BMWAG
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

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Power window end position sensor, rear right, S46 *5133.0	Press Here
Power window motor, rear left, M20 *5133.0-03	Press Here
Power window motor, rear right, M22 *5133.0	Press Here
Power window switch (centre console), S40 *5133.0	Press Here
Power windows (ZKE/FH) *5133.0-00	Press Here
Preheating system *1220.0-00	Press Here
Pressure switch, B9508 *6450	Press Here
Pressure switch, B8y *6450	Press Here
Pressure switch, B9y *6454.0	Press Here
Program switch, 88503 *2460.2-02	Press Here
Program switch, 88503 *2460.4-02	Press Here
Program switch, 88503 *2460.5-02	Press Here
Radio, N9 *6510.0	Press Here
Radio, N9 *6510.1	Press Here
Radio/HiFi *6510.1-00	Press Here
Radio provisions *6510.2-00	Press Here
Radio receiver, N20 *6510	Press Here
Radio/stereo *6510.0-00	Press Here
Raised brake light, H34 *6325.0	Press Here
Rear centre left converter, B35 *6621.0-02	Press Here
Rear centre right converter, B36 *6621.0-02	Press Here
Rear defogger/arrtenna, ÅÞ *6424.0	Press Here
Rear defogger relay, K13 *6424.0	Press Here
Rear left AB8 sensor, B4 *3450.0	Press Here
Rear left converter, B34 *6621.0-02	Press Here
Rear left door DWA conductor loop, R21 *6575.1	Press Here
Rear left flasher unit, H6 *6313.0	Press Here
Rear left power window switch, 841 *5133.0	Press Here
Rear left window monitoring switch (DWA), 8102 *6575.1	Press Here
Rear Ø door contact switch, 816 *6313.0	Press Here
Rear lid lamp, E33 *6320.0	Press Here
Rear lid light switch, 861 *6320.0	Press Here
Rear lid lock switch, 8167 *5126.0-05	Press Here
Rear lid servo opening motor, M97 *5126.0-06	Press Here
Rear lid servo opening motor, M97 *5126.1-06	Press Here
Rear lid switch, 8172 *6320.0	Press Here
Rear power distribution box, P91 *0670.2	Press Here
Rear power distribution box, P91 *0670.3	Press Here
Rear RH door contact switch, 815 *6330.0	Press Here
Rear RH door contact switch, 815 *6330.1	Press Here
Rear right AB8 sensor, B3 *3450.0	Press Here
Rear right brake pad sensor, B17 *6200.3	Press Here
Rear right converter, B37 *6621.0-02	Press Here
Rear right door DWA conductor loop, R22 *6575.1	Press Here
Rear right flasher unit, H5 *6313.0	Press Here
Rear right power window switch, 842 *5133.0	Press Here
Rear right window monitoring switch (DWA), 8101 *6575.1	Press Here
Rear seat microswitch (DWA), 824 *6575.1	Press Here
Rear washer pump, M95 *6162.0-00	Press Here
Rear window defogger/antenna *6424.0-00	Press Here
Rear window defogger I, E9 *6424.0	Press Here
Rear window heating switch, 876 *6410.1	Press Here
Rear window heating switch, 876 *6410.6	Press Here
Rear window opening switch, 8147 *6320.0	Press Here

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Rear window servo opening motor, M96 *5126.0-06 Press Here
Rear window servo opening motor, M96 *5126.1-06 Press Here
Rear window servo opening switch, 8170 *5126.0-06 Press Here
Rear window servo opening switch, 8170 *5126.1-06 Press Here
Rear window servo opening switch, 8171 *5126.0-06 Press Here
Rear window servo opening switch, 8171 *5126.1-06 Press Here
Rear window wipe/wash system *6162.0-00 Press Here
Rear wipe/wash interval control unit, A36 *6162.0 Press Here
Rear wiper motor, M94 *6162.0-01 Press Here
Rear wiper relay II, K92 *6162.0-01 Press Here
Relay box independent heating/independent ventilation. A15 ..... 6412 Press Here
Relay module, A5 *6100.0 Press Here
Remote thermometer sensor, B2009 *6200.3 Press Here
Remote thermometer sensor, B6232 *6200.3 Press Here
Resistor, R6240 *0670.4 Press Here
Reverse polarity relay, K44 *6581.0 Press Here
Reversing light switch (manual transmission), S92 *6322.0 Press Here
Reversing lights *6322.0-00 Press Here
Right brake light, H31 *6325.0 Press Here
Right fog light. E27 *6312.0 Press Here
RigM footwell flap motor, M32 *6450.0 Press Here
Right footwell sensor, B27 *6410 Press Here
Rigtit front high range speaker, H50 *6510.0 Press Here
RigM front high range speaker, H50 *6510.1 Press Here
RigM front low range speaker, H51 *6510.0 Press Here
Right front low range speaker, H51 *6510.1 Press Here
Right front mid-range speaker, H54 *6510.1 Press Here
Right headlight, E14 *6312.0 Press Here
Right headlight beam angle adjust actuator, M81 *6312.0 Press Here
Right heat exchanger sensor, B12 *6410 Press Here
Right heat exchanger sensor, B12 *6450 Press Here
Right high beam, E12 *6312.0 Press Here
Right horn, H3 *6133.0 Press Here
Right licence plate light, E44 *6320.0 Press Here
Right luggage compartment lamp, H91 *6320.0 Press Here
Right mixing flap motor, M34 *6450.0 Press Here
Right mixing flap motor, M34 *6450.5 Press Here
Right outside mirror, Y6 *5116.0-01 Press Here
Right parking light, E19 *6314.0 Press Here
Right parking light/licence plate light relay, K25 *6300.0 Press Here
Right rear fog light, H29 *6312.0 Press Here
Right rear high range speaker, H53 *6510.1 Press Here
Right rear lid light, E47 *6322.0 Press Here
Right rear low range speaker, H52 *6510.1 Press Here
Right rear low range speaker, H52 *6510.0 Press Here
Right reversing light, H28 *6322.0 Press Here
Right tail light, E17 *6314.0 Press Here
Right ventilation flap motor, M33 *6450.0 Press Here
Right windscreen washer jet heater, E52 *6169.0 Press Here
Servo relay module, A84 *5126.0 Press Here
Servotronic *3240.0-00 Press Here
Servotronic control unit, A17 *3240.0 Press Here
Solder connector location views *8000.0-00 Press Here

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Solenoid clutch, Y2 *6450.0	Press Here
Solenoid clutch, Y2 *6450.5	Press Here
Solenoid valve independent heating/ventilation II, Y12 *6412	Press Here
Solenoid valve, injection timing device, B2011 *1360.1-02	Press Here
Special option-Taxi *6740.0-00	Press Here
Speed sensor EGS, Y8516 *2460.2-01	Press Here
Speedometer reed contact, B10 *6200.3	Press Here
Starter, M2025 *1240.0	Press Here
Starter, M6510 *1240.0	Press Here
Starter *1240.0-00	Press Here
Starter relay, K1 *1240.0	Press Here
Steering column adjustment motor, M82 *3231.0	Press Here
Steering column adjustment switch, S119z *3231.0-00	Press Here
Sun roof motor, M24 *5410.0	Press Here
Sun shade control unit, A82 *5146.0	Press Here
Sun shades motor, M74 *5146.0	Press Here
Sun shades switch, S110 *5146.0	Press Here
Sunroof (ZKE/SHD) *5410.0-00	Press Here
Sunroof position sensor (SHD), S39 *5410.0	Press Here
Sunroof switch (SHD), S38 *5410.0	Press Here
Sweden/Canada coding plug, K80 *6312.0	Press Here
Switch for driver's seat thigh support, S93 *5200.0	Press Here
Switch for passenger's seat thigh support, S94 *5200.0	Press Here
Symbols *0140.0-00	Press Here
Tail light, left, H25 *6314.0	Press Here
Tail light, right, H30 *6314.0	Press Here
Telephone C-network, U2 *6561.0	Press Here
Temperature distribution potentiometer, R1 *6450.0	Press Here
Temperature distribution potentiometer, R1 *6450.5	Press Here
Temperature regulator automatic heating control 3 (IHRF3), A32w 6410	Press Here
Temperature regulator automatic heating control 3 (IHRF3), A32w 6412	Press Here
Temperature switch, radiator shutter, S2000 *1360.1-07	Press Here
Temperature switch, radiator shutter, S2156 *1360.1-07	Press Here
Thermal switch, heated jets, 8198 *6169.0-00	Press Here
Throttle potentiometer, R6252 *1210.8	Press Here
Throttle potentiometer, R6252 *1210.10	Press Here
Trailer coupling *6328.1-00	Press Here
Turn indicator/low beam selector, S7 *6312.0	Press Here
Turn signal/hazard warning system *6313.0-00	Press Here
Unloader relay Term.61, K61 *1230.0	Press Here
Unloader relay terminal 15, K9 *0670.2	Press Here
Unloader relay terminal R, K3 *0670.2	Press Here
Volute spring, C101 *3234.0	Press Here
Washer pump, M4 *6160.0	Press Here
Washer pump, M4 *6160.1	Press Here
Washer pump relay Intensive wash, K5 *6160.0	Press Here
Washer pump relay Intensive wash, K5 *6167.0-01	Press Here
Water level sensor Fuel filter, B2016 *1360.1-03	Press Here
Water pump relay, K8b *6410	Press Here
Water pump relay, K8b *6450	Press Here
Water valves, Y4 *6410	Press Here
Water valves, Y4 *6412	Press Here

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Watervalves, Y4 *6450	Press Here
Window motor relay, K90 *5126.0-06	Press Here
Window motor relay, K90 *5126.1-06	Press Here
Windscreen washer jet heaters *6169.0-00	Press Here
Windscreen wipe/wash system (ZKE) *6160.0-00	Press Here
Windscreen wiper switch, 85 *6160.0	Press Here
Windscreen wiper switch, 85 *6160.1	Press Here
Wipe/wash module, A28 *6160.1	Press Here
Wipe/wash module (WWM) *6160.1-00	Press Here
Wiper motor, M3 *6160.0	Press Here
Wiper motor, M3 *6160.1	Press Here
Wiper relay, K11 *6160.0	Press Here
ZV drive tank flap, M16 *5126.0	Press Here
ZV drive tank flap, M16 *5126.1	Press Here
ZV, rear lid motor relay, K70 *5126.0-06	Press Here
ZV, rear lid motor relay, K70 *5126.1-06	Press Here
ZVM Interior lights *6330.1-00	Press Here
	Press Here
	Press Here
	Press Here
	Press Here
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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Automatic climate control (IHKA)
Scheme 6450.0

Pin Assignment

A=X610	26-pin, white B=X611 26-pin, green
C=X613	26-pin, blue
D=X614	26-pin, yellow

Pin Assignment X610

Pin	Type	Description/Function	Connection
1	A	Signal, rear compartment	Rear actuator motor
2	A	Signal, rear compartment	Rear actuator motor
3	A	Signal, rear compartment	Rear actuator motor
4	A	Signal, rear compartment	Rear actuator motor
5	A	Blower ON	Blower output stage
6	A	Signal, air conditioning ON	A/C relay
7	A	Signal, rear window defogger ON	Rear window defogger relay
8	A	Signal, compressor ON	Pressure switch B8y
9		not used	
10		not used	
11		not used	
12	E	Terminal 30	Fuse
13	E	Terminal 30	Fuse
14	A	Signal, recirculated air	Recirculated air flap motor
15	A	Signal, recirculated air	Recirculated air flap motor
16	A	Signal, recirculated air	Recirculated air flap motor
17	A	Signal, recirculated air	Recirculated air flap motor
18	A	Activation, lights	IHKA operating unit
19	A	Activation, rear window defogger lights	IHKA operating unit
20	E/A	TxD diagnosis line	Diagnostic connector
21	A	Activation, left water valve	Left water valve
22	A	Activation, auxiliary water pump	Auxiliary water pump relay
23	A	Activation, right water valve	Right water valve
24		not used	
25	E	Terminal 30	Fuse
26	E	Terminal 30	Fuse

Pin Assignment X611

Pin	Type	Description/Function	Connection
1	A	Signal, left footwell	Left footwell actuator motor
2	A	Signal, left air mixing	Mixing air flap motor, left
3	A	Signal, left air mixing	Mixing air flap motor, left
4	A	Signal, left air mixing	Mixing air flap motor, left
5	A	Signal, left air mixing	Mixing air flap motor, left
6	A	Activation, fresh air	Fresh air flap motor
7	A	Activation, fresh air	Fresh air flap motor
8	A	Activation, fresh air	Fresh air flap motor
9	A	Activation, fresh air	Fresh air flap motor
10		not used	
11		not used	
12		not used	
13		not used	
14	A	Signal, left footwell	Left footwell actuator motor
15	A	Signal, left footwell	Left footwell actuator motor
16	A	Signal, left footwell	Left footwell actuator motor
17	A	Signal, defrost	Defroster flap motor
18	A	Signal, defrost	Defroster flap motor
19	A	Signal, defrost	Defroster flap motor
20	A	Signal, defrost	Defroster flap motor
21	A	Signal, left-hand ventilation	Ventilation flap motor
22	A	Signal, left-hand ventilation	Ventilation flap motor
23	A	Signal, left-hand ventilation	Ventilation flap motor
24	A	Signal, left-hand ventilation	Ventilation flap motor
25		not used	
26		not used	

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Pin Assignment X613

Pin	Type	Description/Function	Connection
1	M	Ground	Ground connection
2	M	Ground	Ground connection
3		not used	
4	A	Setpoint, left-hand temperature	IHKA operating unit
5	A	Setpoint, blower	IHKA operating unit
6	A	Interior sensor blower motor	Interior sensor blower motor
7	E	Outside temperature	Outside temperature sensor
8	A	Setpoint, right-hand temperature	IHKA operating unit
9	E	Evaporator temperature	Evaporator sensor
10	A	Voltage supply of actuator motors	All actuator motors
11	A	Voltage supply of actuator motors	All actuator motors
12	E	Terminal 15	Fuse
13	E	Terminal 15	Fuse
14	M	Ground	Ground connection
15	M	Ground	Ground connection
16	M	Ground for all sensors	All temperature sensors
17	A	Setpoint, mixing air	Mixing air actuator
18	E	Left heat exchanger temperature	Left heat exchanger sensor
19	E	Terminal 30 h	Alternator
20	M	Ground for potentiometer	IHKA operating unit, mixing air control
21	E	Interior temperature	IHKA operating unit
22	E	Right heat exchanger temperature	Heat exchanger sensor
23	A	Voltage supply of actuator motors	All actuator motors
24	A	Voltage supply of actuator motors	All actuator motors
25	E	Terminal 15	Fuse
26	E	Terminal 15	Fuse

Pin Assignment X614

Pin	Type	Description/Function	Connection
1	A	Signal, right footwell	Right footwell actuator motor
2	A	Signal, right footwell	Right footwell actuator motor
3	A	Signal, right footwell	Right footwell actuator motor
4	A	Signal, right footwell	Right footwell actuator motor
5	E	Signal, recirculated air	IHKA operating unit
6	E	Signal, defrost	IHKA operating unit
7	E	Signal, rear window defogger	IHKA operating unit
8	E	Signal, normal program	IHKA operating unit
9	E	Speedometer A signal	Instrument cluster
10	A	RxD diagnosis line	Diagnostic connector
11	A	Voltage supply for defrost/ independent heating	IHKA operating unit
12	A	Voltage supply, interior ventilation/ recirculated air/independent heating	IHKA operating unit
13	A	Voltage supply footwell/recirculated air/ rear window defogger	IHKA operating unit
14	A	Signal, right-hand ventilation	Right ventilation flap motor
15	A	Signal, right-hand ventilation	Right ventilation flap motor
16	A	Signal, right-hand ventilation	Right ventilation flap motor
17	A	Signal, right-hand ventilation	Right ventilation flap motor
18	A	Signal, right air mixing	Mixing air flap motor, right
19	A	Signal, right air mixing	Mixing air flap motor, right
20	A	Signal, right air mixing	Mixing air flap motor, right
21	A	Signal, right air mixing	Mixing air flap motor, right
22		not used	
23		not used	
24		not used	
25		not used	
26		not used	

E = Input, A = Output, M = Ground

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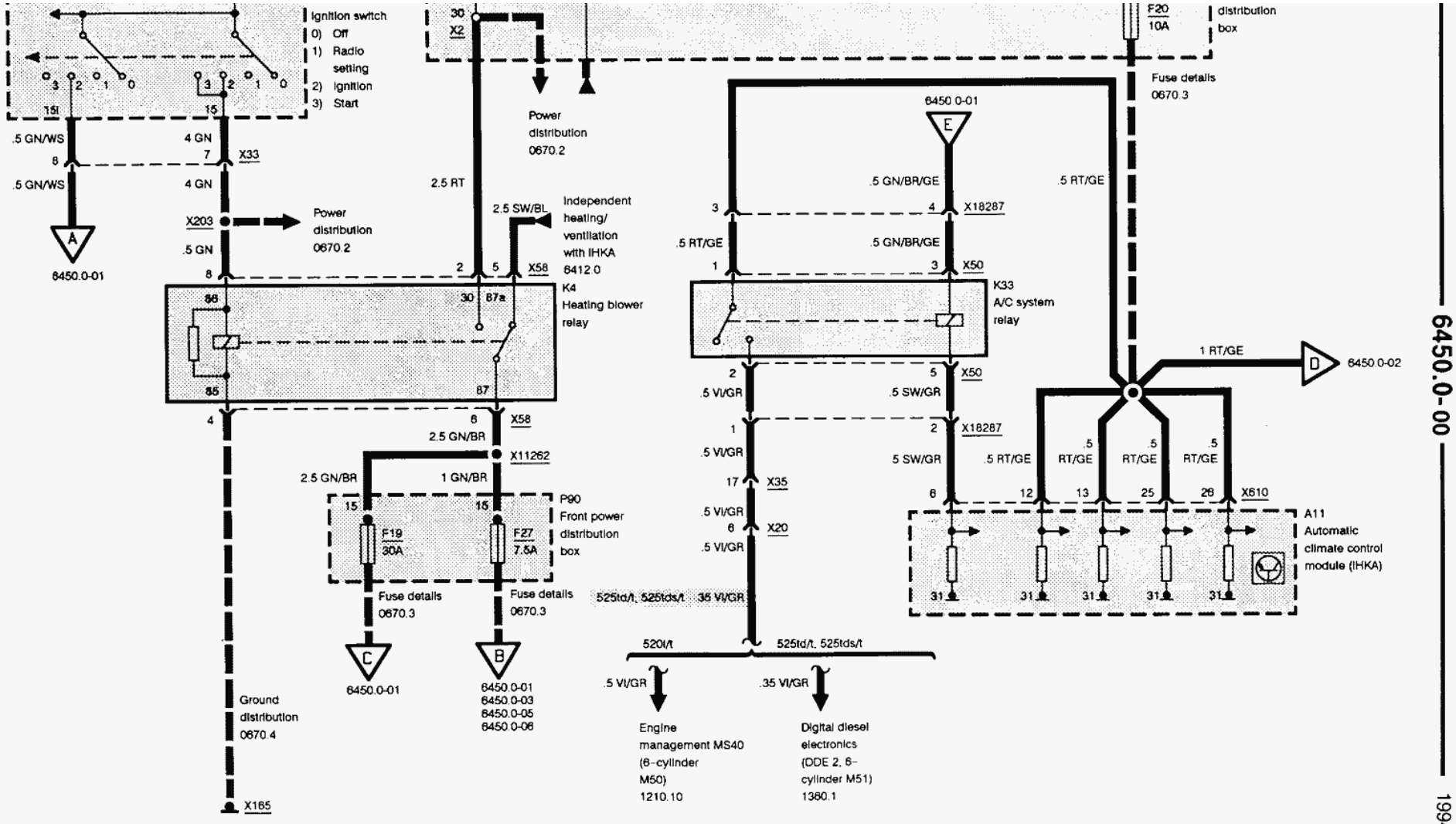
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Current

09/93



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1994

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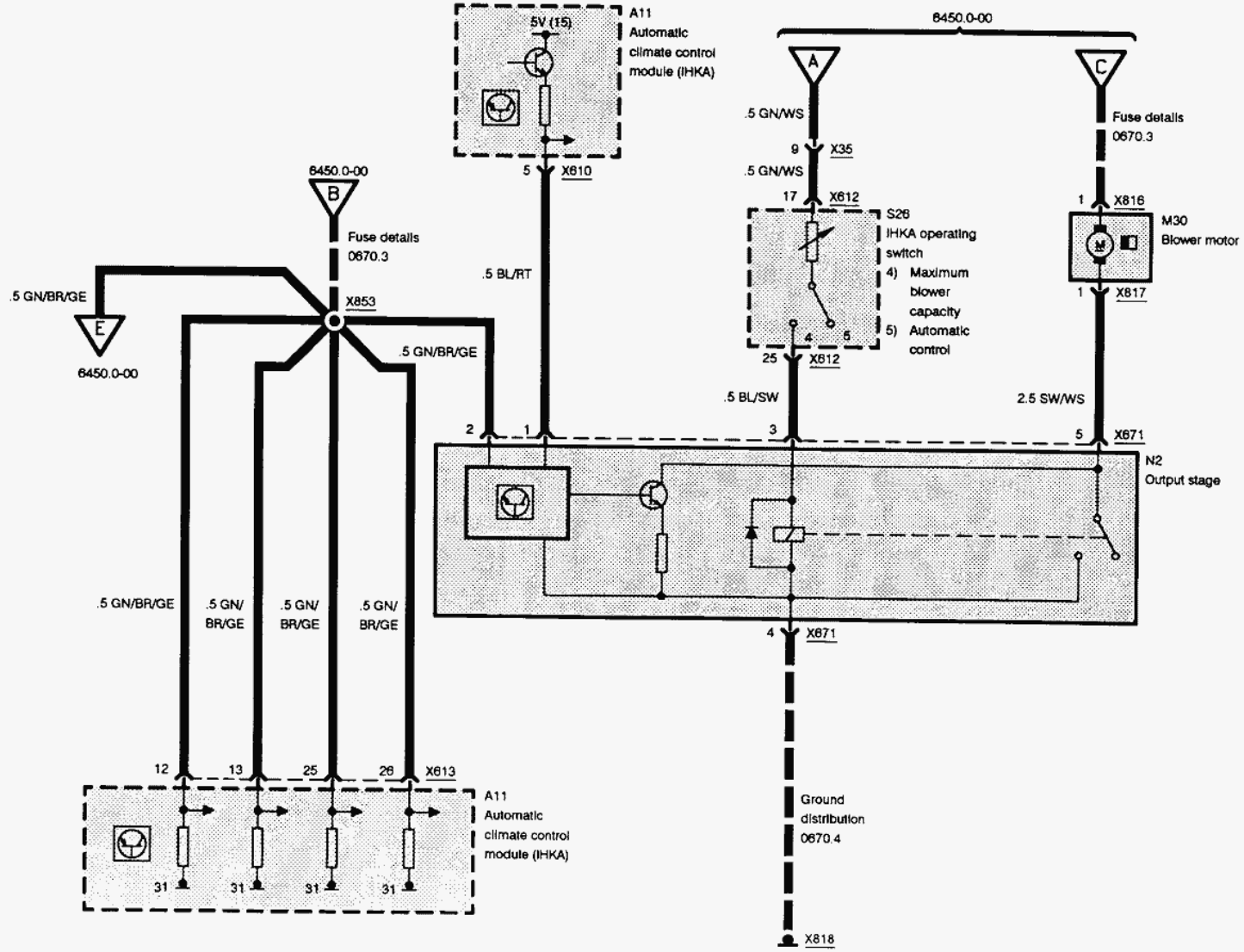
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Air volume control



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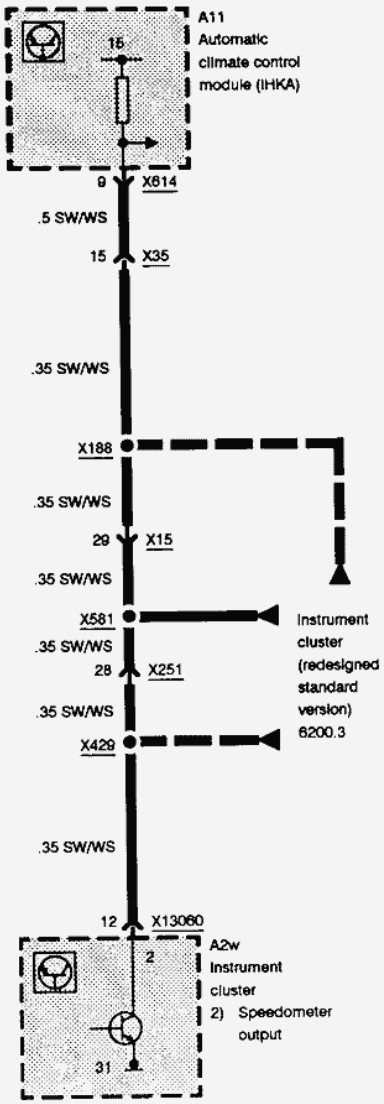
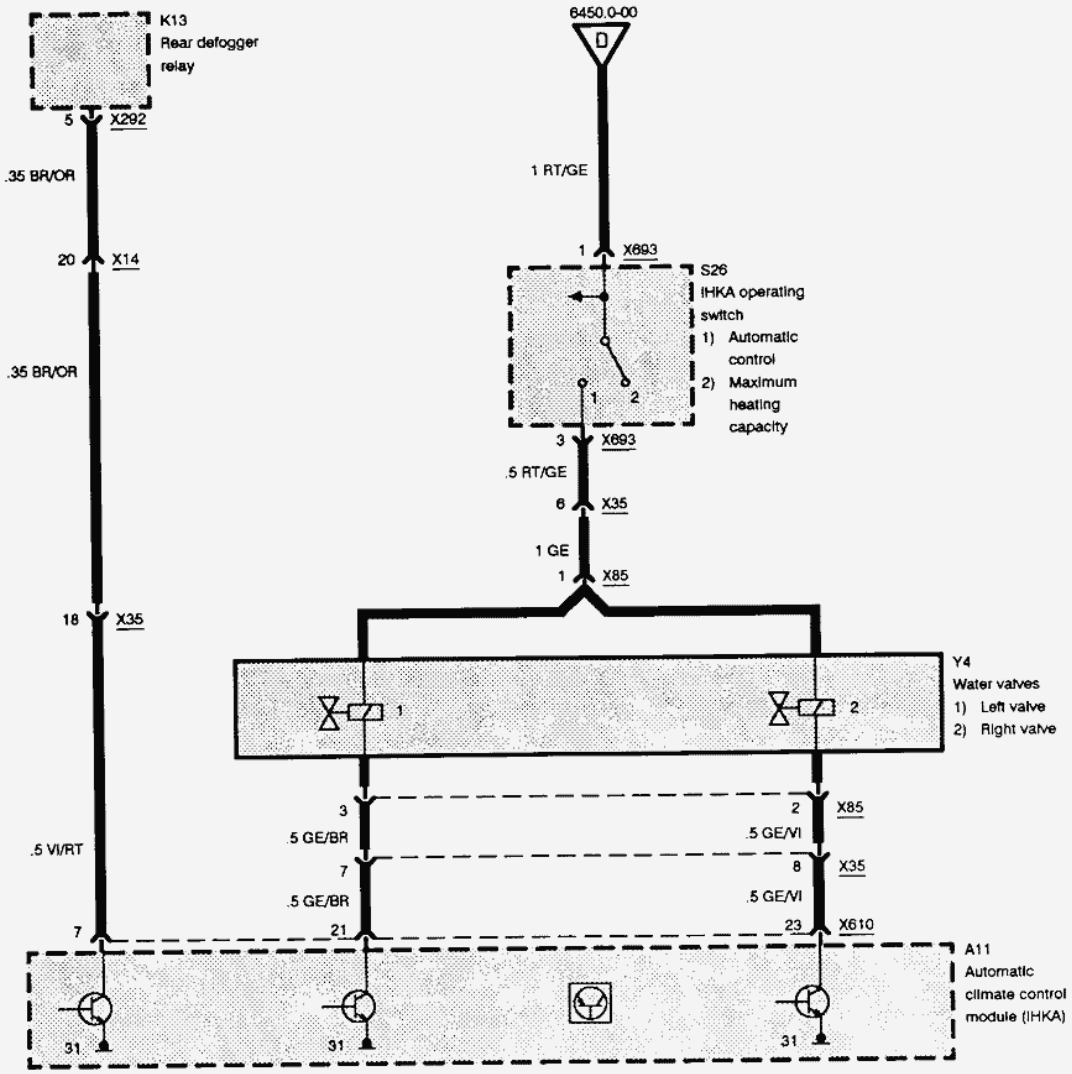
Air volume control



Water valves



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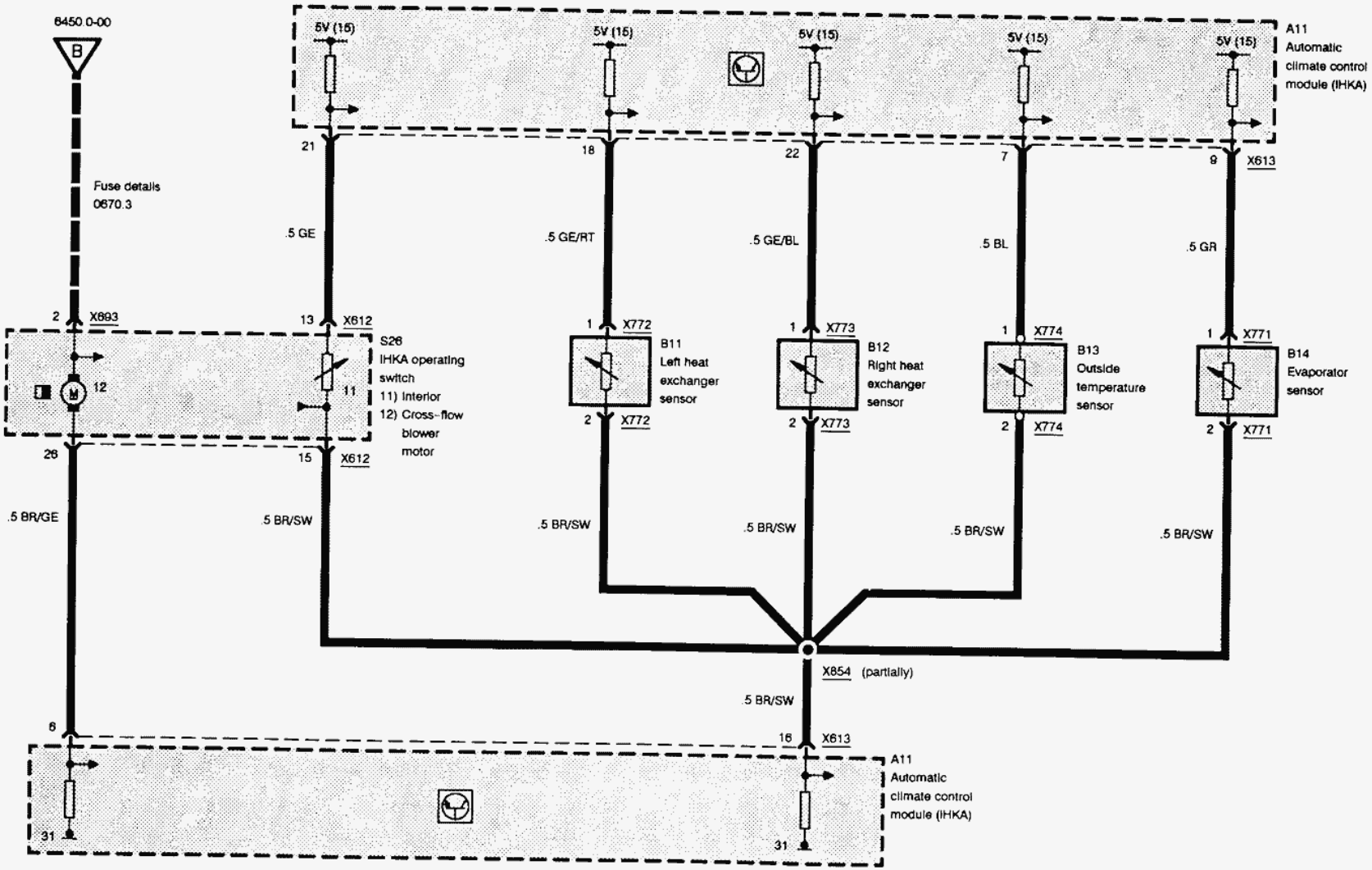
Automatic climate control (IHKA)

Temperature control

520i/t, 525td/t, 525tds/t



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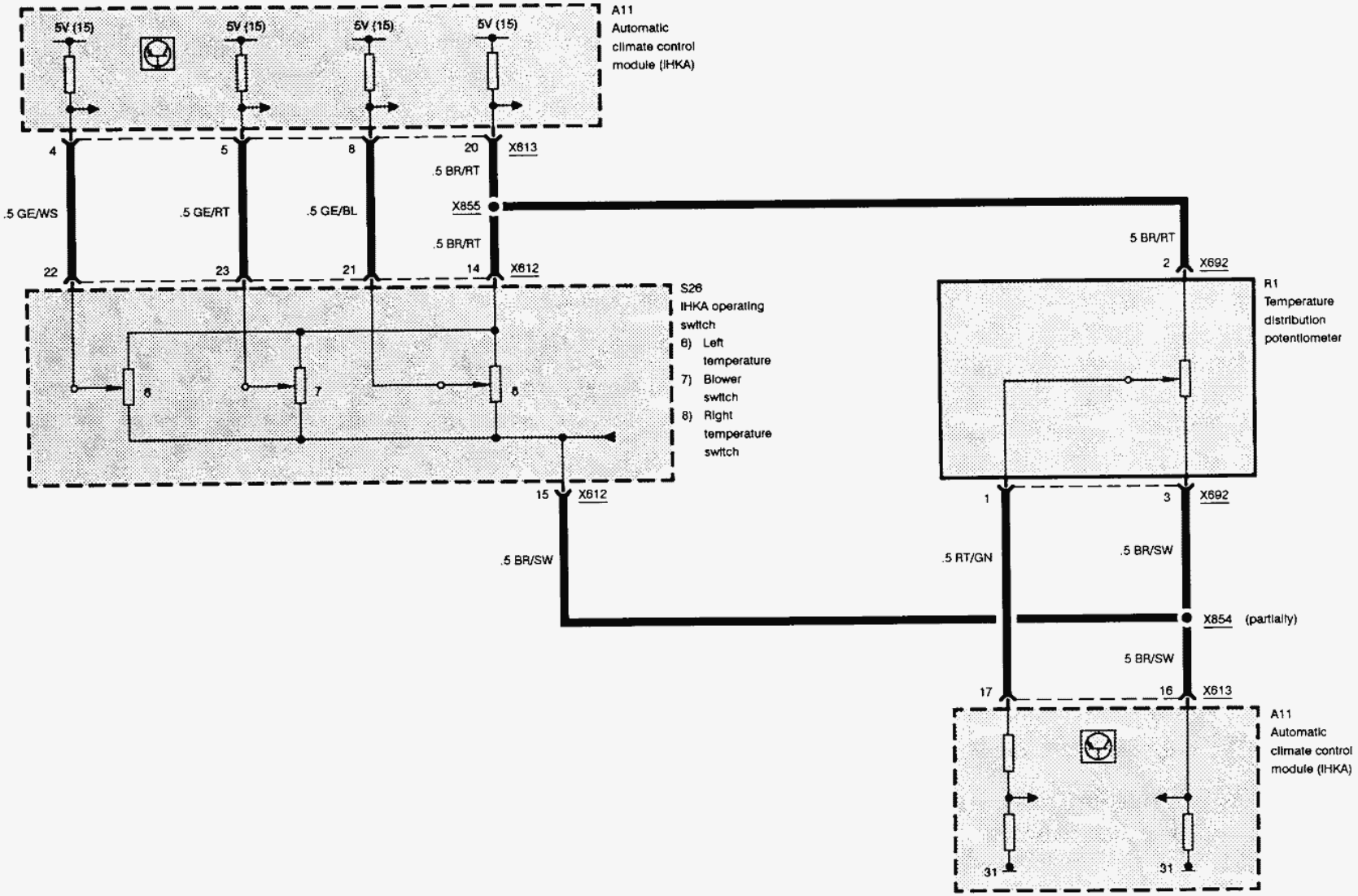
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Temperature control



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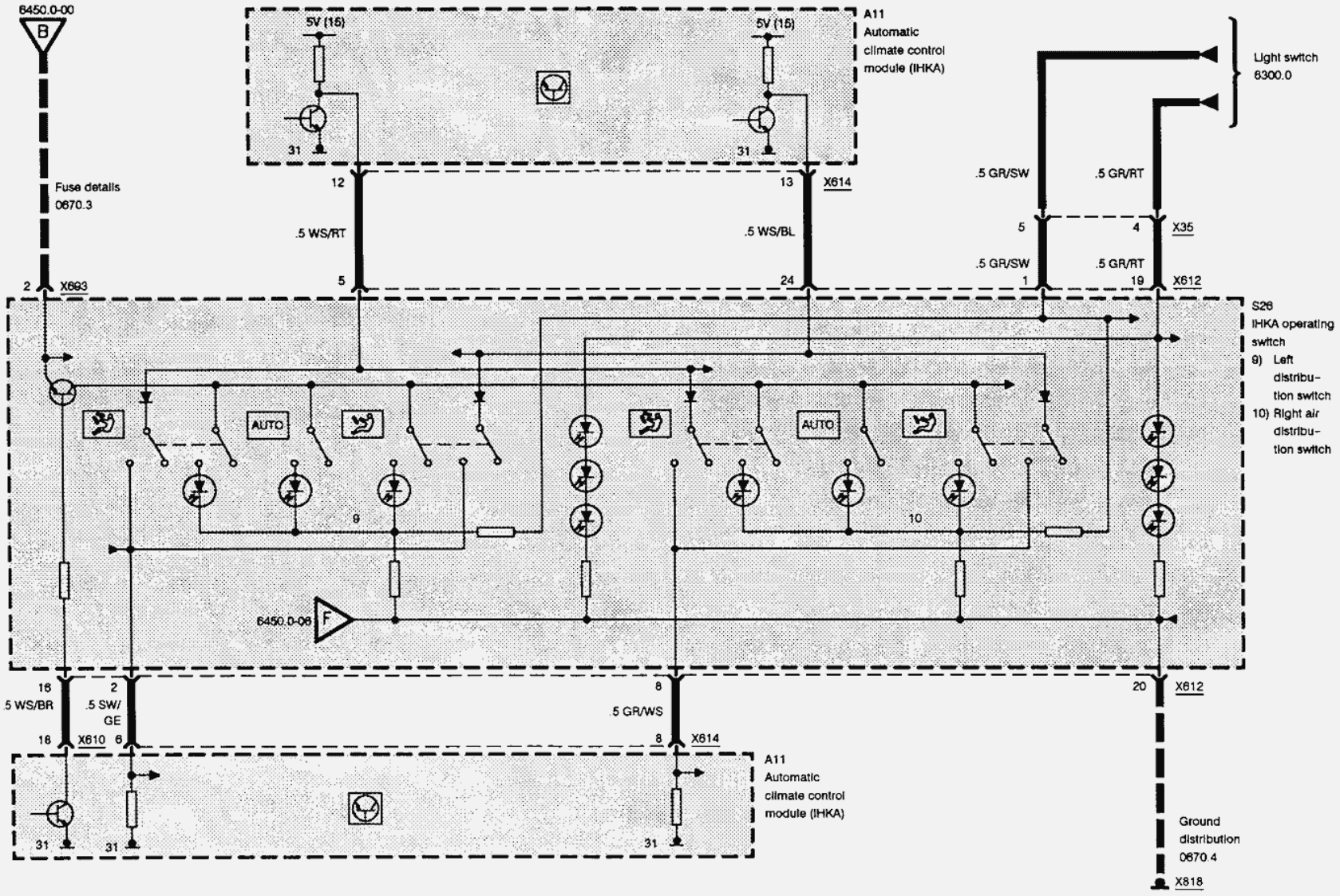
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Air supply



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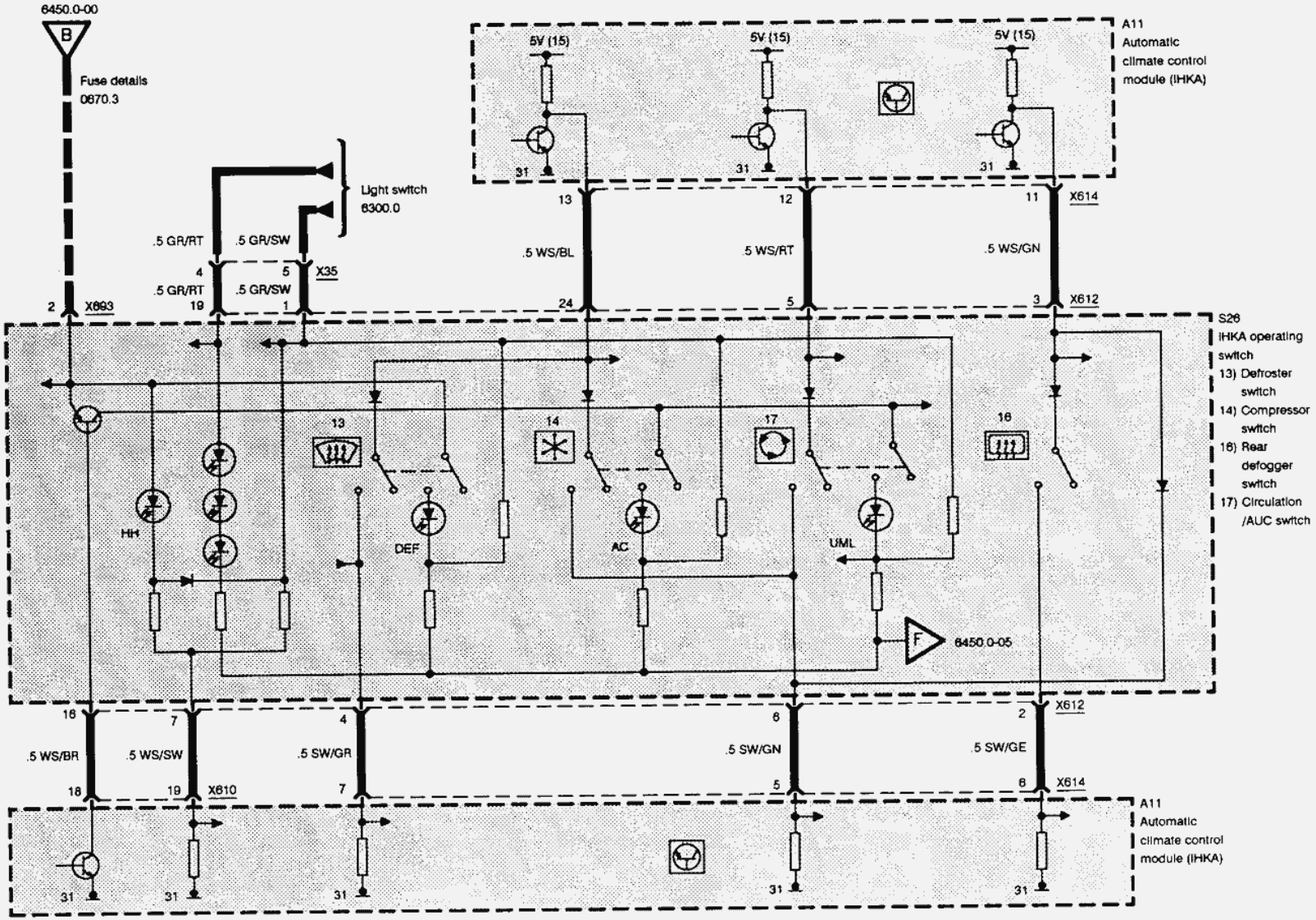
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Air supply



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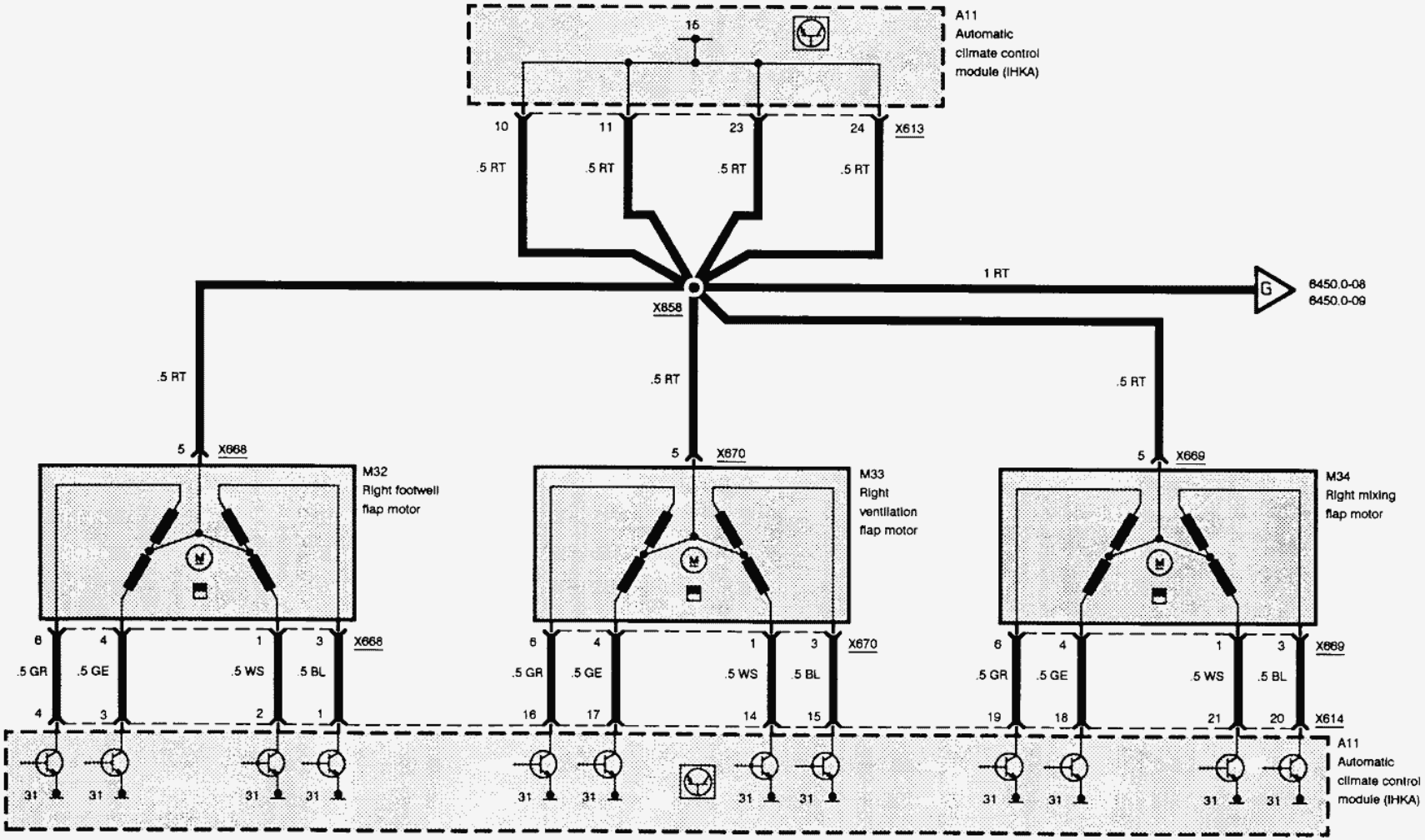
Automatic climate control (IHKA)

Air supply

520i/t, 525td/t, 525tds/t



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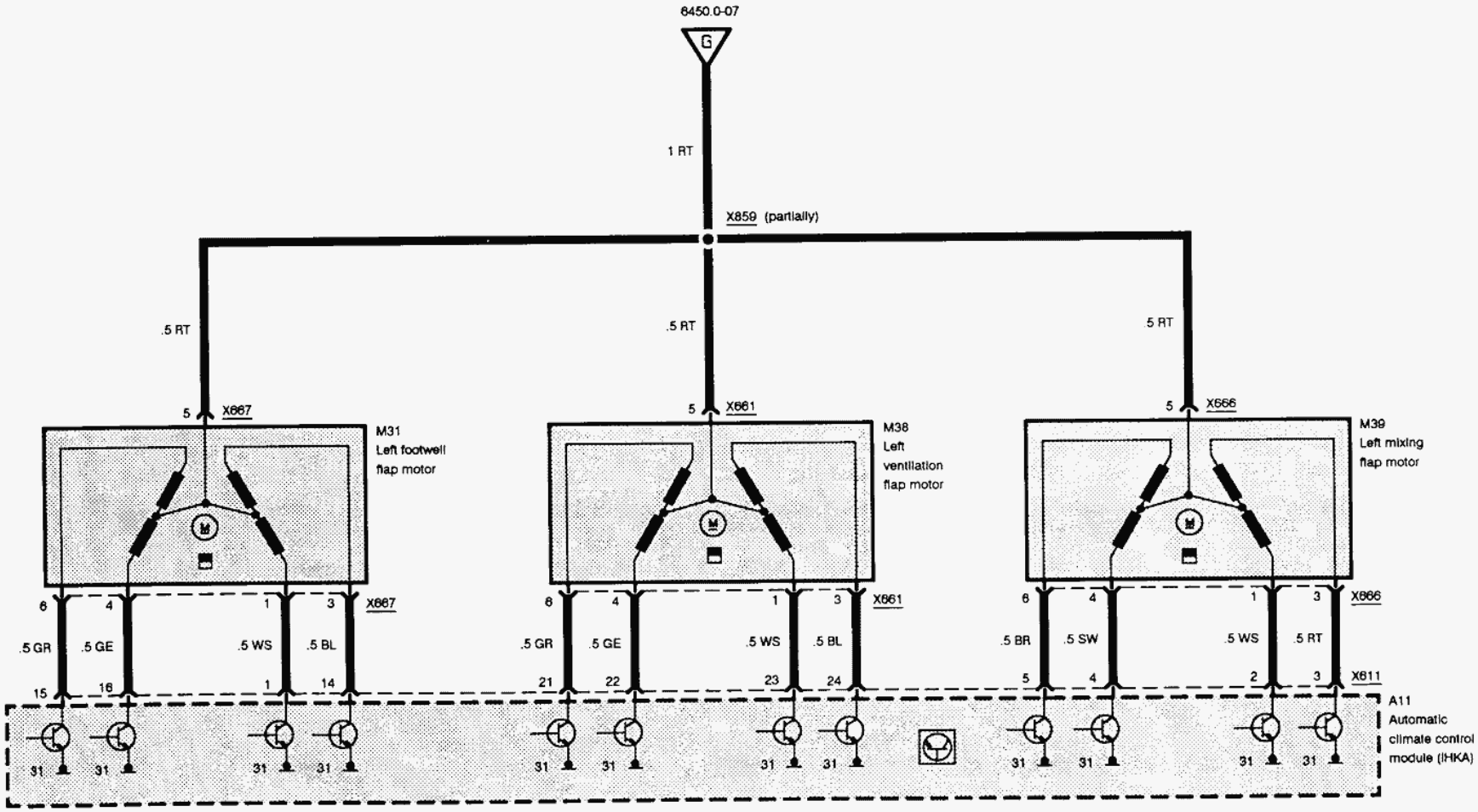
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Air supply



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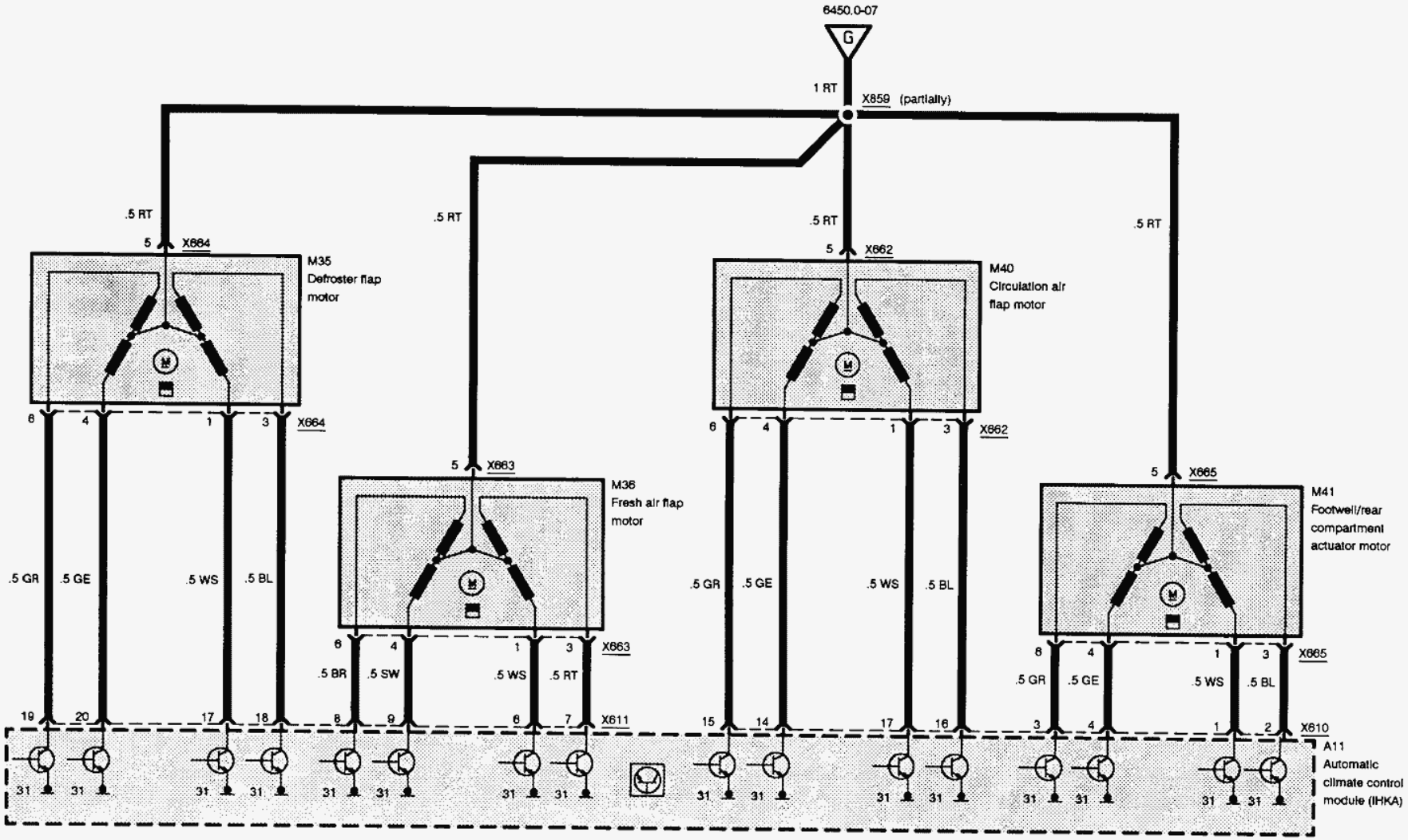
Automatic climate control (IHKA)

Air supply

520i/t, 525td/t, 525tds/t

09/93

6450.0-09



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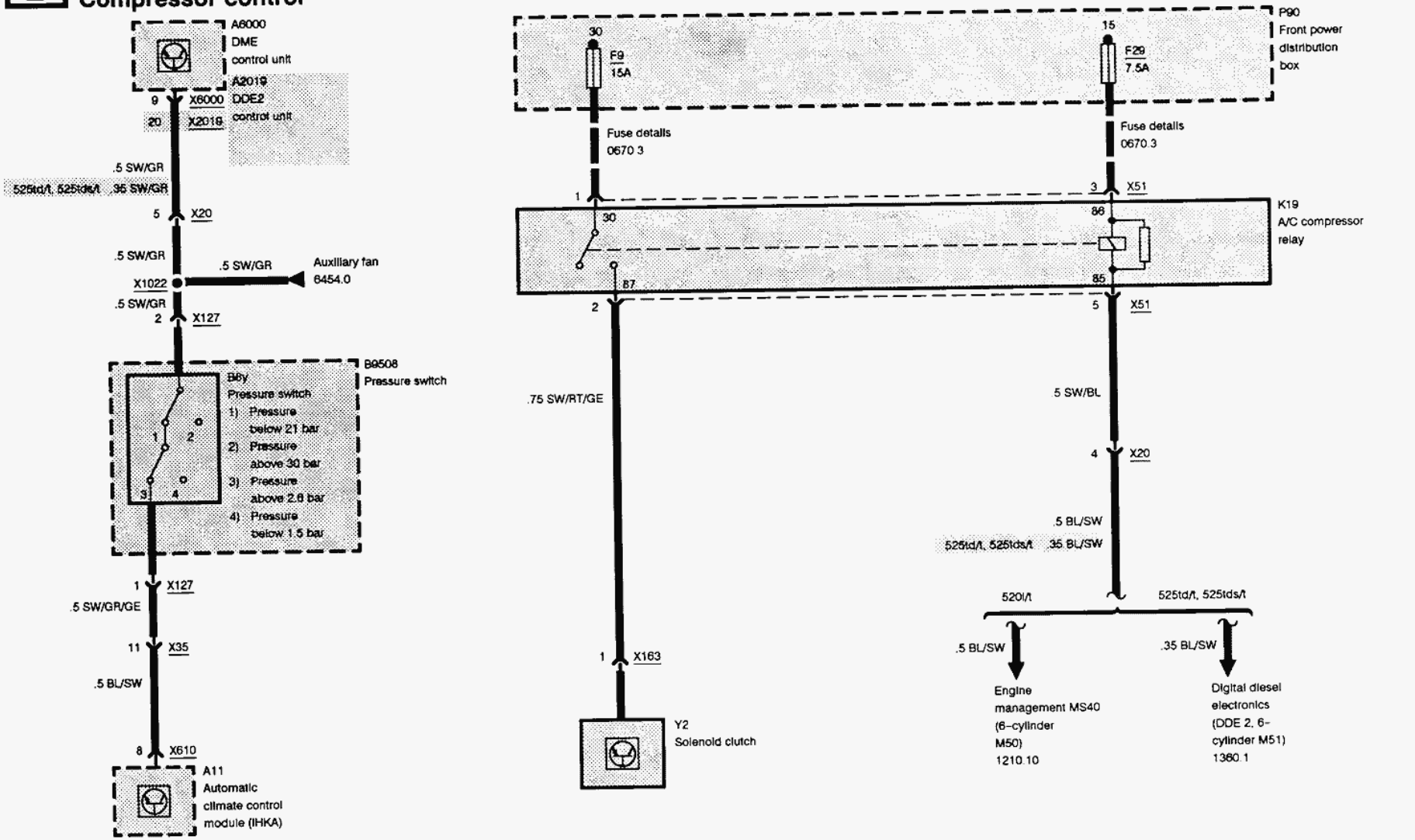
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Compressor control



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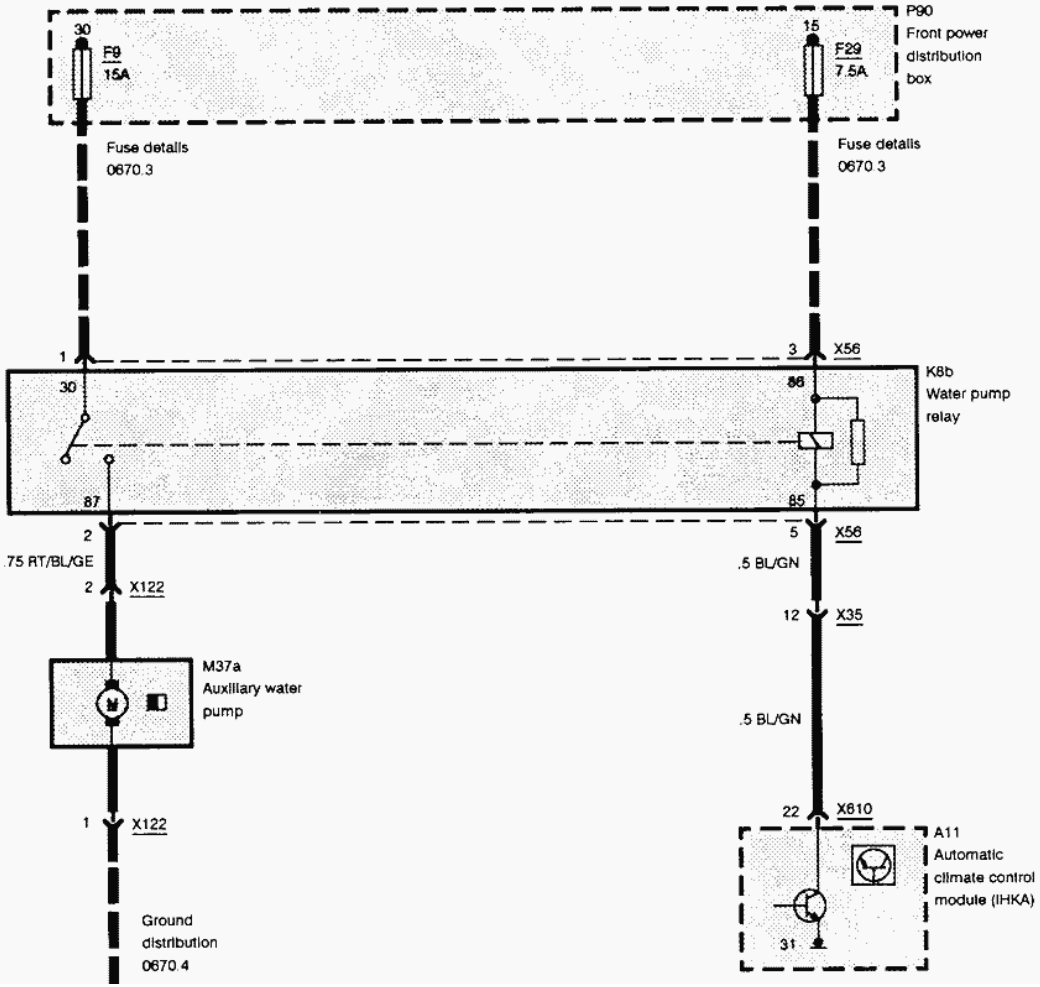
Automatic climate control (IHKA)

520i/t, 525td/t, 525tds/t

Water pump



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Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

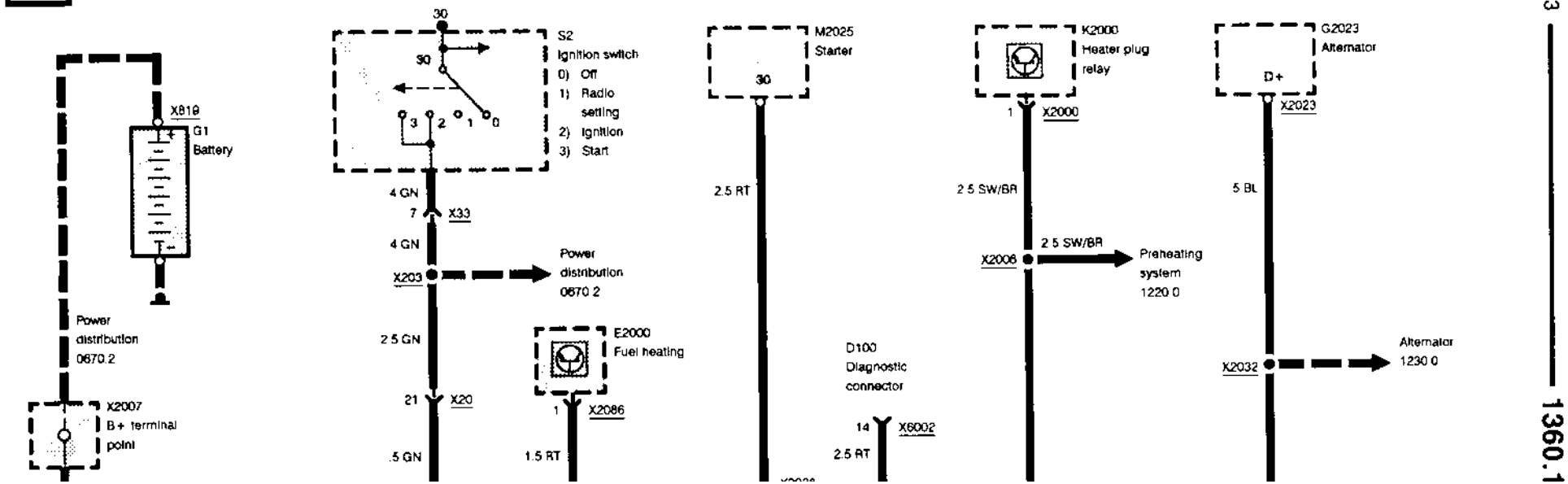
Digital diesel electronics (DDE 2, 6-cylinderM51)
Scheme 1360.1

Pin Assignment X201

Pin	Type	Description/Function	Connection
1	A	Activation, fuel quantity control unit	Fuel quantity control unit
2	A	Activation, fuel quantity control unit	Fuel quantity control unit
3	A	Activation, electrical cutout	Electrical cutout
4	A	Diagnosis lamp diesel	Instrument cluster
5	A	Activation, SD nozzle	SD nozzle
6	A	Glow time control glow plug relay	Glow plug relay
7		not used	
8	A	Activation, AGR changeover valve	AGR changeover valve
9	E	Signal, A/C compressor	A/C compressor relay
10	A	Activation, injection timing valve	Solenoid valve injection timing device
11	A	"Preheating" diesel	Instrument cluster
12	E	Signal, SD nozzle	SD nozzle
13	M	Ground for shieldings and sensor	Shielding and sensor
14	M	Ground for actuator and pedal position sensor	Actuator and pedal position sensor
15	E	Terminal 15	DDE relay
16	E	Terminal 15	DDE relay
17	E	Terminal 15	DDE relay
18	M	Ground	Ground connection
19	M	Ground	Ground connection
20	E	Cruise control (Tempomat) signal	Cruise control (Tempomat)
21	E	Actual value, control unit	Fuel quantity control unit
22		not used	
23		not used	
24	E	Signal, compressor ON	Pressure switch and auxiliary fan relay
25	E	Load signal	Pedal position sensor
26	E	Brake signal	Brake light switch
27	A	RxD diagnosis line	Diagnostic connector
28	E E	Clutch signal (manual transmission) P/N selector lever signal (automatic transmission)	Clutch switch Selector lever switch
29	E	Speedometer A signal	Instrument cluster
30		not used	
31	E	Brake light test signal	Brake light switch
32		not used	
33	A	Positive supply for pedal position sensor	Pedal position sensor
34		not used	
35	A	Activation, temperature sensor	Fuel quantity control unit
36	E	Signal, water level in fuel filter	Water level sensor, fuel filter
37	E	Actual value, pedal position sensor	Pedal position sensor
38		not used	
39	A	Positive supply for actuator	Fuel quantity control unit
40	A	Multiplex signal for EGS (MPS)	EGS control unit
41	E	Error message glow plug relay	Glow plug relay
42	E/A	TxD diagnosis line	Diagnostic connector
43	E	Signal, engine intervention	EGS control unit
44	E	Signal, air condition ON	A/C control unit / A/C relay (Motronic)
45	E	Signal, immobilizing device	On-board computer
46		not used	
47	E	Speed signal	Speed transmitter
48		not used	
49	E	Consumption signal, TQ	Instrument cluster
50	E	Engine speed signal TD	Instrument cluster
51	A	Positive supply charge pressure sensor	Charge pressure sensor
52	E	Charge air temperature	Charge air temperature sensor
53	E	Coolant temperature	Coolant temperature sensor
54	E	Actual value, charge pressure	Charge pressure sensor
55		not used	

E = Input, A = Output, M = Ground

Digital diesel electronics (DDE 2, 6- cylinder M51)



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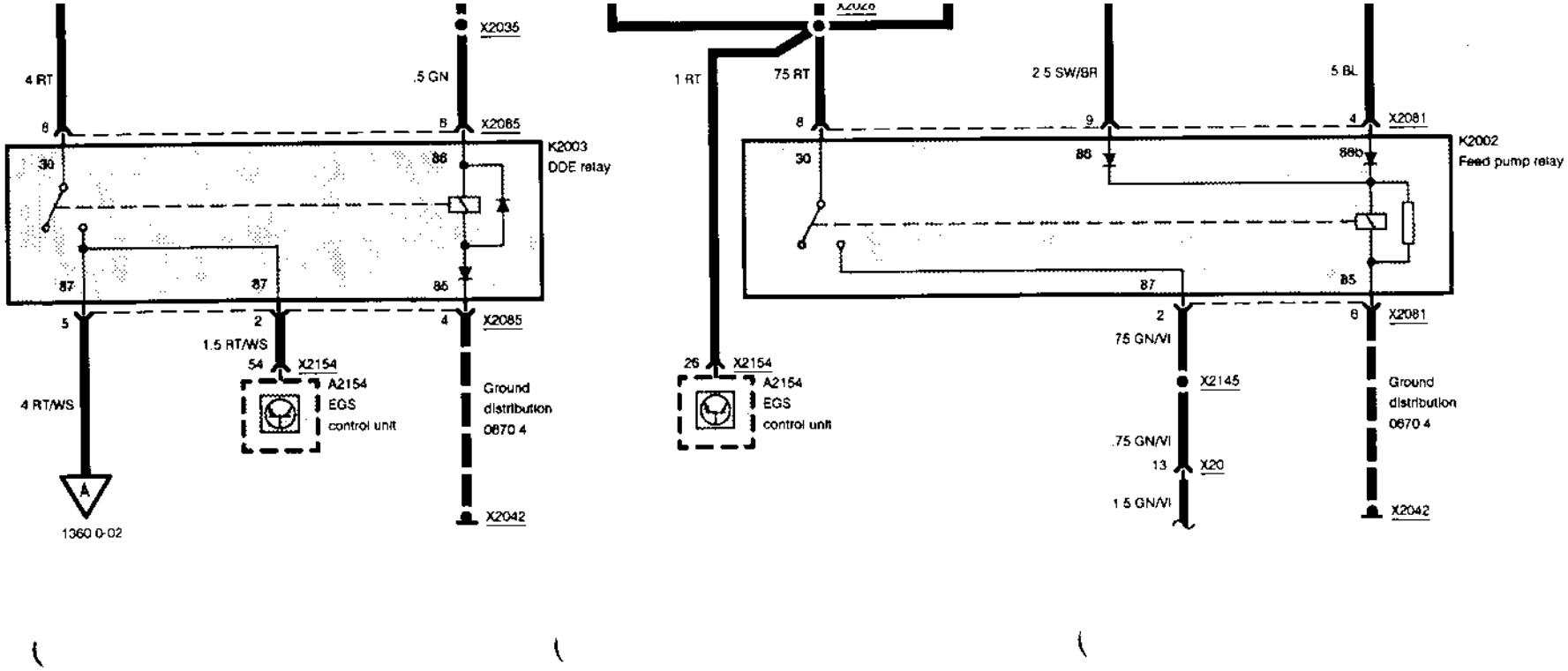

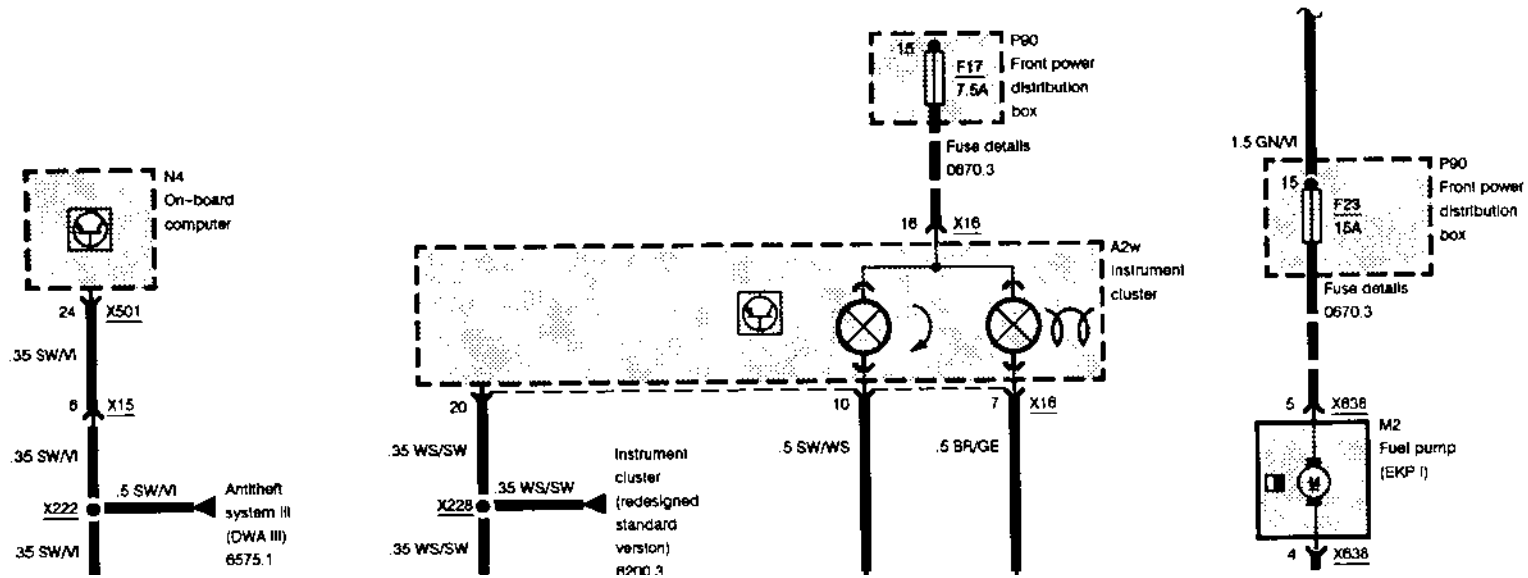

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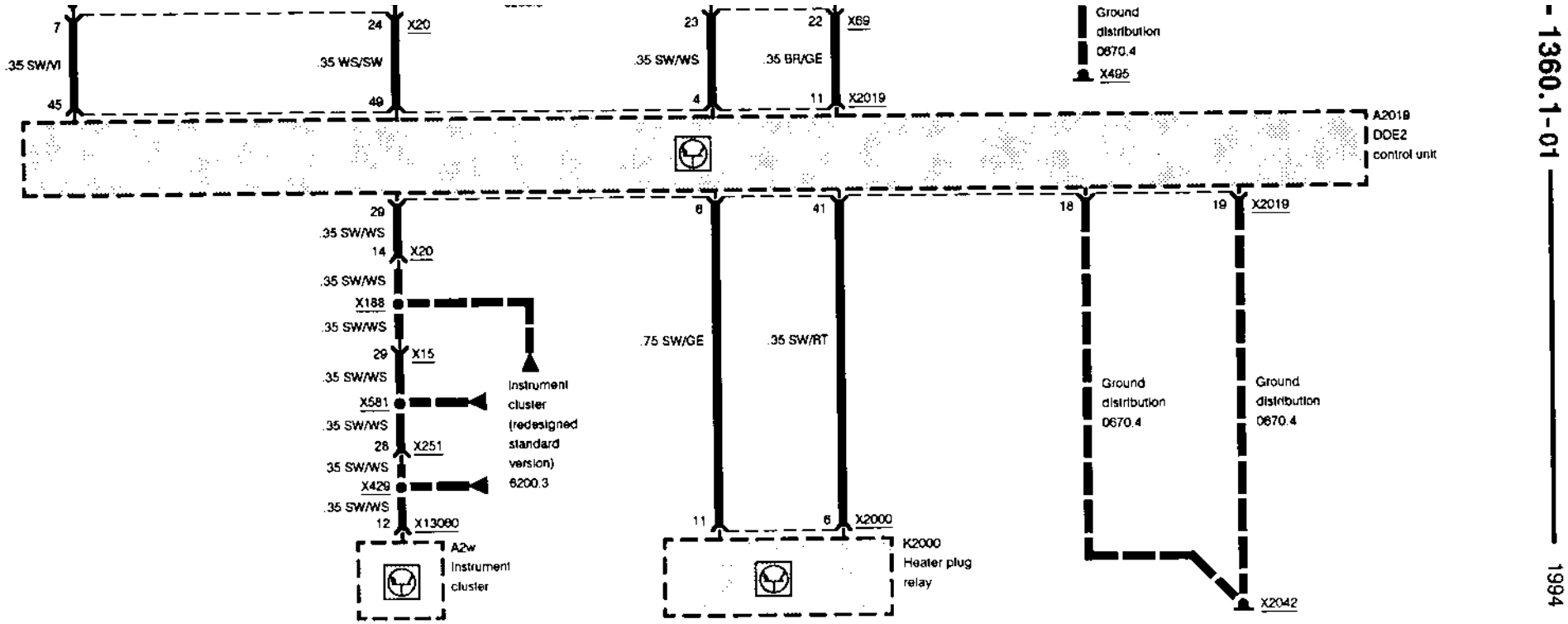

- 1360.1-01 — 1994

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Digital diesel electronics (DDE 2, 6- cylinder M51)

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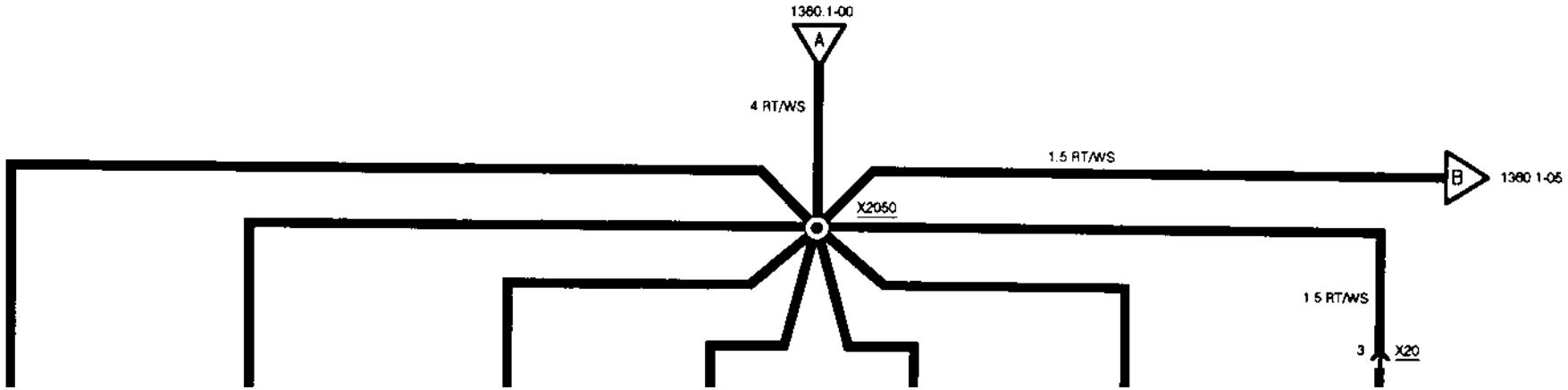

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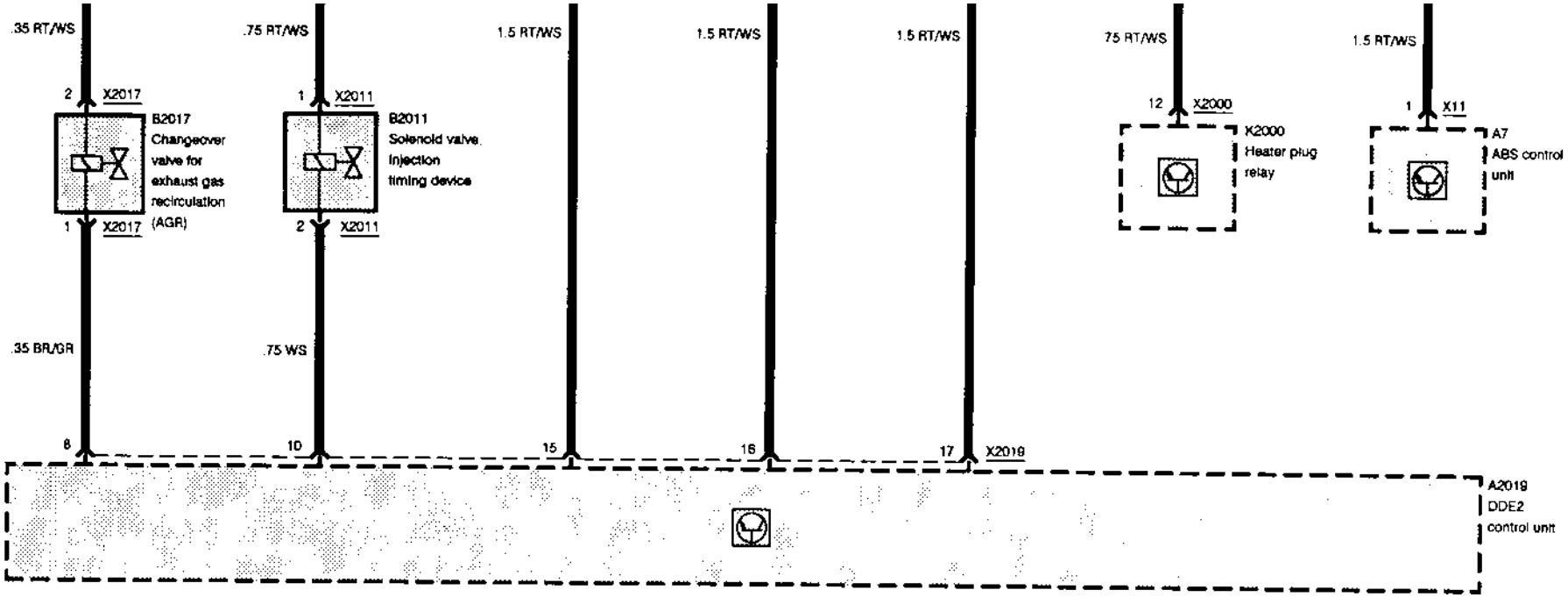

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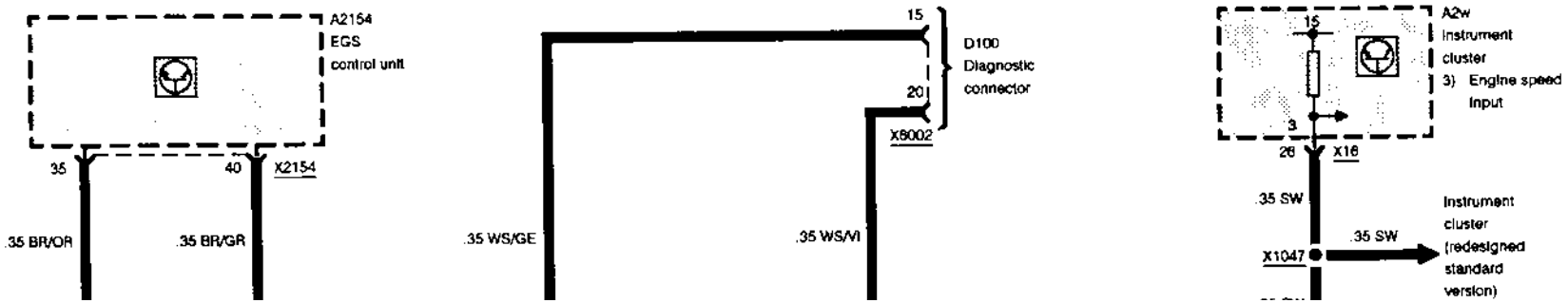
Digital diesel electronics (DDE 2, 6- cylinder M51)



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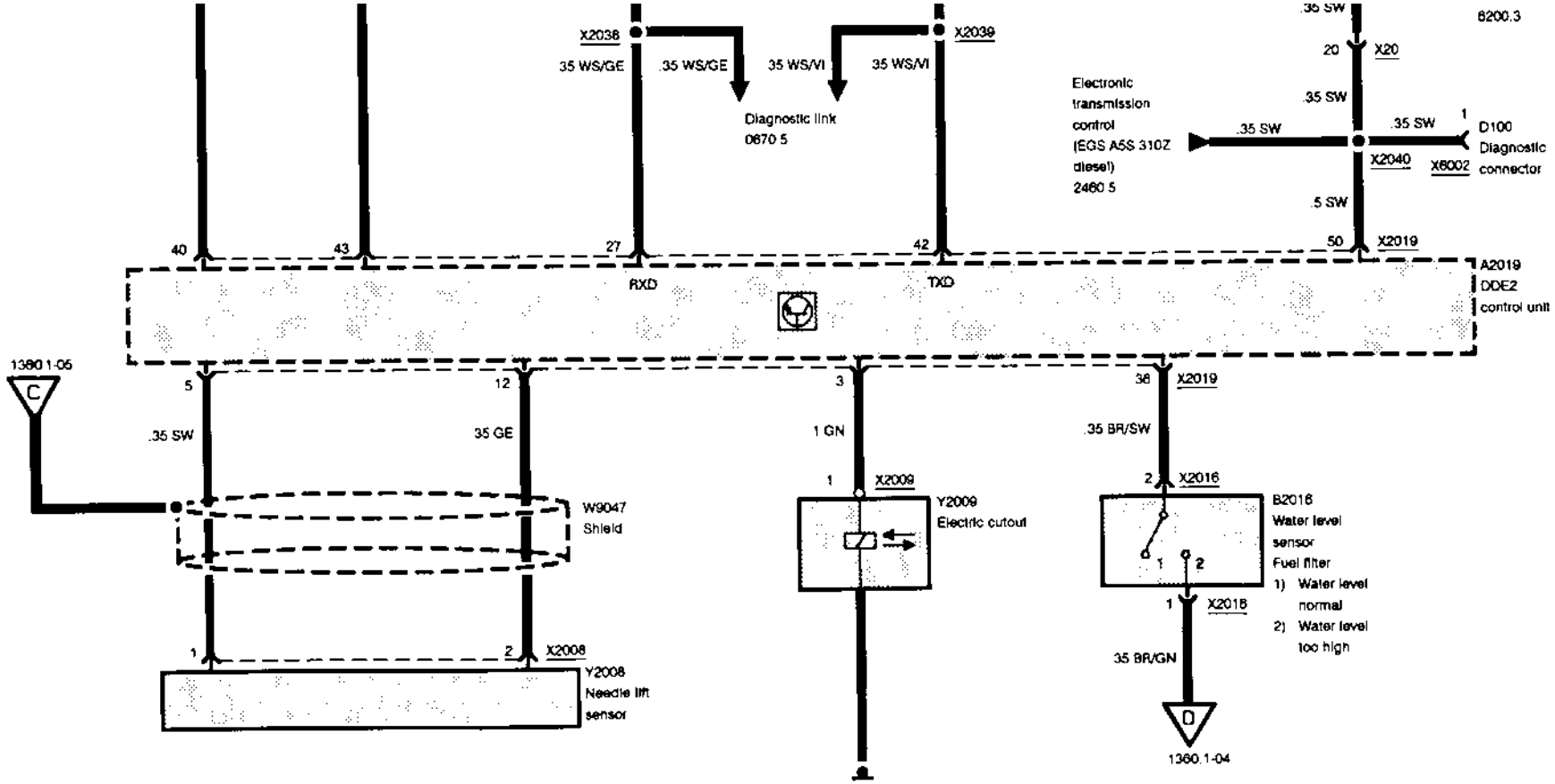

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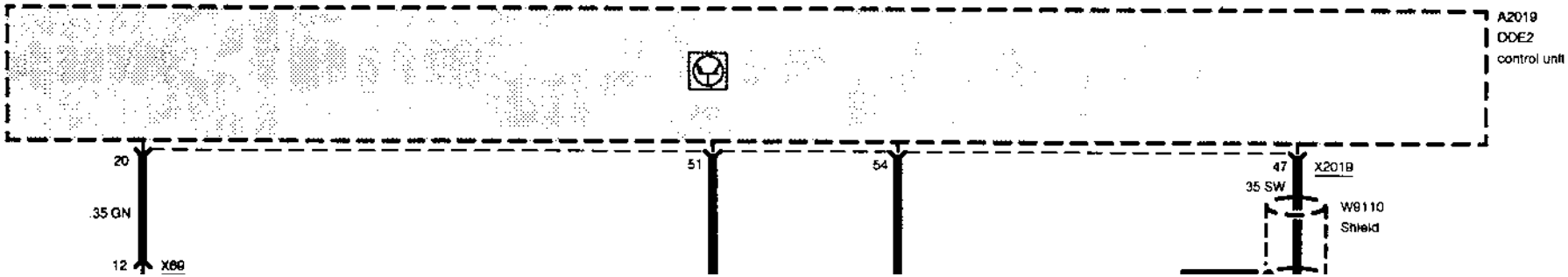
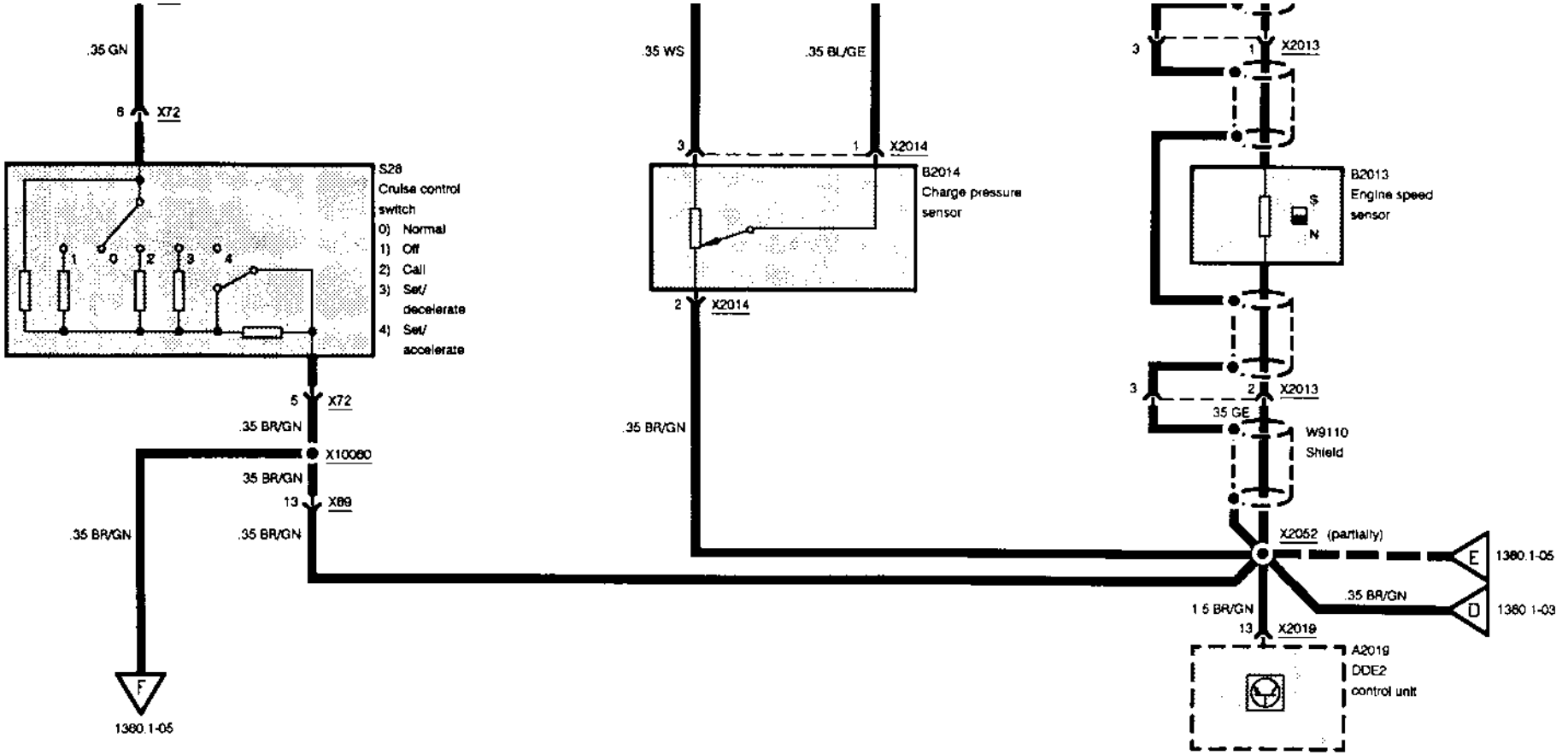
Digital diesel electronics (DDE 2, 6- cylinder M51)





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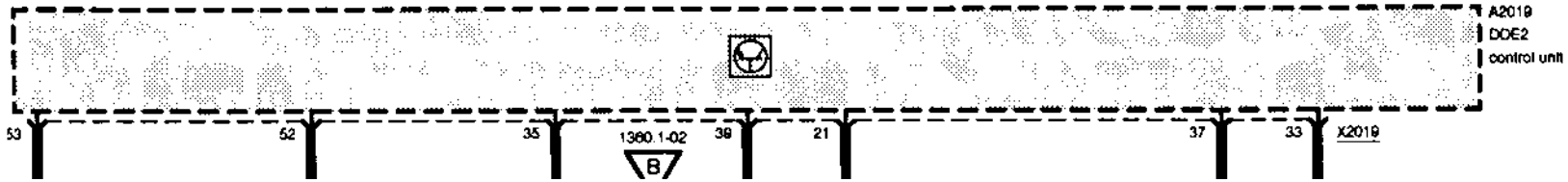
Digital diesel electronics (DDE 2, 6- cylinder M51)



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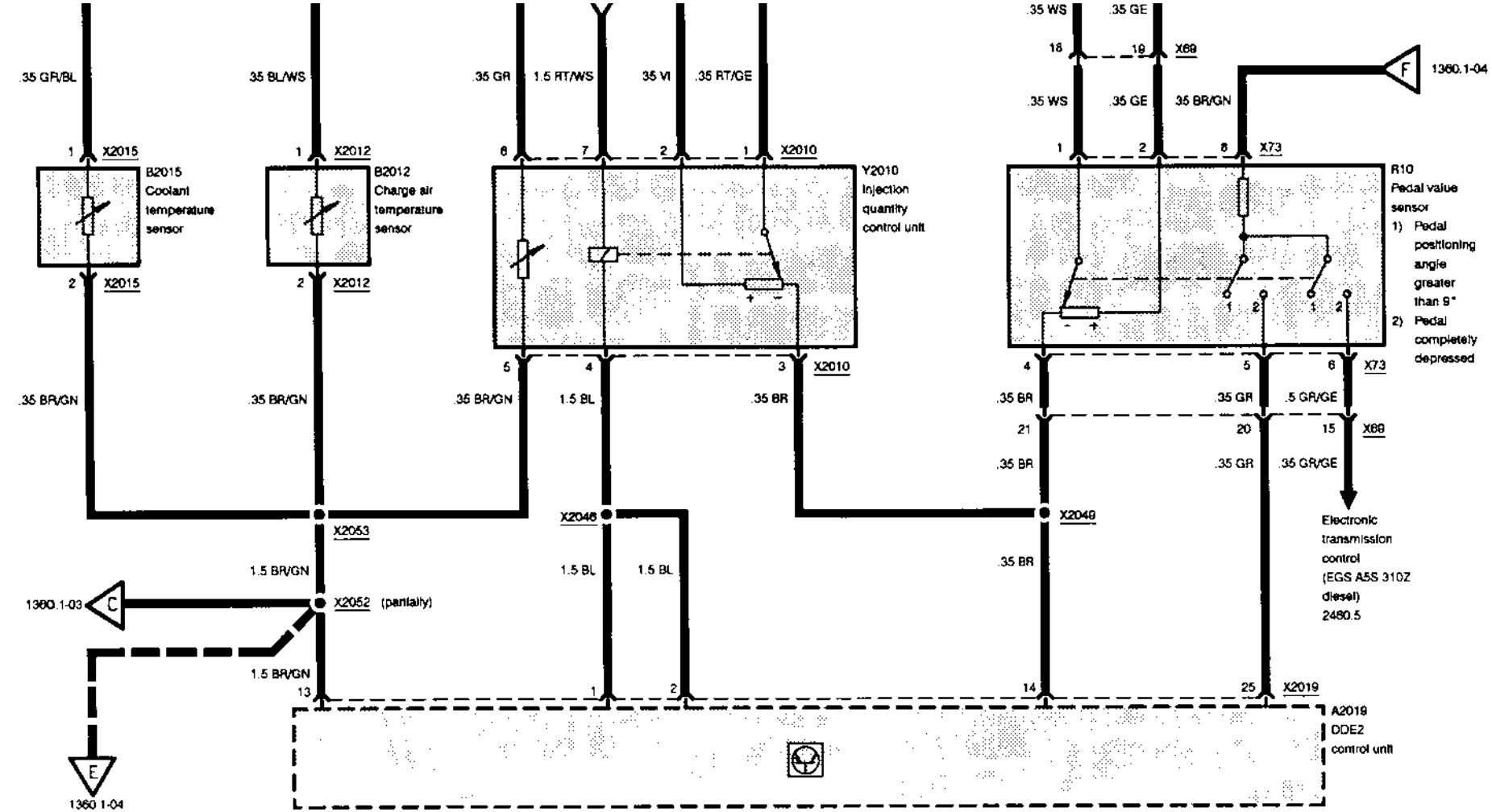

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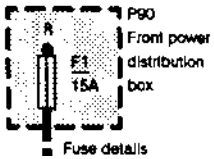
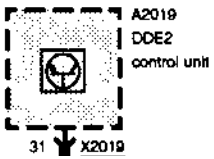
Digital diesel electronics (DDE 2, 6- cylinder M51)





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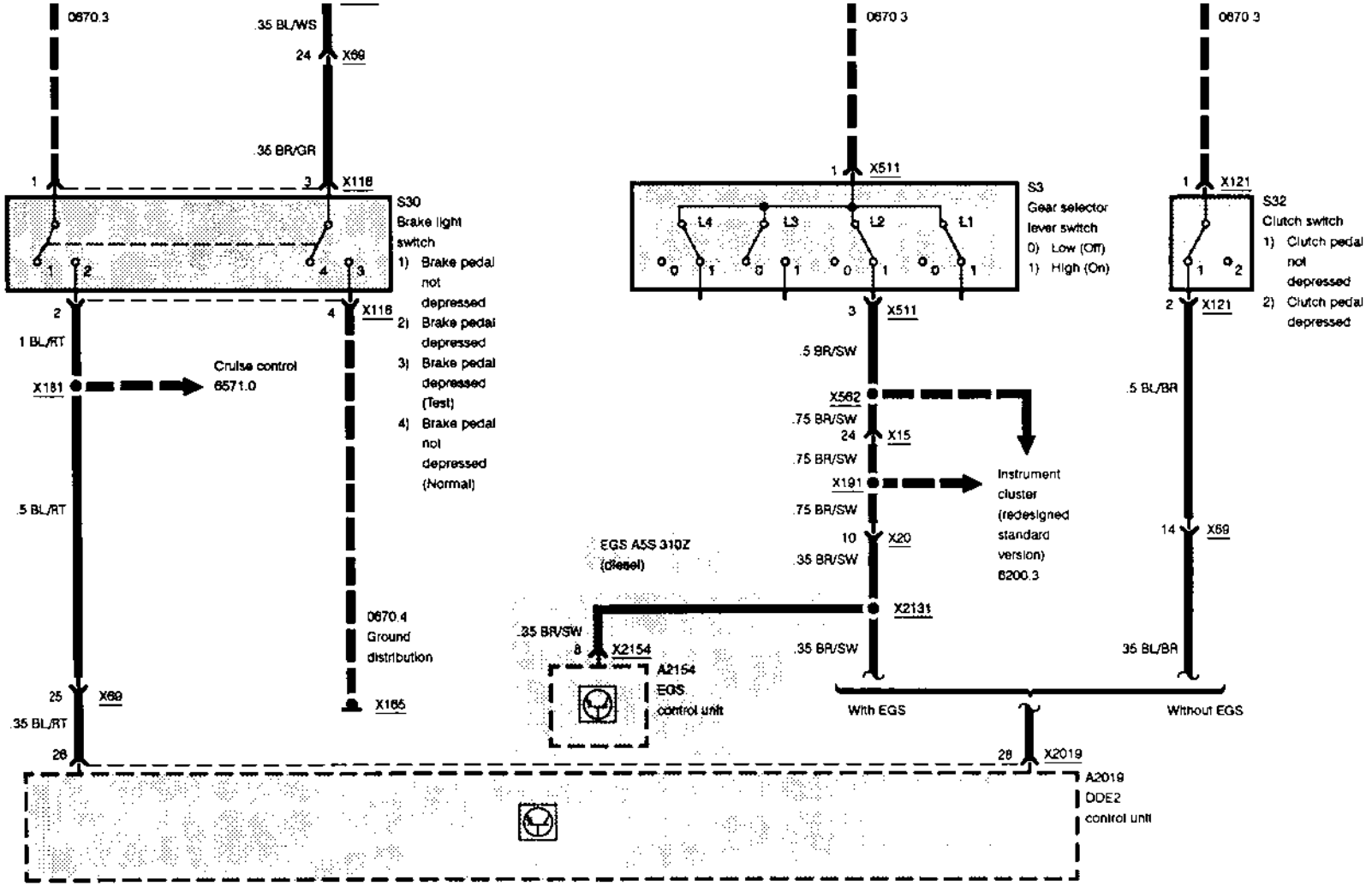

EGS A5S 310Z (diesel)

	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0
1	1	0	1	0

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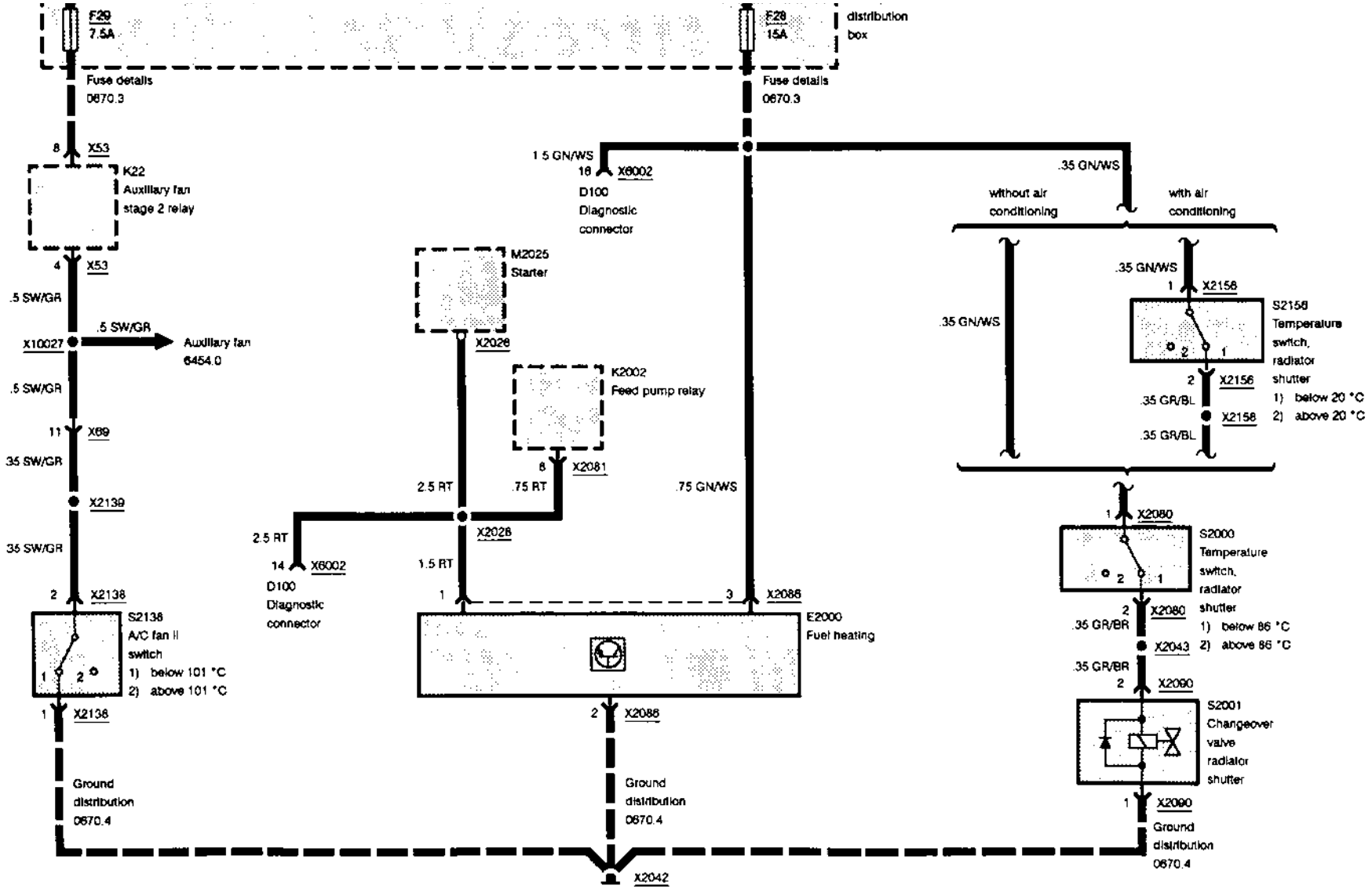
Digital diesel electronics (DDE 2, 6- cylinder M51)



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Digital diesel electronics (DDE 2, 6- cylinder M51)

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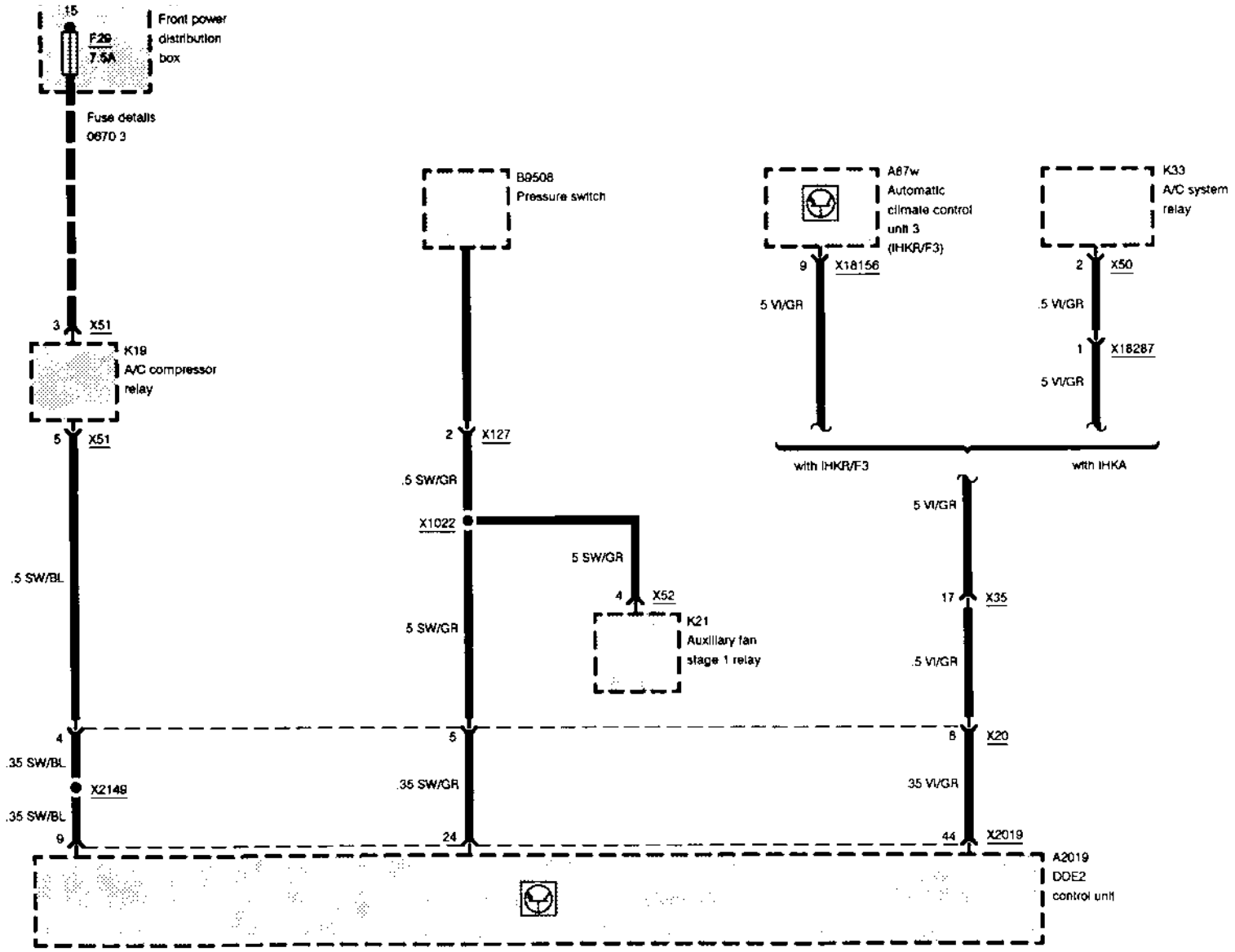

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Antilock brake system (ABS)
Scheme 3450.0

Pin Assignment X11

Pin	Type	Description/Function	Connection
1	E	Voltage supply	DME relay/DDE relay
2	M	Component ground	ABS hydraulic unit - front left solenoid valve
3		not used	
4	M	Component ground	Front left ABS sensor
5		not used	
6	E	Voltage signal	Front left ABS sensor
7		not used	
8	E	Voltage signal	Rear left ABS sensor
9	M	Component ground	Rear left ABS sensor
10		not used	
11	E	Voltage signal	Front right ABS sensor
12		not used	
13		not used	
14	E	Voltage supply	Terminal 87 pump relay
15		not used	
16		not used	
17	A	Relay activation	Terminal 86 pump relay
18	M	Component ground	ABS hydraulic unit - rear solenoid valve
19		not used	
20	M	Component ground	Ground connection
21	M	Component ground	Front right ABS sensor
22		not used	
23		not used	
24	E	Voltage signal	Rear right ABS sensor
25	M	Component ground	Brake light switch
26	M	Component ground	Rear right ABS sensor
27	M	Component ground	Terminal 85 valve relay
28	M	Component ground	Terminal 85 Pump relay
29	E	Voltage supply	Terminal 87 valve relay
30	A	RxD diagnosis line	Diagnostic connector
31	E/A	TxD diagnosis line	Diagnostic connector
32	E	Voltage supply	Terminal 87 valve relay
33		not used	
34	M	Component ground	Ground connection
35	M	Component ground	ABS hydraulic unit - front right solenoid valve

E = Input, A = Output, M = Ground

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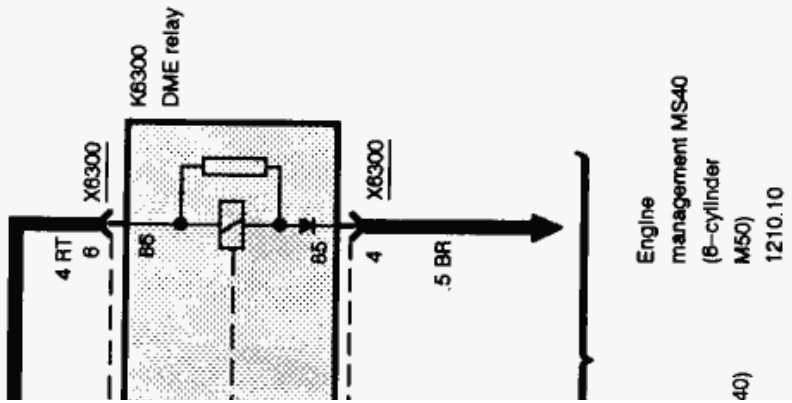
518i/t, 520i/t



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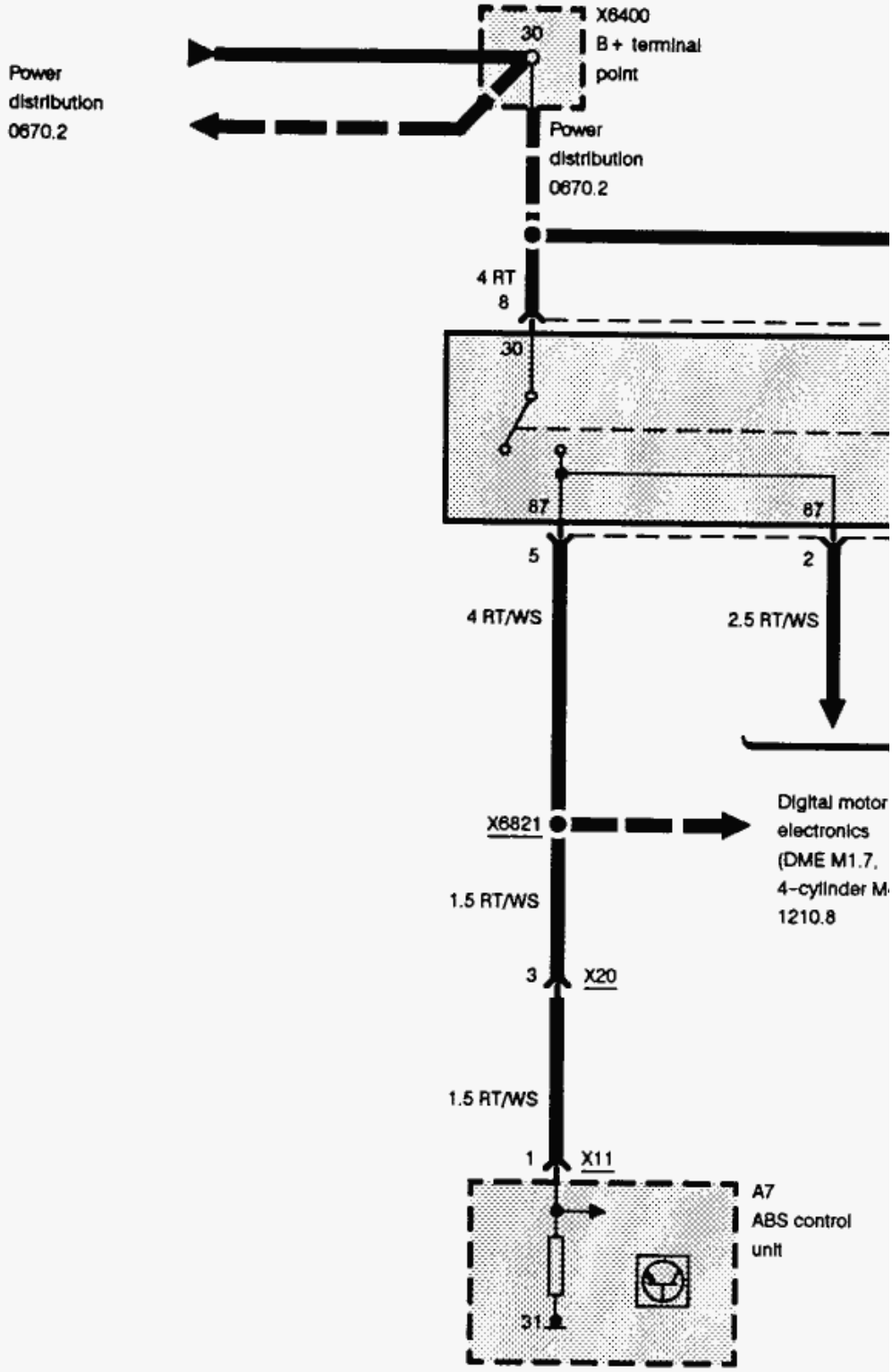
Antilock brake system (ABS)



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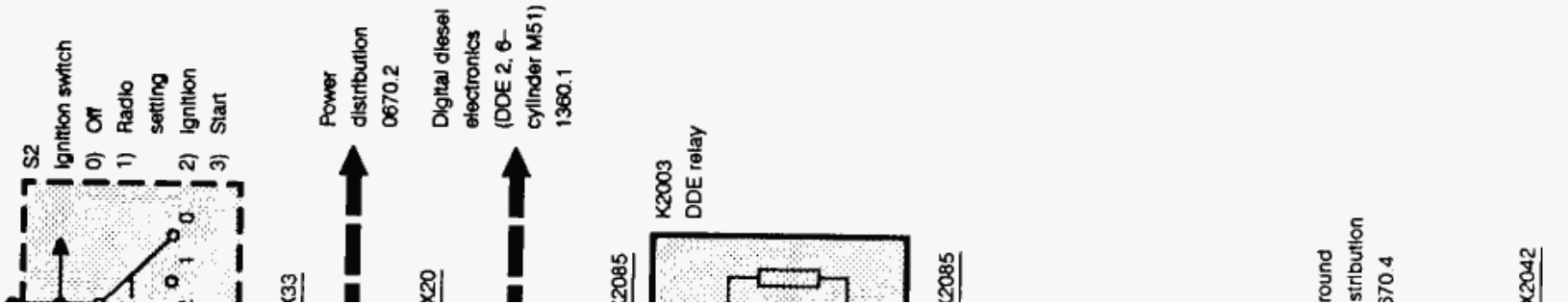
525td/t, 525tds/t



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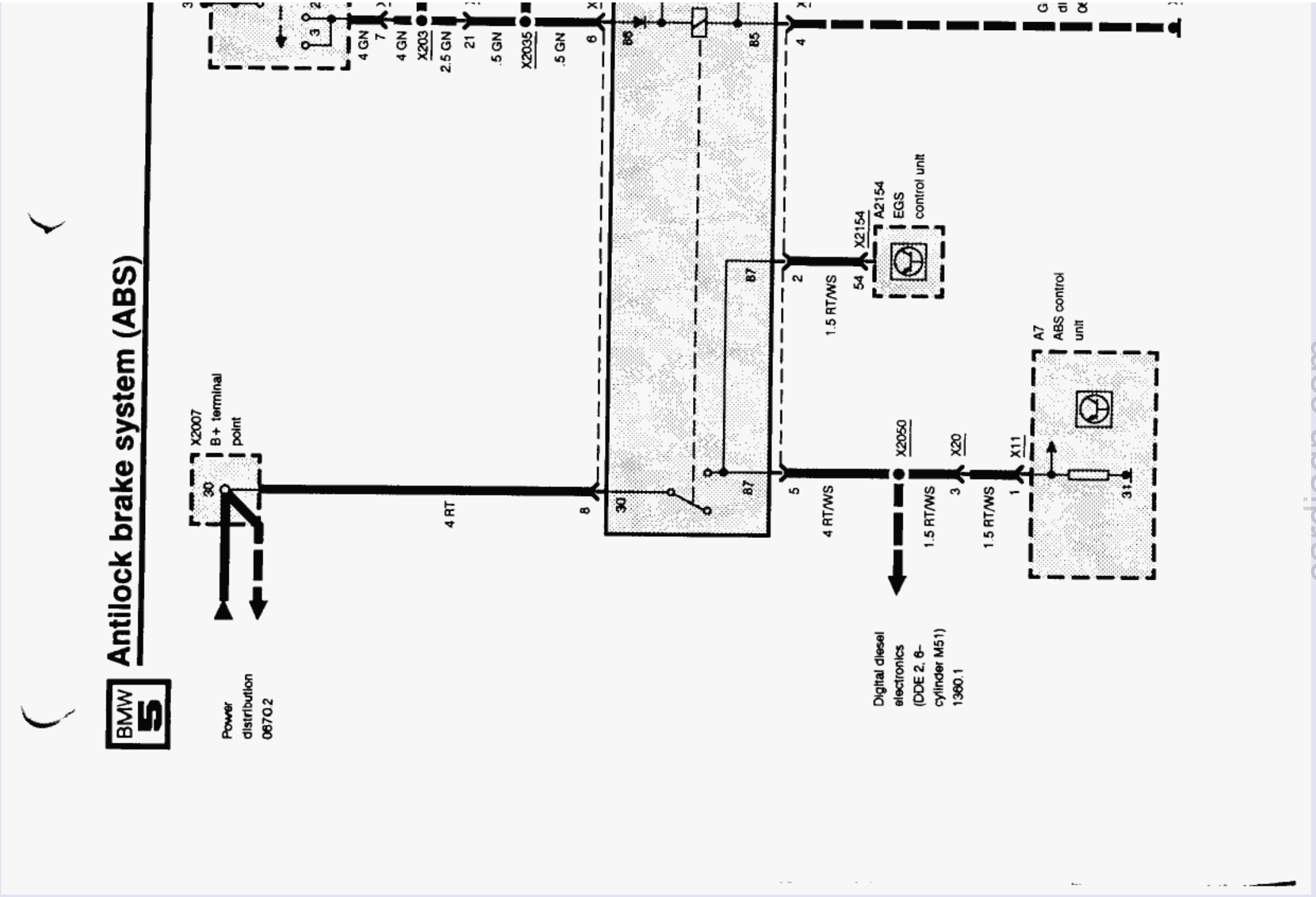

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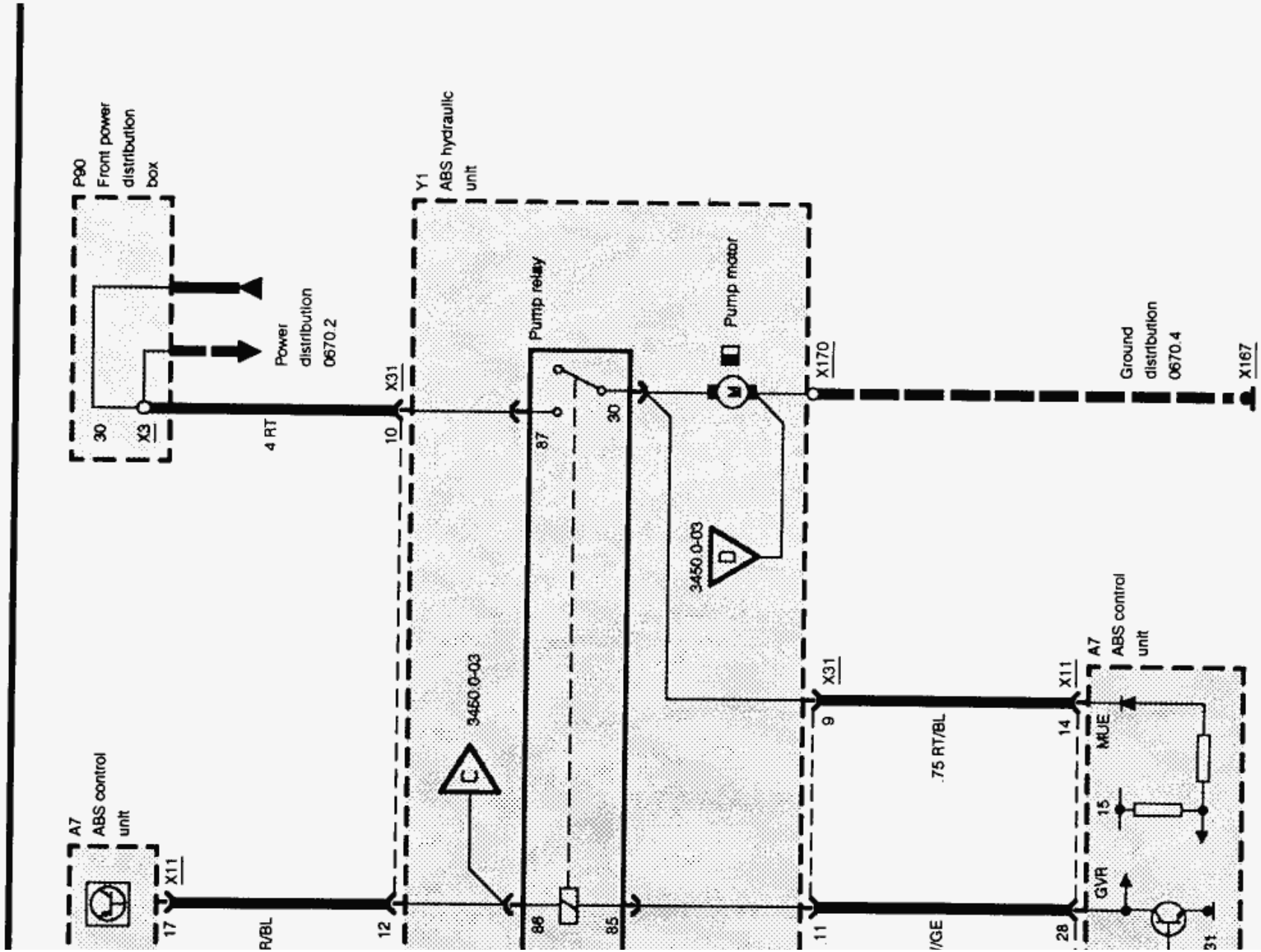

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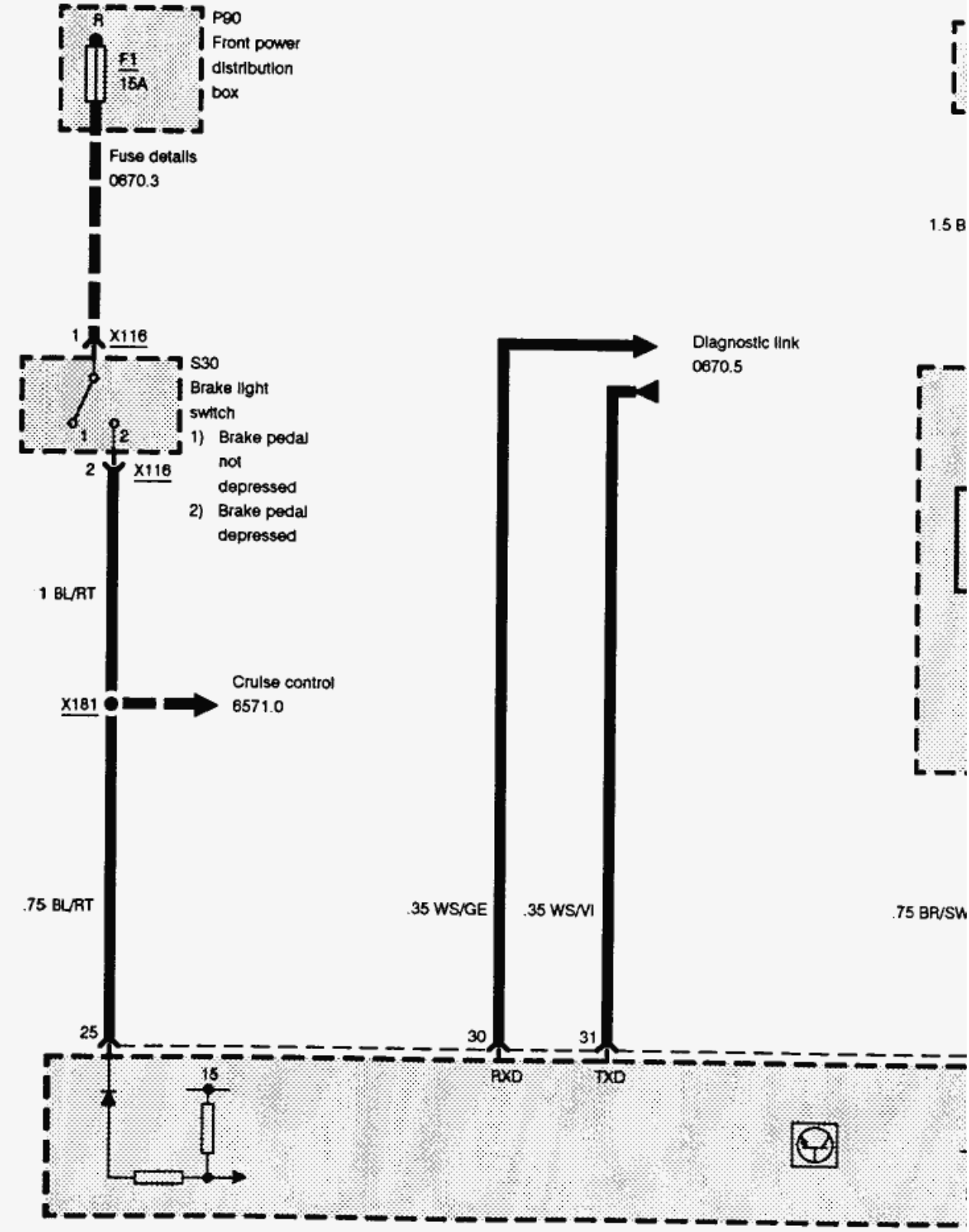
Antilock brake system (ABS)



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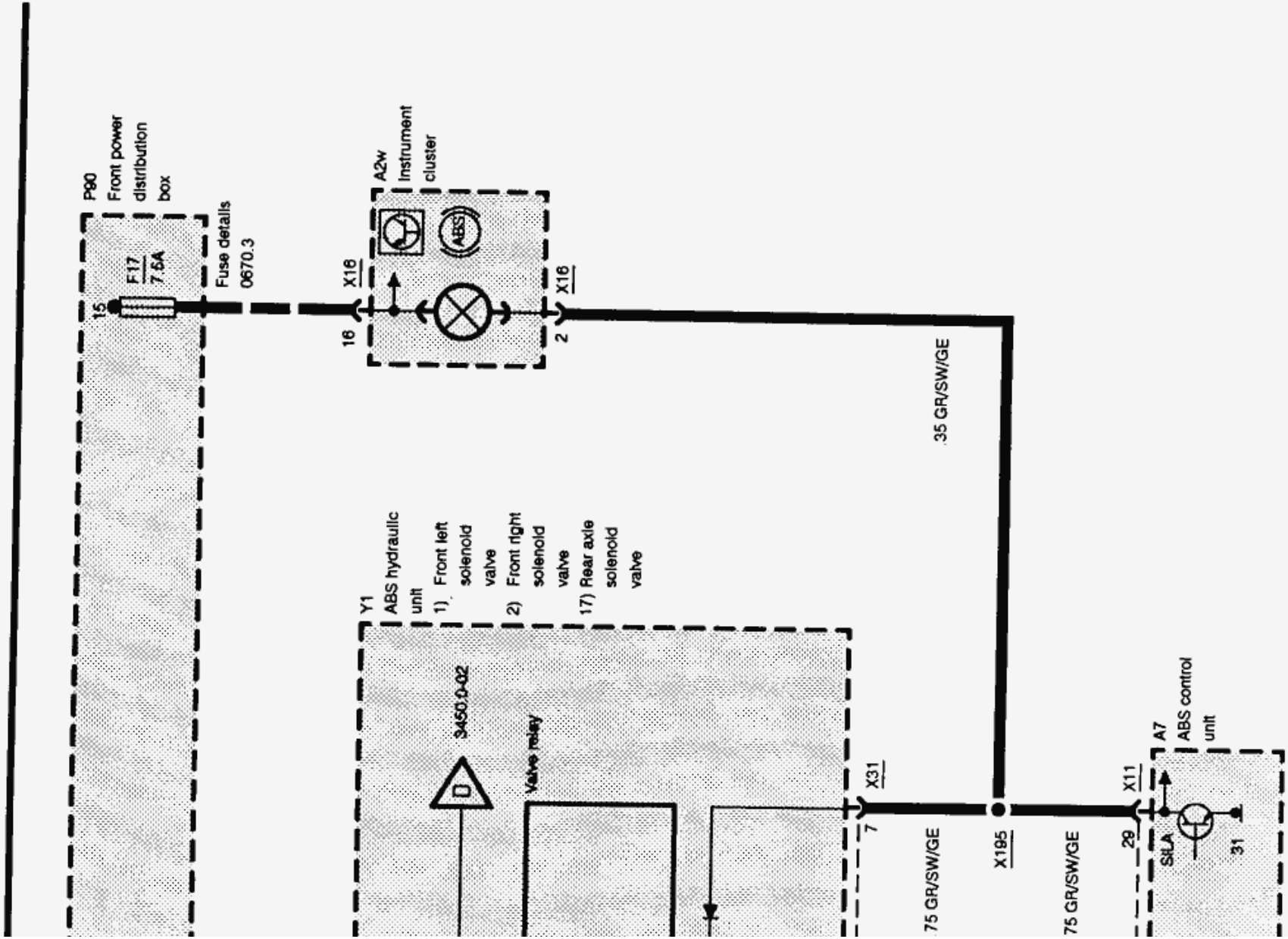

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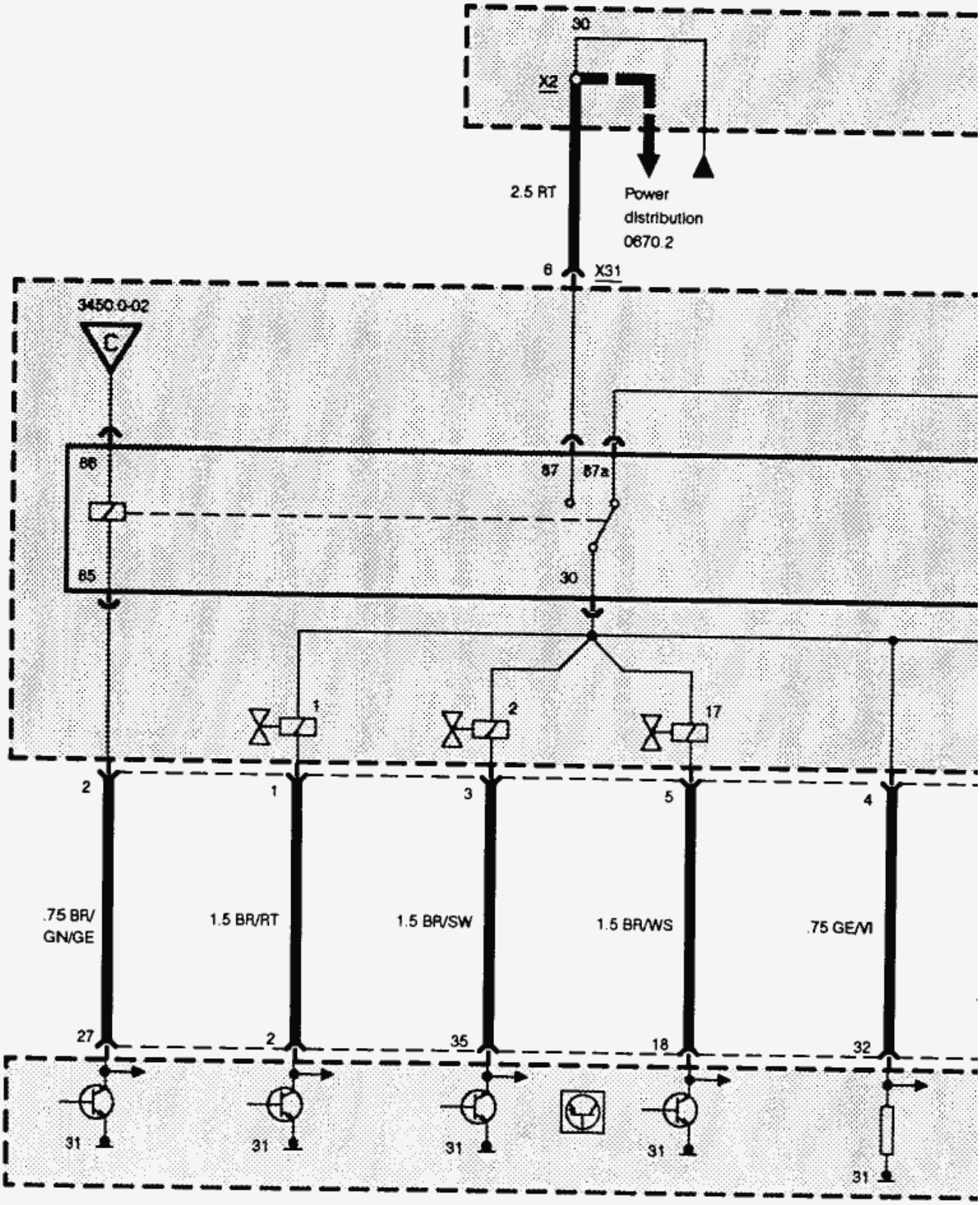
Antilock brake system (ABS)



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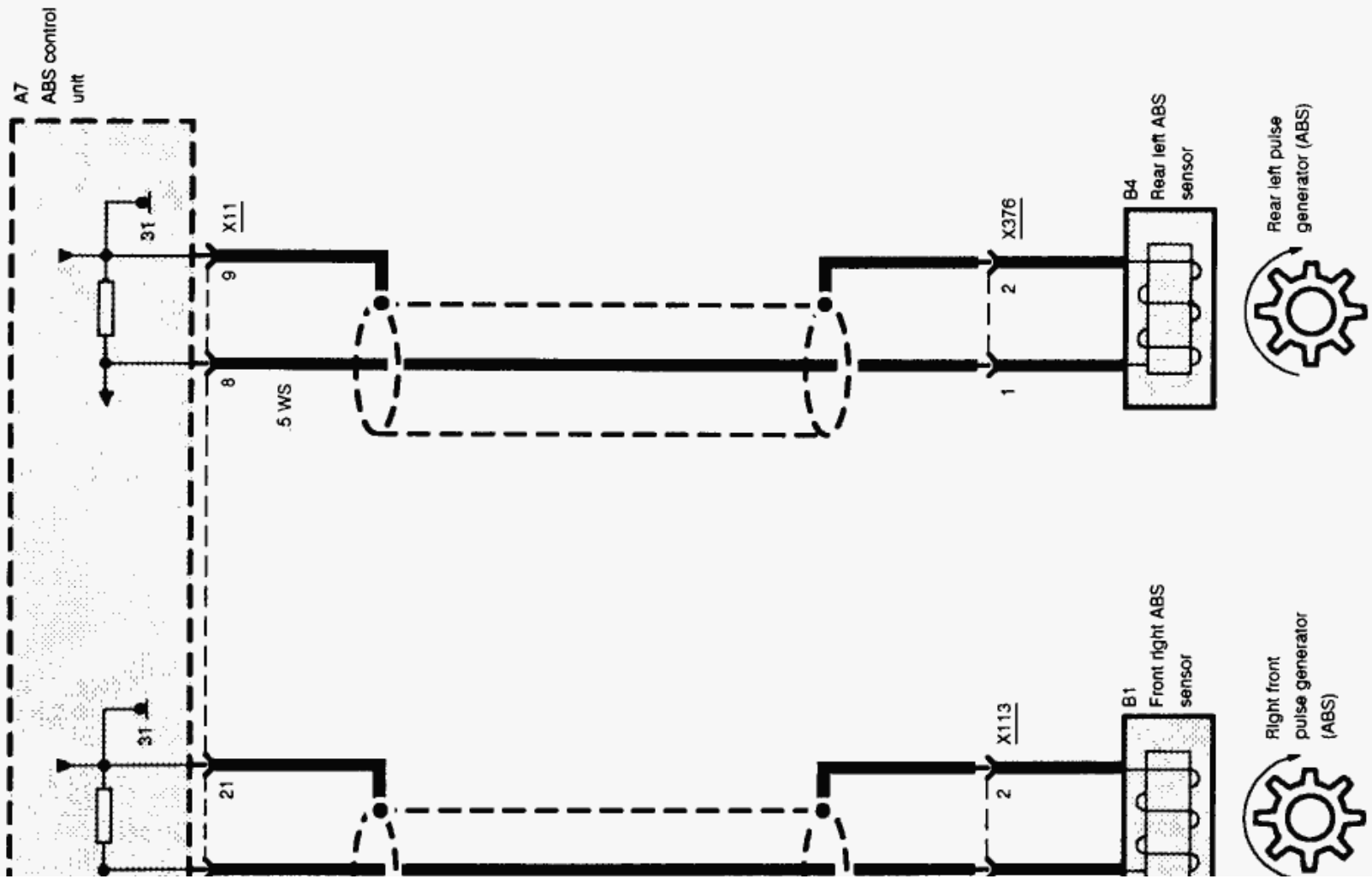

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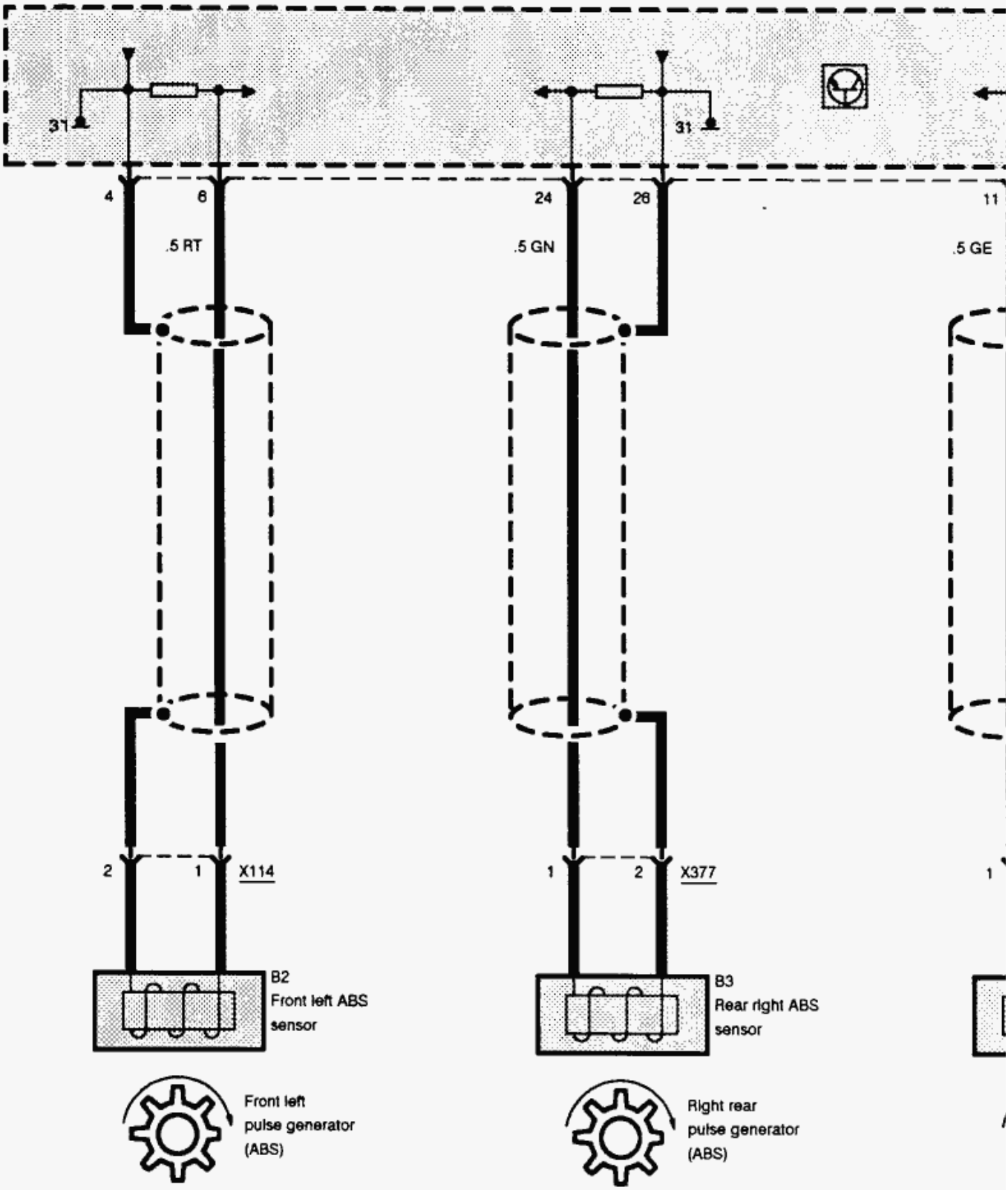
Antilock brake system (ABS)



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Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Digital motor electronics (DME M1.7,4-cylinderM40)
Scheme 1210.8

Pin Assignment X6000

Pin	Type	Description/Function	Connection
1	A	Ignition, terminal 1	Ignition coil for cyl. 1
2	A	Ignition, terminal 1	Ignition coil for cyl. 3
3	A	Ignition, terminal 1	Ignition coil for cyl. 5
4	M	Ground	Ground connection
5	A	Injection valve, cylinder 6	Injection valve
6	A	Injection valve, cylinder 4	Injection valve
7			
8	E	Drive range P/N	Gear selector lever switch
9	A	Signal, air condition ON	Pressure switch
10	A A	IHKR/F3: Auxiliary fan signal IHKA: Auxiliary fan signal	A/C control unit A/C system relay
11		not used	
12	A	Vehicle speed signal	Instrument cluster
13		not used	
14	A	Throttle-valve position	EGS control unit
15	E	Immobilizing device	On-board computer
16		not used	
17	A	TI signal,	Instrument cluster
18	A	TD speed signal	Instrument cluster
19		not used	
20	E	Ignition timing intervention	EGS control unit
21		not used	
22	A	Injection valve, cylinder 3	Injection valve
23	A	Injection valve, cylinder 1	Injection valve
24	E	A/C compressor ON	A/C compressor relay
25	E	Signal, camshaft control	Camshaft control
26	E	Continuous pos. voltage, terminal 30	B+ terminal point
27	A	Idle actuator signal	Idle actuator
28	M	Ground	Ground connection
29	A	Ignition, terminal 1	Ignition coil forcyl. 2
30	A	Ignition, terminal 1	Ignition coil forcyl. 4
31	A	Ignition, terminal 1	Ignition coil for cyl. 6
32	M	Ground	Ground connection
33	A	Injection valve, cylinder 5	Injection valve
34	M	Ground	Ground connection
35	M	Shieldings, crankshaft sensor	Shielding
36		not used	
37		not used	
38	M	Shieldings, camshaft sensor	Shielding
39	M	Shieldings, knock sensor	Knock sensor 1
40	M	Shieldings, knock sensor	Knock sensor 2
41		not used	
42	M	Shieldings, oxygen sensor	Shielding
43		not used	
44		not used	
45		not used	
46		not used	
47		not used	
48	E	>10V from DME main relay	Main relay
49	E	Ignition, terminal 15	Ignition lock
50	A	Injection valve, cylinder 2	Injection valve
51	A	Tank ventilation valve	Tank ventilation valve
52	A	EKP relay and TR signal (crank angle reference)	Electrical fuel pump relay and electrical transmission
53	M	Ground oxygen sensor heater	Oxygen sensor
54	E	>10V from DME main relay	Main relay
55	A	DME main relay	DME main relay
56		not used	
57		not used	
58		not used	
59		not used	
60	E	Programming voltage	Diagnostic connector
61		not used	
62	M	Ground	Ground connection
63	E	Signal -	Knock sensor 2
64	E	Signal -	Knock sensor 1
65	A	Signal +	Knock sensor 1
66	A	Signal +	Knock sensor 2
67		not used	
68	M	Ground, air mass meter	Air mass meter
69	E	Signal, air mass meter	Hot wire air mass meter
70		not used	
71		not used	
72	A	Signal +	Throttle potentiometer
73	E	Signal, oxygen sensor	Oxygen sensor
74	M	Component ground	Camshaft sensor
75	M	Ground, oxygen sensor	Oxygen sensor
76	E	Signal	Throttle potentiometer
77	E	Throttle-valve position	Throttle potentiometer
78	E	Signal -	Crankshaft sensor
79	A	Signal +	Crankshaft sensor
80	E	Signal -	Coolant temperature sensor
81	A	Signal +	Coolant temperature sensor
82	M	Component ground	Crankshaft sensor
83	E	Signal -	Camshaft sensor
84	A	Signal +	Camshaft sensor
85	E	Intake air temperature sensor	Intake air temperature sensor
86	M	Component ground	Intake air temperature sensor
87	E	RxD diagnostic data link	Diagnostic connector
88	E/A	TxD diagnostic data link	Diagnostic connector

E = Input, A = Output, M = Ground

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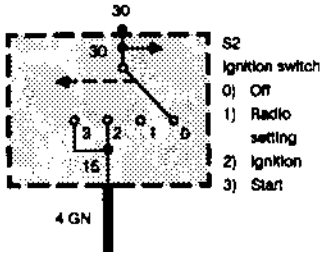
Digital motor electronics (DME M1.7, 4-cylinder M40)



S2
Ignition switch
0) Off
1) Radio setting
2) Ignition
3) Start

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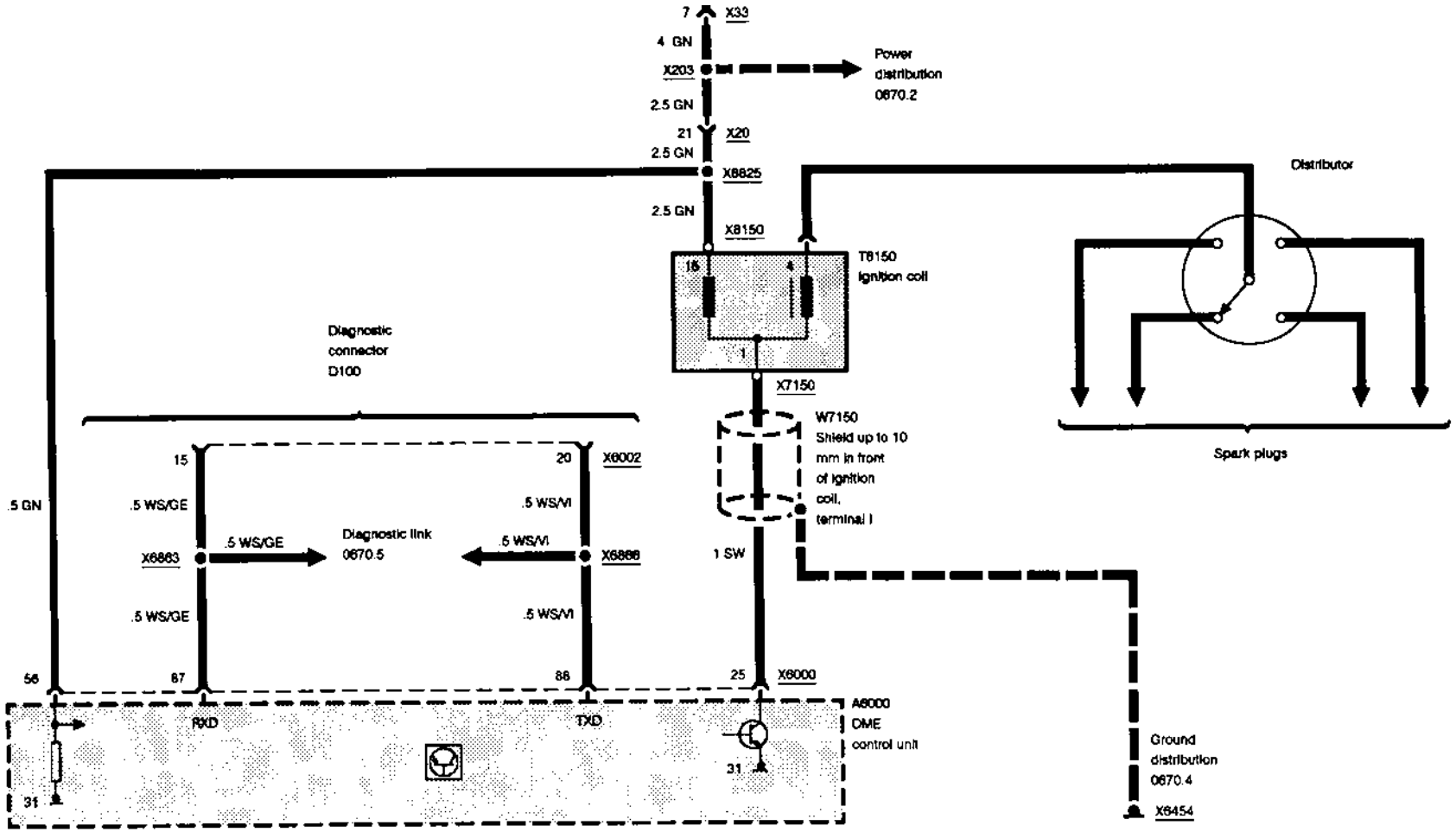

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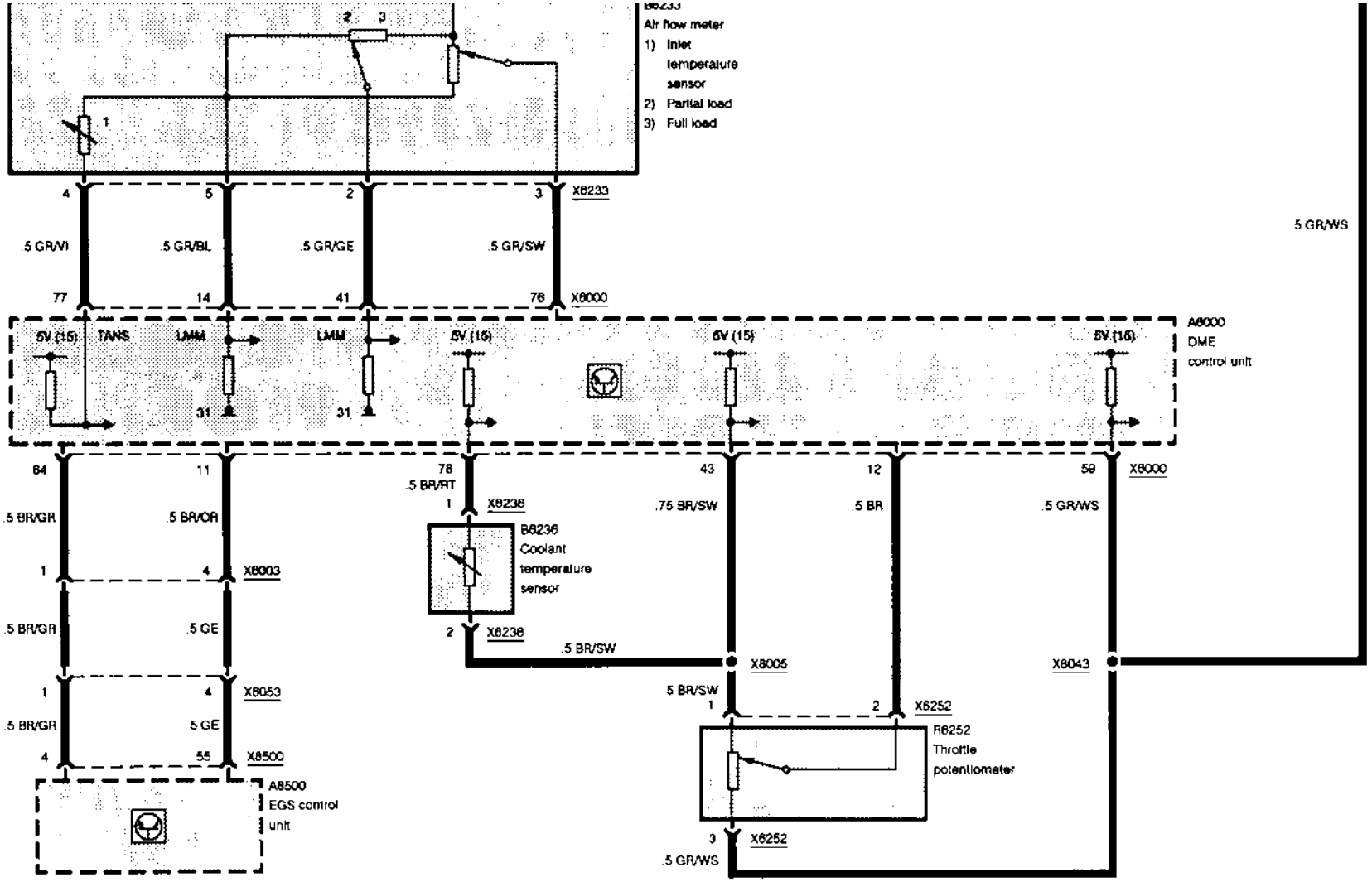
Digital motor electronics (DME M1.7, 4-cylinder M40)



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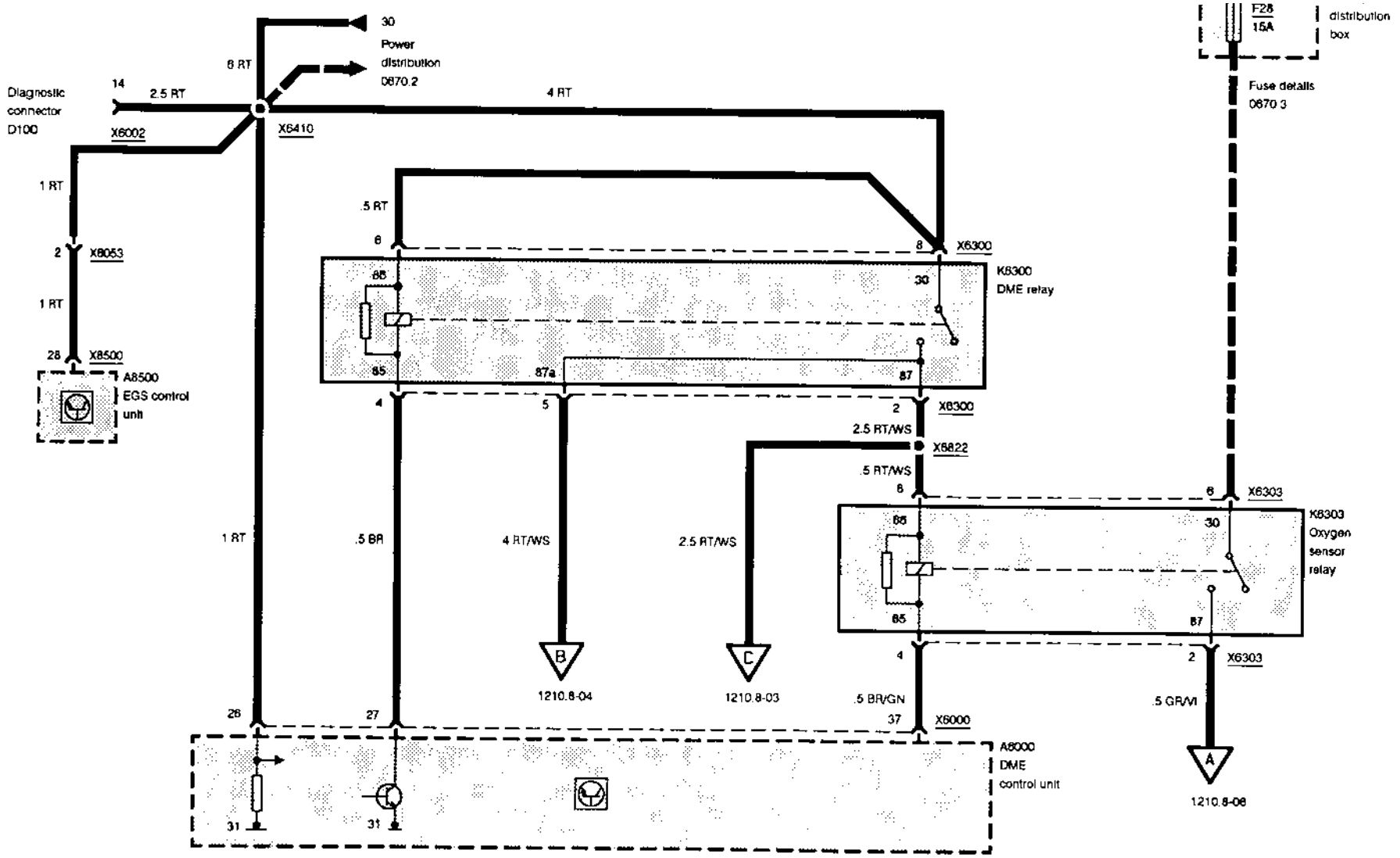
Digital motor electronics (DME M1.7, 4-cylinder M40)

15 P90 Front power



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Digital motor electronics (DME M1.7, 4-cylinder M40)

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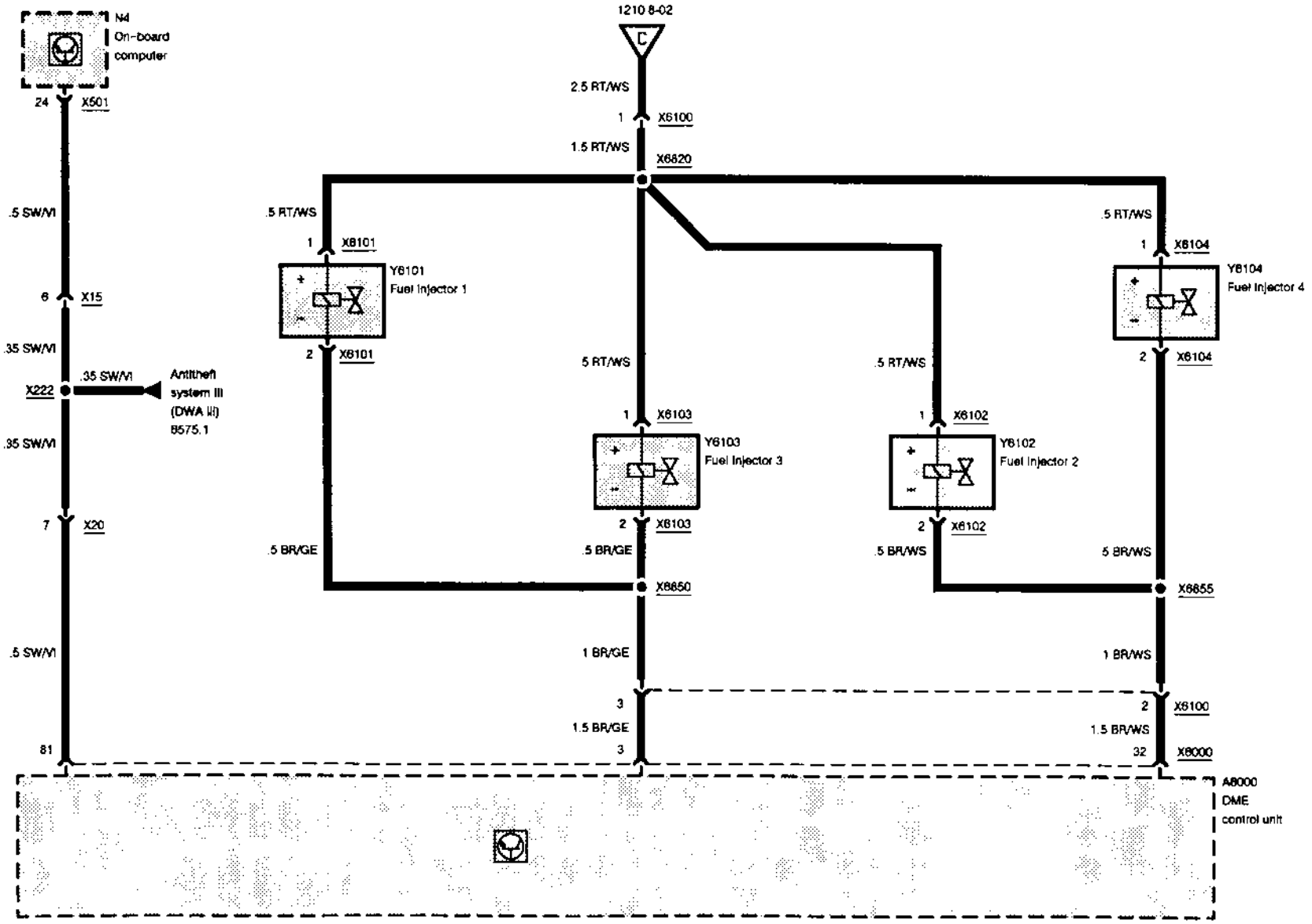

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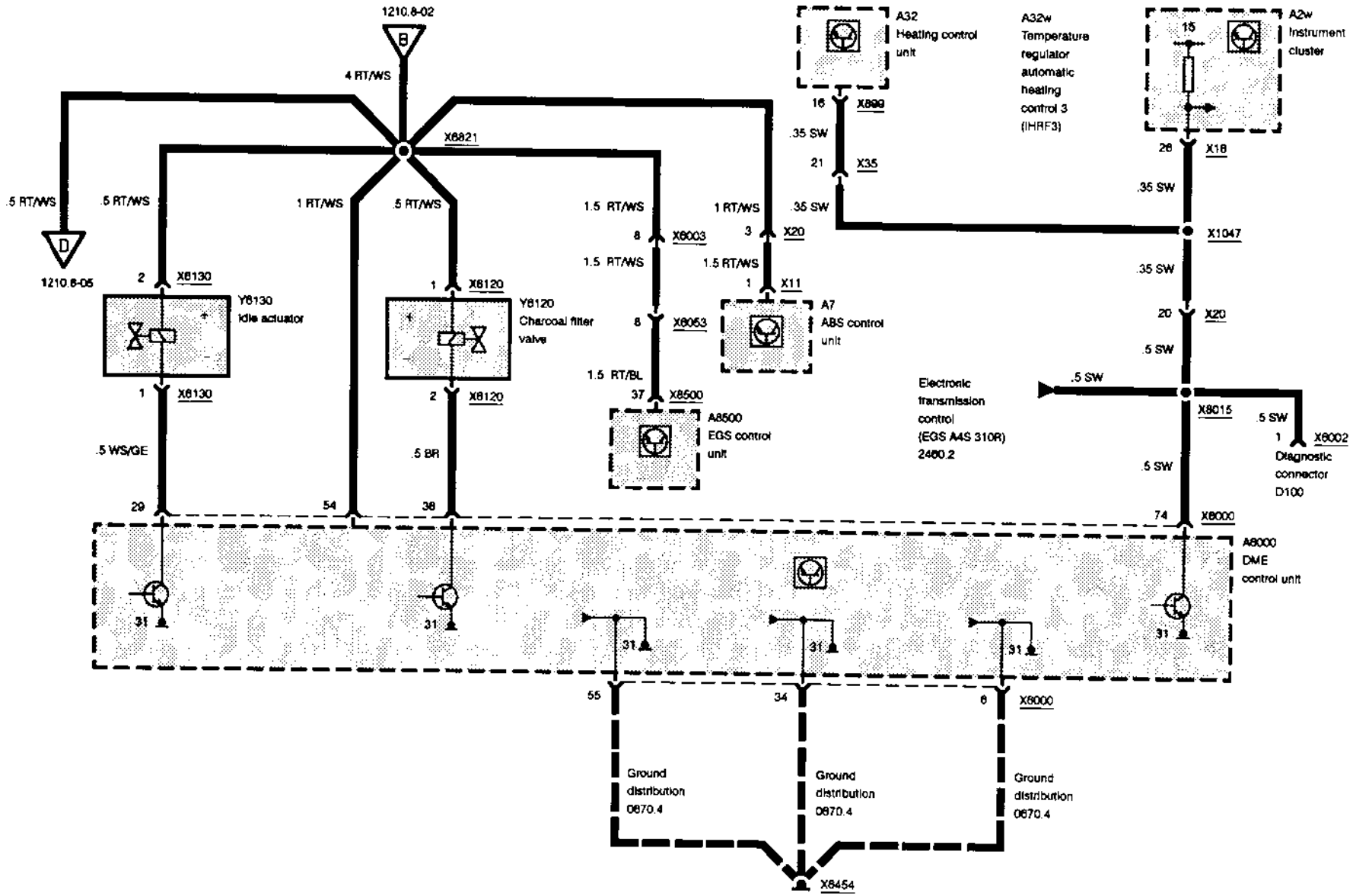
BMW **Digital motor electronics (DME M1.7, 4-cylinder M40)**



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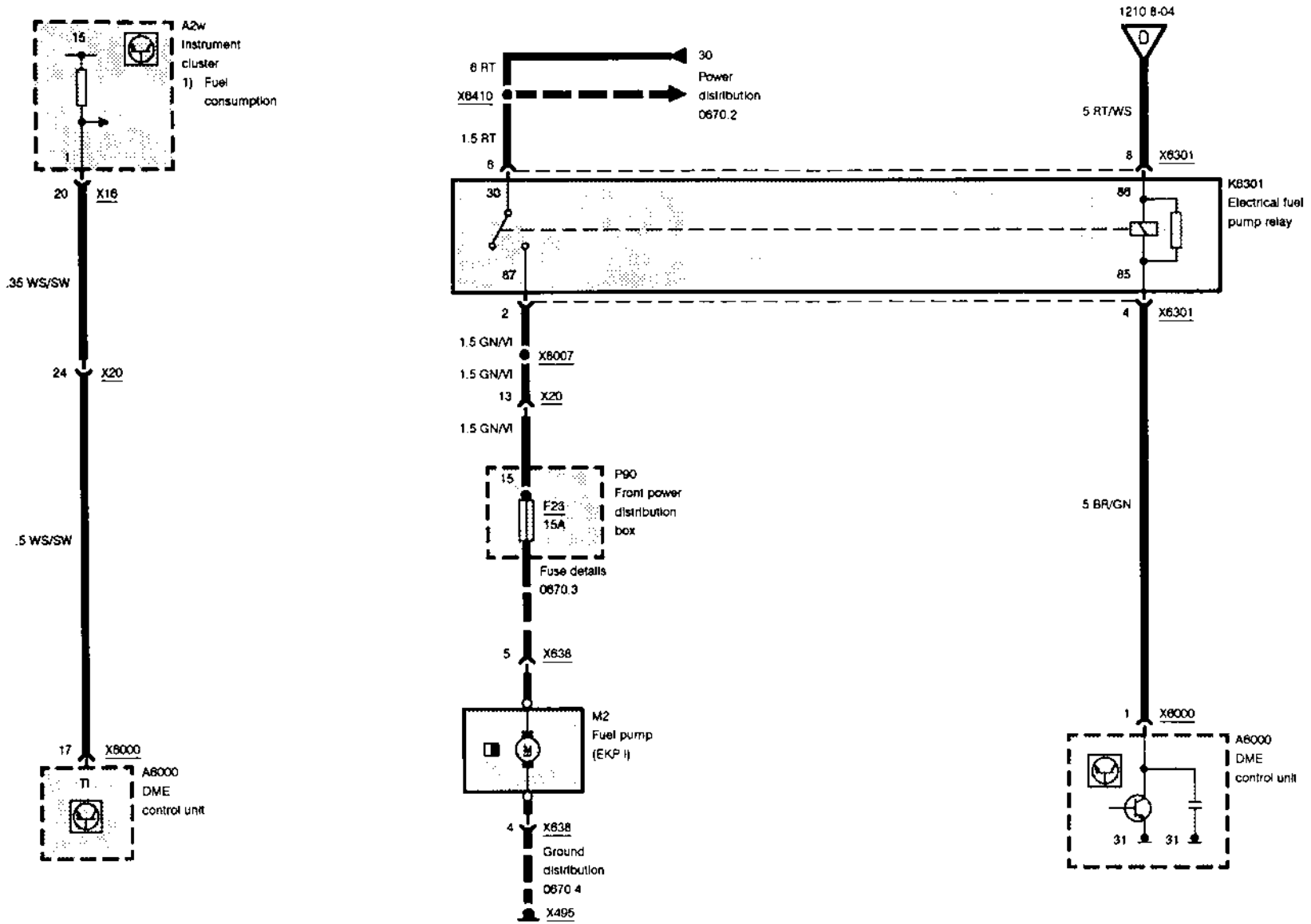
Digital motor electronics (DME M1.7, 4-cylinder M40)



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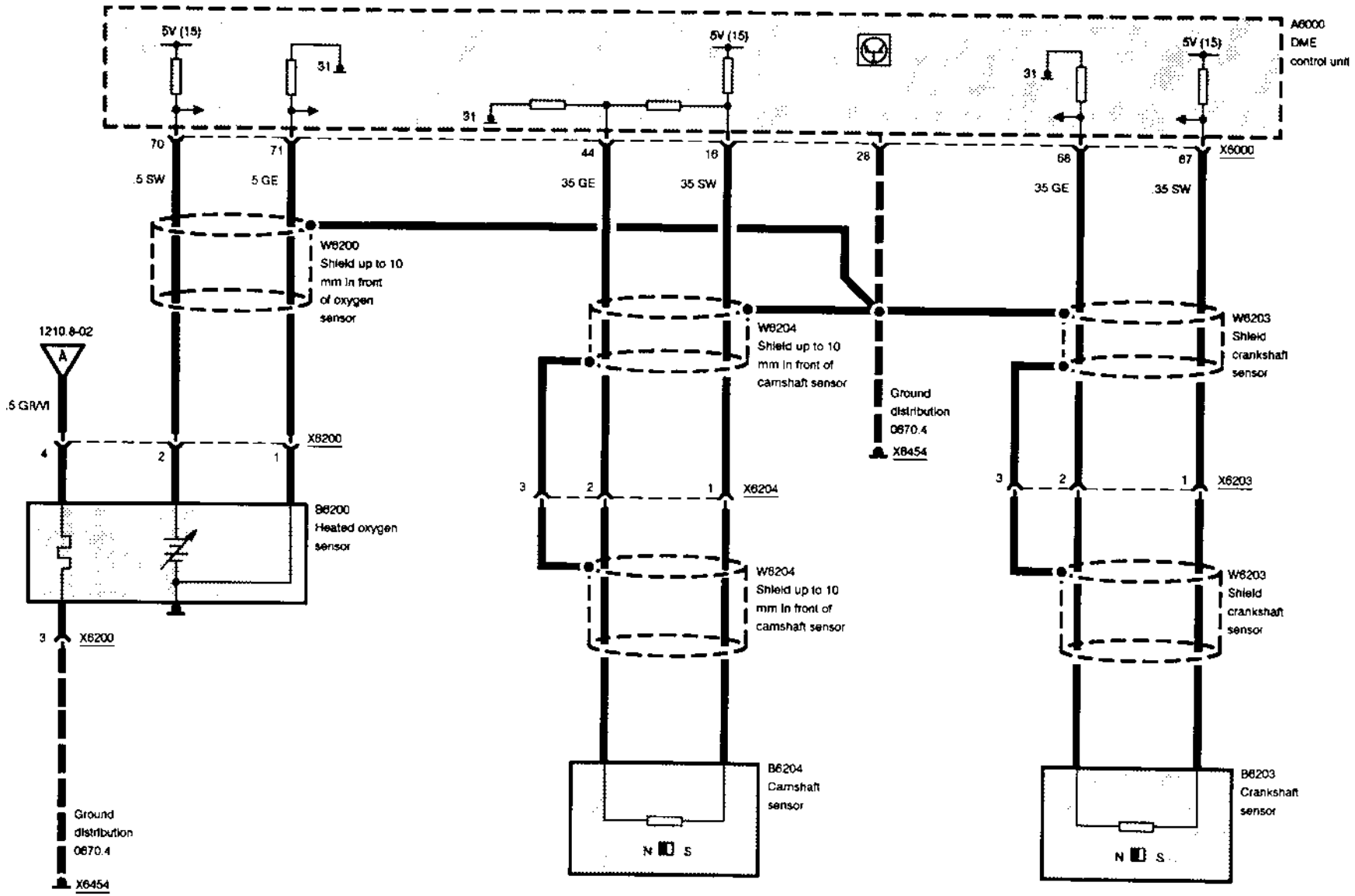
Digital motor electronics (DME M1.7, 4-cylinder M40)



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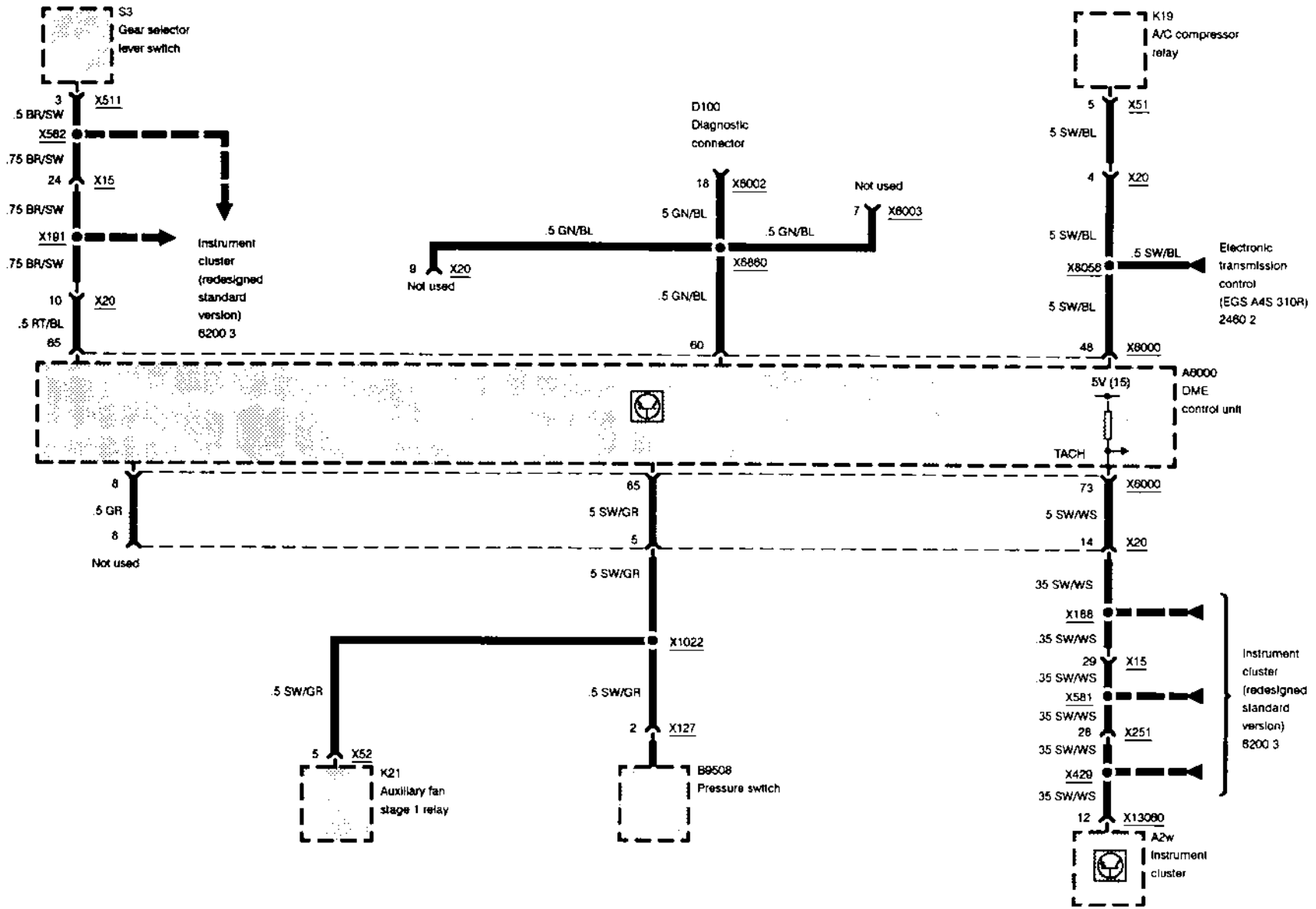
Digital motor electronics (DME M1.7, 4-cylinder M40)



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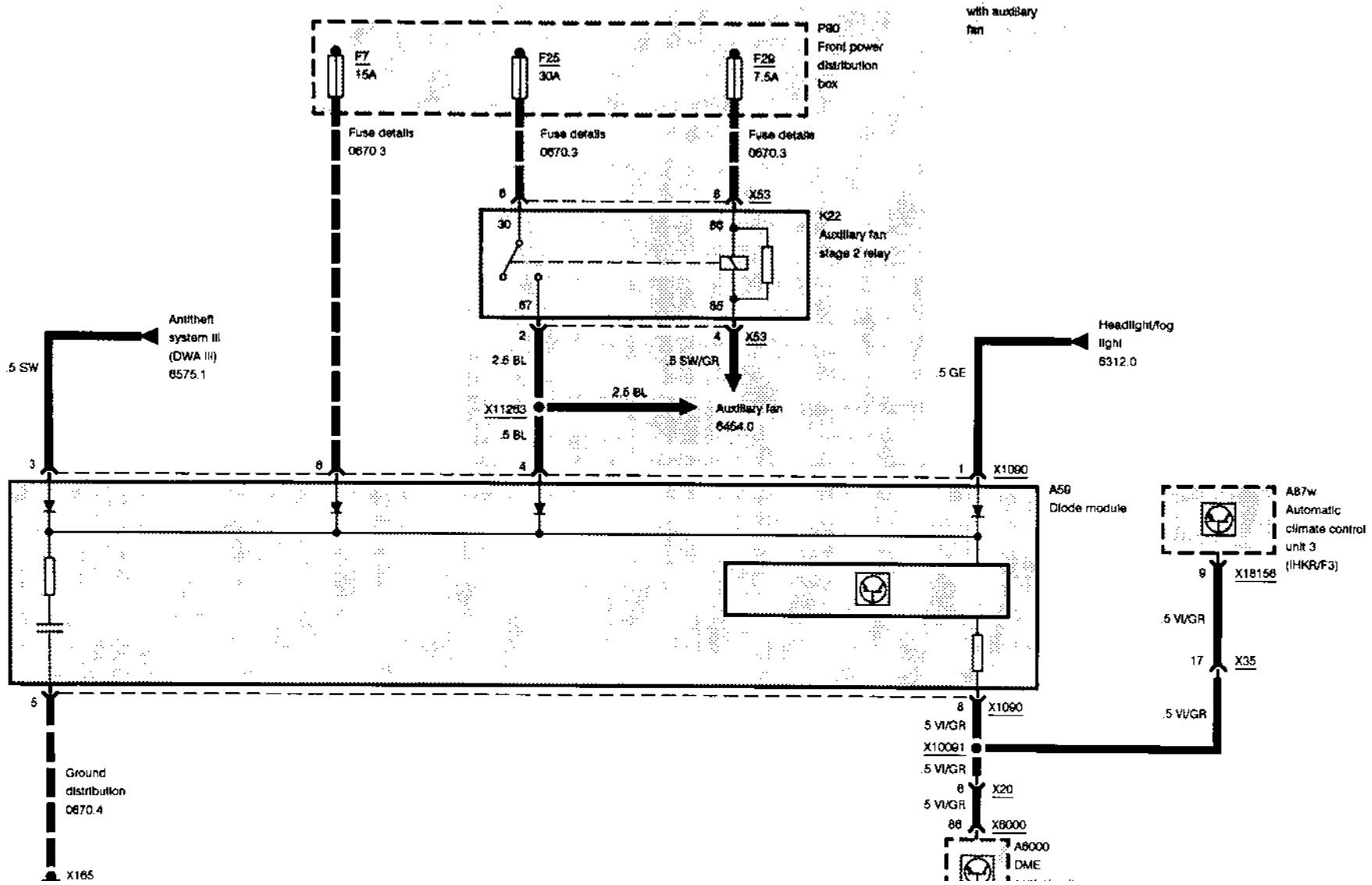
http://www.hartmade-central.org/~bmw34/schemes/1210.8/index.html (9 sur 11)28/07/2003 14:41:00

Digital motor electronics (DME M1.7, 4-cylinder M40)

Diode module



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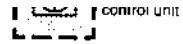

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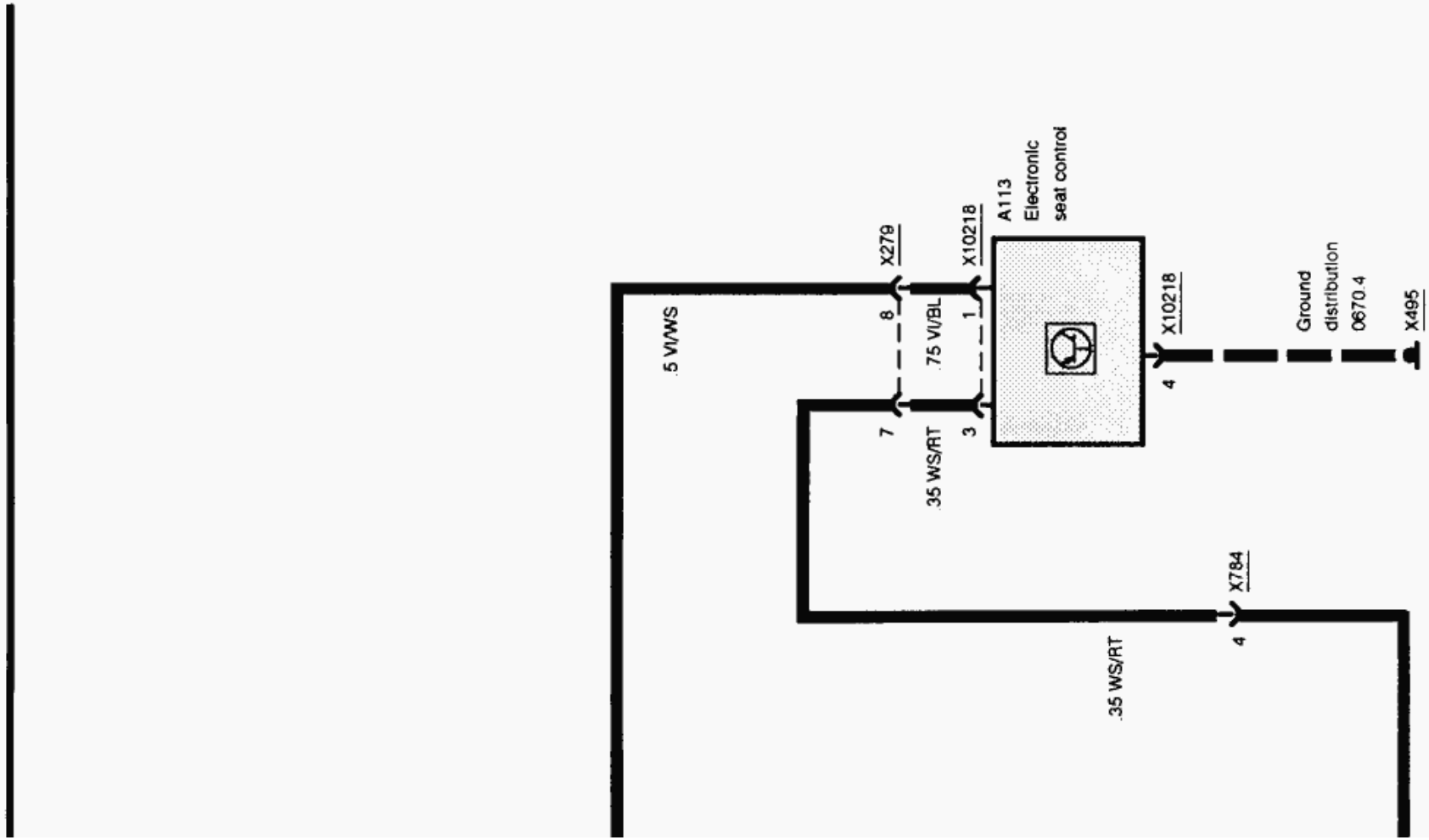
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Airbag (AB)

Scheme 3234.0

09/93 — 3234.0-00 — 1994



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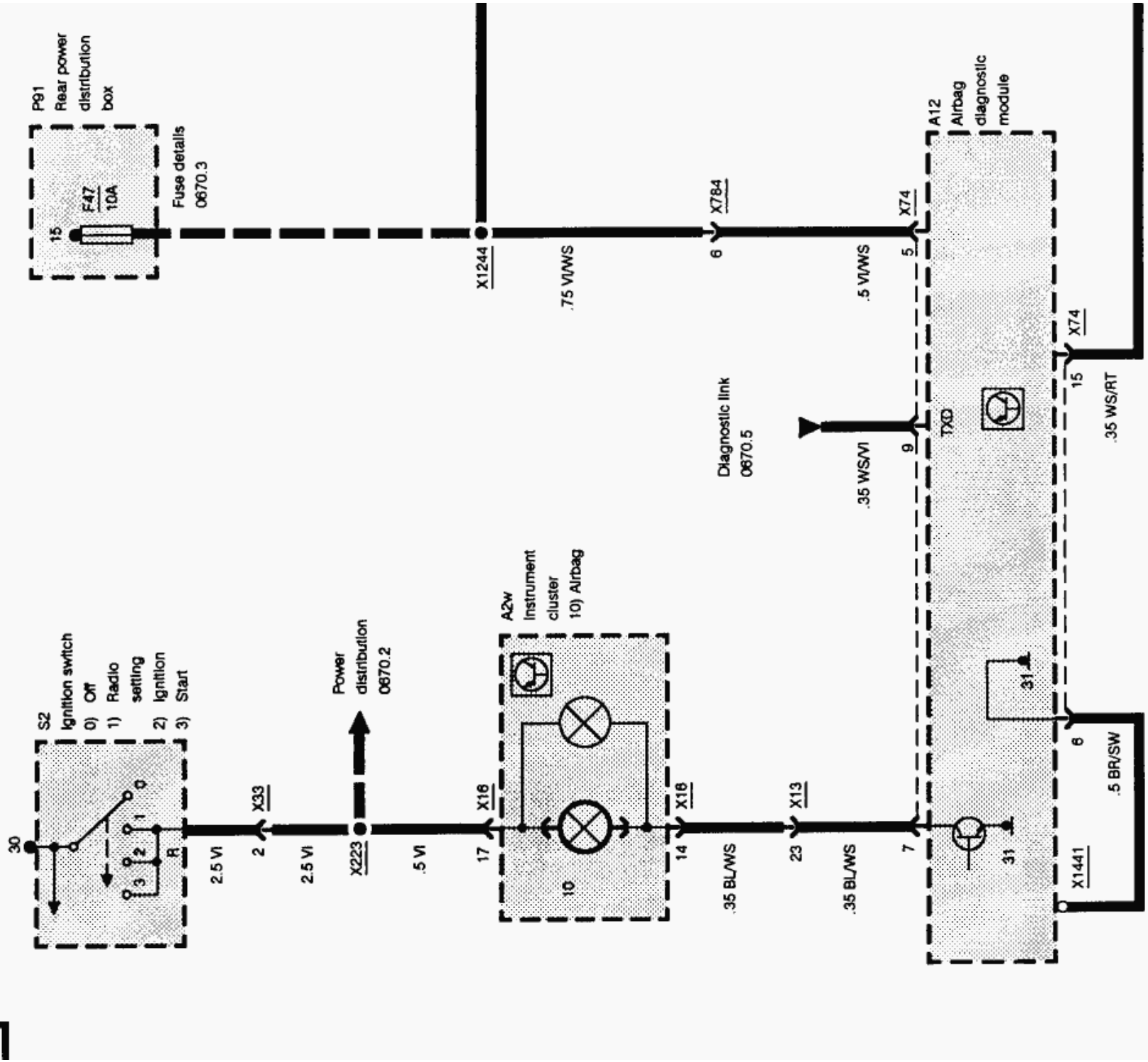
Airbag (AB)



