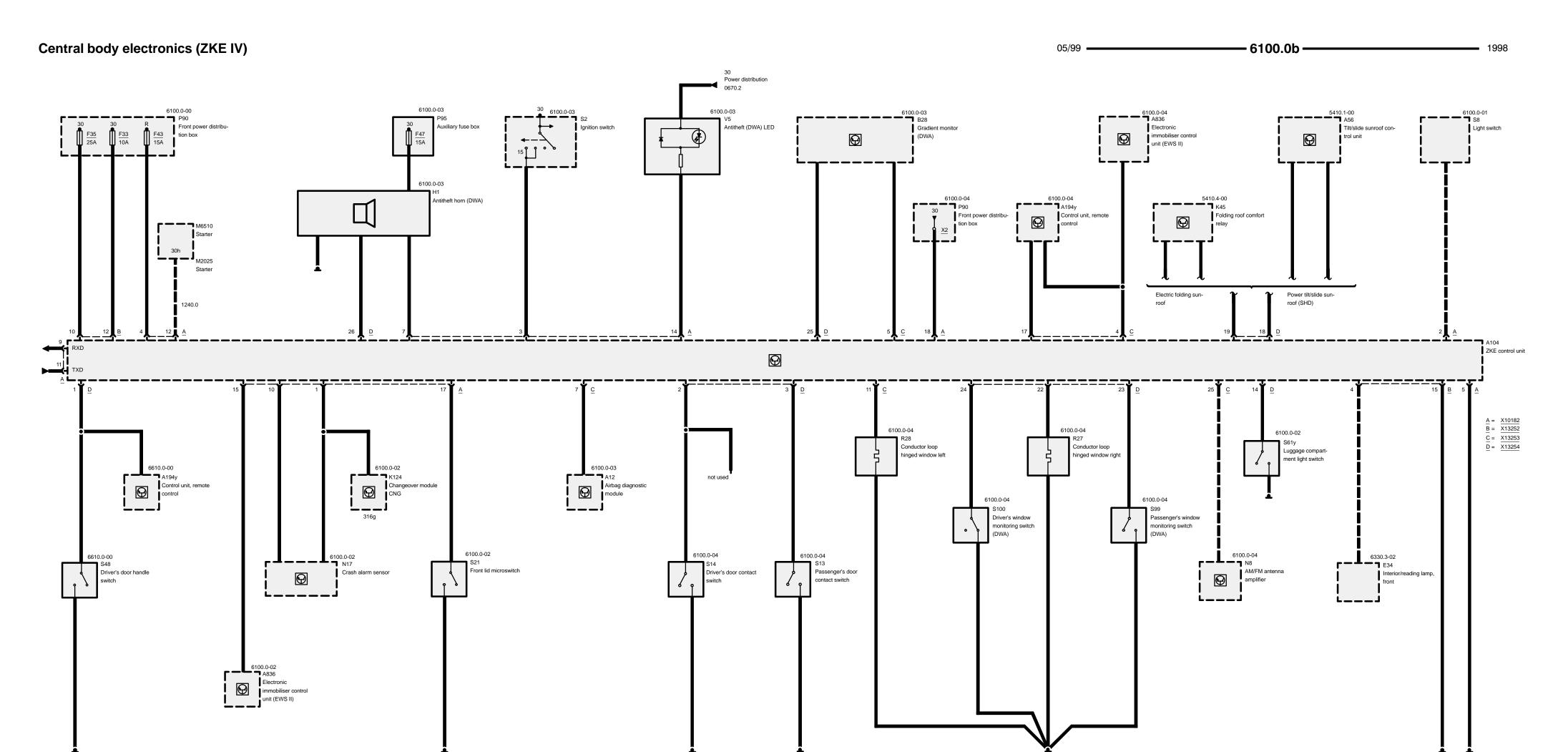




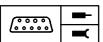
## **5410.4 Electric folding sunroof**











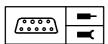
## Pin assignments

A=X10182	18-pin, black
B=X13252	15-pin, black
C=X13253	26-pin, yellow
D=X13254	26-pin, green

#### X10182

Pin	Type	Description/Function	Connection
1	Α	Hazard warning signal	Crash alarm sensor/CNG changeover module
2	Е	Parking light signal	Light switch
3	Е	Terminal, ignition	Ignition switch
4	Е	Terminal, radio	Fuse 43
5	М	Ground	Ground connection
6		Not used	
7	Α	Horn activation	Antitheft (DWA) horn
8		Not used	
9	Α	RxD diagnostic link	Diagnostic connector
10	Α	Visual alarm DWA	Crash alarm sensor
11	E/A	TxD diagnostic data link	Diagnostic connector
12	Е	Starter signal	Starter
13		Not used	
14	Α	LED	DWA LED
15	Α	Vehicle immobilization	Control unit, electronic immobilizing device (EWS II)
16		Not used	
17	Е	DWA signal	Front lid microswitch
18	Е	Power supply, terminal 30	Front power distribution box

1998



#### Pin assignments

#### X13252

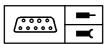
Pin	Type	Description/Function	Connection
1	Α	Arrest signal	Drives, central locking
2	Α	Unlock signal	Drives, central locking
3		Not used	
4	Α	Interior lights	Reading light
5		Not used	
6	Α	Open signal	Power window motor, driver's door
7	Α	Close signal	Power window motor, passenger's door
8	E	Power supply, front power window	Fuse 14
9	Α	Lock signal	Drives, central locking
10	Е	Power supply, central locking	Fuse 35
11		Not used	
12	E	Power supply, Interior lights	Fuse 33
13	Α	Close signal	Power window motor, driver's door
14	Α	Open signal	Power window motor, passenger's door
15	М	Ground	Ground connection

#### X13253

Pin	Type	Description/Function	Connection
1	Е	Unlock signal	Central locking drive, driver's door
2	Е	Unlock signal	Central locking drive, front passenger's door
3	Е	Unlock signal	Central locking drive, boot lid
4	E	Arrest signal	Control unit, electronic immobilizing device (EWS II)
5	Е	Tilt signal	Tilt alarm sensor
6		Not used	
7	Е	Crash pulse	Airbag control unit
8	Е	Position pulse A	Power window motor, driver's door
9	Е	Position pulse A	Power window motor, passenger's door
10		Not used	
11	Е	Window monitor	Conductor loop, rear left
12		Not used	

E = Input, A = Output, M = Ground

6100.0-c -05/99



### Pin assignments

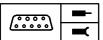
Pin	Type	Description/Function	Connection
13	E	Central arrest signal	Lock switch
14	Е	Lock signal	Central locking drive, driver's door
15	Е	Lock signal	Central locking drive, front passenger's door
16	Е	Lock signal	Central locking drive, boot lid
17	Е	Remote control	Remote control unit
18		Not used	
19		Not used	
20		Not used	
21		Not used	
22		Not used	
23	Α	Position sensor	Power window motor, driver's door
24	Α	Position sensor	Power window motor, passenger's door
25	Е	Rear window monitor	Antenna amplifier
26		Not used	

#### X13254

Pin	Type	Description/Function	Connection
1	Е	Door handle contact	Microswitch on door handle
2	E	Driver's door	Door contact switch
3	E	Front passenger's door	Door contact switch
4		Not used	
5		Not used	
6	Е	Open signal	Power window switch, driver's door
7	Е	Close signal	Power window switch, driver's door
8	E	Open signal	Power window switch, passenger's door
9	E	Close signal	Power window switch, passenger's door
10		Not used	
11		Not used	
12		Not used	
13		Not used	
14	E	Luggage compartment monitoring, DWA	Luggage compartment light switch
15		Not used	
16		Not used	

E = Input, A = Output, M = Ground



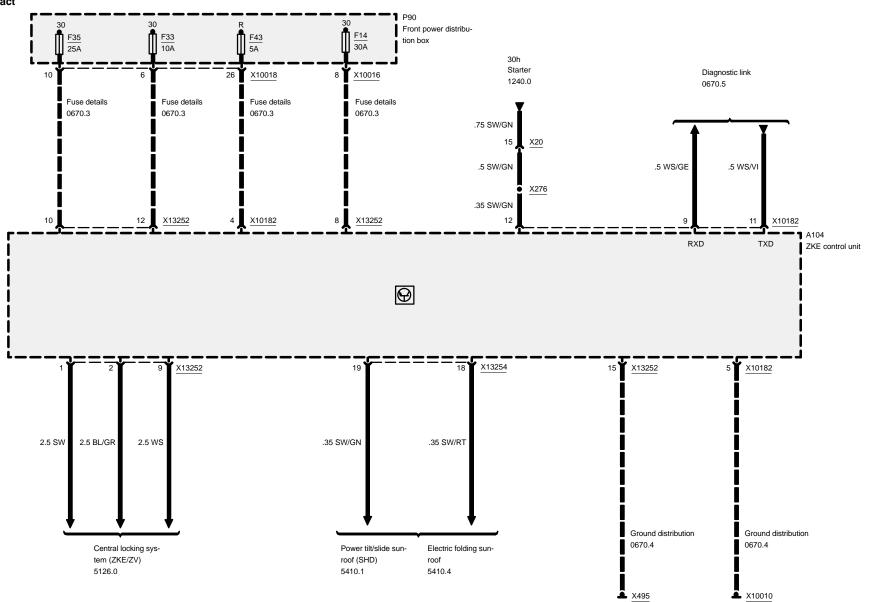


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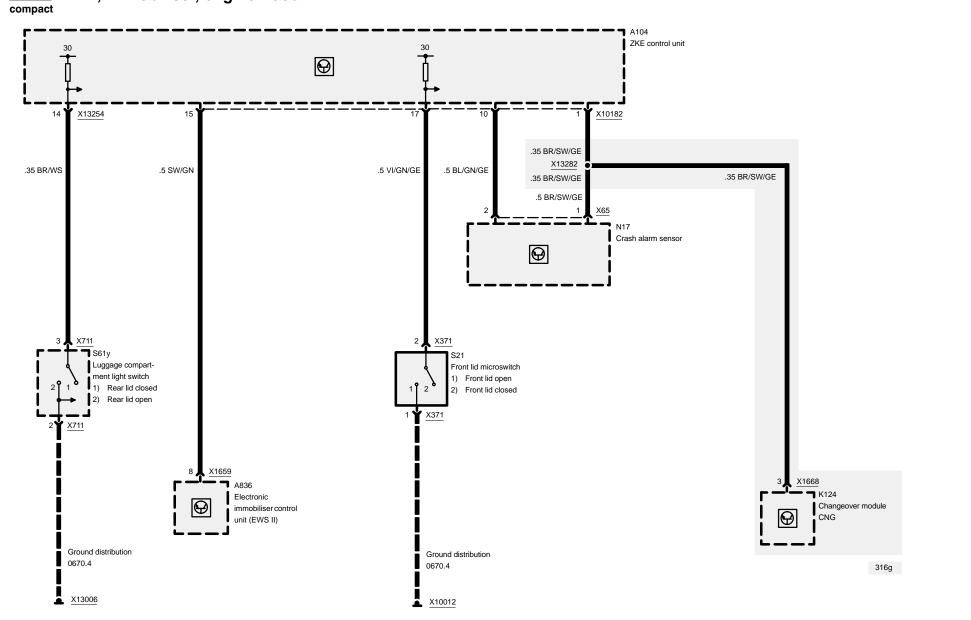
## Pin assignments

Pin	Туре	Description/Function	Connection
17		Not used	
18	Α	Convenience locking	Sunroof control unit/comfort relay, folding top
19	Α	Enable sunroof/folding top	Comfort relay, folding top/sunroof control unit
20		Not used	
21		Not used	
22	Е	Window monitor	Conductor loop, rear right
23	Е	Window monitor	Window monitoring switch, front passenger's door
24	E	Window monitor	Window monitoring switch, driver's door
25	Α	DWA output	Tilt monitor
26	Α	Alarm signal	Antitheft (DWA) horn

#### Central body electronics (ZKE IV)

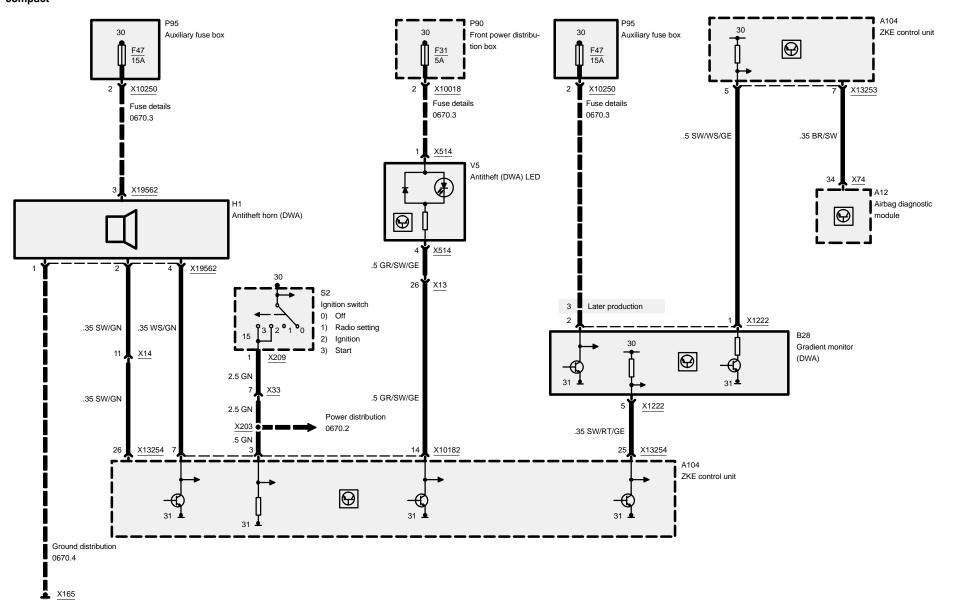


(ZKE/FH) 5133.0



#### Central body electronics (ZKE IV)

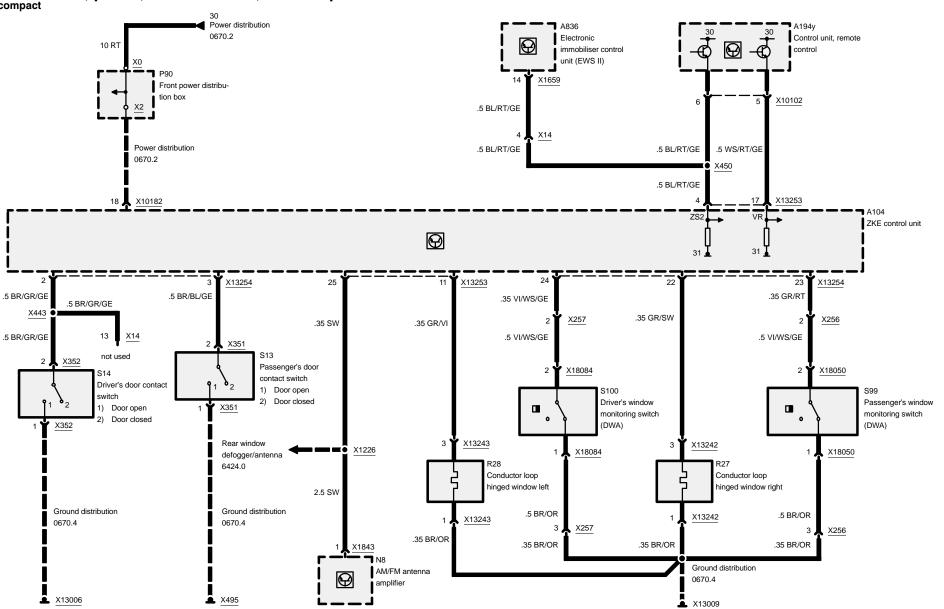
#### DWA, tilt monitor, alarm horn



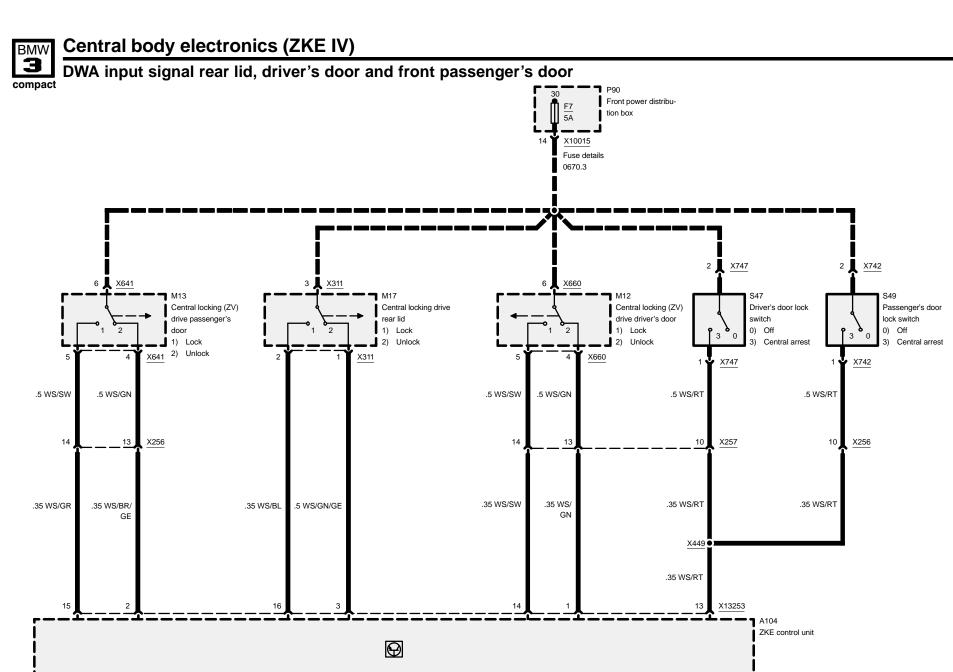


## Central body electronics (ZKE IV) DWA nower deal

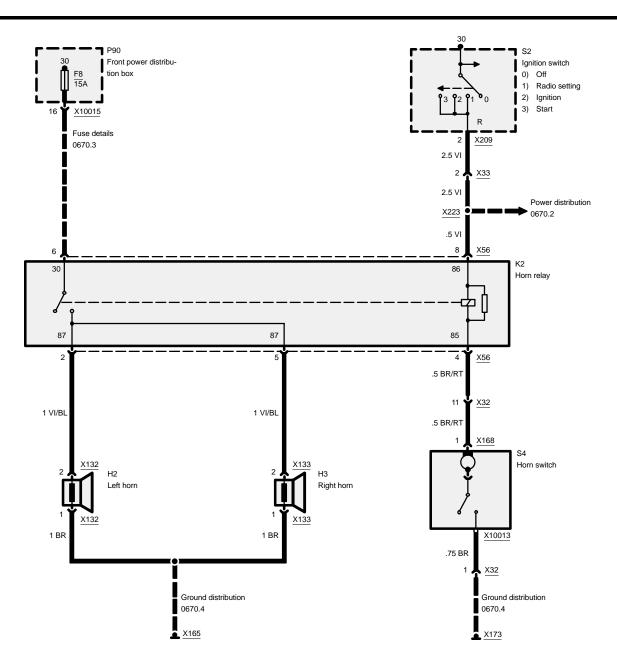




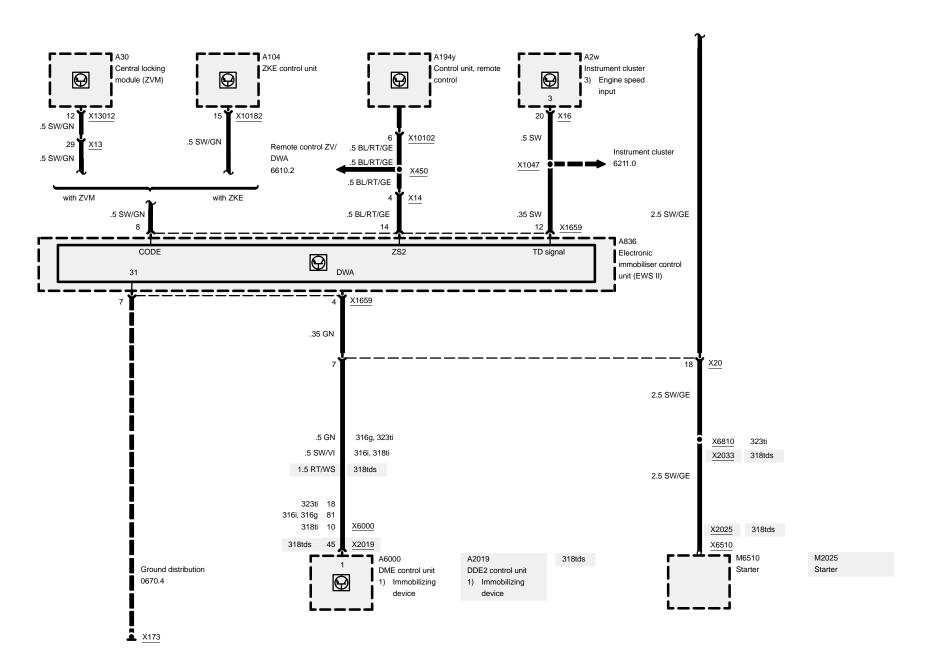


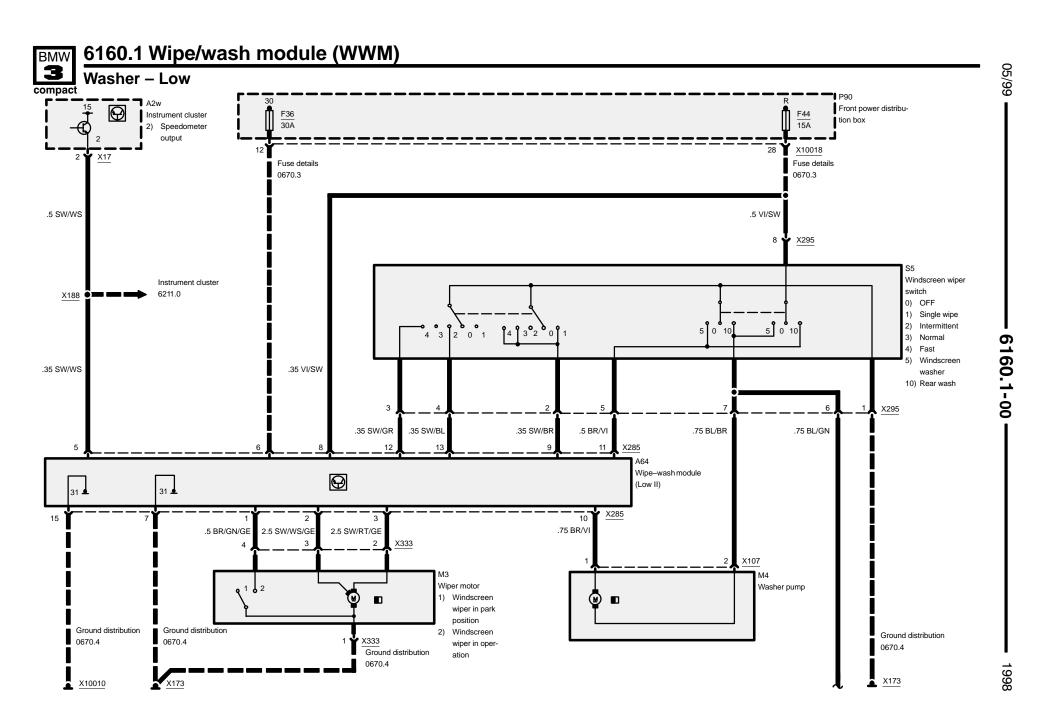


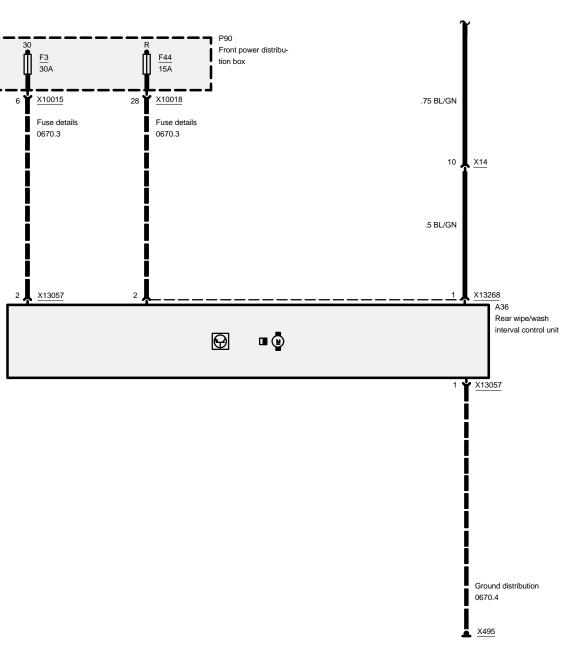
compact

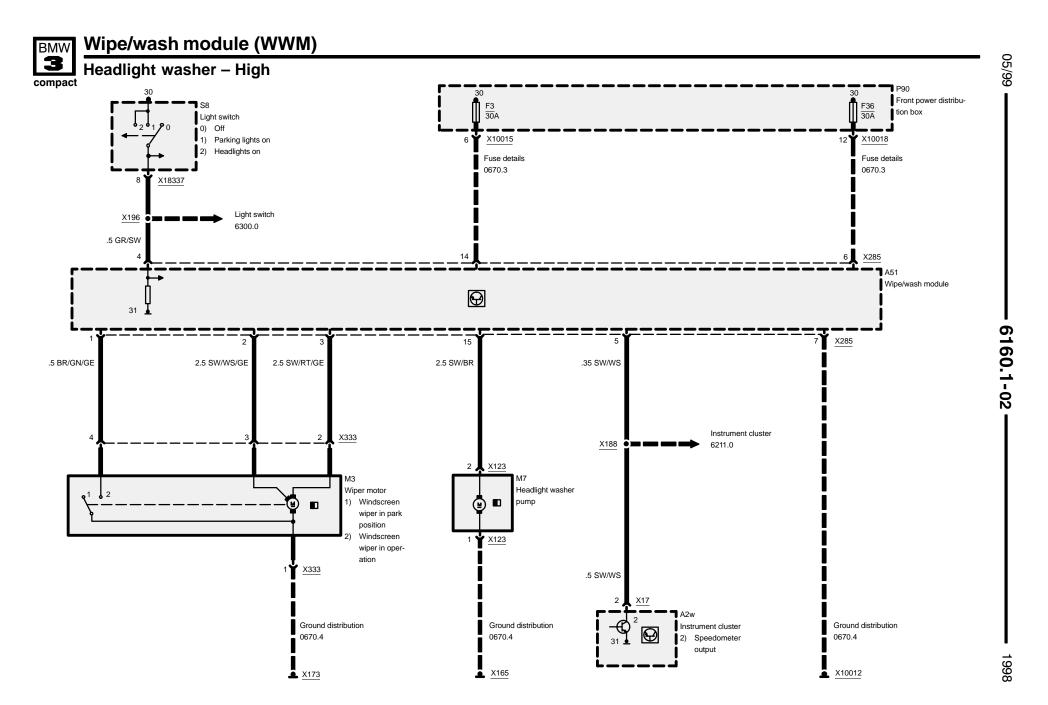


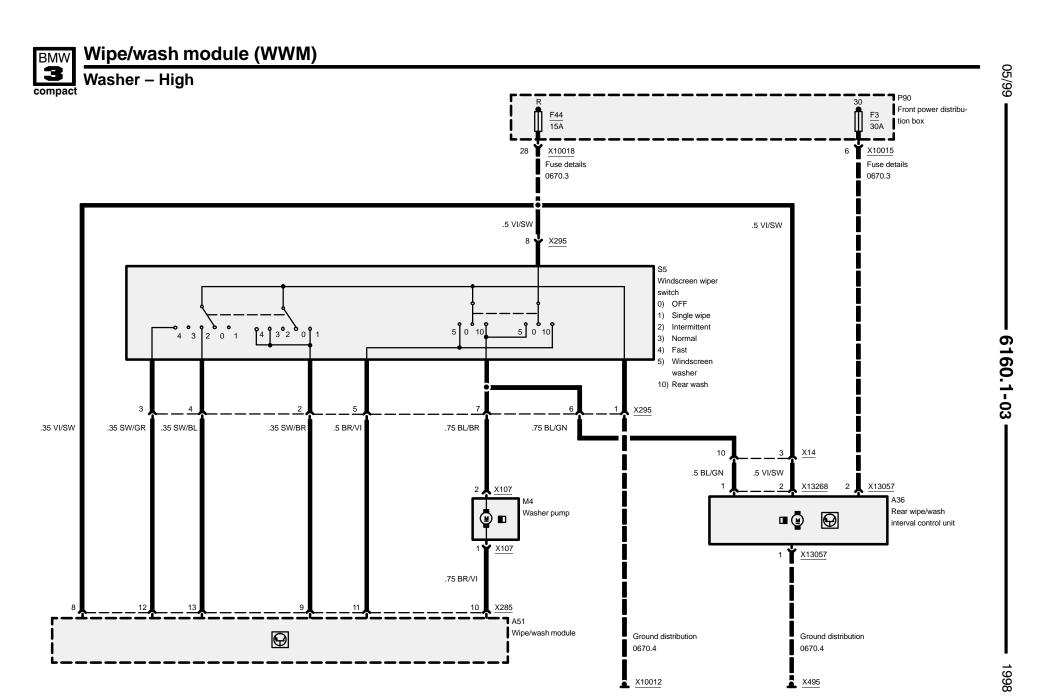
2.5 SW/GE



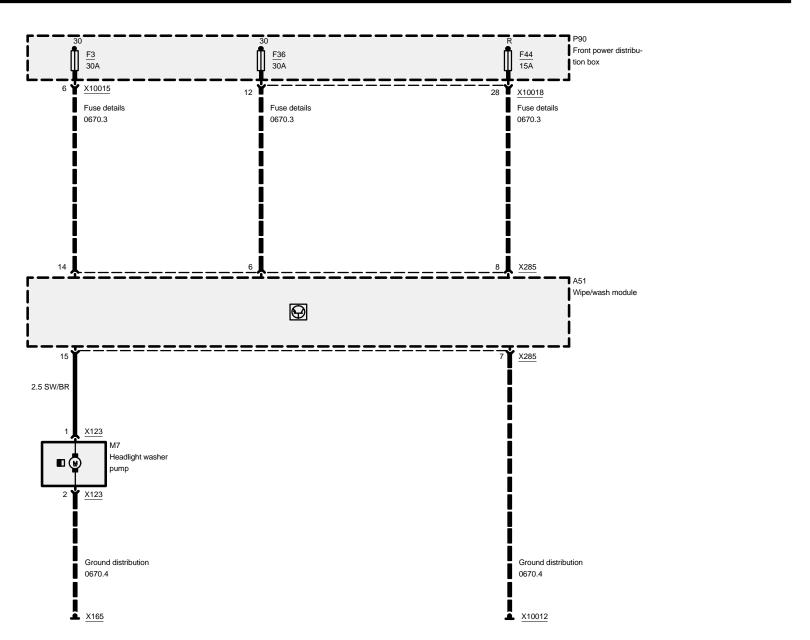


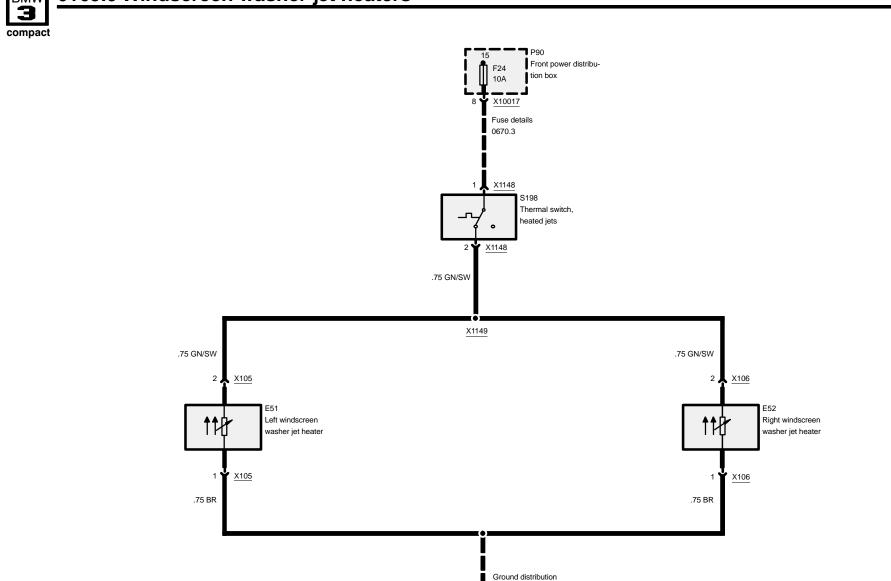






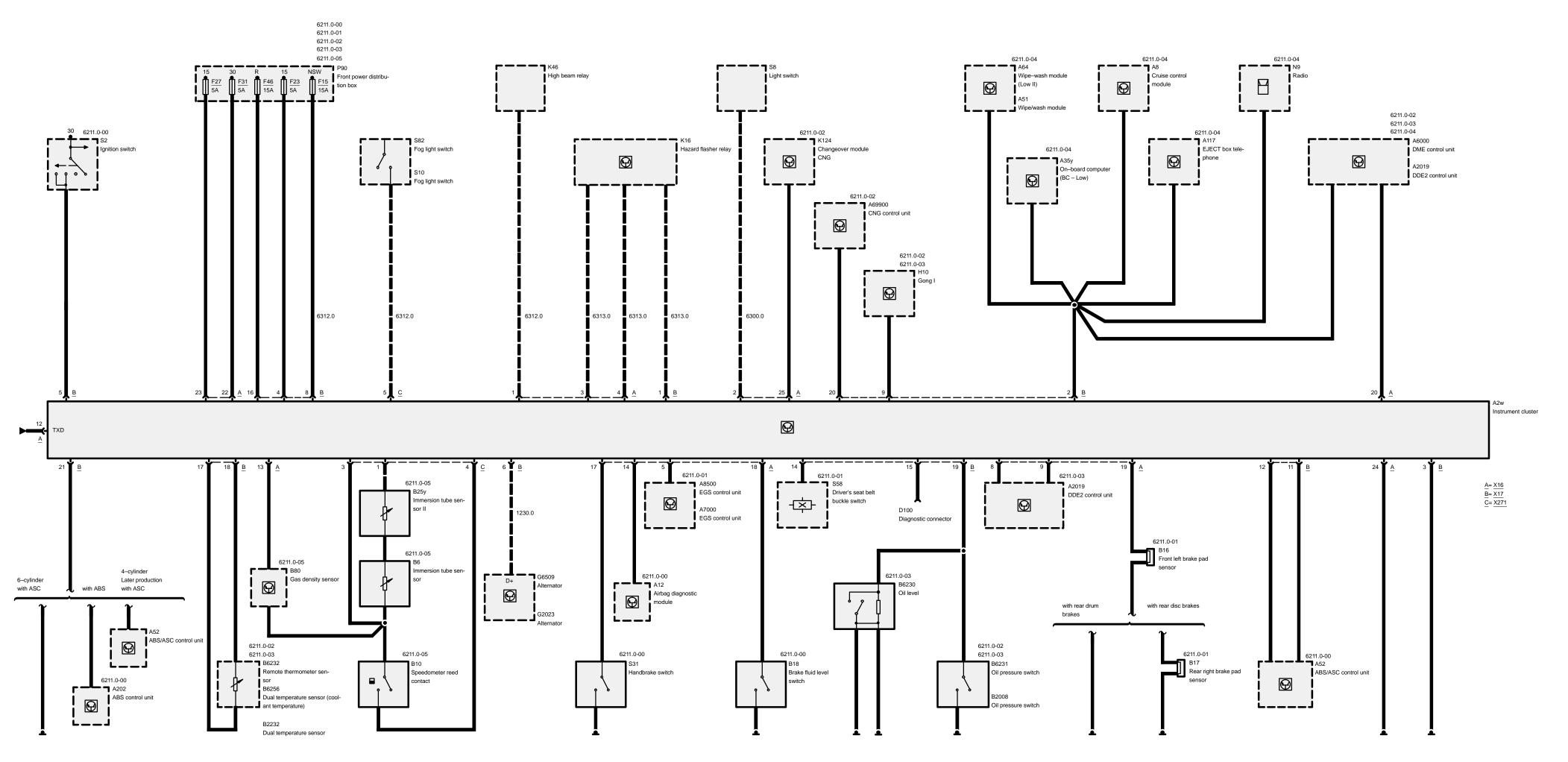
#### 6167.1 Headlight washer system (SRA)