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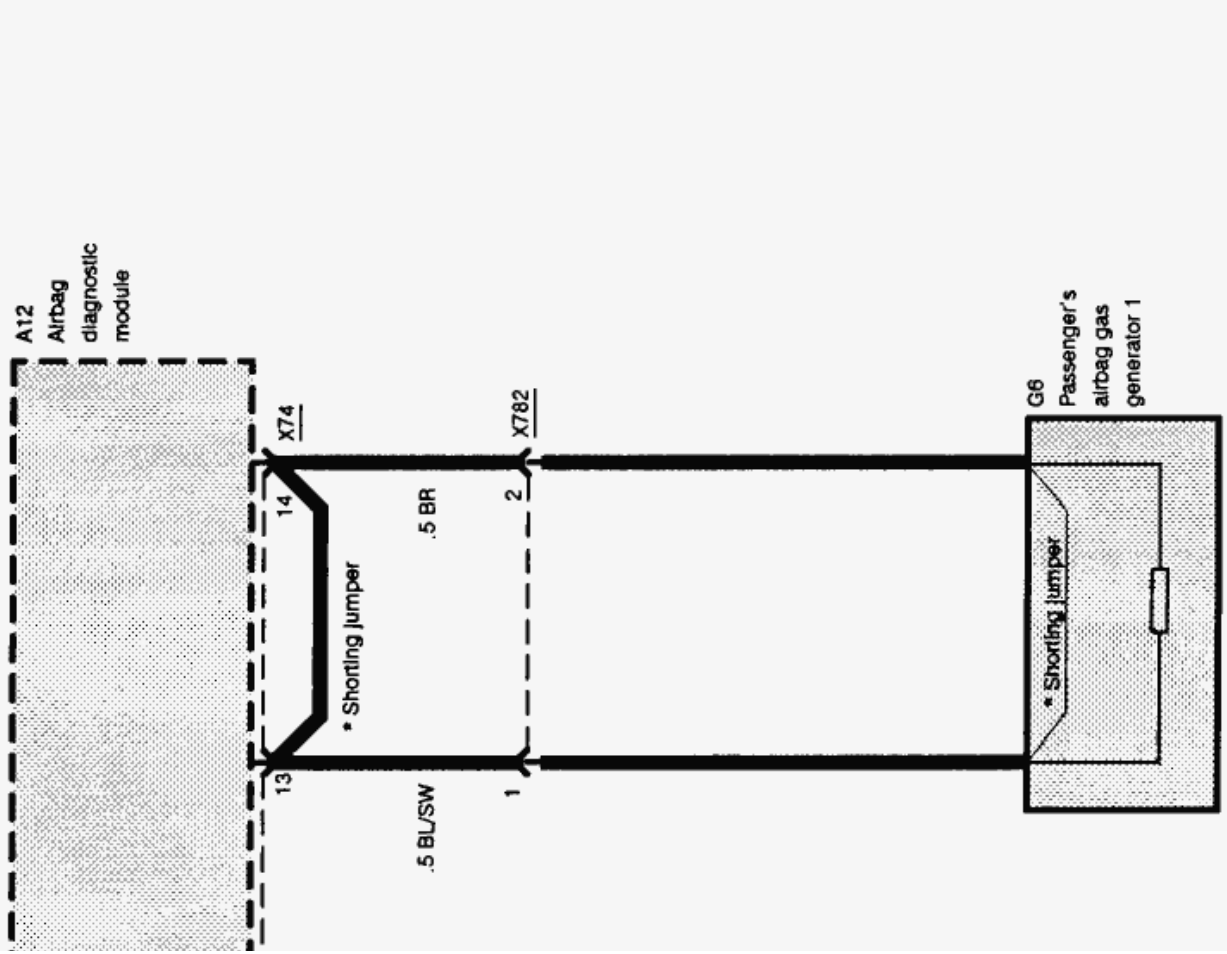

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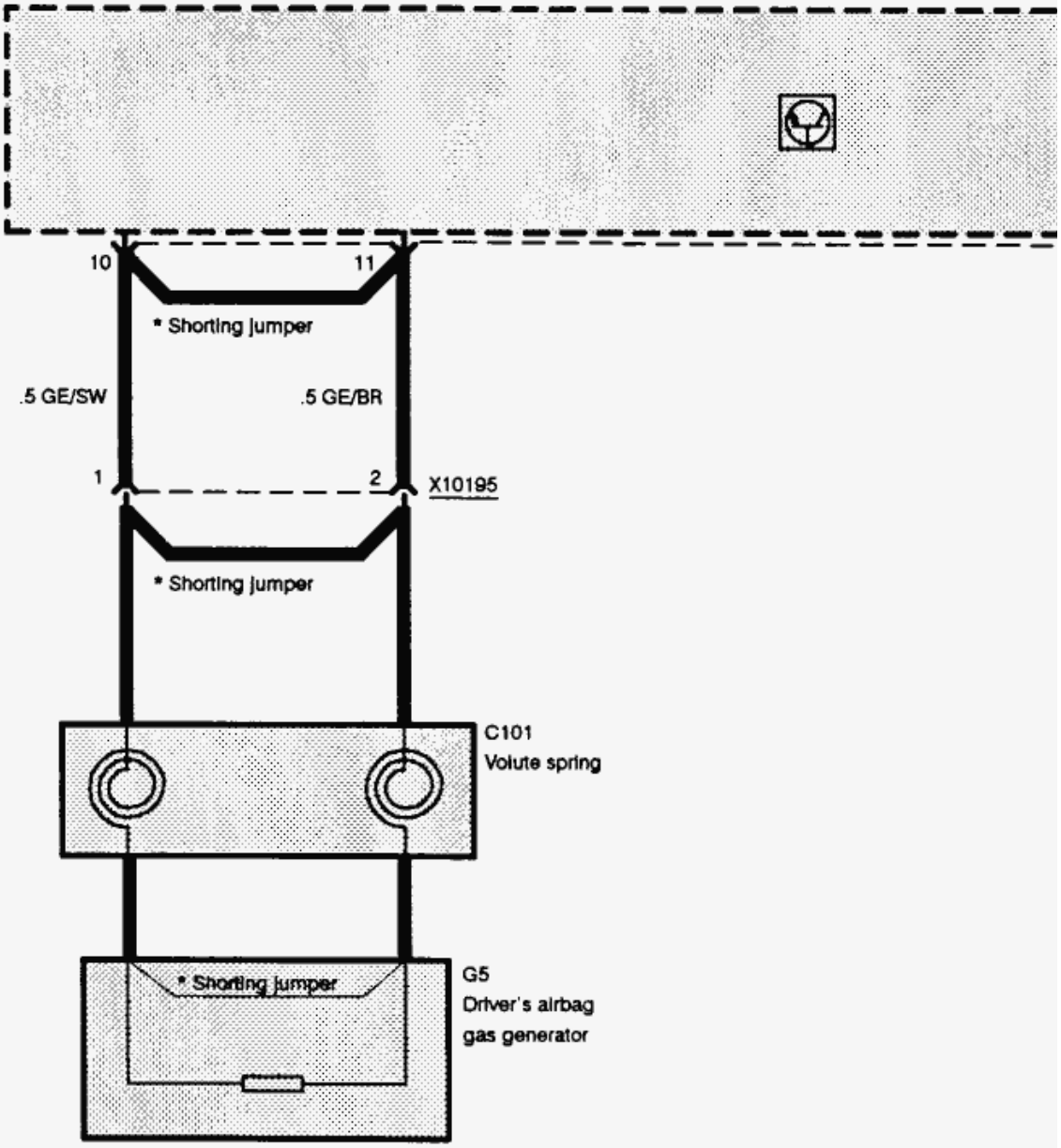
Airbag (AB)



The gas generators on the driver's and passenger' air-bags are protected by shortin jumpers

The jumpers connect the gas generator and the trigger, they prevent unintentional triggering when working on the airbag system

In accordance with the Workshop Manual, only special tools 61 1260 and 62 1280 should be used to check the power circuit and the trigger resistance

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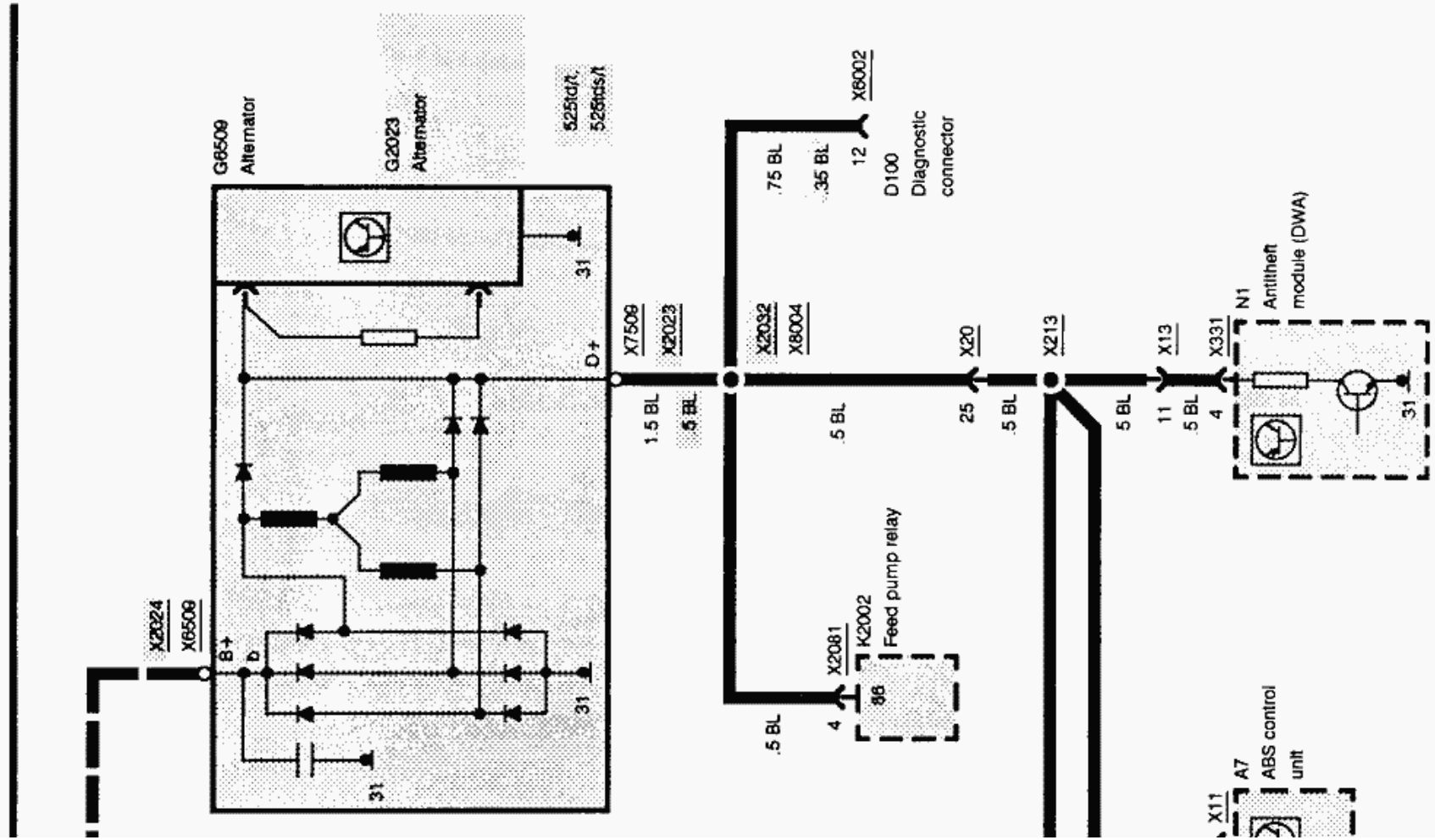
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Alternator

Scheme 1230.0

09/93 — 1230.0-00 — 1994



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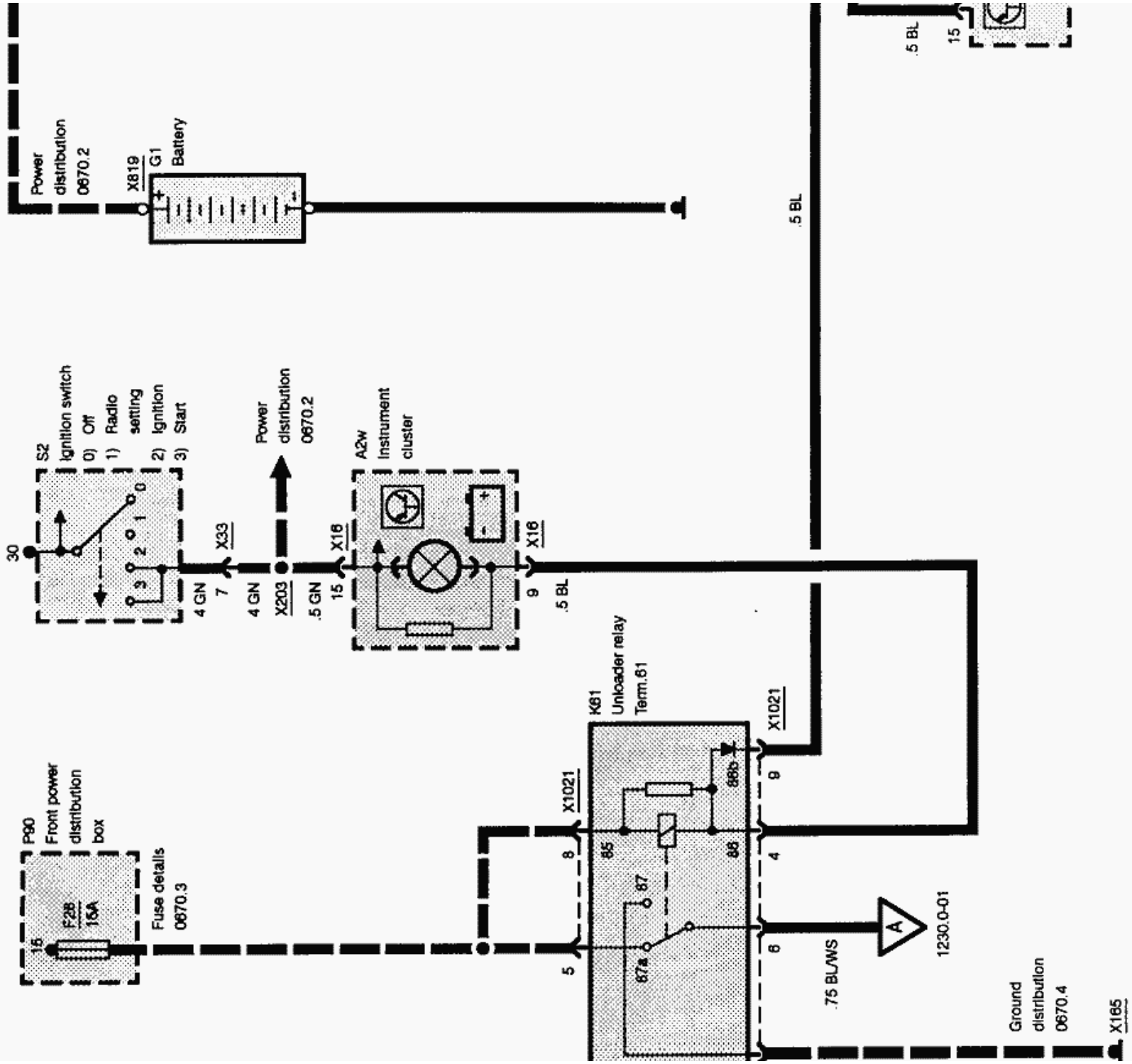
Alternator



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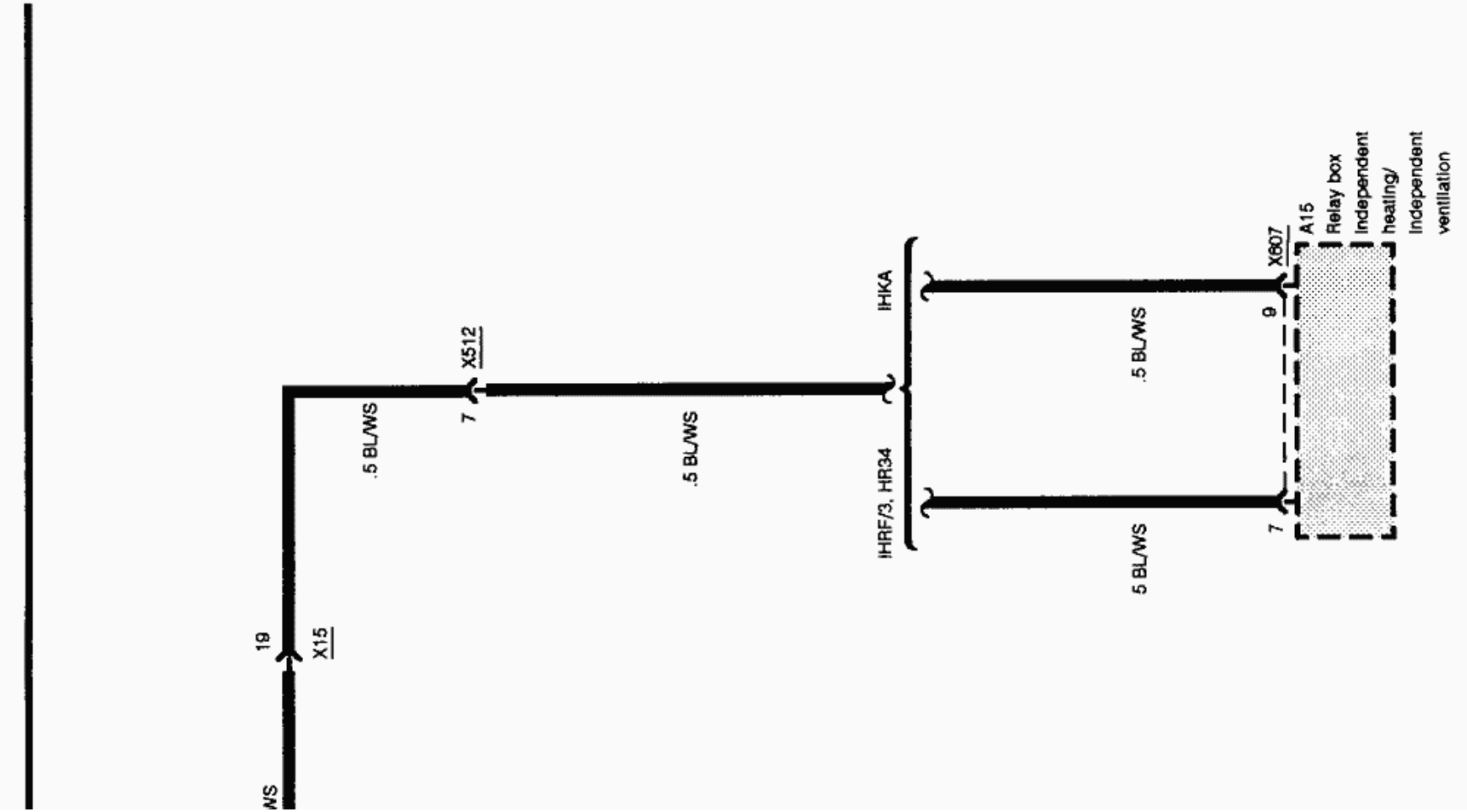

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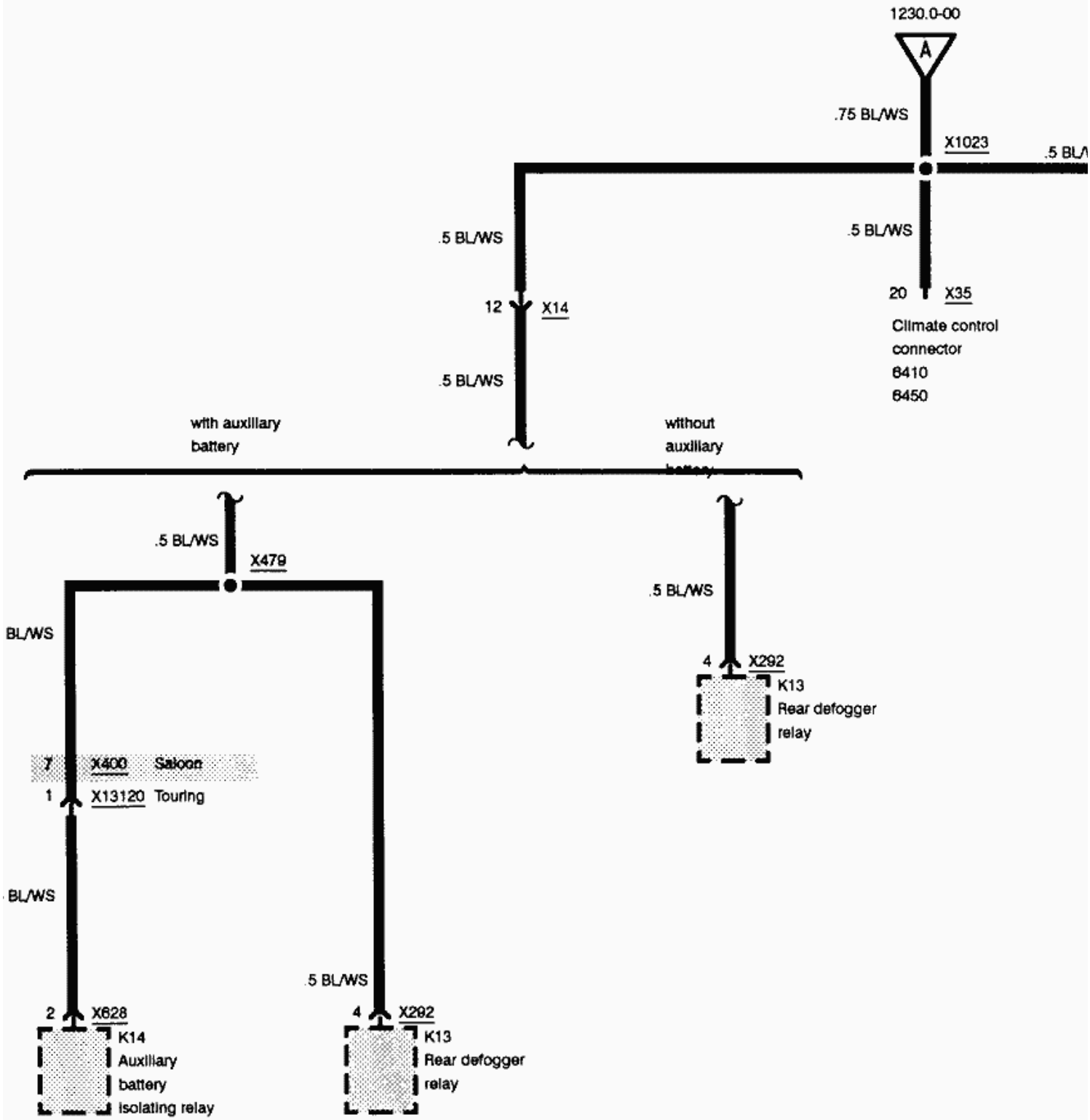
Alternator



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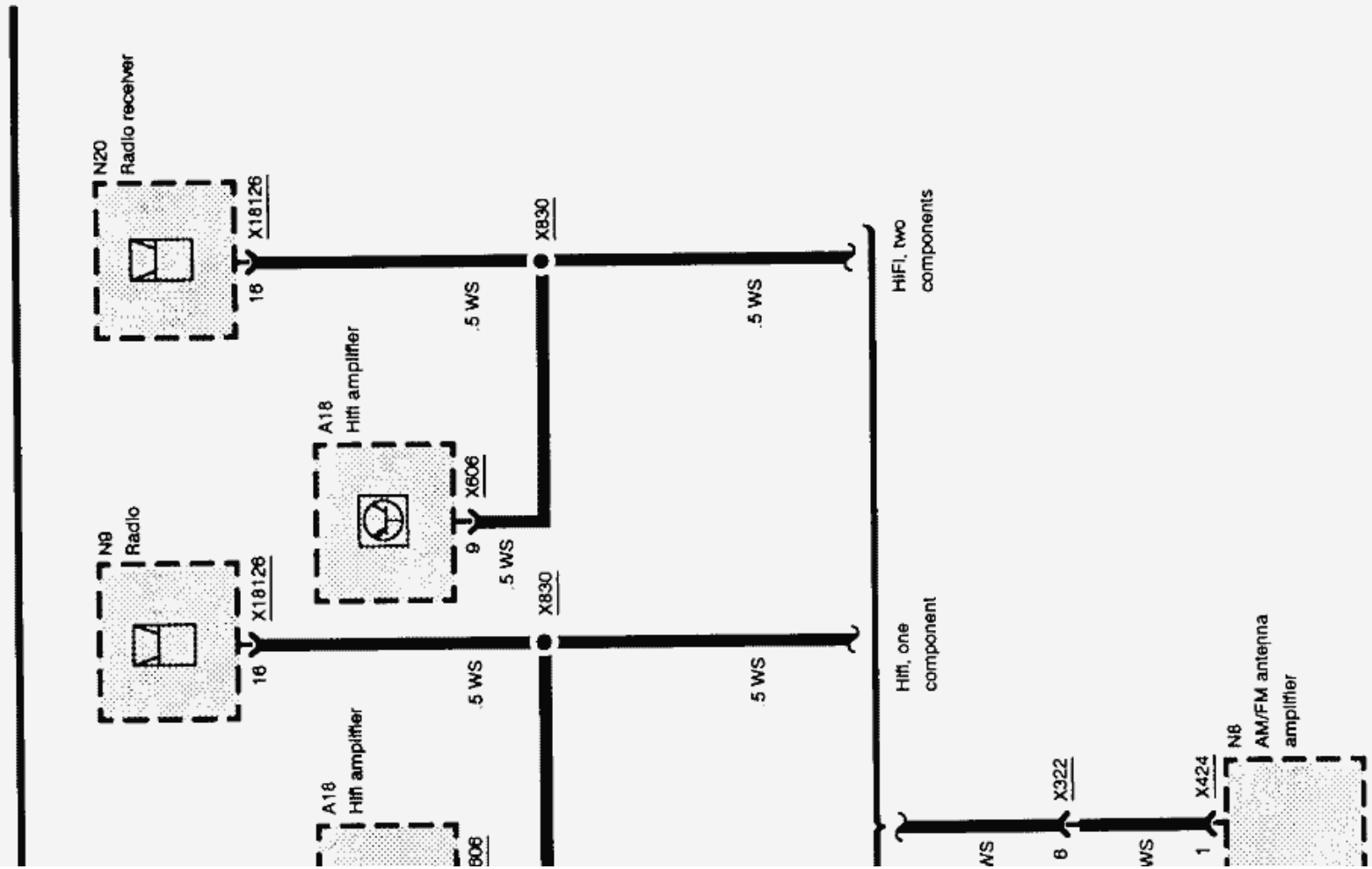
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Rear window defogger/antenna

Scheme 6424.0

09/93 — 6424.0-00 — 1994



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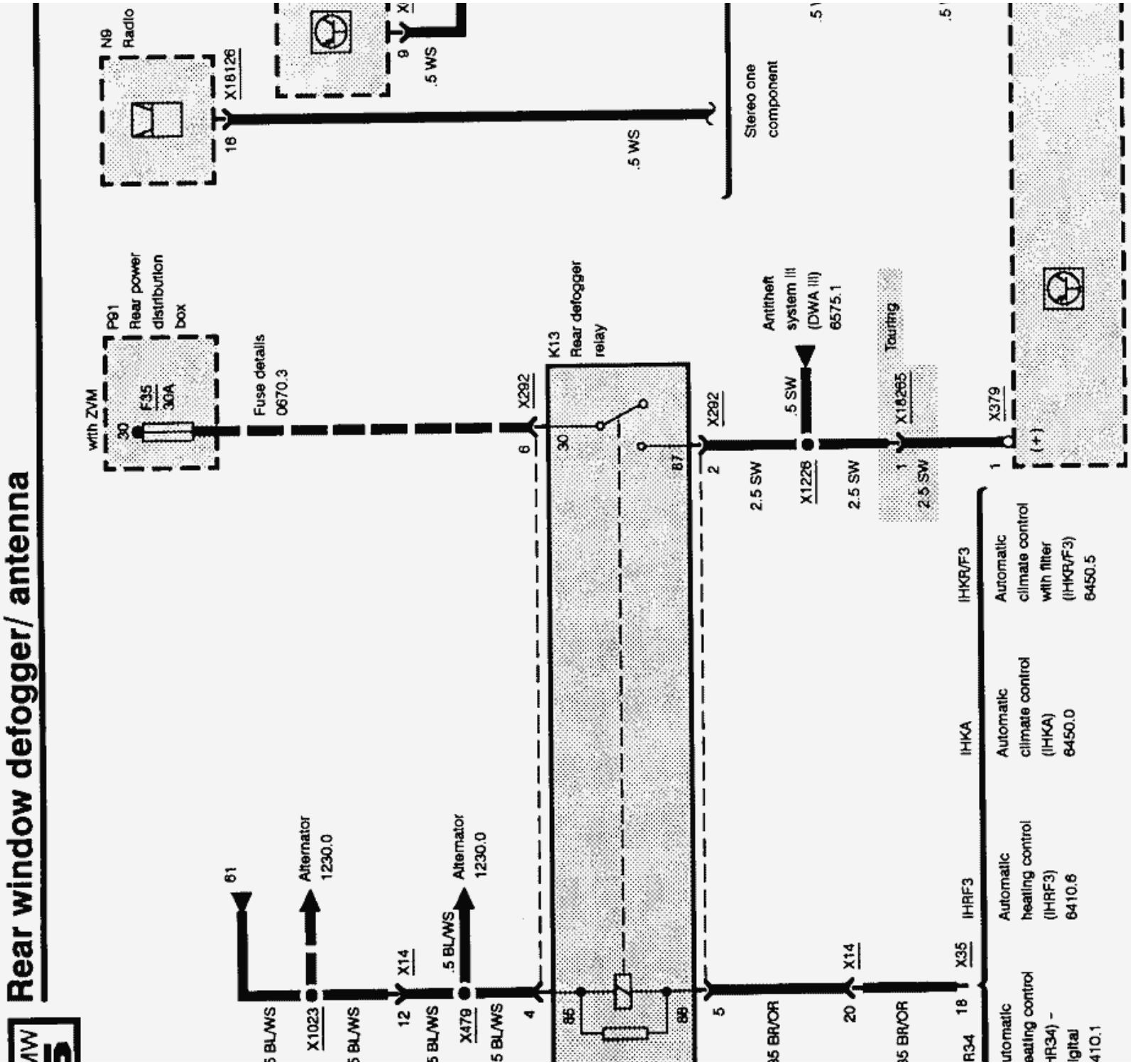
Rear window defogger/ antenna



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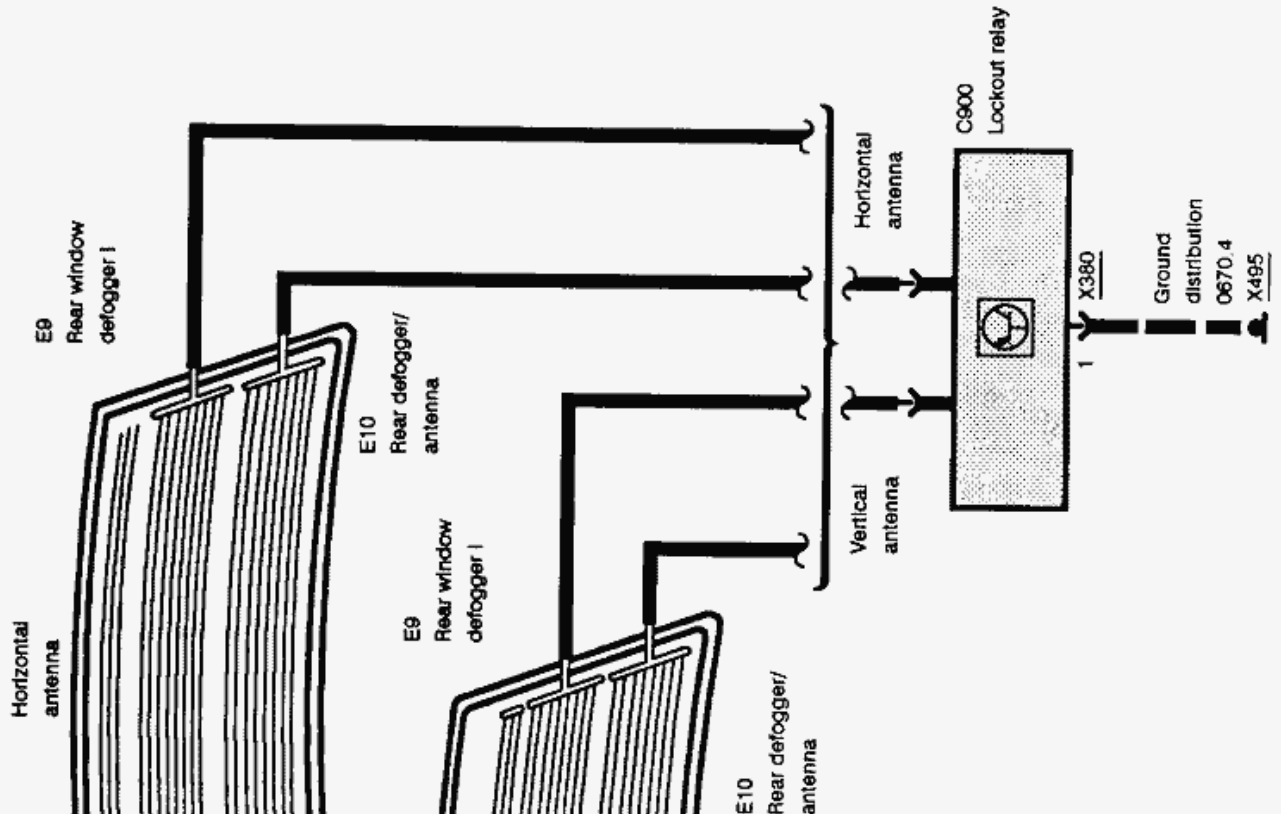

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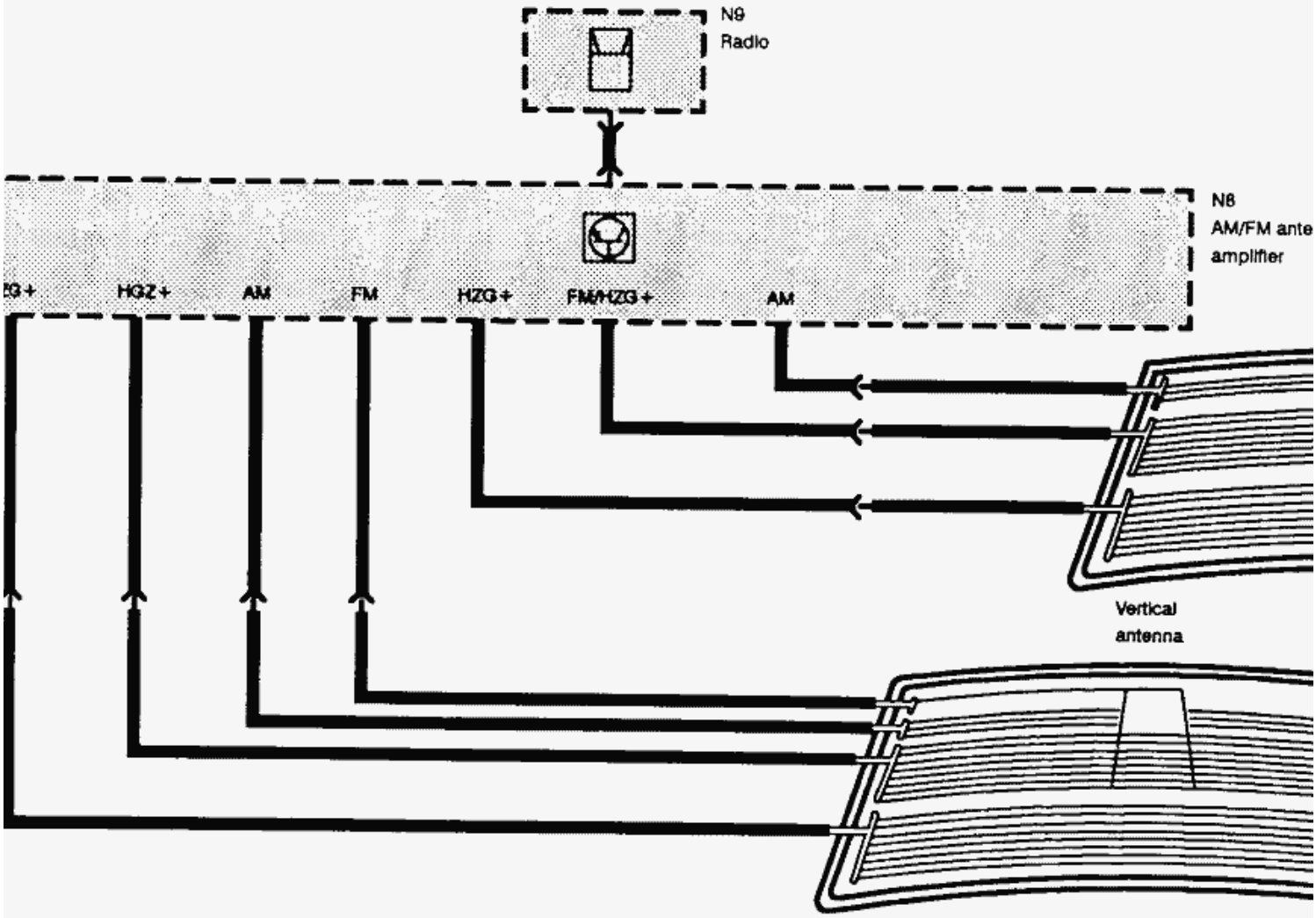
Rear window defogger/ antenna

Rear window antenna



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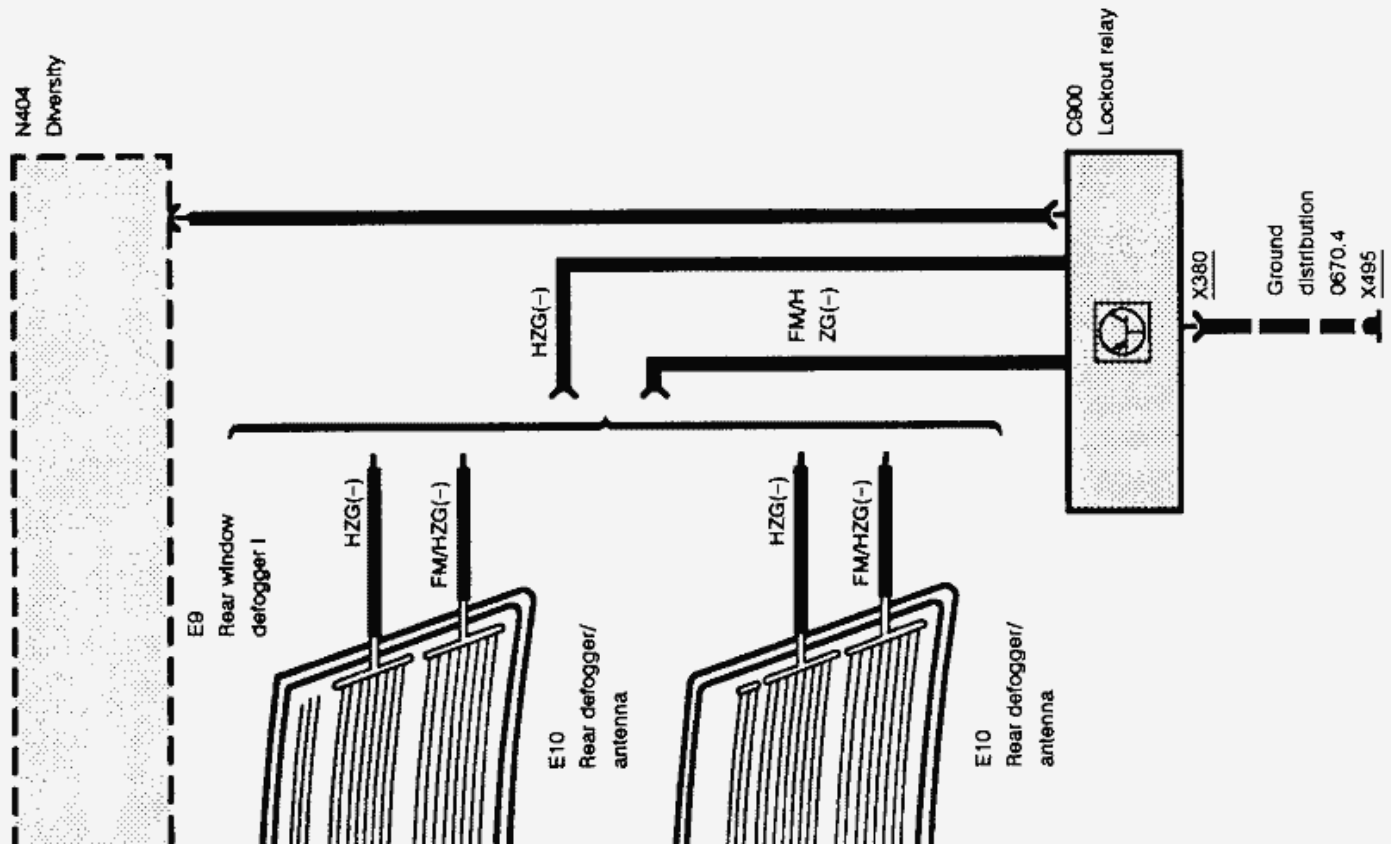

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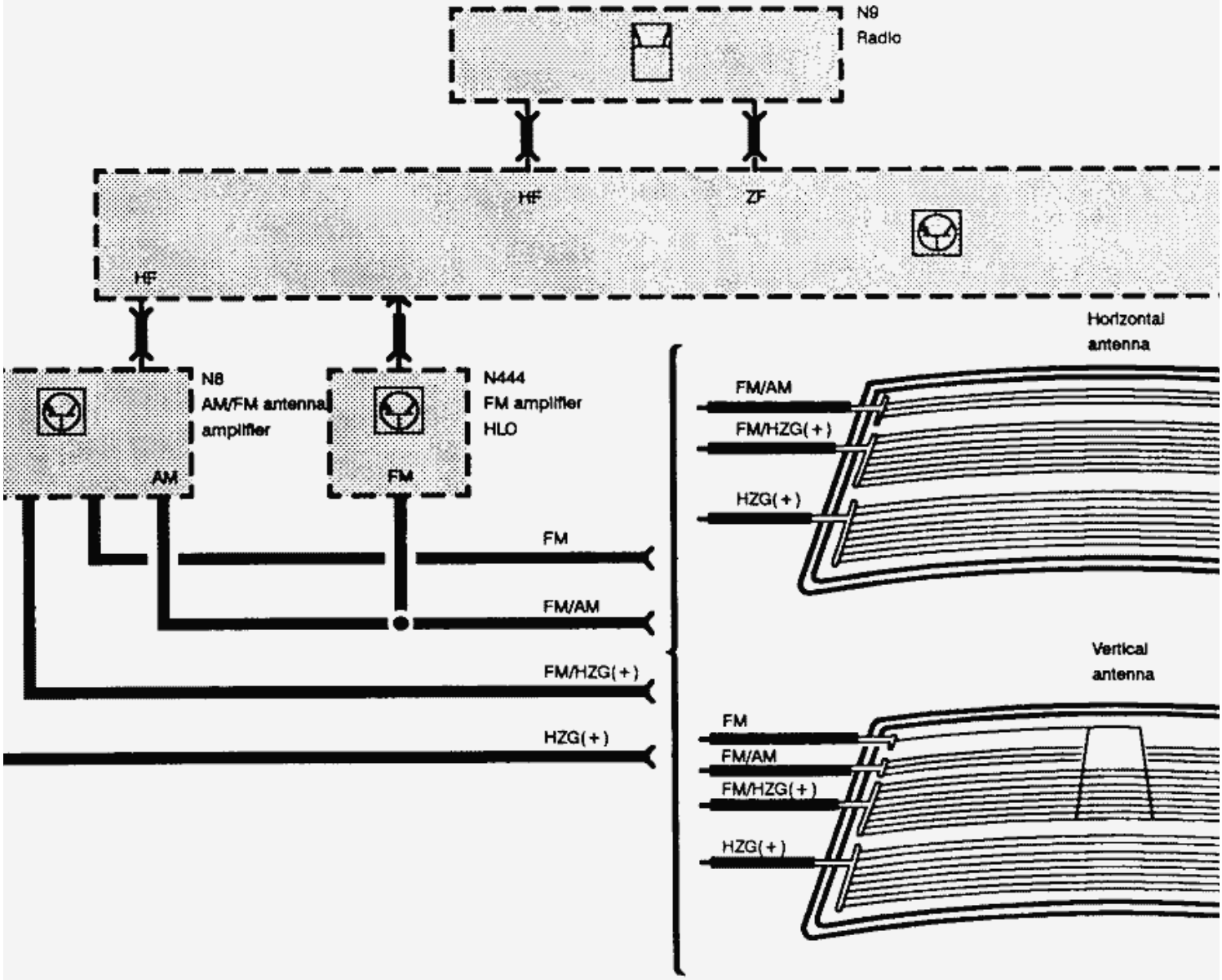
Rear window defogger/ antenna

3-Antenna diversity



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Antitheft system III (DWA III)
Scheme 6575.1

Pin Assignment

A=X252	26-pin, black
B=X331	10-pin, black
C=X335	4-pin, black
D=X1221	26-pin, white

Pin Assignment X252

Pin	Type	Description/Function	Connection
1	A	RxD diagnosis line	Diagnostic connector
2	E/A	TxD diagnosis line	Diagnostic connector
3	E	Rear seat/battery monitoring	Rear seat/battery microswitch
4	E	Touring: Rear lid lock	Rear lid lock switch
5	E	Rear lid	Rear lid light switch
6	A	"Visual alarm"	Crash alarm generator
7	E	QZV	General module
8	A	Status LED	LED
9	E	ZV drive, rear lid	ZV motor drive switch
10	E	ZV drive, driver's door	ZV motor drive switch
11		not used	
12	E	ZV drive, passenger's door	ZV motor drive switch
13	E	Lock signal, IRS	IR control unit
14	E	Touring, rear lid lock	Rear lid lock switch
15	E	ZV drive, rear lid	ZV motor drive switch
16	E	Front passenger's door	Passenger's door contact
17	E	Connection terminal R	Wiper relay
18	E	Central double-locking	Door lock switch
19	E	Position pulse	Instrument cluster
20	E	Front lid/radio	Front lid/radio contact
21	E	Driver's door	Driver's door contact
22	E	Glove box	Glove box contact
23	E	Touring: DWA conductor loop	Rear right side window
24	E	Door contacts, rear	Door contacts
25		not used	
26	E	Touring, rear lid	Rear lid contact

E = Input, A = Output, M = Ground

Pin Assignment X331

Pin	Type	Description/Function	Connection
1	A	Immobilizing device	DME control unit/DDE control unit
2	M	Ground	Ground connection
3	E	Signal, ignition ON	Terminal 15
4	E	Terminal 61	Charge indicator
5		not used	
6		not used	
7	E	Touring DWA conductor loop	Rear right side window
8	E	Windows, rear right	Rear right window contact
9	E	Front passenger's door window	Passenger's window contact
10	E	Rear window	Aerial amplifier

E = Input, A = Output, M = Ground

Pin Assignment X335

Pin	Type	Description/Function	Connection
1	A	Alarm (horn) connection	Antitheft horn
2	A	Terminal 30S	On-board computer, inclination monitor
3	E	On-board computer alarm	On-board computer
4	E	Terminal SOU	Battery

E = Input, A = Output, M = Ground

Pin Assignment X1221

Pin	Type	Description/Function	Connection
1		not used	
2		not used	
3		not used	
4		not used	
5		not used	

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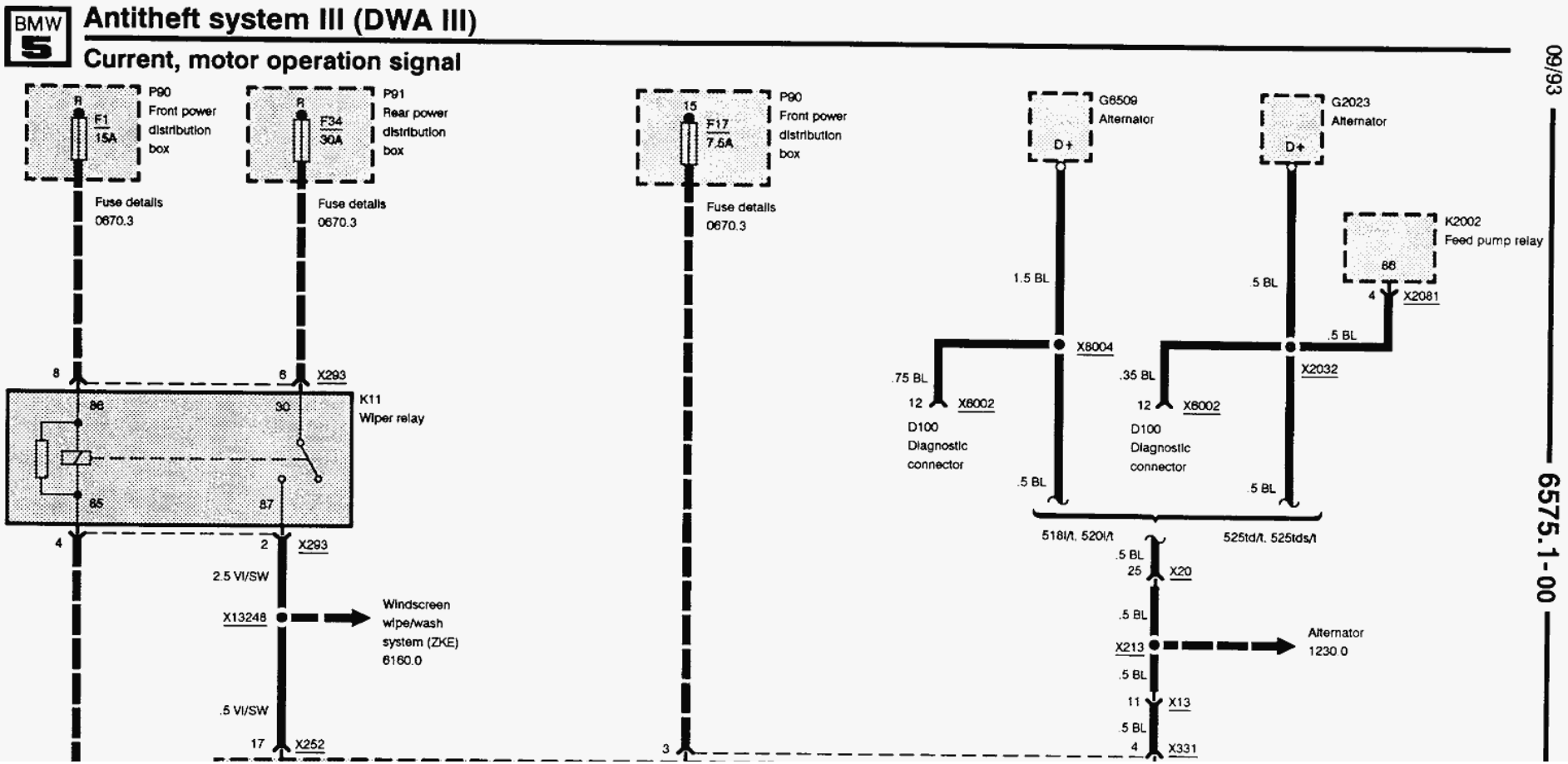
6		not used	
7		not used	
8	E	Inclination sensor	Inclination sensor
9	A	Control line inclination sensor	Inclination sensor
10		not used	
11	E	Windows, rear left	Rear left window contact
12	E	Driver's door window	Driver's window contact
13	E	Touring, DWA conductor loop	Front left side window
14		not used	
15		not used	
16		not used	
17		not used	
18		not used	
19		not used	
20		not used	
21		not used	
22		not used	
23		not used	
24	E	Windows, rear right	Rear right window contact
25	E	Front passenger's door window	Passenger's window contact
26	E	Rear window	Rear window defogger

E = Input, A = Output, M = Ground



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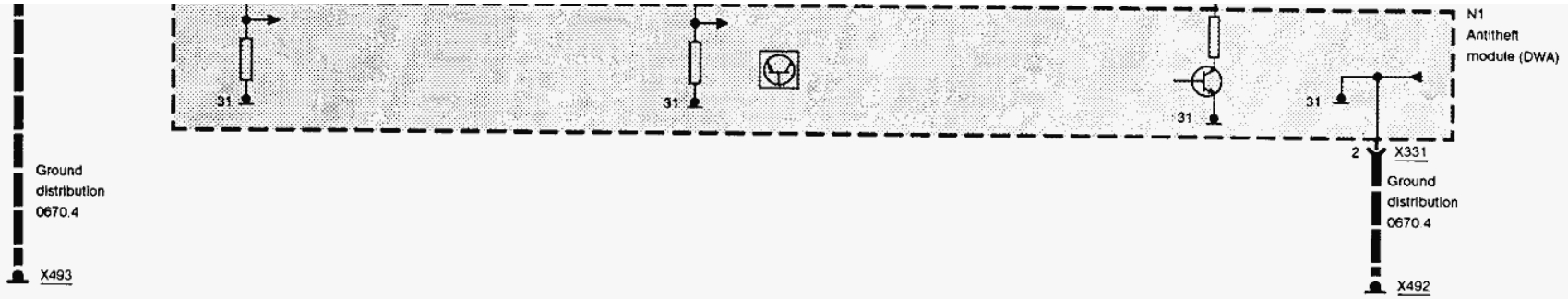

1994

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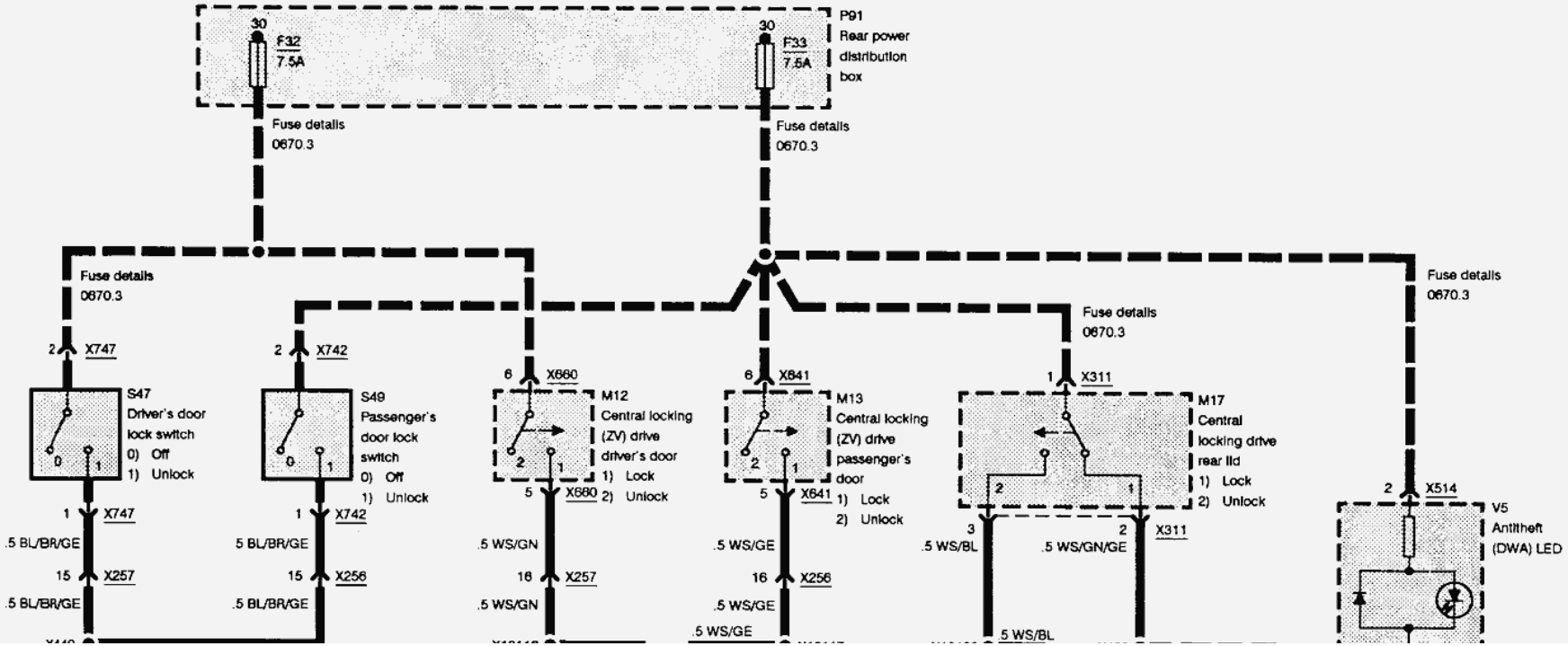
Antitheft system III (DWA III)

Input signal driver's and passenger's door, rear lid and indicator lamp



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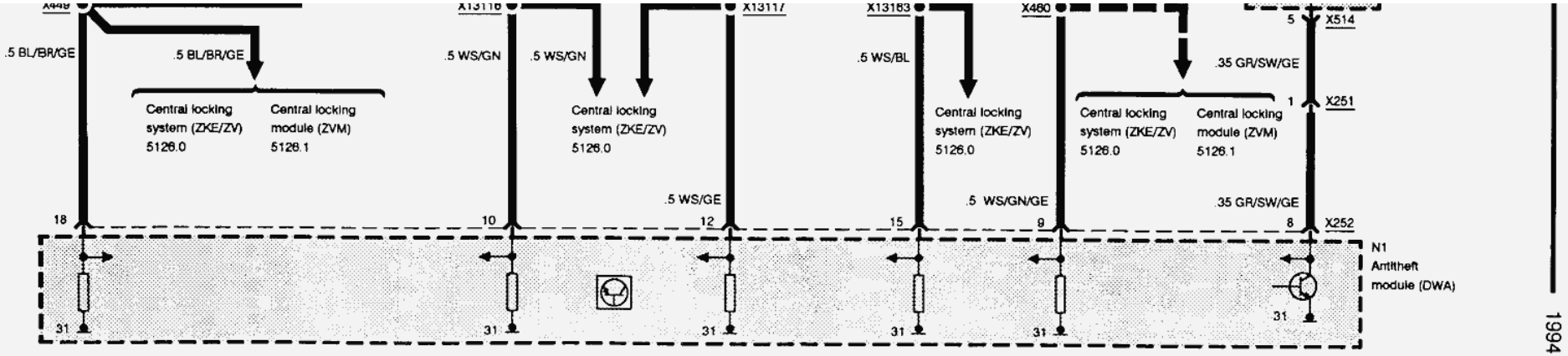
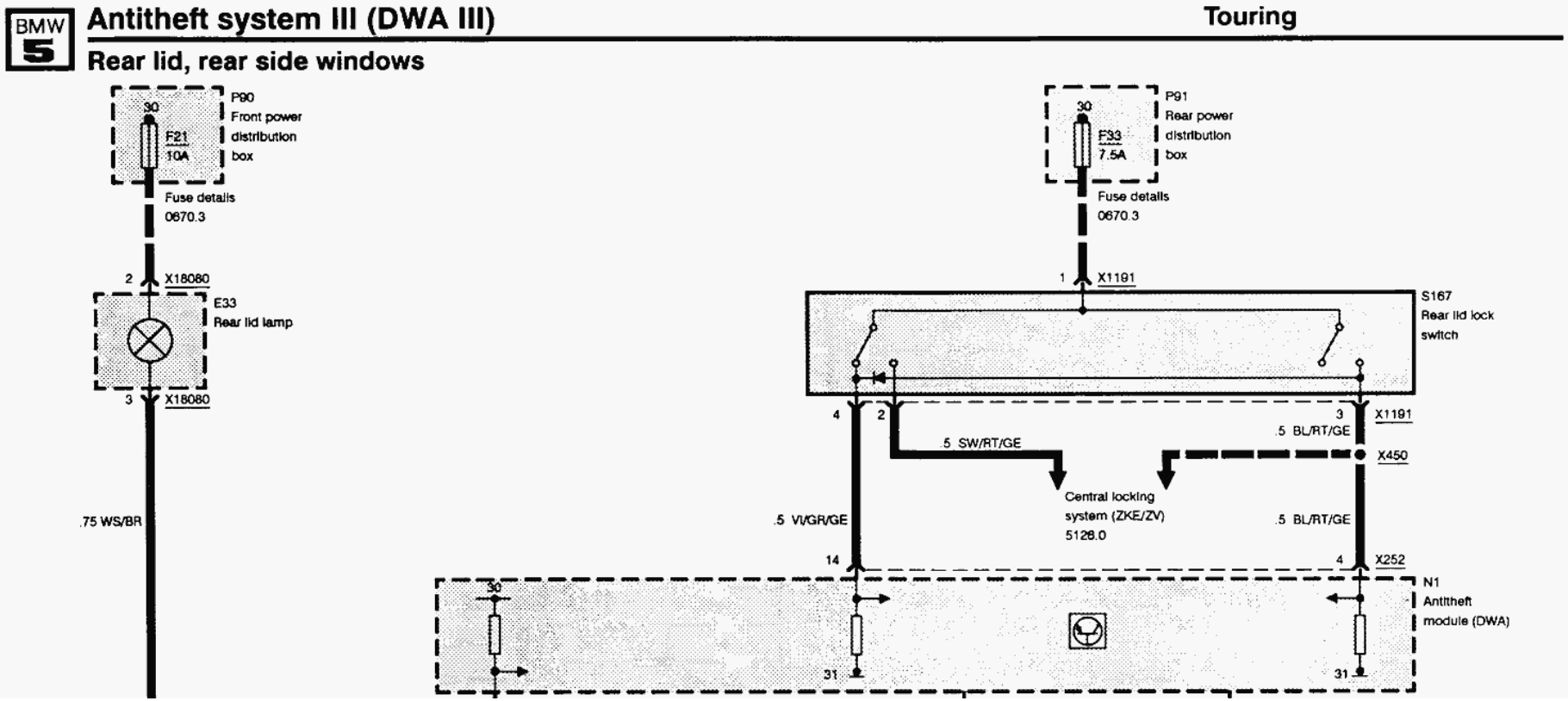


1994



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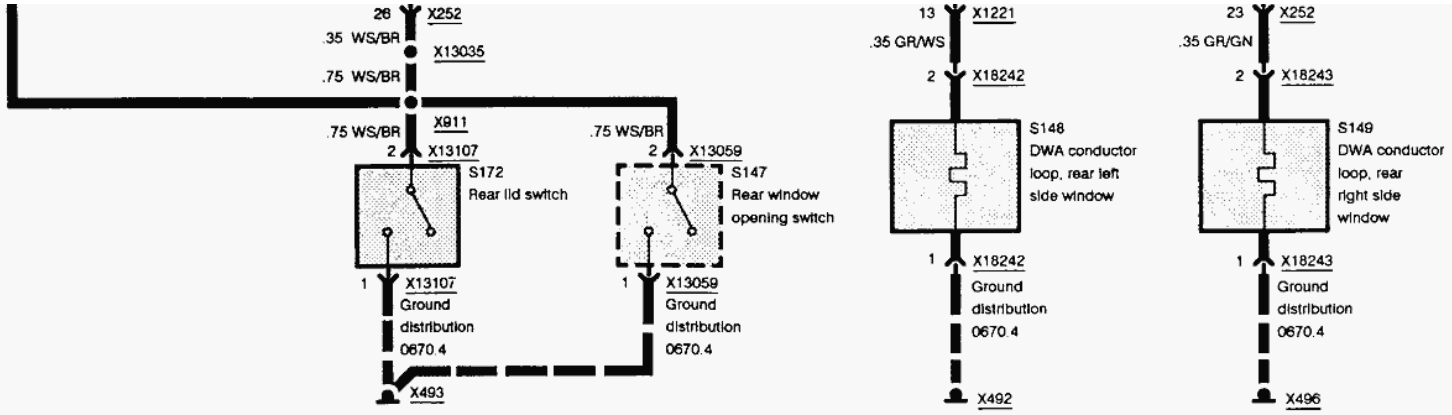

1994

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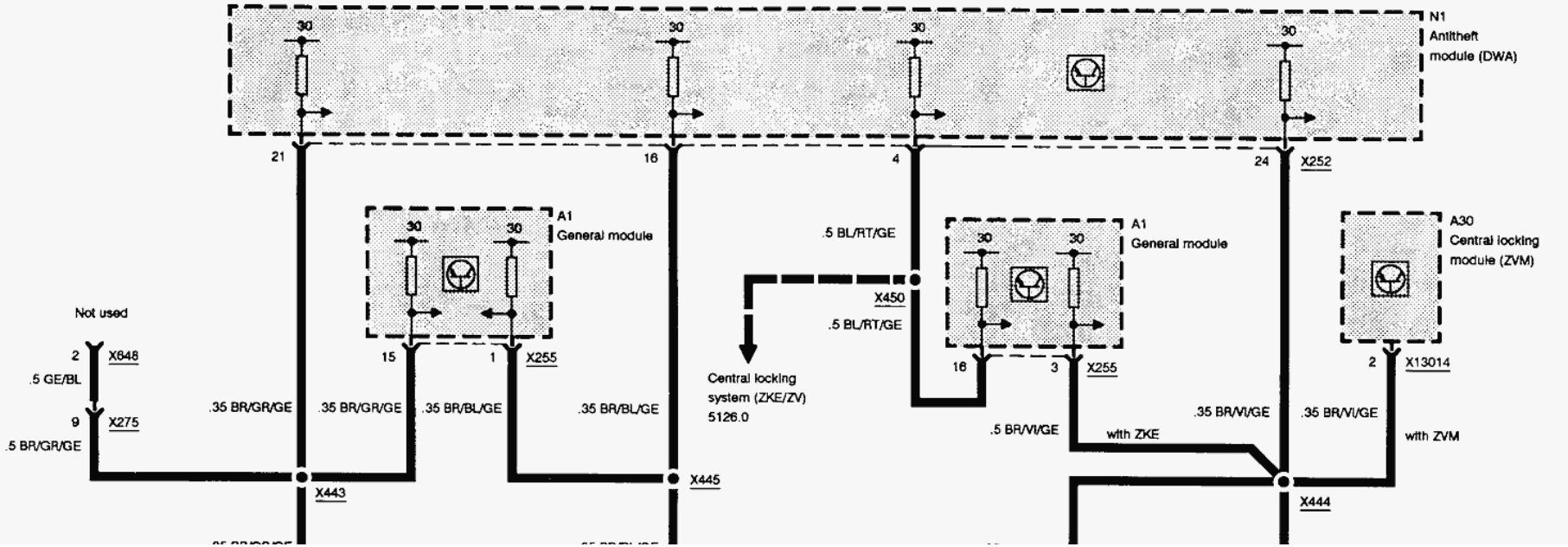
Antitheft system III (DWA III)

Front and rear door contacts, rear lid



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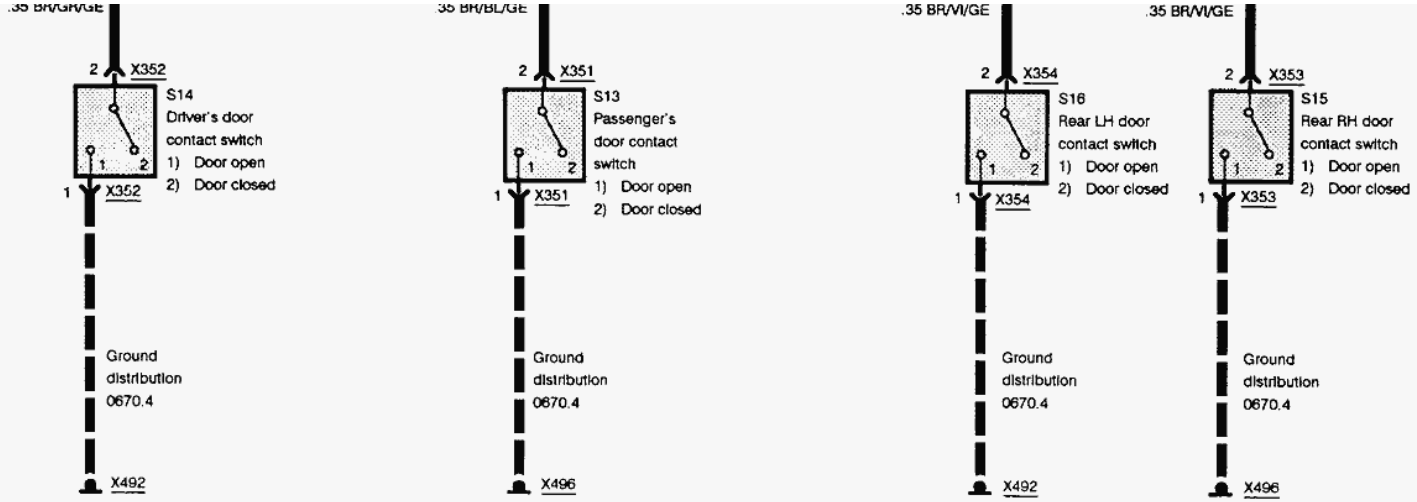

1994

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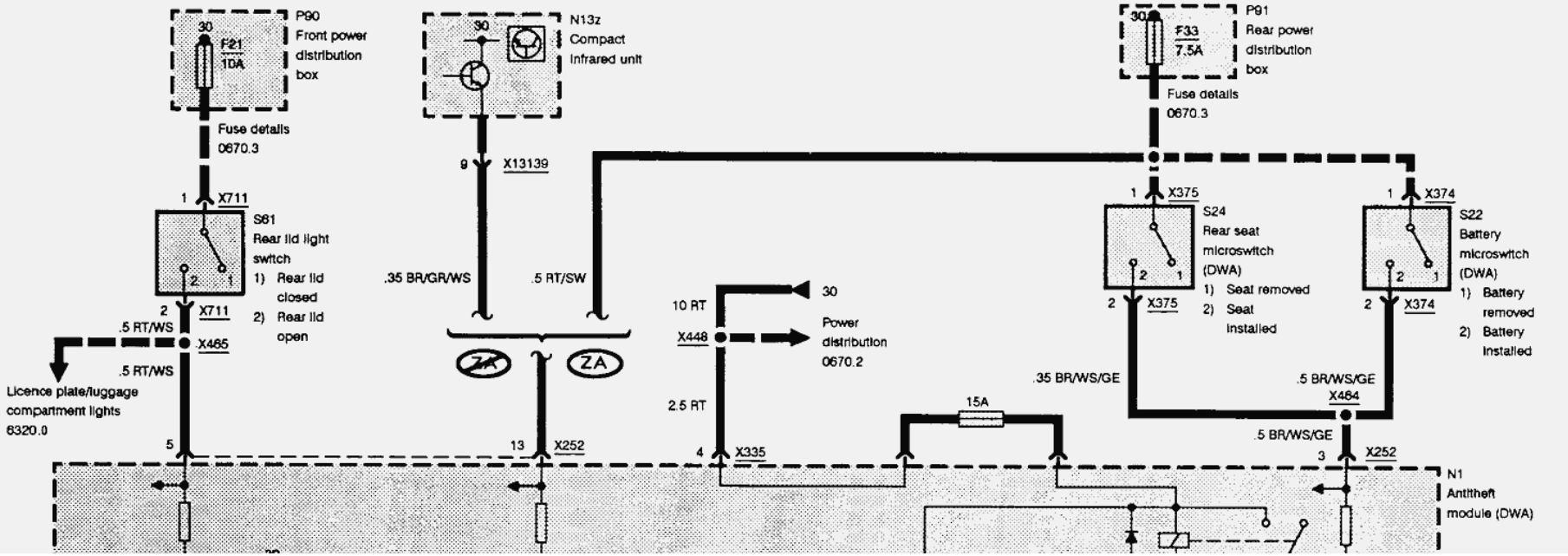
Antitheft system III (DWA III)

Rear lid, antitheft horn (DWA), battery, rear seat, rear window monitor



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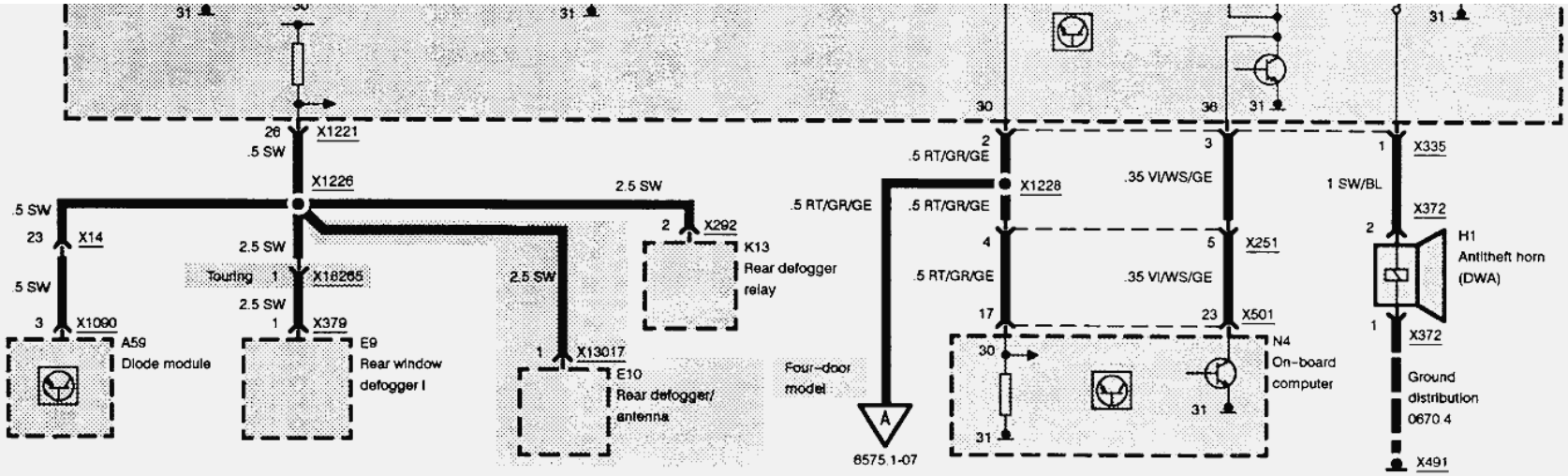
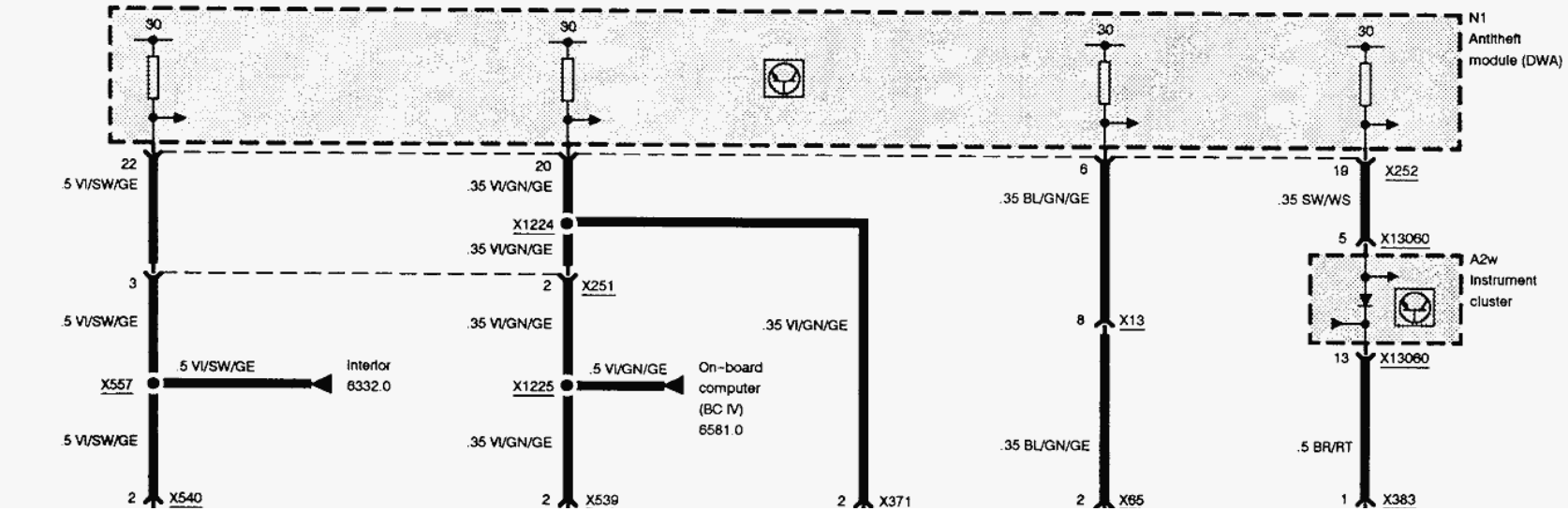


1994

BMW 5 Antitheft system III (DWA III)

Glove box, radio, front lid, visual alarm, position pulse



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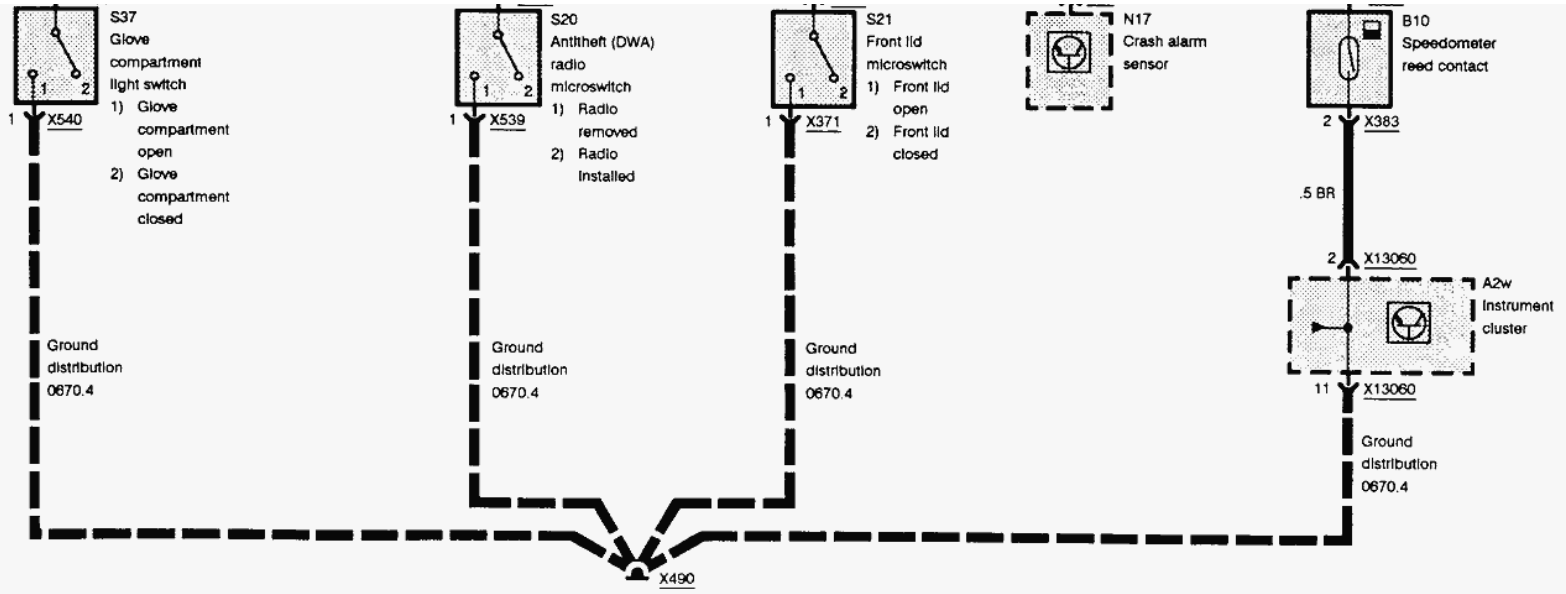

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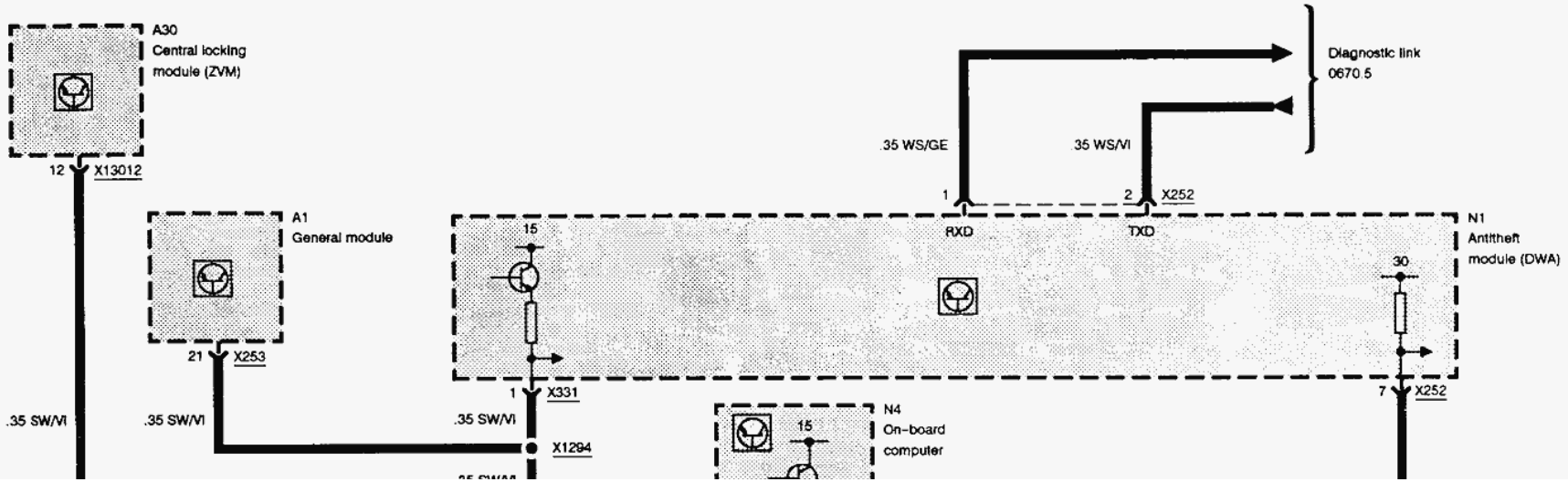
Antitheft system III (DWA III)

Diagnostic link, drive-away protection



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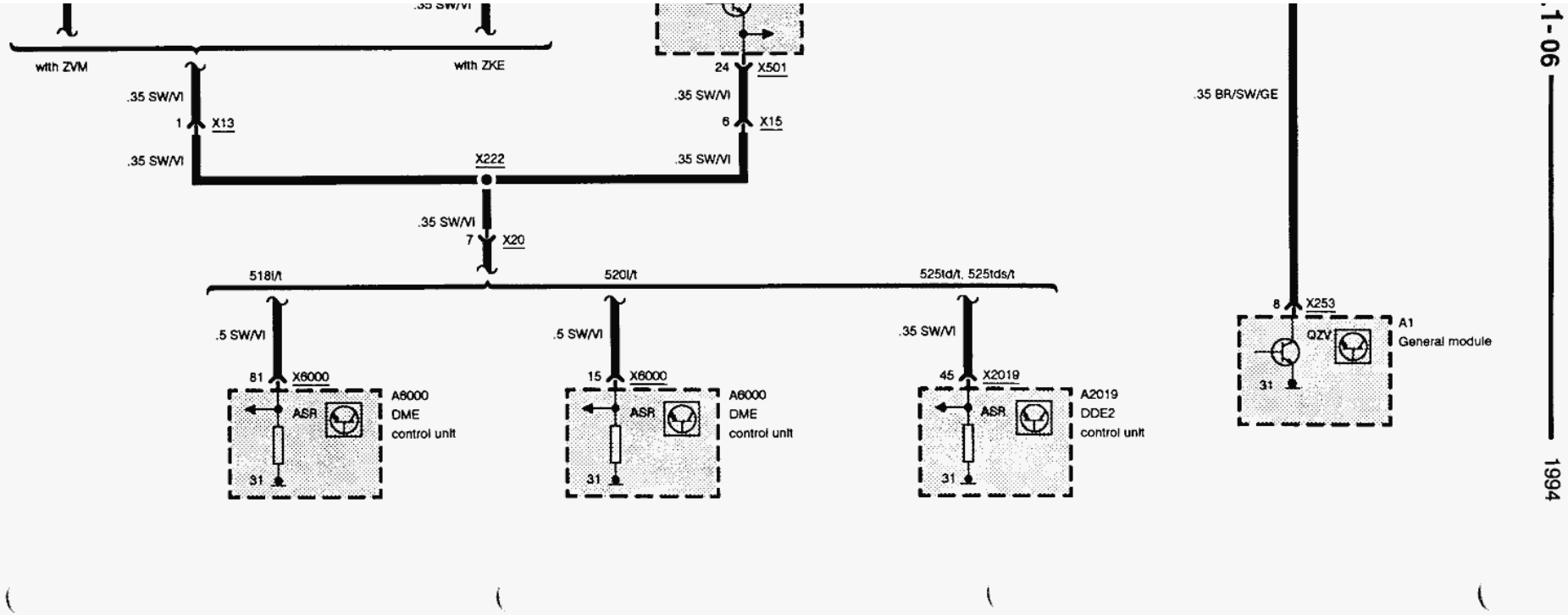

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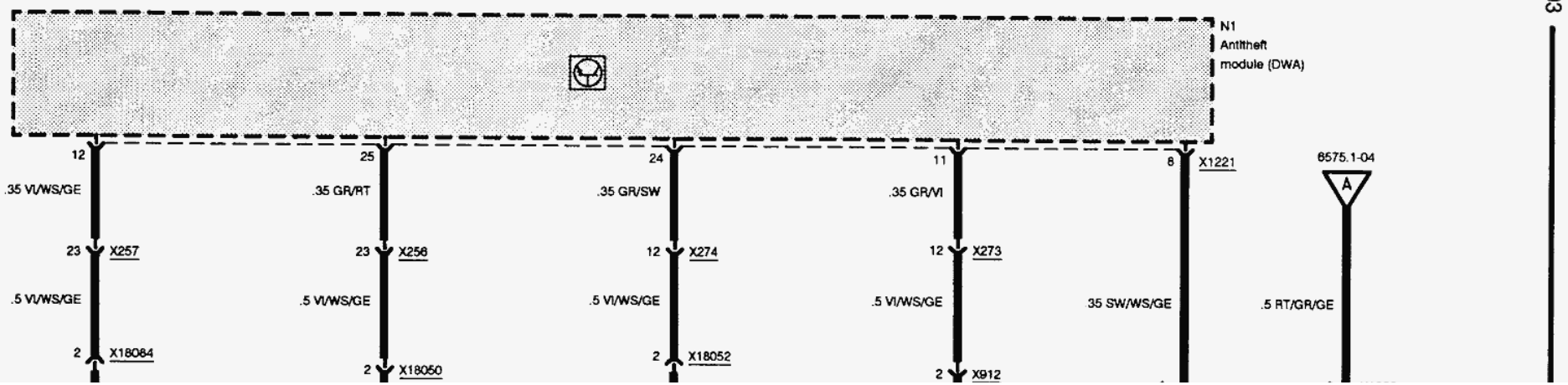
Antitheft system III (DWA III)

Front and rear window protection, inclination monitoring



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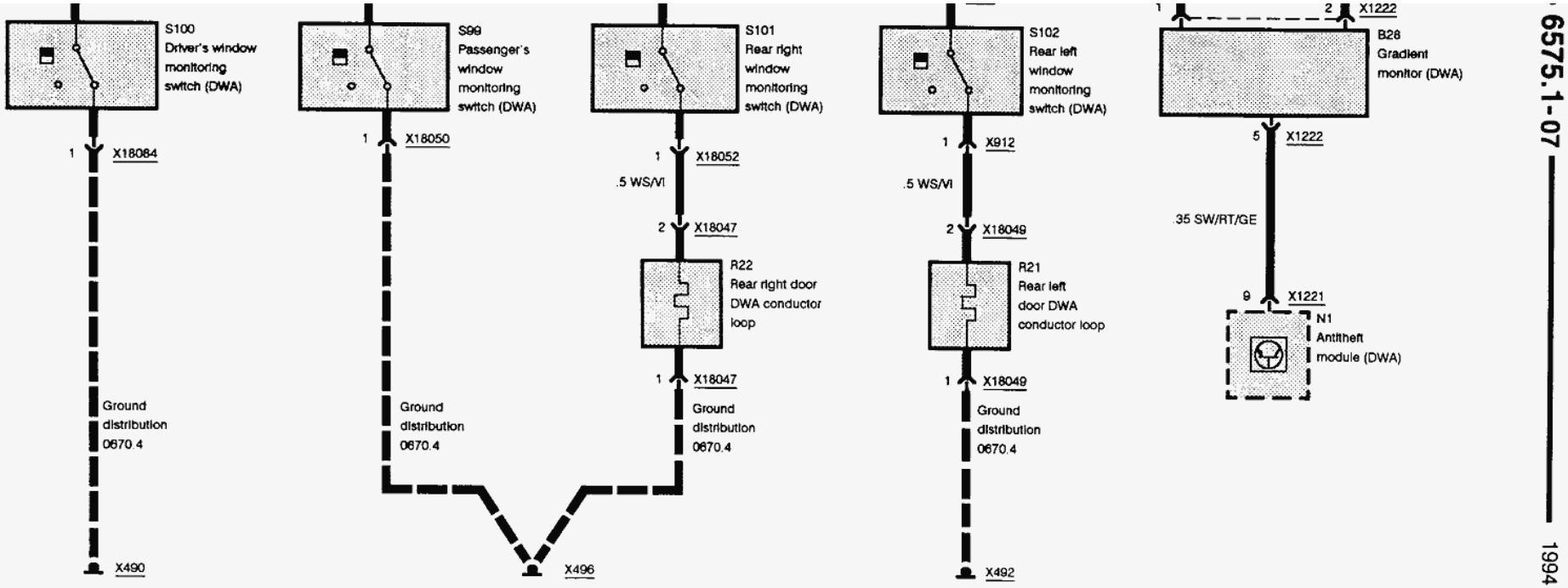

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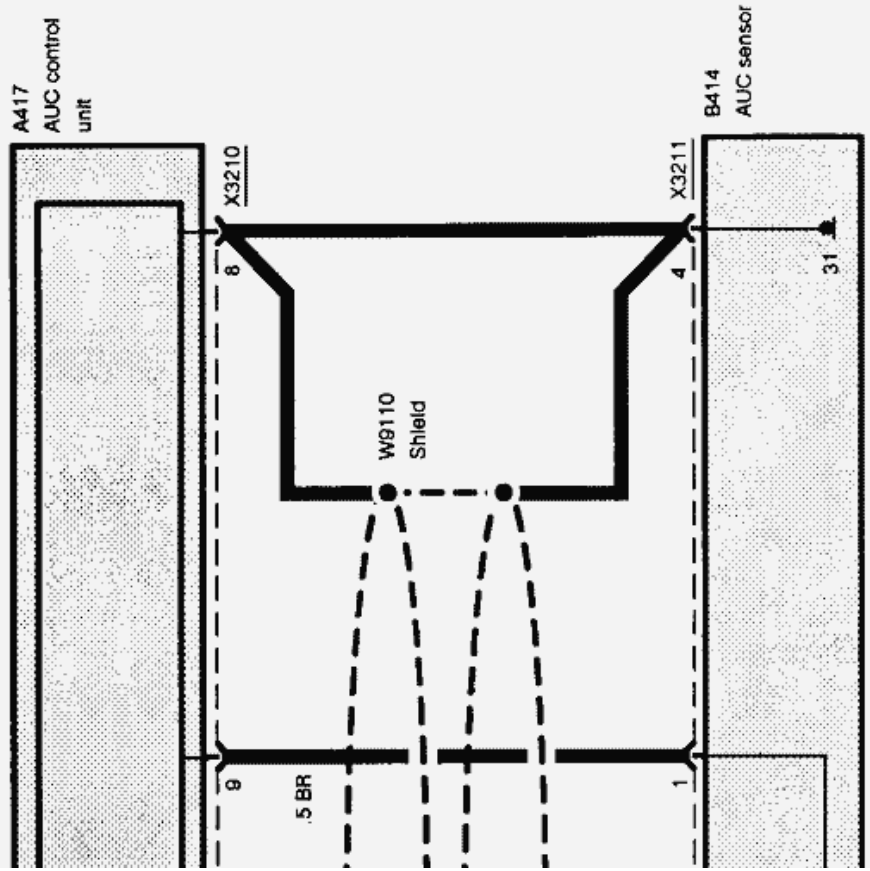
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Automatic circulating air control (AUC)

Scheme 6430.0

09/93 — 6430.0-00 — 1994



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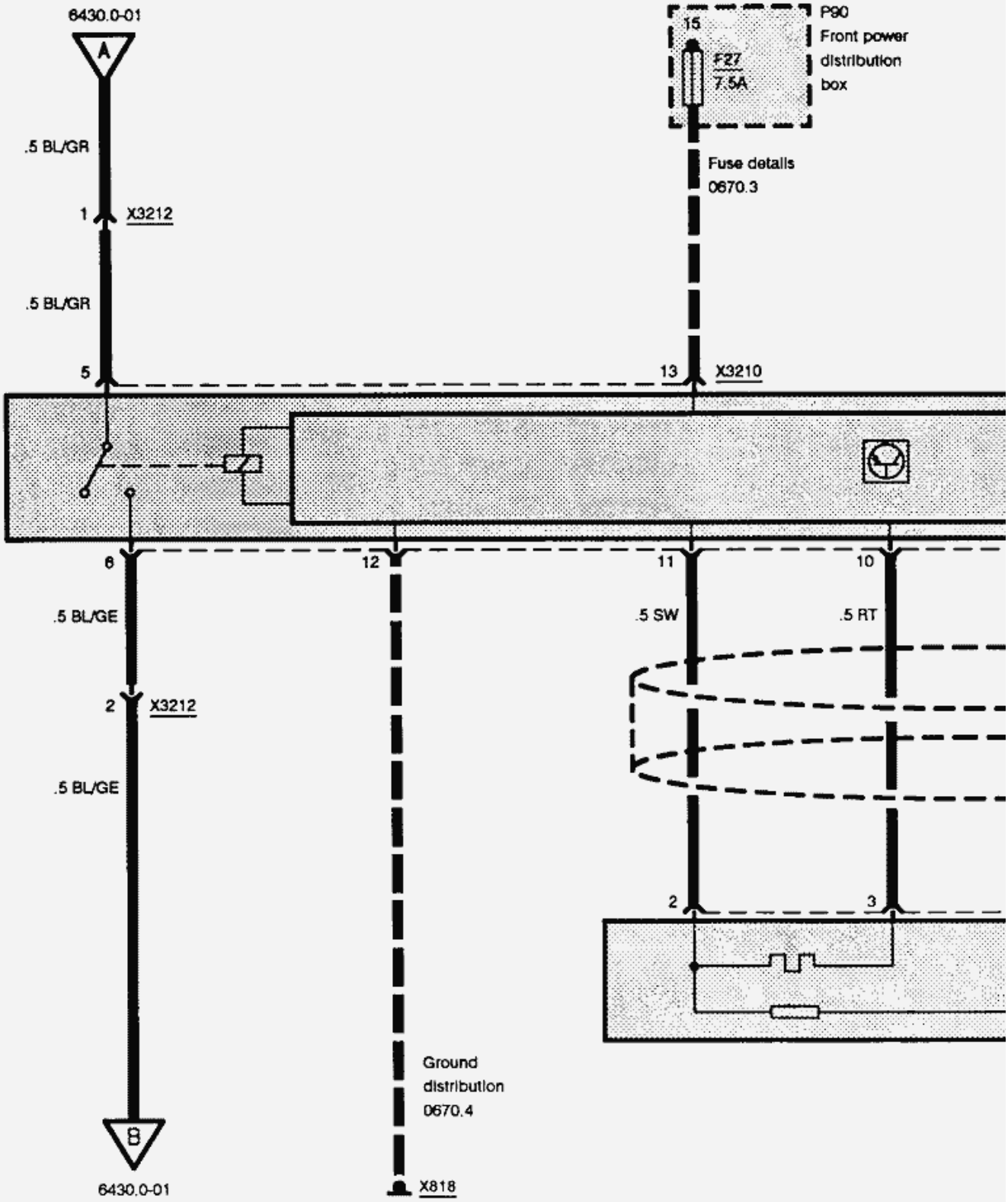
Automatic circulating air control (AUC)

AUC with IHKA



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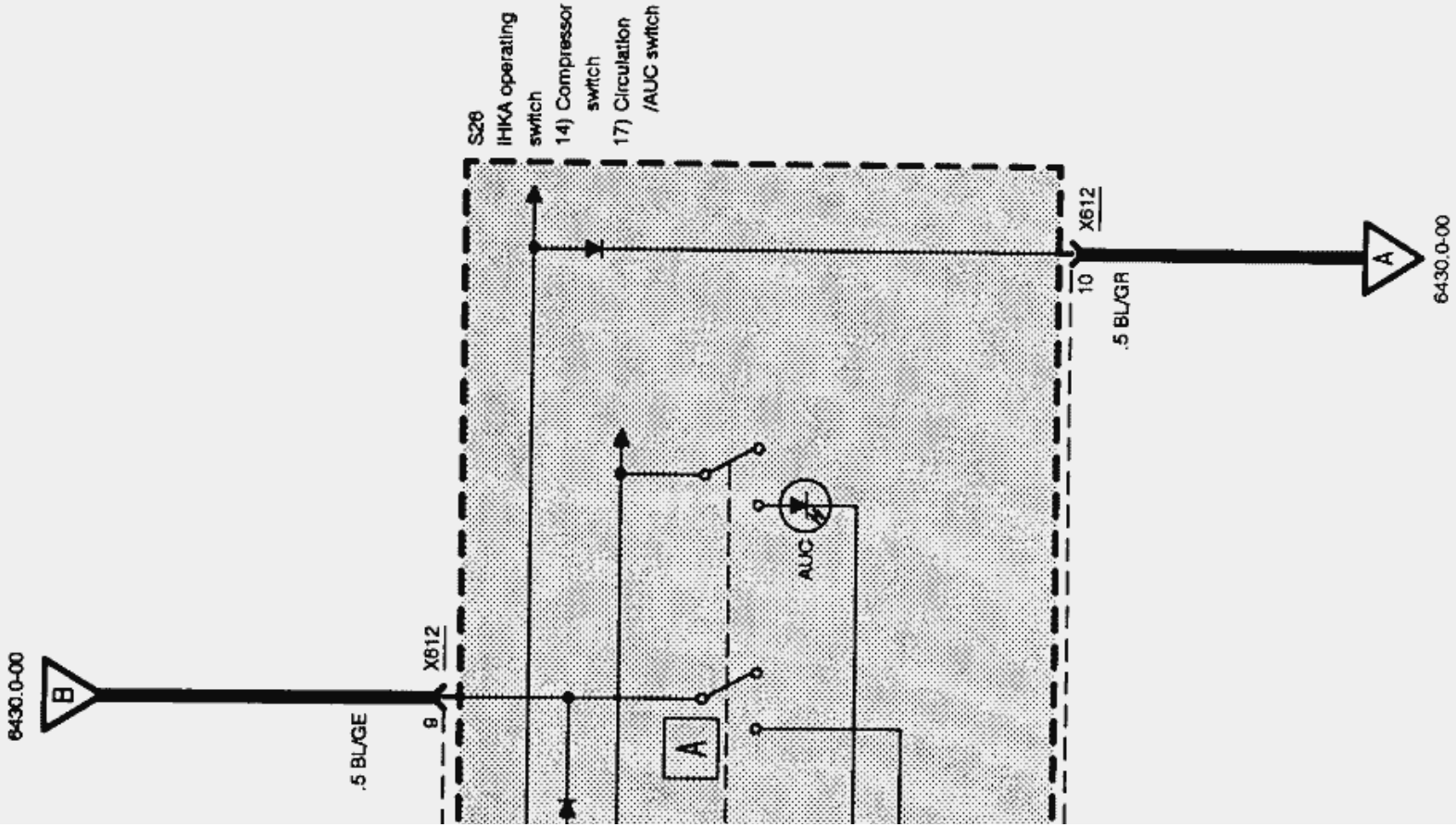

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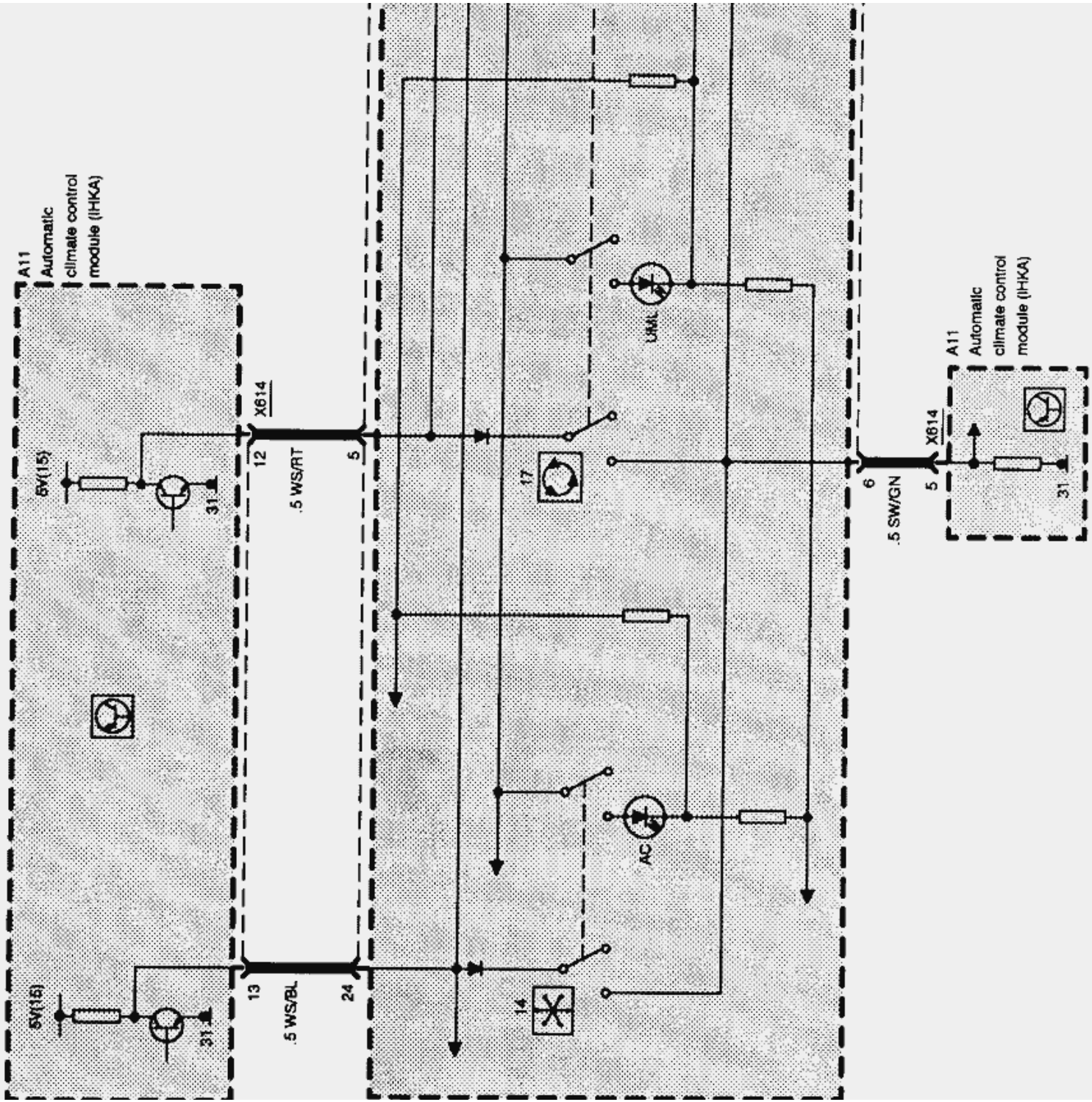
Automatic circulating air control (AUC)

AUC with IHKA



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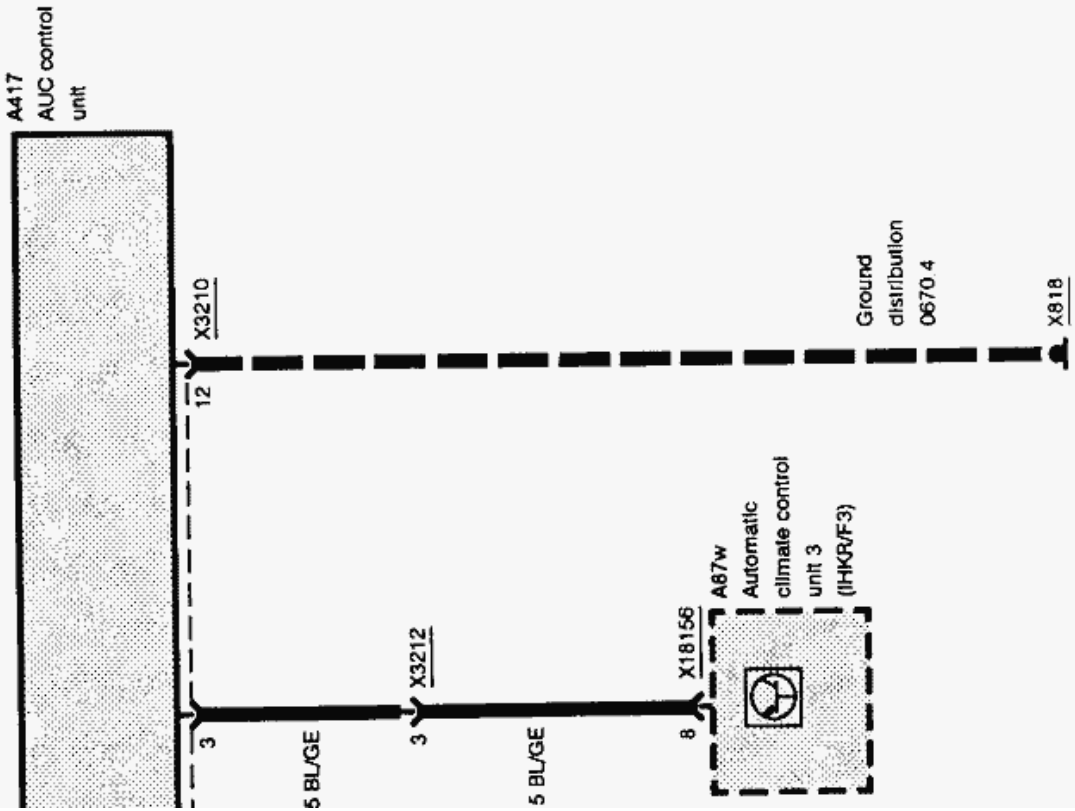

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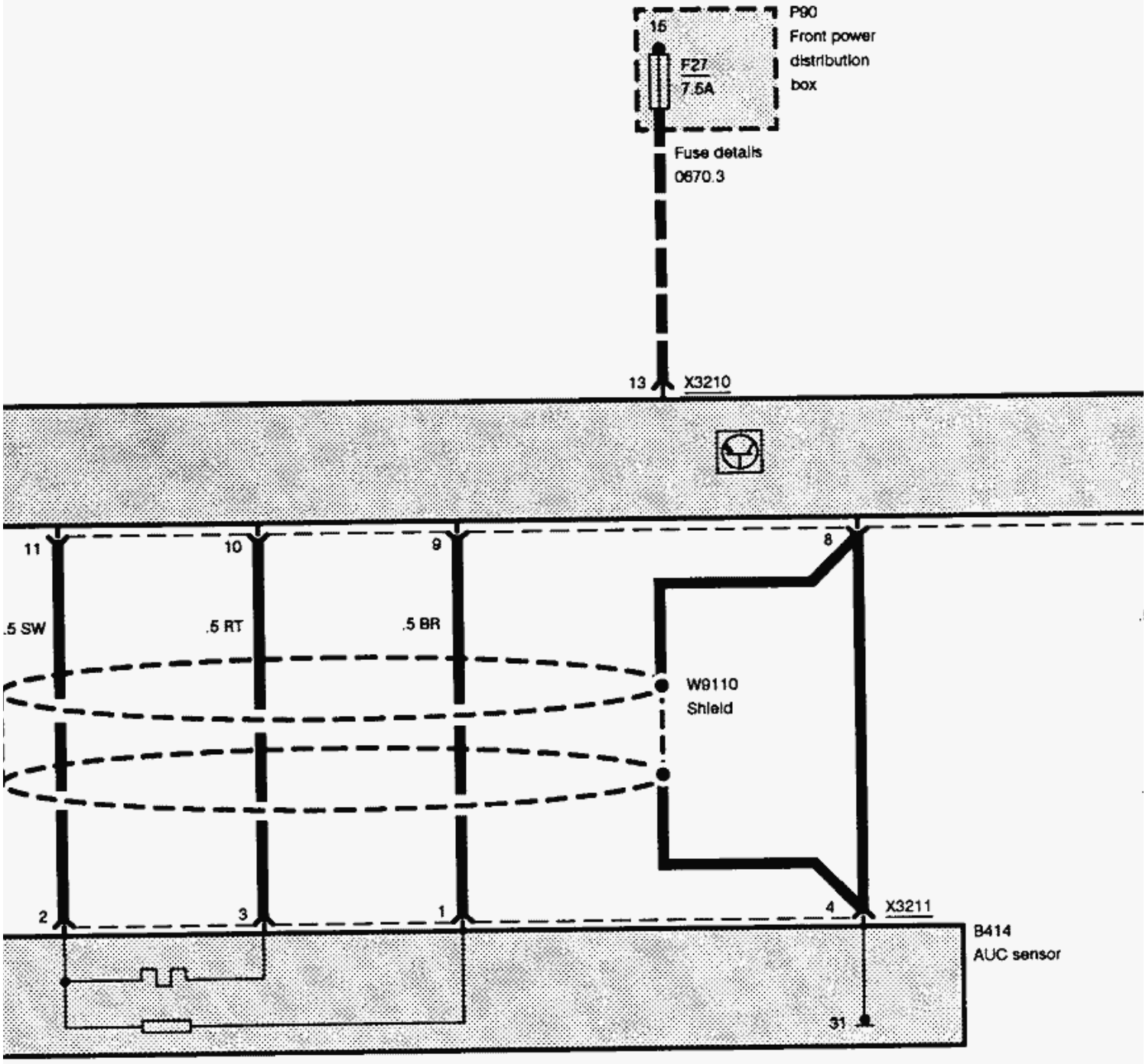
Automatic circulating air control (AUC)

AUC with IHKR/F3



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Automatic climate control with filter (IHKR/F3)
Scheme 6450.5

Pin Assignment

A=X18155	26-pin, white
B=X18156	26-pin, black
C=X18157	26-pin, blue

Pin Assignment X18155

Pin	Type	Description/Function	Connection
1		not used	
2	E	Right heat exchanger temperature	Right heat exchanger sensor
3	E	Left heat exchanger temperature	Left heat exchanger sensor
4	E	Outside temperature	Outside temperature sensor
5	E	Evaporator temperature	Evaporator sensor
6	E	Setpoint, mixing air actuator	Mixing air actuator
7	E	Signal, independent ventilation	Relay box, independent heating/ventilation
8	E	Speedometer A signal	Instrument cluster
9		not used	
10	E	Signal, independent heating	Relay box, independent heating/ventilation
11		not used	
12	E	Terminal 58K	Light switch/lights
13	A	Supply voltage for function lights	IHKR/F3 push button unit
14	A	Supply voltage for mixing air actuator	Mixing air actuator
15	M	Ground for regulator in operating unit	IHKR/F3 operating unit
16	M	Ground for all sensors	All temperature sensors
17	M	Ground	Mixing air actuator
18	E	Push button unit lights	IHKR/F3 push button unit
19		not used	
20	E	Signal, air condition ON	IHKR/F3 push button unit
21	E	Signal, recirculated air/AUC ON	IHKR/F3 push button unit
22	E	Signal, rear window defogger ON	IHKR/F3 push button unit
23	E	Function indicator, air conditioning ON	IHKR/F3 push button unit
24	E	Function indicator, rear window defogger ON	IHKR/F3 push button unit
25	E	Function indicator, AUC ON	IHKR/F3 push button unit
26	E	Function indicator, recirculated air ON	IHKR/F3 push button unit

E = Input, A = Output, M = Ground

Pin Assignment X18156

Pin	Type	Description/Function	Connection
1	M	Ground	Ground connection
2		not used	
3	E	Interior temperature	Interior temperature sensor in IHKR/F3 operating unit
4	E	Setpoint, fresh air	IHKR/F3 operating unit
5	E	Setpoint, left blower	IHKR/F3 operating unit
6	E	Setpoint, right blower	IHKR/F3 operating unit

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7		not used	
8	E	Signal AUC ON	AUC control unit
9	A	Signal, air conditioning ON	Diode module
10	M	Ground	Ground connection
11		not used	
12	E	Terminal 30	Fuse
13	E	Terminal 30	Fuse
14		not used	
15	E	max. heating, right	IHKR/F3 operating unit
16		not used	
17		not used	
18	E	Signal	Relay box, independent heating/ventilation
19		not used	
20		not used	
21		not used	
22	E	max. heating, left	IHKR/F3 operating unit
23	E	Terminal 15	Fuse
24		not used	
25	E	Terminal 61	Unloader relay
26	E	Terminal 30 h	Generator

E = Input, A = Output, M = Ground

Pin Assignment X18157

Pin	Type	Description/Function	Connection
1	A	Voltage supply for actuators	all actuator motors
2	A	Voltage supply for actuators	all actuator motors
3		not used	
4		not used	
5		not used	
6	A	Signal, recirculated air	Recirculated air flap motor
7	A	Signal, recirculated air	Recirculated air flap motor
8	A	Signal, recirculated air	Recirculated air flap motor
9	A	Signal, recirculated air	Recirculated air flap motor
10	A	Signal, fresh air	Fresh air flap motor
11	A	Signal, fresh air	Fresh air flap motor
12	A	Signal, fresh air	Fresh air flap motor
13	A	Signal, fresh air	Fresh air flap motor
14	A	Voltage supply for potentiometer	IHKR/F3 operating unit
15	A	RxD diagnosis line	Diagnostic connector
16	E/A	TxD diagnosis line	Diagnostic connector
17		not used	
18	A	Signal, interior sensor blower	Interior sensor blower motor
19	A	Signal, auxiliary water pump	Auxiliary water pump relay
20	A	Signal, rear window defogger ON	Rear window defogger relay
21		not used	
22	A	Signal, A/C compressor ON	Pressure switch B8y
23	A	Signal, air mixing	Mixing air flap motor
24	A	Signal, air mixing	Mixing air flap motor
25	A	Signal, air mixing	Mixing air flap motor
26	A	Signal, air mixing	Mixing air flap motor

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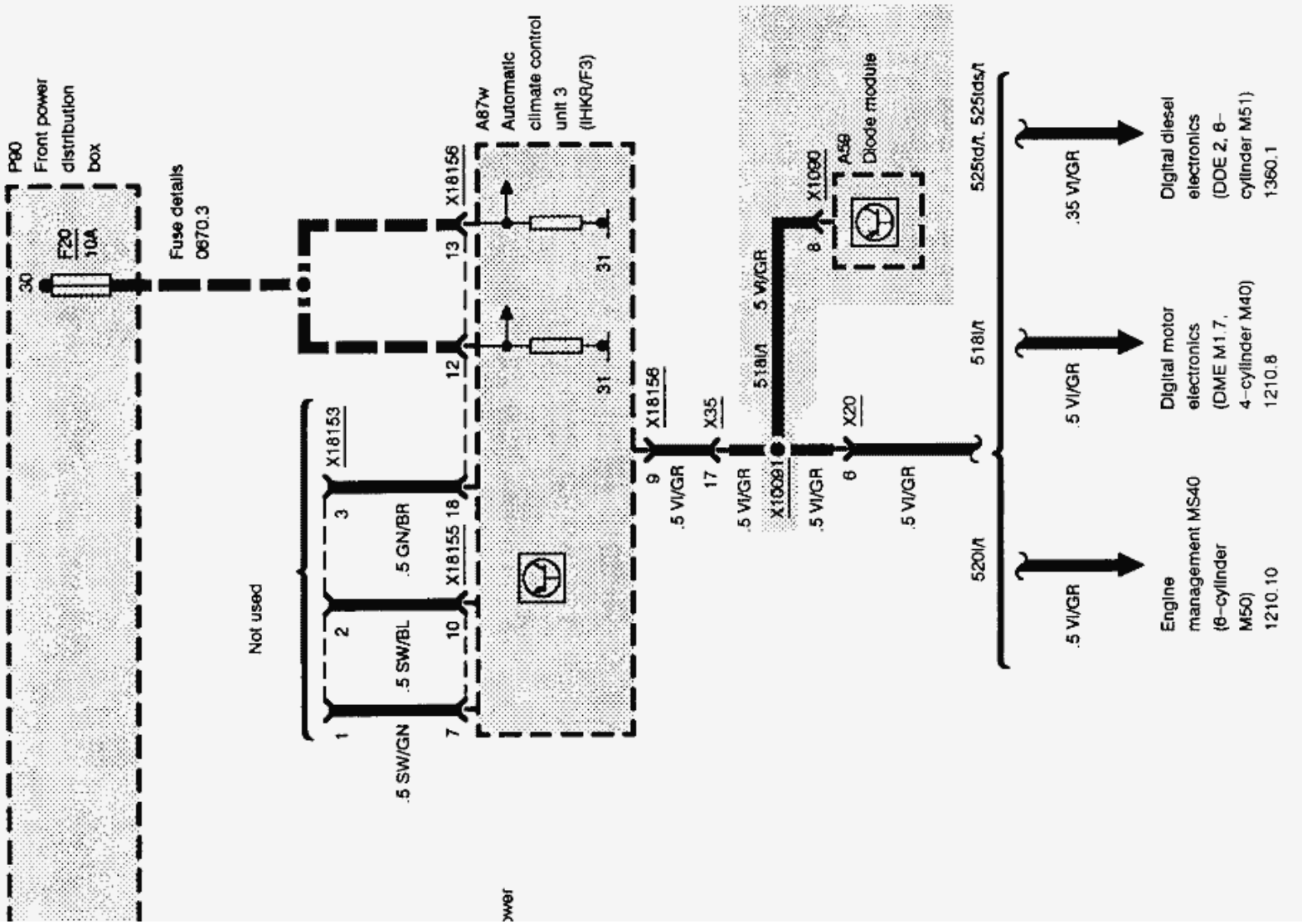
E = Input, A = Output, M = Ground



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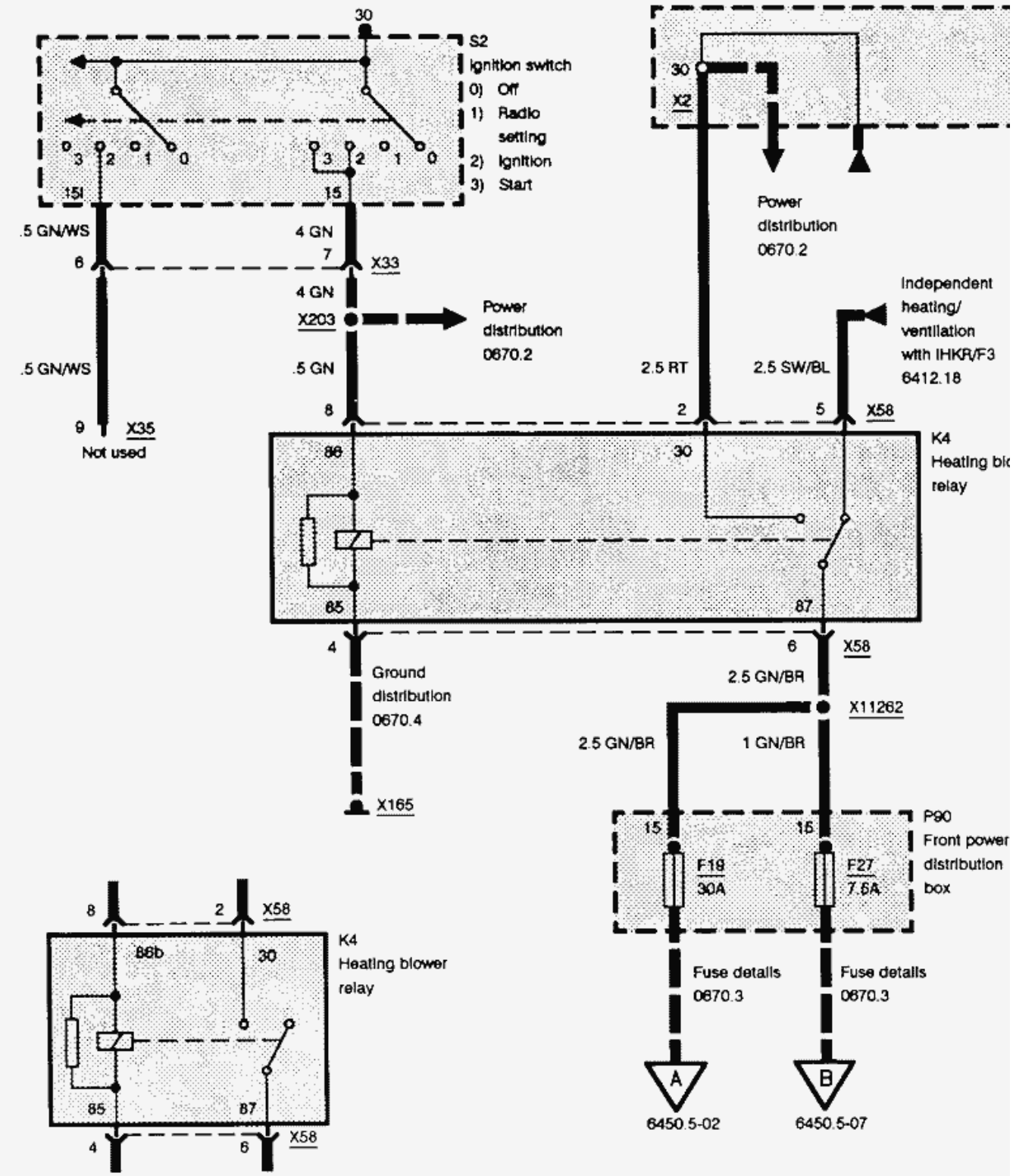
Automatic climate control with filter (IHKR/F3)

Current



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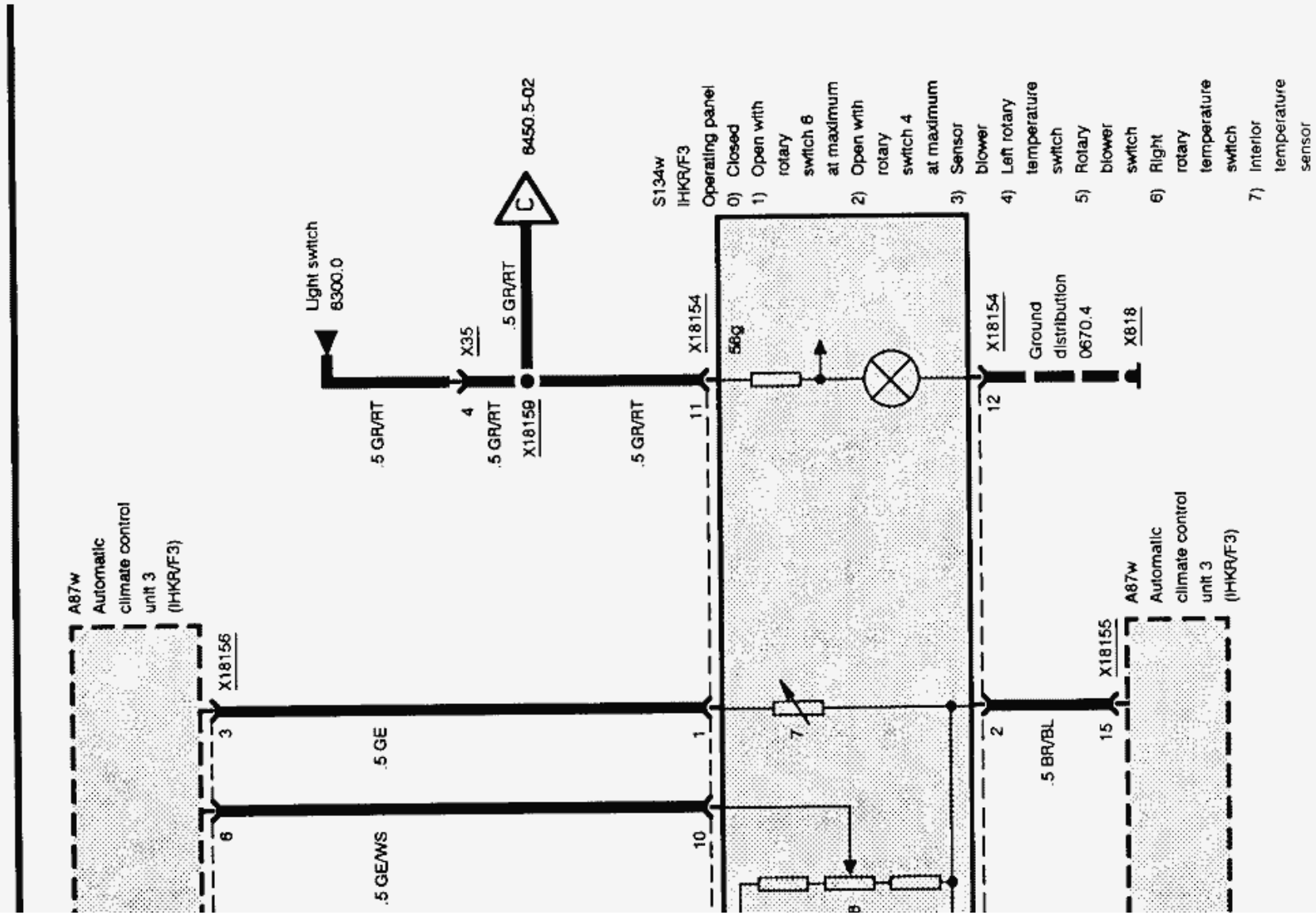

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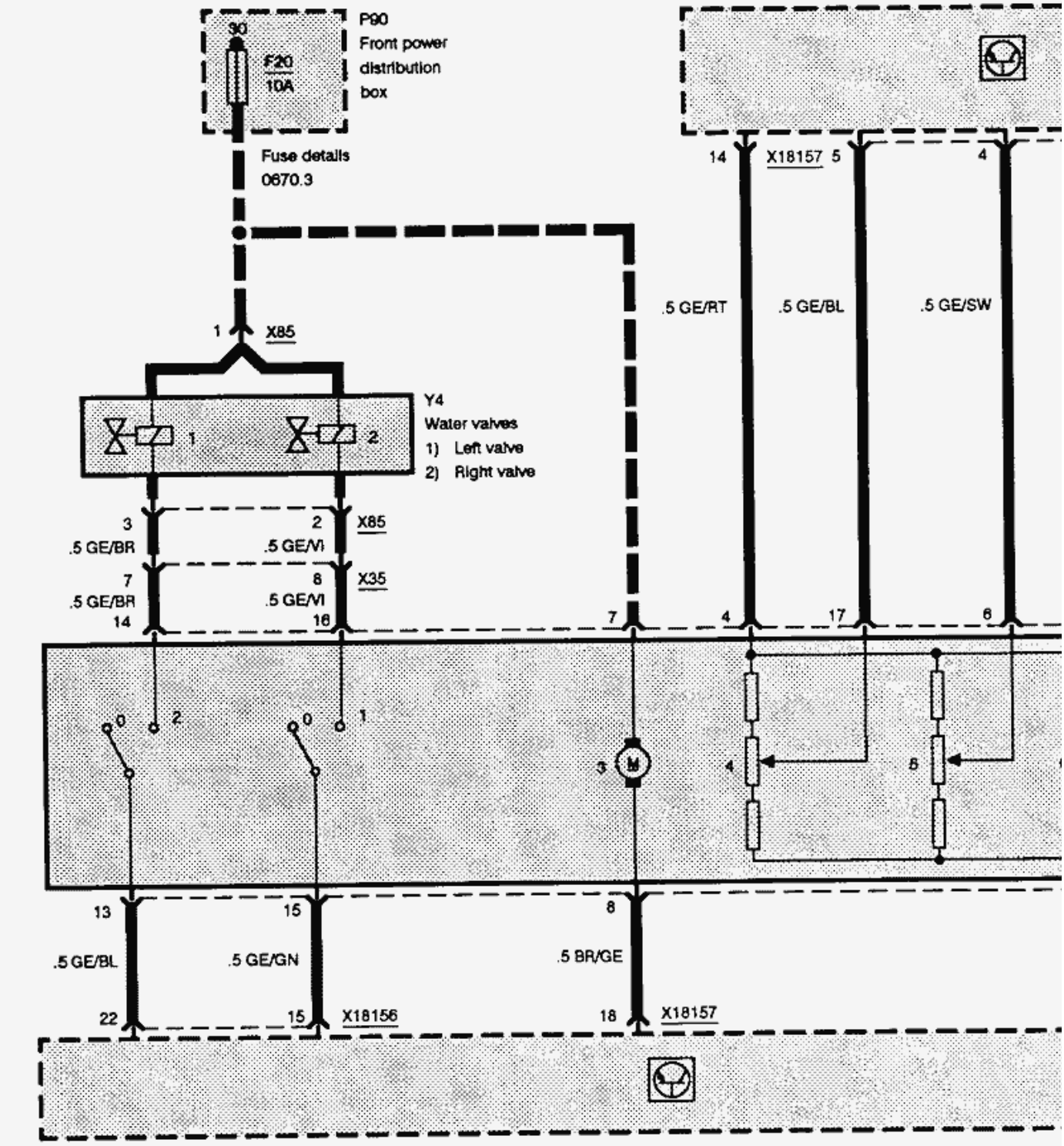
Automatic climate control with filter (IHKR/F3)



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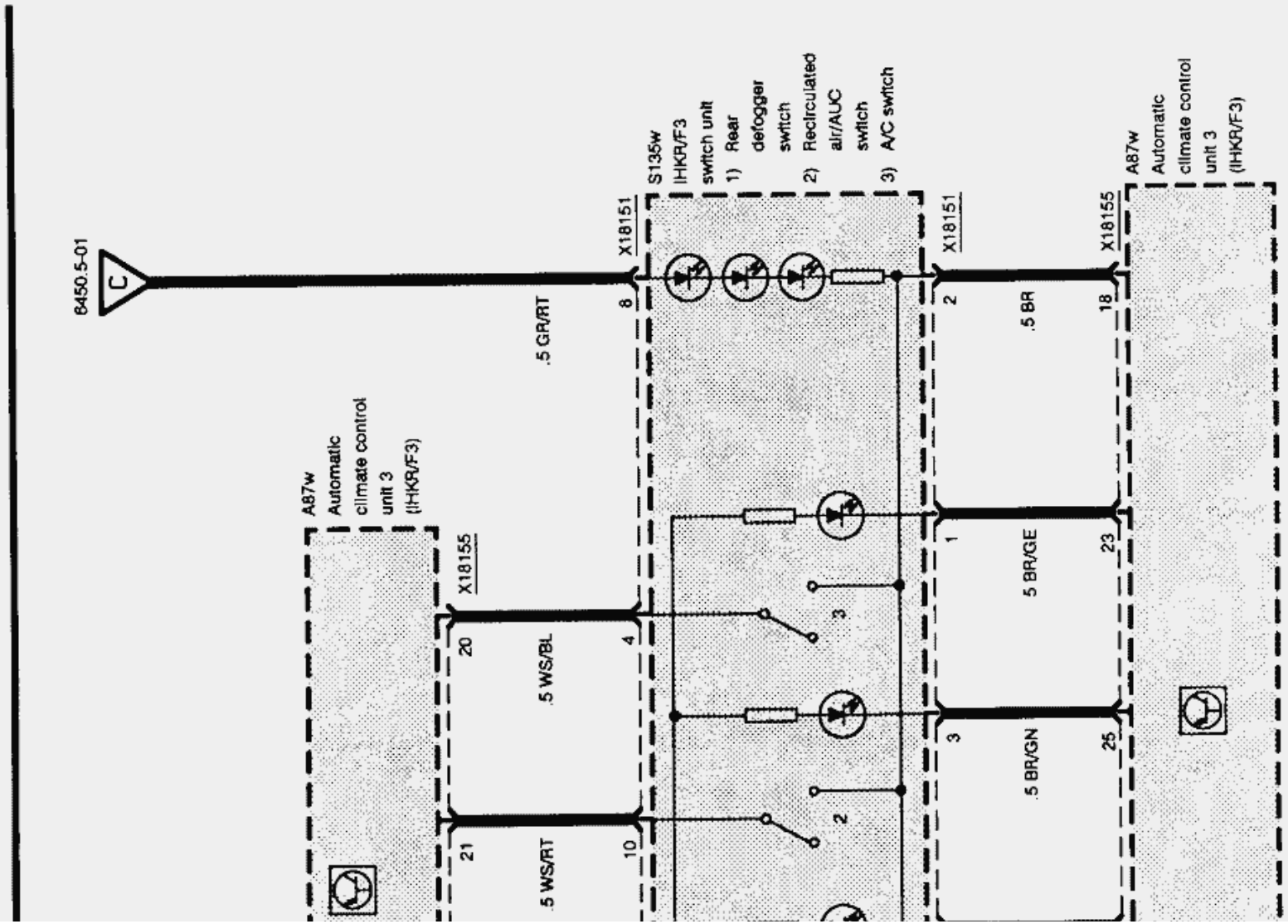

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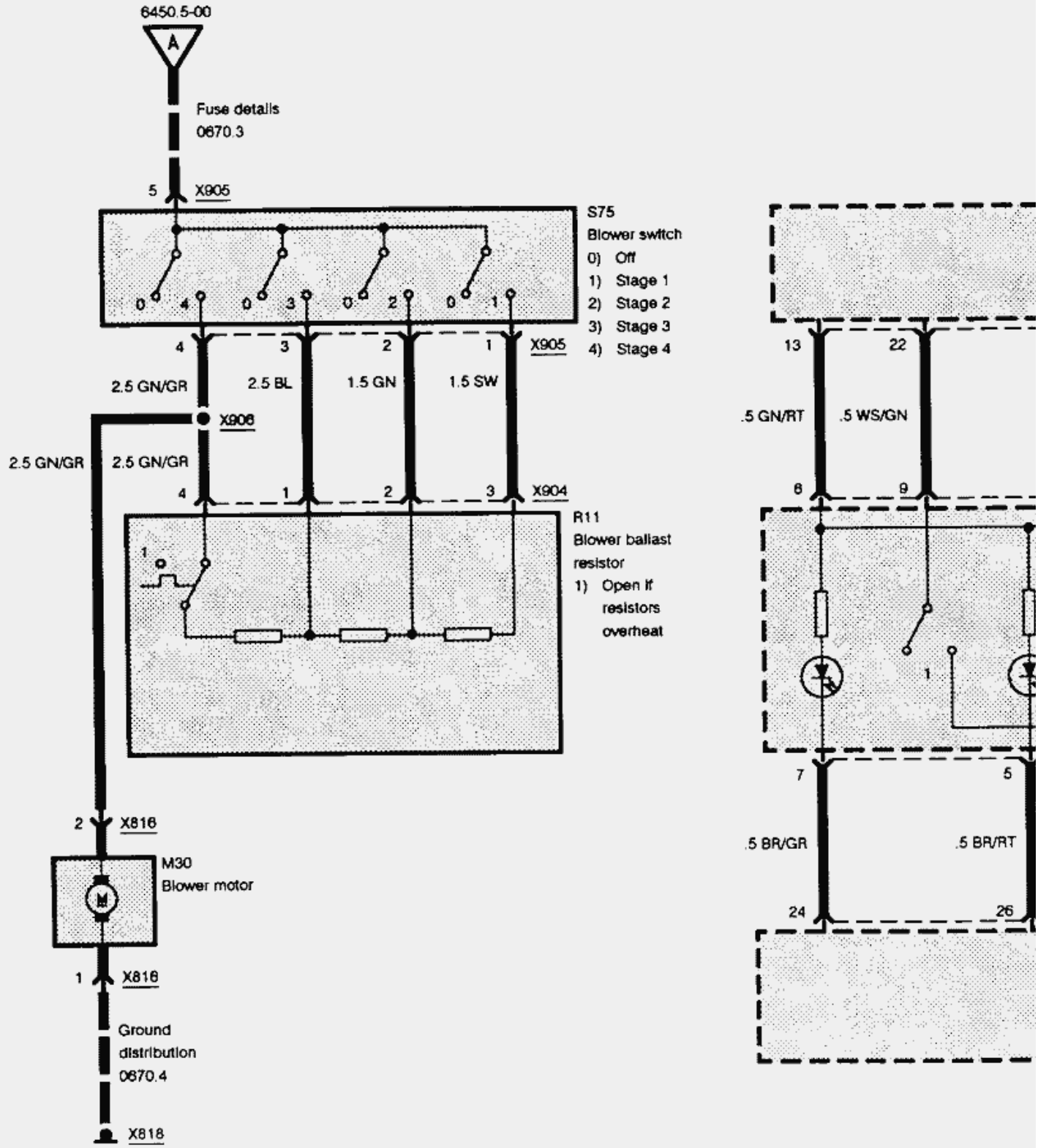
Automatic climate control with filter (IHKR/F3)



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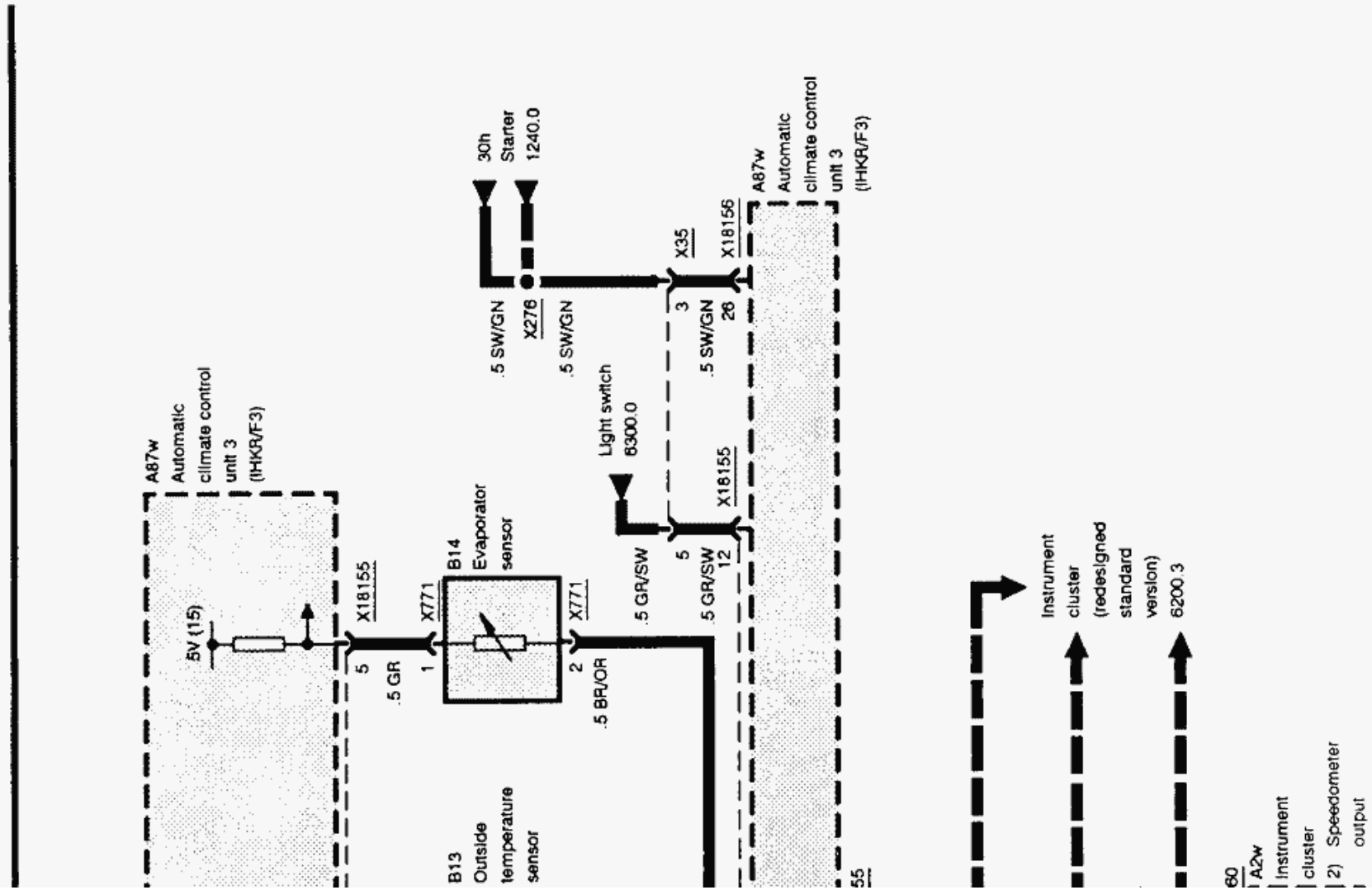

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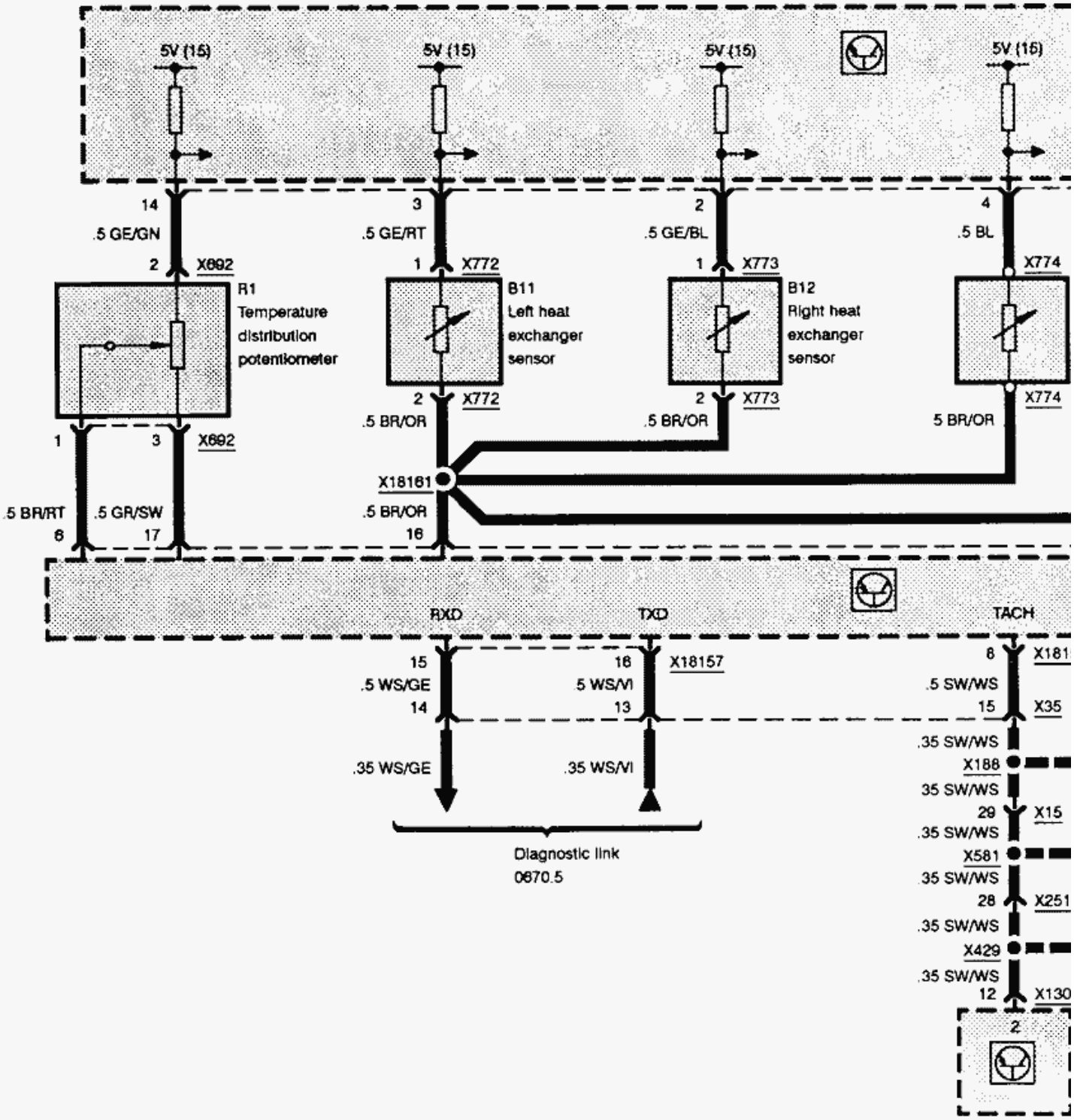
Automatic climate control with filter (IHKR/F3)

Temperature control



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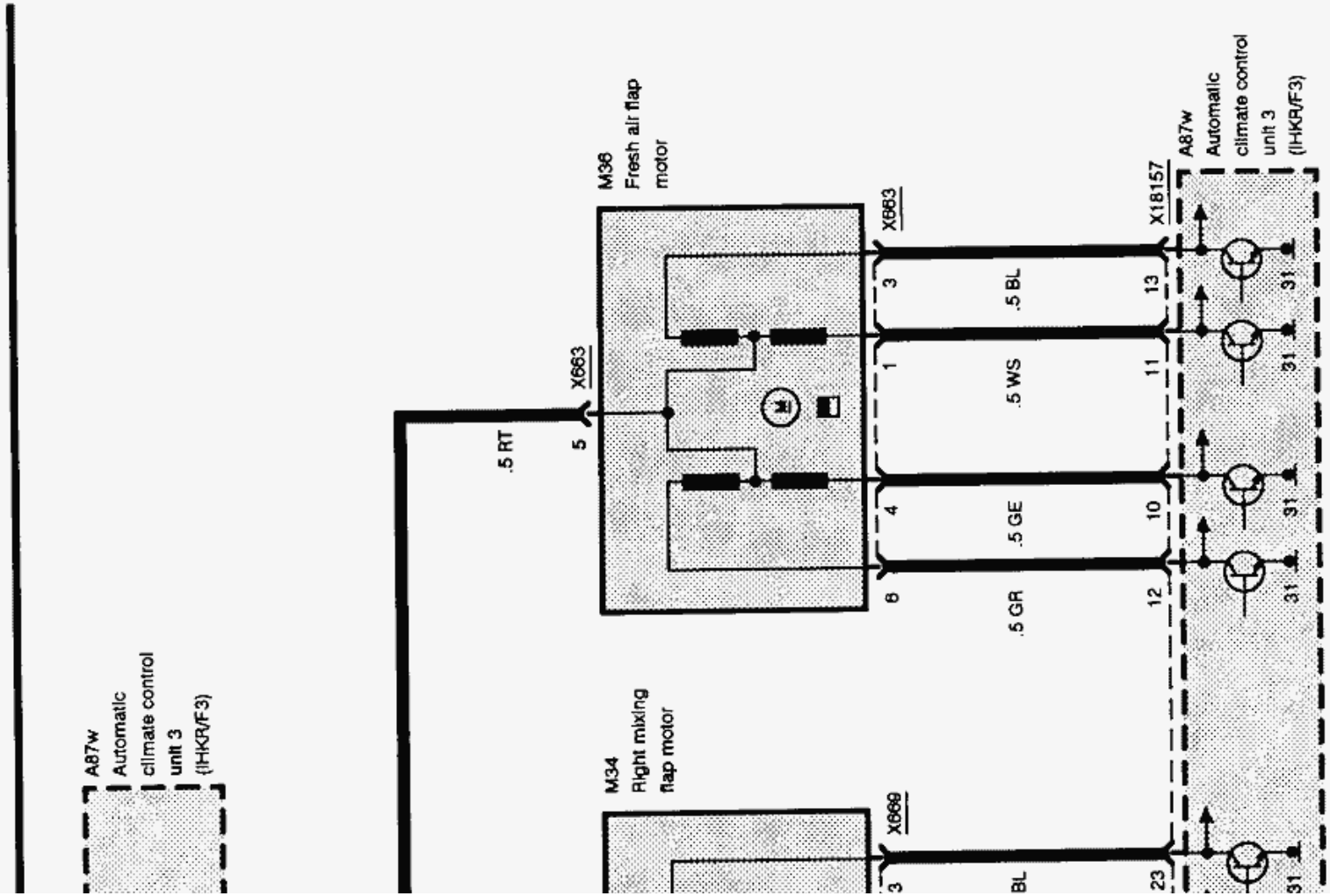

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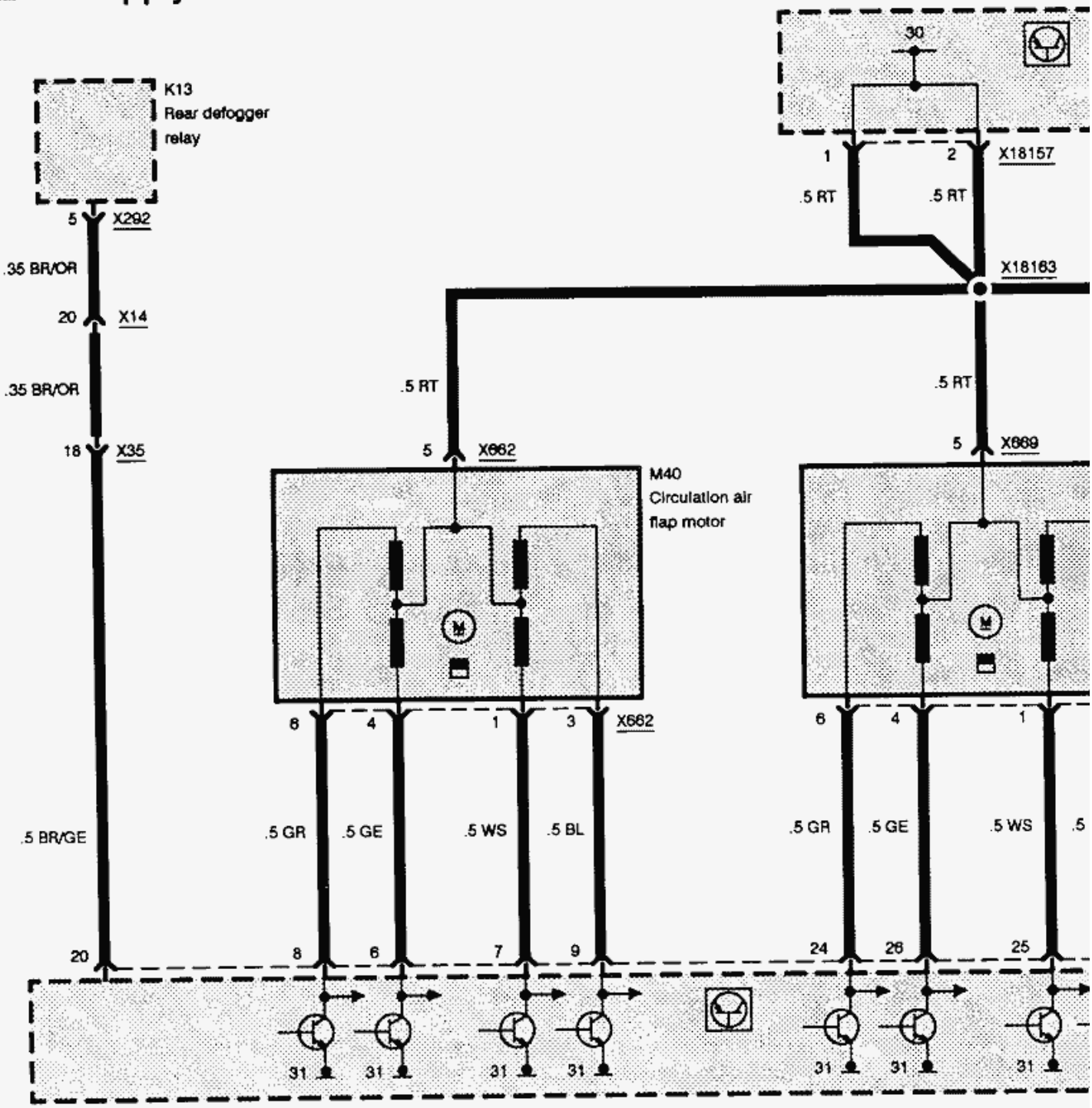
Automatic climate control with filter (IHKR/F3)

Air supply



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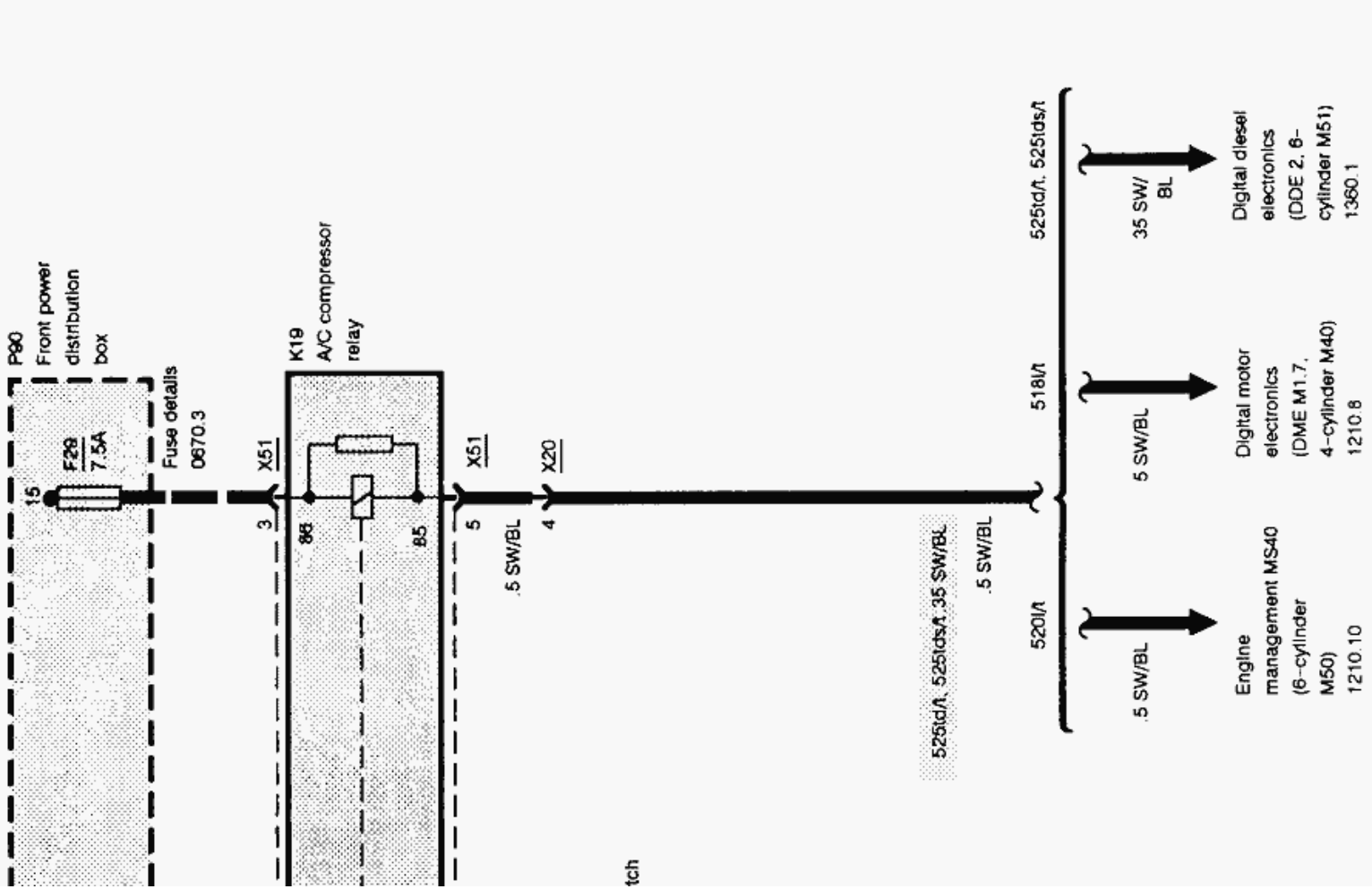

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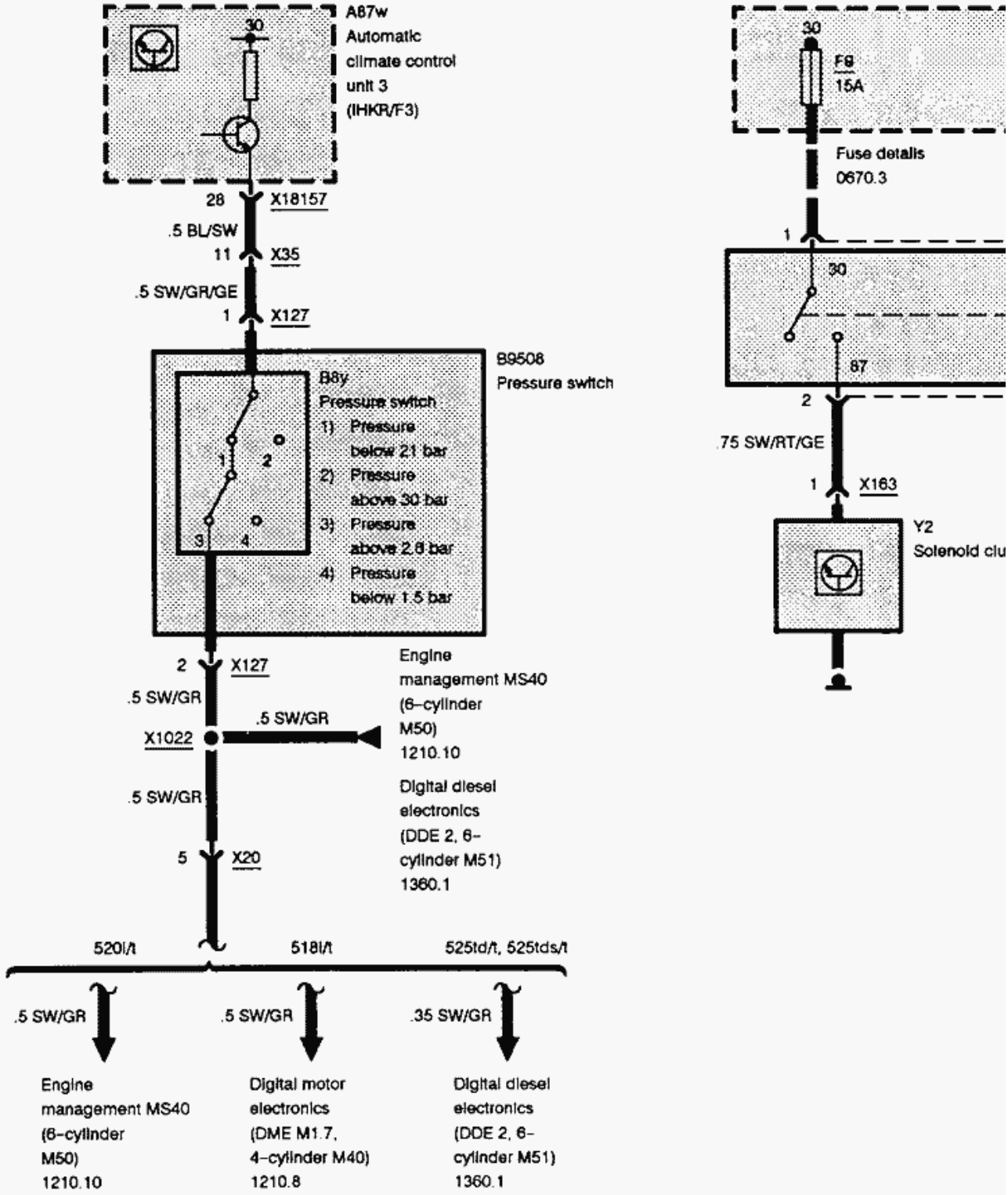
Automatic climate control with filter (IHKR/F3)

Compressor control



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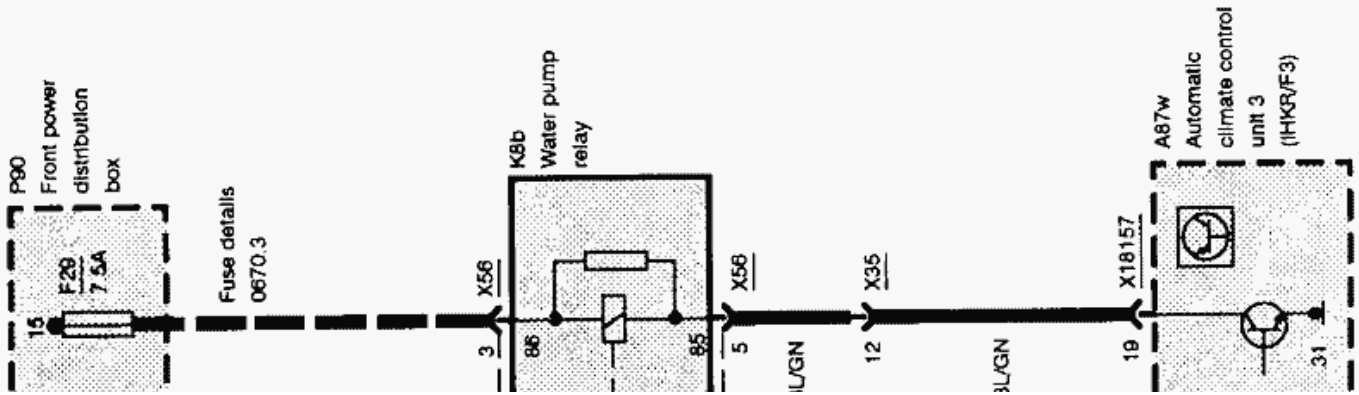

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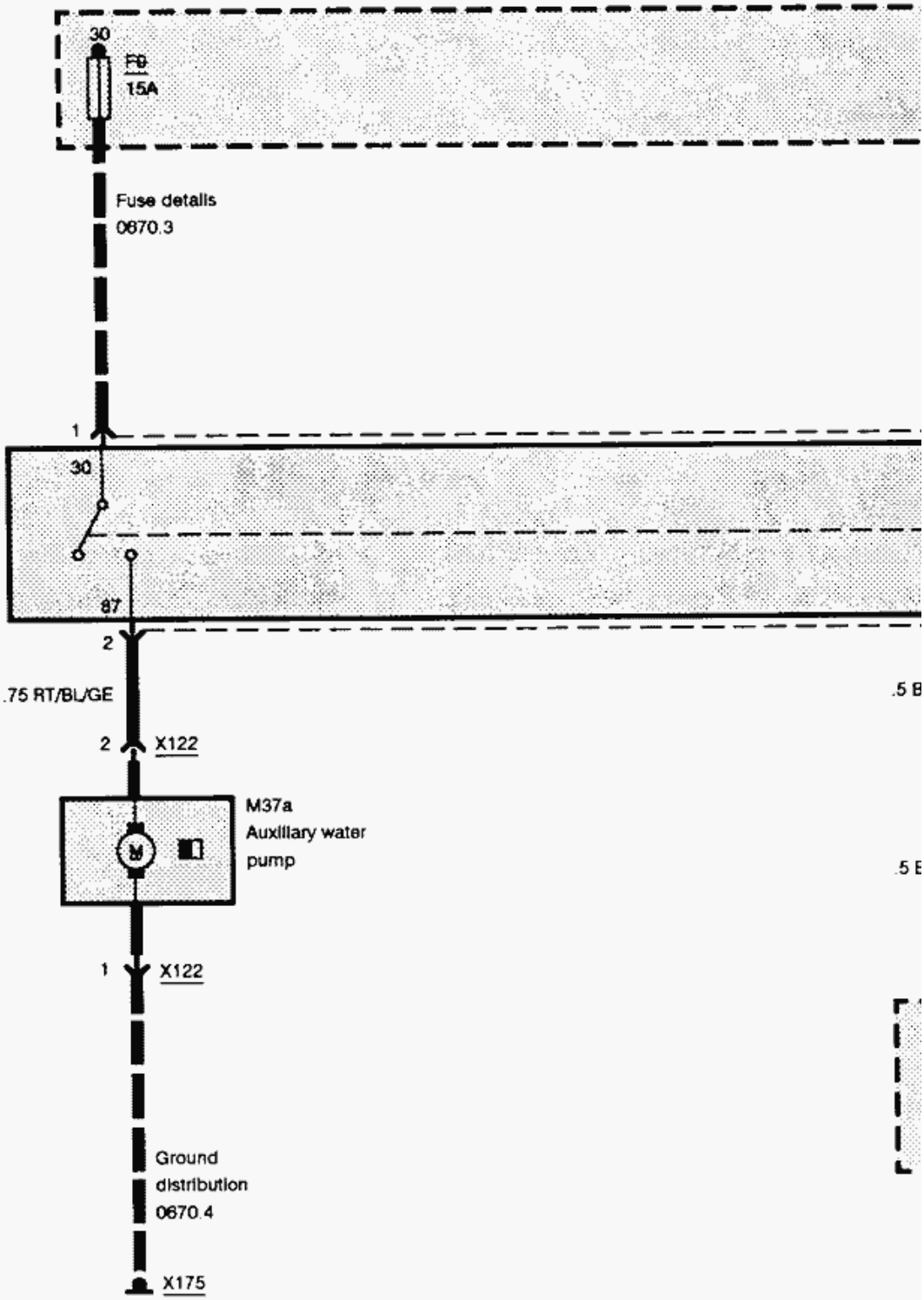
Automatic climate control with filter (IHKR/F3)

Auxiliary water pump



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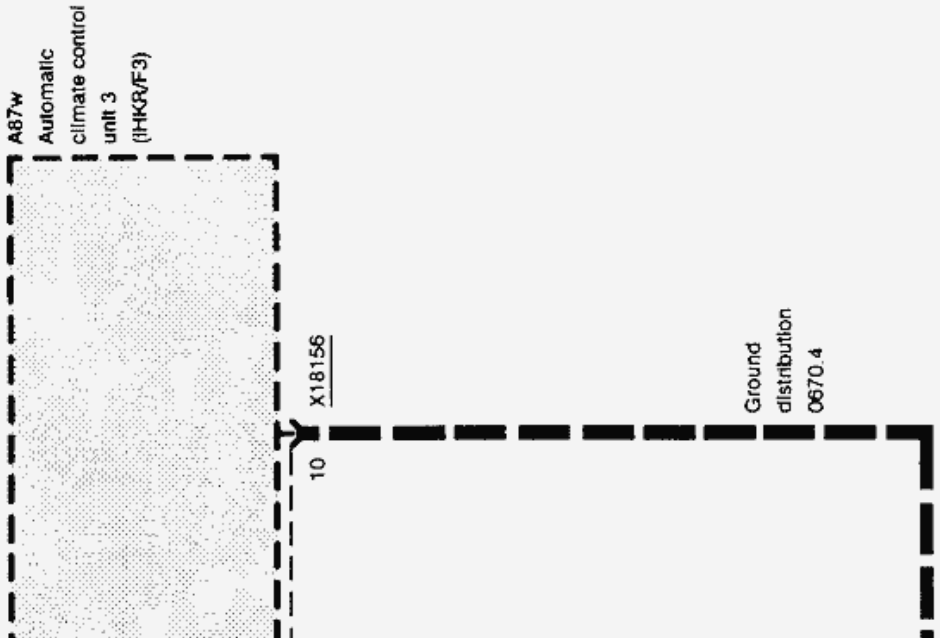

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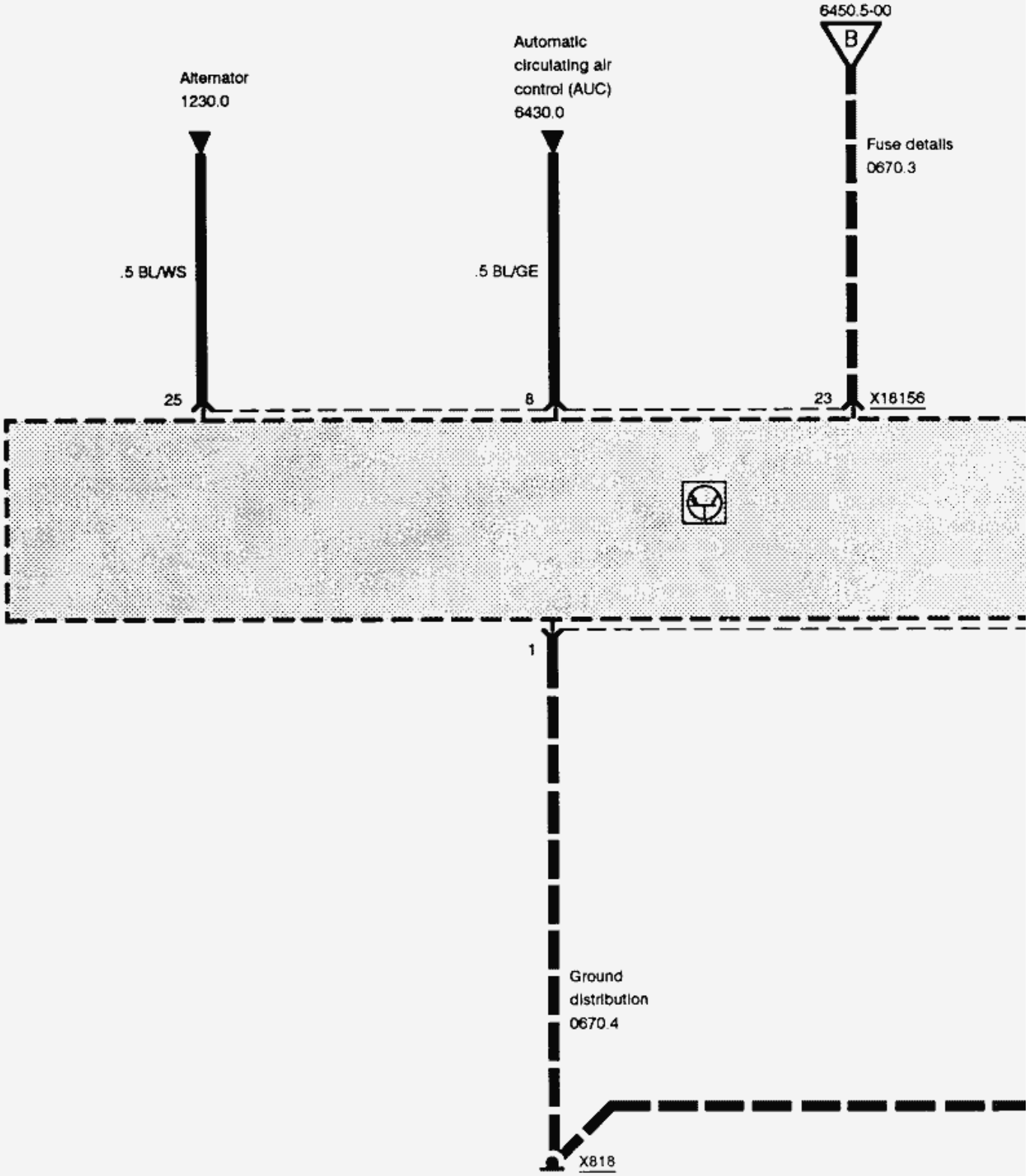
Automatic climate control with filter (IHKR/F3)



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BMWAG

Electrical troubleshooting manual

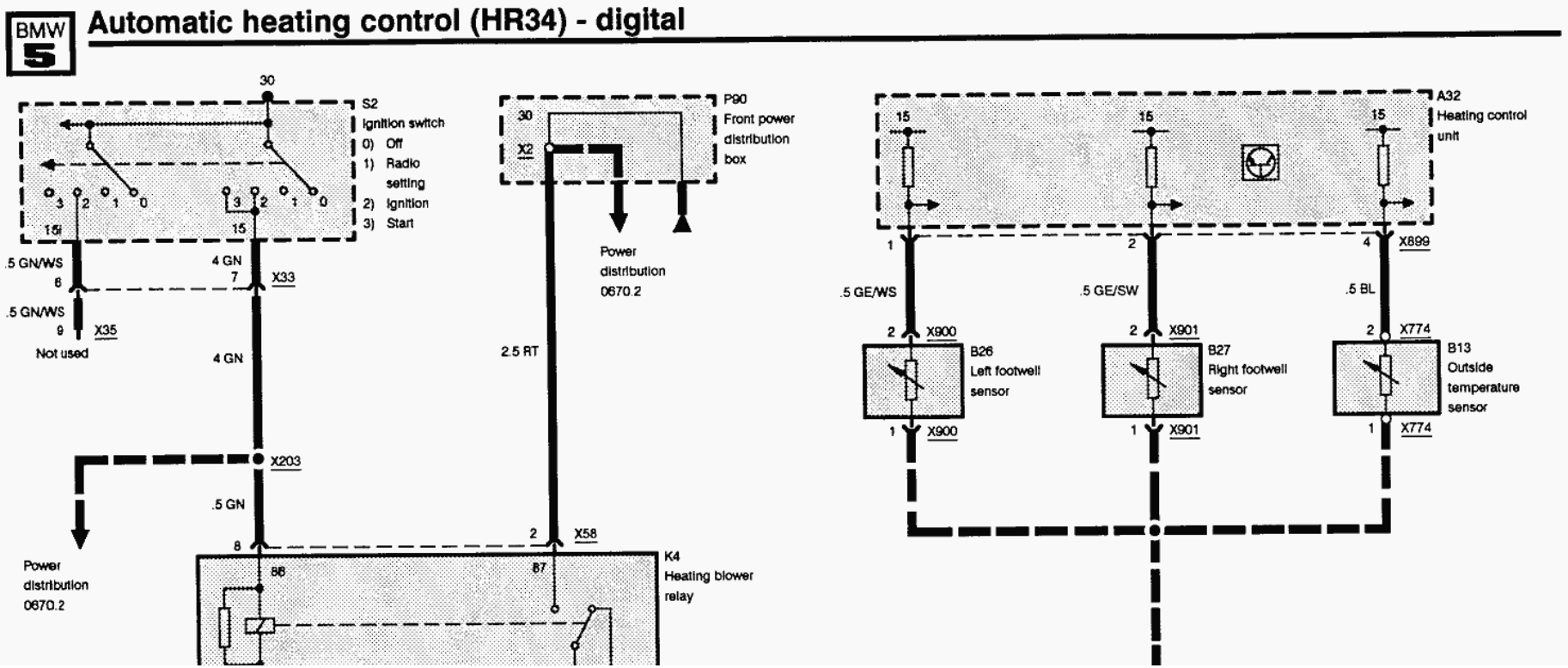
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Automatic heating control (HR34) - digital
Scheme 6410.1

Pin Assignment X899

Pin	Type	Description/Function	Connection
1	E	Left footwell temperature	Left footwell sensor
2	E	Right footwell temperature	Right footwell sensor
3	E	Right heat exchanger temperature	Right heat exchanger sensor
4	E	Outside temperature	Outside temperature sensor
5	E	Terminal 15	Fuse
6	M	Ground	Ground connection
7	E	Signal, rear window defogger ON	Rear window defogger switch
8	A	Signal, rear window defogger ON	Rear window defogger relay
9	A	Function light, rear window defogger	Rear window defogger switch
10	E	Left heat exchanger temperature	Left heat exchanger sensor
11	A	Activation, right water valve	Right water valve
12	A	Signal, auxiliary water pump	Relay, auxiliary water pump
13	E	Lights, terminal 58 g	Dimmer
14	M	Ground	Ground connection
15	A	Activation, left water valve	Left water valve
16	E	Tacho/speed signal	DME control unit/DDE control unit
17	M	518i/t, 520i/t: not used 525td/t, 525tds/t: Ground	Ground connection
18		not used	

E = Input, A = Output, M = Ground



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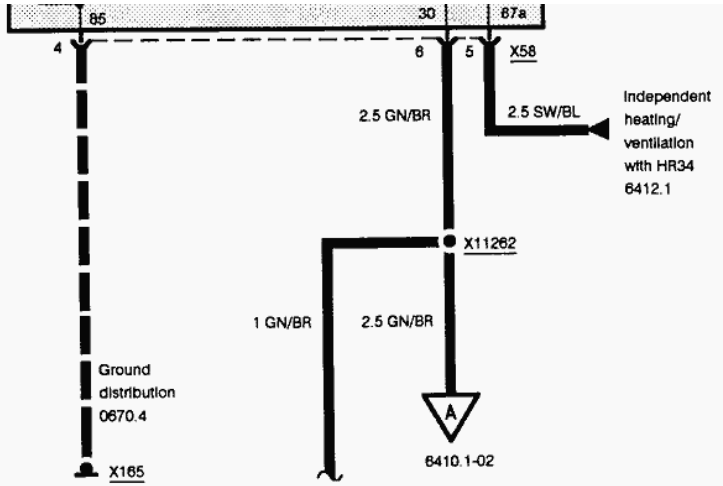

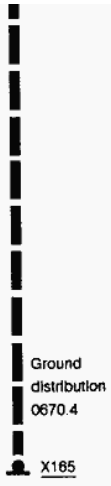

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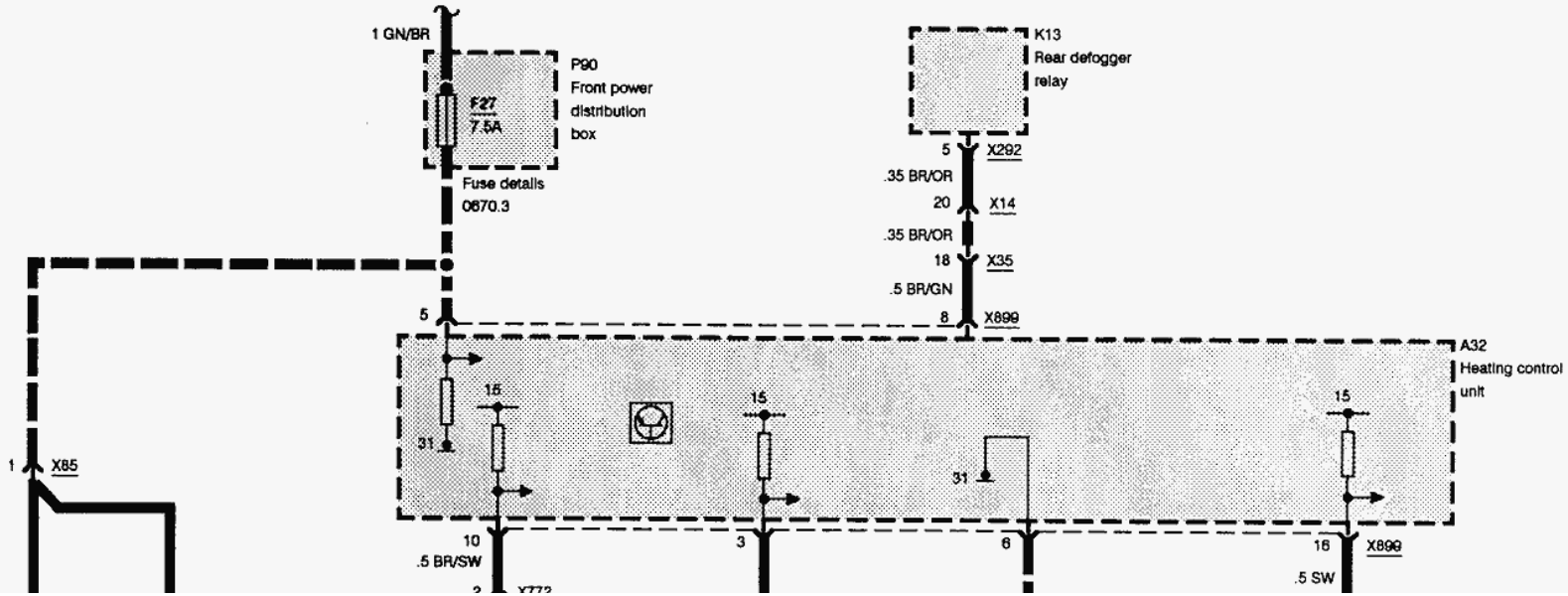

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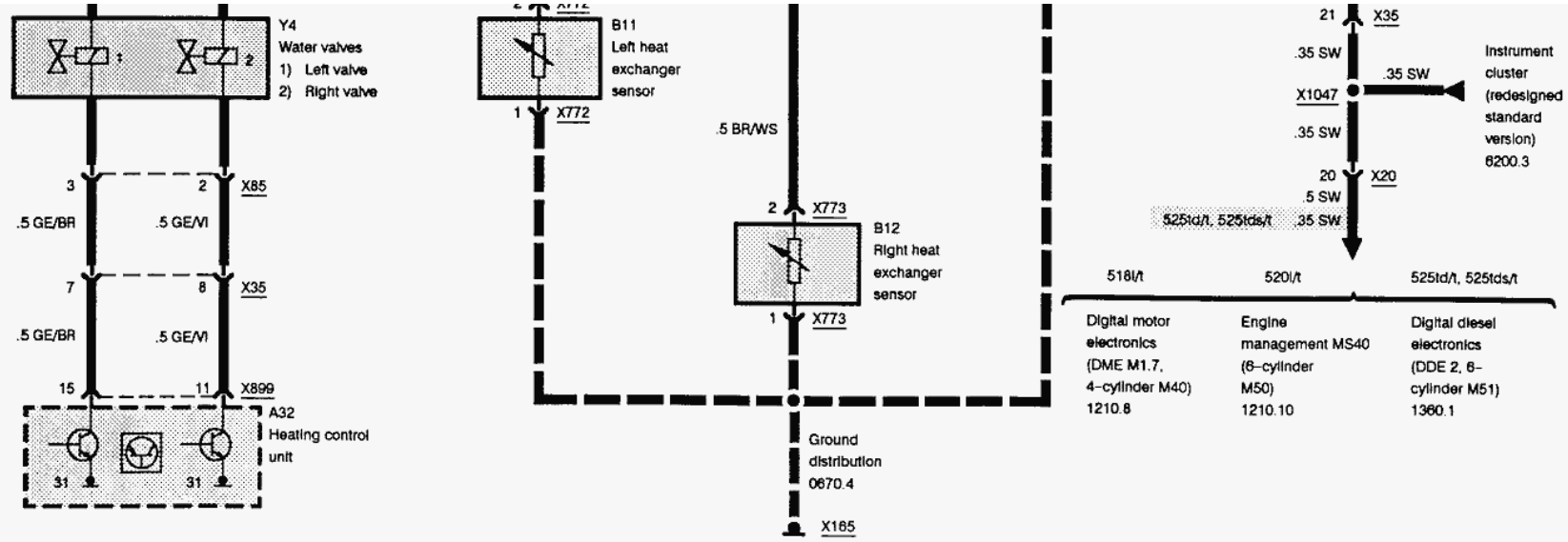

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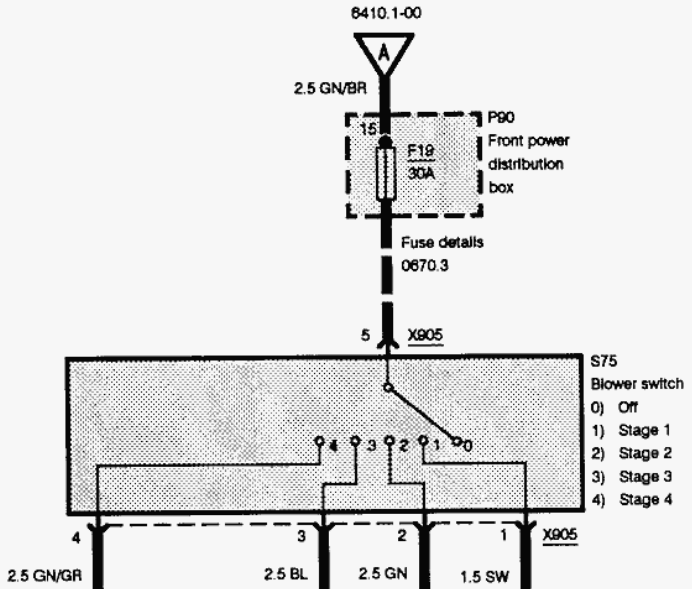
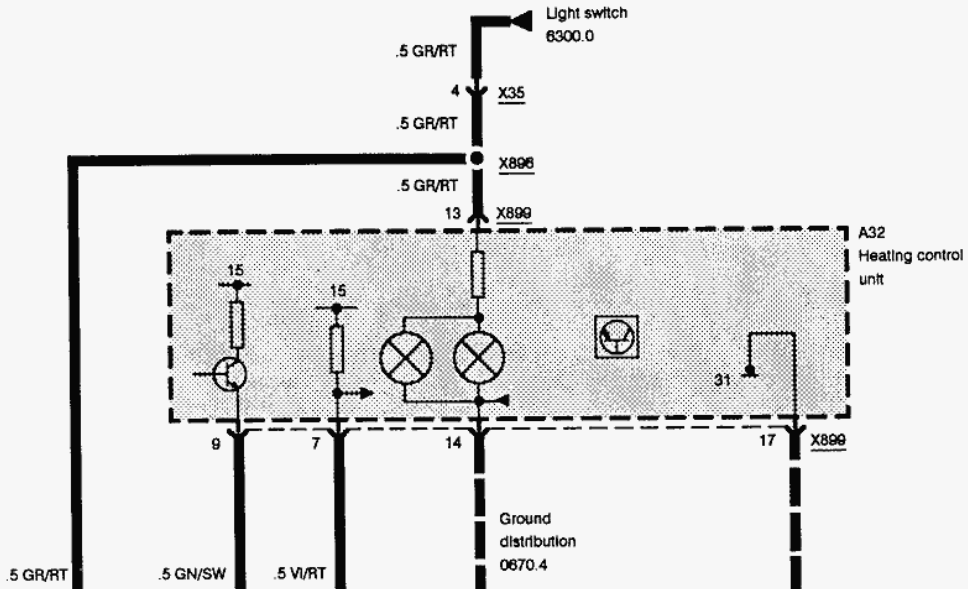
Automatic heating control (HR34) - digital

Air volume control



Rear window defogger



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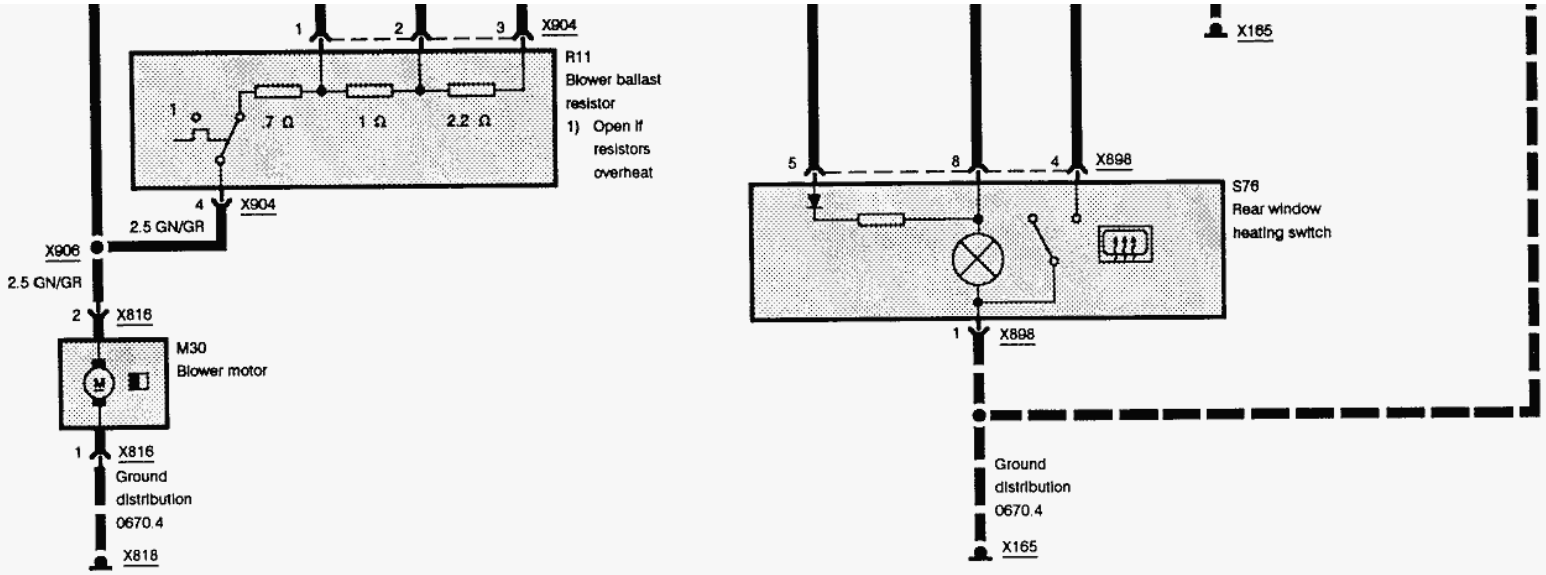

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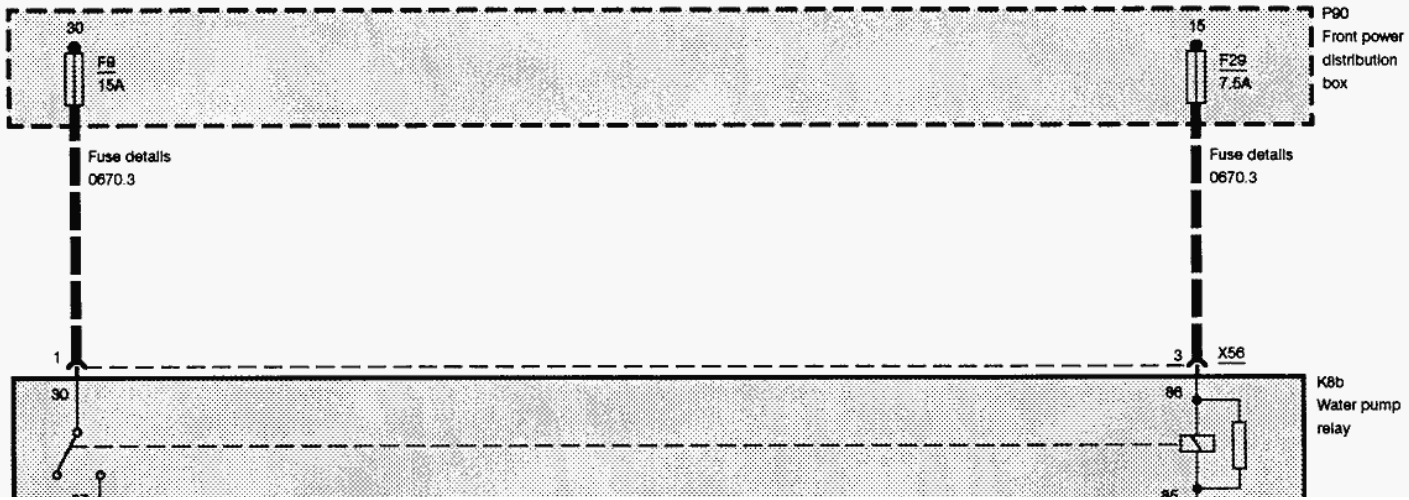
Automatic heating control (HR34) - digital

Water pump



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Electrical troubleshooting manual

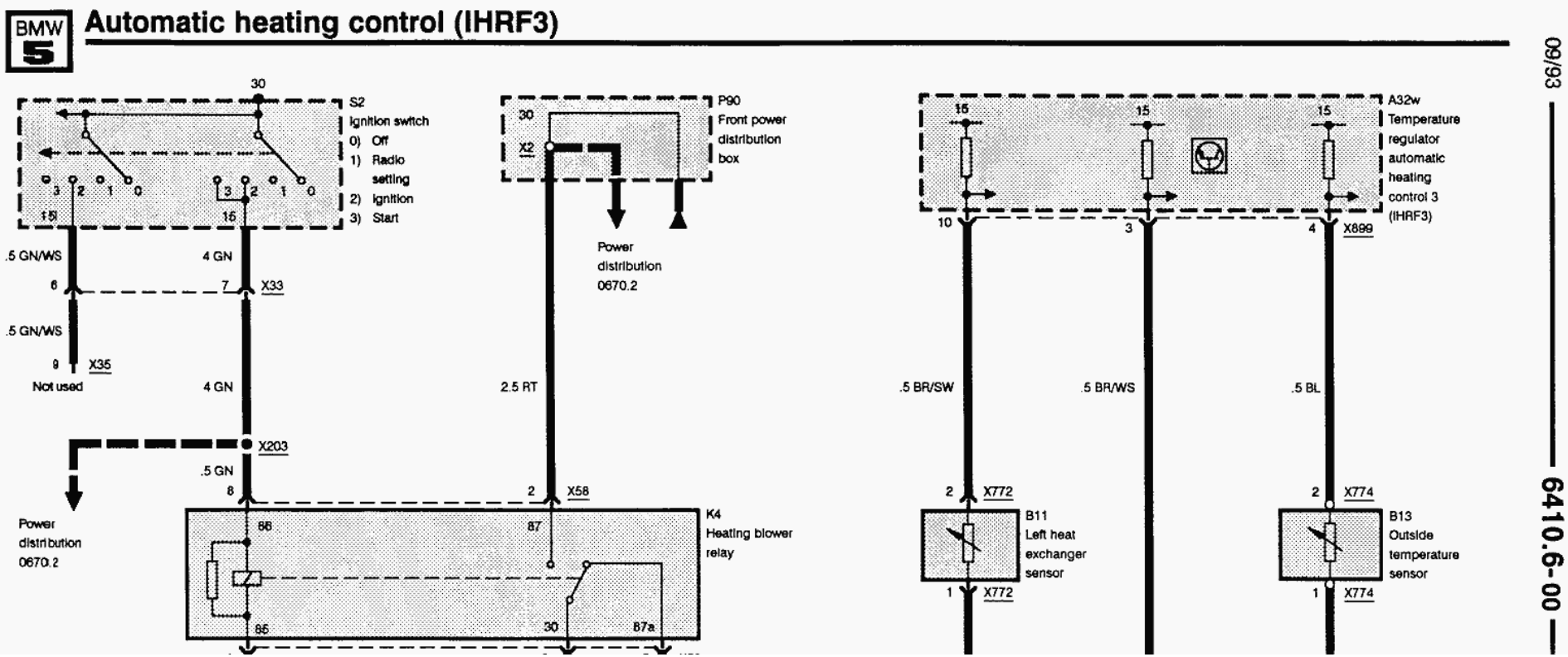
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Automatic heating control (IHRF3)
Scheme 6410.6

Pin Assignment X899

Pin	Type	Description/Function	Connection
1	E	Left footwell temperature	Left footwell sensor
2	E	Right footwell temperature	Right footwell sensor
3	E	Right heat exchanger temperature	Right heat exchanger sensor
4	E	Outside temperature	Outside temperature sensor
5	E	Terminal 15	Fuse
6	M	Ground	Ground connection
7	E	Signal, rear window defogger ON	Rear window defogger switch
8	A	Signal, rear window defogger ON	Rear window defogger relay
9	A	Function light, rear window defogger	Rear window defogger switch
10	E	Left heat exchanger temperature	Left heat exchanger sensor
11	A	Activation, right water valve	Right water valve
12	A	Signal, auxiliary water pump	Relay, auxiliary water pump
13	E	Lights, terminal 58 g	Dimmer
14	M	Ground	Ground connection
15	A	Activation, left water valve	Left water valve
16	E	Tacho/speed signal	DME control unit/DDE control unit
17	M	518i/t, 520i/t: not used 525td/t, 525tds/t: Ground	Ground connection
18		not used	

E = Input, A = Output, M = Ground



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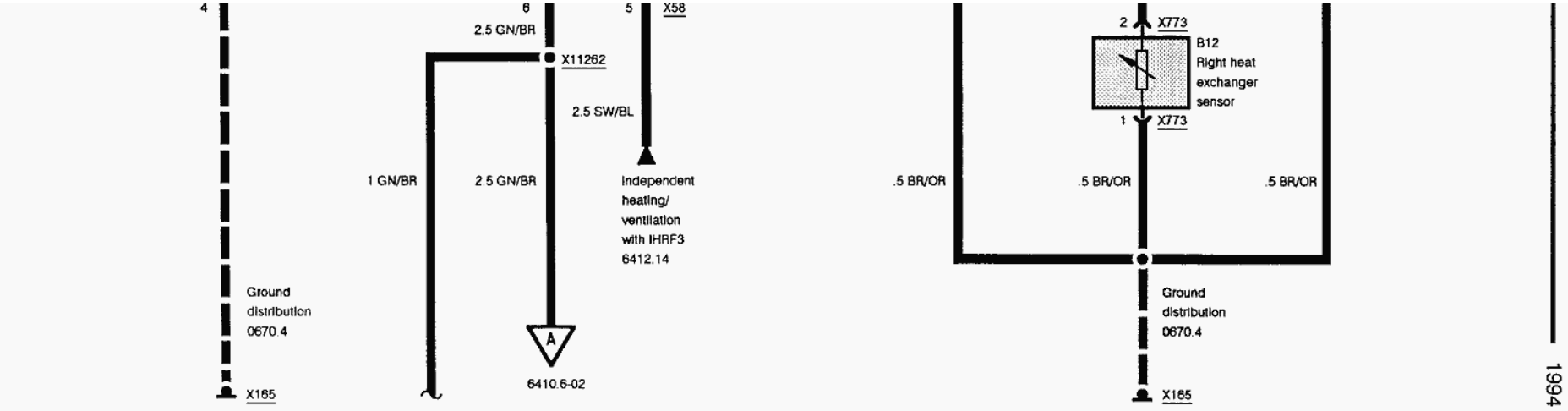

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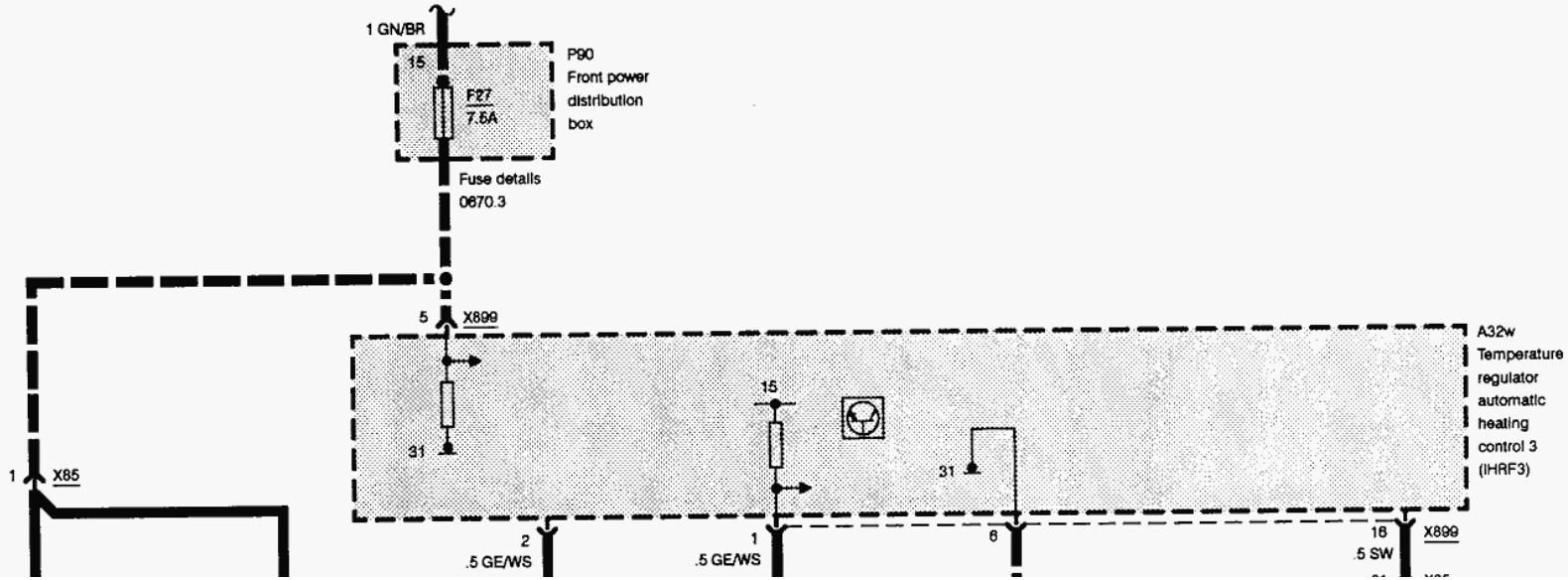

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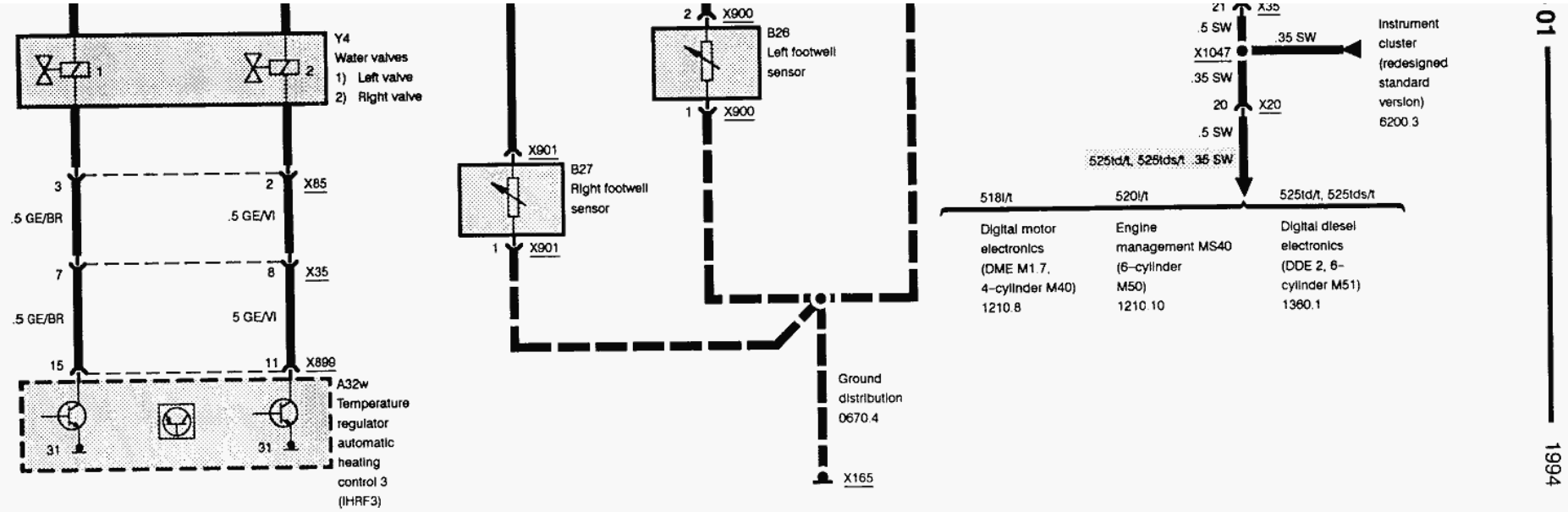

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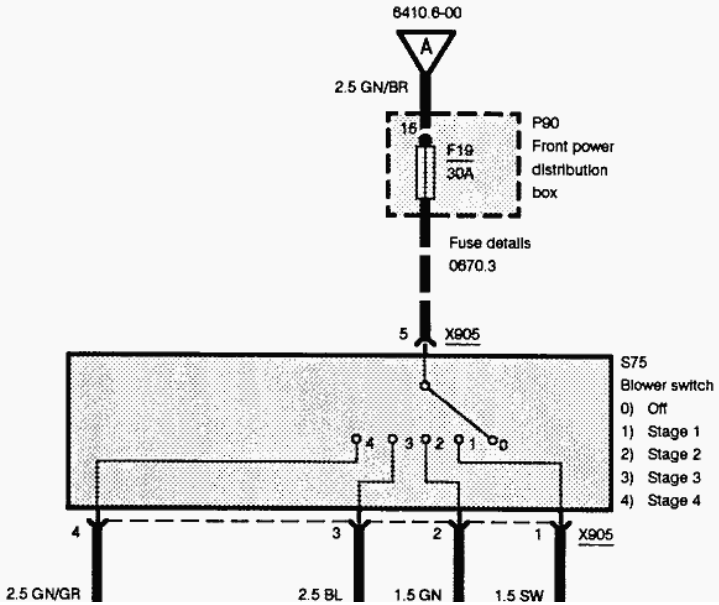
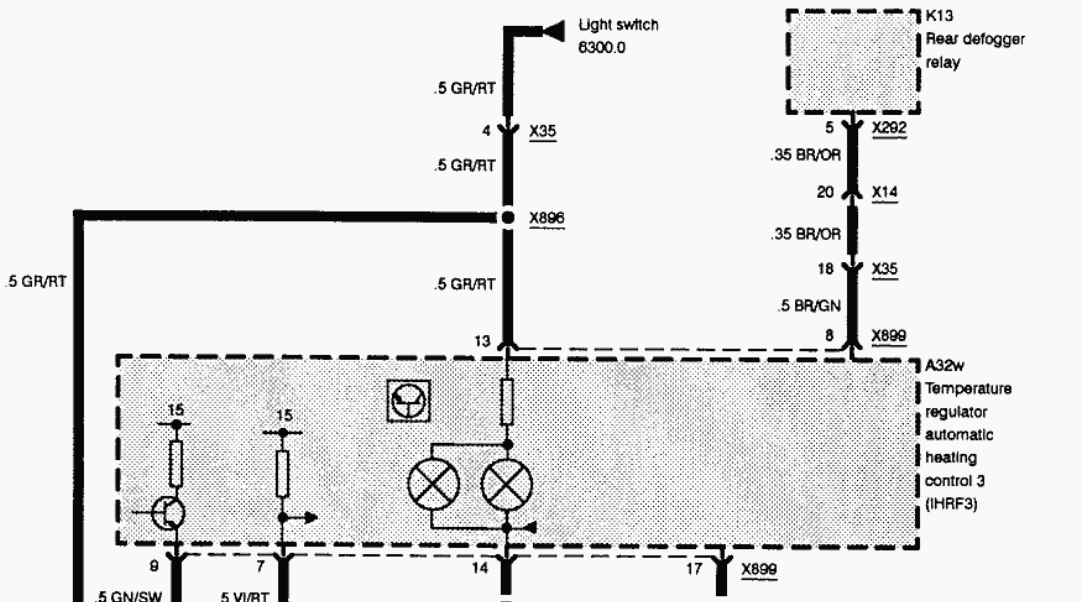
Automatic heating control (IHRF3)

Air volume control



Rear window defogger



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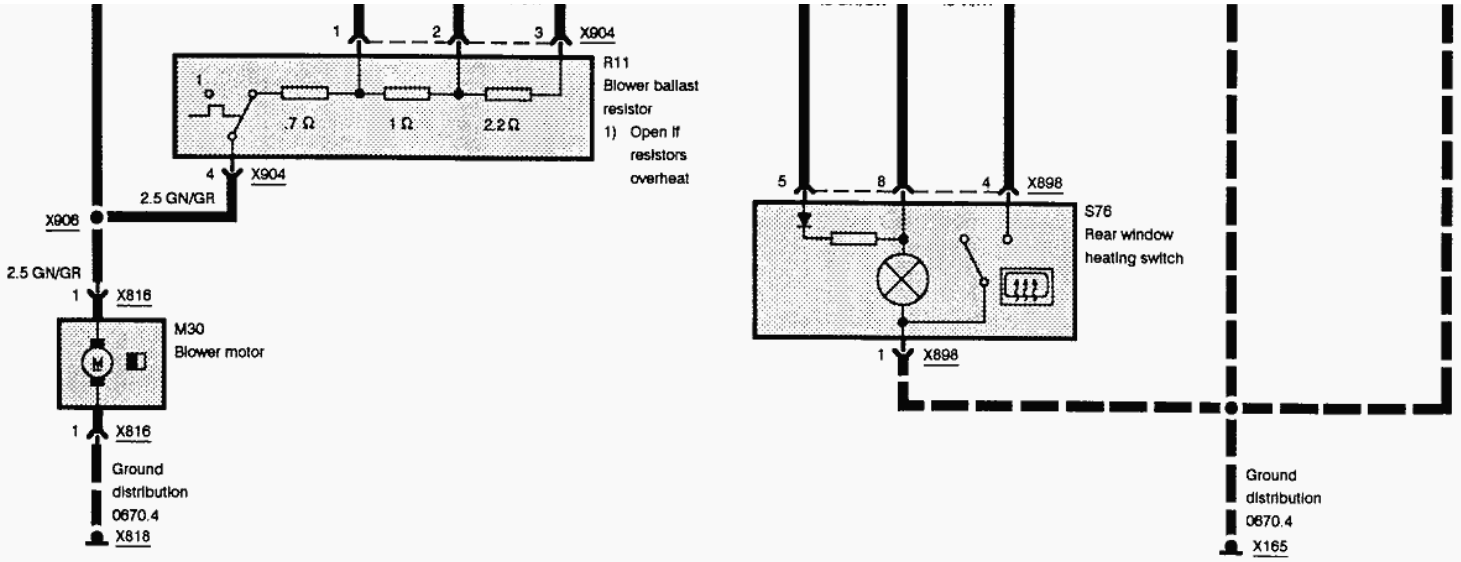

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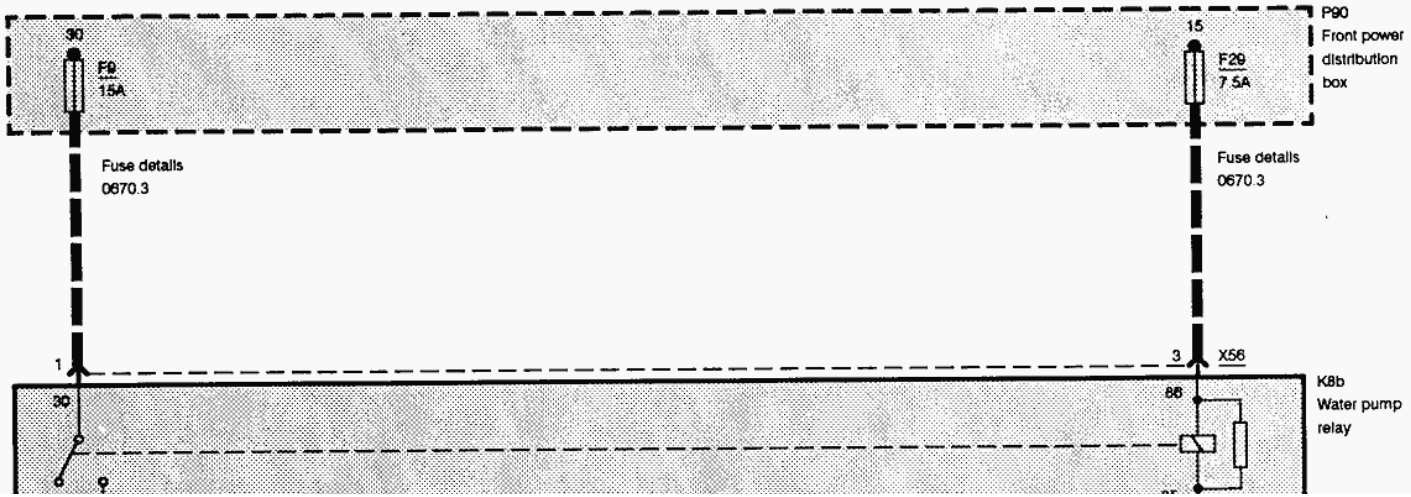
Automatic heating control (IHRF3)

Water pump



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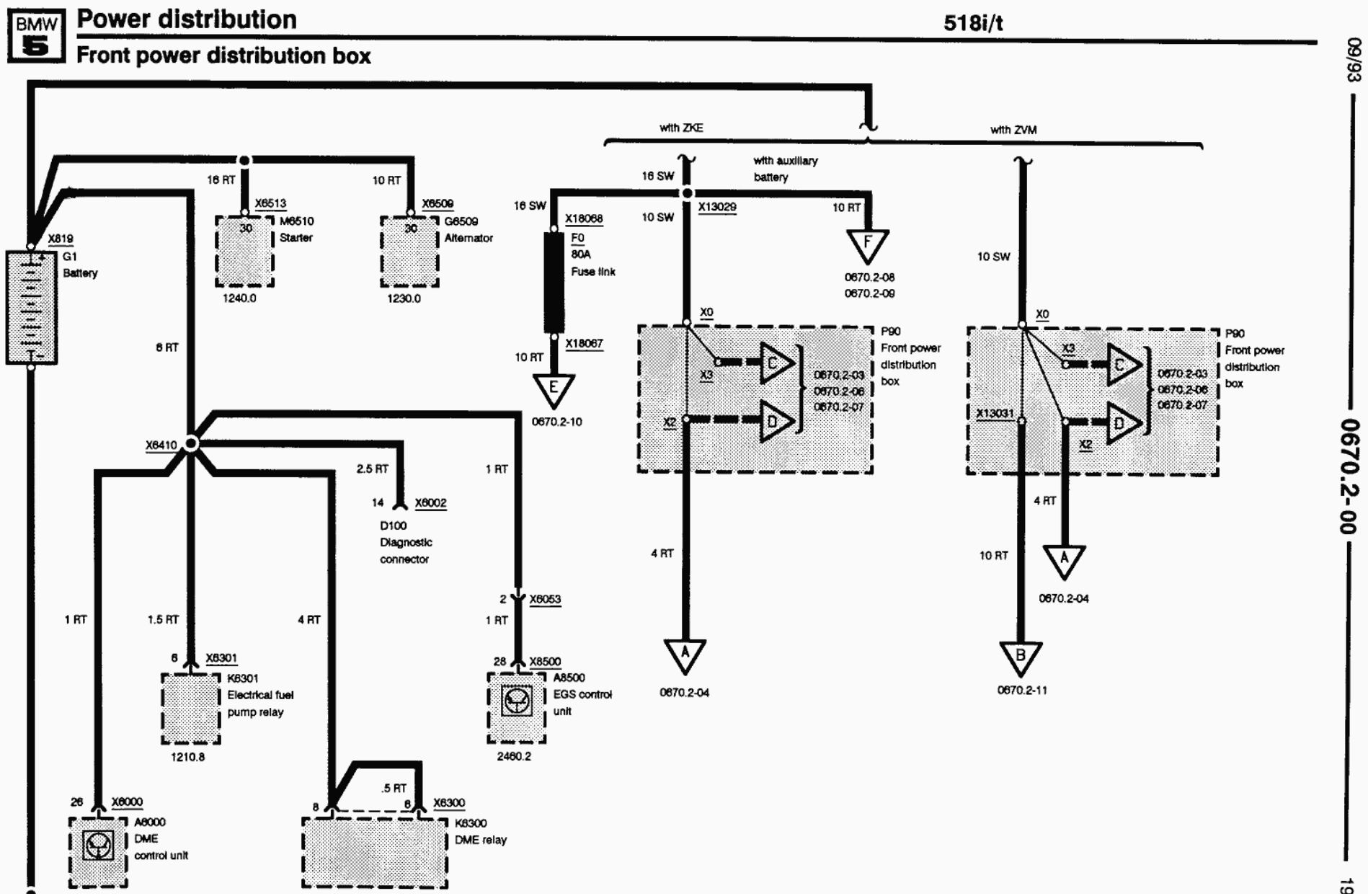
Power distribution
Scheme 0670.2



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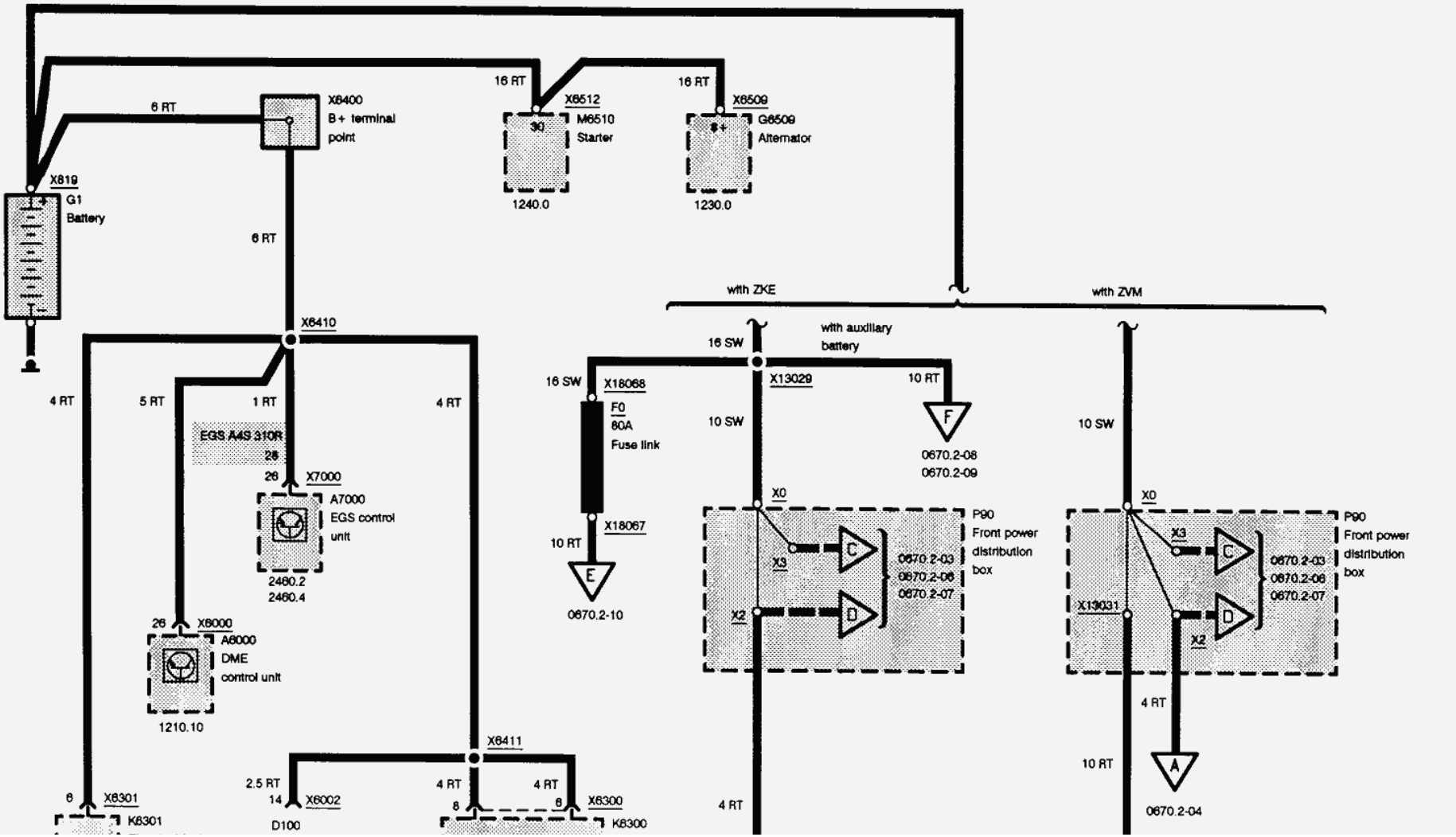
Power distribution

Front power distribution box

520i/t



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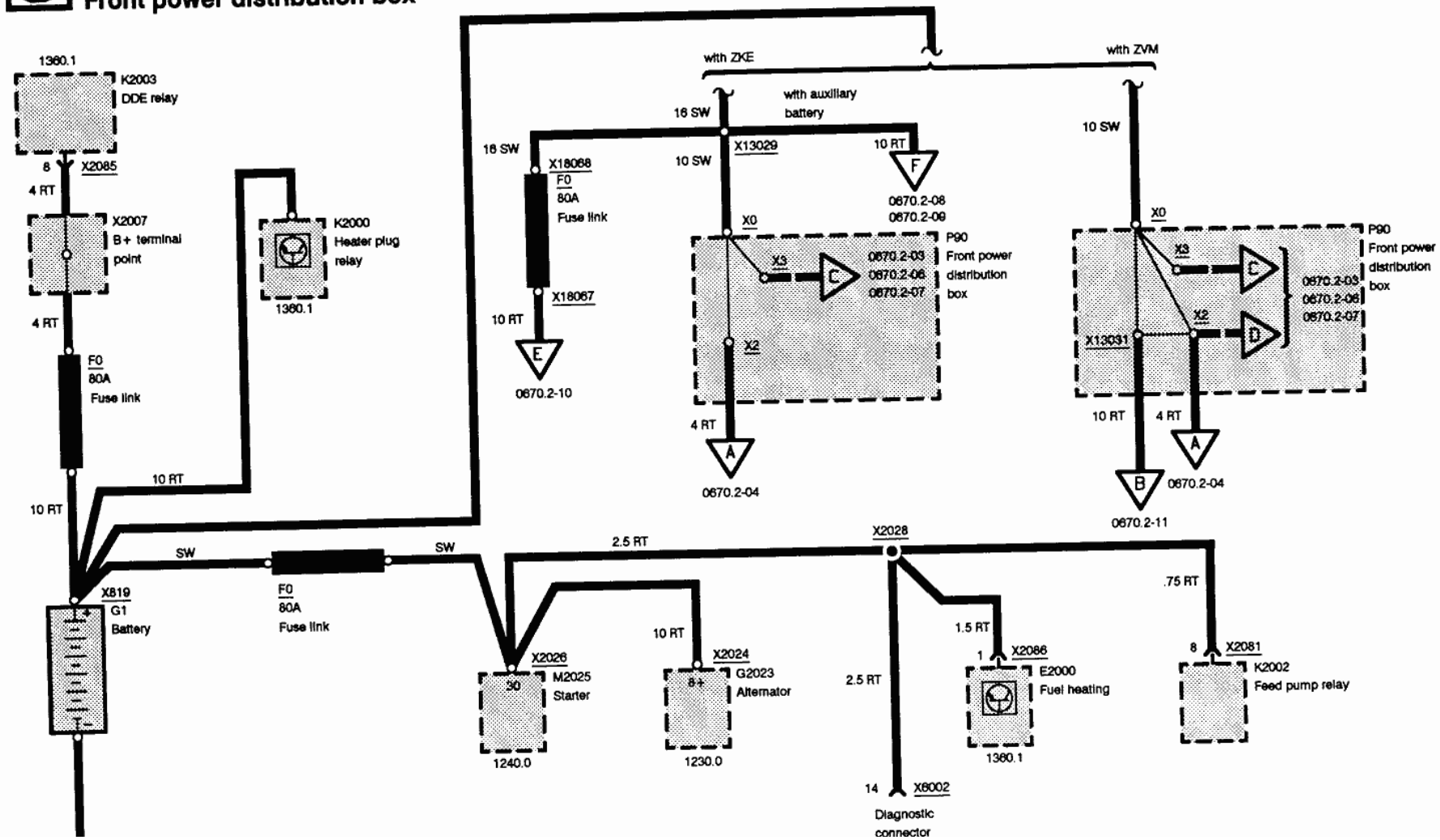
Power distribution

525td/t, 525tds/t

Front power distribution box



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Power distribution

Front power distribution box

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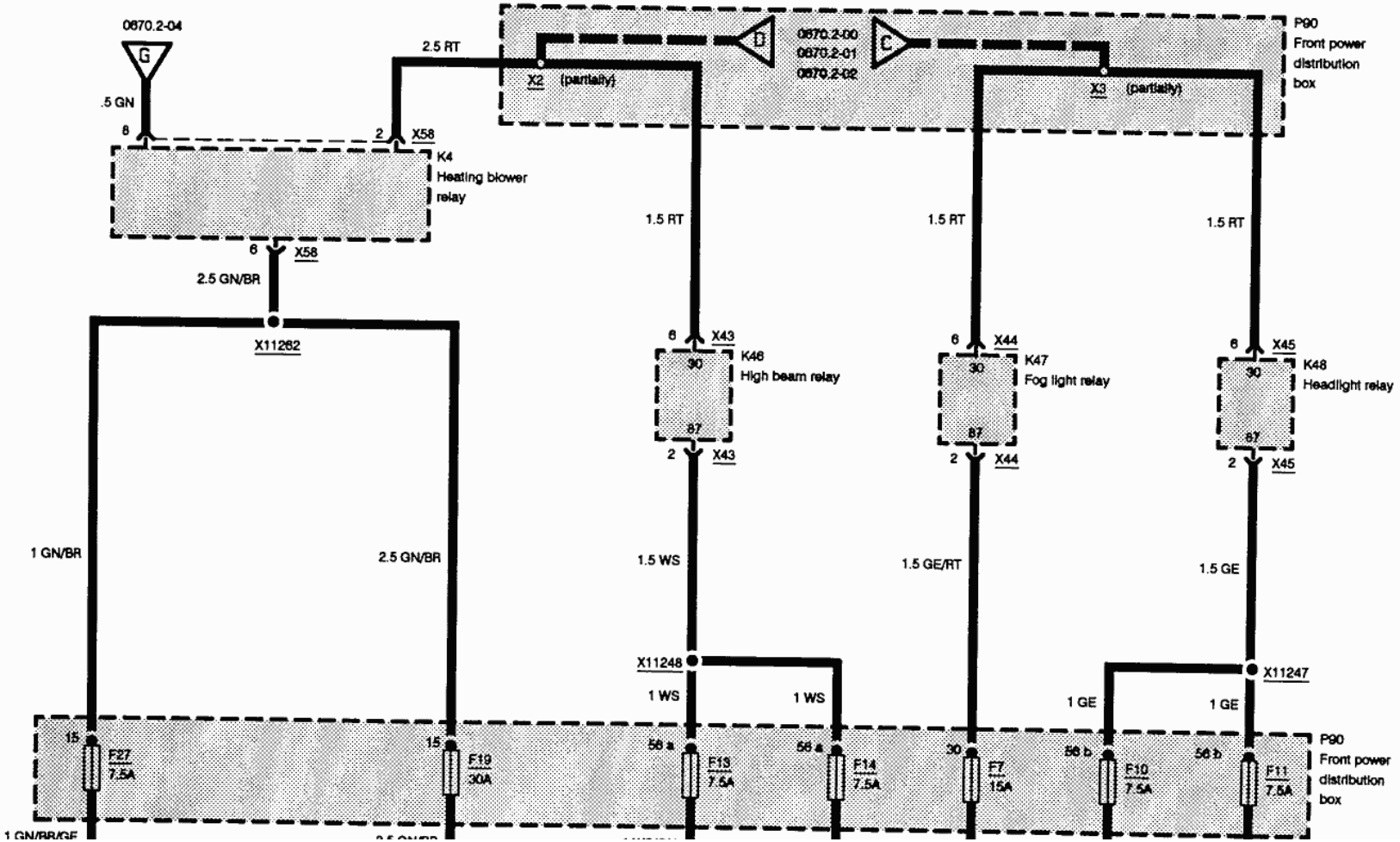
0670.2-03



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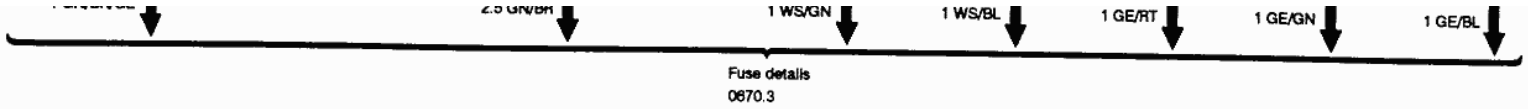

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Power distribution

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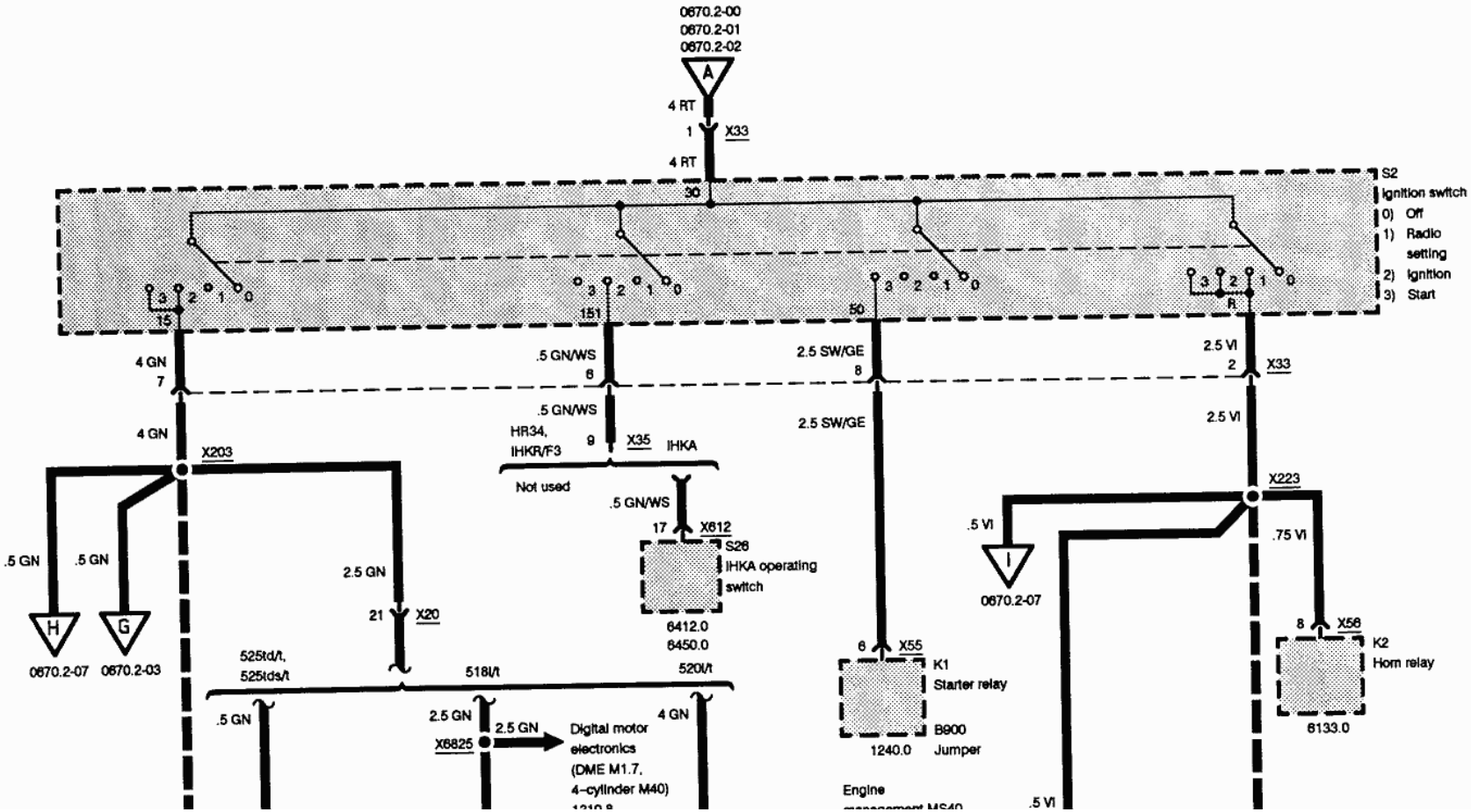

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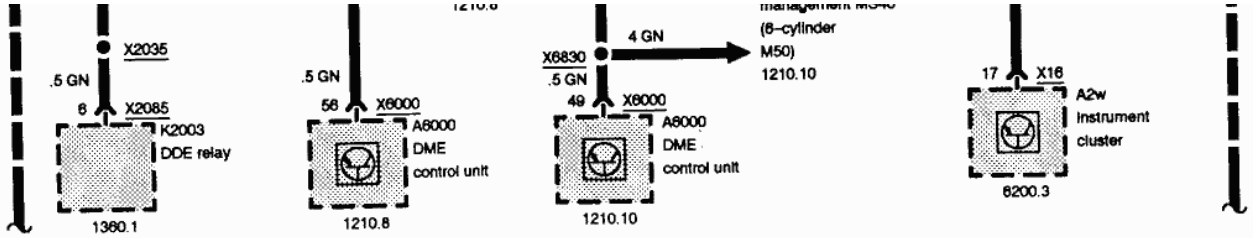

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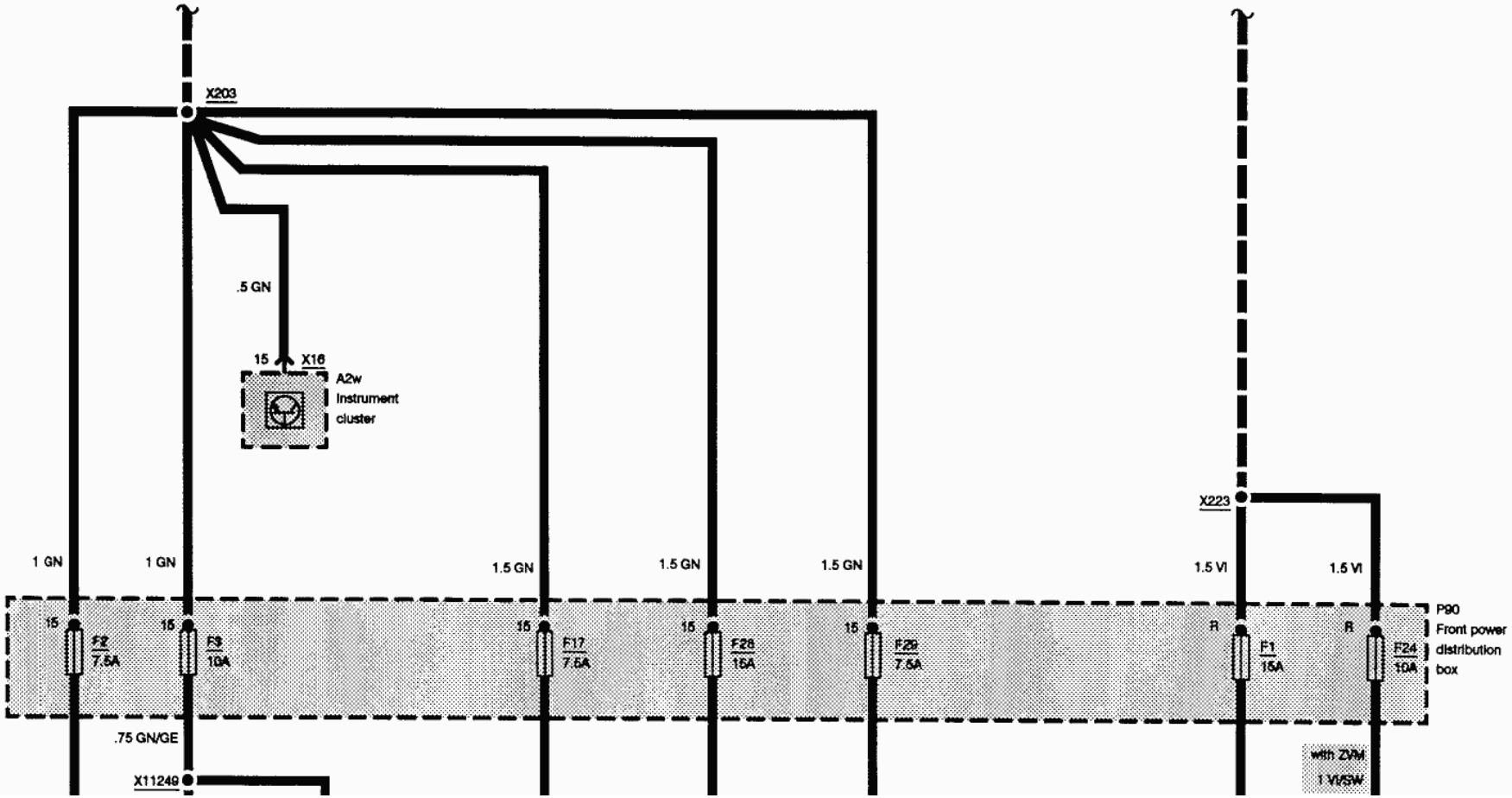

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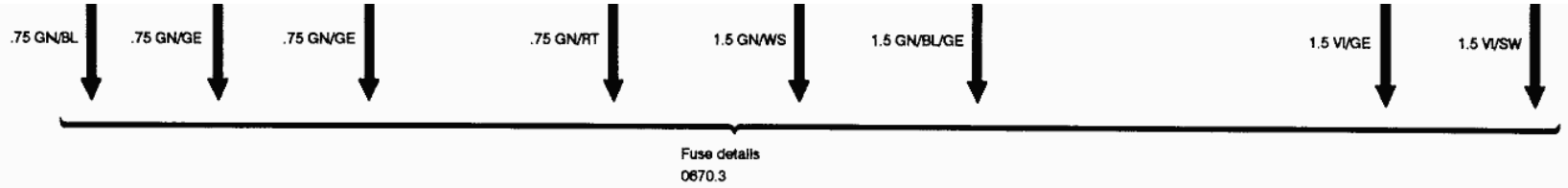

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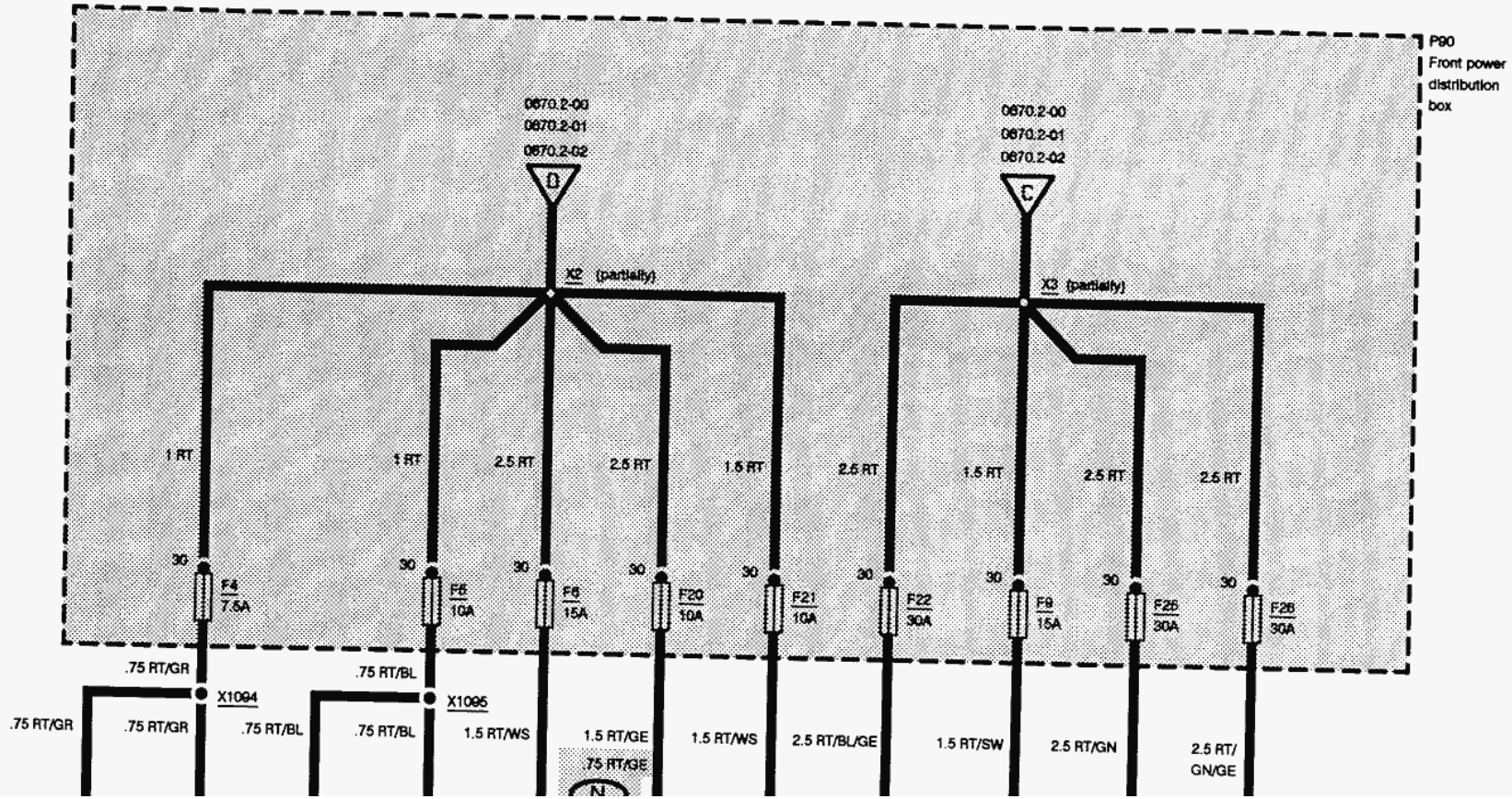
Power distribution

Front power distribution box



09/93

0670.2-06

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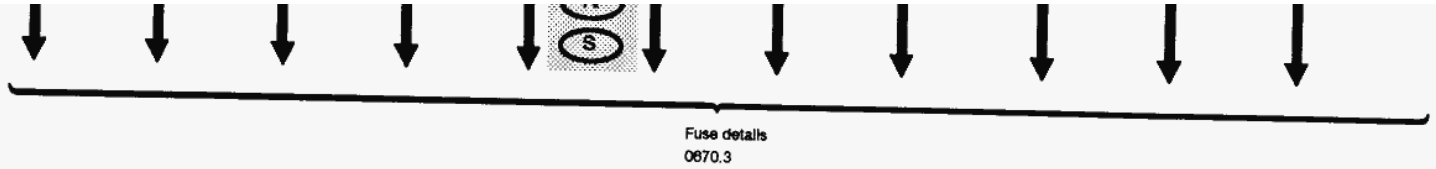
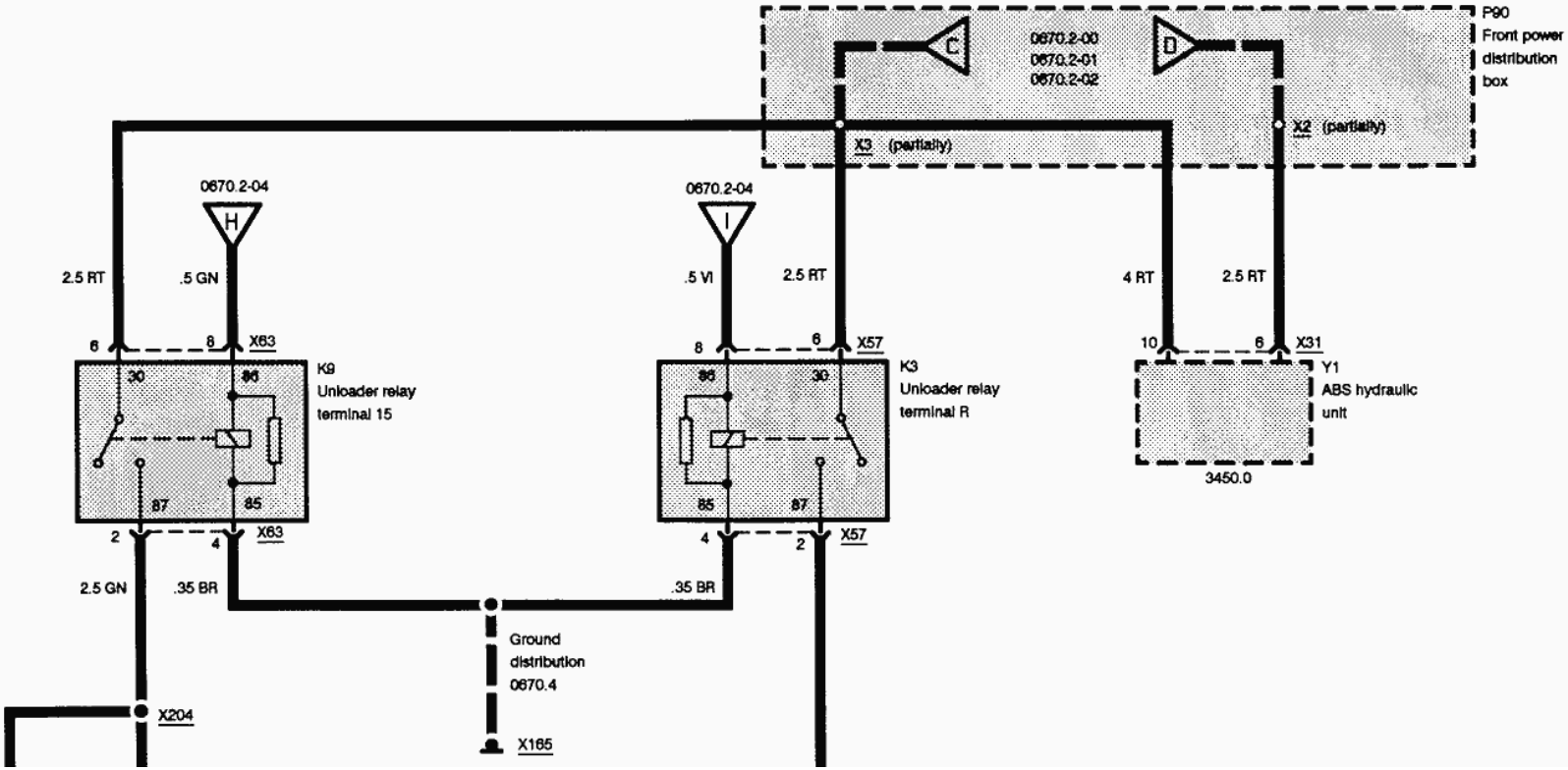


1994

BMW 5

Power distribution

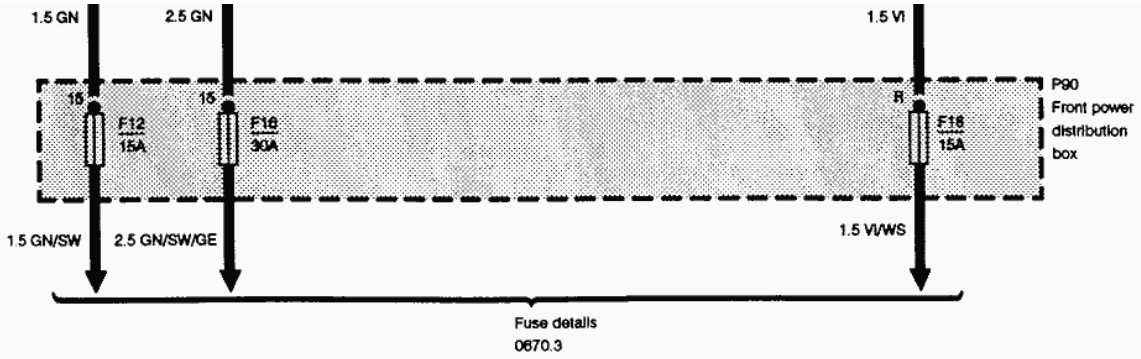
Front power distribution box



09/93

0670.2-07

cardiagn.com



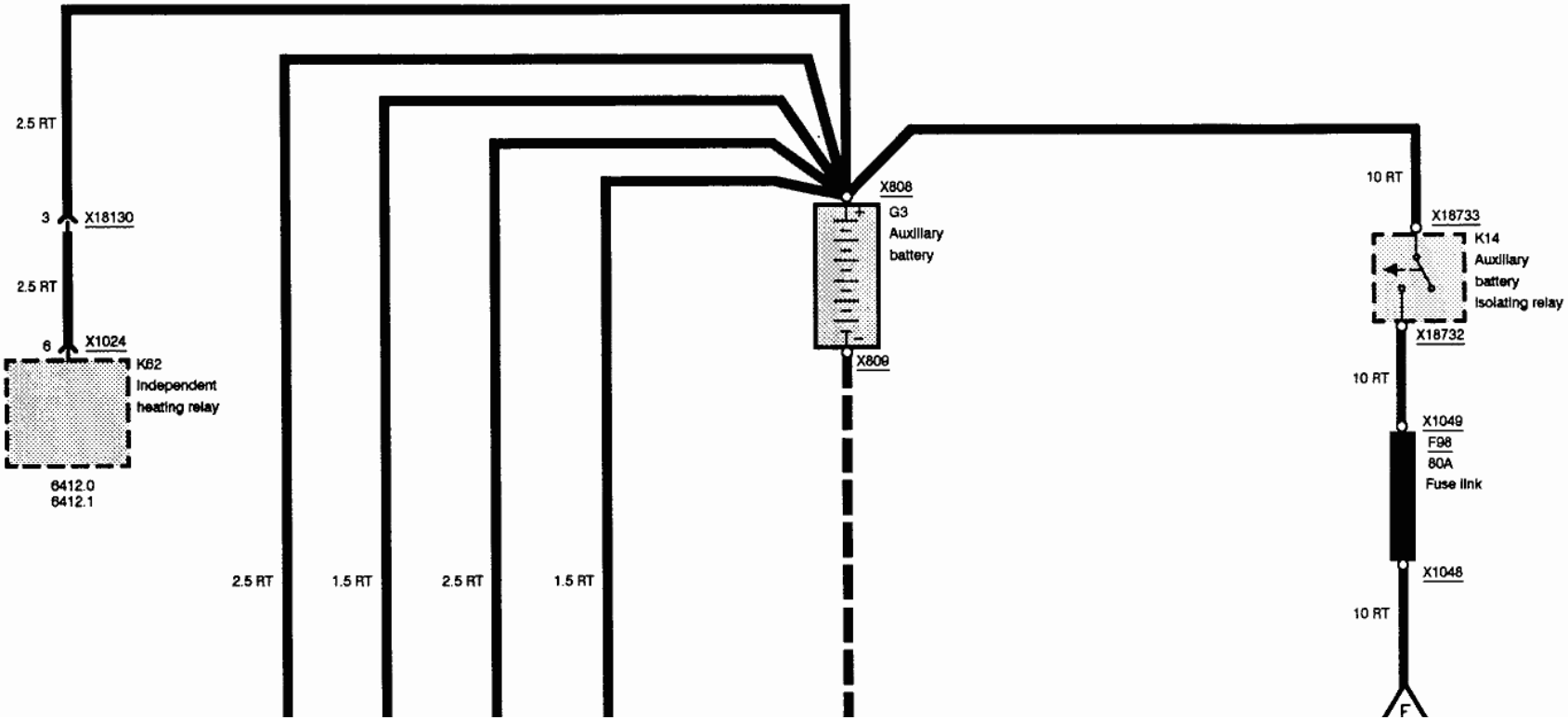
1994

BMW 5

Power distribution

Saloon

Power distribution box under rear seat with auxiliary battery



09/93

0670.2-08

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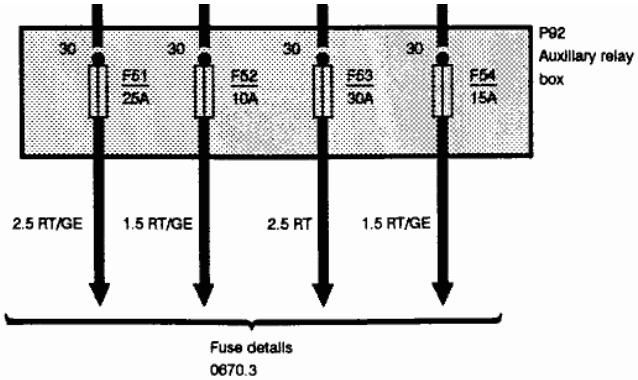


0670.2-00
0670.2-01
0670.2-02

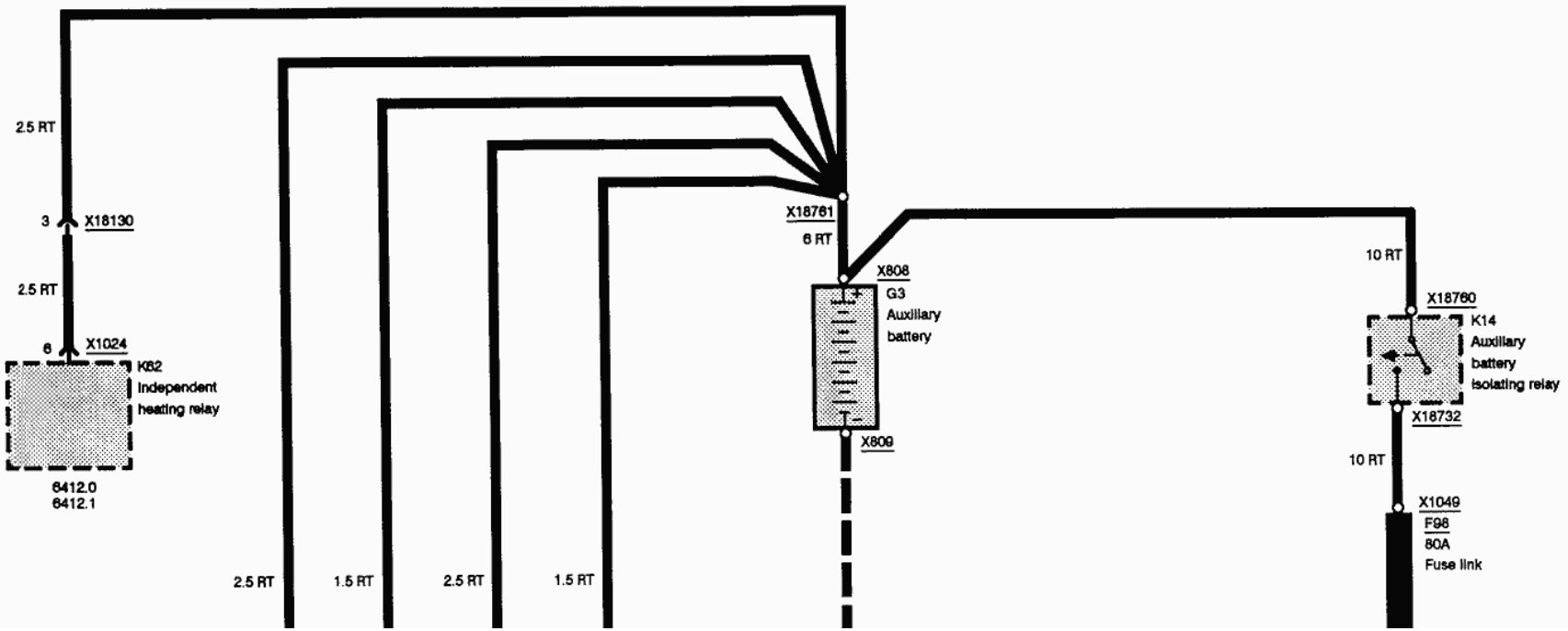
1994

BMW 5

Power distribution

Touring

Power distribution box under rear seat with auxiliary battery



09/93

0670.2-09

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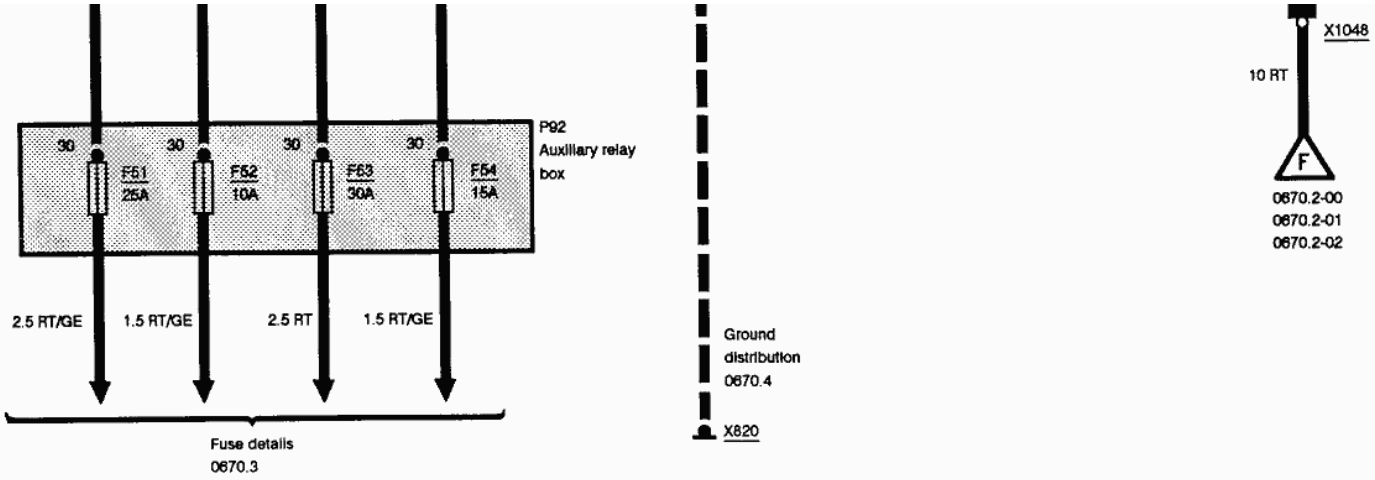


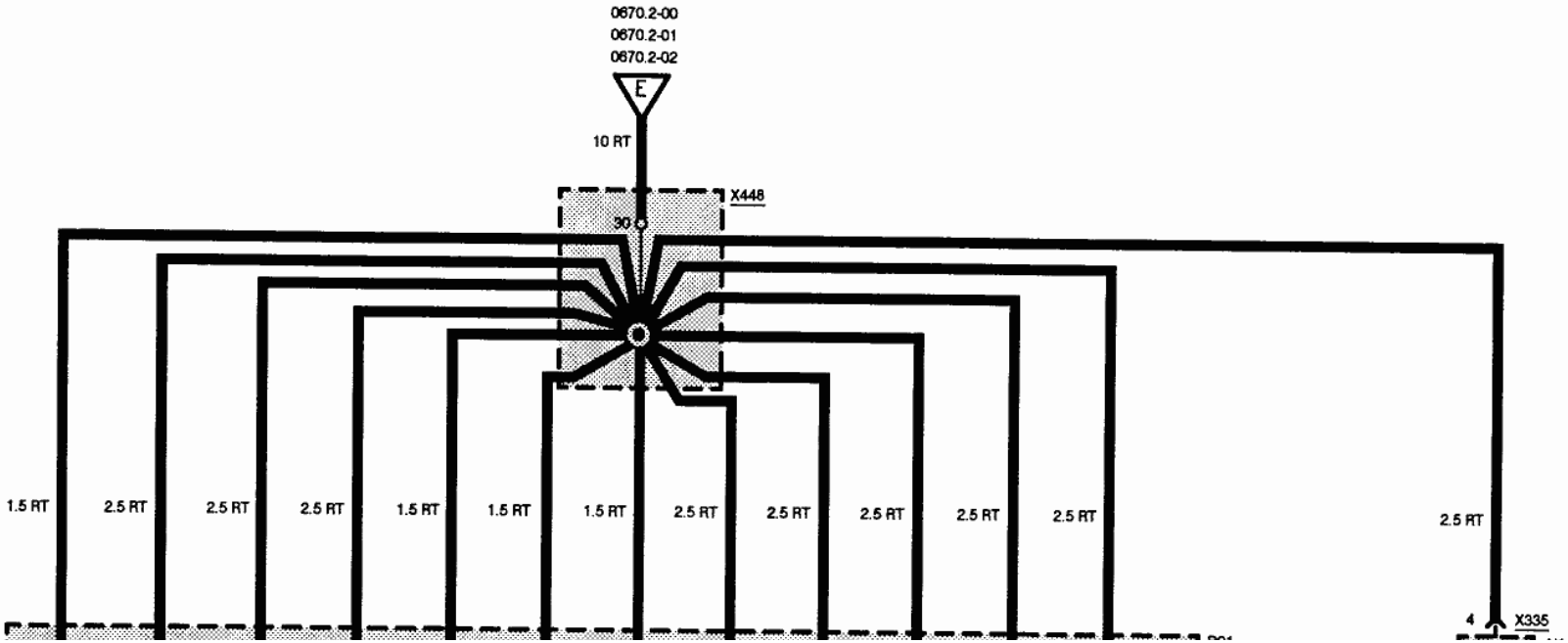
1994

BMW 5

Power distribution

Auxiliary relay box and rear power distribution box with ZKE

09/93



0670.2-10

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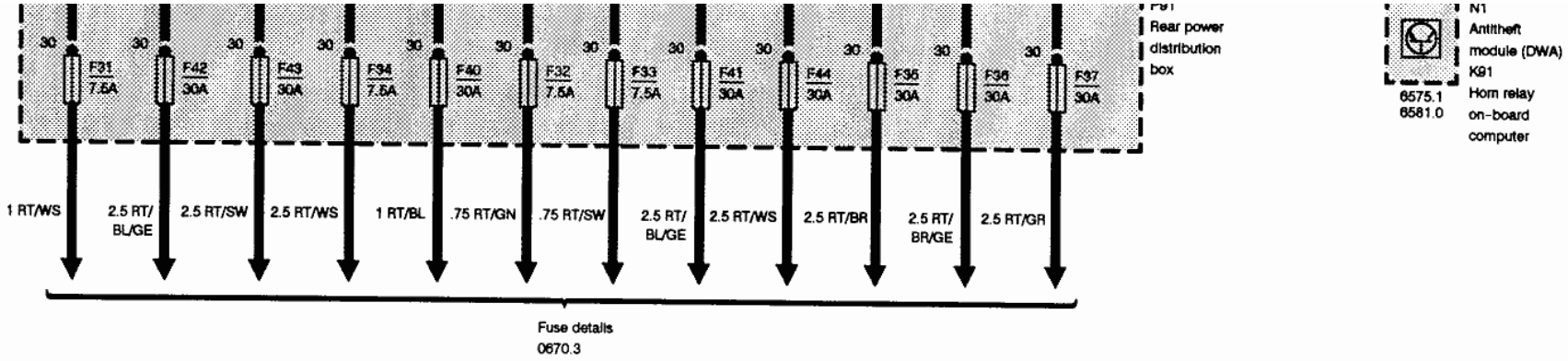
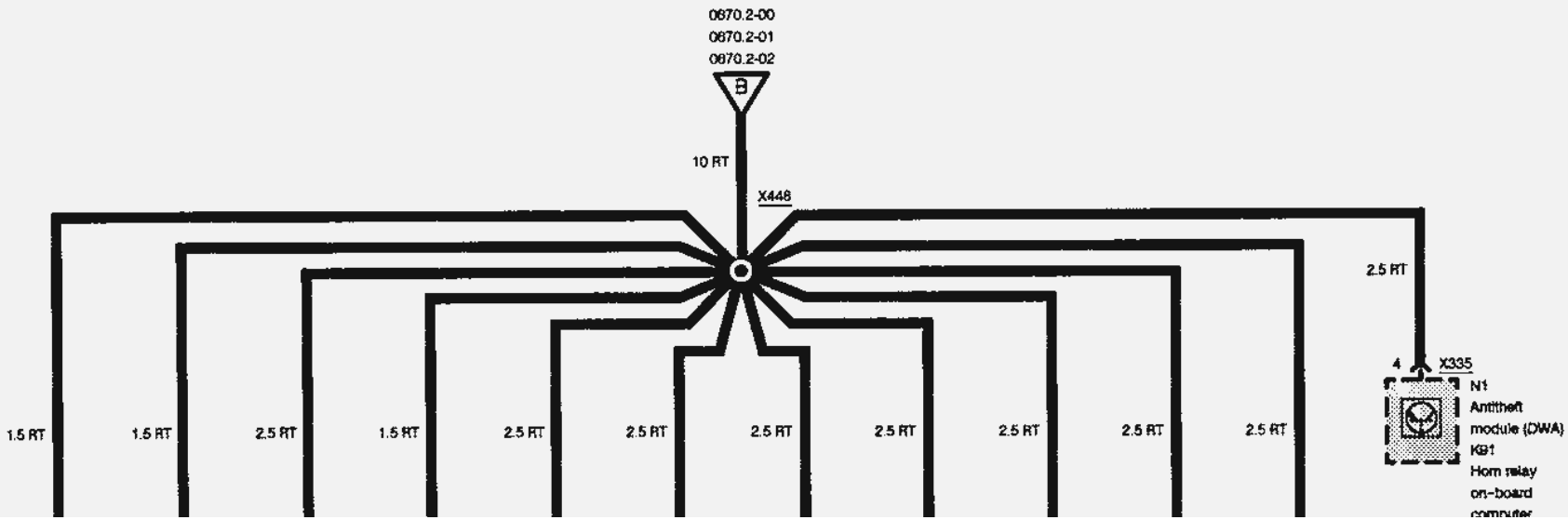


1994

Power distribution

Rear power distribution box with ZVM

09/93



0670.2-1

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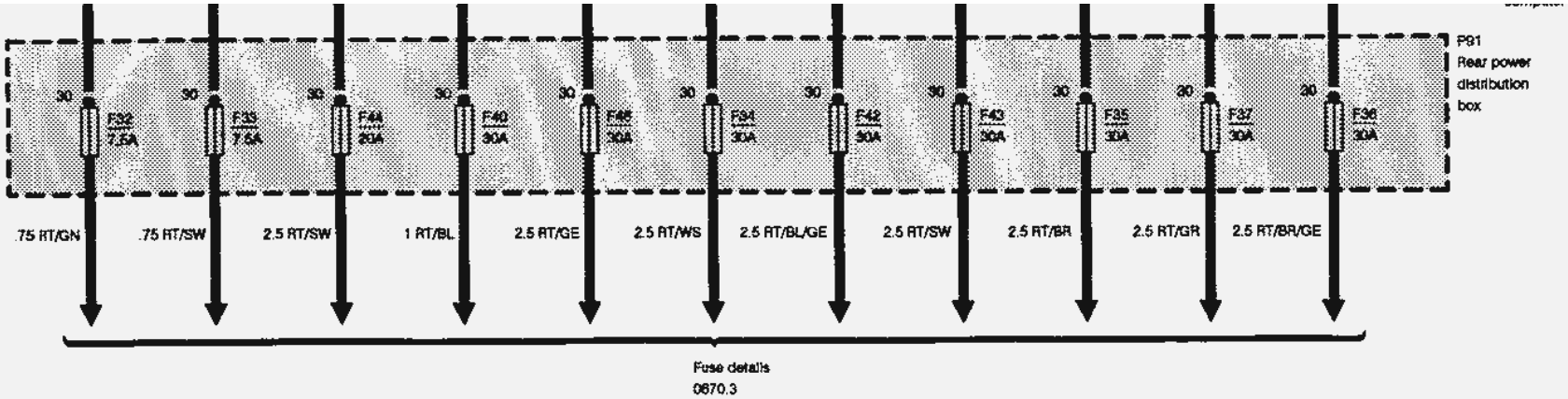

Fuse details
0670.3

1994

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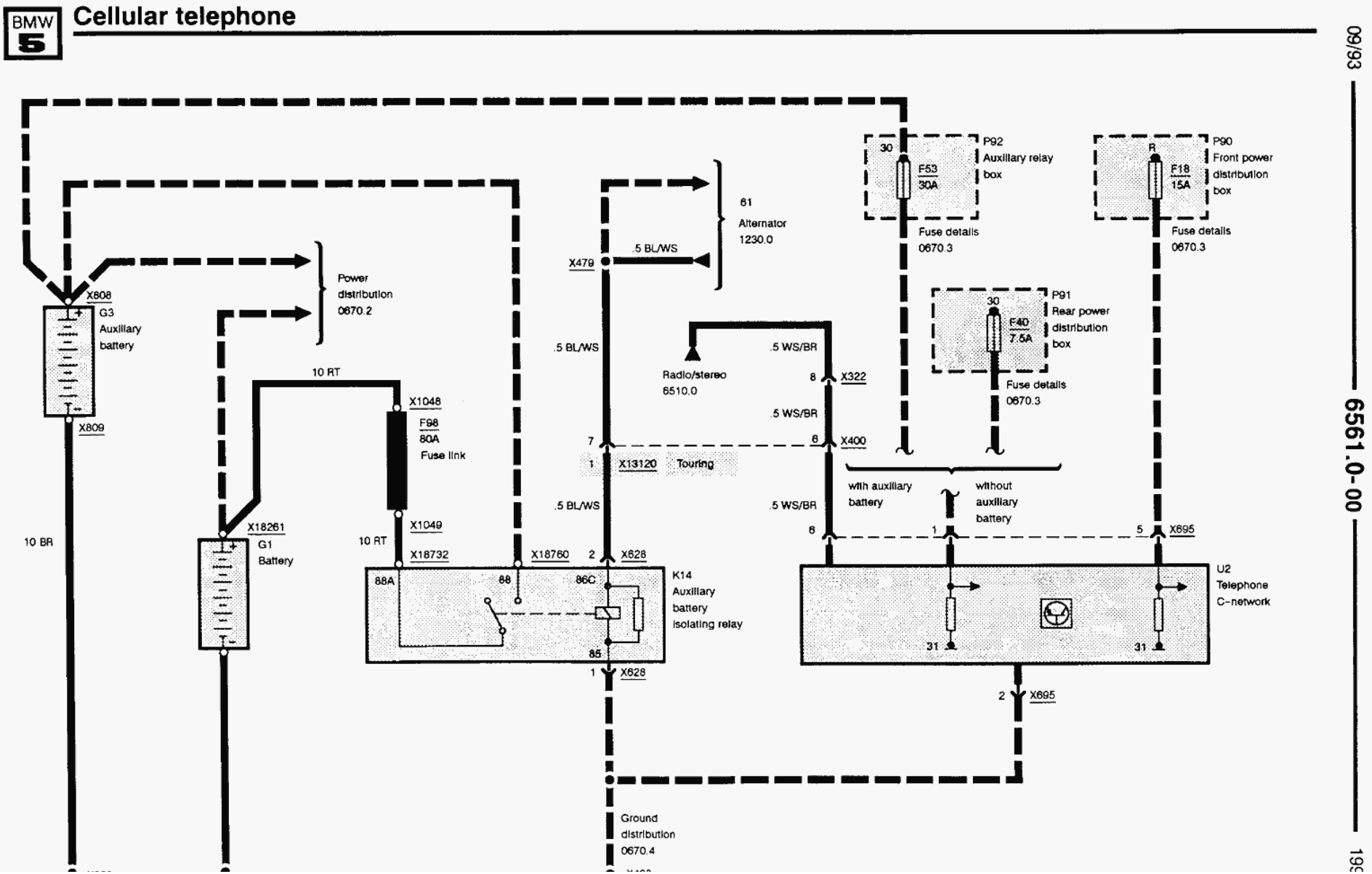
BMWAG
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Cellular telephone
Scheme 6561.0



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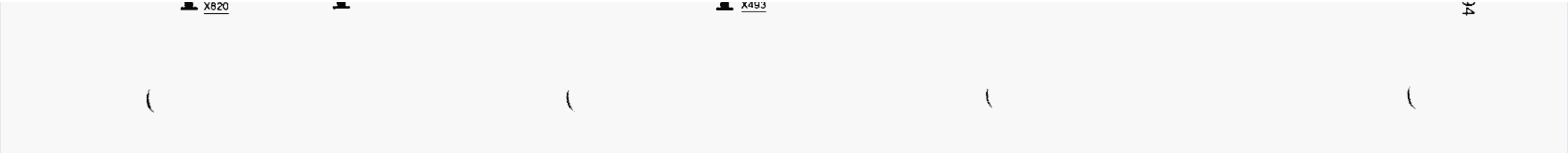

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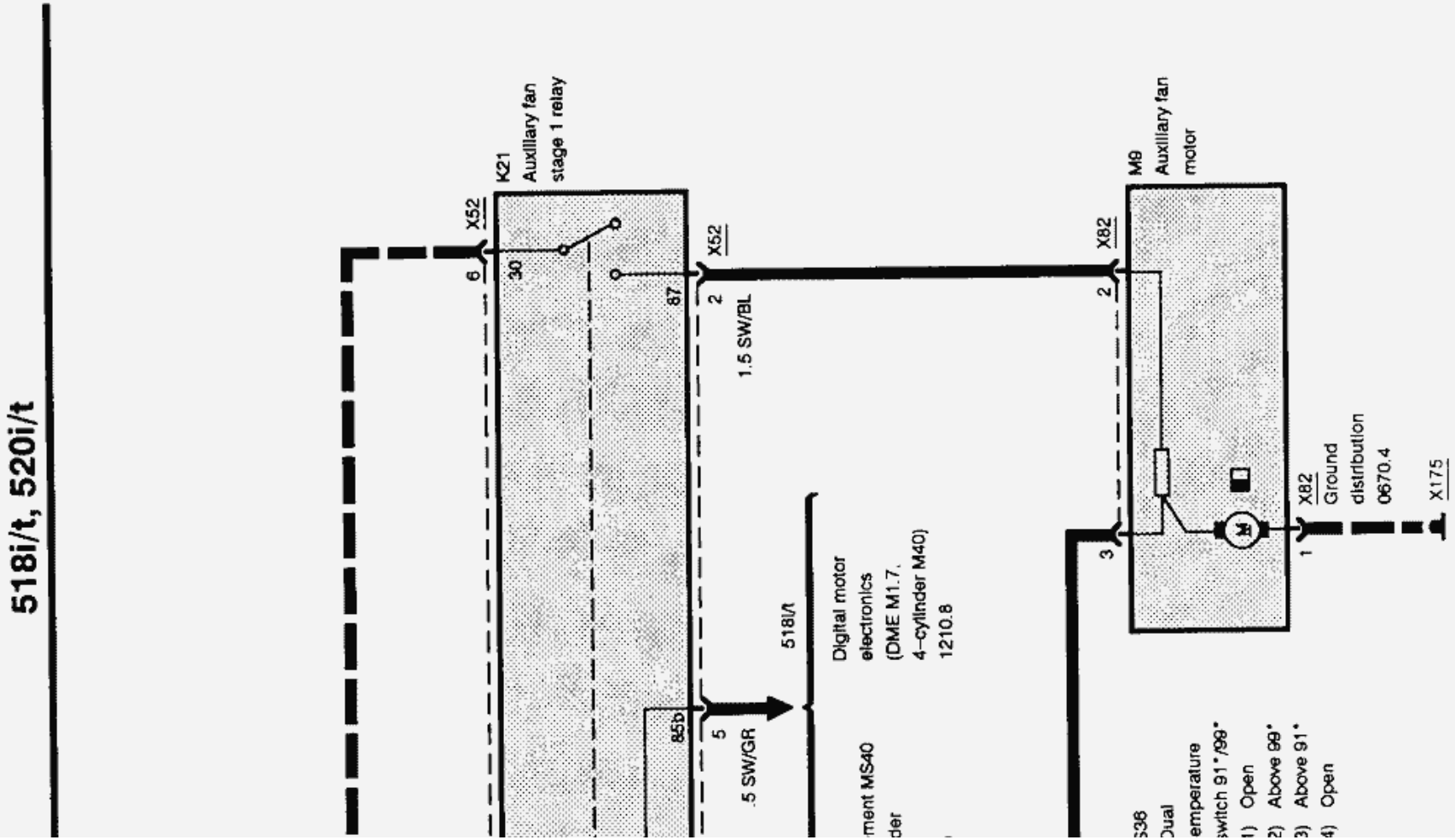
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Auxiliary fan
Scheme 6454.0



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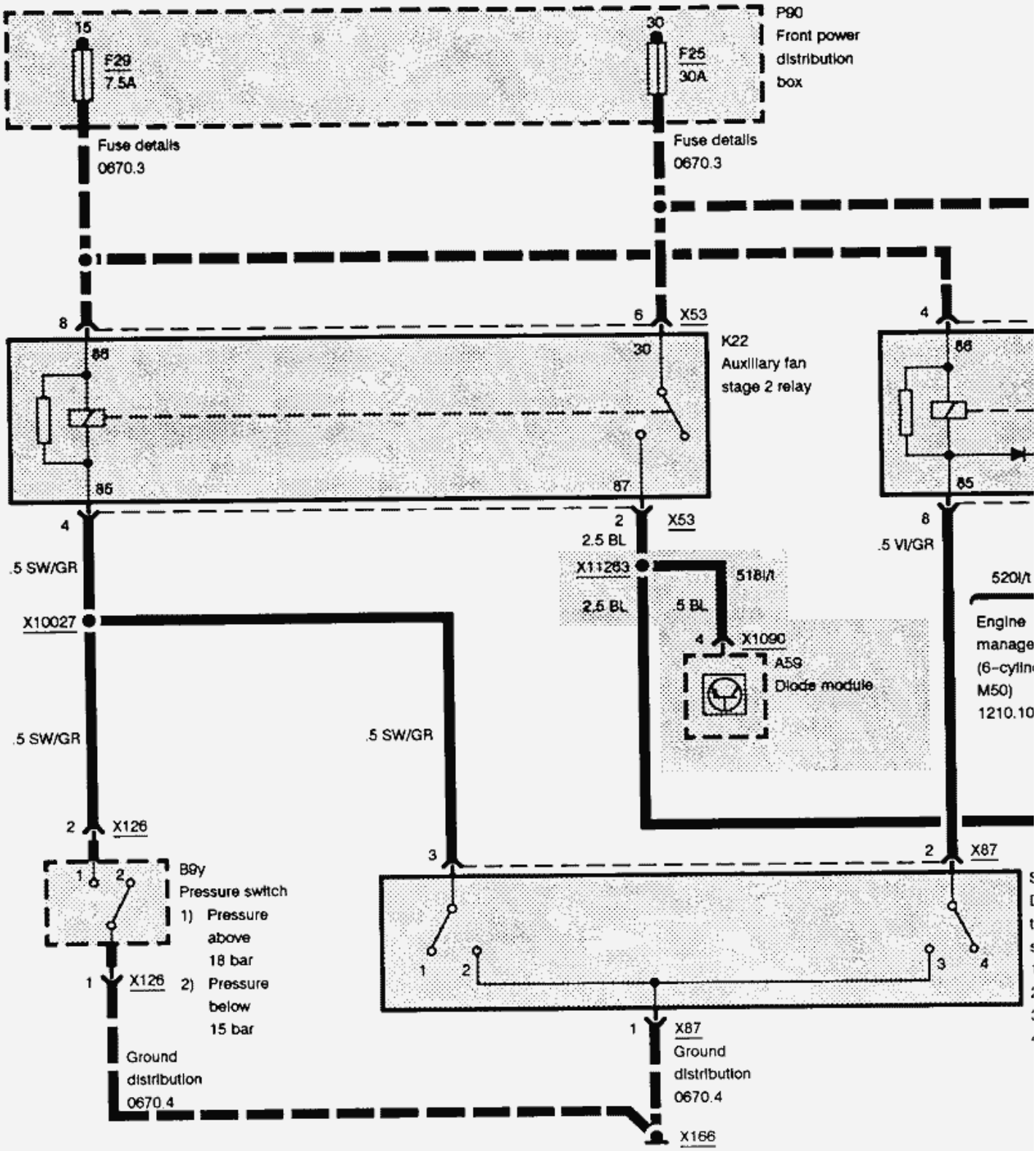
Auxiliary fan



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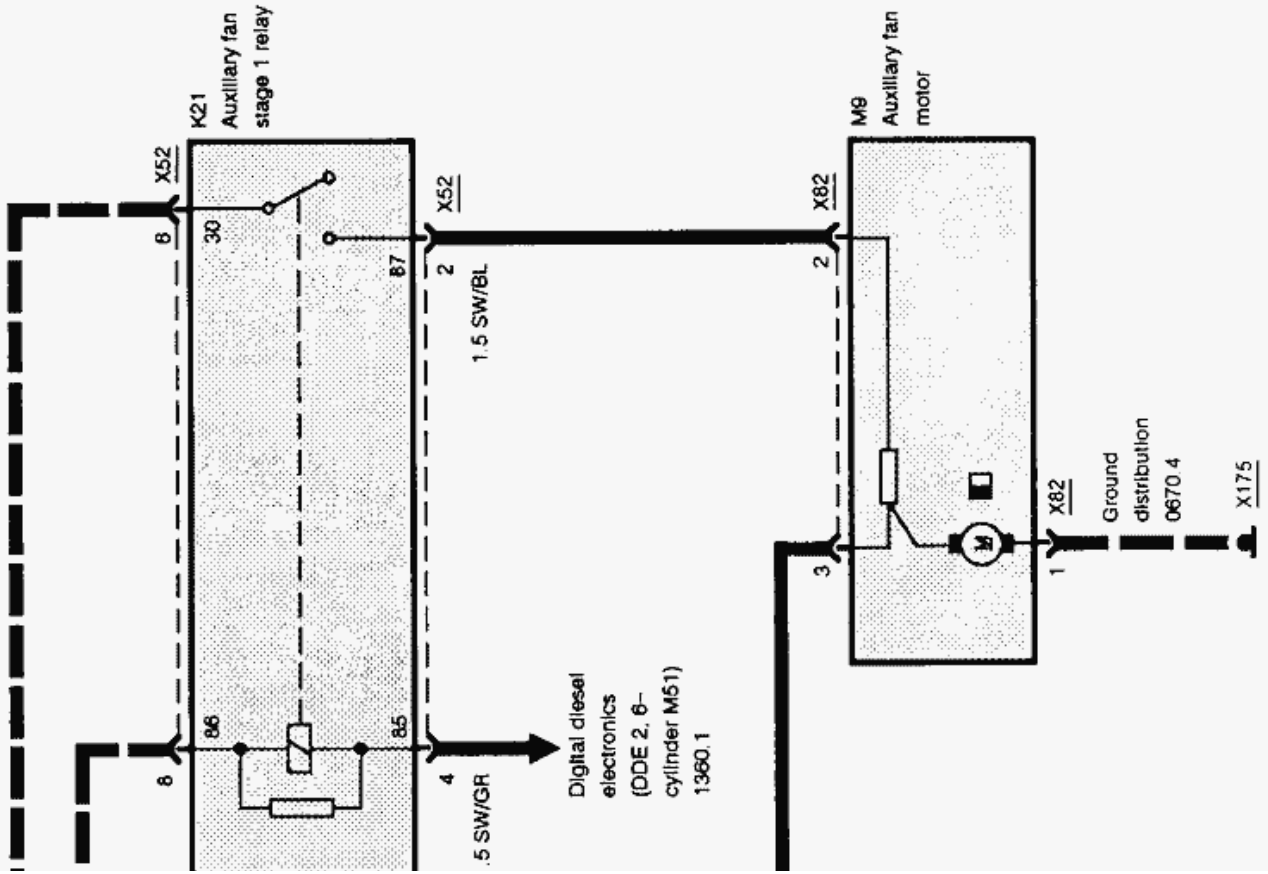
525td/t, 525tds/t



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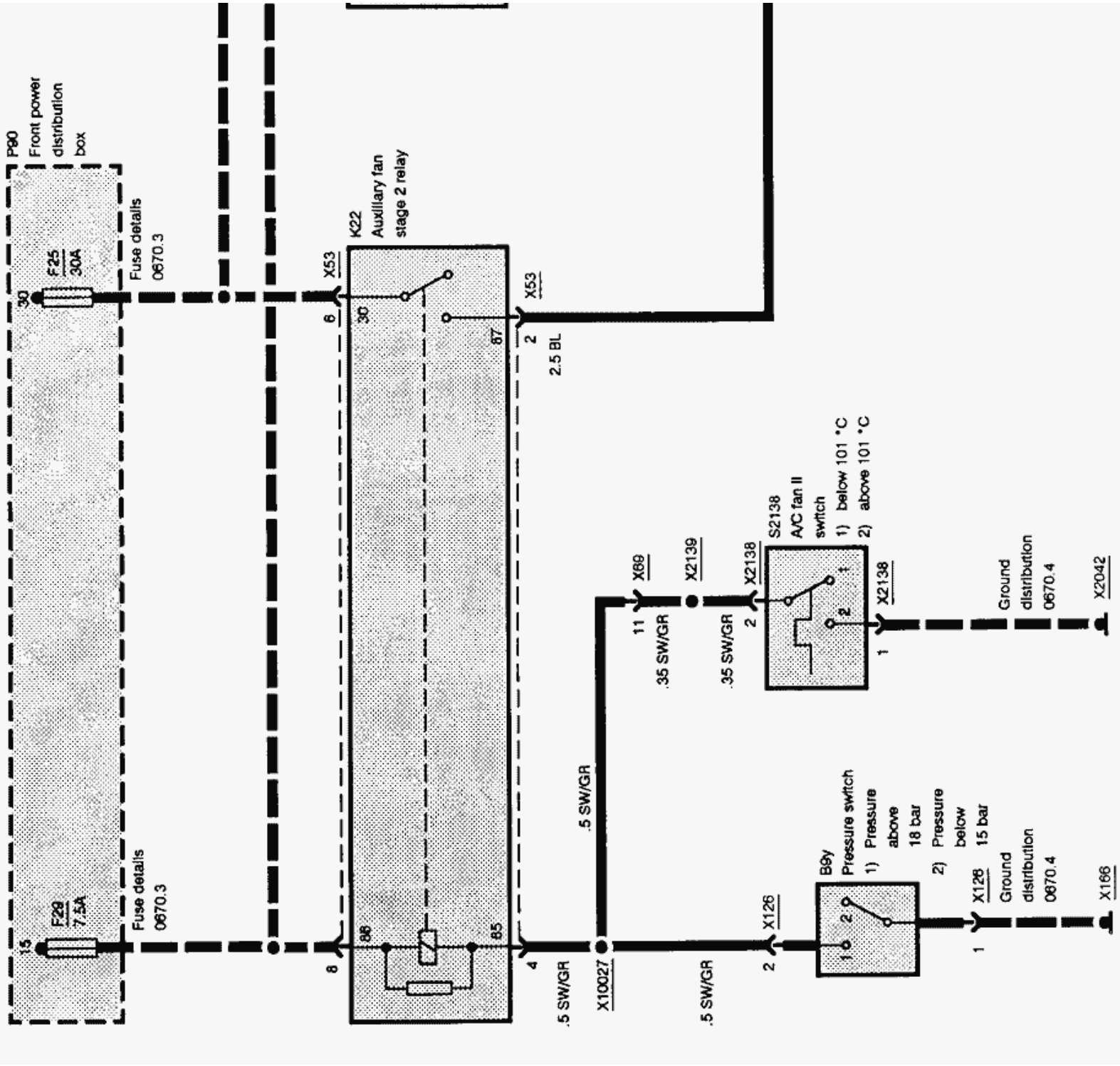
Auxiliary fan



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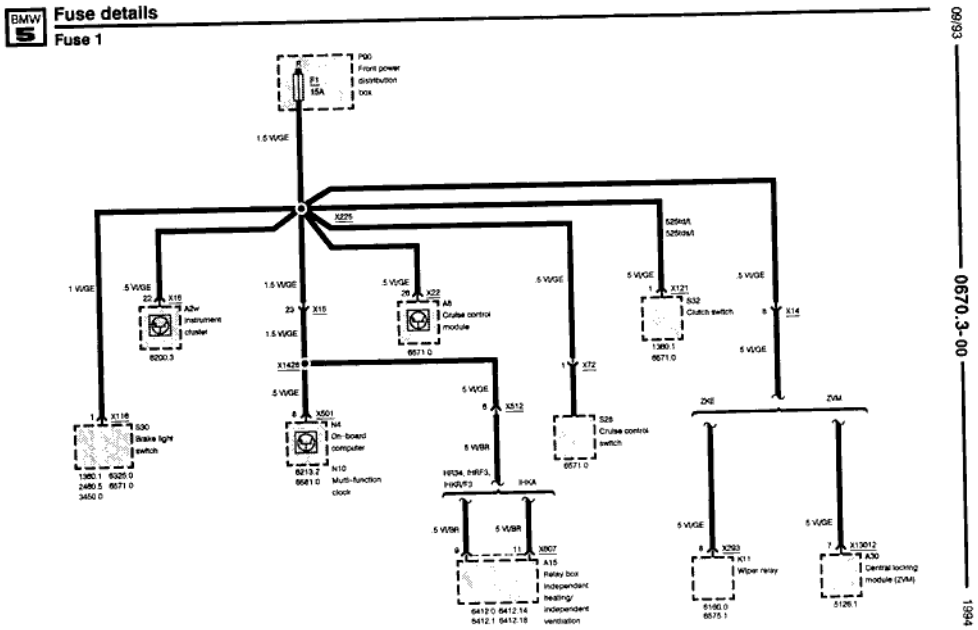
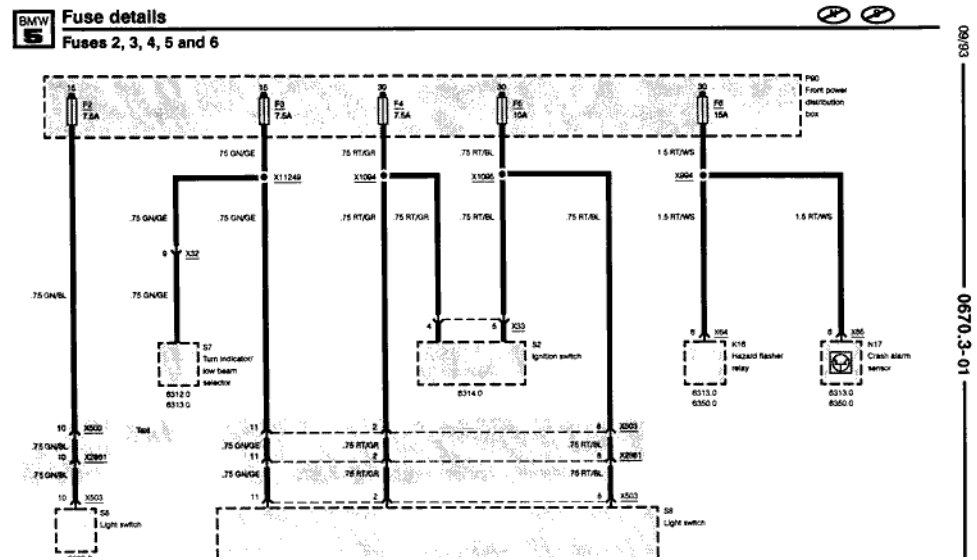
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Fuse details
Scheme 0670.3

Fuse details
Fuse 1



Fuse details
Fuses 2, 3, 4, 5 and 6



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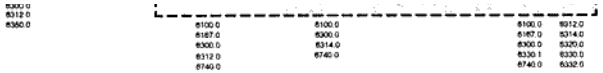
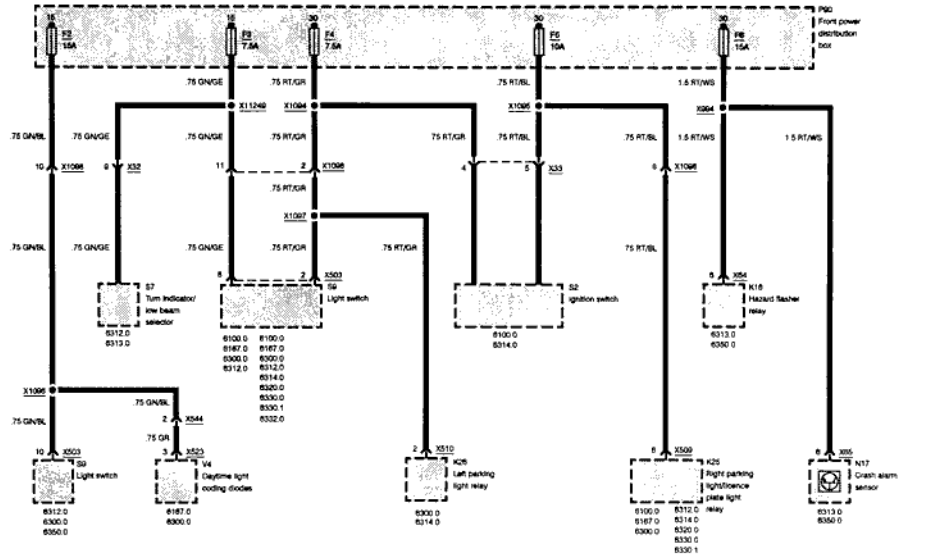


1994

Fuse details

Fuses 2, 3, 4, 5 and 6

N S



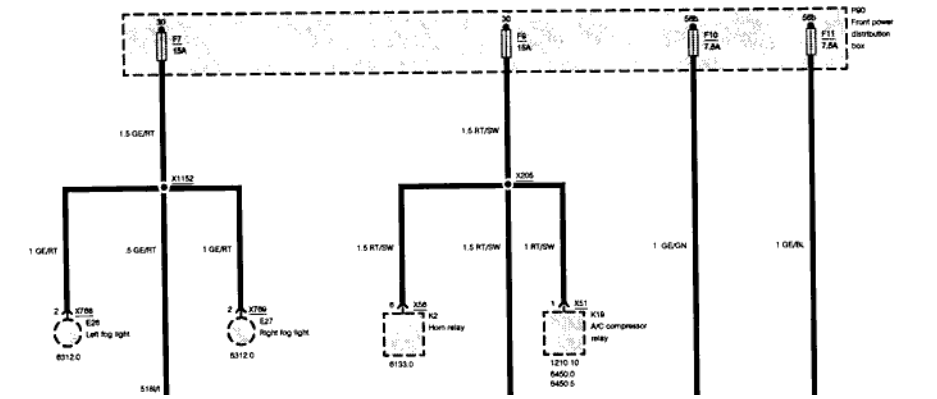
09/93

0670.3-02

1994

Fuse details

Fuses 7, 9, 10 and 11



09/93

0670.3-03

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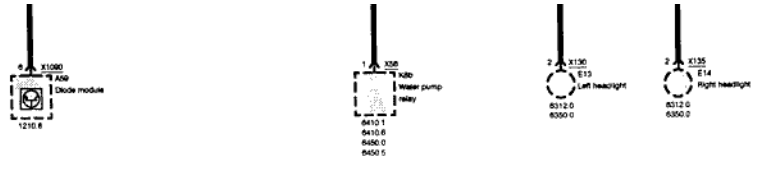
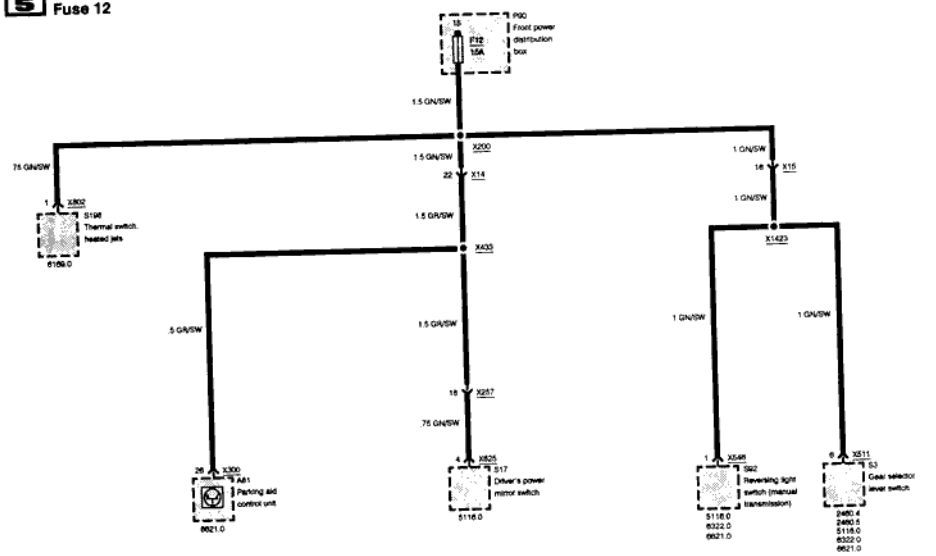


1994

Fuse details

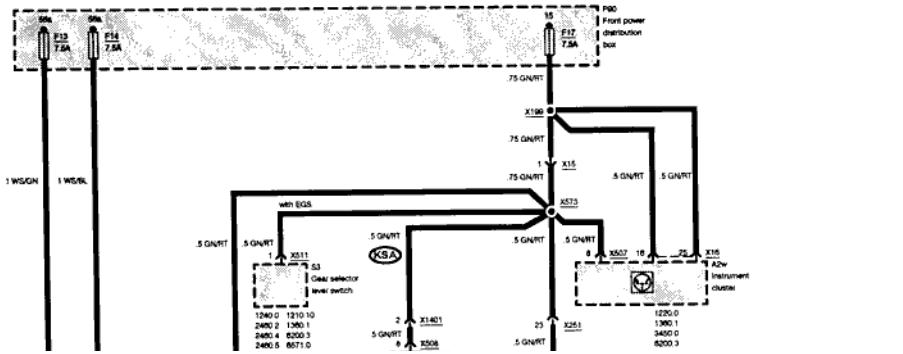
Fuse 12



09/93 — 0670.3-04 — 1994

Fuse details

Fuses 13, 14 and 17



09/93 — 0670.3-05

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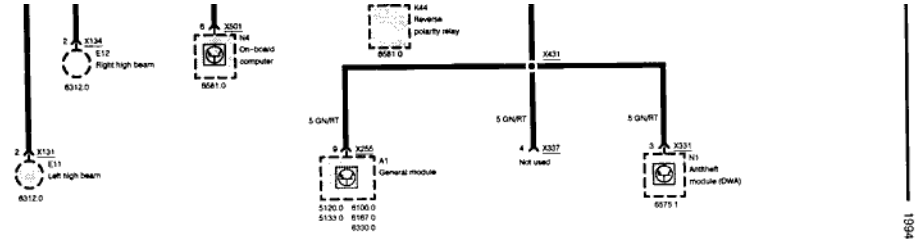


1994

Fuse details

Fuse 16

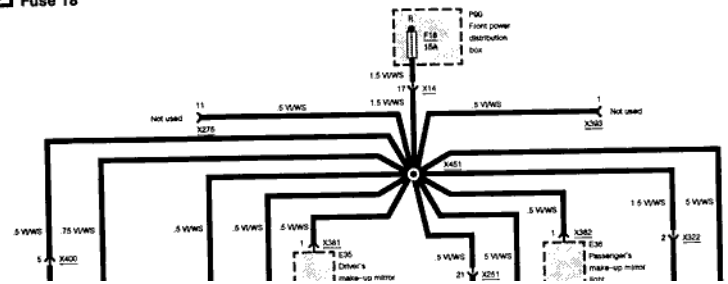
09/93

0670.3-06

1994

Fuse details

Fuse 18



09/93

0670.

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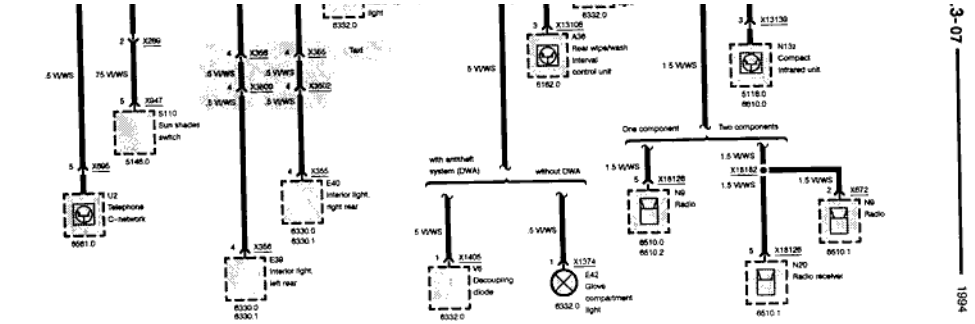
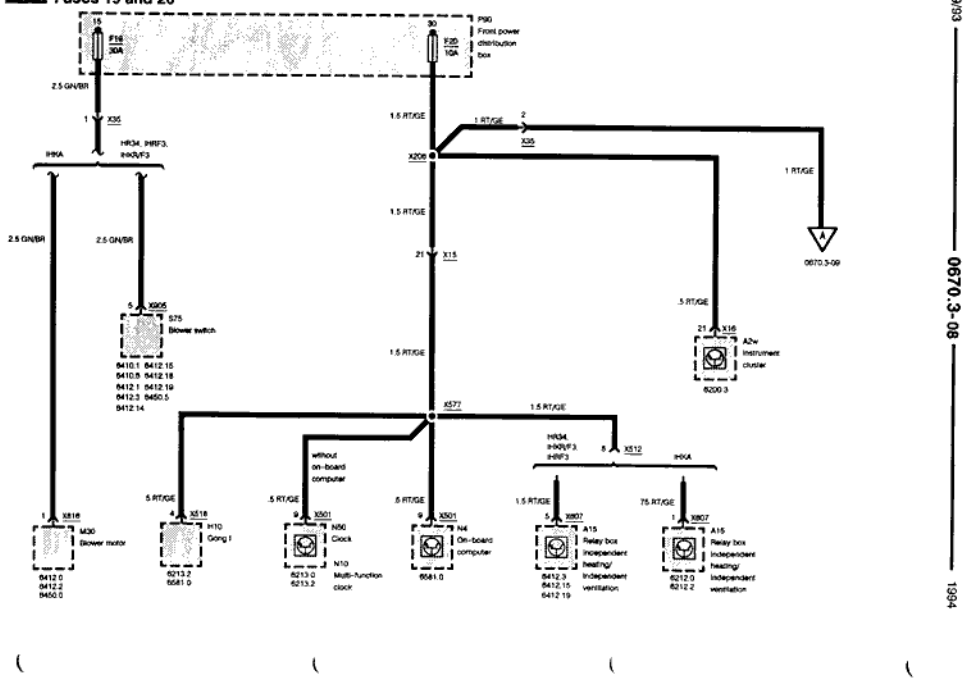


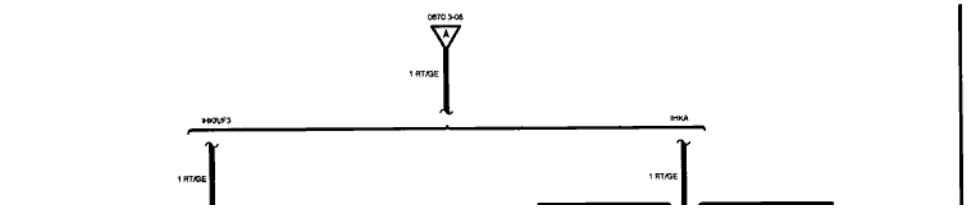
Fuse details

Fuses 19 and 20



Fuse details

Fuse 20



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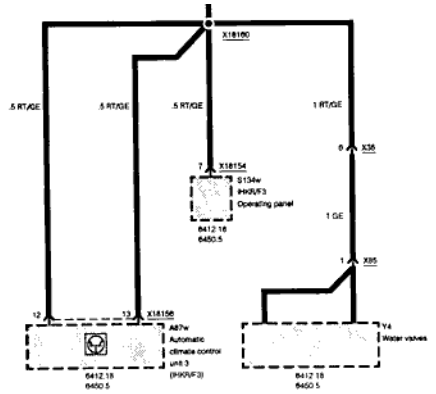
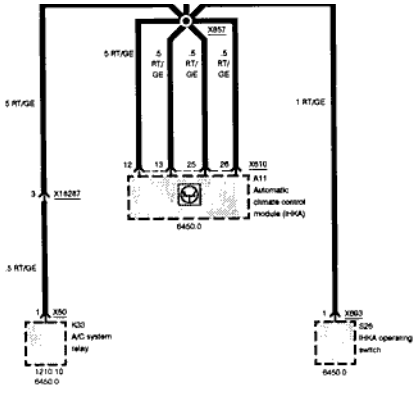
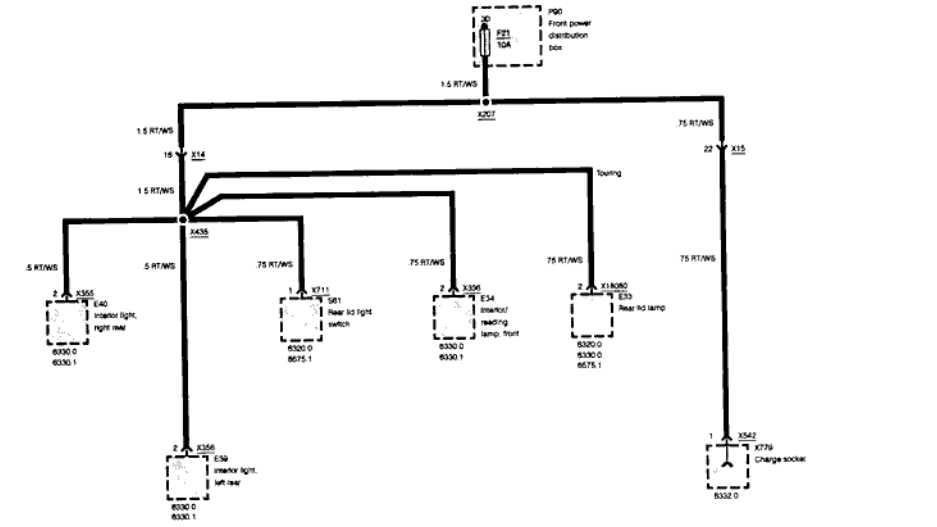




0670.3-09 1994

BMW 5 Fuse details

Fuse 21



0670.3-10 1994

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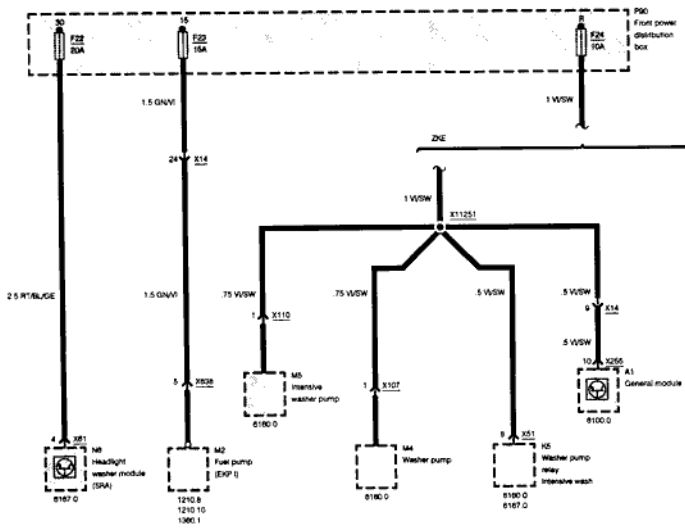
BMW 5

Fuse details

Fuses 22, 23 and 24

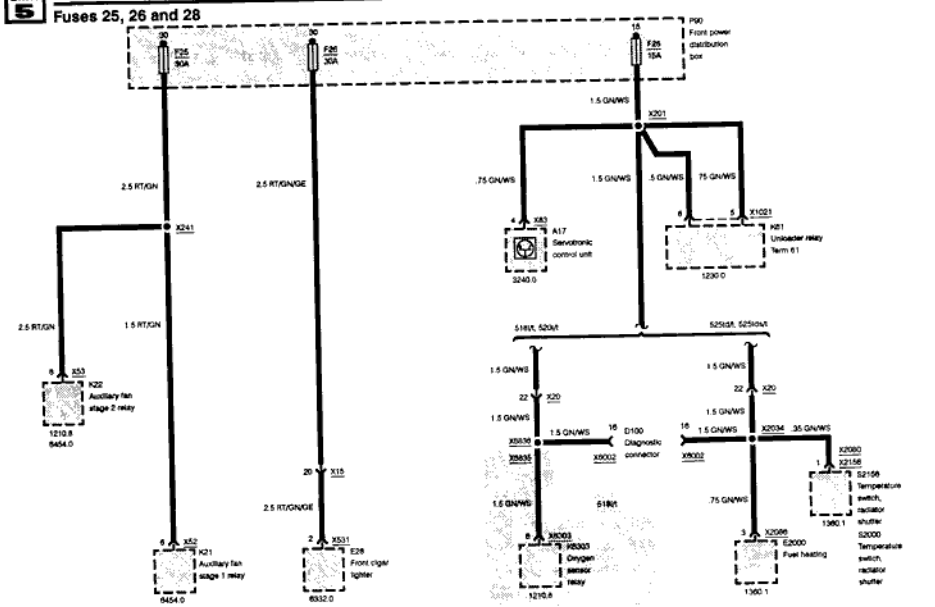


09/93 — 0670.3-11 — 1994

BMW 5

Fuse details

Fuses 25, 26 and 28



09/93 — 0670.3-12 — 1994

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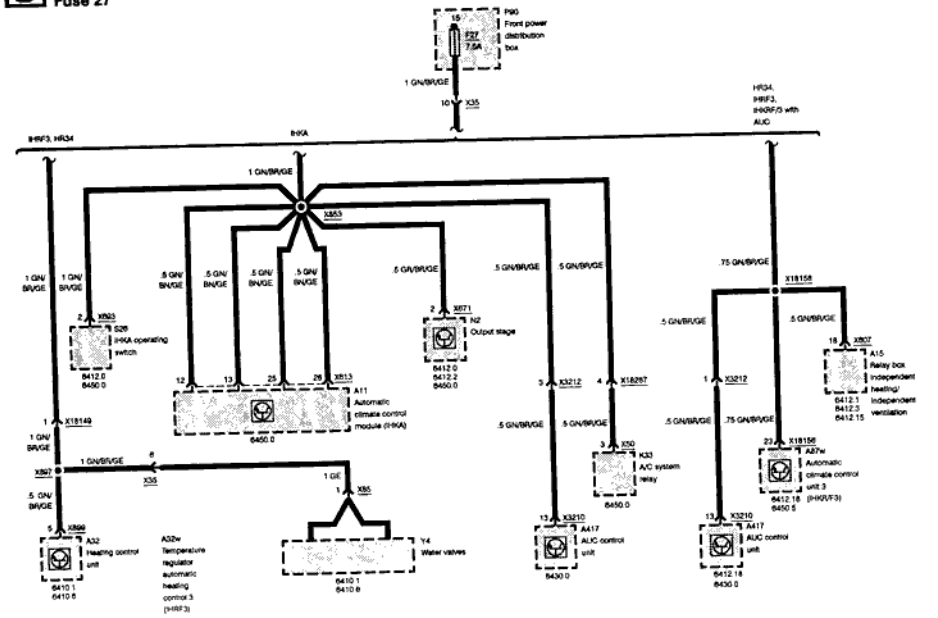
Fuse details

Fuse 27

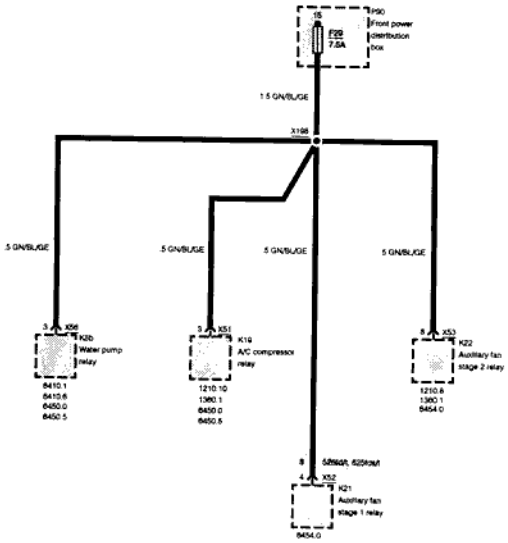


09/93 — 0670.3-13 — 1994

BMW 5

Fuse details

Fuse 29



09/93 — 0670.3-14

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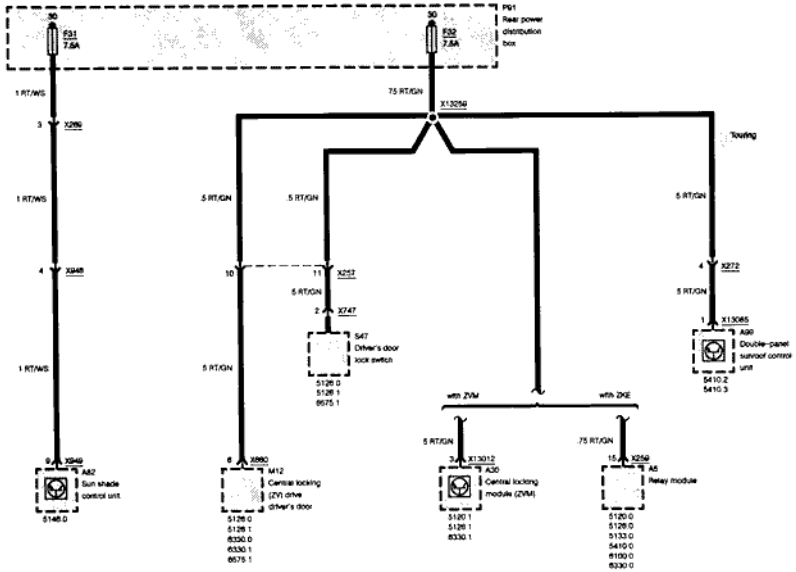
0670.3-15

1994

BMW 5 Fuse details

Fuses 31 and 32

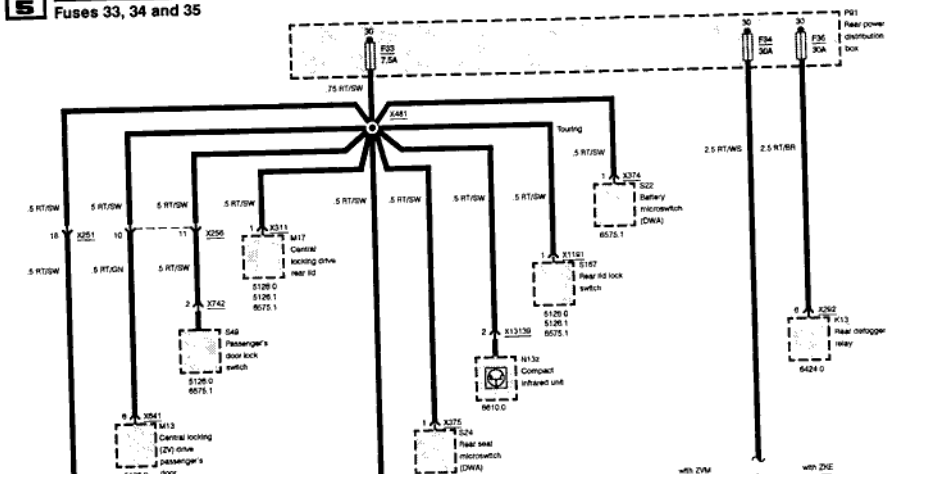


09/93

0670.3-16

BMW 5 Fuse details

Fuses 33, 34 and 35



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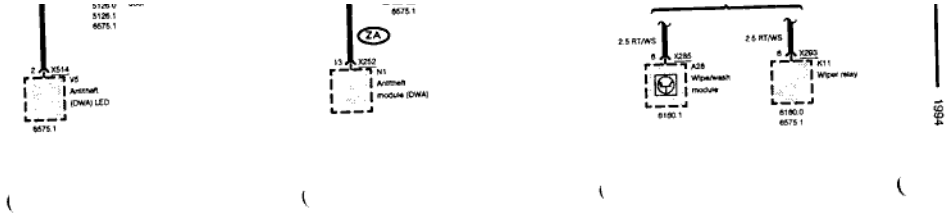
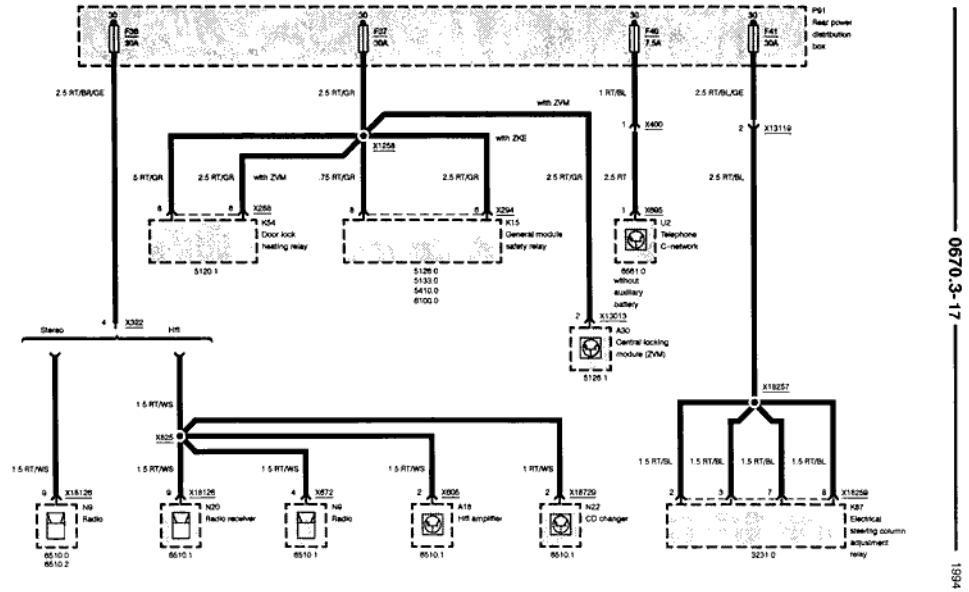


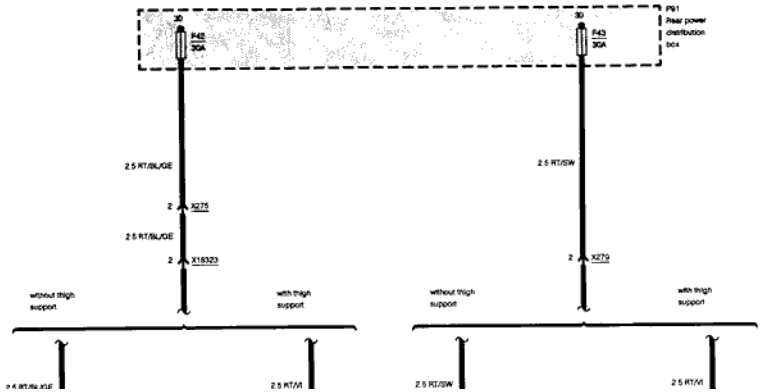
Fuse details

Fuses 36, 37, 40 and 41



Fuse details

Fuses 42 and 43



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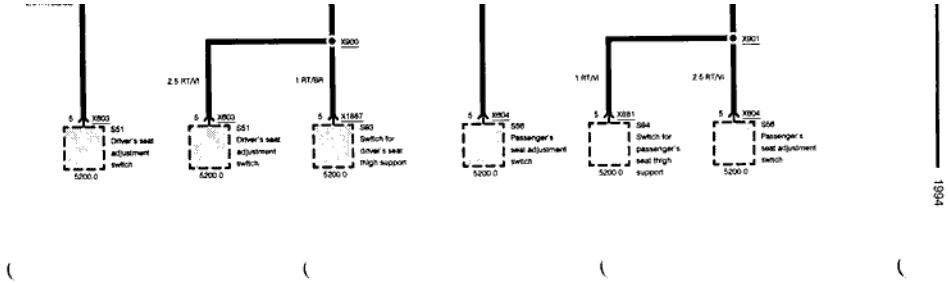
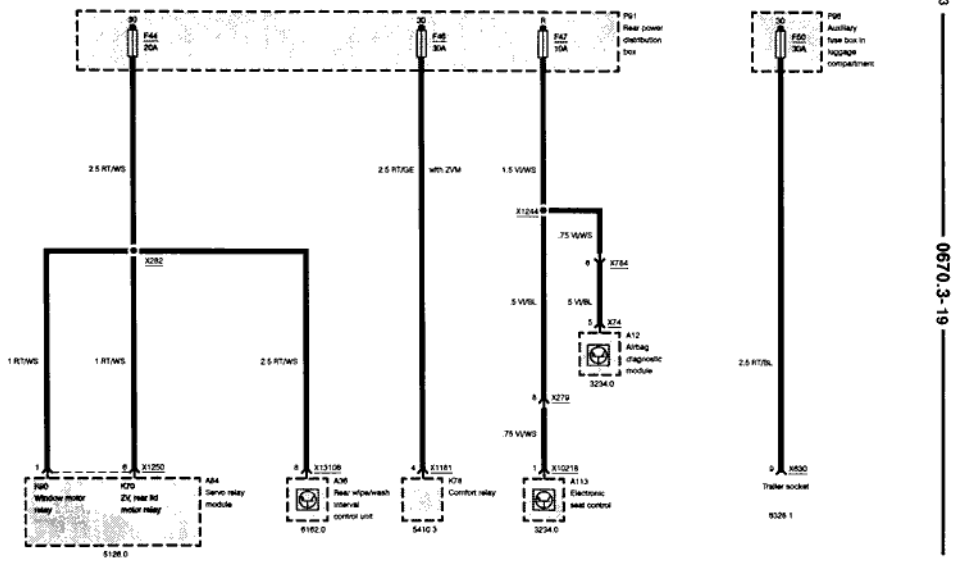


Fuse details

Fuses 44, 46, 47 and 50



Fuse details

Fuses 51, 52, 53 and 54

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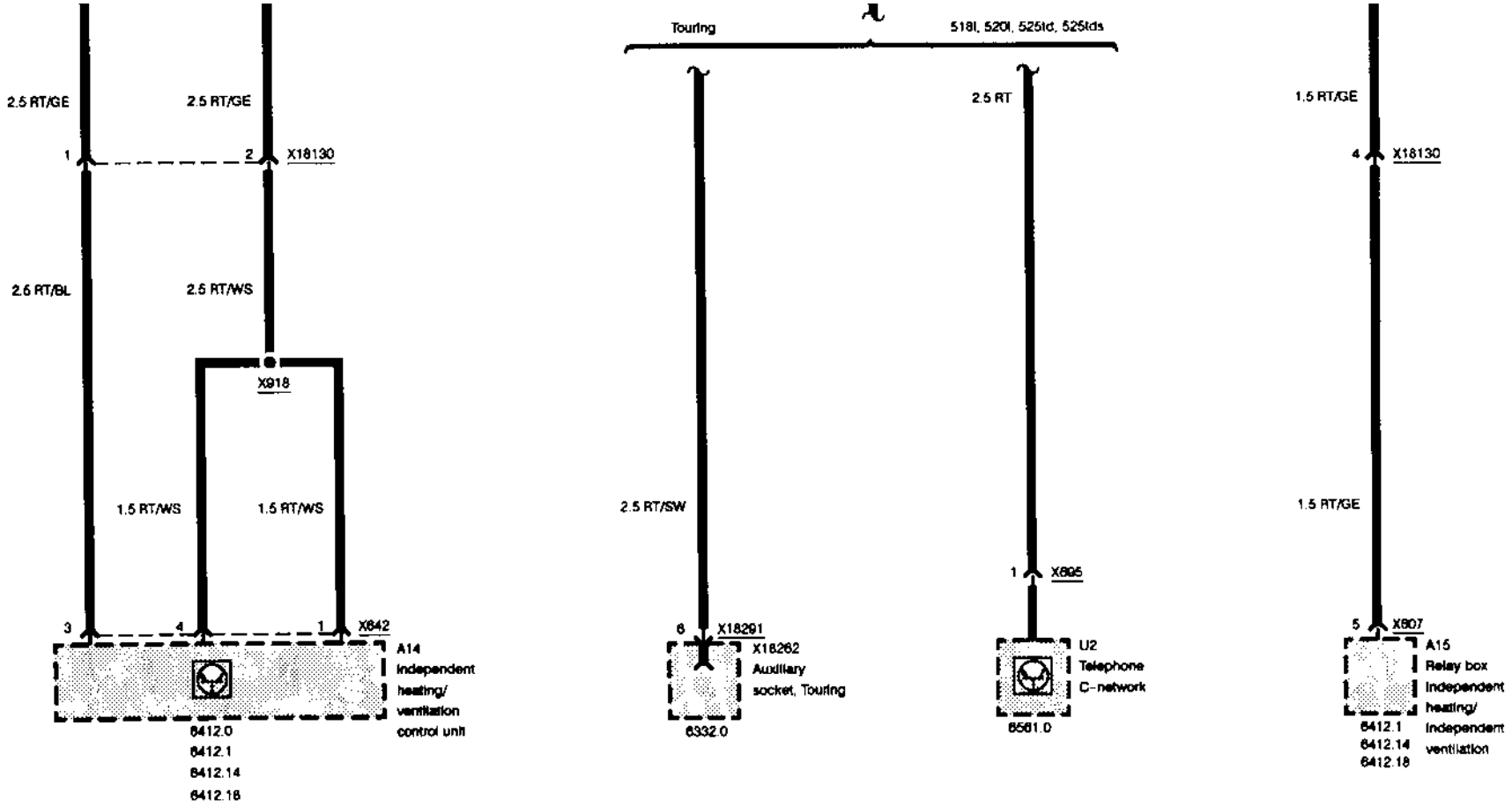

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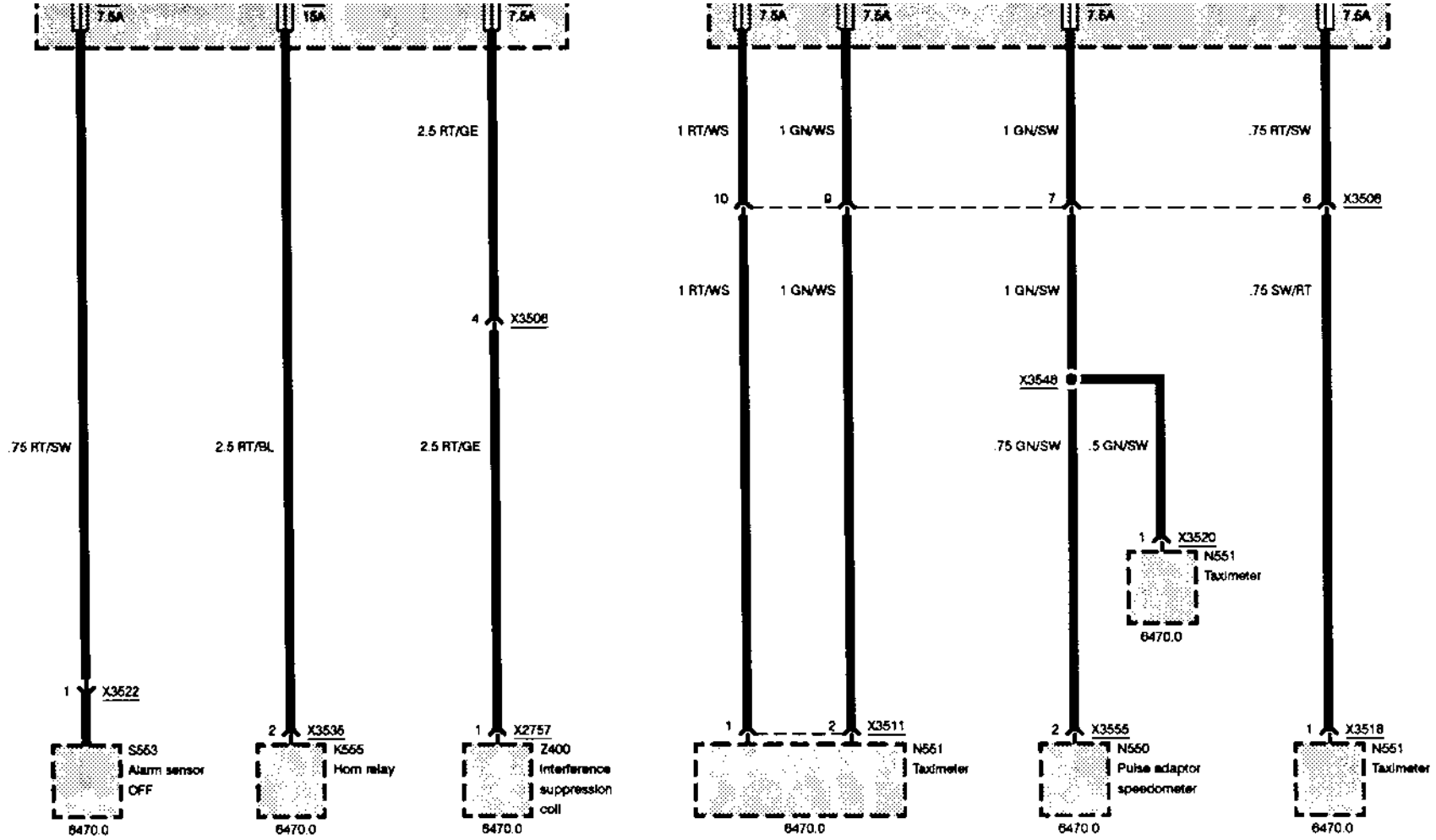
BMW 5

Fuse details

Fuses 55, 56, 57, 58, 59, 60 and 61

Taxi



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Instrument cluster (redesigned standard version)
Scheme 6200.3

Pin Assignment

A=X16	26-pin, beige
B=X507	14-pin, black
C=X13060	26-pin, white

Pin Assignment X16

Pin	Type	Description/Function	Connection
1	E/A	TxD diagnosis line	Diagnostic connector
2	E	ABS indicator lamp	ABS control unit
3	E	Brake fluid level	Brake fluid level switch
4	E	Coolant temperature sensor	Remote thermometer sensor
5	E	Oil pressure signal	Oil pressure switch
6		not used	
7	E	Preheating, diesel	DDE control unit
8	A	SIA-Reset	Diagnostic connector
9	E	Charge indicator lamp, terminal 61	Unloader relay
10	E	Start clear diesel	DDE control unit
11		not used	
12	A	RxD diagnosis line	Diagnostic connector
13		not used	
14	E	Airbag indicator lamp	Airbag diagnostic module
15	E	Ignition lock	Ignition switch
16	E	Terminal 15	Fuse
17	A	Terminal R for airbag indicator lamp	Ignition switch
18	M	Ground	Ground connection
19		not used	
20	E	ti signal	DME/DDE control unit
21	E	Terminal 30	Fuse
22	E	Terminal R	Fuse
23	E	Main beam indicator lamp	Direction switch
24	E	Turn signal indicator lamp for trailer	Hazard warning relay
25	E	Terminal 15	Fuse
26	E	TD signal	DME/DDE control unit

Pin Assignment X507

Pin	Type	Description/Function	Connection
1	E	EGS program indicator	EGS control unit
2	E	EGS program indicator	EGS control unit
3	E	Automatic gear indicator	Selector lever switch
4	E	Automatic gear indicator	Selector lever switch
5	E	Automatic gear indicator	Selector lever switch
6	E	Automatic gear indicator	Selector lever switch
7		not used	

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8	E	Terminal 15	Fuse
9		not used	
10	A	Connecting line	Instrument cluster
11		not used	
12		not used	
13	A	Automatic signal	EGS control unit
14	M	Ground	Ground connection

Pin Assignment X13060

Pin	Type	Description/Function	Connection
1	E	Instrument cluster lights	Light switch
2	E	Position pulse	Rear axle reed contact
3	E	Fuel reserve lamp	Fuel level sending unit
4		not used	
5	A	Position pulse DWA	DWA module
6		not used	
7	E	Indicator lamp, rear fog light	Fog light switch
8	E	Indicator lamp, front fog lamp	Fog light switch
9	E	Brake pad wear indicator	Front left brake pad sensor
10	A	Brake pad wear indicator	Rear right brake pad sensor
11	M	Ground	Ground connection
12	A	Tacho A signal	Control units
13	A	Position pulse	Rear axle reed contact
14	E	Fuel gauge	Fuel level sending unit
15	E	Connecting line	Instrument cluster
16	not used		
17	not used		
18	not used		
19	E	Right turn signal indicator	Hazard warning relay
20	E	Left turn signal indicator	Hazard warning relay
21	not used		
22	not used		
23	not used		
24	E	Handbrake indicator lamp	Handbrake switch
25	not used		
26	A	Gong signal	Gong

E = Input, A = Output, M = Ground

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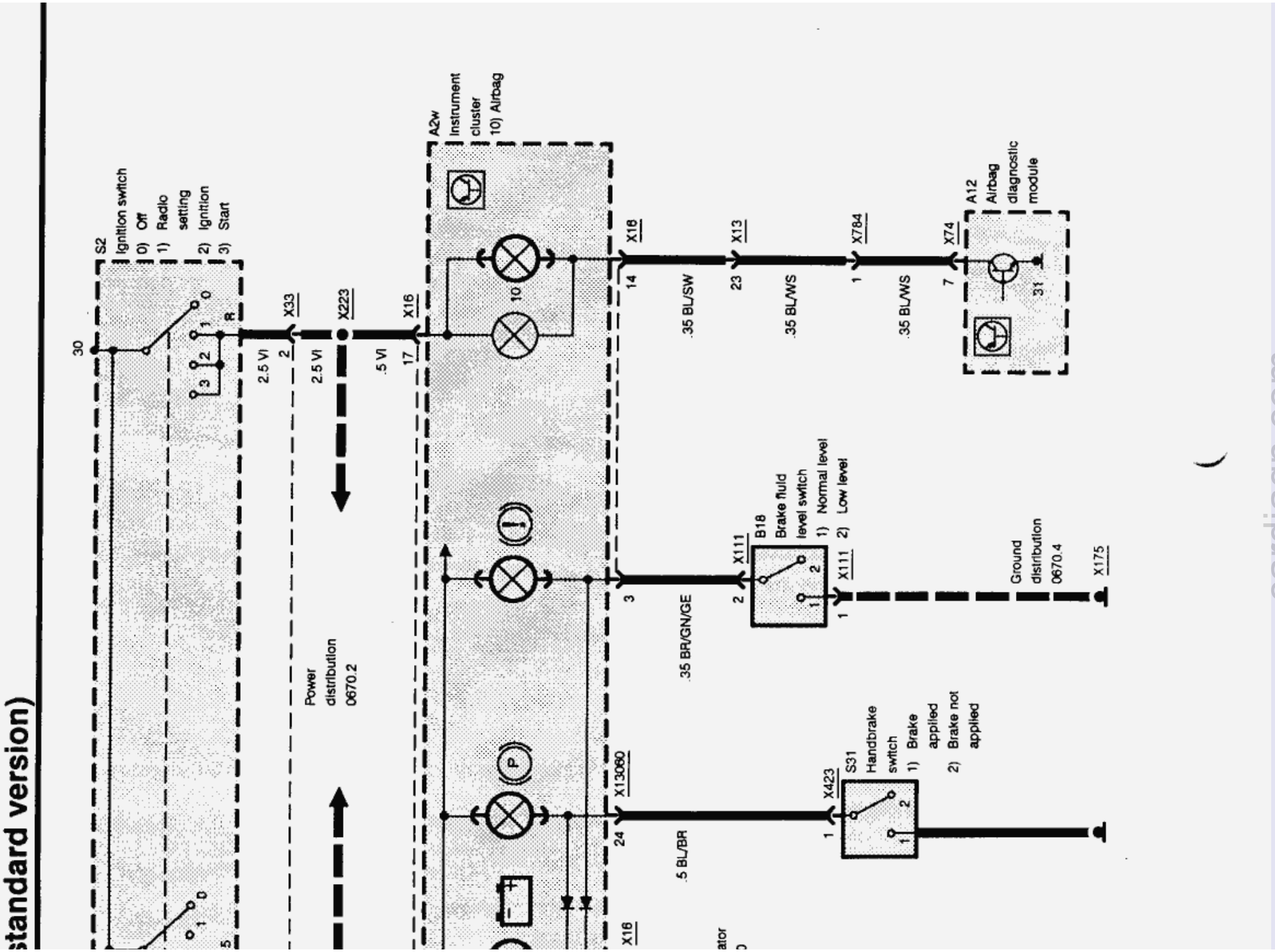

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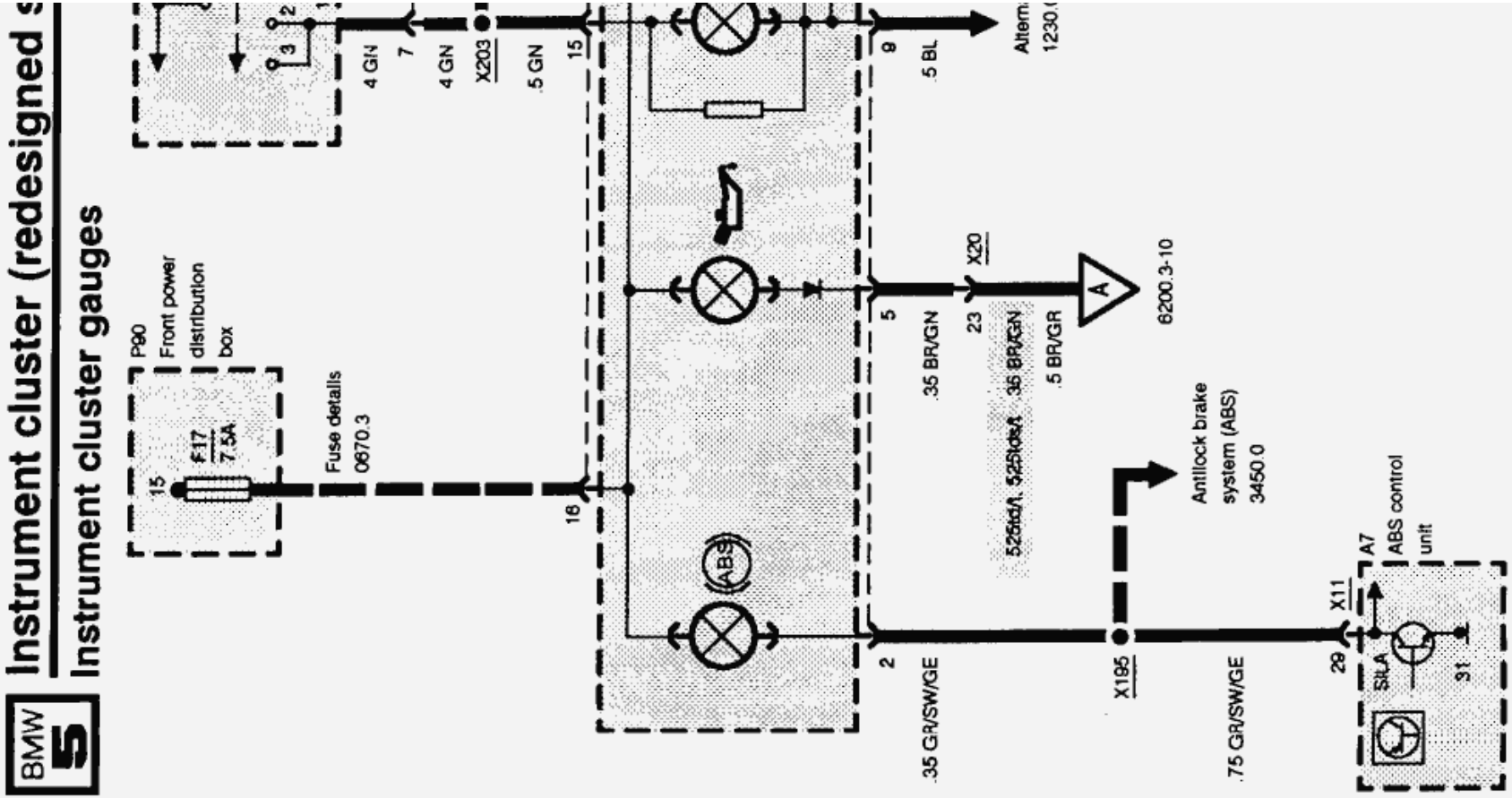

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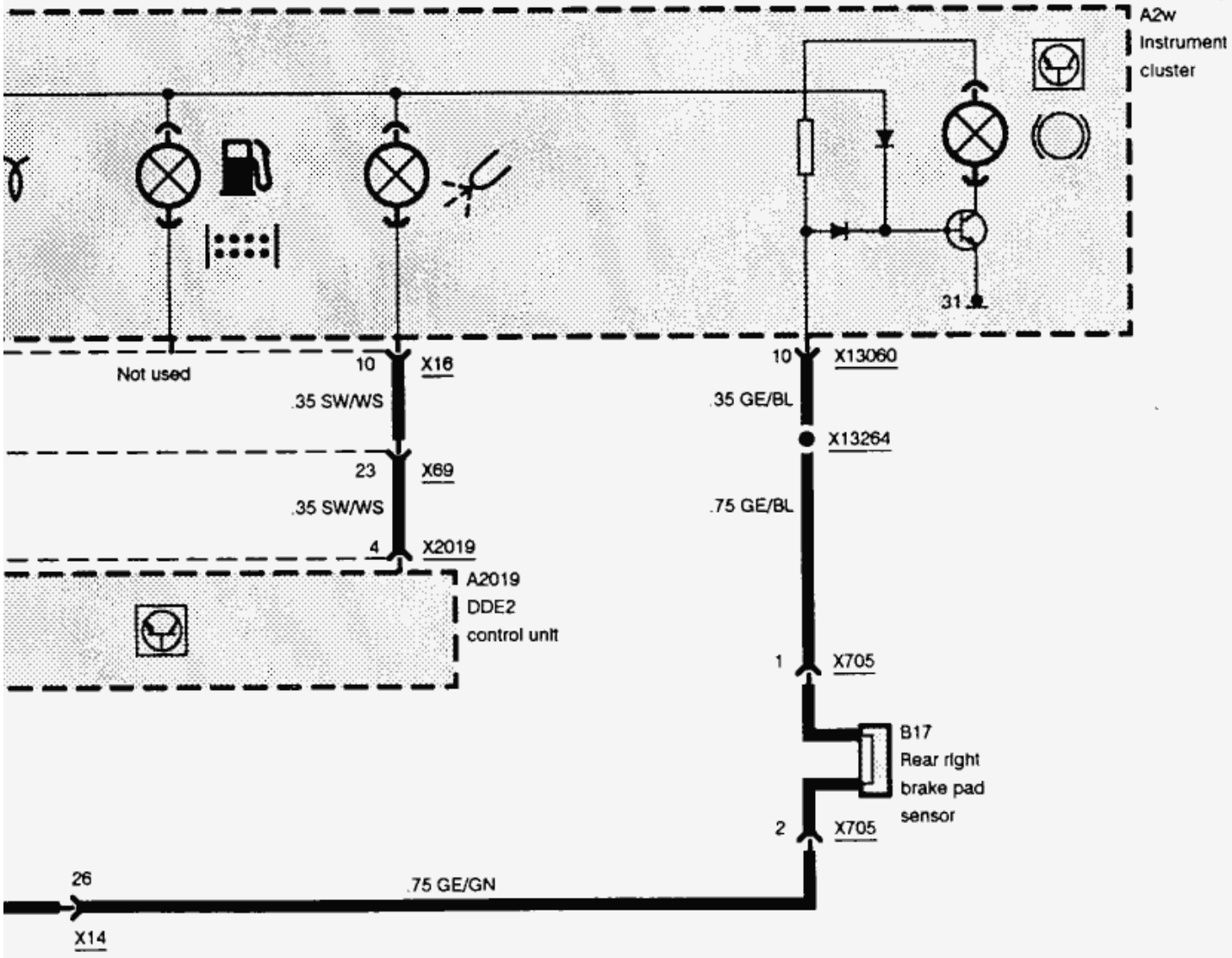

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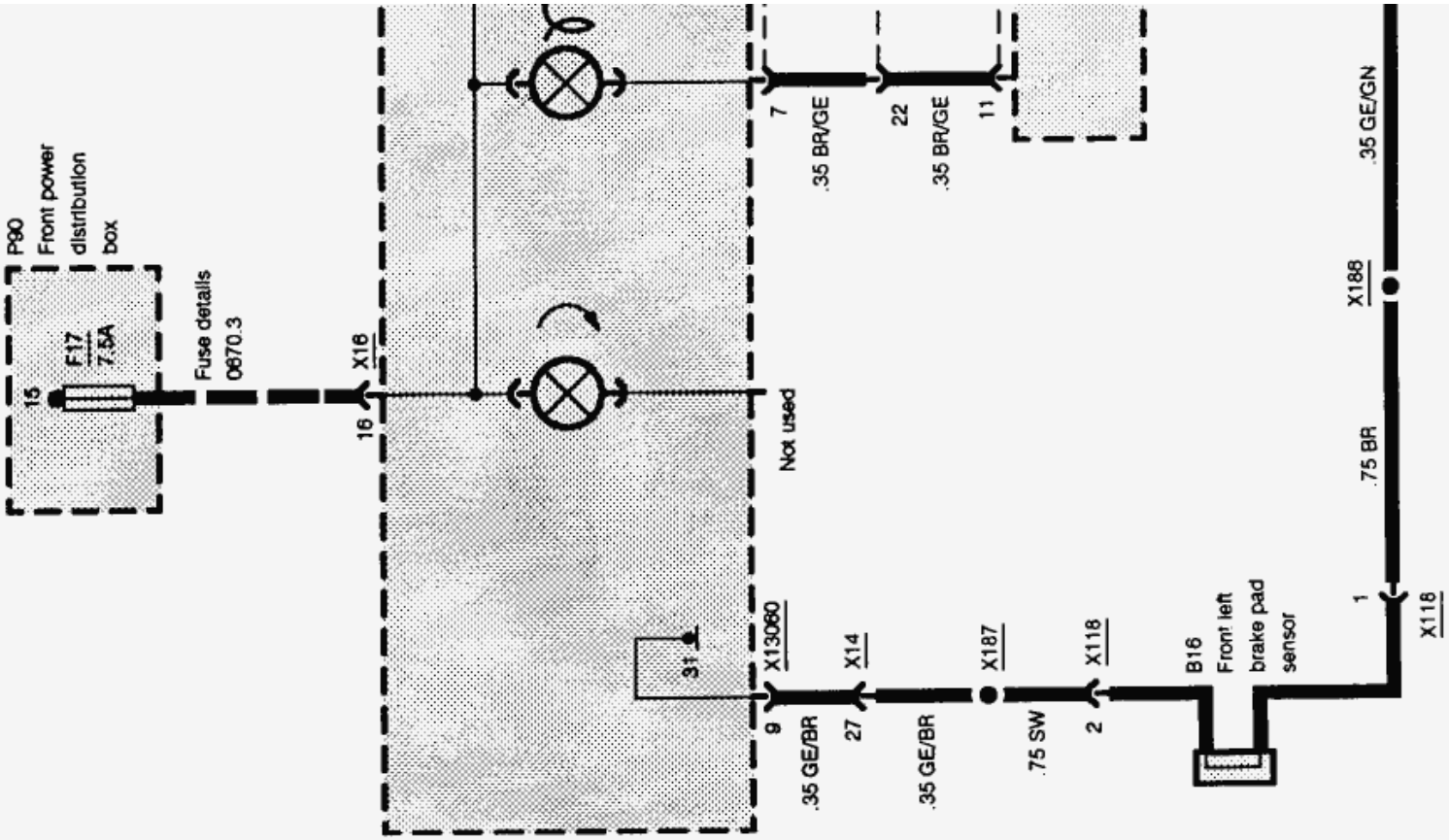
Instrument cluster (redesigned sta

Instrument cluster gauges



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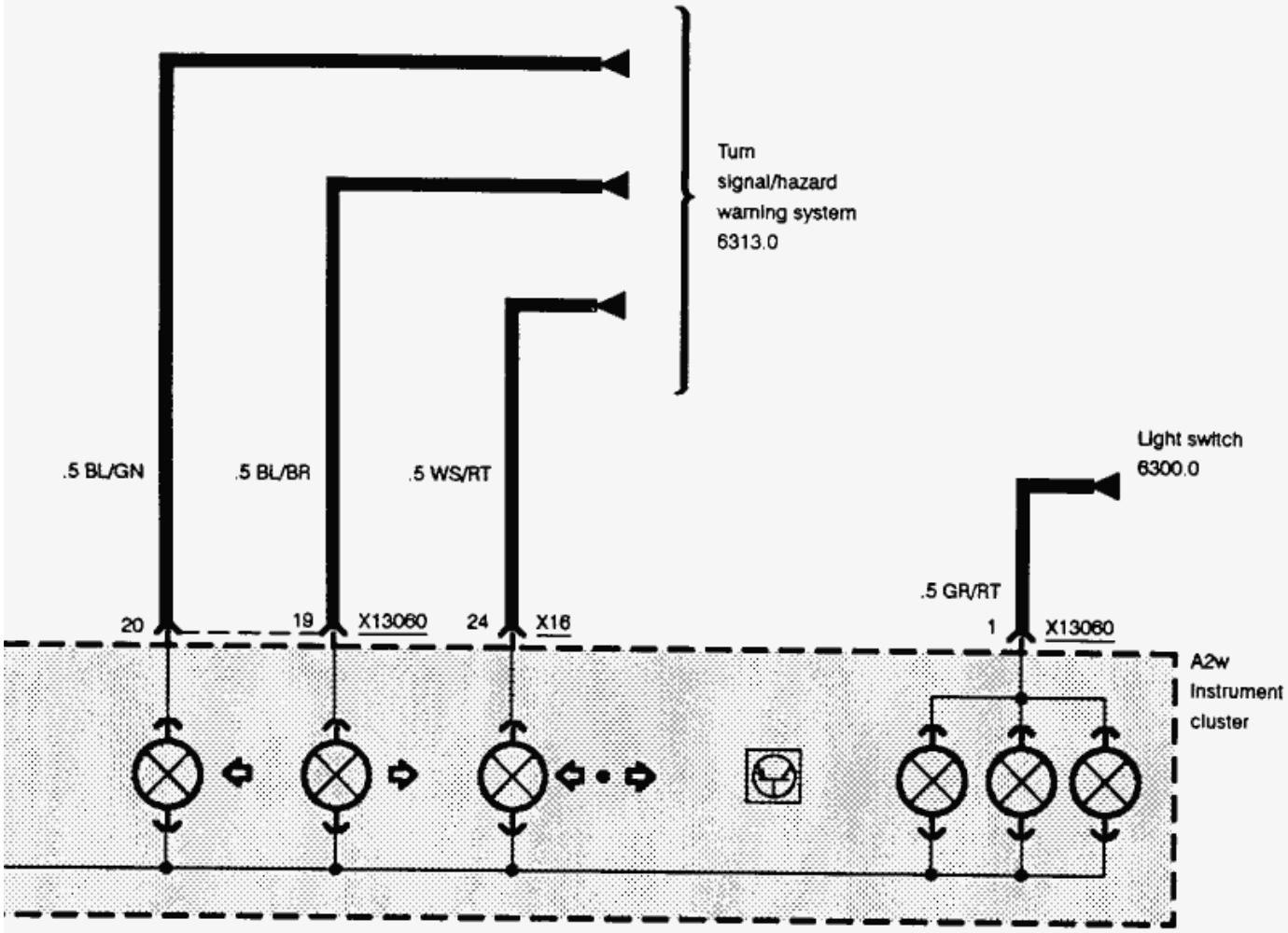

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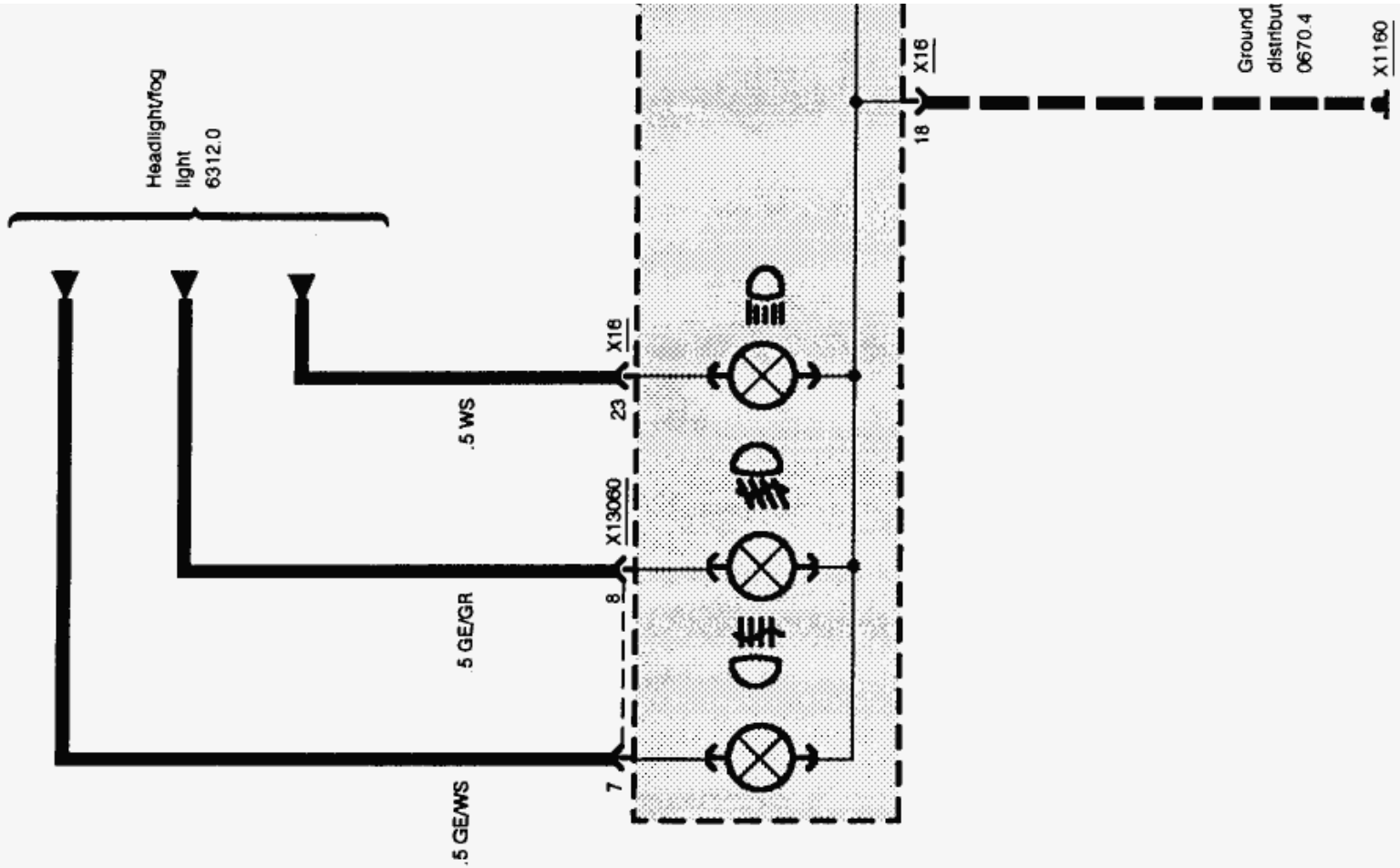
Instrument cluster (redesigned stand

Instrument cluster gauges



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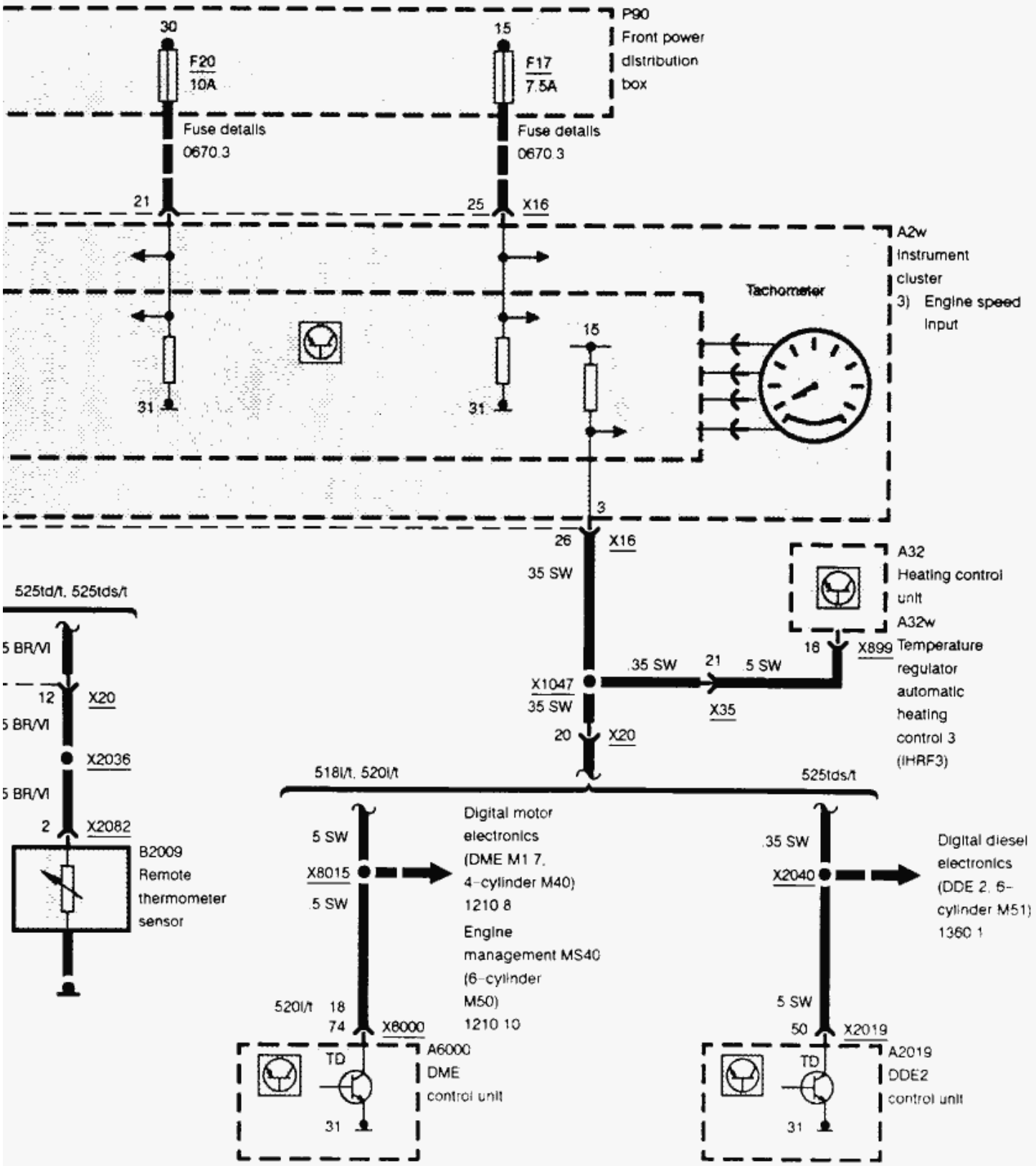

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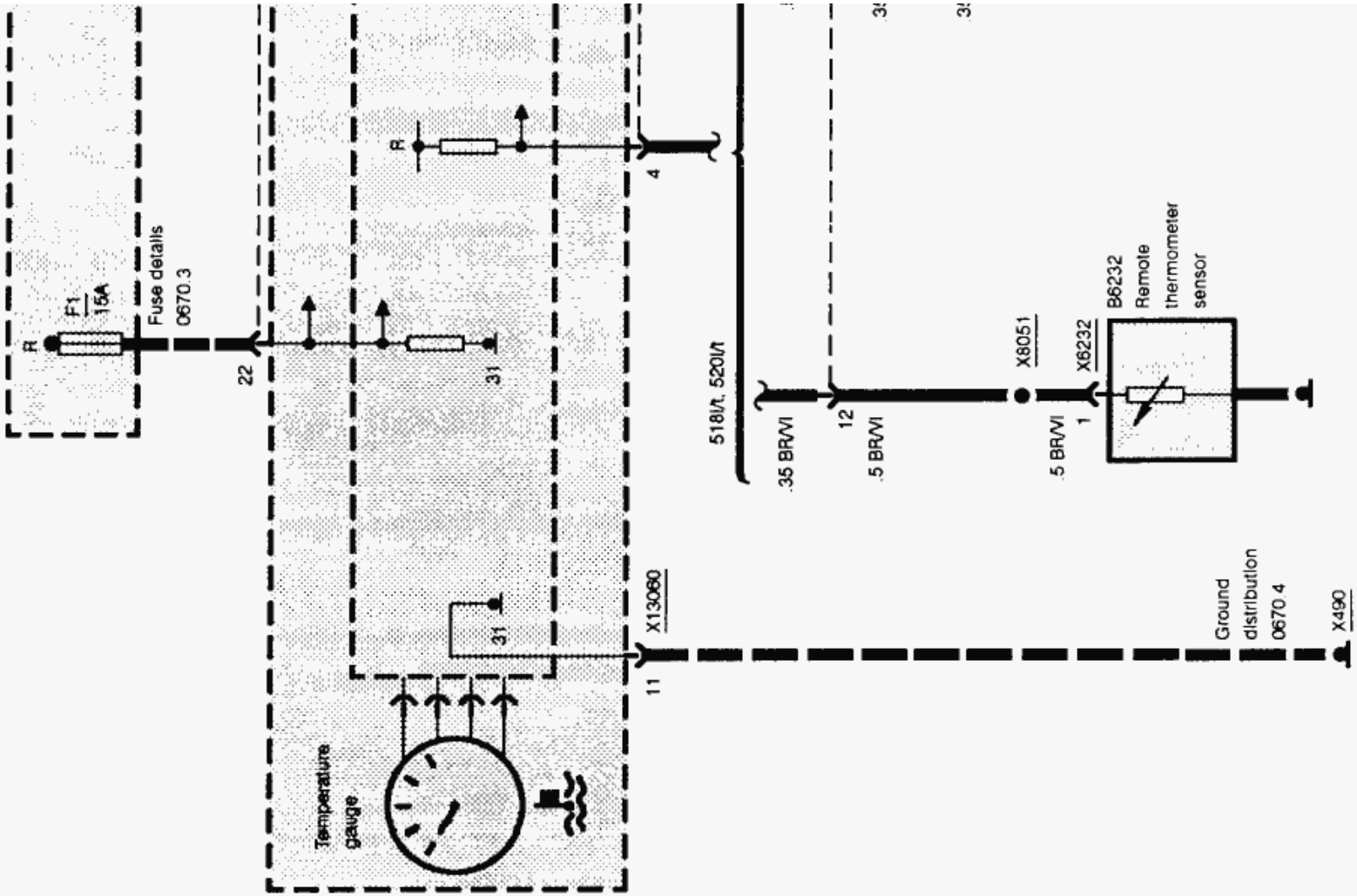
Instrument cluster (redesigned standa

Instrument cluster



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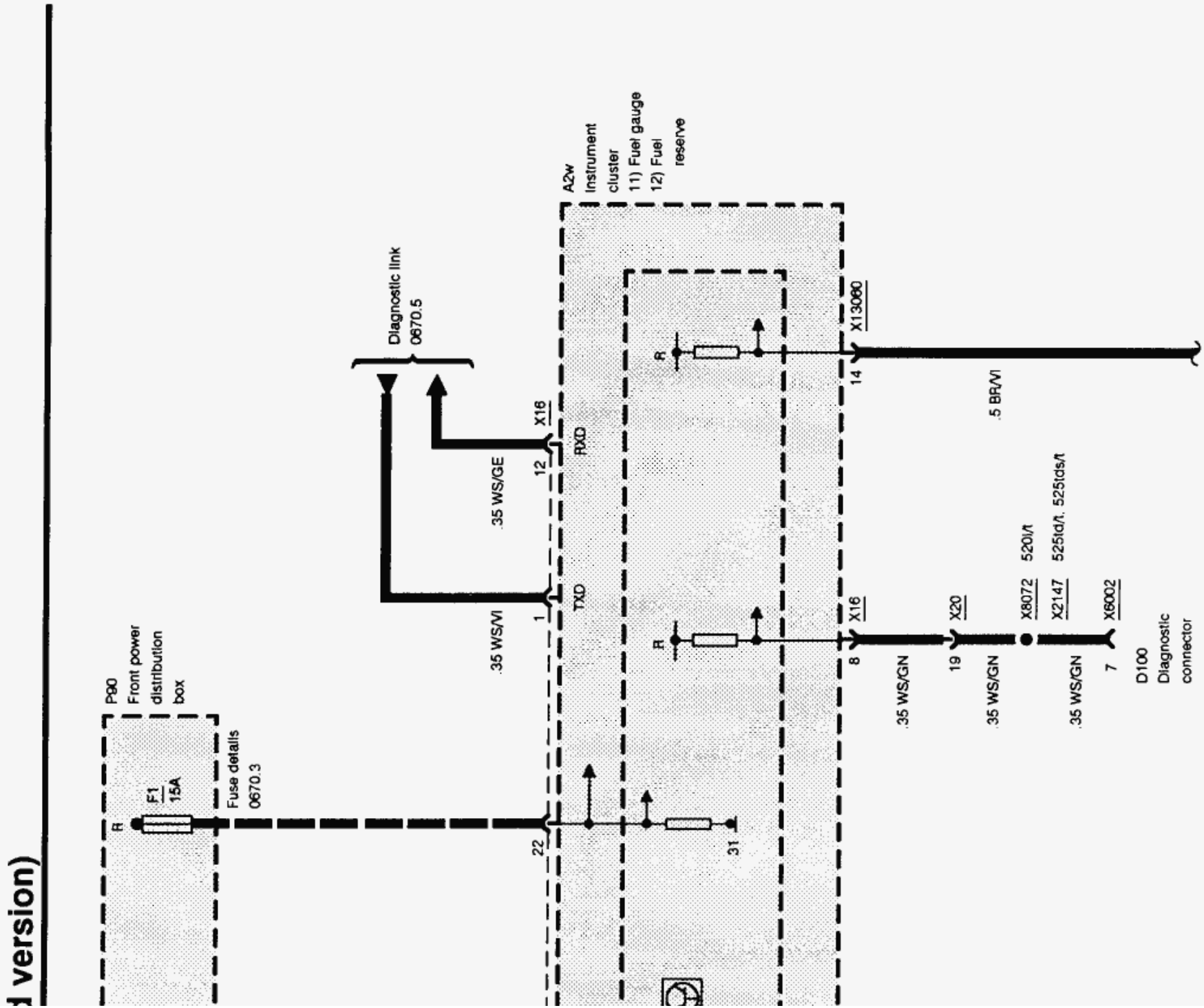

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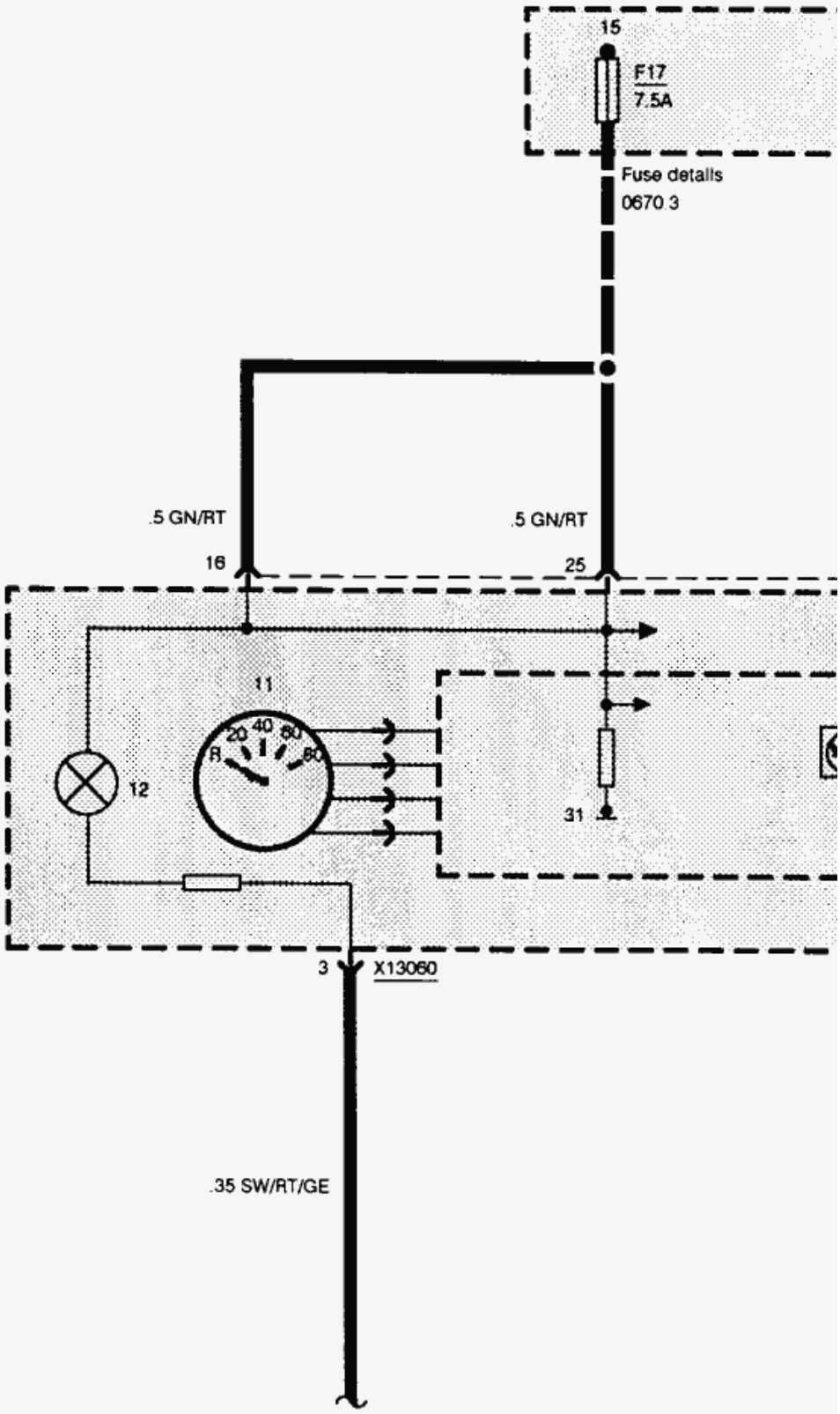
Instrument cluster (redesigned standard

Instrument cluster



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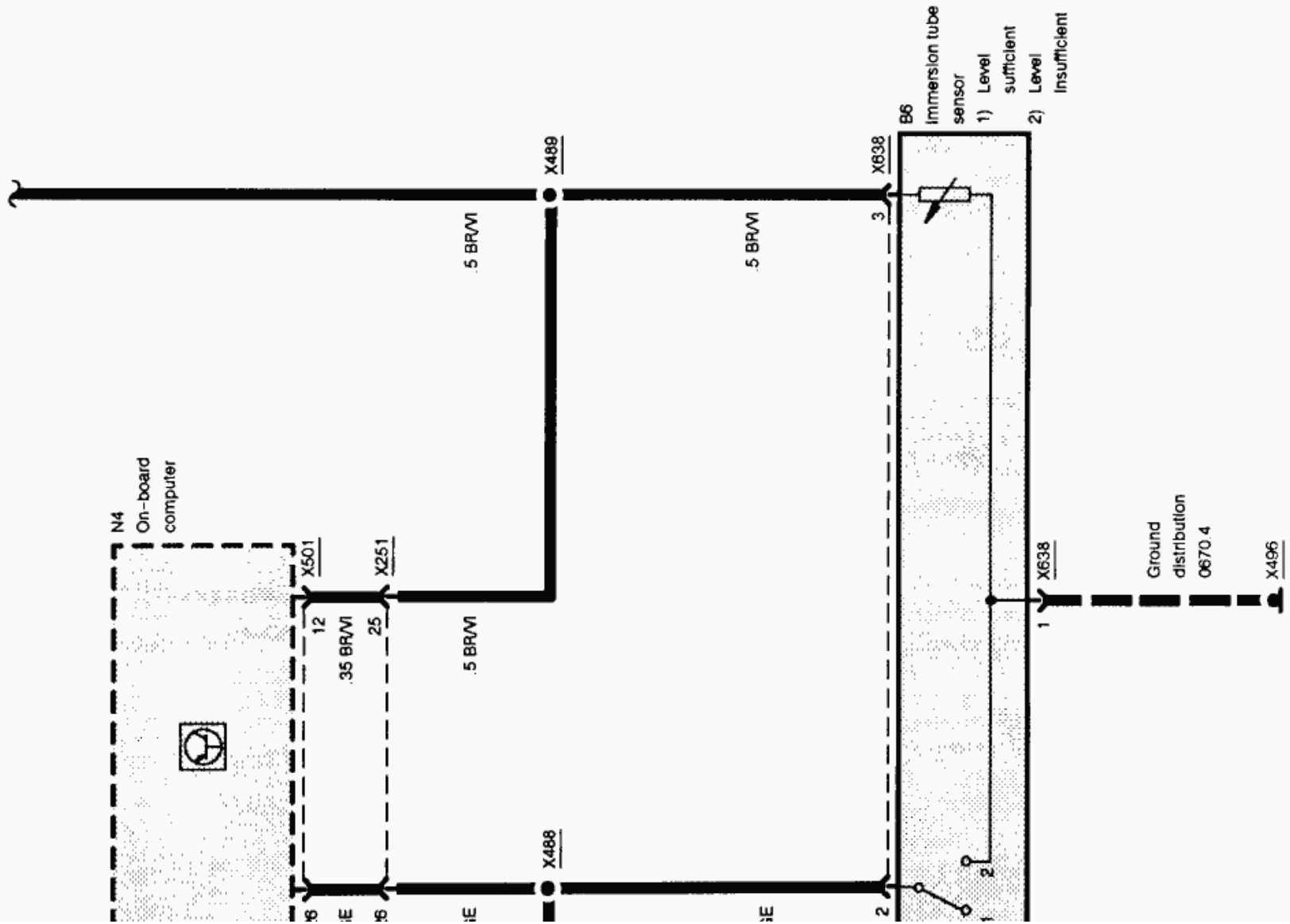

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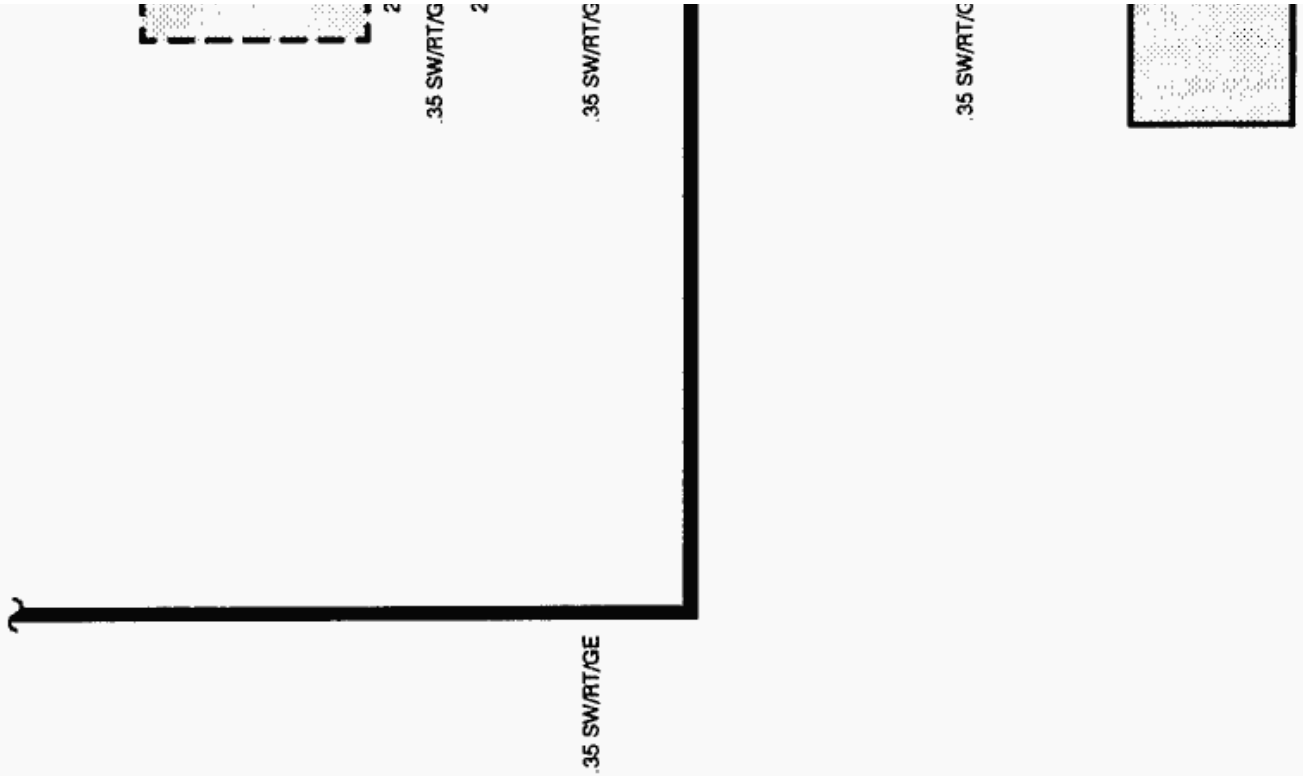

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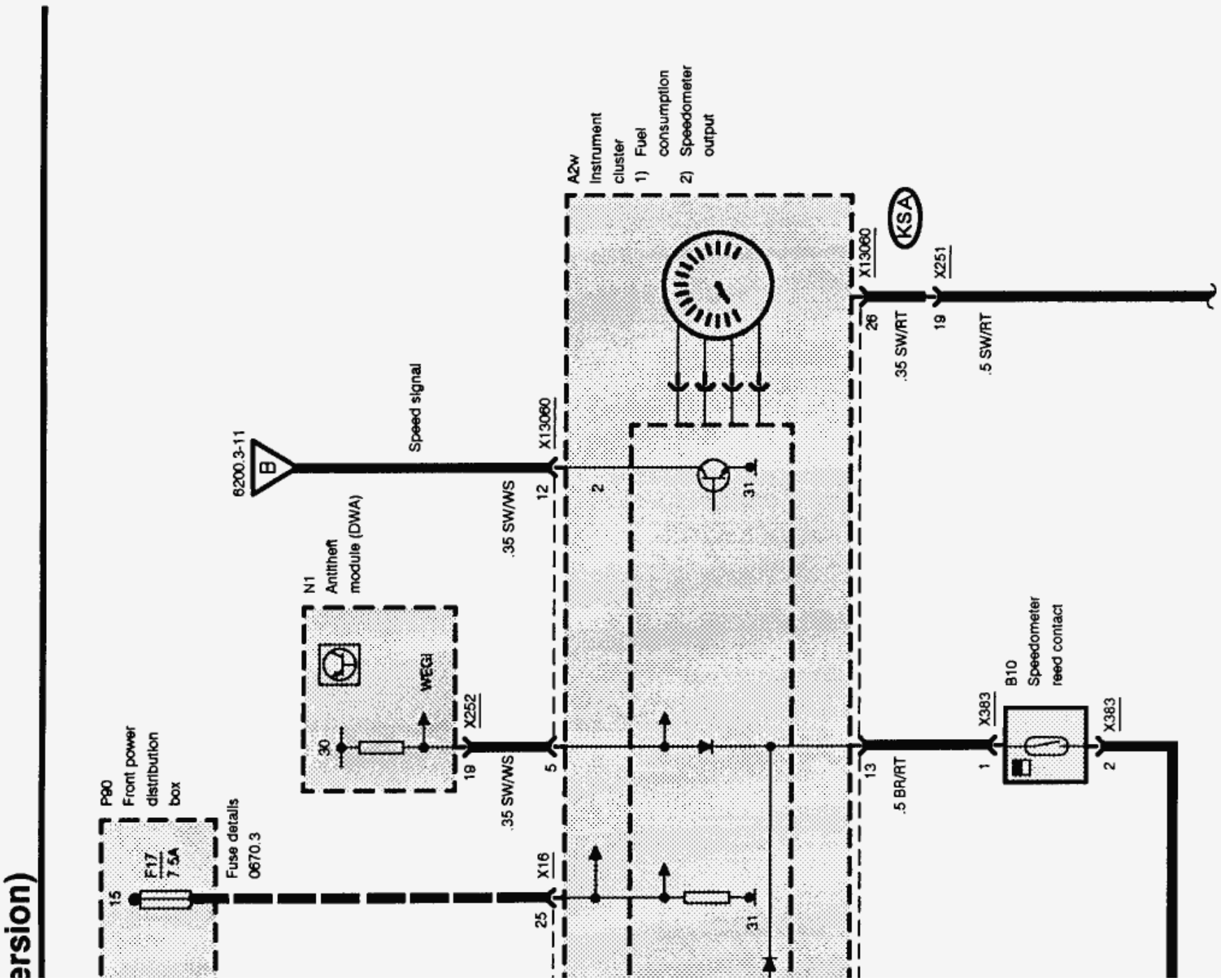