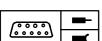


0670.4

🔔 X173







### Pin assignments

A=X16	26-pin, natural
B=X17	26-pin, blue
C=X271	12-pin, black

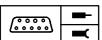
#### <u>X16</u>

Type	Description/Function	Connection
Е	Indicator light, high beam	High beam relay
Е	Terminal 58g, instrument panel lights Dimmer	
Е	Indicator lamp, turn signal indicator, right	Hazard warning light relay
Е	Indicator lamp, turn signal indicator, left	Hazard warning light relay
Е	Warning lamp, EGS fault/information signal, transmission fluid temperature	EGS control unit
	Not used	_
	Not used	_
Е	Failure, digital diesel electronics	DDE2 control unit
Е	Indicator lamp, preheat	DDE2 control unit
	Not used	
	Not used	_
E/A	TxD diagnostic link	Diagnostic connector
Е	Gas pressure	Gas density sensor
Е	Warning light, airbag	Airbag diagnosis module
	Not used	
	Not used	
Е	Warning light, handbrake	Handbrake switch
Е	Warning light, brake fluid	Brake fluid level switch
Е	Warning lamp, brake pad wear	Brake pad sensor, front left
Е	Engine speed signal (TD)	Engine control unit (DME/DDE)
	Not used	
Е	Terminal 30	Front power distribution box Fuse 31
Е	Terminal 15/voltage supply for indicator and warning lamps	Front power distribution box Fuse 27
М	Terminal 31/ground supply for instrument cluster electronics	Ground
	E E E E E E E E E E E E E E E E E E E	E Indicator light, high beam E Terminal 58g, instrument panel lights E Indicator lamp, turn signal indicator, right E Indicator lamp, turn signal indicator, left E Warning lamp, EGS fault/information signal, transmission fluid temperature Not used Not used E Failure, digital diesel electronics E Indicator lamp, preheat Not used Not used E/A TxD diagnostic link E Gas pressure E Warning light, airbag Not used Not used E Warning light, handbrake E Warning light, brake fluid E Warning lamp, brake pad wear E Engine speed signal (TD) Not used E Terminal 30  E Terminal 15/voltage supply for indicator and warning lamps M Terminal 31/ground supply for instrument

E = Input, A = Output, M = Ground



1998



#### Pin assignments

Pin	Type	Description/Function	Connection
25	E	Gas tank empty	CNG changeover module
26		Not used	

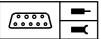
#### <u>X17</u>

Pin	Туре	Description/Function	Connection
1	Е	Indicator lamp, trailer turn signal indicator	Hazard warning light relay
2	Α	Speedometer A-signal	Various control units
3	М	Terminal 31/ground supply for indicator and warning lamps	Ground
4	E	Terminal 15/power supply for instrument cluster electronics	Front power distribution box Fuse 23
5	E	Terminal 15/power supply for battery charge indicator lamp	Ignition switch
6	E	Terminal 61/ground supply for battery charge indicator lamp	Alternator
7		Not used	
8	E	Indicator lamp front fog light	Front power distribution box Fuse 15
9	Α	Acoustic output	Gong
10		Not used	
11	Е	Warning lamp, antilock brake system (ABS)	ABS/ASC control unit
12	Е	Warning lamp, anti-slip control (ASC)	ABS/ASC control unit
13		Not used	
14	Е	Seat belt warning lamp	Driver's belt buckle switch KSA
15	E	S/A reset/service indicator	Diagnosis socket
16	E	Terminal R	Front power distribution box Fuse 46
17	Е	Coolant temperature signal (–)	Coolant temperature sensor
18	Е	Coolant temperature sensor (+)	Coolant temperature sensor
19	Е	Warning lamp, oil pressure /oil level	Oil pressure switch/oil level
20	Е	Gas mode indicator	CNG control unit
21	E M	ABS warning lamp Ground, ABS warning lamp	ABS/ASC control unit (4-cylinder) ABS/ASC control unit (with ASC) (6-cylinder)
22		Not used	

E = Input, A = Output, M = Ground







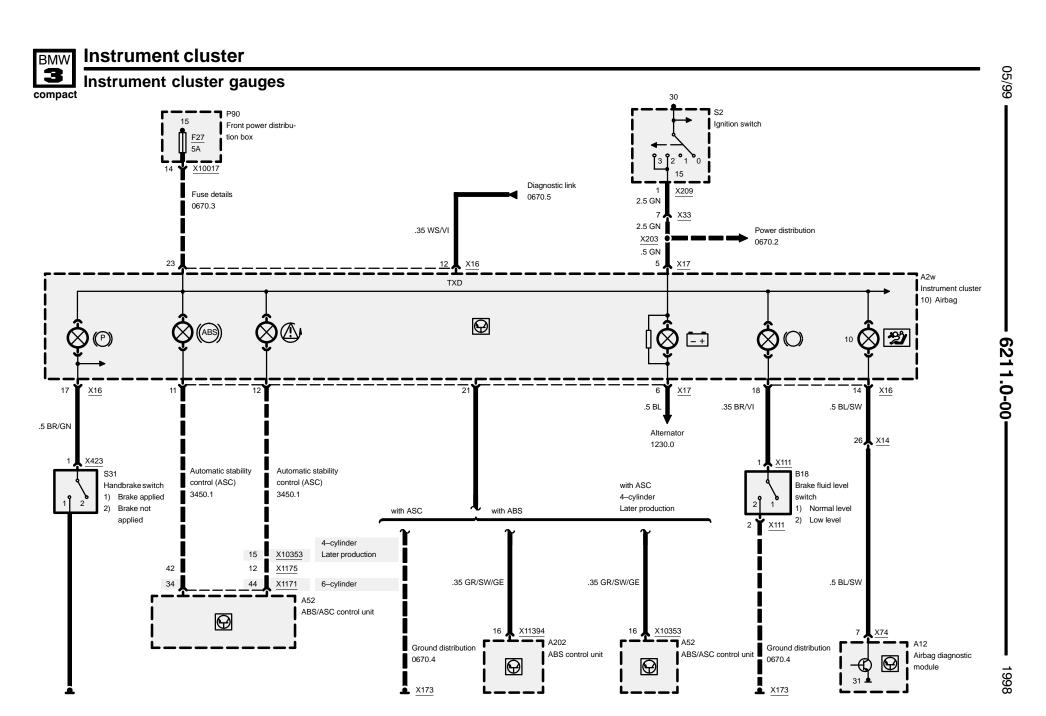
05/99

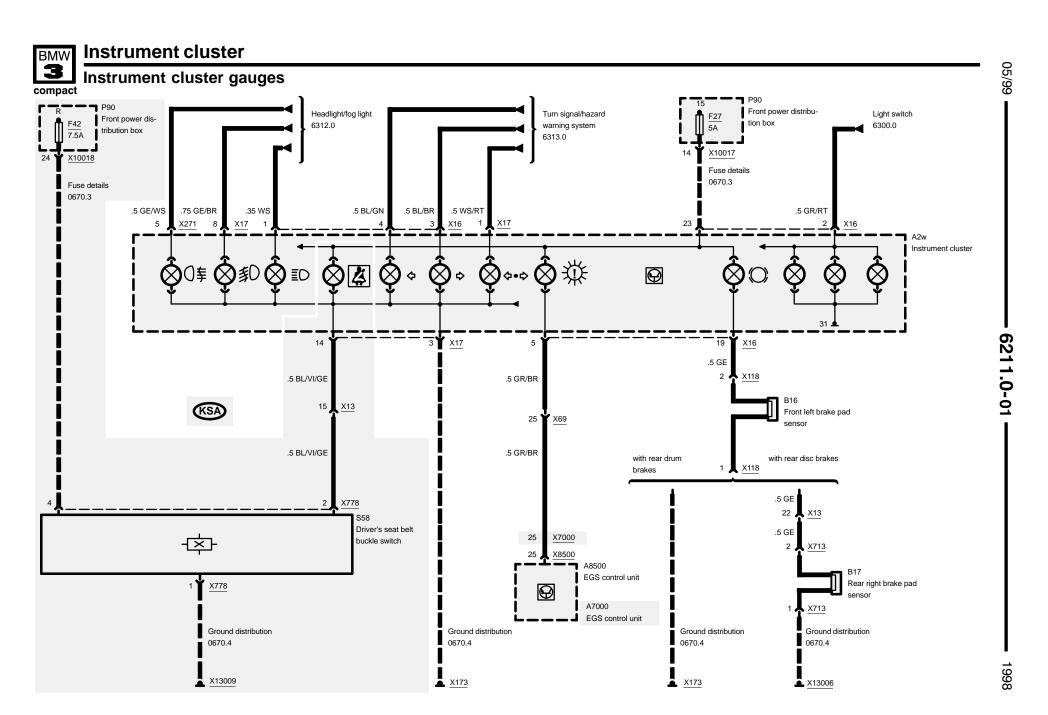
### Pin assignments

Pin	Type Description/Fu	unction Connection	
23	Not used		
24	Not used		
25	Not used		
26	Not used		

#### <u>X271</u>

Pin	Type	Description/Function	Connection
1	Α	Fuel tank sensor/fuel level sensor	Fuel tank sensor
2		Not used	
3	Α	Fuel tank sensor, position signal generator (reed contact)	Ground, terminal 31b
4	Е	Position signal TW	Position signal generator (reed contact)
5	Е	Indicator lamp, rear fog light	Rear fog lamp switch
6		Not used	
7		Not used	
8		Not used	
9		Not used	
10		Not used	
11		Not used	
12		Not used	

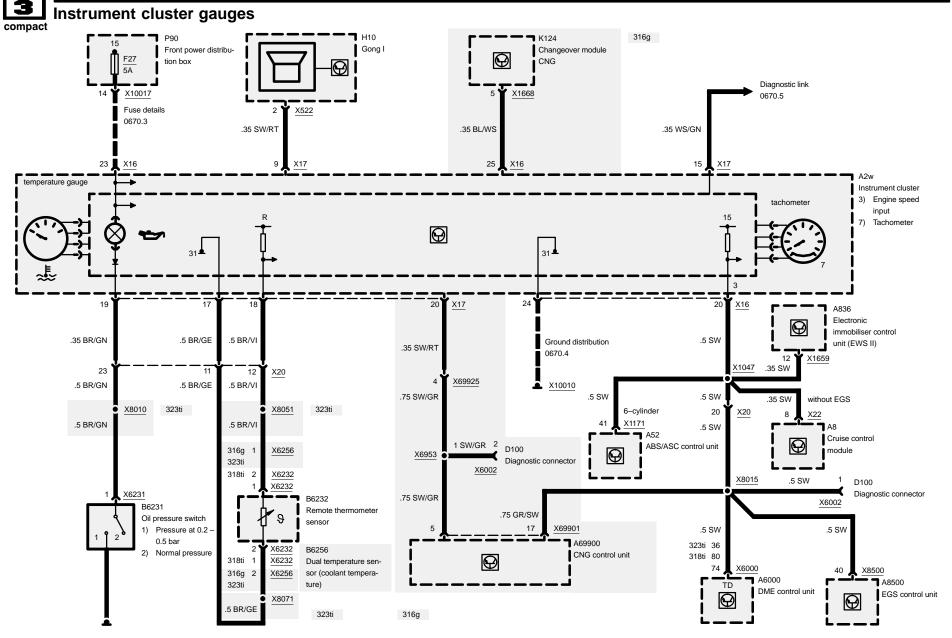


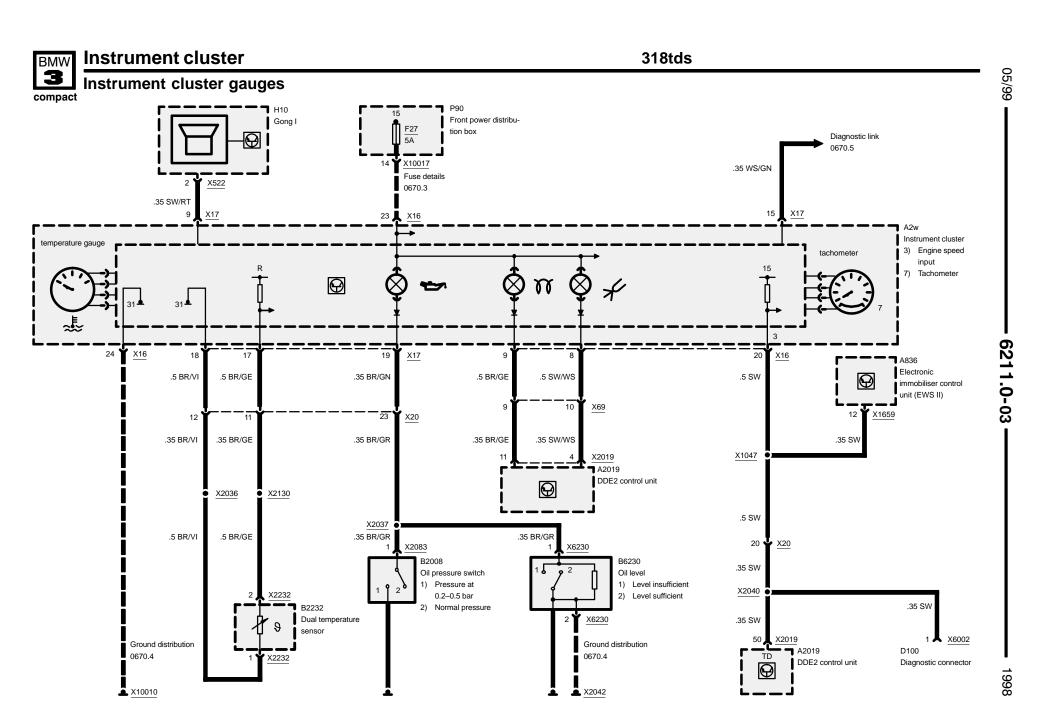


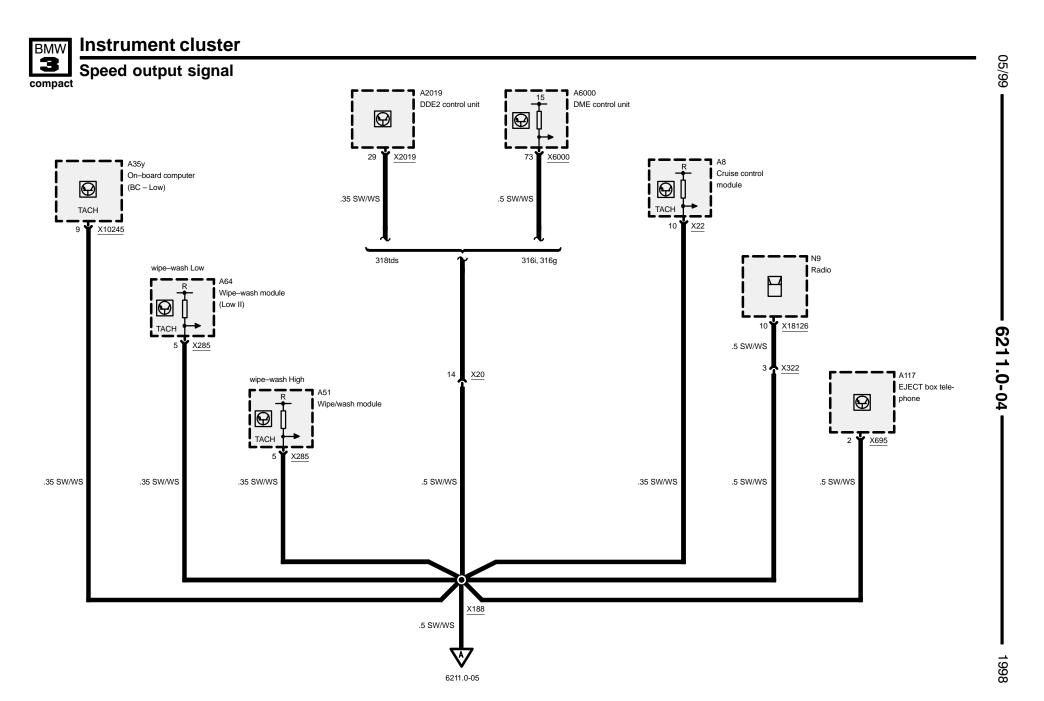


**BMW** 

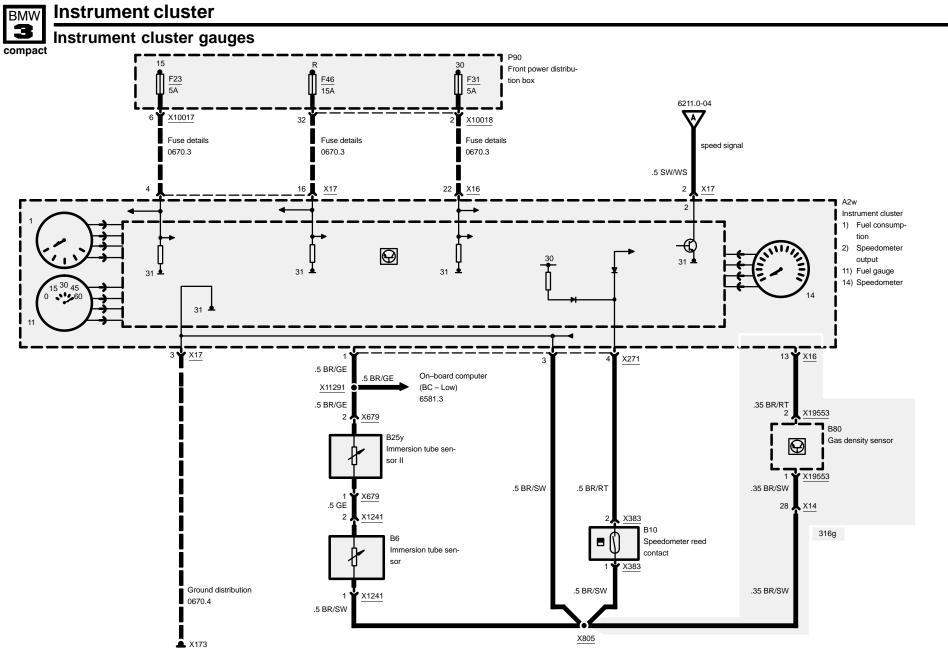
316i, 316g, 318ti, 323ti



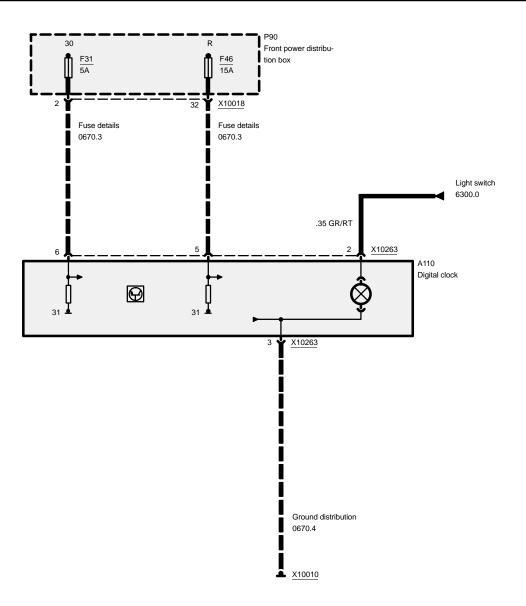


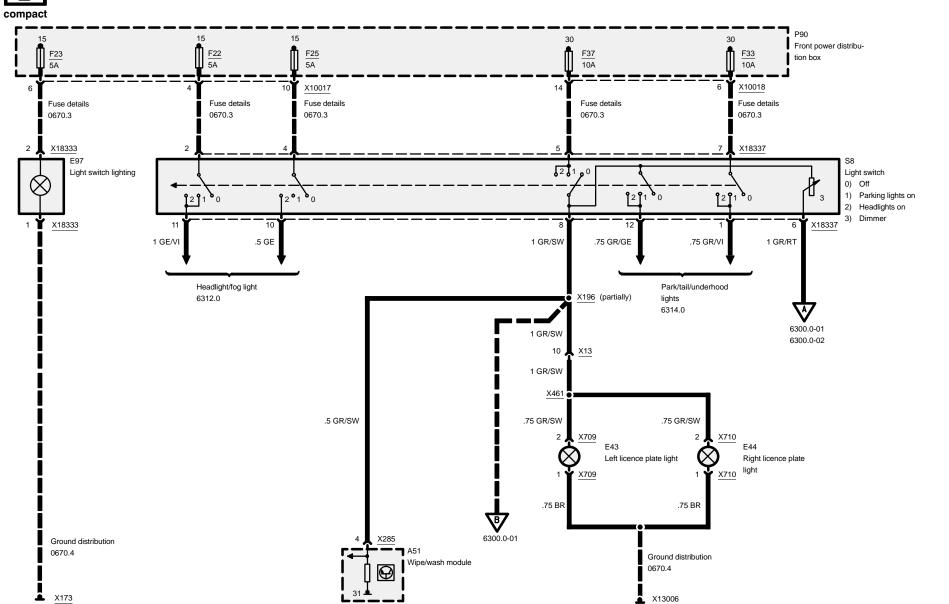


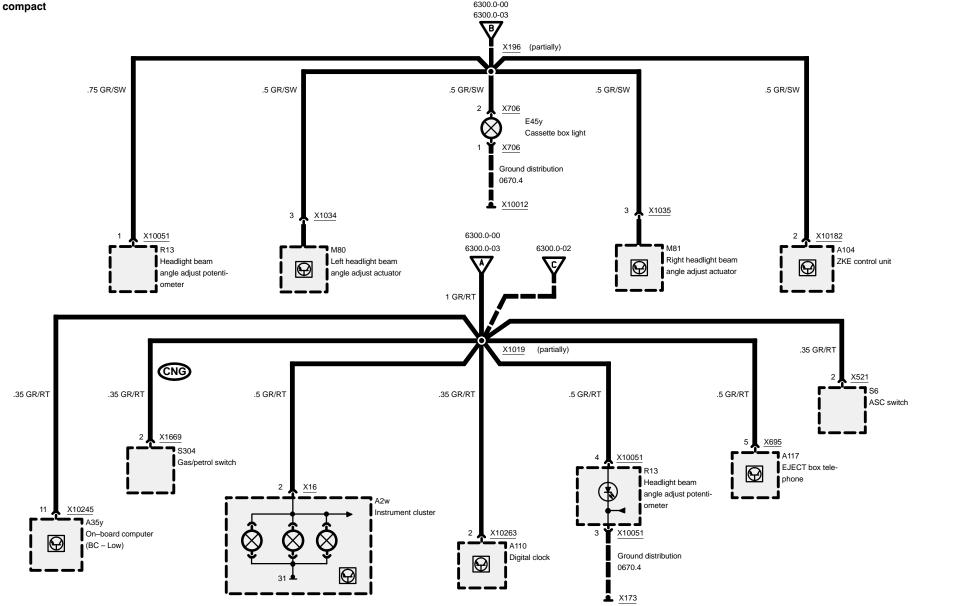




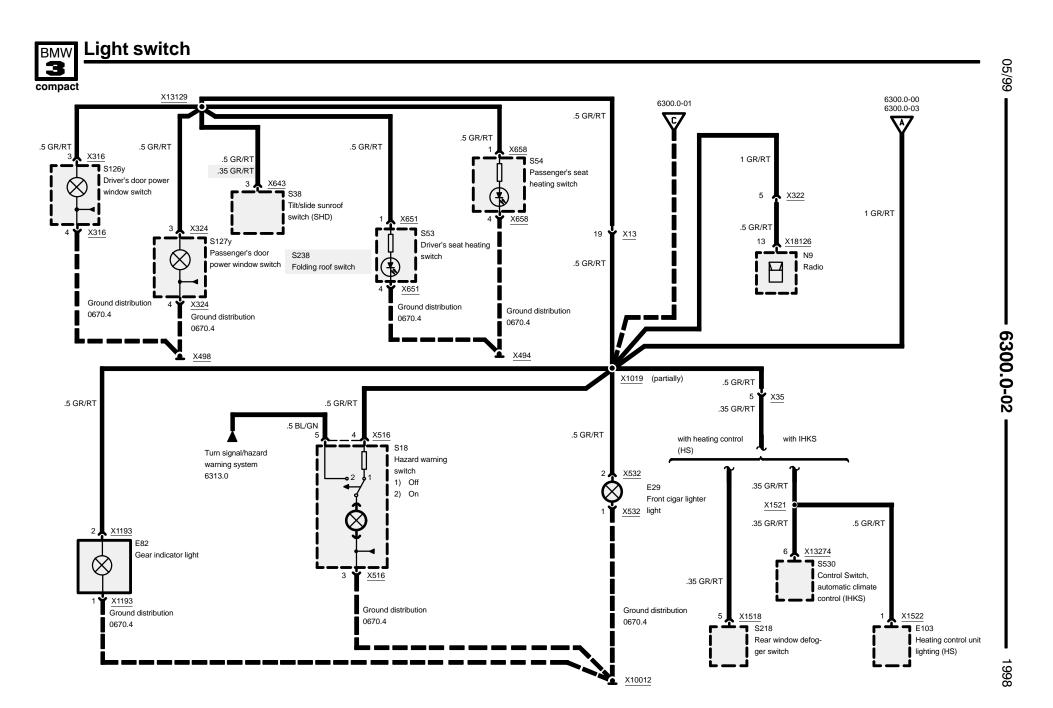
compact



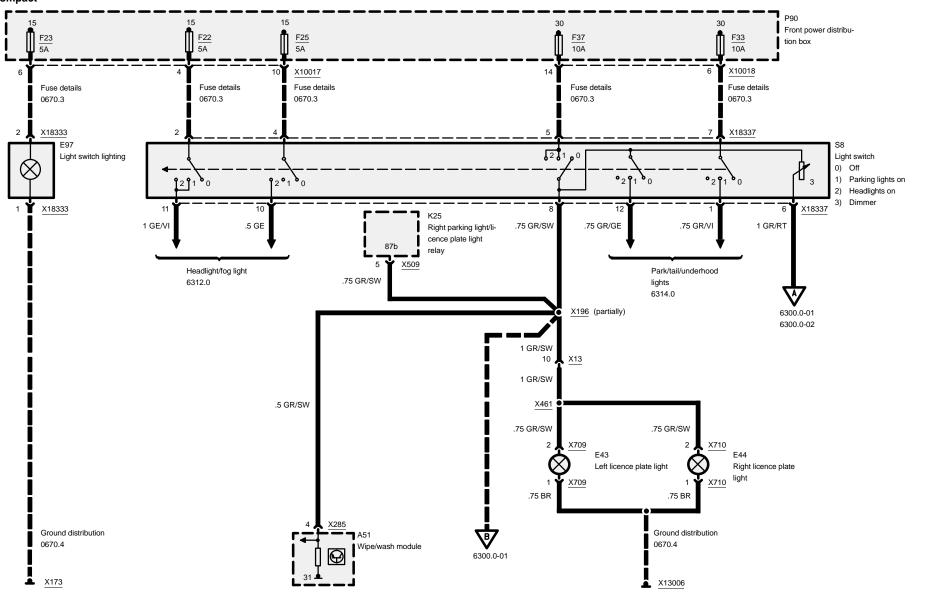




6300.0-00

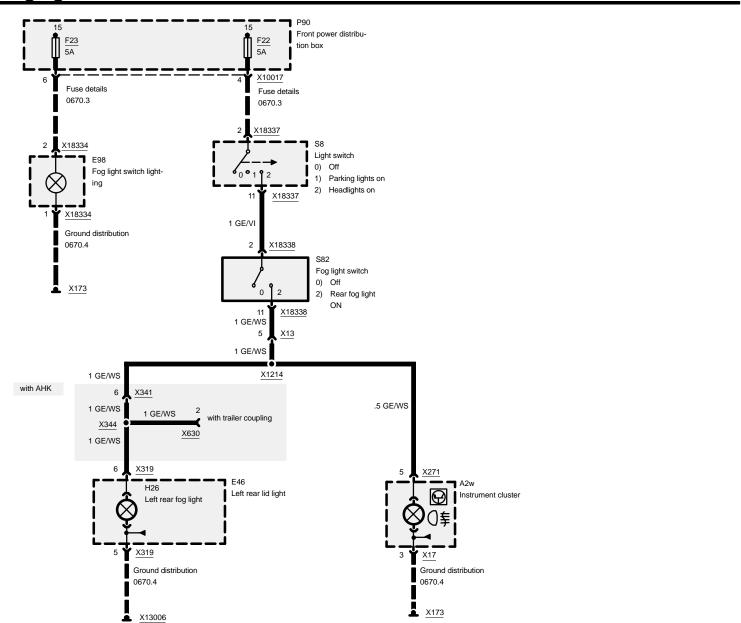




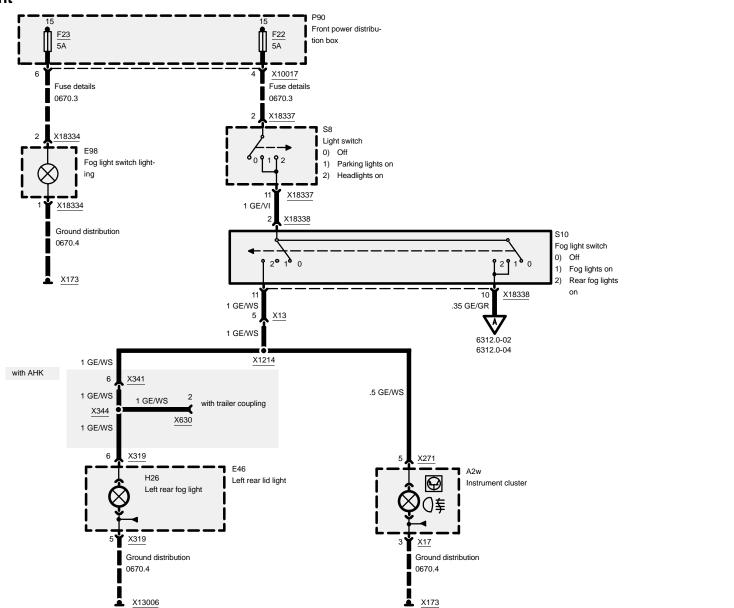




# BMW 3 6312.0 Headlight/fog light Rear fog light



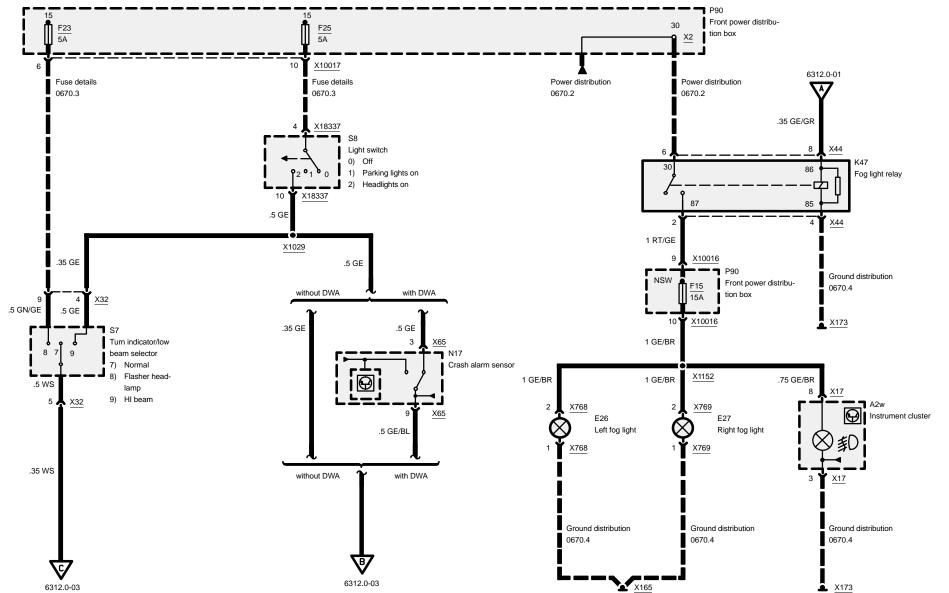
## Headlight/fog light Rear fog light, fog light

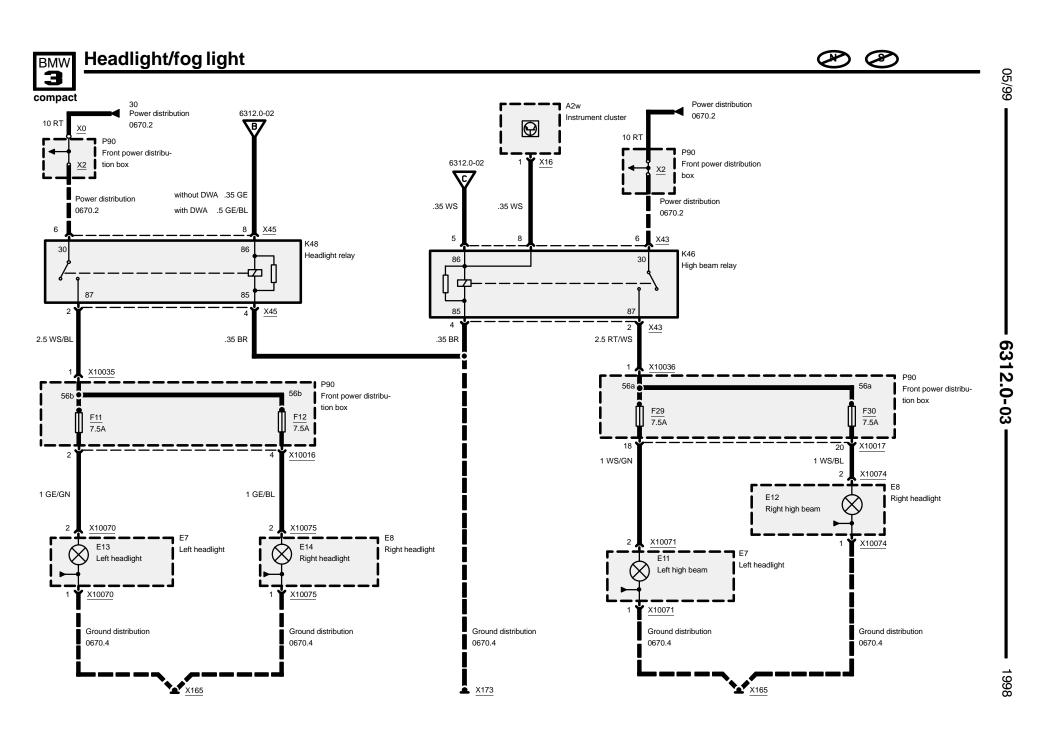


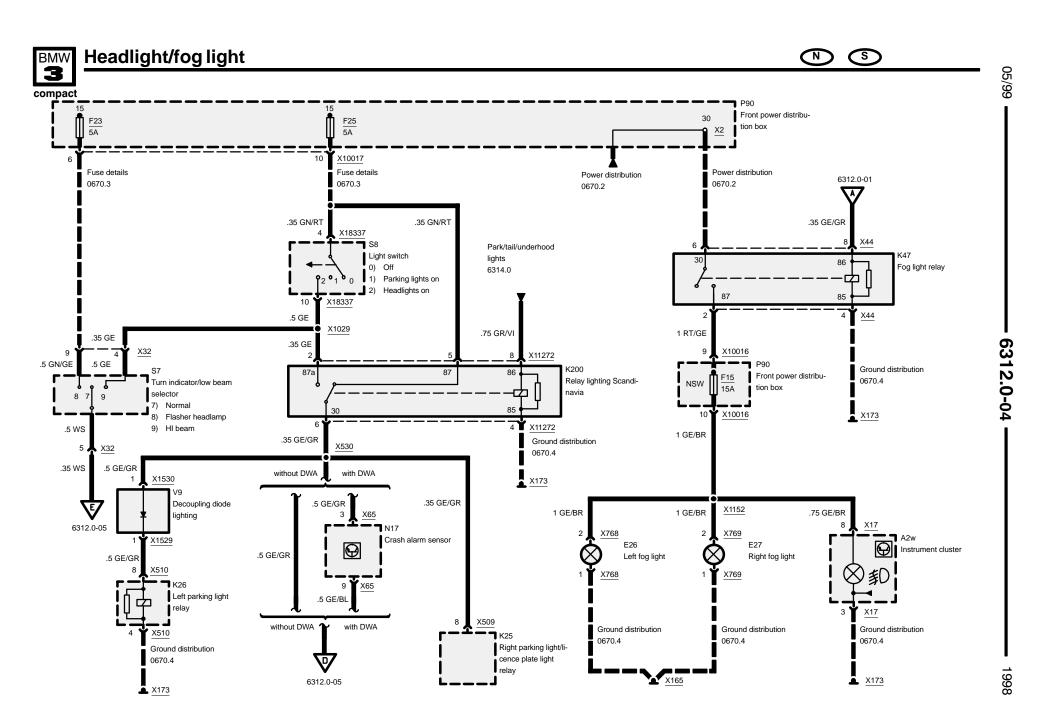


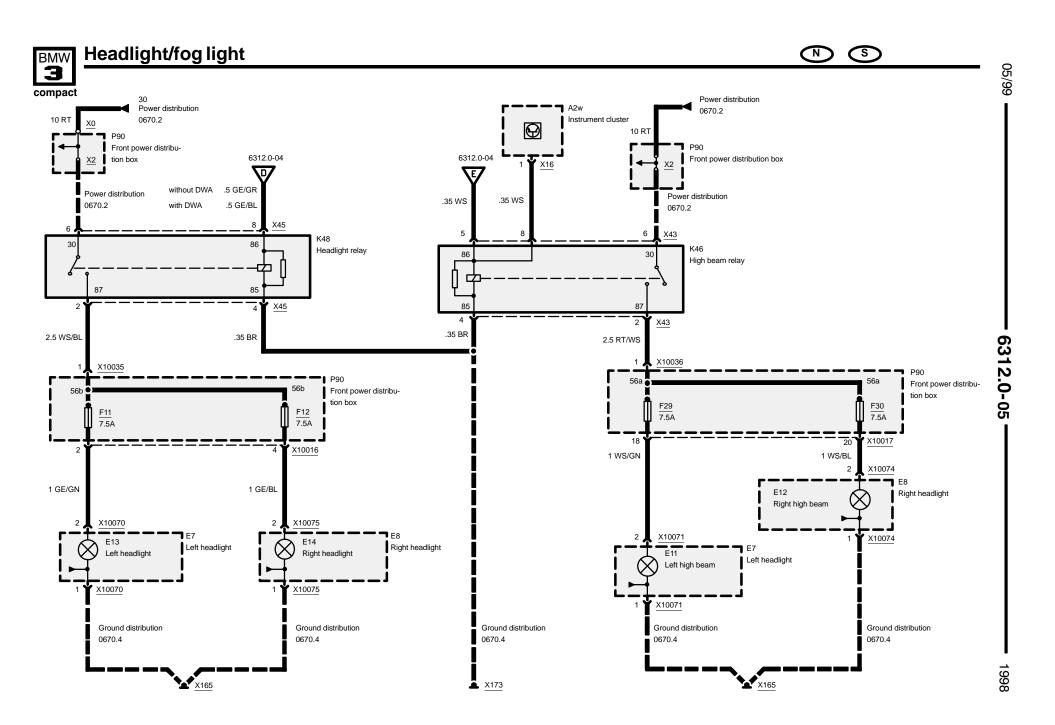


compact











Headlight/fog light

Headlight range adjustment Front power distribution box X10018 Fuse details 0670.3 X18337 1) Parking lights on X18337 1 GR/RT 1 GR/SW .75 GR/SW X1019 Light switch Light switch 6300.0 6300.0 X196 X1036 .5 GR/SW .5 SW .5 GR/RT .75 GR/SW .75 SW .5 SW .5 GR/SW X10051 Left headlight beam **■** angle adjust actuator Headlight beam Right headlight beam **■ ₩** angle adjust potentiangle adjust actuator ometer X1034 X1035 X10051 Ground distribution Ground distribution Ground distribution 0670.4 0670.4 X165 

6313.0-02

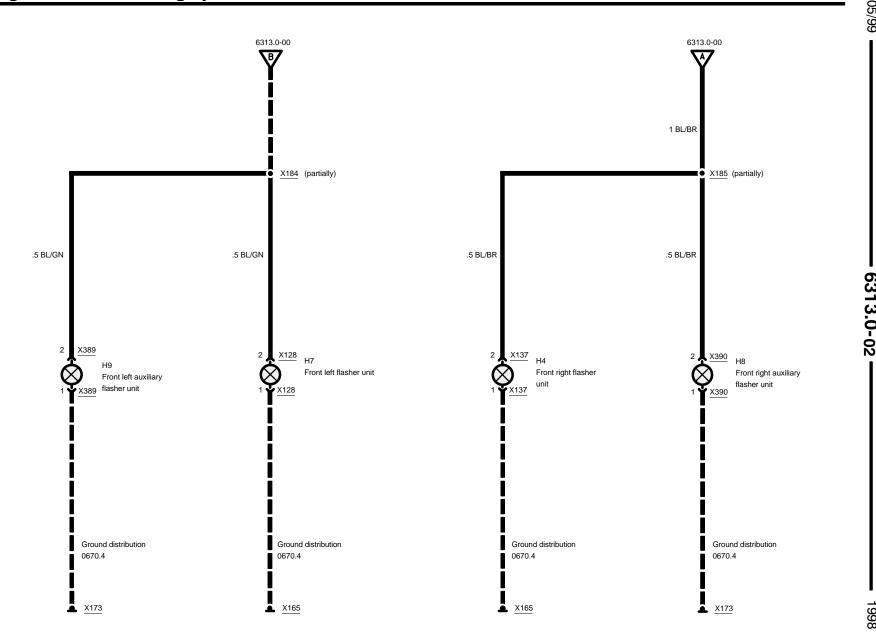
6313.0-03

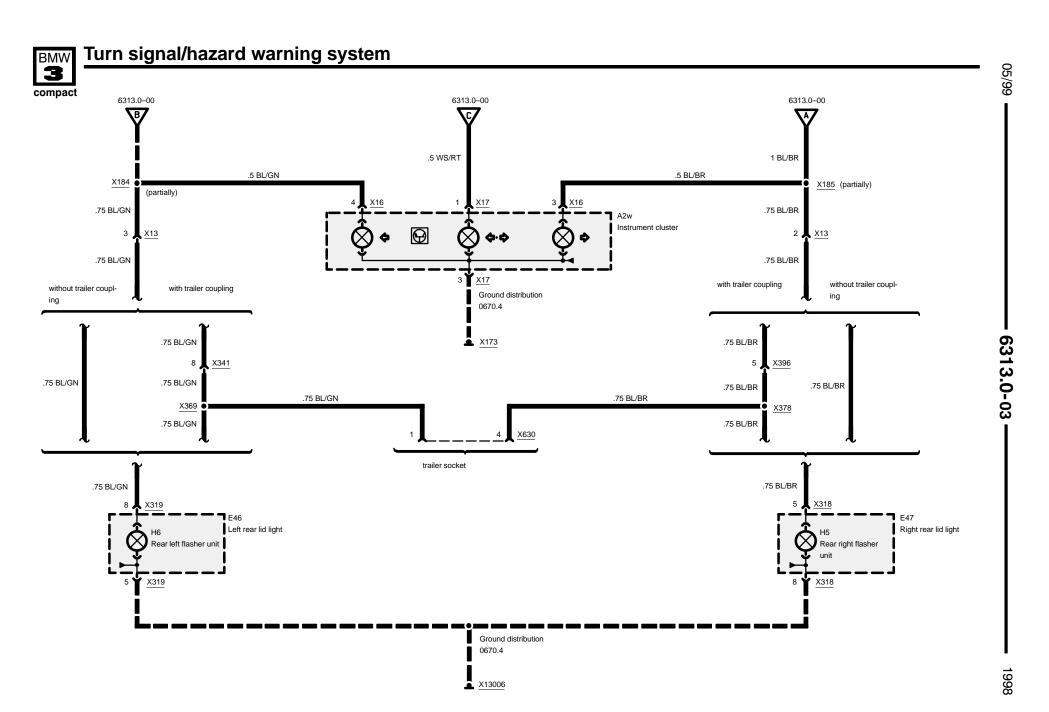
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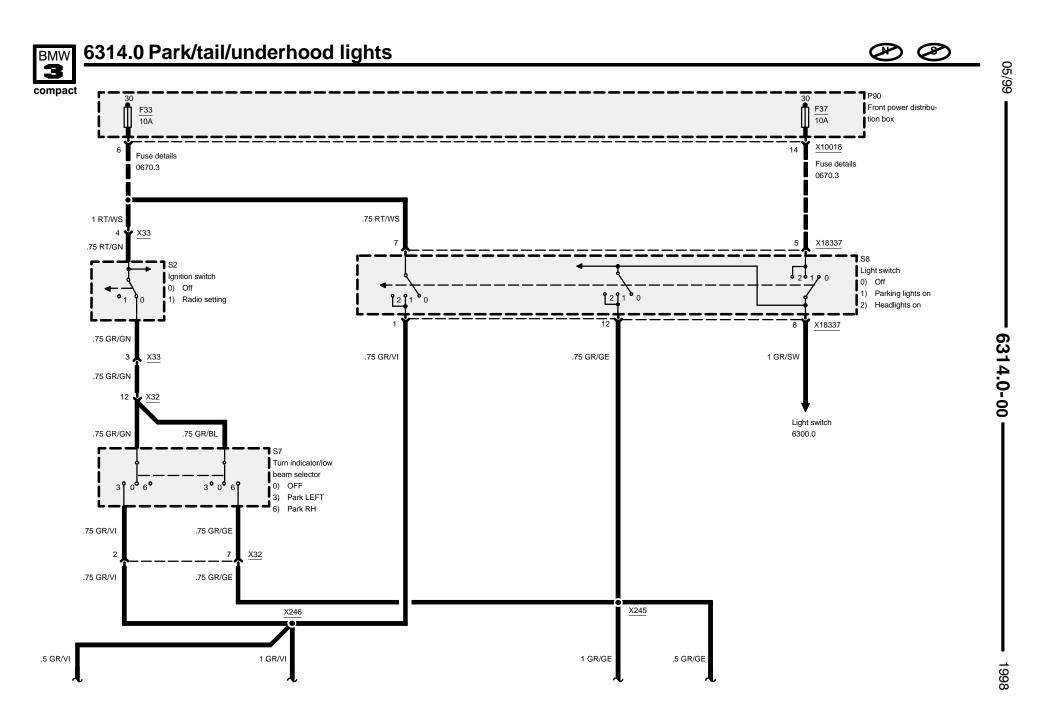
6313.0-02

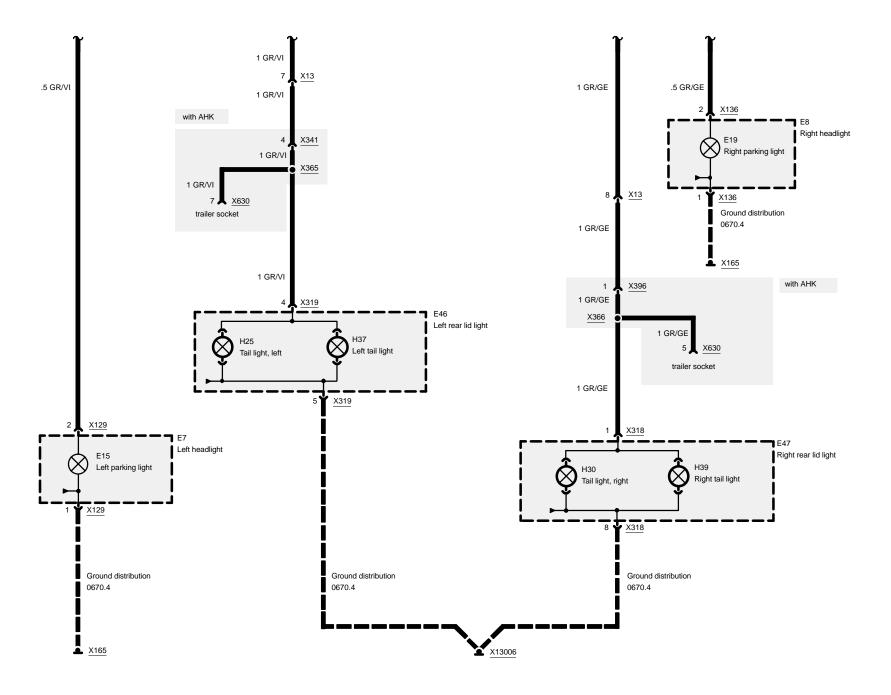
6313.0-03

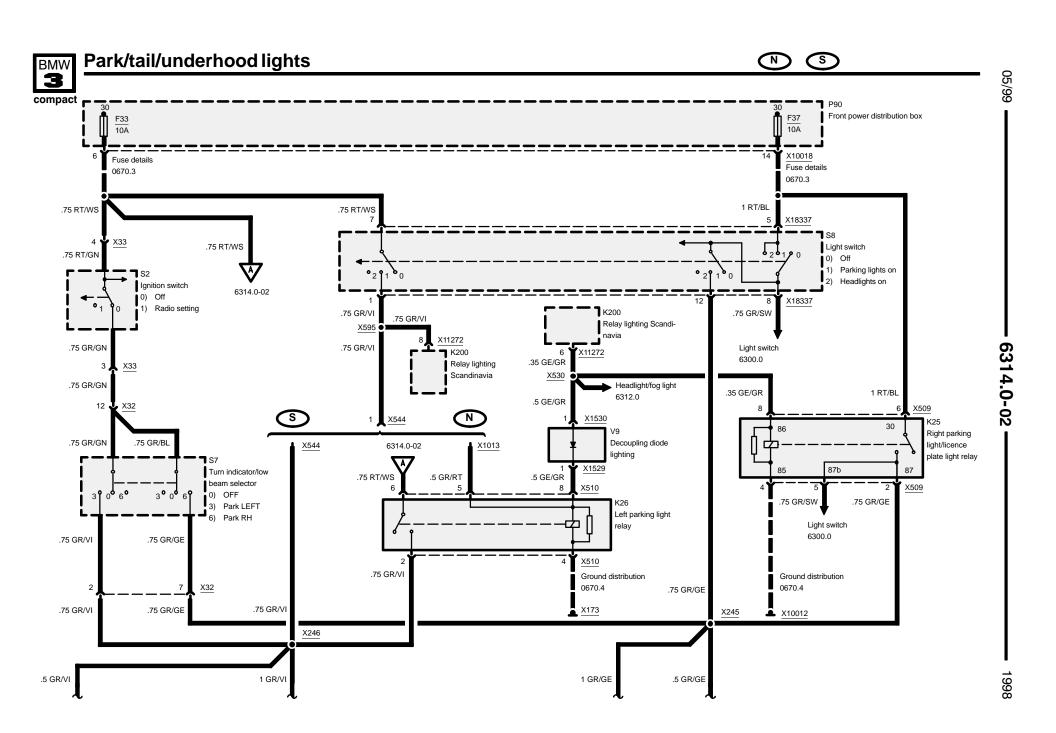
#### Turn signal/hazard warning system

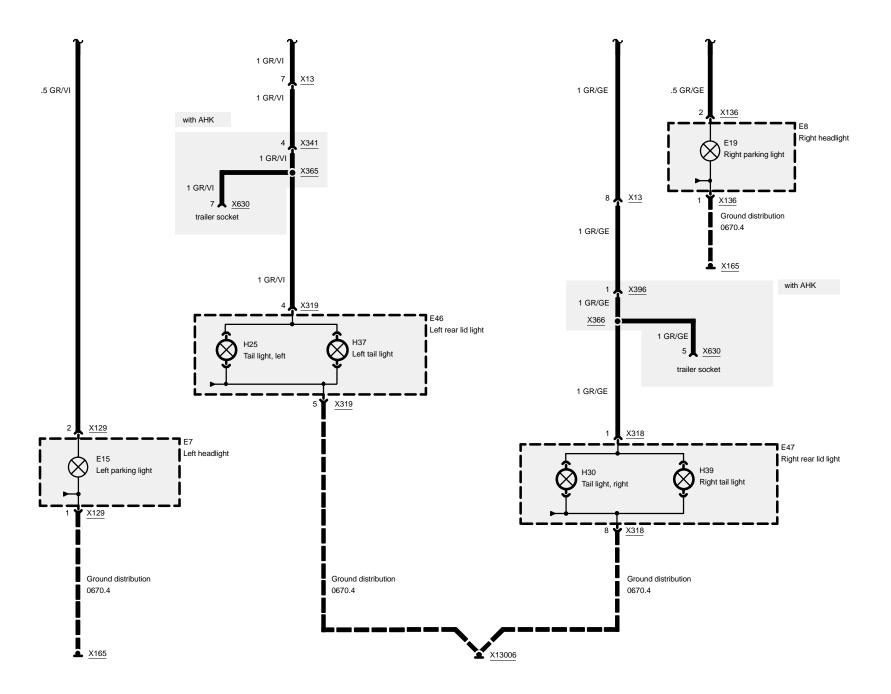










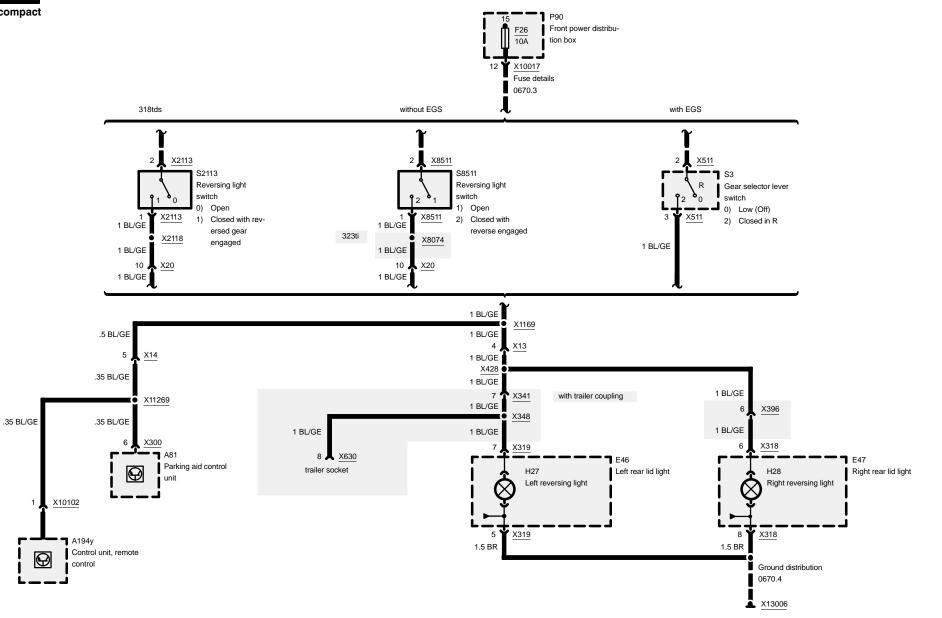


#### 6320.0 Licence plate/luggage compartment lights

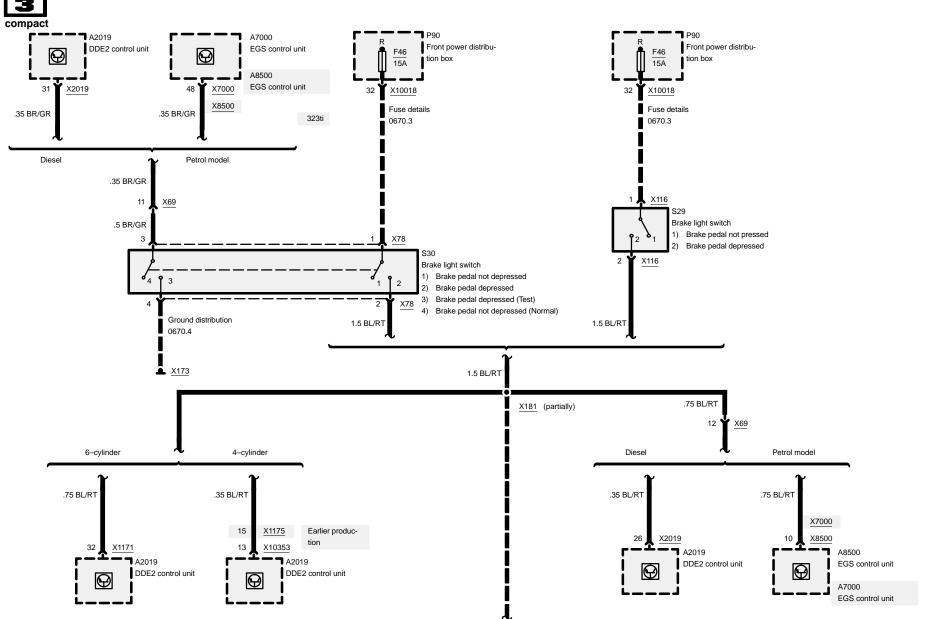
compact Front power distribution box F33 10A 10A X10018 Fuse details 0670.3 0670.3 X18337 Light switch 1) Parking lights on Headlights on .5 RT/WS with trailer coupling 1 GR/SW .5 RT/WS .75 GR/SW .75 RT/WS Light switch 6300.0 E47 H91 Right rear lid light 1 GR/SW .5 GR/SW Right luggage compartment lamp X10182 12 X13252 10 X13 **A**104 X318 ZKE control unit  $\Theta$ with trailer coupling 1 GR/SW .5 BR/WS 3 🗡 X396 14 Y X13254 X461 .35 BR/WS .5 BR/WS .75 GR/SW .75 GR/SW E44 Left licence plate light Right licence plate Luggage compartment light switch X709 1) Rear lid closed 2) Rear lid open .75 BR .75 BR X711 Ground distribution Ground distribution 0670.4 0670.4 <u>X13006</u>