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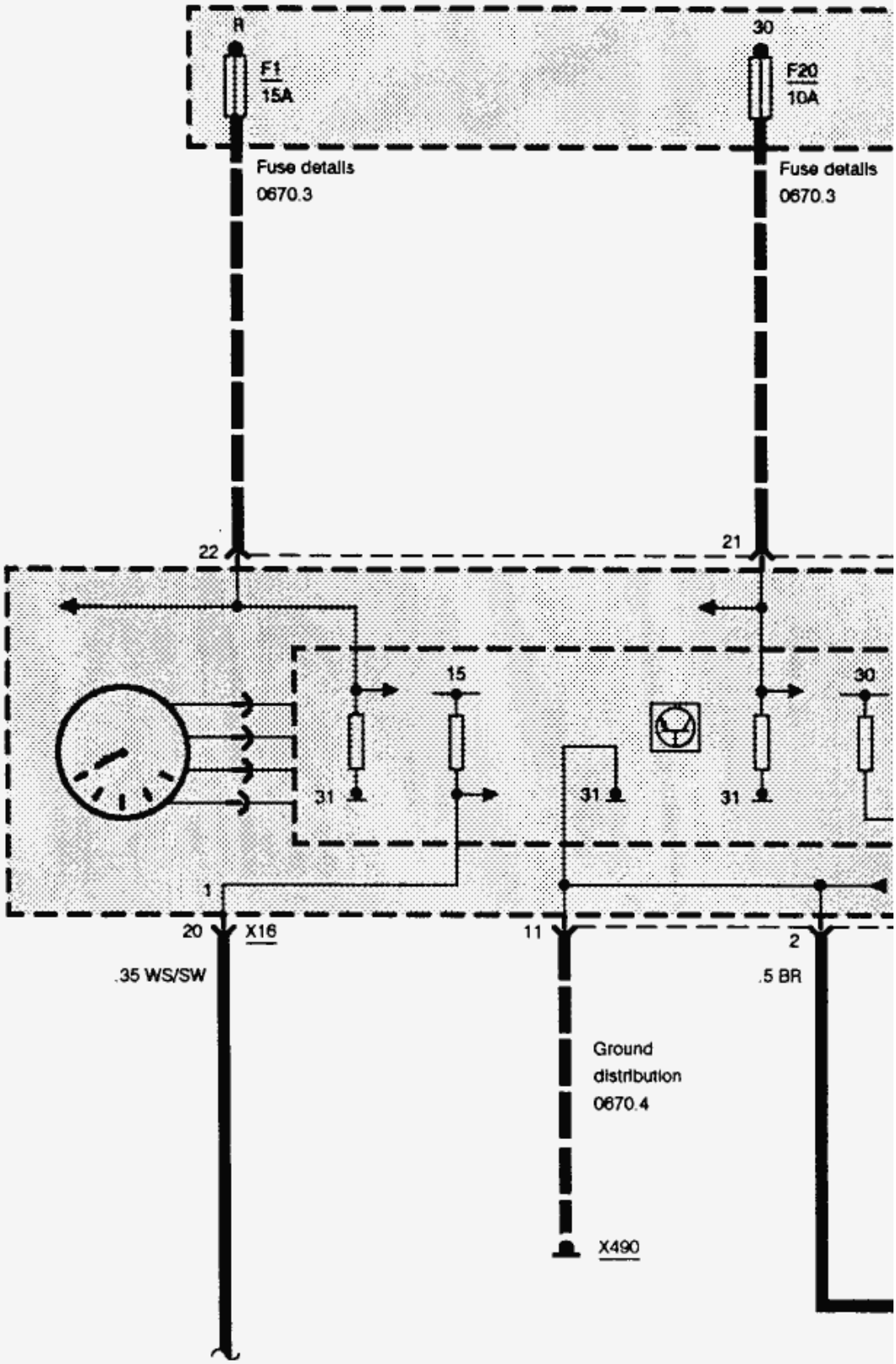
Instrument cluster (redesigned standard ve

Instrument cluster



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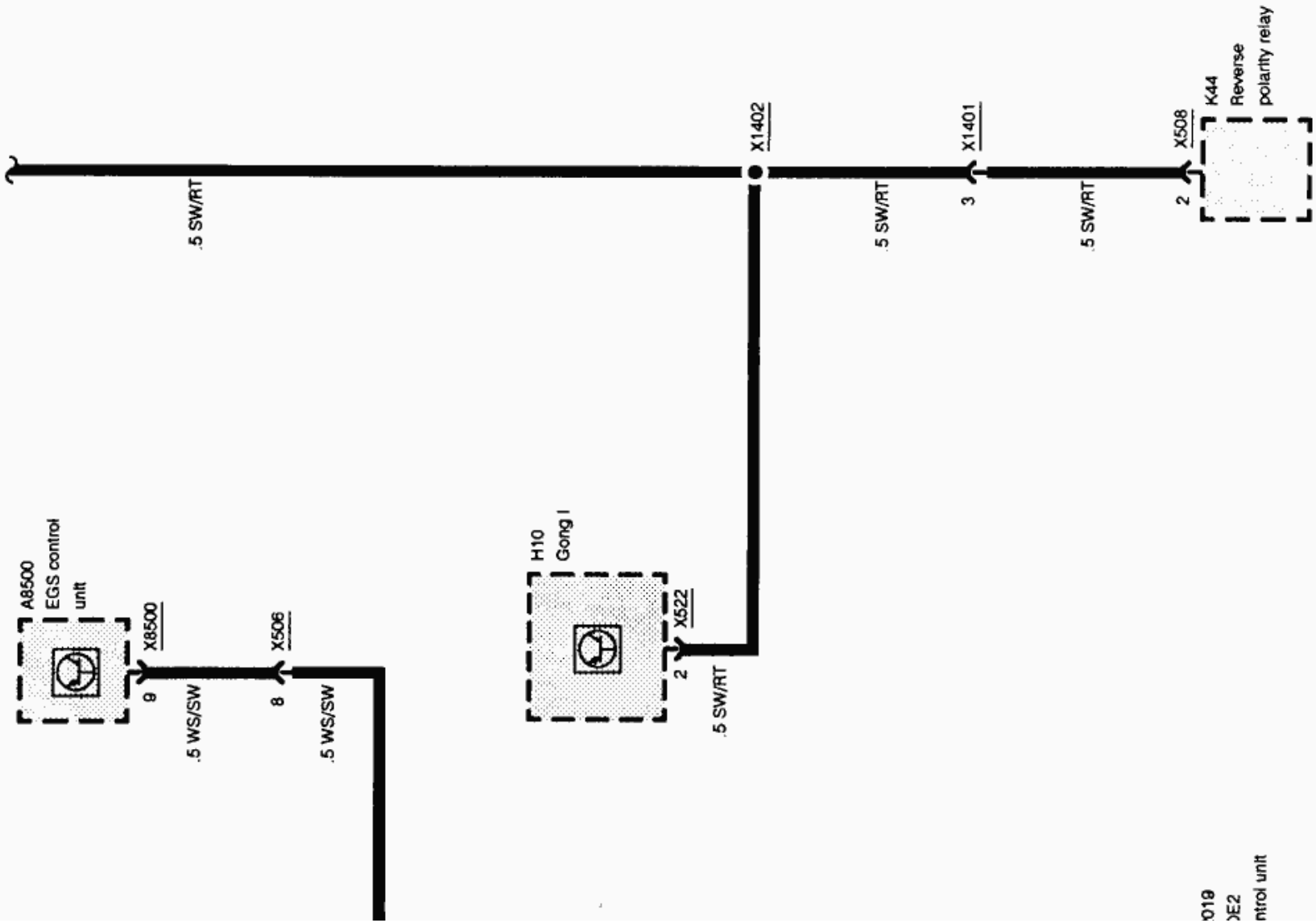

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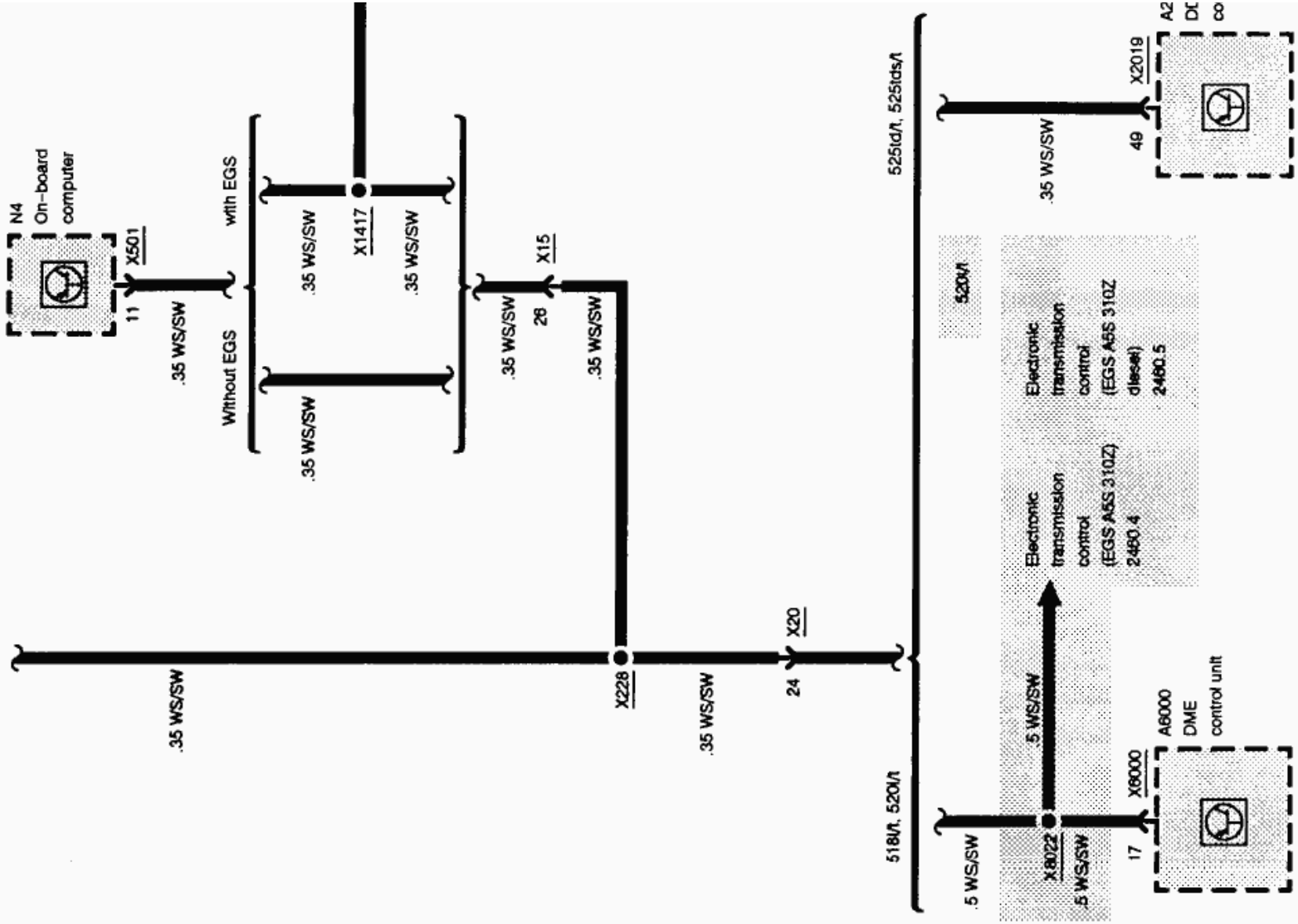

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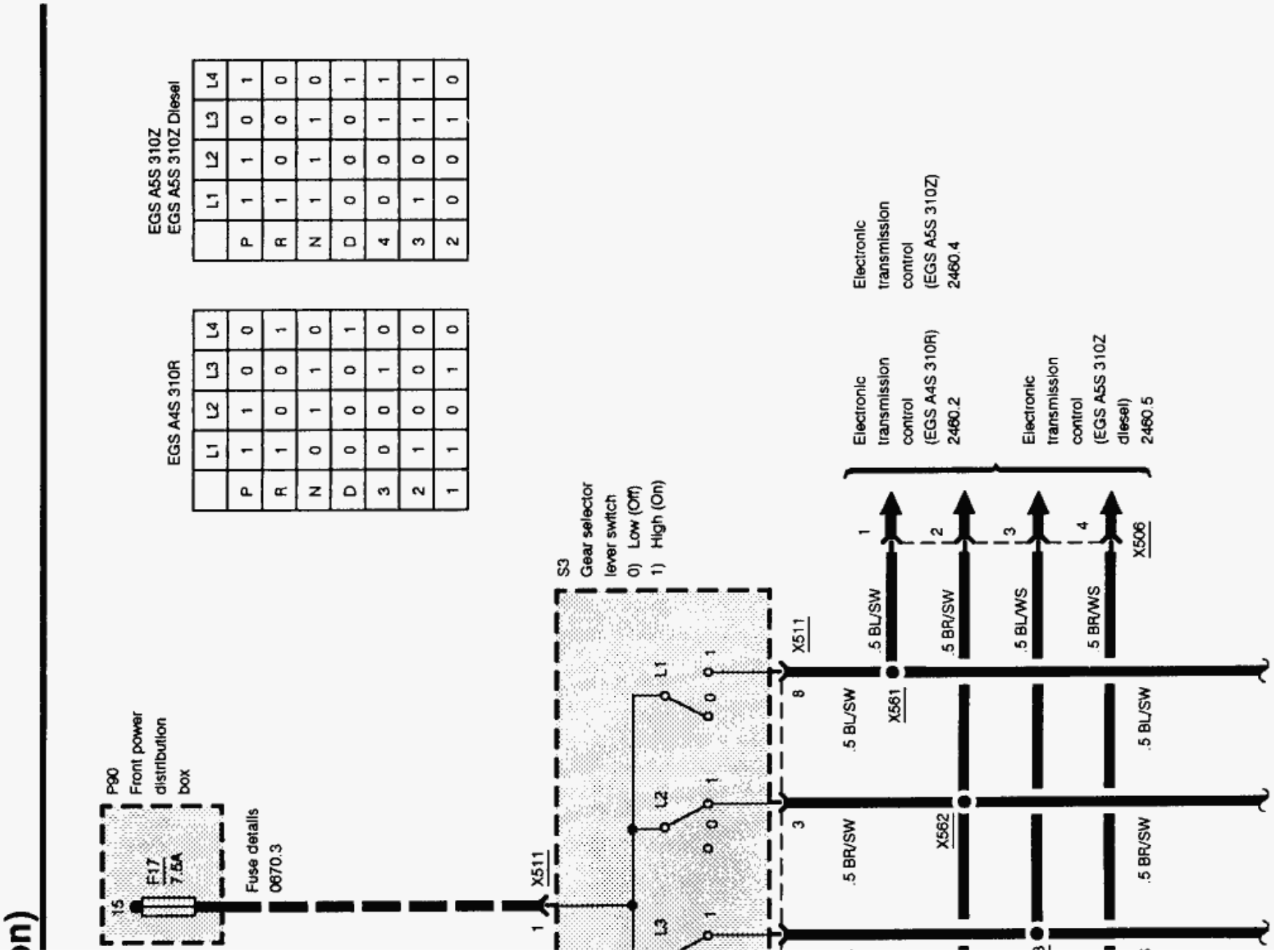

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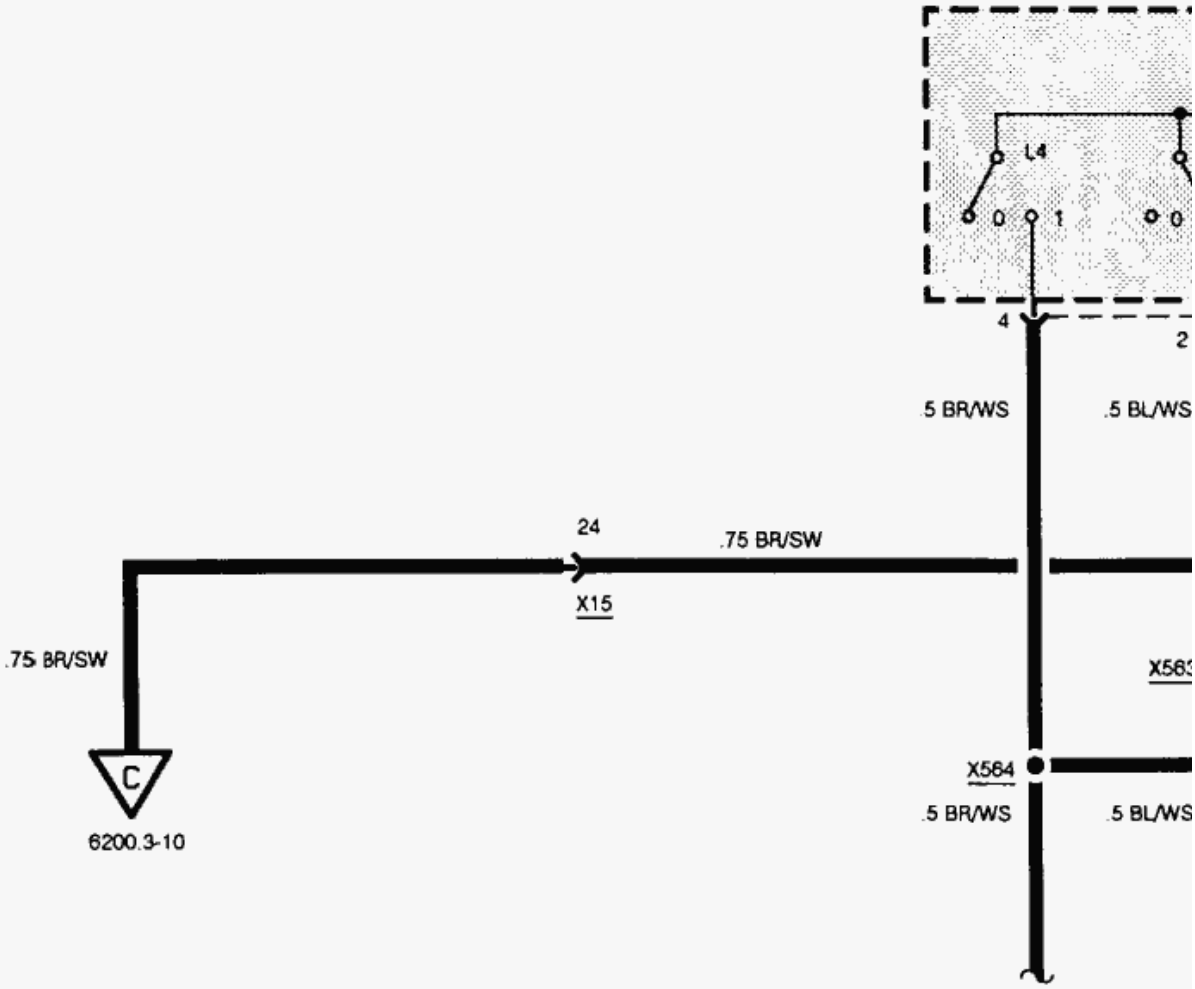
Instrument cluster (redesigned standard versio

Gear selector lever



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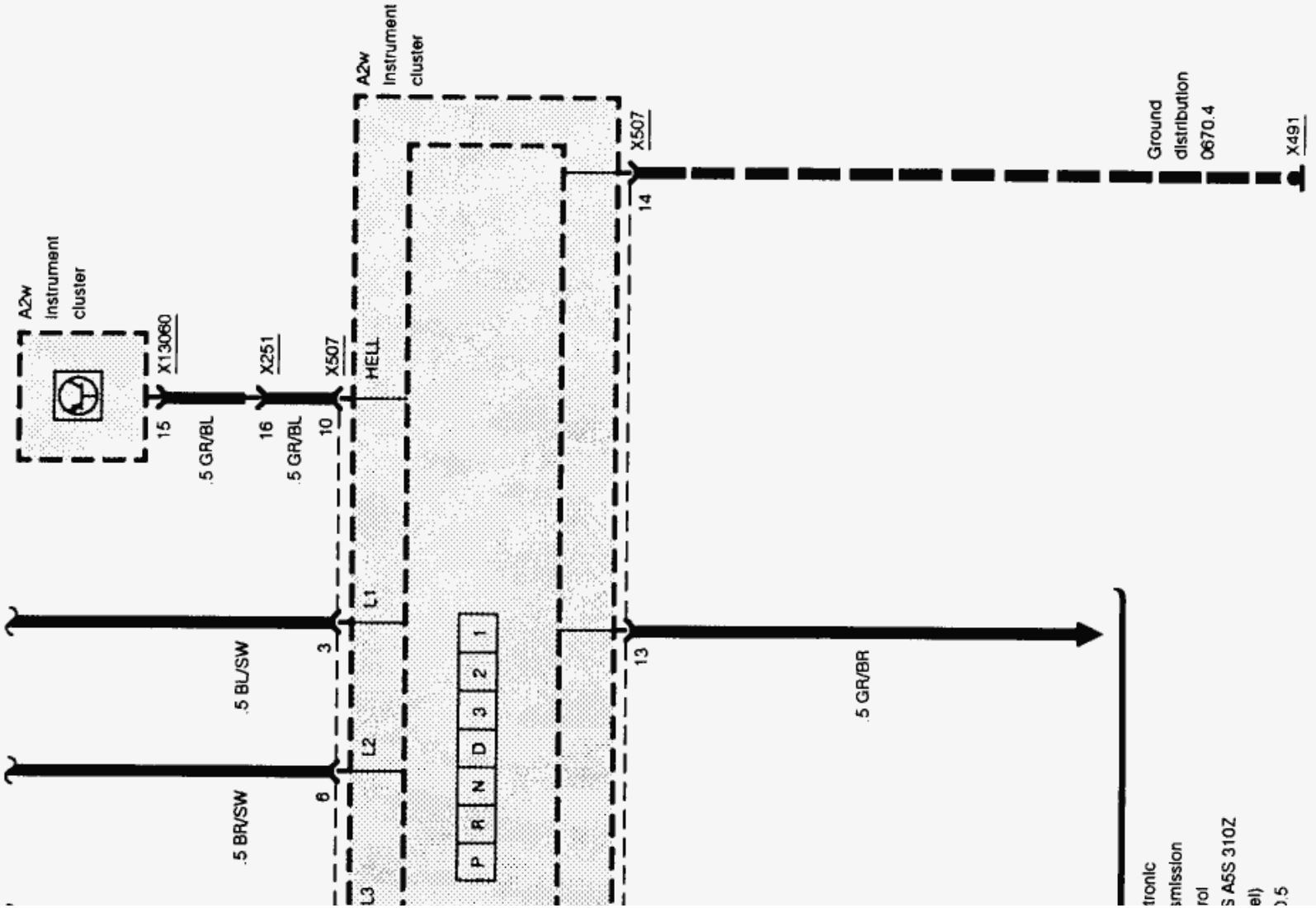

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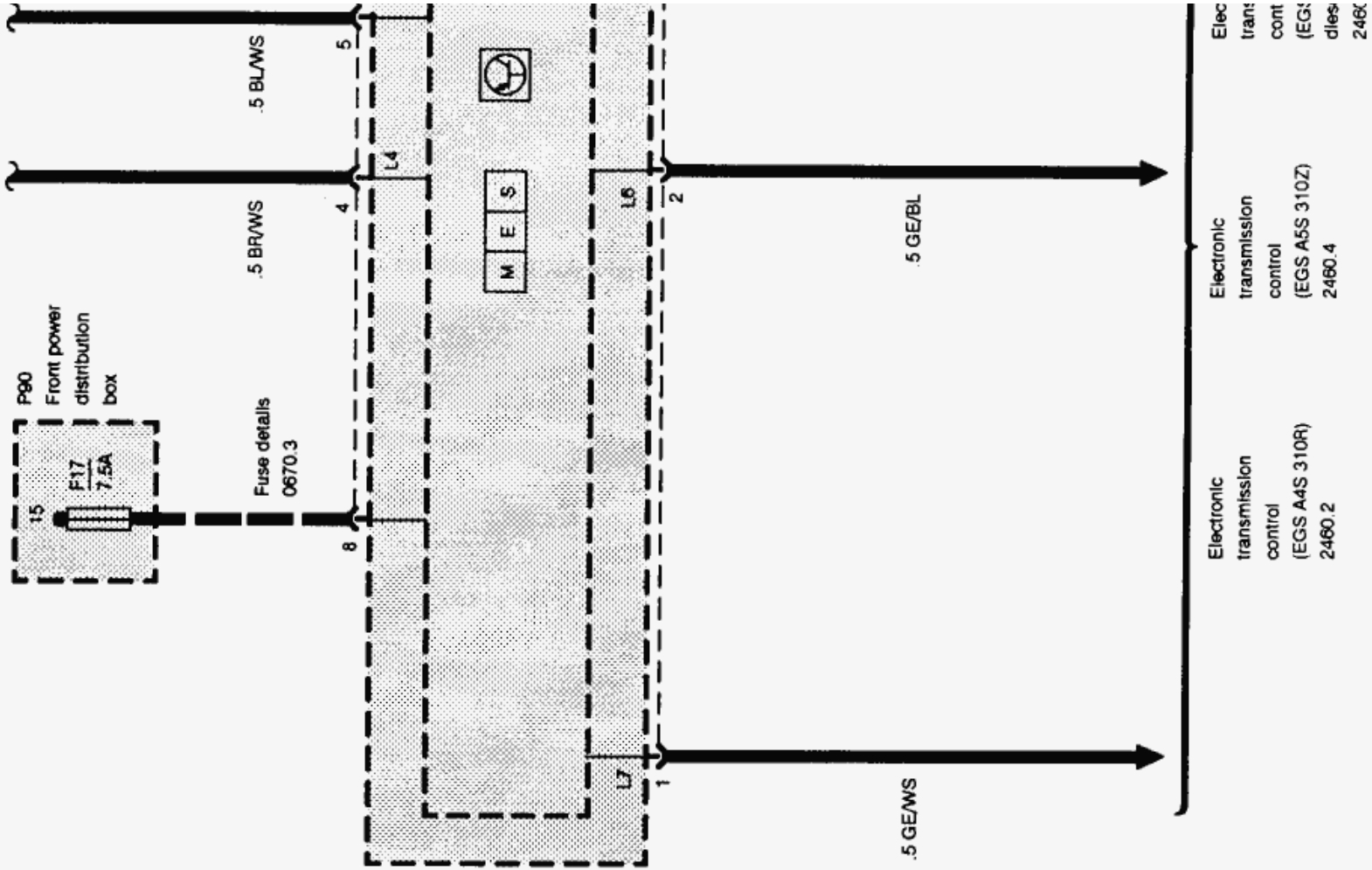

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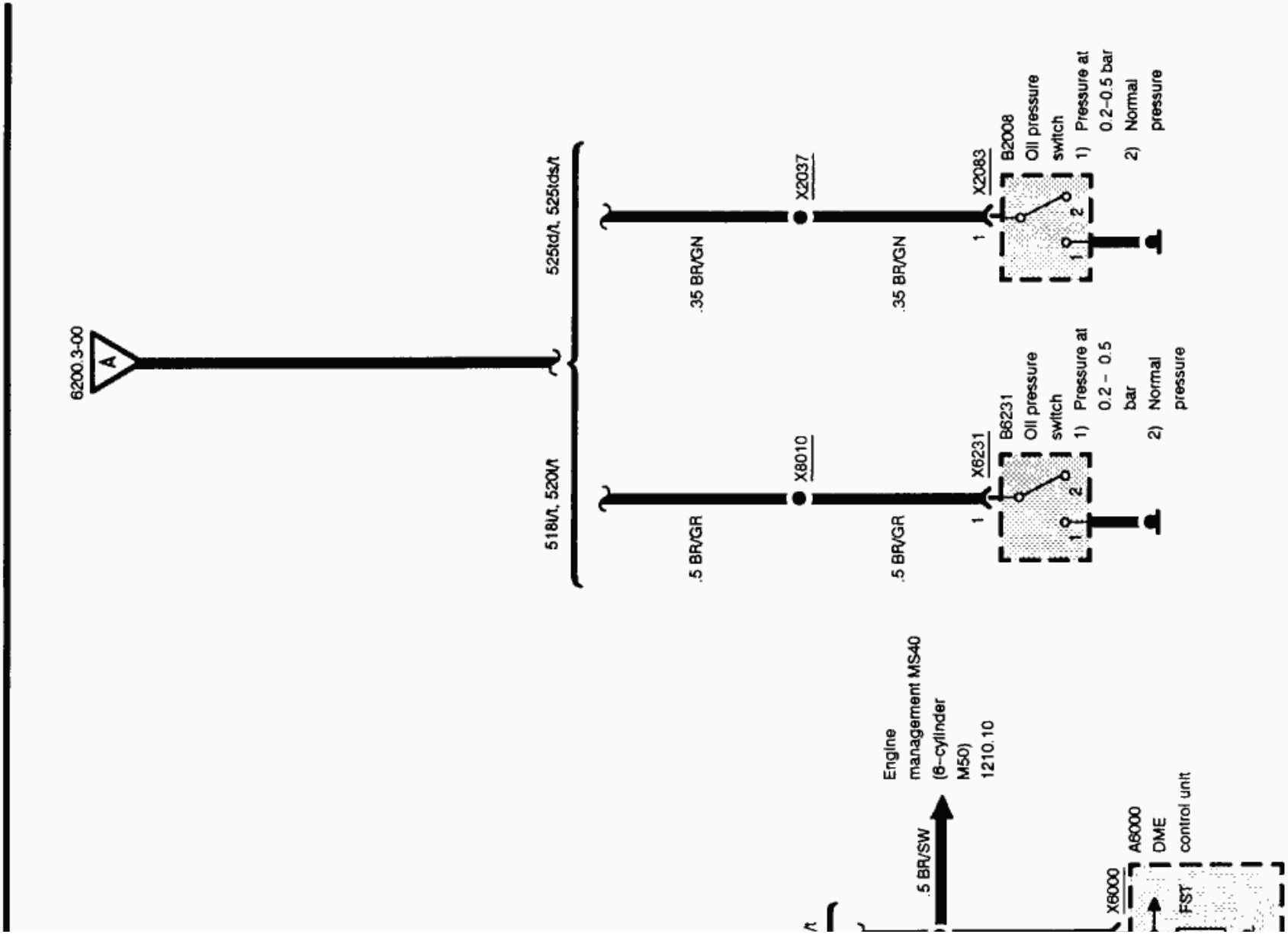

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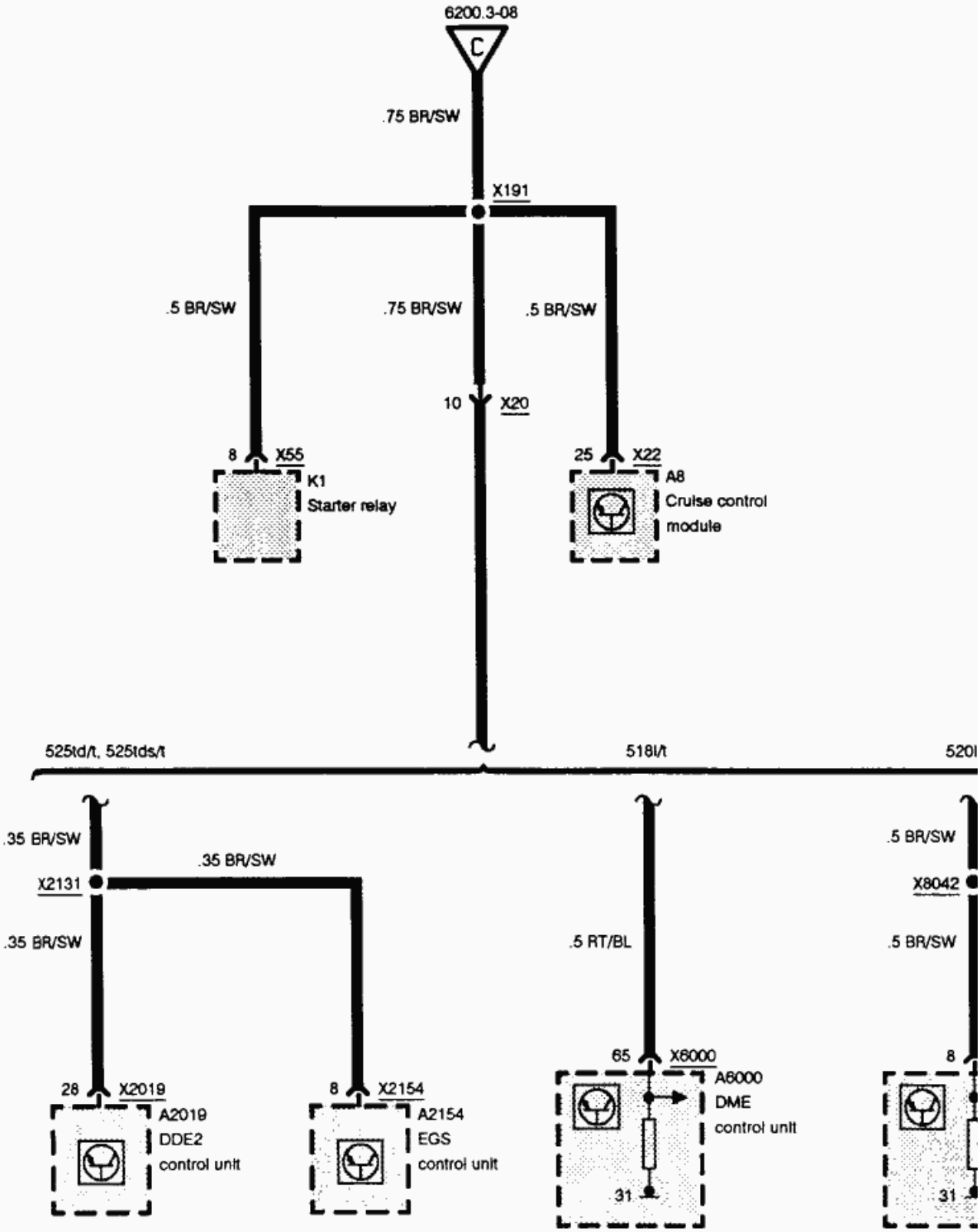
Instrument cluster (redesigned standard version)



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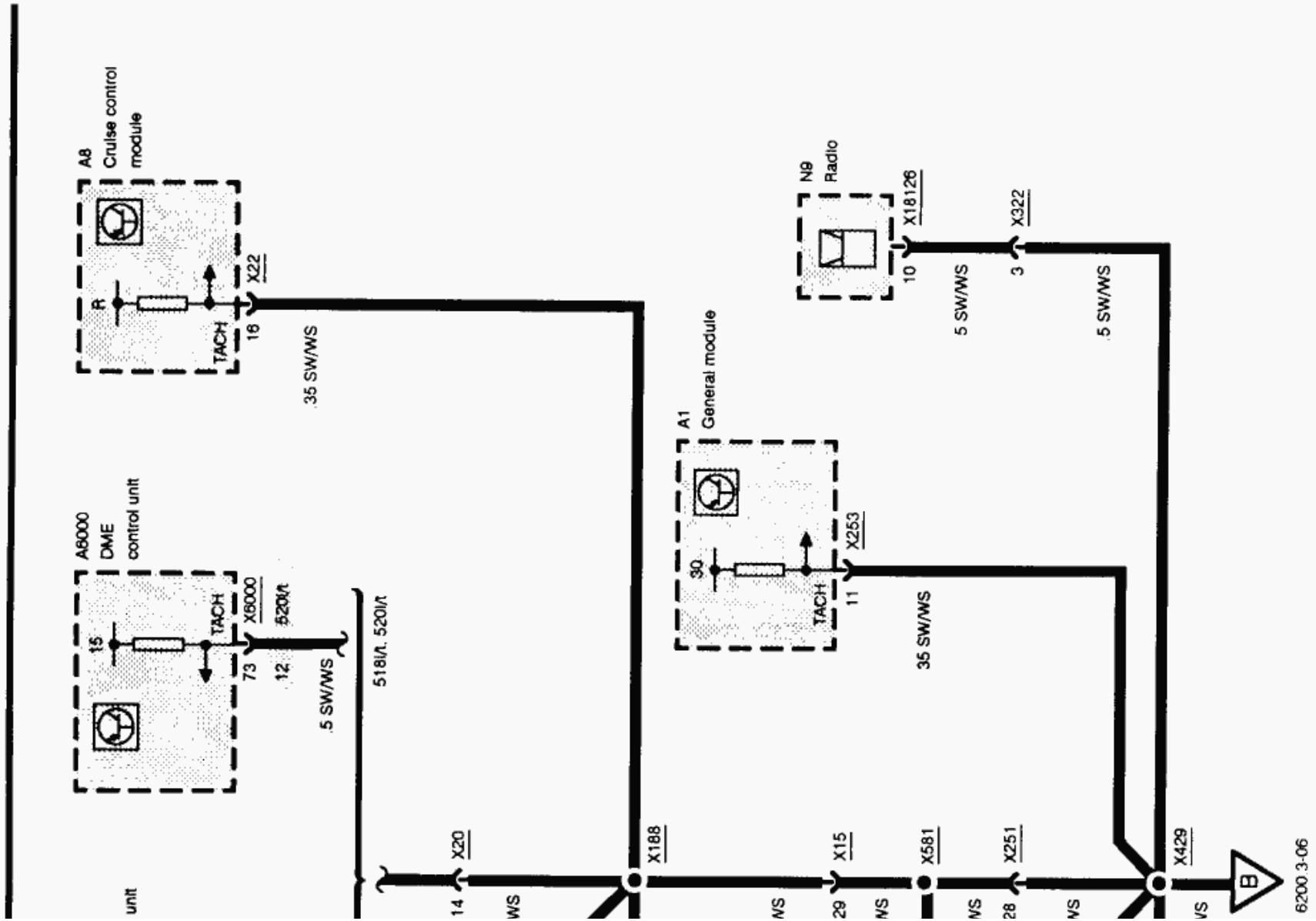

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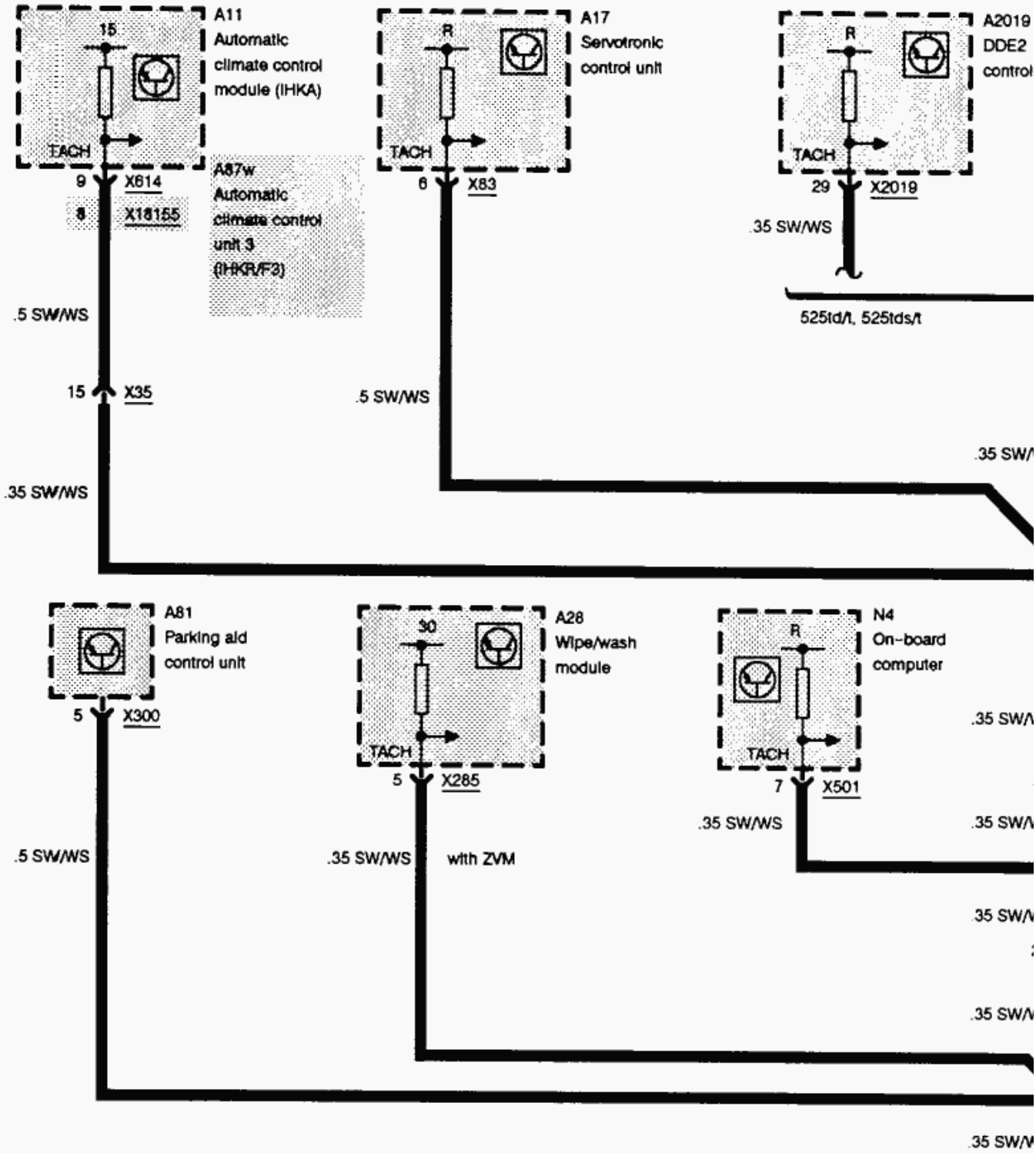
Instrument cluster (redesigned standard version)

Speed output signal



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Trailer coupling

Scheme 6325.0

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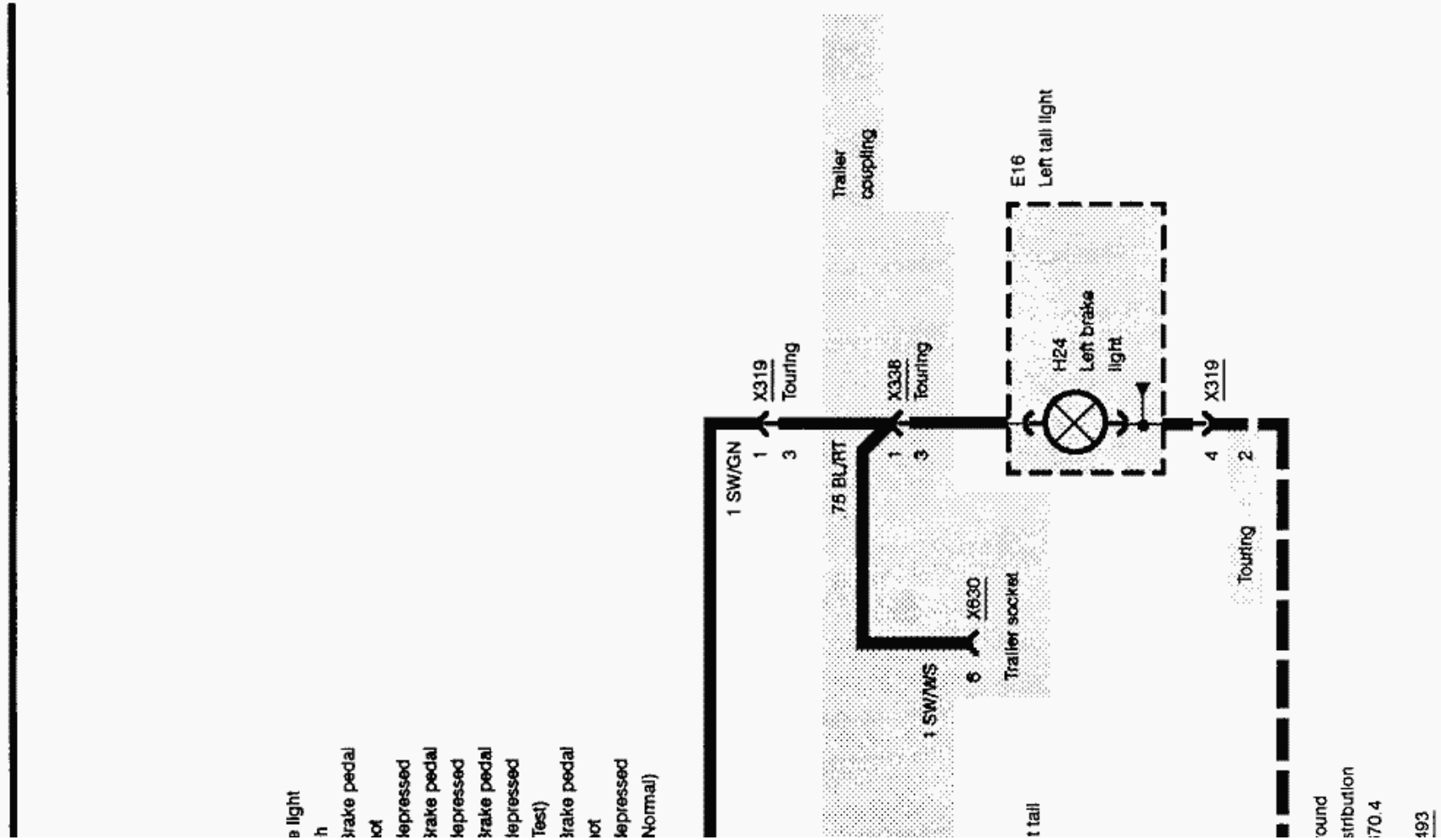

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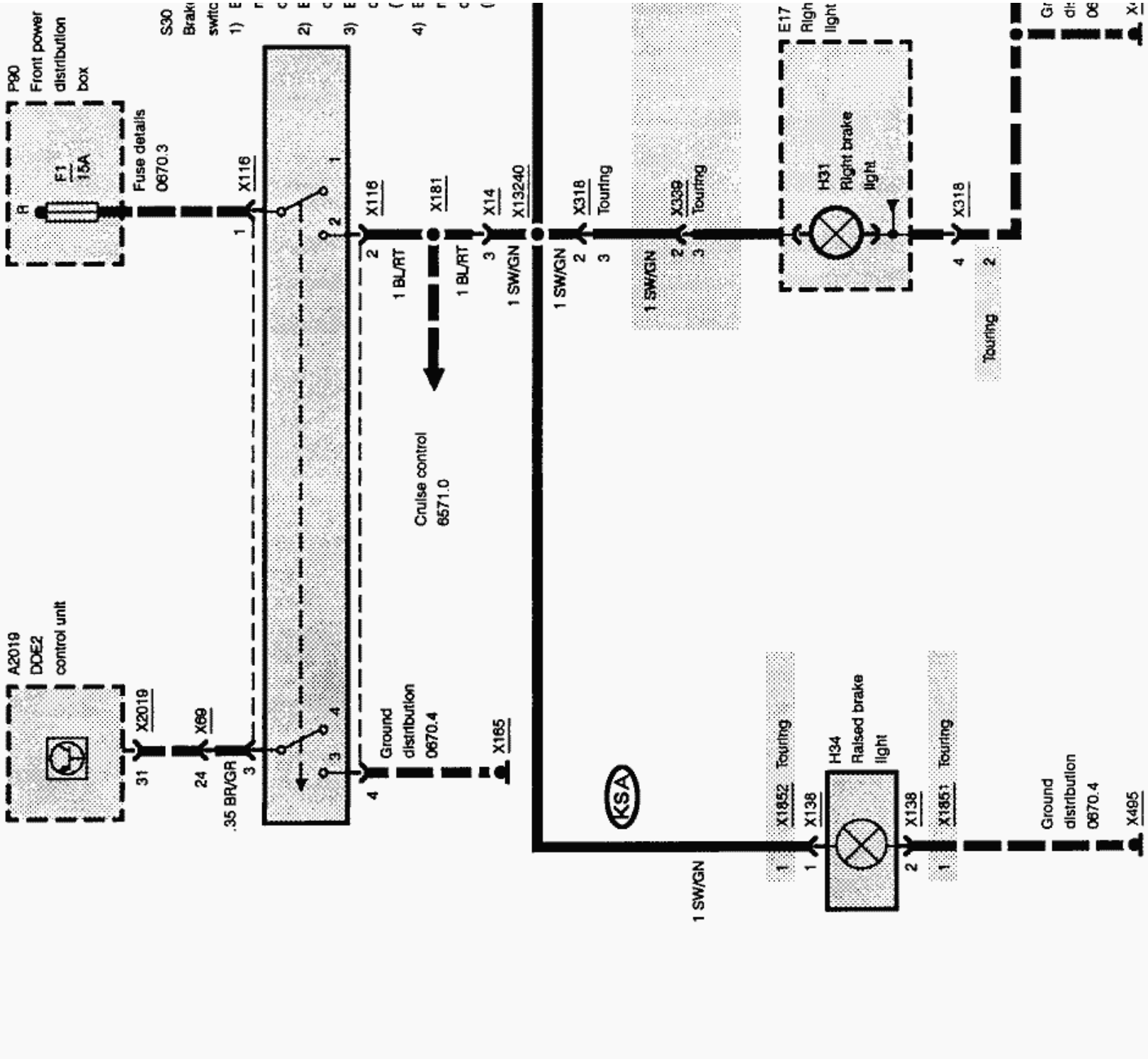
Brake lights



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Engine management MS40 (6-cylinder M50)
Scheme 1210.10

Pin Assignment X6000

Pin	Type	Description/Function	Connection
1	A	Ignition, terminal 1	Ignition coil for cyl. 1
2	A	Ignition, terminal 1	Ignition coil for cyl. 3
3	A	Ignition, terminal 1	Ignition coil for cyl. 5
4	M	Ground	Ground connection
5	A	Injection valve, cylinder 6	Injection valve
6	A	Injection valve, cylinder 4	Injection valve
7			
8	E	Drive range P/N	Gear selector lever switch
9	A	Signal, air condition ON	Pressure switch
10	A A	IHKR/F3: Auxiliary fan signal IHKA: Auxiliary fan signal	A/C control unit A/C system relay
11		not used	
12	A	Vehicle speed signal	Instrument cluster
13		not used	
14	A	Throttle-valve position	EGS control unit
15	E	Immobilizing device	On-board computer
16		not used	
17	A	TI signal,	Instrument cluster
18	A	TD speed signal	Instrument cluster
19		not used	
20	E	Ignition timing intervention	EGS control unit
21		not used	
22	A	Injection valve, cylinder 3	Injection valve
23	A	Injection valve, cylinder 1	Injection valve
24	E	A/C compressor ON	A/C compressor relay
25	E	Signal, camshaft control	Camshaft control
26	E	Continuous pos. voltage, terminal 30	B+ terminal point
27	A	Idle actuator signal	Idle actuator
28	M	Ground	Ground connection
29	A	Ignition, terminal 1	Ignition coil forcyl. 2
30	A	Ignition, terminal 1	Ignition coil forcyl. 4
31	A	Ignition, terminal 1	Ignition coil for cyl. 6
32	M	Ground	Ground connection
33	A	Injection valve, cylinder 5	Injection valve
34	M	Ground	Ground connection
35	M	Shieldings, crankshaft sensor	Shielding
36		not used	
37		not used	
38	M	Shieldings, camshaft sensor	Shielding
39	M	Shieldings, knock sensor	Knock sensor 1
40	M	Shieldings, knock sensor	Knock sensor 2
41		not used	
42	M	Shieldings, oxygen sensor	Shielding
43		not used	
44		not used	
45		not used	
46		not used	
47		not used	
48	E	>10V from DME main relay	Main relay
49	E	Ignition, terminal 15	Ignition lock
50	A	Injection valve, cylinder 2	Injection valve
51	A	Tank ventilation valve	Tank ventilation valve
52	A	EKP relay and TR signal (crank angle reference)	Electrical fuel pump relay and electrical transmission
53	M	Ground oxygen sensor heater	Oxygen sensor
54	E	>10V from DME main relay	Main relay
55	A	DME main relay	DME main relay
56		not used	
57		not used	
58		not used	
59		not used	

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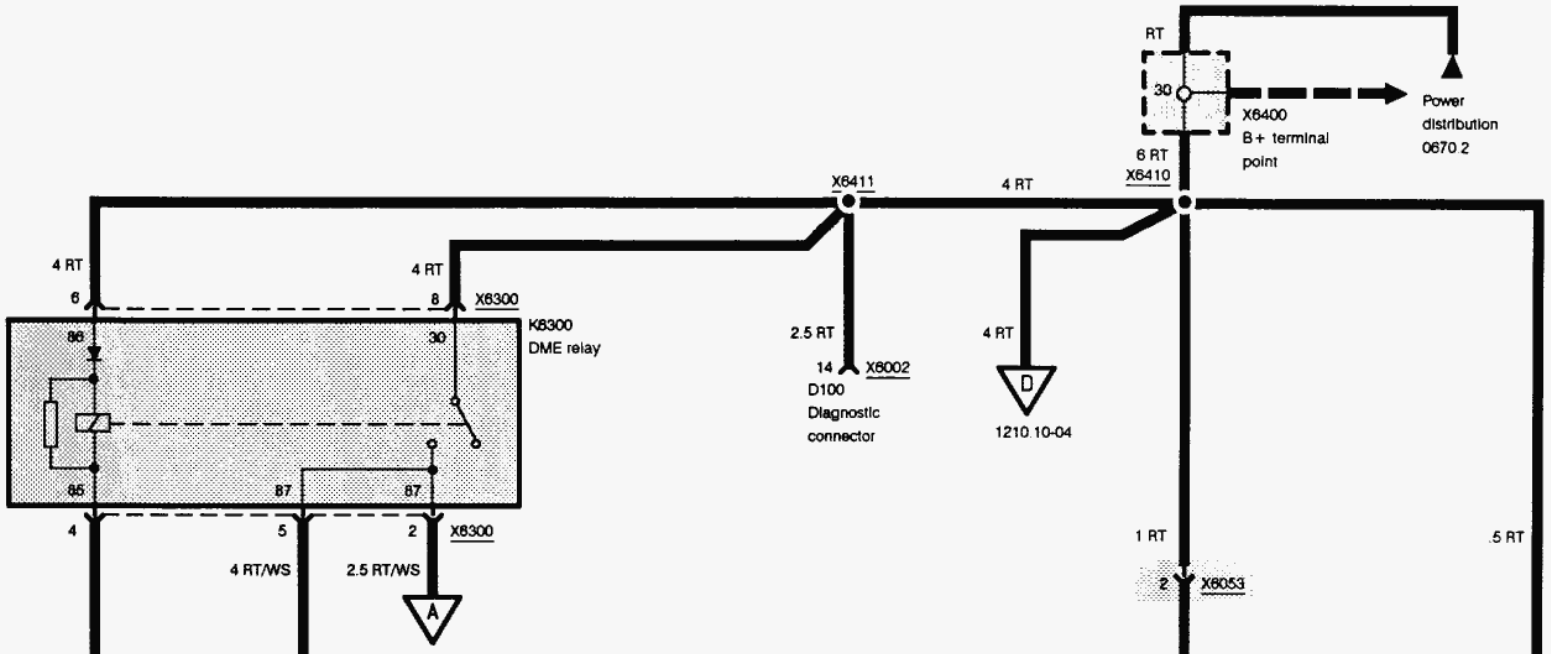
60	E	Programming voltage	Diagnostic connector
61		not used	
62	M	Ground	Ground connection
63	E	Signal -	Knock sensor 2
64	E	Signal -	Knock sensor 1
65	A	Signal +	Knock sensor 1
66	A	Signal +	Knock sensor 2
67		not used	
68	M	Ground, air mass meter	Air mass meter
69	E	Signal, air mass meter	Hot wire air mass meter
70		not used	
71		not used	
72	A	Signal +	Throttle potentiometer
73	E	Signal, oxygen sensor	Oxygen sensor
74	M	Component ground	Camshaft sensor
75	M	Ground, oxygen sensor	Oxygen sensor
76	E	Signal	Throttle potentiometer
77	E	Throttle-valve position	Throttle potentiometer
78	E	Signal -	Crankshaft sensor
79	A	Signal +	Crankshaft sensor
80	E	Signal -	Coolant temperature sensor
81	A	Signal +	Coolant temperature sensor
82	M	Component ground	Crankshaft sensor
83	E	Signal -	Camshaft sensor
84	A	Signal +	Camshaft sensor
85	E	Intake air temperature sensor	Intake air temperature sensor
86	M	Component ground	Intake air temperature sensor
87	E	RxD diagnostic data link	Diagnostic connector
88	E/A	TxD diagnostic data link	Diagnostic connector

E = Input, A = Output, M = Ground

Engine management MS40 (6-cylinder M50)

Current



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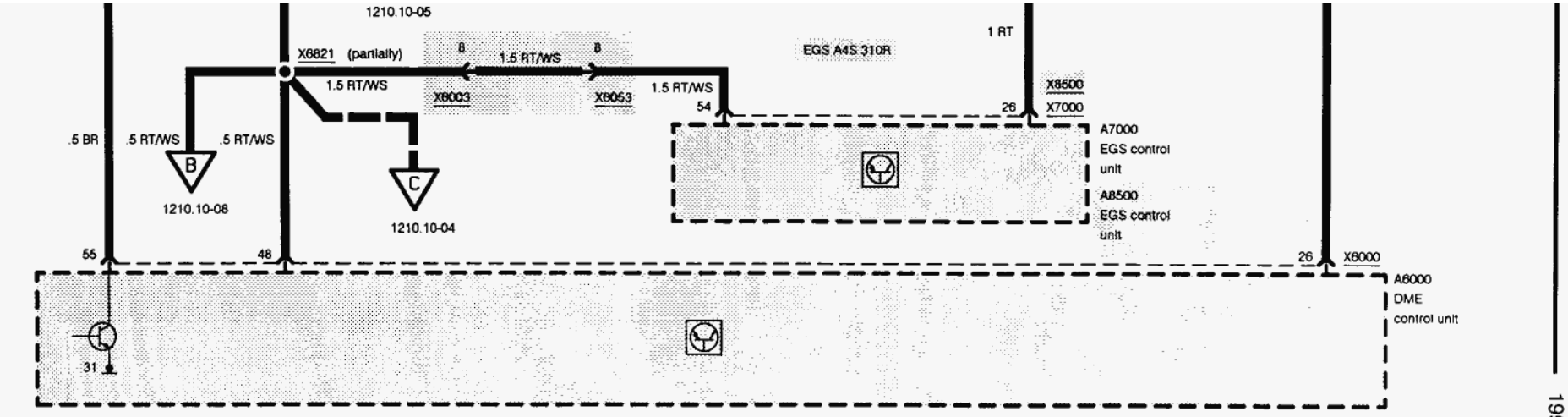

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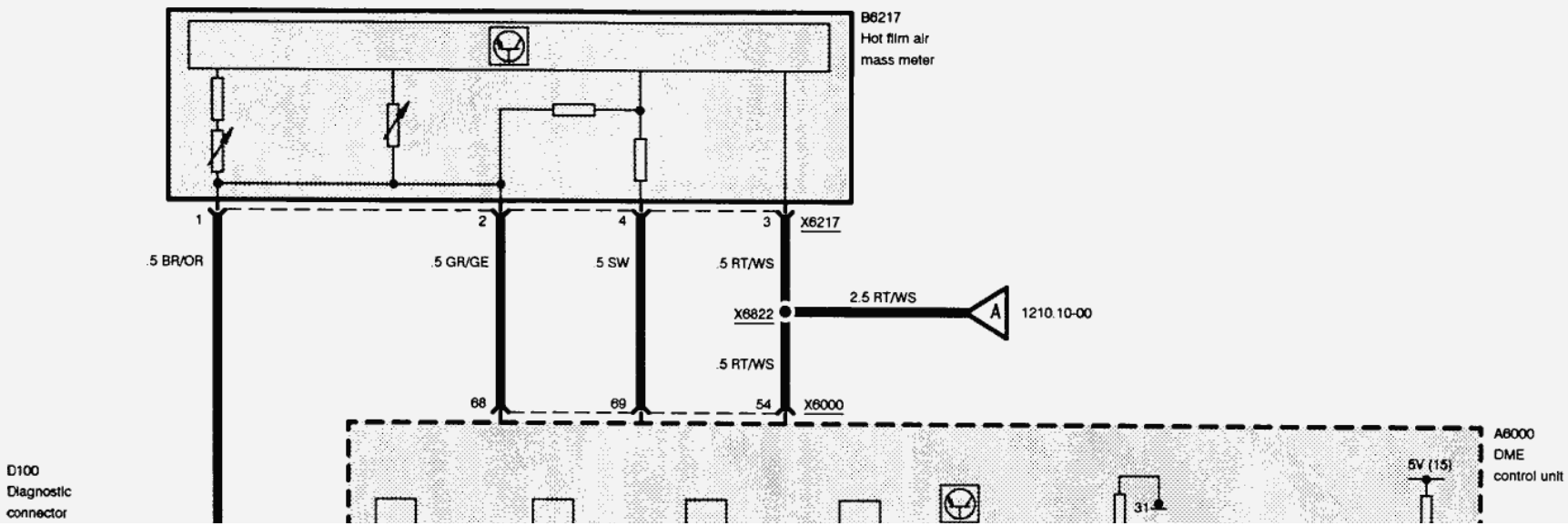
Engine management MS40 (6-cylinder M50)



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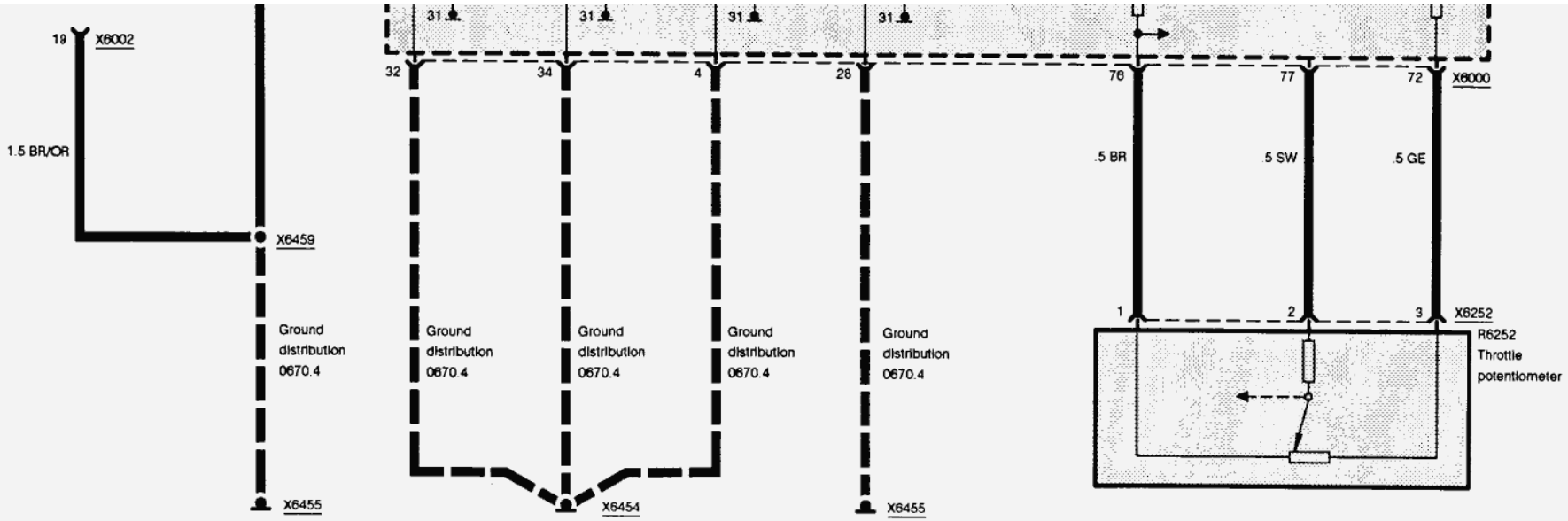

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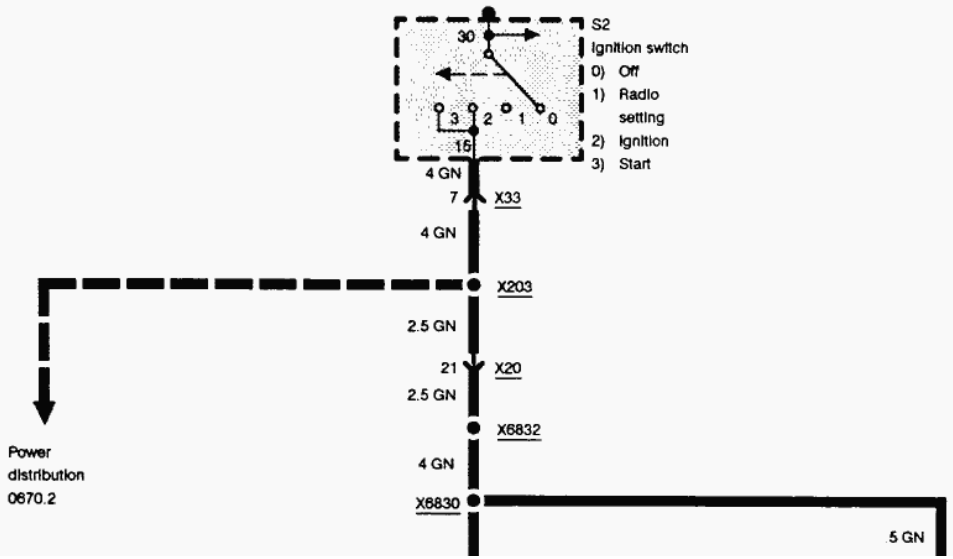
BMW 5 Engine management MS40 (6-cylinder M50)



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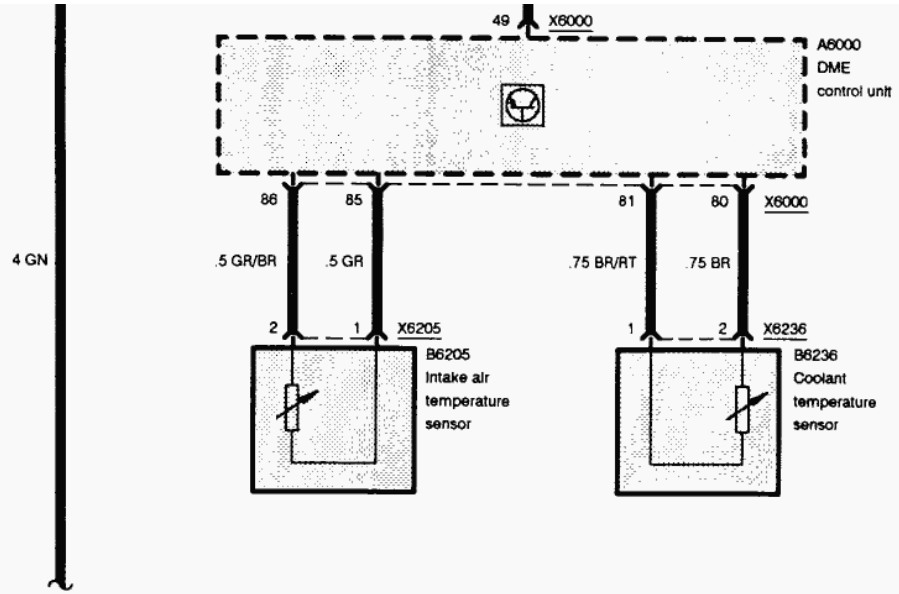

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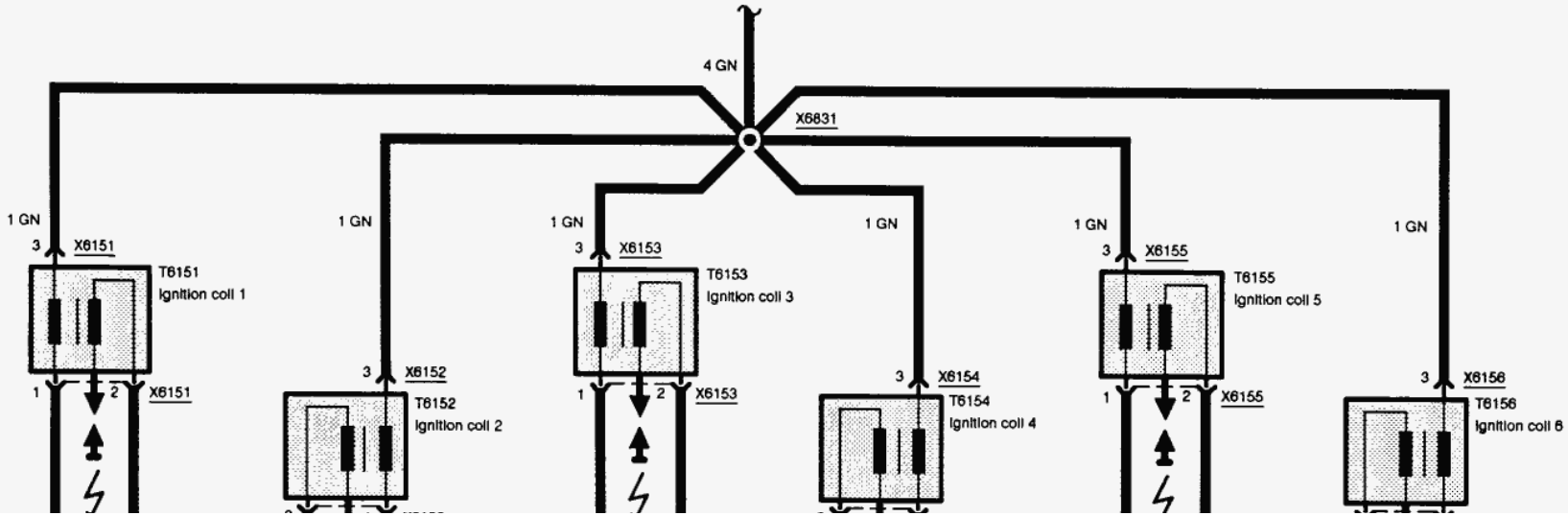

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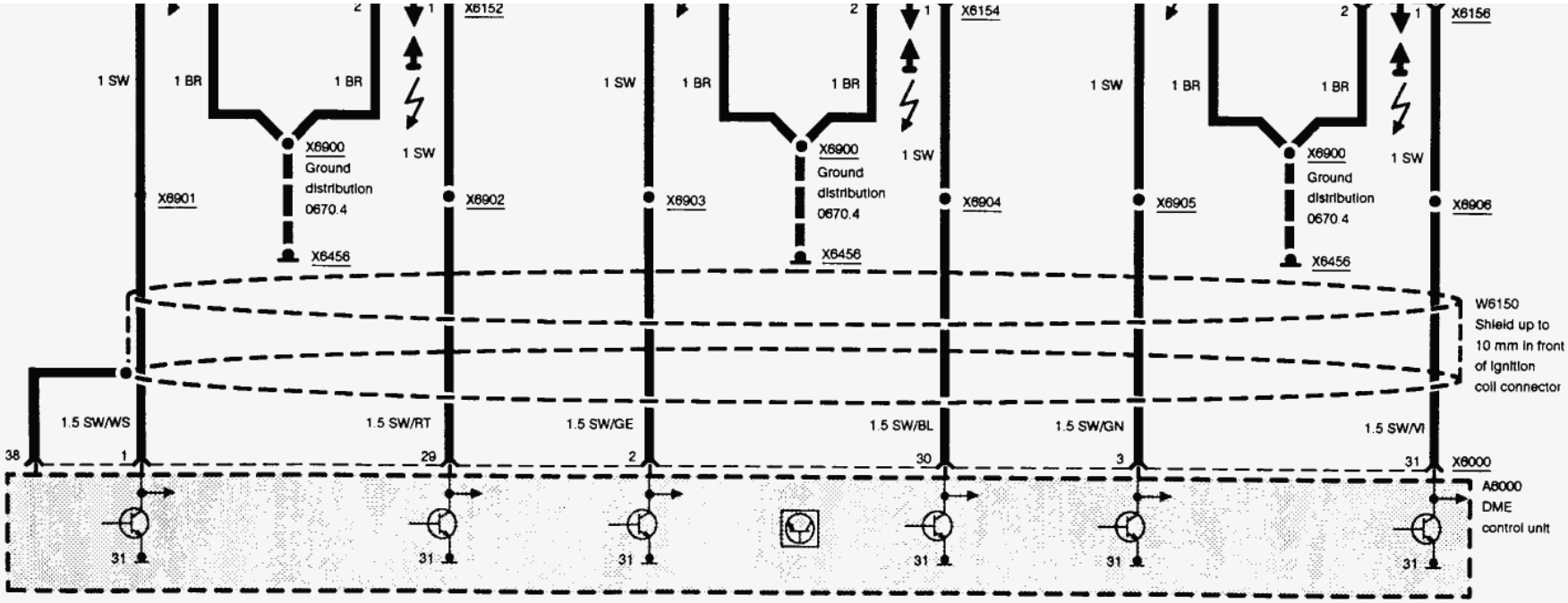

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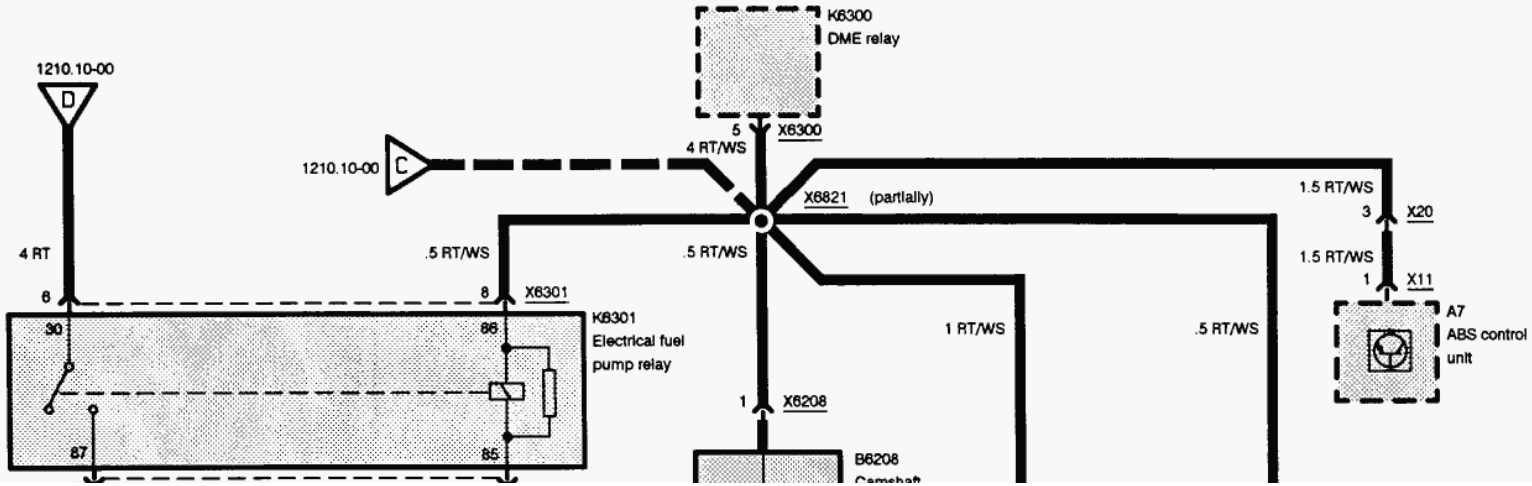
Engine management MS40 (6-cylinder M50)



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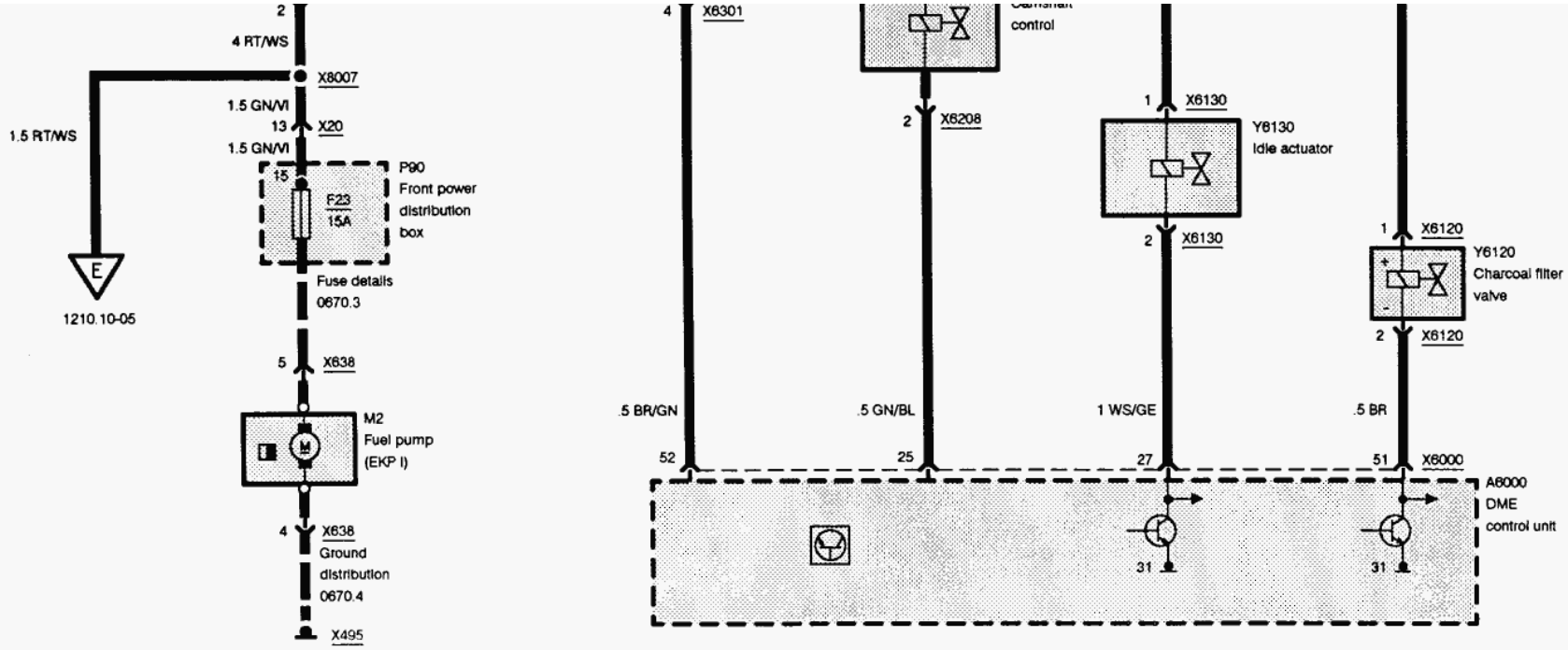

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Engine management MS40 (6-cylinder M50)

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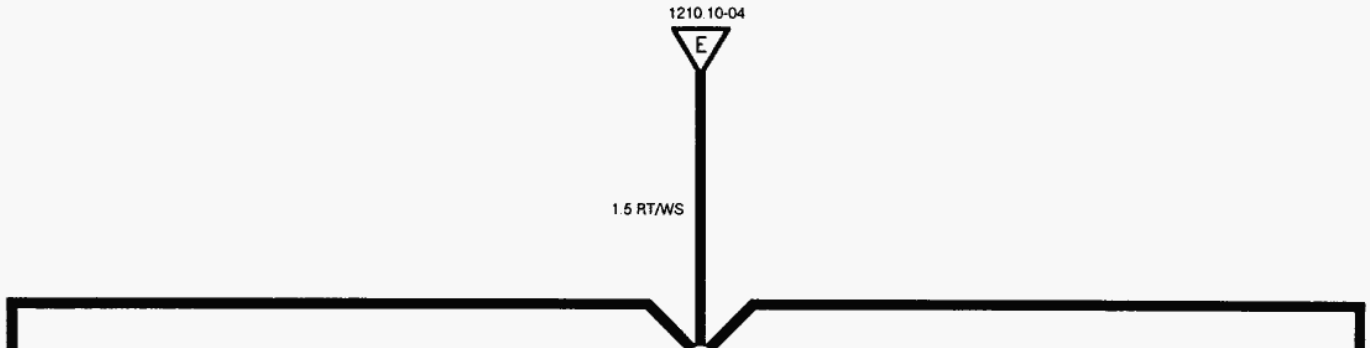

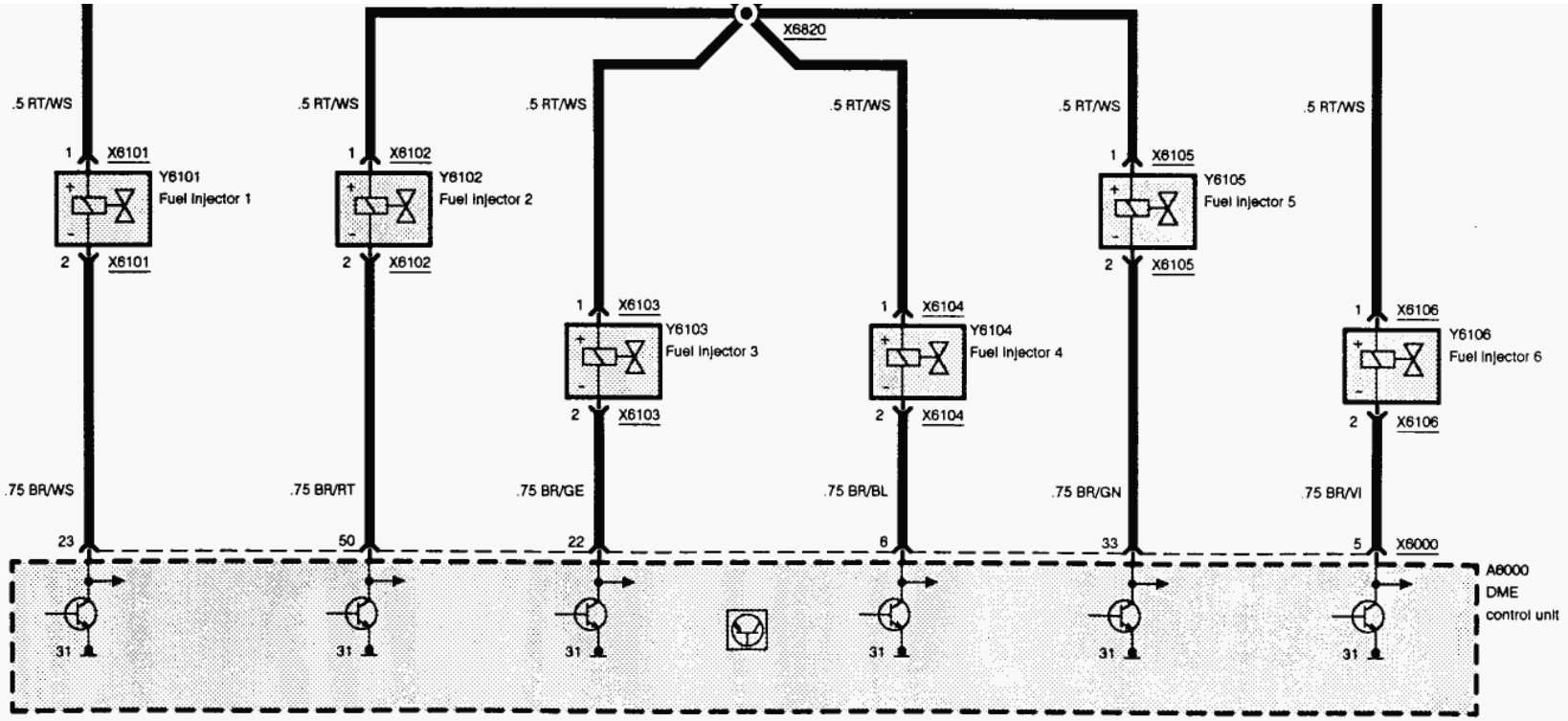

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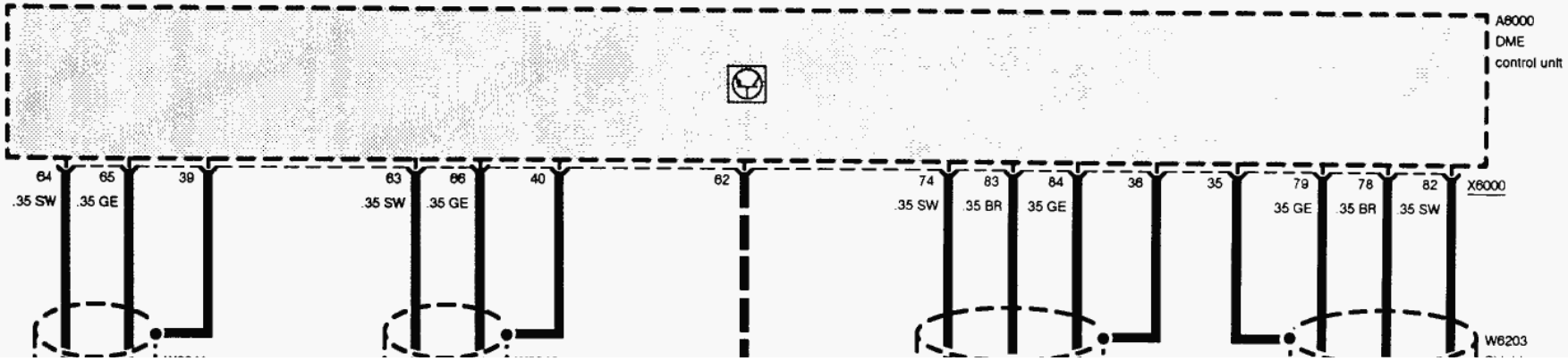
Engine management MS40 (6-cylinder M50)



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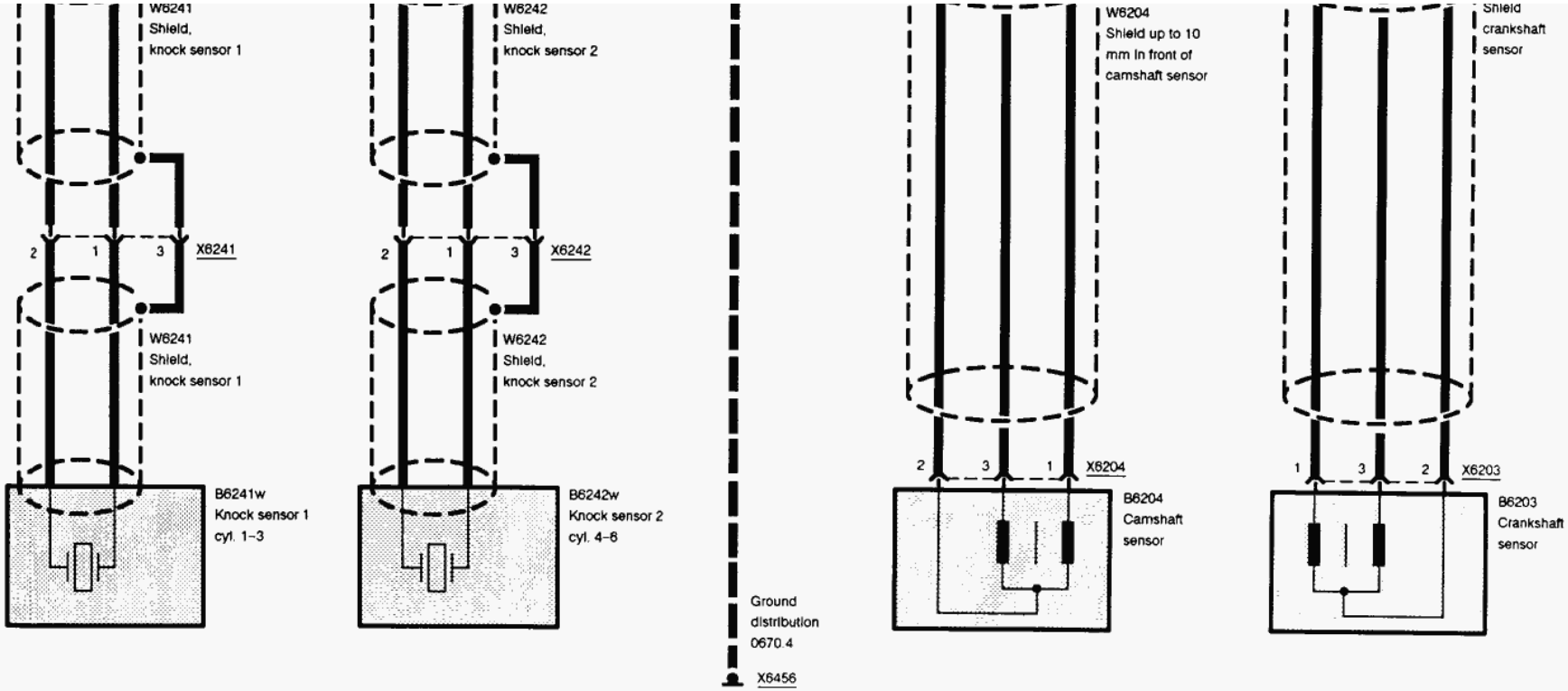

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Engine management MS40 (6-cylinder M50)

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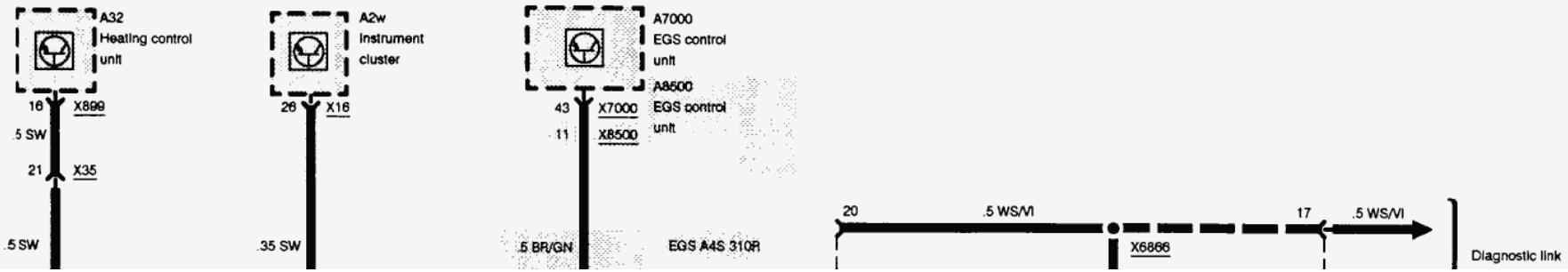

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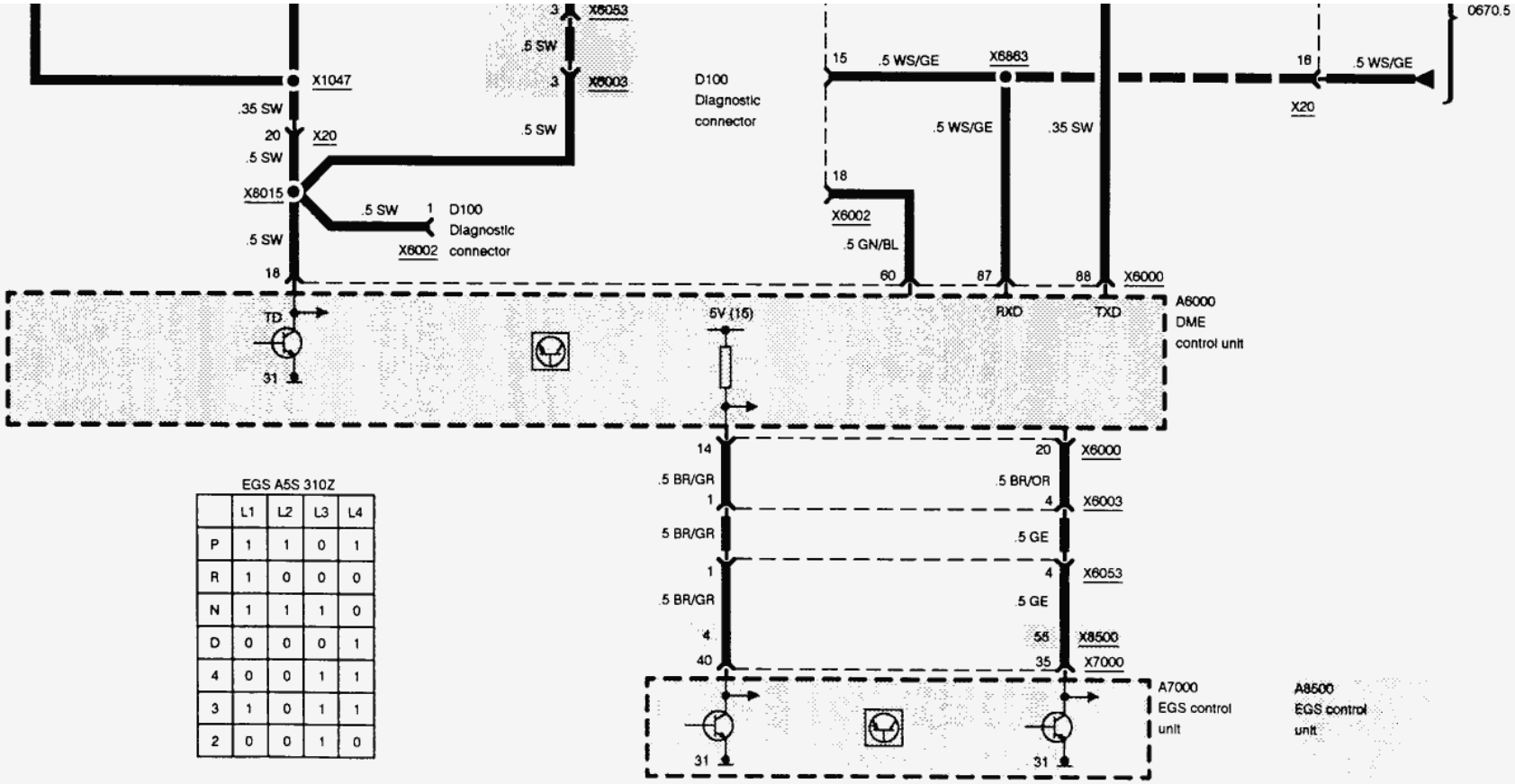

EGS A5S 310Z

	L1	L2	L3	L4
P	1	1	0	1
R	1	0	0	0
N	1	1	1	0
D	0	0	0	1
4	0	0	1	1
3	1	0	1	1
2	0	0	1	0

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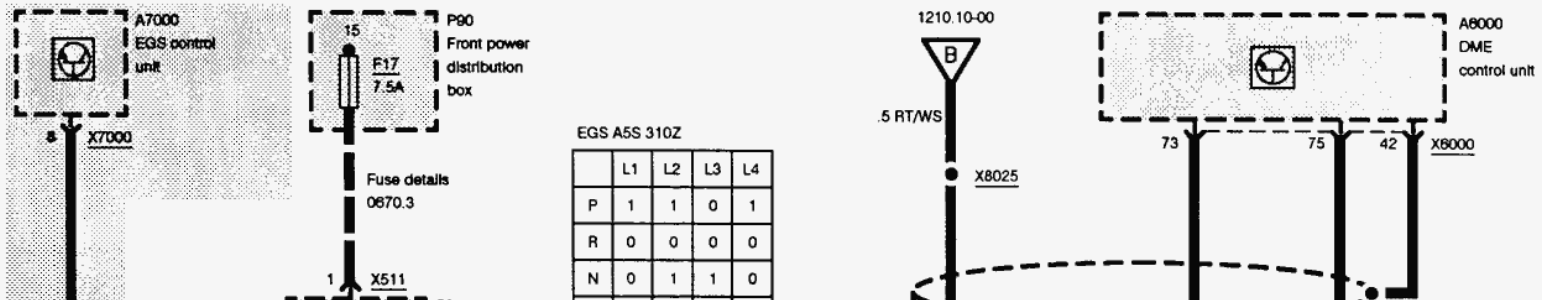
1994

BMW 5

Engine management MS40 (6-cylinder M50)

09/93



EGS A5S 310Z

	L1	L2	L3	L4
P	1	1	0	1
R	0	0	0	0
N	0	1	1	0

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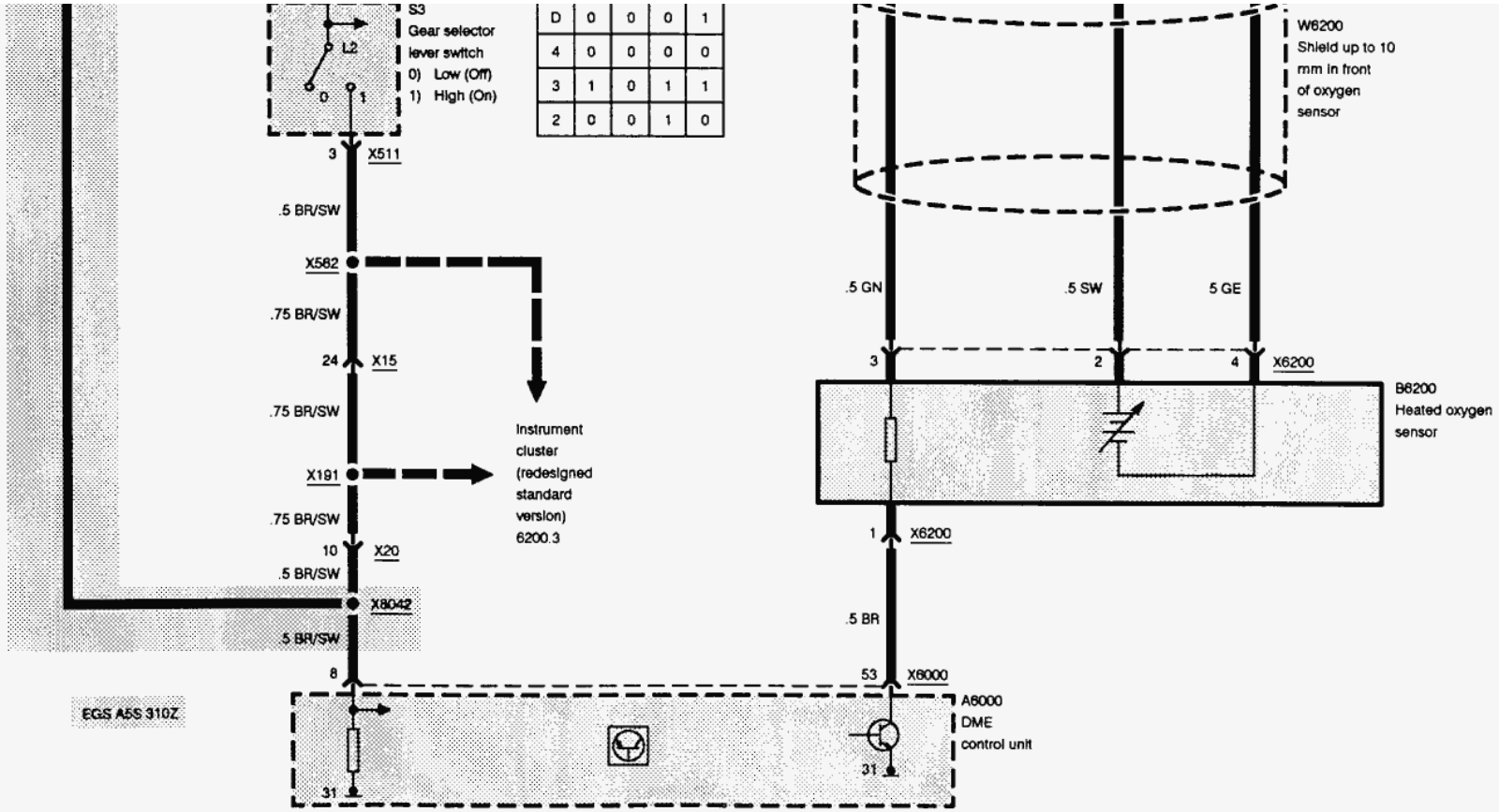

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Engine management MS40 (6-cylinder M50)

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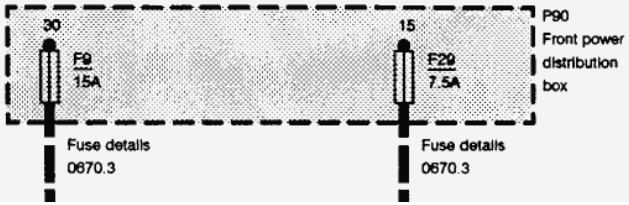

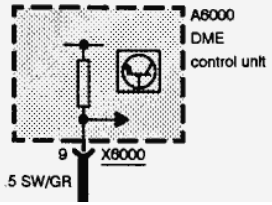

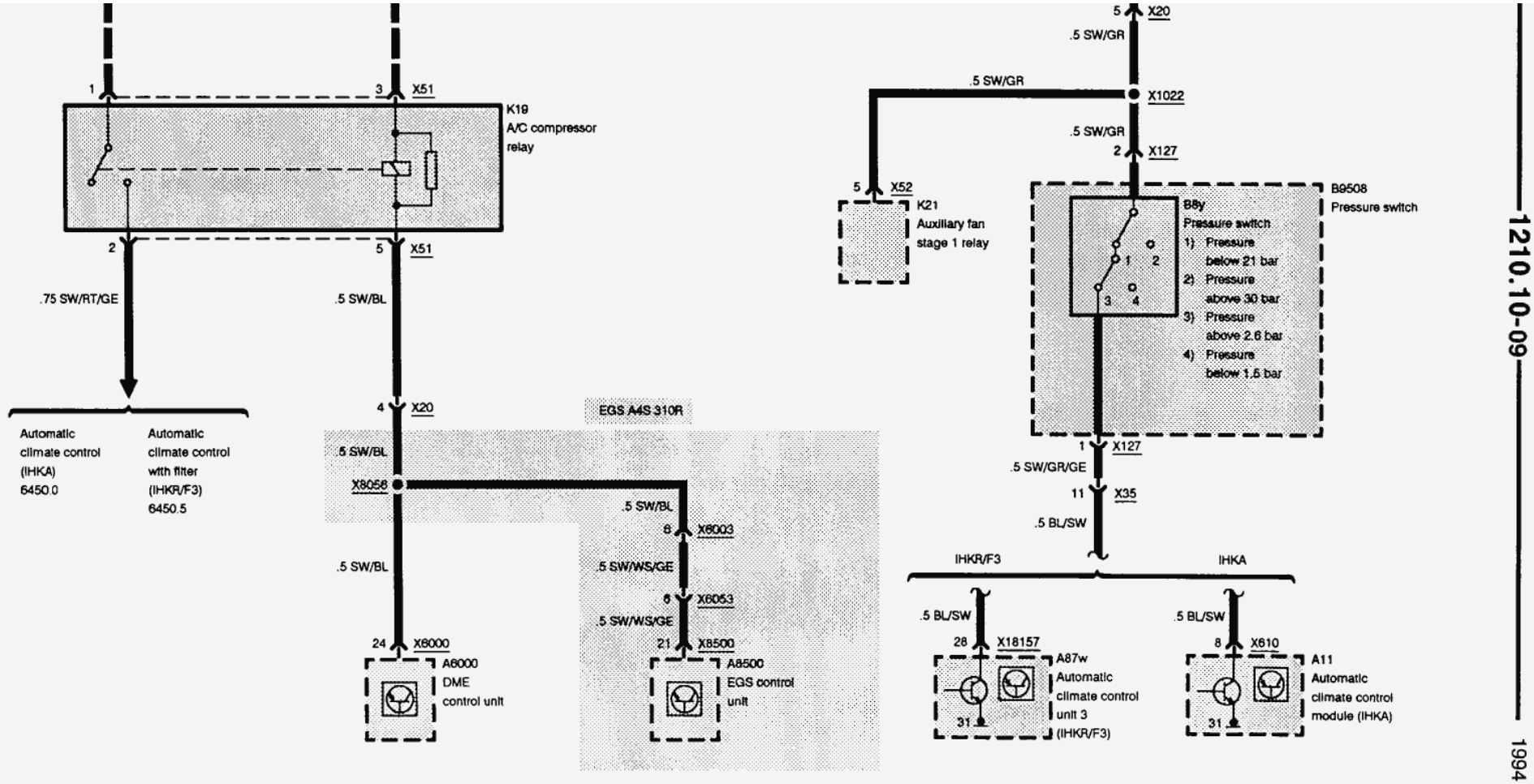

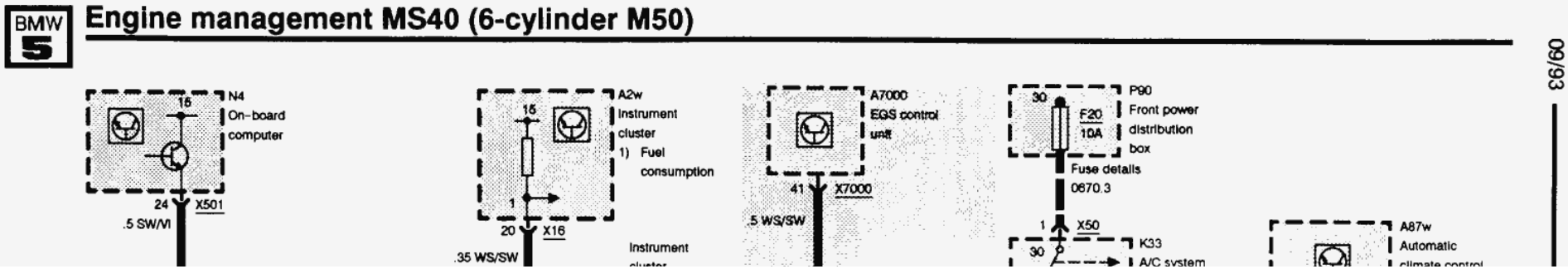

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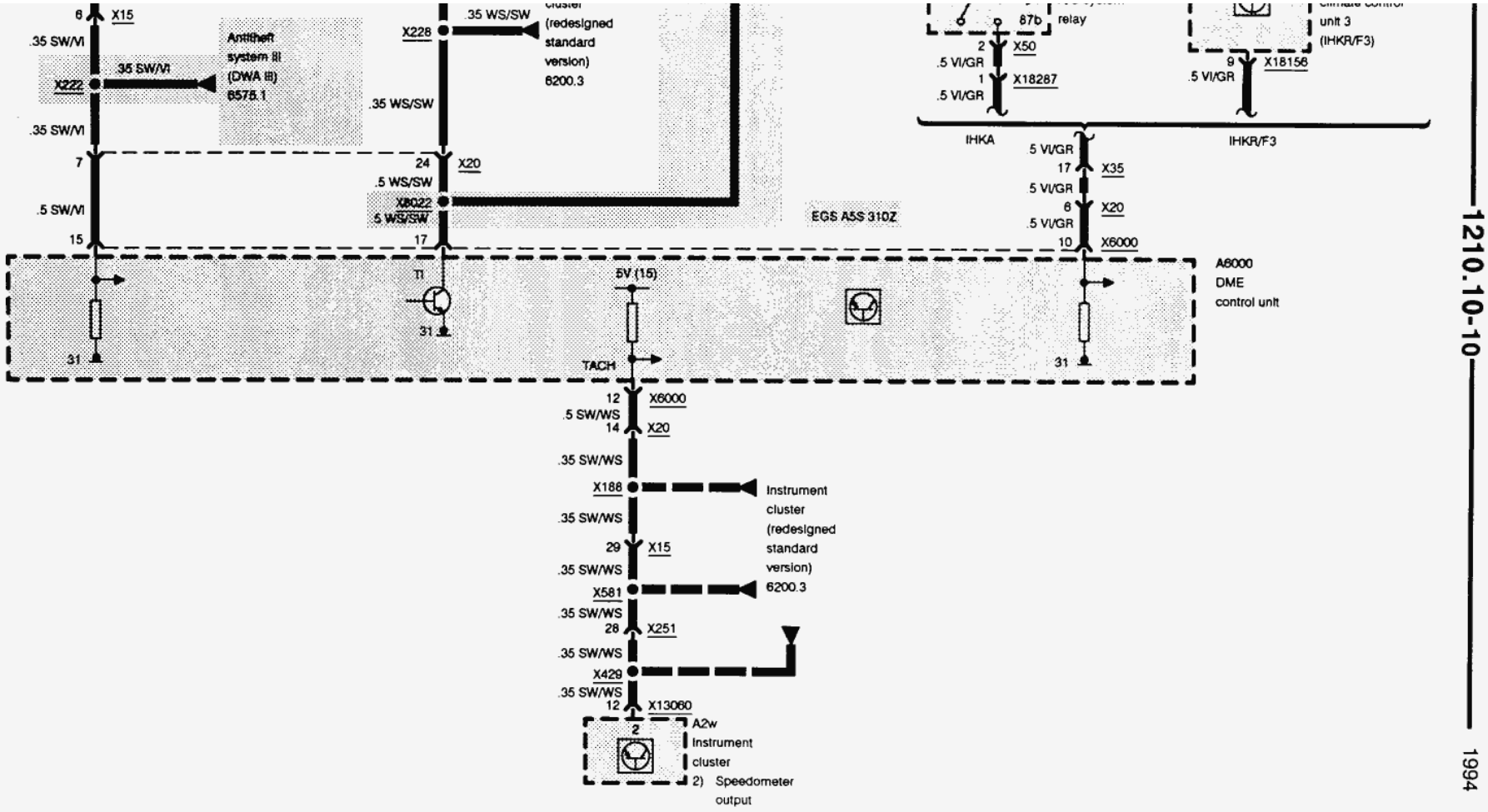

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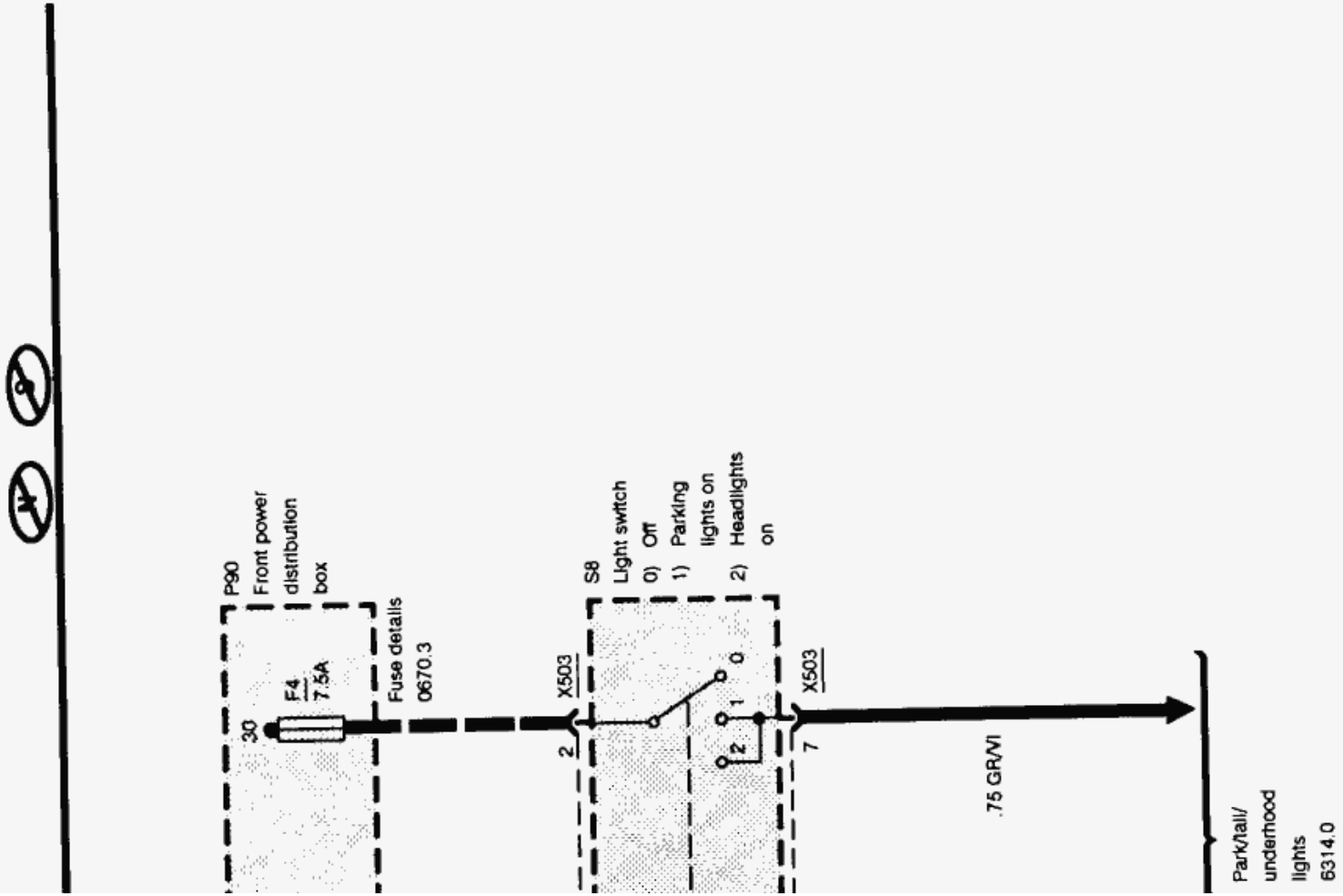
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Light switch

Scheme 6300.0

09/93 — 6300.0-00 — 1994



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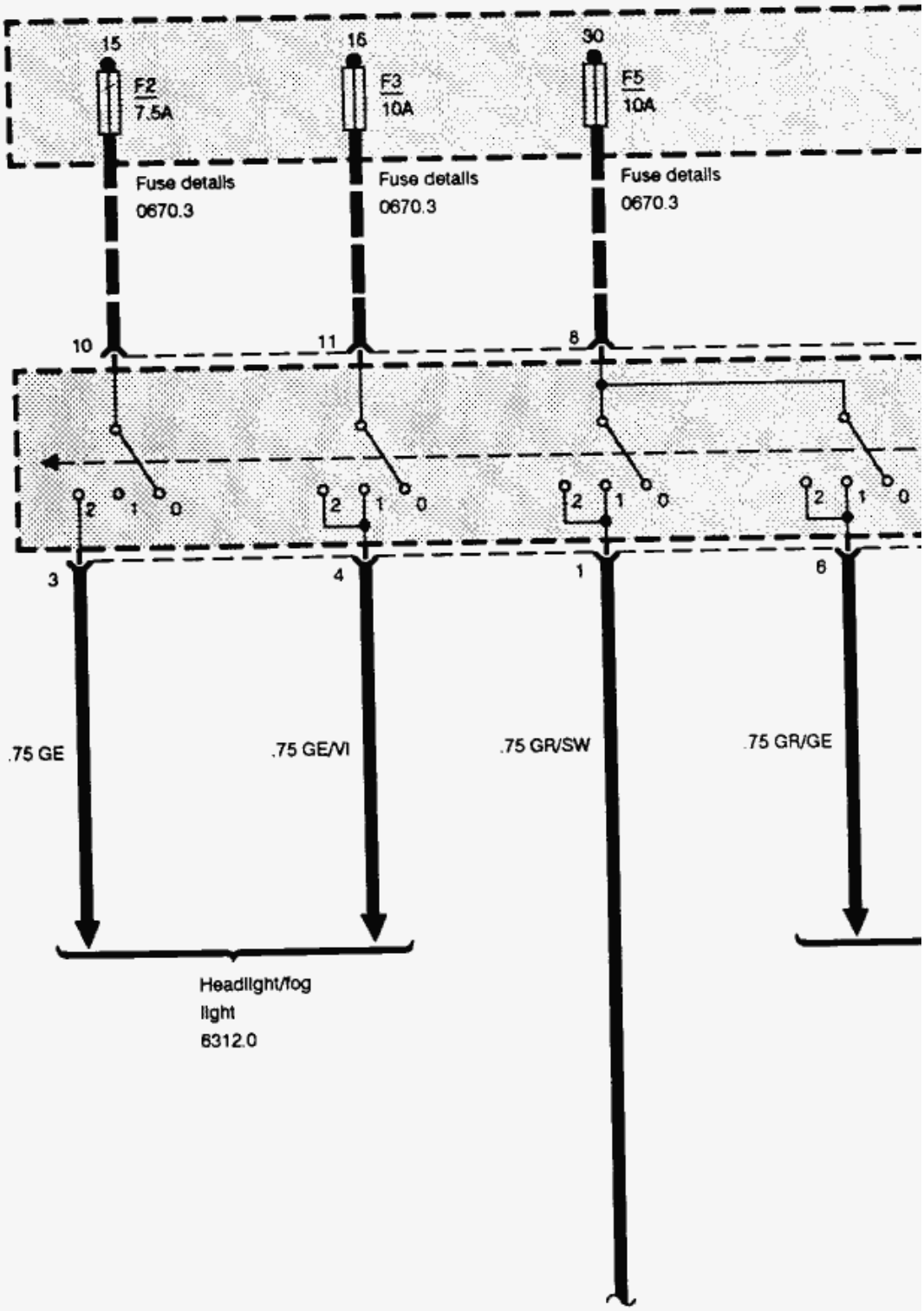
Light switch



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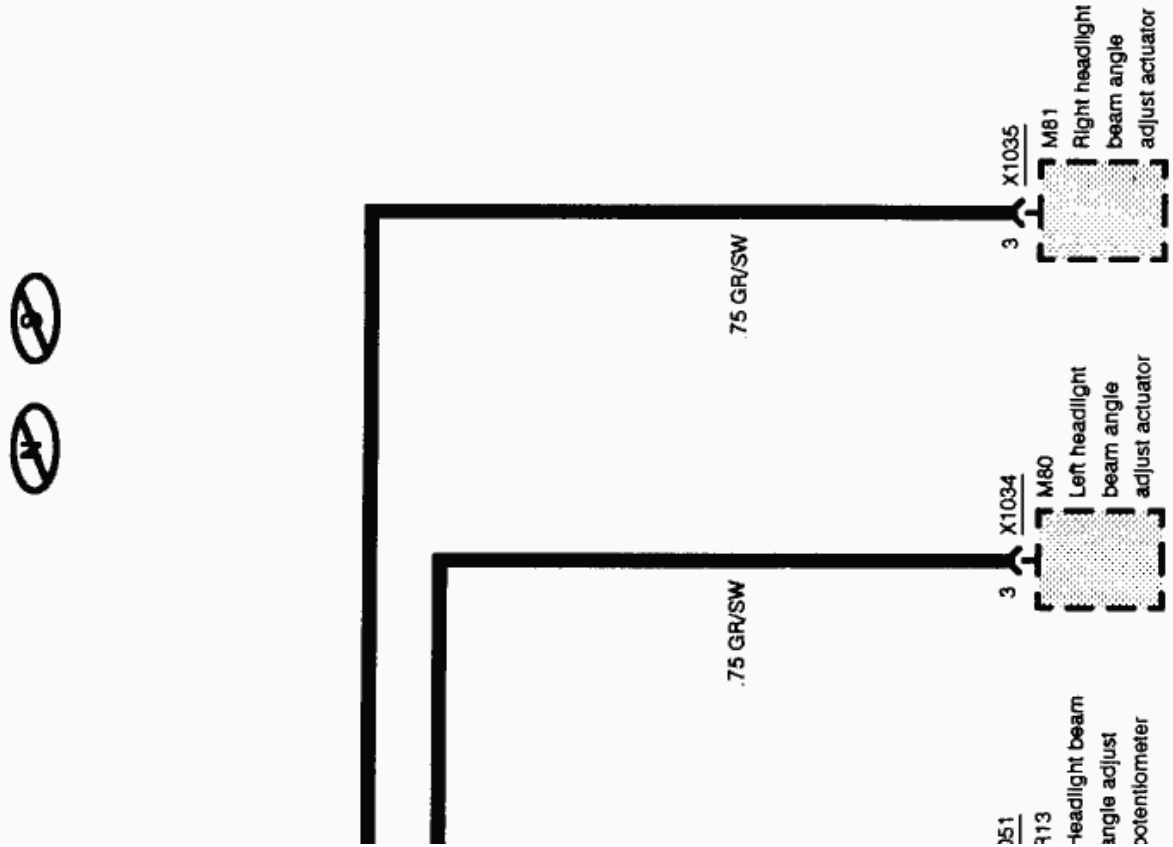

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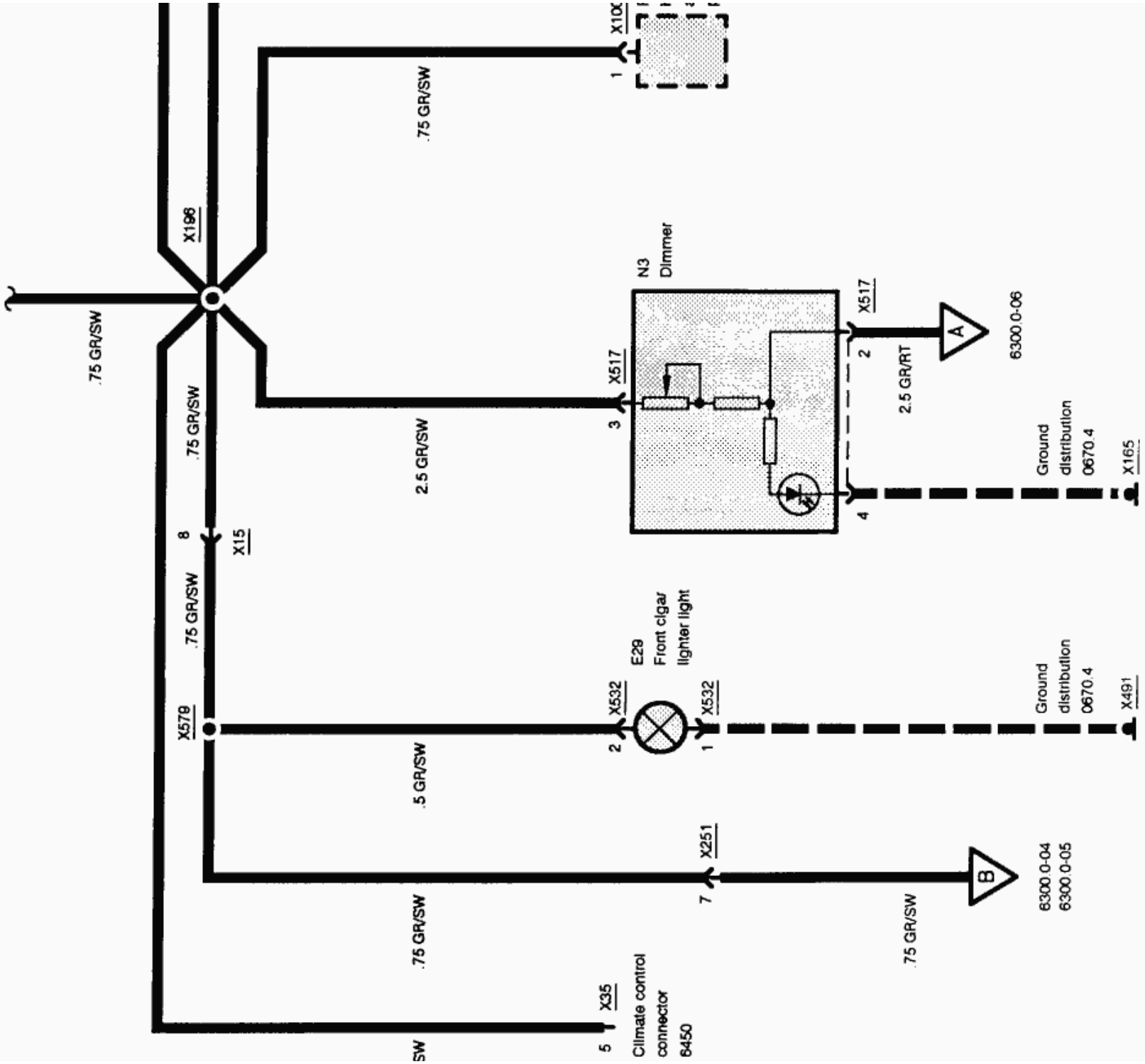

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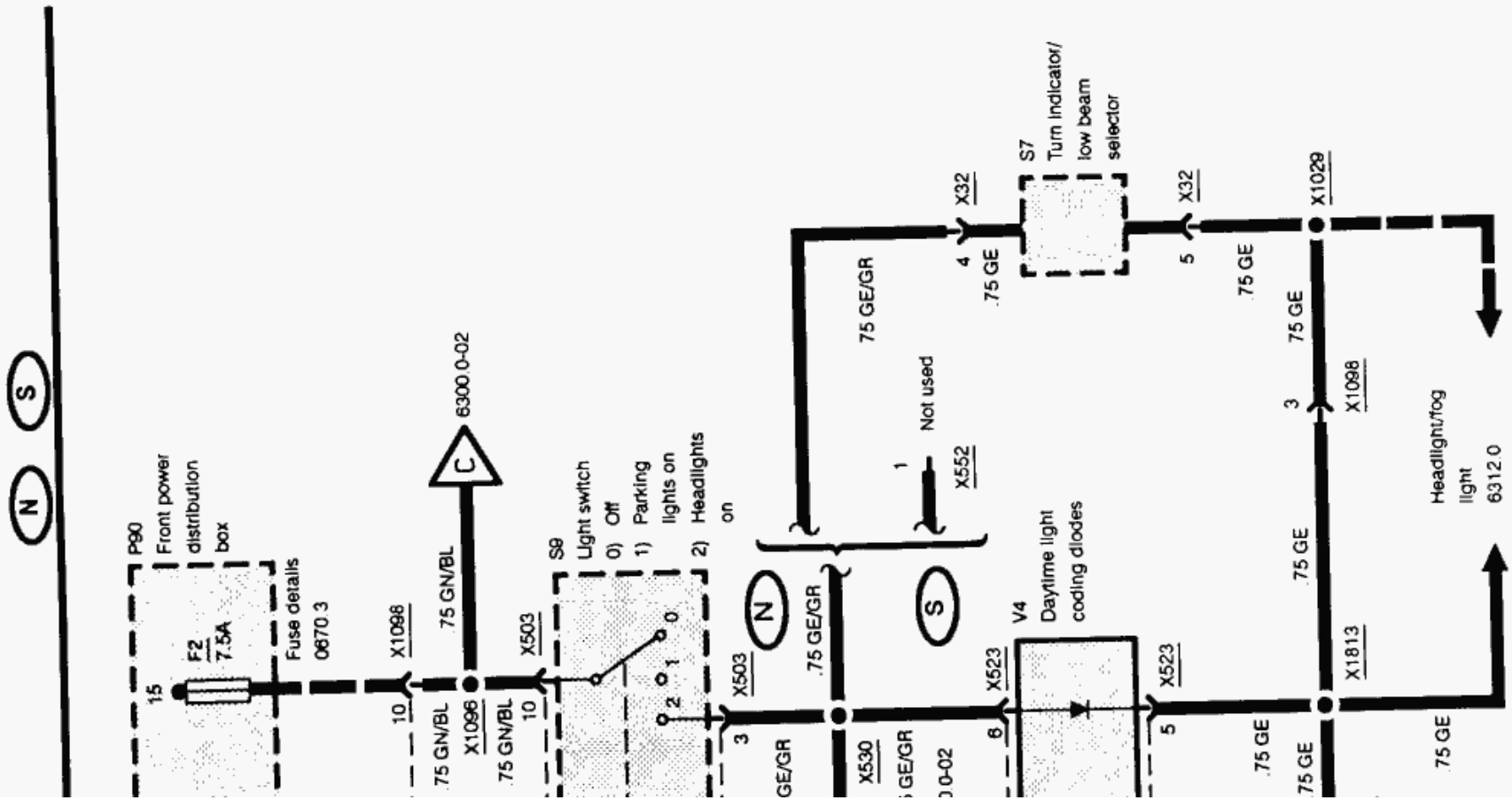

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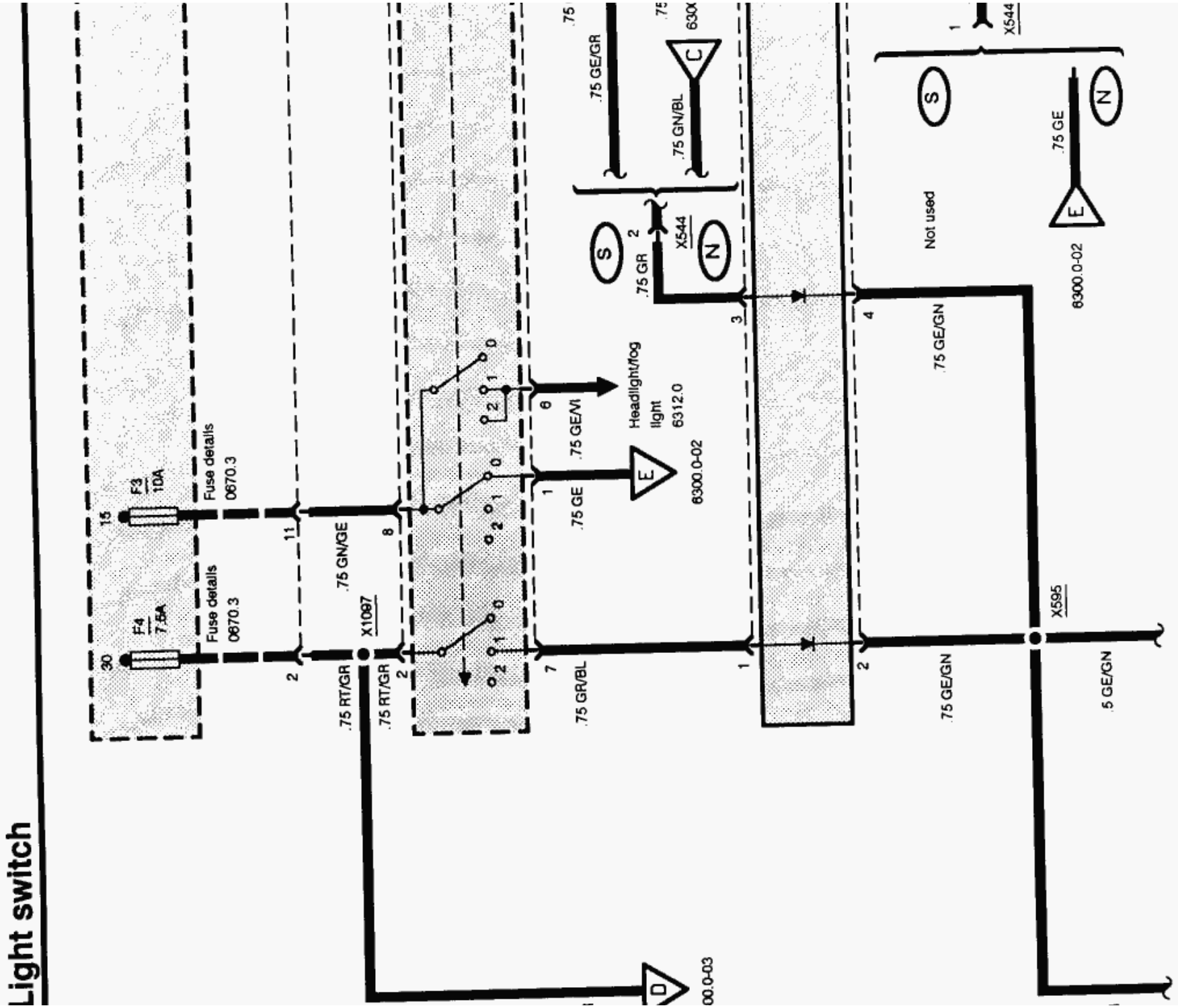

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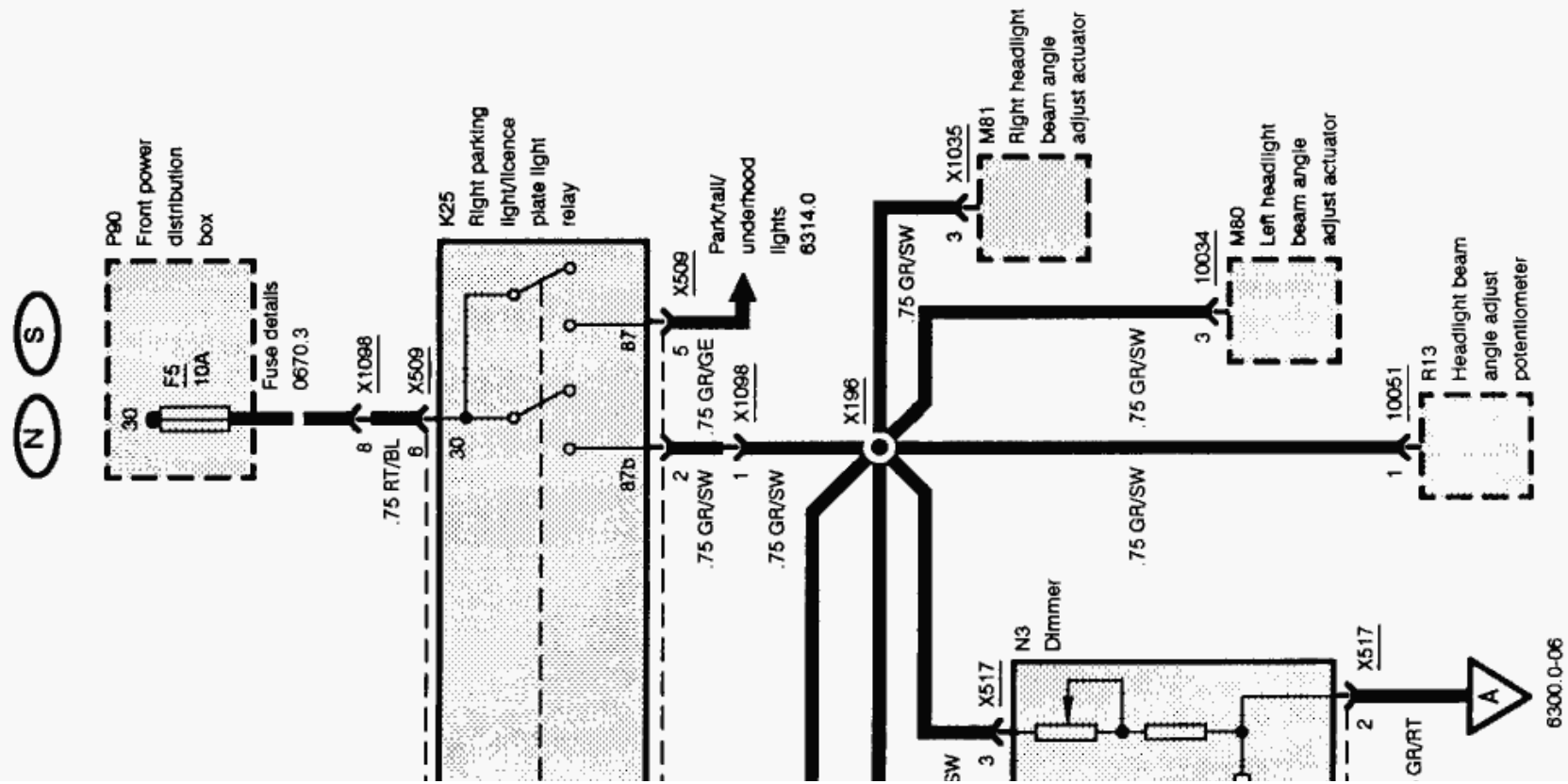

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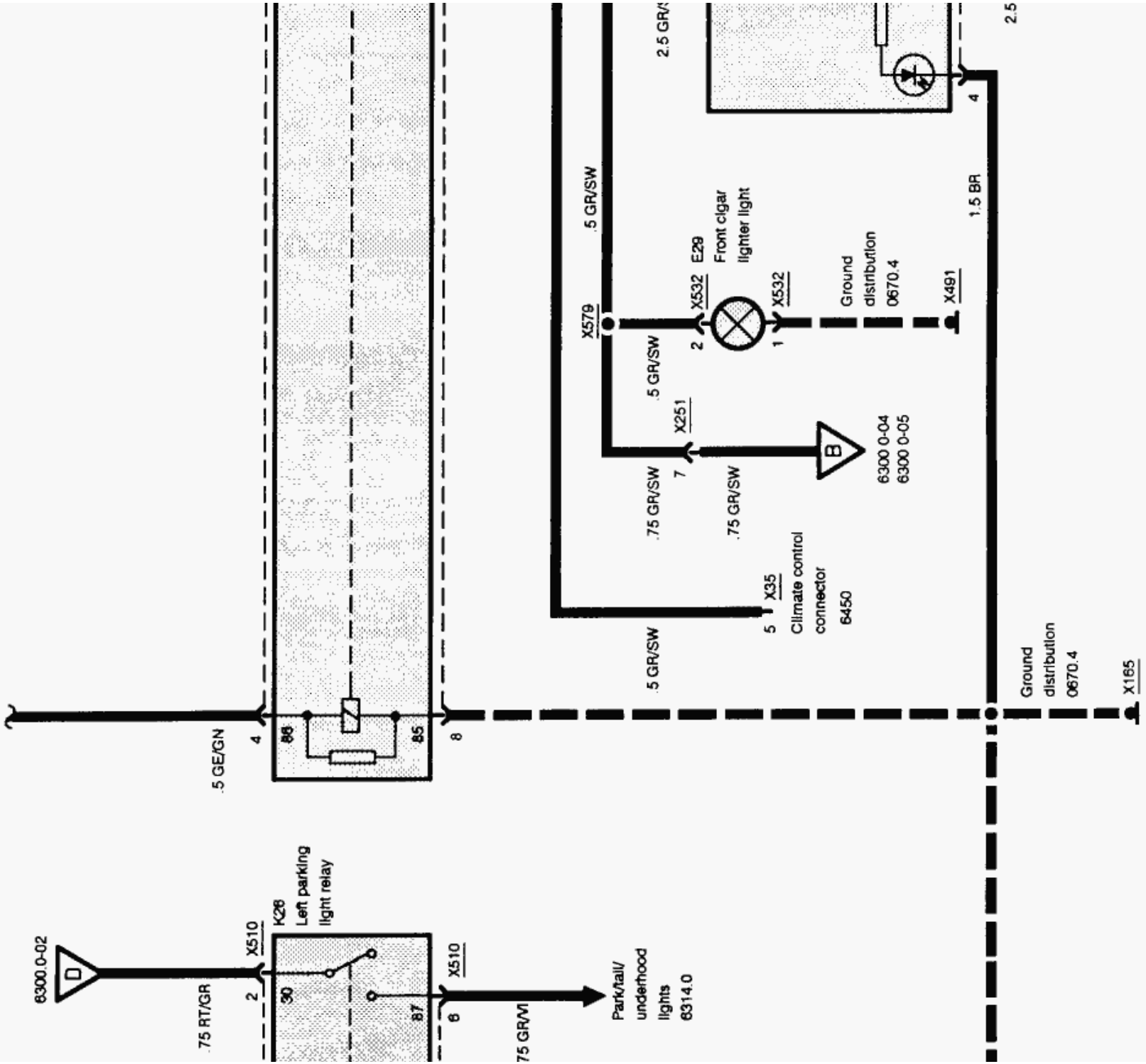

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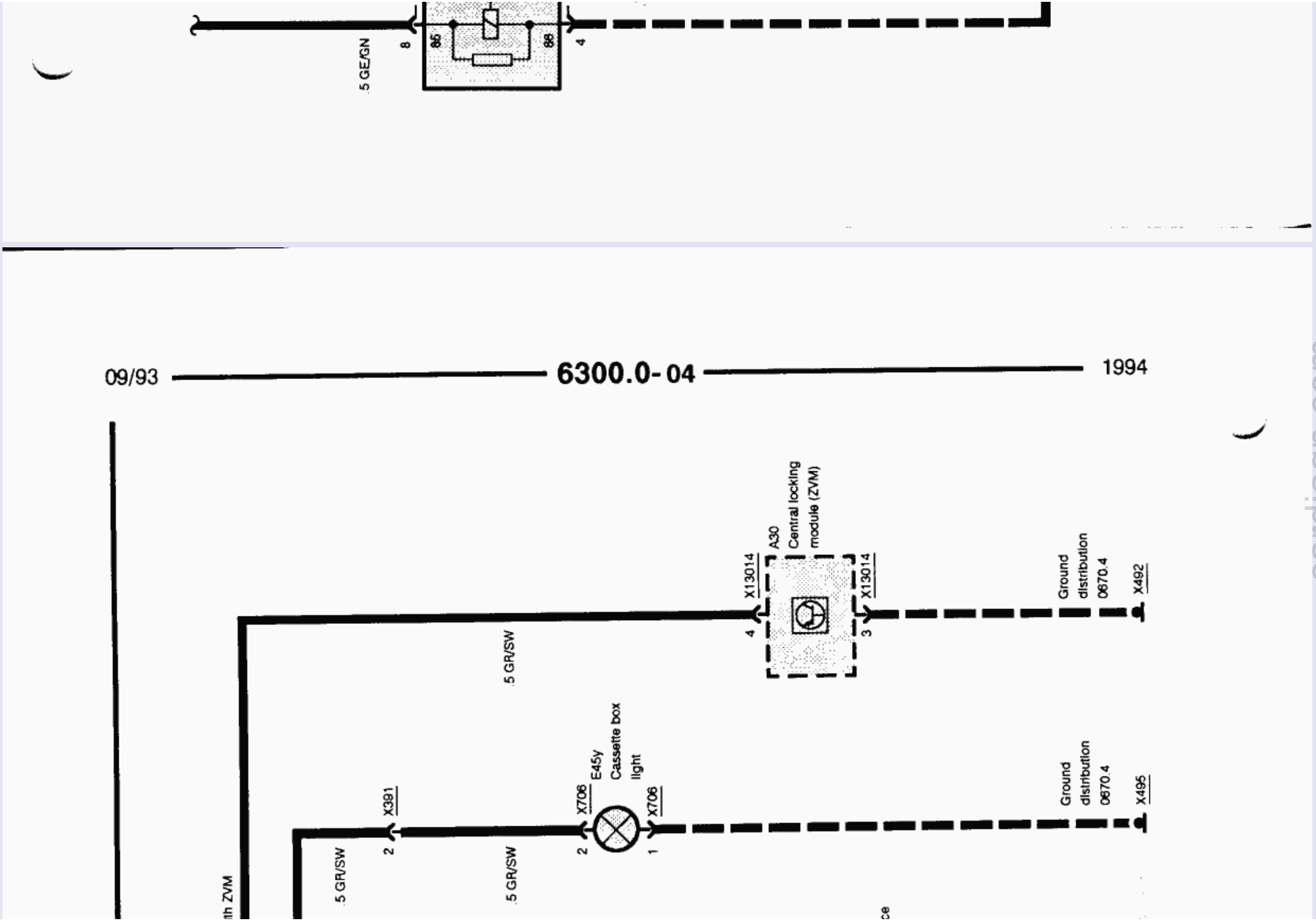

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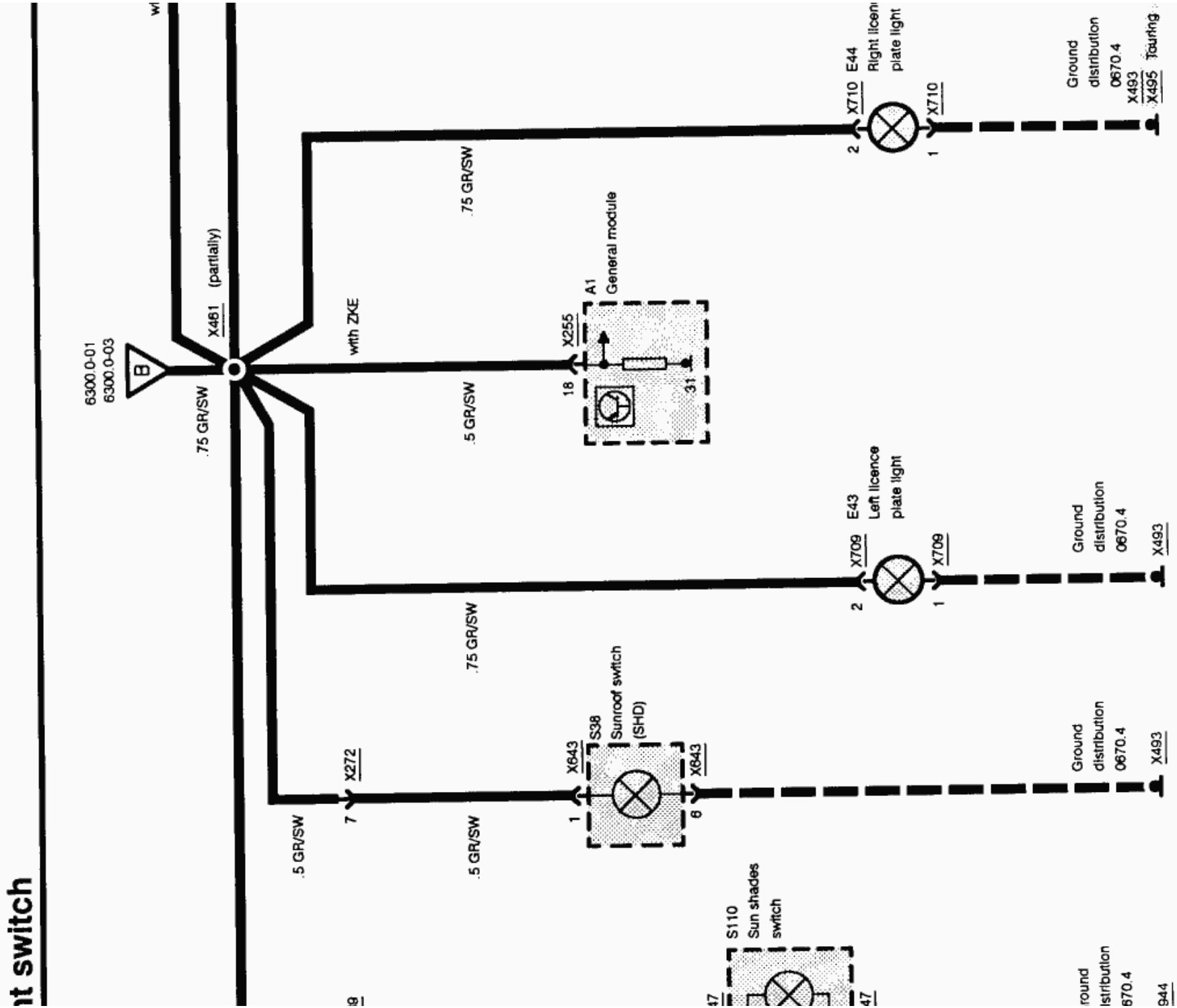

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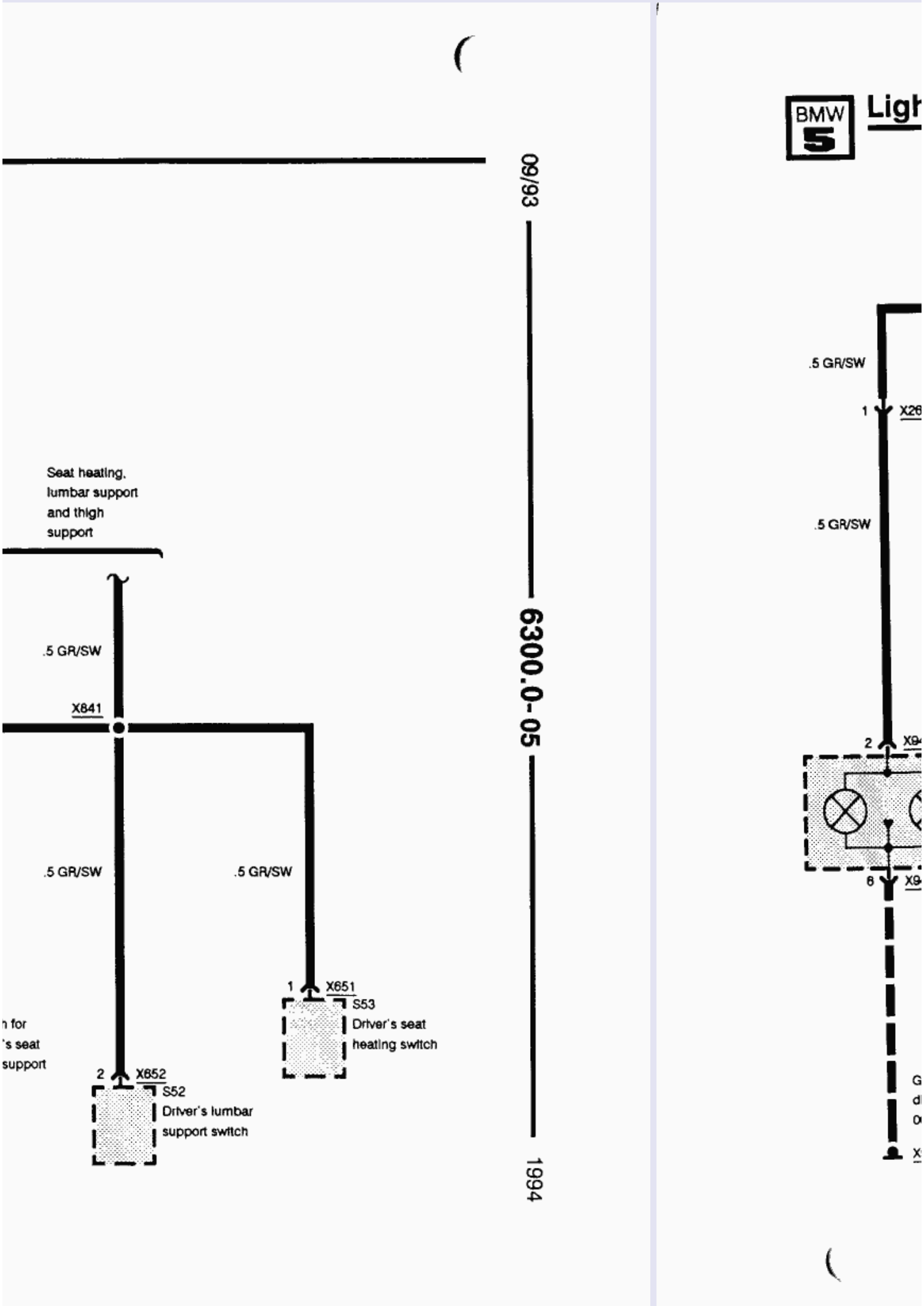

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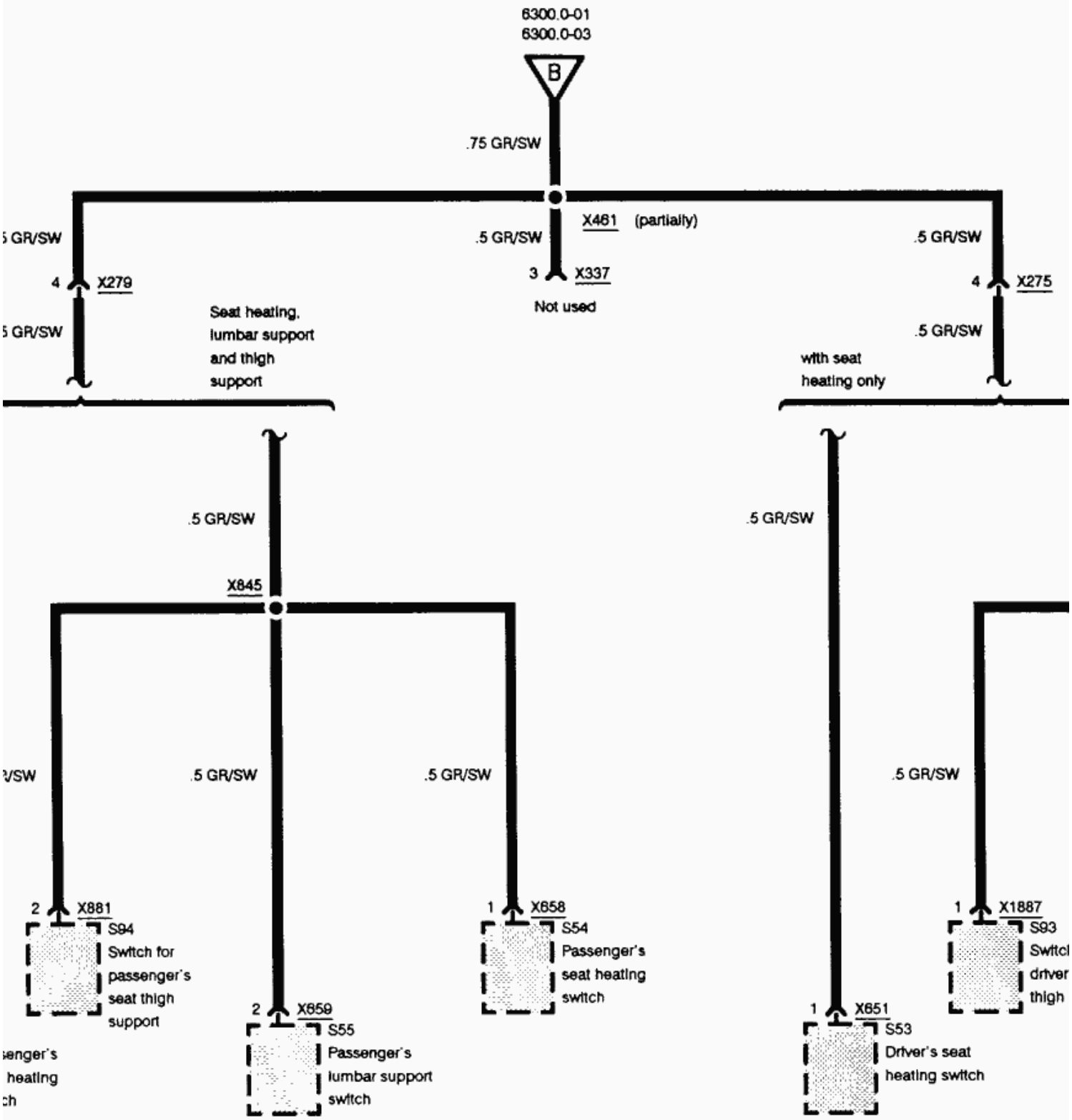
switch



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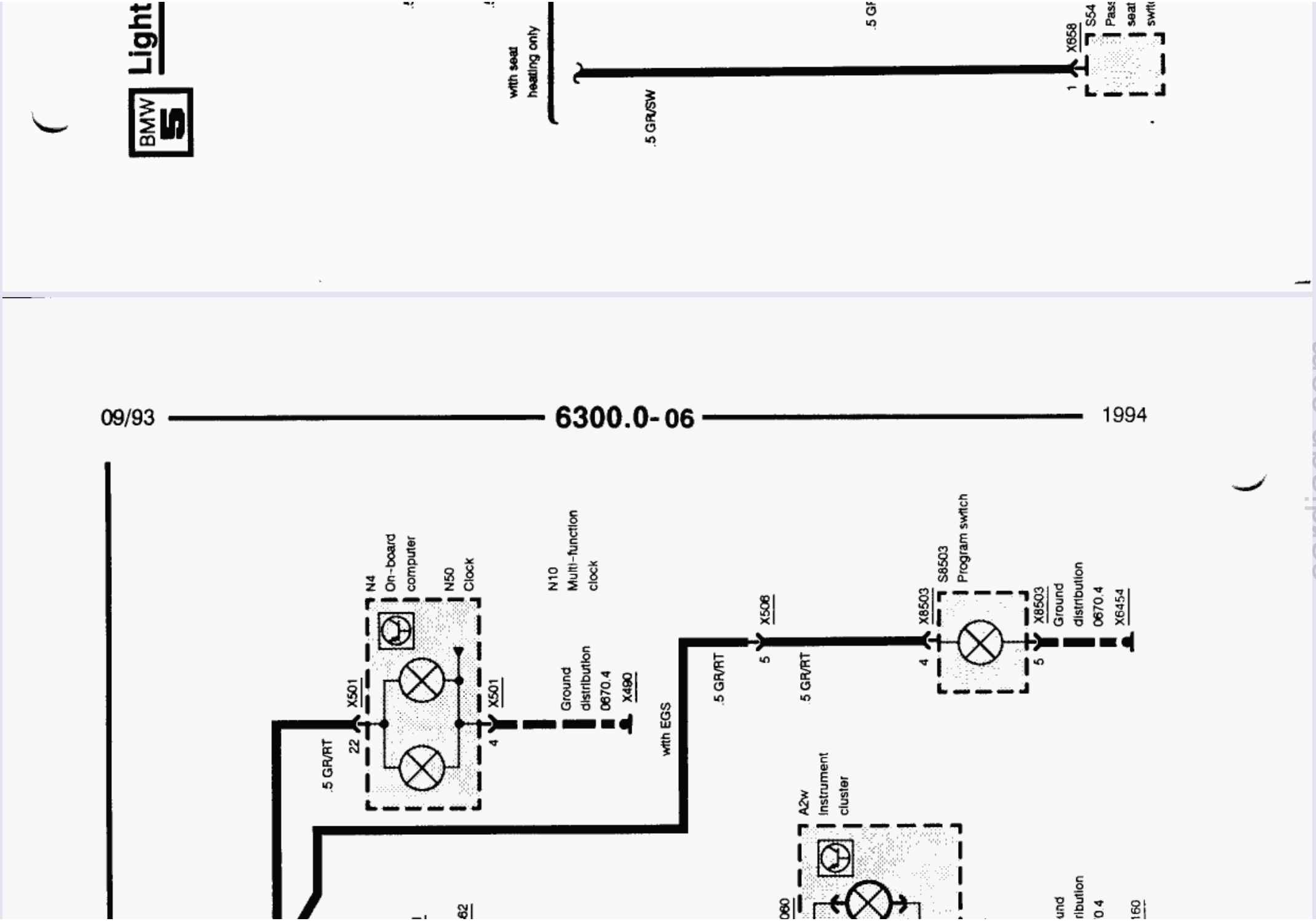

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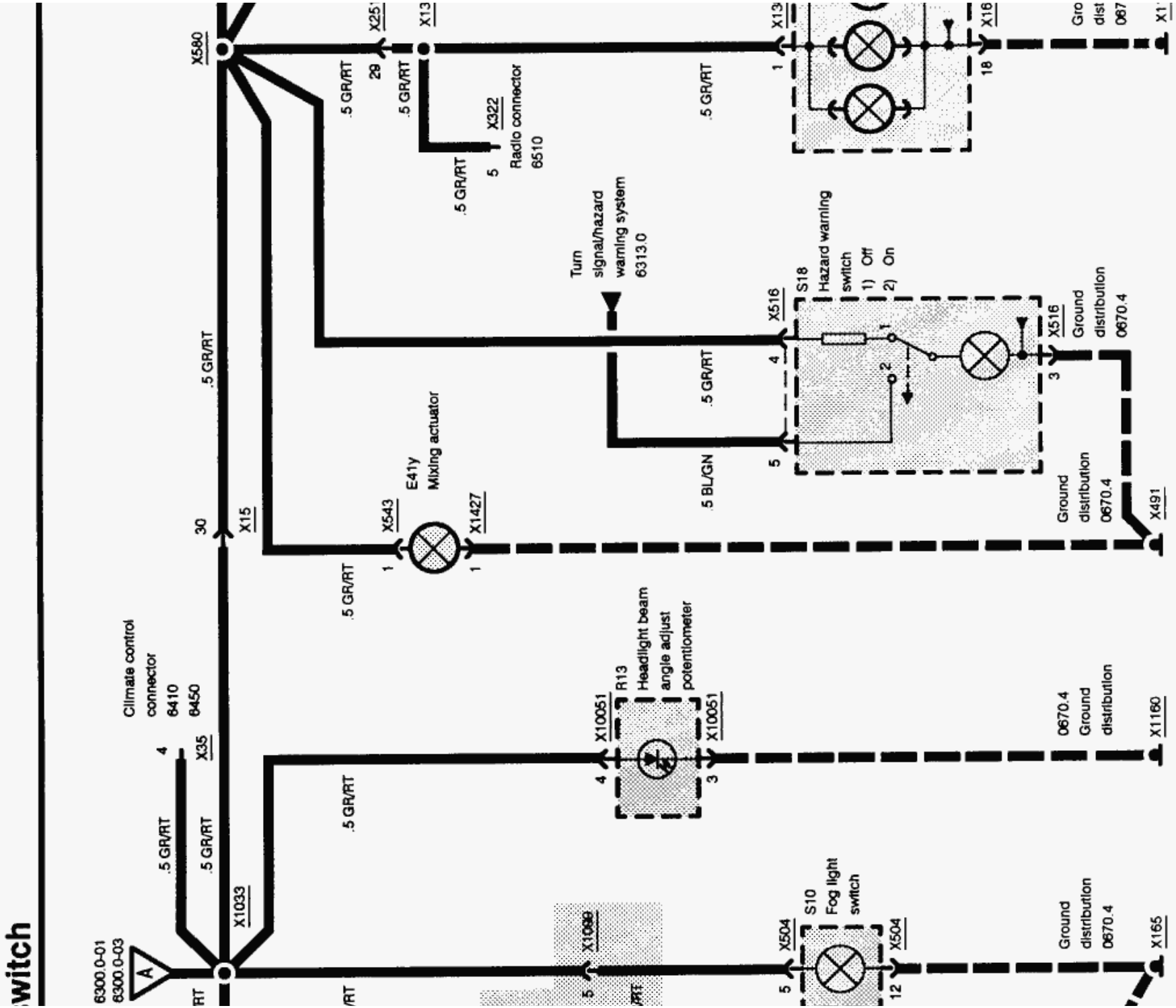

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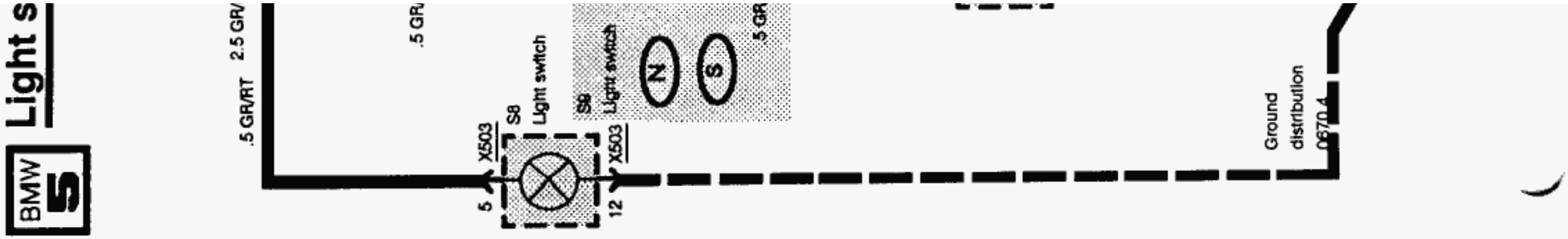

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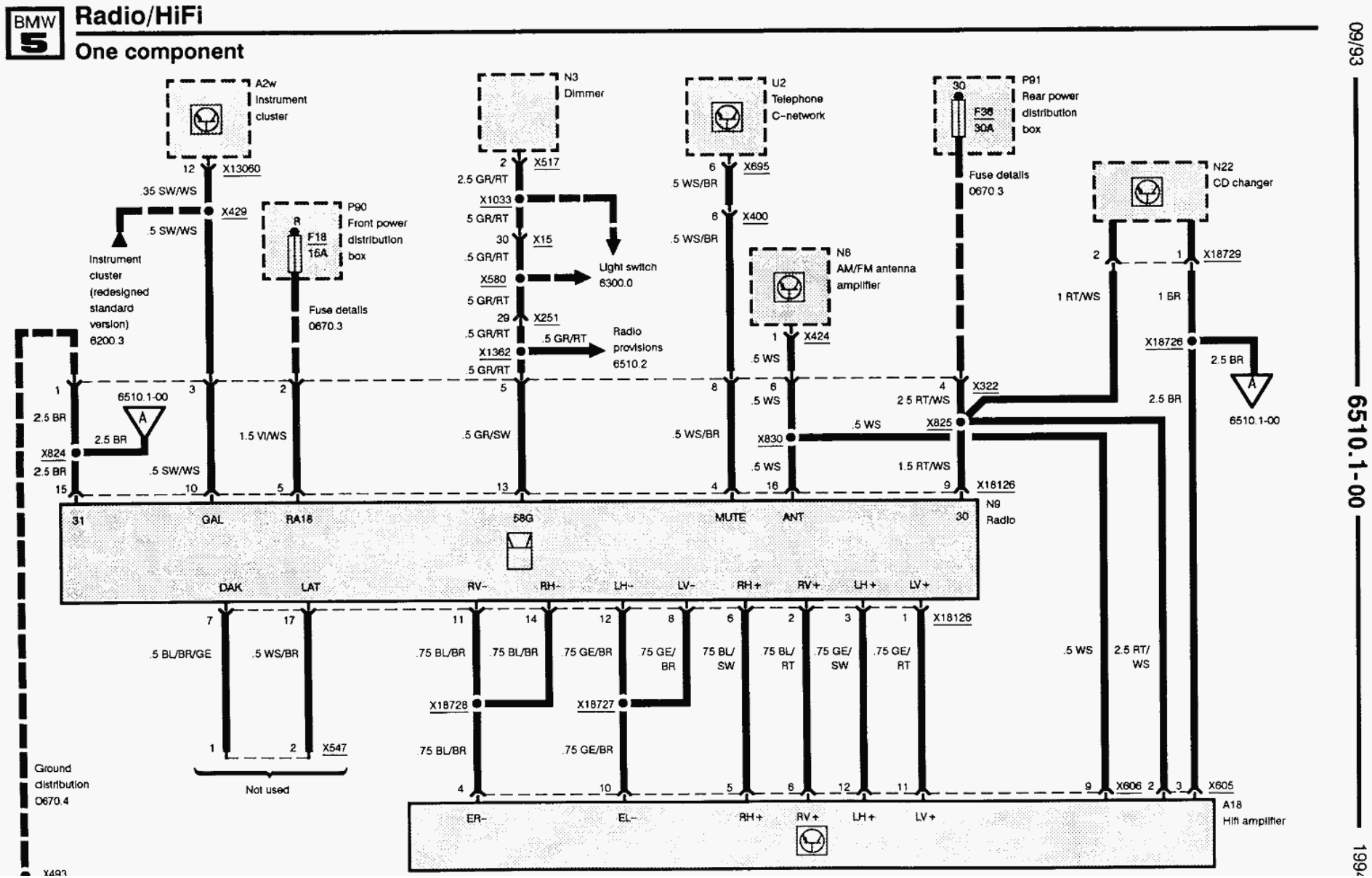
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Radio/HiFi
Scheme 6510.1



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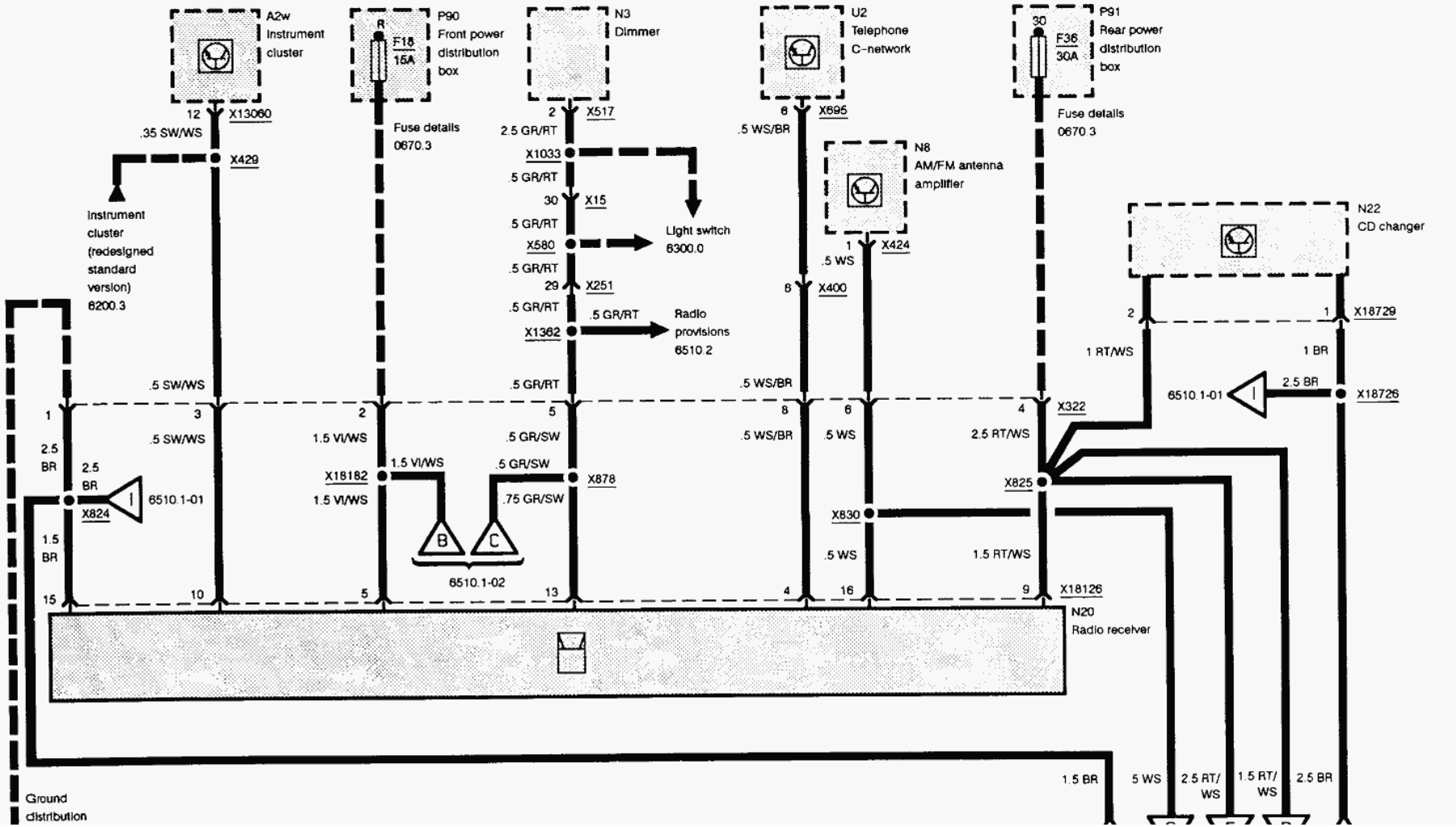
Radio/HiFi

Two components



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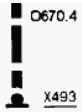

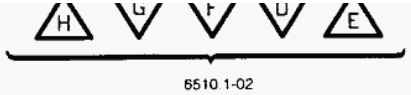

Radio/HiFi

Two components

6510.1-01

H B C D

1.5 BR 1.5 VI/WS .5 GR/SW 1.5 RT/WS

1 2 3 4 X872

N9 Radio

31 RA 18 58g 30

LV+ RV+ LV- RV- RH- LH- RH+ LH+

1 3 2 4 X675 4 2 3 1 X676

.75 GE/RT .75 BL/RT .75 GE/BR .75 BL/BR .75 BL/GR .75 GE/GR .75 BL/VI .75 GE/BL

X18728

X18727

1 BL 1 GR

6510.1-01

G E F

.5 WS 2.5 BR 2.5 RT/WS

11 6 4 10 5 12 9 X606 3 2 X605

A18 Hifi amplifier

LV+ RV+ ER- EL- RH+ LH+ ANT 31 30

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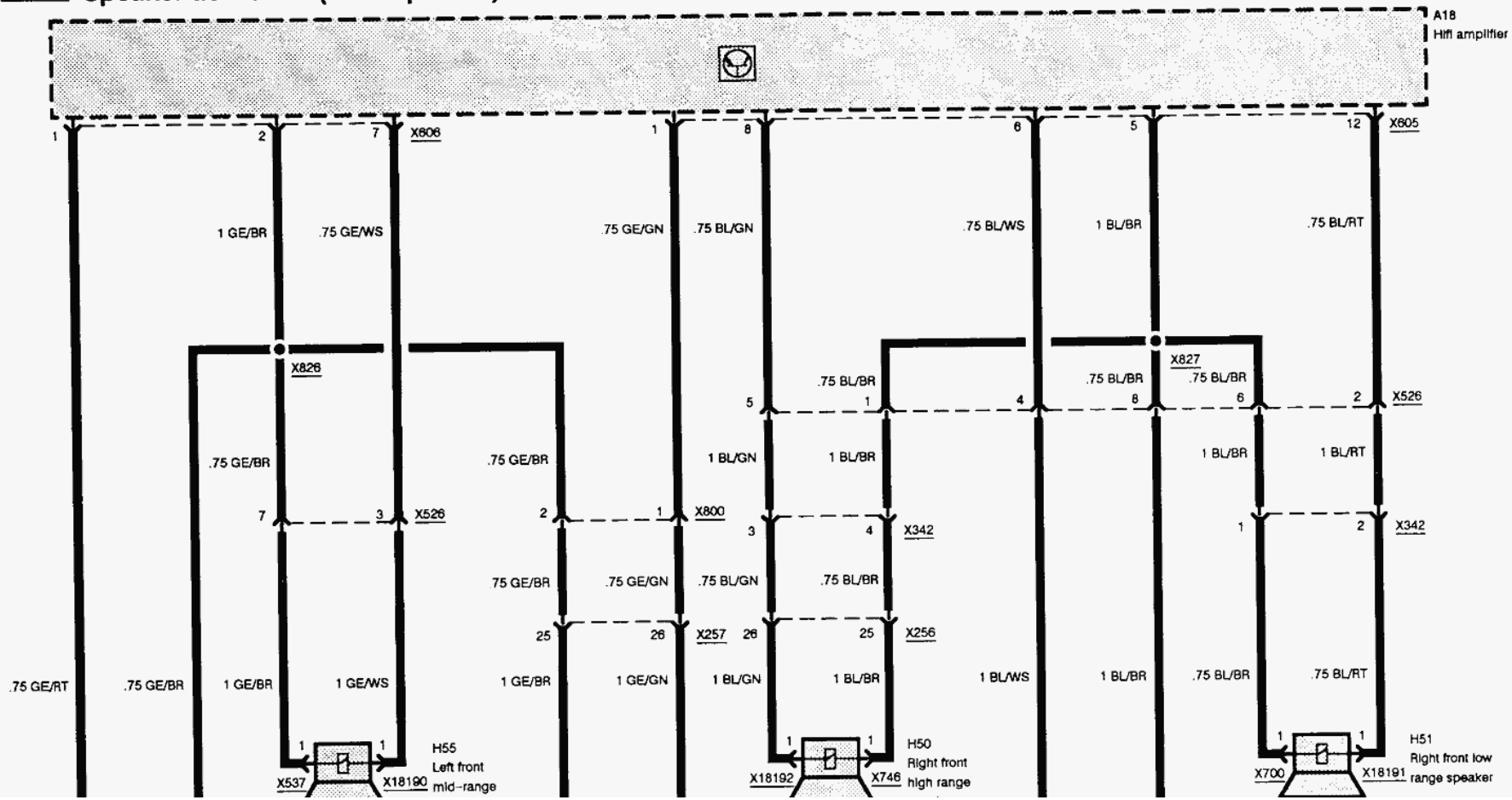
Radio/HiFi

Speaker activation (front speaker)



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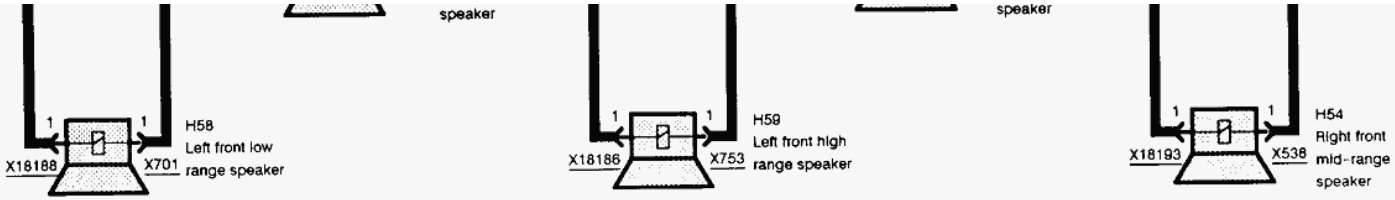
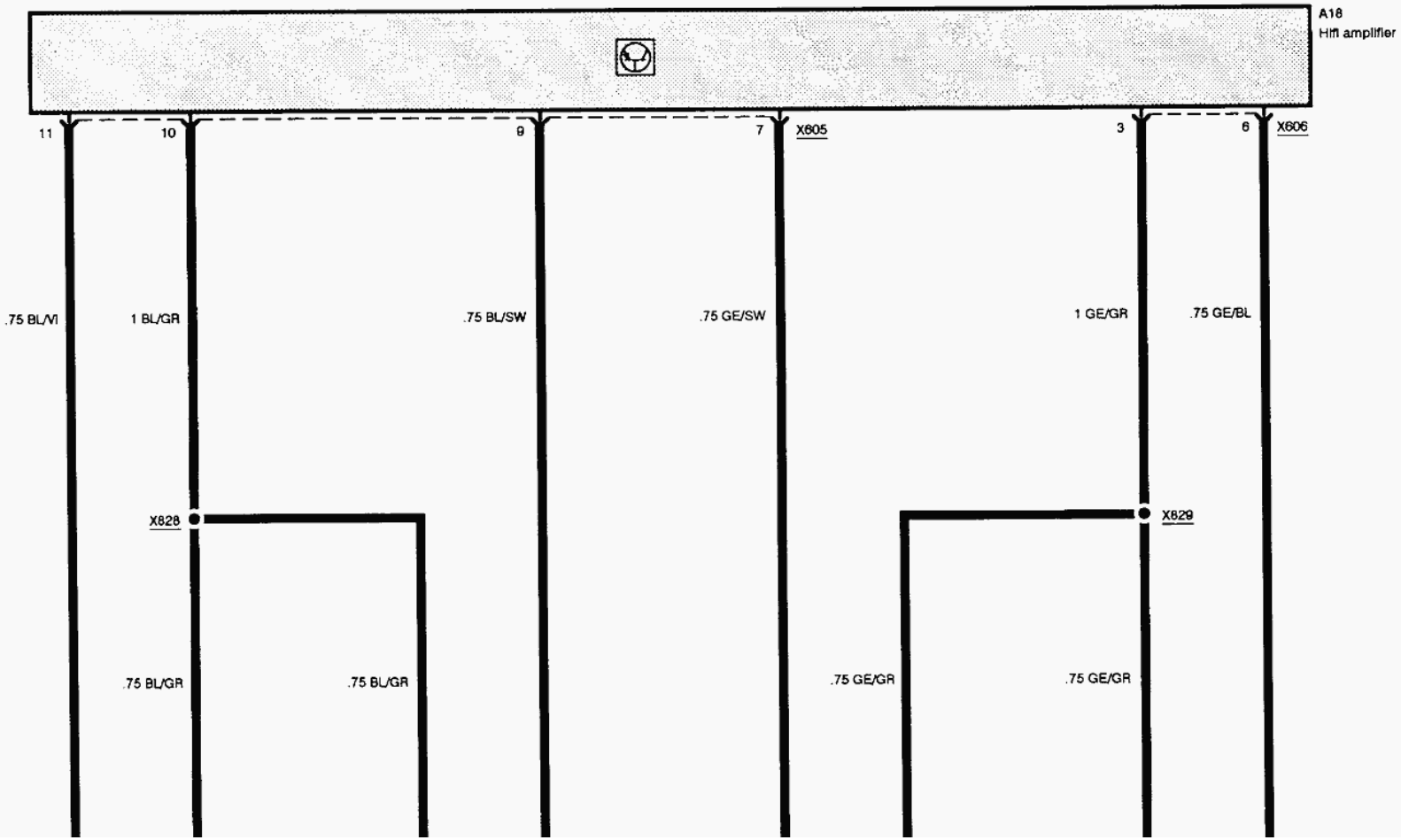


1994

BMW 5

Radio/HiFi

Speaker activation (rear speaker)



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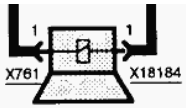
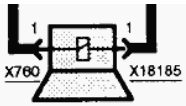
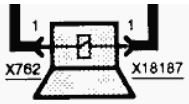


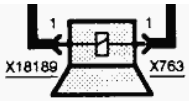
H52
Right rear low
range speaker



H53
Right rear high
range speaker



H56
Left rear high
range speaker



H57
Left rear low
range speaker

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Central body electronics (ZKE)
Scheme 6100.0

Pin Assignment

A=X253	26-pin, green
B=X254	26-pin, white
C=X255	26-pin, yellow
D=X332	5-pin, white
E=X258	20-pin, black
F=X259	20-pin, white

Pin Assignment X253

Pin	Type	Description/Function	Connection
1	A	Activation, FH relay in RM	Relay module (RM) Pin E3
2	A	Activation, FH relay in RM	Relay module (RM) Pin E1
3	A	Activation, wiper relay	Relay module (RM) Pin F9
4	A	Activation, TSH relay in RM	Relay module (RM) Pin F17
5	A	Activation, relay arrest	Relay module (RM) Pin F4
6		not used	
7	A	Lock signal	Rear lid lock switch
8	A	OZV signal of ZV	DWA module
9	A	Crash information output	Crash alarm generator
10	A	Electronic power fuse	Fuse relay
11	E	Position signal	Instrument cluster
12	E/A	TxD diagnostic link	Diagnostic connector
13	E	Diagnostic link for ZV relay	Relay module (RM) Pin E9
14	A	Activation, SHD relay in RM	Relay module (RM) Pin E4
15	A	Activation, IA relay in RM	Relay module (RM) Pin E2
16	A	Activation, IB relay in RM	Relay module (RM) Pin E7
17	A	Activation, relay lock	Relay module (RM) Pin F3
18	A	Activation, relay unlock	Relay module (RM) Pin F2
19	A	Activation, SRA relay fog light	SRA module
20		not used	
21		not used	
22	A	Activation, washer pump relay	Washer pump relay
23	E	Crash sensor	Inertia switch
24	A	RxD diagnosis line	Diagnostic connector
25	E	Diagnosis line for wiper relay in RM	Relay module (RM) Pin E10
Z6	E	Diagnosis line for door lock heating	Relay module (RM) Pin E19

Pin Assignment X254

Pin	Type	Description/Function	Connection
1		not used	
2	E	Rear position sensor	Position sensor
3	E	Diagnostic link for FH/SHD relay in RM	Relay module (RM) Pin E8
4	E	FH switch, FH passenger's side rear open	Power window switch (FH)
5	E	FH switch, FH driver's side rear open	Power window switch (FH)
6	E	FH switch, FH passenger's side open	Power window switch (FH)
7	E	Rear end position sensor, driver's side	End position sensor
8	E	FH switch, FH passenger's side closed	Power window switch (FH)
9	E	End position sensor, passenger's door	End position sensor
10	E	FH switch, FH passenger's side rear closed	Power window switch (FH)
11	E	End position sensor, driver's door	End position sensor
12	E	FH switch, FH driver's side rear closed	Power window switch (FH)
13	A	Activation, FH relay in RM	Relay module (RM) Pin E5
14		not used	
15		not used	
16	E	Diagnostic link for FH/SHD relay in RM	Relay module (RM) Pin E18
17	E	SHD switch lift open	Sunroof switch (SHD)
18	E	SHD switch close	Sunroof switch (SHD)
19	E	SHD switch slide open	Sunroof switch (SHD)
20	E	FH switch, FH driver's side open	Power window switch (FH)
21	E	FH switch, FH driver's side closed	Power window switch (FH)
22	E	Rear end position sensor, passenger's side	End position sensor
23	E	FH switch, FH passenger's side rear closed	Power window switch (FH)
24	E	FH switch, driver's side rear closed	Power window switch (FH)

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25	A	Activation, FH relay in RM	Relay module (RM) Pin E7
26	A	Activation, FH relay in RM	Relay module (RM) Pin E6

Pin Assignment X255

Pin	Type	Description/Function	Connection
1	E	Passenger's door contact	Door contact switch
2	E	Driver's door handle contact	Power window switch (FH)
3	E	Rear door contact	Door contact switch
4	E	Switch stage 1 , 2, single wipe	Wiper switch
5	E	Switch position, intermittent wipe	Wiper switch
6	E	Switch position, wash	Wiper switch
7	E	Detection, lock	Infrared module
8	E	Switch position, intensive wash	Wiper switch
9	E	Terminal 15 for GM	Fuse
10	E	Terminal R for GM	Fuse
11	E	Detection, lock	Central locking drive
12		not used	
13		not used	
14	E M	Sedan: Front position sensor Touring: Ground	Position sensor Ground connection
15	E	Driver's door contact	Door contact switch
16	E	Detection, arrest/unlock	Infrared module
17	E	Detection, unlock	Central locking drive
18	E	Parking light detection	Light switch
19	E	Terminal 50 load cutout	Starter
20	E	Detection, lock	Central locking drive
21	E	Diagnosis line for SRA module	Headlight washer system module
22	E	Reset contact	Wiper motor
23	E	Detection, unlock	Central locking drive
24	E	Detection, arrest/unlock	Lock contact, driver's/passenger's door
25		not used	
26	E	Detection, fog light	Fog light switch

Pin Assignment X332

Pin	Type	Description/Function	Connection	
1	E	B+ for GM electronics	Relay module (RM)	PinFS
2	E	Ground for GM electronics	Ground connection	
3		not used		
4	E	Electronic fuse	Fuse relay	
5	E	Electronic fuse	Relay module (RM)	PinF11

Pin Assignment X258

Pin	Type	Description/Function	Connection
1	E	Activation, FH relay in RM	General module (GM) Pin A2
2	E	Activation, FH relay in RM	General module (GM) Pin A15
3	E	Activation, FH relay in RM	General module (GM) Pin A1
4	E	Activation, SHD relay in RM	General module (GM) Pin A14
5	E	Activation, FH relay in RM	General module (GM) Pin B13
6	E	Activation, FH relay in RM	General module (GM) Pin B26
7	E	Activation, FH relay in RM	General module (GM) Pin 25
8	A	Diagnosis line for FH/SHD relay in RM	General module (GM) Pin B3
9	A	Diagnosis line for ZV relay	General module (GM) Pin A13
10	A	Diagnosis line for wiper and ZV relay	General module (GM) Pin A25
11	A	Activation, FH motor drives passenger's side	Power window motor (FH)
12	A	Activation, FH motor drives passenger's side	Power window motor (FH)
13	A	Activation, FH motor drives passenger's side	Power window motor (FH)
14	A	Activation, SHD motor	Sunroof motor (SHD)
15	A	Activation, FH motor driver's side	Power window motor (FH)
16	A	Activation, FH motor drives driver's side and SHD	Power window/sunroof motor
17	A	Activation, FH motor drives driver's side	Power window motor (FH)
18	A	Diagnosis line for FH/SHD relay in RM	General module (GM) Pin B16
19	A	Diagnosis line forTSH	General module (GM) Pin B26
20	M	Ground for power windows and SHD	Ground connection

Pin Assignment X259

Pin	Type	Description/Function	Connection
1	A	Activation, actuator drives	Central locking actuator drives
2	E	Activation, relay unlock	General module (GM) Pin A18
3	E	Activation, relay lock	General module (GM) Pin A17
4	E	Activation, relay arrest	General module (GM) Pin A5
5	A	Terminal 30 for GM	General module (GM) Pin D1
6	A	Activation, IB lights	Interior lights (IB)
7	E	Activation, IB relay	General module (GM) Pin A16

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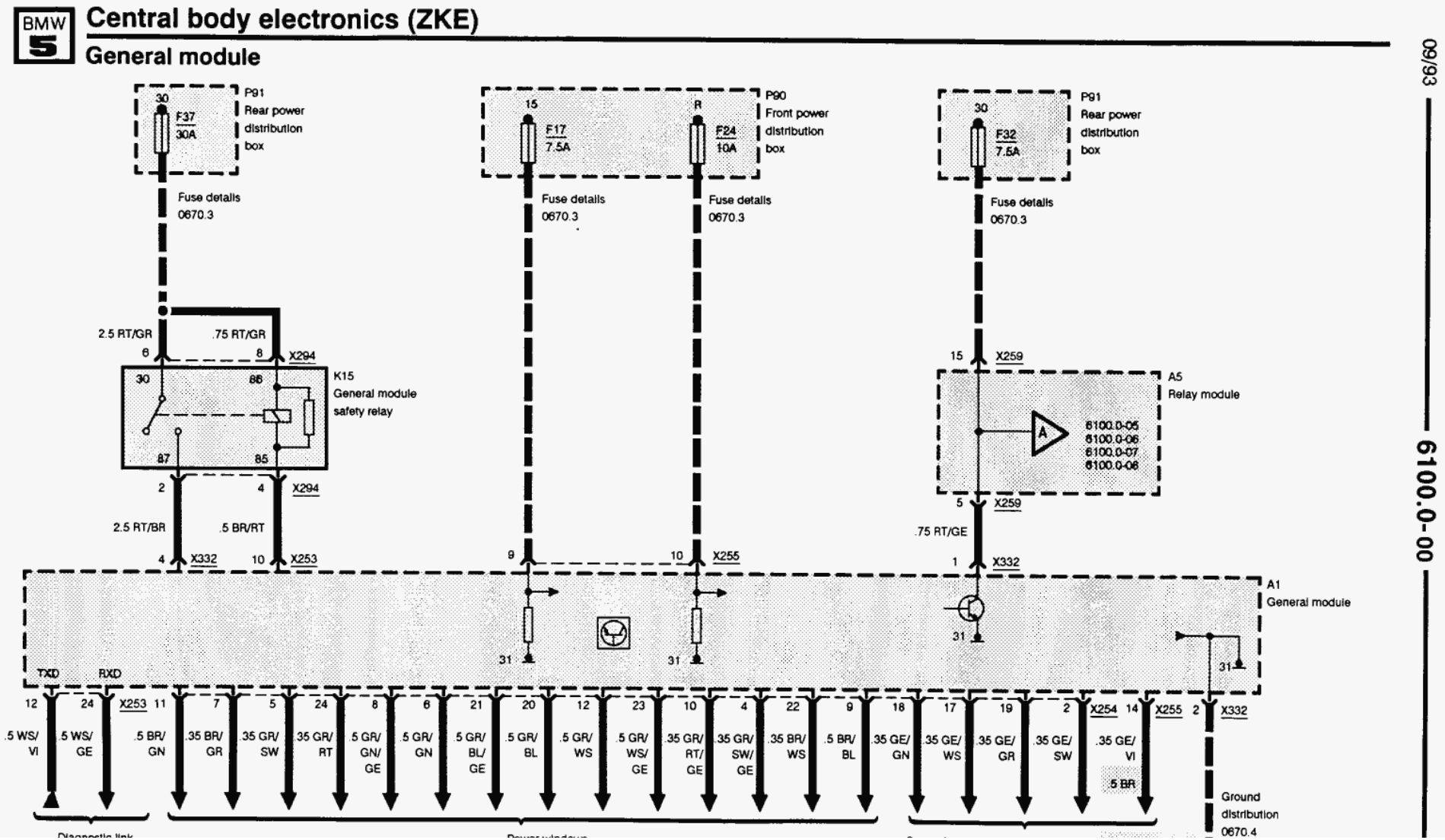
8	E	Activation, wiper relay (stage 2)	Wiper switch
9	E	Activation, wiper relay (stage 1)	General module (GM) Pin A3
10	M	Ground for wiper and interior light	Ground connection
11	E	B+ for RM function circuits	General module (GM) Pin D5
12	M	Ground for central locking system	Ground connection
13	A	Activation, actuator drives	Central locking actuator drives
14	A	Activation, actuator drives	Central locking actuator drives
15	E	Terminal 30 for RM control circuits	Fuse
16	A	Activation, TSH heating	Door lock heating (BH)
17	E	Activation, TSH relay	General module (GM) Pin A4
18	A	B+ for wiper motor stage 1	Wiper motor
19	A	B+ for wiper motor stage 2	Wiper motor
20	E	Activation, wiper relay in RM	Wiper relay