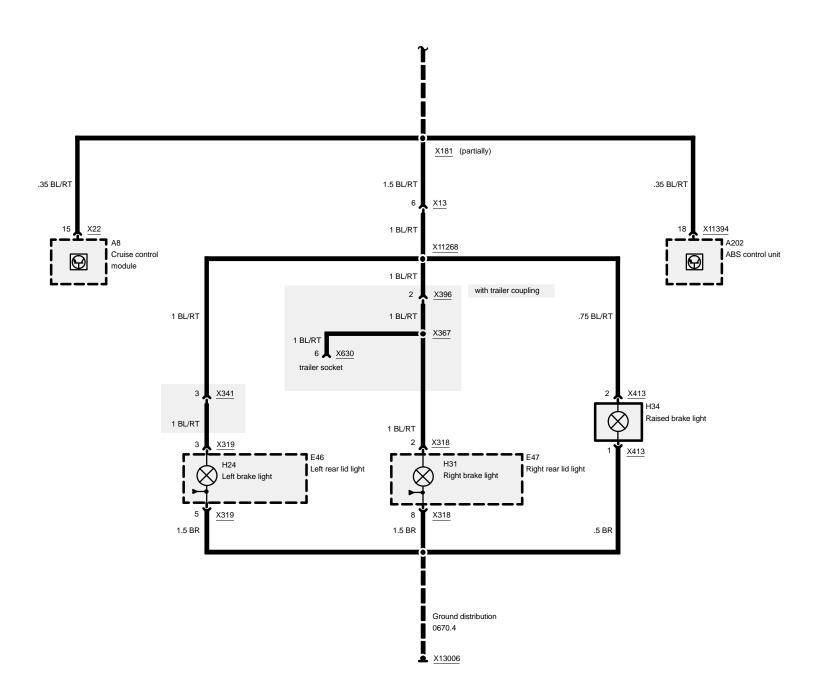
X13006

#### 6322.0 Reversing lights

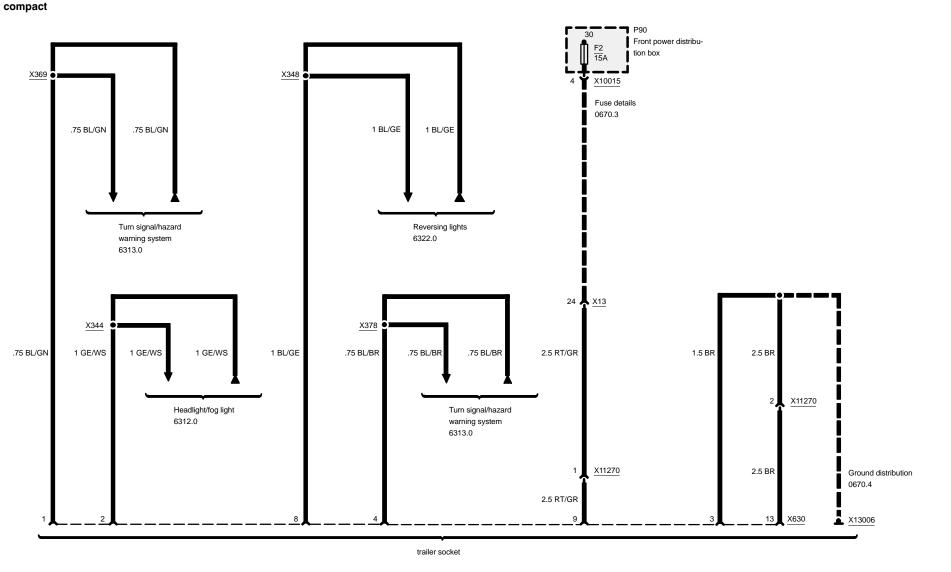




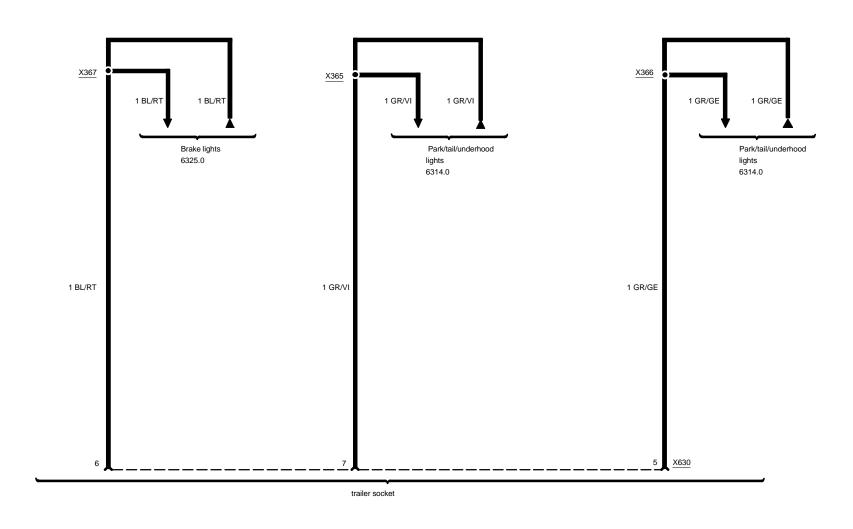




### 6328.1 Trailer coupling



#### **Trailer coupling**



X10271

X10271

0670.4

X13006

Ground distribution

Ground distribution

0670.4

X495

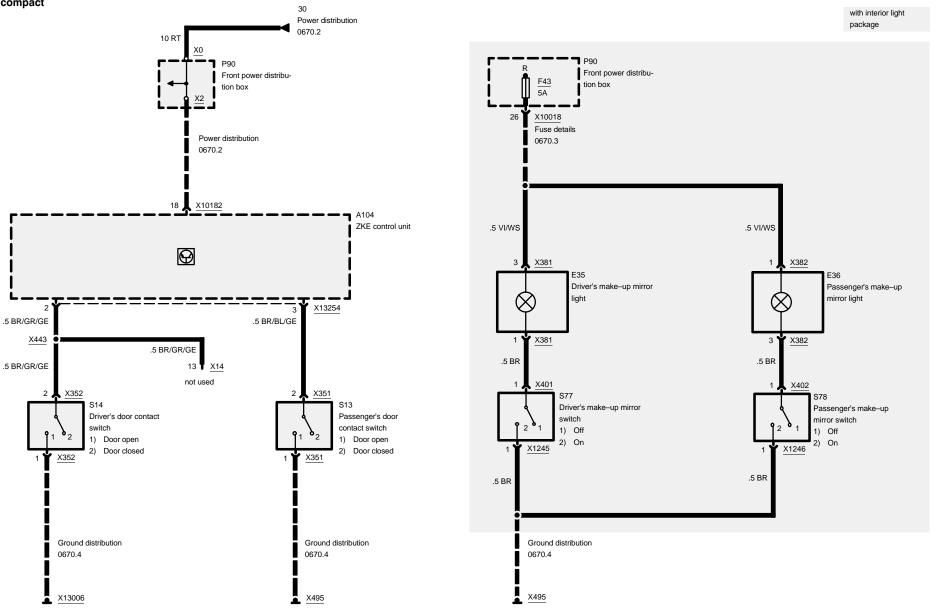
Interior light, rear centre

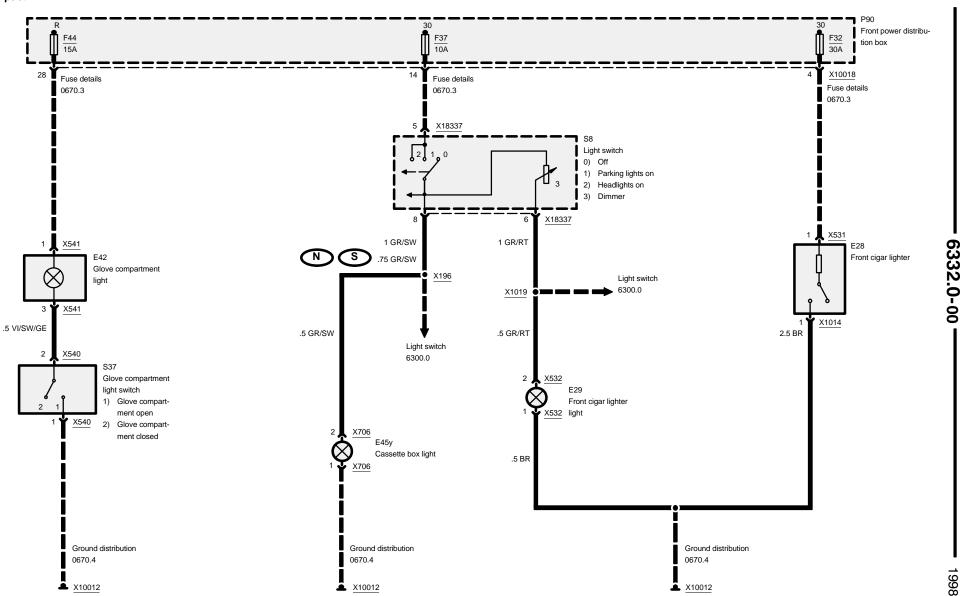
Ground distribution

0670.4

▲ X495

#### **Interior lights**

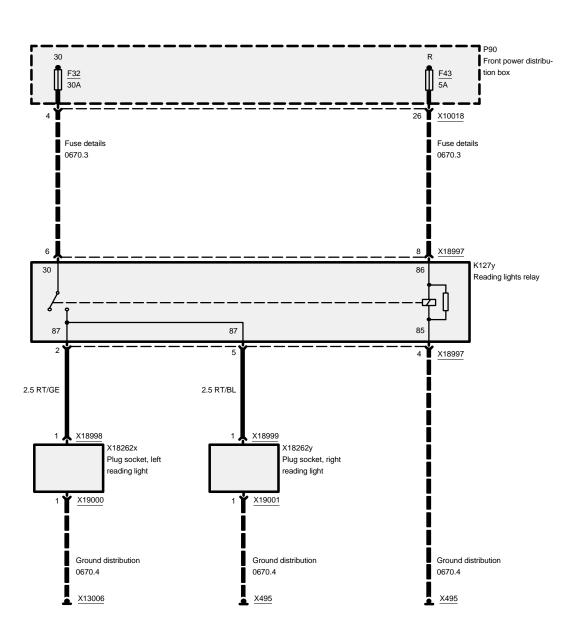


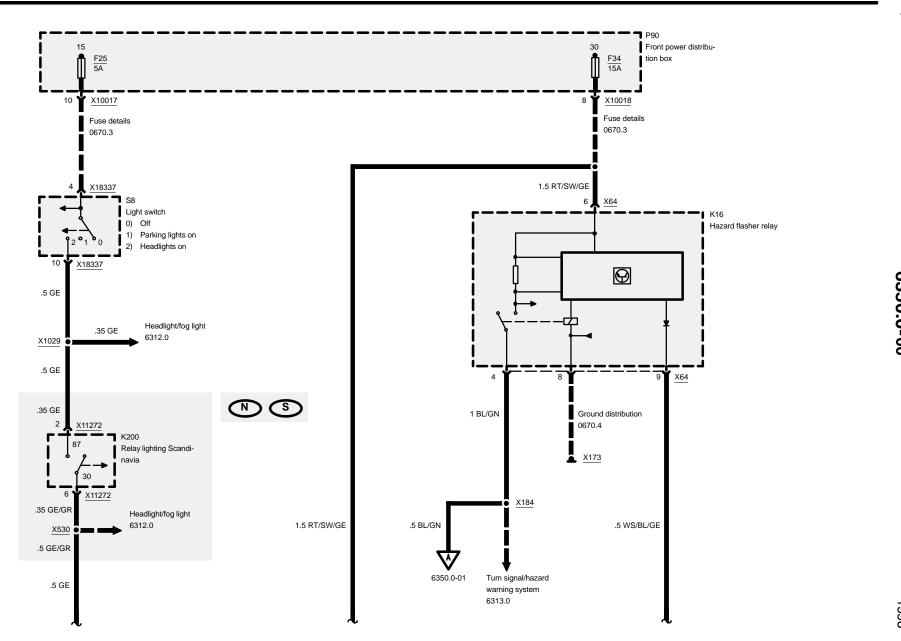


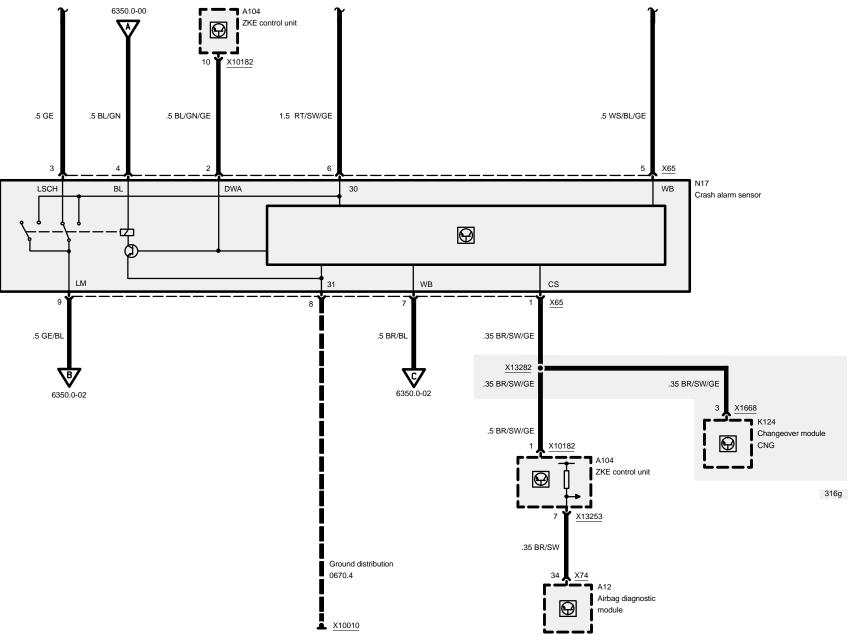


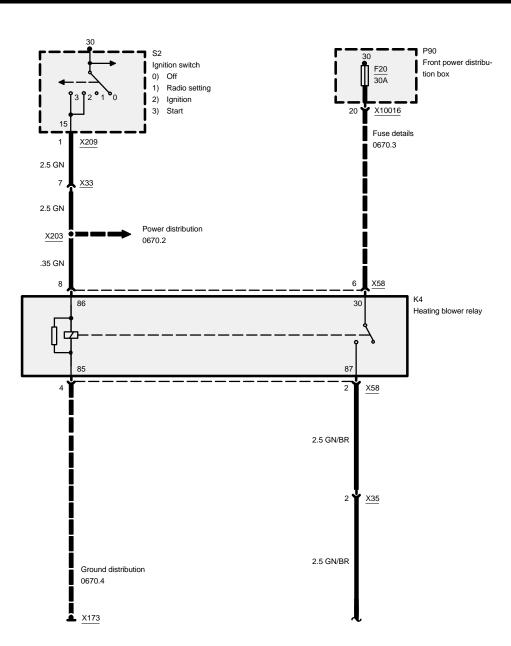


## Family package



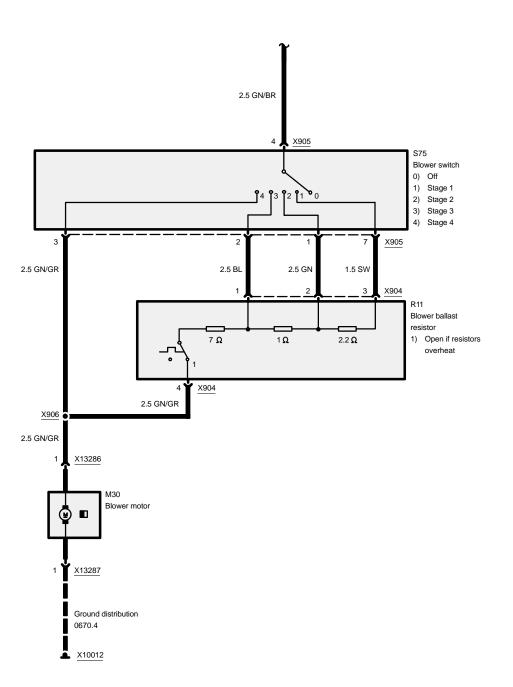




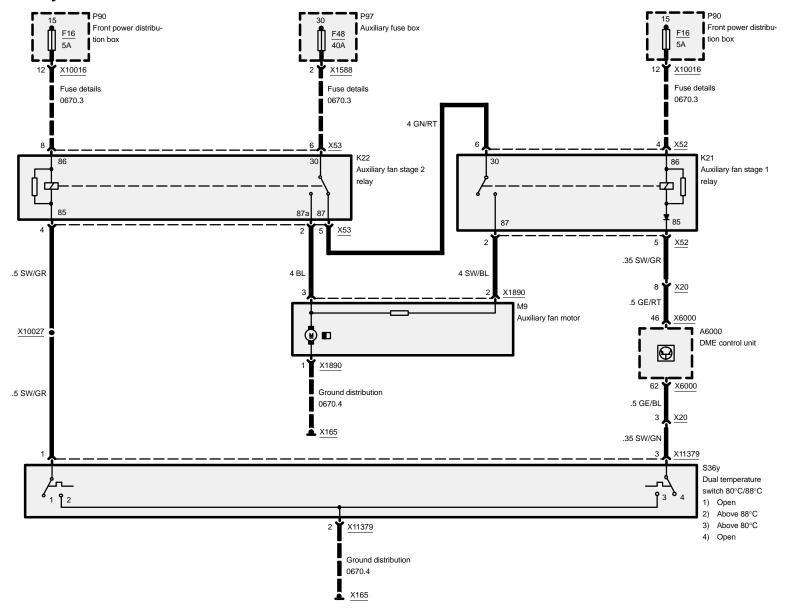


05/99

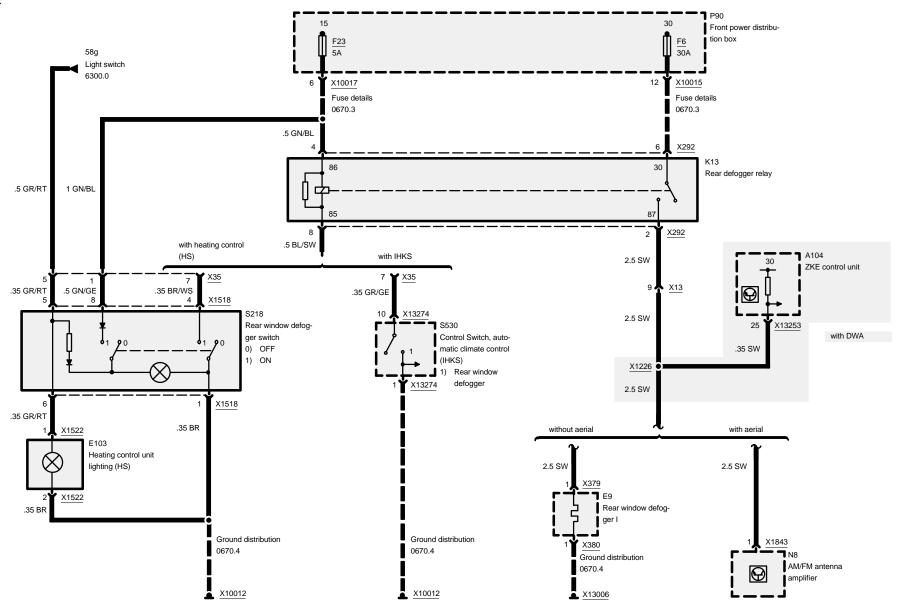
¥10.7-00 —



316g

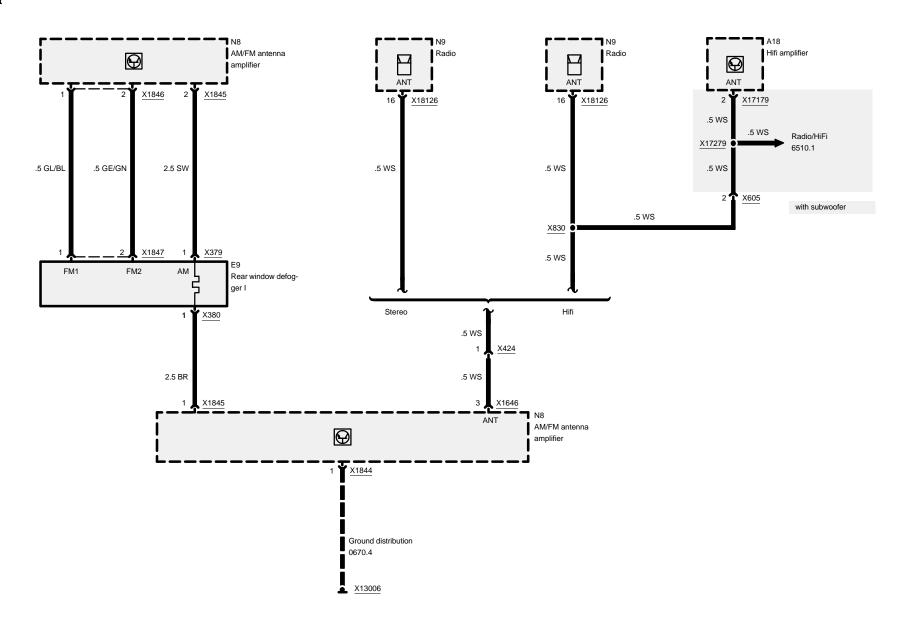


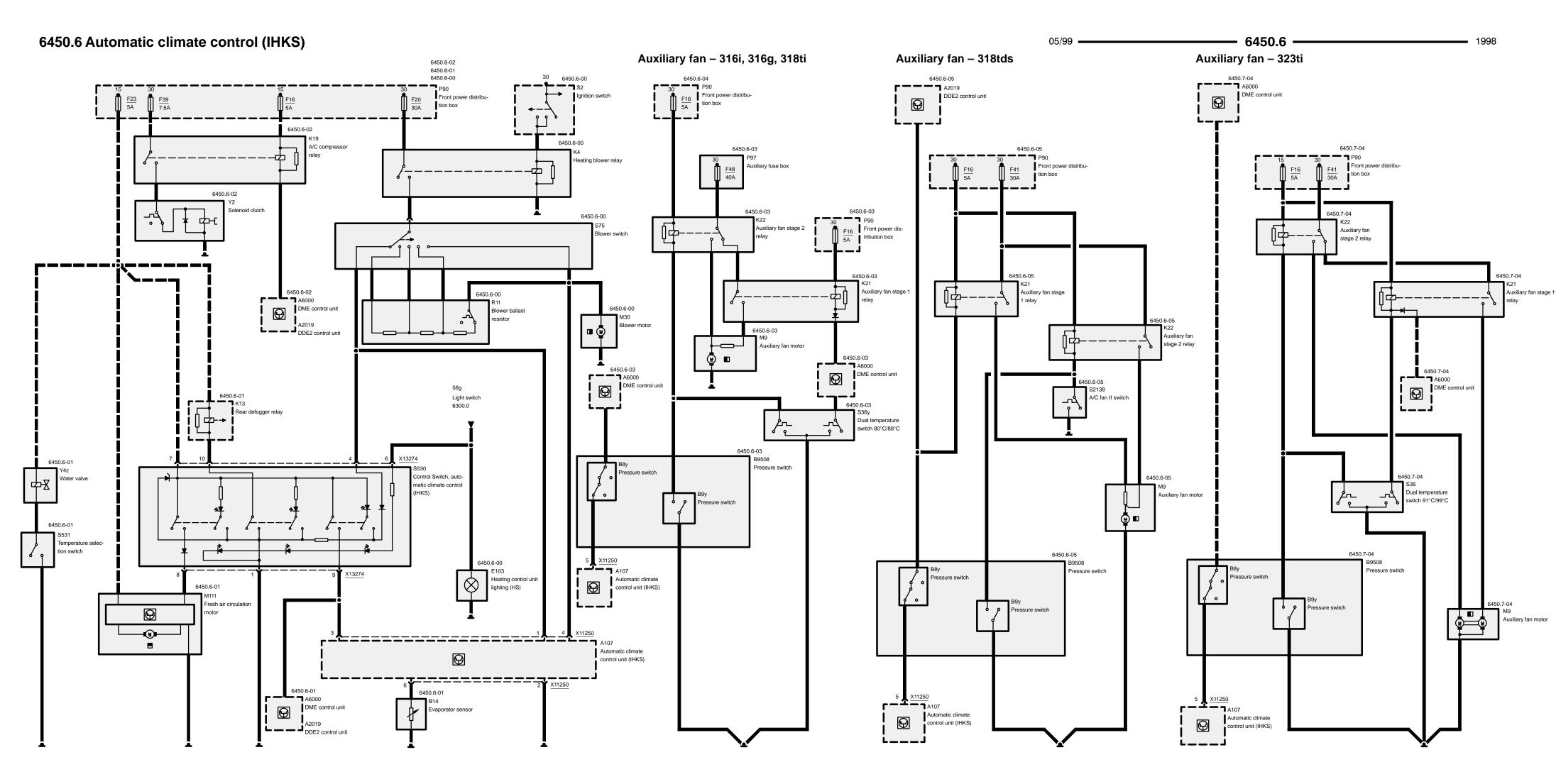
## 6424.0 Rear window defogger/antenna



# Rear window defogger/antenna

## Rear window antenna









D=X11250	6-pin, black	
E=X13274	10-pin, black	

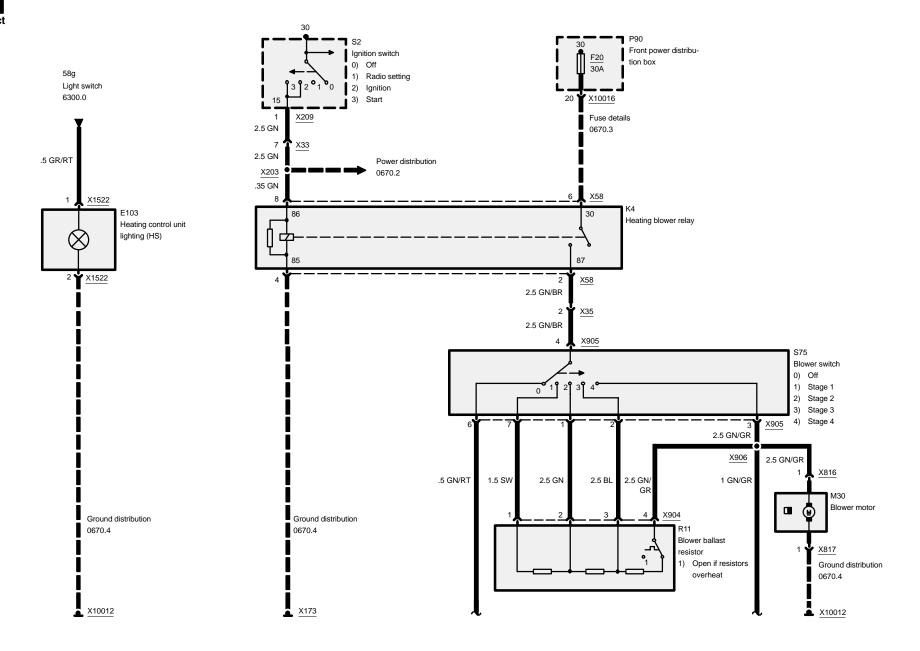
## X11250

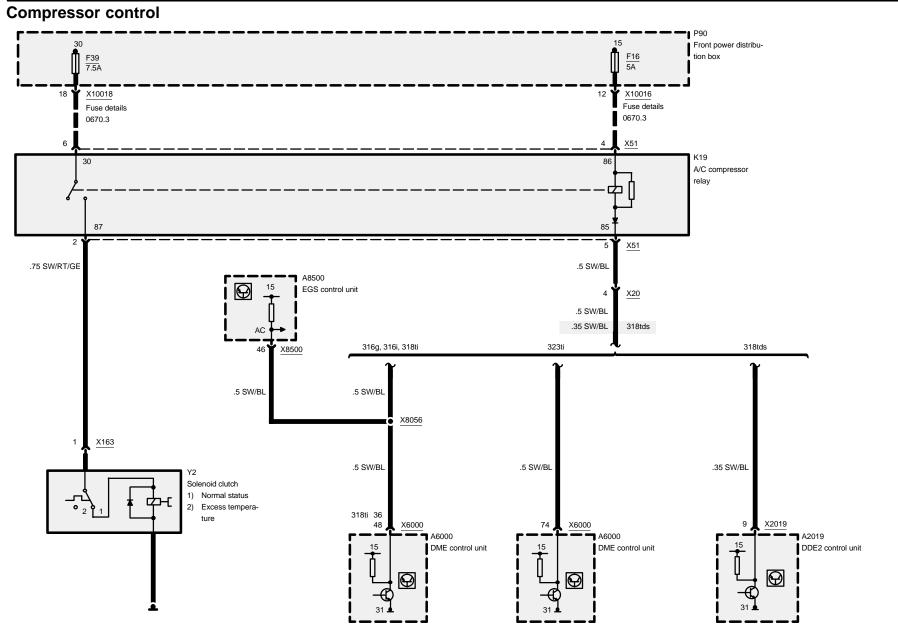
Pin	Type	Description/Function	Connection
1	E	Signal, recirculated air	Blower switch
2	М	Ground	Ground connection
3	Е	Air conditioning ON signal	IHKS switch, DME/DDE control unit
4	Е	Signal, recirculated air	Blower switch
5	Е	Pressure switch signal	Pressure switch
6	Е	Evaporator sensor, temperature	Evaporator sensor

## X13274

Pin	Type	Description/Function	Connection
1	М	Ground	Ground connection
2		Not used	
3		Not used	
4	E	Signal, recirculated air	Blower switch
5		Not used	
6	Е	Lights	Light switch
7	E	Terminal 15	Front power distribution box, fuse 23
8	Α	Signal, recirculated air	Fresh air/recirculated air motor
9	Α	Air conditioning ON signal	IHKS control unit, DME/DDE control unit
10	Α	Signal, heated rear window	Rear window defogger relay

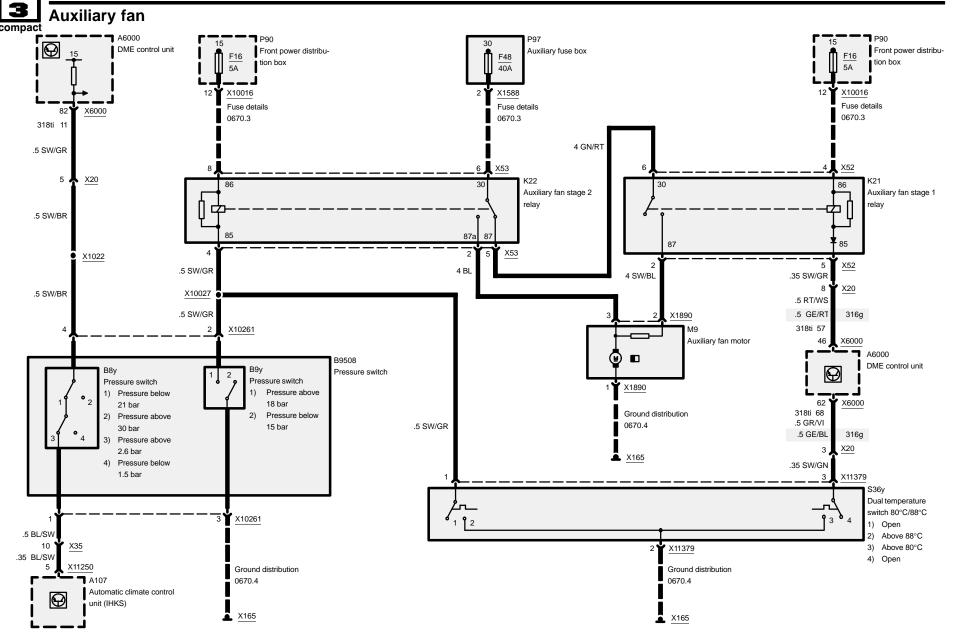
## **Automatic climate control (IHKS)**

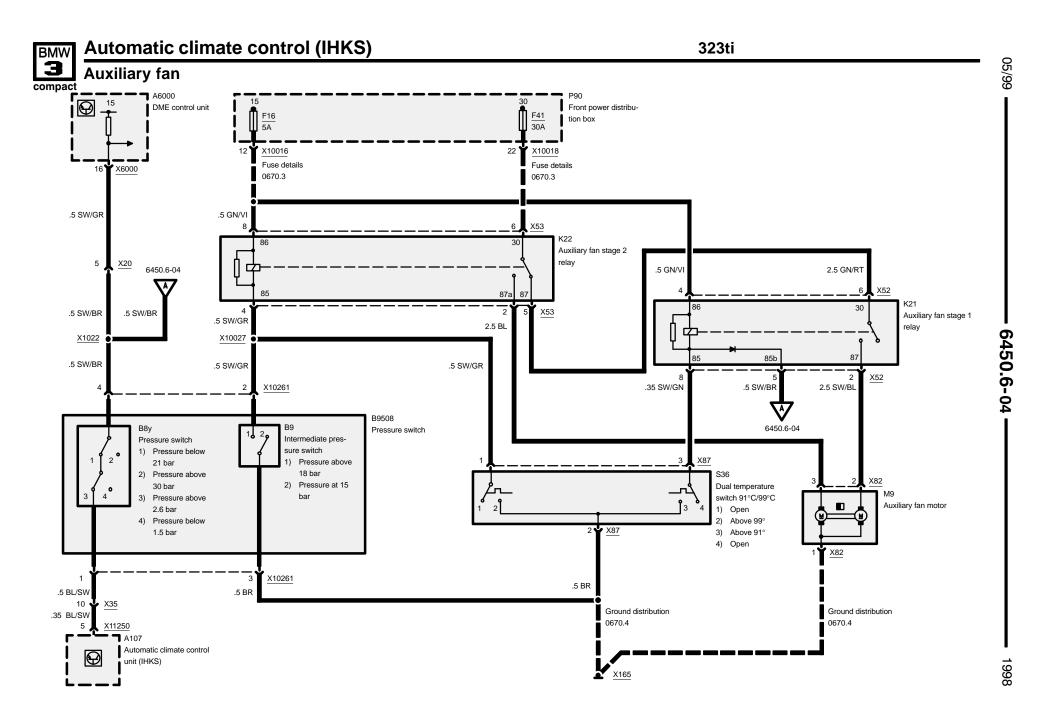


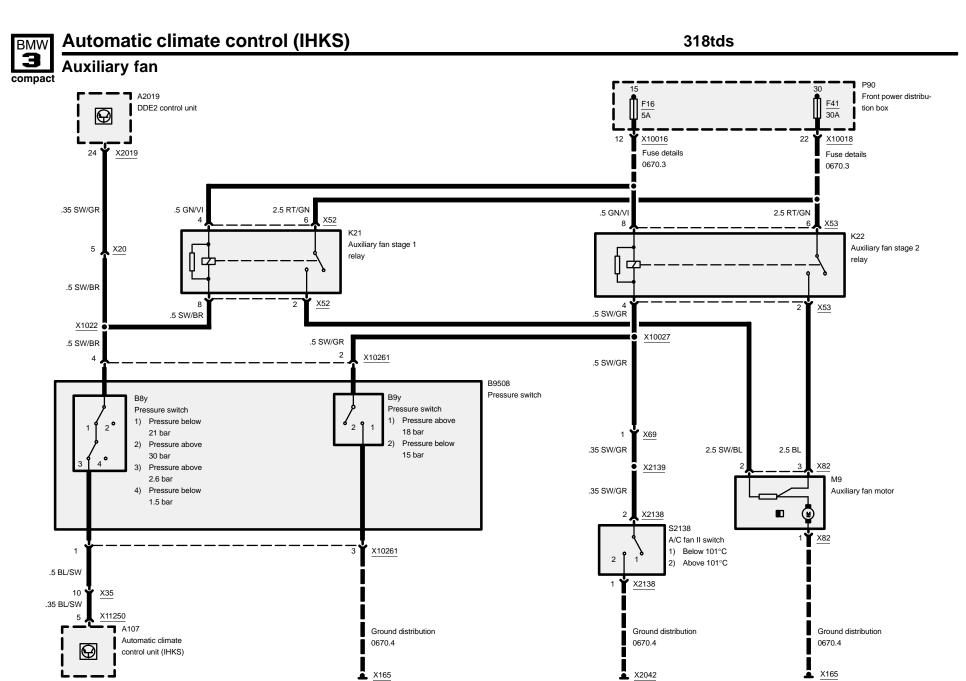




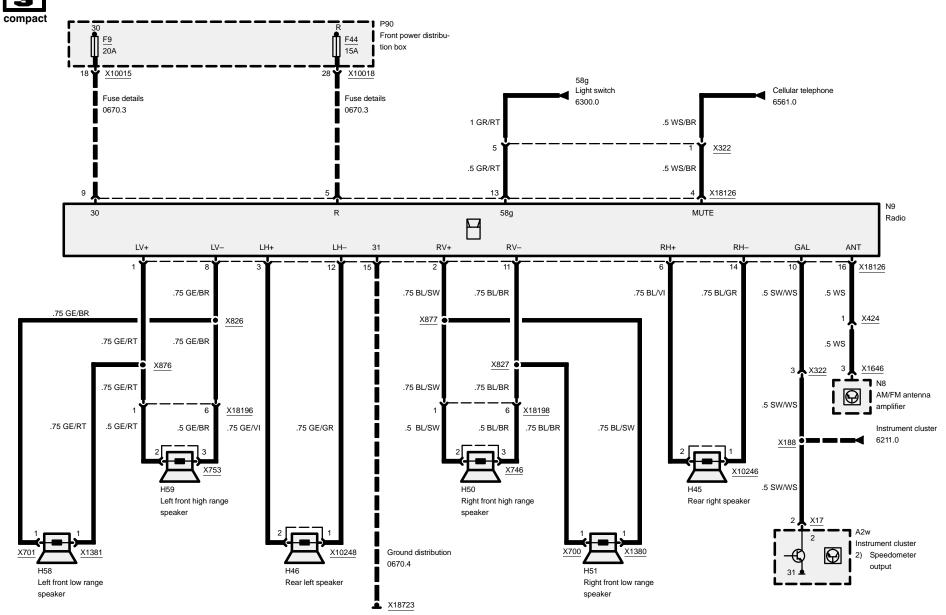
316i, 316g, 318ti







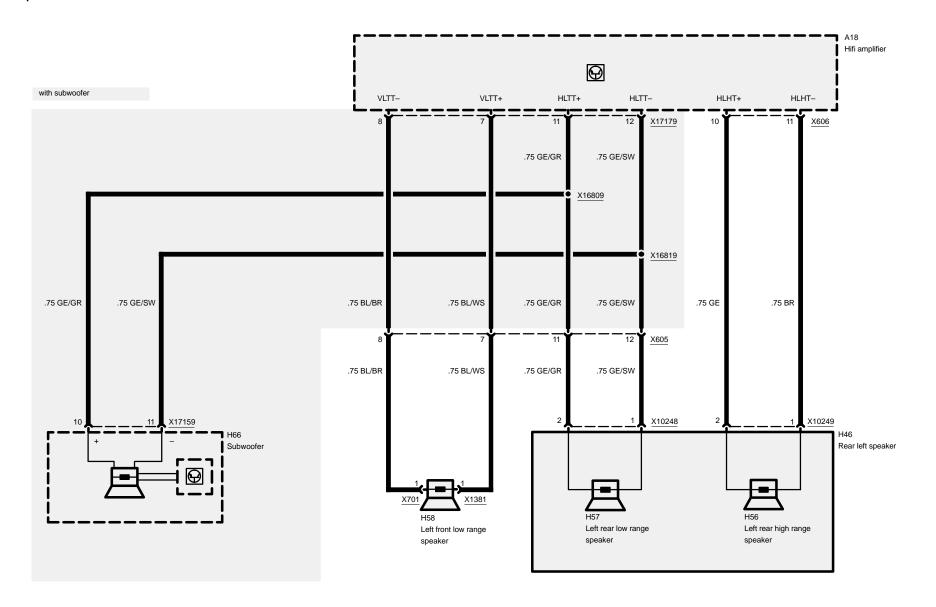




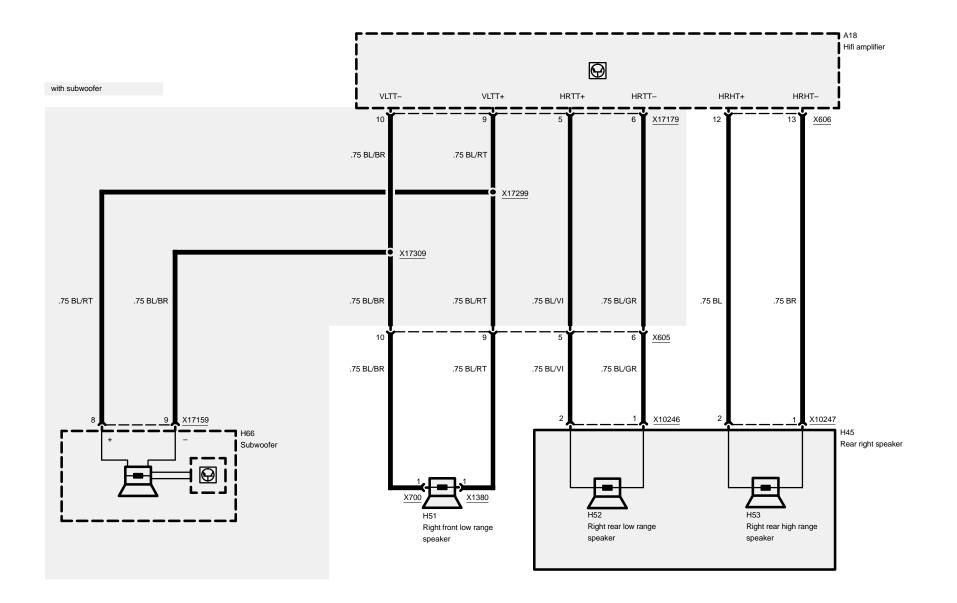
<u> X13016</u>

X495

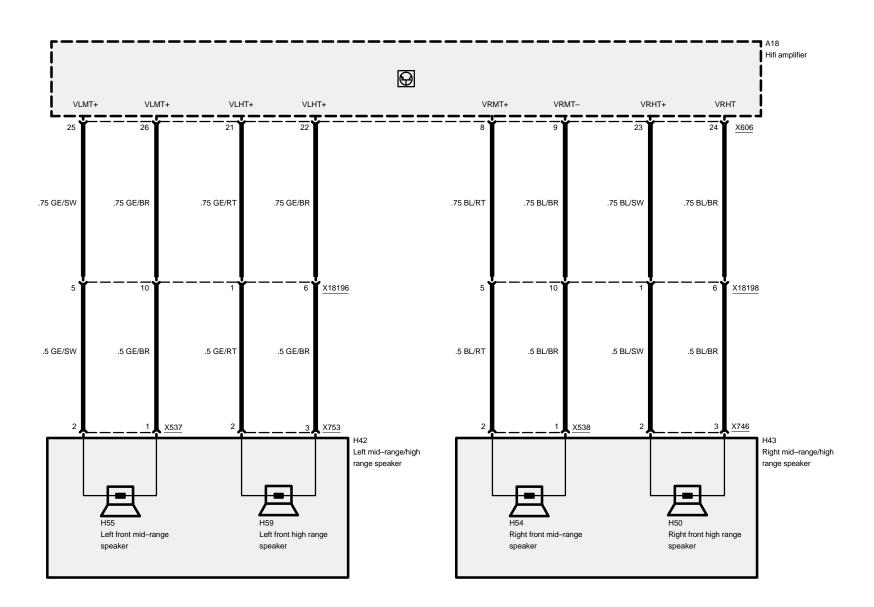
X13016



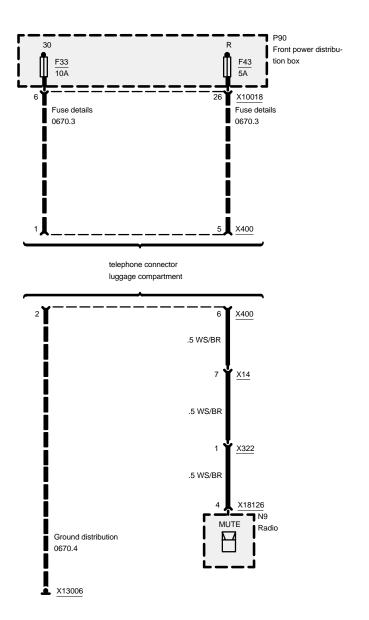
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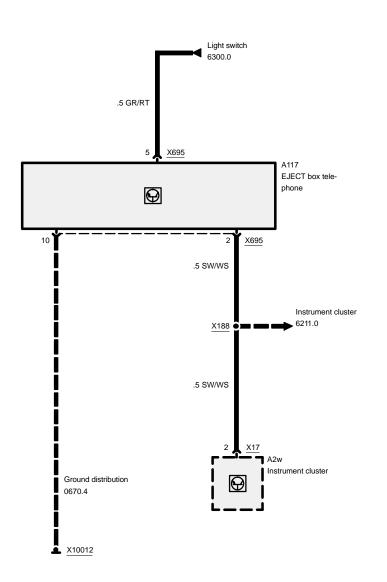


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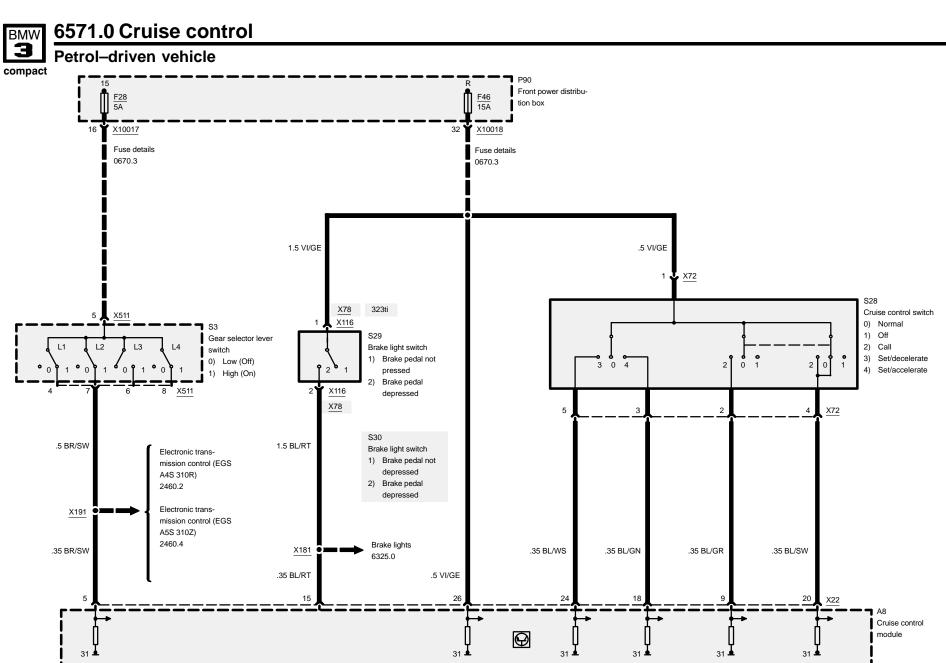


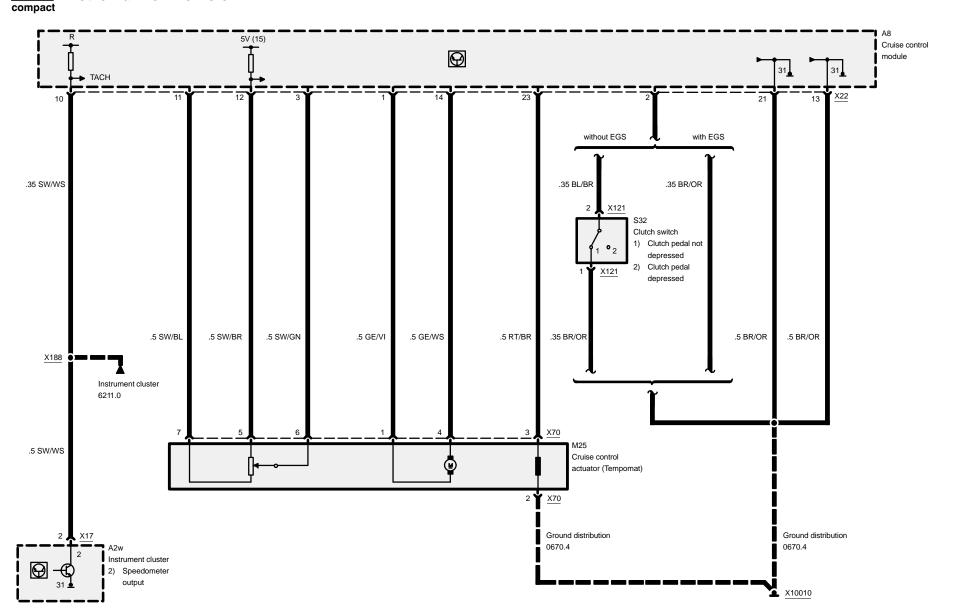
# BMW 6561.0 Cellular telephone Provisions

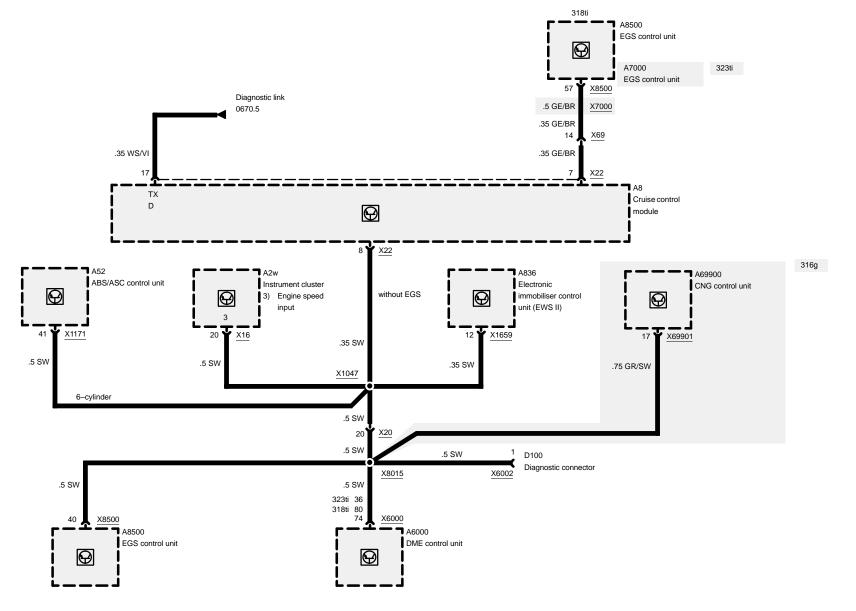


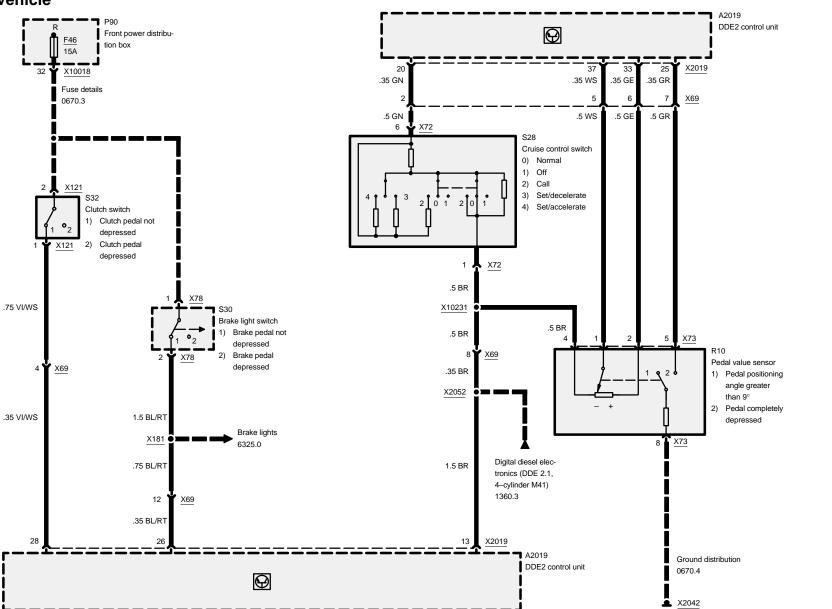


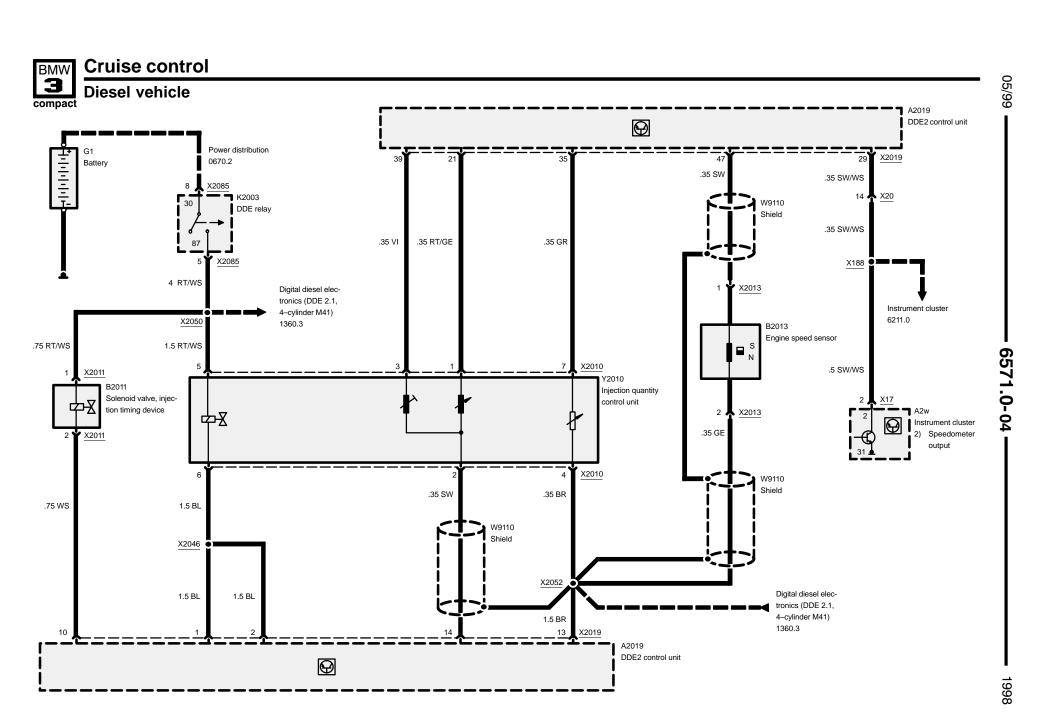






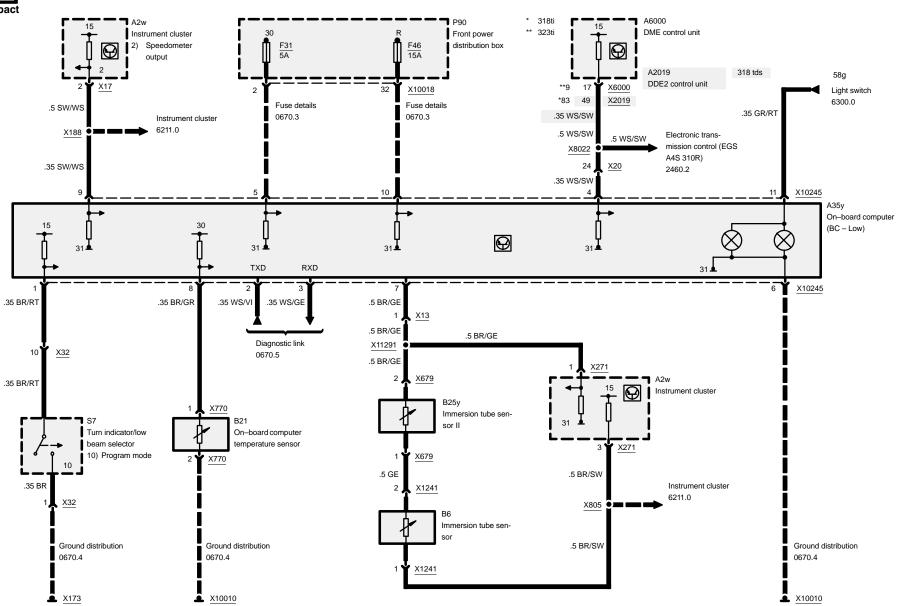


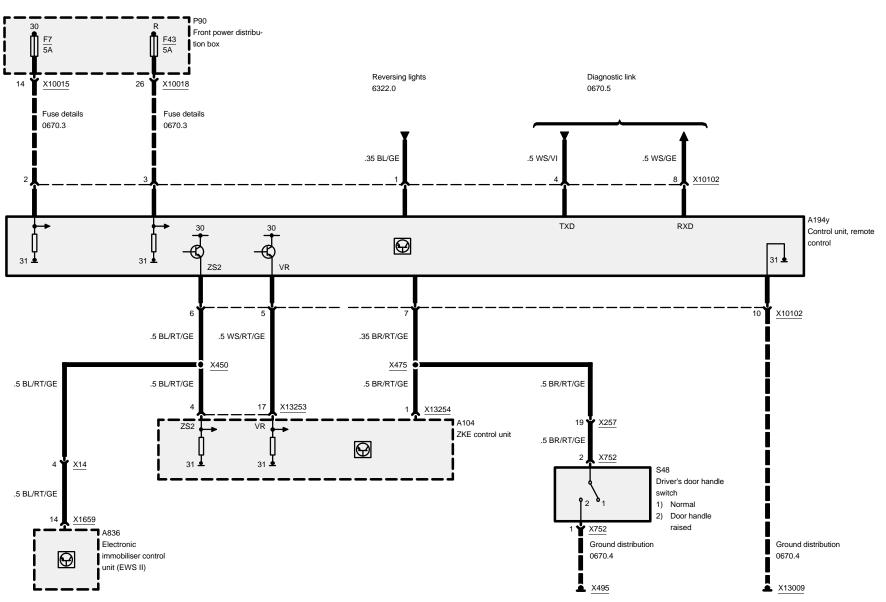


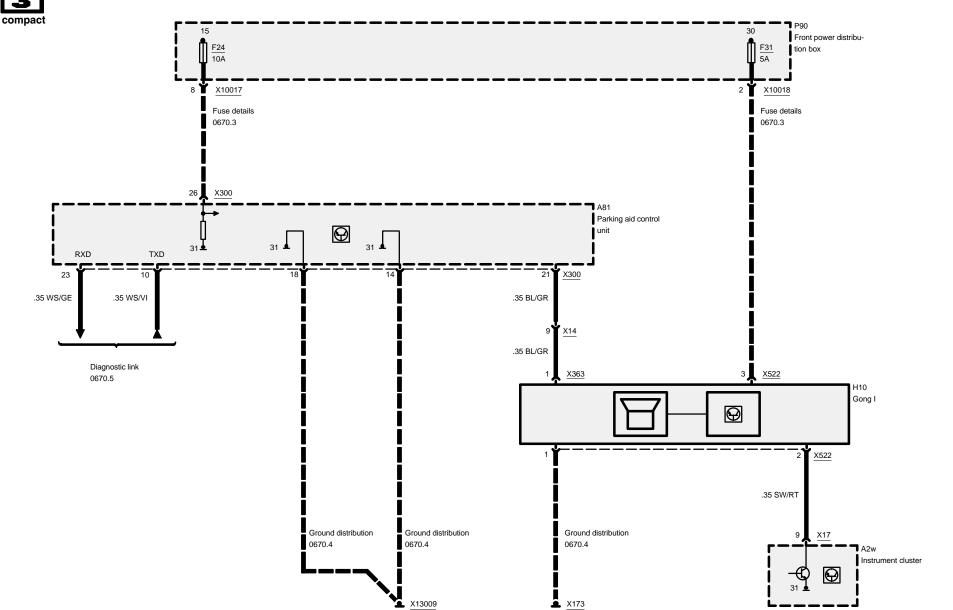


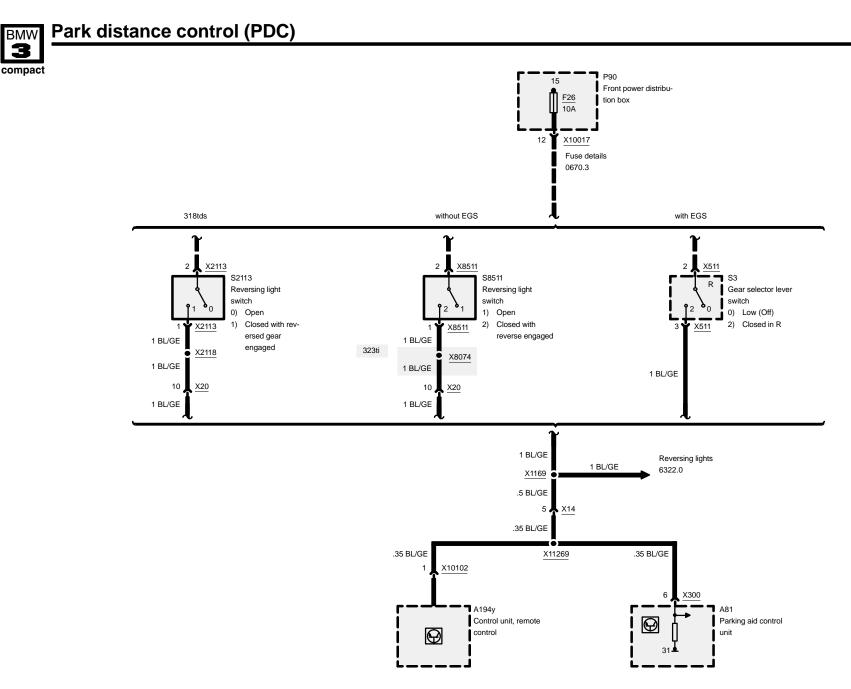


## 6581.3 On-board computer (BC - Low)

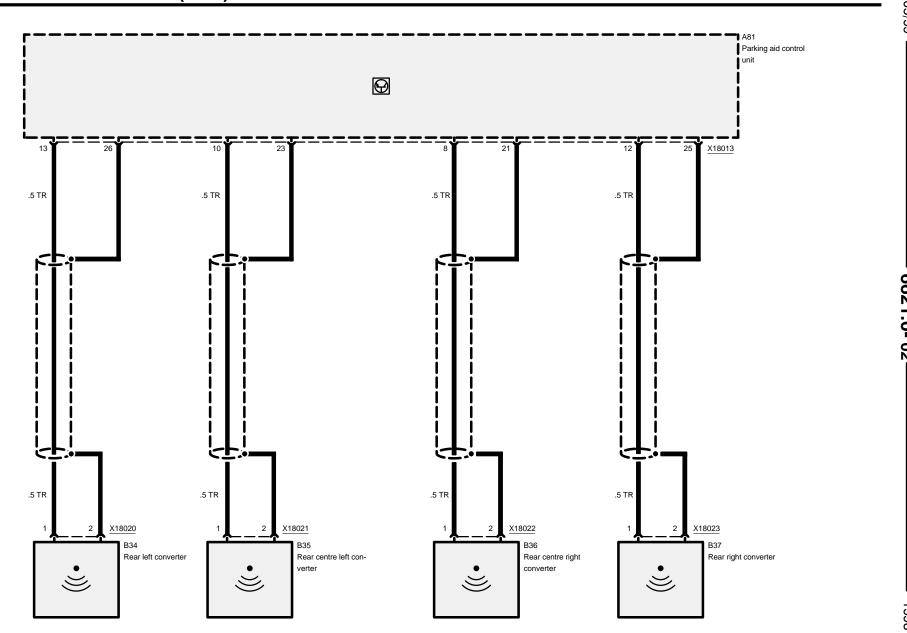








## Park distance control (PDC)



## 7000.0 Component location chart

Comp.	Description	Location	7100.0	8500.0
A2w	Instrument cluster	LH side of dash	18-3	
A8	Cruise control module	behind glove compartment	01-3	
A12	Airbag diagnostic module	under rear seat	02-1	
A18	Hifi amplifier	in LH side of luggage compartment behind trim	00-3	
A22z .	Electrochromatic rear view mirror	in interior rear view mirror	15-3	
A35y .	On-board computer (BC - Low)	centre of dash centre console		
A36	Rear wipe/wash interval control unit	in rear lid	36-3	
A51	Wipe/wash module	behind glove compartment	02-3	
A52	ABS/ASC control unit	behind glove compartment	01-3	
A56	Tilt/slide sunroof control unit	in head lining	01-2	
A64	Wipe-wash module (Low II)	behind glove compartment	02-3	
A81	Parking aid control unit	in RH side of luggage compartment behind trim	00-2	
A104 .	ZKE control unit	behind glove compartment	01-1	
A107 .	Automatic climate control unit (IHKS)	rear of centre console	29-2	
A110	Digital clock	LH side of dash		
A113	Electronic seat control	under RH front seat		
A117	EJECT box telephone	under centre console		
A194y	Control unit, remote control	near interior rear view mirror	15-3	
A202 .	ABS control unit	rear LH side of engine compartment behind LH spring strut dome		
A835 .	Transmit/receive module (EWS II)	right of steering column	02-2	
A836 .	Electronic immobiliser control unit (EWS II) .	behind glove compartment	01-3	
A2019	DDF2 control unit	rear RH side of engine compartment in electronics box	00-1	



Comp.	Description	Location	7100.0	8500.0
A6000	DME control unit	rear RH side of engine compartment in electronics box	00-1	
A7000	EGS control unit	rear RH side of engine compartment in electronics box	00-1	
A8500	EGS control unit	rear RH side of engine compartment in electronics box	00-1	
A69900	CNG control unit	rear RH side of engine compartment in electronics box		
B1	Front right ABS sensor	on RH front wheel, above brake calliper	06-3	
B2	Front left ABS sensor	on LH front wheel, above brake calliper	06-3	
В3	Rear right ABS sensor	on RH rear wheel, above brake calliper		
В4	Rear left ABS sensor	on LH rear wheel, above brake calliper		
В6	Immersion tube sensor	under LH side of rear seat	14-1	
В8у	Pressure switch	front RH side of engine compartment near front RH headlight		
В9у	Pressure switch	front RH side of engine compartment near front RH headlight		
B10	Speedometer reed contact	on differential	06-1	
B14	Evaporator sensor	RH side of LH footwell	18-1	
B16	Front left brake pad sensor	on LH front wheel, above brake calliper	06-3	
B17	Rear right brake pad sensor	behind RH rear wheel		
B18	Brake fluid level switch	rear LH side of engine compartment on break fluid reservoir	26-3	
B21	On-board computer temperature sensor	in engine compartment LH bottom of engine compartment	15-1	
B25y .	Immersion tube sensor II	under RH side of rear seat		
B28	Gradient monitor (DWA)	in RH side of luggage compartment behind trim	23-3	
В34	Rear left converter	in LH side of rear bumper	08-1	
B35	Rear centre left converter	in LH side of rear bumper	08-1	
В36	Rear centre right converter	in RH side of rear bumper	08-2	



Comp.	Description	Location	7100.0	8500.0
В37	Rear right converter	in RH side of rear bumper	08-2	
B78	Driver's side impact sensor	under LH front seat	31-2	
B79	Passenger's side impact sensor	under RH front seat		
B80	Gas density sensor	RH side under centre of vehicle		
B2008	Oil pressure switch	LH side of engine compartment	35-1	
B2011	Solenoid valve, injection timing device	LH side of engine compartment	35-2	
B2012	Charge air temperature sensor	front of engine	36-2	
B2013	Engine speed sensor	LH side of engine	27-3	
B2014	Charge pressure sensor	LH side of engine compartment	36-1	
B2017	Changeover valve for exhaust gas recirculation (AGR)	LH side of engine compartment	36-1	
B2232	Dual temperature sensor	front of engine compartment	35-3	
B6200	Heated oxygen sensor	under centre of car on catalytic converter	09-3	
B6203	Crankshaft sensor	RH side under front of vehicle behind radiator	09-1	
B6204	Camshaft sensor	front LH side of engine compartment (4–cylinder)	27-1	
B6204	Camshaft sensor	front LH side of engine compartment (6-cylinder)		
B6205	Intake air temperature sensor	LH side of engine (4–cylinder)	28-2	
B6205	Intake air temperature sensor	LH side of engine (6–cylinder)	33-2	
B6207	Hot–film air mass meter	LH side of engine	28-2	
B6209	Hall sensor, camshaft	front of engine	27-1	
B6217	Hot film air mass meter	front top of engine	28-2	
B6230	Oil level	LH side of engine compartment		

Comp.	Description	Location	7100.0	8500.0
B6231	Oil pressure switch	front LH side of engine compartment below intake manifold (4-cylinder)	11-1	
B6231	Oil pressure switch	front LH side of engine compartment below intake manifold (6-cylinder)	34-2	
B6232	Remote thermometer sensor	front LH side of engine compartment below intake manifold	11-2	
B6233	Air flow meter	LH side of engine compartment	10-2	
B6236	Coolant temperature sensor	front LH side of engine compartment below intake manifold		
B6240	Knock sensor	front top of engine (4-cylinder)		
B6240	Knock sensor	LH side of engine (6-cylinder)	34-1	
B6241z	Knock sensor 1	front top of engine		
B6256	Dual temperature sensor (coolant temperature)	front LH side of engine compartment below intake manifold (4-cylinder)	11-2	
B6256	Dual temperature sensor (coolant temperature)	front LH side of engine compartment below intake manifold (6-cylinder)	34-2	
B6952	Impedance converter	on cylinder head		
B9508	Pressure switch	front RH side of engine compartment near front RH headlight	28-1	
B62001	Oxygen sensor in front of catalytic converter	under centre of car on catalytic converter	12-2	
B62101	Oxygen sensor I in front of catalytic converter	on catalytic converter		
B62201	Oxygen sensor II in front of catalytic converter	on catalytic converter		
B69915	Map sensor CNG	centre of engine compartment		
B69926	Oxygen sensor CNG	under centre of car		
C101 .	Volute spring	top of steering column	17-1	
D100 .	Diagnostic connector	rear LH side of engine compartment (4–cylinder)	26-3	

Comp.	Description	Location	7100.0	8500.0
D100 .	Diagnostic connector	rear RH side of engine compartment (6–cylinder)	32-3	
E7	Left headlight	front LH side of engine compartment		
E8	Right headlight	front RH side of engine compartment		
E9	Rear window defogger I	on rear lid		
E11	Left high beam	near front LH headlight		
E12	Right high beam	near front RH headlight		
E13	Left headlight	near front LH headlight		
E14	Right headlight	near front RH headlight		
E15	Left parking light	front of vehicle		
E19	Right parking light	front of vehicle		
E26	Left fog light	under front LH bumper	06-2	
E27	Right fog light	under front RH bumper	06-2	
E28	Front cigar lighter	centre console		
E29	Front cigar lighter light	centre console		
E32z .	Interior light, rear centre	in head lining		
E34	Interior/reading lamp, front	in head lining	01-2	
E35	Driver's make-up mirror light	in sun visor	30-1	
E36	Passenger's make-up mirror light	in sun visor	16-1	
E42	Glove compartment light	right of glove compartment		
E43	Left licence plate light	underside of rear lid, near number plate	07-1	
E44	Right licence plate light	underside of rear lid, near number plate	07-1	
E45y .	Cassette box light	centre console	26-2	



Comp.	Description	Location	7100.0	8500.
E46	Left rear lid light	in rear LH side of glove compartment		
E47	Right rear lid light	in rear RH side of luggage compartment		
E51	Left windscreen washer jet heater	underside of front lid		
E52	Right windscreen washer jet heater	underside of front lid		
E56	Driver's backrest heating	in top of LH backrest	24-3	
E57	Driver's seat heating	under LH front seat	24-3	
E58	Passenger's seat heating	bottom of RH front seat		
E59	Passenger's backrest heating	in top of RH backrest		
E61	Front left footwell light	footwell, driver's side		
E62	Front right footwell light	footwell, passenger's side		
E82	Gear indicator light	centre console		
E97	Light switch lighting	on instrument cluster		
E98	Fog light switch lighting	on instrument cluster		
E103 .	Heating control unit lighting (HS)	behind centre of dash		
E2000	Fuel heating	LH side of engine compartment	36-1	
F97	Fuse link	rear of engine compartment		
G1	Battery	rear RH side of engine compartment (4-cylinder)	03-3	
G1	Battery	in luggage compartment (6-cylinder)		
G5	Driver's airbag gas generator	behind steering wheel	17-1	
G6	Passenger's airbag gas generator	behind glove compartment top	19-3	
G12	Pyrotechnical belt tensioner, driver's side	driver's seat right		



Comp.	Description	Location	7100.0	8500.0
G13	Pyrotechnical belt tensioner, passenger's side	passenger's seat left		
G14	Gas generator, left side airbag	in driver's door		
G15	Gas generator, right side airbag	in passenger's door		
G2023	Alternator	front LH side of engine compartment	35-1	
G6430	B+ external start terminal point	rear RH side of engine compartment	32-3	
G6509	Alternator	front LH side of engine compartment	03-1	
H1	Antitheft horn (DWA)	in front RH bumper		
H2	Left horn	front of engine compartment		
Н3	Right horn	front of engine compartment		
H4	Front right flasher unit	front of vehicle		
H5	Rear right flasher unit	RH side of body rear end		
Н6	Rear left flasher unit	LH side of body rear end		
H7	Front left flasher unit	front of vehicle		
Н8	Front right auxiliary flasher unit	front of vehicle		
Н9	Front left auxiliary flasher unit	front of vehicle		
H10	Gong I	under LH side of dash		
H24	Left brake light	Left rear lid light		
H25	Tail light, left	Left rear lid light		
H26	Left rear fog light	Left rear lid light		
H27	Left reversing light	Left rear lid light		
H28	Right reversing light	Right rear lid light		

Comp.	Description	Location	7100.0	8500.0
H30	Tail light, right	Right rear lid light		
H31	Right brake light	Right rear lid light		
H34	Raised brake light	rear parcel shelf		
H37	Left tail light	Left rear lid light		
H39	Right tail light	Right rear lid light		
H42	Left mid-range/high range speaker	in top of LH front door		
H43	Right mid-range/high range speaker	in top of RH front door		
H45	Rear right speaker	in RH side of luggage compartment	23-3	
H46	Rear left speaker	in LH side of luggage compartment	29-1	
H50	Right front high range speaker	in top of RH front door		
H51	Right front low range speaker	in bottom of RH A-post		
H52	Right rear low range speaker	under rear window shelf		
H53	Right rear high range speaker	under rear window shelf		
H54	Right front mid-range speaker	in top of RH front door		
H55	Left front mid–range speaker	in top of LH front door		
H56	Left rear high range speaker	under rear window shelf		
H57	Left rear low range speaker	under rear window shelf		
H58	Left front low range speaker	in bottom of LH A-post		
H59	Left front high range speaker	in top of LH front door		
H66	Subwoofer	rear parcel shelf		
H91	Right luggage compartment lamp	Right rear lid light		
11008	Seat mat	in seat cushion, passenger's seat		