E = Input, A = Output, M = Ground



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Diagnostic link
0670.5

Power windows
(ZKE/FH)
5133.0

Sunroof
(ZKE/SHD)
5410.0

Double-panel
sunroof (ZKE)
5410.2

Touring

X492

1994

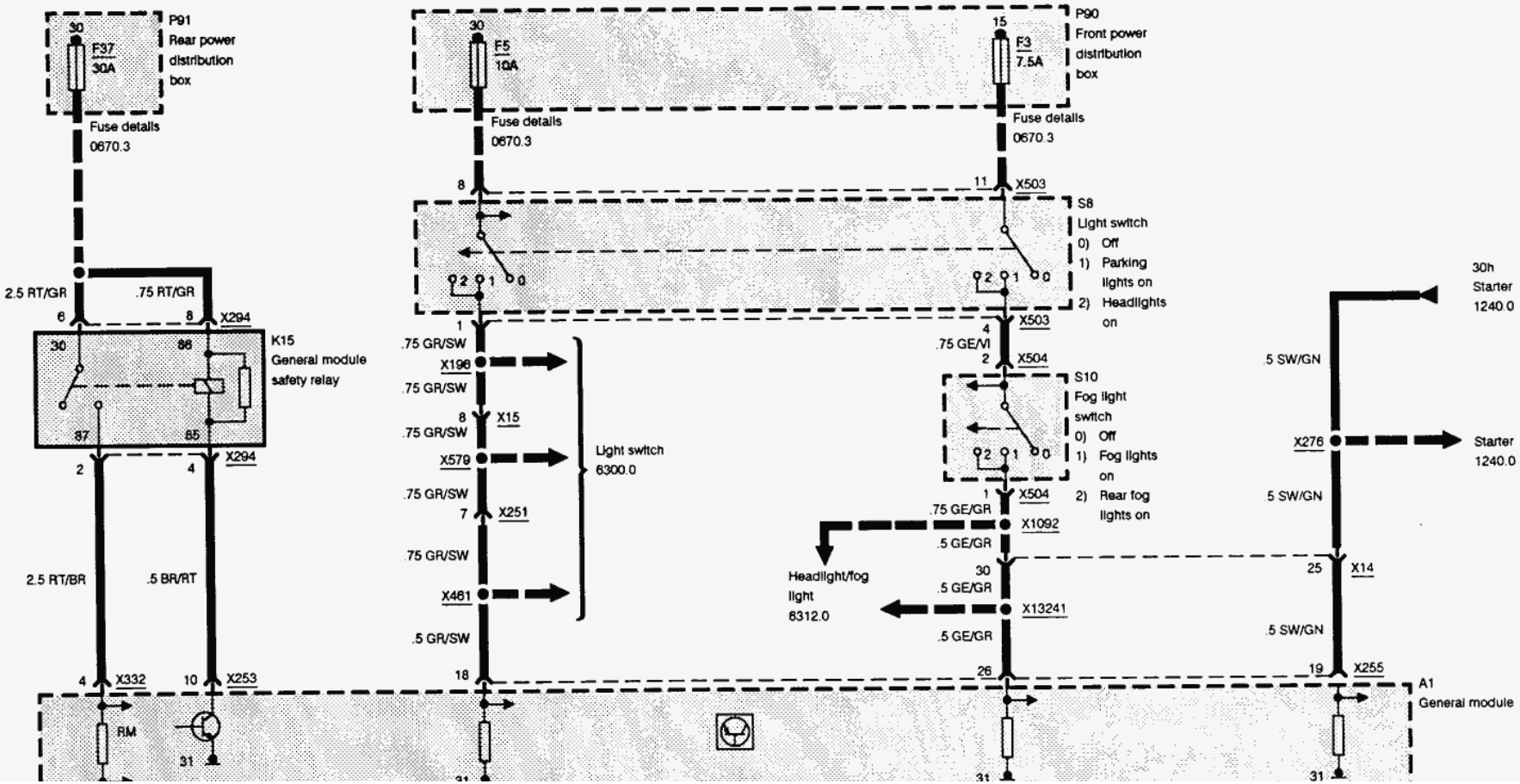
BMW 5

Central body electronics (ZKE)

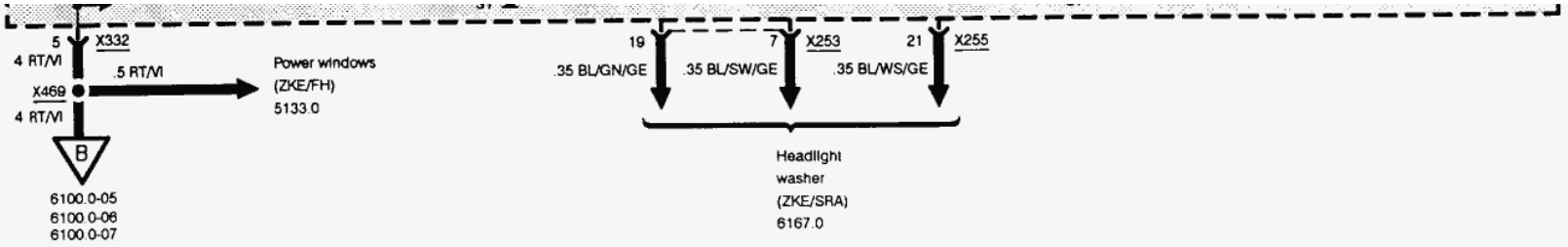
General module

09/93

6100.0-01



cardiagn.com

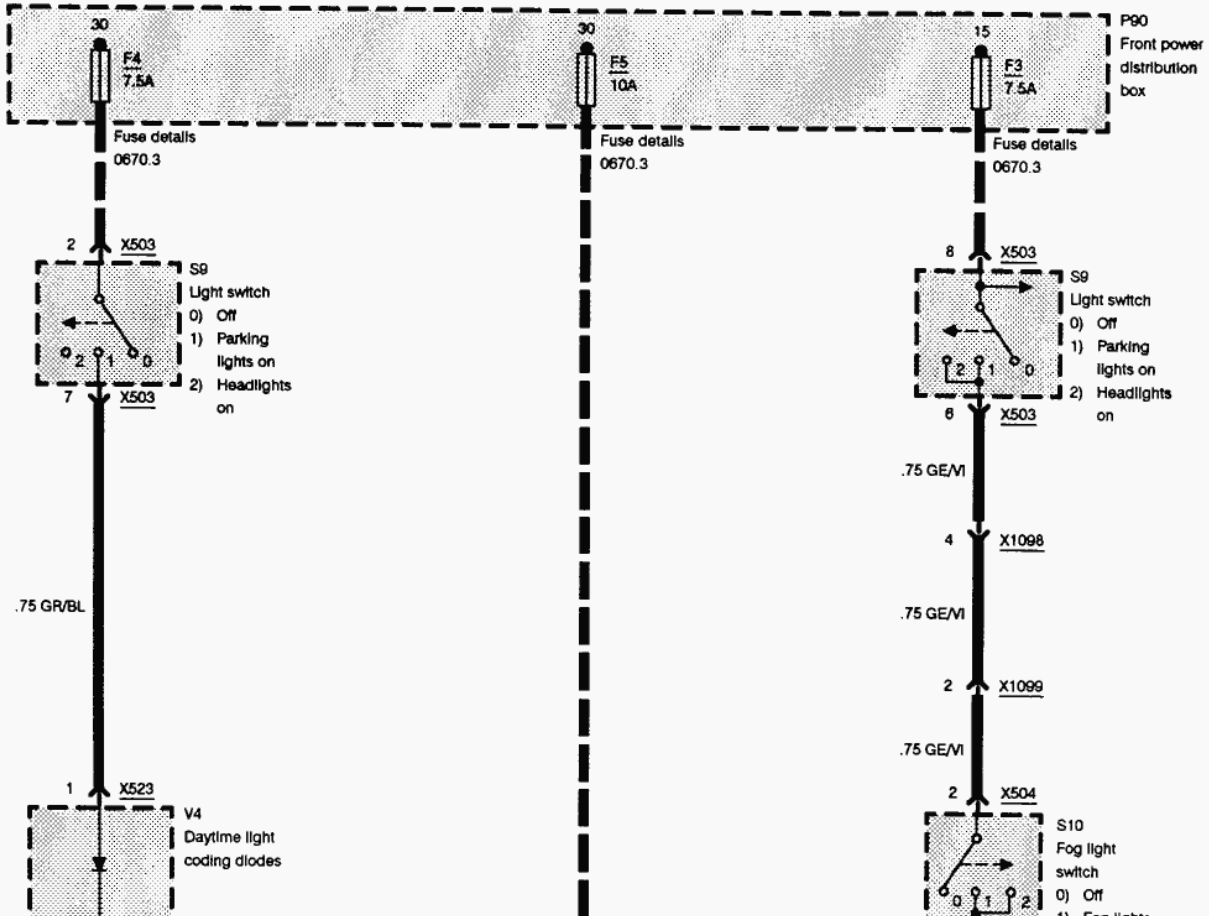


1994

Central body electronics (ZKE)

General module

S N



09/93

6100.0-02

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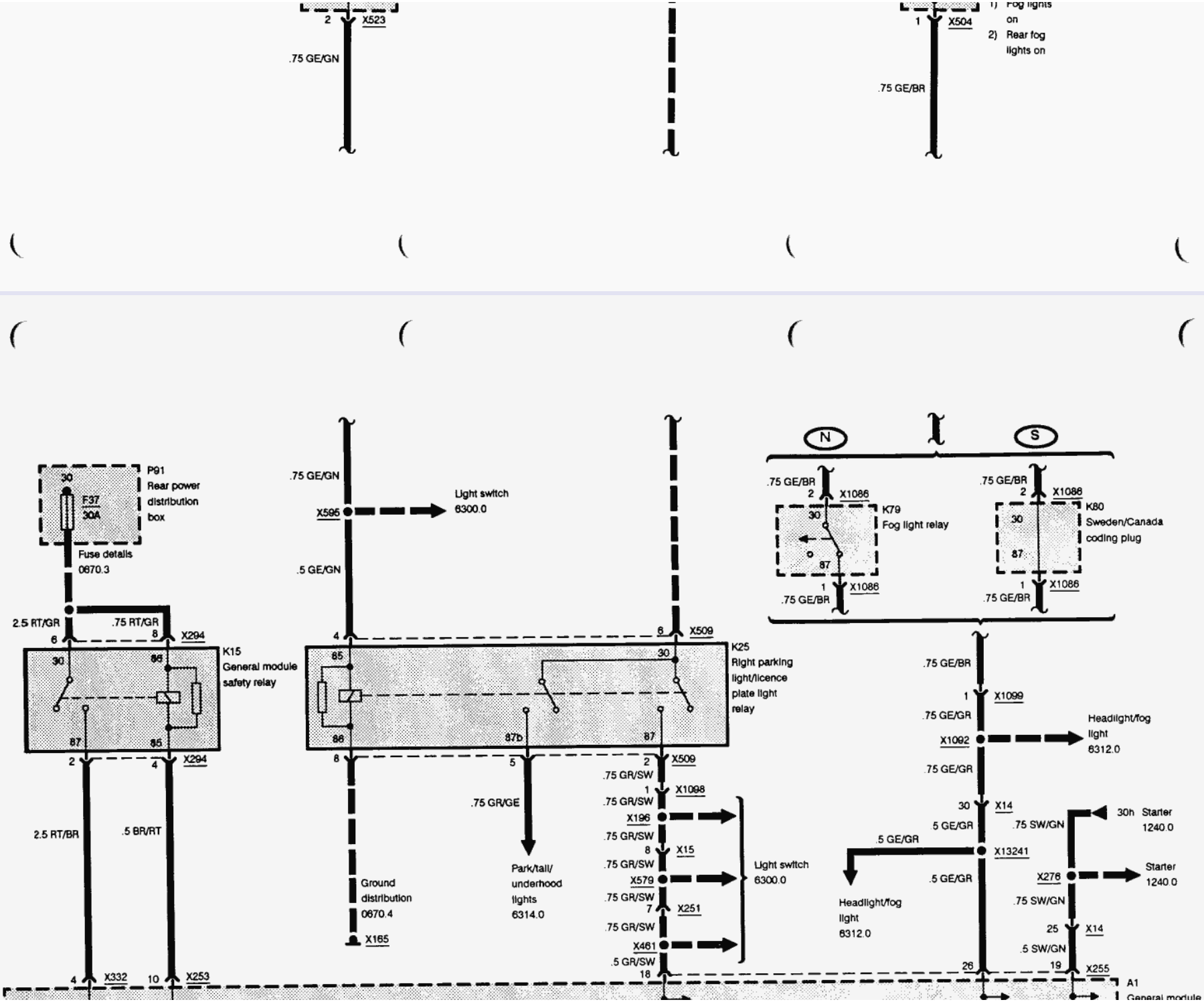
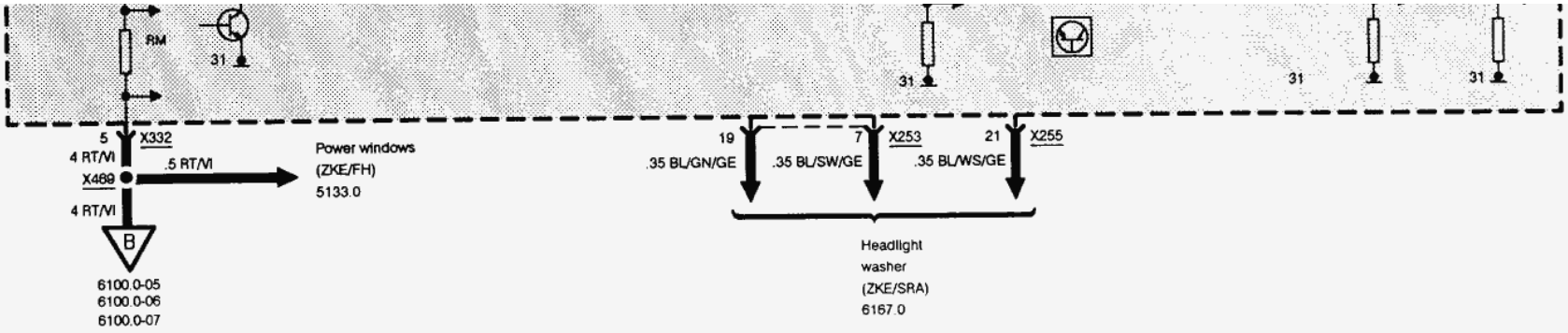


cardiagn.com

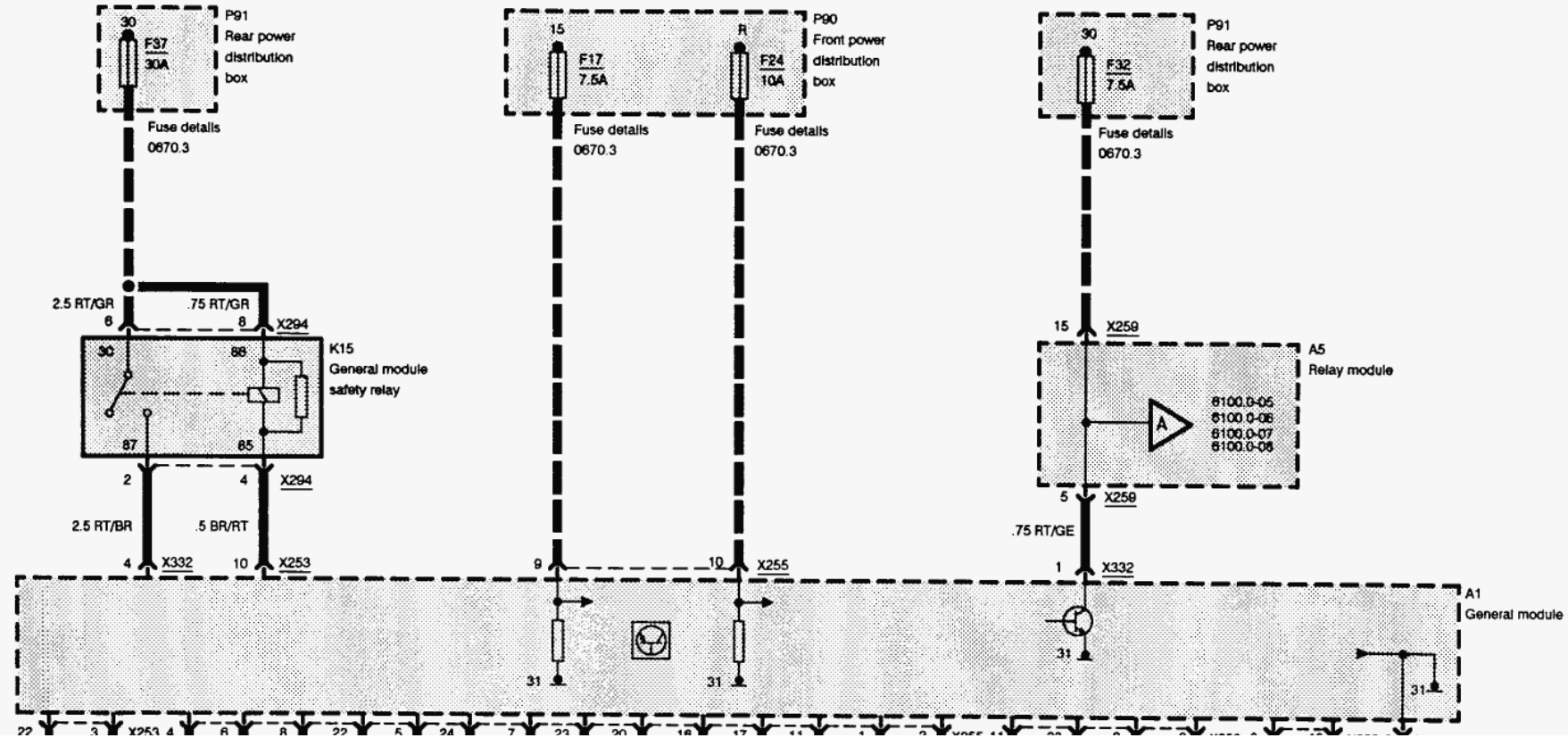


1994

BMW 5

Central body electronics (ZKE)

General module



09/93

6100.0-04

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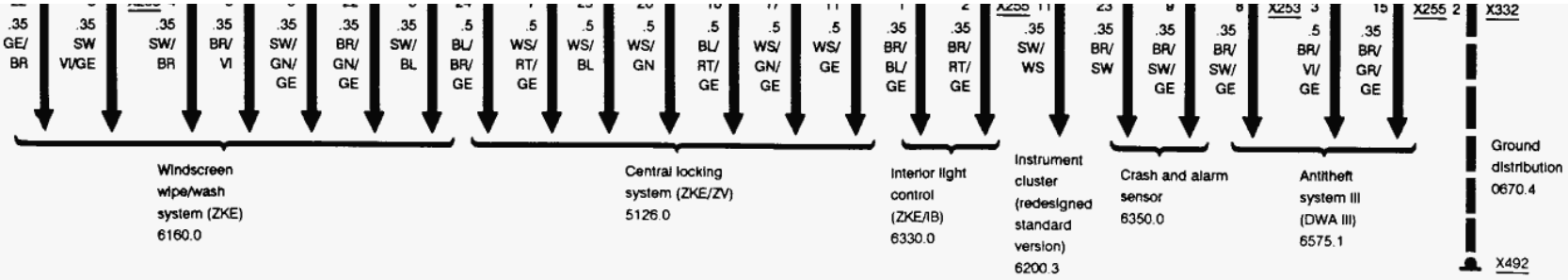
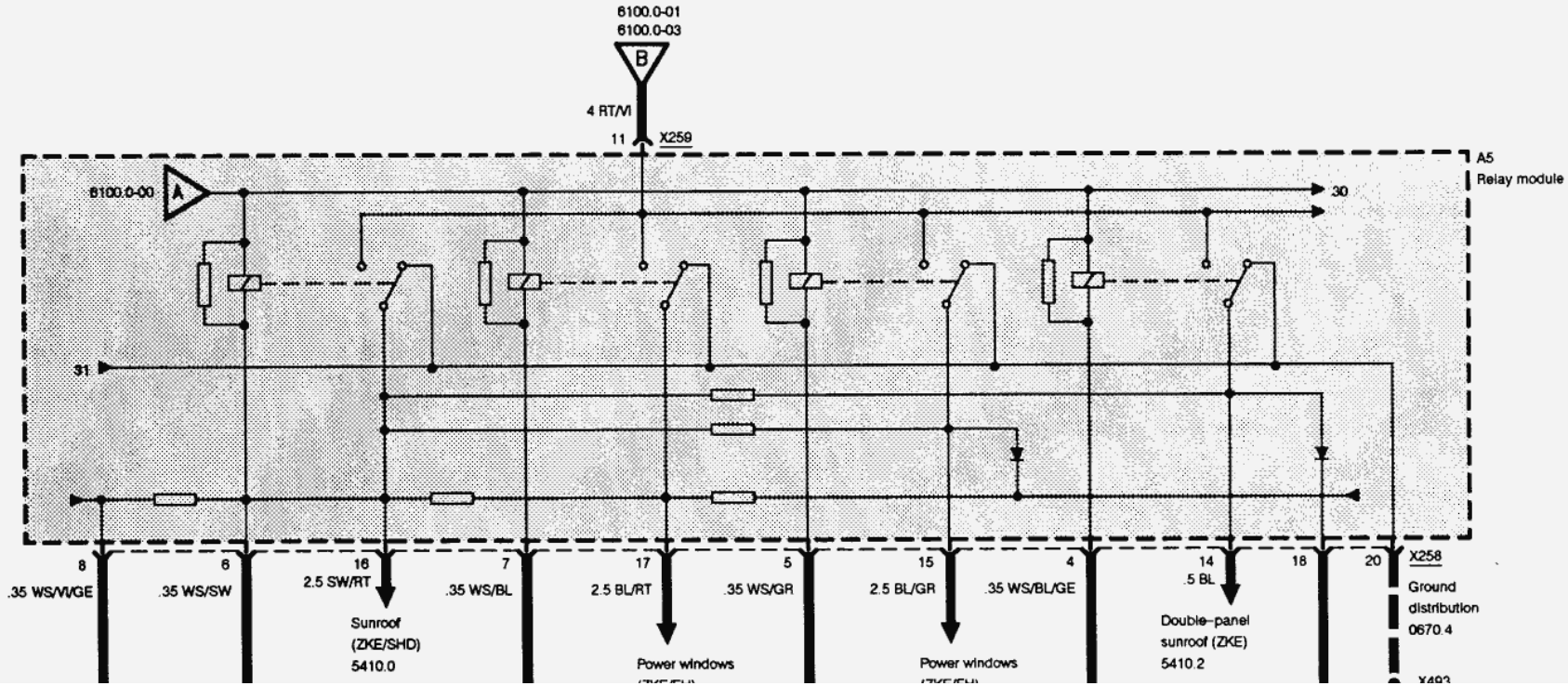


1994

Central body electronics (ZKE)

Relay module



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6100.0-05

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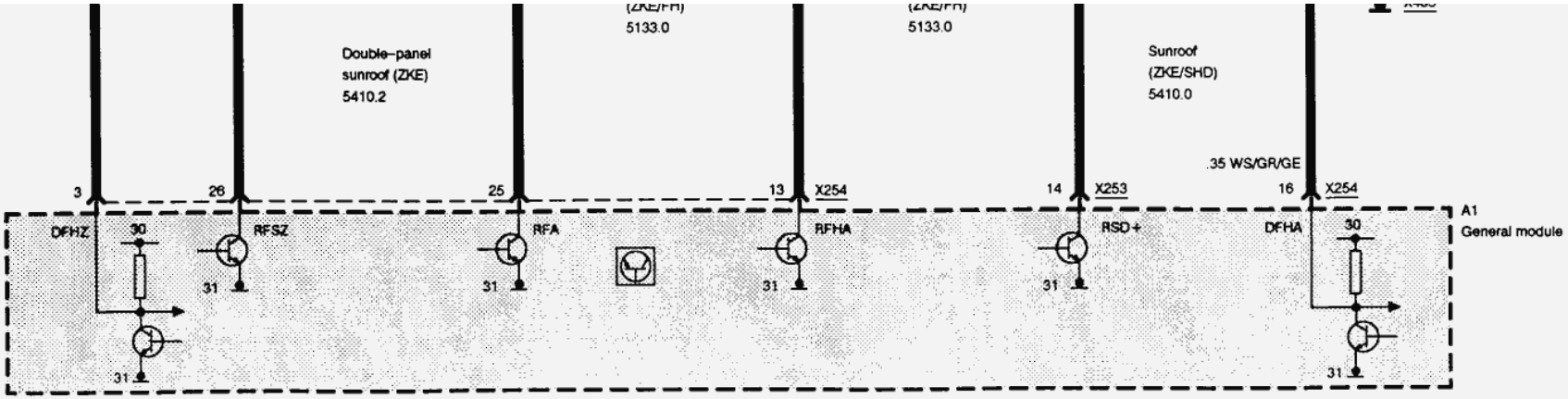
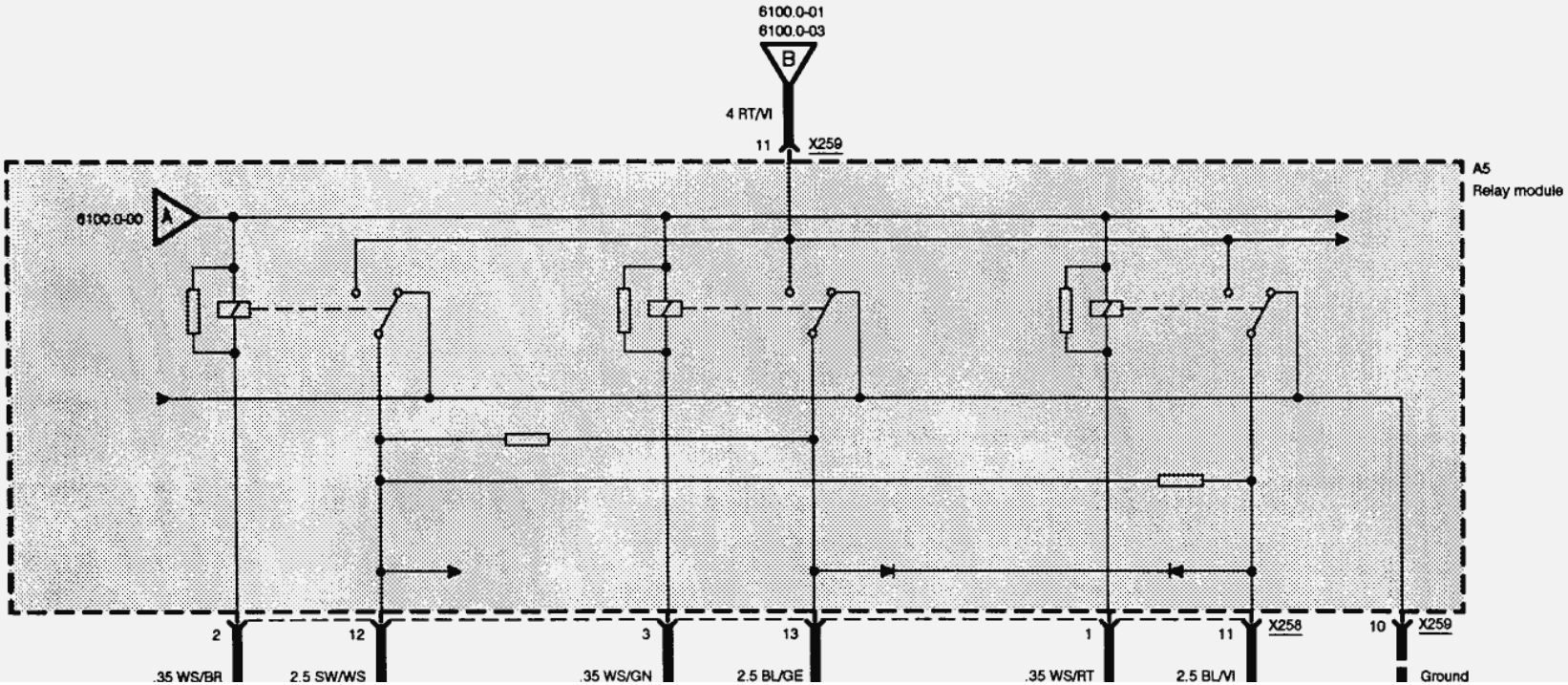


1994

Central body electronics (ZKE)

Relay module



09/93

6100.0-06

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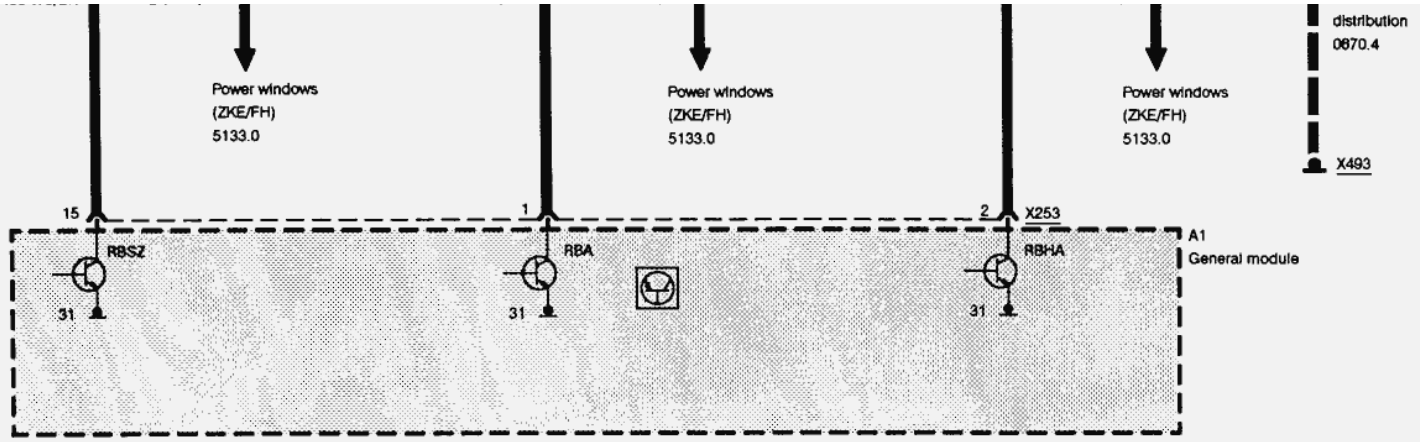
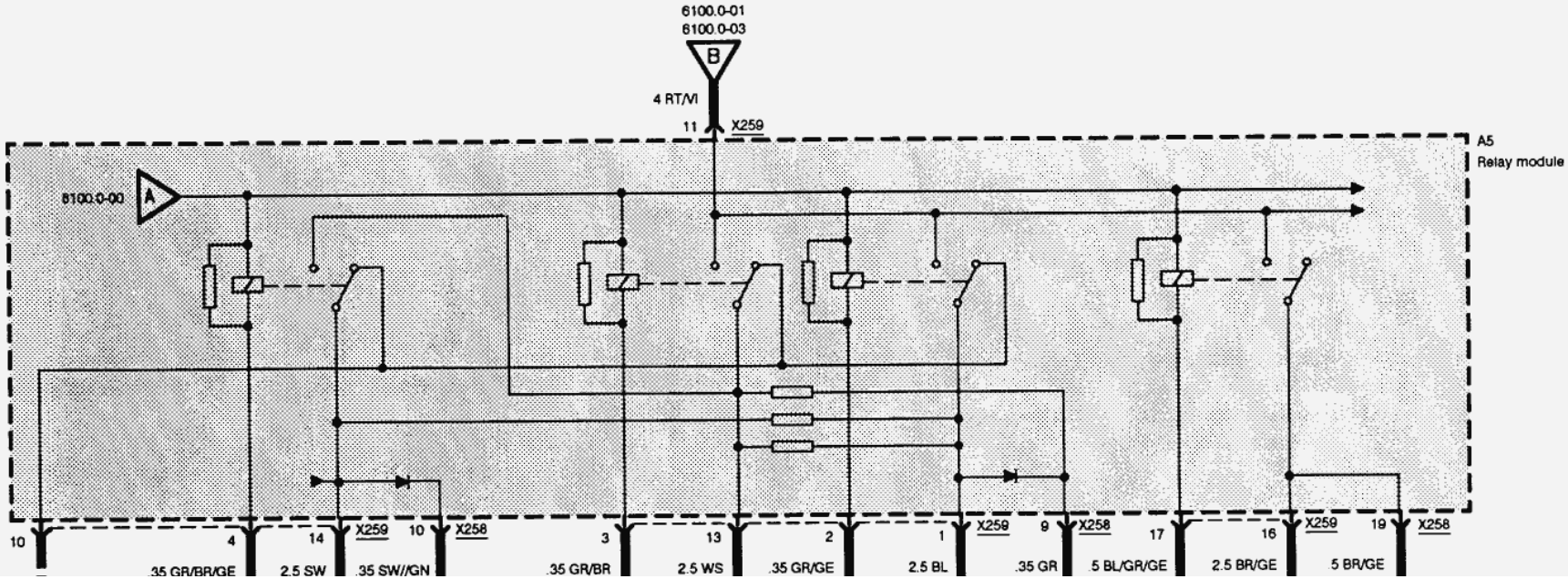


1994

Central body electronics (ZKE)

Relay module



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6100.0-07

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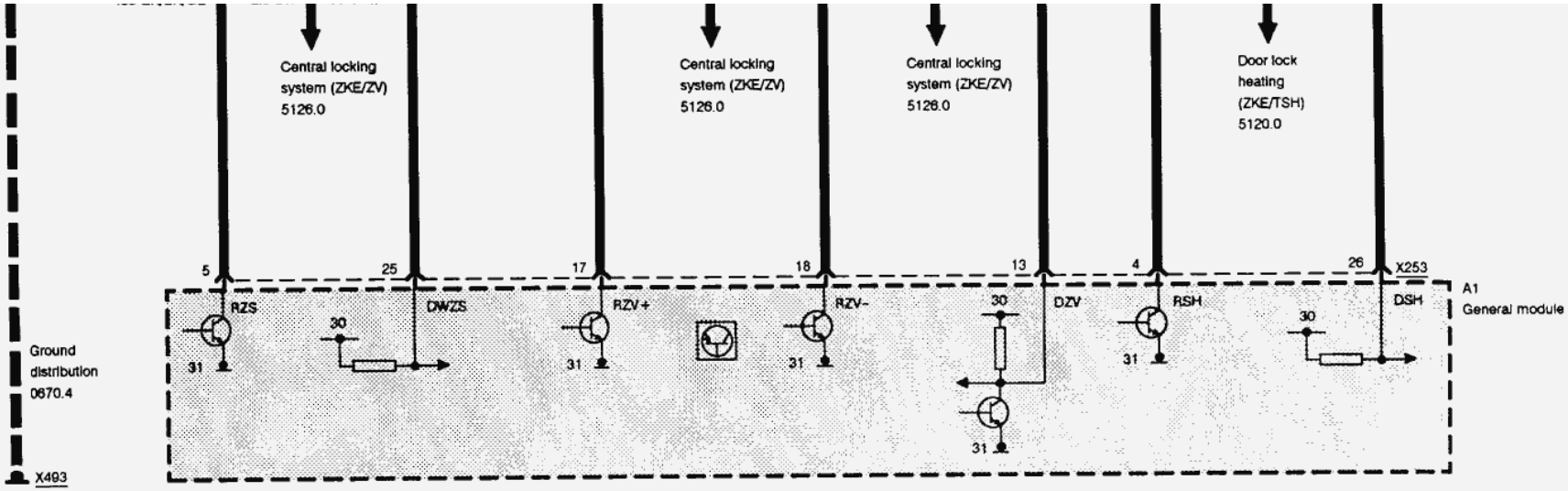
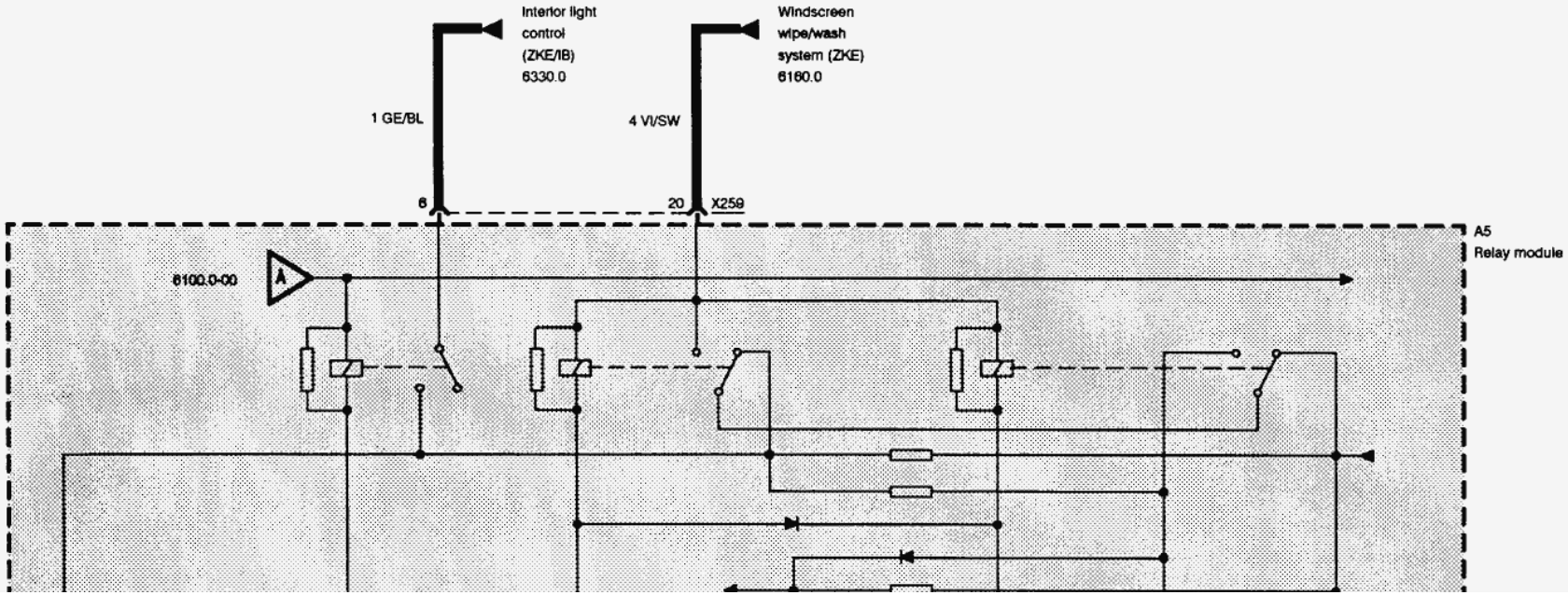


1994

BMW 5

Central body electronics (ZKE)

Relay module



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6100.0-08

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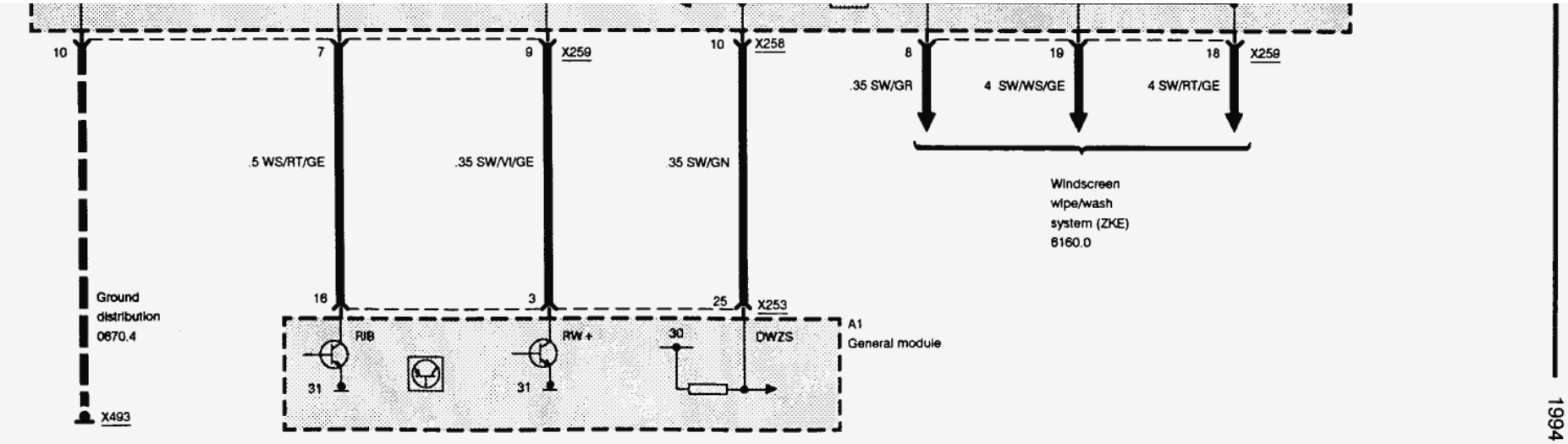

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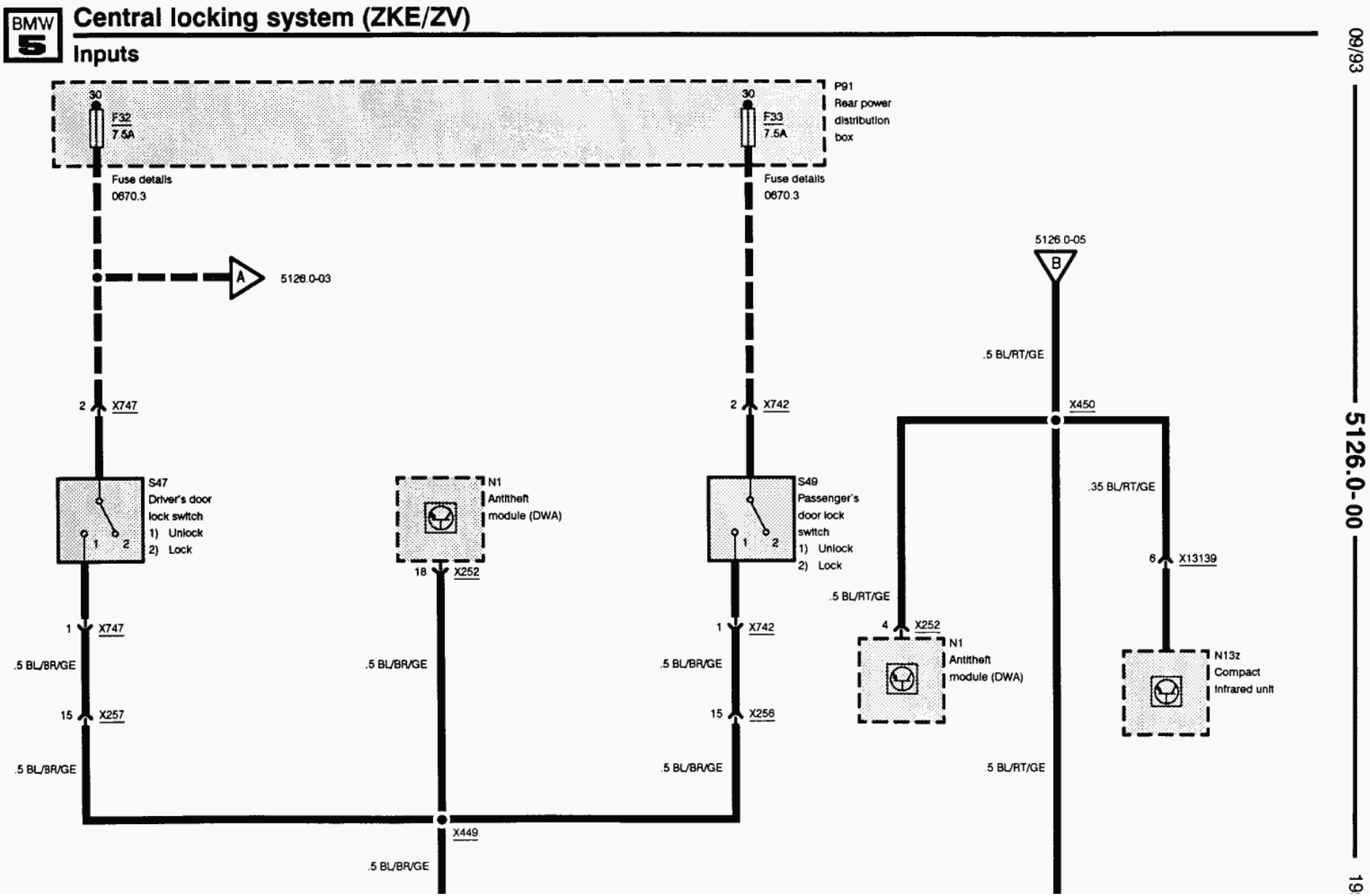
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Central locking system (ZKE/ZV)
Scheme 5126.0



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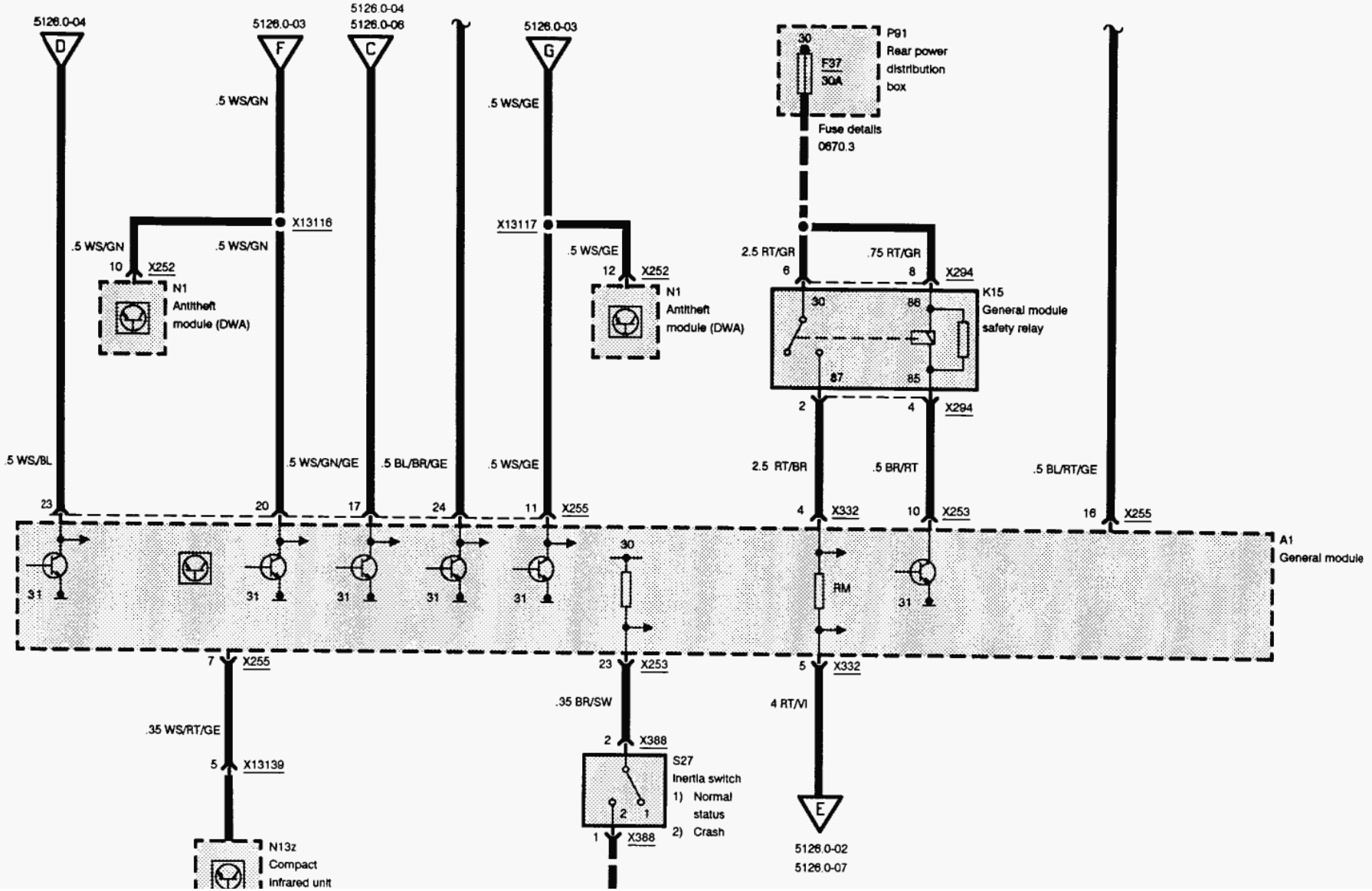

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Ground distribution 0670.4

X493

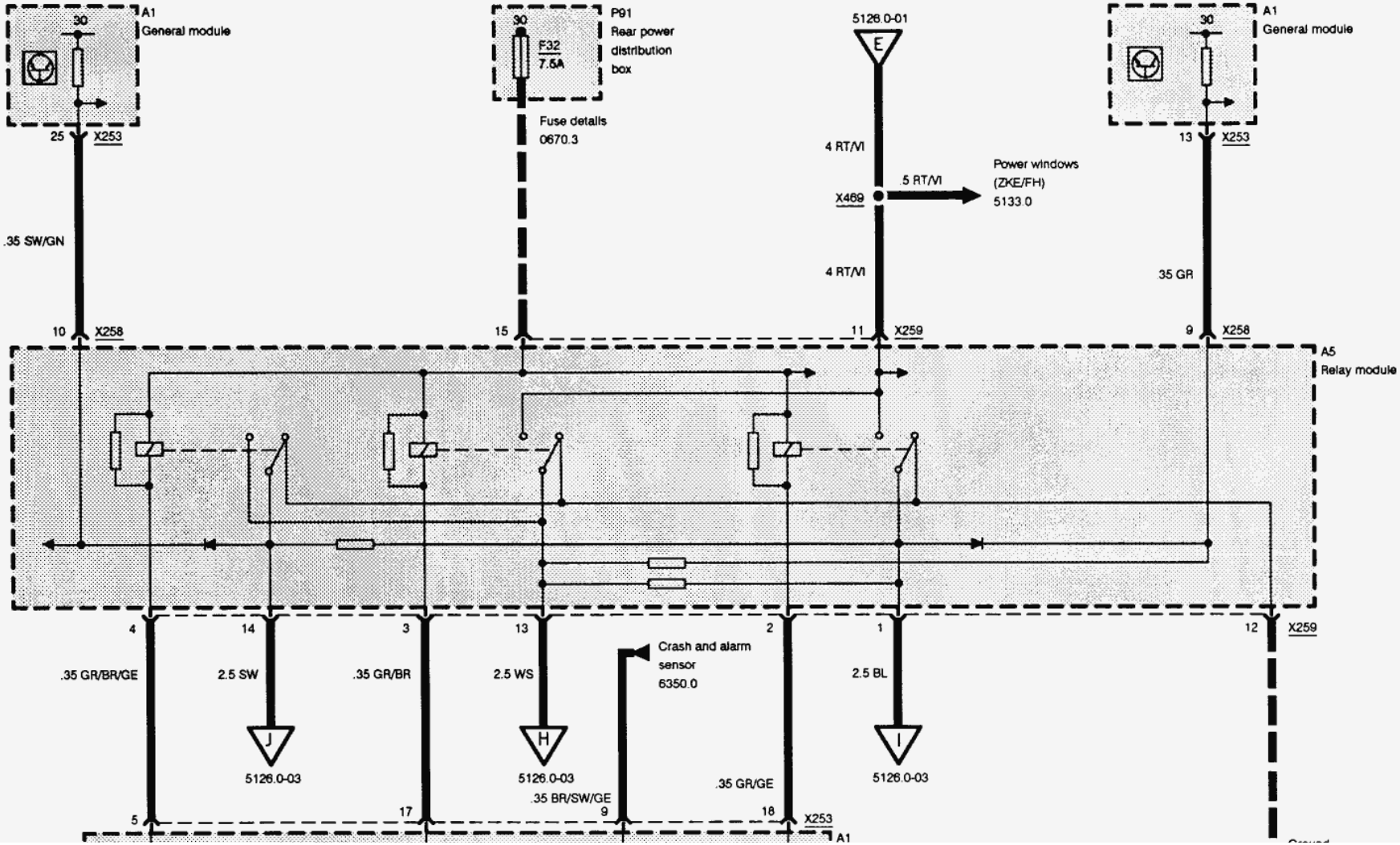
1994

Central locking system (ZKE/ZV)

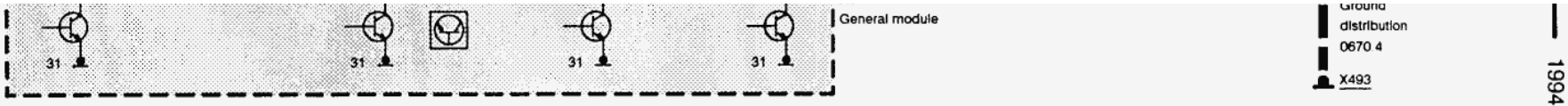
Outputs

09/93

5126.0-02



cardiagn.com



1994

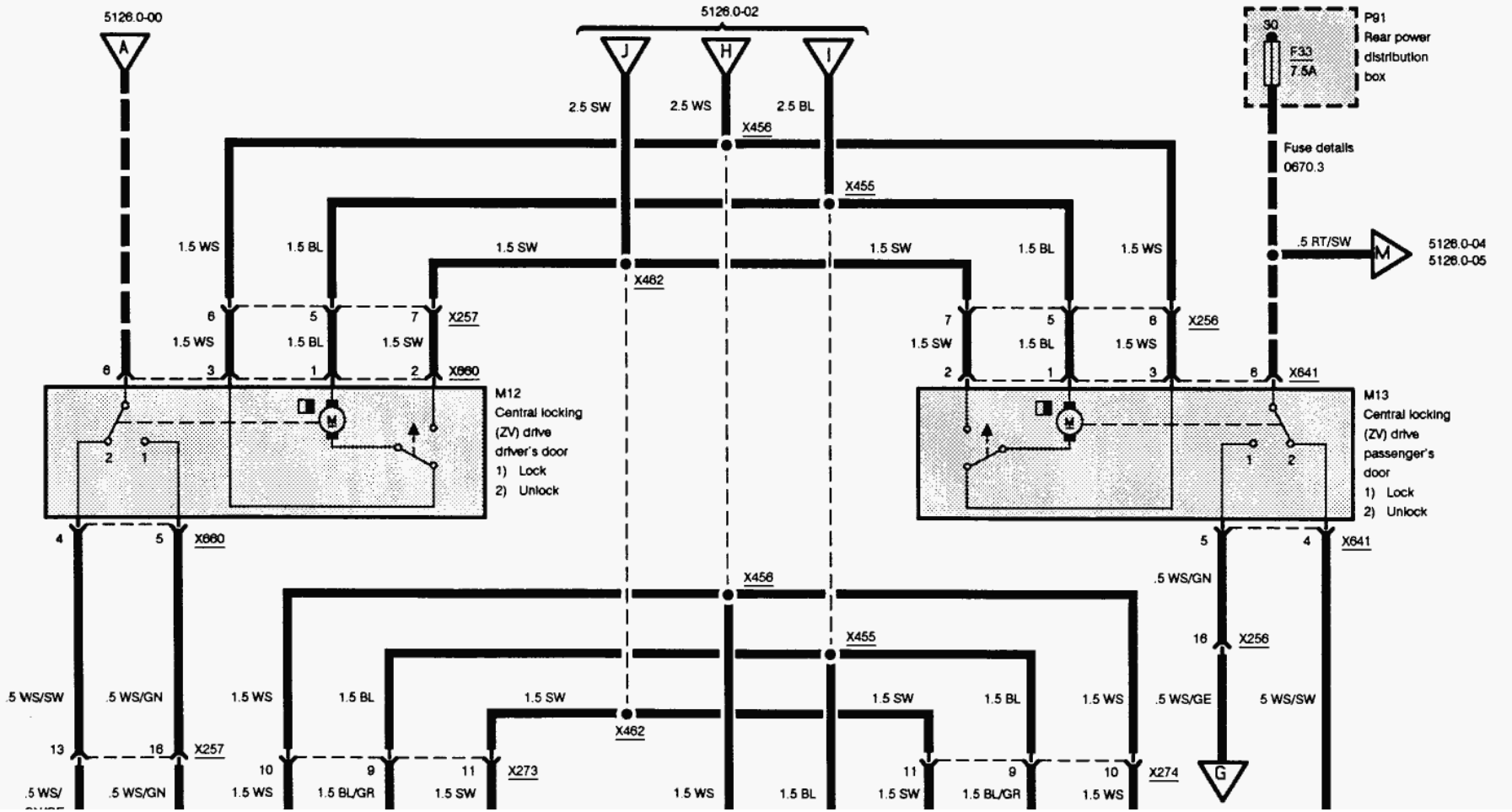
BMW 5

Central locking system (ZKE/ZV)

Outputs

09/93

5126.0- 03



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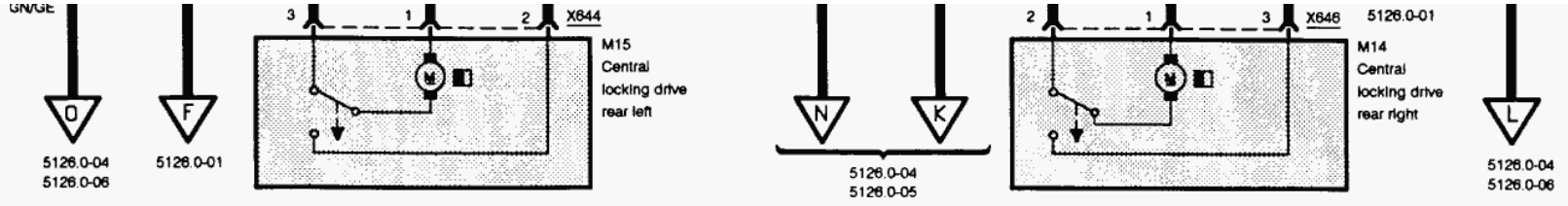


1994

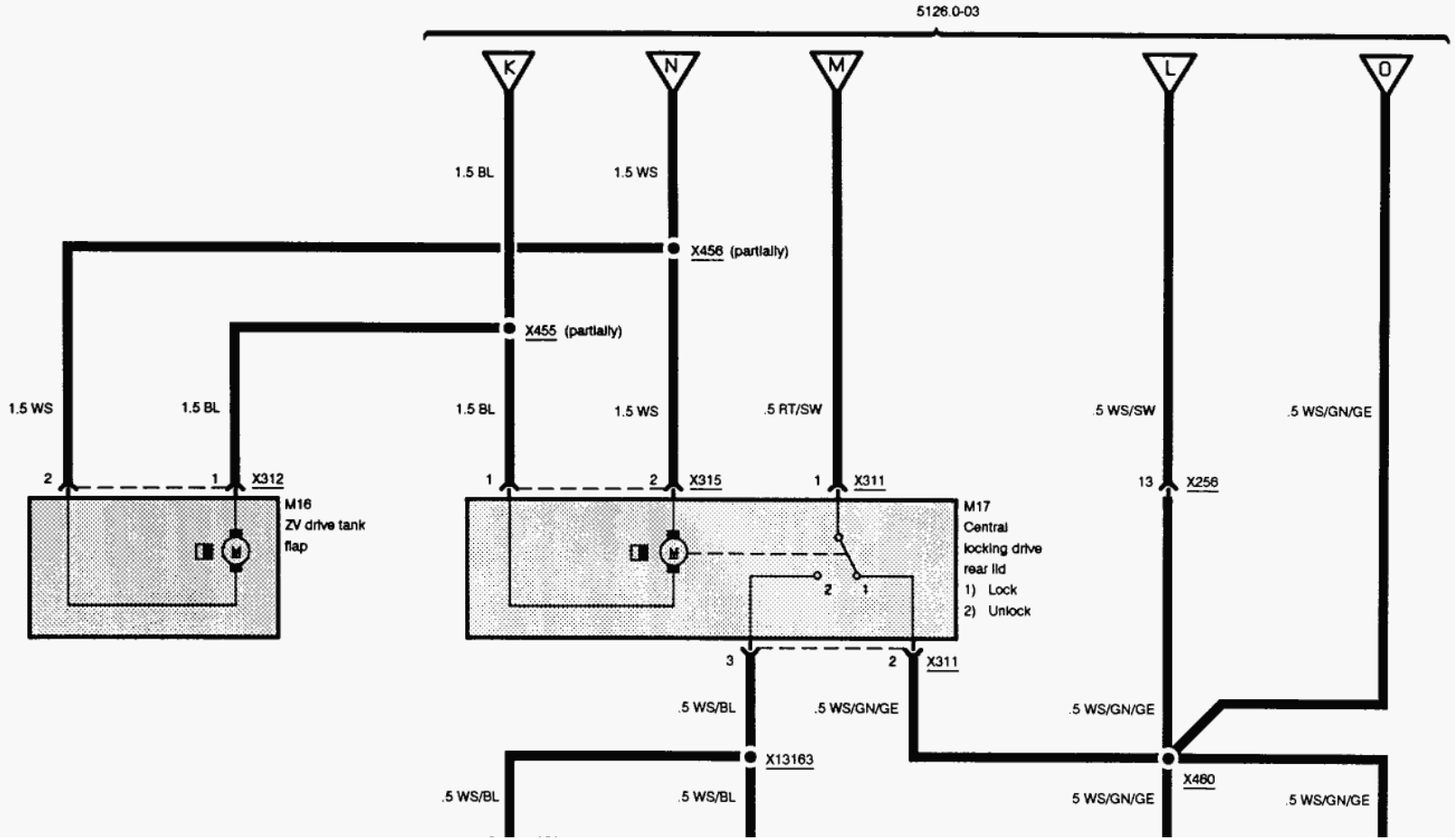
BMW 5

Central locking system (ZKE/ZV)

Outputs

09/93

5126.0-03



5126.0-04

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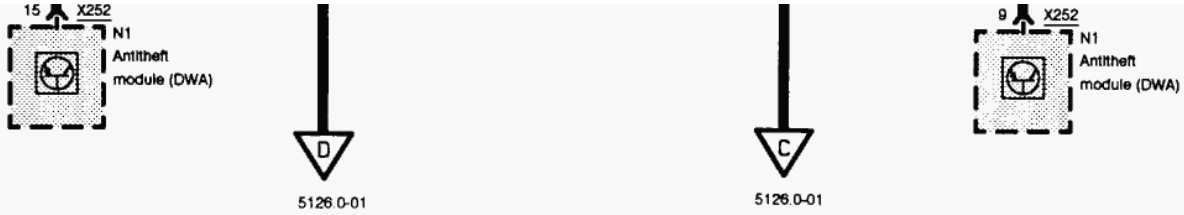


1994

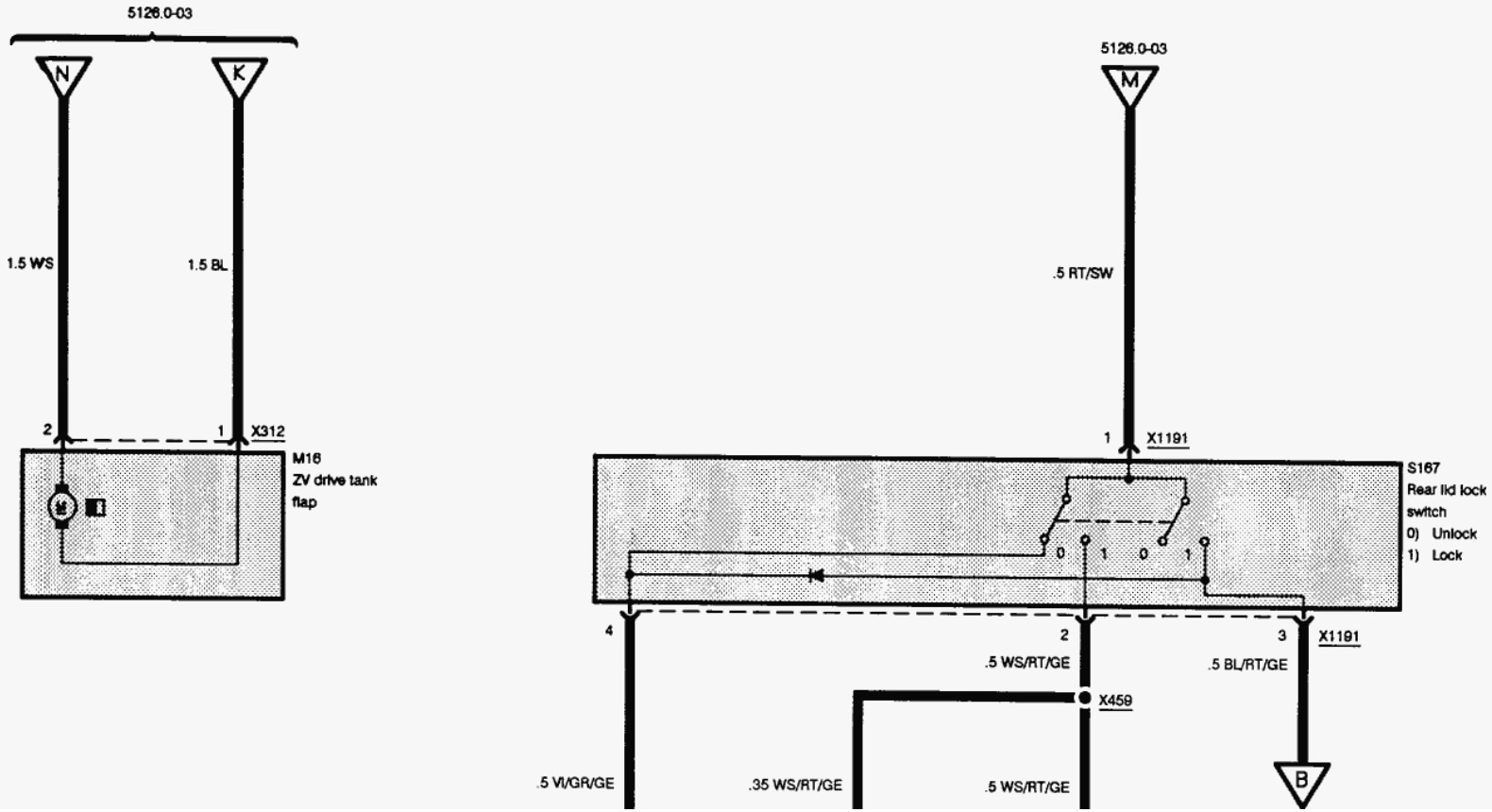
Central locking system (ZKE/ZV)

Outputs

Touring

09/93

5126.0-05



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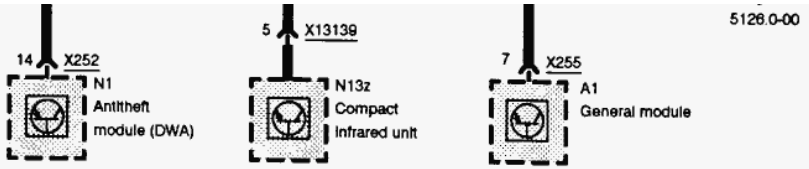


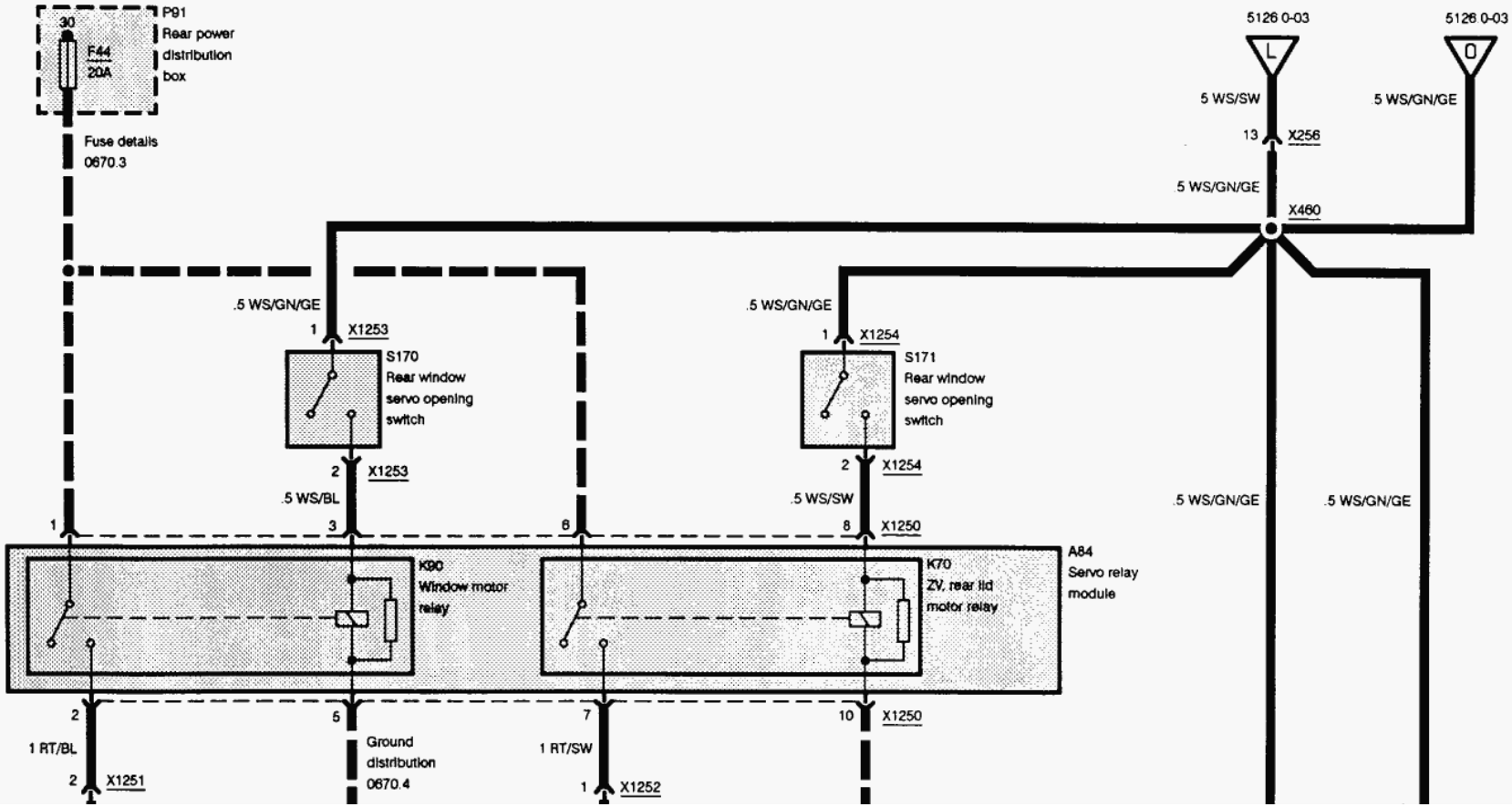
1994

Central locking system (ZKE/ZV)

BMW 5

Touring

Outputs



09/93

5126.0-06

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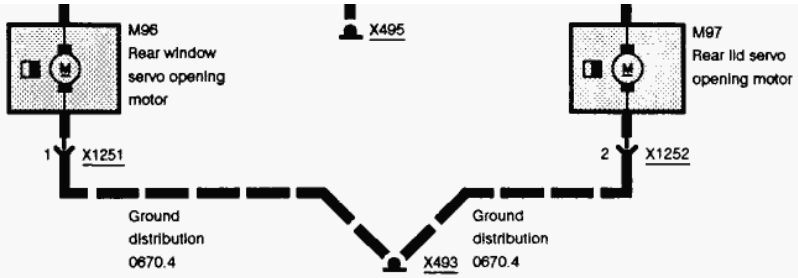
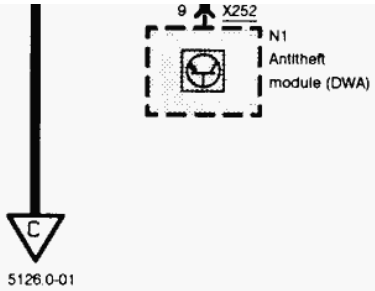


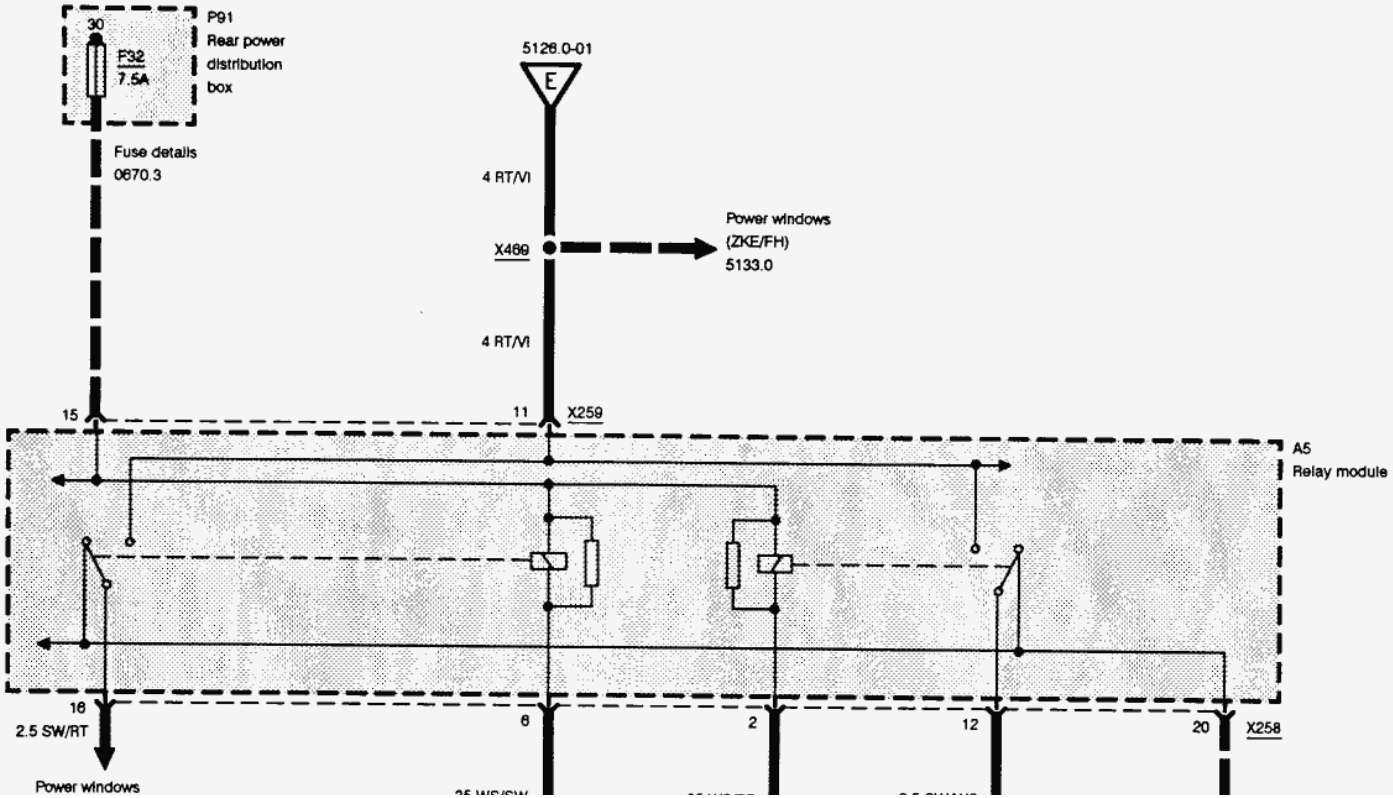


1994

BMW 5

Central locking system (ZKE/ZV)

Outputs



09/93

5126.0-07

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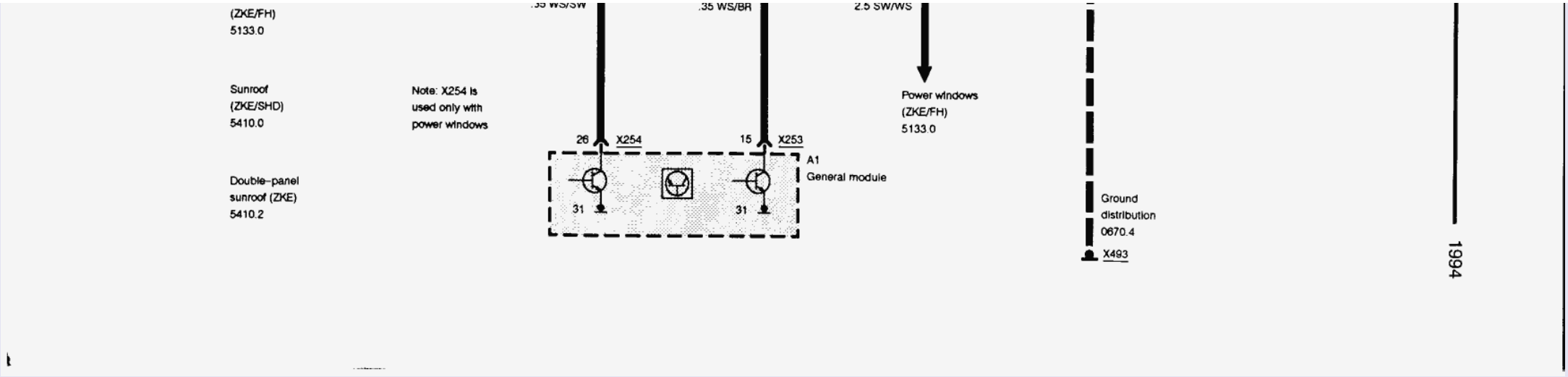

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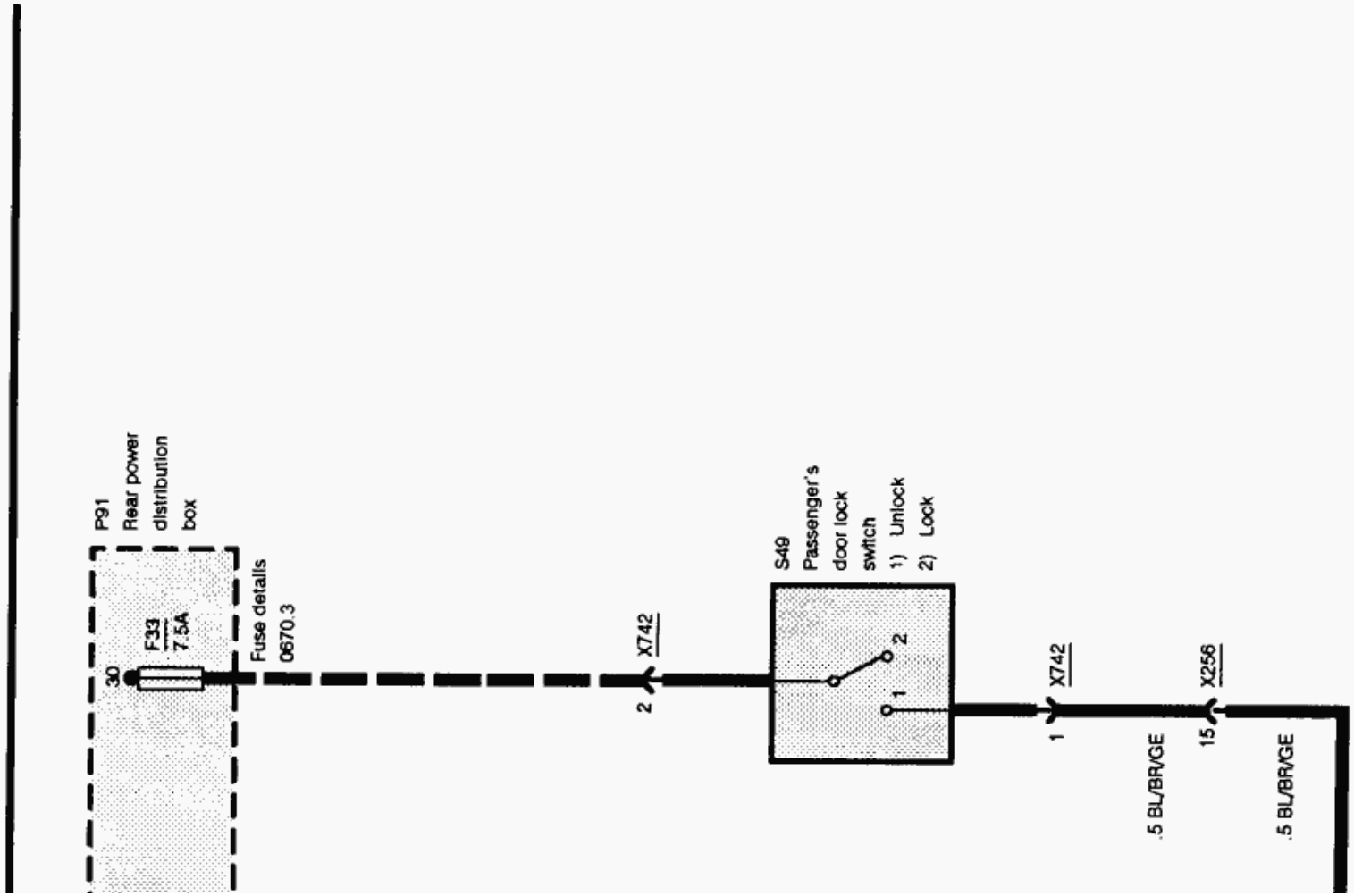
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Central locking module (ZVM)

Scheme 5126.1



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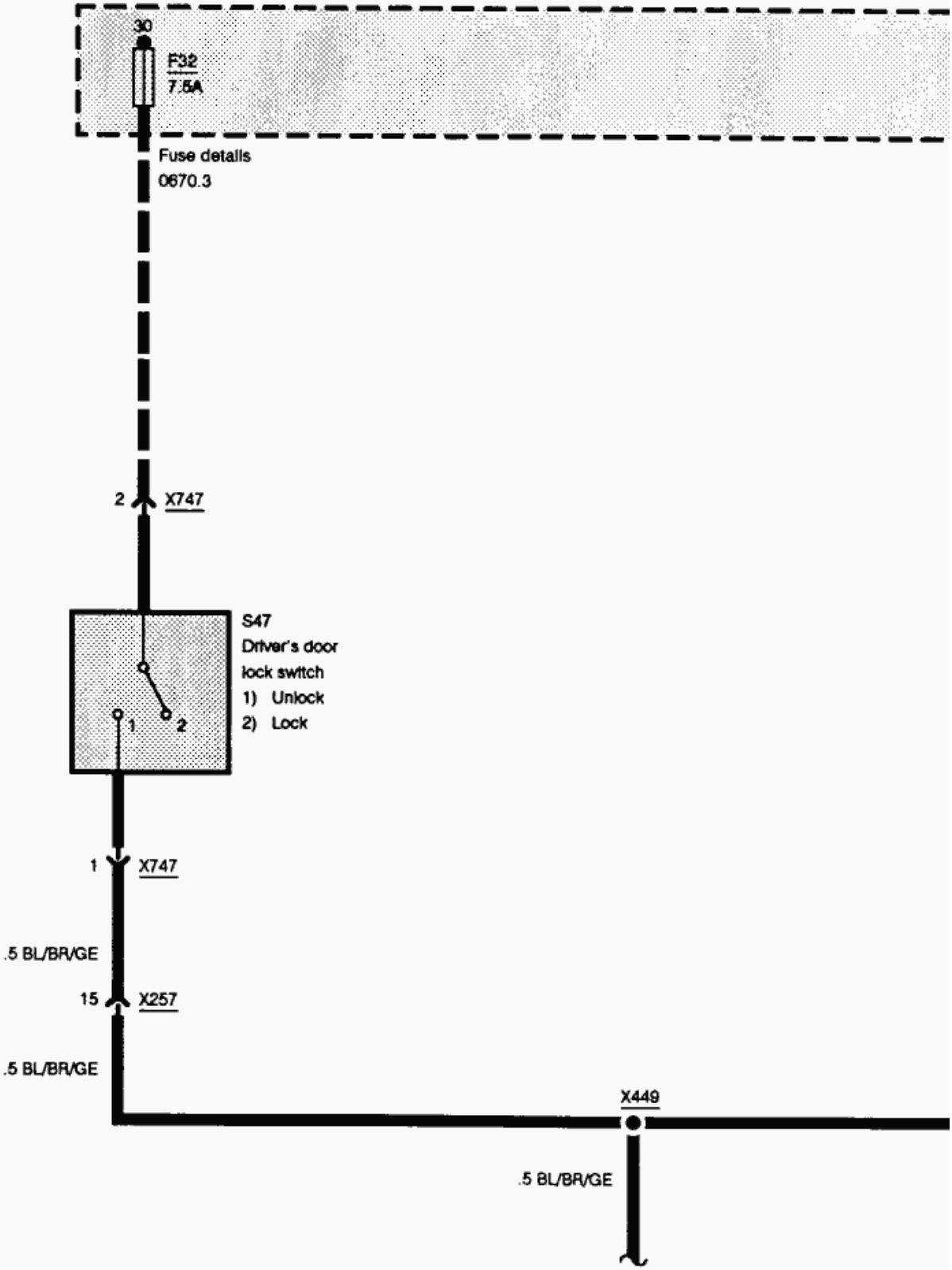
Central locking module (ZVM)

Inputs



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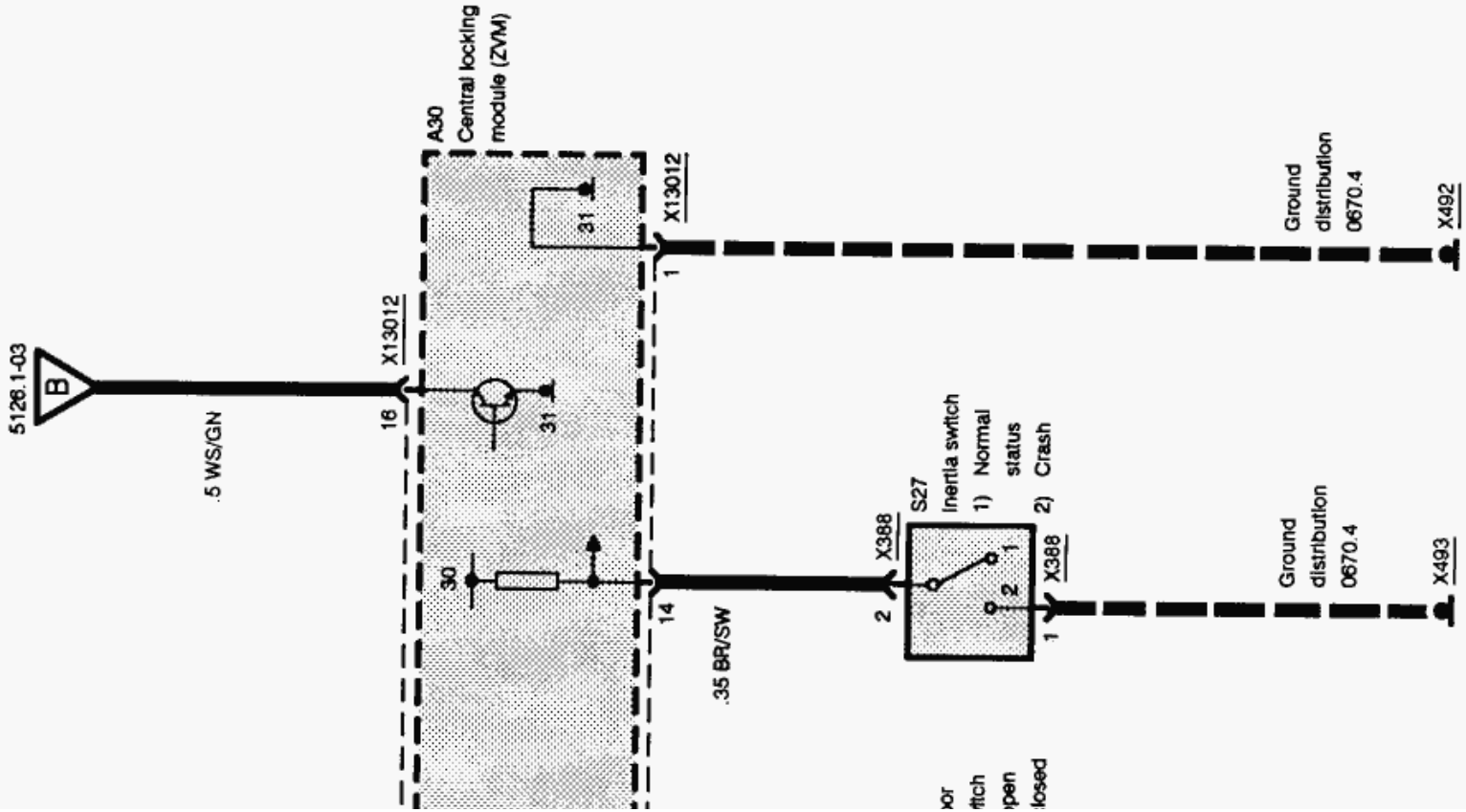

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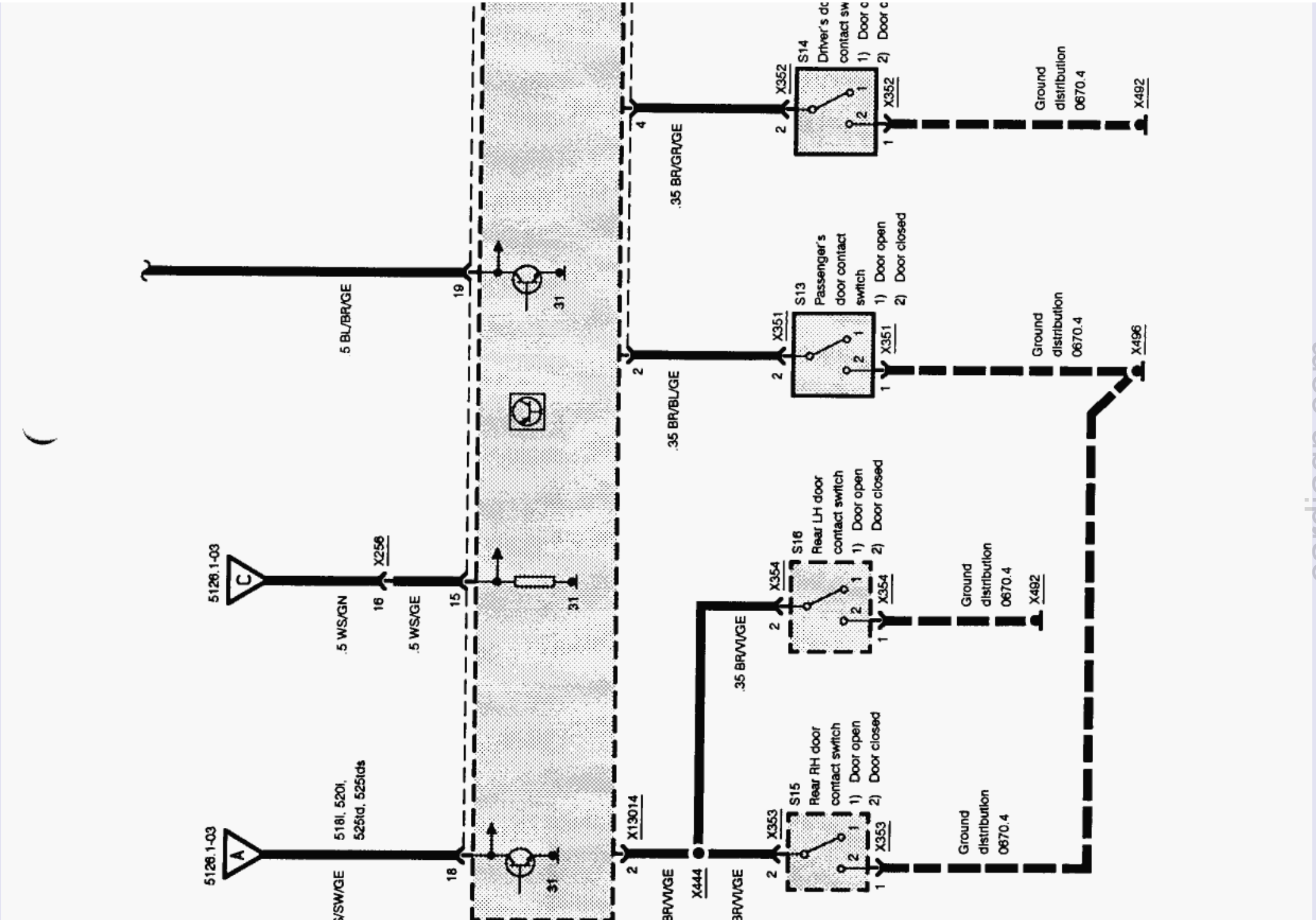

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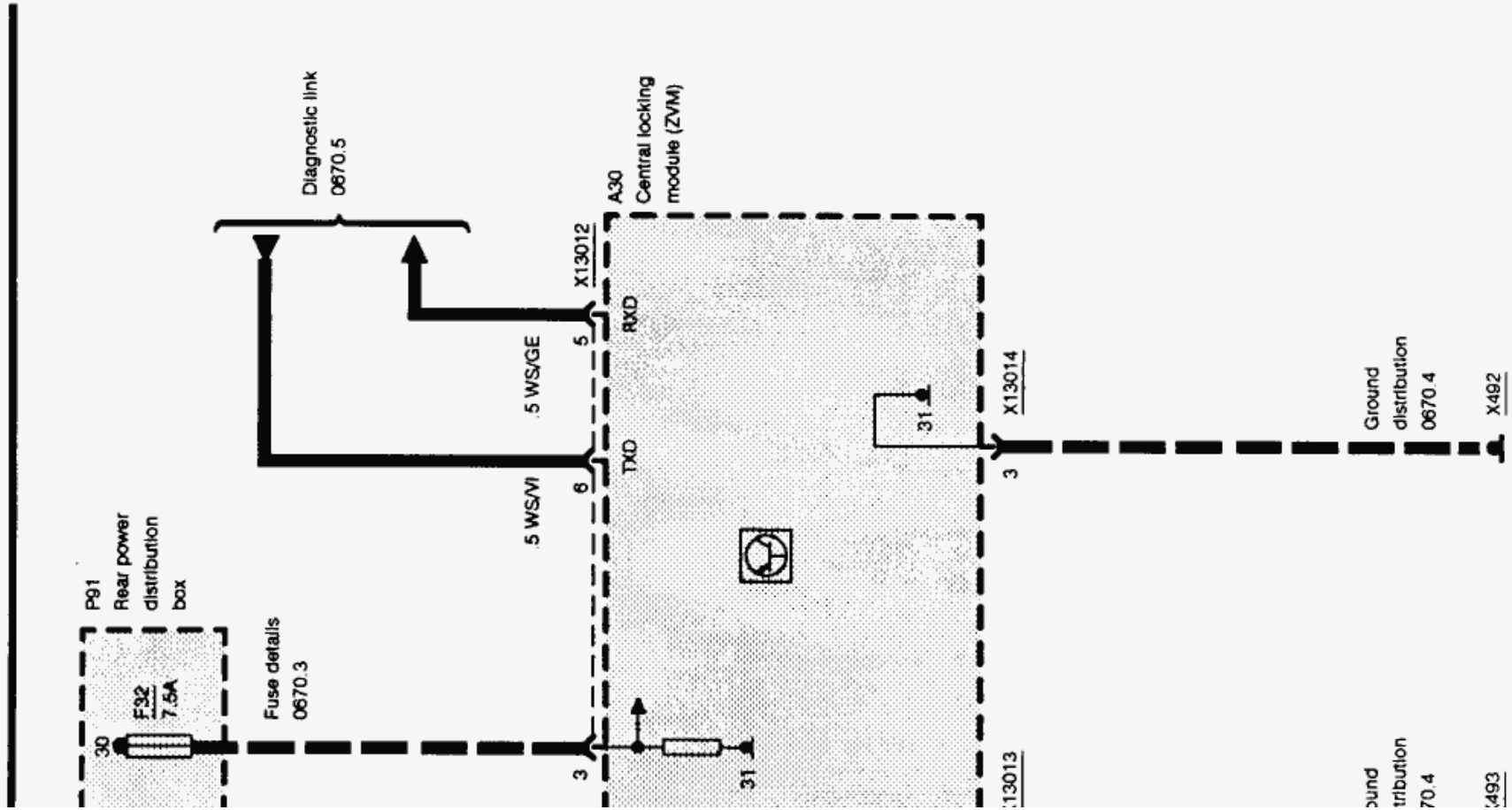

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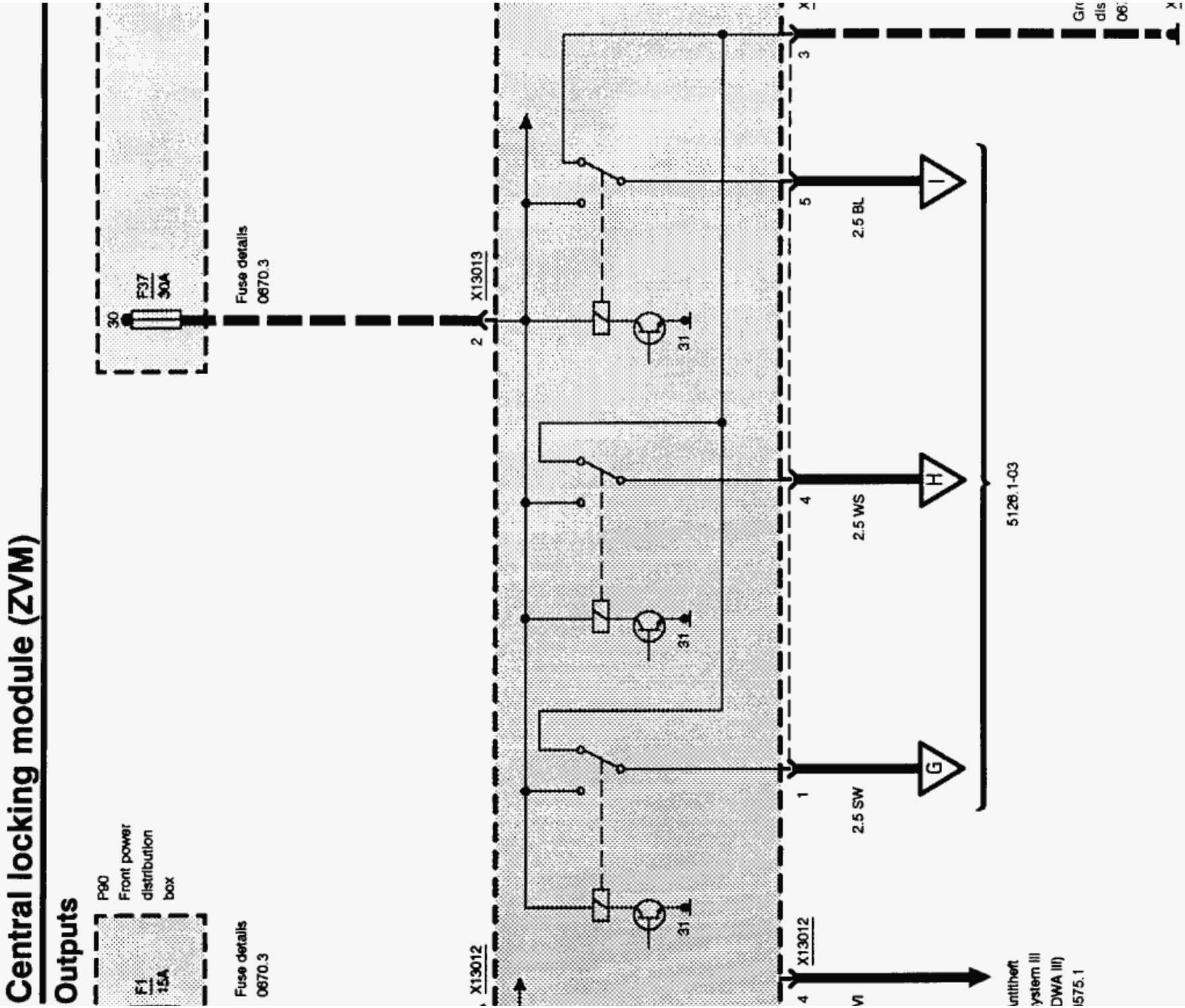
Central locking module (ZVM)



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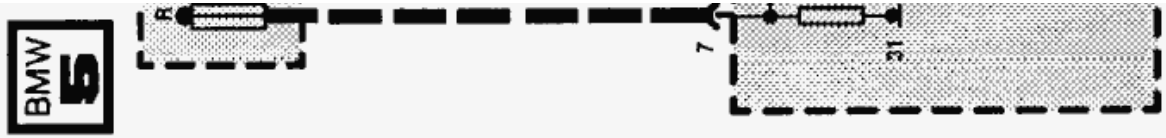

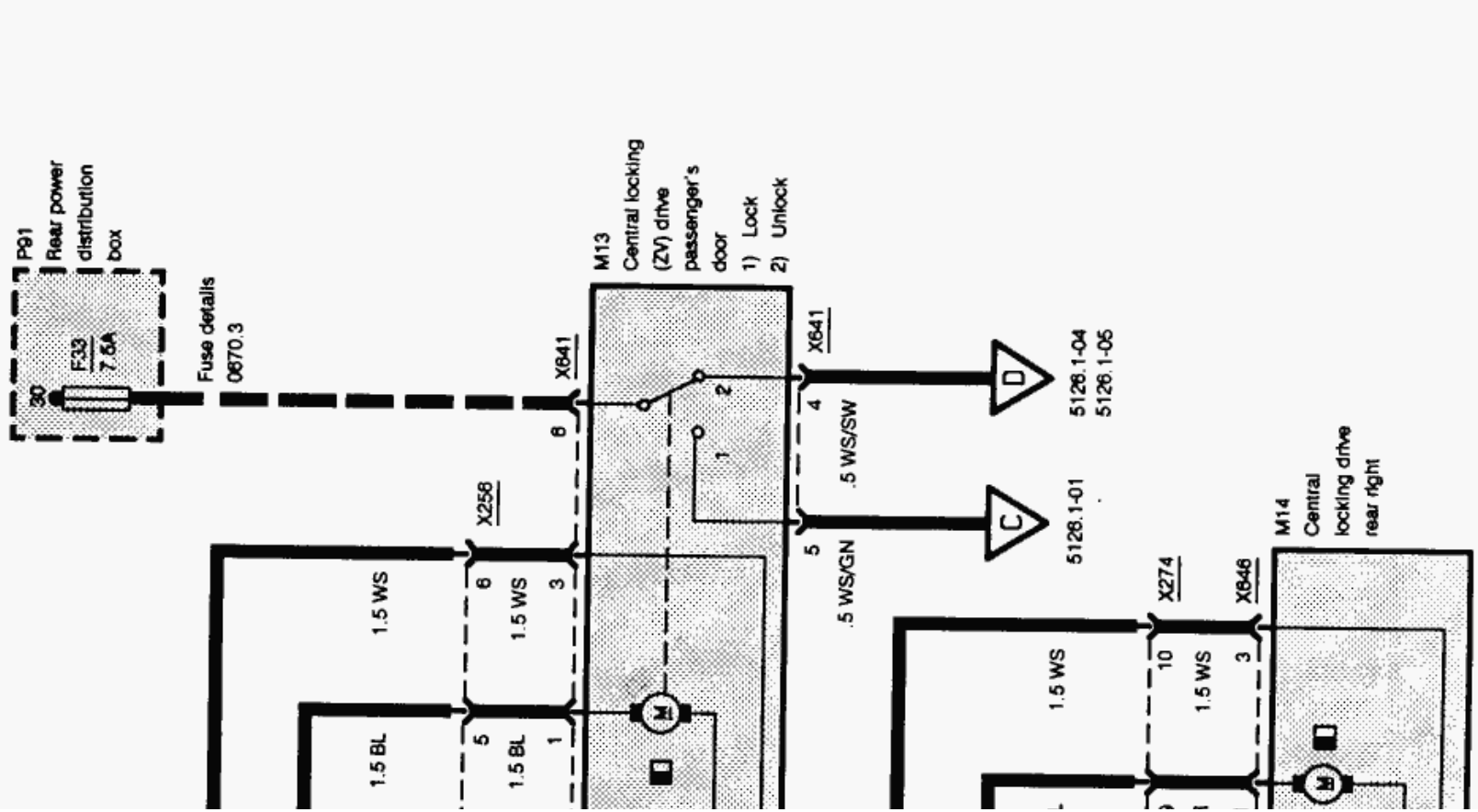

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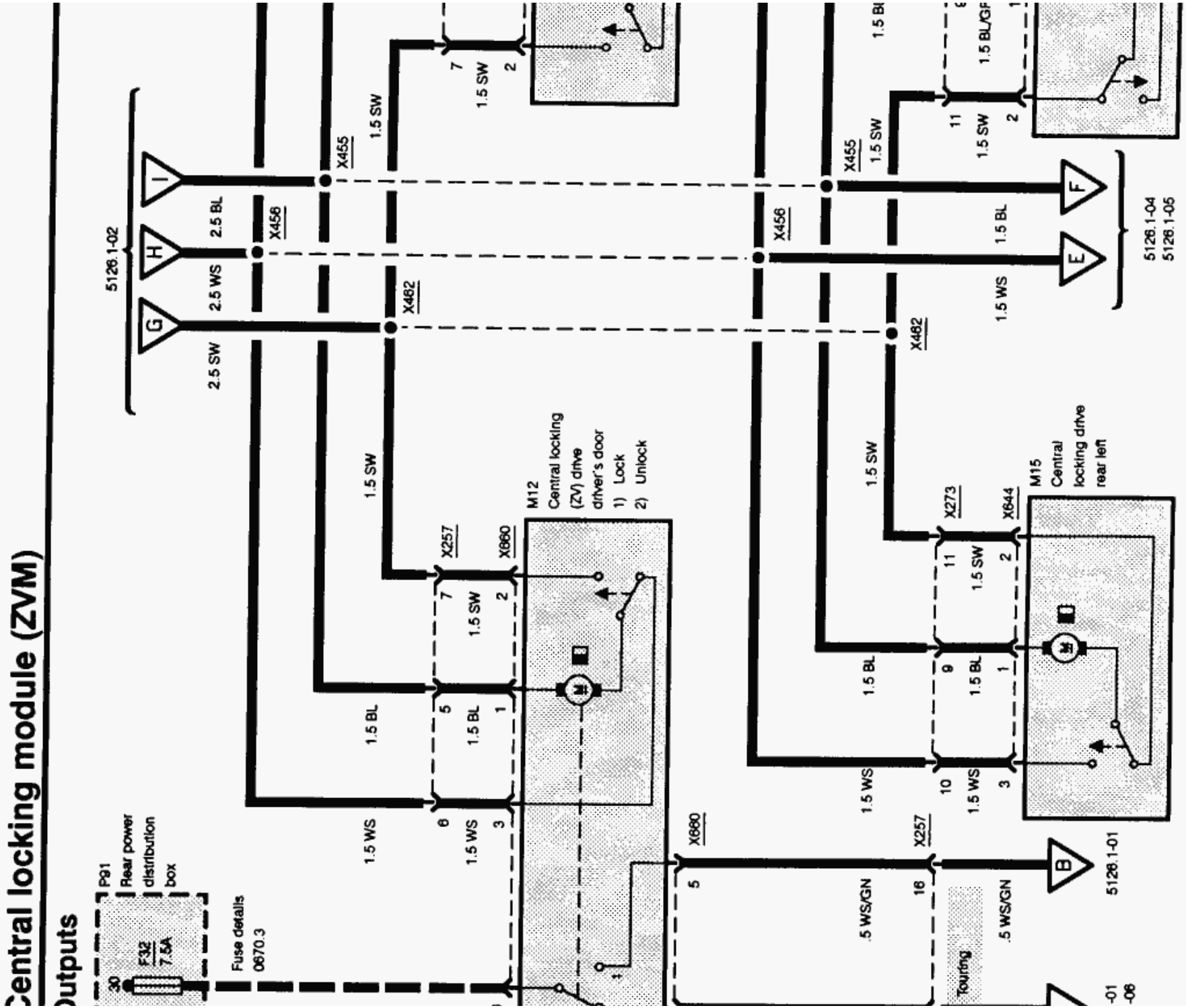
Central locking module (ZVM)

Outputs



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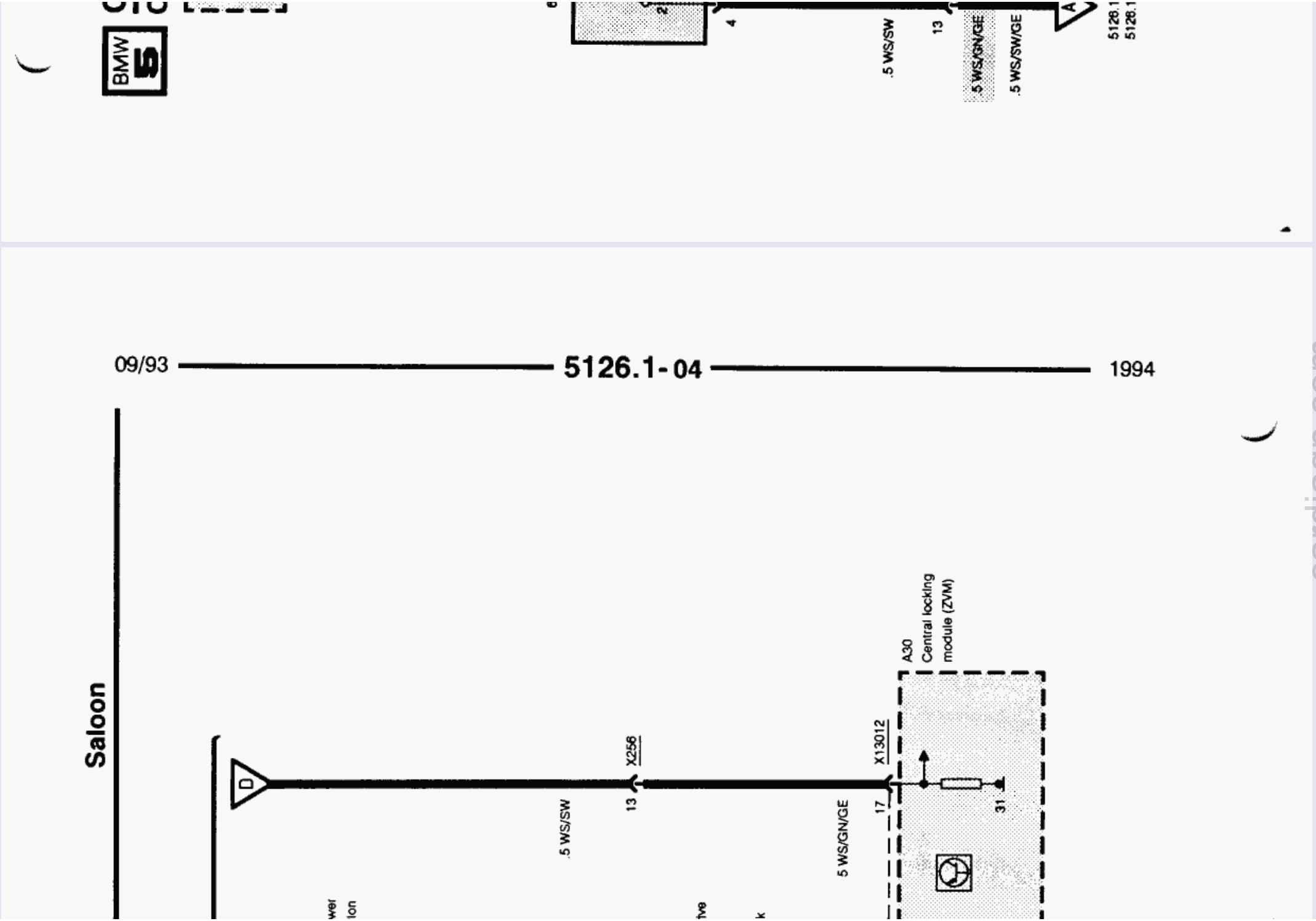

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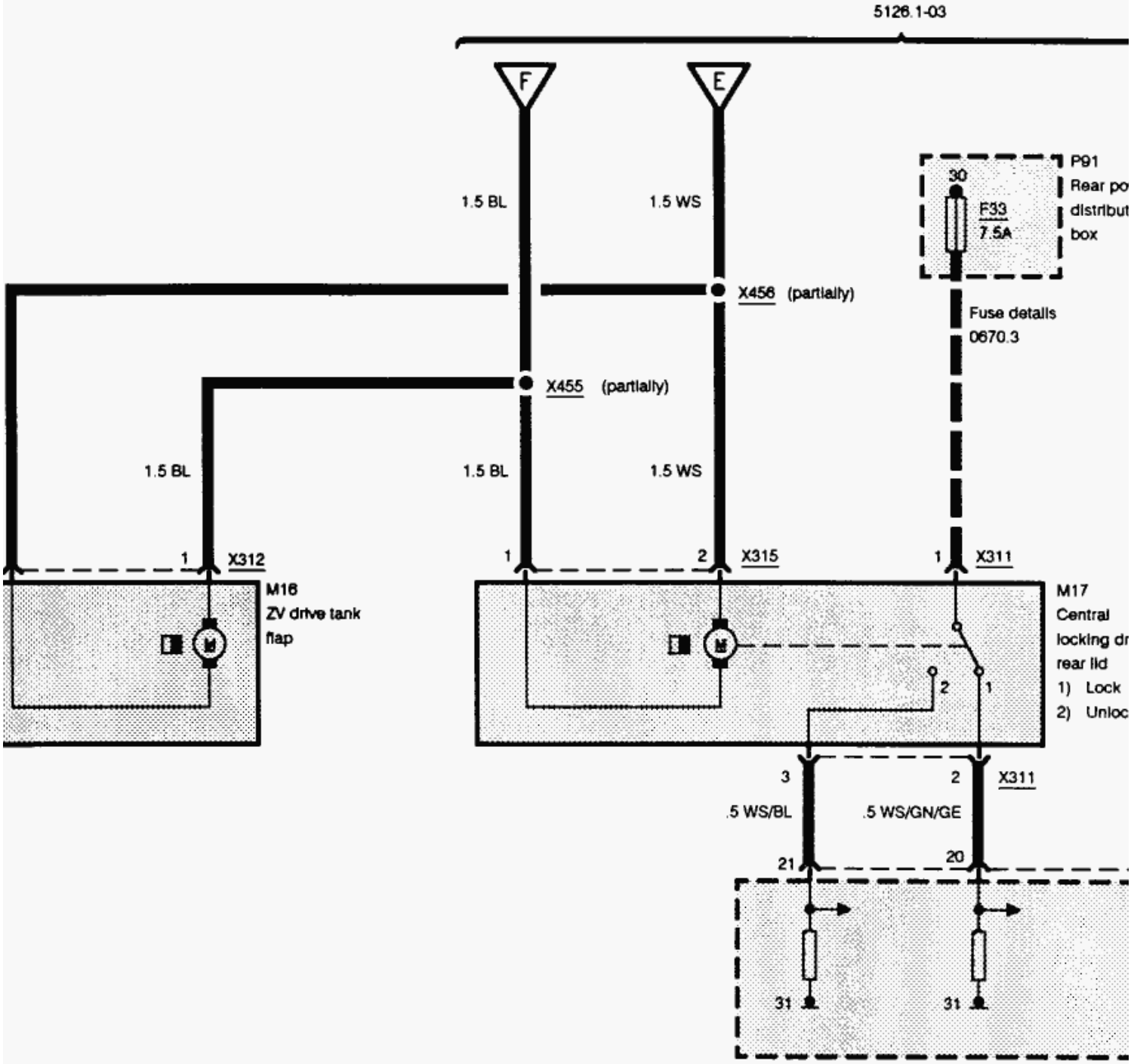
ntral locking module (ZVM)

puts



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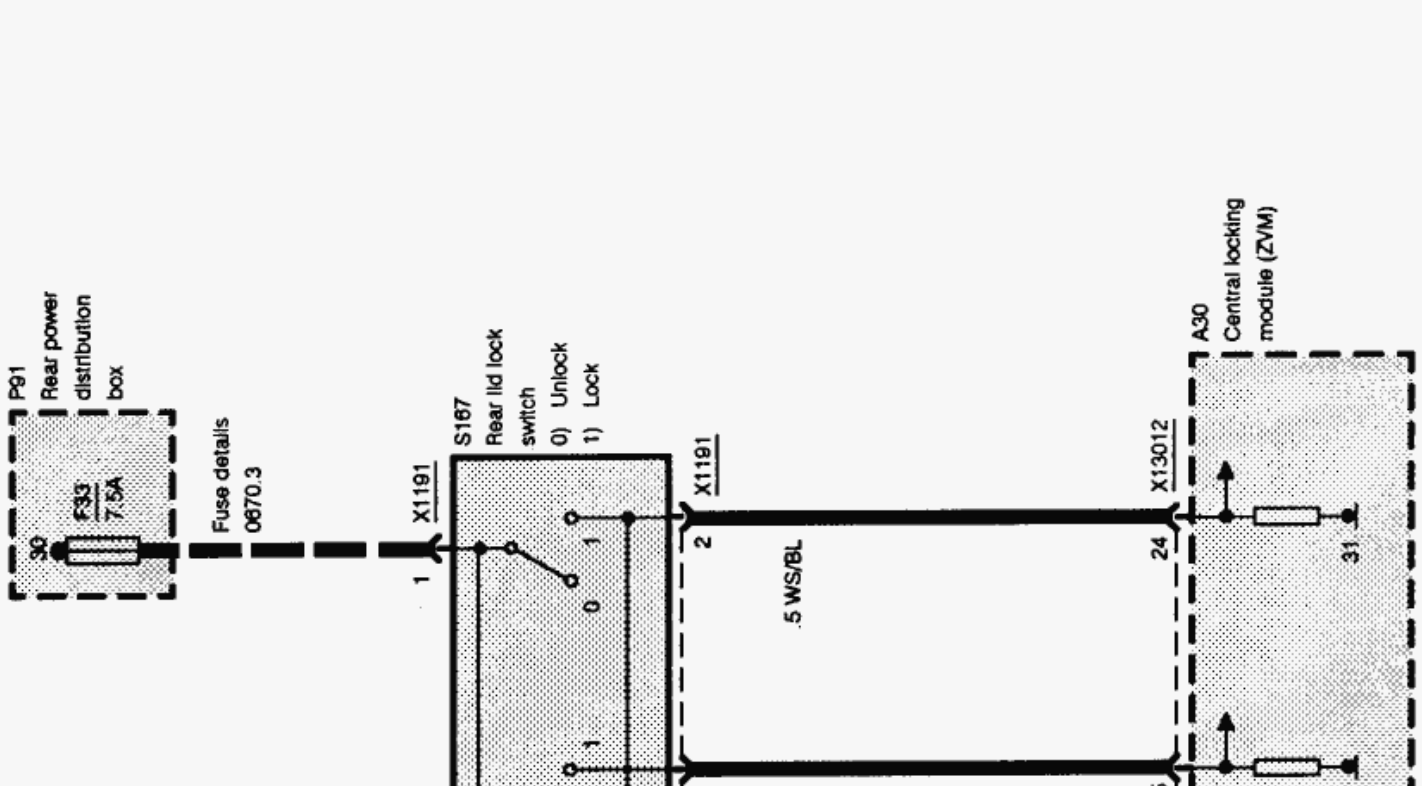

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ral locking module (ZVM)

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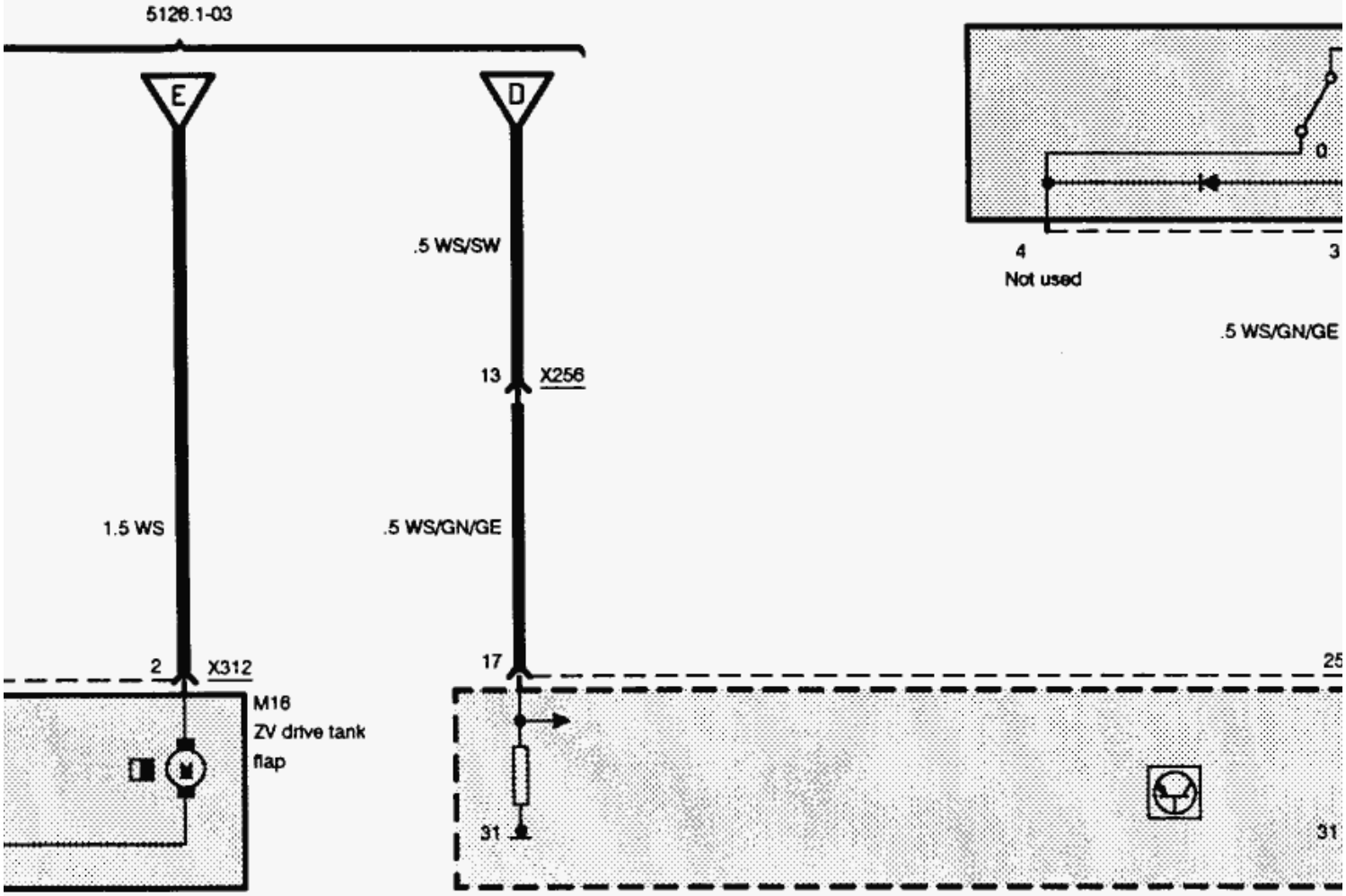

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A30

Central locking

module (ZVM)

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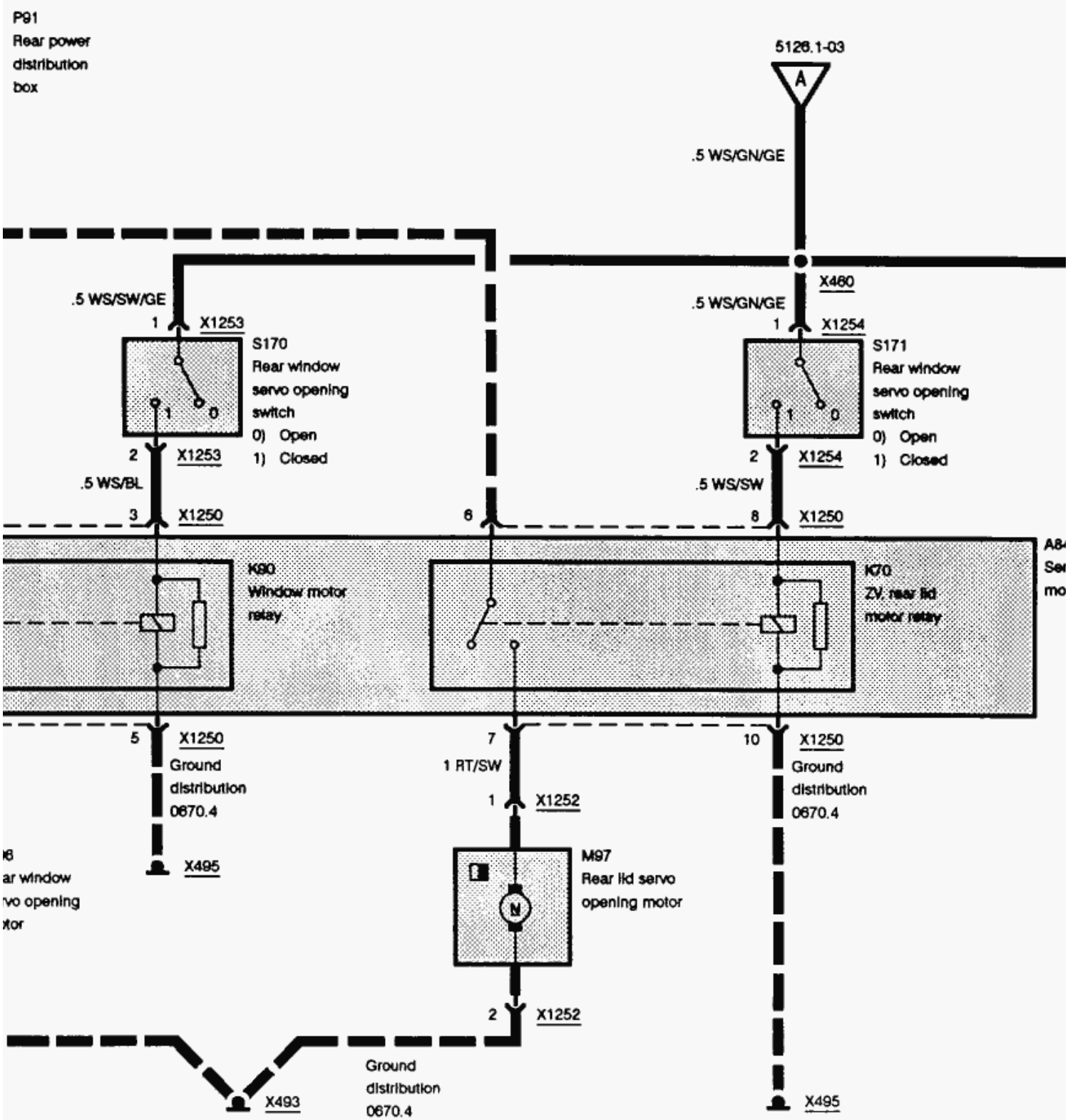
l locking module (ZVM)



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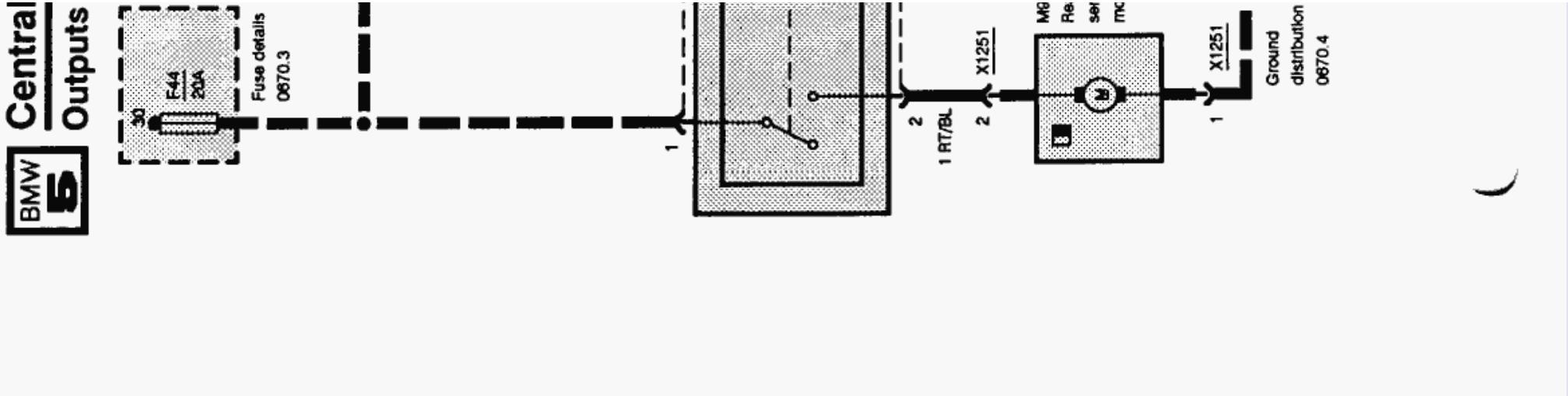

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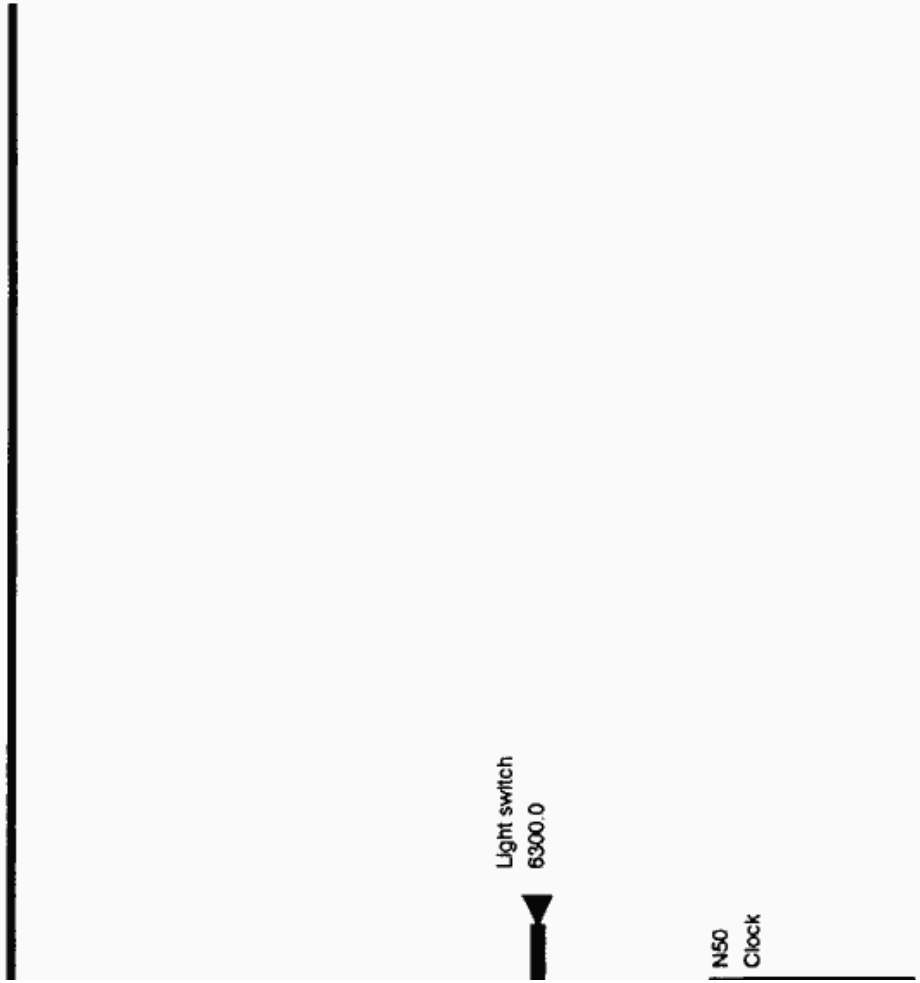
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Clock

Scheme 6213.0

09/93 — 6213.0-00 — 1994



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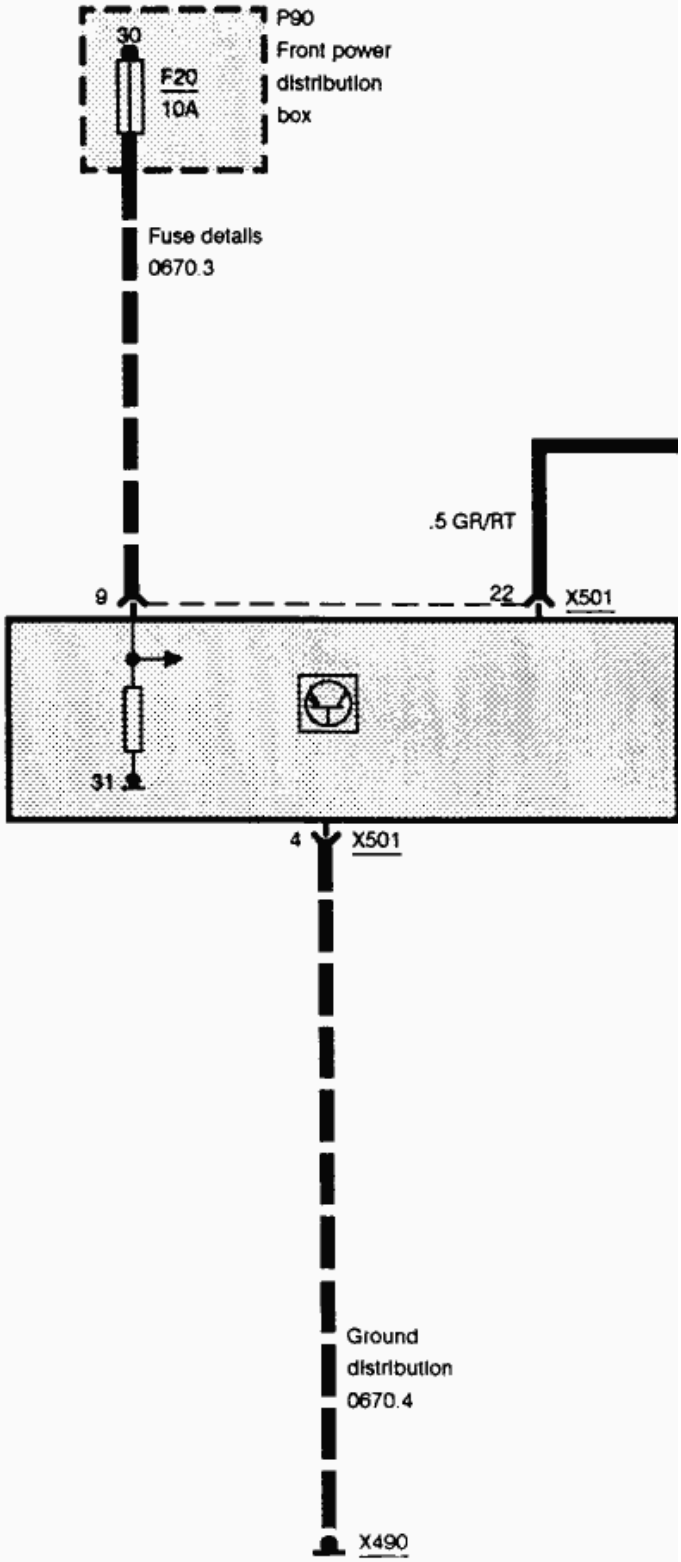
Clock

Without on-board computer



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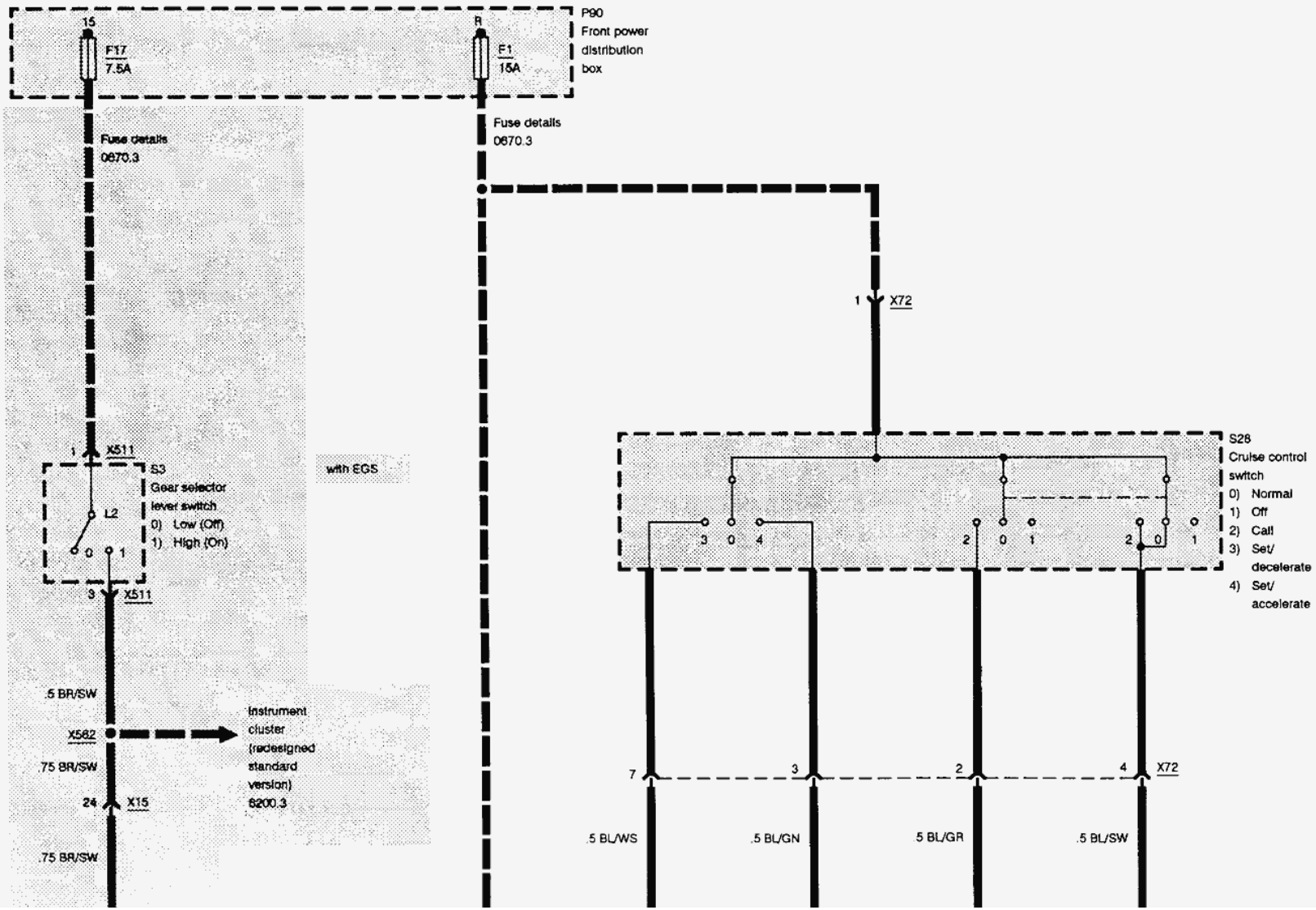
Cruise control
Scheme 6571.0

Cruise control



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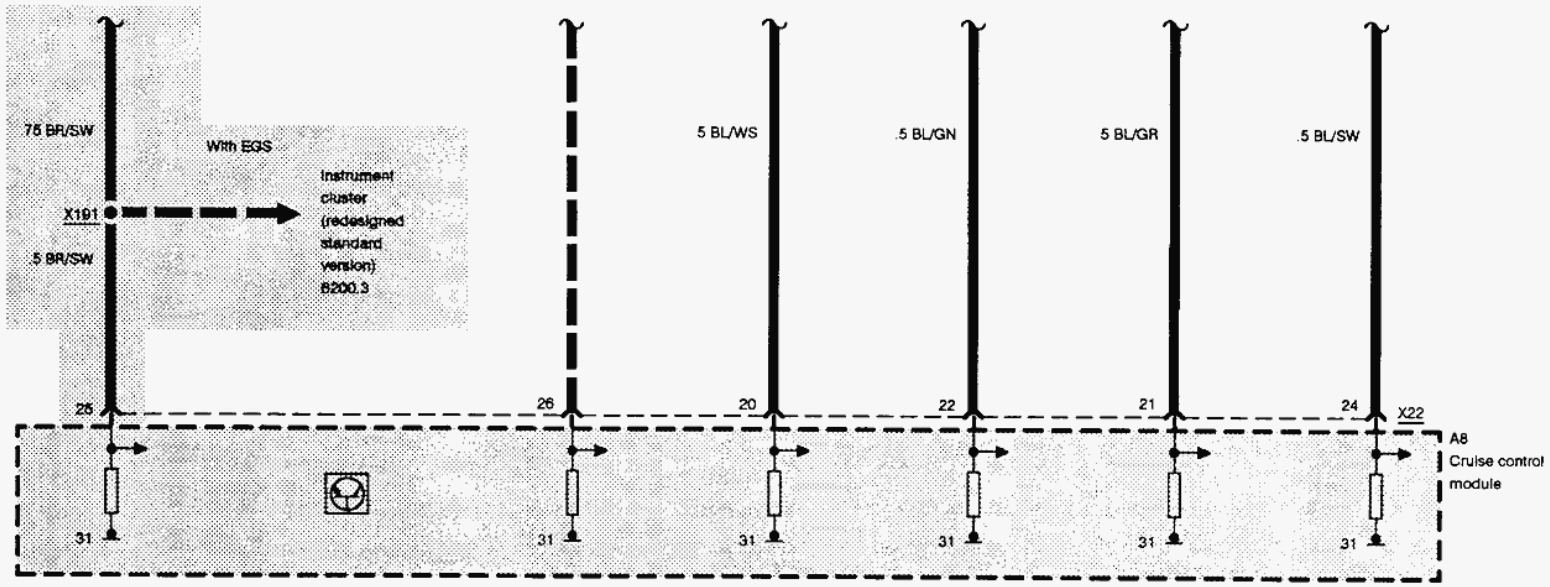

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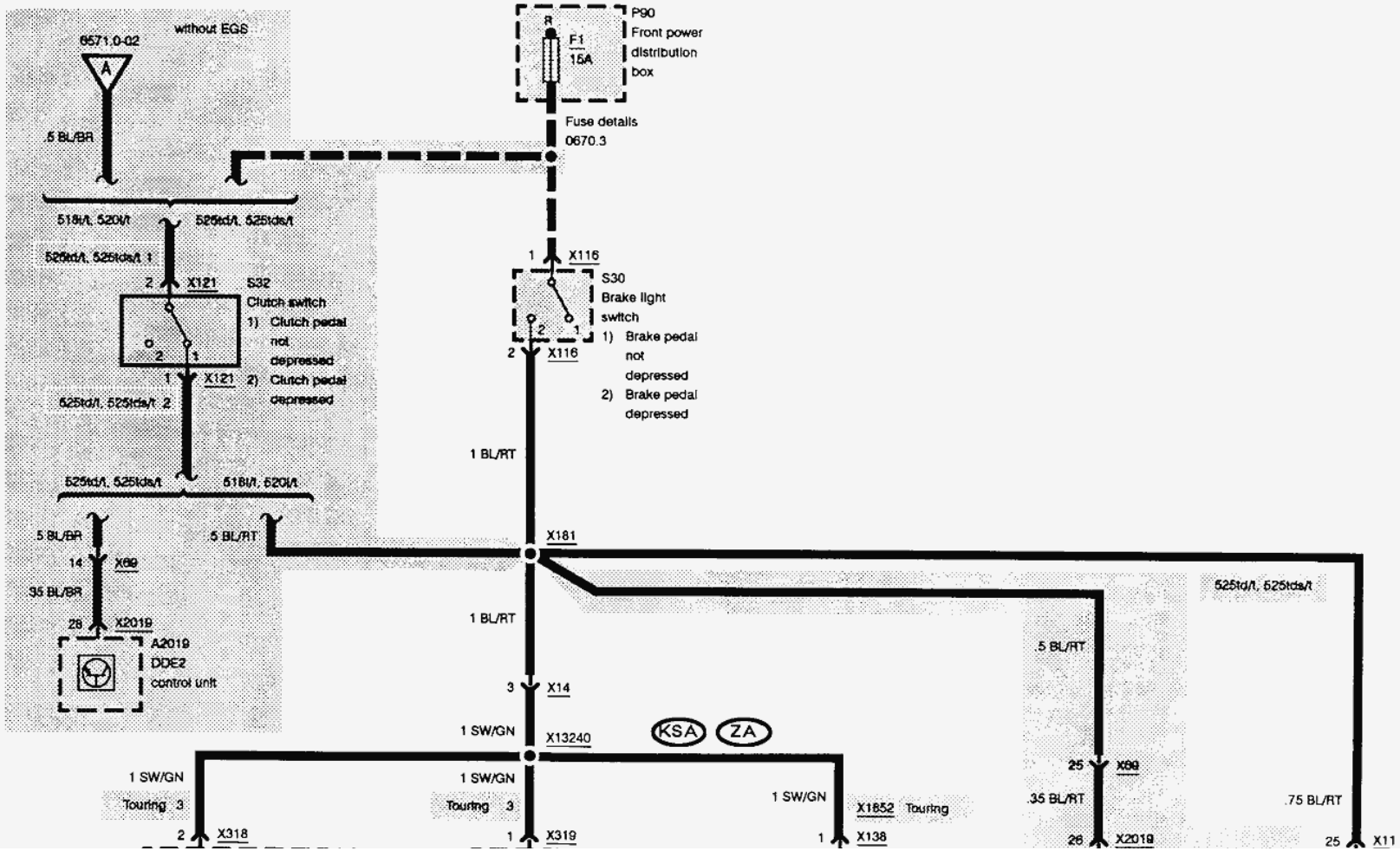
Cruise control



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5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Double-panel sunroof (ZVM)
Scheme 5410.3

Pin Assignment	
X13085	10-pin
X13086	18-pin

Pin Assignment X13085

Pin	Type	Description/Function	Connection
1	E	Voltage terminal 30	Power distribution box
2	M	Ground signal -	Motor - front cover
3	A	Component supply +	Motor - front cover
4	M	Ground signal -	Motor - rear cover
5	A	Component supply +	Motor - rear cover
6	M	Control unit ground	Ground connection
7	A	Component supply +	Pulse generator - front lid
8	A	Component supply +	Pulse generator - rear lid
9	M	Ground	DDSHD switch
10	E	Voltage terminal 30 ES	General module

Pin Assignment X13086

Pin	Type	Description/Function	Connection
1	E	Position signal	Pulse generator - front lid
2		not used	
3	E	Position signal	Pulse generator - front lid
4	E	Position signal	Pulse generator - front lid
5		not used	
6	E	Control signal	Relay module
7	A	RxD signal	Diagnostic connector
8	E	Switch closed	DDSHD switch
9	E	Switch closed	DDSHD switch
10	E	Position signal	Pulse generator - rear lid
11		not used	
12	E	Position signal	Pulse generator - rear lid
13	E	Position signal	Pulse generator - rear lid
14		not used	
15	E/A	TxD signal	Diagnostic connector
16	E	MSD+	Relay module
17	E	Switch closed	DDSHD switch
18		not used	

E = Input, A = Output, M = Ground

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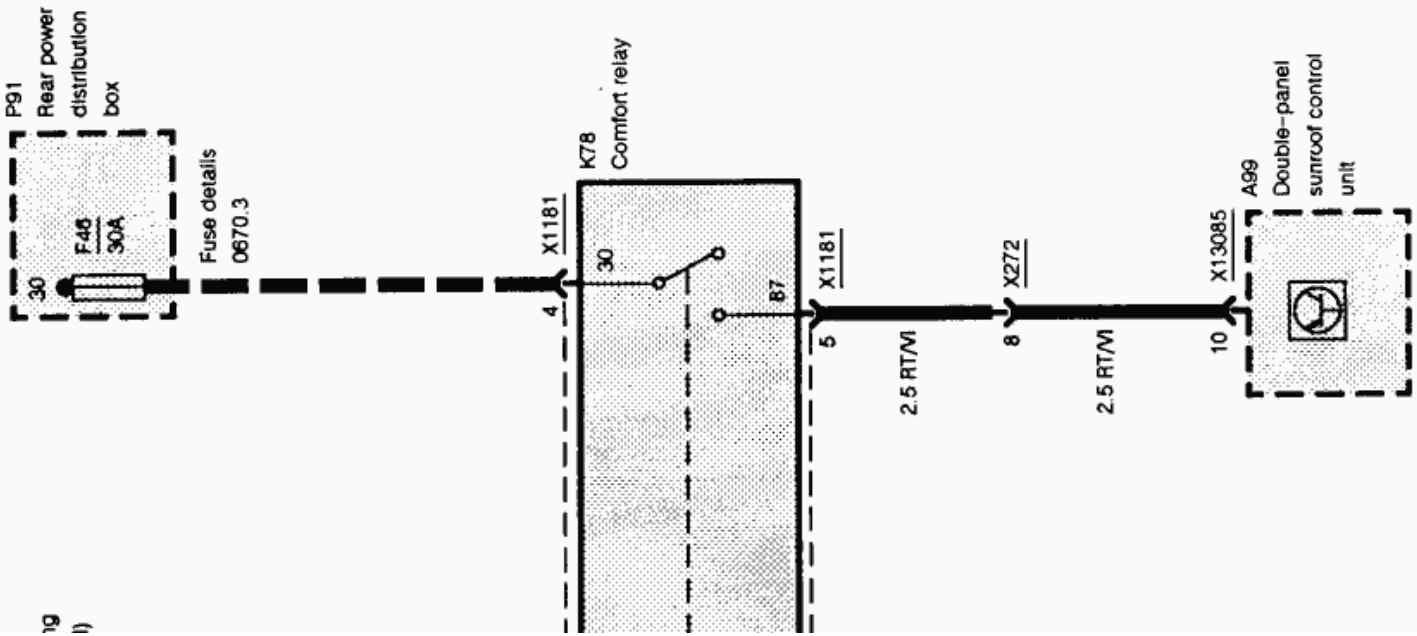

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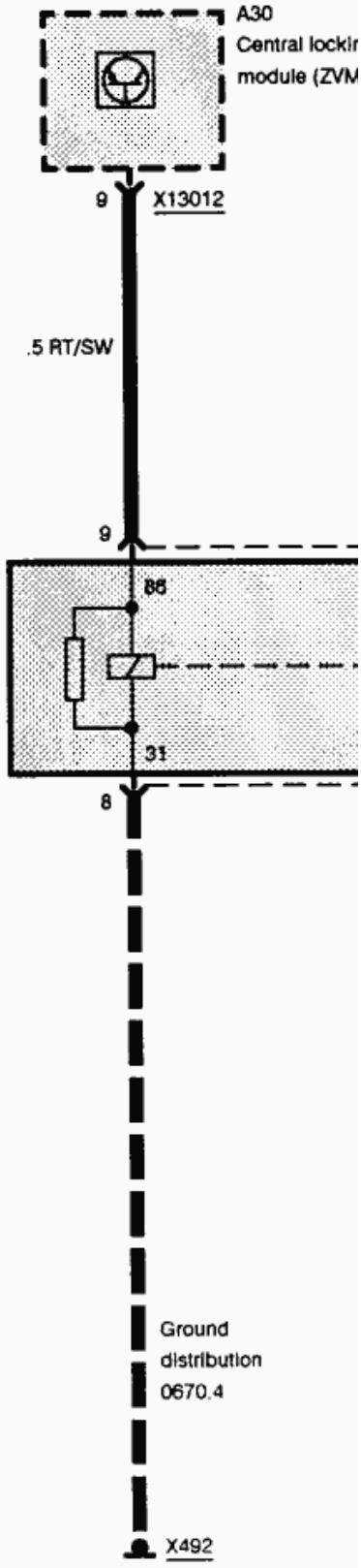
Double-panel sunroof (ZVM)



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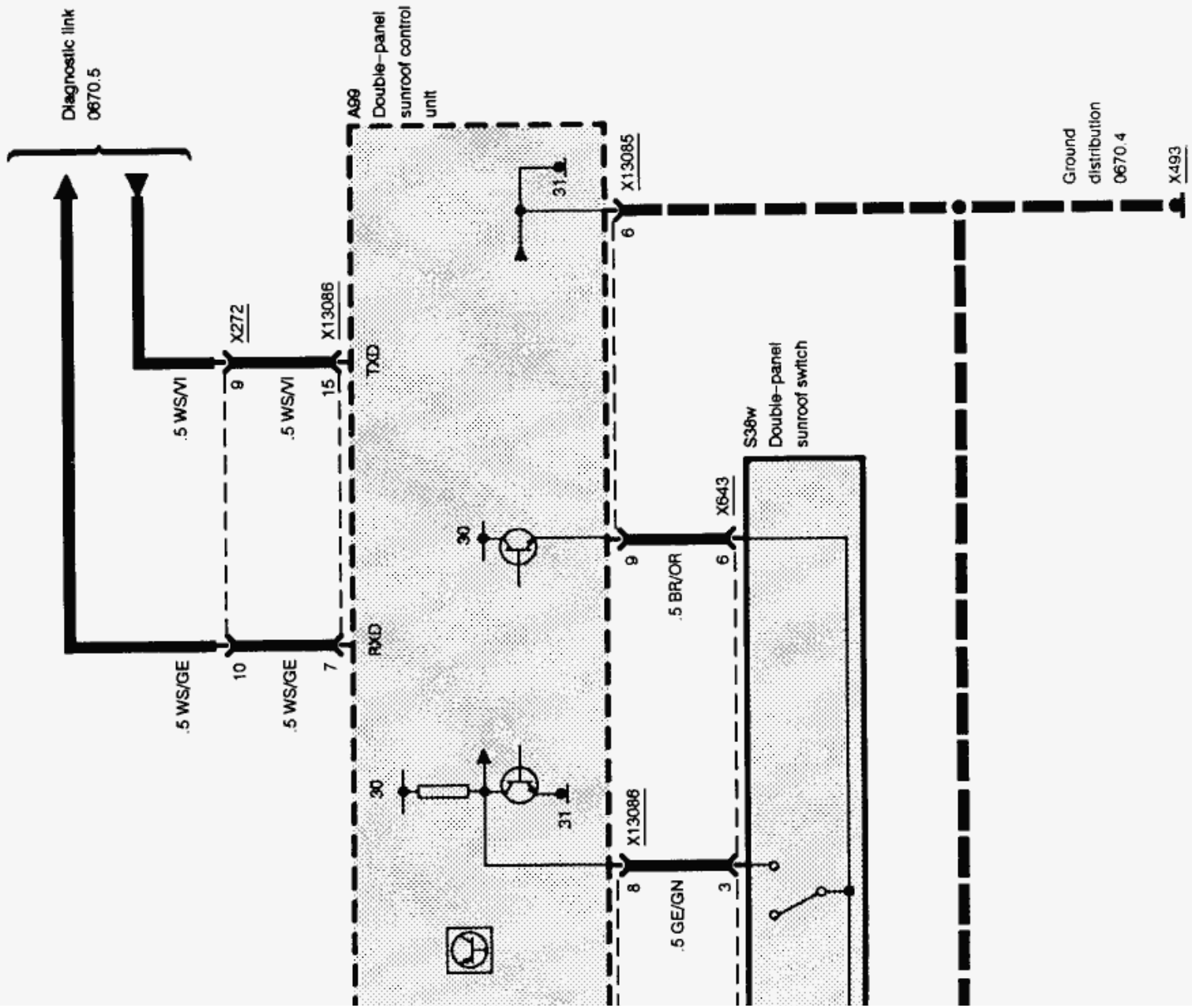

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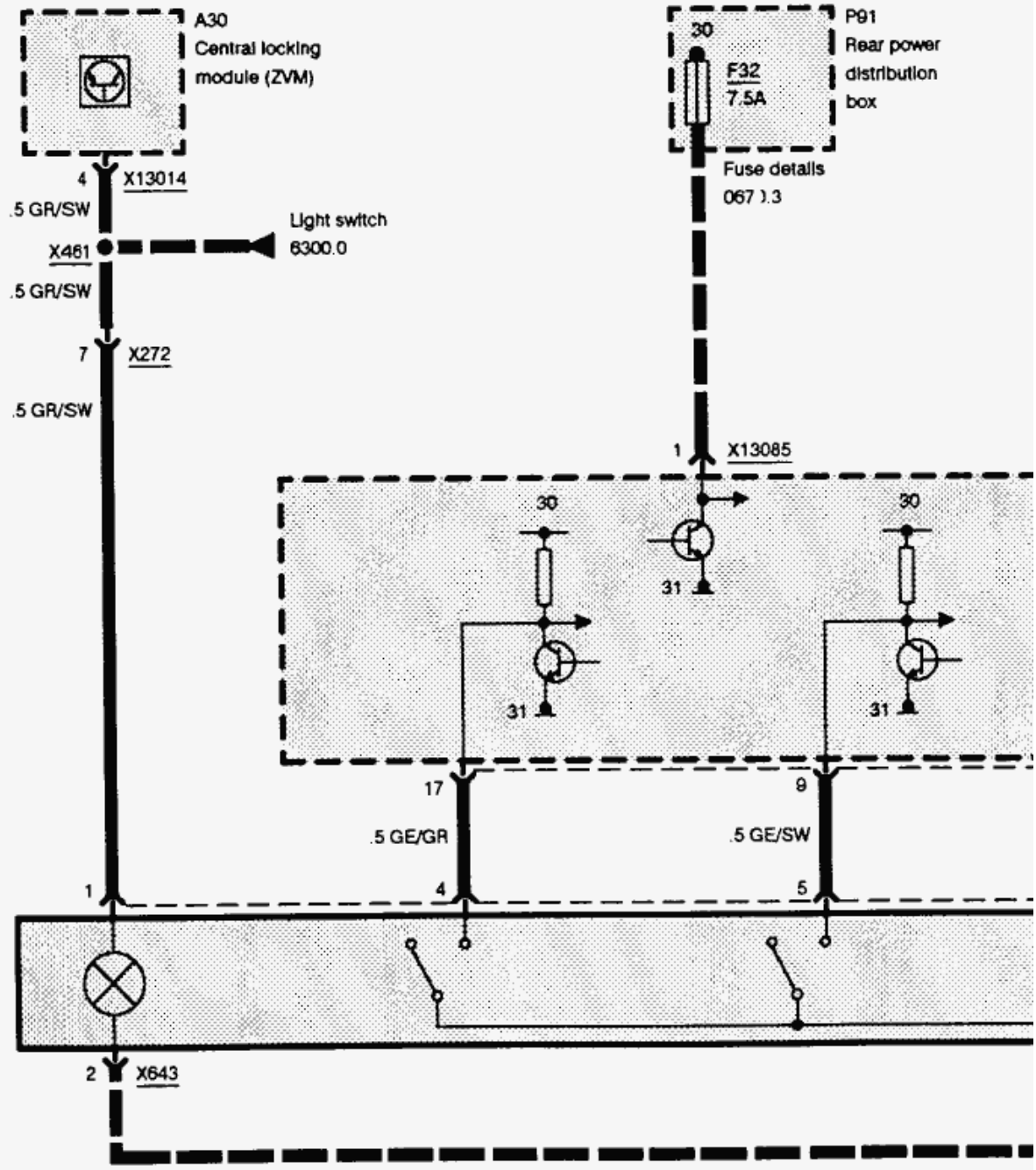
Double-panel sunroof (ZVM)



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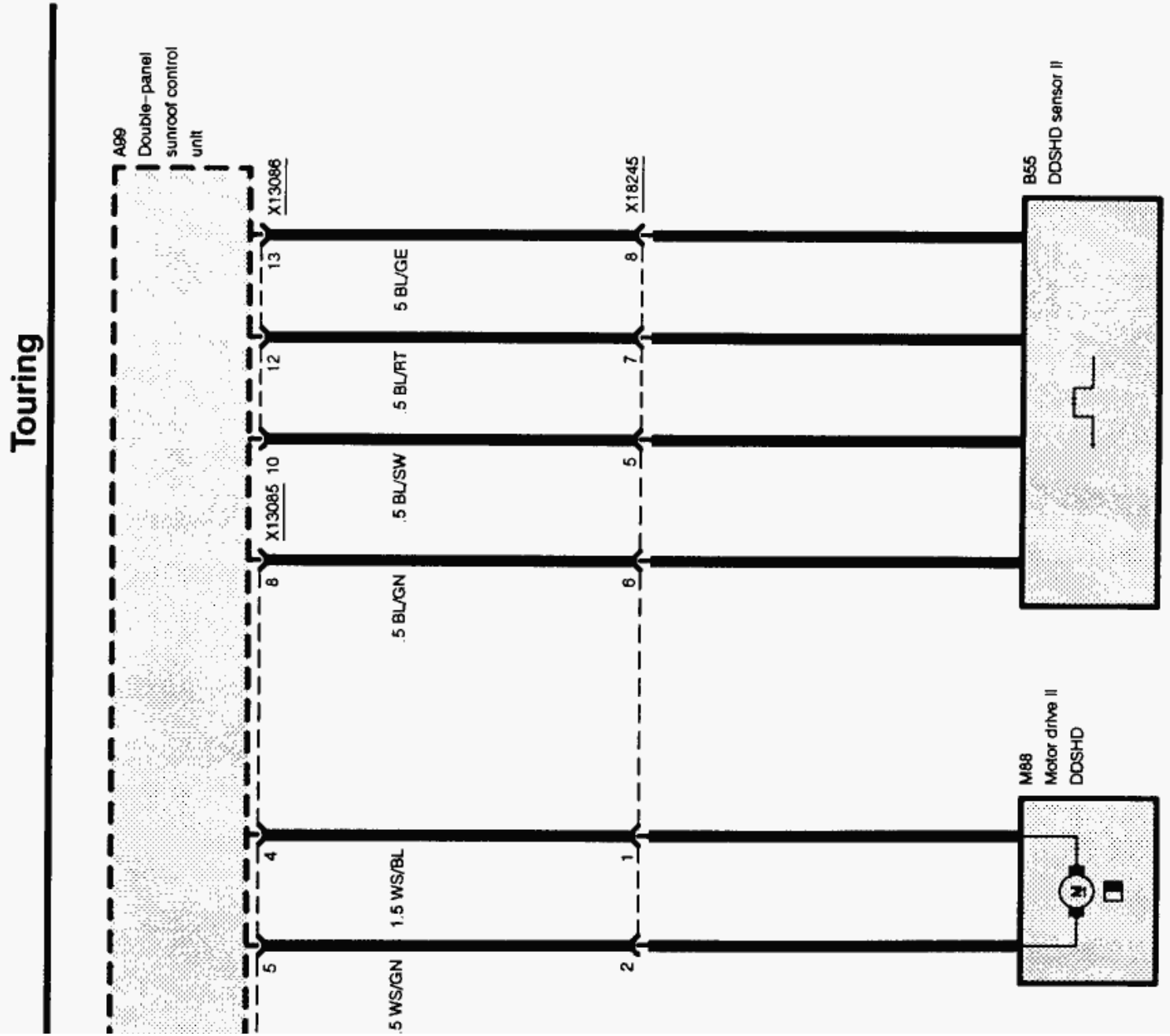

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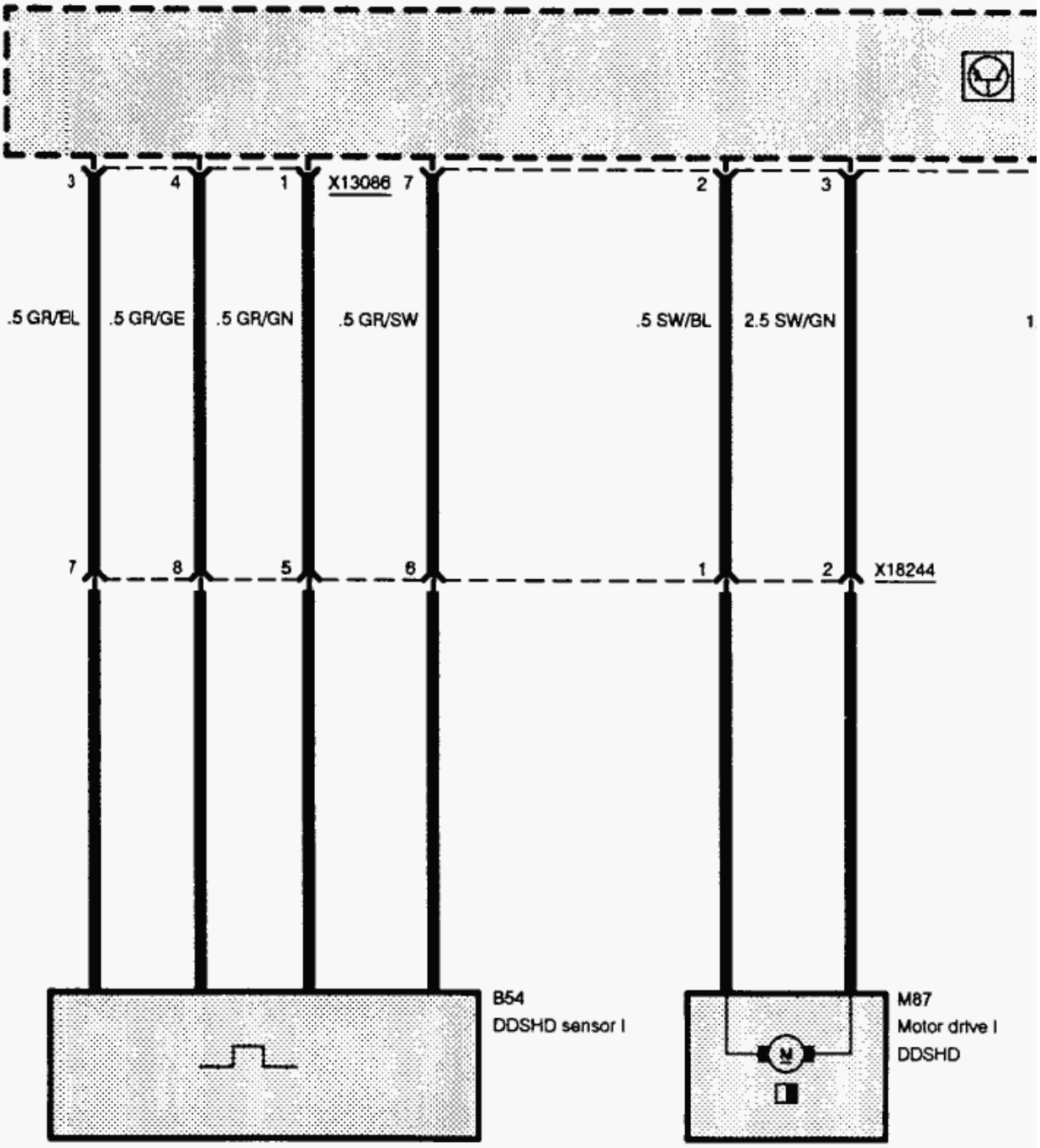
Double-panel sunroof (ZVM)



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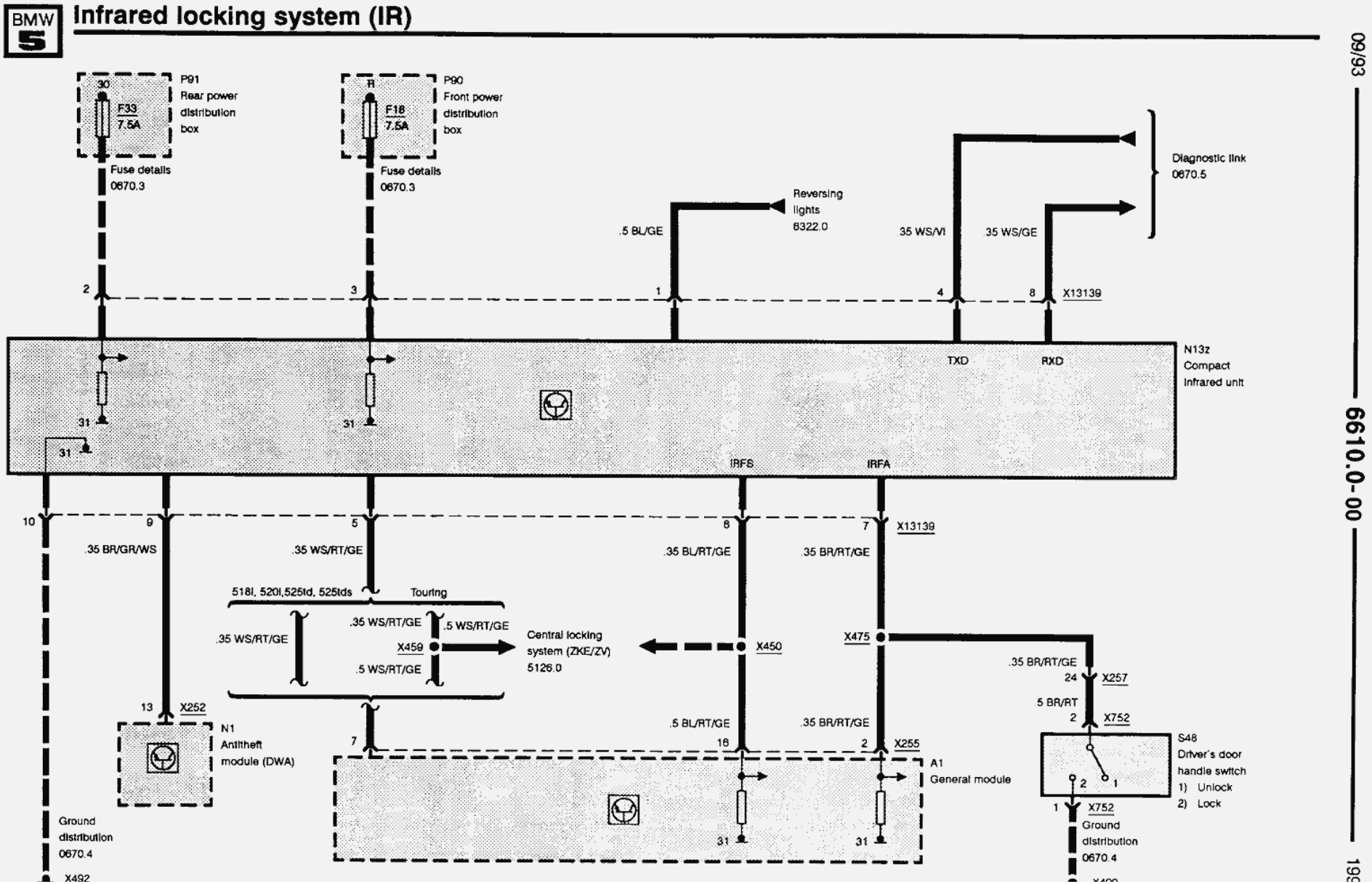
Infrared locking system (IR)
Scheme 6610.0



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Component location chart

Scheme 7000.0

BMW Component location chart			
Com-ponent	**Name**	**Location**	**Page - Fig. 7100.0 8500.0**
A1	General module	Under LH side of rear seat in rear power distributor box	00-3
A5	Relay module	Under LH side of rear seat in rear power distributor box	00-3
A6	Trailer module (AHM)	In rear LH side of glove compartment	
A7	ABS control unit	Rear RH side of engine compartment in electronics box	00-1
A8	Cruise control module	Rear RH side of engine compartment in electronics box	00-1
A11	Automatic climate control module (IHKA)	Between front footwell ahead of IHKA housing	
A12	Airbag diagnostic module	Under LH side of dash	19-1
A14	Independent heating/ventilation control unit	In RH side of luggage compartment	25-3
A15	Relay box independent heating/ independent ventilation	Behind RH footwell speaker trim cover	
A17	Servotronic control unit	Behind LH footwell speaker trim cover	
A18	Hifi amplifier	In rear LH side of glove compartment	27-1
A18	Hifi amplifier	In rear LH side of glove compartment	27-2
A28	Wipe/wash module	Under LH side of rear seat in power distribution box with ZVM	21-3
A2w	Instrument cluster	LH side of dash behind steering wheel	
A30	Central locking module (ZVM)	Under LH side of rear seat in power distribution box with ZVM	21 -3
A32	Heating control unit	Centre of dash on RH side of heater control panel	
A36	Rear wipe/wash interval control unit	RH side of loading area	27-3
A59	Diode module	Rear LH side of engine compartment in power distribution box	04-3
A81	Parking aid control unit	In LH side of luggage compartment	
A82	Sun shade control unit	Under rear window shelf	
A84	Servo relay module	RH side of loading area behind side panel	
A99	Double-panel sunroof control unit	In head lining	26-1

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A113	Electronic seat control	Under passenger's seat	
A22z	Electrochromatic rear view mirror	In windscreen header	
A32w	Temperature regulator automatic heating control 3 (IHRF3)	Centre of dash on RH side of heater control panel	
A400	Fuse box 1 (red)	In RH side of luggage compartment	29-1
A401	Fuse box 2 (blue)	In RH side of luggage compartment	29-1
A417	AUC control unit	Behind LH footwell speaker trim cover	
A87w	Automatic climate control unit 3 (IHKR/ F3)	LH side of RH footwell	17-3
A2019	DDE2 control unit	Rear RH side of engine compartment in electronics box	00-2
A2154	EGS control unit	Rear RH side of engine compartment in electronics box	
A6000	DME control unit	Rear RH side of engine compartment in electronics box (525i)	00-1
A7000	EGS control unit	In electronics box	11 -1
A8500	EGS control unit	In electronics box	11 -1
A8550	EGS control unit	In electronics box	11 -1
B1	Front right ABS sensor	Behind RH front wheel	
B2	Front left ABS sensor	Behind LH front wheel	14-1
B3	Rear right ABS sensor	Behind RH rear wheel	14-2
B4	Rear left ABS sensor	Behind LH rear wheel	
B6	Immersion tube sensor	In RH side of luggage compartment	25-1
B10	Speedometer reed contact	Under rear of vehicle	14-3
B11	Left heat exchanger sensor	On LH IHKR/F3 housing	17-1
B12	Right heat exchanger sensor	LH side of RH footwell	17-3
B13	Outside temperature sensor	Rear LH side of engine compartment	04-2
B14	Evaporator sensor	On LH IHKR/F3 housing	17-1
B15	Electrohydraulic converter of servotronic	Front LH side of engine compartment	
B16	Front left brake pad sensor	On LH front wheel, above brake calliper	14-1
B17	Rear right brake pad sensor	On RH front wheel, above brake calliper	14-2
B18	Brake fluid level switch	LH side of engine compartment	08-2
B21	On-board computer temperature sensor	Under front RH bumper	12-2
B26	Left footwell sensor	Above LH footwell-dash	
B27	Right footwell sensor	Above RH footwell-dash	
B28	Gradient monitor (DWA)	In front LH side of luggage compartment	
B34	Rear left converter	In LH side of rear bumper	
B35	Rear centre left converter	In LH side of rear bumper	
B36	Rear centre right converter	In RH side of rear bumper	
B37	Rear right converter	In RH side of rear bumper	
B54	DDSHD sensor I	In head lining	
B55	DDSHD sensor II	In head lining	26-1
B8y	Pressure switch	Front RH side of engine compartment ahead of wheel well	

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B9y	Pressure switch	Front RH side of engine compartment ahead of wheel well	
B414	AUC sensor	Centre of dash	
B900	Jumper	Rear LH side of engine compartment in front power distributor	
B2009	Remote thermometer sensor	Front of engine on thermostat housing (525td/t, 525tds/t)	
B2011	Solenoid valve, injection timing device	LH side of engine (525td/t, 525tds/t)	
B2012	Charge air temperature sensor	LH side of engine (525td/t, 525tds/t)	
B2013	Engine speed sensor	LH side of engine (525td/t, 525tds/t)	
B2014	Charge pressure sensor	LH side of engine compartment ahead of LH spring start dome (525td/t, 525tds/t)	
B2015	Coolant temperature sensor	LH side of engine (525td/t, 525tds/t)	
B2016	Water level sensor Fuel filter	Front LH side of engine compartment (525td/t, 525tds/t)	
B2017	Changeover valve for exhaust gas recirculation (AGR)	LH side of engine compartment (525td/t, 525tds/t)	
B6200	Heated oxygen sensor	Under centre of car on catalytic converter	
B6203	Crankshaft sensor	RH front of engine	
B6204	Camshaft sensor	RH front of engine	
B6205	Intake air temperature sensor	Front of engine on thermostat housing (520i/t)	07-1
B6205	Intake air temperature sensor	Near throttle valve housing (518i/t)	08-3
B6208	Camshaft control	Front of engine	
B6209	Hall sensor, camshaft	Front of engine	08-1
B6217	Hot film air mass meter	Front top of engine	
B6231	Oil pressure switch	Front of engine compartment below intake manifold (5181)	06-1
B6231	Oil pressure switch	Front of engine	08-1
B6232	Remote thermometer sensor	On front LH side of engine (520i/t)	08-1
B6233	Air flow meter	Front LH side of engine compartment (518i)	
B6236	Coolant temperature sensor	Front of engine	08-1
B6241	Knock sensor 1 (cyl. 1 and 2)	LH side of engine	
B6242	Knock sensor 2 (cyl. 3 and 4)	LH side of engine	
B9508	Pressure switch	Front RH side of engine compartment	11 -3
C101	Volute spring	On steering wheel	13-1
C900	Lockout relay	In top of RH C-post	15-3
D100	Diagnostic connector	Rear LH side of engine compartment	04-1
D100	Diagnostic connector	Rear LH side of engine compartment (525td/t, 525tds/t)	12-1
E9	Rear window defogger I	In rear window	
E10	Rear defogger/antenna	In rear window	
E11	Left high beam		
E12	Right high beam		

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E13	Left headlight		
E14	Right headlight		
E15	Left parking light		
E16	Left tail light	Rear of car left	
E17	Right tail light	Rear of car right	
E19	Right parking light		
E26	Left fog light		
E27	Right fog light		
E28	Front cigar lighter	Centre console	
E29	Front cigar lighter light	Centre console	
E33	Rear lid lamp	Underside of rear lid	
E34	Interior/reading lamp, front	In windscreen header	
E35	Driver's make-up mirror light	In windscreen header	
E36	Passenger's make-up mirror light	In windscreen header	
E39	Interior light, left rear	In top of LH C-post	15-1
E40	Interior light, right rear	In top of RH C-post	
E42	Glove compartment light	Right of glove compartment top	
E43	Left licence plate light	Underside of rear lid	
E44	Right licence plate light	Underside of rear lid	
E45	Cassette player lights	Centre of dash	
E46	Left rear lid light	In rear lid	
E47	Right rear lid light	In rear lid	
E48	Door lock heating	Driver's door next to door lock	
E50	Independent heating	Rear RH side of engine compartment	
E51	Left windscreen washer jet heater	Underside of front lid	12-3
E52	Right windscreen washer jet heater	Underside of front lid	12-3
E56	Driver's backrest heating	In bottom of LH backrest	
E57	Driver's seat heating	Driver's seat	
E58	Passenger's seat heating	Passenger's seat	
E59	Passenger's backrest heating	In bottom of RH backrest	
E41y	Mixing actuator	Centre of dash	
E45y	Cassette box light	Centre of dash	
E2000	Fuel heating	Rear LH side of engine compartment (525td/t, 525tds/t)	
F51	Fuse (25A)	In RH side of luggage compartment	25-3
F52	Fuse (10A)	In RH side of luggage compartment	25-3
F53	Fuse (15A)	In RH side of luggage compartment	25-2
F98	Fuse link (80A)	RH side of engine compartment	
G1	Battery	Under LH side of rear seat (520i/t)	21 -2
G1	Battery	Front RH side of engine compartment (518i/t)	
G3	Auxiliary battery	In RH side of luggage compartment	25-2
G5	Driver's airbag gas generator	On steering wheel	13-1

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G6	Passenger's airbag gas generator 1	RH side of dash	
G2023	Alternator	LH bottom of engine compartment (525td/t, 525tds/t)	
G6430	B + external start terminal point	Rear RH side of engine compartment	01-3
G6509	Alternator	LH side of engine	06-1
H1	Antitheft horn (DWA)	Rear LH side of engine compartment	04-2
H2	Left horn	Front LH side of engine compartment	13-2
H3	Right hom	Front RH side of engine compartment	13-2
H4	Front right flasher unit		
H5	Rear right flasher unit		
H6	Rear left flasher unit		
H7	Front left flasher unit		
H8	Front right auxiliary flasher unit		
H9	Front left auxiliary flasher unit		
H10	Gong I	LH footwell	19-2
H24	Left brake light	LH side of body rear end	
H25	Tail light, left	LH side of body rear end	
H26	Left rear fog light	LH side of body rear end	
H27	Left reversing light	LH side of body rear end	
H28	Right reversing light	RH side of body rear end	
H29	Right rear fog light	RH side of body rear end	
H30	Tail light, right	RH side of body rear end	
H31	Right brake light	RH side of body rear end	
H34	Raised brake light	Rear parcel shelf	
H40	Parking aid speaker	Rear parcel shelf right	
H50	Right front high range speaker	Passenger's door	
H51	Right front low range speaker	Behind RH footwell speaker cover	
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	Passenger's door	
H55	Left front mid-range speaker	Driver's 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	Behind LH footwell speaker cover	
H59	Left front high range speaker	Ahead of LH front door	
H90	Left trunk light	In front LH side of luggage compartment	
H91	Right luggage compartment lamp	In RH side of luggage compartment	
H550	Roof sign light	Roof	
H553	Indicator lamp for roof sign light	Centre of dash	
K1	Starter relay	Rear LH side of engine compartment in power distribution box	05-1
K2	Horn relay	Rear LH side of engine compartment in power distribution box	05-1

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K3	Unloader relay terminal R	Rear LH side of engine compartment in power distribution box	05-2
K4	Heating blower relay	Rear LH side of engine compartment in power distribution box	05-2
K5	Washer pump relay Intensive wash	Rear LH side of engine compartment in front power distributor	
K9	Unloader relay terminal 15	Rear LH side of engine compartment in power distribution box	05-2
K11	Wiper relay	Under LH side of rear seat in rear power distributor box	20-3
K13	Rear defogger relay	Under LH side of rear seat in rear power distributor box	20-3
K14	Auxiliary battery isolating relay	In RH side of luggage compartment	25-2
K15	General module safety relay	Under LH side of rear seat in rear power distributor box	20-3
K16	Hazard flasher relay	Rear LH side of engine compartment in power distribution box	05-2
K19	A/C compressor relay	Rear LH side of engine compartment in power distribution box	05-1
K21	Auxiliary fan stage 1 relay	In auxiliary relay box, LH side of engine compartment	05-3
K22	Auxiliary fan stage 2 relay	Rear LH side of engine compartment in power distribution box (518i/t)	05-1
K22	Auxiliary fan stage 2 relay	In auxiliary relay box, LH side of engine compartment (520i/t)	05-3
K25	Right parking light/licence plate light relay	Under LH side of dash near front lid release lever	
K26	Left parking light relay	Under LH side of dash near front lid release lever	
K33	A/C system relay	In auxiliary relay box, LH side of engine compartment with IHKA	
K44	Reverse polarity relay	Under LH side of rear seat	
K46	High beam relay	Rear LH side of engine compartment in power distribution box	04-3
K47	Fog light relay	Rear LH side of engine compartment in power distribution box	04-3
K48	Headlight relay	Rear LH side of engine compartment in power distribution box	04-3
K54	Door lock heating relay	Under LH side of rear seat in power distribution box	21-3
K61	Unloader relay Term.61	Rear LH side of engine compartment in power distribution box	05-1
K62	Independent heating relay	In front RH side of glove compartment	
K70	ZV, rear lid motor relay	RH side of loading area	27-3
K78	Comfort relay	Under LH side of rear seat in power distribution box	
K79	Fog light relay	Under LH side of dash	
K80	Sweden/Canada coding plug	Under LH side of dash	

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K87	Electrical steering column adjustment relay	Under LH side of dash	
K8b	Water pump relay	Rear LH side of engine compartment in power distribution box	05-1
K90	Window motor relay	RH side of loading area	27-3
K91	Horn relay on-board computer	RH side of loading area behind side panel	
K92	Rear wiper relay II	RH side of loading area behind side panel	
K551	Alarm system relay	In RH side of luggage compartment	29-1
K552	Light relay	In RH side of luggage compartment	29-2
K554	Roof sign light relay	In RH side of luggage compartment	29-2
K555	Horn relay	In RH side of luggage compartment	29-1
K2000	Heater plug relay	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	
K2002	Feed pump relay	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	10-2
K2003	DDE relay	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	10-2
K6300	DME relay	Rear RH side of engine compartment in electronics box	10-1
K6301	Electrical fuel pump relay	Rear RH side of engine compartment in electronics box	10-3
K6303	Oxygen sensor relay	Rear RH side of engine compartment in electronics box	10-1
M2	Fuel pump (EKP I)	In RH side of luggage compartment	25-1
M3	Wiper motor	Under LH fresh air trim	13-3
M4	Washer pump	Front RH side of engine compartment on washer fluid reservoir	
M5	Intensive washer pump	Front RH side of engine compartment on washer fluid reservoir	
M7	Headlight washer pump	Front RH side of engine compartment near windscreen washer reservoir	
M9	Auxiliary fan motor	Vehicle front, behind grille	13-2
M9	Auxiliary fan motor	Vehicle front, behind grille	
M12	Central locking (ZV) drive driver's door	Driver's door	24-1
M13	Central locking (ZV) drive passenger's door	Passenger's door	24-3
M14	Central locking drive rear right	In RH rear door	
M15	Central locking drive rear left	In RH rear door	
M16	ZV drive tank flap	In RH side of luggage compartment	28-1
M17	Central locking drive rear lid	Underside of rear lid	26-2
M20	Power window motor, rear left	In LH rear door	
M21	Driver's window motor	Driver's door	24-2
M22	Power window motor, rear right	In RH rear door	
M23	Passenger's window motor	Inside under cover of RH frame side member	
M24	Sun roof motor	In windscreen header near rear view mirror	15-2

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M24	Sun roof motor	In windscreen header near rear view mirror	16-3
M25	Cruise control actuator (Tempomat)	LH side of engine compartment ahead of LH spring strut dome	06-3
M30	Blower motor	Rear LH side of engine compartment	04-2
M31	Left footwell flap motor	RH side of LH footwell	
M32	Right footwell flap motor	RH side of dash on RH side of IHKA housing	
M33	Right ventilation flap motor	RH side of dash on RH side of IHKA housing	
M34	Right mixing flap motor	LH side of RH footwell	17-3
M35	Defroster flap motor	Under LH side of dash on LH IHKR/F3 housing	
M36	Fresh air flap motor	On LH IHKR/F3 housing	17-1
M36	Fresh air flap motor	On LH side of IHKA housing	
M38	Left ventilation flap motor	Under LH side of dash on LH side of IHKA housing	
M39	Lett mixing flap motor	LH side of dash on LH side of IHKA housing	
M40	Circulation air flap motor	On LH IHKR/F3 housing	17-1
M40	Circulation air flap motor	On LH side of IHKA housing	
M41	Footwell/rear compartment actuator motor	RH side of LH footwell	
M50	Driver's seat cushion tilt motor	Driver's seat	22-2
M51	Driver's seat movement motor	Driver's seat	22-2
M52	Driver's seat height adjustment motor	Driver's seat	22-2
M53	Driver's backrest recliner motor	Driver's seat	22-2
M54	Driver's headrest motor	In top of LH backrest	
M55	Driver's seat lumbar support motor	Under LH front seat	
M56	Passenger's seat lumbar support motor	Passenger's seat	
M57	Passenger's headrest motor	In top of RH backrest	
M58	Passenger's backrest recliner motor	Passenger's seat	
M59	Passenger's seat height adjustment motor	Passenger's seat	
M60	Passenger's seat movement motor	Passenger's seat	
M61	Passenger's seat cushion tilt motor	Passenger's seat	
M65	Driver's thigh support motor	Driver's seat	22-2
M66	Passenger's thigh support motor	Passenger's seat	
M74	Sun shades motor	Rear parcel shelf	
M80	Left headlight beam angle adjust actuator	Near front LH headlight	

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M81	Right headlight beam angle adjust actuator	Near front RH headlight	
M82	Steering column adjustment motor	Bottom of steering column	17-2
M87	Motor drive I DDSHD	In head lining	
M88	Motor drive II DDSHD	In head lining	26-1
M94	Rear wiper motor	Rear loading area on rear lid behind trim	
M95	Rear washer pump	RH side of loading area behind side panel	28-2
M96	Rear window servo opening motor	In rear lid	26-3
M97	Rear lid servo opening motor	In rear lid	26-3
M37a	Auxiliary water pump	Rear LH side of engine compartment (518i/t)	04-1
M37b	Auxiliary water pump	Rear LH side of engine compartment (525td/t, 525tds/t)	12-1
M2025	Starter	LH side of engine (525td/t, 525tds/t)	
M6510	Starter	LH side of engine (518i/t) (520i/t)	
N1	Antitheft module (DWA)	Under LH side of rear seat	
N2	Output stage	LH side of RH footwell	
N3	Dimmer	LH side of dash	
N4	On-board computer	Centre of dash	
N6	Headlight washer module (SRA)	In auxiliary relay box, LH side of engine compartment	05-3
N8	AM/FM antenna amplifier	In top of LH C-post	15-1
N9	Radio	Centre of dash	
N10	Multi-function clock	Centre of dash	
N17	Crash alarm sensor	Rear LH side of engine compartment in power distribution box	04-3
N20	Radio receiver	In front LH side of luggage compartment	
N22	CD changer	In luggage compartment	27-2
N50	Clock	Centre of dash	
N13z	Compact infrared unit	Under LH side of rear seat in power distribution box	20-2
N404	Diversity	In top of LH C-post	
N444	FM amplifier HLO	In top of LH C-post	
N550	Pulse adaptor speedometer	Behind dash	
N551	Taximeter	Centre of dash	
P90	Front power distribution box	Rear LH side of engine compartment	01 -3
P91	Rear power distribution box	Under LH side of rear seat	
P92	Auxiliary relay box	LH side of engine compartment	06-3
P96	Auxiliary fuse box in luggage compartment	Below RH luggage compartment trim panel	
R1	Temperature distribution potentiometer	RH side of LH footwell	
R10	Pedal value sensor	Behind accelerator pedal	18-1
R11	Blower ballast resistor	On LH IHKR/F3 housing	17-1
R13	Headlight beam angle adjust potentiometer	Behind LH side of dash	