Comp.	Description	Location	7100.0	8500.0
K2	Horn relay	rear LH side of engine compartment in power distribution box	13-2	
K4	Heating blower relay	rear LH side of engine compartment in power distribution box	13-2	
K9	Unloader relay terminal 15	under LH side of dash	20-3	
K10	ABS overvoltage protection relay	rear LH side of engine compartment in power distribution box	13-1	
K13	Rear defogger relay	rear LH side of engine compartment in power distribution box	13-1	
K16	Hazard flasher relay	rear LH side of engine compartment in power distribution box	13-2	
K19	A/C compressor relay	rear LH side of engine compartment in power distribution box	13-1	
K21	Auxiliary fan stage 1 relay	rear LH side of engine compartment in power distribution box	13-1	
K22	Auxiliary fan stage 2 relay	rear LH side of engine compartment in power distribution box	13-1	
K25	Right parking light/licence plate light relay	RH side of dash behind glove compartment		
K26	Left parking light relay	RH side of dash behind glove compartment		
K45	Folding roof comfort relay	behind LH side of dash	19-1	
K46	High beam relay	rear LH side of engine compartment in power distribution box	13-2	
K47	Fog light relay	rear LH side of engine compartment in power distribution box	13-2	
K48	Headlight relay	rear LH side of engine compartment in power distribution box	13-2	
K124 .	Changeover module CNG	behind glove compartment		
K125 .	ABS pump motor relay, timed	power distribution box rear LH side of engine compartment	13-1	
K127y	Reading lights relay	under LH side of dash	20-3	
K200 .	Relay lighting Scandinavia	behind LH side of dash		
K2000	Heater plug relay	rear RH side of engine compartment	27-2	
K2003	DDE relay	rear LH side of engine compartment in power distribution box	13-3	
K2081	Delivery pump relay	rear LH side of engine compartment in power distribution box	13-3	

Comp.	Description	Location	7100.0	8500.0
K2200	Alternator cut–out relay	rear LH side of engine compartment in power distribution box	13-3	
K6300	DME relay	rear LH side of engine compartment in power distribution box	13-3	
K6301	Electrical fuel pump relay	rear LH side of engine compartment in power distribution box	13-3	
K6303	Oxygen sensor relay	rear LH side of engine compartment in power distribution box	13-3	
K6326	Unloader relay, terminal 15	rear RH side of engine compartment in electronics box	00-1	
K69921	CNG relay	rear RH side of engine compartment in electronics box		
K69922	CNG relay	rear RH side of engine compartment in electronics box		
M2	Fuel pump (EKP I)	under RH side of rear seat	15-2	
М3	Wiper motor	rear of engine compartment below centre of fresh air cowl	10-1	
M4	Washer pump	front RH side of engine compartment on washer fluid reservoir	07-3	
M7	Headlight washer pump	front RH side of engine compartment on washer fluid reservoir	08-3	
М9	Auxiliary fan motor	vehicle front, behind grille behind trim	12-1	
M12	Central locking (ZV) drive driver's door	in bottom of LH front door behind trim		
M13	Central locking (ZV) drive passenger's door .	in bottom of RH front door behind trim		
M16	ZV drive tank flap	in rear RH side of luggage compartment behind trim		
M17	Central locking drive rear lid	in rear of luggage compartment behind trim	29-3	
M21	Driver's window motor	LH front door behind door trim panel	22-3	
M23	Passenger's window motor	RH front door behind door trim panel	22-1	
M24z .	Folding roof motor	in windscreen header		
M25	Cruise control actuator (Tempomat)	front LH side of engine compartment	28-2	
М30	Blower motor	rear of engine compartment under RH fresh air trim		
M50	Driver's seat cushion tilt motor	under LH front seat	24-3	

Comp.	Description	Location	7100.0	8500.0
M51	Driver's seat movement motor	under LH front seat	24-3	
M52	Driver's seat height adjustment motor	under LH front seat	24-3	
M53	Driver's backrest recliner motor	under LH front seat	24-3	
M55z .	Driver's lumbar support/compressor valve	under LH front seat		
M58	Passenger's backrest recliner motor	under RH front seat		
M59	Passenger's seat height adjustment motor	under RH front seat		
M60	Passenger's seat movement motor	under RH front seat		
M61	Passenger's seat cushion tilt motor	under RH front seat		
M80	Left headlight beam angle adjust actuator	front LH side of engine compartment		
M81	Right headlight beam angle adjust actuator .	front RH side of engine compartment		
M93	ADS actuator	front LH side of engine compartment		
M111 .	Fresh air circulation motor	behind centre of dash		
M2025	Starter	rear LH side of engine compartment		
M6510	Starter	rear LH side of engine compartment		
M69913	Feed unit, CNG stepper motor	in engine compartment		
N8	AM/FM antenna amplifier	in rear lid	23-2	
N9	Radio	centre console		
N17	Crash alarm sensor	behind LH side of dash	19-1	
N22	CD changer	in front LH side of luggage compartment		
P90	Front power distribution box	rear LH side of engine compartment	03-2	
P95	Auxiliary fuse box	under LH side of dash	20-3	
P97	Auxiliary fuse box	behind LH side of dash	19-1	

Comp.	Description	Location	7100.0	8500.0
P100 .	Additional fuse box	behind LH side of dash	19-1	
R10	Pedal value sensor	behind accelerator pedal		
R11	Blower ballast resistor	behind centre of dash	19-2	
R13	Headlight beam angle adjust potentiometer .	under LH side of dash	18-2	
R27	Conductor loop hinged window right	RH B-pillar		
R28	Conductor loop hinged window left	LH B-pillar		
R31	ADS potentiometer	LH side of engine compartment		
R6240	Resistor	front of engine		
R6252	Throttle potentiometer	LH side of engine compartment	27-1	
R6252	Throttle potentiometer	LH side of engine compartment	32-2	
S2	Ignition switch	LH side of dash	17-3	
S3	Gear selector lever switch	centre console	20-1	
S4	Horn switch	on steering wheel	17-1	
S5	Windscreen wiper switch	LH side of dash right of steering column top		
S6	ASC switch	centre console	25-2	
S7	Turn indicator/low beam selector	LH side of dash left of steering column top	17-3	
S8	Light switch	LH side of dash	25-3	
S10	Fog light switch	LH side of dash		
S13	Passenger's door contact switch	RH front door jamb	21-3	
S14	Driver's door contact switch	front left door post	21-3	
S17	Driver's power mirror switch	in top of LH front door		
S18	Hazard warning switch	under centre console	20-1	

Comp.	Description	Location	7100.0	8500.0
S21	Front lid microswitch	front RH side of engine compartment	08-3	
S28	Cruise control switch	LH side of dash right of steering column top	17-3	
S29	Brake light switch	LH footwell on brake pedal support bracket behind LH footwell trim	16-3	
S30	Brake light switch	LH footwell on brake pedal support bracket behind LH footwell trim	16-2	
S31	Handbrake switch	centre console on rear of handbrake lever	26-2	
S32	Clutch switch	LH footwell on clutch pedal support bracket behind LH footwell trim	16-3	
S36	Dual temperature switch 91 °C/99 °C	front RH side of engine compartment near front RH headlight	28-1	
S36y .	Dual temperature switch 80 °C/88 °C	front RH side of engine compartment near front RH headlight	28-1	
S37	Glove compartment light switch	in glove box		
S38	Tilt/slide sunroof switch (SHD)	in head lining	24-1	
S47	Driver's door lock switch	LH front door next to door lock		
S48	Driver's door handle switch	LH front door next to door lock		
S49	Passenger's door lock switch	RH front door next to door lock		
S51	Driver's seat adjustment switch	under LH front seat		
S52	Driver's lumbar support switch	front of LH front seat		
S53	Driver's seat heating switch	centre console	25-2	
S54	Passenger's seat heating switch	centre console	25-1	
S56	Passenger's seat adjustment switch	under RH front seat		
S58	Driver's seat belt buckle switch	in LH front seat belt buckle		
S61y .	Luggage compartment light switch	underside of rear lid	23-1	
S75	Blower switch	centre of dash		
S77	Driver's make-up mirror switch	above LH sun visor in sun visor mounting	30-1	

Comp.	Description	Location	7100.0	8500.0
S78	Passenger's make-up mirror switch	above RH sun visor in sun visor mounting	16-1	
S82	Fog light switch	on instrument cluster		
S99	Passenger's window monitoring switch (DWA)	RH front door behind trim		
S100 .	Driver's window monitoring switch (DWA)	LH front door behind door trim panel		
S126y	Driver's door power window switch	centre console near gear lever	20-2	
S127y	Passenger's door power window switch	centre console near gear lever	20-2	
S198 .	Thermal switch, heated jets	front RH side of engine compartment	26-1	
S218 .	Rear window defogger switch	centre of dash		
S304 .	Gas/petrol switch	centre of dash		
S530 .	Control Switch, automatic climate control (IHKS)	centre of dash		
S531 .	Temperature selection switch	centre of dash		
S558 .	Gas shut–off valve	near the CNG tank		
S2113	Reversing light switch	LH side of transmission		
S2138	A/C fan II switch	front of engine		
S8503	Program switch	centre console		
S8507	Kick-down switch	LH footwell		
S8511	Reversing light switch	LH side of transmission	31-1	
S69912	Pressure switch CNG	centre of engine compartment		
T6151	Ignition coil 1	RH side of engine compartment (6-cylinder)	33-1	
T6151	Ignition coil 1	RH side of engine compartment (4–cylinder)	11-3	

Comp.	Description	Location	7100.0	8500.0
T6152	Ignition coil 2	RH side of engine compartment (6–cylinder)	33-1	
T6152	Ignition coil 2	RH side of engine compartment (4–cylinder)	11-3	
T6153	Ignition coil 3	RH side of engine compartment (6–cylinder)	33-1	
T6153	Ignition coil 3	RH side of engine compartment (4–cylinder)	11-3	
T6154	Ignition coil 4	RH side of engine compartment (6–cylinder)	33-1	
T6154	Ignition coil 4	RH side of engine compartment (4–cylinder)	11-3	
T6155	Ignition coil 5	RH side of engine compartment (6–cylinder)	33-1	
T6156	Ignition coil 6	RH side of engine compartment (6–cylinder)	33-1	
V5	Antitheft (DWA) LED	centre console near gear lever	25-1	
V7	ASC diode	power distribution box rear LH side of engine compartment		
V9	Decoupling diode lighting	power distribution box rear LH side of engine compartment		
X0	B+ terminal point	rear LH side of engine compartment	03-2	
X2	B+ terminal point	rear LH side of engine compartment	03-2	
X9	B+ terminal point	rear LH side of engine compartment	03-2	
X13	(30 pins, black)	LH side of LH footwell	17-2	00-4
X14	(30 pins, natural)	LH side of LH footwell	17-2	00-4
X16	(26 pins, natural)	LH side of dash rear of instrument cluster, A2w	18-3	00-2
X17	(26 pins, blue)	LH side of dash rear of instrument cluster, A2w	18-3	00-2
X20	(25 pins, black)	rear LH side of engine compartment	26-3	04-4
X22	(26 pins, grey)	behind glove compartment	01-3	00-2
Х32	(12 pins, natural)	LH footwell underside of steering column	21-1	02-4
Х33	(12 pins, black)	LH footwell underside of steering column	21-1	02-4

Comp.	Description	Location	7100.0	8500.0
X35	(12 pins, natural)	under LH side of dash right of steering column	21-1	02-4
X43	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X44	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X45	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X51	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X52	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X53	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X54	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X56	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X58	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X63	(9 pins, black)	under LH side of dash		03-4
X64	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X65	(9 pins, black)	behind LH side of dash		03-4
X69	(25 pins, grey)	rear LH side of engine compartment	26-3	11-5
X70	(7 pins, black)	front LH side of engine compartment	28-2	11-4
X72	(6 pins, natural)	LH footwell underside of steering column	21-1	03-6
X73	(8 pins, grey)	LH side of dash		03-3
X74	(50 pins, yellow)	under rear seat	02-1	08-3
X78	(4 pins, black)	LH footwell on brake pedal support bracket behind LH footwell trim	16-2	03-1
X82	(3 pins, black)	front of engine compartment on auxiliary fan	12-1	06-4
X85	(3 pins, black)	rear LH side of engine compartment	12-3	05-3
X87	(3 pins, black)	front RH side of engine compartment near front RH headlight	28-1	04-2

Comp.	Description	Location	7100.0	8500.0
X105 .	(2 pins, black)	underside of front lid		
X106 .	(2 pins, black)	underside of front lid		
X107 .	(2 pins, black)	front RH side of engine compartment on washer fluid reservoir	07-3	
X111	(2 pins, black)	rear LH side of engine compartment on break fluid reservoir	26-3	
X113	(3 pins, grey)	above RH front wheel well behind RH front wheel	07-2	06-3
X114	(3 pins, grey)	above LH front wheel well behind LH front wheel	07-2	06-3
X116	(2 pins, black)	LH footwell on brake pedal support bracket behind LH footwell trim	16-3	
X118	(2 pins, black)	above LH front wheel well behind LH front wheel	07-2	
X121 .	(2 pins, natural)	LH footwell on clutch pedal support bracket behind LH footwell trim	16-3	
X123 .	(2 pins, grey)	front RH side of engine compartment on washer fluid reservoir	08-3	
X128 .	(2 pins, black)	front LH side of engine compartment		
X129 .	(2 pins, black)	near front LH headlight		
X130	(4 pins, black)	near front LH headlight		03-2
X132 .	(2 pins, black)	front of engine compartment		
X133 .	(2 pins, black)	front of engine compartment		
X135	(4 pins, black)	near front RH headlight		03-2
X136 .	(2 pins, black)	near front RH headlight		
X137 .	(2 pins, black)	front RH side of engine compartment		
X142 .	(2 pins, grey)	under rear of vehicle left near differential		
X143 .	(2 pins, grey)	under rear of vehicle left near differential	06-1	
X163 .	(3 pins, black)	front RH side of engine compartment near front RH headlight	07-3	11-3
X165 .	Ground	front LH side of engine compartment	04-1	

Comp.	Description	Location	7100.0	8500.0
X168 .	(1 pin, ——)	left of steering column		
X173 .	Ground	under LH side of dash	04-3	
X256 .	(26 pins, black)	ahead of RH front door in bottom of RH A-post	22-1	03-5
X257 .	(26 pins, black)	ahead of LH front door in bottom of LH A-post		03-5
X271 .	(12 pins, black)	LH side of dash rear of instrument cluster, A2w	18-3	01-3
X272 .	(2 pins, natural)	in head lining	24-1	
X275 .	(4 pins, natural)	under LH front seat under carpet	24-2	03-1
X279 .	(4 pins, natural)	under RH front seat	21-2	03-1
X285 .	(15 pins, blue)	behind glove compartment	02-3	00-3
X292 .	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X295 .	(8 pins, black)	LH footwell underside of steering column	21-1	03-3
X300 .	(26 pins, black)	in RH side of luggage compartment behind trim	00-2	00-2
X311	(3 pins, black)	underside of rear lid left	29-3	01-1
X312 .	(2 pins, black)	in rear RH side of luggage compartment behind RH rear light assembly		
X315 .	(2 pins, black)	underside of rear lid left	29-3	
X316 .	(4 pins, violet)	centre console near gear lever	20-2	07-1
X318 .	(8 pins, black)	in rear RH side of luggage compartment behind RH rear light assembly		01-4
X319 .	(8 pins, black)	in LH side of luggage compartment behind trim	23-2	01-4
X322 .	(6 pins, black)	under LH side of dash	20-3	05-2
X324 .	(4 pins, violet)	centre console near gear lever	20-2	07-1
X333 .	(4 pins, natural)	rear of engine compartment below centre of fresh air cowl	10-1	06-2
X336 .	(6 pins, natural)	under roof centre panel	01-2	03-6

Comp.	Description	Location	7100.0	8500.0
X341	(8 pins, black)	in LH side of luggage compartment behind trim		01-4
X351 .	(2 pins, black)	in top of RH B-post		
X352 .	(2 pins, black)	in top of LH B-post		
X363 .	(1 pin, black)	under LH side of dash		
X371 .	(2 pins, black)	front RH side of engine compartment	08-3	
X379 .	(1 pin, natural)	in top of LH C-post		
X380 .	(1 pin, natural)	in top of RH C-post		
X381 .	(3 pins, black)	under roof centre panel	30-1	01-1
X382 .	(3 pins, black)	above RH sun visor	16-1	01-1
X383 .	(2 pins, black)	under rear of vehicle left near differential	06-1	
X389 .	(2 pins, black)	rear LH side of engine compartment		
X390 .	(2 pins, black)	vehicle, front right		
X396	(8 pins, black)	in rear RH side of luggage compartment behind RH rear light assembly		01-4
X400 .	(8 pins, black)	in rear LH side of glove compartment		01-4
X401 .	(1 pin, black)	above LH sun visor	30-1	
X402 .	(1 pin, black)	above RH sun visor	16-1	
X413 .	(3 pins, black)	rear parcel shelf		01-1
X423 .	(1 pin, ——)	below centre console on rear of handbrake lever	26-2	
X424 .	(1 pin, natural)	in LH side of luggage compartment behind trim	23-2	
X494 .	Ground	under driver's seat left	05-3	
X495 .	Ground	right of glove compartment	04-2	
X498	Ground	under driver's seat left	05-3	

Comp.	Description	Location	7100.0	8500.0
X509 .	(9 pins, black)	behind glove compartment		03-4
X510 .	(9 pins, black)	behind glove compartment		03-4
X511	(8 pins, black)	centre console near gear lever	20-1	01-4
X514 .	(4 pins, black)	centre console	25-1	07-1
X516 .	(5 pins, black)	centre console	20-1	02-6
X521 .	(6 pins, blue)	centre console		09-4
X522 .	(3 pins, natural)	under LH side of dash	21-1	08-1
X531 .	(1 pin, ——)	centre console near gear lever	25-2	
X532 .	(2 pins, black)	centre console near gear lever	25-2	
X537 .	(3 pins, black)	LH front door behind door trim panel	31-3	01-1
X538 .	(3 pins, black)	RH front door behind door trim panel	22-1	01-1
X540 .	(2 pins, black)	LH side of glove box	19-3	
X541 .	(3 pins, black)	LH side of glove box	19-3	01-1
X544 .	(2 pins, natural)	behind dash		
X603 .	(12 pins, black)	under LH front seat		02-4
X604 .	(12 pins, black)	under RH front seat		02-4
X605 .	(12 pins, black)	in LH side of luggage compartment behind trim	00-3	10-3
X606 .	(26 pins, black)	in LH side of luggage compartment behind trim	00-3	00-2
X623 .	(4 pins, black)	in top of LH front door behind door trim panel		07-1
X624 .	(4 pins, black)	in top of RH front door behind door trim panel	22-1	07-1
X625 .	(6 pins, black)	LH front door behind door trim panel	31-3	02-5
X627 .	(2 pins, black)	in head lining		

Comp.	Description	Location	7100.0	8500.0
X630 .	(13 pins, black)	under centre of rear bumper		07-4
X638 .	(2 pins, black)	under RH side of rear seat	15-2	
X641 .	(6 pins, black)	RH front door behind door trim panel		06-5
X643 .	(4 pins, yellow)	in head lining (with tilt/slide sunrof (SHD))	24-1	07-1
X643 .	(4 pins, natural)	in head lining (with folding roof)		07-1
X651 .	(6 pins, yellow)	centre console	25-2	04-5
X652 .	(6 pins, —)	front of LH front seat		07-3
X658 .	(6 pins, yellow)	centre console	25-1	04-5
X660 .	(6 pins, black)	LH front door behind door trim panel	22-2	06-5
X679 .	(2 pins, natural)	under RH side of rear seat	15-2	
X695 .	(10 pins, black)	below centre console		02-3
X700 .	(1 pin, ——)	behind RH footwell speaker cover		
X701 .	(1 pin, ——)	behind LH footwell speaker trim cover		
X706 .	(2 pins, black)	centre console	26-2	
X709 .	(2 pins, black)	underside of rear lid, near number plate	07-1	
X710 .	(2 pins, black)	underside of rear lid, near number plate	07-1	
X711	(3 pins, black)	underside of rear lid	23-1	01-1
X713 .	(2 pins, black)	under rear of vehicle left near differential	06-1	
X726 .	(2 pins, —)	under LH front seat	24-2	
X727 .	(2 pins, —)	under LH front seat	24-2	
X728 .	(2 pins, ——)	under LH front seat	24-2	
X729 .	(2 pins. —)	under LH front seat	24-2	

Comp.	Description	Location	7100.0	8500.0
X732 .	(4 pins, black)	under LH front seat under carpet		03-1
X733 .	(4 pins, black)	under LH front seat under carpet		03-1
X734 .	(2 pins, —)	under RH front seat		
X735 .	(2 pins, —)	under RH front seat		
X736 .	(2 pins, —)	under RH front seat		
X737 .	(2 pins, —)	under RH front seat		
X740 .	(4 pins, black)	under RH front seat	21-2	03-1
X741 .	(4 pins, black)	under RH front seat	21-2	03-1
X742 .	(2 pins, yellow)	RH front door next to door lock		
X744 .	(4 pins, grey)	RH front door behind door trim panel	22-1	10-1
X745 .	(3 pins, black)	footwell, passenger's side		01-1
X746 .	(3 pins, natural)	RH front door behind door trim panel	22-1	01-1
X747 .	(2 pins, yellow)	LH front door behind door trim panel	22-2	
X748 .	(3 pins, black)	footwell, driver's side		01-1
X749 .	(4 pins, grey)	LH front door behind door trim panel	22-3	10-1
X752 .	(2 pins, grey)	LH front door behind door trim panel	22-2	
X753 .	(3 pins, natural)	LH front door	22-3	01-1
X768 .	(2 pins, white)	in engine compartment near front LH headlight	06-2	
X769 .	(2 pins, white)	in engine compartment near front RH headlight	06-2	
X770 .	(2 pins, yellow)	in engine compartment near front LH headlight	15-1	
X771 .	(2 pins, black)	on RH side of LH footwell	18-1	
X778 .	(4 pins, black)	under LH front seat		07-1

Comp.	Description	Location	7100.0	8500.0
X782 .	(3 pins, orange)	LH side of glove box	19-3	09-1
X783 .	(3 pins, black)	underside of steering column		09-1
X816 .	(1 pin, ——)	rear of engine compartment under RH fresh air trim		
X817 .	(1 pin, ——)	rear of engine compartment under RH fresh air trim		
X904 .	(4 pins, black)	behind centre of dash	19-2	03-1
X905 .	(7 pins, black)	behind centre of dash		10-2
X1013	(2 pins, natural)	behind dash		
X1014	(1 pin, black)	centre console near gear lever	25-2	
X1034	(3 pins, black)	front LH side of engine compartment	14-3	08-1
X1035	(3 pins, black)	front RH side of engine compartment		08-1
X1148	(2 pins, black)	front RH side of engine compartment Thermal switch, heated jets	26-1	
X1165	Ground	under LH side of dash	04-3	
X1166	Ground	right of glove compartment	04-2	
X1171	(55 pins, natural)	behind glove compartment		00-1
X1175	(42 pins, natural)	behind glove compartment	01-3	11-1
X1176	(25 pins, black)	rear LH side of engine compartment behind LH spring strut dome	12-3	11-5
X1178	(2 pins, white)	centre console		
X1193	(3 pins, black)	centre console on RH side of gear shift lever	20-1	01-1
X1222	(6 pins, natural)	in RH side of luggage compartment behind trim	23-3	03-6
X1241	(2 pins, black)	under LH side of rear seat	14-1	
X1245	(1 pin, black)	above LH sun visor	24-1	
X1246	(1 pin, black)	above RH sun visor	16-1	

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Comp.	Description	Location	7100.0	8500.0
X1292	(4 pins, natural)	centre console		07-1
X1380	(1 pin, ——)	behind RH footwell speaker cover		
X1381	(1 pin, ——)	behind LH footwell speaker trim cover		
X1441	Ground	under RH rear seat	02-1	
X1517	(3 pins, black)	on washer fluid reservoir		04-3
X1518	(8 pins, black)	behind centre of dash		01-4
X1522	(2 pins, black)	behind centre of dash		
X1529	(1 pin, ——)	power distribution box rear LH side of engine compartment		
X1530	(1 pin, ——)	power distribution box rear LH side of engine compartment		
X1588	(2 pins, black)	behind LH side of dash	19-1	
X1646	(3 pins, black)	in rear lid		01-1
X1659	(15 pins, yellow)	behind glove compartment	01-3	00-3
X1668	(9 pins, black)	behind glove compartment		03-4
X1669	(6 pins, blue)	behind centre of dash		09-4
X1814	(9 pins, black)	behind LH side of dash		03-4
X1843	(1 pin, black)	in rear lid		
X1844	(1 pin, white)	in rear lid		
X1845	(2 pins, black)	in rear lid		
X1846	(3 pins, yellow)	in rear lid		01-1
X1847	(3 pins, black)	in rear lid		01-1
X1883	(3 pins, yellow)	in driver's door		01-1
X1884	(3 pins, yellow)	in passenger's door		01-1

Comp.	Description	Location	7100.0	8500.0
X1885	(3 pins, black)	under LH front seat left	31-2	06-6
X1886	(3 pins, black)	under RH front seat right		06-6
X1890	(3 pins, black)	front of engine compartment on auxiliary fan	12-1	06-4
X2000	(12 pins, black)	rear RH side of engine compartment	27-2	10-3
X2008	(2 pins, black)	RH side of engine compartment	35-2	
X2009	Cable shoe, electrical cut-out	LH side of engine	36-2	
X2010	(7 pins, black)	LH side of engine compartment	35-3	11-4
X2011	(2 pins, black)	LH side of engine compartment	35-2	
X2012	(2 pins, black)	front of engine	36-2	
X2013	(2 pins, black)	LH side of engine	27-3	
X2014	(3 pins, black)	LH side of engine compartment	36-1	08-2
X2017	(2 pins, black)	LH side of engine compartment	36-1	
X2019	(55 pins, natural)	in electronics box	27-2	00-1
X2024	Cable shoe	LH bottom of engine compartment on alternator		
X2025	Cable shoe	rear LH side of engine compartment below intake manifold		
X2026	Cable shoe B+	rear LH side of engine compartment below intake manifold		
X2027	Cable shoe	rear LH side of engine compartment below intake manifold		
X2042	Ground	rear RH side of engine compartment		
X2081	(9 pins, black)	rear LH side of engine compartment in power distribution box		03-4
X2083	(2 pins, black)	LH side of engine compartment	35-1	
X2085	(9 pins, black)	rear LH side of engine compartment in power distribution box		03-4
X2086	(3 pins, black)	LH side of engine compartment	36-1	06-4

Comp.	Description	Location	7100.0	8500.0
X2091	Glow plug cyl. 1	centre of engine compartment		
X2092	Glow plug cyl. 2	centre of engine compartment		
X2093	Glow plug cyl. 3	centre of engine compartment		
X2094	Glow plug cyl. 4	centre of engine compartment		
X2110	Cable shoe, heater plug relay	rear RH side of engine compartment	27-2	
X2113	(2 pins, black)	under front of car LH side of transmission		
X2138	(2 pins, black)	front of engine		
X2200	(9 pins, black)	rear LH side of engine compartment in power distribution box		03-4
X2226	(3 pins, black)	front LH side of engine compartment	35-1	08-2
X2232	(4 pins, black)	front of engine compartment	35-3	01-2
X6000	(88 pins, natural)	rear RH side of engine compartment in electronics box		05-1
X6002	(20 pins, black)	rear LH side of engine compartment (4-cylinder)	26-3	04-1
X6002	(20 pins, black)	rear RH side of engine compartment (6-cylinder)	32-3	04-1
X6101	(2 pins, black)	centre top of engine		
X6102	(2 pins, black)	centre top of engine		
X6103	(2 pins, black)	centre top of engine		
X6104	(2 pins, black)	centre top of engine		
X6105	(2 pins, black)	centre top of engine		
X6106	(2 pins, black)	centre top of engine		
X6120	(2 pins, black)	LH side of engine compartment	14-2	
X6130	(3 pins, black)	front LH side of engine compartment (4-cylinder)	27-1	08-2
X6130	(3 pins, black)	front LH side of engine compartment (6–cylinder)	34-1	08-2

Comp.	Description	Location	7100.0	8500.0
X6131	(2 pins, black)	rear LH side of engine compartment	28-3	
X6150	(7 pins, black)	RH side of engine compartment (4–cylinder)	11-3	10-4
X6150	(10 pins, black)	RH side of engine compartment (6–cylinder)	32-3	02-1
X6151	(3 pins, grey)	RH top of engine		10-5
X6152	(3 pins, grey)	RH top of engine		10-5
X6153	(3 pins, grey)	RH top of engine		10-5
X6154	(3 pins, grey)	RH top of engine		10-5
X6155	(3 pins, grey)	RH top of engine		10-5
X6156	(3 pins, grey)	RH top of engine		10-5
X6200	(4 pins, black)	under centre of car	09-3	03-2
X6203	(3 pins, black)	front of engine below intake manifold (4–cylinder)		08-2
X6203	(3 pins, black)	front of engine below intake manifold (6–cylinder)	33-3	08-2
X6204	(3 pins, black)	front of engine below intake manifold (4–cylinder)		08-2
X6204	(3 pins, black)	front of engine below intake manifold (6–cylinder)	33-3	08-2
X6205	(2 pins, black)	LH side of engine (4–cylinder)	28-2	
X6205	(2 pins, black)	LH side of engine (6–cylinder)	33-2	
X6207	(4 pins, black)	LH side of engine compartment, right of LH spring strut dome	28-2	01-2
X6209	(3 pins, black)	front of engine Hall sensor, camshaft		08-2
X6217	(4 pins, grey)	front top of engine	28-3	06-1
X6230	(3 pins, black)	LH side of engine compartment		08-2
X6231	(2 pins, black)	front LH side of engine compartment below intake manifold (4-cylinder)	11-1	
X6231	(2 pins, black)	front LH side of engine compartment below intake manifold (6–cylinder)	34-2	

Comp.	Description	Location	7100.0	8500.0
X6232	(4 pins, black)	front LH side of engine compartment below intake manifold	11-2	01-2
X6232	(2 pins, black)	front LH side of engine compartment below intake manifold (316g)		
X6233	(7 pins, black)	LH side of engine compartment	10-2	10-4
X6240	(4 pins, black)	front top of engine (4-cylinder)		01-2
X6240	(4 pins, black)	front top of engine (6-cylinder)	33-3	01-2
X6241	(4 pins, black)	LH side of engine	10-3	01-2
X6252	(3 pins, black)	LH side of engine compartment (4–cylinder)	27-1	08-2
X6252	(3 pins, black)	LH side of engine compartment (6–cylinder)	32-2	08-2
X6256	(4 pins, black)	front LH side of engine compartment below intake manifold (4-cylinder)	11-2	01-2
X6256	(4 pins, black)	front LH side of engine compartment below intake manifold (6-cylinder)	34-2	01-2
X6275	(2 pins, black)	on cylinder head	34-3	
X6300	(9 pins, black)	rear LH side of engine compartment		03-4
X6301	(9 pins, black)	rear LH side of engine compartment		03-4
X6303	(9 pins, black)	rear LH side of engine compartment		03-4
X6326	(9 pins, black)	rear RH side of engine compartment in electronics box	00-1	03-4
X6430	Cable shoe B+ terminal point	rear RH side of engine compartment		
X6431	Cable shoe B+ terminal point	rear RH side of engine compartment		
X6432	Cable shoe B+ terminal point	rear RH side of engine compartment		
X6437	Cable shoe B+ terminal point	rear RH side of engine compartment		
X6454	Ground	rear RH side of engine compartment behind RH spring strut dome	30-3	
X6456	Ground	rear RH side of engine compartment behind RH spring strut dome	30-3	

Comp.	Description	Location	7100.0	8500.0
X6509	Cable shoe, alternator B+	front LH side of engine compartment	03-1	
X6510	Cable shoe, starter terminal 50	rear LH side of engine compartment below intake manifold		
X6511	Cable shoe, starter terminal 30h	rear LH side of engine compartment below intake manifold		
X6512	Cable shoe, starter terminal 30	rear LH side of engine compartment below intake manifold		
X6952	(6 pins, —)	on cylinder head		
X6960	Gas quality switch	in engine compartment		
X7000	(88 pins, natural)	rear RH side of engine compartment in electronics box		05-1
X7509	Cable shoe, alternator D+	front LH side of engine compartment		
X8500	(88 pins, natural)	rear RH side of engine compartment in electronics box		05-1
X8503	(10 pins, natural)	centre console on RH side of gear shift lever	20-2	02-3
X8505	(16 pins, black)	on RH side of transmission	30-2	07-2
X8507	(1 pin, black)	under LH side of dash		
X8511	(2 pins, black)	under front of car LH side of transmission	31-1	
X8516	(2 pins, black)	on RH side of transmission	30-2	
X9997	(2 pins, orange)	behind steering wheel	17-1	
X10010	Ground	behind glove compartment	05-2	
X10012	Ground	right of glove compartment	04-2	
X10013	(1 pin, ——)	on steering wheel		
X10051	(4 pins, natural)	under LH side of dash	18-2	03-1
X10070	(2 pins, grey)	front LH side of engine compartment	14-3	
X10071	(2 pins, black)	front LH side of engine compartment	14-3	
X10094	(2 pins, black)	front LH side of engine compartment		