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R21	Rear left door DWA conductor loop	In LH rear door	
R22	Rear right door DWA conductor loop	In RH rear door	
R6240	Resistor	Top centre of engine	11-2
R6252	Throttle potentiometer	Front of engine	
S2	Ignition switch	Top of steering column behind steering wheel	
S3	Gear selector lever switch	Centre console	16-2
S4	Horn switch	Top of steering column	
S5	Windscreen wiper switch	Top of steering column	
S7	Turn indicator/low beam selector	Top of steering column	
S8	Light switch	LH side of dash	
S9	Light switch	LH side of dash	
S10	Fog light switch	LH side of dash	
S13	Passenger's door contact switch	Ahead of RH rear door	
S14	Driver's door contact switch	Ahead of LH rear door	
S15	Rear RH door contact switch	Rear right door post	
S16	Rear LH door contact switch	LH rear door jamb	
S17	Driver's power mirror switch	Driver's door	
S18	Hazard warning switch	Centre console bottom	
S20	Antitheft (DWA) radio microswitch	Centre of dash	
S21	Front lid microswitch	Rear LH side of engine compartment behind LH spring strut dome	
S22	Battery microswitch (DWA)	Under RH side of rear seat near battery	
S24	Rear seat microswitch (DWA)	Under RH side of rear seat	
S26	IHKA operating switch	Centre of dash	
S27	Inertia switch	Under LH side of rear seat	21 -1
S28	Cruise control switch	Top of steering column	
S30	Brake light switch	On brake pedal support bracket	18-1
S31	Handbrake switch	Centre console	
S32	Clutch switch	On clutch pedal support bracket	18-1
S36	Dual temperature switch 91 °/990	RH top of radiator	09-1
S37	Glove compartment light switch	Left of glove compartment	16-1
S38	Sunroof switch (SHD)	In windscreen header near rear view mirror	16-3
S39	Sunroof position sensor (SHD)	In windscreen header near rear view mirror	15-2
S40	Power window switch (centre console)	Centre console	
S41	Rear left power window switch	In LH rear door	
S42	Rear right power window switch	In RH rear door	
S43	Driver's window end position sensor	Driver's door behind trim	
S44	Passenger's window end position sensor	Passenger's door behind trim	
S45	Power window end position sensor, rear left	In LH rear door behind trim	

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S46	Power window end position sensor, rear right	In RH rear door behind trim
S47	Driver's door lock switch	Driver's door behind door trim panel
S48	Driver's door handle switch	Driver's door behind door trim panel
S49	Passenger's door lock switch	Passenger's door
S51	Driver's seat adjustment switch	Driver's seat
S52	Driver's lumbar support switch	Driver's seat
S53	Driver's seat heating switch	Driver's seat
S54	Passenger's seat heating switch	Passenger's seat
S55	Passenger's lumbar support switch	Passenger's seat
S56	Passenger's seat adjustment switch	Passenger's seat
S58	Driver's seat belt buckle switch	In LH front seat belt buckle
S61	Rear lid light switch	Underside of rear lid left
S63	Coolant level switch	Under radiator
S64	Wash water level switch	Front RH side of engine compartment on washer fluid reservoir
S75	Blower switch	Centre of dash in centre of heater control panel
S76	Rear window heating switch	Centre of dash
S77	Driver's make-up mirror switch	Above LH sun visor
S78	Passenger's make-up mirror switch	Above RH sun visor
S92	Reversing light switch (manual transmission)	Below centre console
S93	Switch for driver's seat thigh support	Driver's seat
S94	Switch for passenger's seat thigh support	Passenger's seat
S99	Passenger's window monitoring switch (DWA)	Passenger's door
S100	Driver's window monitoring switch (DWA)	Driver's door
S101	Rear right window monitoring switch (DWA)	In RH rear door
S102	Rear left window monitoring switch (DWA)	In LH rear door
S110	Sun shades switch	Centre of console
S147	Rear window opening switch	On rear lid
S148	DWA conductor loop, rear left side window	In LH rear door
S149	DWA conductor loop, rear right side window	In RH rear door
S167	Rear lid lock switch	On rear lid
S170	Rear window servo opening switch	On rear lid

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S171	Rear window servo opening switch	On rear lid	
S172	Rear lid switch	On rear lid	
S198	Thermal switch, heated jets	Front LH side of engine compartment	
S38w	Double-panel sunroof switch	In windscreen header near rear view mirror	16-3
S551	Roof sign light switch	Centre of dash	
S552	Alarm sensor ON	LH side of dash	
S553	Alarm sensor OFF	LH side of dash	
S119z	Steering column adjustment switch	LH side of dash	
S134w	IHKR/F3 Operating panel	Centre of dash	
S135w	IHKR/F3 switch unit	Centre of dash	
S2000	Temperature switch, radiator shutter	Front of engine on thermostat housing	
S2001	Changeover valve radiator shutter	LH side of engine compartment	
S2138	A/C fan II switch	RH side of engine compartment	
S2156	Temperature switch, radiator shutter	Rear RH side of engine compartment in electronics box	
S8503	Program switch	Centre console	
S8507	Kick-down switch	Behind accelerator pedal	
T6150	Ignition coil	Rear RH side of engine compartment (518i/t)	
T6151	Ignition coil 1	RH side of engine (520i/t)	07-2
T6152	Ignition coil 2	RH side of engine (520i/t)	07-2
T6153	Ignition coil 3	RH side of engine (520i/t)	07-2
T6154	Ignition coil 4	RH side of engine (520i/t)	07-2
T6155	Ignition coil 5	RH side of engine (520i/t)	07-2
T6156	Ignition coil 6	RH side of engine (520i/t)	07-2
U2	Telephone C-network	In front LH side of luggage compartment	
V4	Daytime light coding diodes	Behind LH side of dash	
V5	Antitheft (DWA) LED	Centre of console	
V6	Decoupling diode	RH side of dash behind glove compartment	
XO	B + terminal point	Under LH side of dash	01 -2
X1	B+ terminal point	Rear LH side of engine compartment Front power distribution box, P90	01-3
X2	B + terminal point	Rear LH side of engine compartment Front power distribution box, P90	01 -3
X3	B + terminal point	Rear LH side of engine compartment Front power distribution box, P90	01 -3
X11	Connector (35-Pins, Natural)	Rear RH side of engine compartment in electronics box	00-3
X13	Connector (21-Pins, White)	Under LH side of dash	18-3 01-3
X14	Connector (30-Pins, Yellow)	Under LH side of dash	18-3 00-4
X15	Connector (30-Pins, White)	LH footwell	19-1 00-4
X16	Connector (26-Pins, Yellow)	Rear of A2w instrument cluster	20-1 01 -1

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X20	Connector (25-Pins, Black)	Rear LH side of engine compartment	04-1 03-4
X20	Connector (25-Pins, Black)	Rear LH side of engine compartment	12-1 03-4
X22	Connector (26-Pins, Blue)	Rear RH side of engine compartment in electronics box	01-1
X26	Connector (1-Pins, (—))	RH side of loading area behind side panel	
X31	Connector (12-Pins, Black)	LH side of engine compartment	08-2 01-6
X32	Connector (12-Pins, White)	LH footwell	19-3 07-3
X33	Connector (12-Pins, Black)	LH footwell	19-3 06-4
X34	Connector (12-Pins, White)	LH footwell	19-1 07-3
X35	Connector (21-Pins, Black)	LH footwell	19-1 01-3
X43	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X44	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X45	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X50	Connector (9-Pins, Black)	In auxiliary relay box, LH side of engine compartment	02-3
X51	Connector (10-Pins, Black)	Rear LH side of engine compartment in front power distributor	15-2
X52	Connector (9-Pins, Black)	In auxiliary relay box, LH side of engine compartment	02-3
X53	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X55	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X56	Connector (10-Pins, Black)	Rear LH side of engine compartment in front power distributor	15-2
X57	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X58	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X61	Connector (9-Pins, Black)	LH side of engine compartment in auxiliary relay box, LH side of engine compartment	05-3 02-3
X63	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X64	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X65	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X69	Connector (25-Pins, White)	Rear LH side of engine compartment right of LH spring strut dome	12-1 03-4
X70	Connector (8-Pins, Black)	LH side of engine compartment ahead of LH spring strut dome	01-5
X72	Connector (8-Pins, White)	LH footwell	19-3 13-2
X73	Connector (8-Pins, Black)	In bottom of LH backrest	03-1
X74	Connector (12-Pins, Orange)	LH side of dash above footrest	18-2 08-2

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X82	Connector (3-Pins, Black)	Vehicle front, behind grille	02-5
X83	Connector (9-Pins, Black)	Behind RH footwell speaker cover	02-3
X84	Connector (3-Pins, Yellow)	LH footwell	04-3
X85	Connector (3-Pins, Black)	LH side of engine compartment	01-4
X87	Connector (3-Pins, Black)	Front RH side of engine compartment near windscreen washer reservoir RH top of radiator	09-1 02-5
X88	Connector (2-Pins, Black)	Under LH side of dash left of steering column	
X105	Connector (2-Pins, Grey)	Underside of front lid	
X106	Connector (2-Pins, Grey)	Underside of front lid	
X107	Connector (2-Pins, Grey)	Front RH side of engine compartment on washer fluid reservoir	
X109	Connector (2-Pins, Black)	Front RH side of engine compartment on washer fluid reservoir	
X110	Connector (2-Pins, Grey)	Front RH side of engine compartment on washer fluid reservoir	
X111	Connector (2-Pins, Black)	LH side of engine compartment on break fluid reservoir	08-2
X112	Connector (2-Pins, Black)	Centre top of engine	
X113	Connector (2-Pins, Natural)	On base of spring strut dome	
X114	Connector (2-Pins, Black)	LH side of engine compartment	08-2
X116	Connector (4-Pins, Black)	LH side of dash on brake pedal support bracket	06-3
X118	Connector (2-Pins, Black)	Behind LH front wheel	14-1
X120	Connector (2-Pins, Black)	Behind LH front wheel	
X121	Connector (2-Pins, White)	LH footwell on clutch pedal support bracket	
X122	Connector (2-Pins, Black)	Rear LH side of engine compartment	
X123	Connector (2-Pins, Grey)	Front RH side of engine compartment near windscreen washer reservoir	
X126	Connector (2-Pins, White)	Front RH side of engine compartment ahead of wheel well	
X127	Connector (2-Pins, Black)	Front RH side of engine compartment ahead of wheel well	
X128	Connector (2-Pins, Black)	Front left flasher unit, H7	
X129	Connector (2-Pins, Grey)	Left parking light, E15	
X130	Connector (2-Pins, Yellow)	Left headlight, E13	
X131	Connector (2-Pins, White)	Left high beam, E11	
X132	Connector (2-Pins, Black)	Vehicle front, behind grille Left horn, H2	
X133	Connector (2-Pins, Black)	Vehicle front, behind grille Right horn, H3	
X134	Connector (2-Pins, White)	Right high beam, E12	
X135	Connector (2-Pins, Yellow)	Right headlight, E14	
X136	Connector (2-Pins, Grey)	Right parking light, E19	
X137	Connector (10-Pins, Black)	Front right flasher unit, H4	11-3
X138	Connector (2-Pins, Black)	Raised brake light, H34	

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X163	Connector (3-Pins, Black)	Front RH side of engine compartment on A/C compressor	02-5
X165	Ground	LH side of dash	03-3
X166	Ground	Front RH side of engine compartment ahead of wheel well	02-1
X167	Ground	Front LH side of engine compartment	
X168	Connector (1-Pins, Black)	LH side of dash top of steering column	
X170	Case Ground	LH side of engine compartment below brake fluid reservoir	03-2
X175	Ground	Front LH side of engine compartment	
X179	Ground	Front RH side of engine compartment ahead of wheel well	02-1
X250	Ground	Underside of steering column	
X251	Connector (30-Pins, Black)	LH footwell	19-1 14-4
X252	Connector (26-Pins, Black)	Under LH side of rear seat	10-4
X253	Connector (26-Pins, Green)	Under LH side of rear seat in power distribution box	01-1
X254	Connector (26-Pins, White)	Under LH side of rear seat in power distribution box	01-1
X255	Connector (26-Pins, Yellow)	Under LH side of rear seat in power distribution box	01-1
X256	Connector (26-Pins, Black)	Ahead of RH front door	23-2 08-1
X257	Connector (26-Pins, Black)	LH A-pillar	23-2 08-1
X258	Connector (20-Pins, White)	Under LH side of rear seat in power distribution box	08-4
X259	Connector (20-Pins, Black)	Under LH side of rear seat in power distribution box	08-4
X269	Connector (6-Pins, Black)	Under LH side of rear seat	15-3
X272	Connector (12-Pins, Black)	Under LH side of rear seat in power distribution box	20-2 06-4
X273	Connector (12-Pins, Black)	Ahead of LH rear door in wire grommet	23-3 14-3
X274	Connector (12-Pins, Black)	Ahead of RH rear door in wire grommet	23-3 14-3
X275	Connector (12-Pins, White)	Driver's seat	23-1 07-2
X279	Connector (12-Pins, White)	Passenger's seat	07-2
X285	Connector (15-Pins, Blue)	In auxiliary relay box, LH side of engine compartment	12-3
X288	Connector (9-Pins, White)	Under LH side of rear seat in power distribution box	02-3
X292	Connector (9-Pins, White)	Under LH side of rear seat in power distribution box	02-3
X293	Connector (9-Pins, White)	Under LH side of rear seat in power distribution box	02-3
X294	Connector (9-Pins, White)	Under LH side of rear seat in power distribution box	02-3
X295	Connector (8-Pins, Black)	LH footwell	19-3 13-2
X300	Connector (26-Pins, Black)	In LH side of luggage compartment Parking aid control unit, A81	01-1

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X311	Connector (6-Pins, Black)	Underside of rear lid	26-2 14-1
X312	Connector (6-Pins, Black)	In RH side of luggage compartment	14-1
X315	Connector (2-Pins, White)	Underside of rear lid	26-2
X316	Connector (6-Pins, White)	Power window switch (centre console), S40	05-5
X317	Connector (6-Pins, Black)	Power window switch (centre console), S40	05-4
X318	Connector (4-Pins, Black)	In rear LH side of glove compartment	06-3
X319	Connector (4-Pins, Black)	In rear LH side of glove compartment	06-3
X322	Connector (8-Pins, Black)	Under LH side of rear seat in power distribution box	20-2 13-2
X328	Connector (4-Pins, Black)	Underside of rear lid	26-2 06-3
X328	Connector (4-Pins, Black)	In rear lid	26-3 06-3
X329	Connector (4-Pins, Black)	Left rear lid light, E46	06-3
X331	Connector (5-Pins, Black)	Under LH side of rear seat in power distribution box	02-4
X332	Connector (5-Pins, Natural)	Under LH side of rear seat in power distribution box	03-2
X333	Connector (4-Pins, Black)	Under LH fresh air trim	13-3 08-6
X335	Connector (4-Pins, Black)	Under LH side of rear seat in power distribution box	02-6
X336	Connector (4-Pins, White)	Interior/reading lamp, front, E34	16-3 06-5
X337	Connector (4-Pins, Black)	Under LH side of rear seat	20-3 06-3
X338	Connector (4-Pins, Black)	In rear LH side of glove compartment Left tail light, E16	06-3
X339	Connector (4-Pins, Black)	In rear LH side of glove compartment Right tail light, E17	06-3
X342	Connector (4-Pins, White)	Above RH footwell speaker trim panel	19-3 06-3
X346	Connector (4-Pins, Black)	In rear LH side of glove compartment Left tail light, E16	06-5
X347	Connector (4-Pins, Black)	In rear LH side of glove compartment Right tail light, E17	06-5
X351	Connector (2-Pins, Black)	Ahead of RH rear door	
X352	Connector (2-Pins, Black)	Ahead of LH rear door	
X353	Connector (2-Pins, Black)	Rear RH door contact switch, S15	
X354	Connector (2-Pins, Black)	LH rear door jamb	
X355	Connector (3-Pins, White)	Interior light, right rear, E40	05-2
X356	Connector (4-Pins, Black)	In bottom of RH C-post	15-1 13-6
X362	Connector (2-Pins, Black)	Rear parcel shelf right	
X371	Connector (2-Pins, Black)	LH side of windscreen header	
X372	Connector (2-Pins, Grey)	Rear RH side of engine compartment	
X374	Connector (2-Pins, Black)	Under RH side of rear seat near battery	
X375	Connector (2-Pins, Black)	Under RH side of rear seat	
X376	Connector (2-Pins, White)	Under LH side of rear seat	21 -1
X377	Connector (1 -Pins, Natural)	Behind LH rear wheel	
X379	Connector (1 -Pins, Black)	In top of LH C-post	

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X380	Connector (1-Pins, Brown)	In top of RH C-post	15-3
X381	Connector (2-Pins, Black)	Driver's make-up mirror light, E35	
X382	Connector (2-Pins, Black)	Passenger's make-up mirror light, E36	
X383	Connector (2-Pins, Yellow)	Under rear of vehicle near differential	14-3
X388	Connector (2-Pins, Black)	Under LH side of rear seat	
X389	Connector (2-Pins, Black)	Front left auxiliary flasher unit, H9	
X390	Connector (2-Pins, Black)	Behind RH footwell speaker trim cover	
X391	Connector (2-Pins, Black)	Centre console	
X393	Connector (6-Pins, Black)	In rear LH side of glove compartment	04-1
X400	Connector (8-Pins, Black)	In front LH side of luggage compartment	13-2
X401	Connector (1-Pins, Black)	Above LH sun visor	
X402	Connector (1 -Pins, Black)	Under roof centre panel	
X413	Connector (2-Pins, Black)	Rear parcel shelf	
X416	Connector (1-Pins, Black)	Above LH sun visor	
X417	Connector (1-Pins, Black)	Under roof centre panel	
X423	Connector (1-Pins, (—))	Centre console	
X424	Connector (1 -Pins, Brown)	In top of LH C-post	15-1
X490	Ground	LH side of dash	03-3
X491	Ground	LH side of dash	03-3
X492	Ground	Under RH side of rear seat near battery	02-3
X493	Ground	Under RH side of rear seat near battery	02-3
X495	Ground	Under RH side of rear seat	02-2
X496	Ground	Under RH side of rear seat	02-2
X501	Connector (26-Pins, Green)	Centre of dash	01-1
X502	Connector (26-Pins, Black)	LH side of dash behind steering wheel	01-1
X503	Connector (12-Pins, Black)	LH side of dash	05-6
X504	Connector (12-Pins, Black)	LH side of dash Fog light switch, S10	05-6
X506	Connector (12-Pins, Black)	Centre console	16-2 06-4
X507	Connector (14-Pins, Green)	LH side of dash behind steering wheel	20-1 11-1
X508	Connector (9-Pins, Black)	Under LH side of rear seat	02-3
X509	Connector (9-Pins, Black)	Under LH side of dash near front lid release lever	02-3
X510	Connector (9-Pins, Black)	Under LH side of dash near front lid release lever	02-3
X511	Connector (8-Pins, Black)	Centre console	16-2 03-1
X512	Connector (8-Pins, Black)	Under RH side of dash	13-2
X514	Connector (6-Pins, Black)	Centre of console	06-1
X516	Connector (5-Pins, Black)	Centre of console Hazard warning switch, S18	06-2
X517	Connector (4-Pins, Black)	LH side of dash Dimmer, N3	06-3
X518	Connector (4-Pins, Black)	LH footwell	19-2 06-3
X522	Connector (3-Pins, White)	LH footwell	19-2 05-2
X523	Connector (6-Pins, Black)	Behind LH side of dash in windscreen header	09-2
X526	Connector (8-Pins, Black)	LH footwell	19-2 13-2

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X531	Connector (2-Pins, White)	Front cigar lighter, E28	
X532	Connector (2-Pins, Natural)	Front cigar lighter light, E29	
X537	Connector (1-Pins, Natural)	Driver's door	
X538	Connector (1-Pins, Natural)	Passenger's door	
X539	Connector (2-Pins, Black)	Centre of dash Antitheft (DWA) radio microswitch, S20	
X540	Connector (2-Pins, Black)	RH side of dash Glove compartment light switch, S37	
X541	Connector (1 -Pins, Natural)	RH side of dash	
X542	Connector (2-Pins, Black)	LH side of glove box	
X543	Connector (1 -Pins, Natural)	LH side of dash	
X544	Connector (2-Pins, Black)	Behind dash	
X546	Connector (2-Pins, White)	Centre console	16-2
X547	Connector (2-Pins, Black)	Behind centre of dash Radio, N9	
X552	Connector (2-Pins, Black)	Behind LH side of dash	
X603	Connector (12-Pins, Black)	Under LH front seat	06-6
X604	Connector (12-Pins, Black)	Passenger's seat	06-6
X605	Connector (12-Pins, Black)	In rear LH side of glove compartment	27-1 02-1
X605	Connector (12-Pins, Black)	In rear LH side of glove compartment	27-2 02-1
X606	Connector (12-Pins, White)	In rear LH side of glove compartment	27-1 02-1
X606	Connector (12-Pins, White)	In rear LH side of glove compartment	27-2 02-1
X607	Connector (20-Pins, Black)	Behind RH footwell speaker trim cover	10-5
X608	Connector (12-Pins, Black)	Rear RH side of engine compartment	15-1
X610	Connector (26-Pins, White)	Under LH side of dash on LH side of IHKA housing	10-4
X612	Connector (26-Pins, Blue)	Behind centre of dash	01-1
X613	Connector (26-Pins, Blue)	Between front footwell ahead of IHKA housing	10-4
X614	Connector (26-Pins, Yellow)	Between front footwell ahead of IHKA housing	10-4
X623	Connector (4-Pins, Black)	Driver's door	24-2 13-6
X624	Connector (4-Pins, Black)	Passenger's door Right outside mirror, Y6	24-3 13-6
X625	Connector (6-Pins, Black)	Driver's door Power mirror switch (SM/ SPM), S12	24-2 16-1
X627	Connector (8-Pins, Black)	In windscreen header	15-2 03-1
X628	Connector (5-Pins, Black)	In RH side of luggage compartment	25-2 15-6
X629	Connector (8-Pins, Natural)	In RH side of luggage compartment	13-1
X630	Connector (13-Pins, Black)	Under rear of vehicle	07-6
X638	Connector (6-Pins, Black)	In RH side of luggage compartment	25-1 09-4
X641	Connector (6-Pins, Black)	In RH side of luggage compartment	02-2
X642	Connector (8-Pins, Black)	Under RH side of rear seat	13-1
X643	Connector (6-Pins, Blue)	In windscreen header	08-3
X644	Connector (6-Pins, Black)	In RH side of luggage compartment	09-4
X645	Connector (6-Pins, Black)	In LH rear door	14-1
X646	Connector (6-Pins, Black)	In RH rear door	09-4

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X647	Connector (6-Pins, Black)	In RH rear door	14-1
X648	Connector (6-Pins, Black)	Driver's seat	14-1
X651	Connector (6-Pins, Black)	Under LH front seat Driver's seat heating switch, S53	14-1
X652	Connector (6-Pins, Blue)	Under LH front seat Driver's lumbar support switch, S52	08-3
X658	Connector (6-Pins, Black)	Under LH front seat Passenger's seat heating switch, S54	14-1
X659	Connector (6-Pins, Black)	Passenger's seat	14-1
X660	Connector (6-Pins, Black)	Driver's door	24-1 09-4
X661	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X662	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X663	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X664	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X665	Connector (6-Pins, Black)	RH side of LH footwell	10-1
X666	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X667	Connector (6-Pins, Black)	Under LH side of dash on LH side of IHKA housing	10-1
X66fi	Connector (6-Pins, Black)	Behind centre of dash	10-1
X669	Connector (6-Pins, Black)	Behind centre of dash	10-1
X670	Connector (6-Pins, Black)	RH side of dash on RH side of IHKA housing	10-1
X671	Connector (5-Pins, Black)	Behind centre of dash	02-4
X672	Connector (4-Pins, Black)	In front LH side of luggage compartment	10-2
X675	Connector (4-Pins, White)	In front LH side of luggage compartment	07-1
X676	Connector (4-Pins, Black)	In front LH side of luggage compartment	16-2
X682	Connector (3-Pins, Natural)	In front RH side of glove compartment	05-3
X692	Connector (3-Pins, Black)	Behind centre of dash	03-3
X693	Connector (3-Pins, Black)	Centre of dash	05-2
X695	Connector (8-Pins, Black)	LH bottom of engine	03-1
X700	Connector (1-Pins, (—))	Behind RH footwell speaker cover	
X701	Connector (1-Pins, (—))	Behind LH footwell speaker cover	
X705	Connector (2-Pins, Black)	Near RH rear wheel well	14-2
X706	Connector (2-Pins, (—))	Cassette player lights, E45	
X709	Connector (2-Pins, Black)	Left licence plate light, E43	
X710	Connector (2-Pins, Black)	Right licence plate light, E44	
X711	Connector (2-Pins, Black)	Underside of rear lid left	
X712	Connector (1-Pins, Natural)	Rear lid lamp, E33	
X714	Connector (2-Pins, Grey)	In LH rear door	
X715	Connector (2-Pins, Black)	In LH rear door	
X720	Connector (2-Pins, Grey)	In RH rear door	

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X721	Connector (2-Pins, Black)	In RH rear door	
X726	Connector (2-Pins, Black)	Driver's seat	23-1
X727	Connector (2-Pins, White)	Driver's seat	22-1
X728	Connector (2-Pins, White)	Driver's seat	23-1
X729	Connector (2-Pins, Black)	Driver's seat	23-1
X730	Connector (2-Pins, (—))	Under LH front seat	
X731	Connector (2-Pins, (—))	In top of LH backrest	
X732	Connector (2-Pins, White)	In top of LH backrest	
X733	Connector (2-Pins, White)	Under LH front seat	
X734	Connector (2-Pins, Black)	Passenger's seat	
X735	Connector (2-Pins, White)	Driver's seat	22-1
X736	Connector (2-Pins, Black)	Passenger's seat	
X737	Connector (2-Pins, White)	Passenger's seat	
X738	Connector (2-Pins, (—))	In top of RH backrest	
X739	Connector (2-Pins, Yellow)	Passenger's seat	
X740	Connector (2-Pins, White)	Driver's seat	22-3
X741	Connector (2-Pins, White)	In top of RH backrest	
X742	Connector (2-Pins, Yellow)	Passenger's door	24-3
X743	Connector (2-Pins, Black)	Passenger's door	
X744	Connector (2-Pins, Grey)	Passenger's door	24-3
X746	Connector (1-Pins, (—))	Passenger's door	
X747	Connector (2-Pins, Yellow)	Driver's door	24-1
X749	Connector (2-Pins, Grey)	Driver's door	24-2
X750	Connector (1 -Pins, (—))	Driver's door	24-2
X751	Connector (2-Pins, White)	Driver's door	24-1
X752	Connector (2-Pins, Grey)	Driver's door	24-1
X753	Connector (1-Pins, (—))	Driver's door	
X756	Connector (2-Pins, Black)	Near RH rear wheel well behind RH rear wheel	
X757	Connector (2-Pins, Black)	Rear RH side of engine compartment	
X760	Connector (1 -Pins, (—))	Under rear window shelf	
X761	Connector (1-Pins, (—))	Under rear window shelf	
X762	Connector (1-Pins, (—))	Under rear window shelf	
X763	Connector (1-Pins, (—))	Under rear window shelf	
X764	Connector (2-Pins, White)	In RH side of luggage compartment	
X765	Connector (2-Pins, White)	In RH side of luggage compartment	
X768	Connector (2-Pins, White)	Left fog light, E26	
X769	Connector (2-Pins, Grey)	Right fog light, E27	
X770	Connector (2-Pins, White)	Under front RH bumper	12-2
X771	Connector (2-Pins, Black)	Under LH side of dash on LH side of IHKA housing	
X772	Connector (2-Pins, White)	RH side of LH footwell	
X773	Connector (2-Pins, White)	RH side of dash LH side of RH footwell	
X774	Connector (1-Pins, Grey)	Near front LH headlight	
X778	Connector (2-Pins, Black)	Driver's seat belt buckle switch, S58	22-1

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X779	Charge socket	Left of glove compartment	16-1
X782	Connector (3-Pins, Orange)	Passenger's airbag gas generator 1, G6	
X784	Connector (2-Pins, Orange)	Under RH side of dash	
X785	Connector (2-Pins, Black)	LH side of engine compartment	
X800	Connector (2-Pins, White)	Behind LH footwell speaker trim cover	
X802	Connector (2-Pins, Grey)	Front RH side of engine compartment	
X808	Connector (1-Pins, (—))	In RH side of luggage compartment	
X809	Connector (1-Pins, (—))	In RH side of luggage compartment	
X811	Ground	Under RH side of rear seat	02-2
X816	Connector (1-Pins, Black)	Between front footwell	
X817	Connector (1-Pins, Black)	Between front footwell	
X818	Ground	LH side of dash	03-3
X819	B + terminal point	Under RH side of rear seat	
X820	Ground	Under RH side of rear seat	02-2
X820	Ground	In RH side of luggage compartment	25-2
X881	Connector (6-Pins, White)	Passenger's seat	14-2
X882	Connector (2-Pins, Black)	Driver's seat	23-1
X883	Connector (2-Pins, Black)	Passenger's seat	
X898	Connector (8-Pins, Black)	Centre of dash on LH side of heater control panel	03-1
X899	Connector (18-Pins, Black)	Centre of dash on RH side of heater control panel	13-3
X900	Connector (2-Pins, White)	Above LH footwell-dash	
X901	Connector (2-Pins, White)	Above RH footwell-dash	
X904	Connector (4-Pins, Black)	LH side of RH footwell	06-3
X905	Connector (5-Pins, Black)	Centre of dash in centre of heater control panel	09-3
X912	Connector (2-Pins, White)	In LH rear door	
X944	Ground	Under rear window shelf	
X946	Connector (4-Pins, Black)	Under rear window shelf	06-3
X947	Connector (6-Pins, Black)	Under rear window shelf	10-3
X948	Connector (2-Pins, Black)	Under rear window shelf	
X949	Connector (5-Pins, Black)	Under rear window shelf	02-4
X997	Connector (2-Pins, White)	Under rear of vehicle behind RH rear wheel	
X998	Connector (4-Pins, Black)	Centre of dash	06-5
X999	Connector (4-Pins, Black)	Centre of dash	06-3
X1021	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X1024	Connector (9-Pins, Black)	in front RH side of glove compartment	02-3
X1034	Connector (3-Pins, Black)	Under LH side of dash	07-5
X1035	Connector (3-Pins, Black)	Near front RH headlight	07-5
X1048	Connector (1-Pins, (—))	RH side of engine compartment	
X1049	Connector (1-Pins, (—))	RH side of engine compartment	
X1086	Connector (9-Pins, Black)	Under LH side of dash	02-3

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X1087	Connector (9-Pins, White)	Under LH side of dash	02-3
X1090	Connector (9-Pins, Black)	Rear LH side of engine compartment in front power distributor	02-3
X1098	Connector (12-Pins, Black)	Front of engine compartment	05-6
X1099	Connector (12-Pins, Black)	Front of engine compartment	05-6
X1160	Ground	LH side of dash	03-3
X1161	Connector (9-Pins, Black)	Rear LH side of engine compartment	
X1181	Connector (9-Pins, Black)	Under LH side of rear seat in power distribution box	02-3
X1191	Connector (4-Pins, Black)	On rear lid	06-3
X1221	Connector (26-Pins, Green)	Under LH side of rear seat in power distribution box	10-4
X1222	Connector (6-Pins, White)	In front LH side of luggage compartment	04-1
X1250	Connector (10-Pins, Black)	RH side of loading area behind side panel	15-2
X1251	Connector (2-Pins, Black)	In rear lid behind trim	26-3
X1252	Connector (2-Pins, Black)	In rear lid behind trim	26-3
X1253	Connector (2-Pins, Black)	On rear lid	
X1254	Connector (2-Pins, Black)	On rear lid	
X1374	Connector (1-Pins, Natural)	Glove compartment light, E42	
X1401	Connector (4-Pins, White)	Under LH side of dash	06-3
X1405	Connector (1-Pins, Natural)	RH side of dash behind glove compartment	
X1406	Connector (1-Pins, Black)	RH side of dash behind glove compartment	
X1427	Connector (1-Pins, Natural)	Instrument lights, E41	
X1441	Ground	LH side of dash	
X1851	Connector (1-Pins, Black)	Rear parcel shelf	
X1852	Connector (1-Pins, White)	Rear parcel shelf	
X1887	Connector (6-Pins, Yellow)	Under LH front seat	07-4
X2000	Connector (12-Pins, Black)	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	08-2
X2007	B+ terminal point	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	01-1
X2008	Connector (2-Pins, Black)	LH side of engine (525td/t, 525tds/t)	
X2009	Connector (1-Pins, (—))	LH side of engine (525td/t, 525tds/t)	
X2010	Connector (7-Pins, (—))	LH side of engine (525td/t, 525tds/t)	13-4
X2011	Connector (2-Pins, Black)	Front LH side of engine compartment (525td/t, 525tds/t)	
X2012	Connector (2-Pins, Black)	LH side of engine (525td/t, 525tds/t)	
X2013	Connector (2-Pins, Black)	LH side of engine (525td/t, 525tds/t)	
X2014	Connector (3-Pins, Black)	LH side of engine compartment (525td/t, 525tds/t)	03-5
X2015	Connector (2-Pins, Black)	LH side of engine (525td/t, 525tds/t)	
X2016	Connector (2-Pins, Black)	Front LH side of engine compartment (525td/t, 525tds/t)	

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X2017	Connector (2-Pins, Black)	LH side of engine compartment (525td/t, 525tds/t)	
X2019	Connector (55-Pins, Black)	In electronics box (525td/t, 525tds/t) DDE2 control unit, A2019	00-1
X2023	Connector (1-Pins, (—))	LH bottom of engine compartment Alternator, G2023	
X2024	Connector (1-Pins, (—))	LH bottom of engine compartment Alternator, G2023	
X2025	Connector (1-Pins, (—))	Rear LH side of engine compartment Starter, M6510	
X2026	Connector (1-Pins, (—))	Rear LH side of engine compartment Starter, M6510	
X2027	Connector (1-Pins, (—))	Rear LH side of engine compartment Starter, M6510	
X2042	Ground	Rear RH side of engine compartment (525td/t, 525tds/t)	03-1
X2080	Connector (2-Pins, Blue)	Front of engine on thermostat housing (525td/t, 525tds/t)	
X2081	Connector (9-Pins, Black)	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	02-3
X2082	Connector (2-Pins, Black)	Front of engine on thermostat housing (525td/t, 525tds/t)	
X2083	Connector (2-Pins, Brown)	Front LH side of engine compartment (525td/t, 525tds/t)	
X2085	Connector (9-Pins, Black)	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	02-3
X2086	Connector (3-Pins, Black)	Rear LH side of engine compartment (525td/t, 525tds/t)	03-6
X2090	Connector (2-Pins, Black)	Rear LH side of engine compartment (525td/t, 525tds/t)	
X2091	Connector (1-Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2092	Connector (1 -Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2093	Connector (1 -Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2094	Connector (1-Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2095	Connector (1-Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2096	Connector (1-Pins, (—))	Centre top of engine (525td/t, 525tds/t)	
X2138	Connector (2-Pins, Black)	Behind radiator (525td/t, 525tds/t)	
X2153	Connector (8-Pins, Black)	On LH side of transmission (525td/t, 525tds/t)	11-2
X2154	Connector (88-Pins, Black)	Behind RH footwell speaker trim cover (525td/t, 525tds/t)	12-1
X2156	Connector (2-Pins, Black)	Rear RH side of engine compartment in electronics box (525td/t, 525tds/t)	
X2861	Connector (12-Pins, Black)	LH side of dash	05-6
X3210	Connector (26-Pins, Blue)	LH side of dash left of steering column	01-1
X3211	Connector (4-Pins, Black)	Centre of dash	05-1
X3212	Connector (4-Pins, Black)	LH footwell	19-2 03-3

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X3500	Connector (4-Pins, Black)	In bottom of LH C-post	17-4
X3502	Connector (3-Pins, White)	In top of LH C-post	05-2
X3505	Connector (4-Pins, Black)	LH side of dash	06-3
X3538	Ground	In RH side of luggage compartment	29-3
X6000	Connector (55-Pins, Black)	Rear RH side of engine compartment in electronics box	00-1
X6002	Connector (20-Pins, Black)	Rear LH side of engine compartment right of LH spring strut dome	04-1 04-6
X6002	Connector (20-Pins, Black)	Rear LH side of engine compartment right of LH spring strut dome	12-1 04-6
X6003	Connector (8-Pins, Black)	Rear RH side of engine compartment in electronics box	02-1
X6053	Connector (12-Pins, Black)	RH side of dash behind glove compartment	02-1
X6100	Connector (3-Pins, Black)	Rear LH side of engine compartment below intake manifold	17-1
X6101	Connector (2-Pins, Black)	LH top of engine Fuel injector 1, Y6101	
X6102	Connector (2-Pins, Black)	LH top of engine Fuel injector 2, Y6102	
X6103	Connector (2-Pins, Black)	LH top of engine Fuel injector 3, Y6103	
X6104	Connector (2-Pins, Black)	LH top of engine Fuel injector 4, Y6104	
X6105	Connector (2-Pins, Black)	LH top of engine Fuel injector 5, Y6105	
X6106	Connector (2-Pins, Black)	LH top of engine Fuel injector 6, Y6106	
X6120	Connector (2-Pins, Black)	LH side of engine	
X6130	Connector (3-Pins, Black)	Front top of engine	09-5
X6151	Connector (3-Pins, Grey)	Cylinder head	15-4
X6152	Connector (3-Pins, Grey)	Cylinder head	15-4
X6153	Connector (3-Pins, Grey)	Cylinder head	15-4
X6154	Connector (3-Pins, Grey)	Cylinder head	15-4
X6155	Connector (3-Pins, Grey)	Cylinder head	15-4
X6156	Connector (3-Pins, Grey)	Cylinder head	15-4
X6200	Connector (4-Pins, Black)	Rear of engine left	13-5
X6203	Connector (3-Pins, Black)	Front of engine compartment	03-5
X6204	Connector (3-Pins, Black)	Front of engine compartment	03-5
X6205	Connector (2-Pins, Black)	Near throttle valve housing (518i/t)	08-3
X6208	Connector (2-Pins, Black)	Front of engine (520i/t) Camshaft control, B6208	
X6217	Connector (4-Pins, Grey)	Front top of engine (520i/t)	17-3
X6231	Connector (2-Pins, Black)	Front of engine compartment below intake manifold	06-1
X6232	Connector (2-Pins, Black)	Cylinder head	
X6233	Connector (5-Pins, Black)	Front LH side of engine compartment (518i/t)	12-2
X6236	Connector (2-Pins, Black)	Cylinder head	
X6241	Connector (3-Pins, Black)	LH side of engine	08-5
X6242	Connector (3-Pins, Black)	LH side of engine	08-5
X6252	Connector (3-Pins, Black)	Front LH side of engine compartment	03-5

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X6300	Connector (9-Pins, Black)	Rear RH side of engine compartment in electronics box	02-3
X6301	Connector (9-Pins, Black)	Rear RH side of engine compartment in electronics box	02-3
X6303	Connector (9-Pins, Black)	Rear RH side of engine compartment in electronics box	02-3
X6400	B+ terminal point	Rear RH side of engine compartment in electronics box	01-1
X6401	Connector (1 -Pins, (—))	Underside of rear seat	
X6454	Ground	Rear RH side of engine compartment	03-1
X6455	Ground	Rear RH side of engine compartment	03-1
X6456	Ground	Rear RH side of engine compartment	03-1
X6456	Ground	Front of engine (520i/t)	06-2
X6509	Connector (1 -Pins, (—))	Alternator, G6509	
X6510	Cable shoe, starter terminal 50	Starter, M6510	
X6511	Cable shoe, starter terminal 30h	Starter, M6510	
X6512	Cable shoe, starter terminal 30	Starter, M6510	
X6513	Connector (1-Pins, (—))	Starter, M6510	
X7000	Connector (88-Pins, Black)	Rear RH side of engine compartment in electronics box	12-1
X7150	Connector (1-Pins, (—))	Ignition coil, T6150	
X7509	Cable shoe, alternator D +	Alternator, G6509	
X8150	Connector (1-Pins, (—))	(518i/t) Ignition coil, T6150	
X8500	Connector (55-Pins, Black)	Behind RH footwell speaker trim cover	00-1
X8500	Connector (88-Pins, Black)	Behind RH footwell speaker trim cover	12-1
X8503	Connector (6-Pins, Blue)	Centre console near gear lever Program switch, S8503	08-3
X8505	Connector (8-Pins, Black)	On LH side of transmission	09-3 11 -2
X8507	Connector (1 -Pins, Black)	Rear RH side of engine compartment	
X8509	Connector (1-Pins, (—))	Centre console near gear lever	
X8516	Connector (2-Pins, Black)	Under centre of car	
X8550	Connector (48-Pins, Blue)	Behind RH footwell trim	17-5
X10034	Connector (2-Pins, (—))	Power distribution box rear LH side of engine compartment	
X10051	Connector (4-Pins, Black)	Behind LH side of dash	06-3
X10195	Connector (3-Pins, Black)	Driver's airbag gas generator, G5	
X10218	Connector (4-Pins, (—))	Passenger's seat	
X13012	Connector (26-Pins, White)	Under LH side of rear seat in power distribution box	14-5
X13013	Connector (4-Pins, Black)	Under LH side of rear seat in power distribution box	02-4
X13014	Connector (5-Pins, Black)	Under LH side of rear seat in power distribution box	02-6
X13018	Connector (1-Pins, Black)	In rear window	
X13022	Connector (4-Pins, Black)	In rear LH side of glove compartment	06-5
X13031	Connector (1-Pins, (—))	Front power distribution box, P90	

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X13057	Connector (3-Pins, Black)	Rear loading area on rear lid behind trim	05-2
X13058	Connector (2-Pins, Green)	RH side of loading area behind side panel	
X13059	Connector (3-Pins, Black)	Rear loading area on rear lid behind trim	05-2
X13060	Connector (26-Pins, Blue)	Rear of A2w instrument cluster	20-1 10-4
X13085	Connector (10-Pins, Black)	Behind LH footwell speaker trim cover	26-1 00-2
X13086	Connector (18-Pins, Black)	Behind LH footwell speaker trim cover	26-1 13-3
X13105	Connector (3-Pins, Black)	Under LH side of dash	03-3
X13106	Connector (6-Pins, Black)	RH side of loading area behind side panel	15-5
X13107	Connector (2-Pins, White)	In front of luggage compartment Rear lid switch, S172	26-3
X13119	Connector (12-Pins, White)	Under LH side of dash	06-4
X13120	Connector (1-Pins, Black)	In front LH side of luggage compartment	
X13139	Connector (10-Pins, Black)	In windscreen header	11-3
X18013	Connector (26-Pins, Black)	In rear LH side of glove compartment	10-4
X18020	Connector (2-Pins, (—))	Under LH rear bumper	
X18021	Connector (2-Pins, (—))	Under centre of rear bumper	
X18022	Connector (2-Pins, (—))	Under centre of rear bumper	
X18023	Connector (2-Pins, (—))	Under RH rear bumper	
X18047	Connector (2-Pins, Black)	In RH rear door	
X18049	Connector (2-Pins, Yellow)	In LH rear door	
X18050	Connector (2-Pins, Black)	Passenger's door	
X18052	Connector (2-Pins, Yellow)	In RH rear door	
X18067	Cable shoe B +	Under RH side of rear seat	
X18068	Connector (9-Pins, Black)	Under RH side of rear seat	02-3
X18080	Connector (1-Pins, Natural)	Rear lid lamp, E33	
X18084	Connector (2-Pins, White)	Driver's door	24-1
X18097	Connector (2-Pins, Black)	Bottom of steering column	17-2
X18099	Connector (3-Pins, White)	Steering column adjustment switch, S119z	
X18109	Connector (1-Pins, Black)	Centre of dash	
X18126	Connector (17-Pins, Black)	Centre of dash behind radio	04-2
X18130	Connector (4-Pins, Black)	In front RH side of glove compartment	06-5
X18149	Connector (1-Pins, White)	Centre of dash	
X18150	Connector (1-Pins, White)	Centre of dash	
X18151	Connector (10-Pins, Black)	Centre of dash IHKR/F3 switch unit, S135w	09-1
X18153	Connector (3-Pins, Black)	Centre of dash	05-2
X18154	Connector (18-Pins, Black)	Centre of dash IHKR/F3 Operating panel, S134w	13-3
X18155	Connector (26-Pins, White)	LH side of RH footwell	17-3 10-4
X18156	Connector (26-Pins, Blue)	LH side of RH footwell	17-3 10-4
X18157	Connector (26-Pins, Blue)	LH side of RH footwell	17-3 10-4
X18184	Connector (1-Pins, (—))	Under rear window shelf	
X18185	Connector (1-Pins, (—))	Under rear window shelf	
X18186	Connector (1-Pins, (—))	Driver's door	
X18187	Connector (1-Pins, (—))	Under rear window shelf	

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X18188	Connector (2-Pins, Natural)	Behind LH footwell speaker cover	
X18189	Connector (1-Pins, (—))	Under rear window shelf	
X18190	Connector (1-Pins, Natural)	Driver's door	
X18191	Connector (1-Pins, (—))	Behind RH footwell speaker cover	
X18192	Connector (1-Pins, White)	Passenger's door	
X18193	Connector (1-Pins, (—))	Passenger's door	
X18194	Ground	In LH side of luggage compartment	
X18242	Connector (2-Pins, Black)	In LH rear door DWA conductor loop, rear left side window, S148	
X18243	Connector (2-Pins, Black)	In LH rear door Rear window opening switch, S147	
X18244	Connector (8-Pins, Black)	Centre of dash	03-1
X18245	Connector (8-Pins, Black)	In head lining	26-1 03-1
X18259	Connector (10-Pins, Black)	Under LH side of dash	15-2
X18261	Cable shoe B +	Under RH side of rear seat	
X18262	Auxiliary socket, Touring	LH side of glove box	
X18264	Connector (1-Pins, White)	LH C-pillar	
X18265	Connector (1-Pins, Black)	In top of LH C-post	
X18287	Connector (4-Pins, Black)	Under LH side of dash	06-3
X18291	Connector (2-Pins, (—))	LH side of glove box	
X18323	Connector (4-Pins, (—))	Driver's door	
X18715	Connector (1-Pins, Black)	Behind centre of dash behind radio	
X18729	Connector (3-Pins, White)	In front LH side of luggage compartment	27-1 05-2
X18729	Connector (3-Pins, White)	In front LH side of luggage compartment	27-2 05-2
X18732	Connector (1-Pins, (—))	In RH side of luggage compartment	
X18733	Connector (1-Pins, (—))	In RH side of luggage compartment	
X18760	Connector (1-Pins, (—))	In RH side of luggage compartment	
Y1	ABS hydraulic unit	LH side of engine compartment	08-2
Y2	Solenoid clutch	RH side of engine	
Y4	Water valves	Rear LH side of engine compartment on engine bulkhead	12-1
Y5	Left outside mirror	Driver's door	
Y6	Right outside mirror	Passenger's door	
Y7	Metering pump (independent heating)	Under rear of vehicle behind RH rear wheel	
Y12	Solenoid valve independent heating/ventilation II	LH side of engine compartment	
Y2008	Needle lift sensor	LH side of engine	
Y2009	Electric cutout	LH side of engine	
Y2010	Injection quantity control unit	LH side of engine	
Y2153	Gear shift unit	In transmission	
Y6101	Fuel injector 1	Cylinder head	07-3
Y6102	Fuel injector 2	Cylinder head	07-3
Y6103	Fuel injector 3	Cylinder head	07-3
Y6104	Fuel injector 4	Cylinder head	07-3

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Y6105	Fuel injector 5	Cylinder head	07-3
Y6106	Fuel injector 6	Cylinder head	07-3
Y6120	Charcoal filter valve	LH side of engine (near dipstick)	
Y6130	Idle actuator	Front of engine (520i/t)	08-1
Y6130	Idle actuator	Centre top of engine (518i/t)	09-2
Y8505	Gear-shift unit	LH side of transmission	09-3
Y8516	Speed sensor EGS	Under centre of car	
Y8505y	Gearshift unit	LH side of transmission	
Z400	Interference suppression coil	In RH side of luggage compartment	

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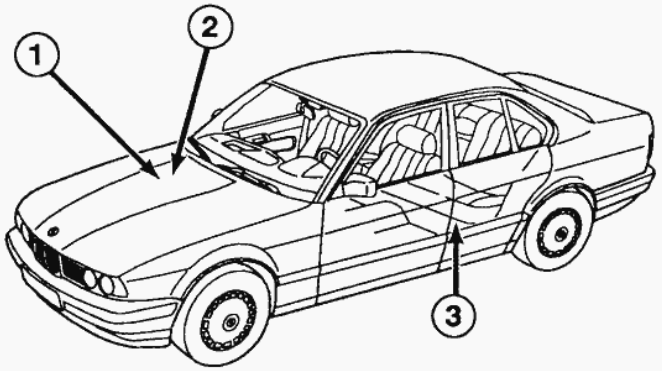
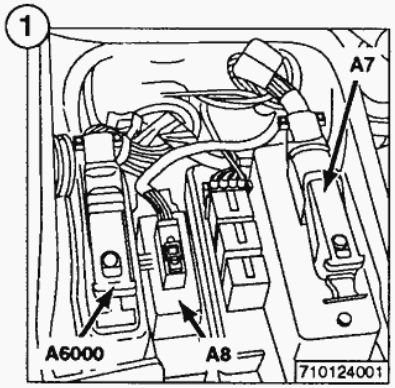
Component location views

Location of control units

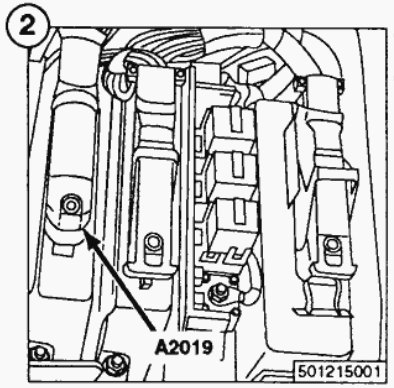




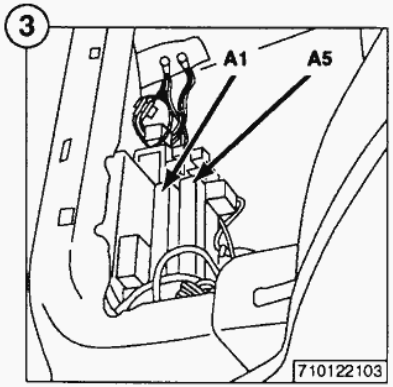
A7
ABS control unit

A8
Cruise control module

A6000
DME control unit



A2019
DDE2 control unit



A1
General module

A5
Relay module

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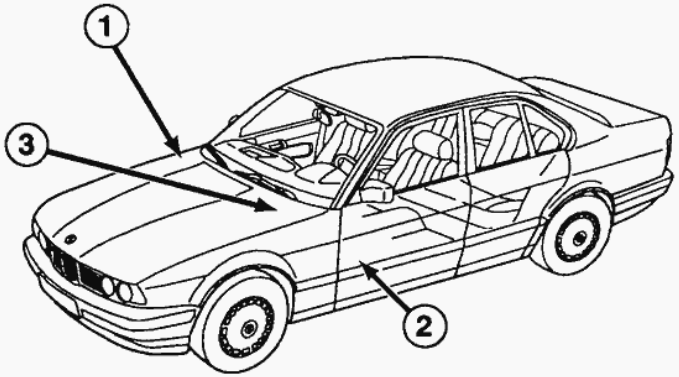
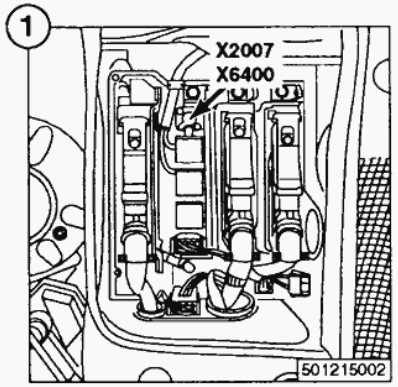
Component location views

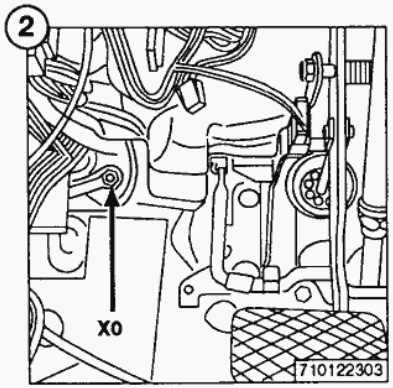
B(+)



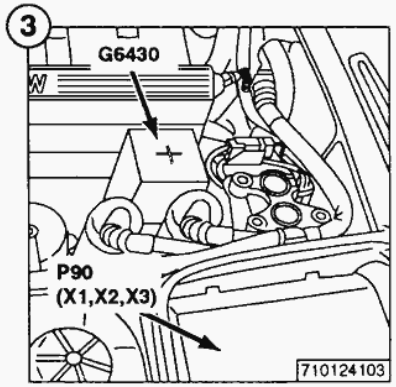


X2007
B+ terminal point

X6400
B+ terminal point



X0
B+ terminal point



G6430
B+ external start terminal point

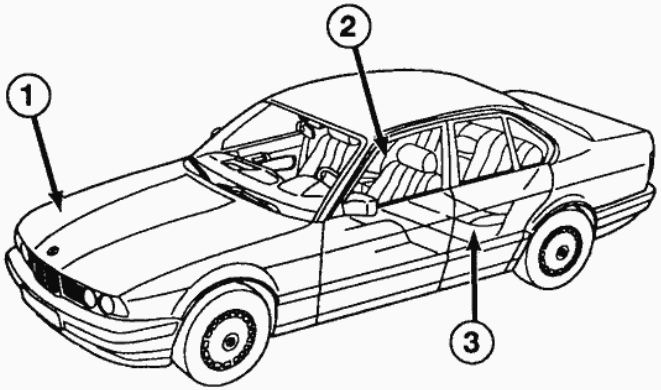
P90
Front power distribution box

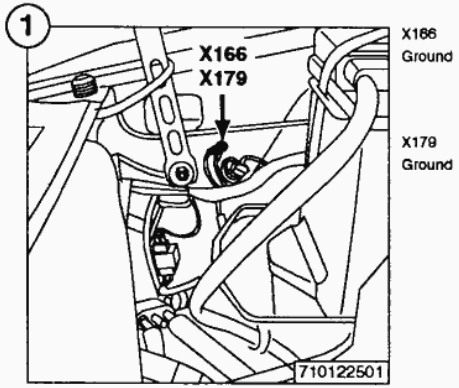
X1
B+ terminal point

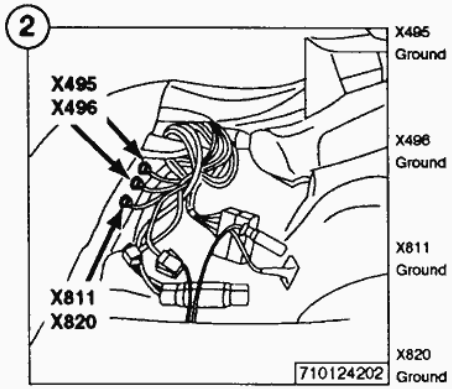
X2
B+ terminal point

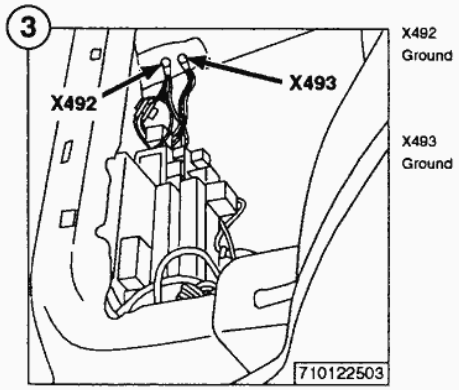
X3
B+ terminal point

Component location views









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Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Connector views
Scheme 8500.0

Connector views

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Fig. 1

B550001.00

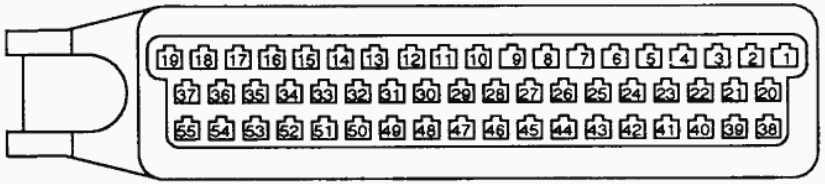


Fig. 2

B100007.00

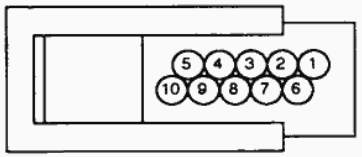


Fig. 3

B350002.00

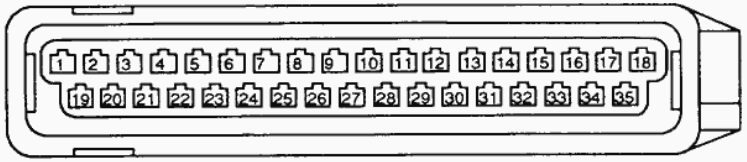
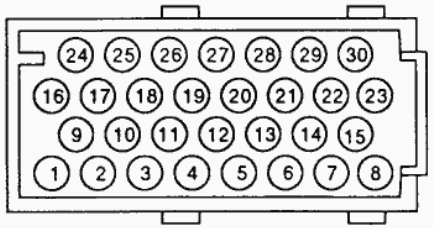


Fig. 4

B300001.00



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Connector views

Fig. 1

B260002.00

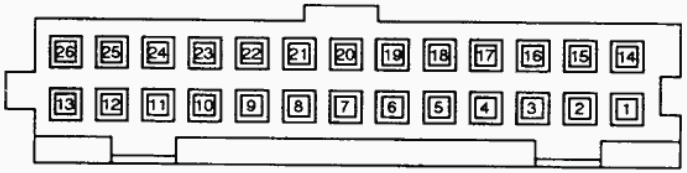


Fig. 2

B120015

Fig. 3

B210001.00

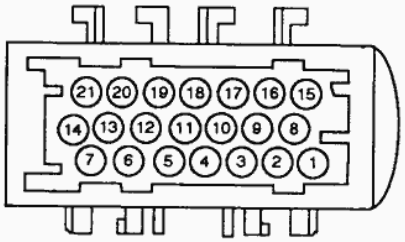


Fig. 4

B030017.00

Fig. 5

B080003.00

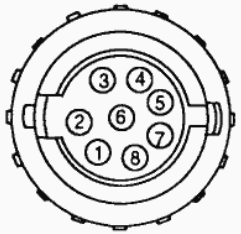
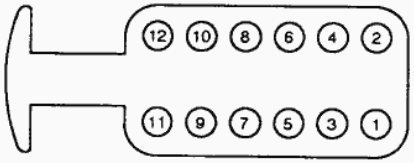


Fig. 6

B120013.00



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Connector views

Fig. 1

B120002.02

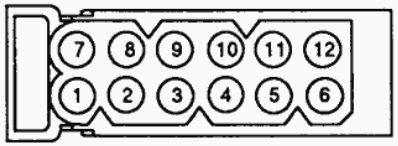


Fig. 2

B060037.00

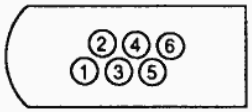


Fig. 3

B090001.00

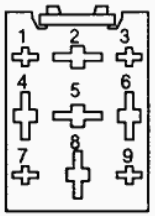


Fig. 4

B050005.00

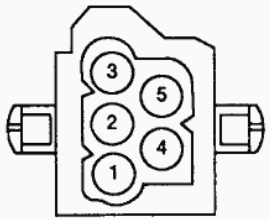
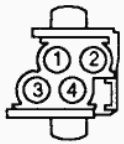


Fig. 5

B030006.00

Fig. 6

B040003.00



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Connector views

Fig. 1

B080002.00

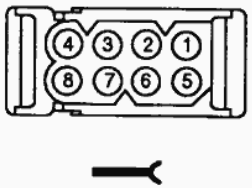


Fig. 2

B050006.00

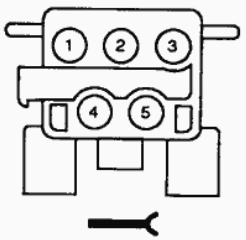


Fig. 3

B030001.00

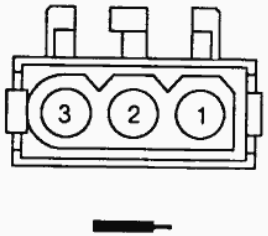


Fig. 4

B250001.00

Fig. 5

B030015.10

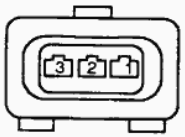
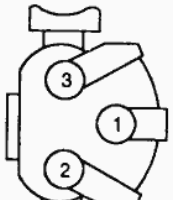


Fig. 6

B030025.00



Connector views

Fig. 1

B060017.00

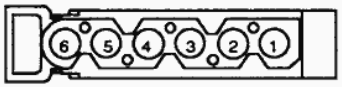


Fig. 2

B170001.00

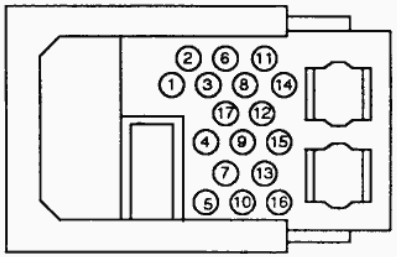


Fig. 3

B030013.00

Fig. 4

B030005.00

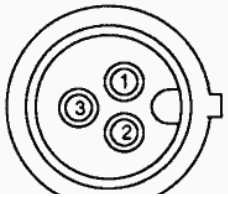


Fig. 5

B030012.00

Fig. 6

B200003.01

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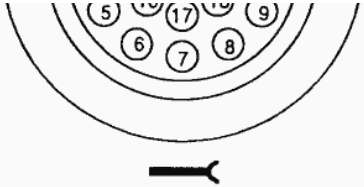


Connector views

Fig. 1

B040015.00

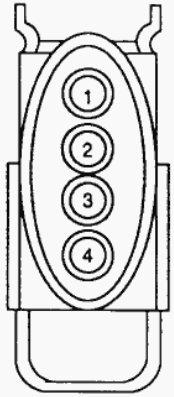


Fig. 2

B030003.04

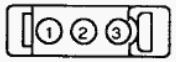


Fig. 3

B0300010.02

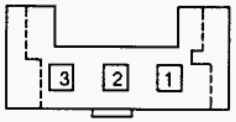


Fig. 4

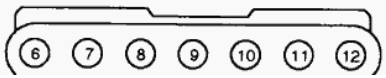
B060002.00

Fig. 5

B060002.00

Fig. 6

B120006.00



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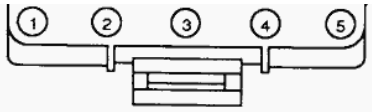

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Connector views

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Fig. 1

B060006.00

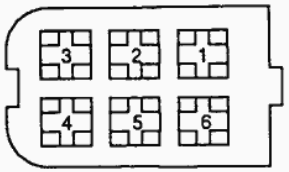


Fig. 2

B050003.00

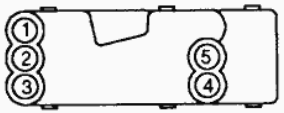


Fig. 3

B040004.00

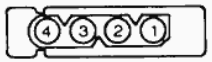


Fig. 4

B120004.01

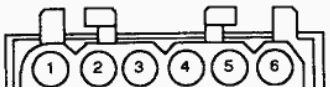
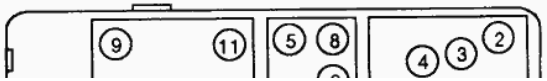


Fig. 5

B040002.00

Fig. 6

B120008.00



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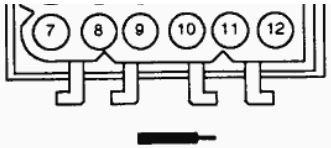

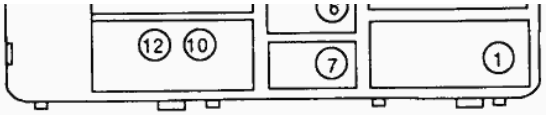

1994

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Connector views

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Fig. 1

B040022.00

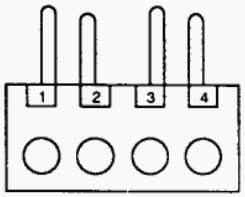

Fig. 2

B120002.03

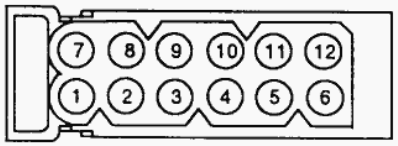

Fig. 3

B120004.05

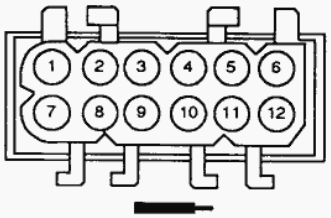

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Fig. 4

Fig. 5

B030009.00

Fig. 6

B130002.01

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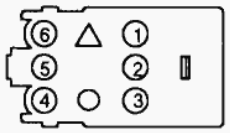
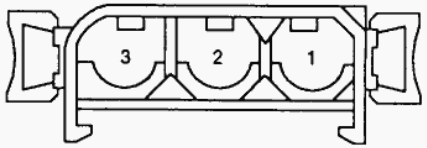
B060005.10





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Connector views

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Fig. 1

B210002.00

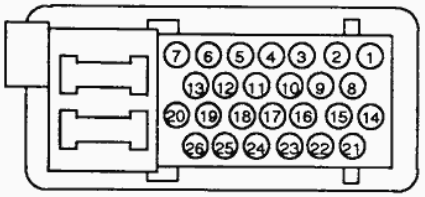

Fig. 2

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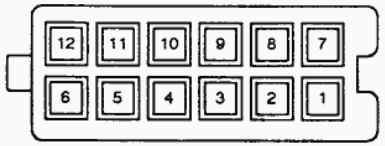

Fig. 3

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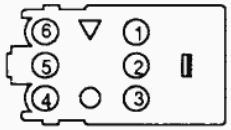


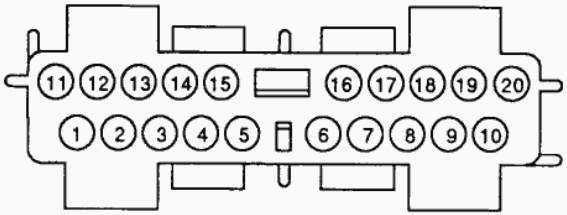
Fig. 4

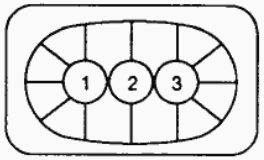
B200001.00

Fig. 5

B030023.00

Fig. 6





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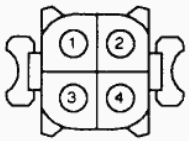

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Connector views

Fig. 1

B100008.00

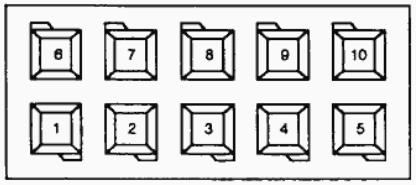

Fig. 2

B060023.00

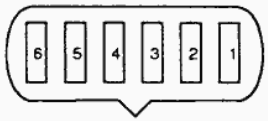

Fig. 3

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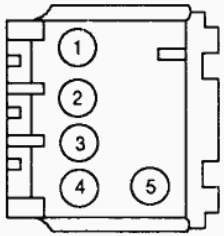

Fig. 4

Fig. 5

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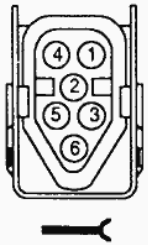
B060009.00



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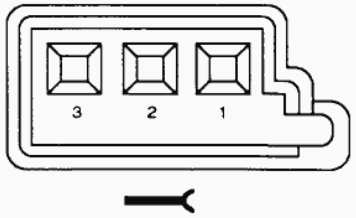

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Connector views

Fig. 1

B060010.01

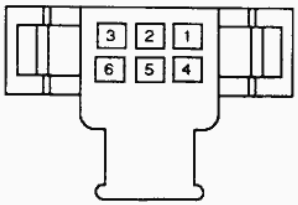

Fig. 2

B040013

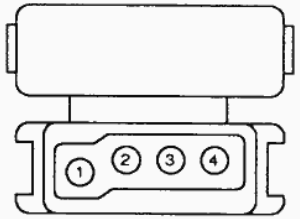

Fig. 3

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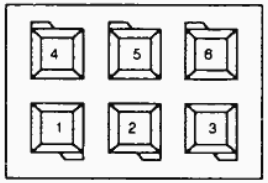
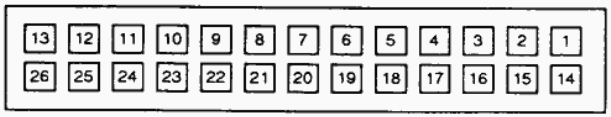


Fig. 4

Fig. 5

B260005.00



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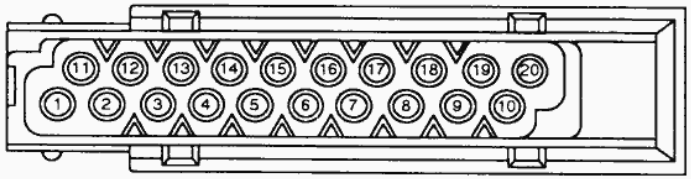

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Connector views

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Fig. 1

B140002.00

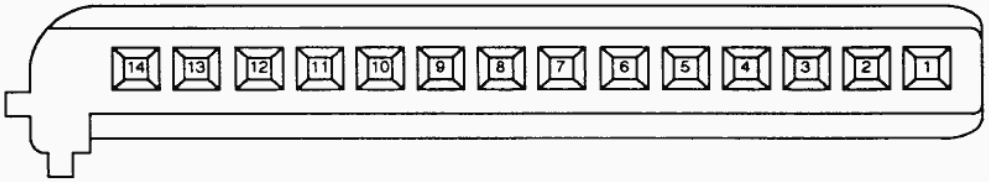

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Fig. 2

B080005.00

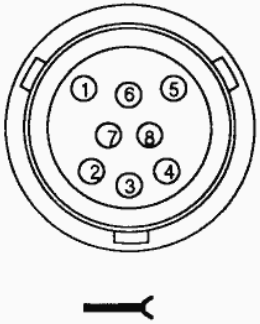
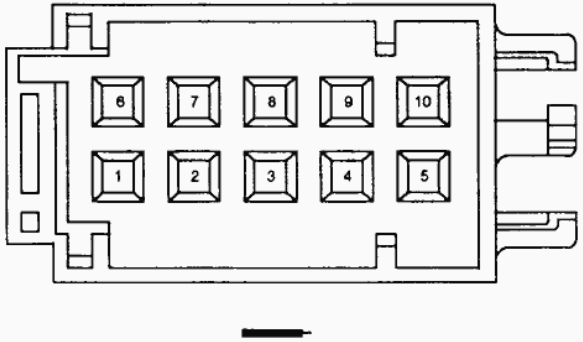


Fig. 3

B100009.00



Connector views

Fig. 1

B880001.00

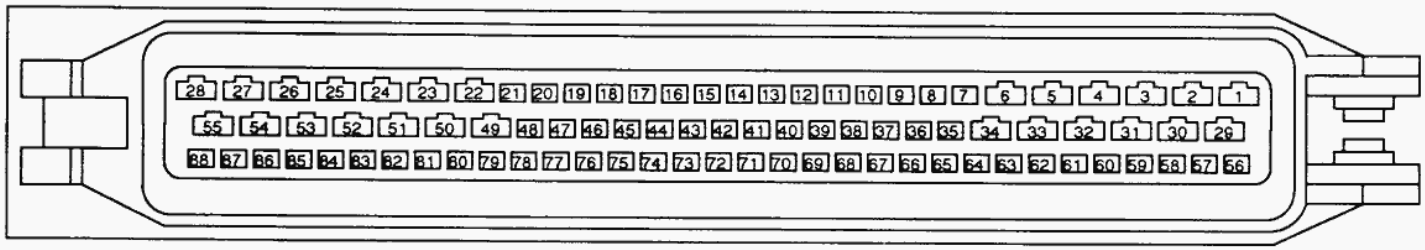


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Fig. 2

B050007.00

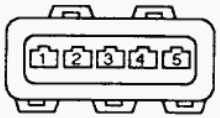
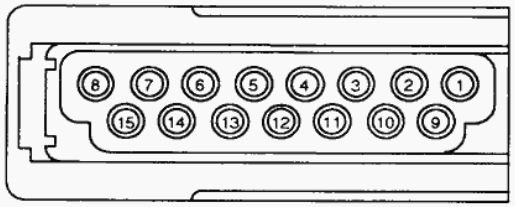


Fig. 3

B150003.00



Connector views

Fig. 1

B080000.00

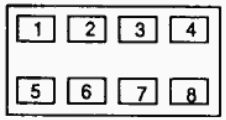


Fig. 2

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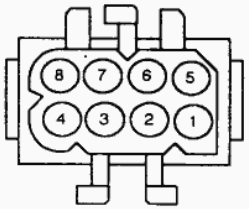

Fig. 3

B180000.00

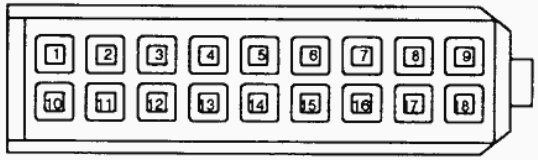

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Fig. 4

B070005.00

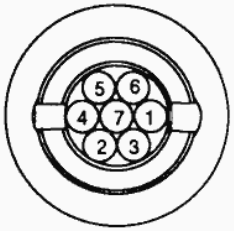


Fig. 5

B040018.01

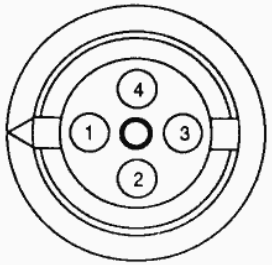
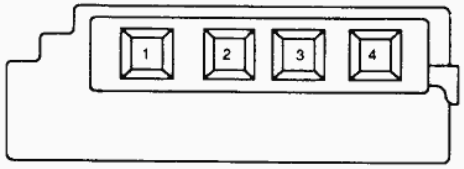


Fig. 6

B040020.00



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Connector views

Fig. 1

B060005.10

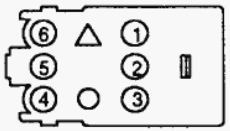

Fig. 2

B060005.08

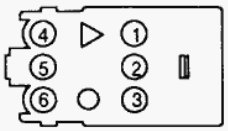

Fig. 3

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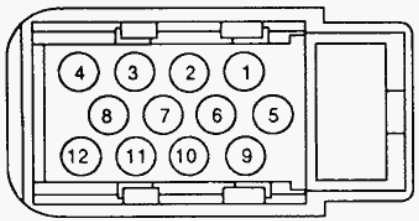


Fig. 4

B300002.00

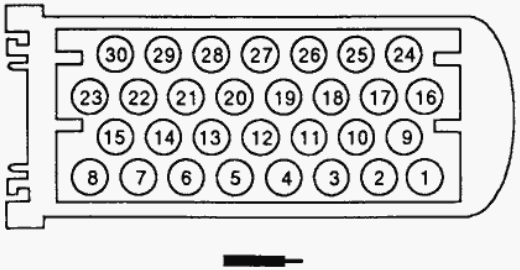
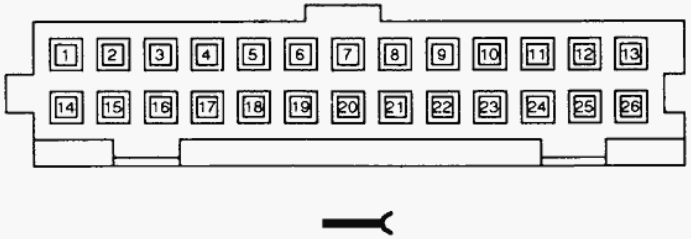


Fig. 5

B260002.00



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Connector views

Fig. 1

B120014

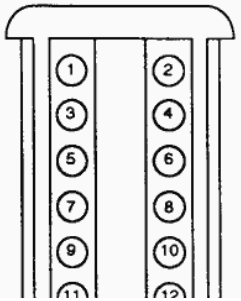

Fig. 2

B100004.00

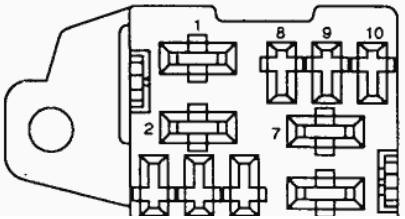

Fig. 3

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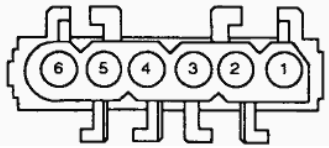
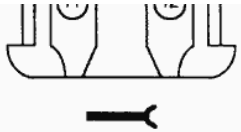




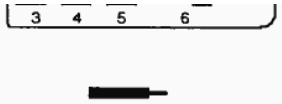


Fig. 4

B030015.08

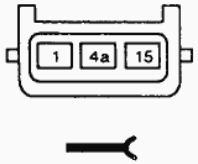


Fig. 5

B060019.00

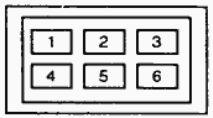
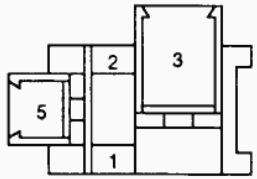


Fig. 6

B050013.00



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Connector views

Fig. 1

B060013.00

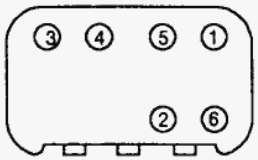

Fig. 2

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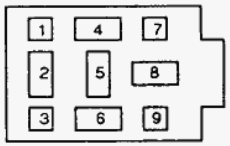


Fig. 3

B240001.00

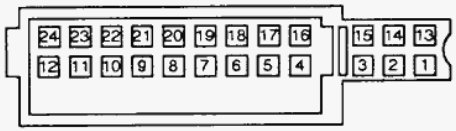
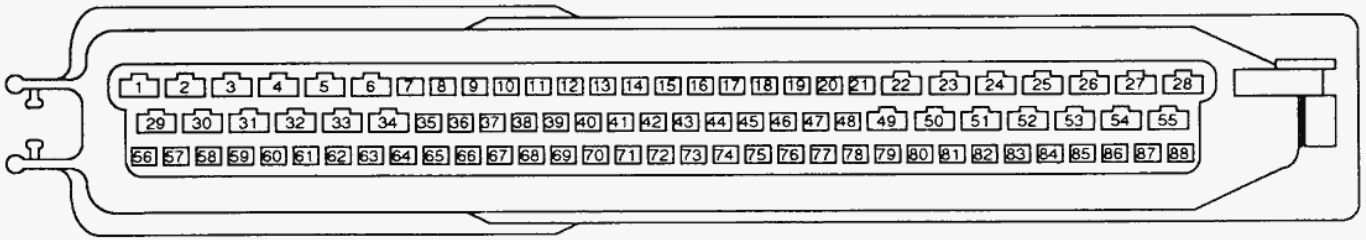


Fig. 4

B880002.01



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Connector views

Fig. 1

B030018.00

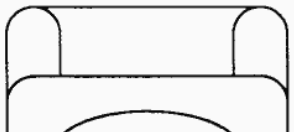

Fig. 2

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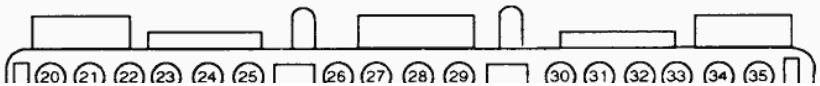
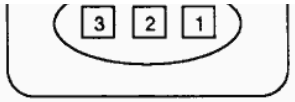




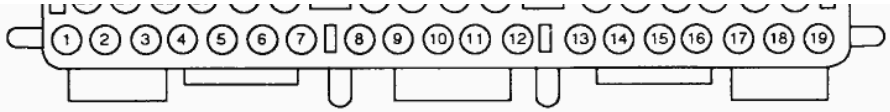


Fig. 3

B040016.00

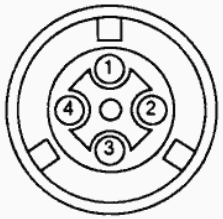


Fig. 4

B040020.00

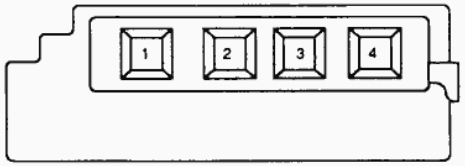
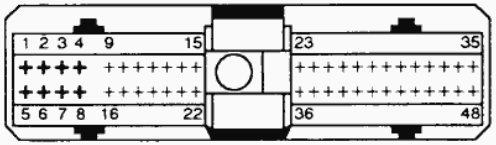


Fig. 5

B480000.00



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Crash and alarm sensor
Scheme 6350.0

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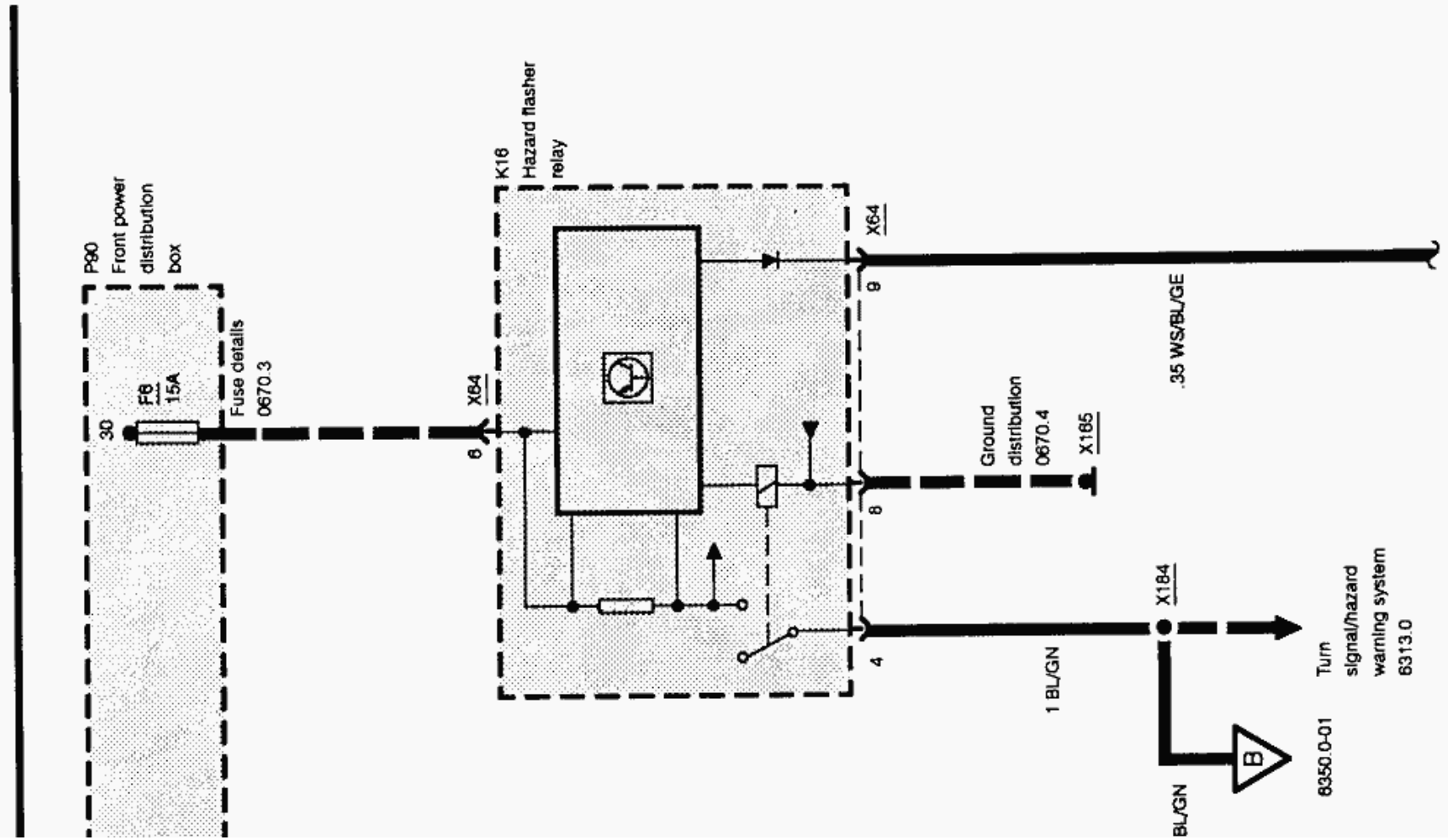

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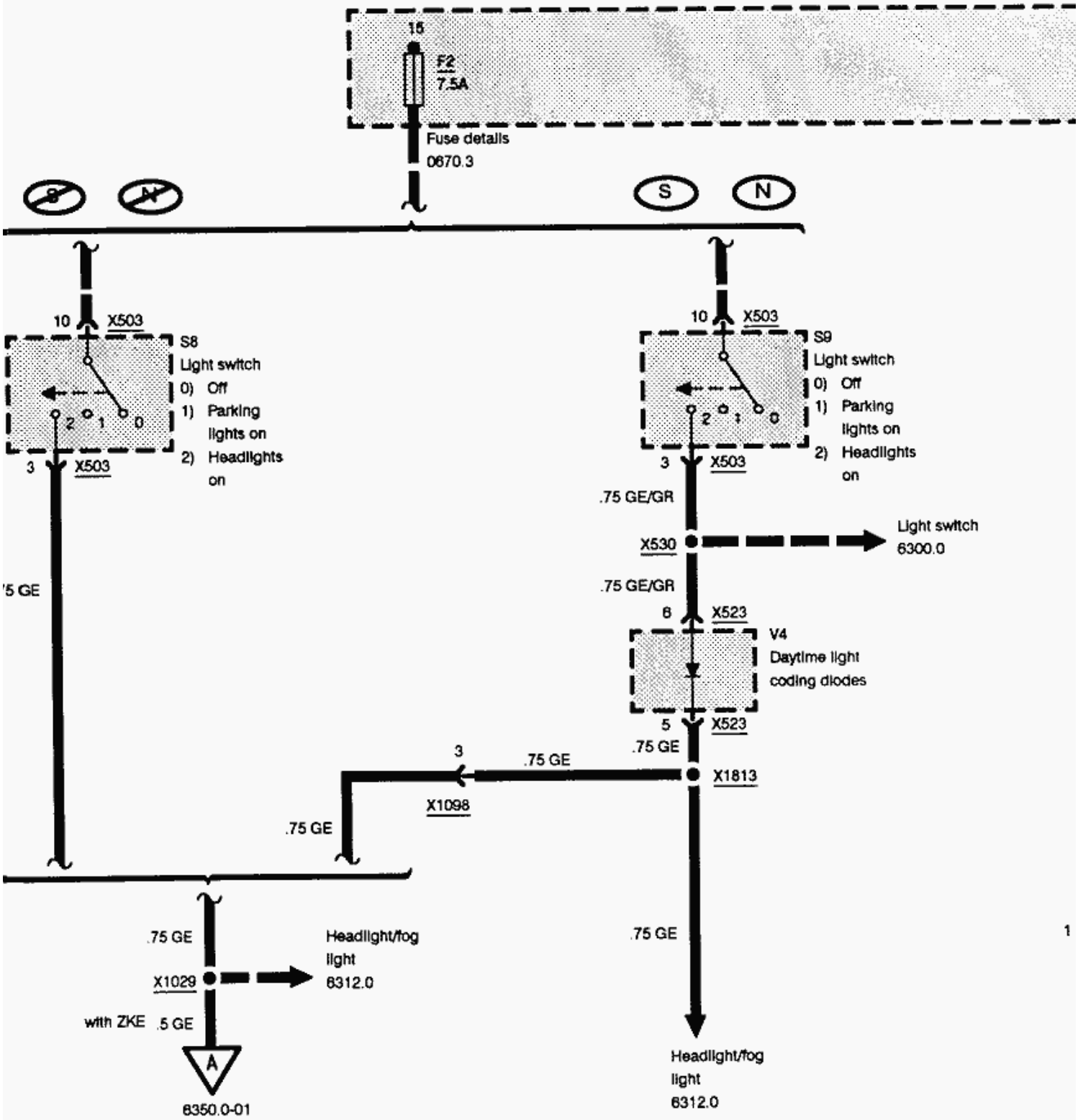
Crash and alarm sensor



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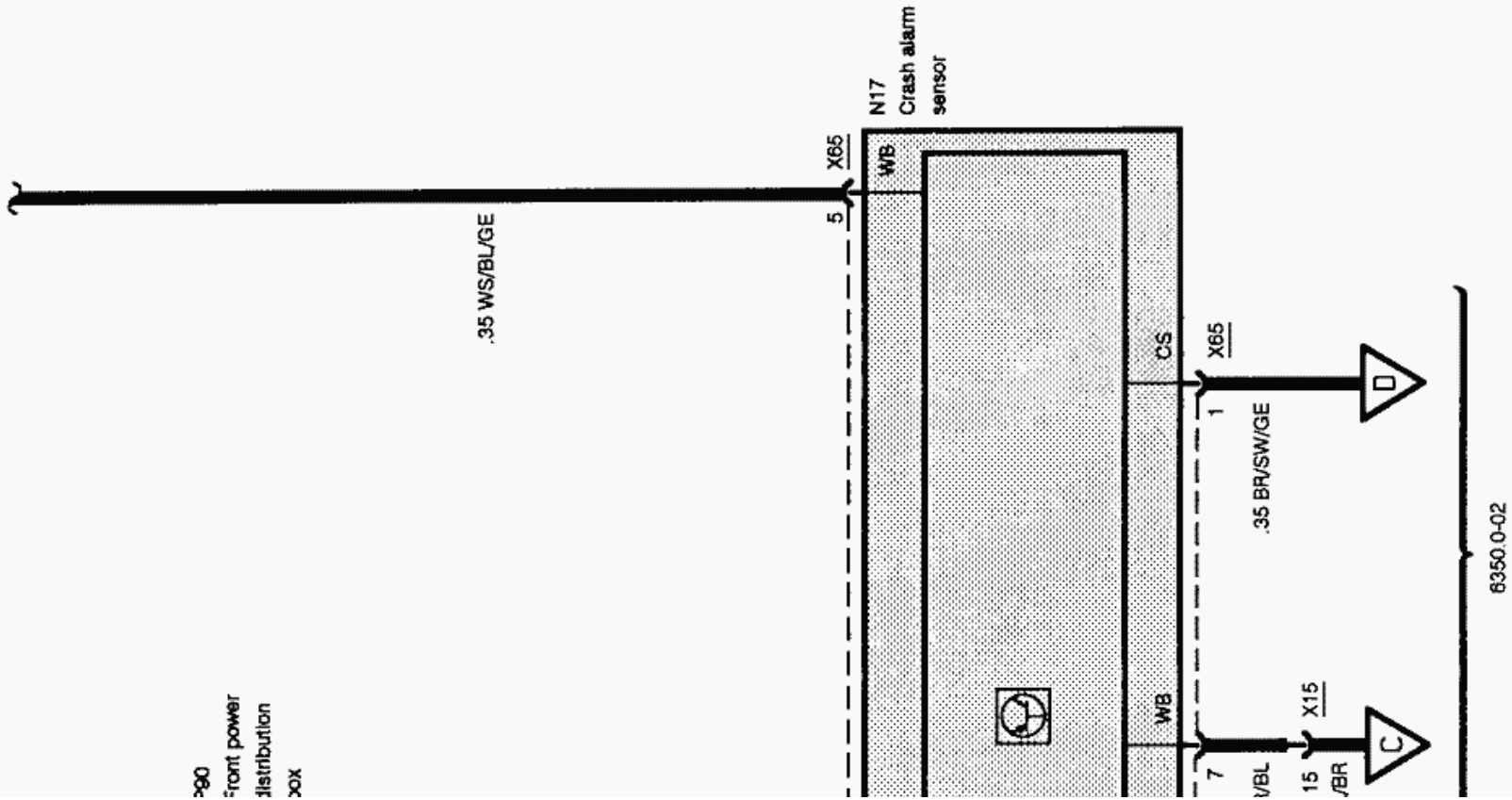

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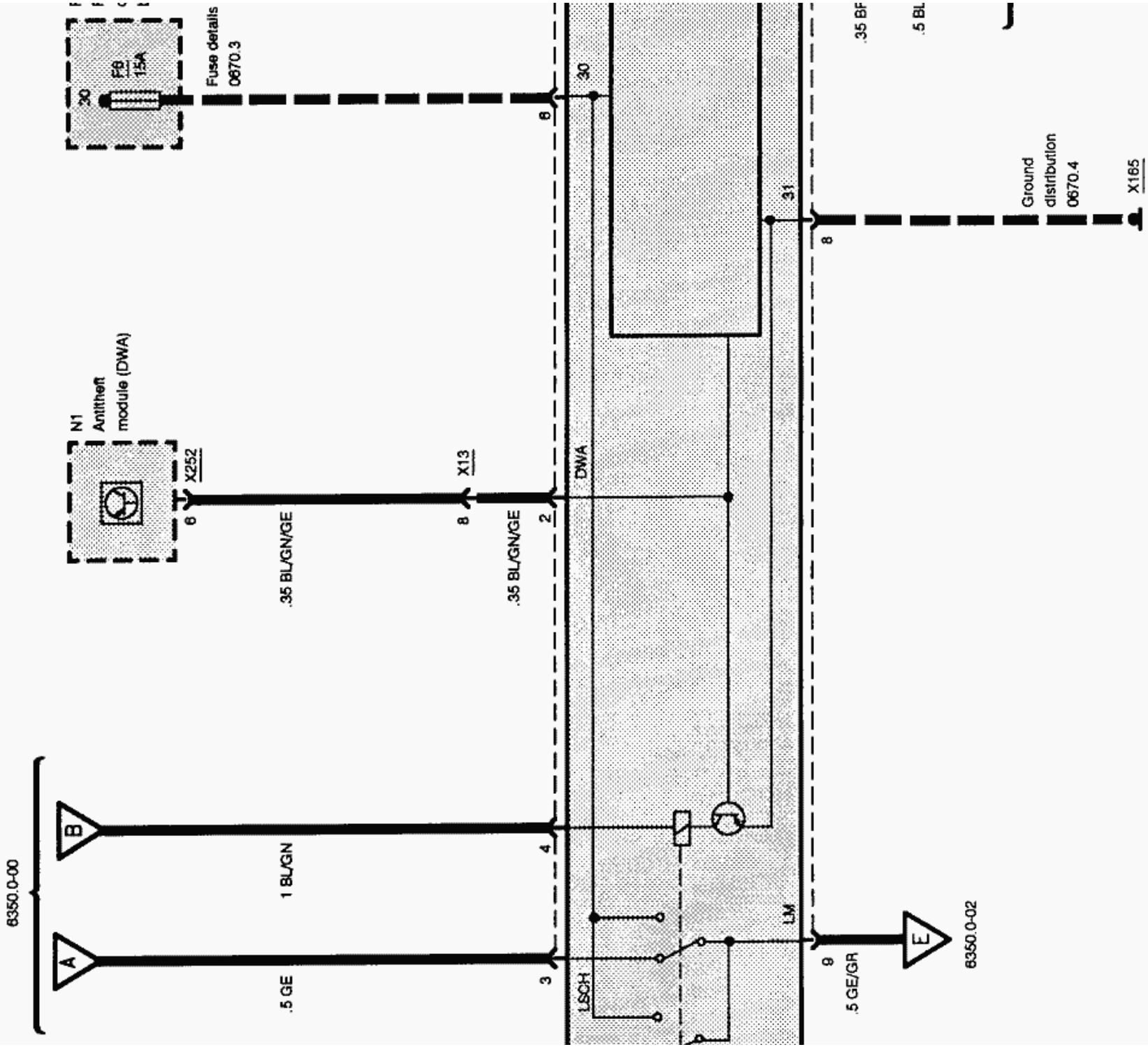

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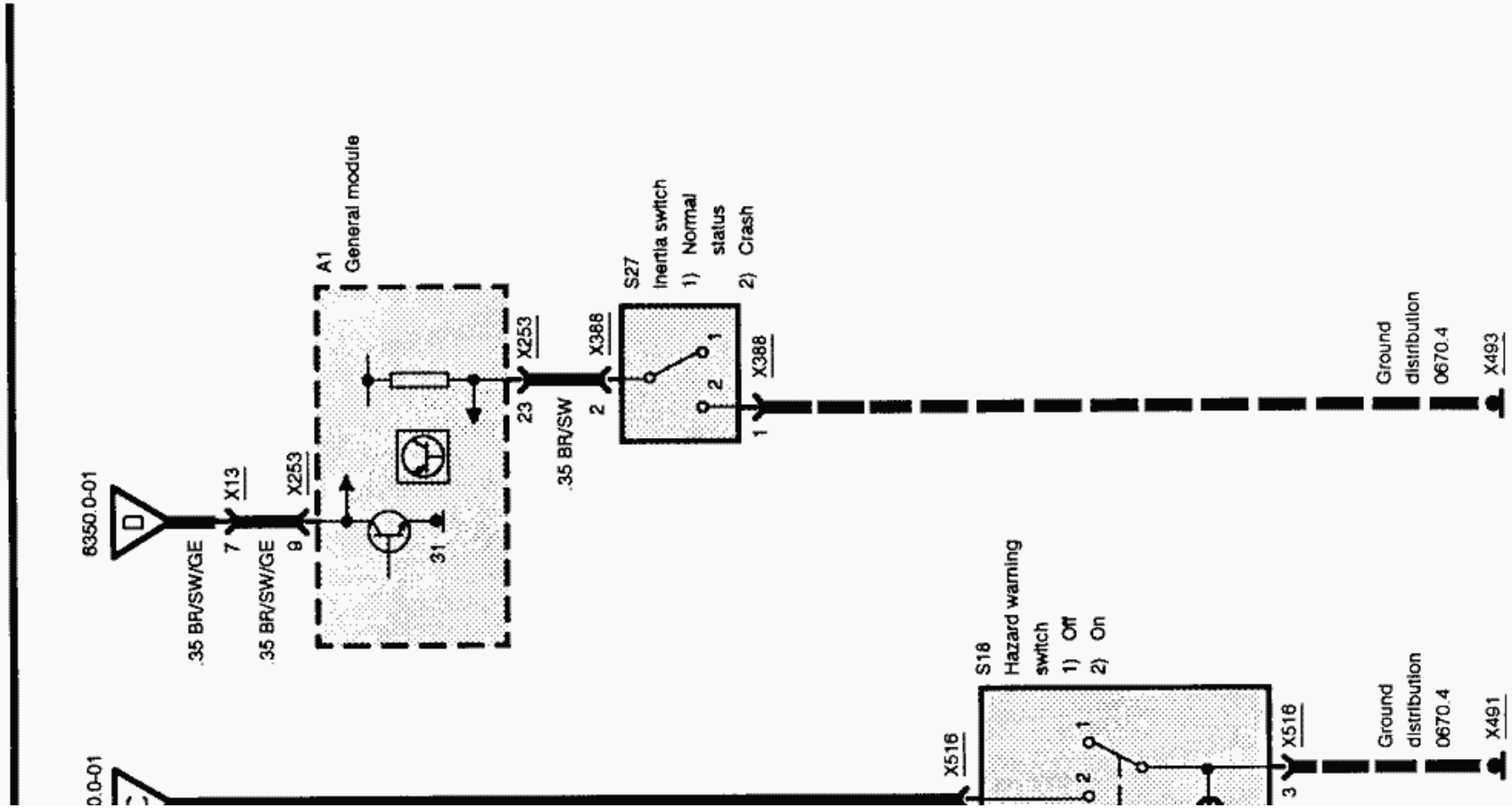

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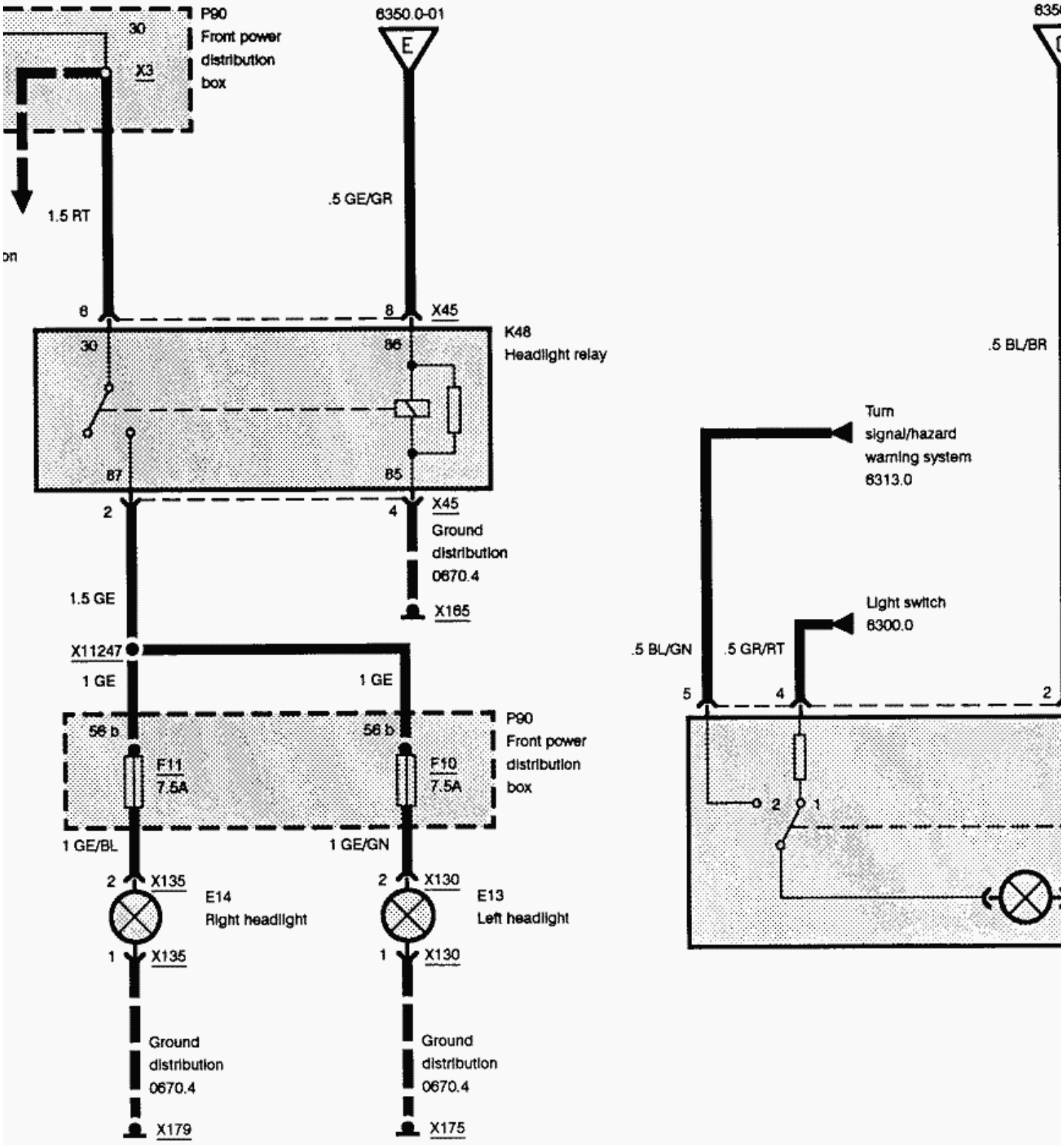
Crash and alarm sensor



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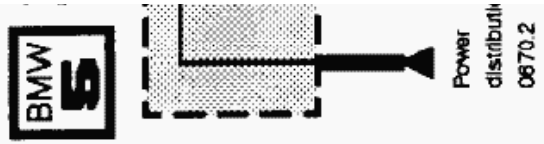

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Double-panel sunroof (ZKE)
Scheme 5410.2

Pin Assignment	
X13085	10-pin
X13086	18-pin

Pin Assignment X13085

Pin	Type	Description/Function	Connection
1	E	Voltage terminal 30	Power distribution box
2	M	Ground signal -	Motor - front cover
3	A	Component supply +	Motor - front cover
4	M	Ground signal -	Motor - rear cover
5	A	Component supply +	Motor - rear cover
6	M	Control unit ground	Ground connection
7	A	Component supply +	Pulse generator - front lid
8	A	Component supply +	Pulse generator - rear lid
9	M	Ground	DDSHD switch
10	E	Voltage terminal 30 ES	General module

Pin Assignment X13086

Pin	Type	Description/Function	Connection
1	E	Position signal	Pulse generator - front lid
2		not used	
3	E	Position signal	Pulse generator - front lid
4	E	Position signal	Pulse generator - front lid
5		not used	
6	E	Control signal	Relay module
7	A	RxD signal	Diagnostic connector
8	E	Switch closed	DDSHD switch
9	E	Switch closed	DDSHD switch
10	E	Position signal	Pulse generator - rear lid
11		not used	
12	E	Position signal	Pulse generator - rear lid
13	E	Position signal	Pulse generator - rear lid
14		not used	
15	E/A	TxD signal	Diagnostic connector
16	E	MSD+	Relay module
17	E	Switch closed	DDSHD switch
18		not used	

E = Input, A = Output, M = Ground

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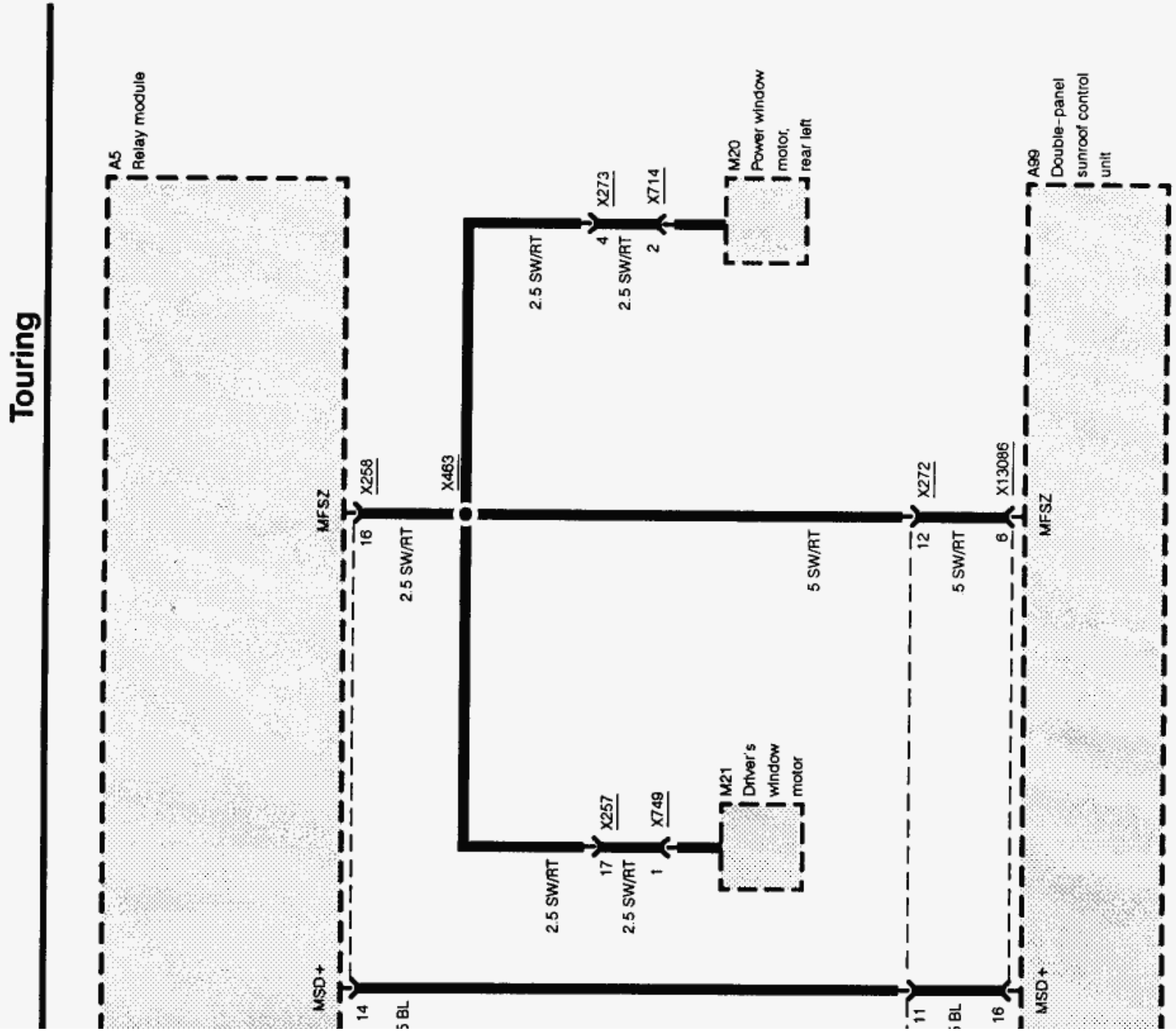

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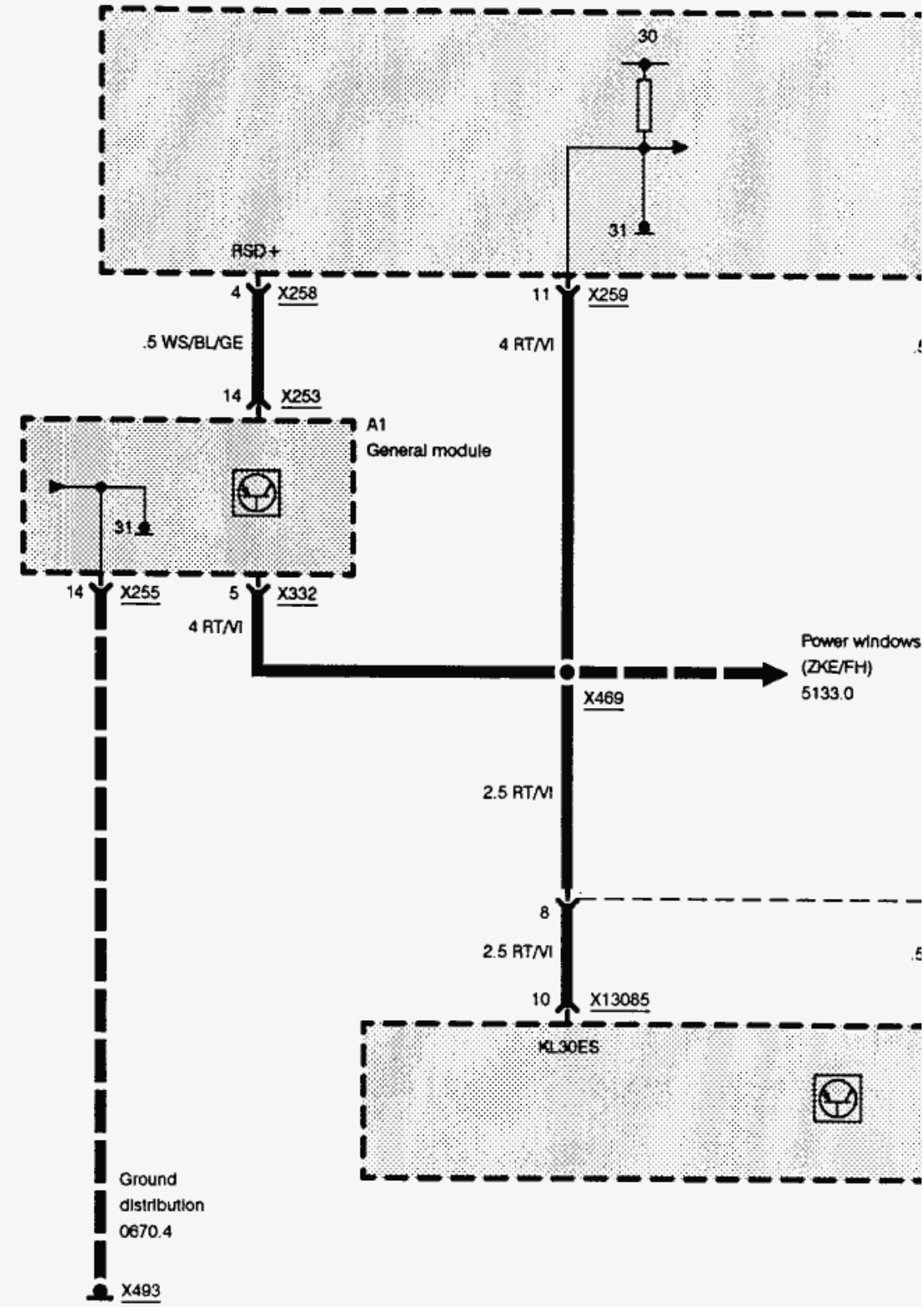
Double-panel sunroof (ZKE)



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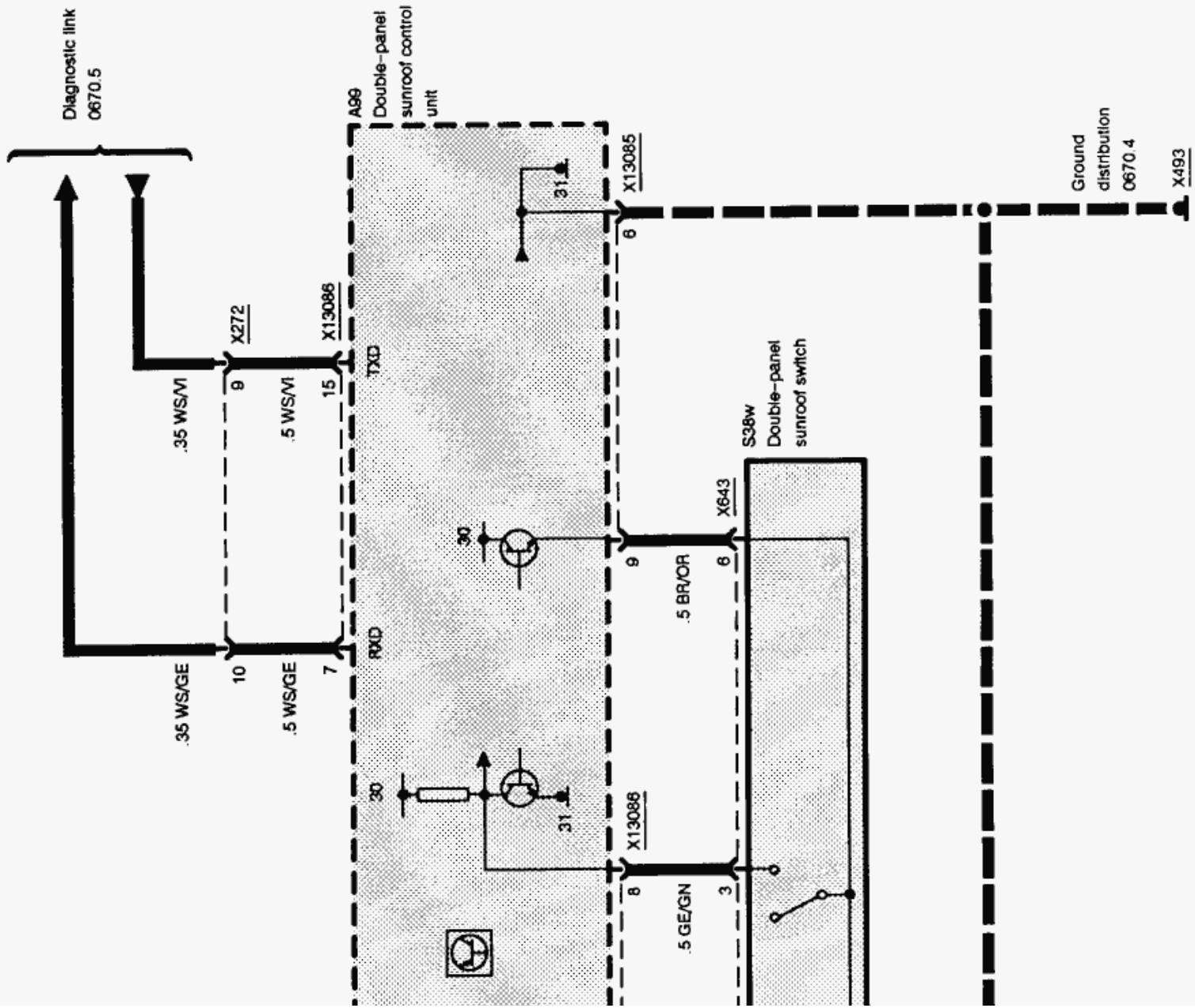
Touring



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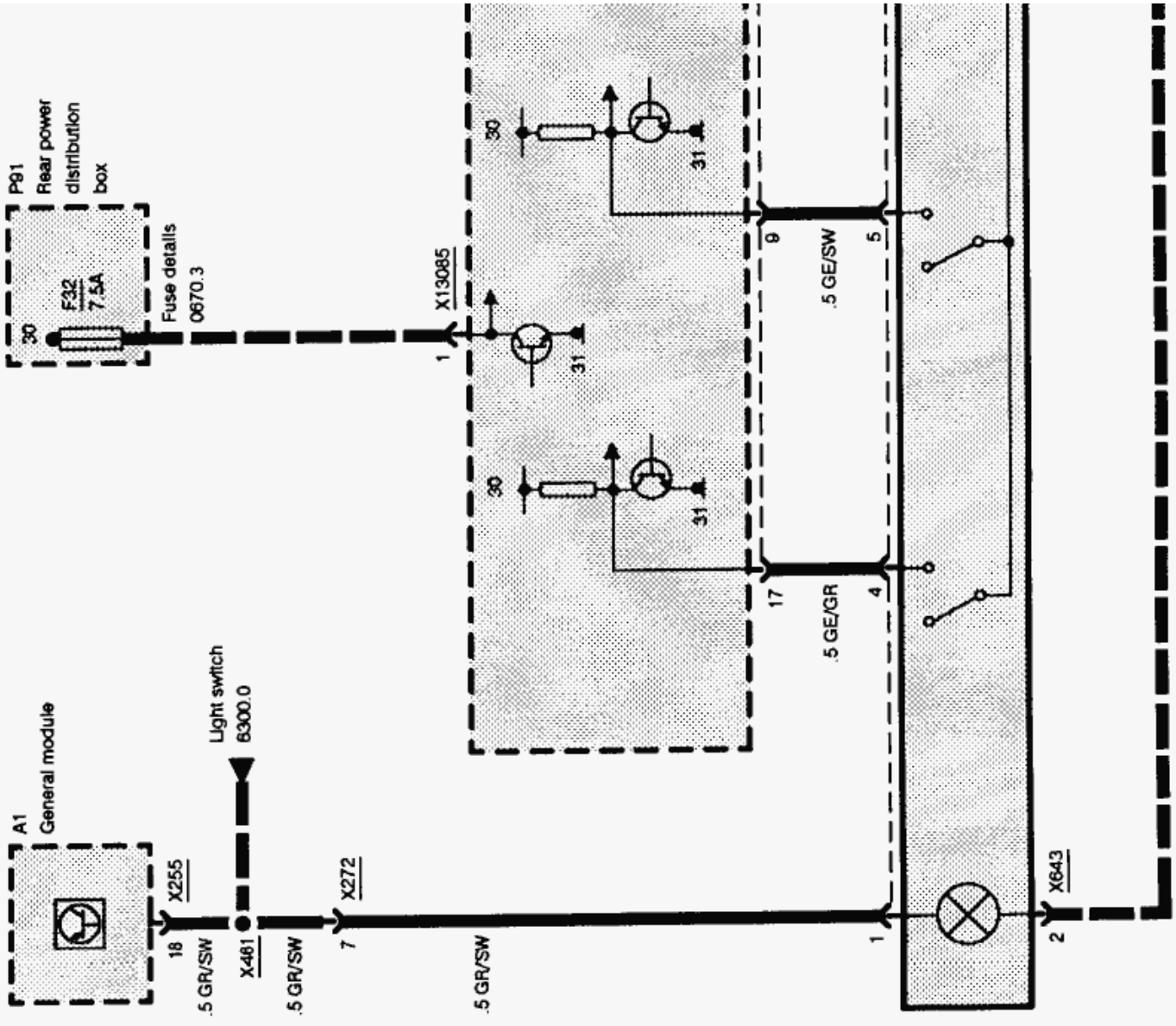
Double-panel sunroof (ZKE)



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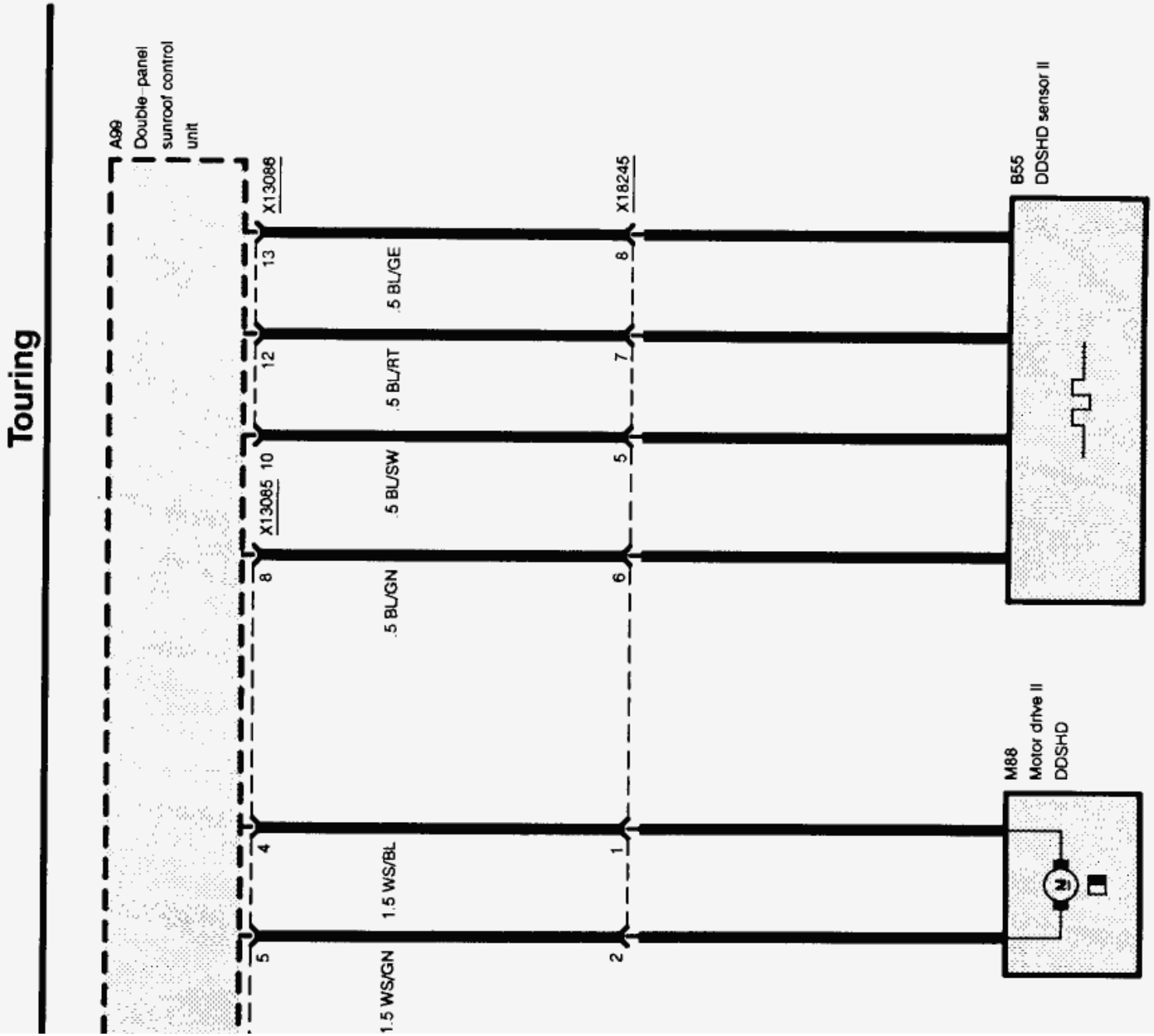

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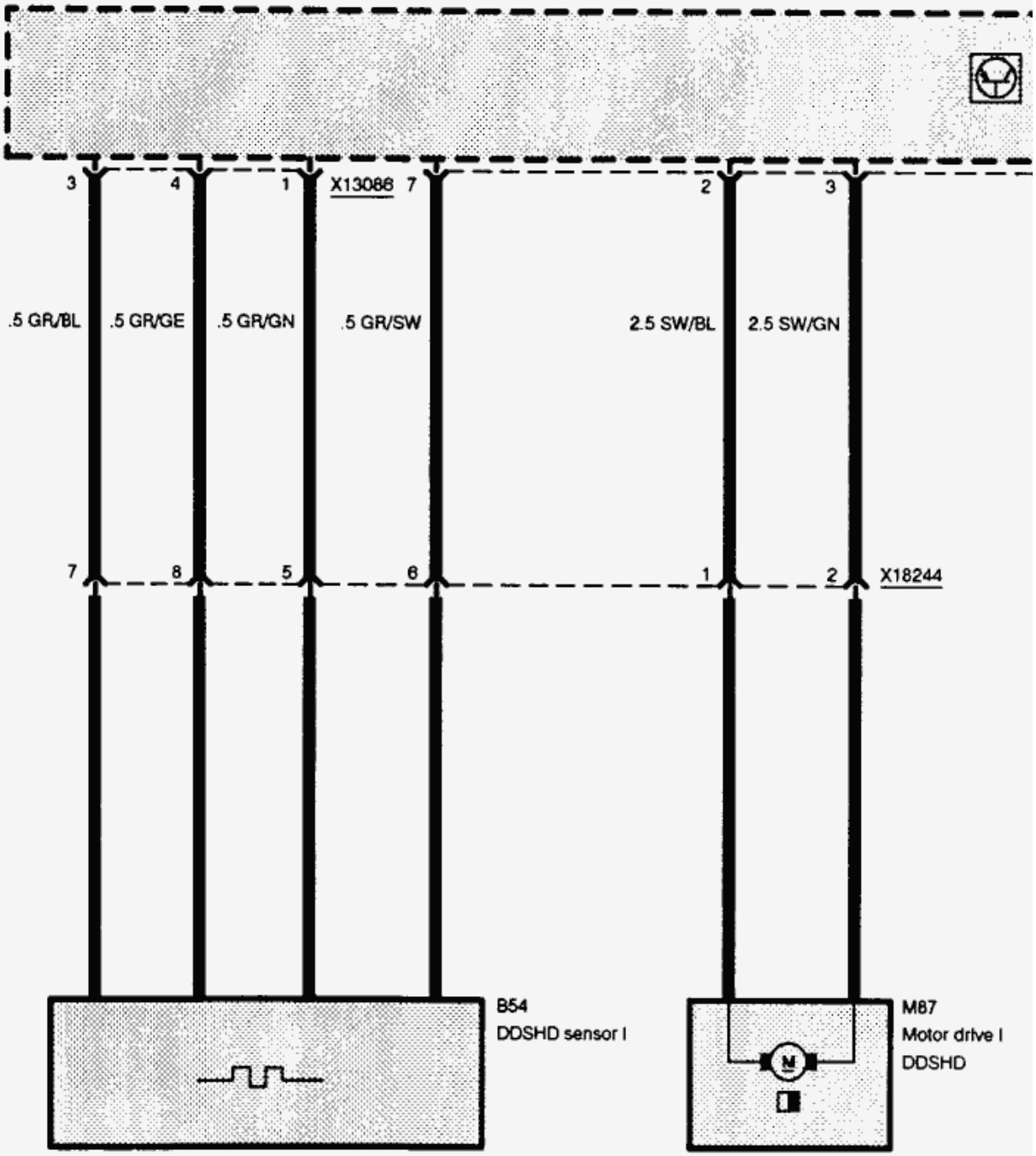
Double-panel sunroof (ZKE)



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Interior

Scheme 6332.0

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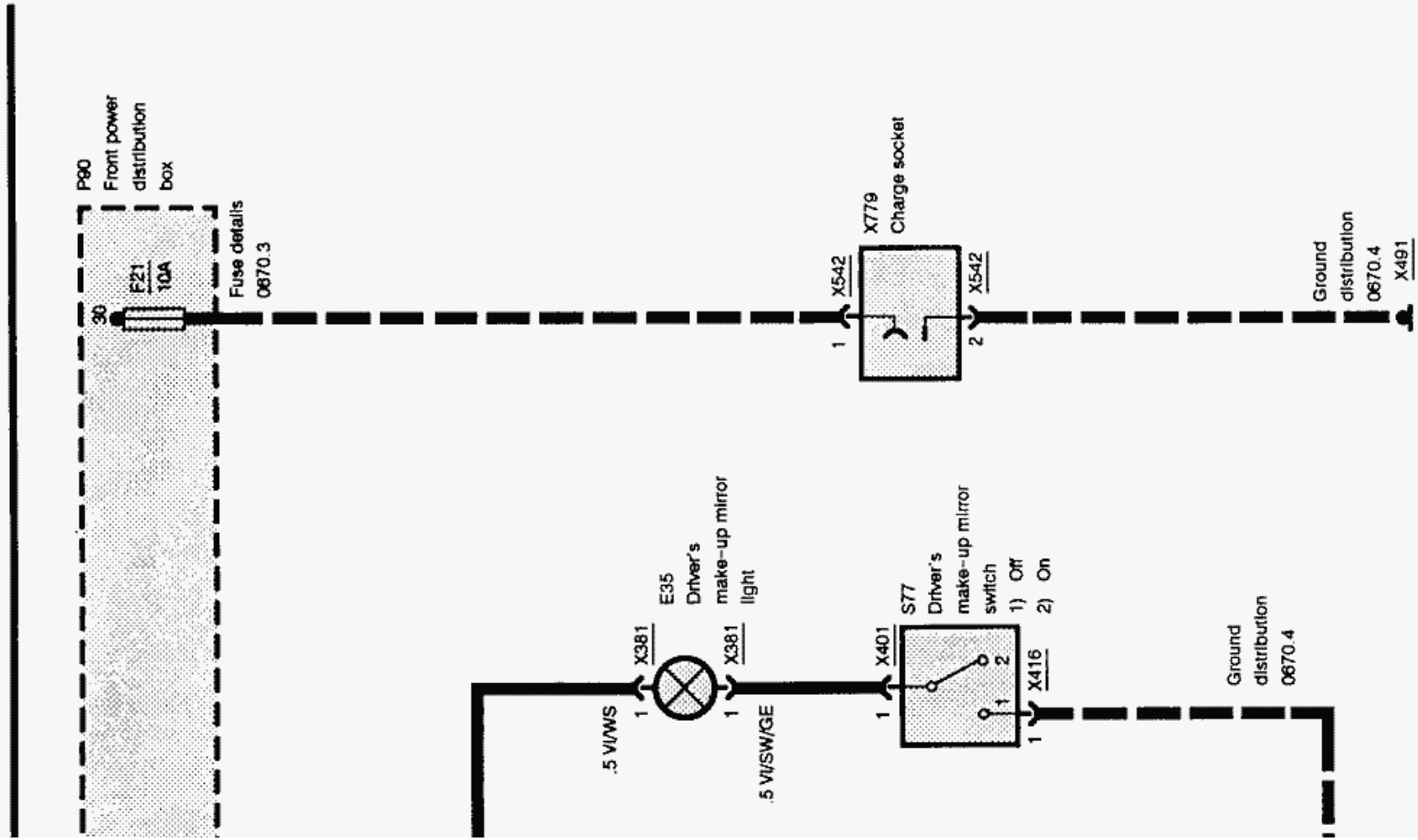

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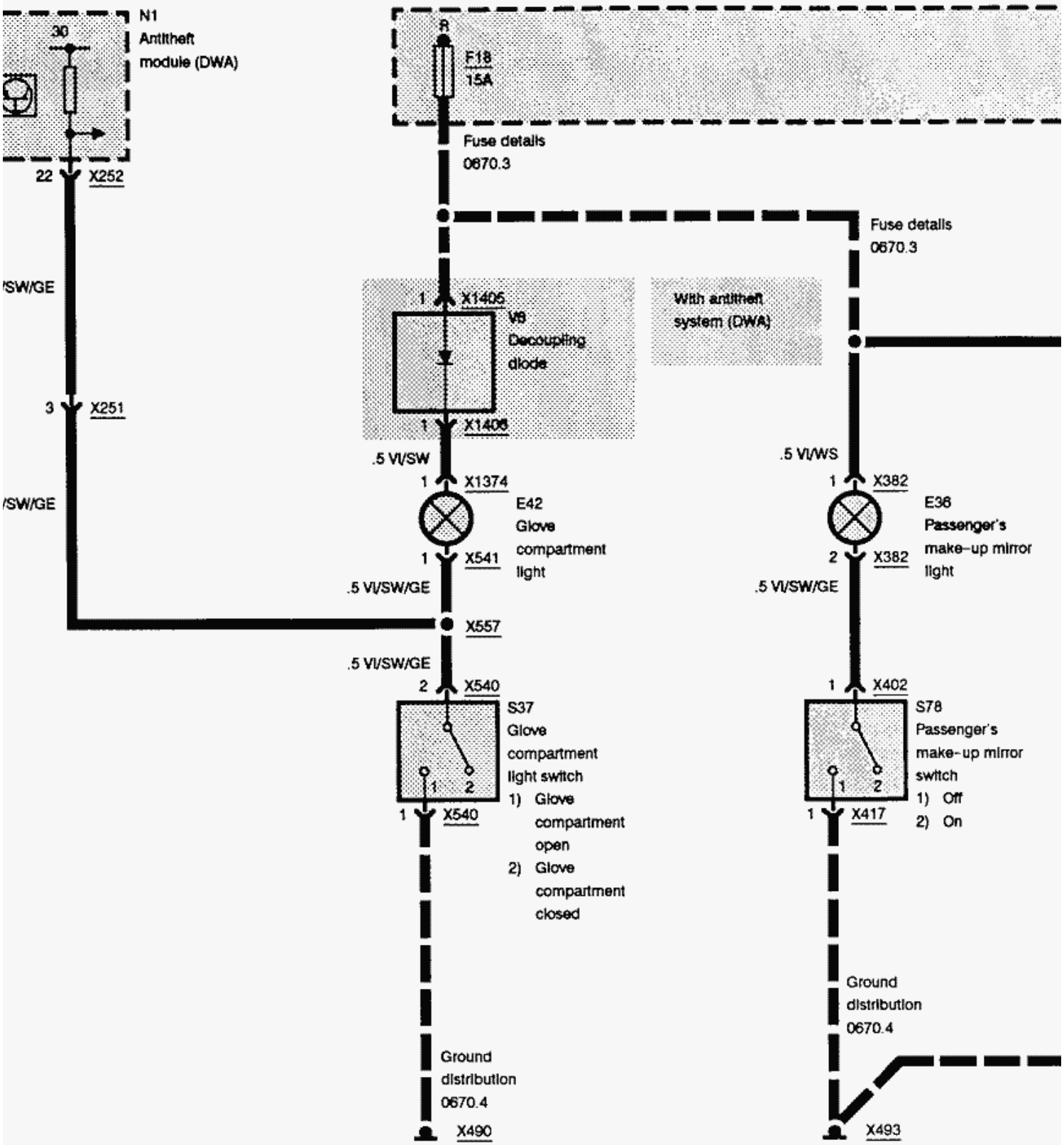
Interior



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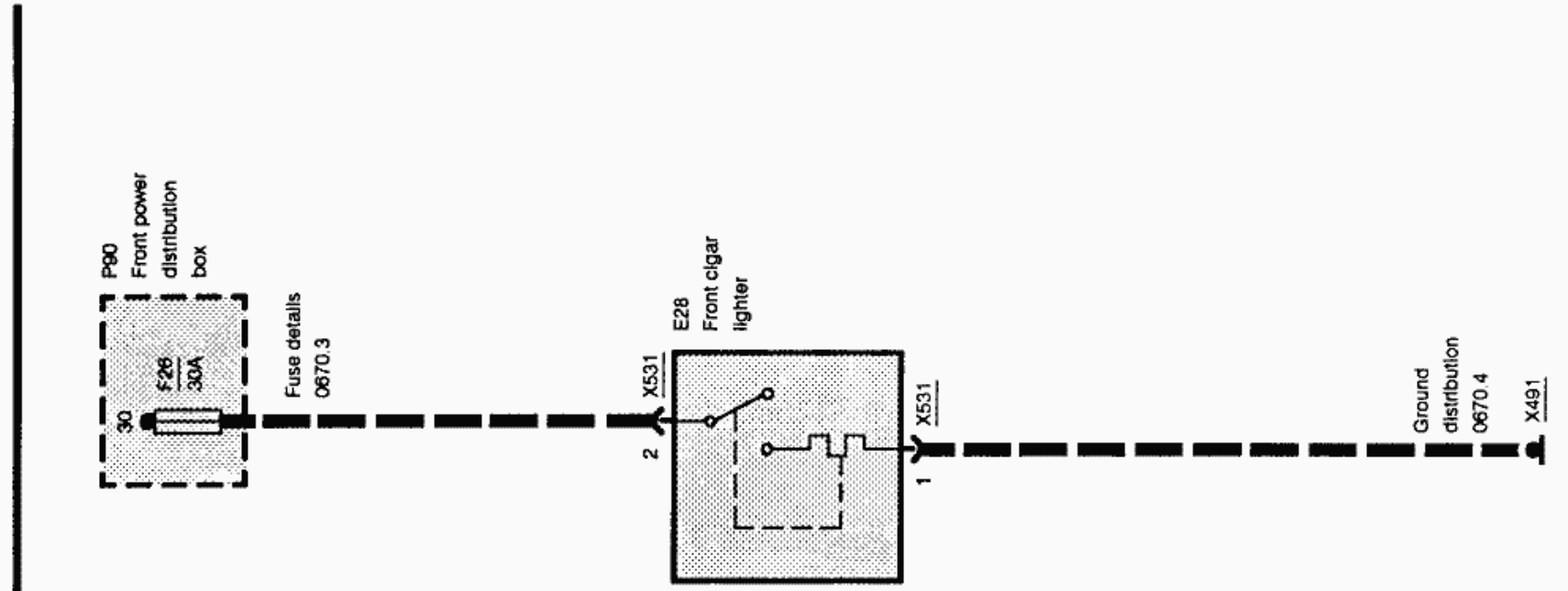

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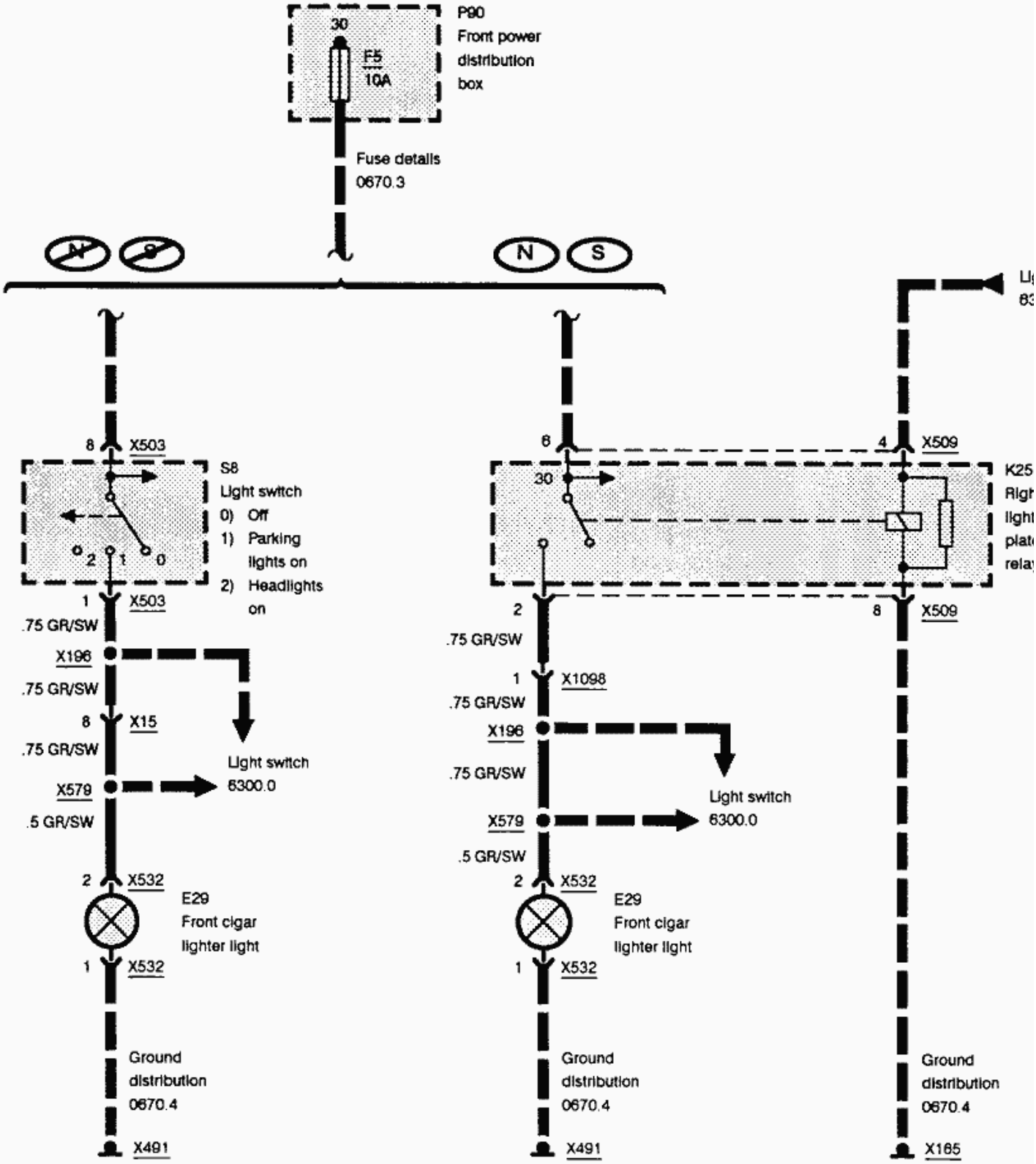
Interior



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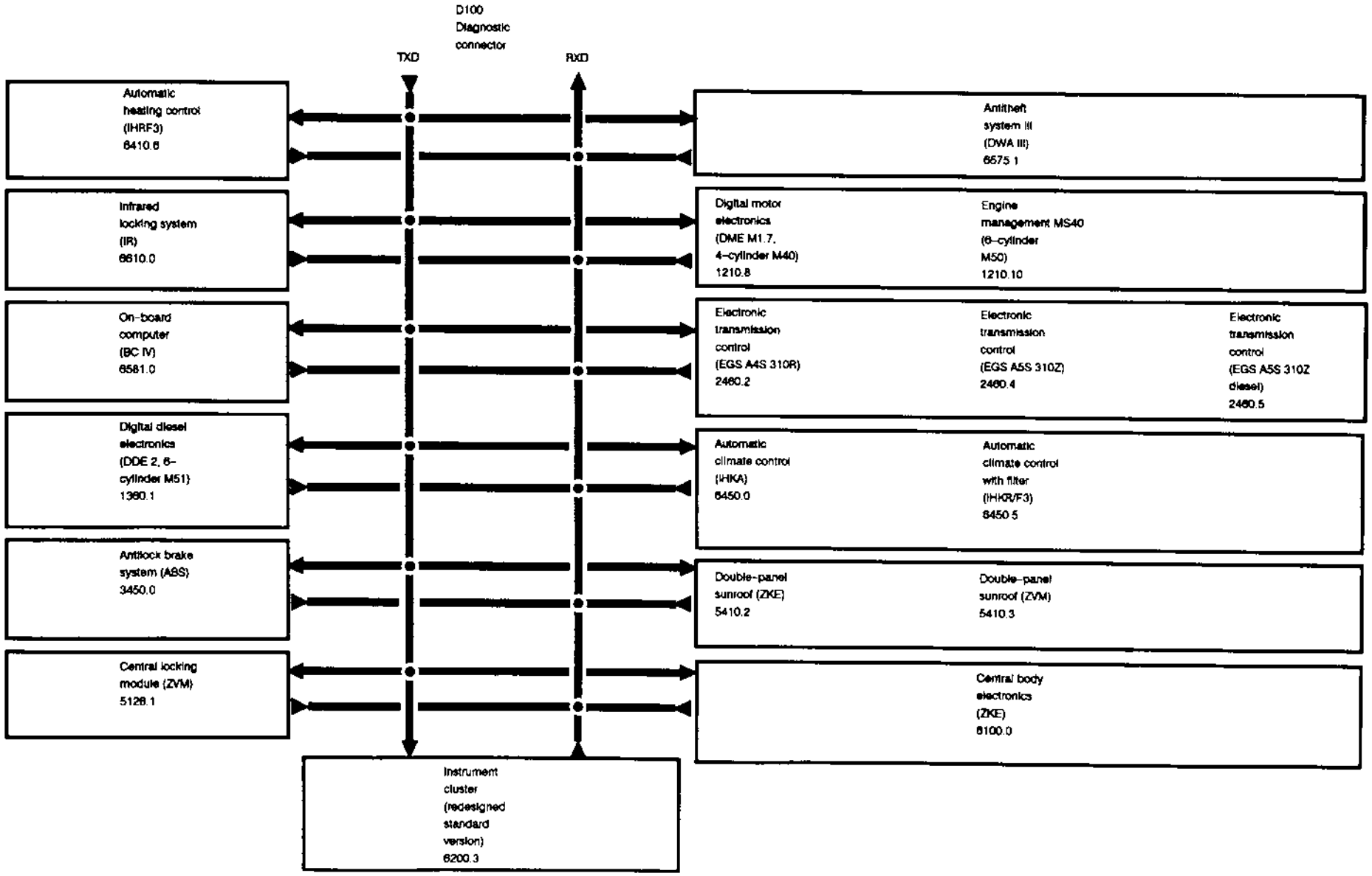
Diagnostic link

Block diagram



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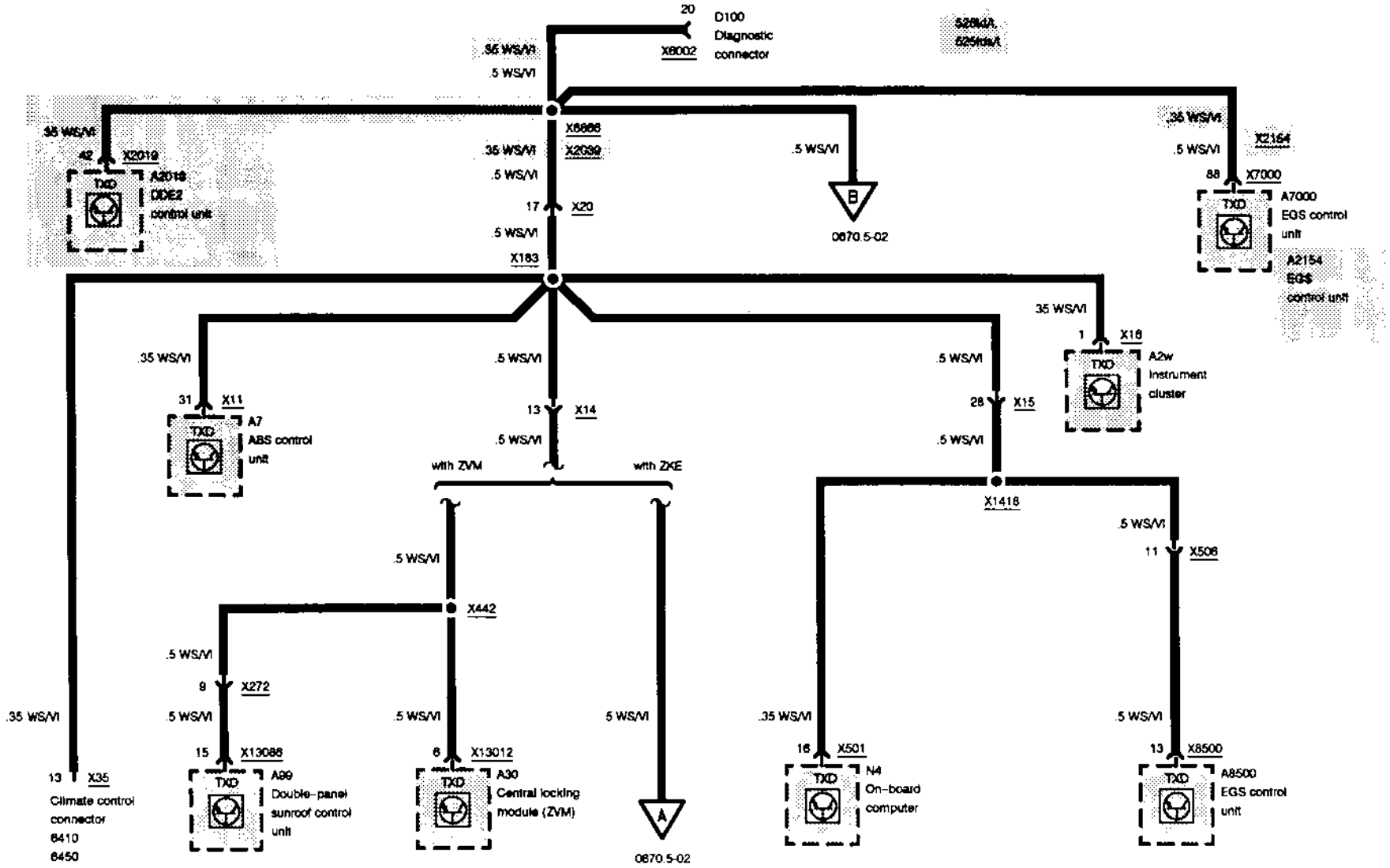
Diagnostic link

TXD, Pin 20



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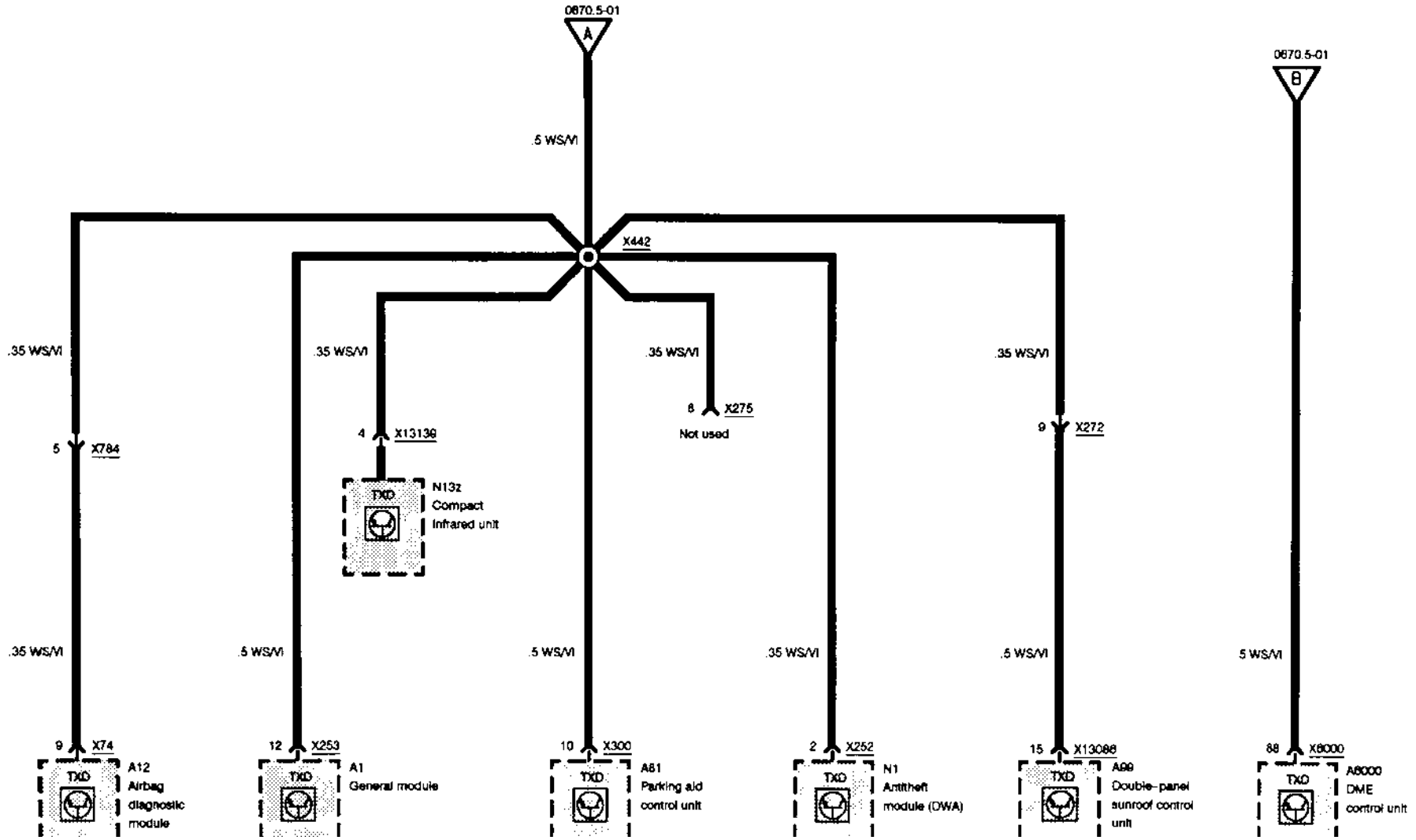
Diagnostic link

TXD



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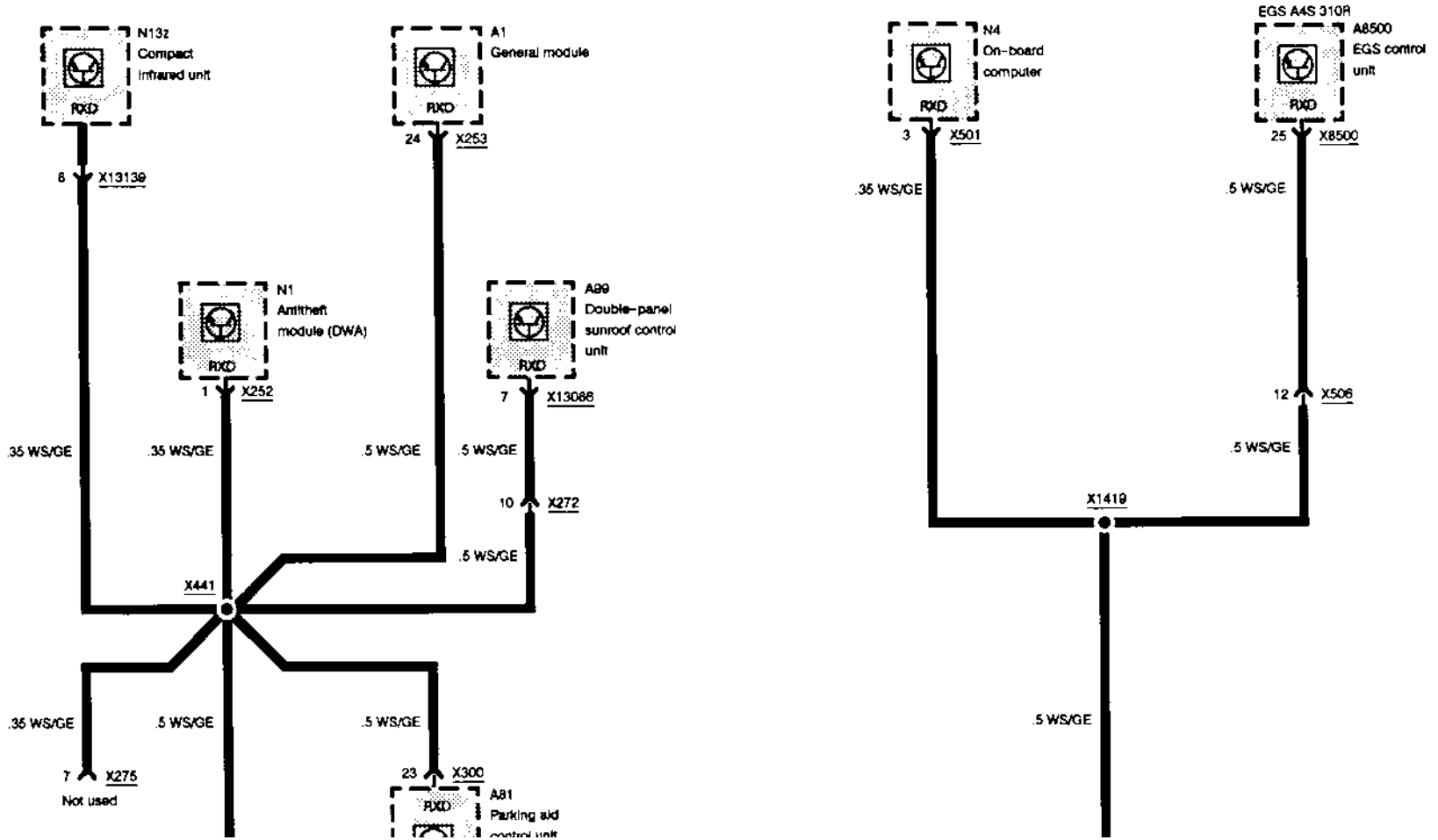
Diagnostic link

RXD



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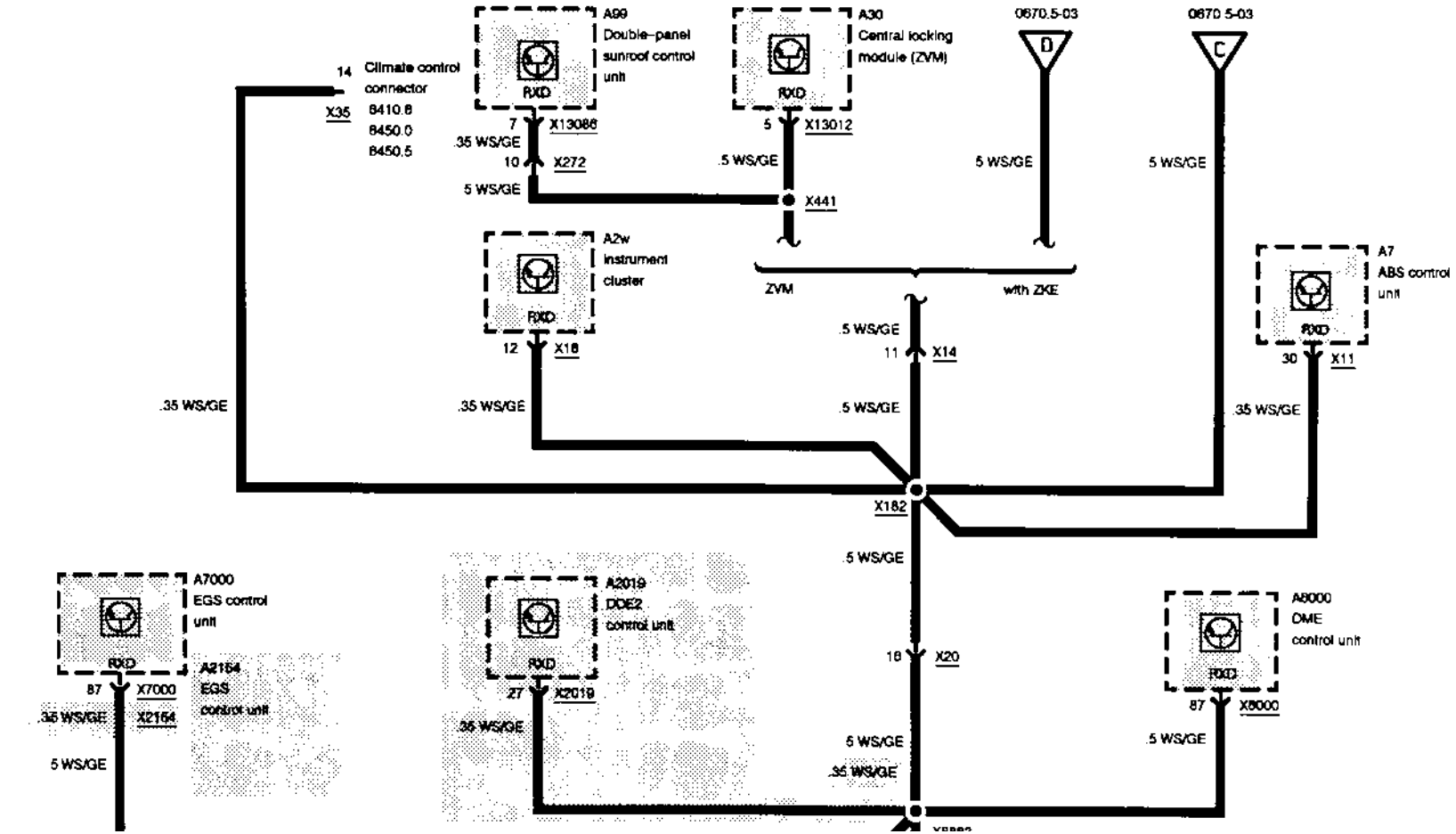
Diagnostic link

RXD, Pin 15



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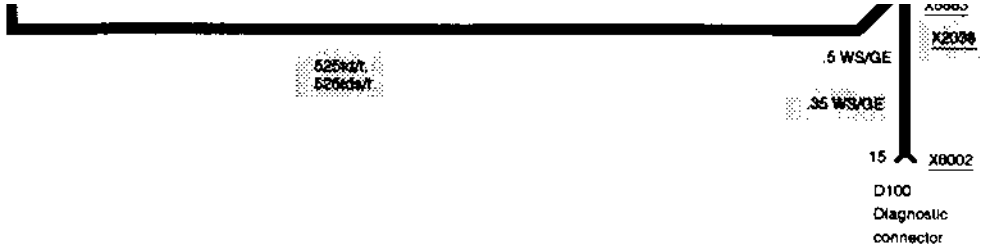
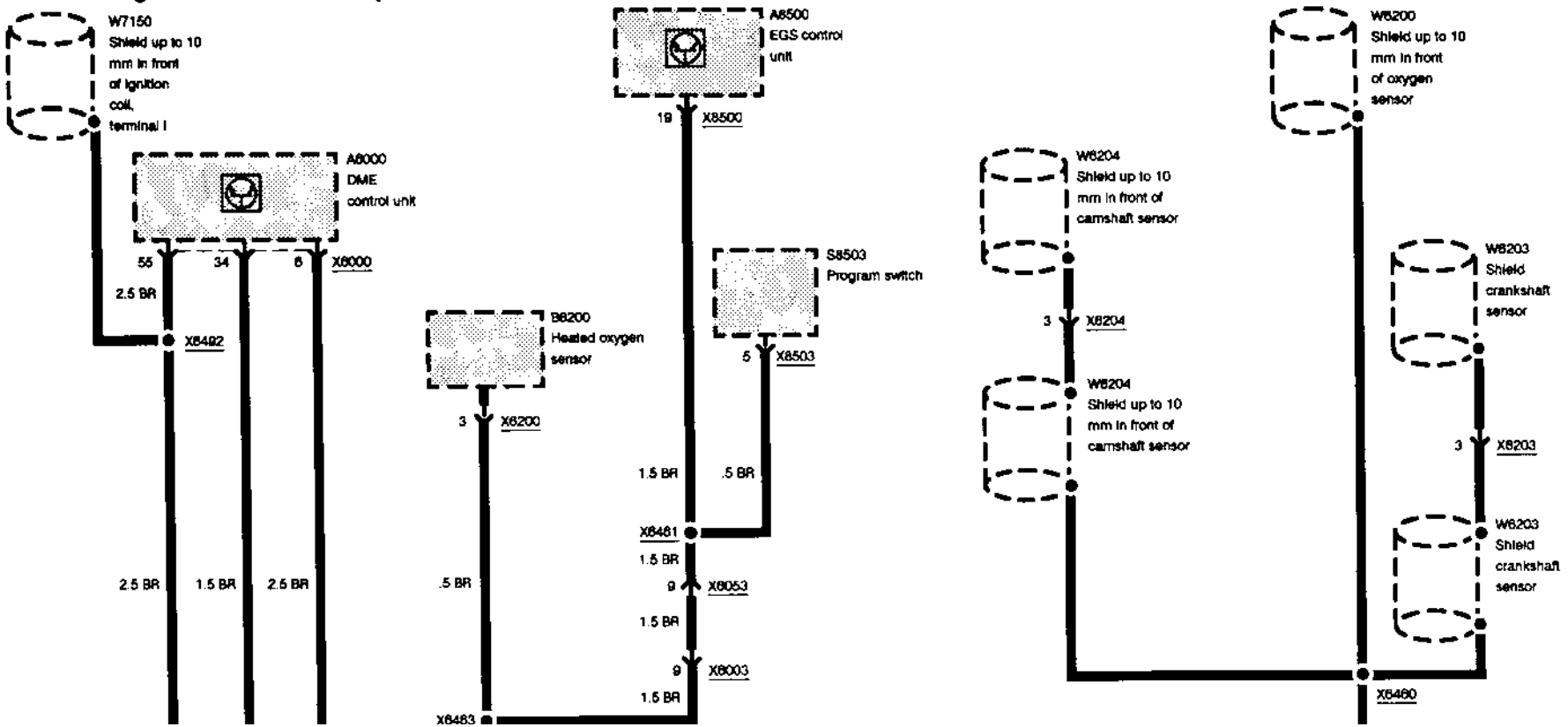


1994

Diagnostic link

518i/t

Diagnostic connector pin 19



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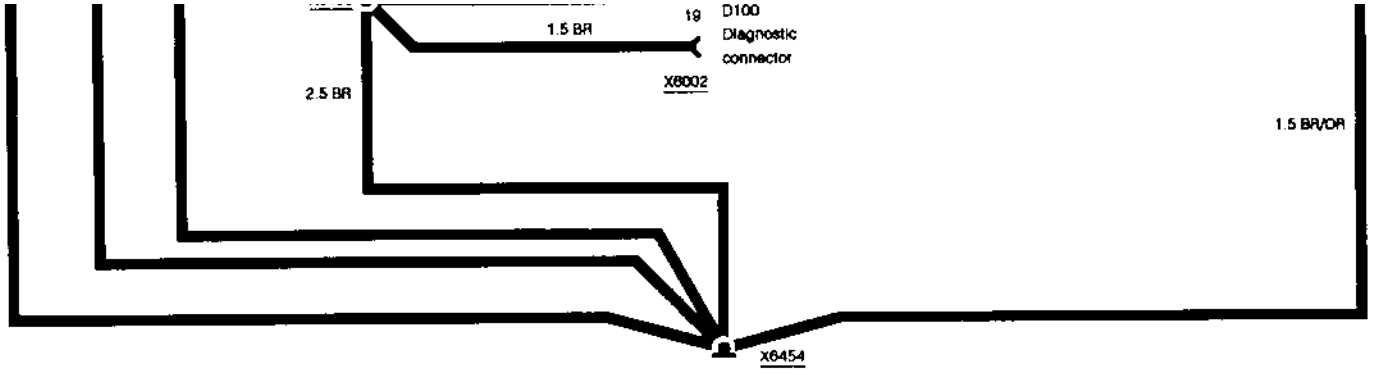

1994

BMW 5

Diagnostic link

Diagnostic connector pins 1 and 18

518i/t, 520i/t

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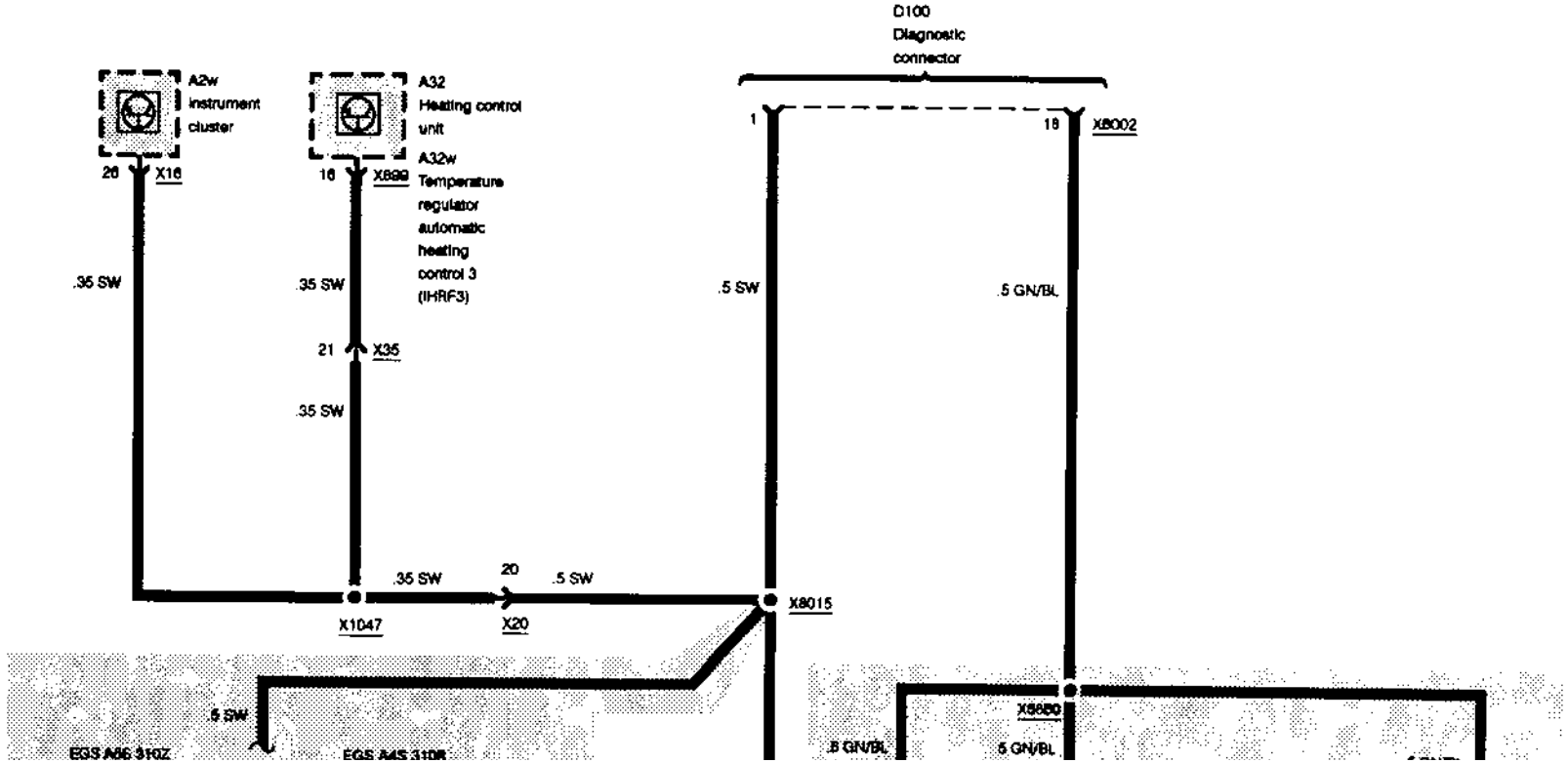

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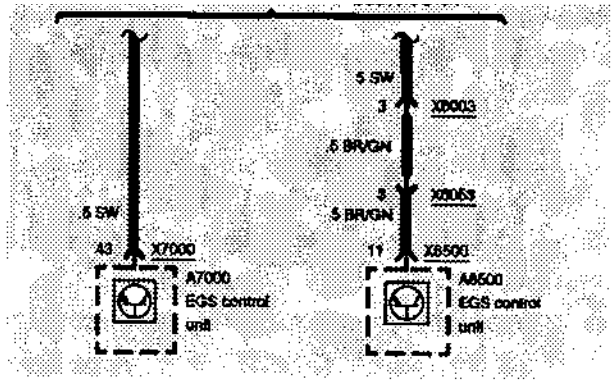
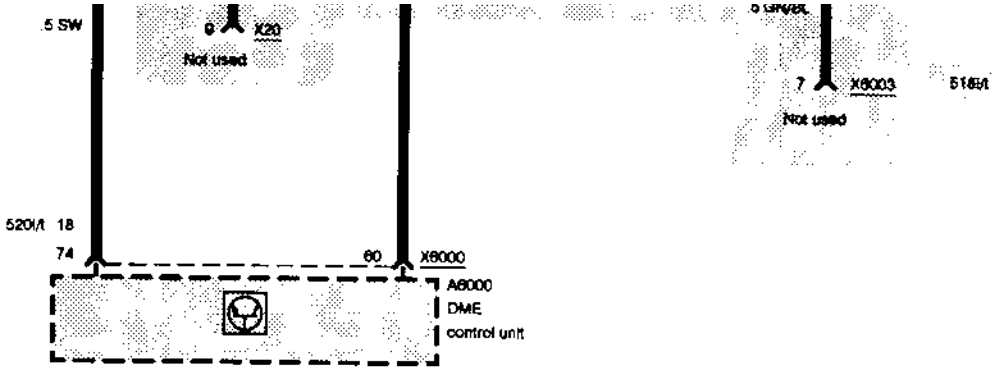


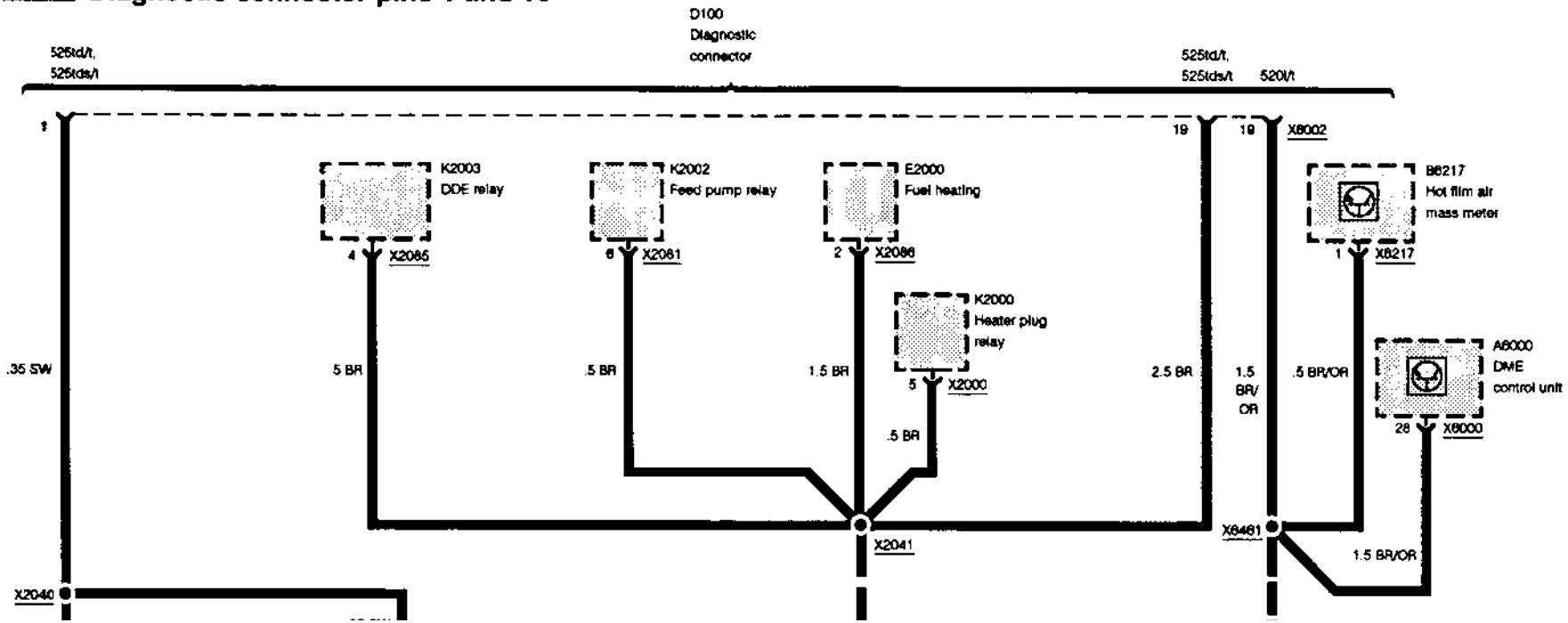


1994

BMW 5 Diagnostic link

520i/t, 525td/t, 525tds/t

Diagnostic connector pins 1 and 19



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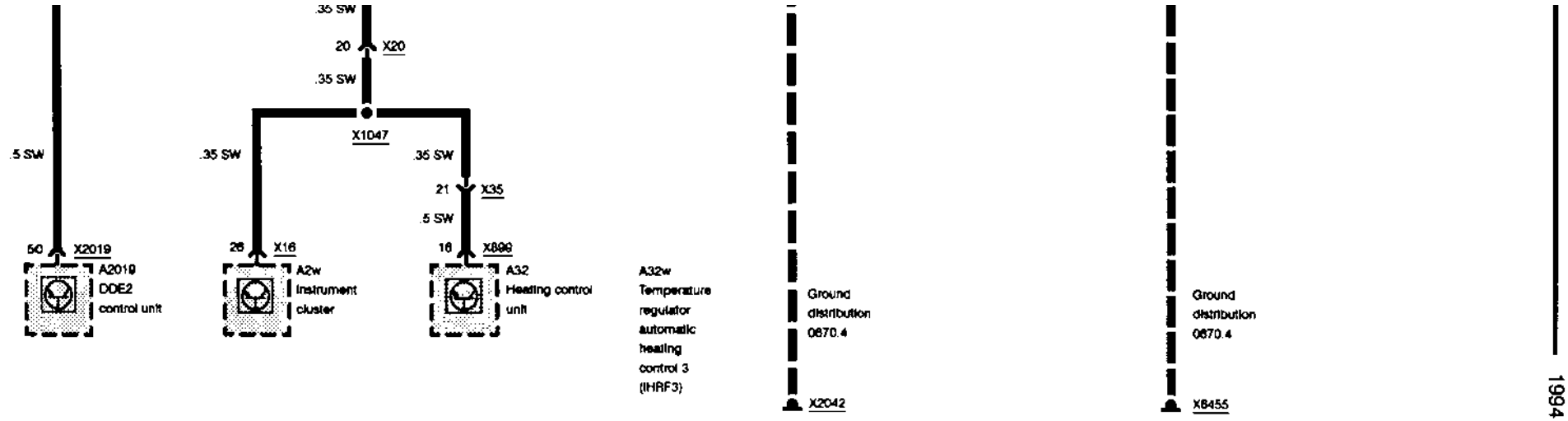
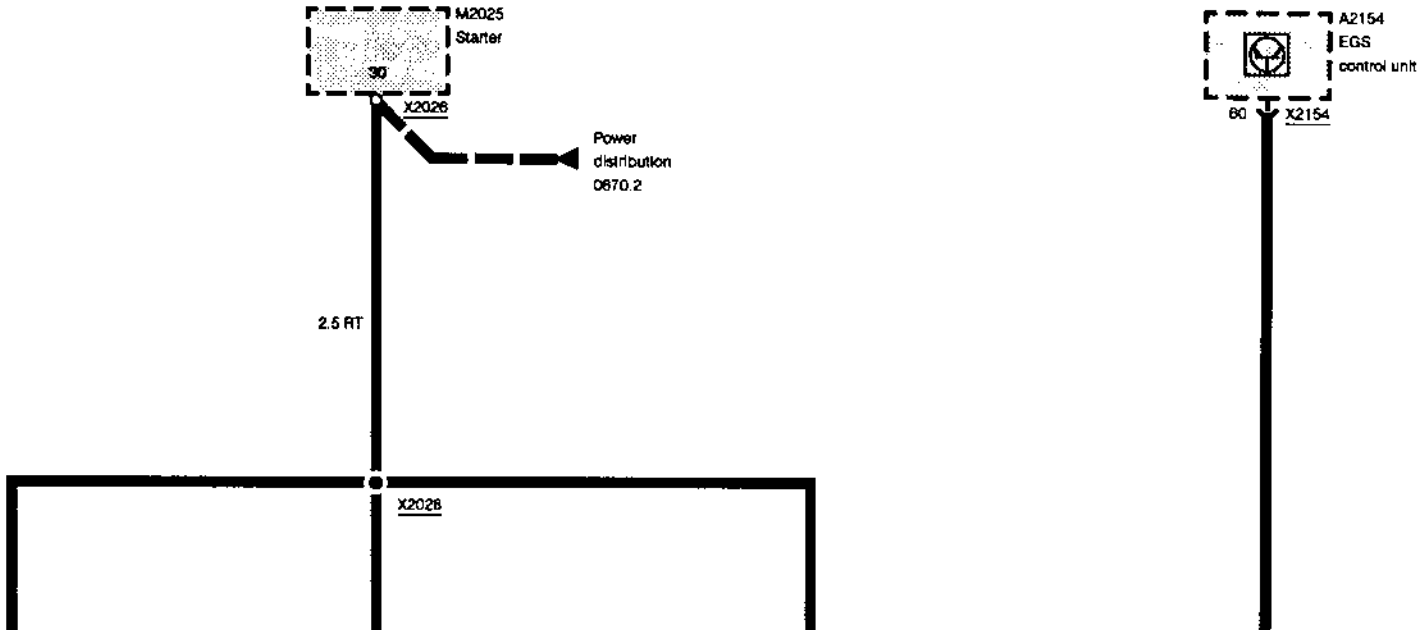


Diagnostic link

Diagnostic connector pins 14 and 18

525td/t, 525tds/t



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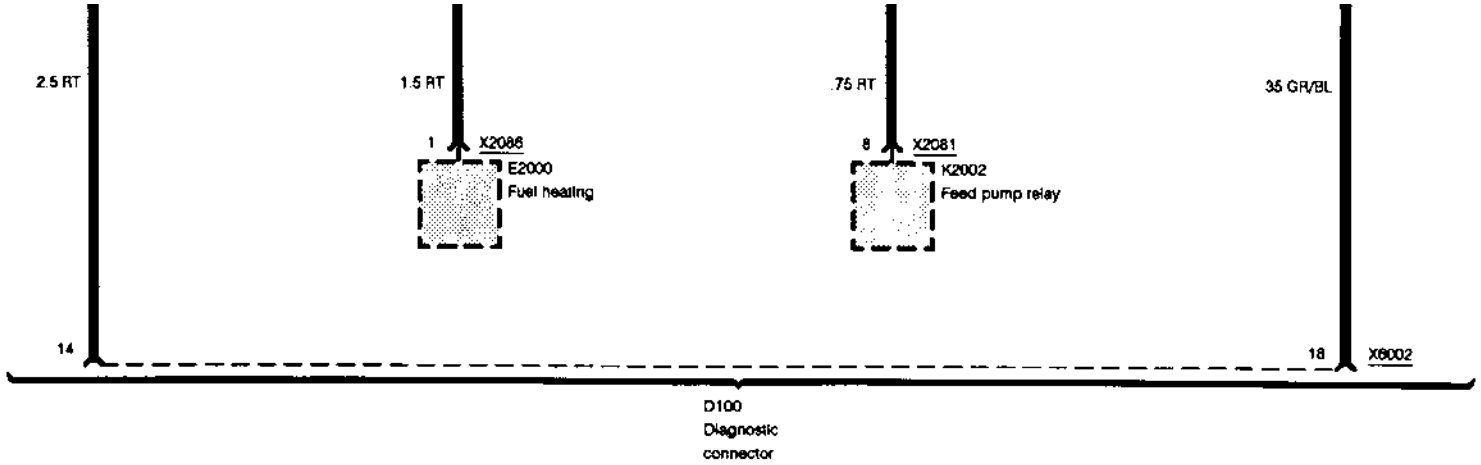
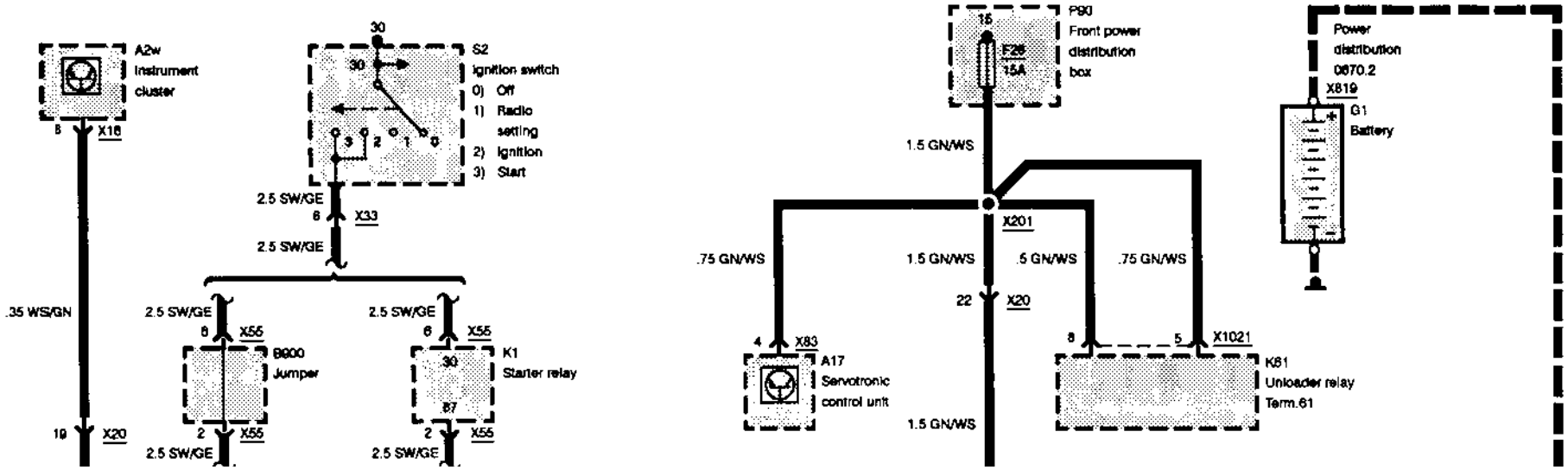


BMW 5

Diagnostic link

Diagnosis connector pins 7, 11, 14 and 16



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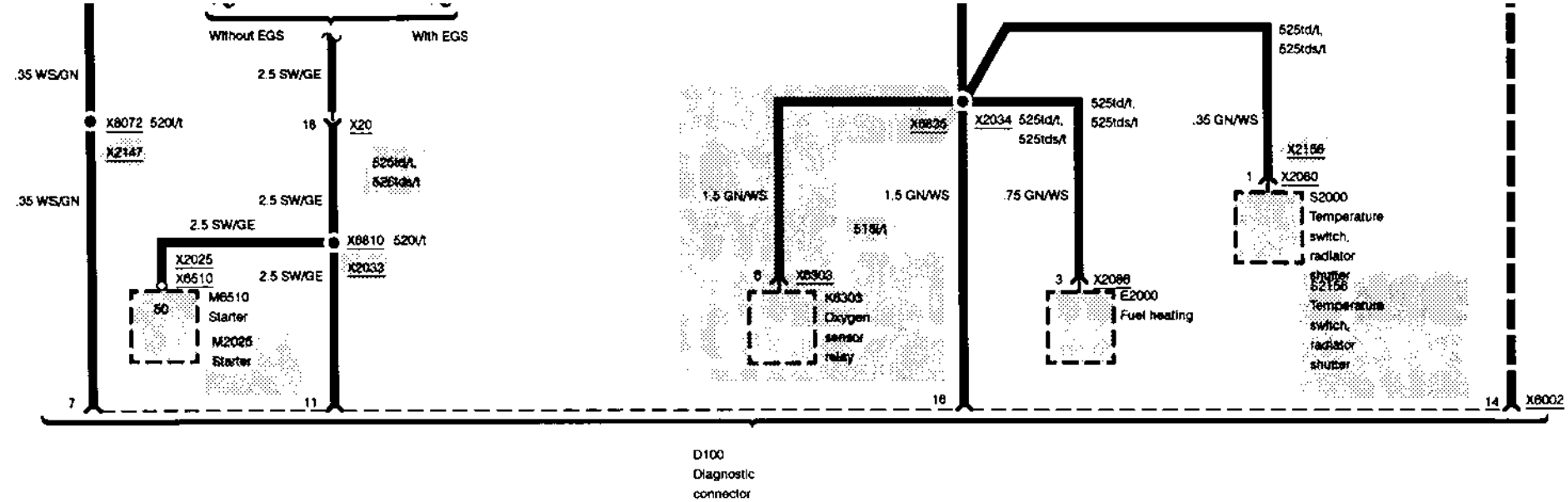
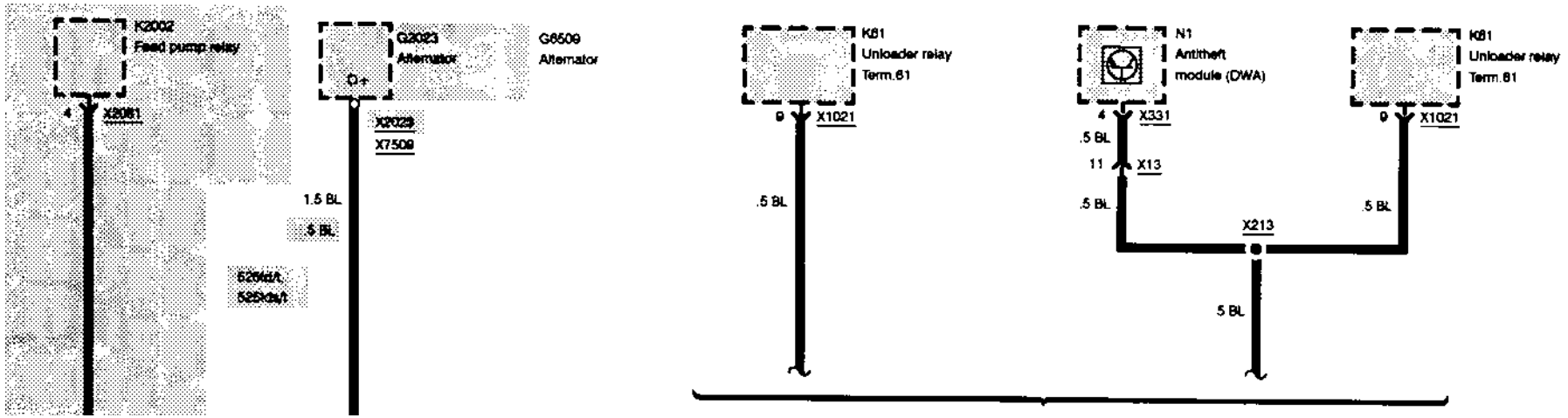


BMW 5

Diagnostic link

Diagnostic connector pin 12



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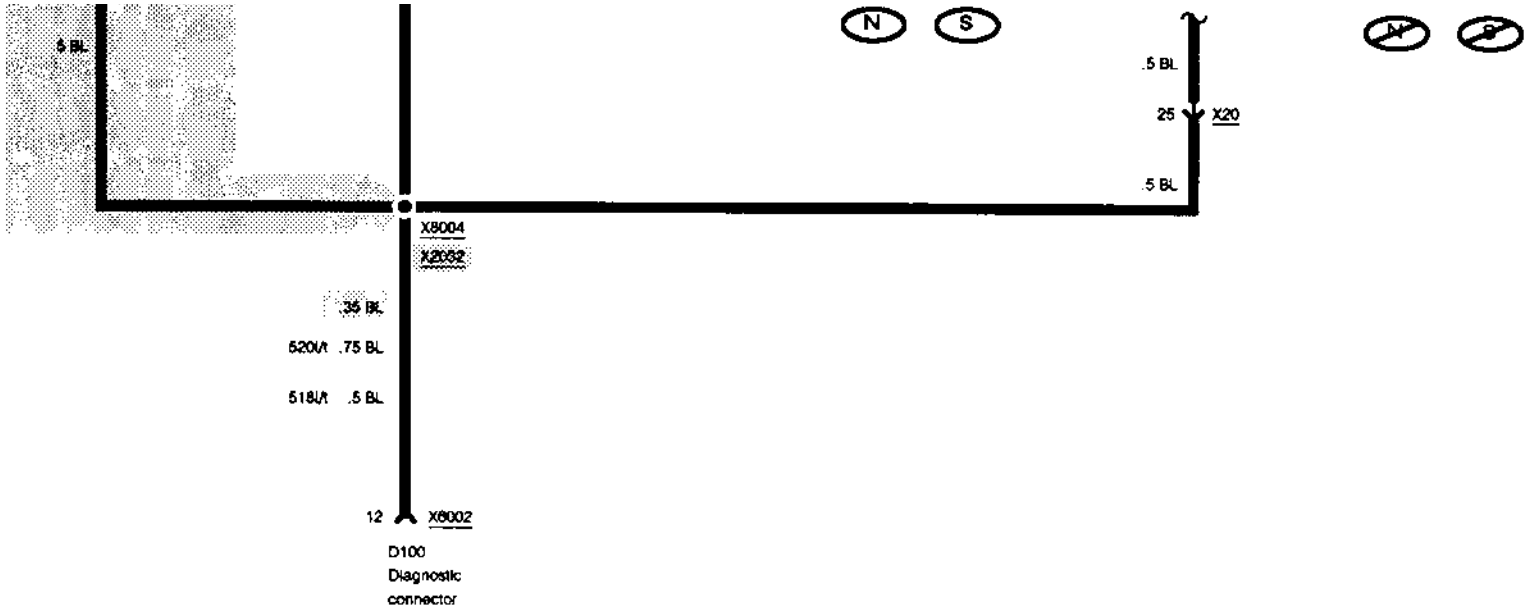

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Diagnostic link

Diagnosis connector (X6002)

Pin number	Terminal number	Terminal description	Wire colour
1	1	Engine speed signal	SW
2	–	Not used	
3	–	Not used	
4	–	Not used	
5	–	Not used	
6	–	Not used	
7	SI	Service interval indicator	WS/GN

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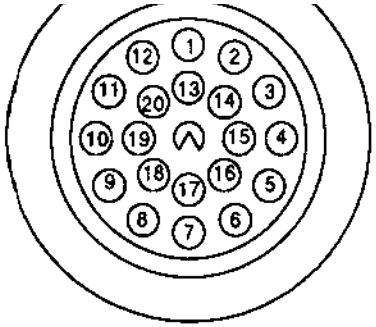

8	–	Not used	
9	–	Not used	
10	–	Not used	
11	50	Starter pulse	SW/GE
12	61(D+)	Battery charge indicator	BL
13	–	Not used	
14	30(B+)	Battery +	RT
15	RXD	Diagnosis-data line	WS/GE
16	15S	Voltage at ignition ON	GN/WS
17	–	Not used	
18	PGSP	DME programming line	GN/BL
19	31	Ground	BR
20	TXD	Diagnosis-data line	WS/VI

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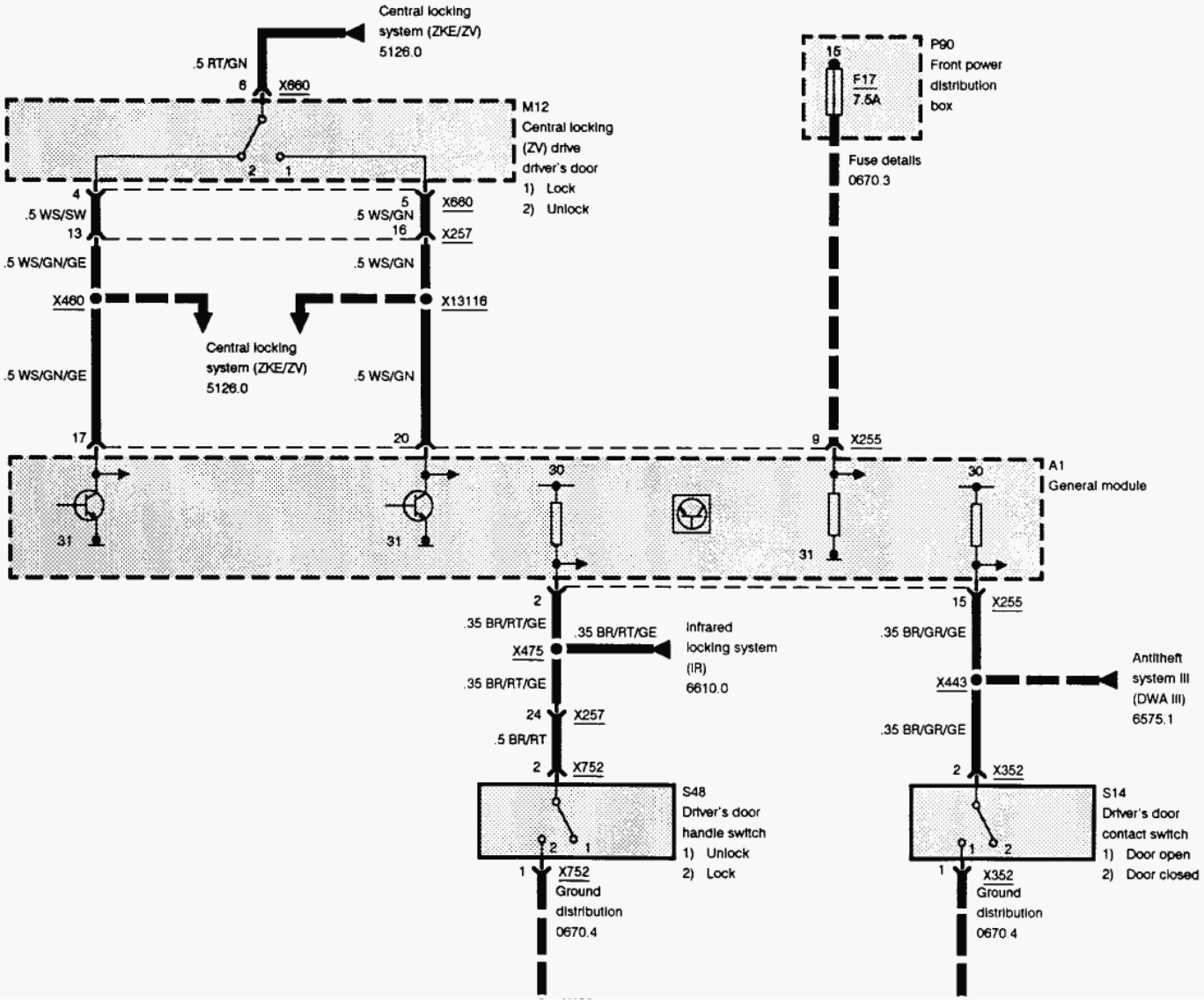
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Door lock heating (ZKE/TSH)
Scheme 5120.0

Door lock heating (ZKE/TSH)

Inputs



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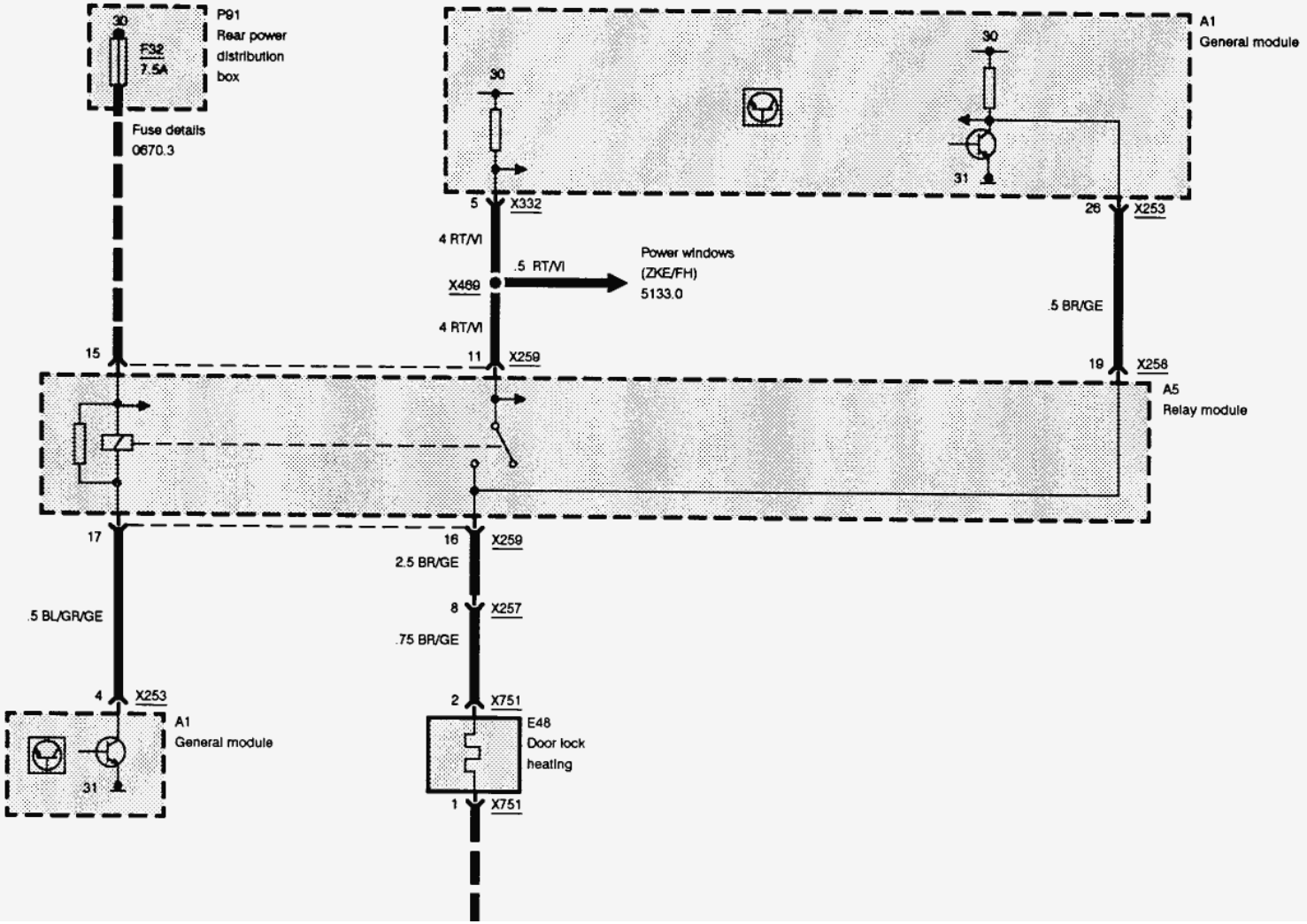
Door lock heating (ZKE/TSH)

Outputs



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Ground
distribution
0670.4

X491

1994

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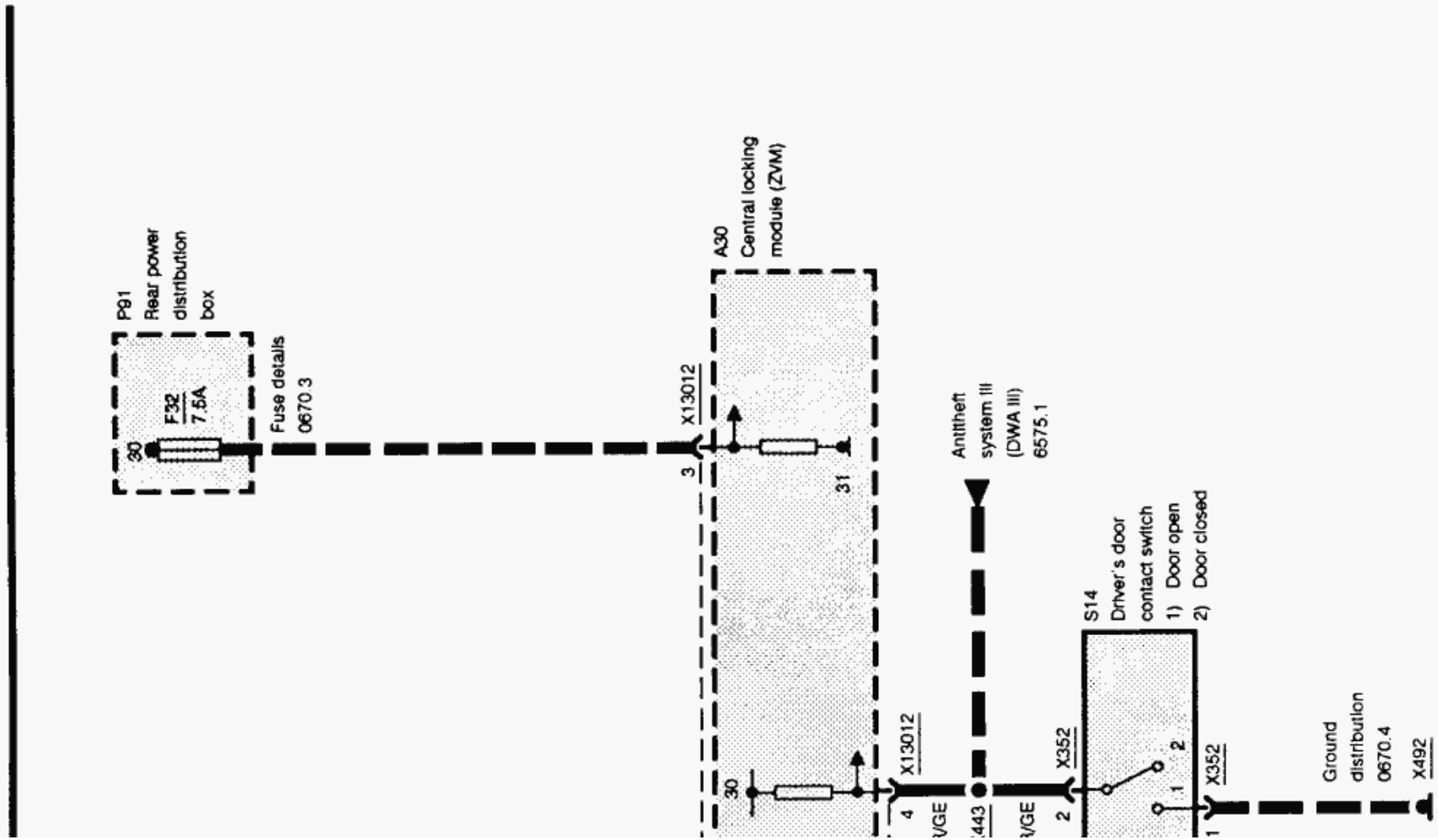
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Door lock heating (ZVM/TSH)

Scheme 5120.1

09/93 — 5120.1-00 — 1994



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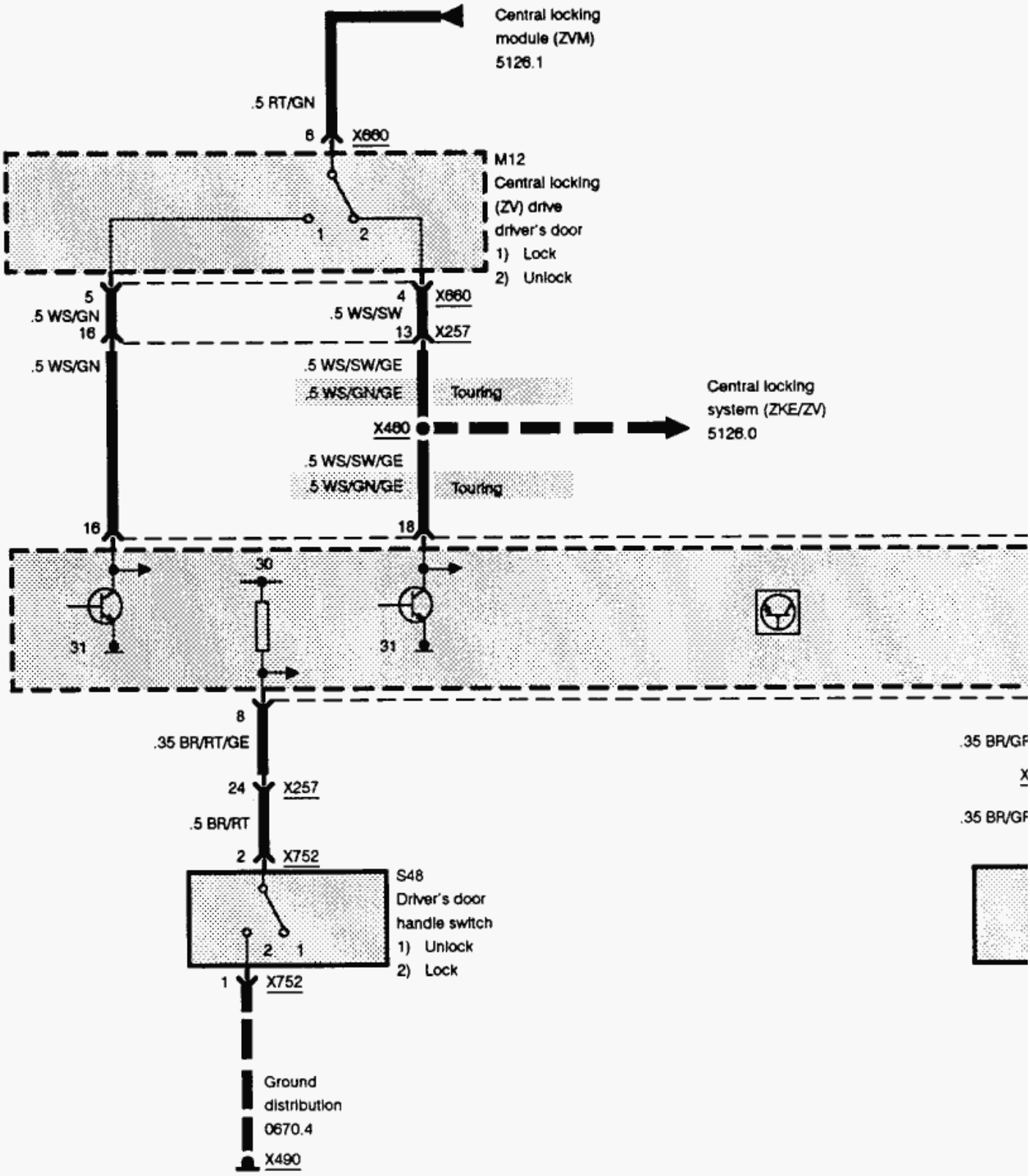
Door lock heating (ZVM/TSH)

Inputs

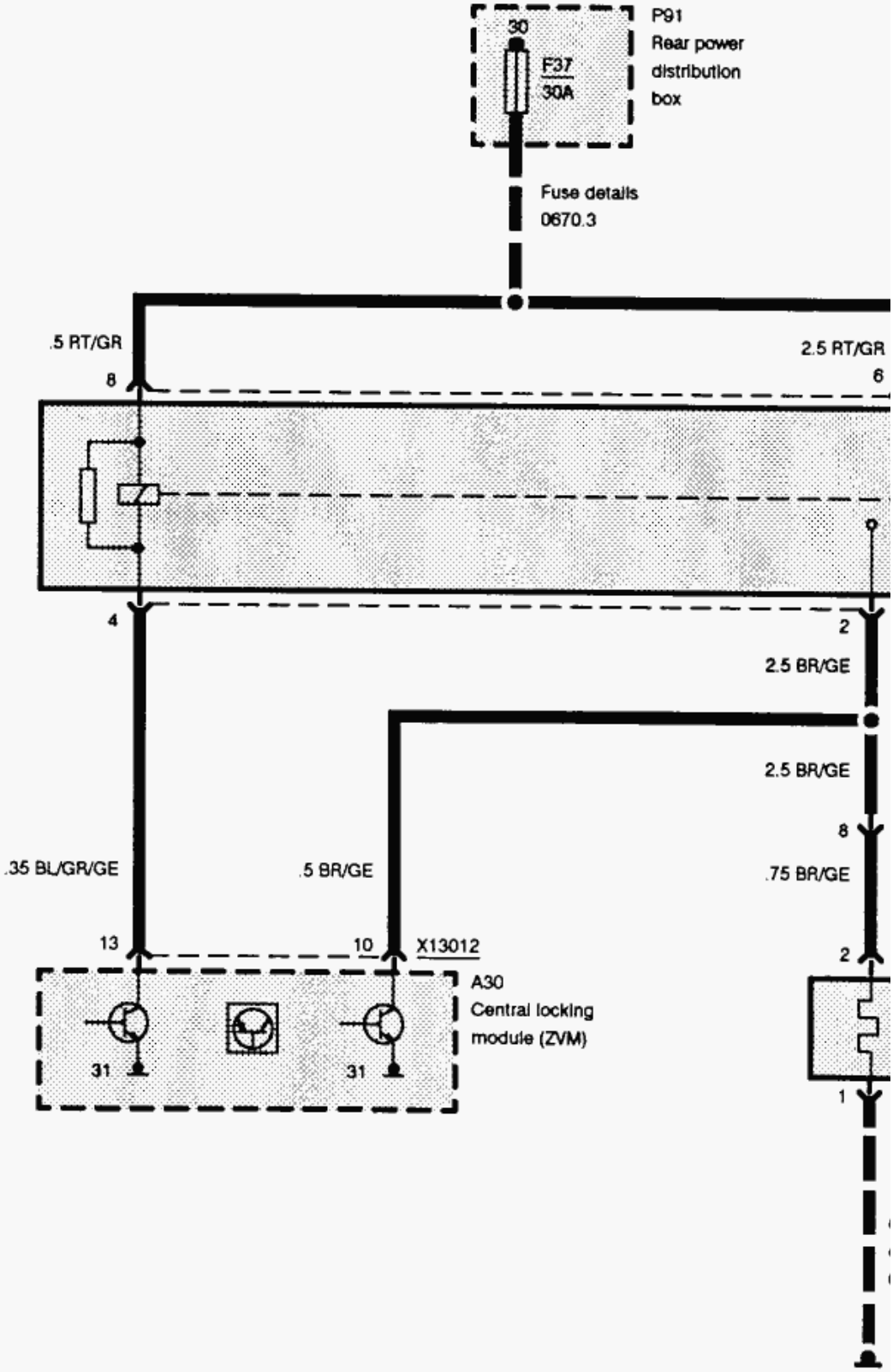


cardiagn.com

cardiagn.com

Door lock heating (ZVM/TSH)

Outputs



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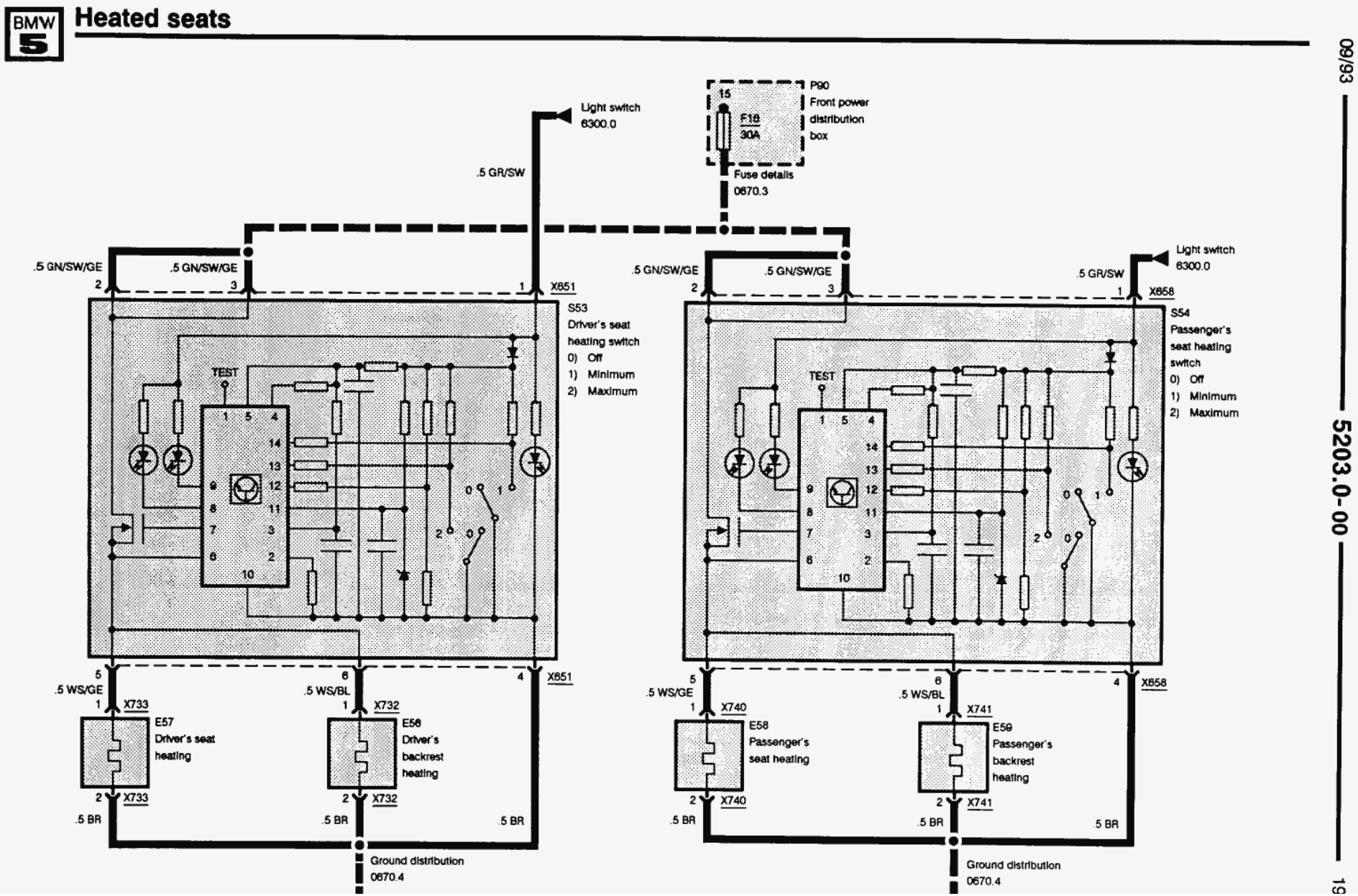
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Heated seats
Scheme 5203.0



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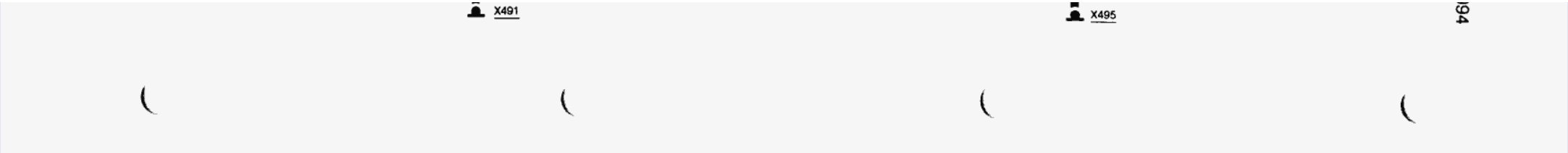

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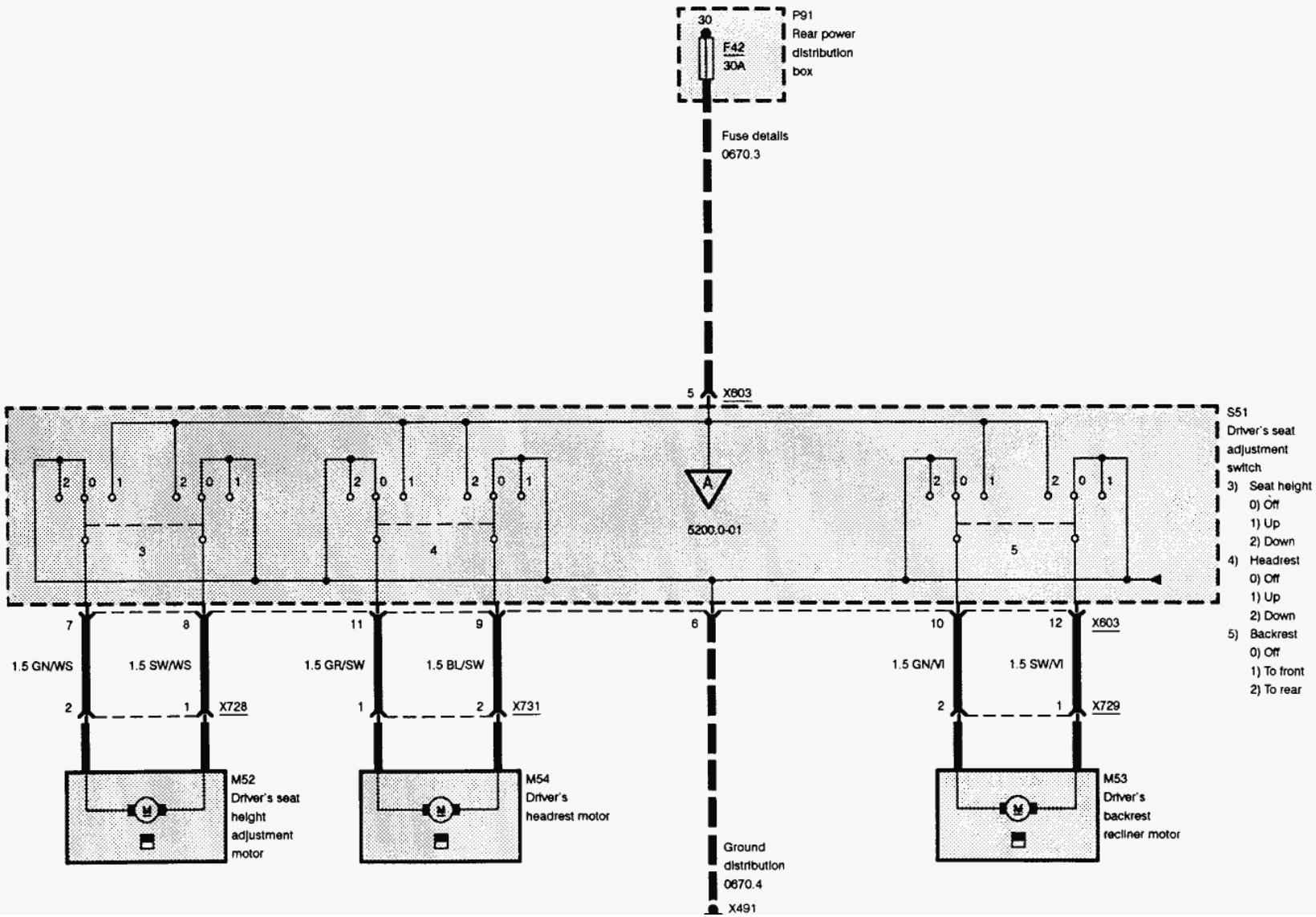
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Power seats
Scheme 5200.0

Power seats

Driver's seat



09/93 5200.0-00 19

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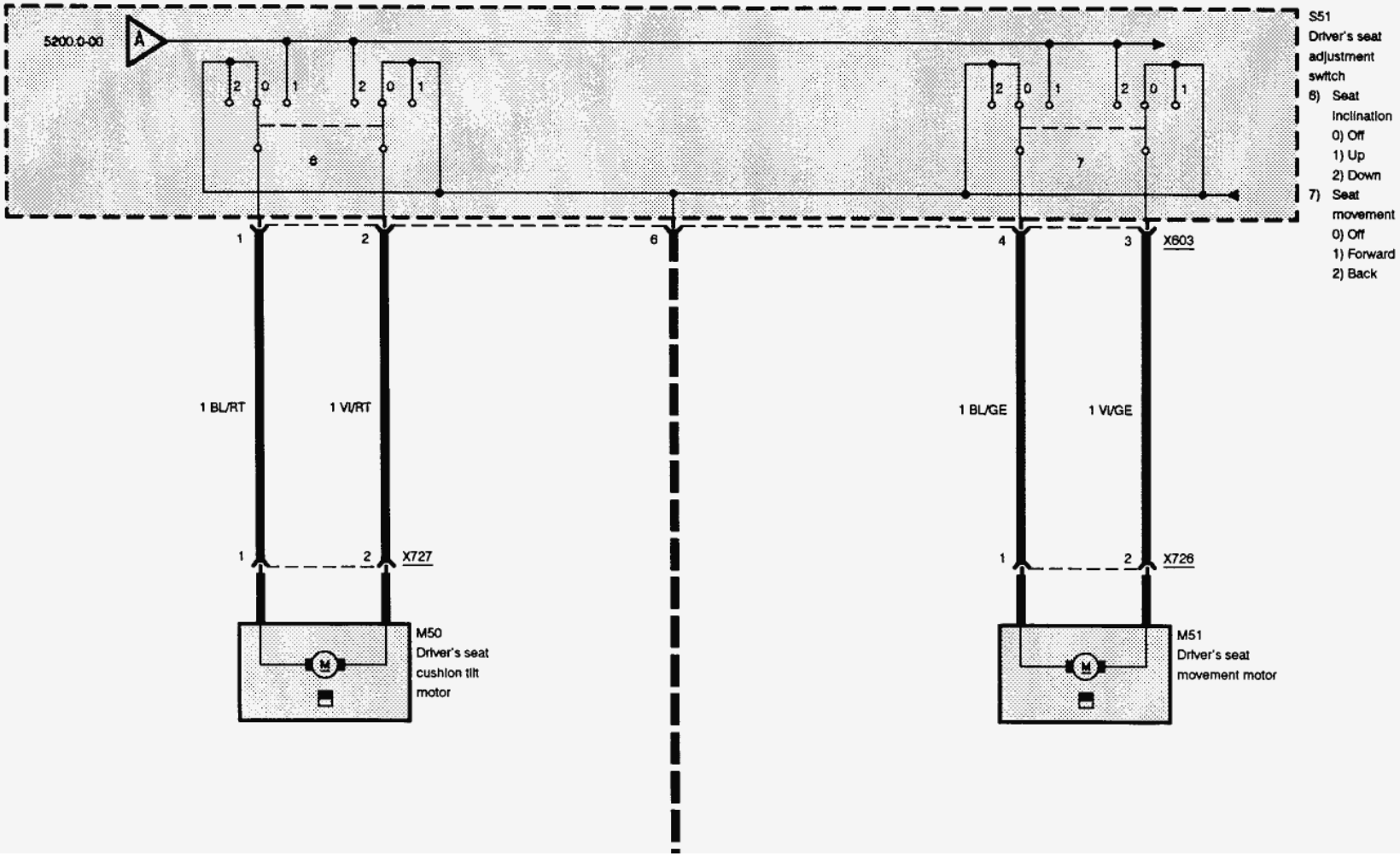
Power seats

Driver's seat



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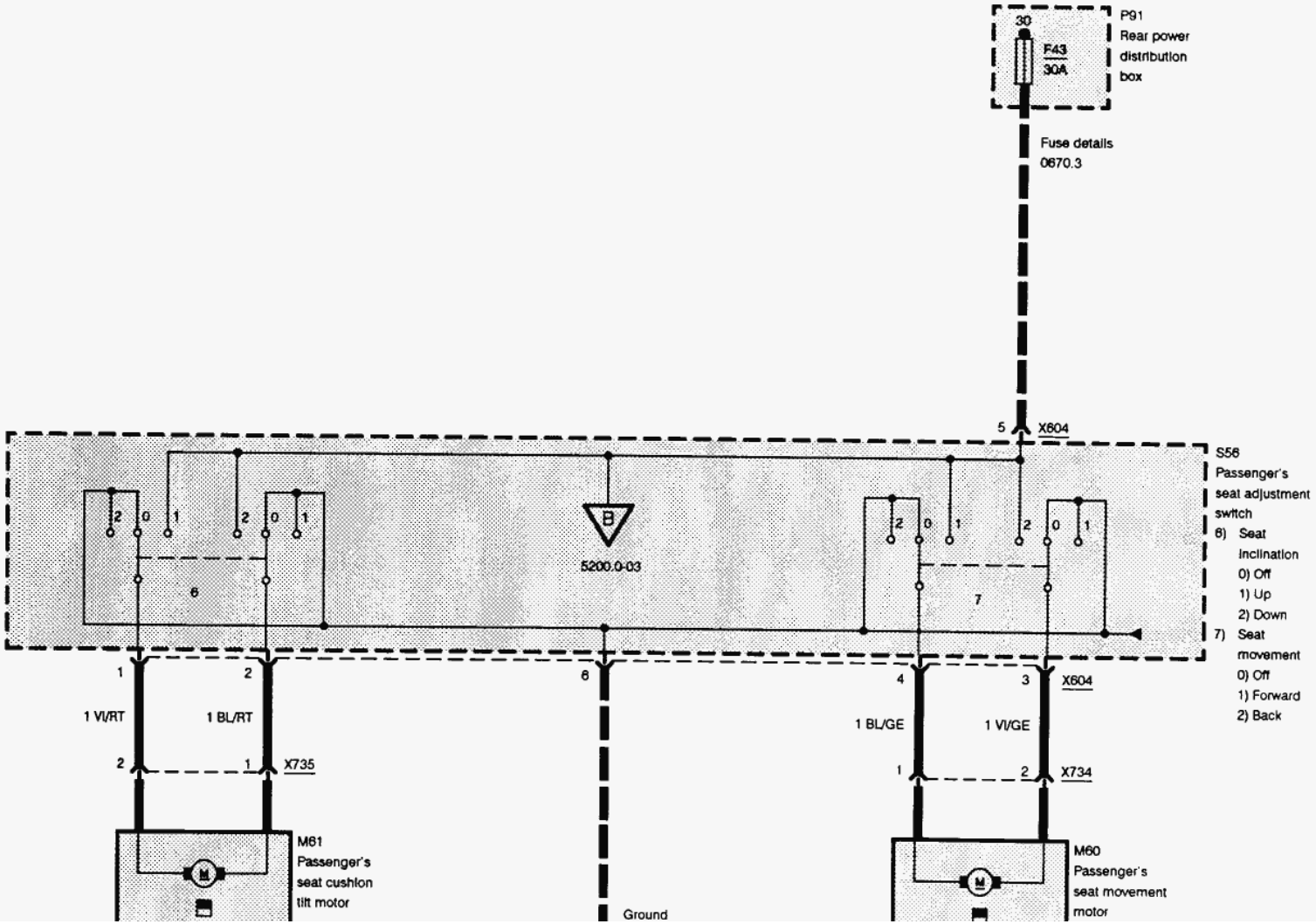
Power seats

Passenger's seat



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distribution
0670.4
X495

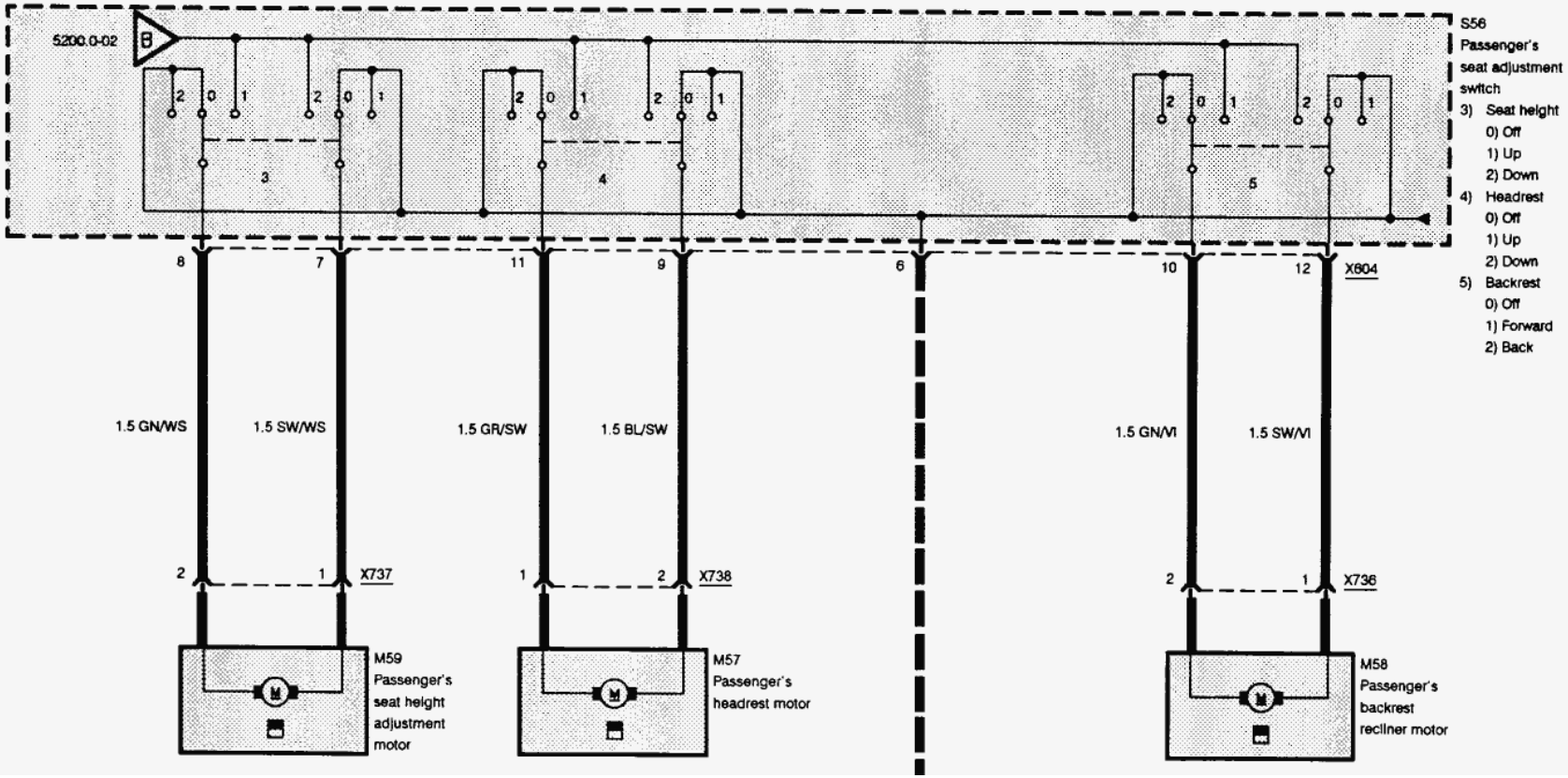
1994

Power seats

Passenger's seat

09/93

5200.0-03



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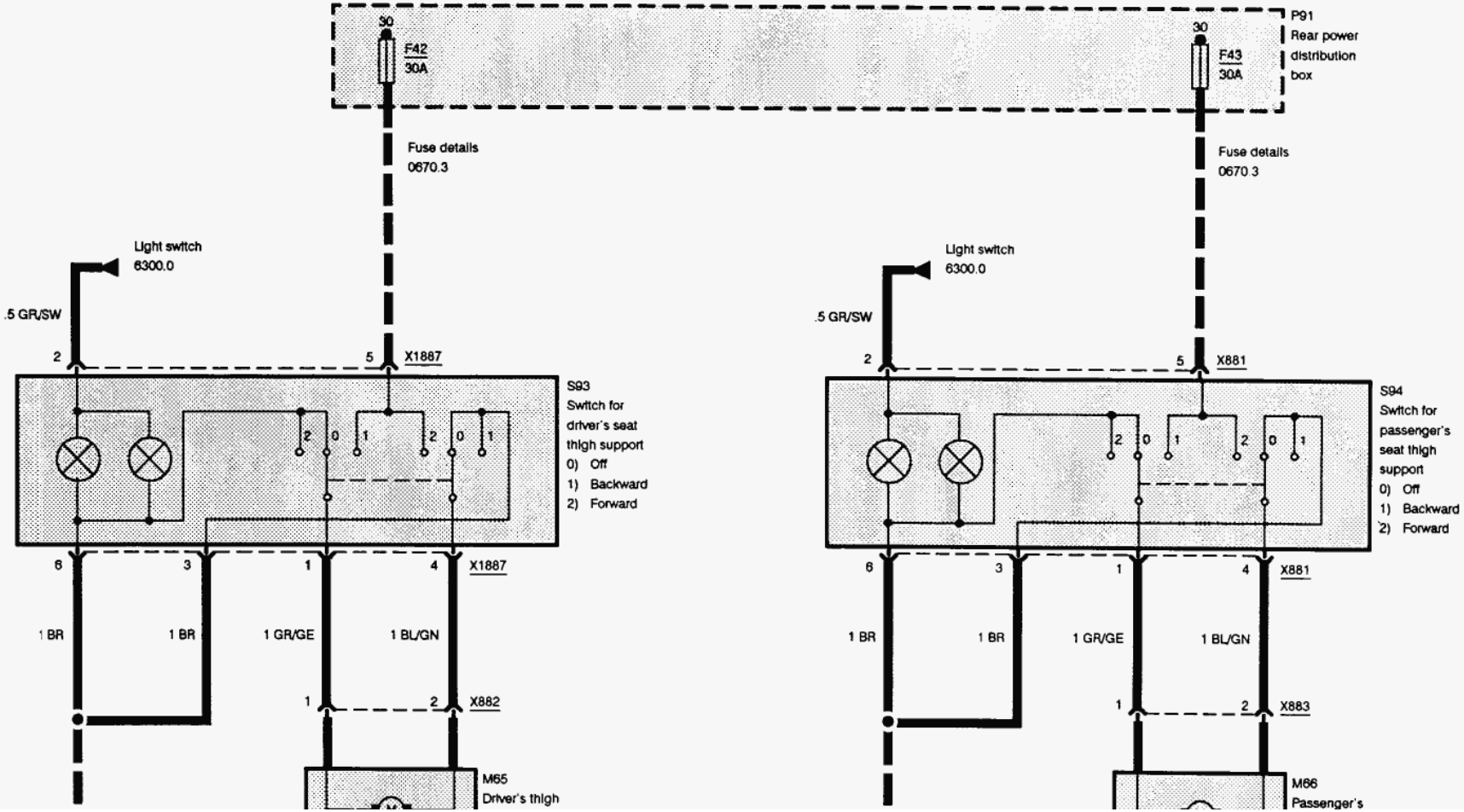
Power seats

Thigh support, with sports seat only



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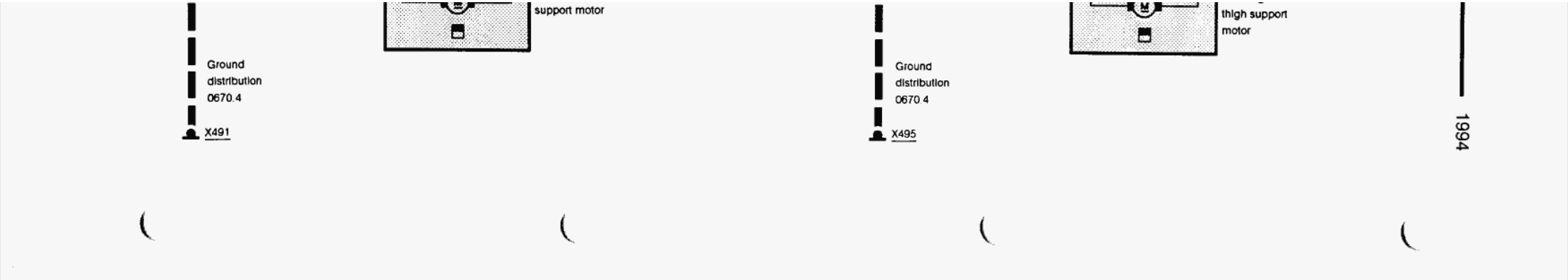

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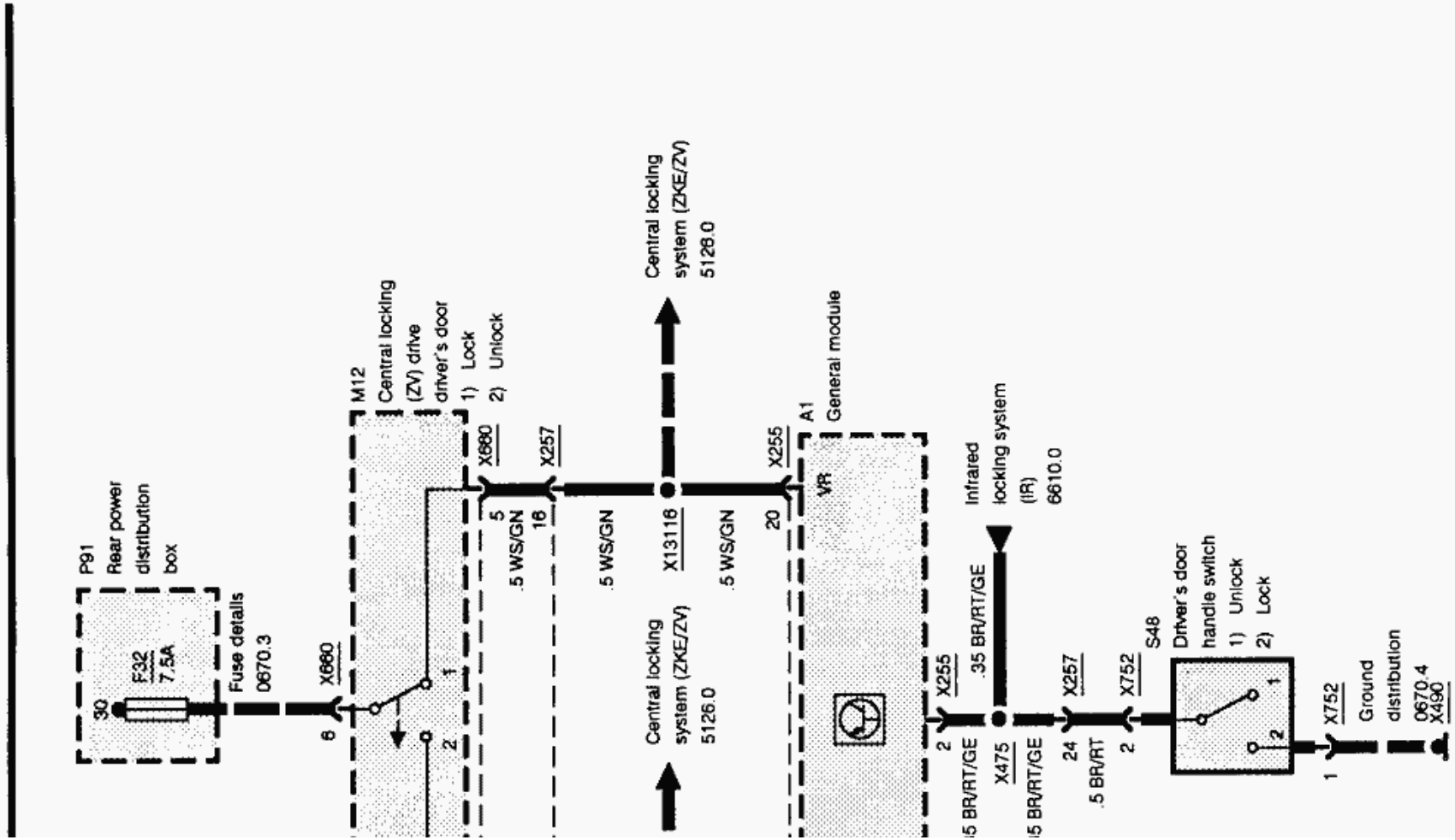
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Interior light control (ZKE/IB)

Scheme 6330.0

09/93 — 6330.0-00 — 1994



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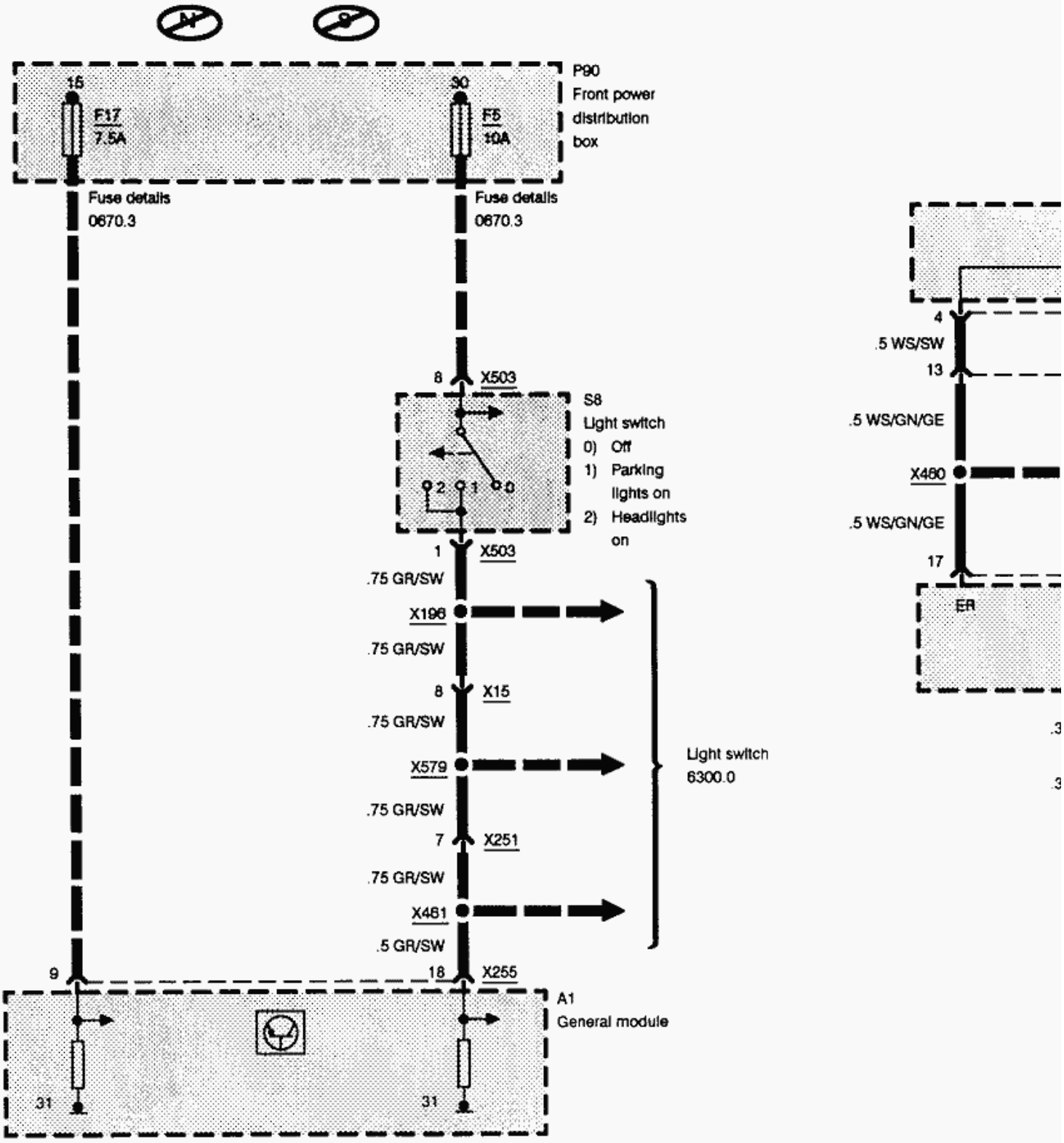
Interior light control (ZKE/IB)

Inputs



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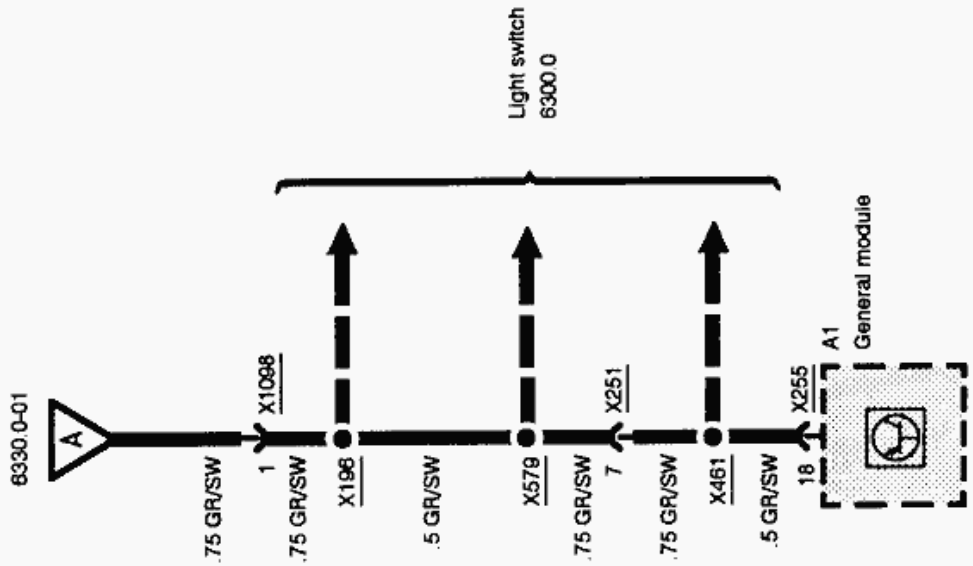

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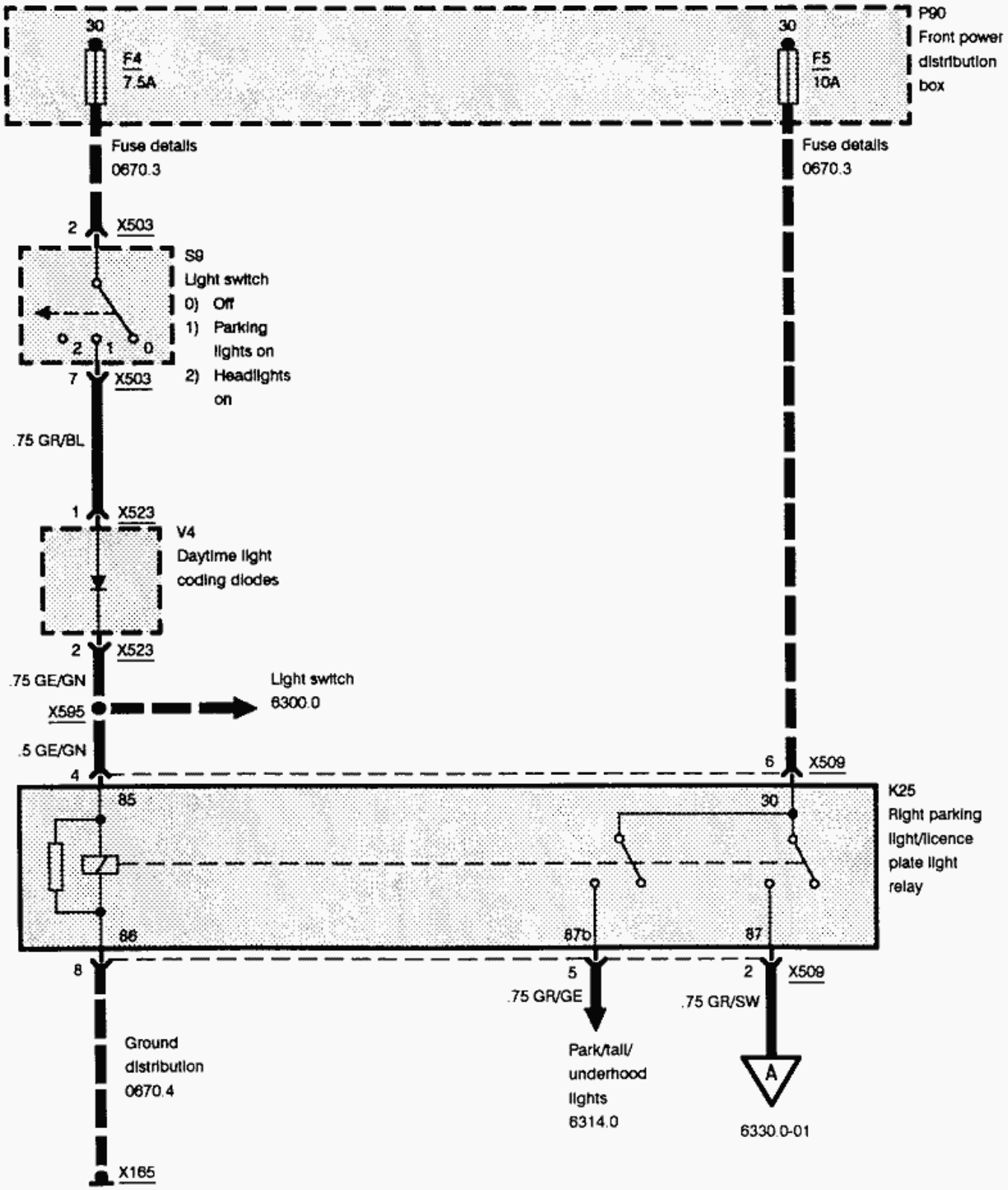
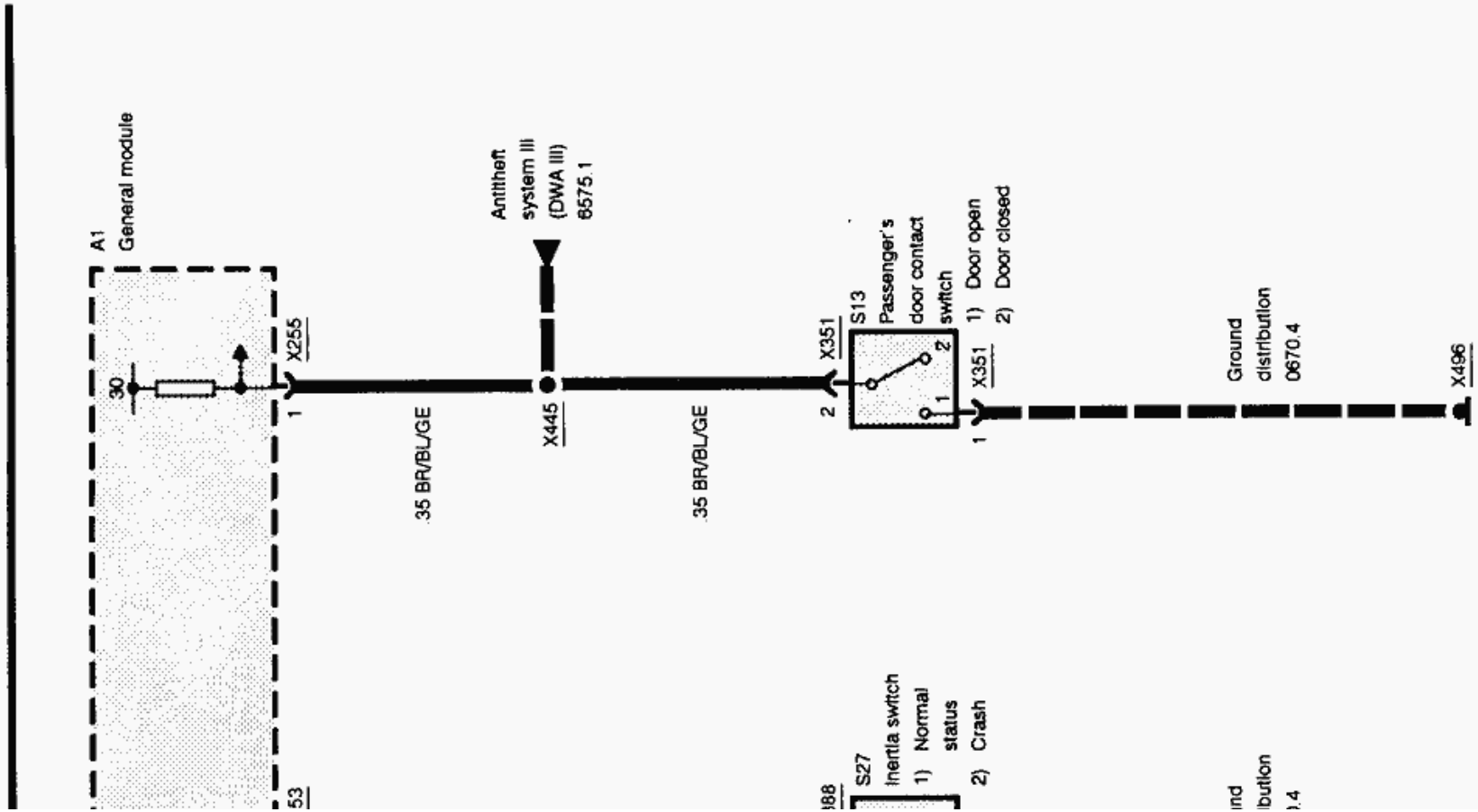
Interior light control (ZKE/IB)

Inputs



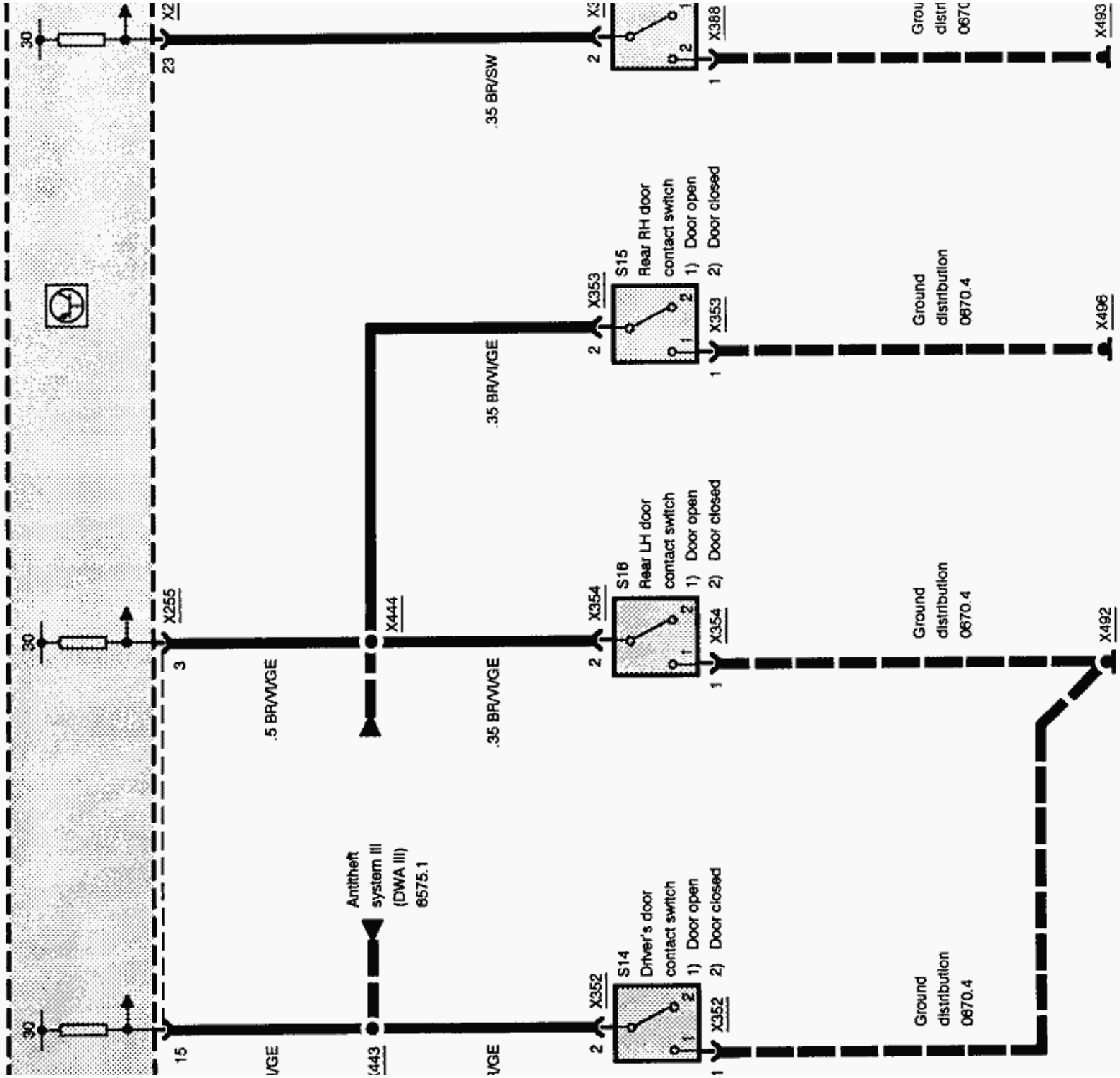
cardiagn.com



cardiagn.com

Interior light control (ZKE/IB)

Inputs



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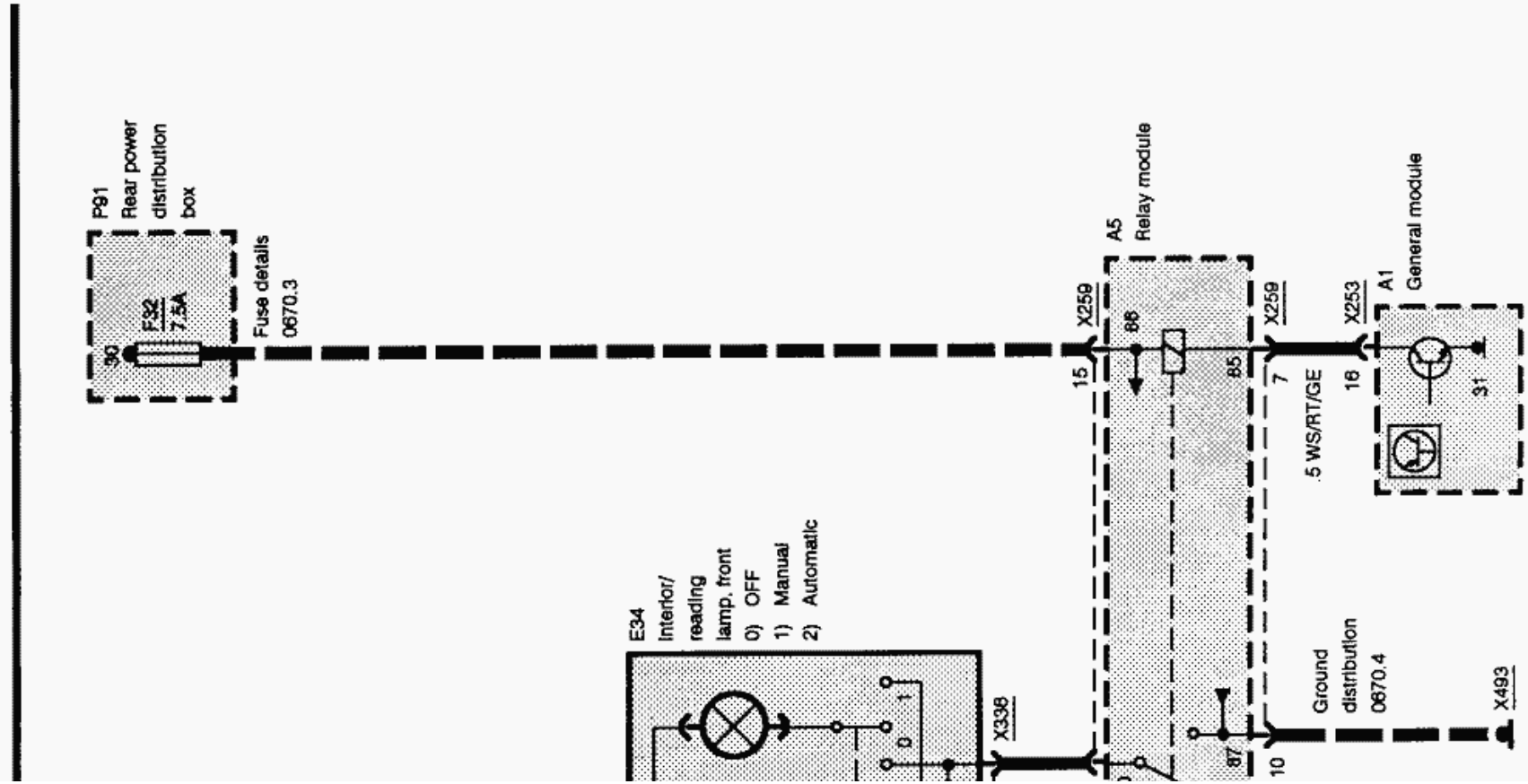
.35 BR/GR

.35 BR/GR



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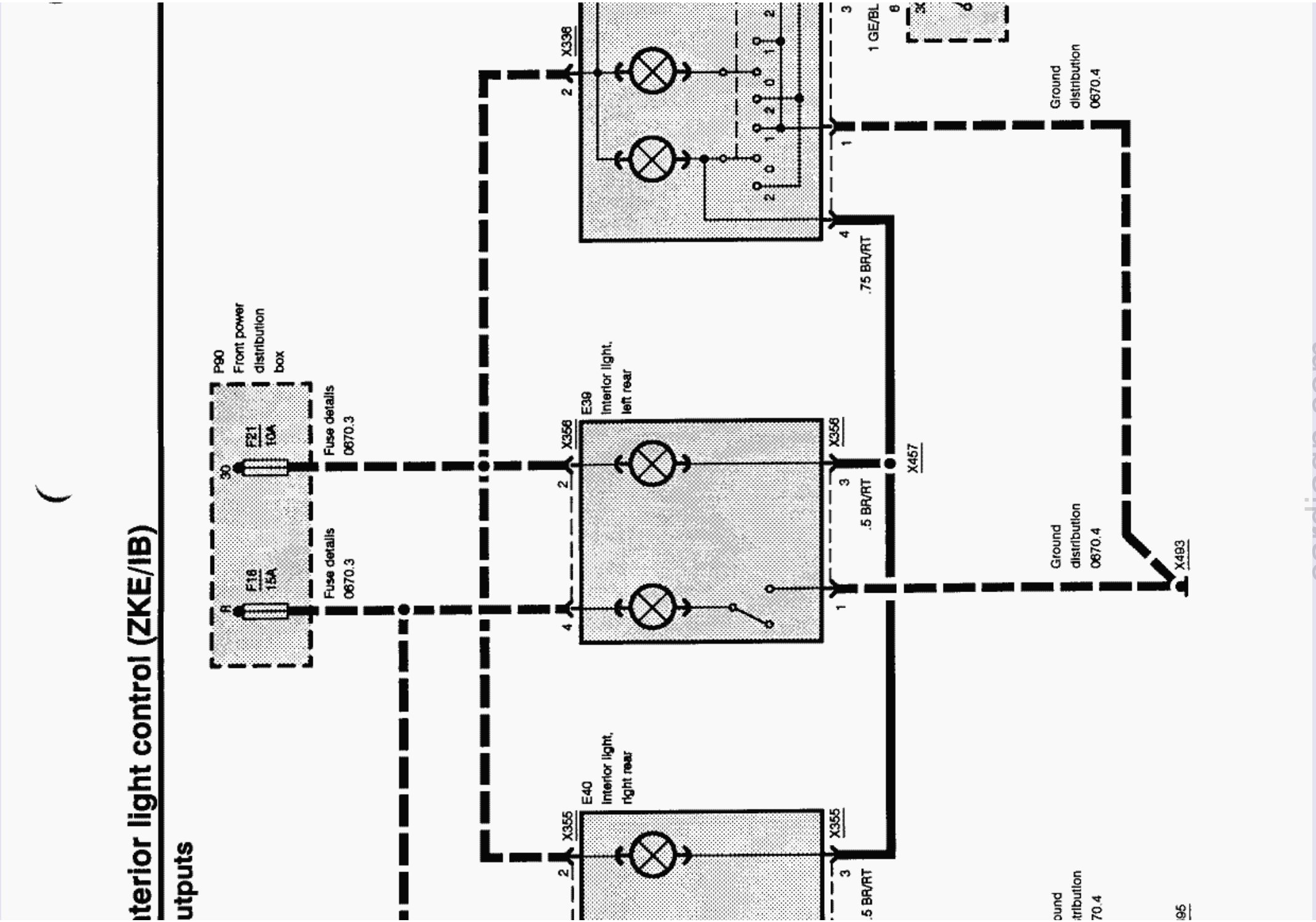

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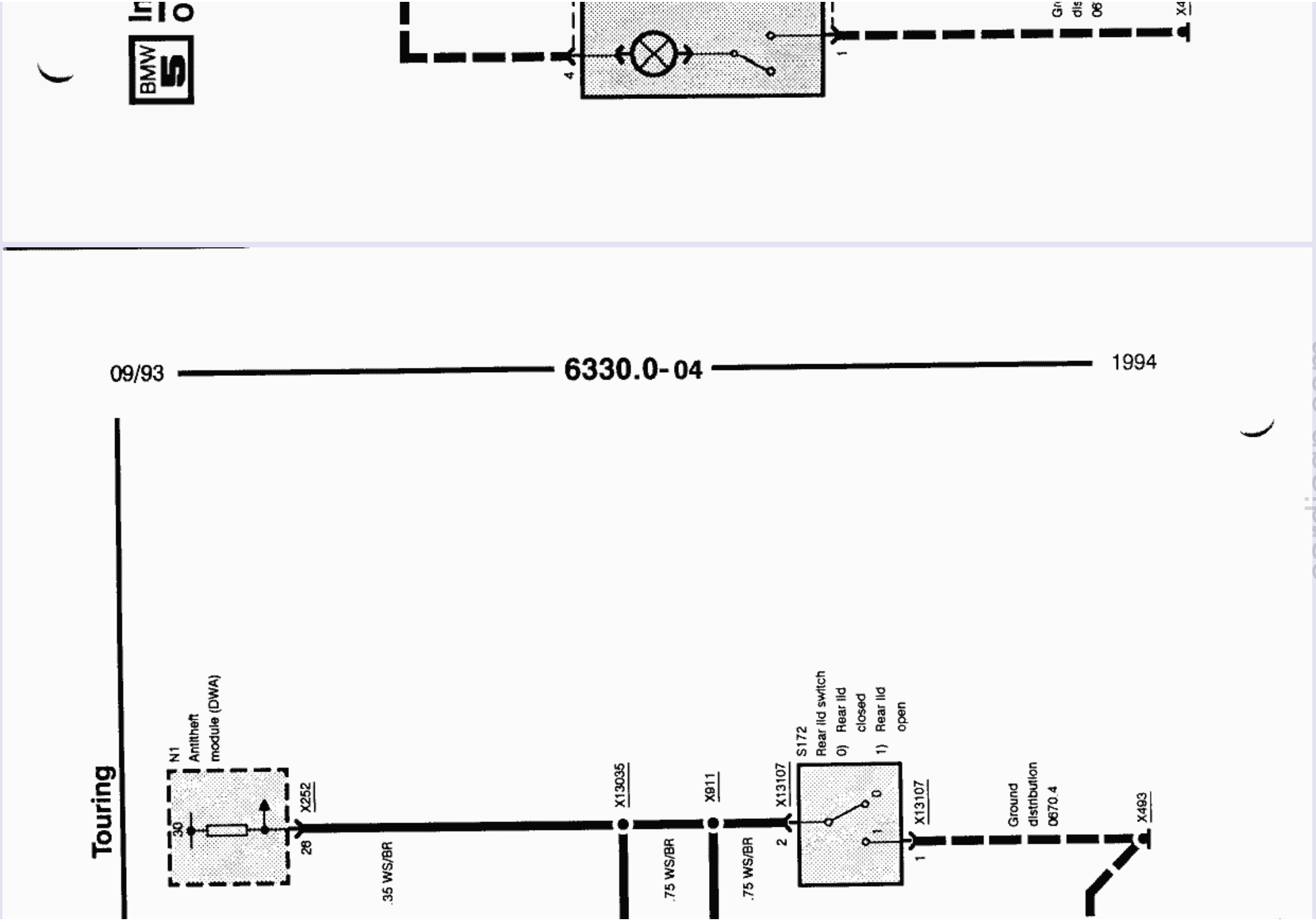

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rior light control (ZKE/IB)

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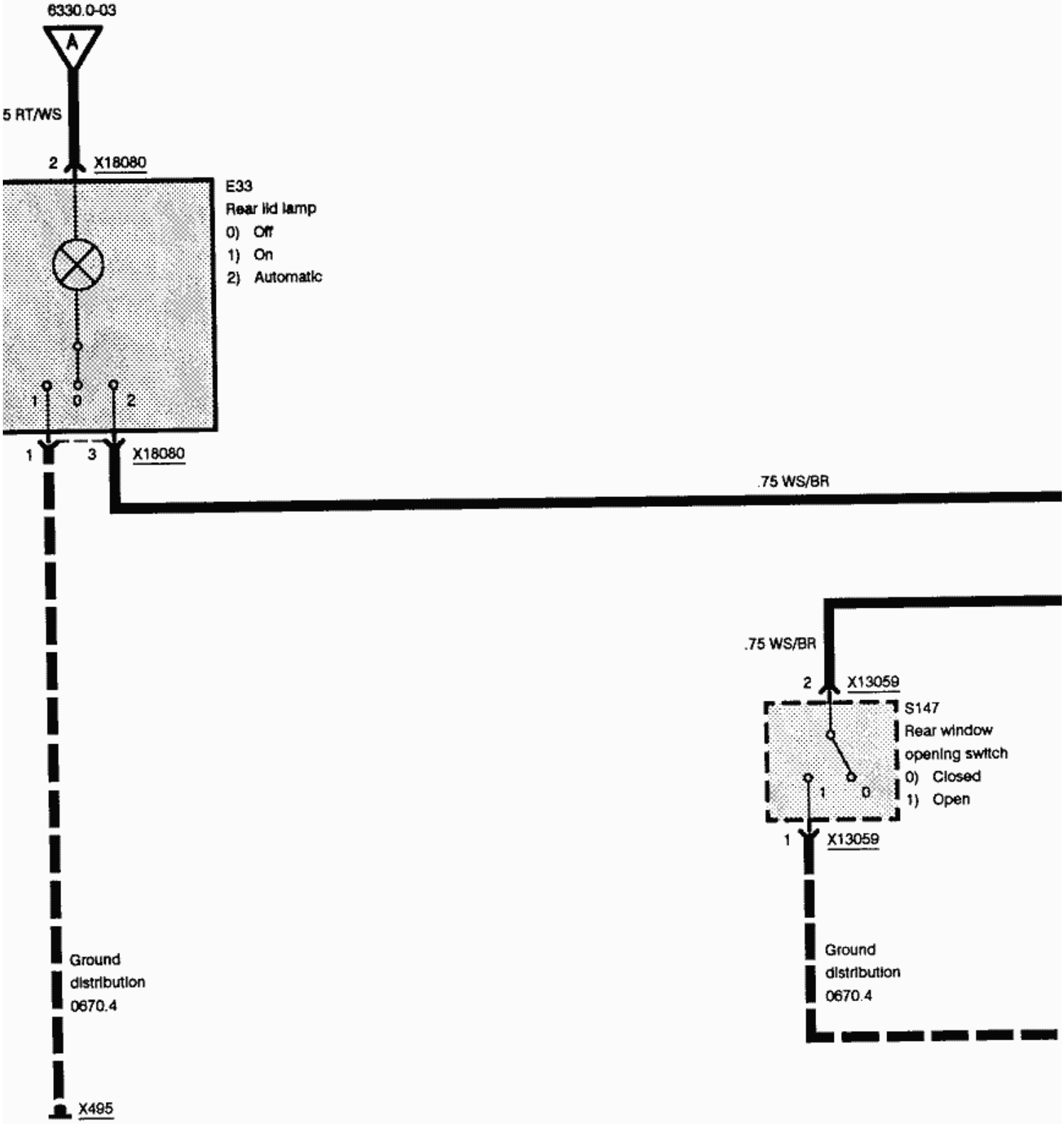

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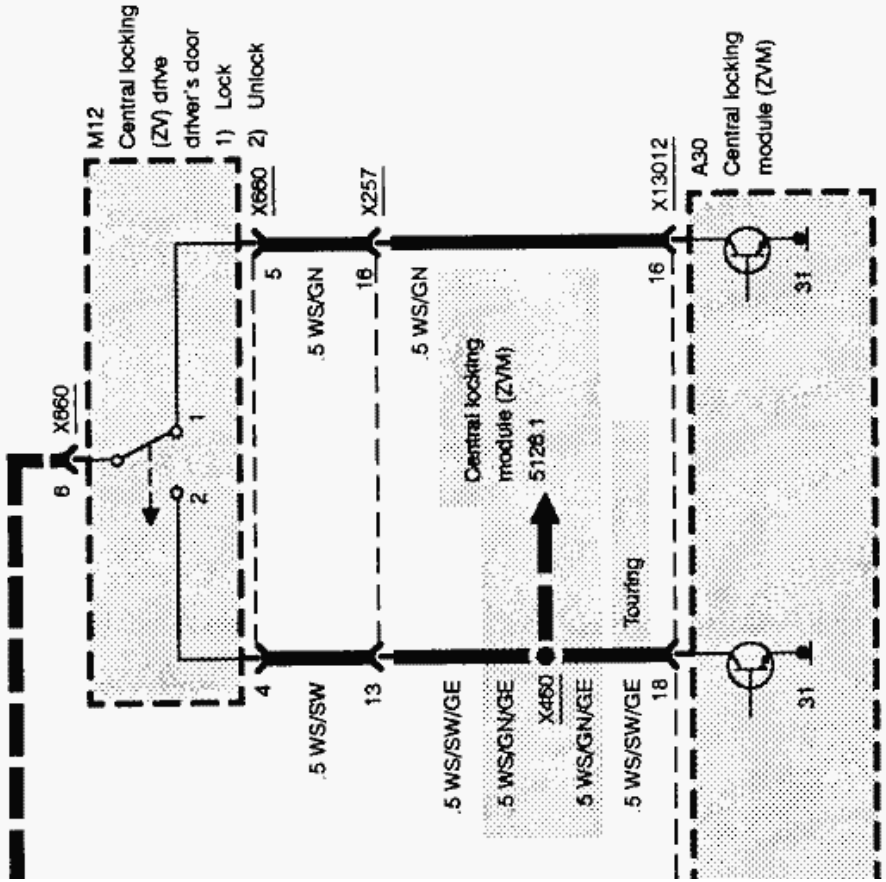
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

ZVM Interior lights

Scheme 6330.1

09/93 — 6330.1-00 — 1994



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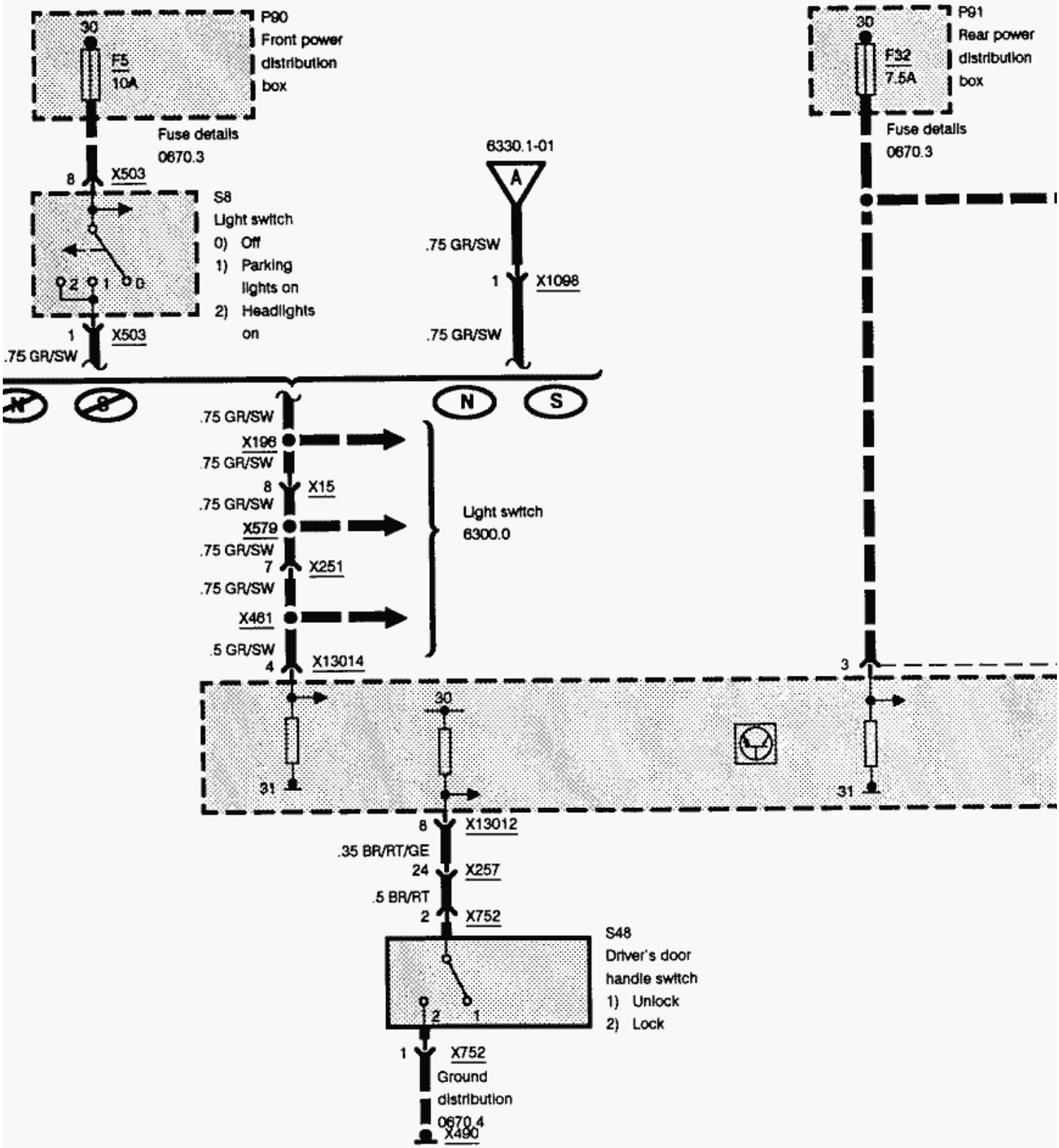
MW 5

ZVM Interior lights



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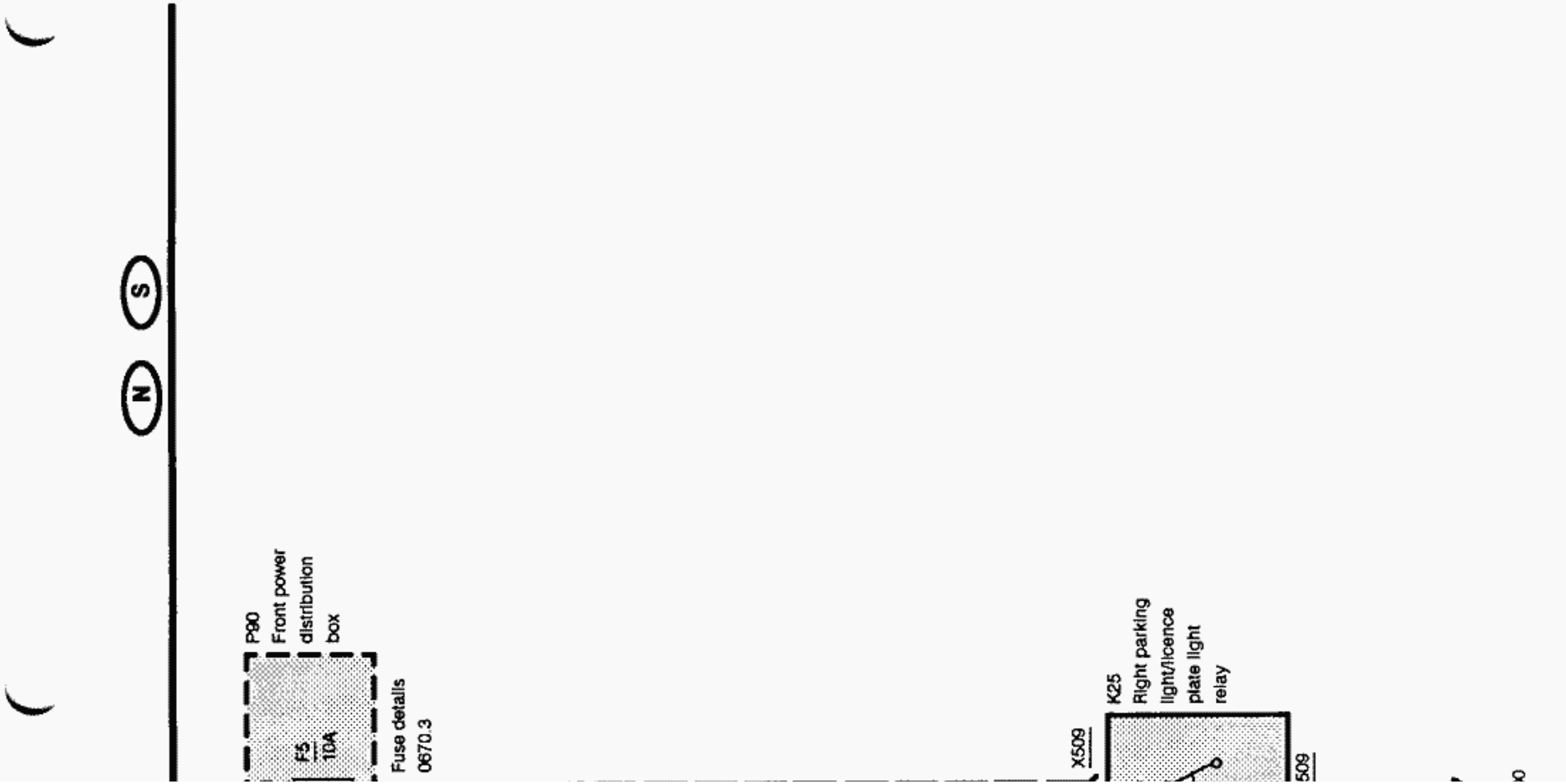
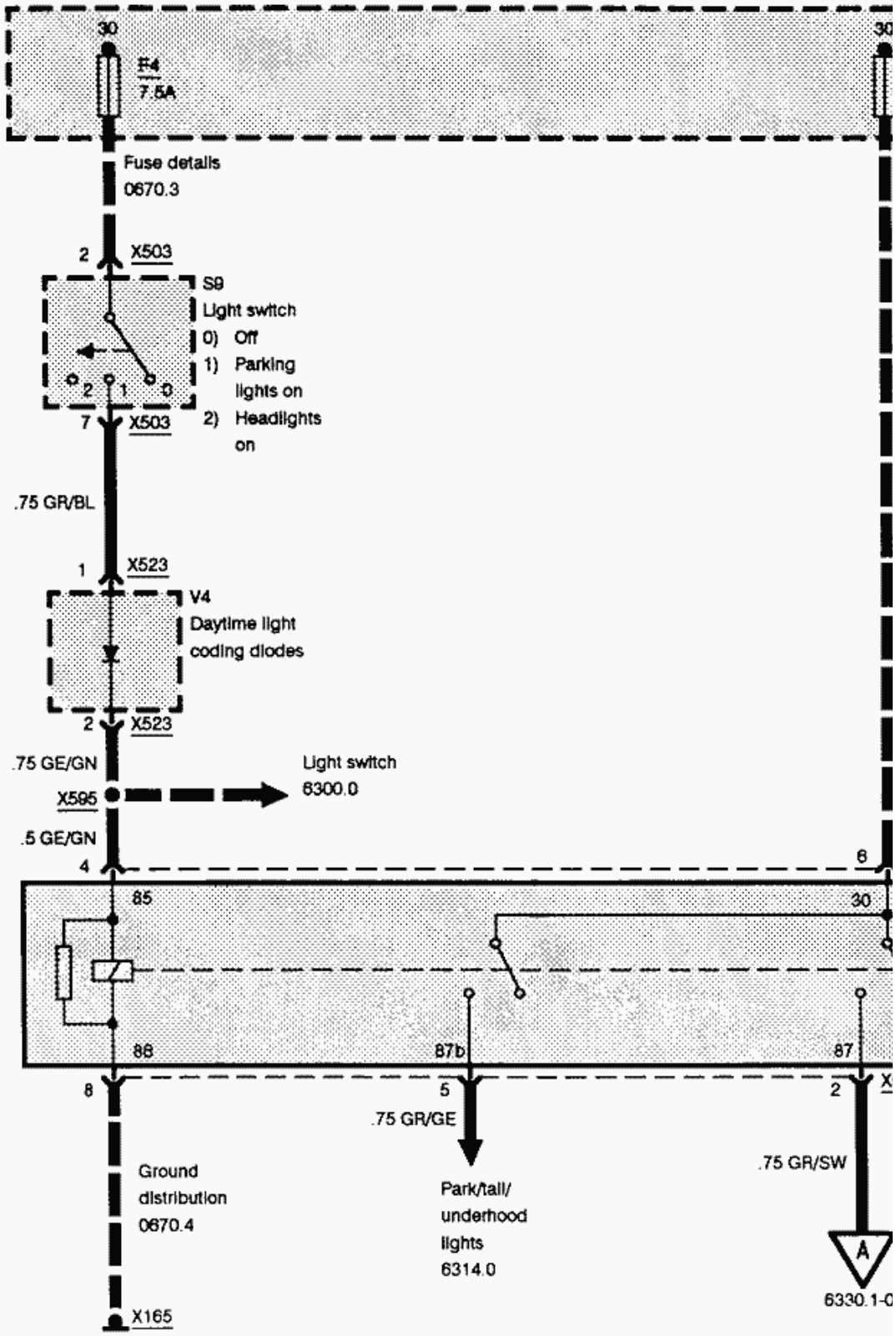
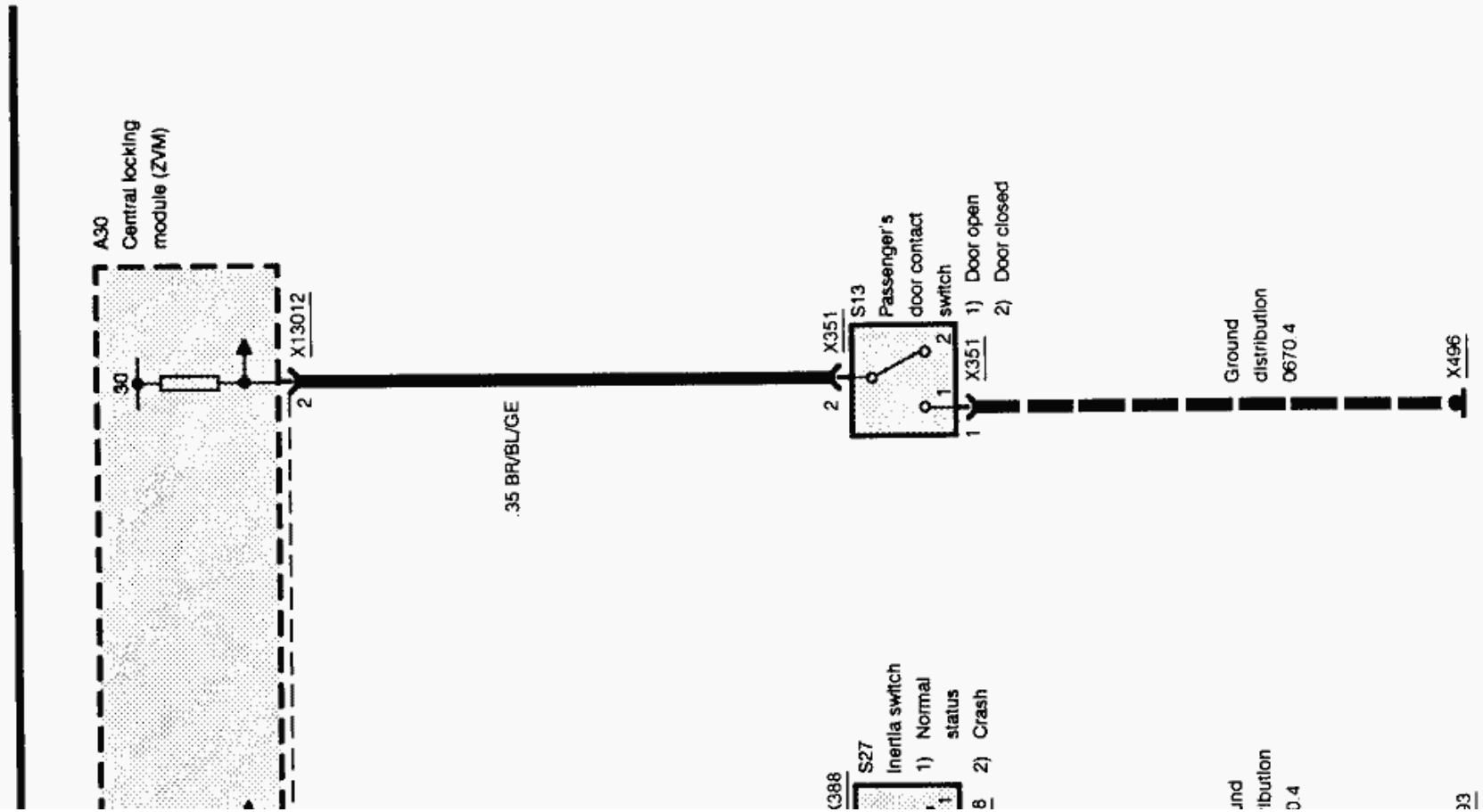


cardiagn.com

ZVM Interior lights



cardiagn.com



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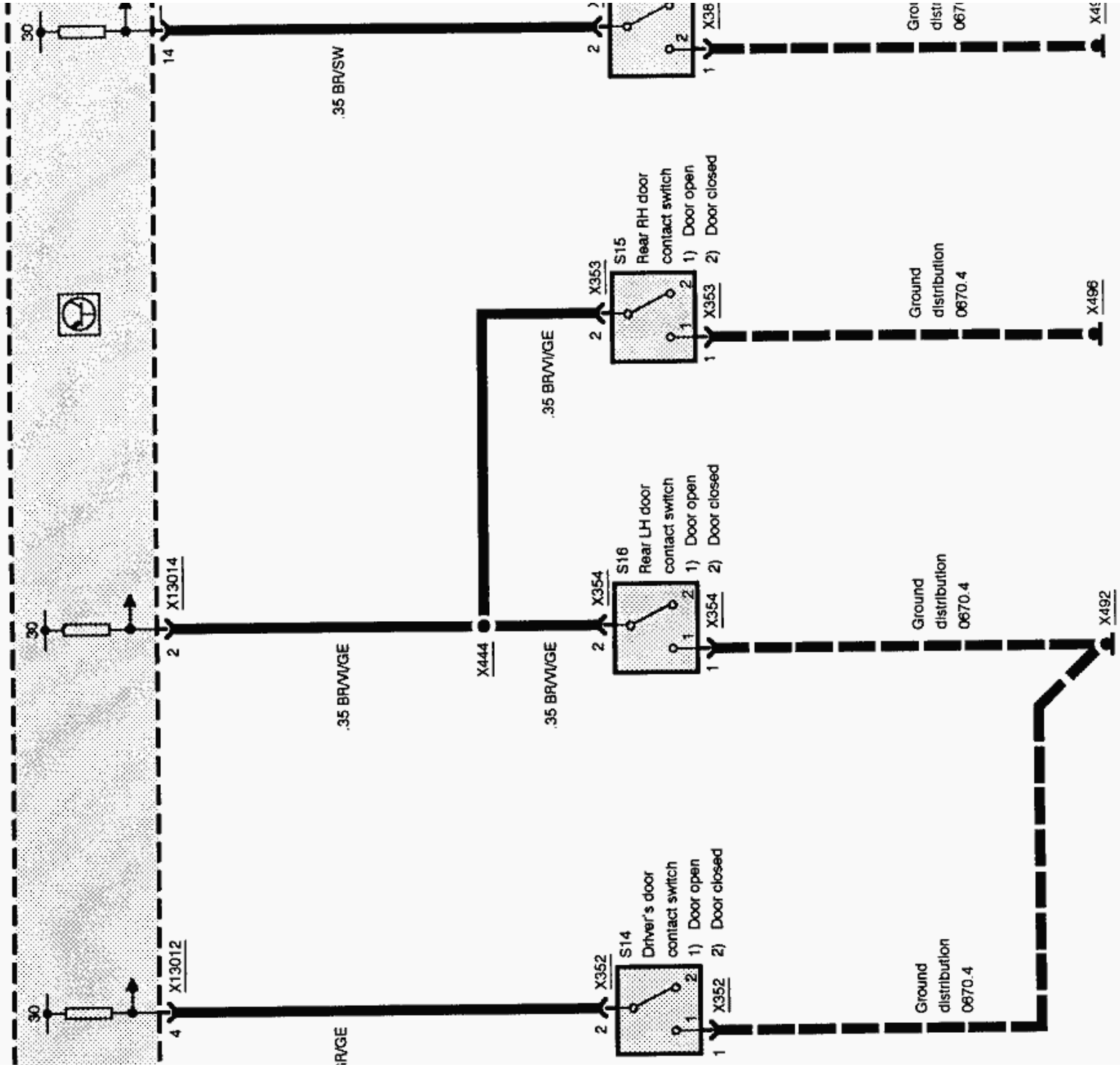
ZVM Interior lights

Inputs



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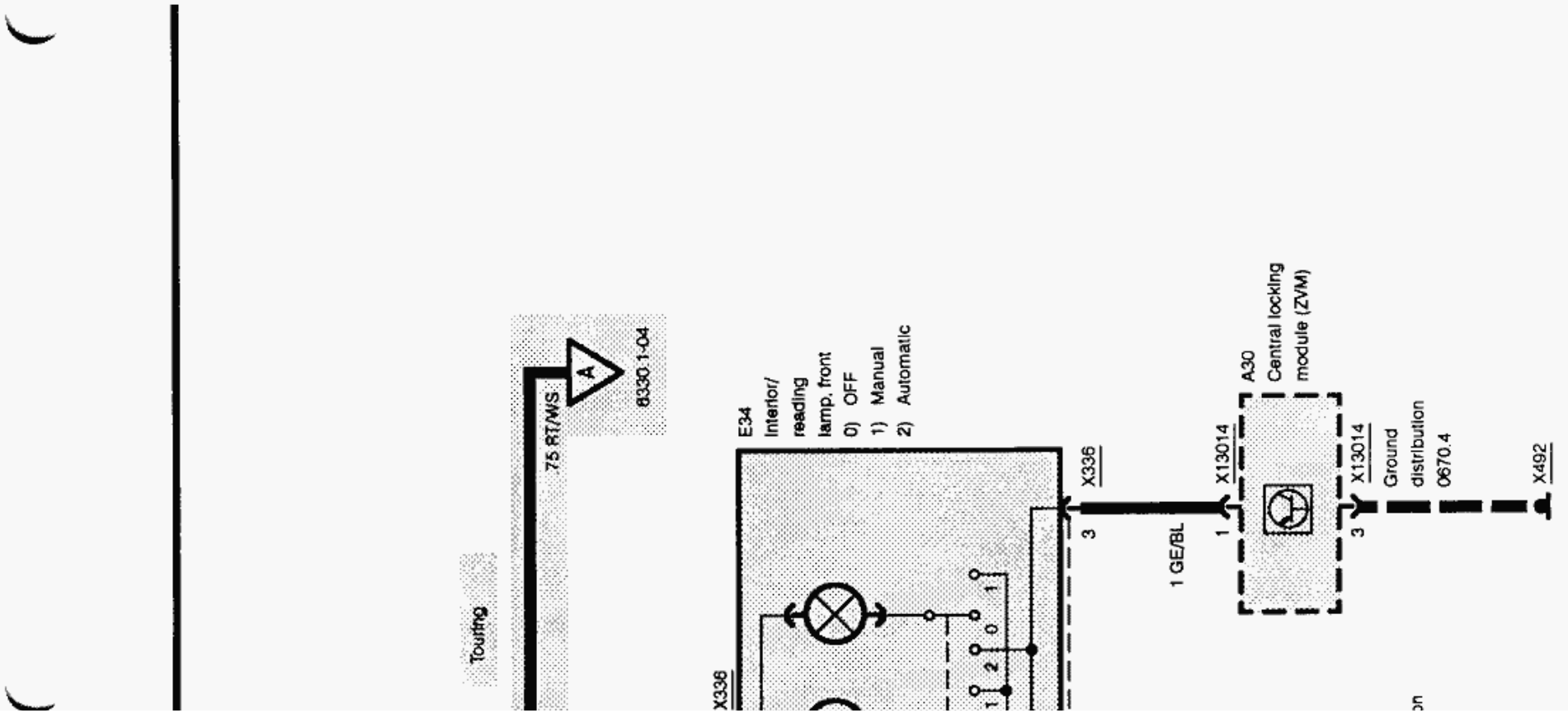
09/93 — 6330.1-03 — 1994



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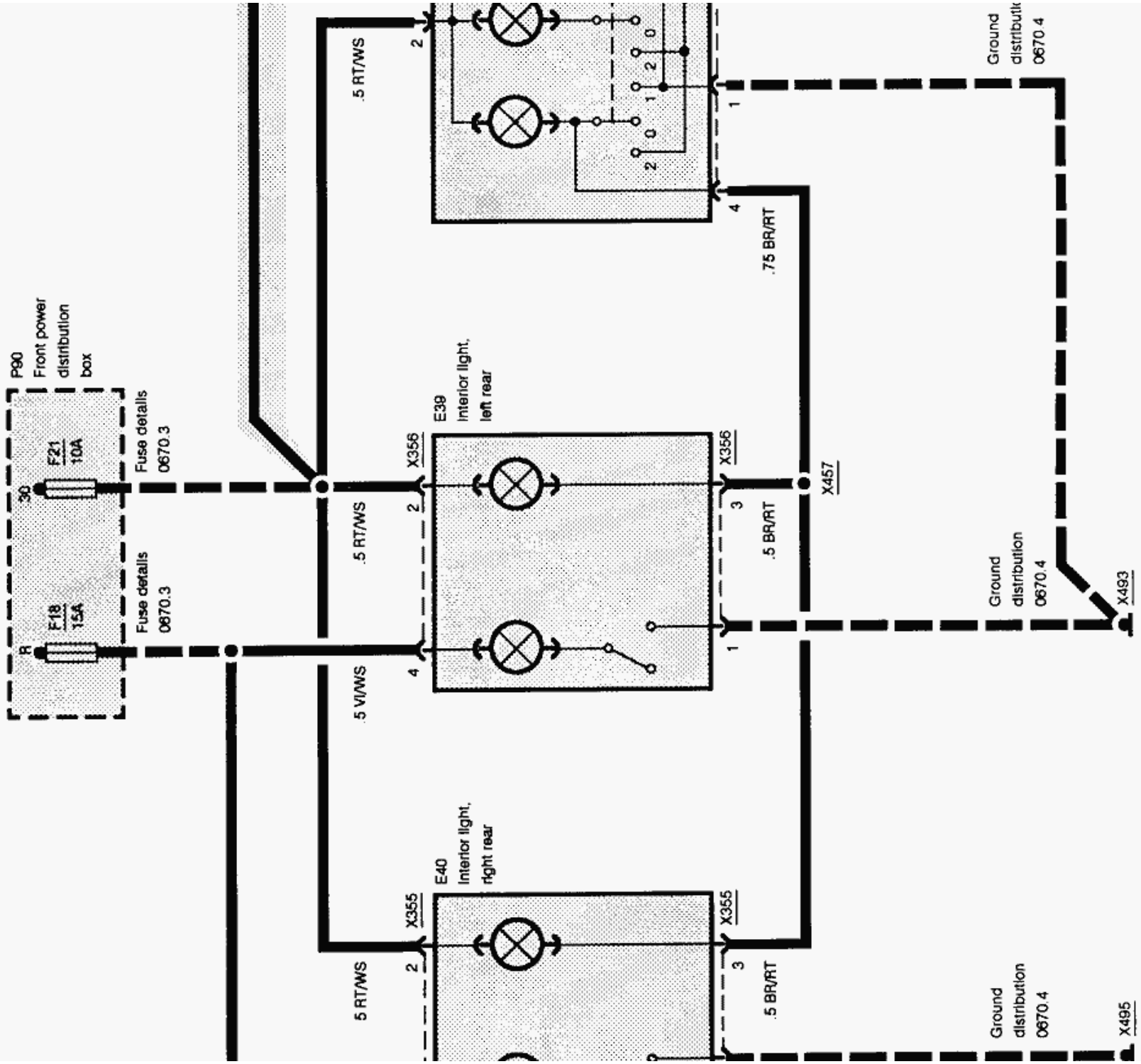
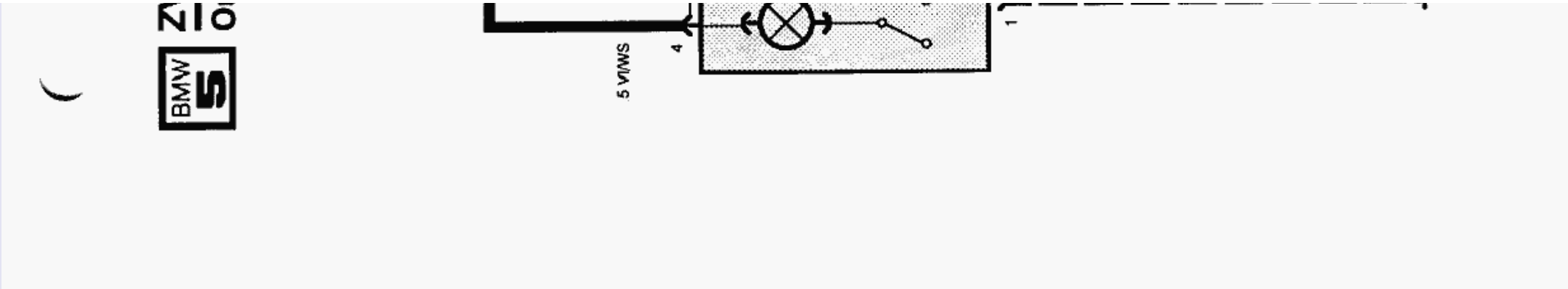
VM Interior lights

utputs

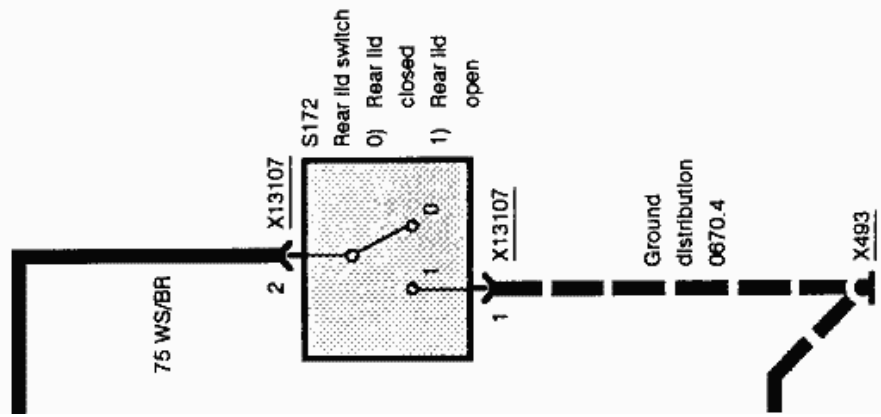


cardiagn.com



09/93 — 6330.1-04 — 1994

Touring



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M Interior lights

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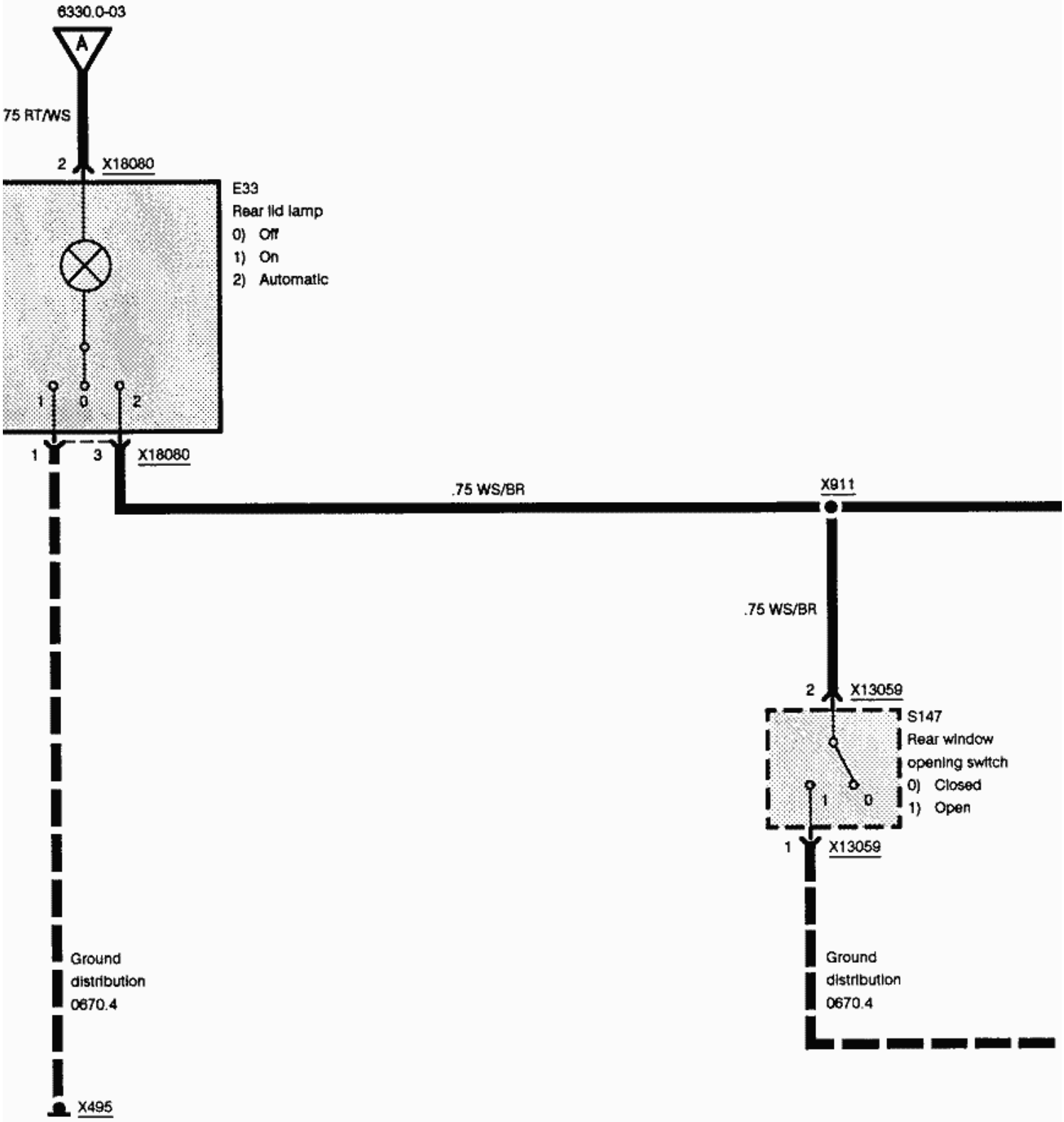

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ZV
Out

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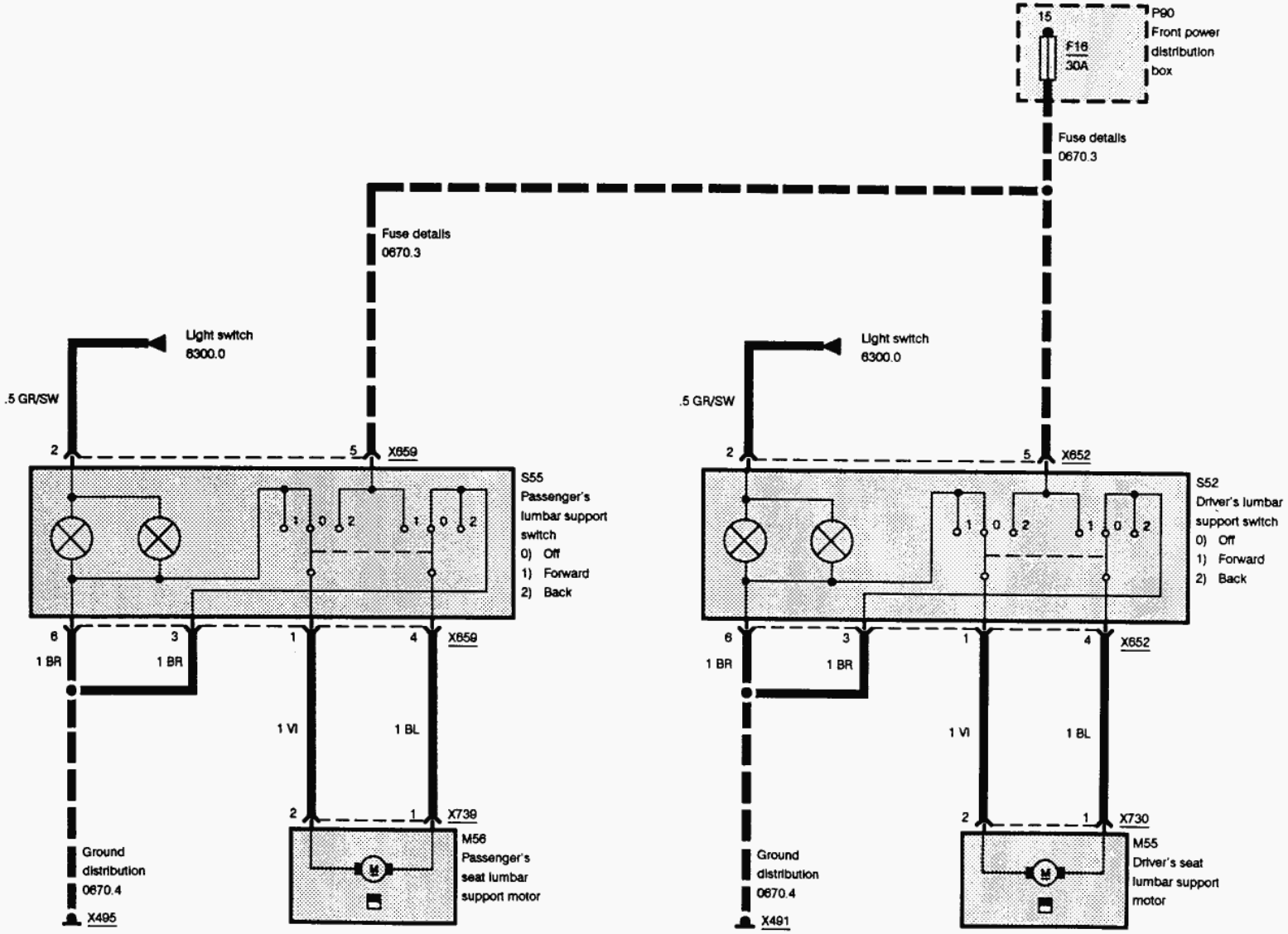
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Lumbar support
Scheme 5212.0

Lumbar support

Driver's and passenger's seats



09/93

5212.0-00

19

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Power mirrors

Scheme 5116.0

09/93 — 5116.0- 00 — 1994

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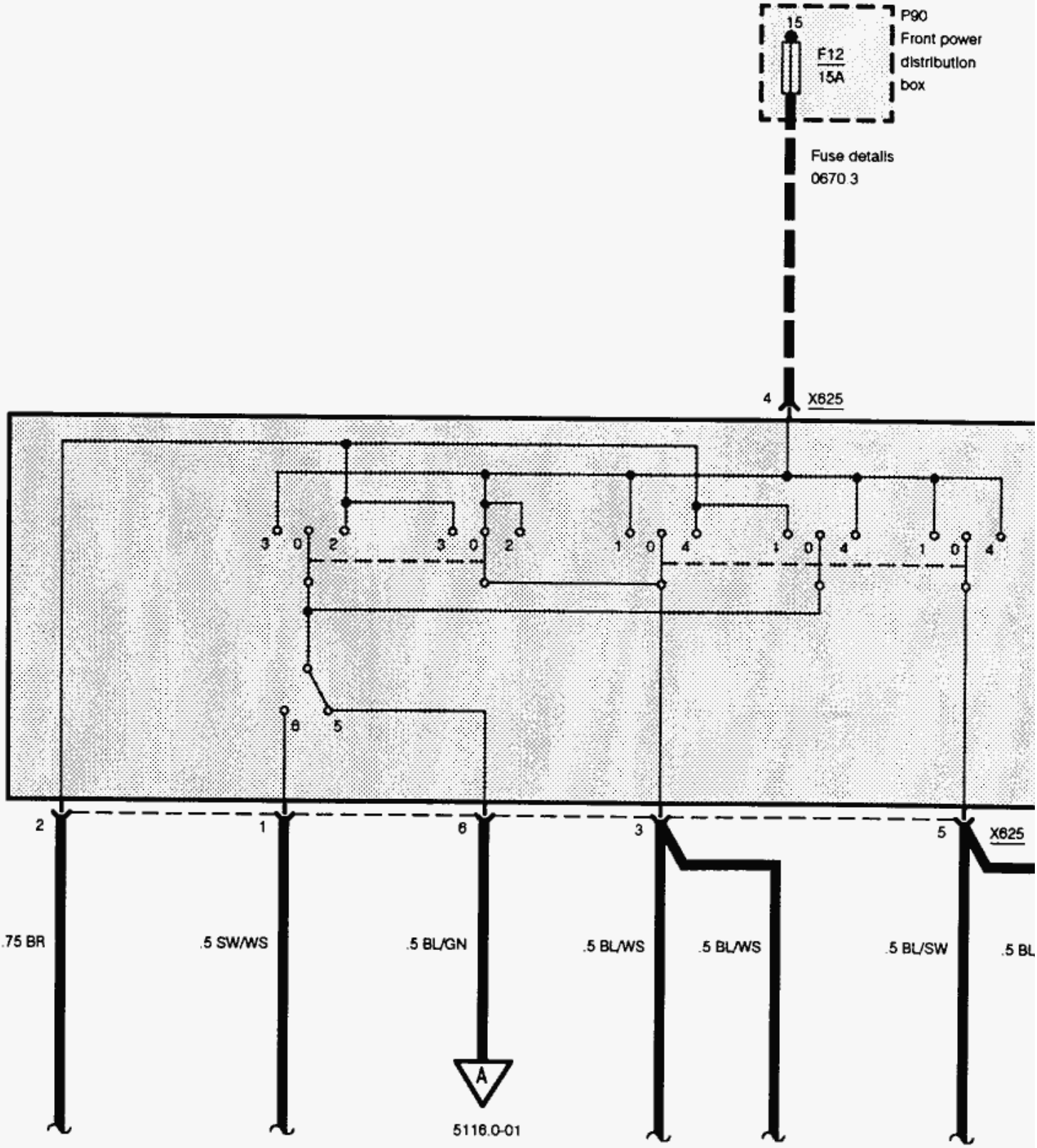
Power mirrors

Outside mirrors



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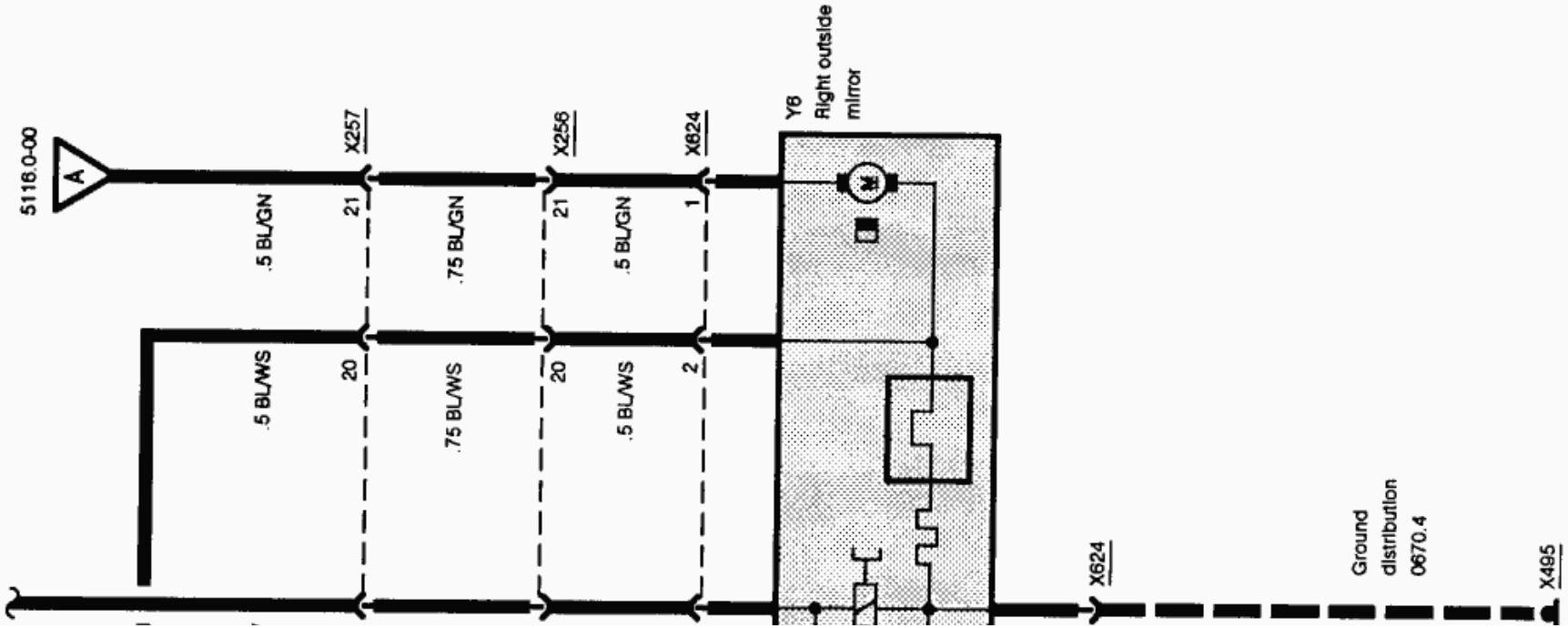
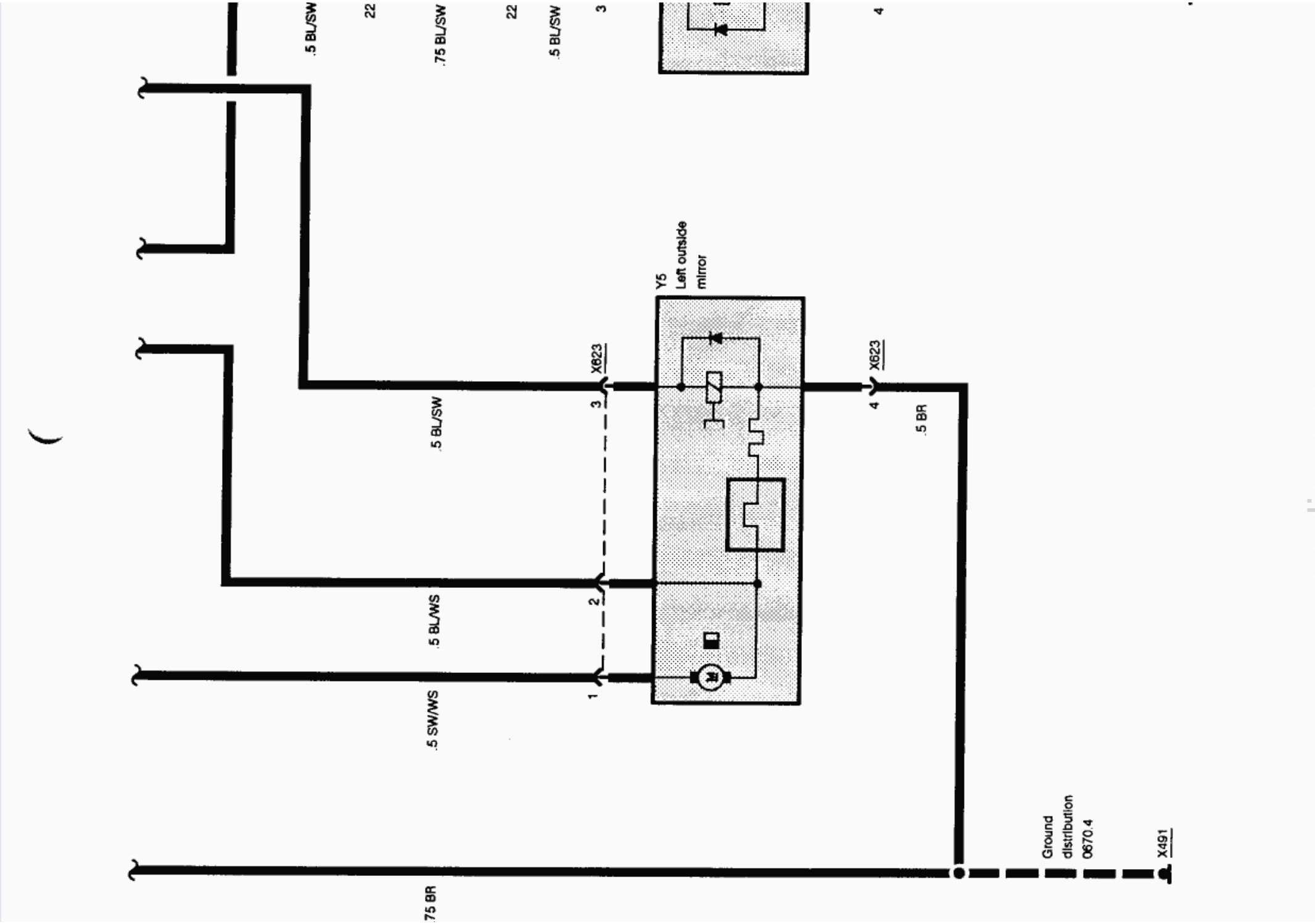
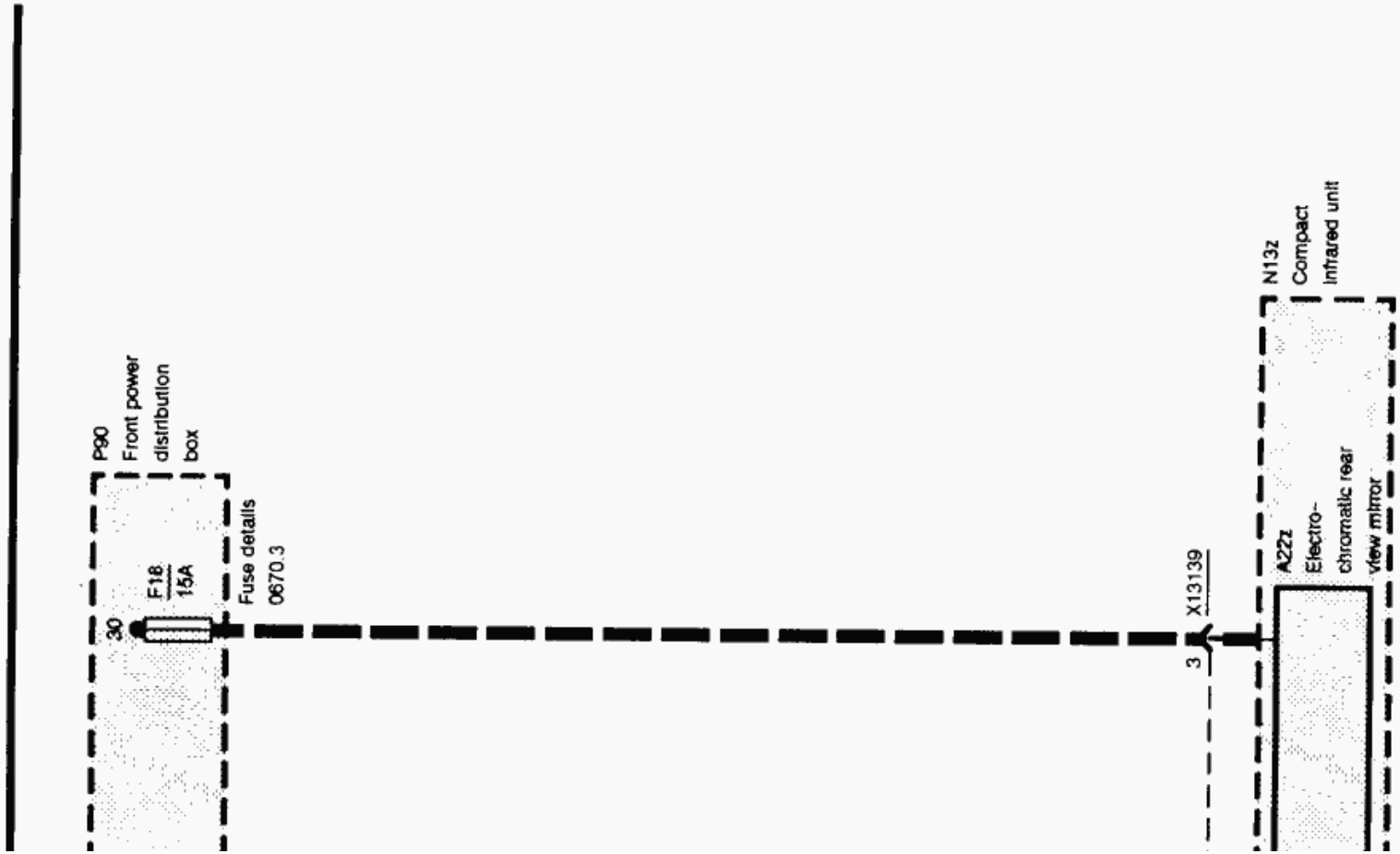


cardiagn.com



cardiagn.com



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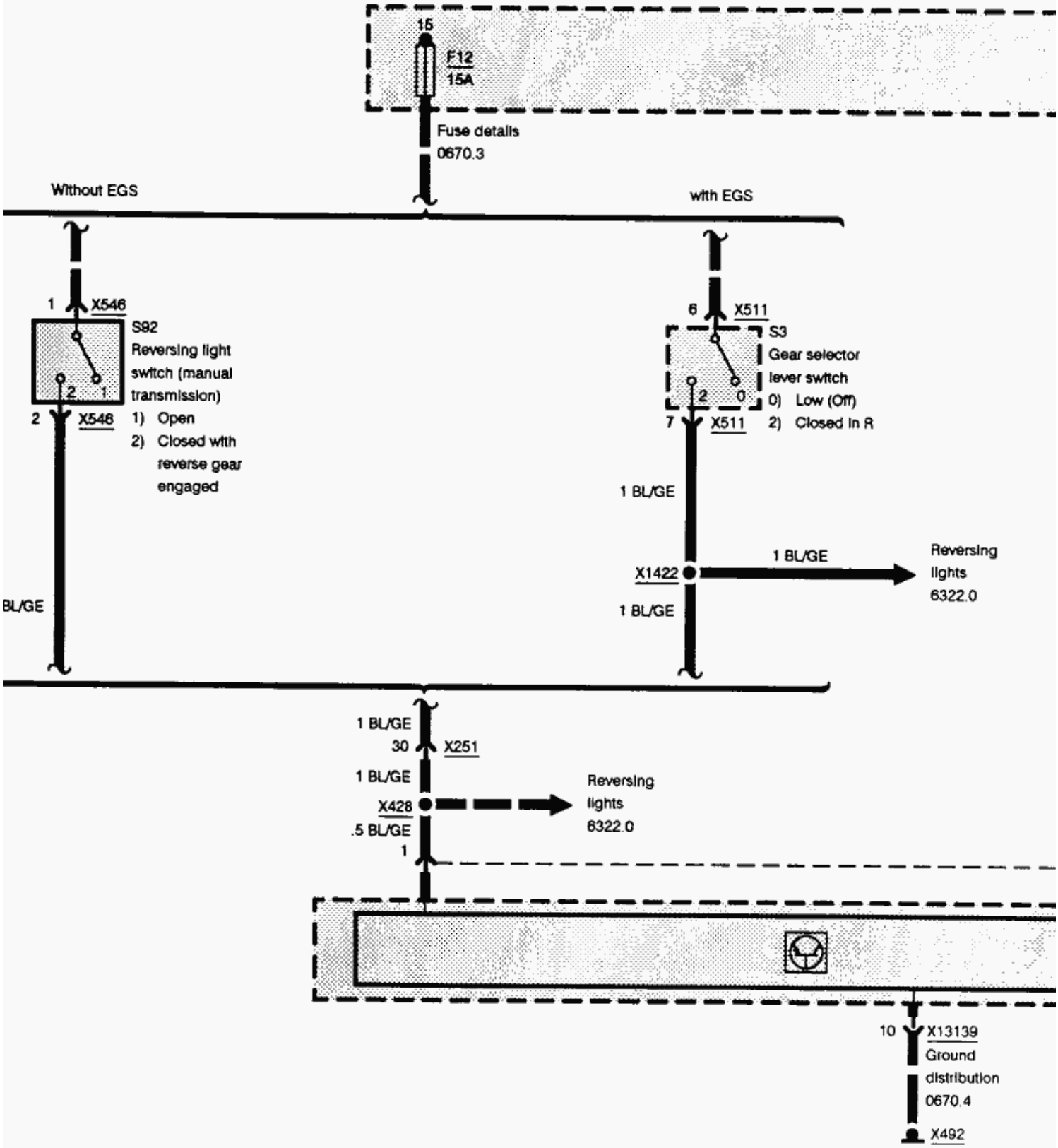
Power mirrors

Interior rear-view mirror



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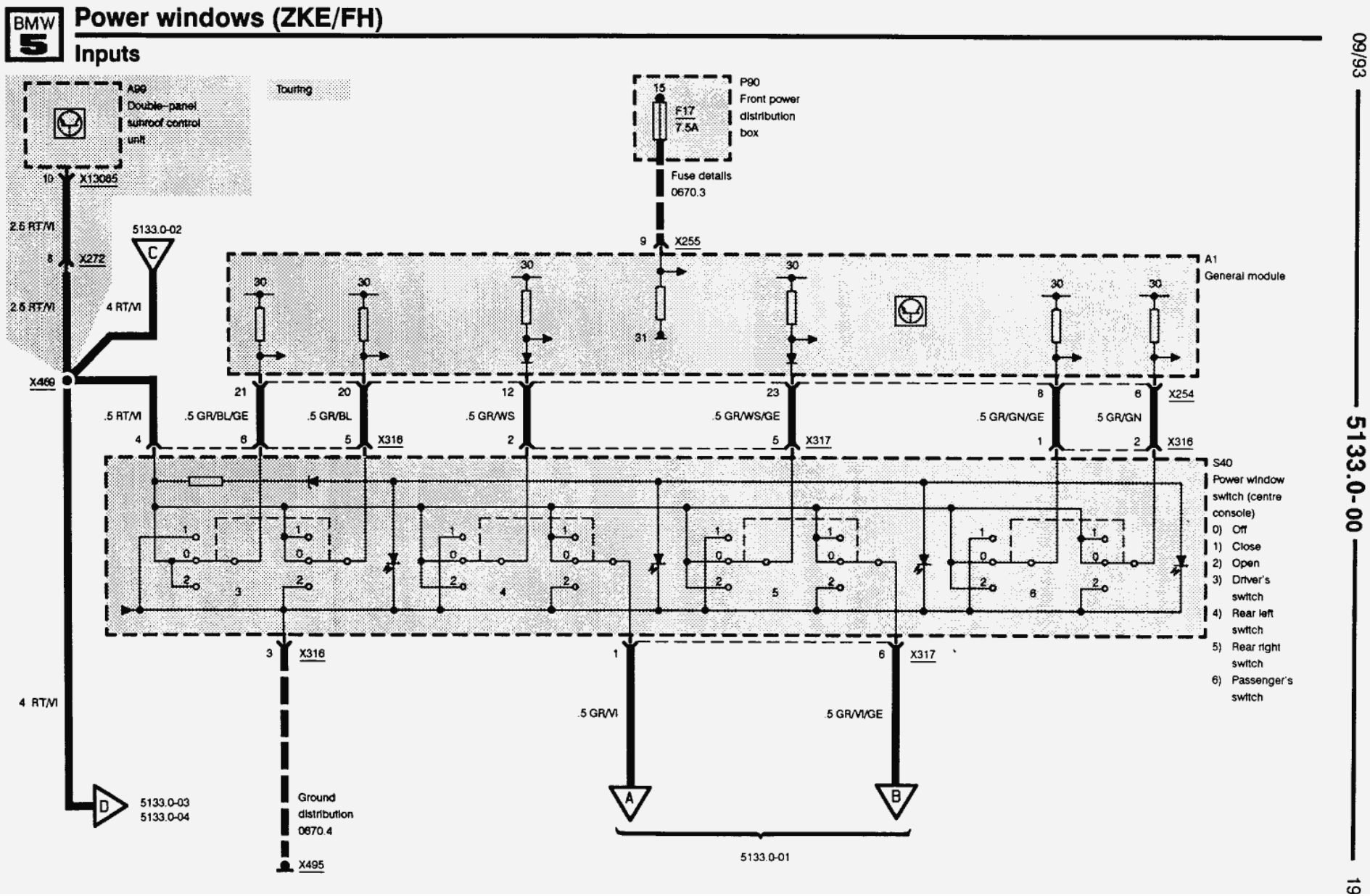
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Power windows (ZKE/FH)
Scheme 5133.0



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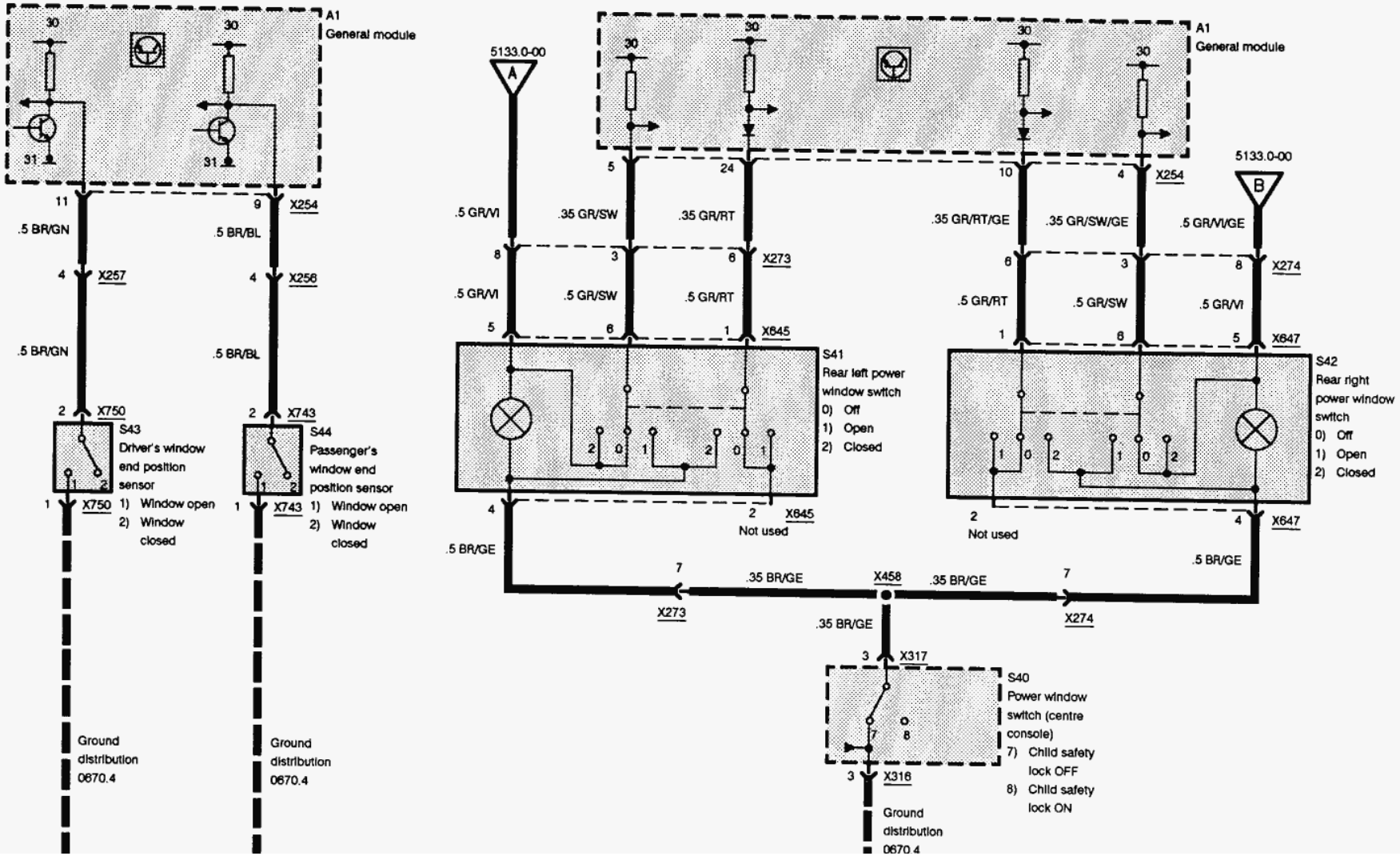
BMW 5

Power windows (ZKE/FH)

Inputs



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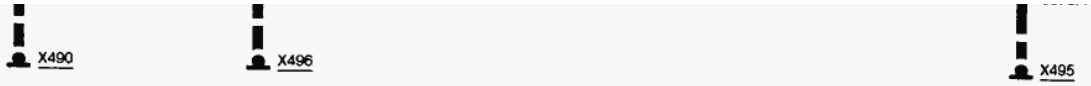

Power windows (ZKE/FH)

Inputs

.5 BL/BR/GE

Touring .5 WS/RT/GE

.35 WS/RT/GE

.5 BL/RT/GE

Central locking system (ZKE/ZV) 5126.0

Infrared locking system (IR) 6610.0

P91 Rear power distribution box

F37 30A

Fuse details 0670.3

X294

K15 General module safety relay

.5 BR/RT

2.5 RT/BR

X253

X332

A1 General module

X255

RM

.35 BR/GR

X273

.5 BR/GR

X715

S45 Power window end position sensor, rear left
1) Window open
2) Window closed

.35 BR/WS

X254

X274

X721

S46 Power window end position sensor, rear right
1) Window open
2) Window closed

4 RT/VI

5133.0-00

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Ground distribution 0670.4 X492

Ground distribution 0670.4 X496

1994

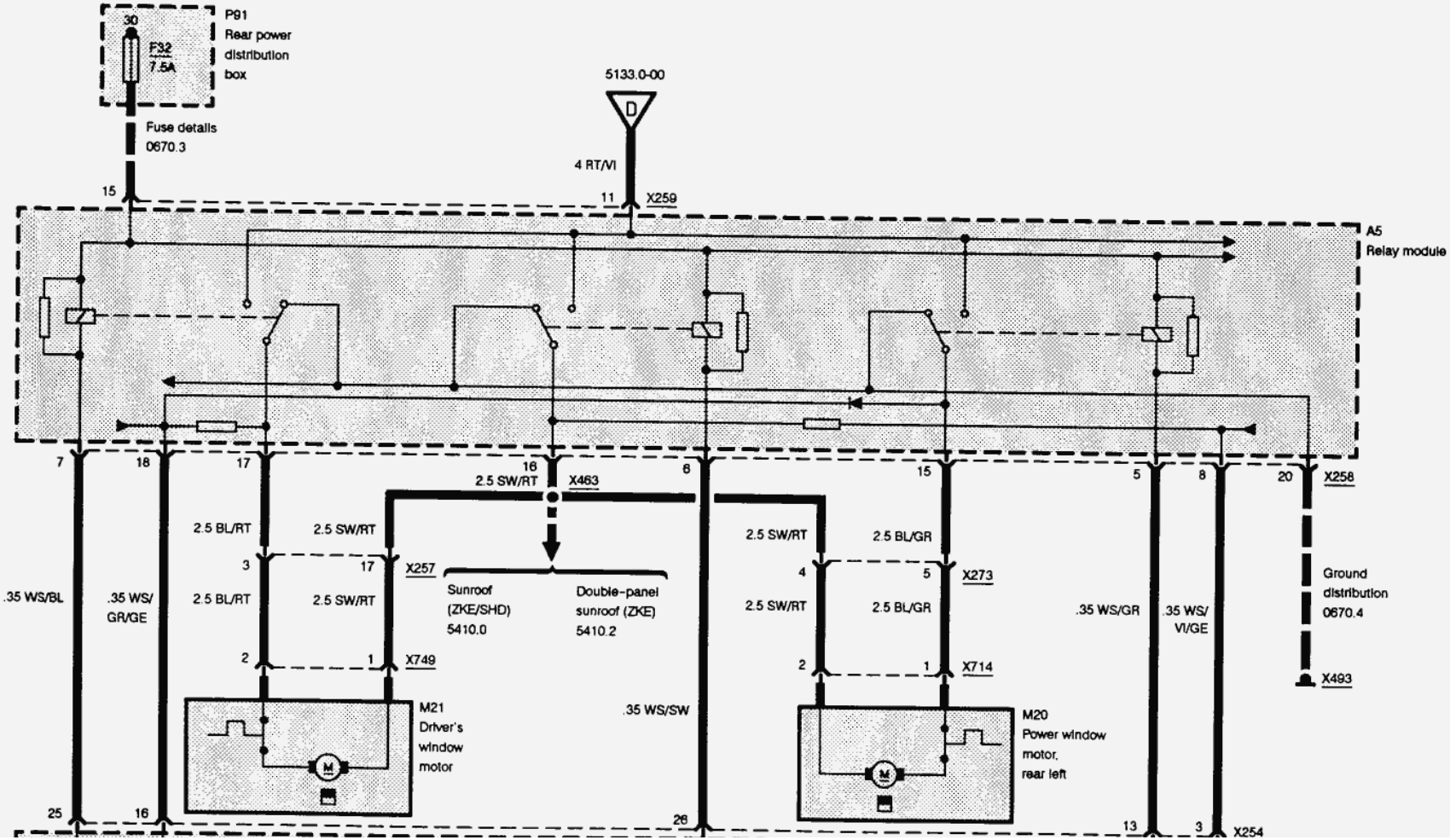
BMW 5

Power windows (ZKE/FH)

Outputs on left-hand side

09/93

5133.0-03



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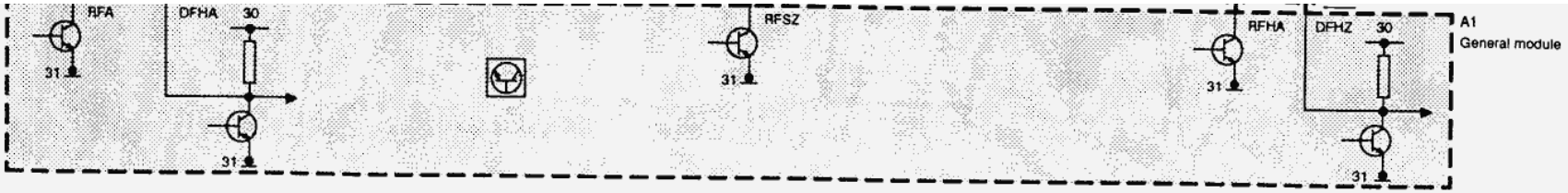


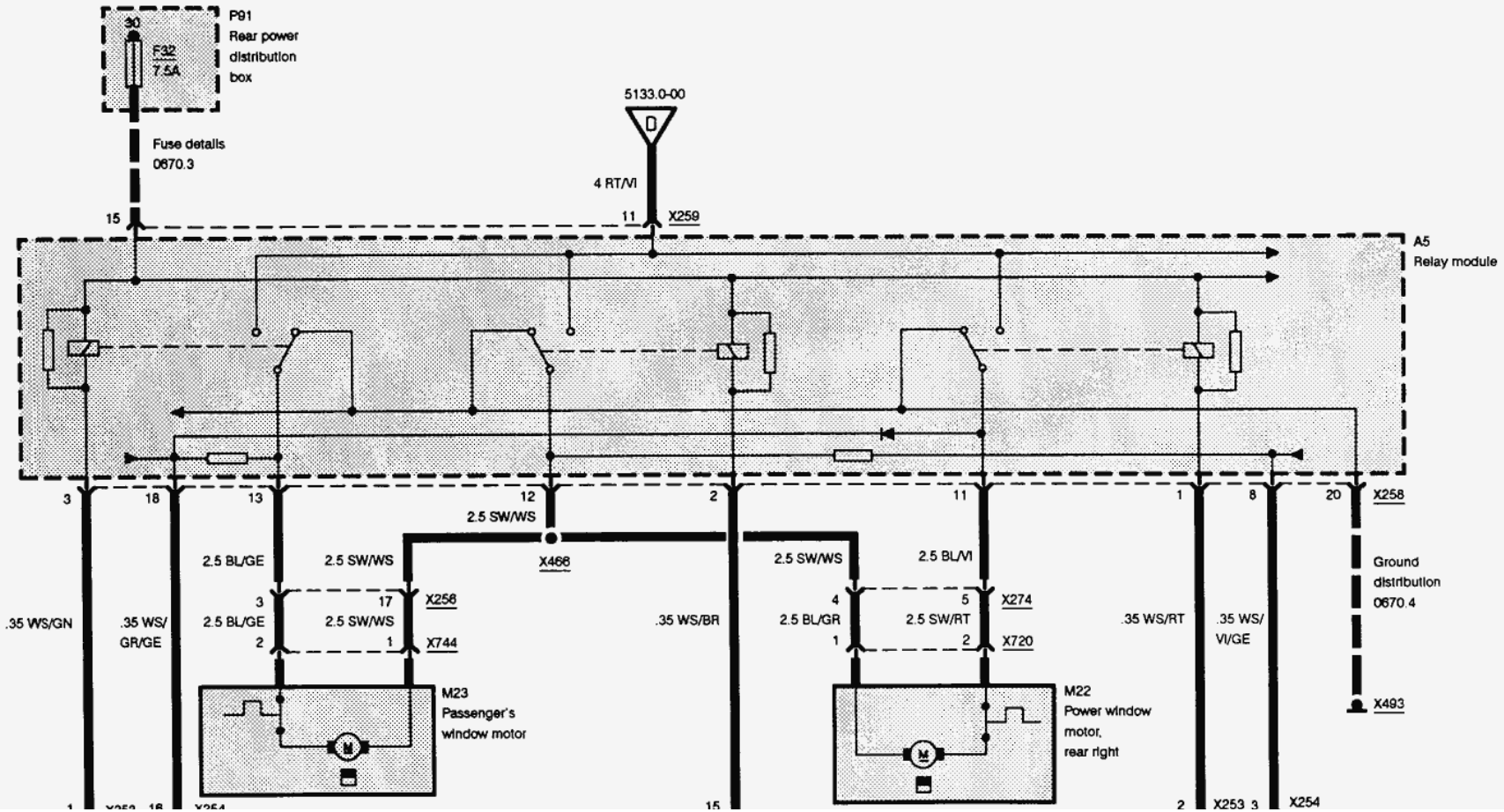
1994

Power windows (ZKE/FH)

Outputs on right-hand side

09/93

5133.0-04



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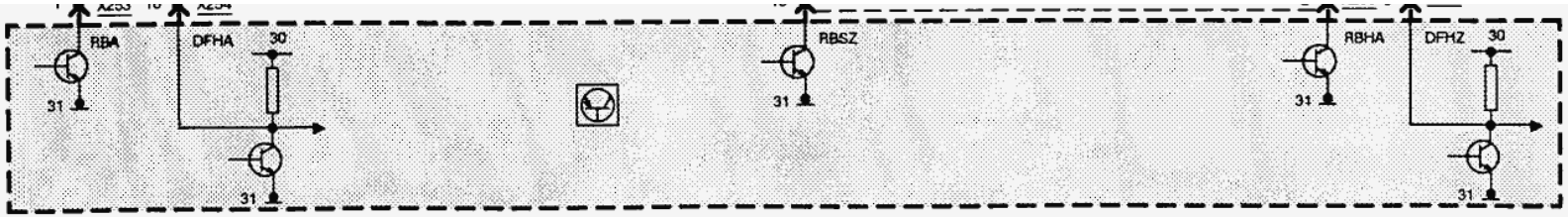

1994

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Electronic transmission control (EGS ASS 31 OZ diesel)
Scheme 2460.5

Pin Assignment X7000

Pin	Type	Description/Function	Connection
1		not used	
2		not used	
3	A	Solenoid valve 5	Gearshift unit
4	A	Solenoid valve, converter clutch	Gearshift unit
5	A	Pressure regulator (+)	Gearshift unit
6		not used	
7		not used	
8	E	Position switch L2	Selector lever switch
9	E	Position switch L4	Selector lever switch
10		not used	
11		not used	
12	E/A	L5 S program	Program switch
13	E/A	L7 * program	Program switch
14	E	Speed sensor n-ab (-)	Gearshift unit
15	A	Shield speed sensor n-ab/n-turbine	Speed sensor
16	E	Speed sensor n-turbine (+) web speed	Gearshift unit
17		not used	
18	E	Kick-down	Kick-down switch
19		not used	
20		not used	
21	M	Ground, oil-temperature sensor	Gearshift unit
22	E	Oil temperature sensor NIC	Gearshift unit
23		not used	
24		not used	
25	A	Fault indicator	Instrument cluster
26	E	Terminal 30	B+ interpolation point
27		not used	
28	M	Electronics ground	Ground connection
29		not used	
30	A	Solenoid valve 1	Gearshift unit
31	A	Solenoid valve 4	Gearshift unit
32	A	Solenoid valve 3	Gearshift unit
33	A	Solenoid valve 2	Gearshift unit
34	M	Power ground	Ground connection
35	E	Throttle-valve signal interface	DME control unit
36	E	Position switch L1	Selector lever switch
37	E	Position switch L3	Selector lever switch
38		not used	
39		not used	
40	A	Engine intervention	DME control unit
41	E	Fuel consumption indicator (ti signal)	DME control unit
42	E	Speed sensor n-ab (+)	
43	E	Engine speed n-mot (TD* signal)	DME control unit
44	E	Speed sensor n-turbine (-)	Gearshift unit
45	E	L6 E program	Program switch, instrument cluster
46		not used	
47		not used	
48		not used	
49		not used	
50		not used	
51		not used	
52		not used	
53	A	Positive supply, solenoid valves	Gearshift unit
54	E	Voltage supply	DME relay
55		not used	
56		not used	
57		not used	
58		not used	
59		not used	

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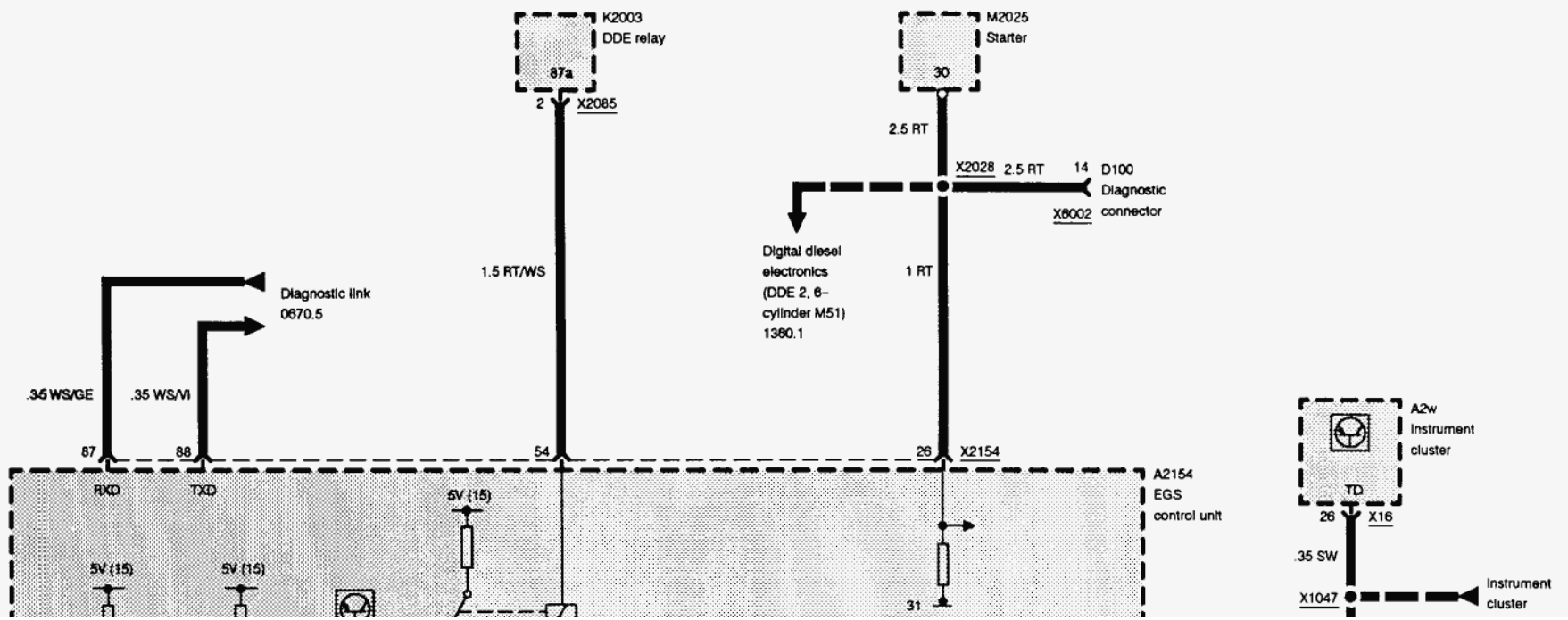
60		not used	
61		not used	
62		not used	
63		not used	
64		not used	
65		not used	
66		not used	
67		not used	
68		not used	
69		not used	
70		not used	
71		not used	
72		not used	
73		not used	
74		not used	
75		not used	
76		not used	
77		not used	
78		not used	
79		not used	
80		not used	
81		not used	
82		not used	
83		not used	
84		not used	
85		not used	
86		not used	
87	E	RxD diagnosis line	Diagnostic connector
88	E/A	TxD diagnosis line	Diagnostic connector

Electronic transmission control (EGS A5S 310Z diesel)



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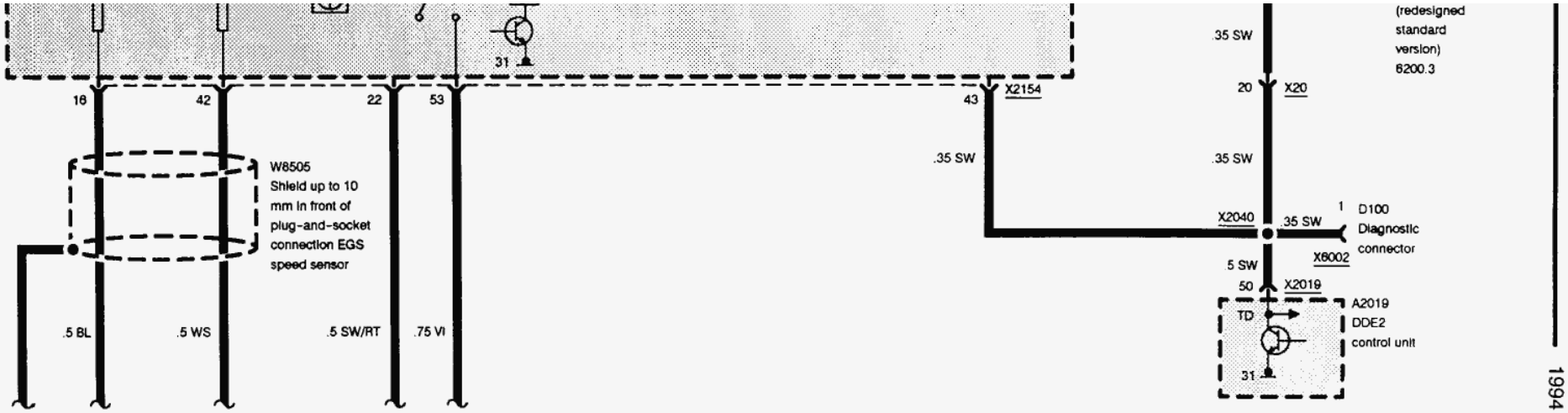

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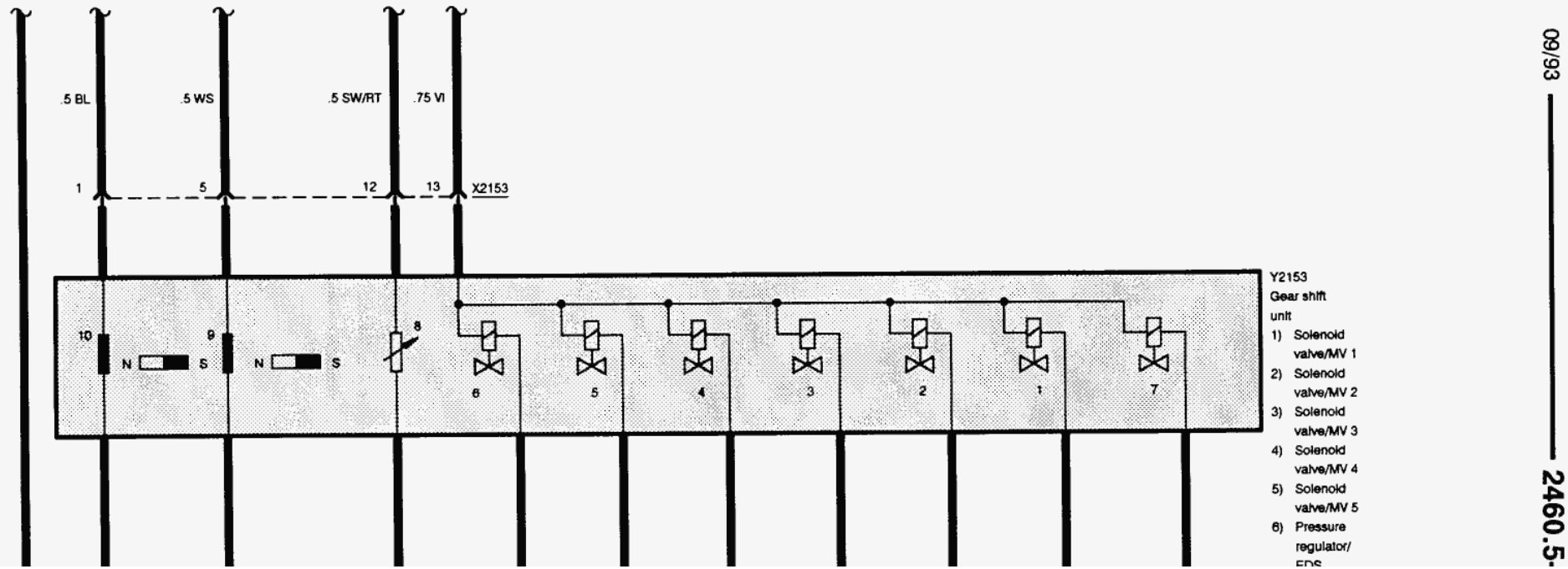

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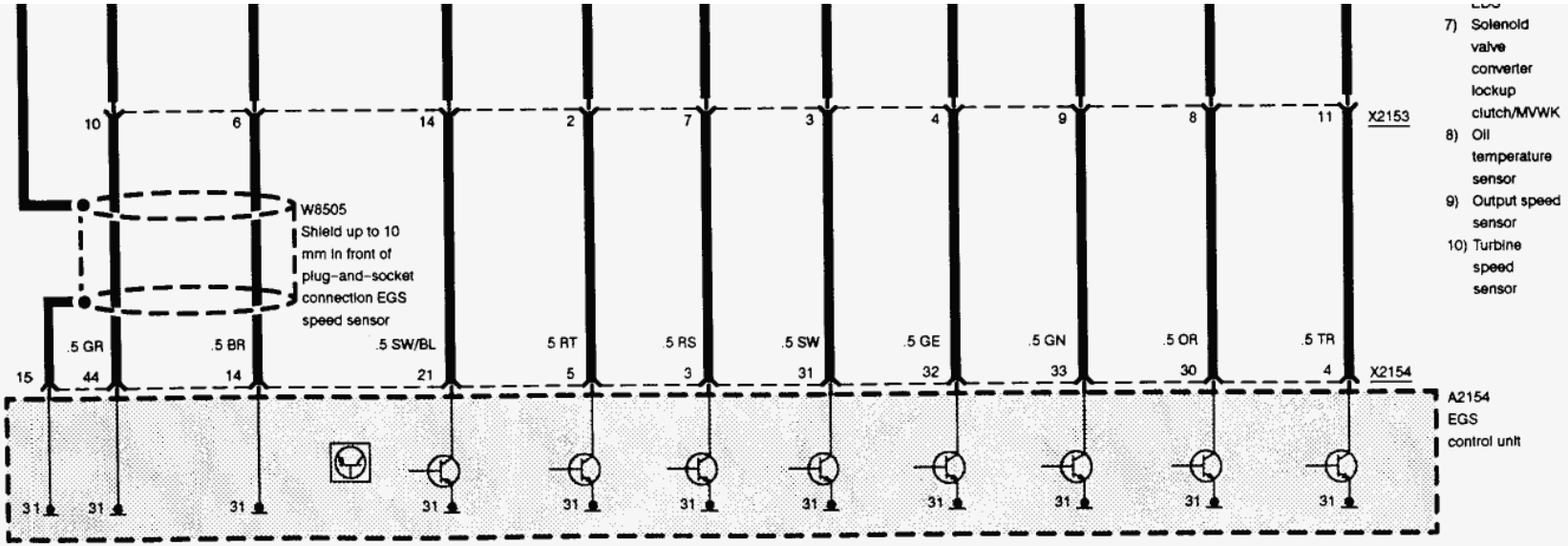

7) Solenoid valve converter lockup clutch/MVWK
8) Oil temperature sensor
9) Output speed sensor
10) Turbine speed sensor

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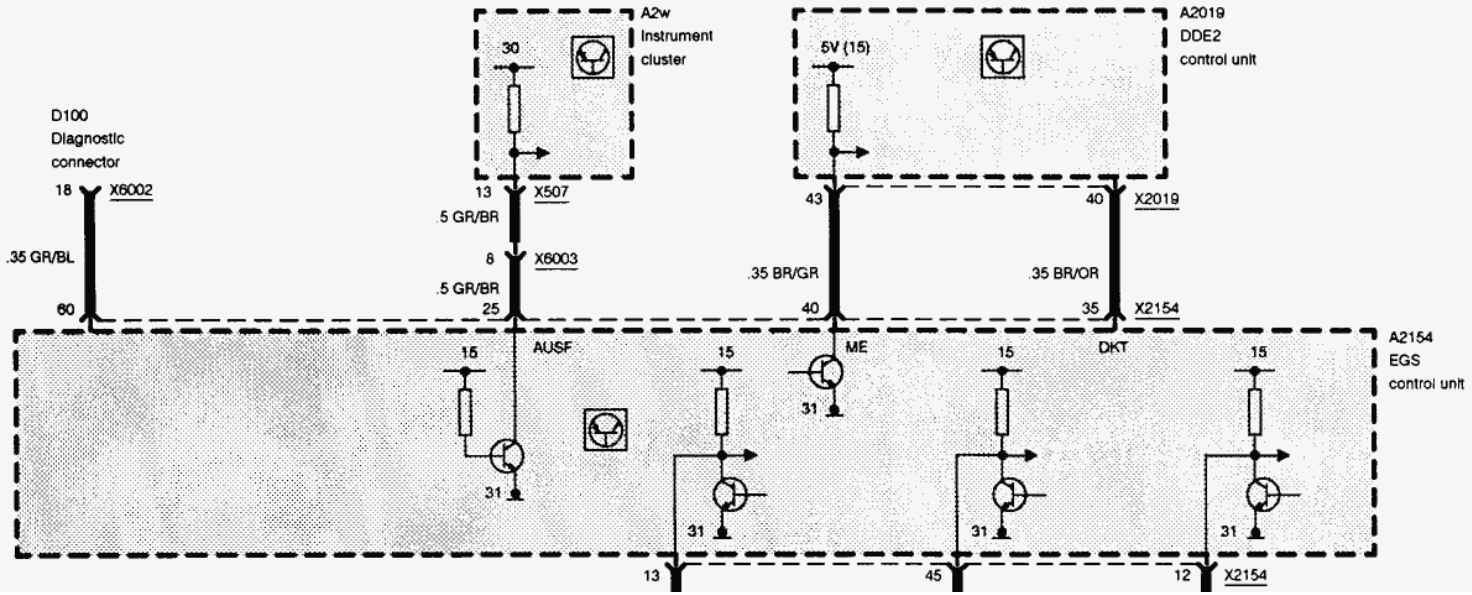
Electronic transmission control (EGS A5S 310Z diesel)



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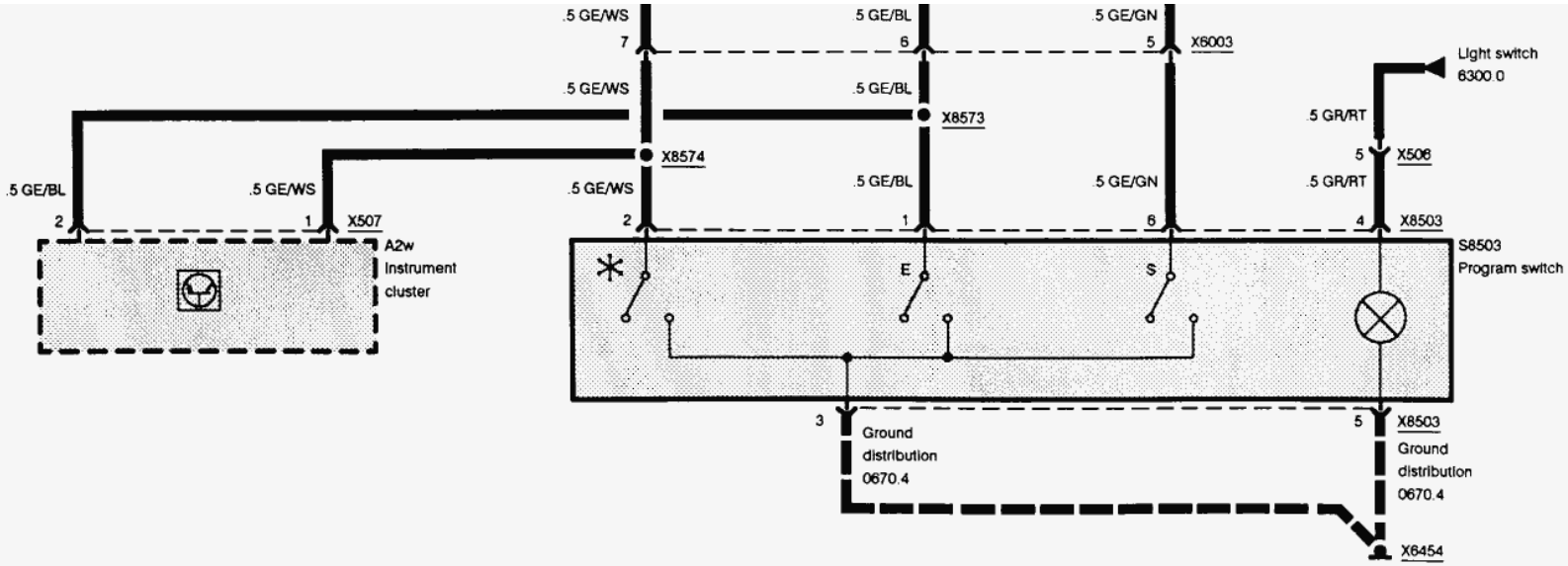

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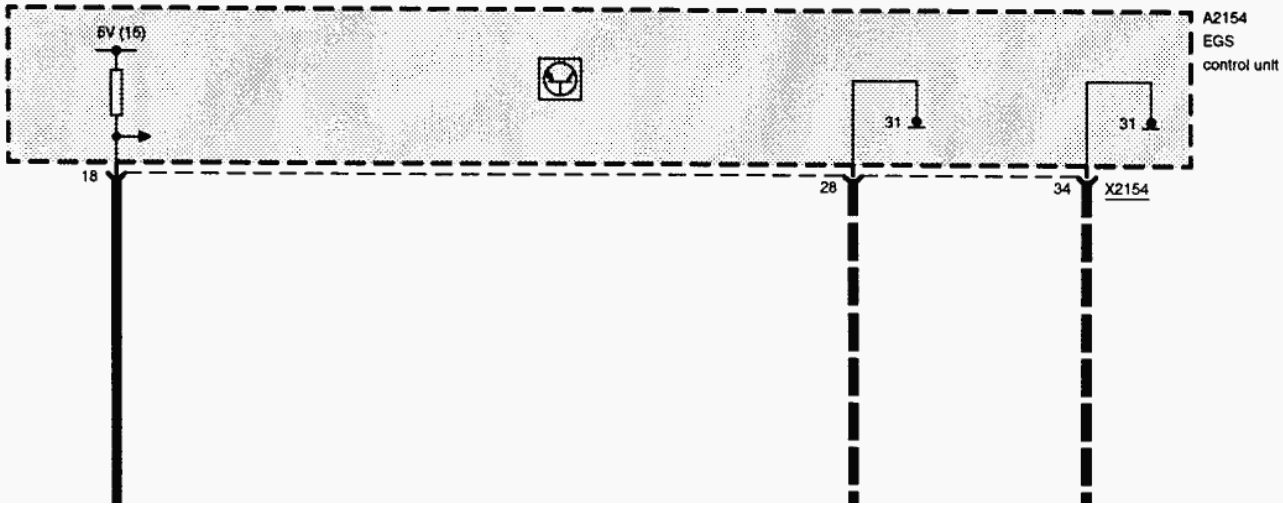
Electronic transmission control (EGS A5S 310Z diesel)



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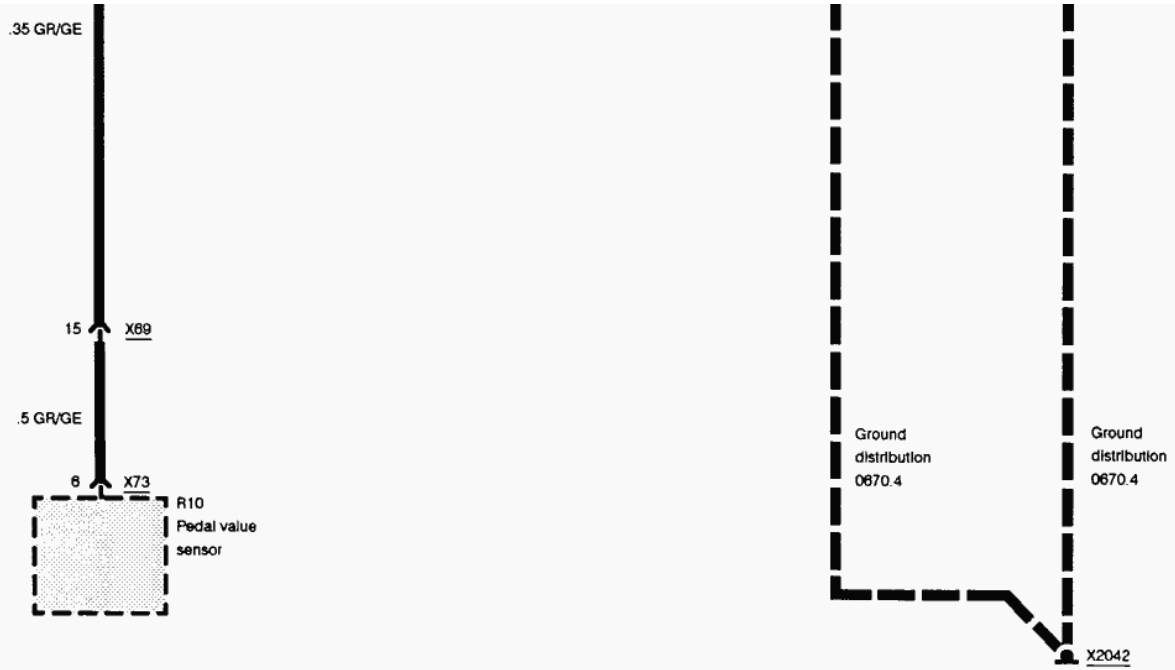

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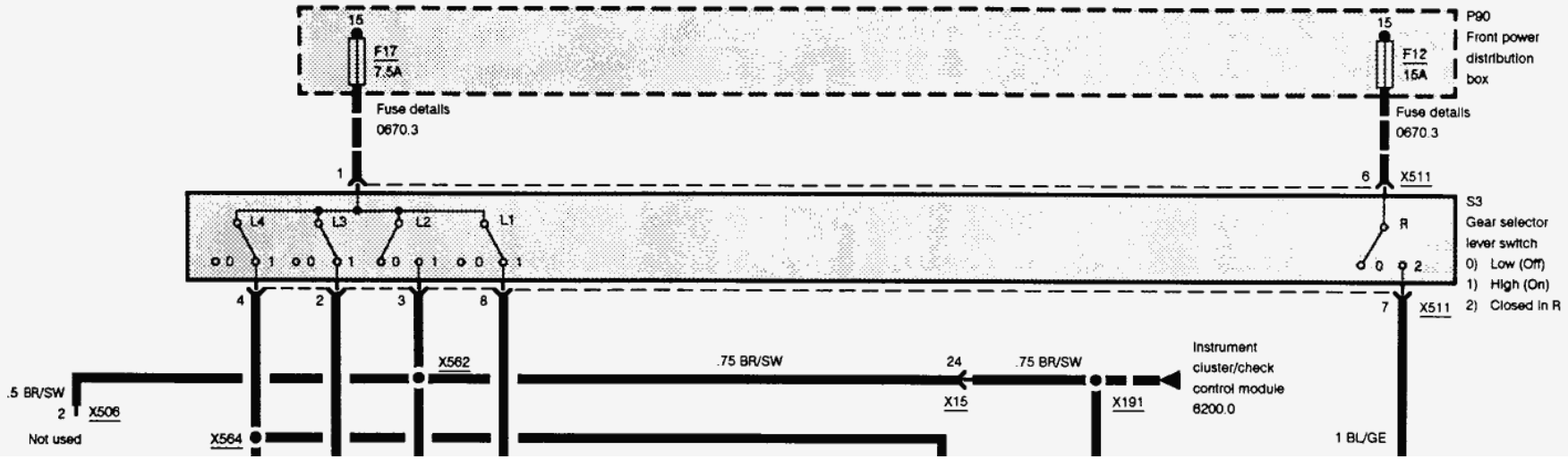
Electronic transmission control (EGS A5S 310Z diesel)



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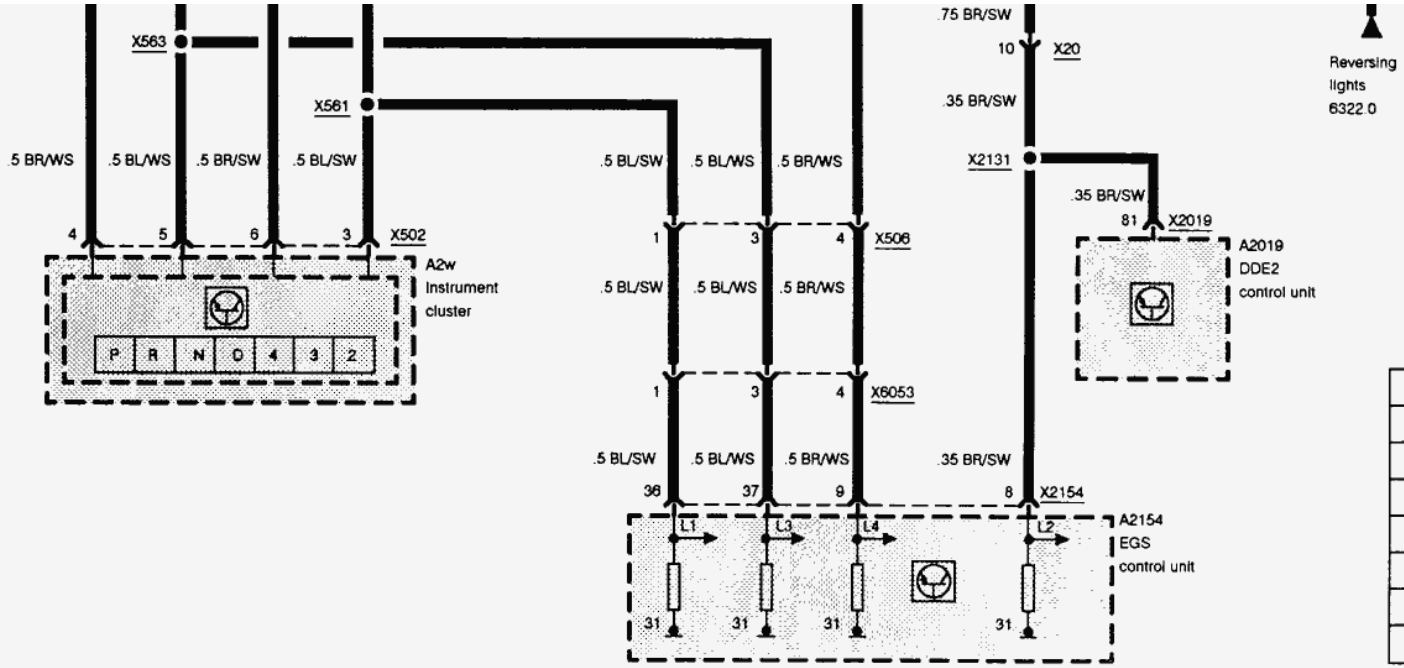