Comp.	Description	Location	7100.0	8500.0
X10098	(1 pin, ——)	power distribution box rear LH side of engine compartment		
X10099	(1 pin, ——)	power distribution box rear LH side of engine compartment		
X10102	(10 pins, black)	near interior rear view mirror	15-3	02-3
X10182	(18 pins, black)	behind glove compartment		01-5
X10216	(2 pins, yellow)	driver's seat right		
X10217	(2 pins, yellow)	driver's seat left		
X10218	(3 pins, natural)	under RH front seat	21-2	01-1
X10234	(4 pins, ——)	centre of dash		
X10239	(3 pins, black)	LH side of engine compartment		08-2
X10245	(12 pins, black)	behind centre of dash		01-3
X10246	(2 pins, black)	in RH side of luggage compartment	23-3	
X10247	(2 pins, white)	in RH side of luggage compartment		
X10248	(2 pins, black)	in LH side of luggage compartment	29-1	
X10249	(2 pins, white)	in LH side of luggage compartment		
X10250	(2 pins, black)	under LH side of dash	20-3	
X10260	(3 pins, natural)	right of steering column	02-2	01-1
X10261	(4 pins, black)	front RH side of engine compartment near front RH headlight	28-1	10-1
X10263	(6 pins, black)	LH side of dash		09-4
X10271	(3 pins, black)	in head lining		01-1
X10273	(2 pins, black)	behind LH side of dash	19-1	
X10353	(25 pins, grey)	rear LH side of engine compartment behind LH spring strut dome		09-2
X11250	(6 pins, black)	rear of centre console	29-2	11-2

Comp.	Description	Location	7100.0	8500.0
X11270	(2 pins, black)	in rear LH side of glove compartment	23-2	
X11272	(9 pins, black)	behind LH side of dash		03-4
X11289	(3 pins, violet)	under LH front seat		01-1
X11290	(3 pins, violet)	under RH front seat		01-1
X11379	(3 pins, natural)	front RH side of engine compartment near front RH headlight	28-1	04-2
X11393	(9 pins, black)	power distribution box rear LH side of engine compartment		03-4
X11394	(25 pins, black)	rear LH side of engine compartment behind LH spring strut dome		09-2
X13006	Ground	in LH side of luggage compartment	05-1	
X13009	Ground	in LH side of luggage compartment	05-1	
X13016	Ground	under LH side of dash	04-3	
X13057	(2 pins, black)	in rear lid	36-3	
X13172	(2 pins, black)	under luggage compartment floor lining		
X13176	(6 pins, natural)	in head lining		04-5
X13242	(3 pins, black)	RH B-pillar		07-5
X13243	(3 pins, black)	LH B-pillar		07-5
X13252	(15 pins, black)	behind glove compartment	01-1	00-3
X13253	(26 pins, yellow)	behind glove compartment	01-1	00-2
X13254	(26 pins, green)	behind glove compartment	01-1	00-2
X13268	(3 pins, black)	in rear lid	36-3	01-1
X13271	(1 pin, natural)	LH A-pillar		
X13272	(1 pin, natural)	RH A-pillar		
X13274	(10 pins, ——)	centre of dash		02-3

Comp.	Description	Location	7100.0	8500.0
X13286	(1 pin, black)	centre of dash rear of centre console		
X13287	(1 pin, white)	centre of dash rear of centre console		
X17159	(12 pins, ——)	rear parcel shelf		10-3
X17179	(12 pins, ——)	in LH side of luggage compartment behind trim		10-3
X18013	(26 pins, yellow)	in RH side of luggage compartment behind trim	00-2	00-2
X18020	(2 pins, black)	in LH side of rear bumper Rear left converter	08-1	
X18021	(2 pins, black)	in LH side of rear bumper Rear centre left converter	08-1	
X18022	(2 pins, black)	in RH side of rear bumper Rear centre right converter	08-2	
X18023	(2 pins, black)	in RH side of rear bumper Rear right converter	08-2	
X18050	(2 pins, black)	RH front door behind trim		
X18084	(2 pins, black)	LH front door behind door trim panel	31-3	
X18126	(17 pins, black)	centre console behind radio		02-2
X18135	(4 pins, black)	under LH front seat		03-1
X18180	(3 pins, natural)	in rear RH side of luggage compartment		04-3
X18196	(10 pins, black)	ahead of LH front door in bottom of LH A-post		02-3
X18198	(10 pins, black)	ahead of RH front door in bottom of RH A-post		02-3
X18262 x	Plug socket, left reading light	LH B–pillar		
X18262 y	Plug socket, right reading light	RH B-pillar		
X18279	(2 pins, grey)	LH front door behind door trim panel	22-3	
X18280	(2 pins, grey)	RH front door behind door trim panel	22-1	

Comp.	Description	Location	7100.0	8500.0
X18333	(2 pins, black)	on instrument cluster	18-2	
X18334	(2 pins, black)	on instrument cluster	18-2	
X18337	(12 pins, black)	on instrument cluster	18-2	09-3
X18338	(12 pins, black)	on instrument cluster	18-2	09-3
X18520	(10 pins, —)	centre console Radio		02-3
X18521	(10 pins, ——)	RH side of luggage compartment CD changer		02-3
X18723	Ground	under LH side of dash	04-3	
X18997	(9 pins, black)	under LH side of dash		03-4
X18998	(1 pin, natural)	LH B–pillar		
X18999	(1 pin, natural)	RH B-pillar		
X19000	(1 pin, ——)	LH B–pillar		
X19001	(1 pin, ——)	RH B-pillar		
X19549	(12 pins, black)	rear LH side of engine compartment		01-6
X19553	(3 pins, black)	RH side under centre of vehicle		04-2
X19559	(2 pins, black)	near the CNG tank		
X19562	(4 pins, natural)	in front RH bumper		10-1
X62001	(4 pins, black)	under centre of car	12-2	01-2
X62101	(4 pins, black)	centre top of engine	33-3	01-2
X62201	(4 pins, black)	centre top of engine	33-3	01-2
X69901	(24 pins, —)	rear RH side of engine compartment in electronics box		
X69902	(32 pins, —)	rear RH side of engine compartment in electronics box		
X69912	(2 pins, black)	centre of engine compartment		

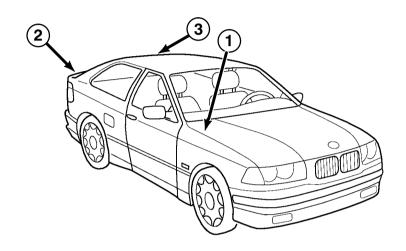
Comp.	Description	Location	7100.0	8500.0
X69913	(4 pins, —)	in engine compartment		
X69914	(1 pin, —)	in engine compartment		
X69915	(3 pins, black)	centre of engine compartment		
X69921	(9 pins, black)	rear RH side of engine compartment in electronics box		03-4
X69922	(9 pins, black)	rear RH side of engine compartment in electronics box		03-4
X69925	(12 pins, black)	rear LH side of engine compartment		01-6
X69926	(4 pins, black)	under centre of car		03-2
X69927	Cable shoe Dry gas shut-off valve	in engine compartment		
X69990	(1 pin, —)	in engine compartment		
X69991	(1 pin, —)	in engine compartment		
X69992	(1 pin, ——)	centre of engine compartment		
X90260	(3 pins, —)	right of steering column	02-2	
X91009	(2 pins, black)	under passenger's seat		
Y1	ABS hydraulic unit	rear LH side of engine compartment behind LH spring strut dome	12-3	
Y2	Solenoid clutch	front RH side of engine compartment		
Y5	Left outside mirror	in top of LH front door		
Y6	Right outside mirror	in top of RH front door		
Y4z	Water valve	rear LH side of engine compartment	12-3	
Y19	Shift lock selector lever lock	centre console		
Y198 .	Exhaust–gas flap valve	under luggage compartment floor lining		
Y2008	Needle motion sensor	RH side of engine	35-2	
Y2009	Electric cutout	LH side of engine	36-2	

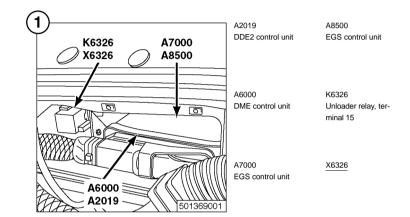


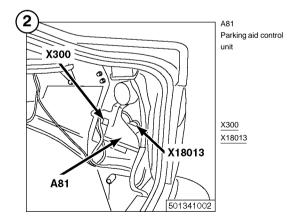
Comp.	Description	Location	7100.0	8500.0
Y2010	Injection quantity control unit	LH side of engine compartment	35-3	
Y6101	Fuel injector 1	on cylinder head (6-cylinder)	32-1	
Y6101	Fuel injector 1	on cylinder head (4-cylinder)	09-2	
Y6102	Fuel injector 2	on cylinder head (6-cylinder)	32-1	
Y6102	Fuel injector 2	on cylinder head (4-cylinder)	09-2	
Y6103	Fuel injector 3	on cylinder head (6-cylinder)	32-1	
Y6103	Fuel injector 3	on cylinder head (4-cylinder)	09-2	
Y6104	Fuel injector 4	on cylinder head (6-cylinder)	32-1	
Y6104	Fuel injector 4	on cylinder head (4-cylinder)	09-2	
Y6105	Fuel injector 5	on cylinder head (6-cylinder)	32-1	
Y6106	Fuel injector 6	on cylinder head (6-cylinder)	32-1	
Y6120	Charcoal filter valve	LH side of engine compartment	14-2	
Y6130	Idle actuator	front LH side of engine compartment below intake manifold (4-cylinder)	27-1	
Y6130	Idle actuator	front LH side of engine compartment (6-cylinder)	34-1	
Y6131	Changeover valve I	rear of engine compartment left	28-3	
Y6275	VANOS valve 1	on cylinder head	34-3	
Y8505	Gear-shift unit	on RH side of transmission (4-cylinder)		
Y8505y	Gearshift unit	on RH side of transmission (6-cylinder)		
Y69914	Dry gas shut–off valve	in engine compartment		

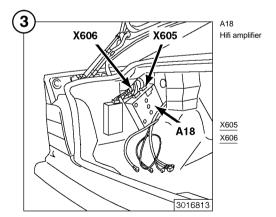
### 7100.0 Component location views

### Location of control units



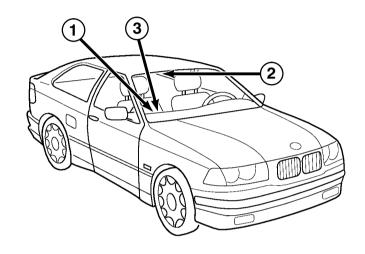


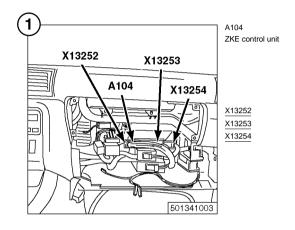


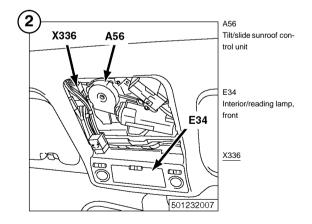


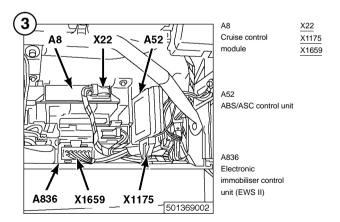
### **Component location views**

### Location of control units

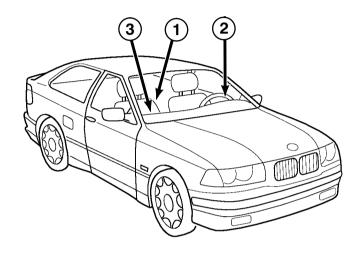


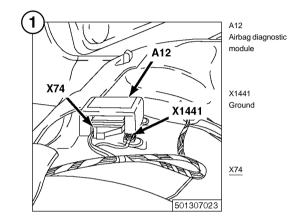


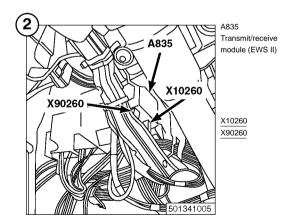


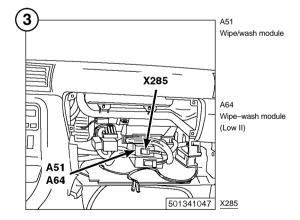


#### Location of control units

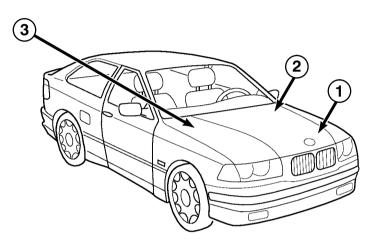


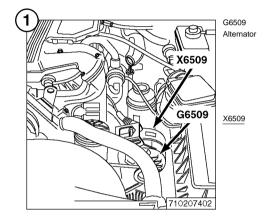


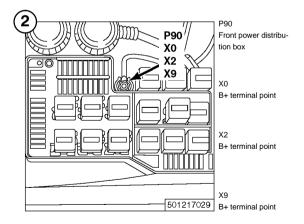


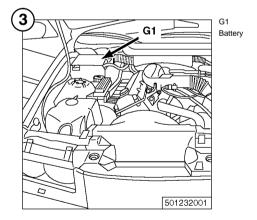




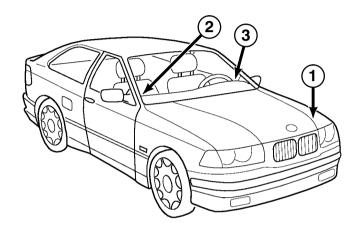


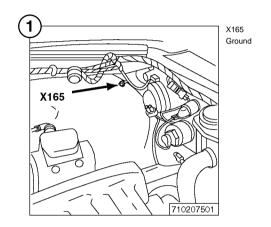


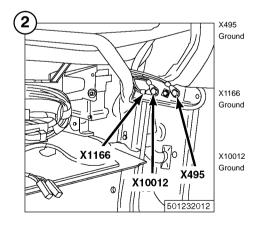


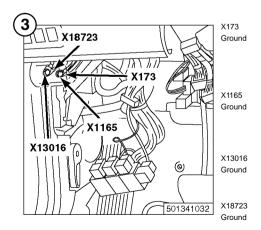




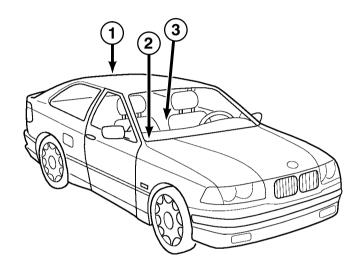


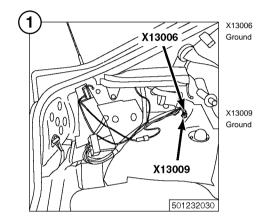


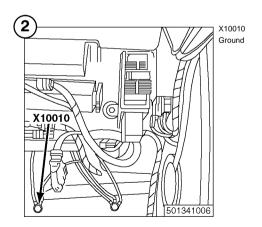


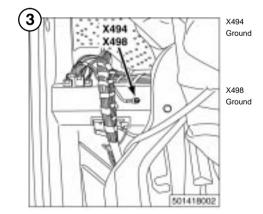




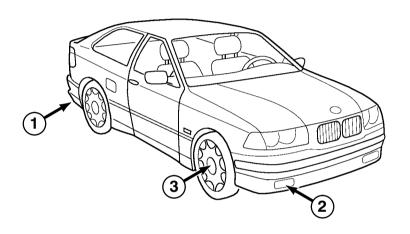


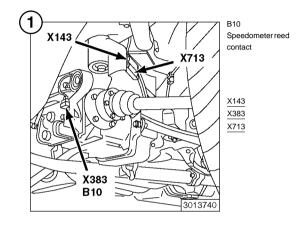


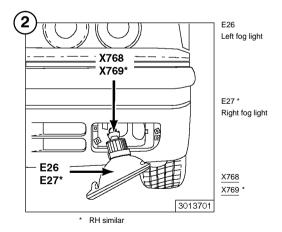


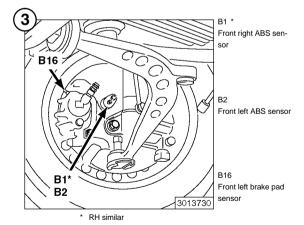


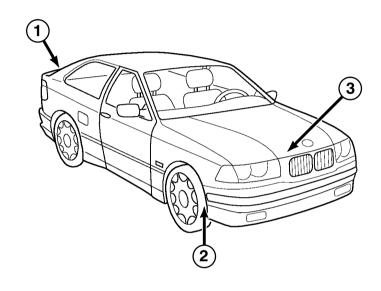


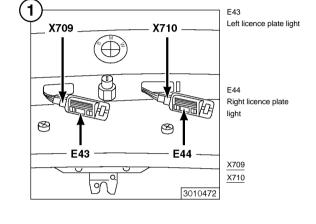


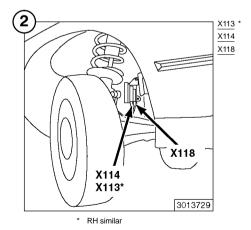


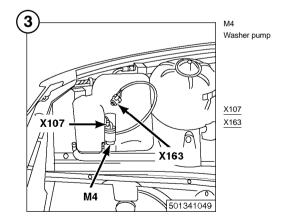




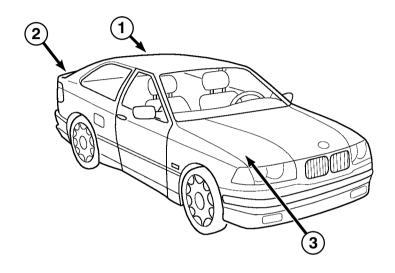


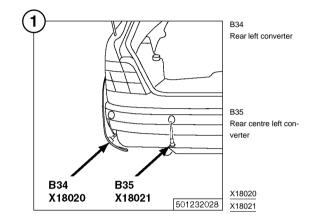


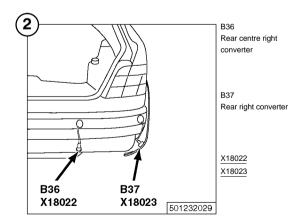


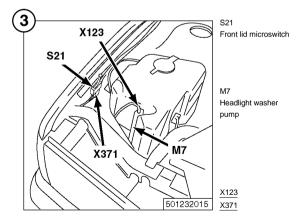


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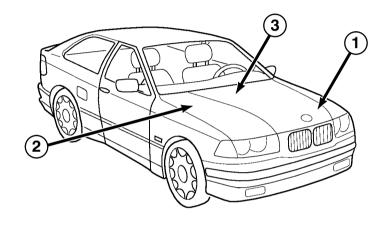


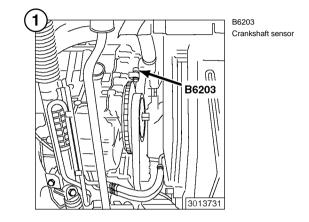


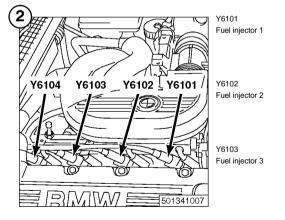




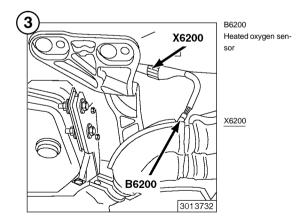




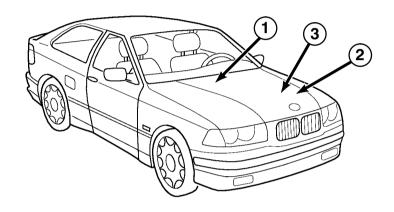


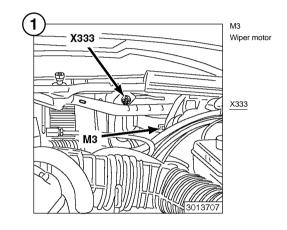


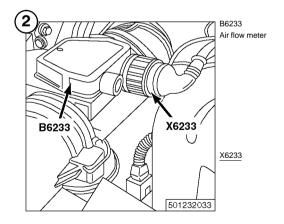


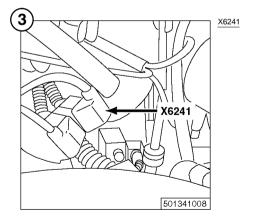




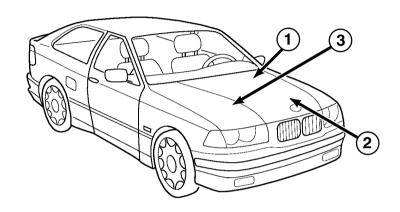


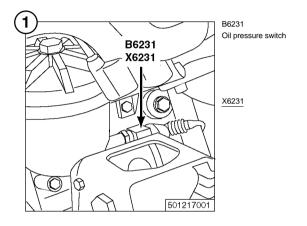


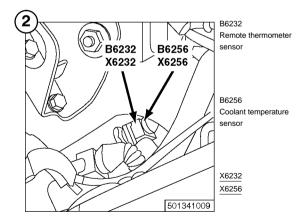


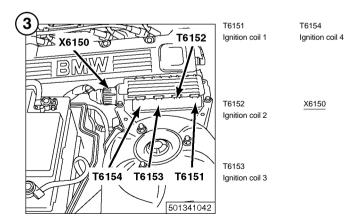




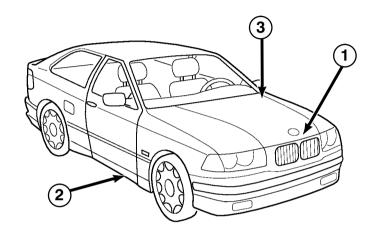


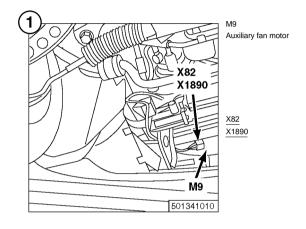


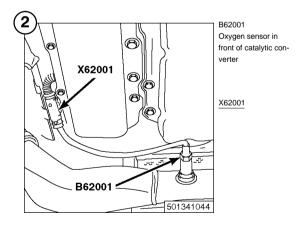


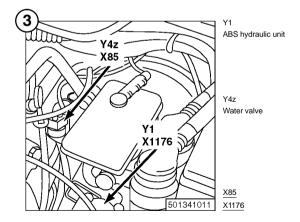


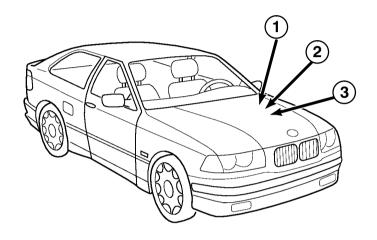


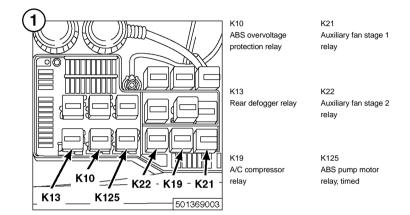


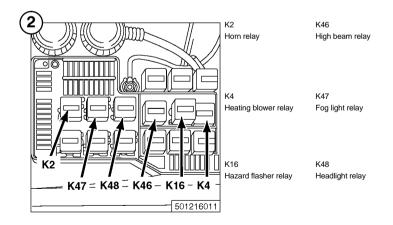


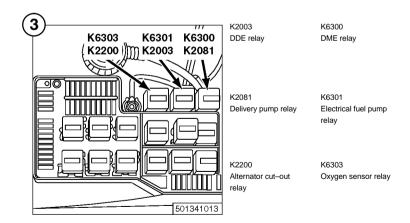




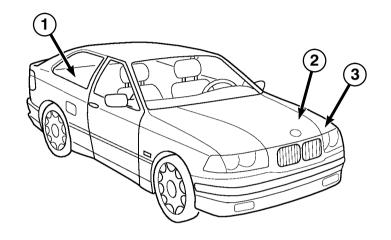


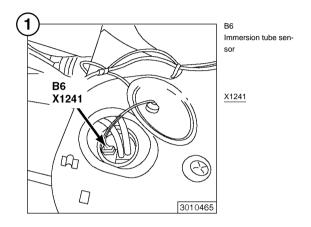


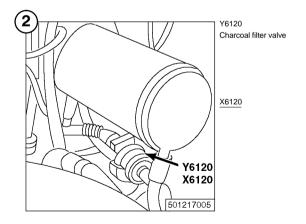


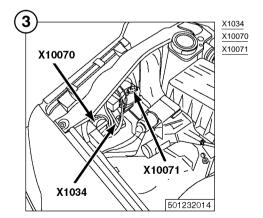


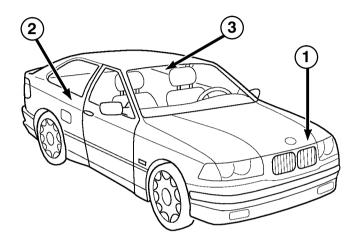


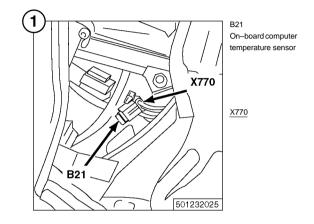


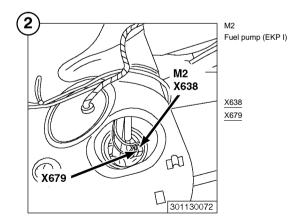


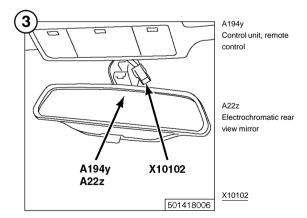


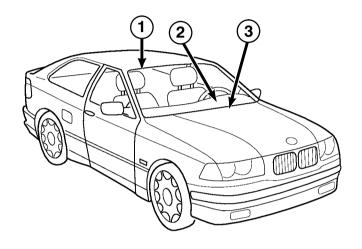


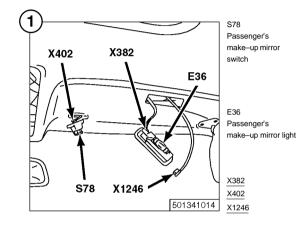


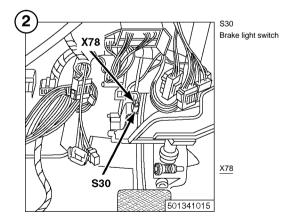


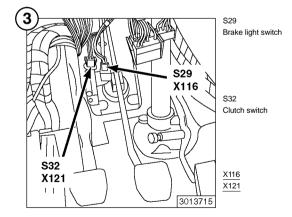


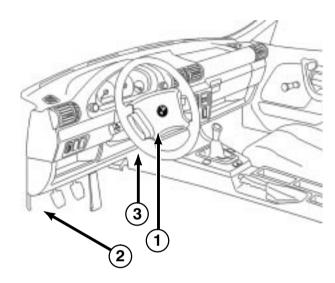


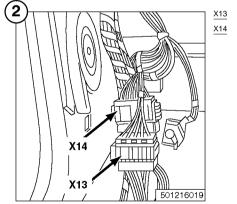


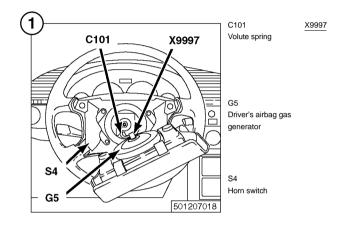


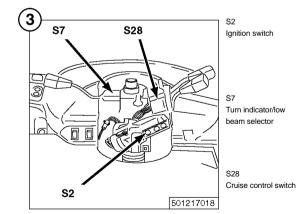


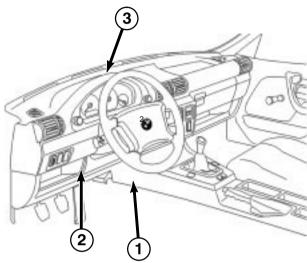






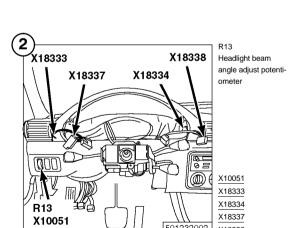


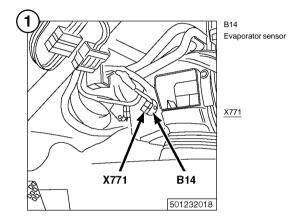


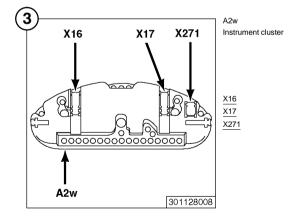


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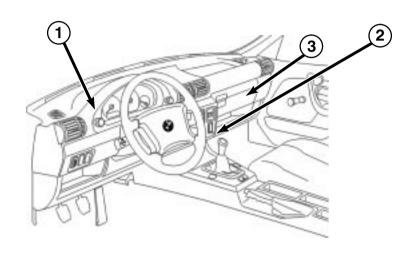
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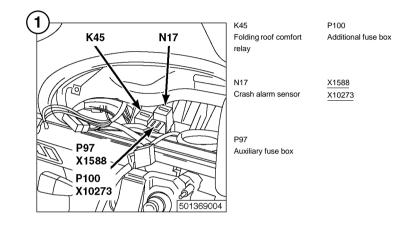


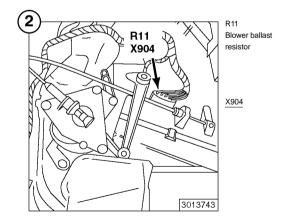


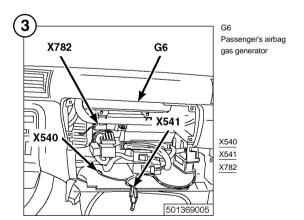


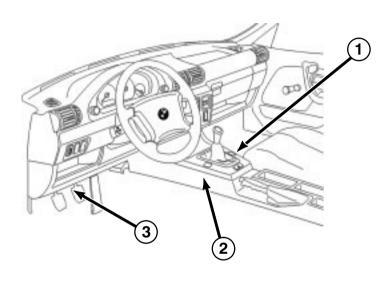


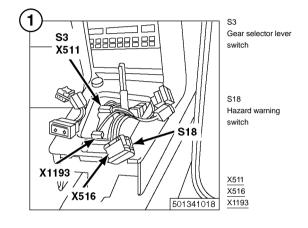


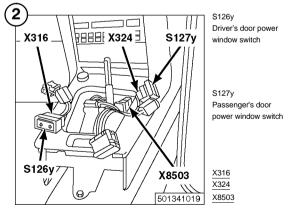


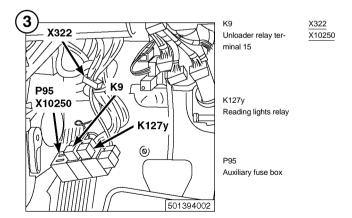




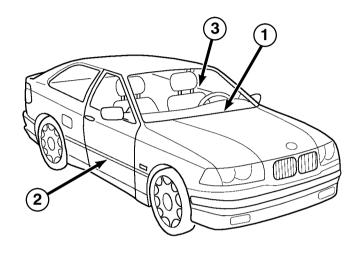


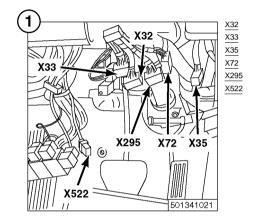


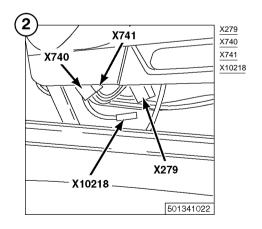


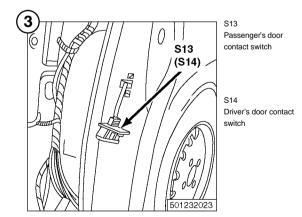


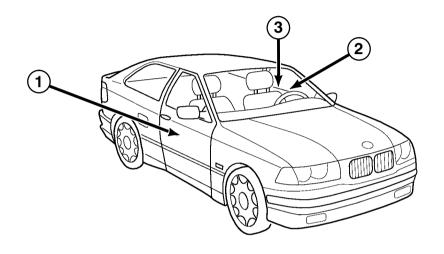


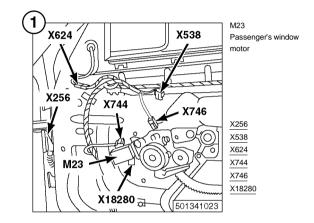


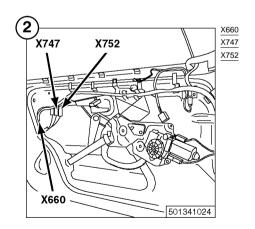


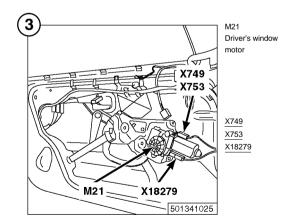




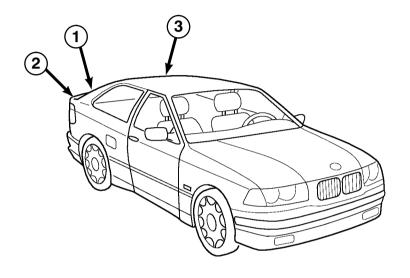


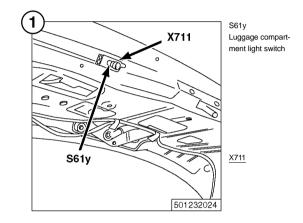


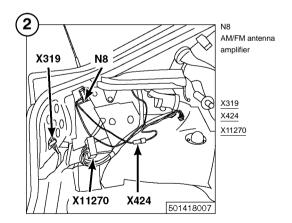


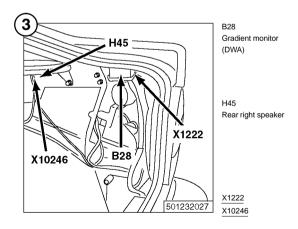


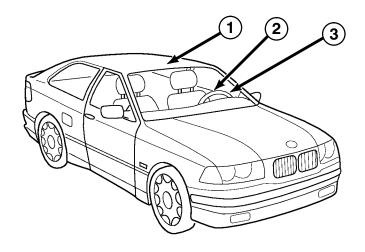


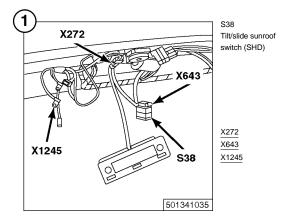


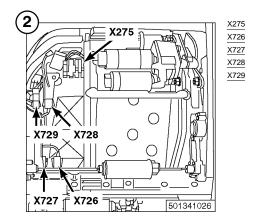


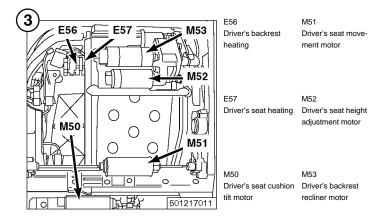


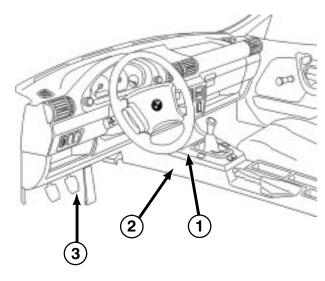


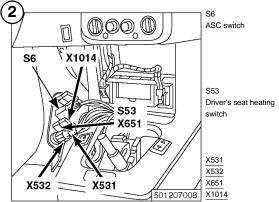


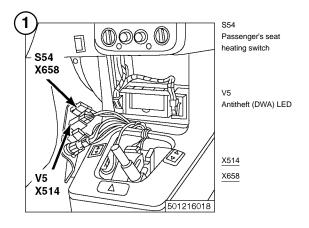


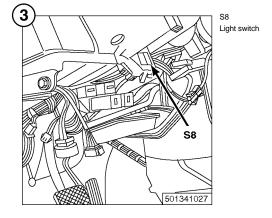


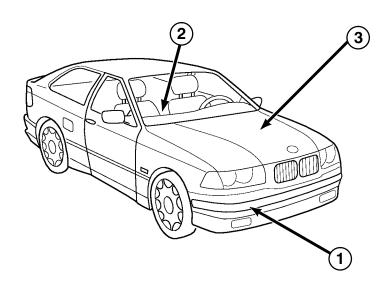


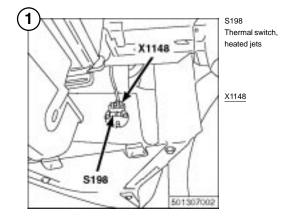


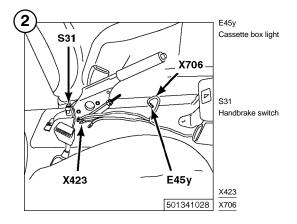


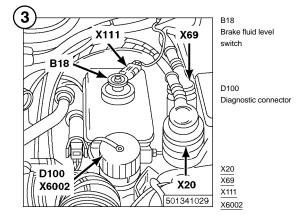


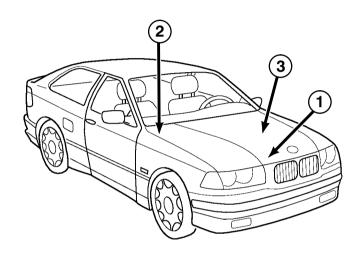


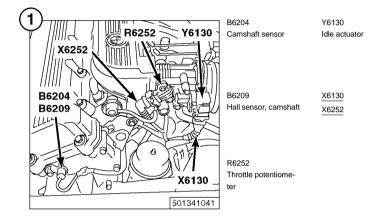


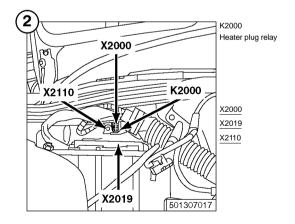


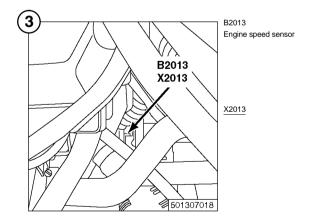


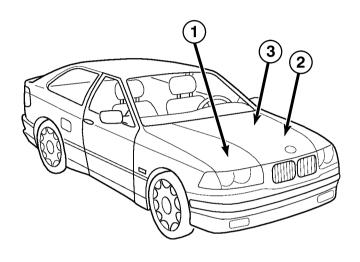


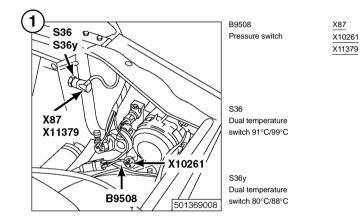


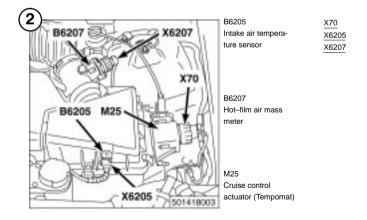


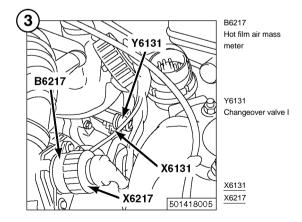


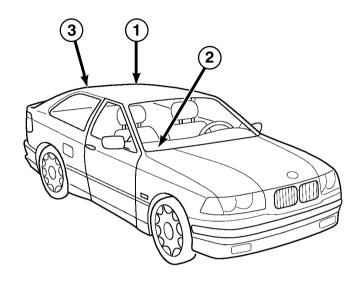


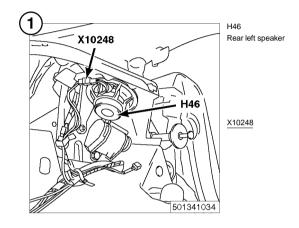


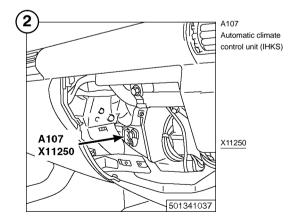


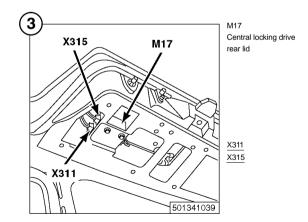




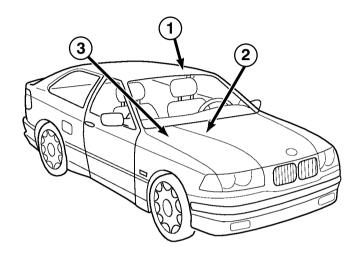


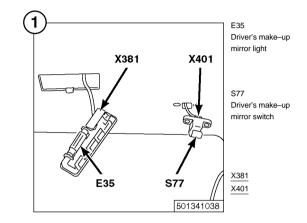


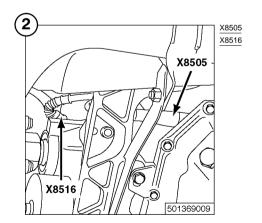


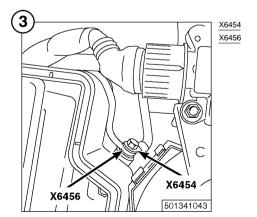




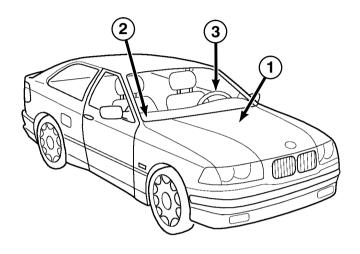


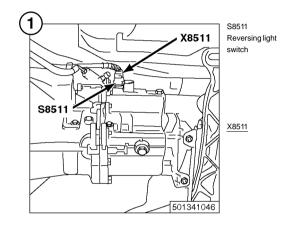


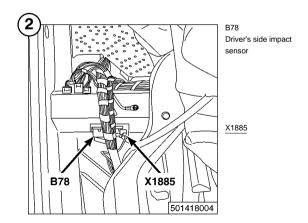


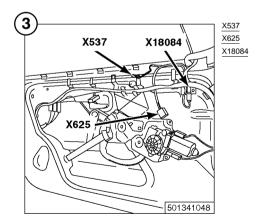


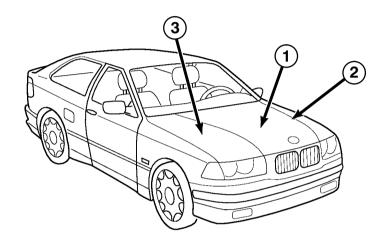


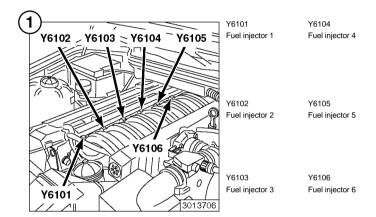


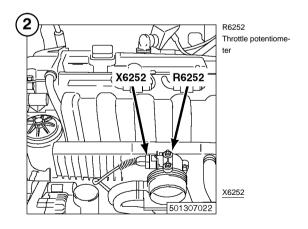


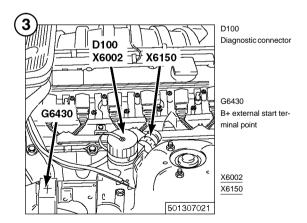




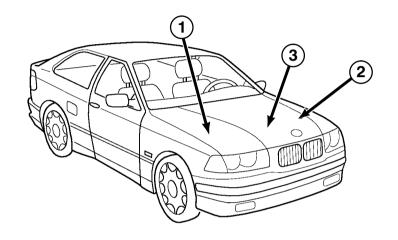


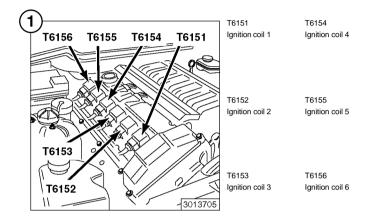


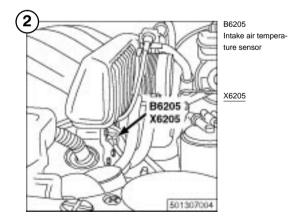


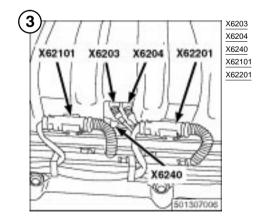




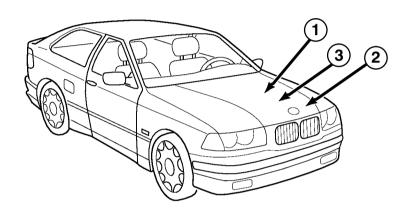


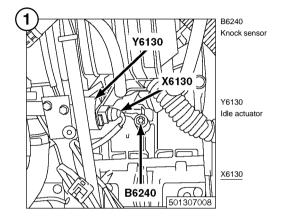


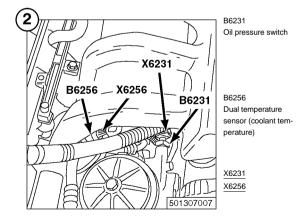


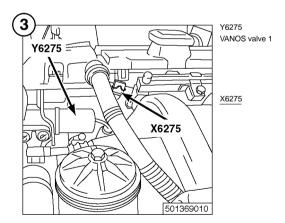


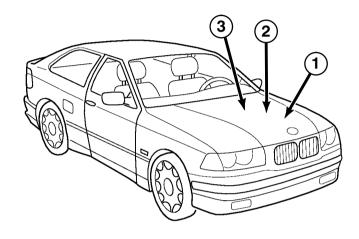


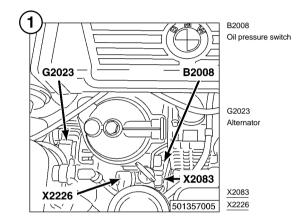


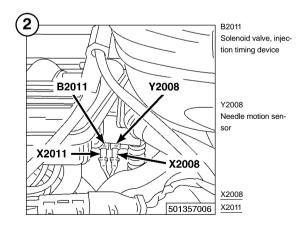


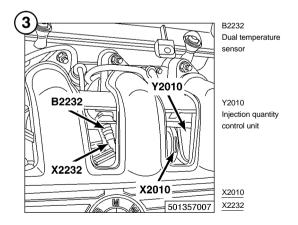


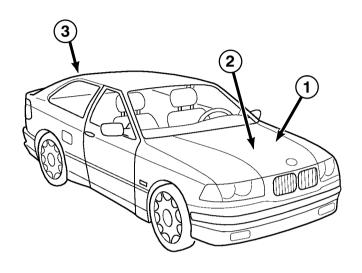


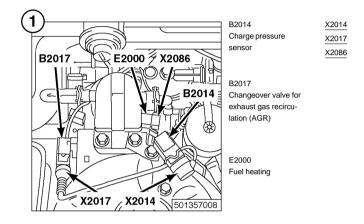


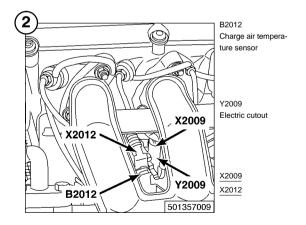


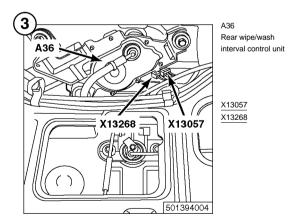












# 8000.0 Connector location views (soldering spots and comb-type connectors)

Solder connector	Wire harness	Side	Solder connector	Wire harness	Side
X181–X276	. Front	8000.0-02	X2145–X2151	M41 engine	8000.0-07
X344–X378	. Trailer adapter module	No Fig.	X6410–X6411	M43 engine	8000.0-04
X428–X481	. Rear	8000.0-03	X6410–X6411	M44 engine	8000.0-05
X530–X595	. Front	8000.0-02	X6410-X6412	CNG engine	8000.0-08
X805	. Rear	8000.0-03	X6411–X6412	M52 engine	8000.0-06
X818	. HS/IHKS	No Fig.	X6420-X6492	M52 engine	8000.0-06
X824–X830	. Radio	No Fig.	X6460-X6492	CNG engine	80-0.0008
X849	. Driver's door	No Fig.	X6460-X6492	M43 engine	8000.0-04
X876–X877	. Radio	No Fig.	X6460-X6492	M44 engine	8000.0-05
X897	. HS/IHKS	No Fig.	X6810-X6863	CNG engine	80-0.008
X906	. HS/IHKS	No Fig.	X6810-X6866	M52 engine	8000.0-06
X942	. Passenger's door	No Fig.	X6820-X6866	M43 engine	8000.0-04
X1015–X1164	. Front	8000.0-02	X6820-X6891	M44 engine	8000.0-05
X1167	. Rear	8000.0-03	X6835	M41 engine	8000.0-07
X1168–X1192	. Front	8000.0-02	X6953	CNG engine	80-0.0008
X1212-X1214	. Rear	8000.0-03	X7845-X7846	M43 engine	8000.0-04
X1225	. Front	8000.0-02	X7845-X7846	M44 engine	8000.0-05
X1226	. Rear	8000.0-03	X7845-X7846	CNG engine	80-0.0008
X1233	. Front	8000.0-02	X8004-X8056	CNG engine	80-0.0008
X1234–X1238	. Rear	8000.0-03	X8004-X8073	M43 engine	8000.0-04
X1258	. Front	8000.0-02	X8004-X8073	M44 engine	8000.0-05
X1263	. Rear	8000.0-03	X8004-X8074	M52 engine	8000.0-06
X1387–X1396	. Rear	8000.0-03	X8104	M41 engine	8000.0-07
X1541–X1542	. Front	8000.0-02	X8564-X8589	M43 engine	8000.0-04
X1682–X1693	. Front	8000.0-02	X8564–X8576	M44 engine	8000.0-05
X1896	. Rear	8000.0-03	X8564-X8576	M52 engine	8000.0-06
X2029–X2052	. M41 engine	8000.0-07	X8576	CNG engine	80-0.0008
X2112–X2139	. M41 engine	8000.0-07	X10007–X10104	Front	8000.0-02



# Connector location views (soldering spots and comb-type connectors)

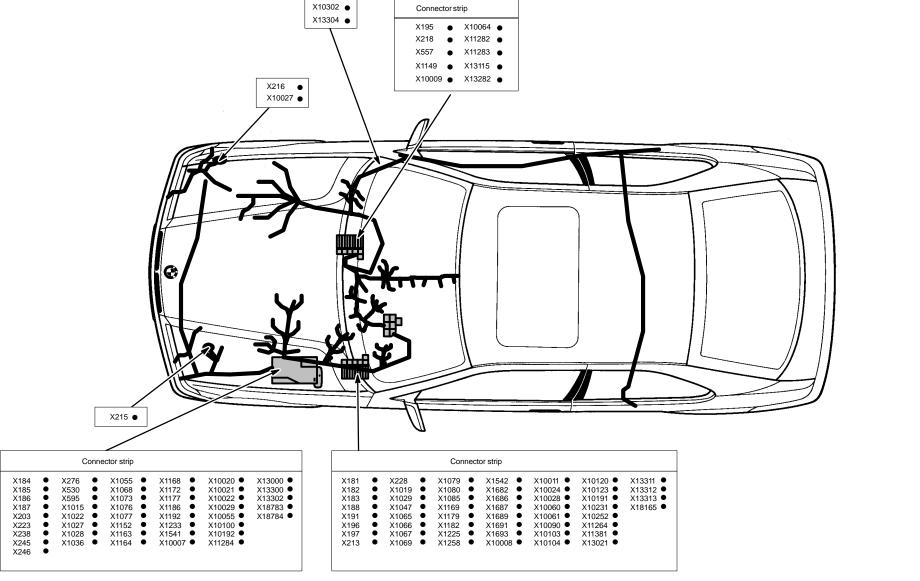
Solder connector	Wire harness	Side
X10118	Rear	8000.0-03
X10120-X10123	Front	8000.0-02
X10169	M43 engine	8000.0-04
X10169	M44 engine	8000.0-05
X10169	CNG engine	80-0.0008
X10191-X10231	Front	8000.0-02
X10233	HS/IHKS	No Fig.
X10252	Front	8000.0-02
X10269	Rear	8000.0-03
X10302	Front	8000.0-02
X10308-X10310	Rear	8000.0-03
X11264	Front	8000.0-02
X11268–X11269	Rear	8000.0-03
X11282–X11284	Front	8000.0-02
X11291	Rear	8000.0-03
X11380	Rear	8000.0-03
X11381	Front	8000.0-02
X13000	Front	8000.0-02
X13002–X13011	Rear	8000.0-03
X13021–X13115	Front	8000.0-02
X13118–X13173	Rear	8000.0-03
X13279	HS/IHKS	No Fig.
X13282	Front	8000.0-02
X13289	Rear	8000.0-03
X13300-X13304	Front	8000.0-02
X13309	Rear	8000.0-03
X13311–X13313	Front	8000.0-03
X16809–X16819	Radio	No Fig.

Solder connector	Wire harness	Side
X17279–X17319	Radio	No Fig.
X18165	Front	8000.0-02
X18782	HS/IHKS	No Fig.
X18783-X18784	Front	8000.0-02
X19513	Radio	No Fig.



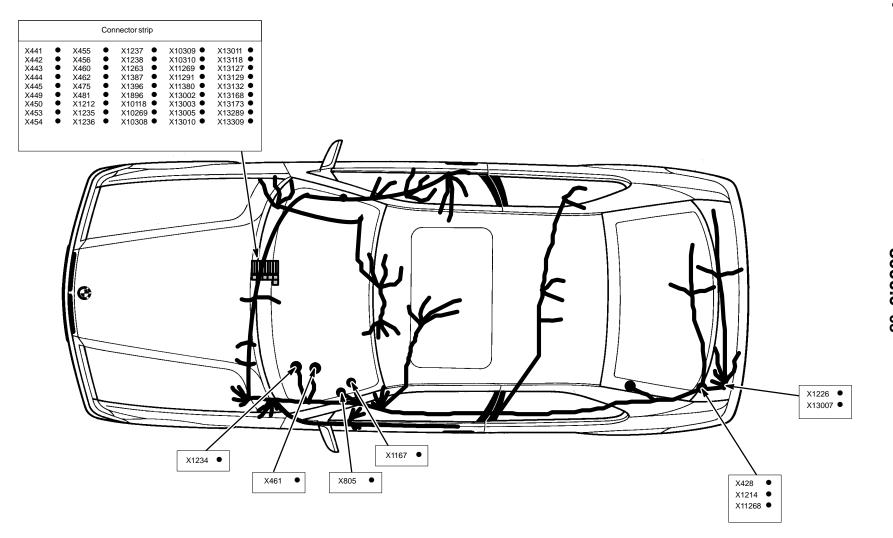
# Connector location views (soldering spots and comb-type connectors)

### Front wire harness

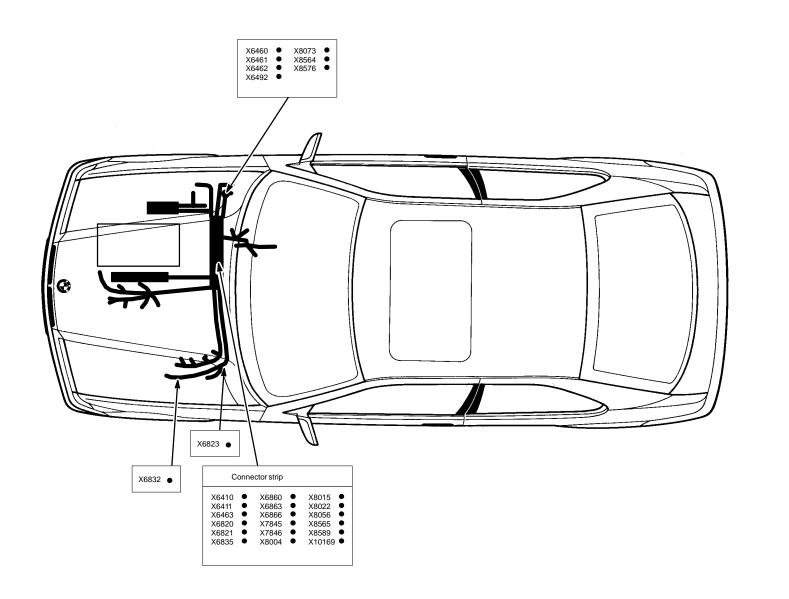


# Connector location views (soldering spots and comb-type connectors)

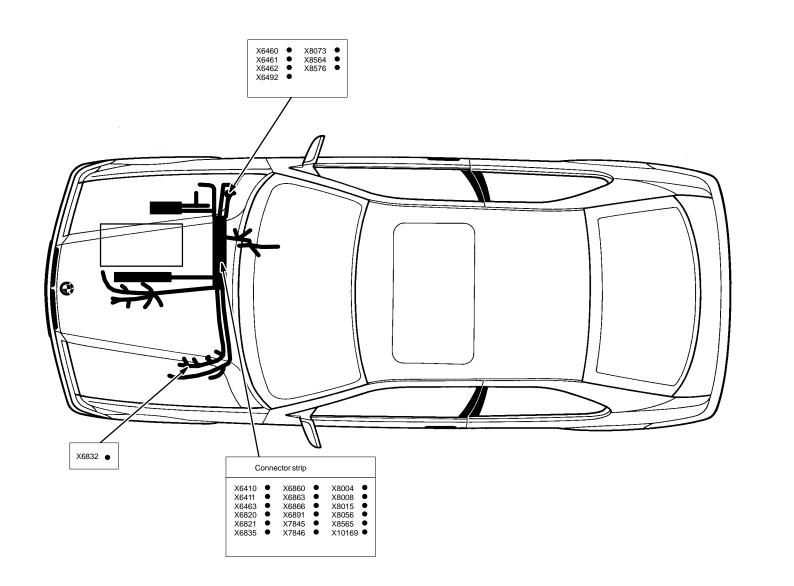
### Rear wire harness



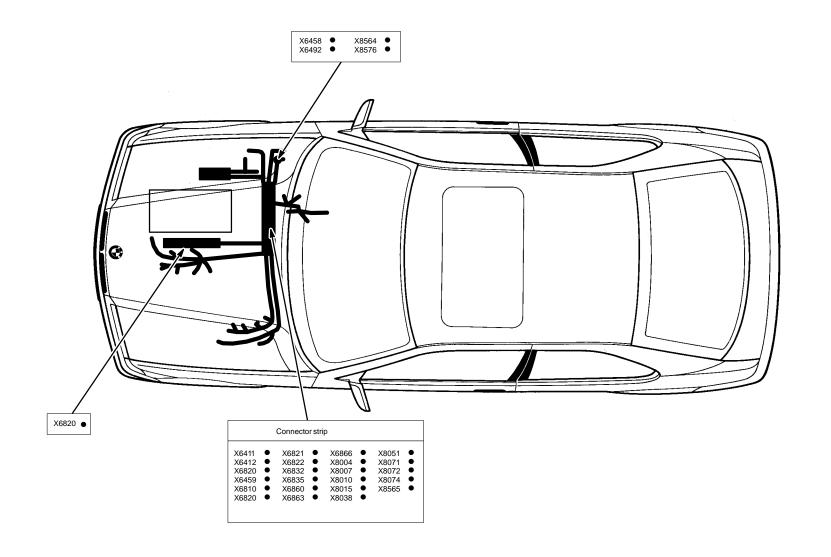
# Connector location views (soldering spots and comb-type connectors) Engine wire harness M43



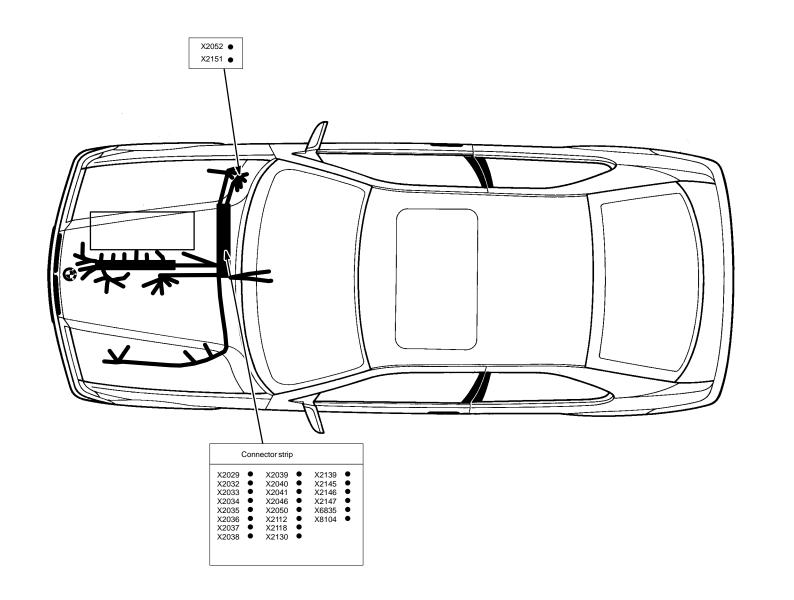
# Connector location views (soldering spots and comb-type connectors) Engine wire harness M44



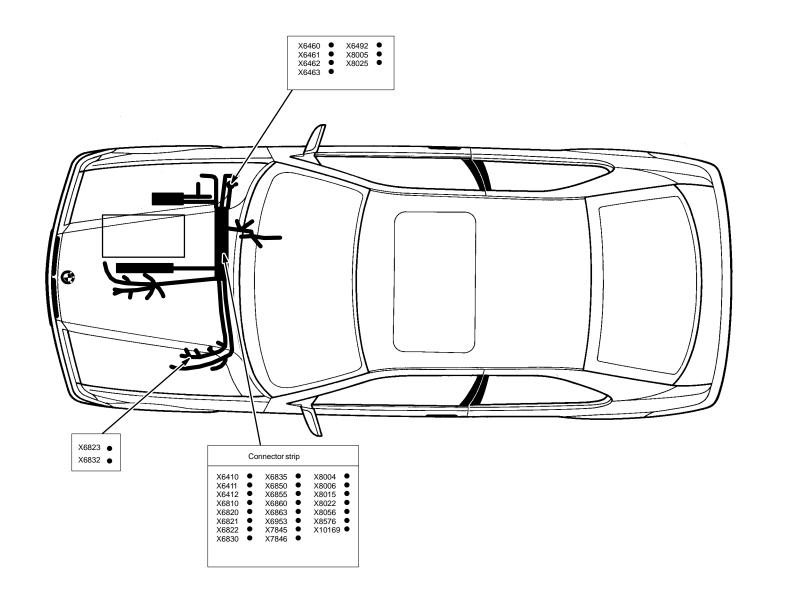
# Connector location views (soldering spots and comb-type connectors) Engine harness M52



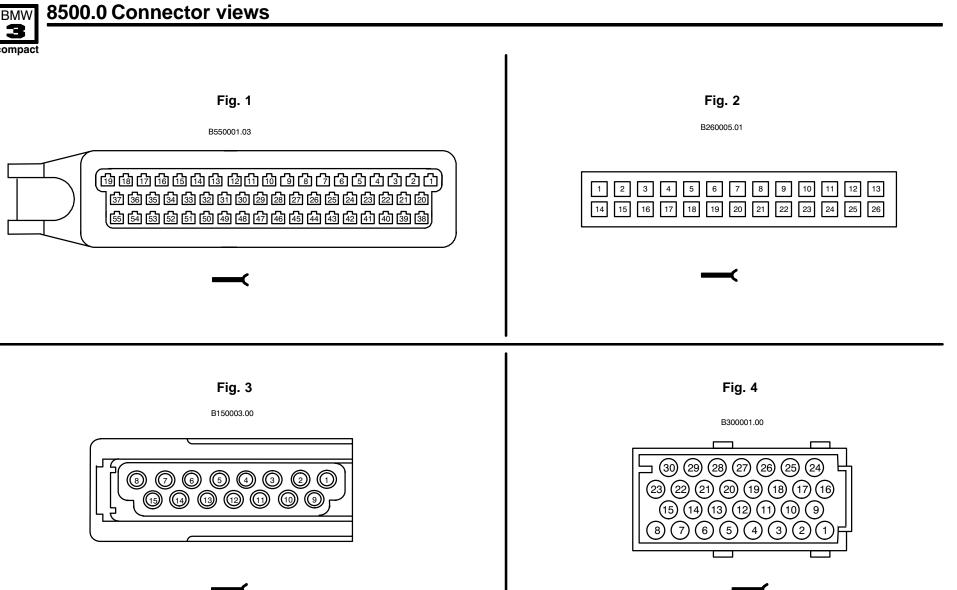
# Connector location views (soldering spots and comb-type connectors) Engine wire harness M41



# Connector location views (soldering spots and comb-type connectors) Engine wiring harness CNG









## **Connector views**

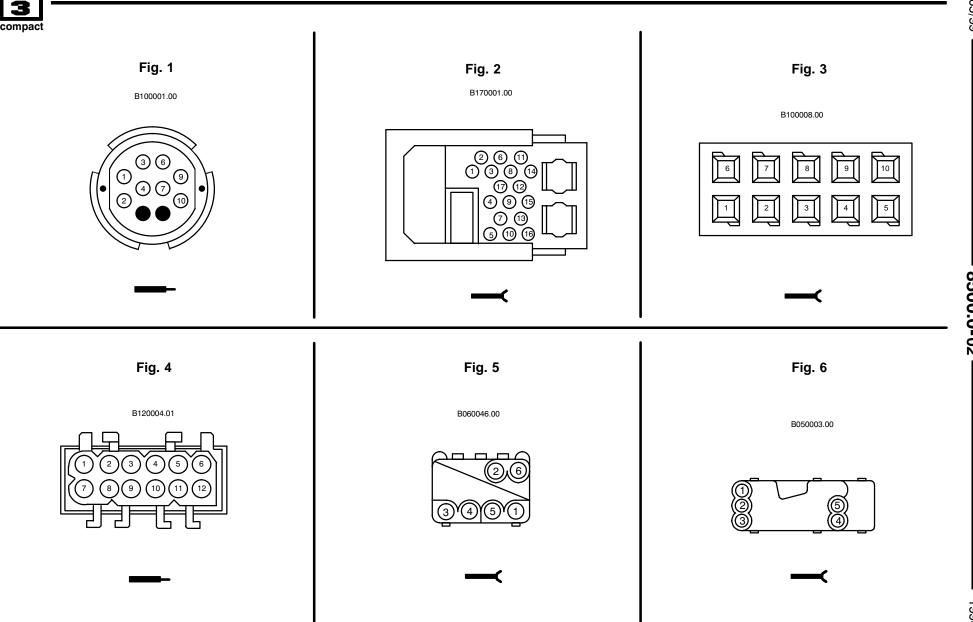


Fig. 1

B880001.00

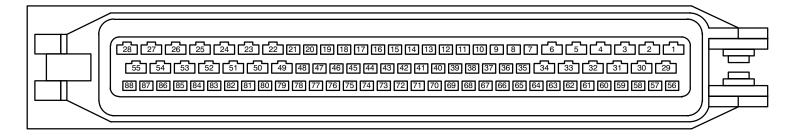




Fig. 2

B060038.00

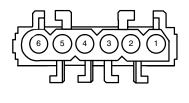


Fig. 3

B030006.00

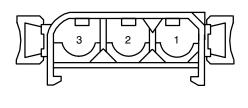






## **Connector views**









B030018.02





B500000.00







## **Connector views**

Fig. 1 Fig. 2 B250004.00 B030042.00 0 0 0 0 0 0 0 16 0 0 0 0 0 0 10 Fig. 3 Fig. 4 B120006.00 B060019.03