	L1	L2	L3	L4
P	1	1	0	1
R	1	0	0	0
N	1	1	1	0
D	0	0	0	1
4	0	0	1	1
3	1	0	1	1
2	0	0	1	0

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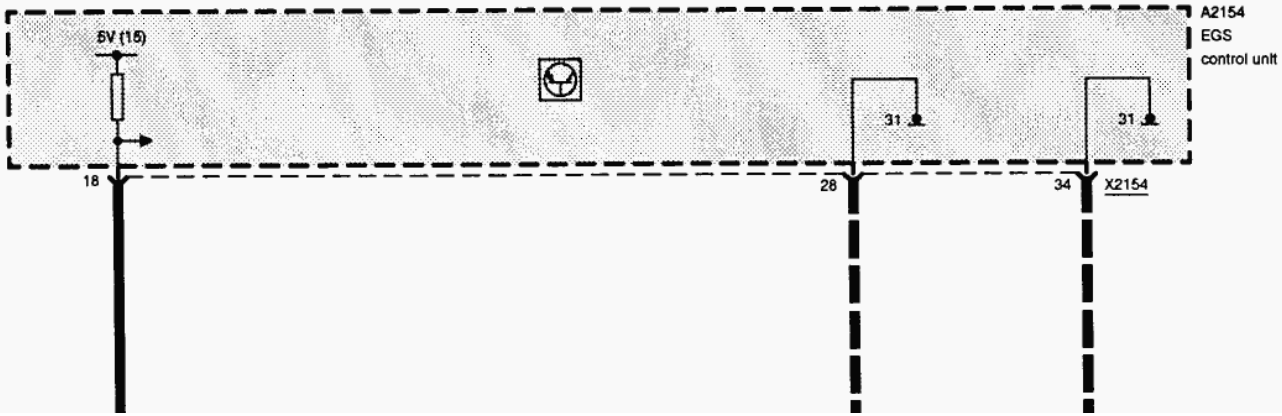
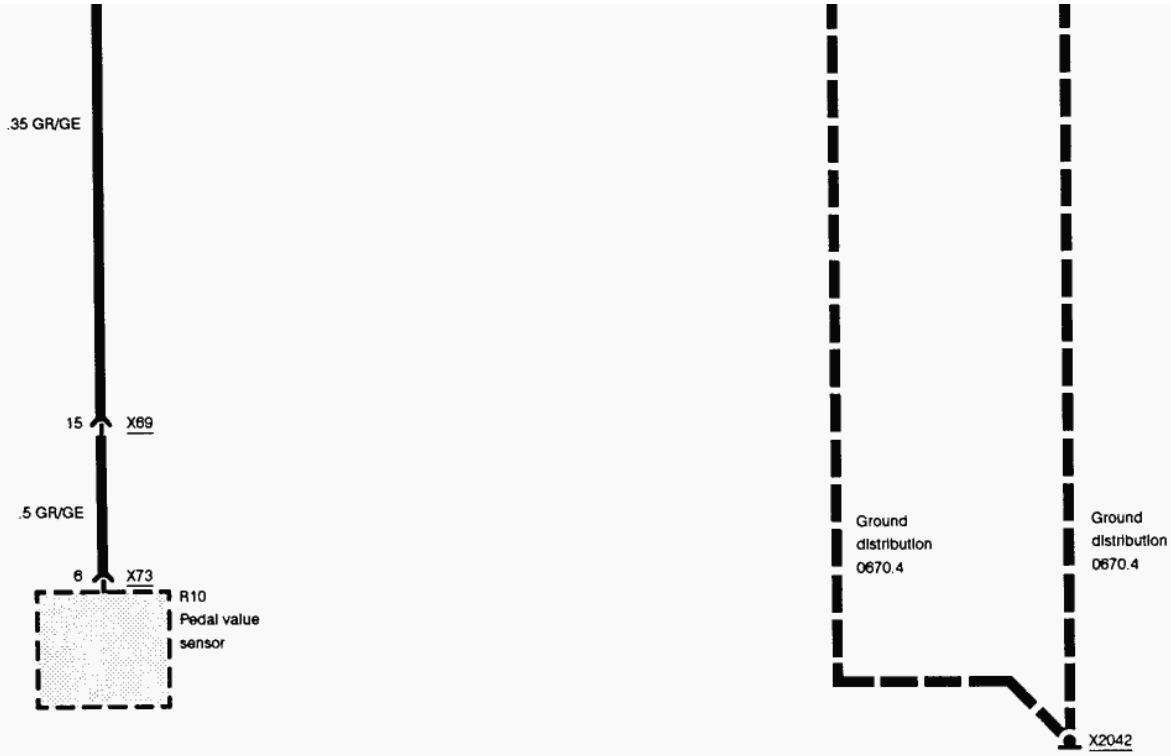
Electronic transmission control (EGS A5S 310Z diesel)





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BMWAG
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

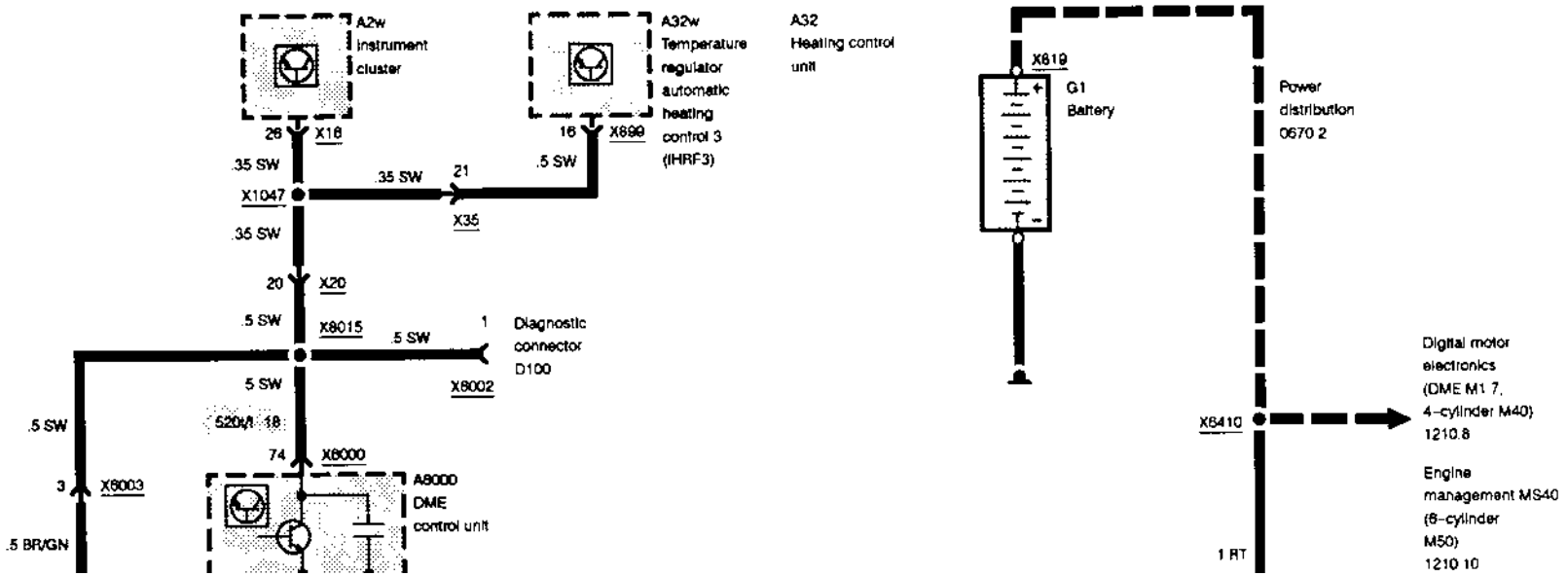
Electronic transmission control (EGS A4S 31 OR)
Scheme 2460.2

Pin Assignment X8500

Pin	Type	Description/Function	Connection
1		not used	
2	E	E program	Program button
3		not used	
4	A	Engine intervention	DME control unit
5		not used	
6		not used	
7		not used	
8	E	Position switch L3	Selector lever
9	E	Fuel consumption indicator (ti signal)	DME control unit
10	A	E program indicator	Instrument cluster
11	E	Engine speed n-mot (TR signal)	DME control unit
12	A	M program indicator	Instrument cluster
13	E/A	TxD diagnosis line	Diagnostic connector
14	E	n-ab (-)	EGS speed sensor
15		not used	
16		not used	
17	M	Analog ground (temp, sensor)	Gearshift unit
18	A	Shield speed sensor	Speed sensor
19	M	Power ground	Ground connection
20	E	n-ab (+)	EGS speed sensor
21	E	A/C compressor	Pressure switch
22	E	Oil temperature sensor (+)	Gearshift unit
23	E	Position switch L1	Selector lever
24		not used	
25	E	RxD diagnosis line	Diagnostic connector
26	E	Position switch L2	Selector lever
27		not used	
28	E	Voltage supply terminal 30	Battery
29	A	Fault indicator	Instrument cluster
30	E	Kick-down	Kick-down switch
31	E	M program	Program button
32		not used	
33	E	Position switch L4	Selector lever
34	E	S program	Program button
35		not used	
36	M	Electronics ground	Ground connection
37	E	Voltage supply	DME relay
38	A	Solenoid valve, converter clutch	Gearshift unit
39		not used	
40	A	Pressure regulator (+)	Gearshift unit
41	A	Pressure regulator (-)	Gearshift unit
42		not used	
43	A	Solenoid valve 2	Gearshift unit
44		not used	
45	A	Solenoid valve, band	Gearshift unit
46		not used	
47		not used	
48	A	Solenoid valve 1	Gearshift unit
49		not used	
50		not used	
51		not used	
52		not used	
53		not used	
54	M	Ground, solenoid valves	Gearshift unit
55	E	Throttle-valve signal	DME control unit

E = Input, A = Output, M = Ground

Electronic transmission control (EGS A4S 310R)



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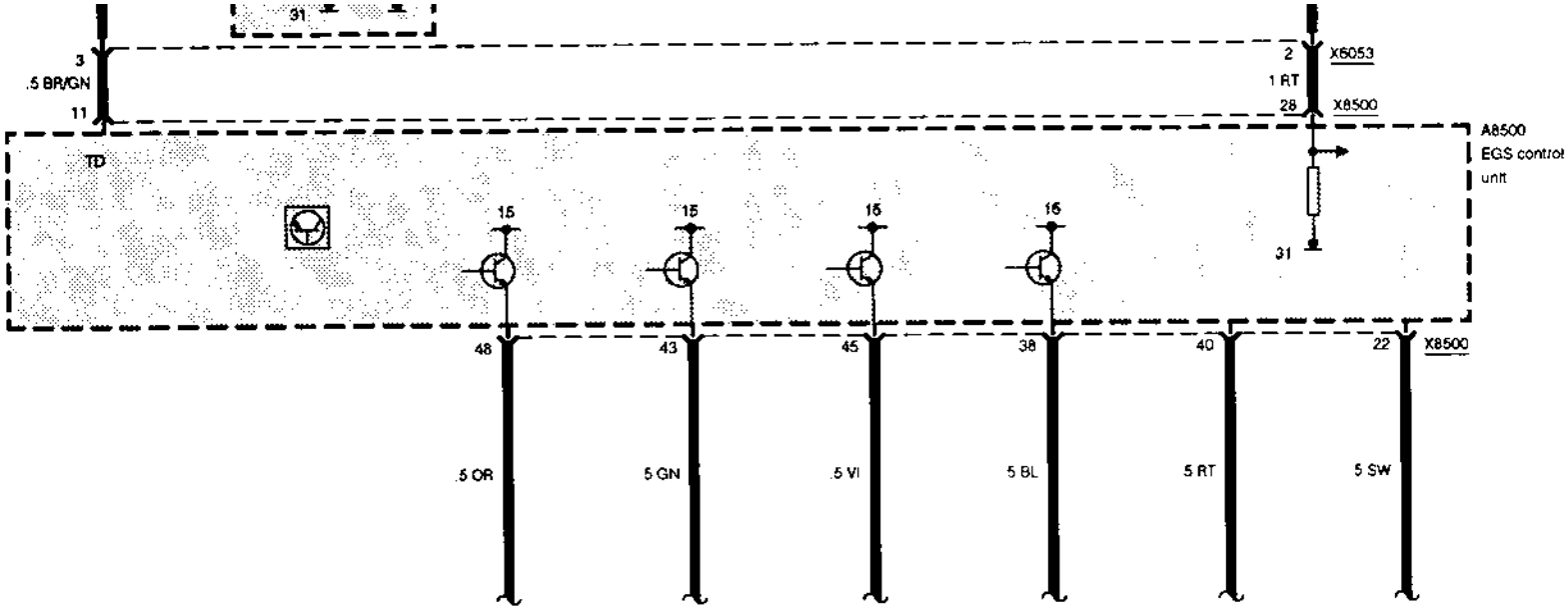

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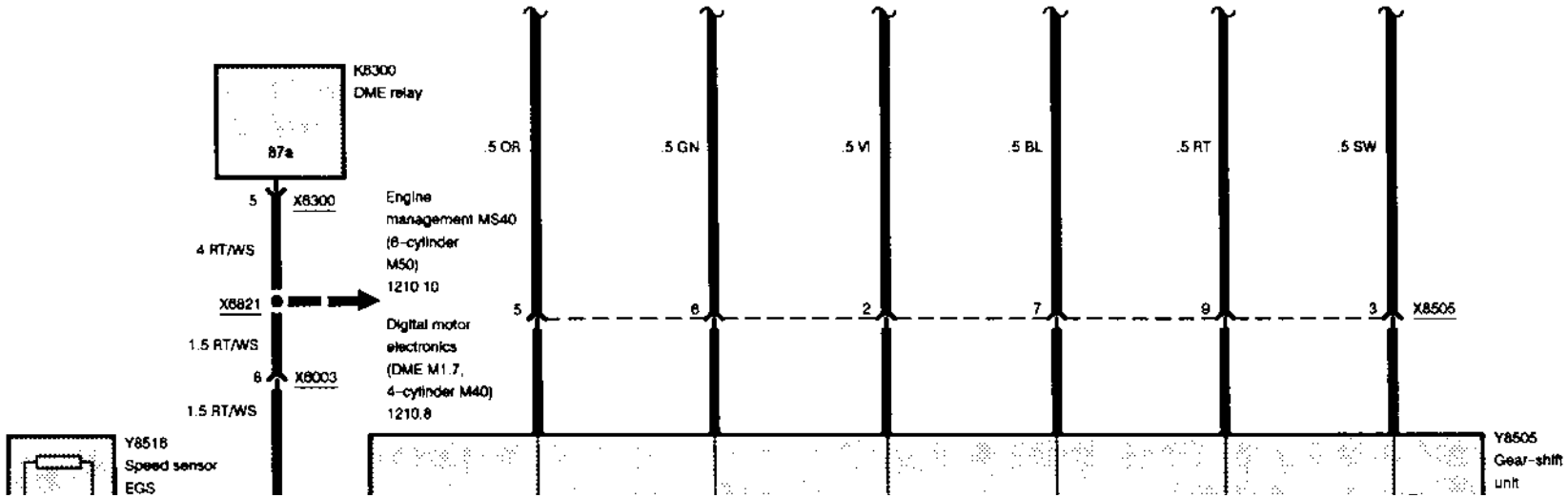

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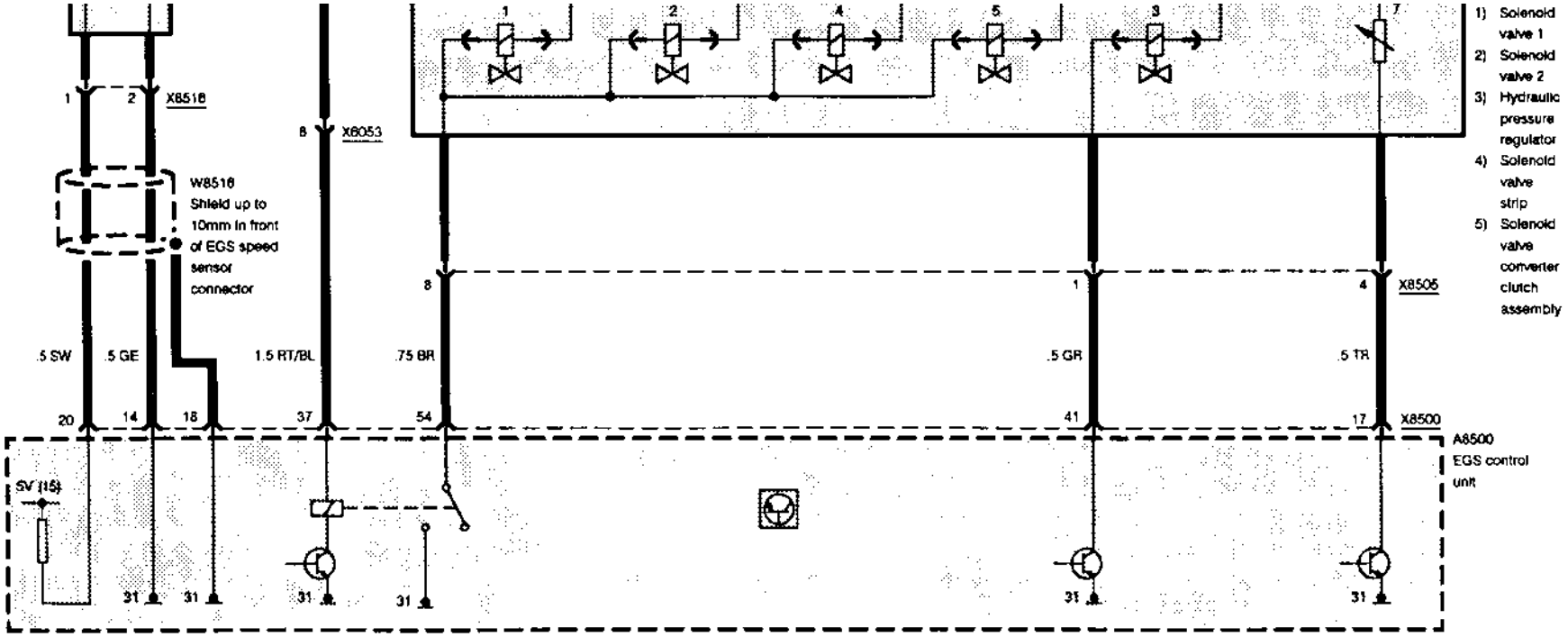
Electrical troubleshooting manual (5 Series - E34 (518, 520i, 525d, 525ds, incl. touring) Schematics Model year 1994)



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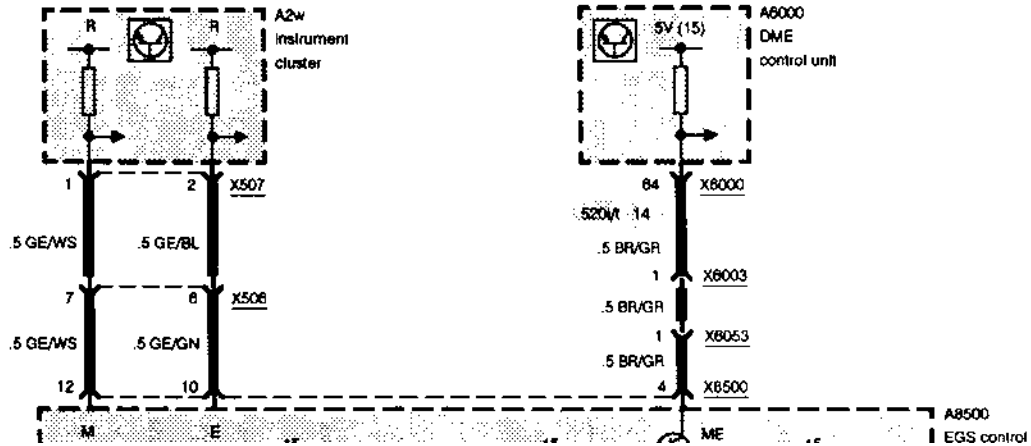
Electronic transmission control (EGS A4S 310R)



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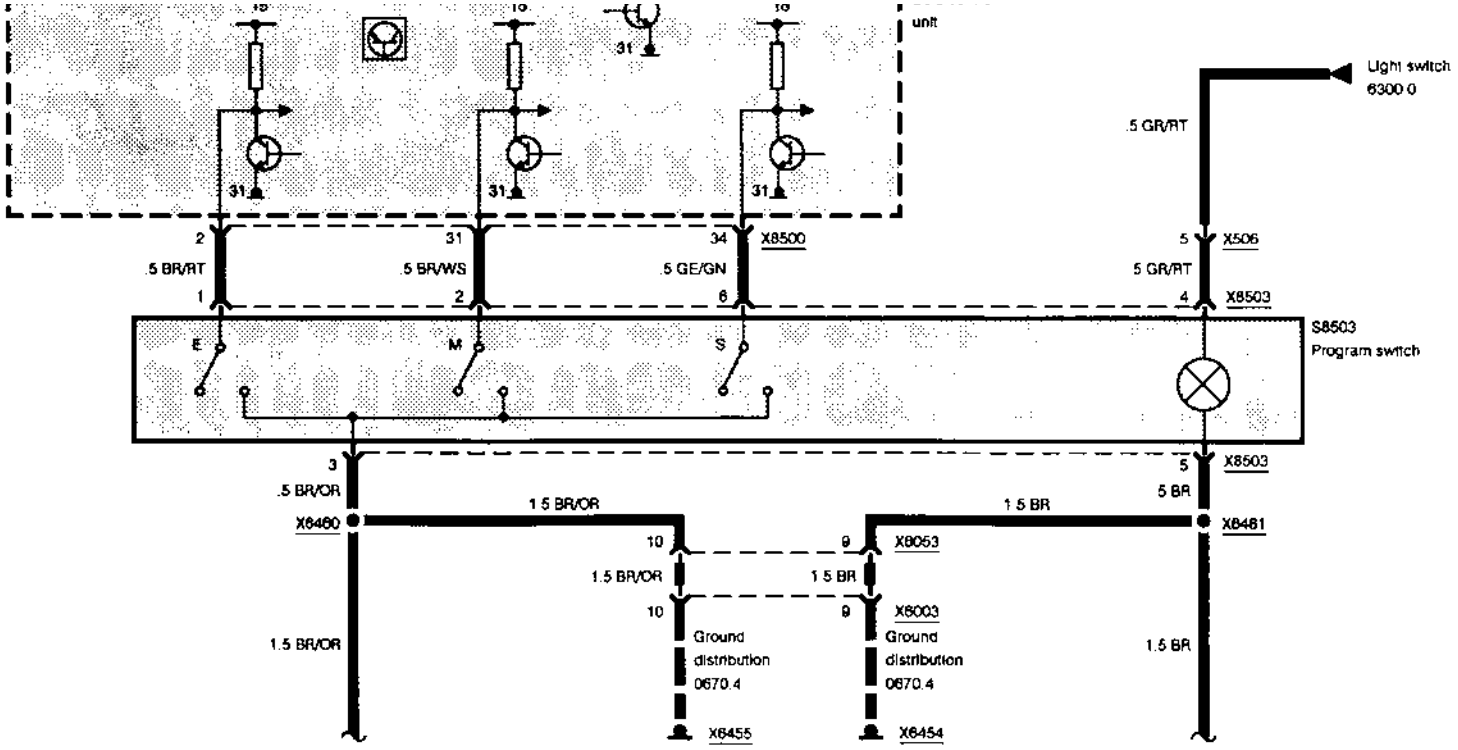

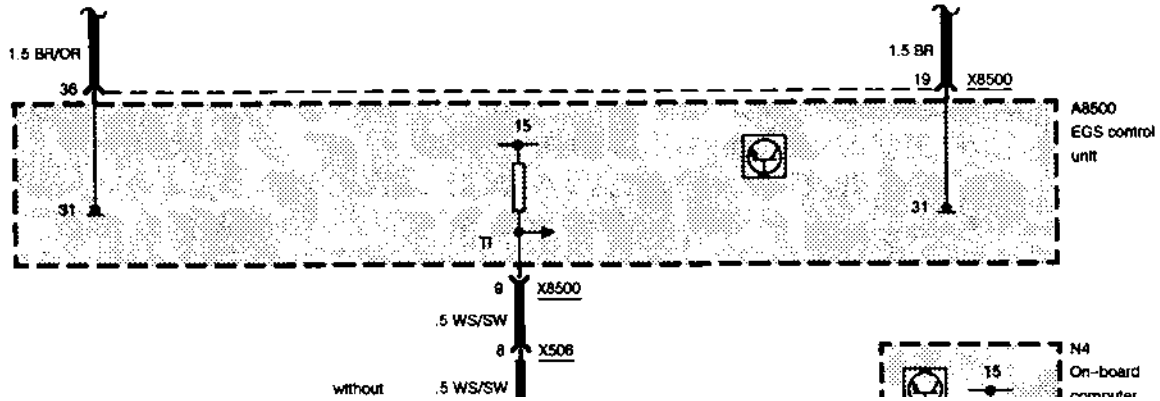

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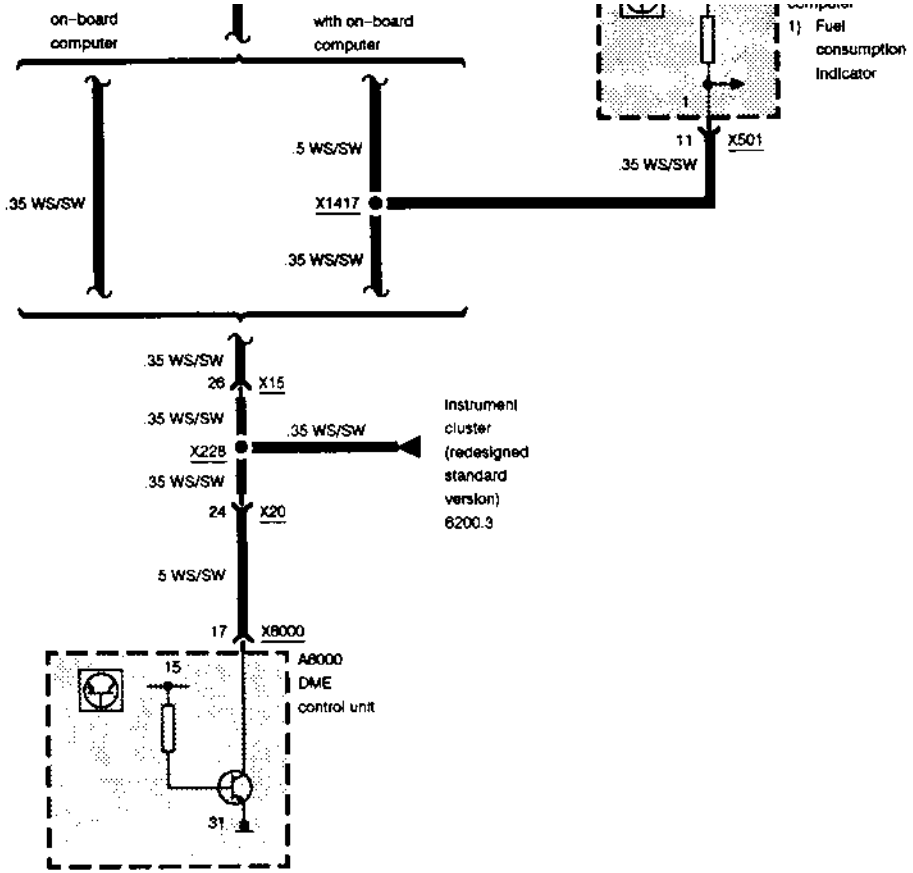

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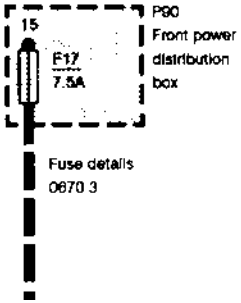
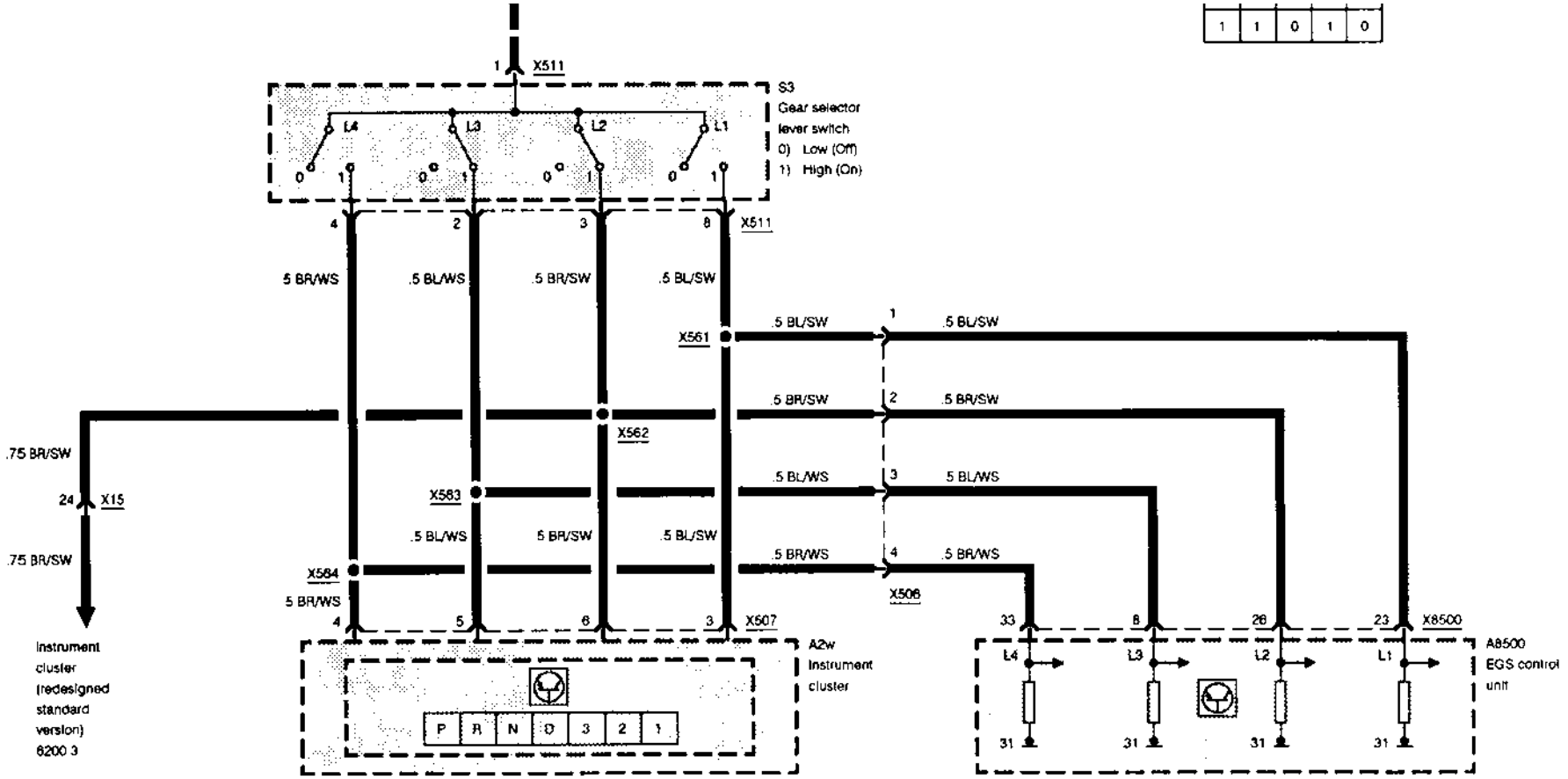
Electronic transmission control (EGS A4S 310R)



	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0



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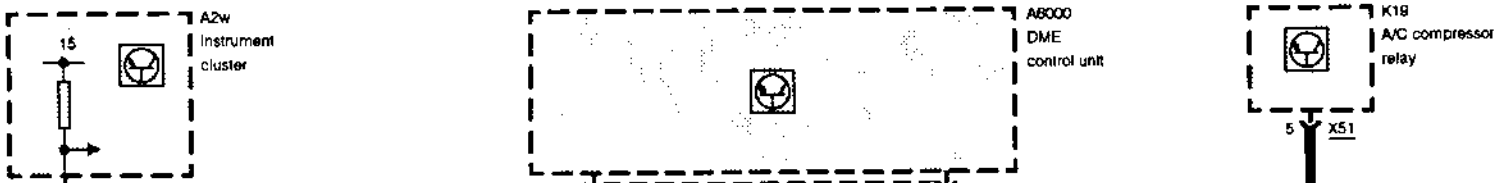
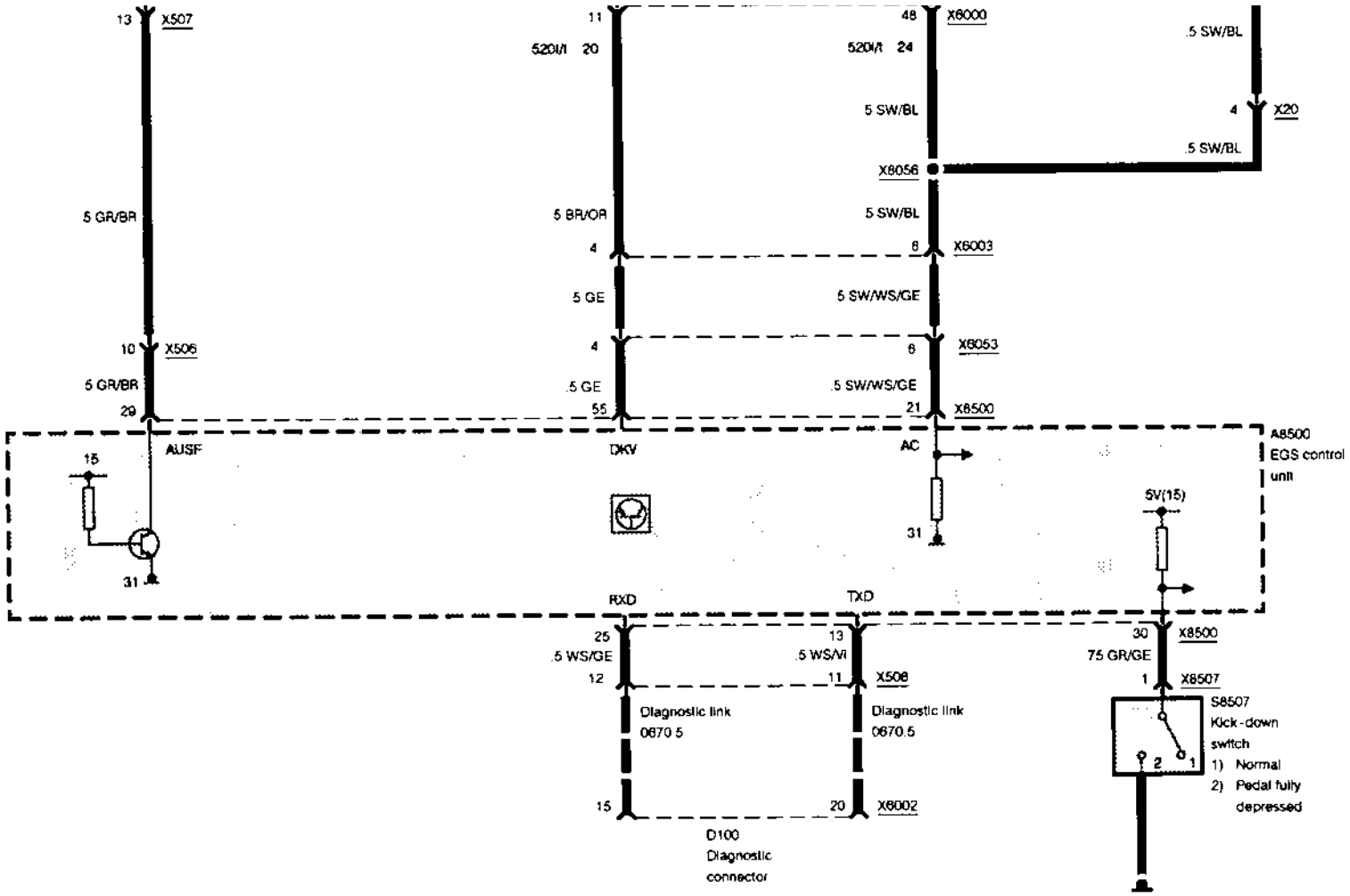
Electronic transmission control (EGS A4S 310R)





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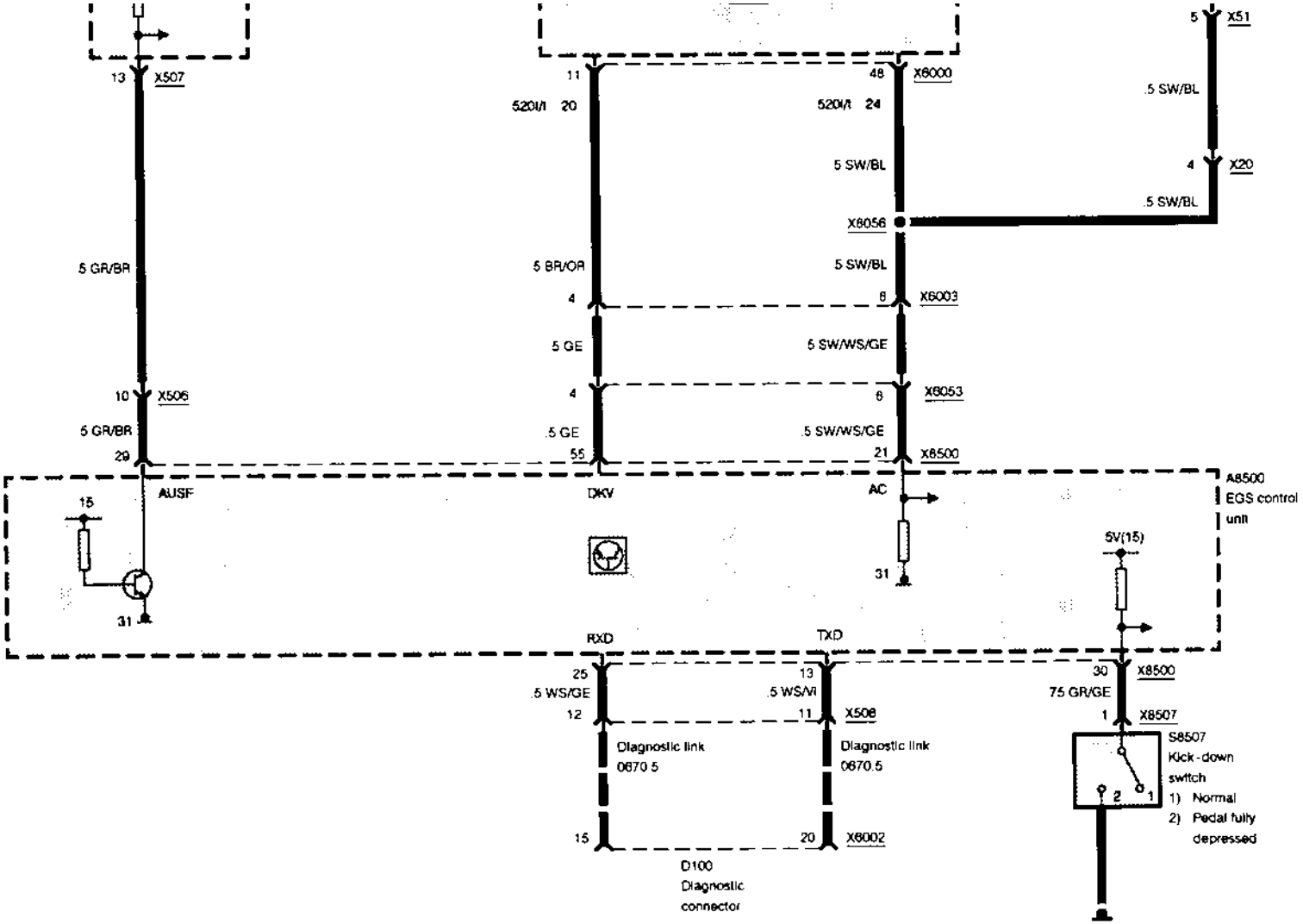
Electronic transmission control (EGS A4S 310R)



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Electronic transmission control (EGS ASS 31 OZ)
Scheme 2460.4

Pin Assignment X7000

Pin	Type	Description/Function	Connection
1		not used	
2		not used	
3	A	Solenoid valve 5	Gearshift unit
4	A	Solenoid valve, converter clutch	Gearshift unit
5	A	Pressure regulator (+)	Gearshift unit
6		not used	
7		not used	
8	E	Position switch L2	Selector lever switch
9	E	Position switch L4	Selector lever switch
10		not used	
11		not used	
12	E/A	L5 S program	Program switch
13	E/A	L7 * program	Program switch
14	E	Speed sensor n-ab (-)	Gearshift unit
15	A	Shield speed sensor n-ab/n-turbine	Speed sensor
16	E	Speed sensor n-turbine (+) web speed	Gearshift unit
17		not used	
18	E	Kick-down	Kick-down switch
19		not used	
20		not used	
21	M	Ground, oil-temperature sensor	Gearshift unit
22	E	Oil temperature sensor NIC	Gearshift unit
23		not used	
24		not used	
25	A	Fault indicator	Instrument cluster
26	E	Terminal 30	B+ interpolation point
27		not used	
28	M	Electronics ground	Ground connection
29		not used	
30	A	Solenoid valve 1	Gearshift unit
31	A	Solenoid valve 4	Gearshift unit
32	A	Solenoid valve 3	Gearshift unit
33	A	Solenoid valve 2	Gearshift unit
34	M	Power ground	Ground connection
35	E	Throttle-valve signal interface	DME control unit
36	E	Position switch L1	Selector lever switch
37	E	Position switch L3	Selector lever switch
38		not used	
39		not used	
40	A	Engine intervention	DME control unit
41	E	Fuel consumption indicator (ti signal)	DME control unit
42	E	Speed sensor n-ab (+)	
43	E	Engine speed n-mot (TD* signal)	DME control unit
44	E	Speed sensor n-turbine (-)	Gearshift unit
45	E	L6 E program	Program switch, instrument cluster
46		not used	
47		not used	
48		not used	
49		not used	
50		not used	
51		not used	
52		not used	
53	A	Positive supply, solenoid valves	Gearshift unit
54	E	Voltage supply	DME relay
55		not used	
56		not used	
57		not used	
58		not used	
59		not used	

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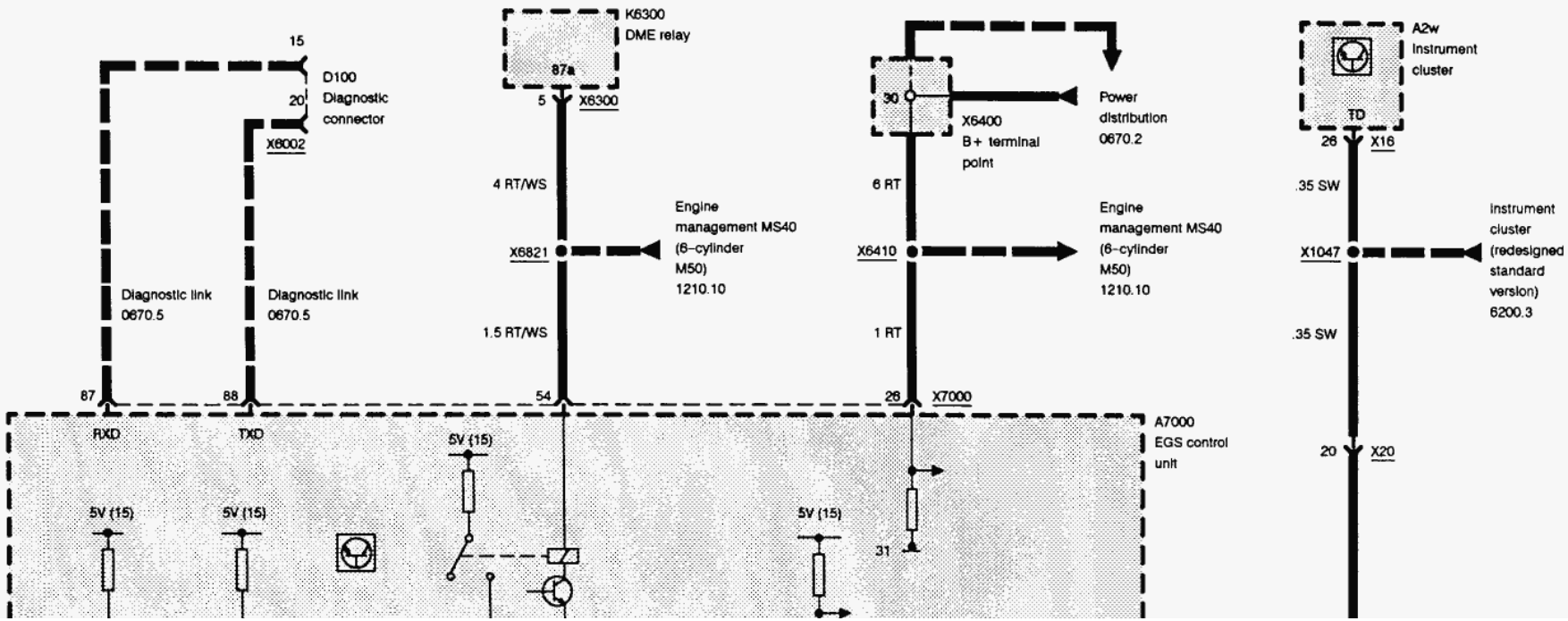
60		not used	
61		not used	
62		not used	
63		not used	
64		not used	
65		not used	
66		not used	
67		not used	
68		not used	
69		not used	
70		not used	
71		not used	
72		not used	
73		not used	
74		not used	
75		not used	
76		not used	
77		not used	
78		not used	
79		not used	
80		not used	
81		not used	
82		not used	
83		not used	
84		not used	
85		not used	
86		not used	
87	E	RxD diagnosis line	Diagnostic connector
88	E/A	TxD diagnosis line	Diagnostic connector

Electronic transmission control (EGS A5S 310Z)



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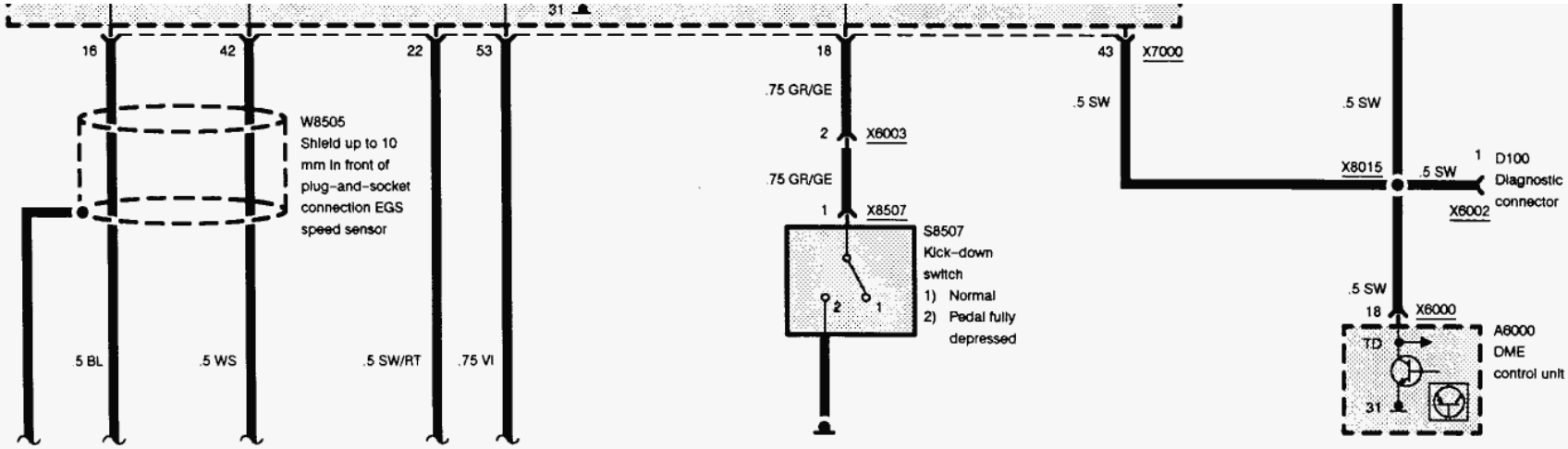

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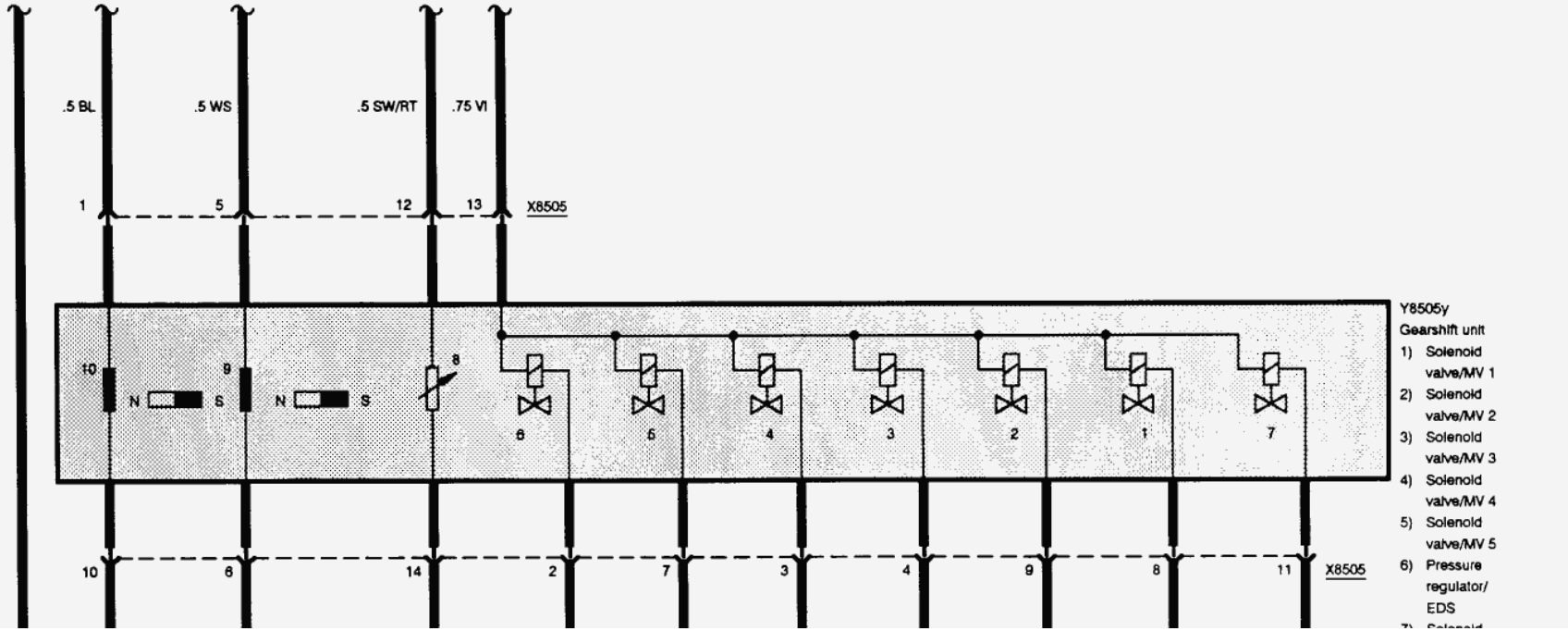

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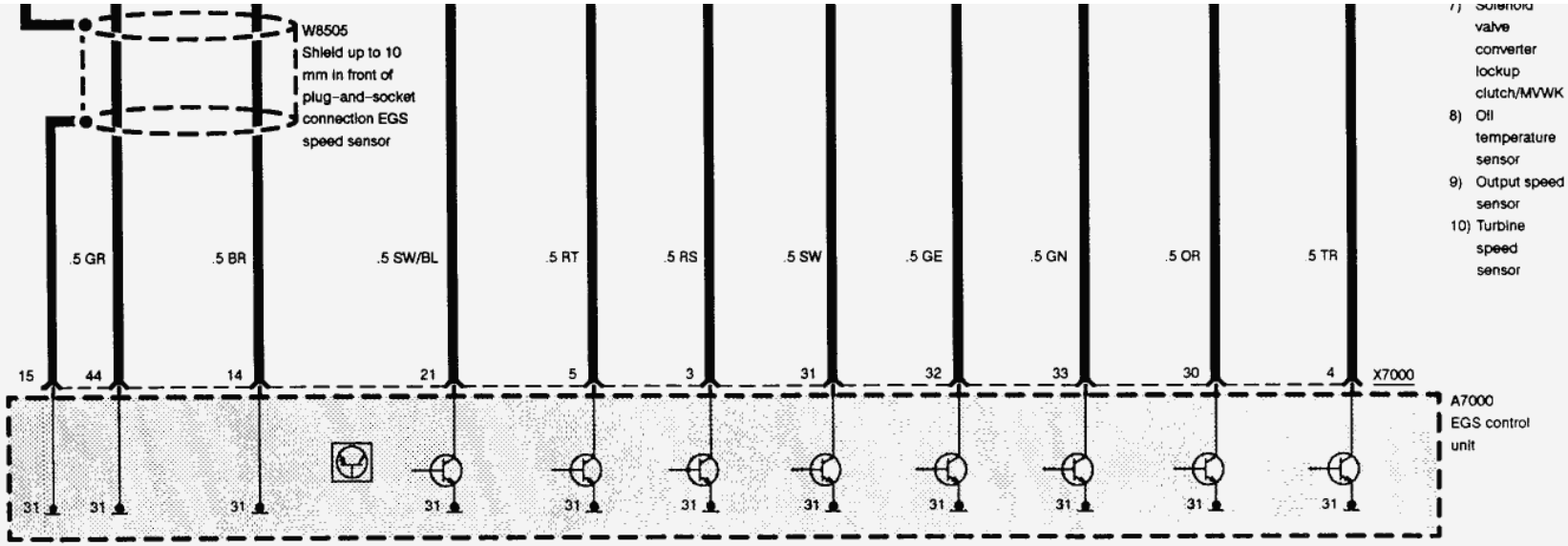

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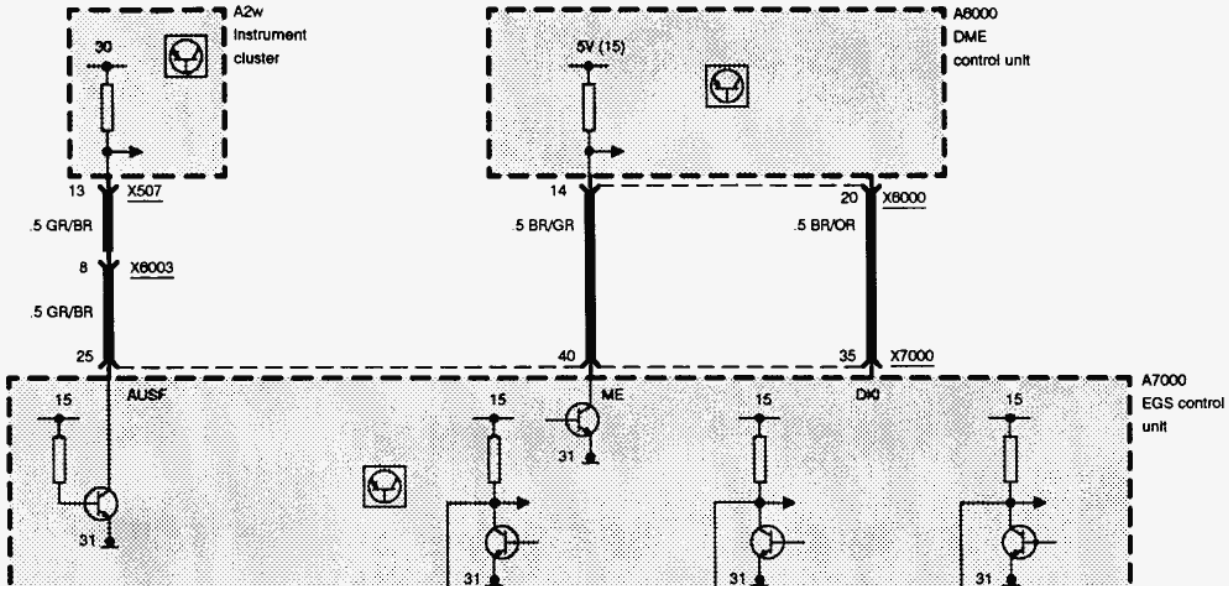
Electronic transmission control (EGS A5S 310Z)



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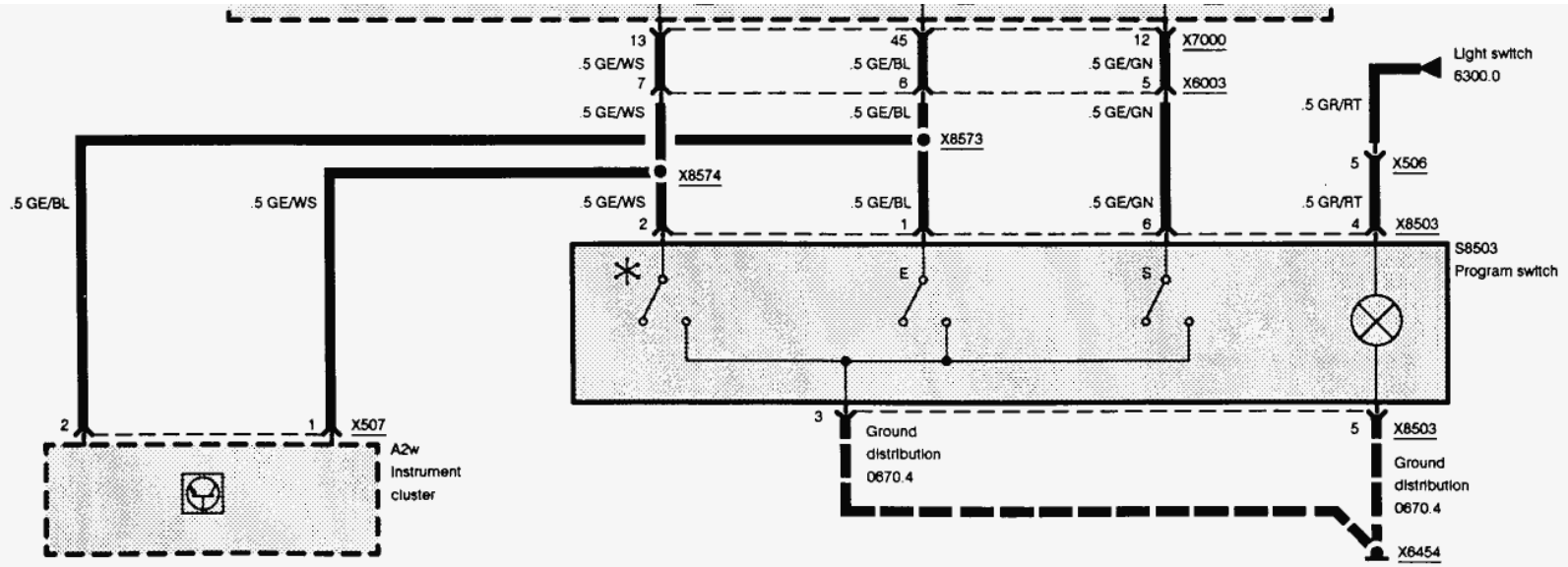

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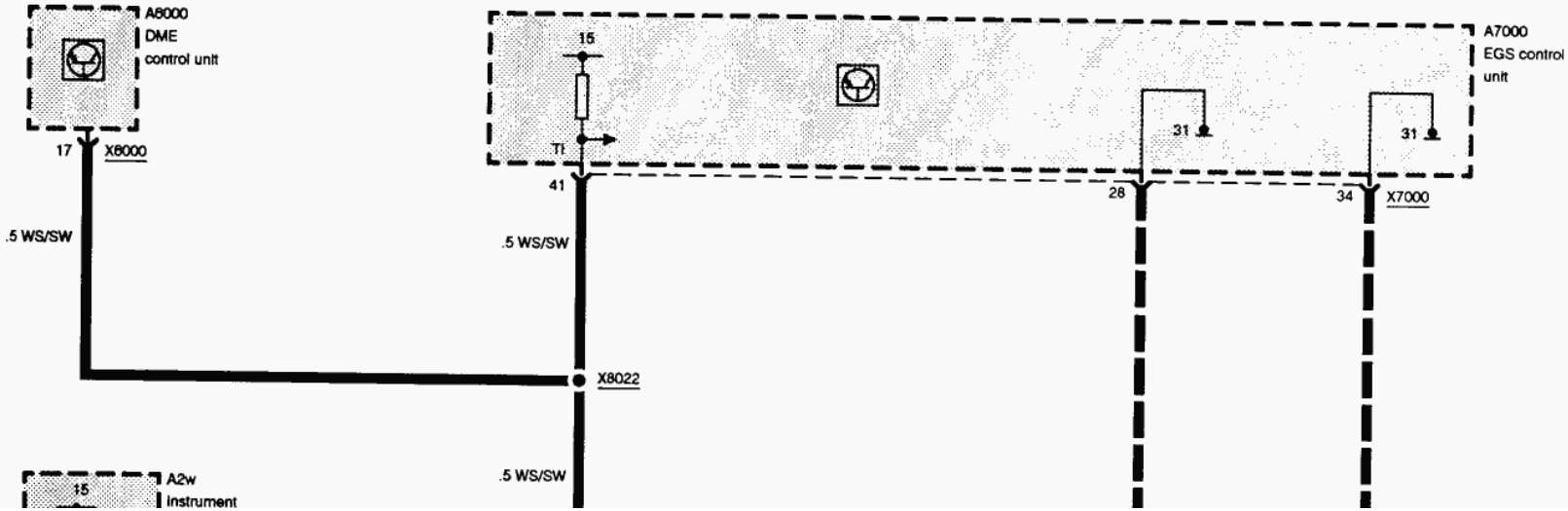
Electronic transmission control (EGS A5S 310Z)



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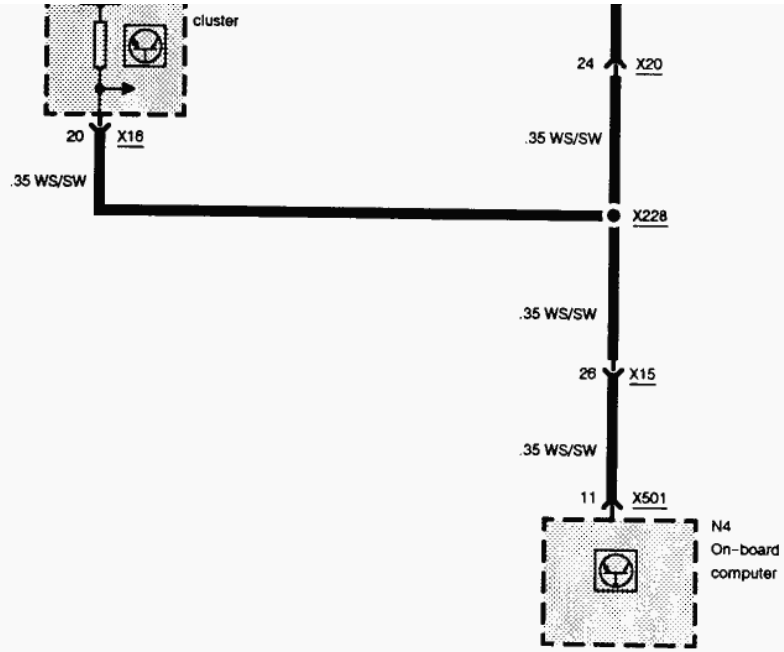

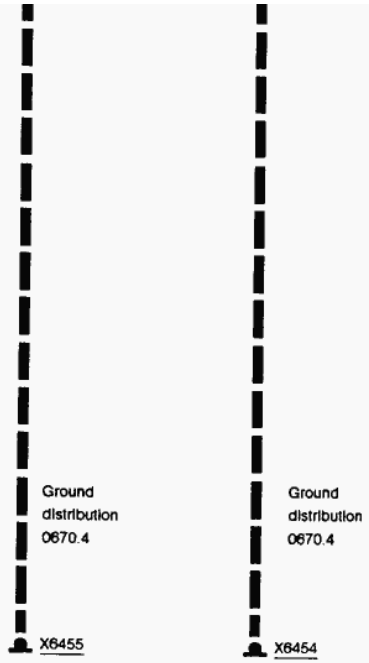

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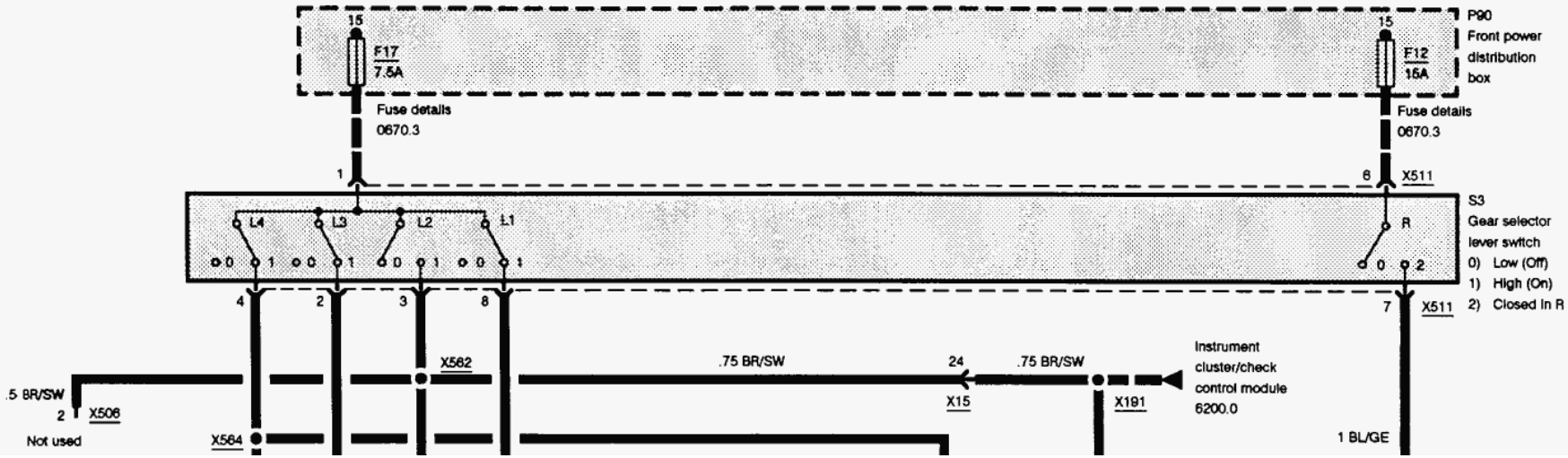
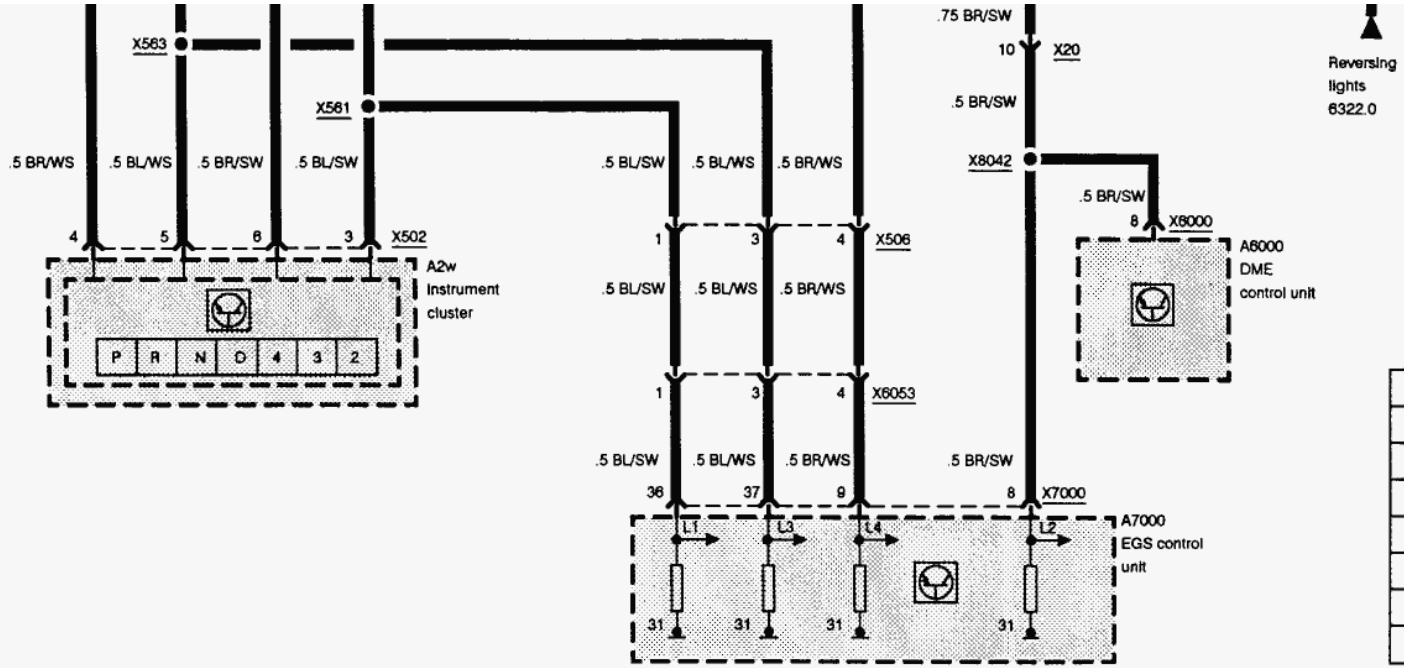
Electronic transmission control (EGS A5S 310Z)





	L1	L2	L3	L4
P	1	1	0	1
R	1	0	0	0
N	1	1	1	0
D	0	0	0	1
4	0	0	1	1
3	1	0	1	1
2	0	0	1	0

2460.4-04 — 1994

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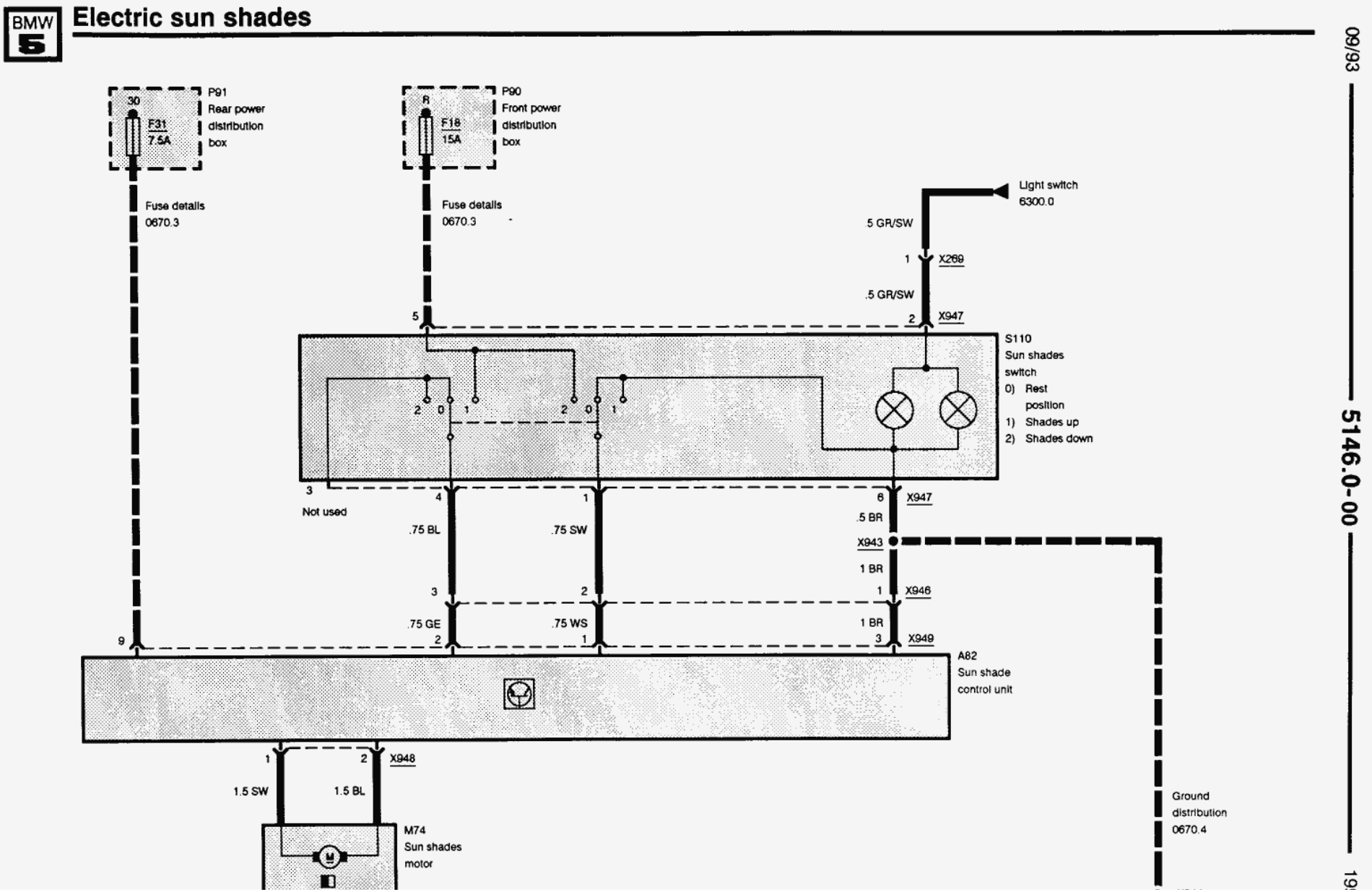
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Electric sun shades
Scheme 5146.0



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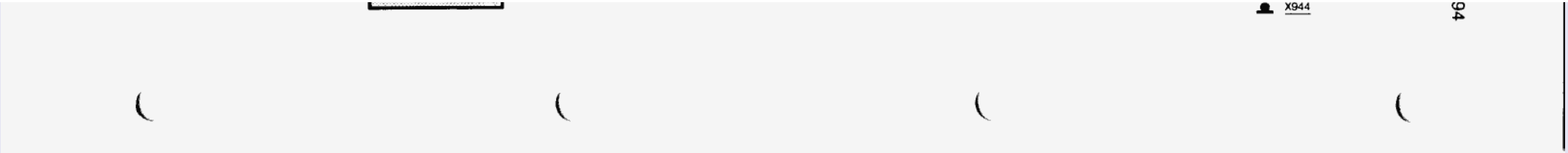

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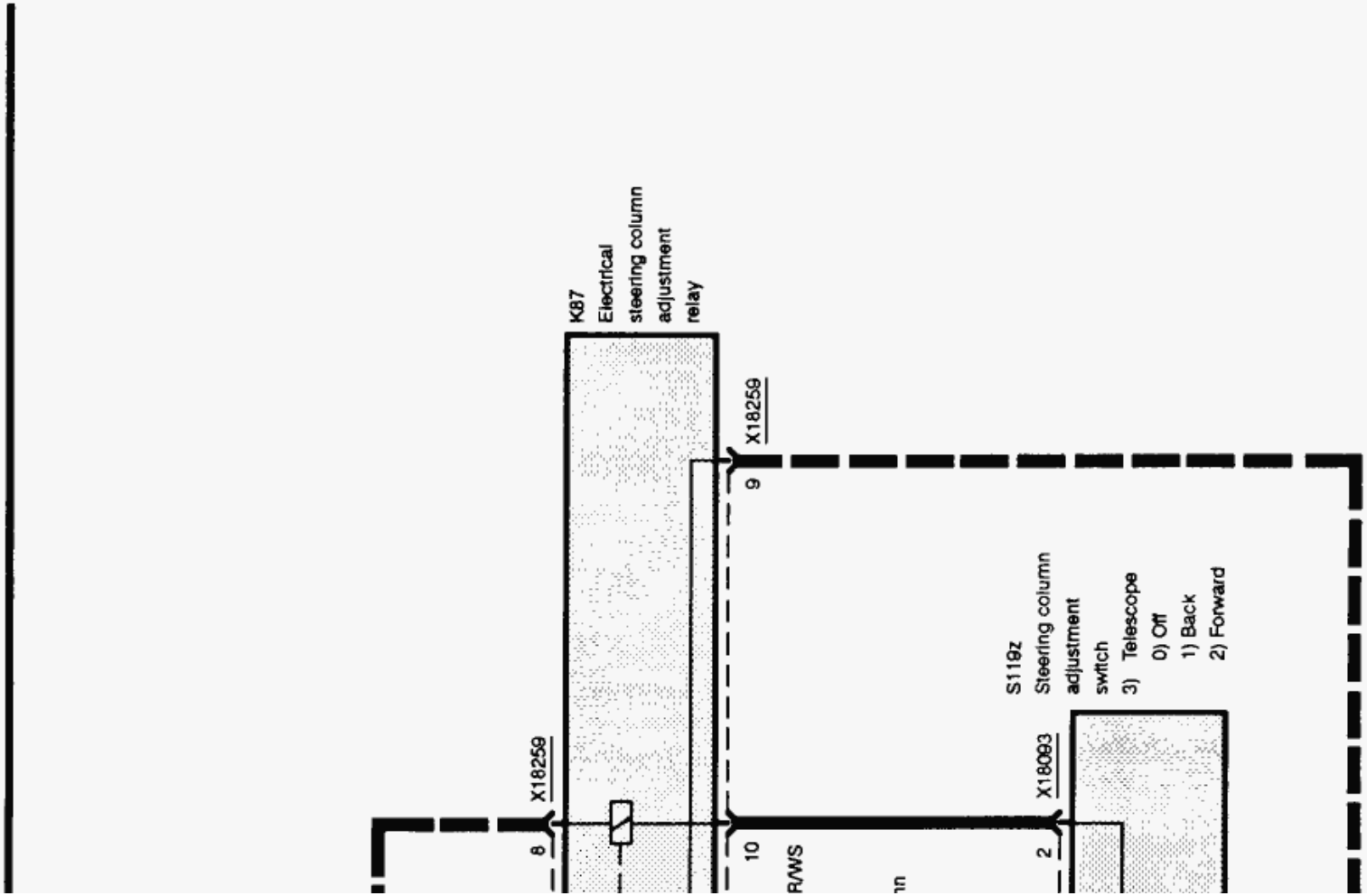
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Electronic steering column control

Scheme 3231.0

09/93 — 3231.0-00 — 1994



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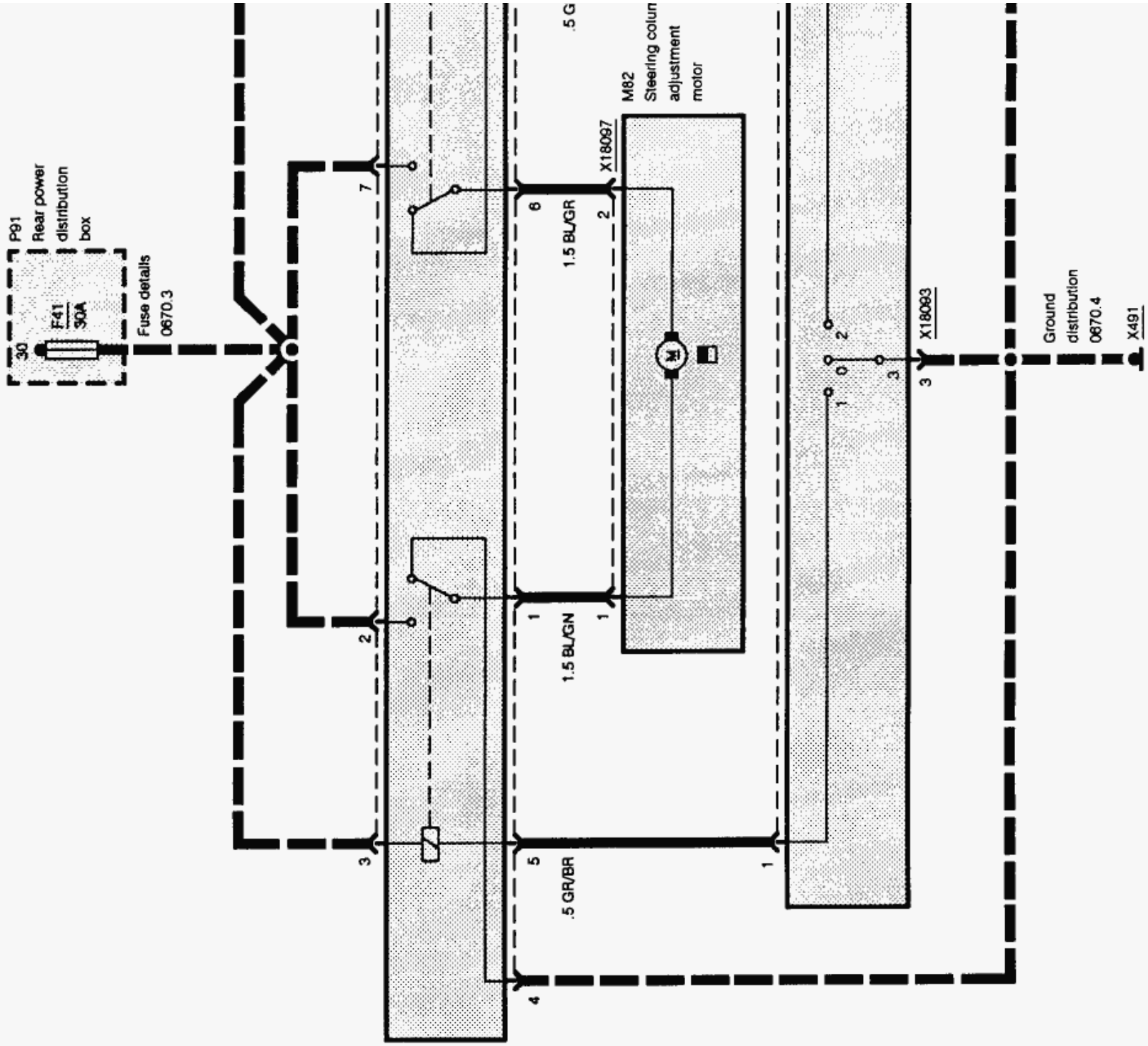
Electronic steering column control



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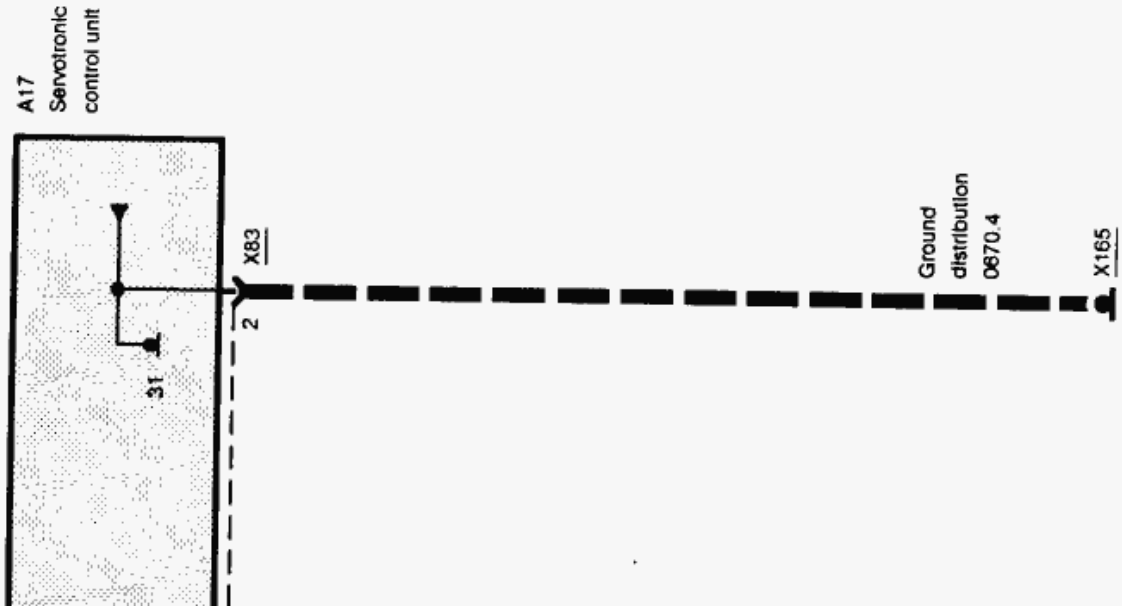
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Servotronic

Scheme 3240.0

09/93 — 3240.0- 00 — 1994



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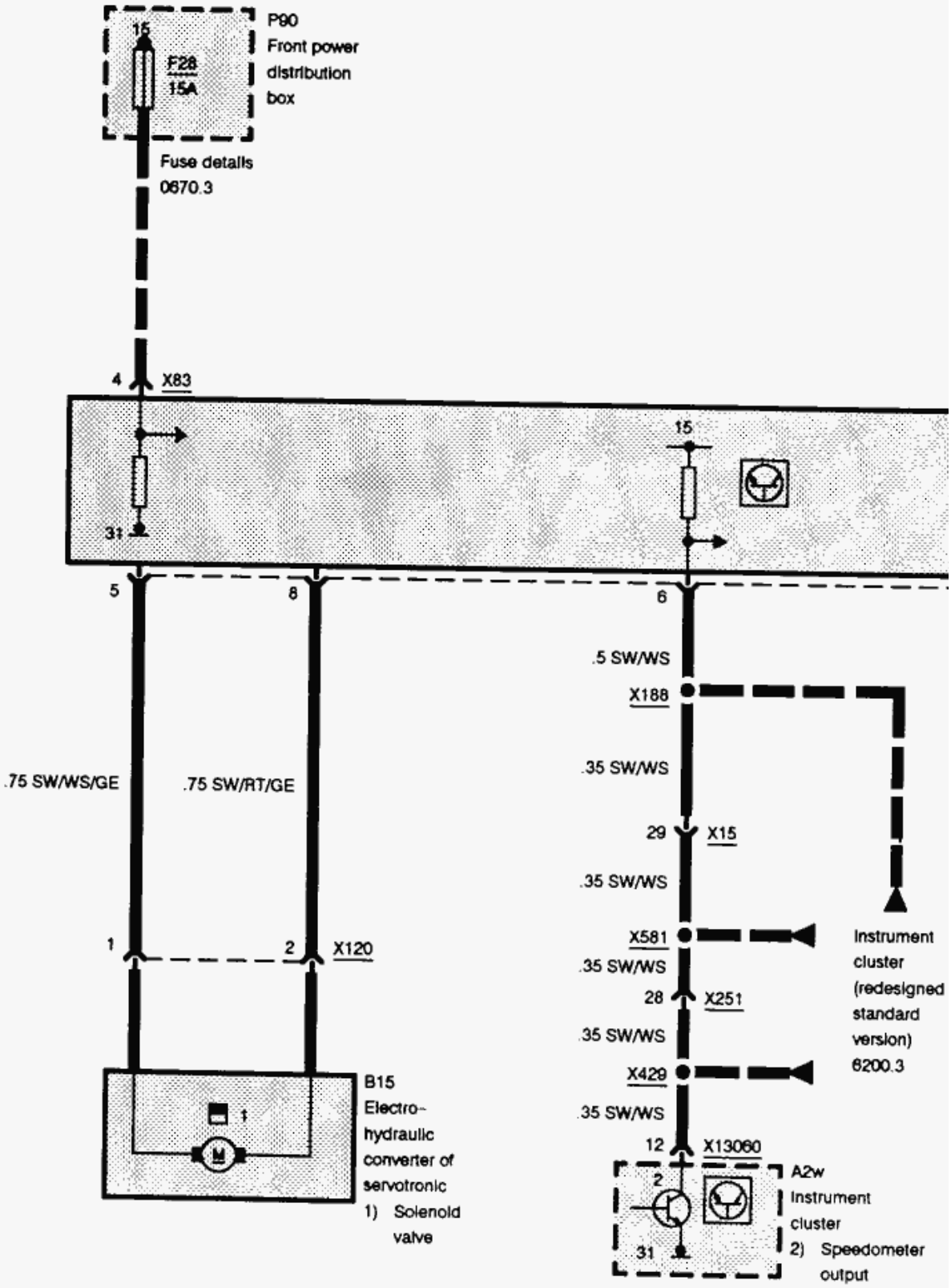

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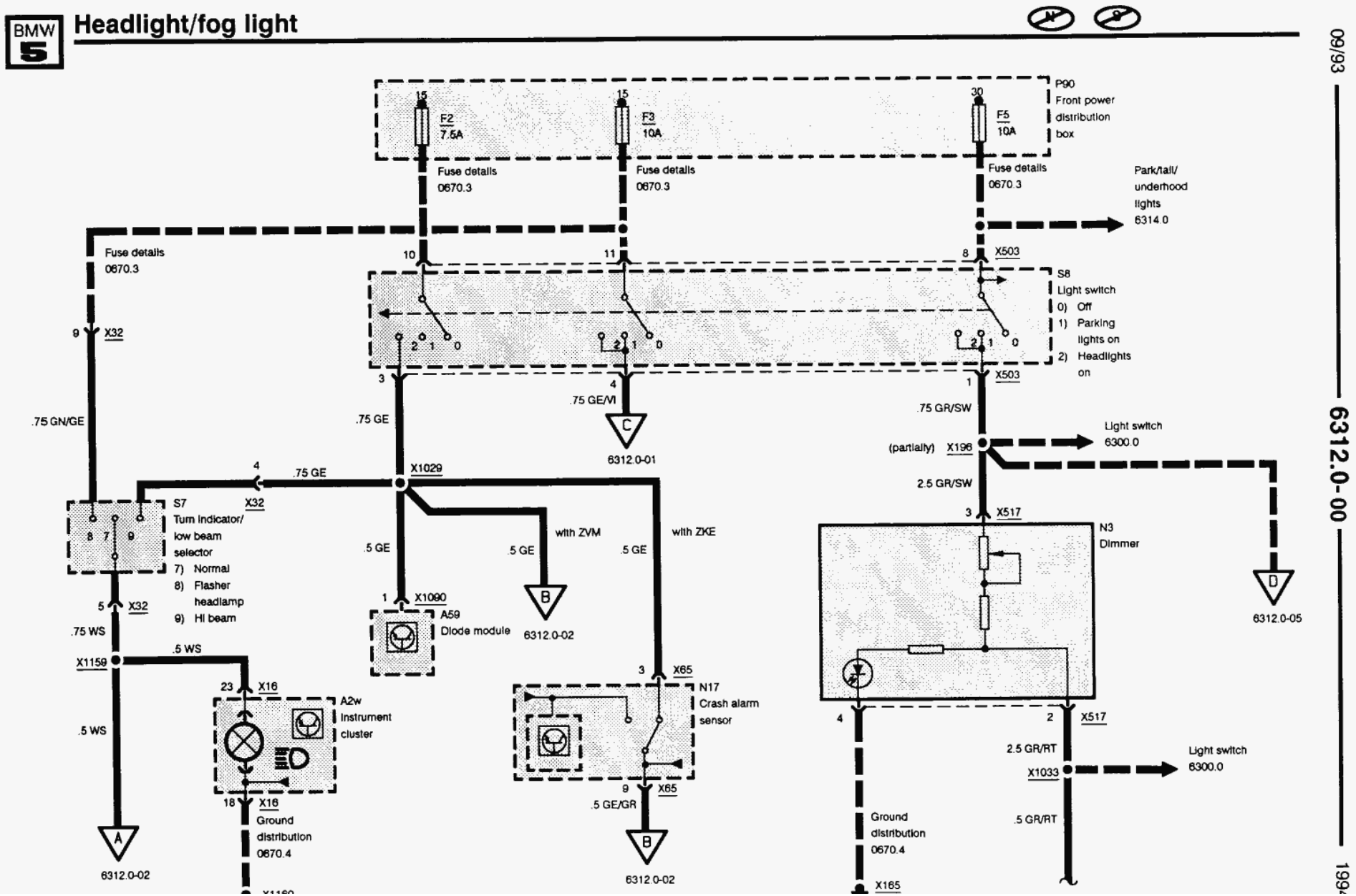
Headligh / fog light
Scheme 6312.0



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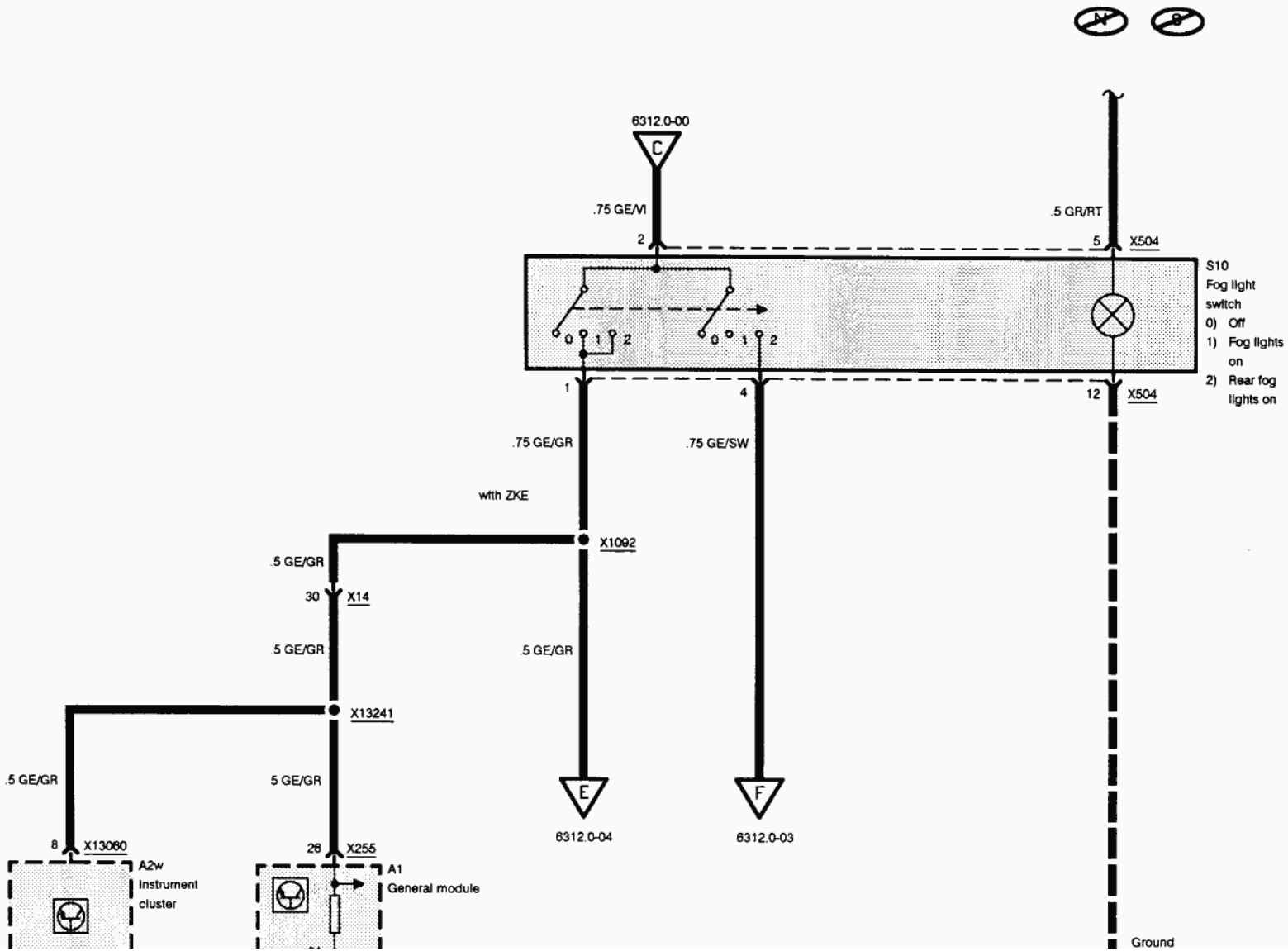

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6312.0-01

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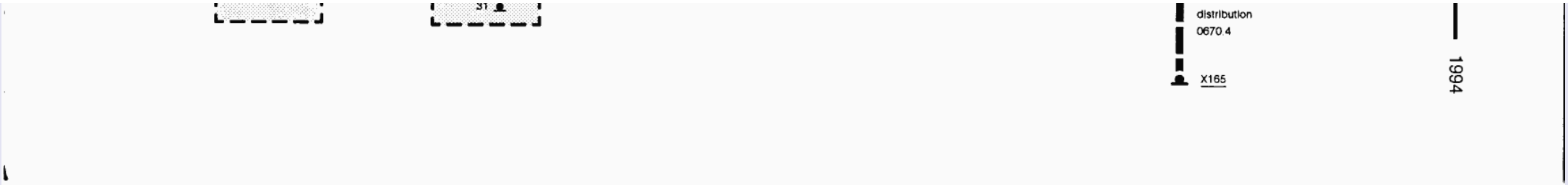

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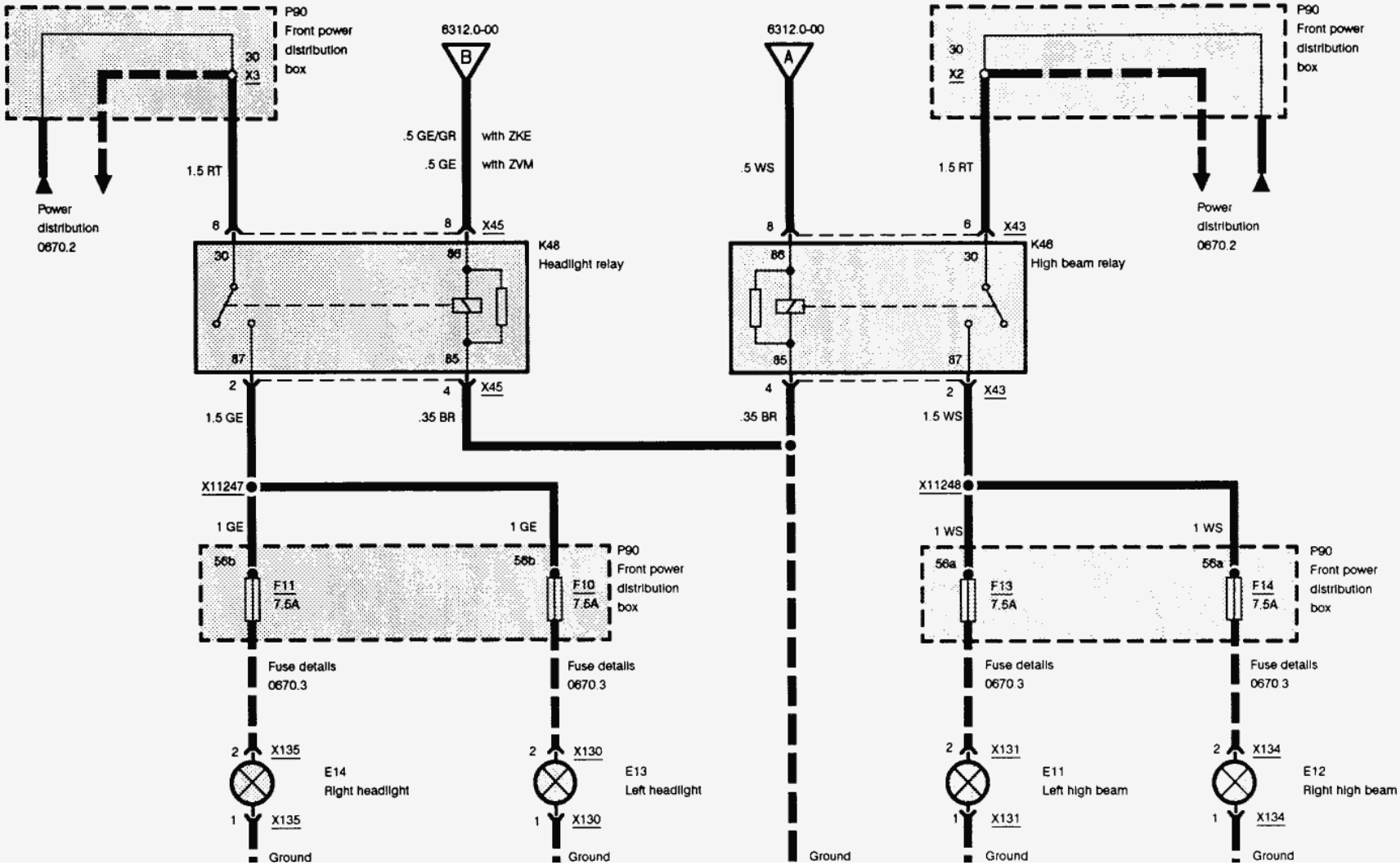
Headlight/fog light

09/93

6312.0-02



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distribution 0670.4 X179 | distribution 0670.4 X175 | distribution 0670.4 X165 | distribution 0670.4 X175 | distribution 0670.4 X179

1994

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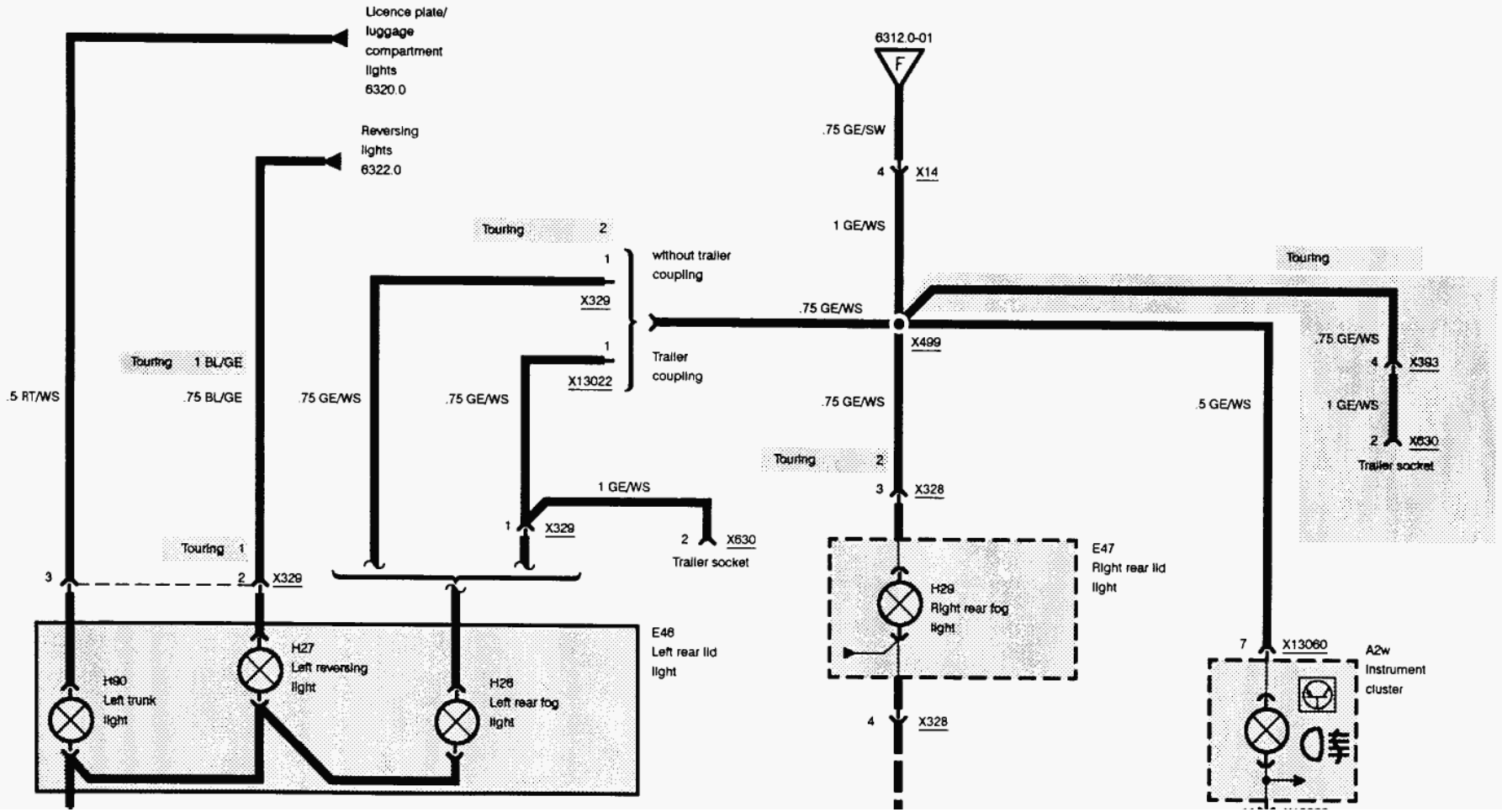
Headlight/fog light

09/93

6312.0- 03



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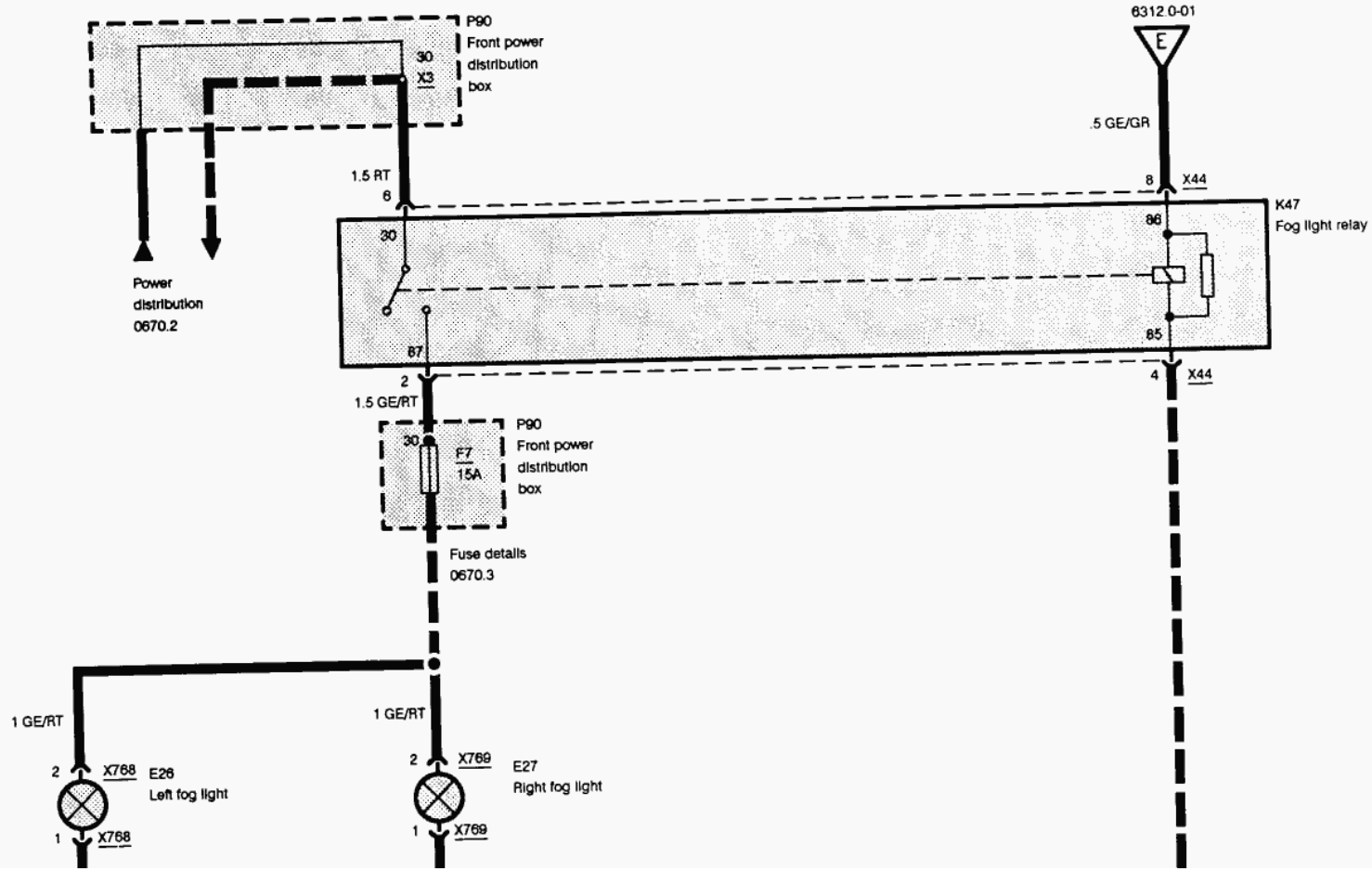
Headlight/fog light

09/93



6312.0-04

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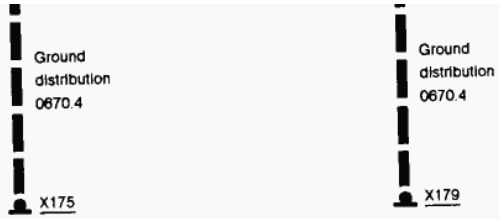
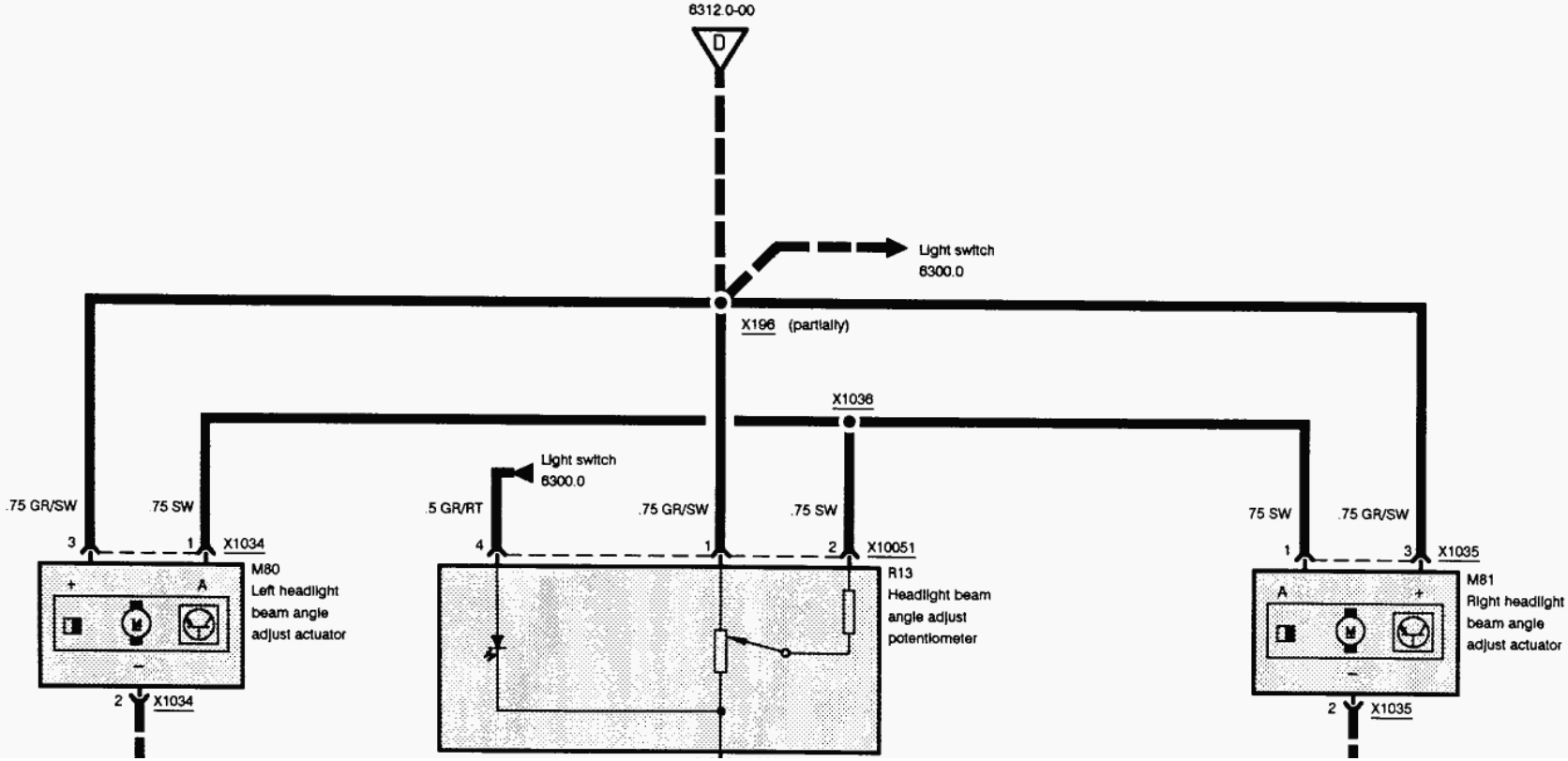


Headlight/fog light

Headlight range adjustment



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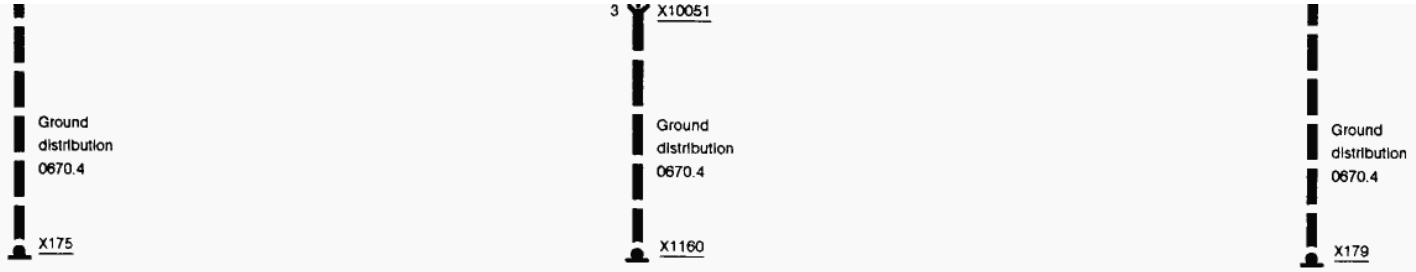

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Headlight/fog light

N S

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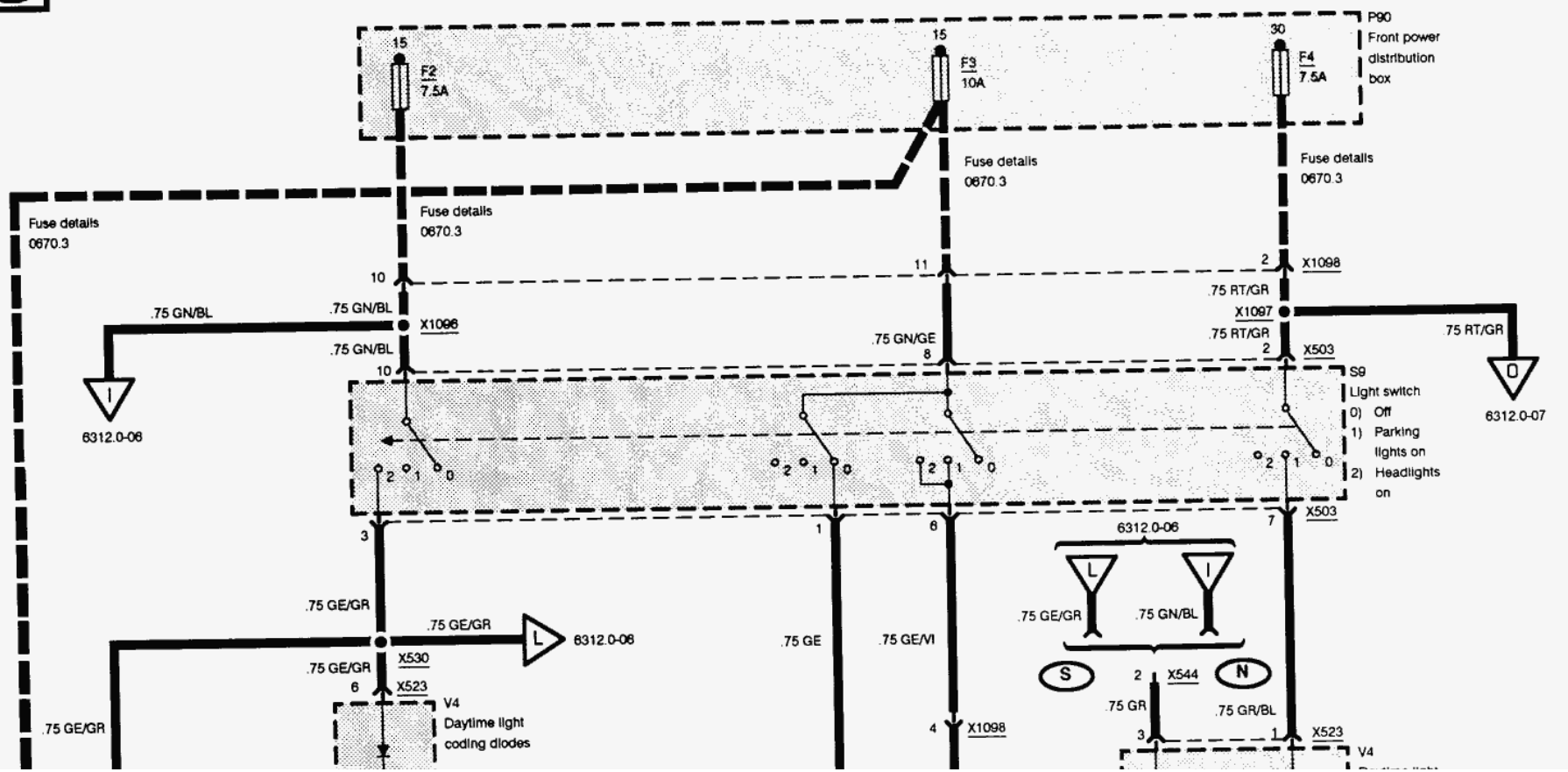

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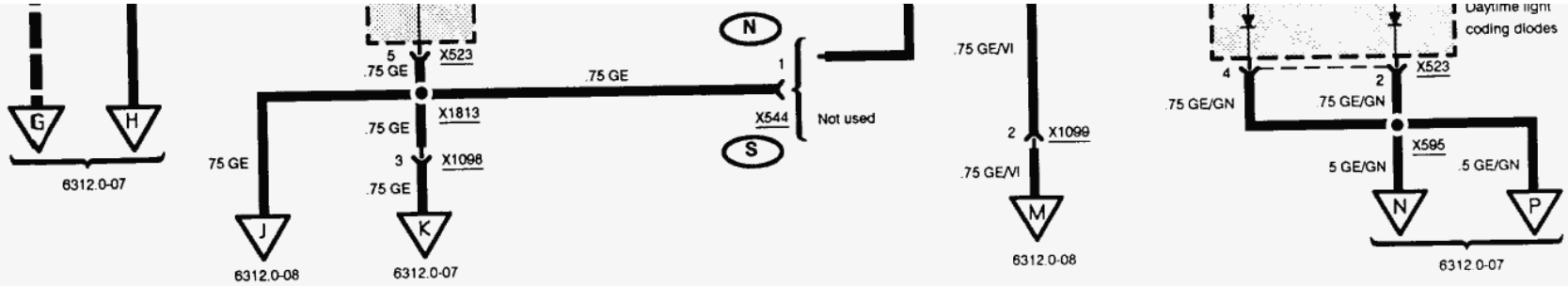
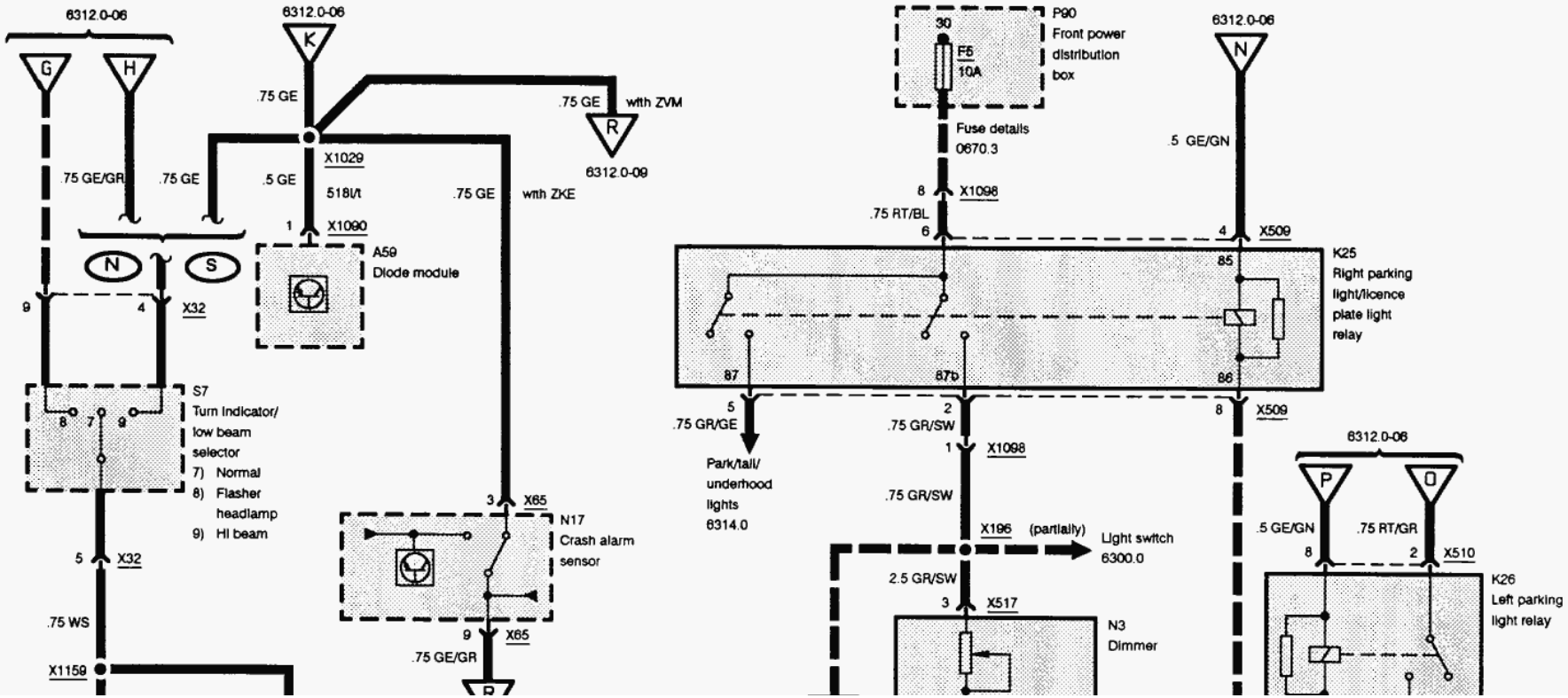


1994

BMW 5

Headlight/fog light

N S



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6312.0-07

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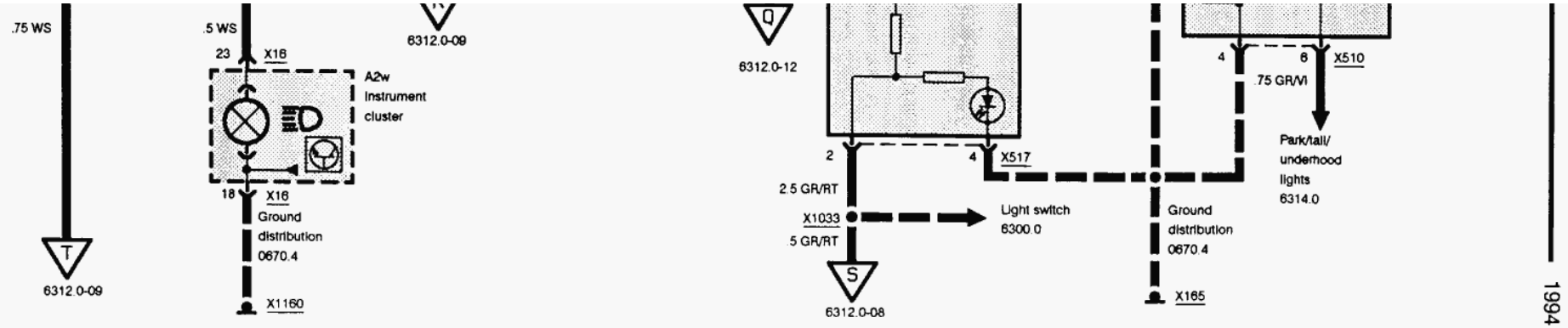

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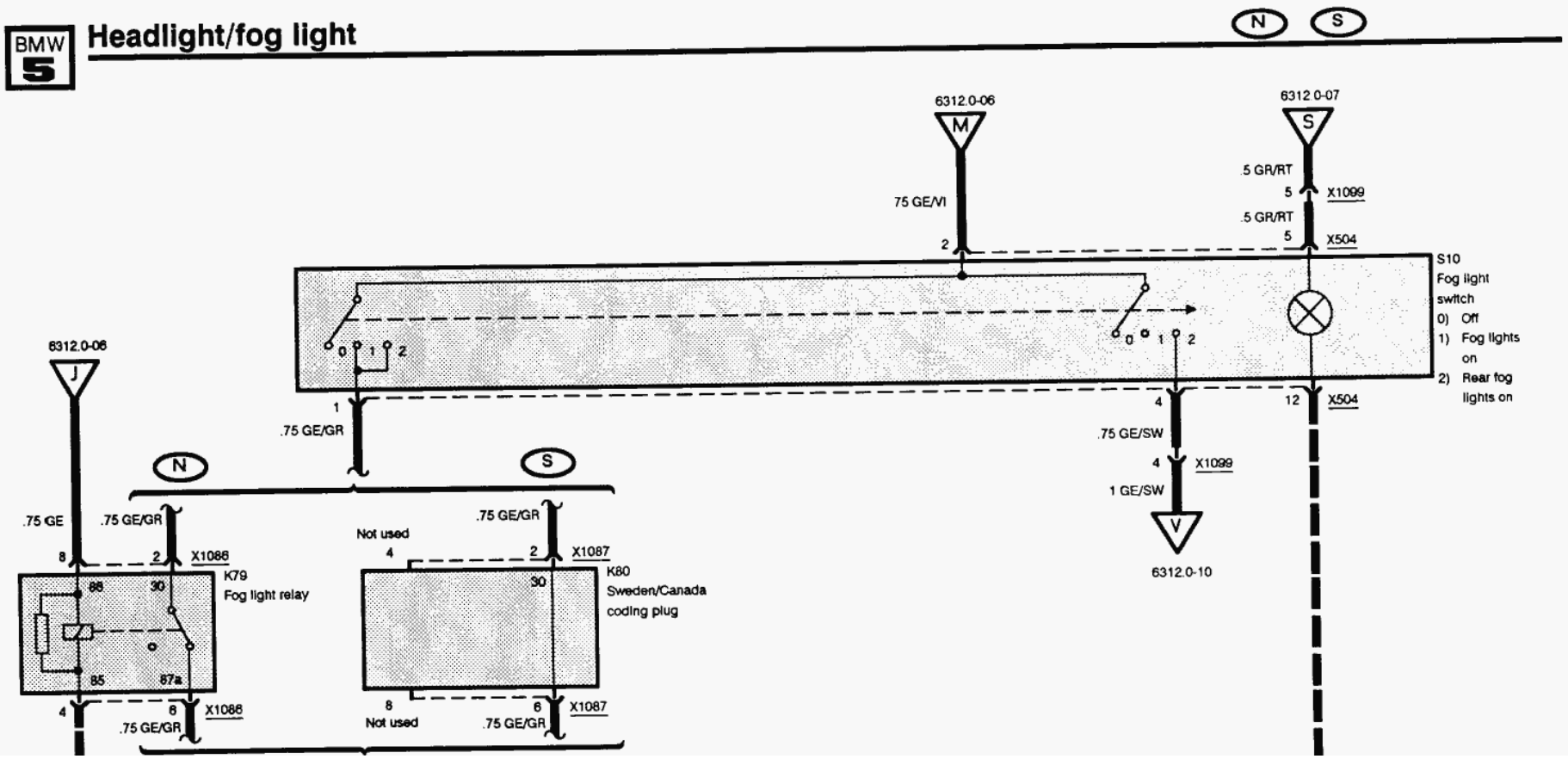

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6312.0-08

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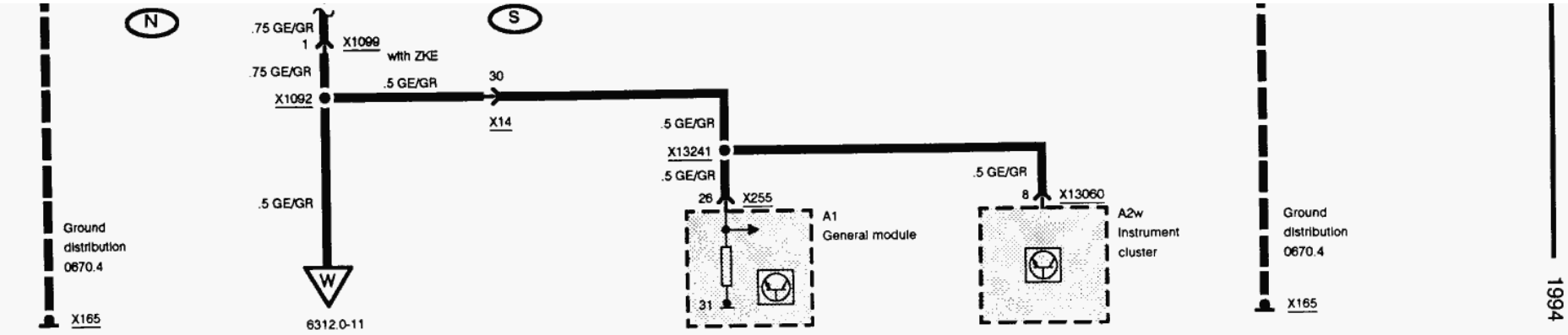
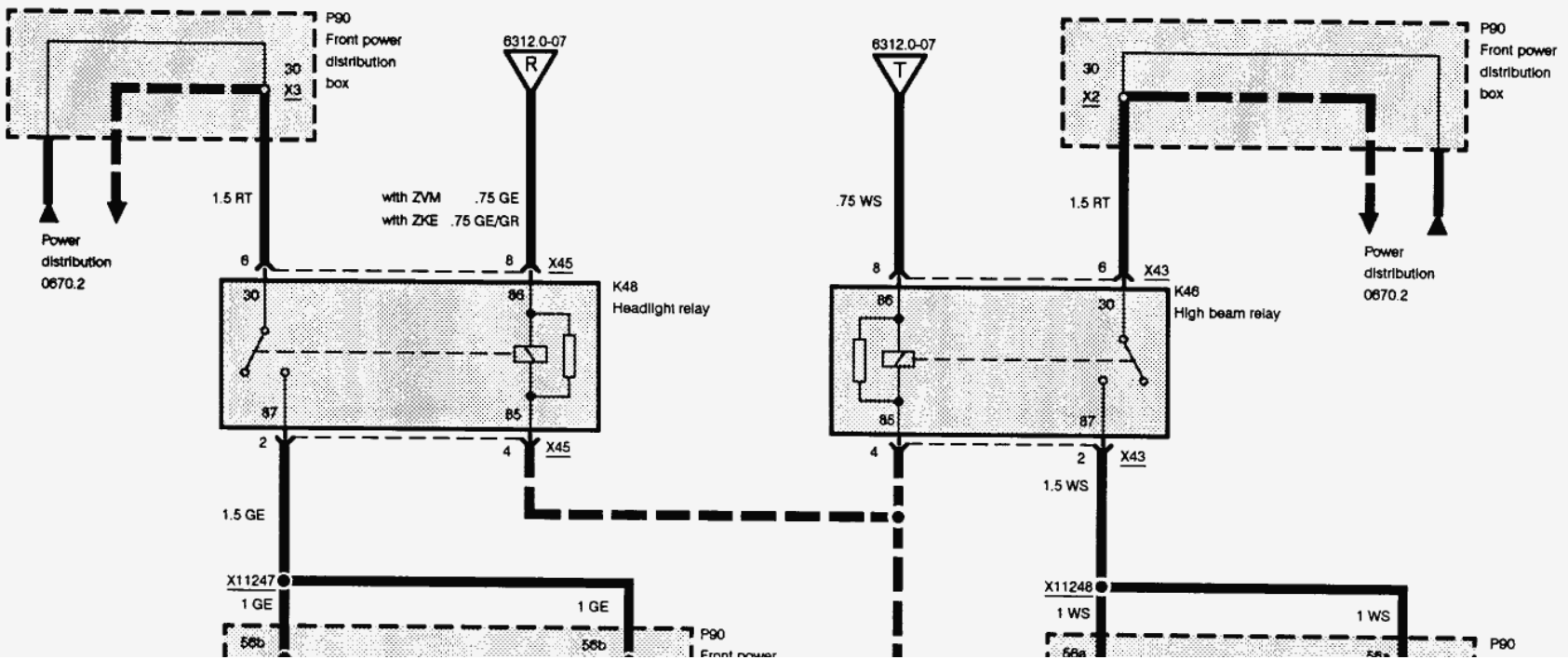


1994

BMW 5

Headlight/fog light



09/93

6312.0-09

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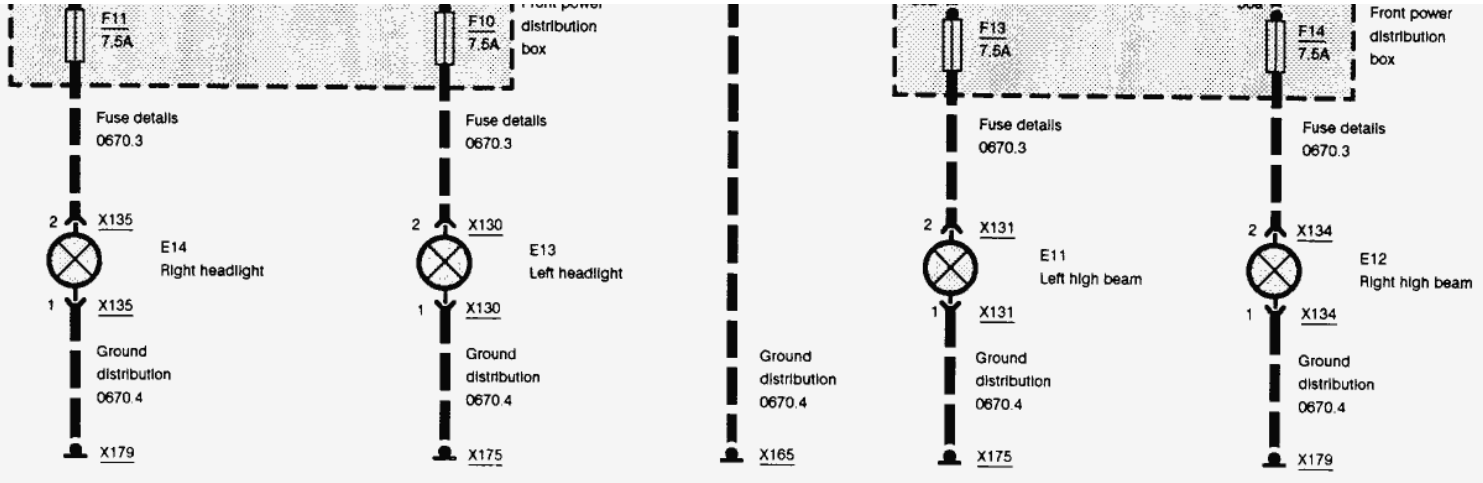

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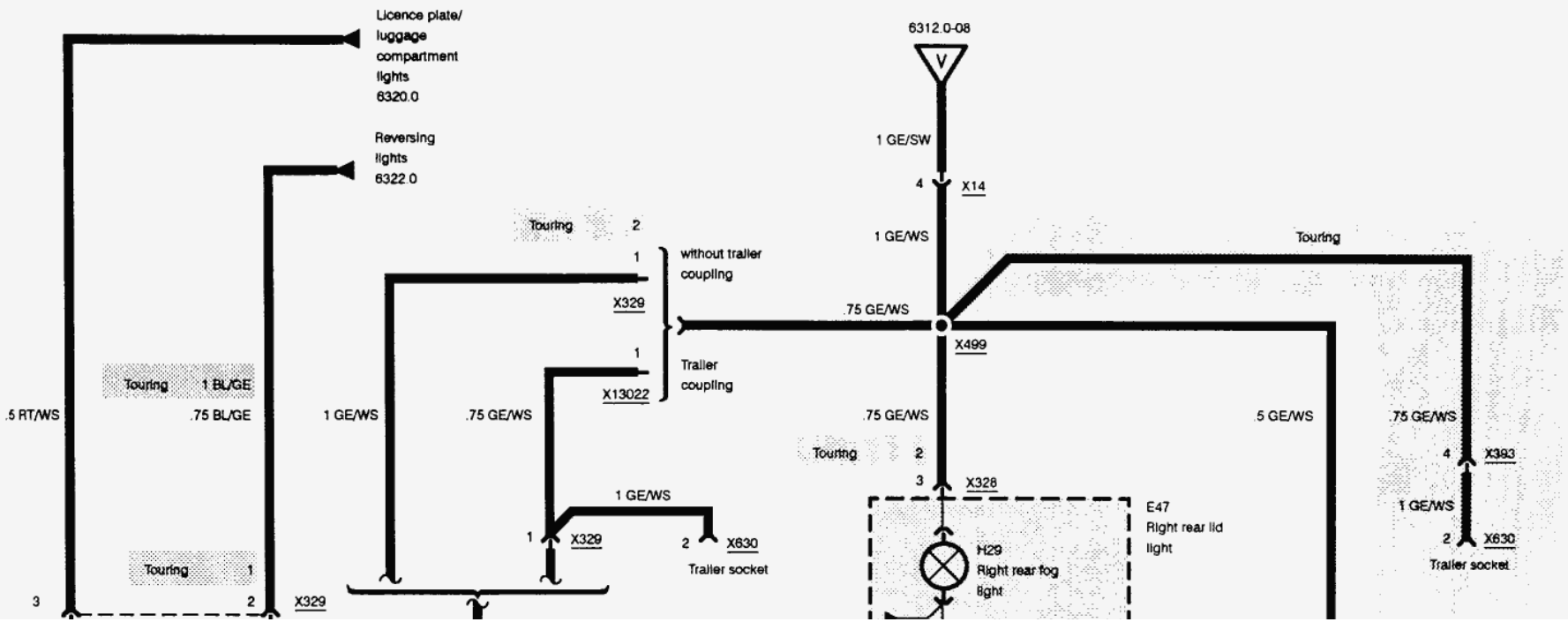
Headlight/fog light

BMW 5

N S

09/93

6312.0-10



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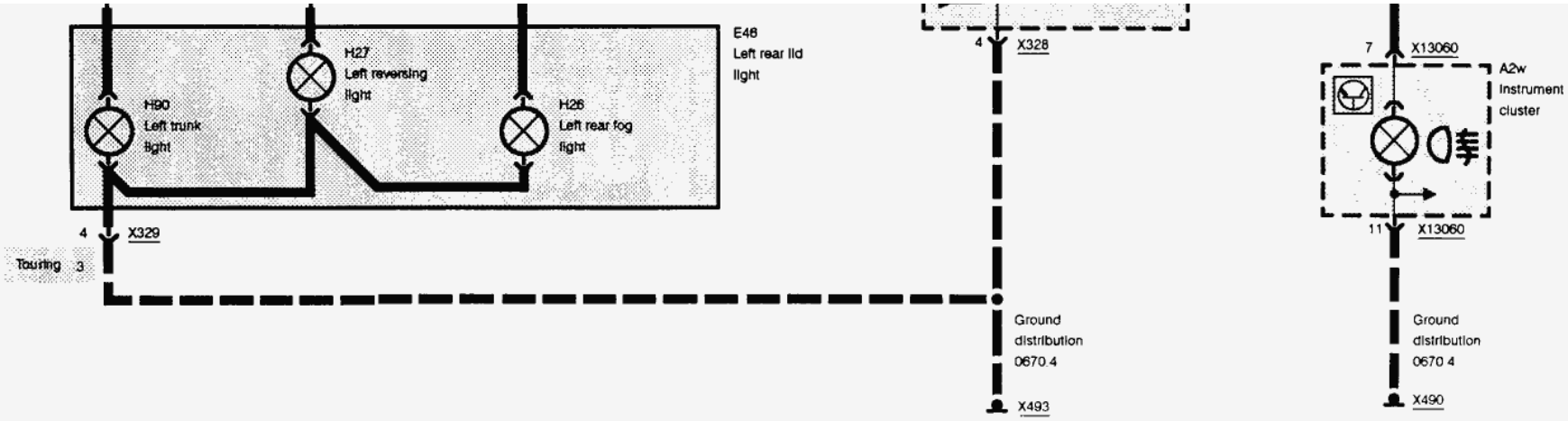
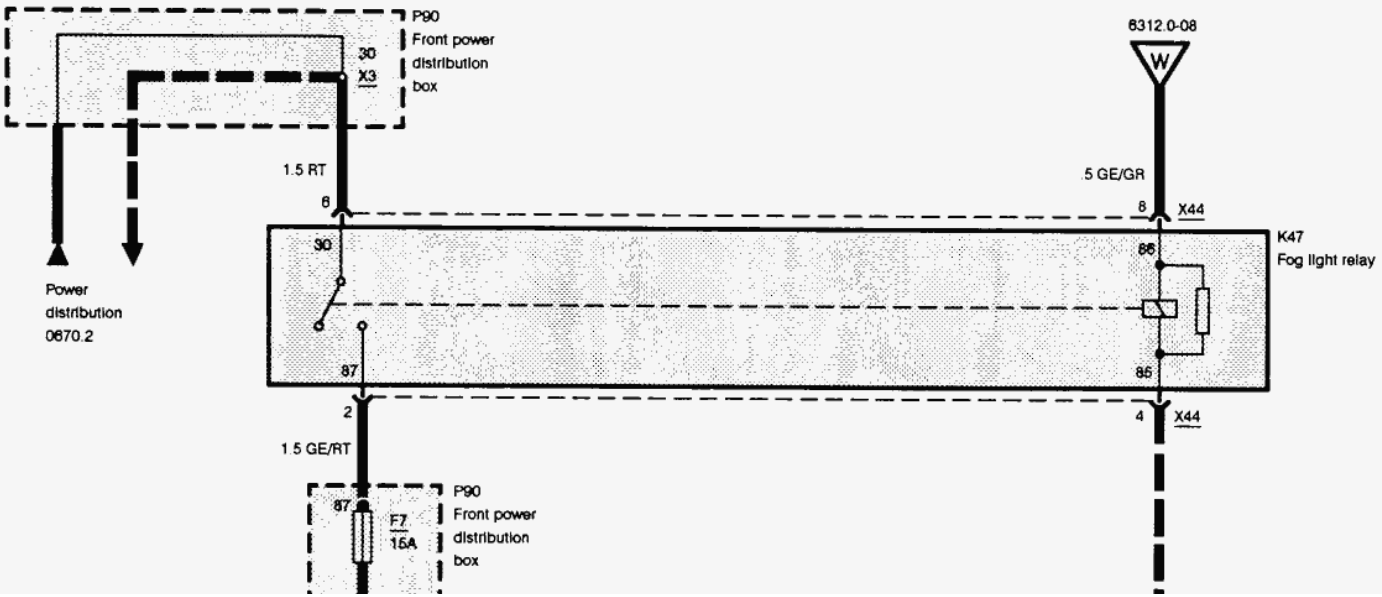


1994

BMW 5

Headlight/fog light

N S



09/93

6312.0-

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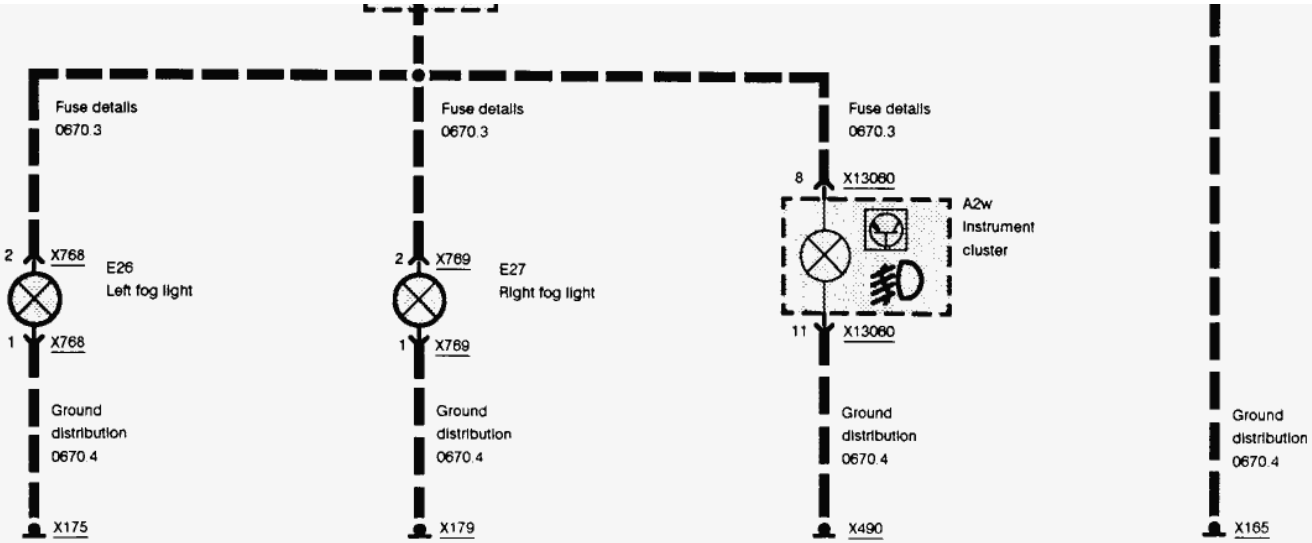

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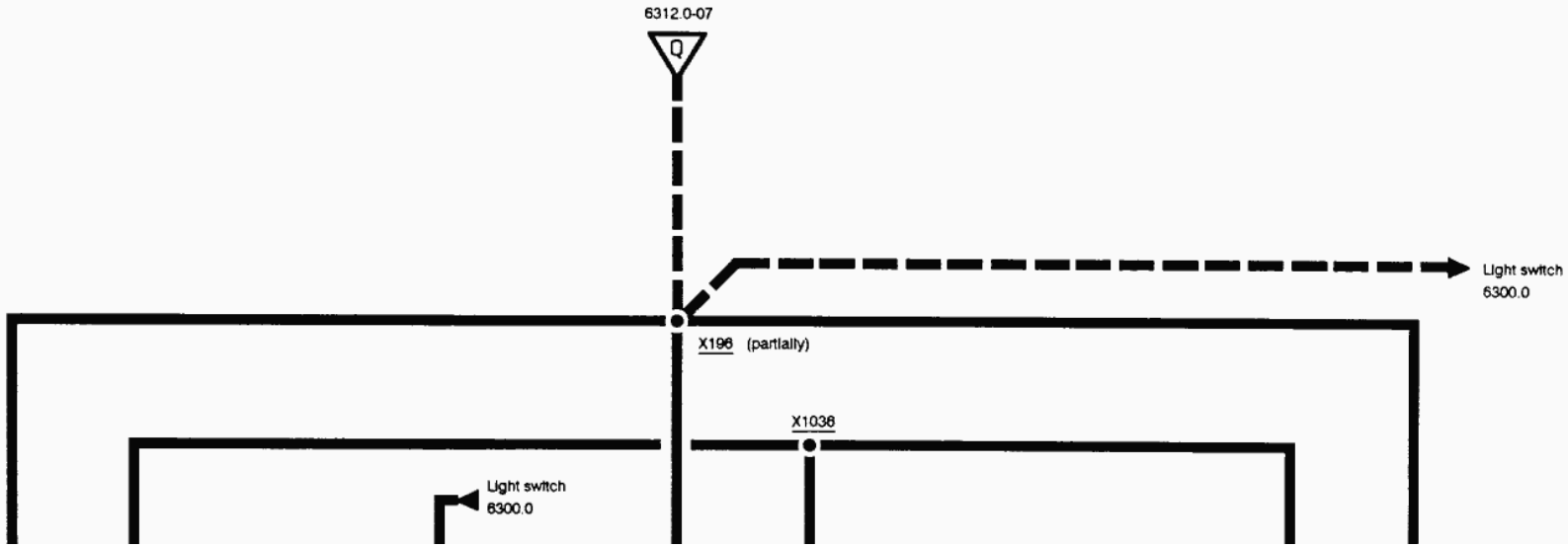
BMW 5

Headlight/fog light

Headlight range adjustment

N S

09/93



6312.0-1

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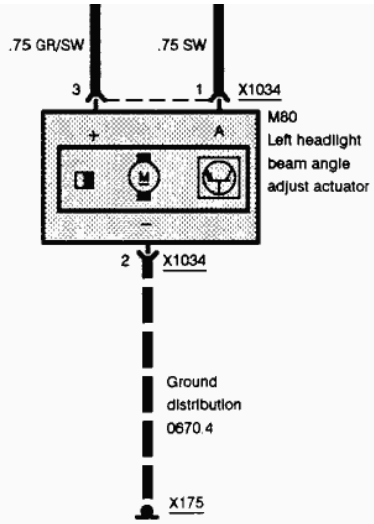

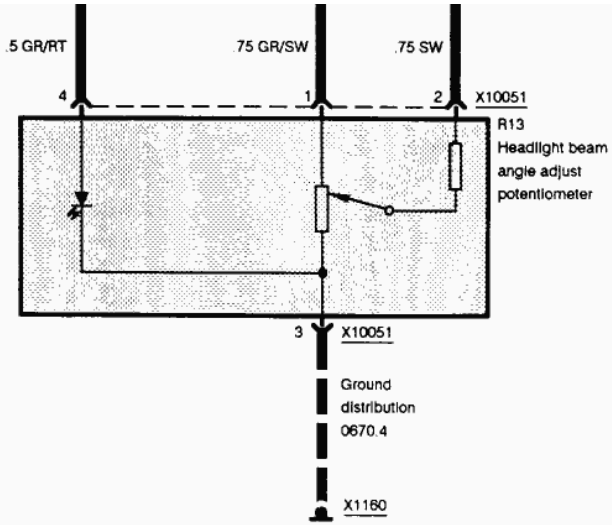

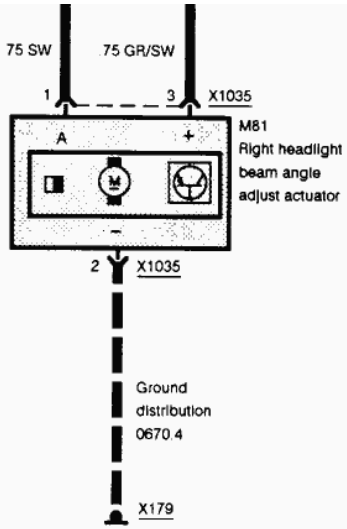

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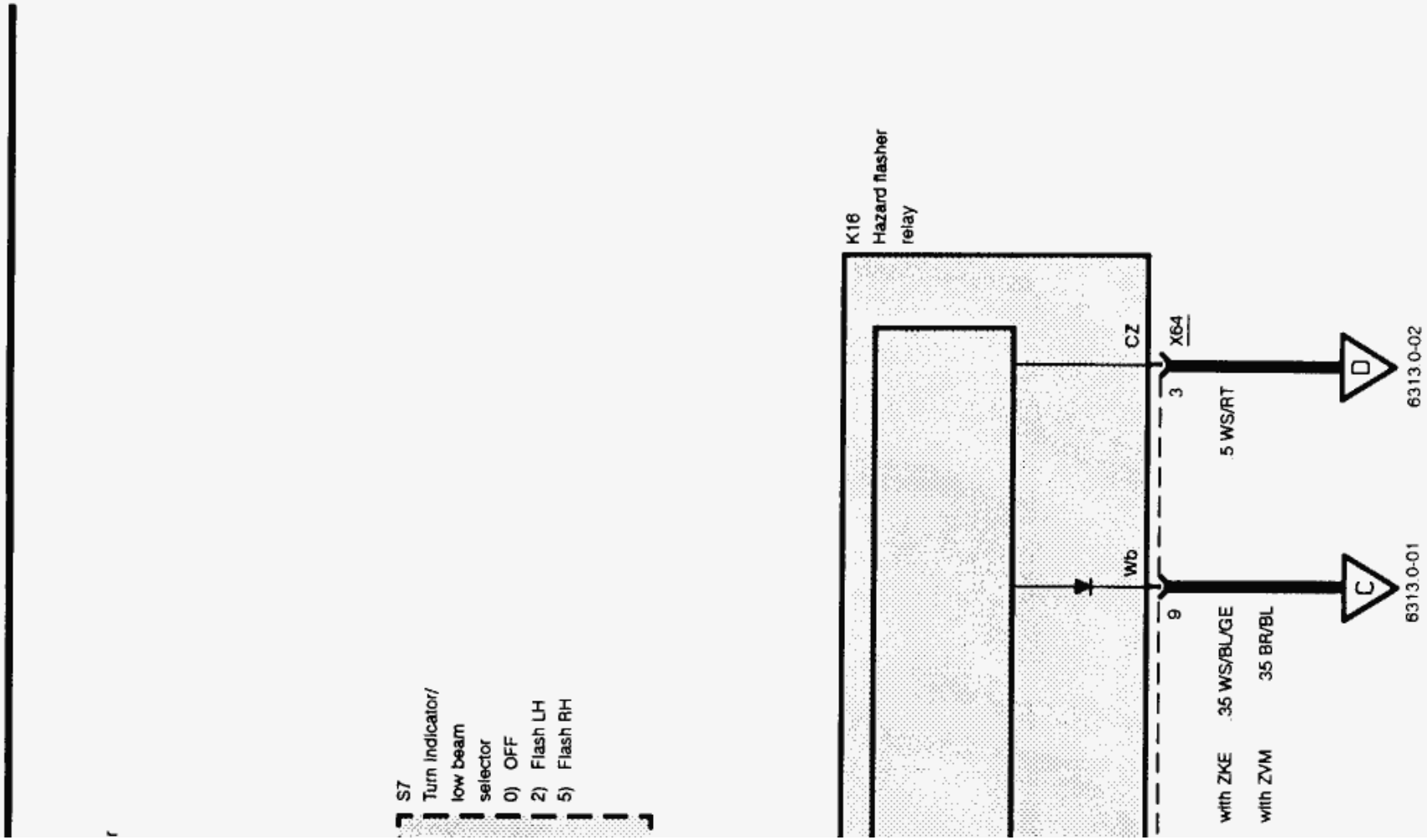
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Turn signal/hazard warning system

Scheme 6313.0



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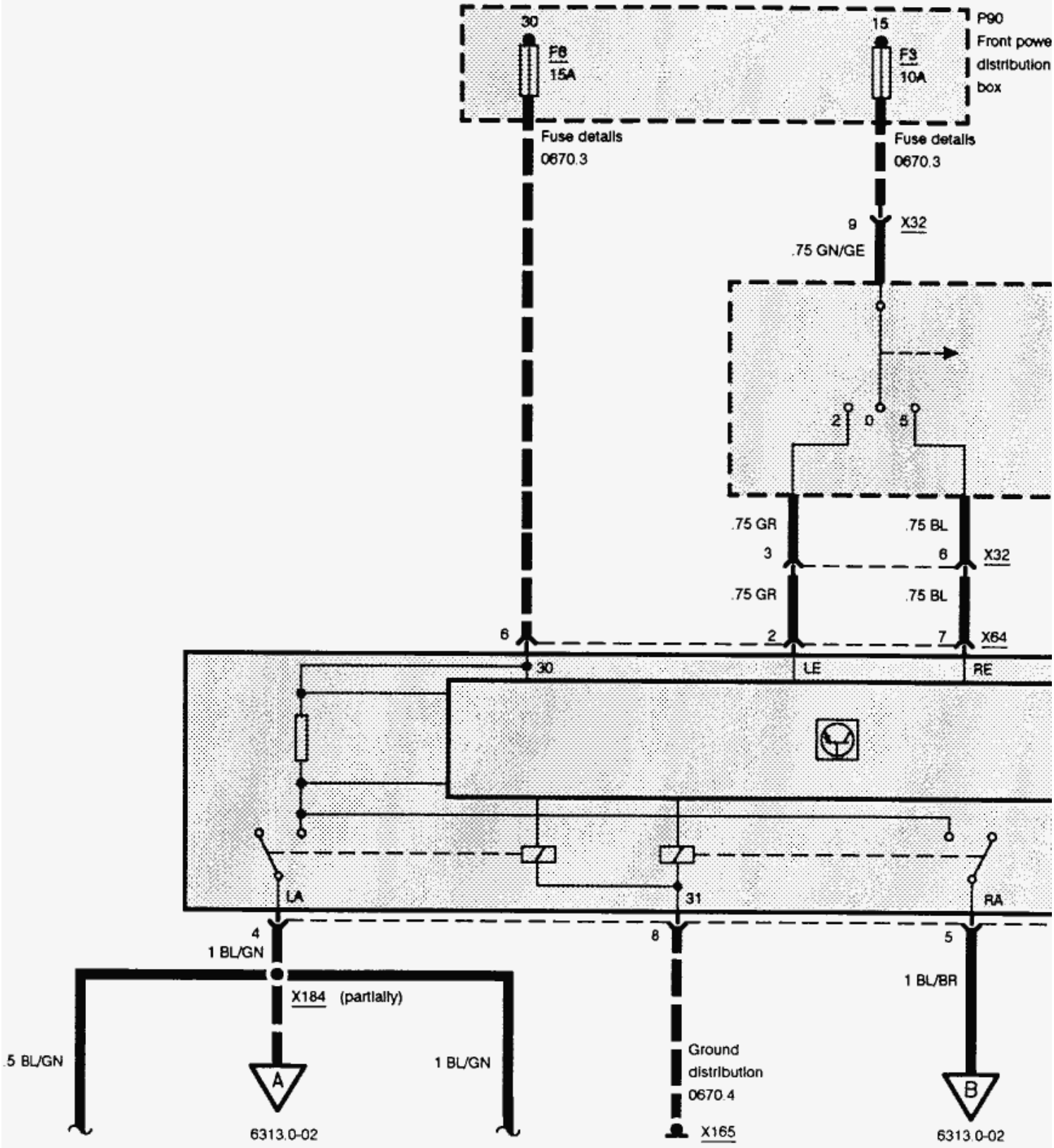
MW 5

Turn signal/hazard warning system



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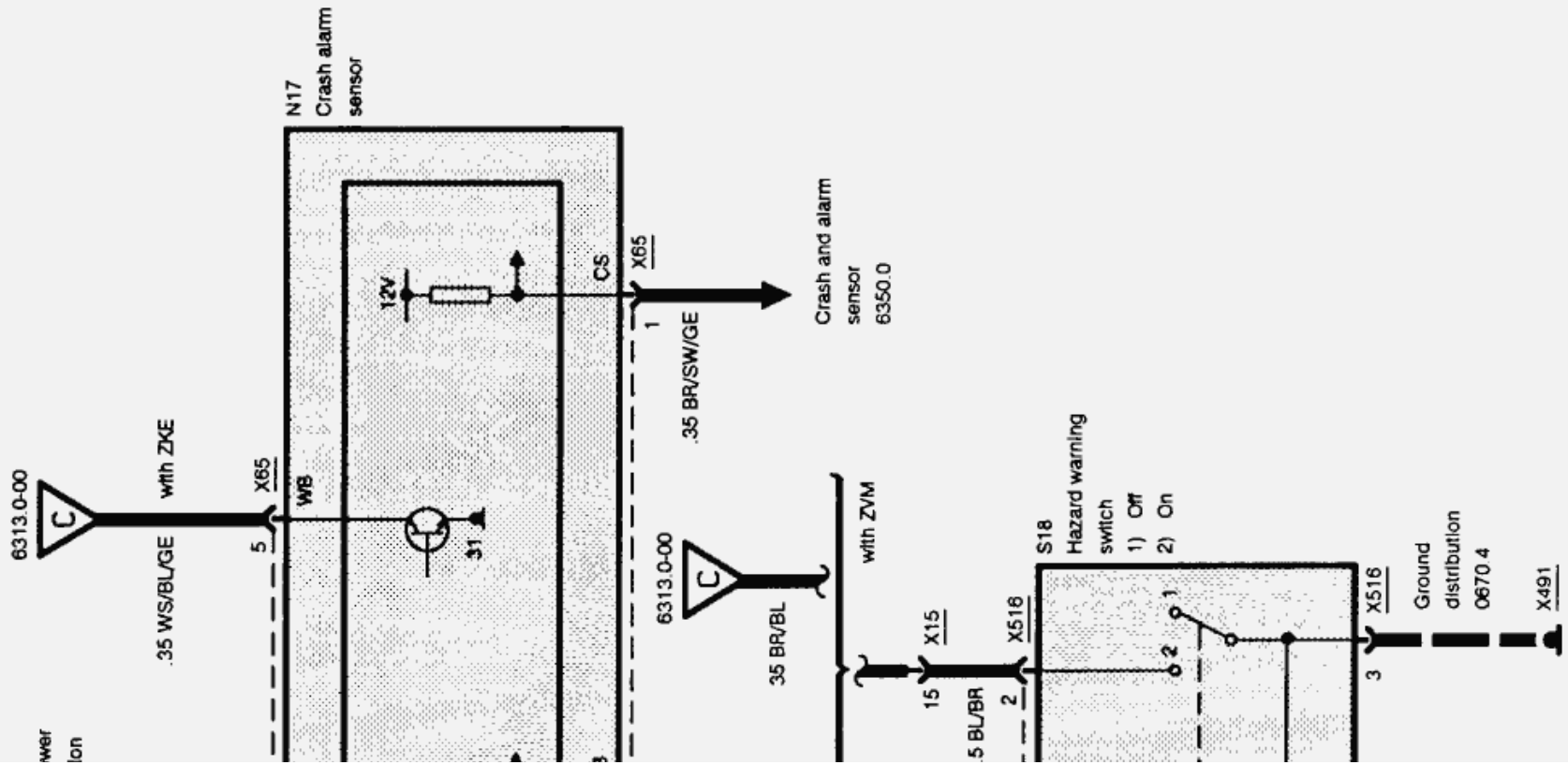

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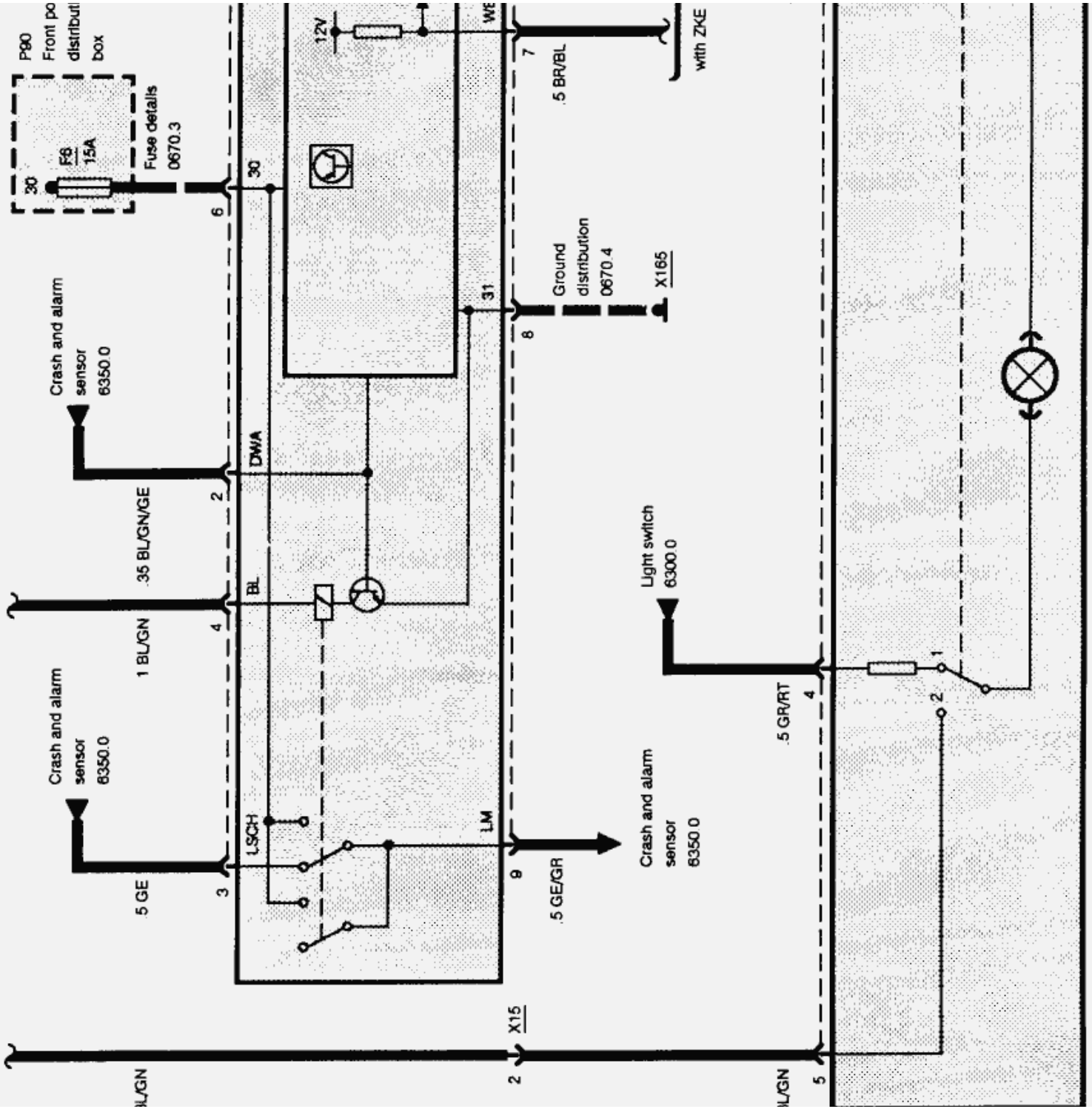

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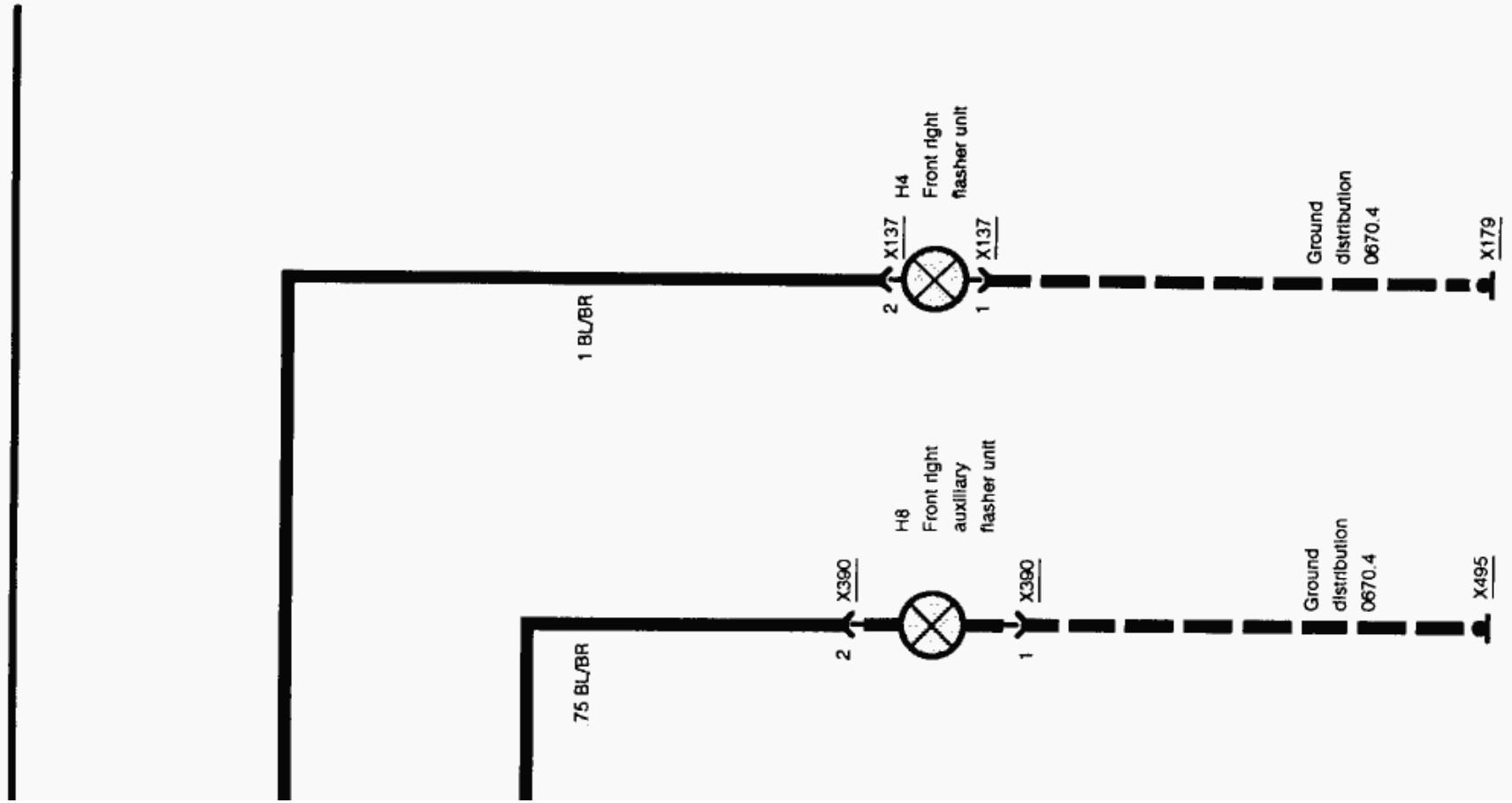

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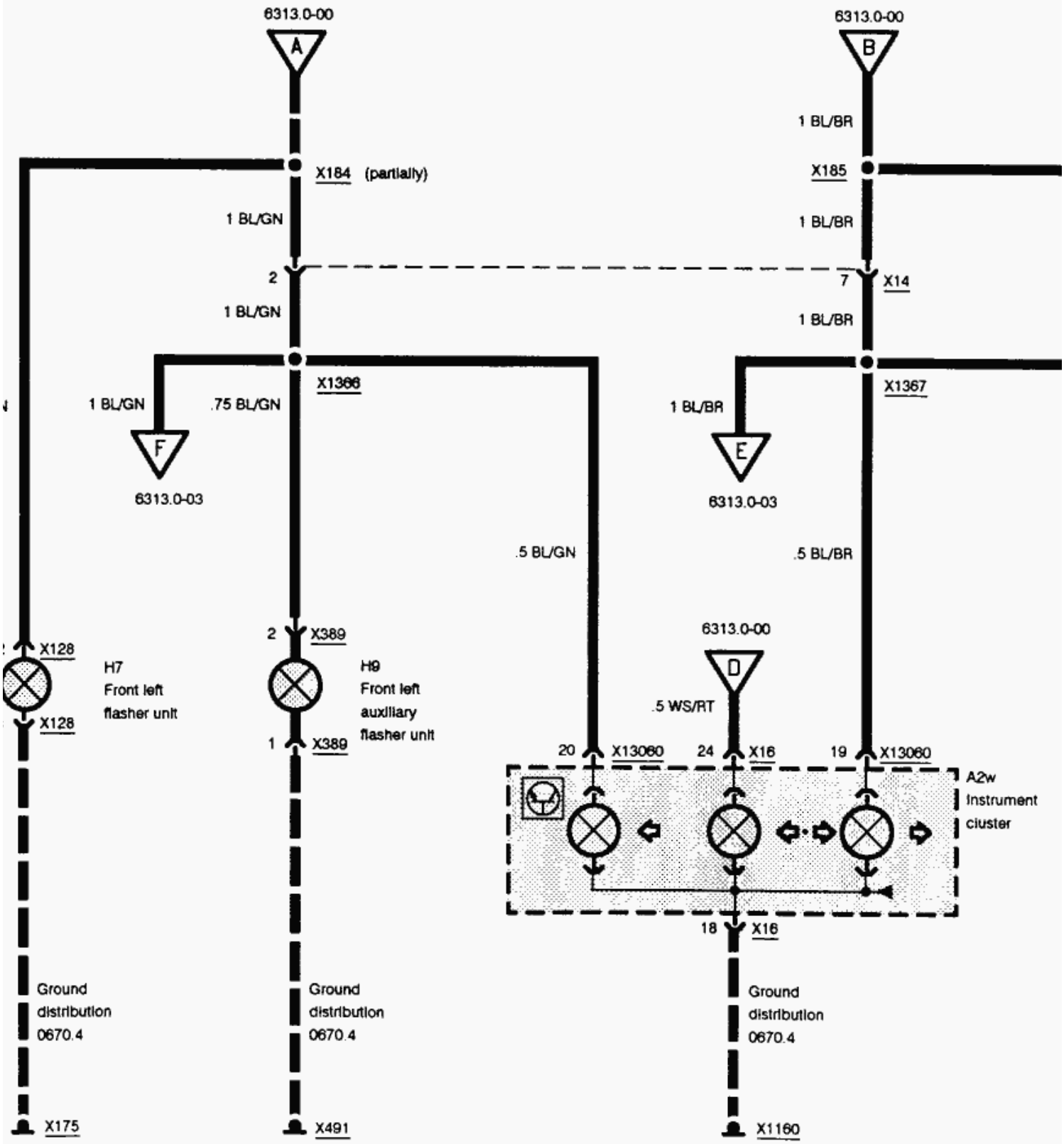
Turn signal/hazard warning system



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1 BL/GN

without trailer coupling

X318

E17
Right tail light

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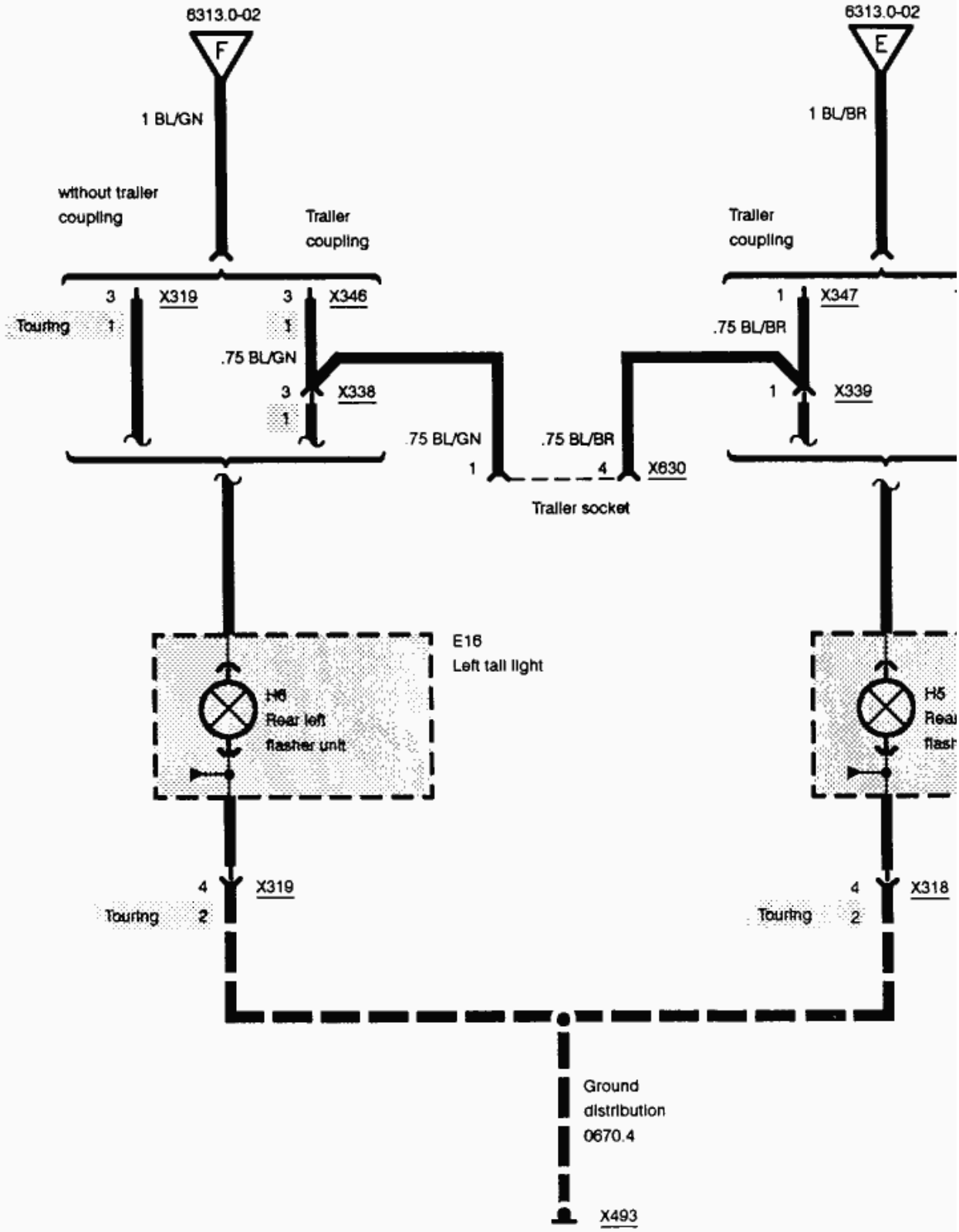
ırn signal/hazard warning system



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Fuse chart
Scheme 0670.1

Fuses 1 to 29																														
		Fuse number																												
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
		15A	7.5A	75A	75A	10A	15A	15A		15A	75A	7.5A	15A	7.5A	75A		30A	75A	15A	30A	10A	10A	20A	ISA	10A	30A	30A	7.5A	15A	7.5A
0670.5	Diagnostic link																												x	
1210.8	Digital motor electronics (DME M1.7, 4-cylinder M40)							x																x		x			x	•
1210.10	Engine management MS40 (6-cylinder M50)									x								x			x			x						•
1220.0	Preheating system																	x												
1230.0	Alternator																												x	
1240.0	Starter																	x												
1360.1	Digital diesel electronics (DDE 2, 6-cylinder M51)	x																x						x					x	•
2460.2	Electronic transmission control (EGS A4S 310R)																	x												

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2460.4	Electronic transmission control (EGS ASS 31 OZ)		x	x		
2460.5	Electronic transmission control (EGS ASS 31 OZ diesel)		x	x		
3231.0	Electronic steering column control					
3234.0	Airbag (AB)					
3240.0	Servotronic					x
3450.0	Antilock brake system (ABS)	x		x		
5116.0	Power mirrors		x		x	
5120.0	Door lock heating (ZKE/ TSH)			x		
5120.1	Door lock heating (ZVM/ TSH)					
5126.0	Central locking system (ZKE/ ZV)					
5126.1	Central locking module (ZVM)	x				
5133.0	Power windows (ZKE/FH)			x		
5146.0	Electric sun shades				x	
5200.0	Power seats					

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5203.0	Heated seats									x					
5212.0	Lumbar support									x					
5410.0	Sunroof (ZKE/SHD)														
5410.2	Double-panel sunroof (ZKE)														
5410.3	Double-panel sunroof (ZVM)														
6100.0	Central body electronics (ZKE)		x	x	x						x				x
6133.0	Horn						x								
6160.0	Windscreen wipe/wash system (ZKE)	x													x
6160.1	Wipe/wash module (WWW)														x
6162.0	Rear window wipe/wash system											x			
6167.0	Headlight washer (ZKE/SRA)		x	x	x						x			x	x
6169.0	Windscreen washer jet heaters								x						
6200.3	Instrument cluster (redesigned standard version)	x									x		x		
6213.0	Clock												x		

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6213.2	Multi-function clock	x																		x								
6300.0	Light switch		x	x	x	x																						
6312.0	Headlight/ fog light		x	x	x	x		x		x	x		x	x														
6313.0	Turn signal/ hazard warning system			x			x																					
6314.0	Park/tail/ underhood lights				x	x																						
6320.0	Licence plate/ luggage compartment lights					x															x							
6322.0	Reversing lights											x																
6325.0	Brake lights	x																										
6328.1	Trailer coupling																											
6330.0	Interior light control (ZKE/ I B)				x	x										x	x				x							
6330.1	ZVM Interior lights				x	x											x				x							
6332.0	Interior					x											x				x				x			
6350.0	Crash and alarm sensor		x				x			x	x																	
6410.1	Automatic heating control (HR34) - digital								x									x								x		•

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6410.6	Automatic heating control (IHRF3)			x		x			x	•
6412.0	Independent heating/ ventilation with IHKA	x				x	x		x	
6412.1	Independent heating/ ventilation with HR34	x				x			x	
6412.2	Independent ventilation with IHKA					x	x		x	
6412.3	Independent ventilation with HR34					x	x		x	
6412.14	Independent heating/ ventilation with IHRF3	x				x			x	
6412.15	Independent ventilation with IHRF3					x	x		x	
6412.18	Independent heating/ ventilation with IHKR/F3	x				x	x		x	
6412.19	Independent ventilation with IHKR/3					x	x			
6424.0	Rear window defogger/ antenna									
6430.0	Automatic circulating air control (AUC)								x	

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6450.0	Automatic climate control (IHKA)								x									x	x						x		•
6450.5	Automatic climate control with fitter (IHKR/ F3)								x									x	x						x		•
6454.0	Auxiliary fan																							x			•
6510.0	Radio/stereo																x										
6510.1	Radio/HiFi																x										
6510.2	Radio provisions																x										
6561.0	Cellular telephone																x										
6571.0	Cruise control	x														x											
6575.1	Antitheft system III (DWA III)	x														x				x							
6581.0	On-board computer (BC IV)	x														x			x								
6610.0	Infrared locking system (IR)																x										
6621.0	Park distance control (PDC)												x														
6740.0	Special option- Taxi		x	x	x	x											x			x							

Fuses 30 to 61																												
	Fuse number																											
Fines 30. 38. 39. 48 and 49 not used	30	31	32	33	34	35	36	37	40	41	42	43	44	45	46	47	50	51	52	53	54	55	56	57	58	59	60	61
		7.5A	7.5A	7. W	30A	30A	30A	20A	7.5A	30A	30A	30A	20A	20A	30A	10A	30A	25A	10A	30A	15A	7.5A	1SA	7.5A	7.5A	7.5A	7. SA	75A

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0670.5	Diagnostic link				
1210.8	Digital motor electronics (DME M1.7, 4-cyiinder M40)				
1210.10	Engine management MS40 (6-cylinder M50)				
1220.0	Preheating system				
1230.0	Alternator				
1240.0	Starter				
1360.1	Digital diesel electronics (DDE 2, 6-cylinder M51)				
2460.2	Electronic transmission control (EGS A4S 31 OR)				
2460.4	Electronic transmission control (EGS ASS 31 OZ)				
2460.5	Electronic transmission control (EGS ASS 31 OZ diesel)				
3231.0	Electronic steering column control		x	x	
3234.0	Airbag (AB)				x
3240.0	Servotronic				
3450.0	Antilock brake system (ABS)				
5116.0	Power mirrors				

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5120.0	Door lock heating (ZKE/ TSH)		x								
5120.1	Door lock heating (ZVM/ TSH)		x			x					
5126.0	Central locking system (ZKE/ ZV)		x	x		x			x		
5126.1	Central locking module (ZVM)		x	x					x		
5133.0	Power windows (ZKE/ FH)		x			x					
5146.0	Electric sun shades	x									
5200.0	Power seats						x	x			
5203.0	Heated seats										
5212.0	Lumbar support										
5410.0	Sunroof (ZKE/ SHO)		x			x					
5410.2	Double-panel sunroof (2KE)		x								
5410.3	Double-panel sunroof (ZVM)		x							x	
6100.0	Central body electronics (ZKE)		x			x					
6133.0	Horn										
6160.0	Windscreen wipe/wash system (ZKE)				x						
6160.1	Wipe/wash module (WWM)				x						

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6162.0	Rear window wipe/wash system	x	
6167.0	Headlight washer (ZKE/ SRA)		
6169.0	Windscreen washer jet heaters		
6200.3	Instrument cluster (redesigned standard version)		
6213.0	Clock		
6213.2	Multi-function clock		
6300.0	Light switch		
6312.0	Headlight/fog light		
6313.0	Turn signal/ hazard warning system		
6314.0	Park/tail/ underhood lights		
6320.0	Licence plate/ luggage compartment lights		
6322.0	Reversing lights		
6325.0	Brake lights		
6328.1	Trailer coupling		x

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6330.0	Interior light control (ZKE/IB)		x								
6330.1	ZVM Interior lights		x								
6332.0	Interior										
6350.0	Crash and alarm sensor										
6410.1	Automatic heating control (HR34) - digital										
6410.6	Automatic heating control (IHRF3)										
6412.0	Independent heating/ ventilation with IHKA							x	x		
6412.1	Independent heating/ ventilation with HR34							x	x		x
6412.2	Independent ventilation with IHKA										
6412.3	Independent ventilation with HR34										x
6412.14	Independent heating/ ventilation with IHRF3							x	x		x
6412.15	Independent ventilation with IHRF3										
6412.18	Independent heating/ ventilation with IHKR/F3							x	x		x

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6412.19	Independent ventilation with I HKR/3							
6424.0	Rear window defogger/ antenna				x			
6430.0	Automatic circulating air control (AUC)							
6450.0	Automatic climate control (IHKA)							
6450.5	Automatic climate control with filter (IHKR/F3)							
6454.0	Auxiliary fan							
6510.0	Radio/stereo					x		
6510.1	Radb/HiFi					x		
6510.2	Radio provisions					x		
6561.0	Cellular telephone						x	x
6571.0	Cruise control							
6575.1	Antitheff system III (DWA III)	x	x	x				
6581.0	On-board computer (BC IV)							
6610.0	Infrared locking system (IR)		x					
6621.0	Park distance control (PDC)							
6740.0	Special option-Taxi							

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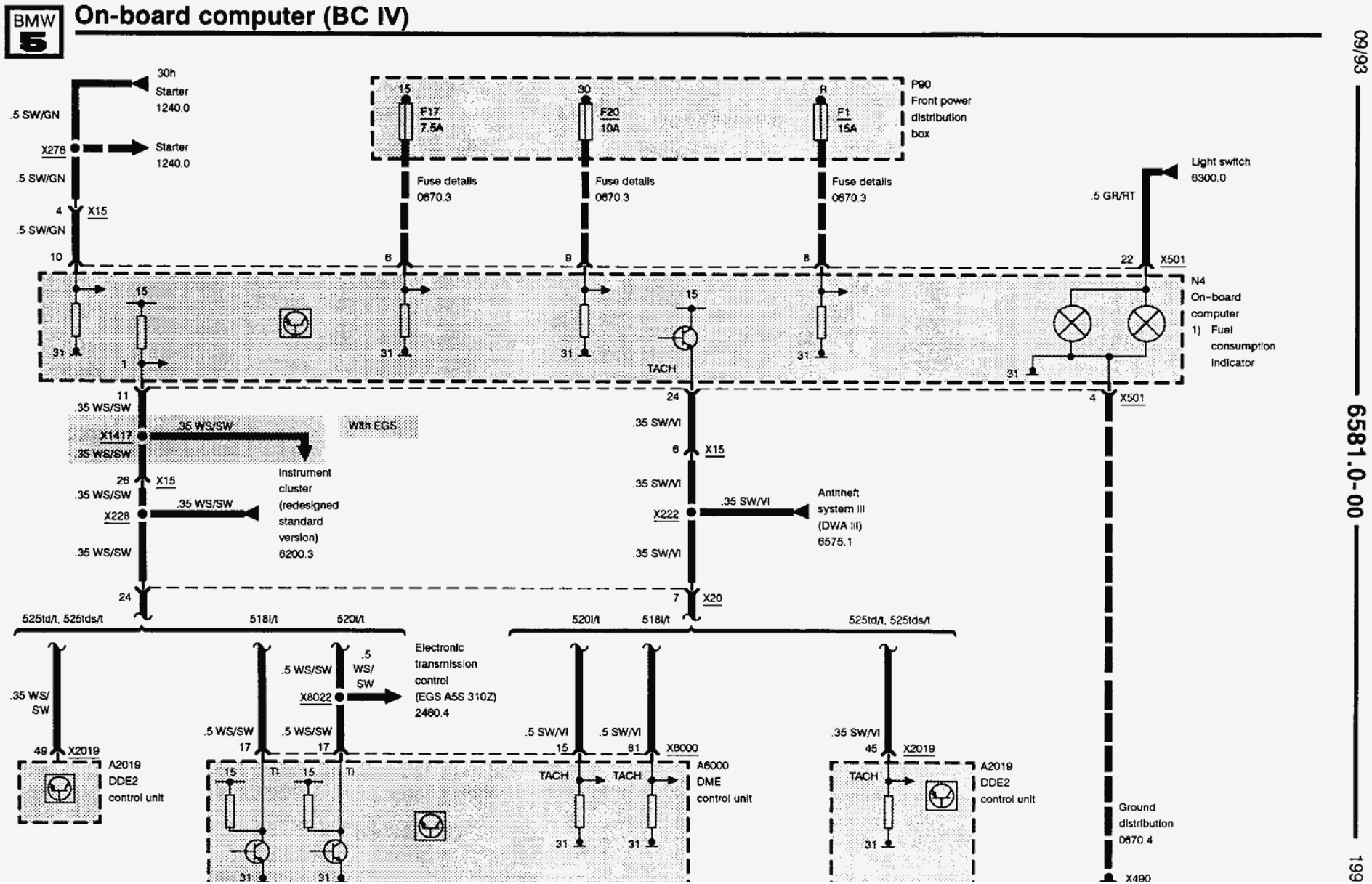
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

On-board computer (BC IV)
Scheme 6581.0



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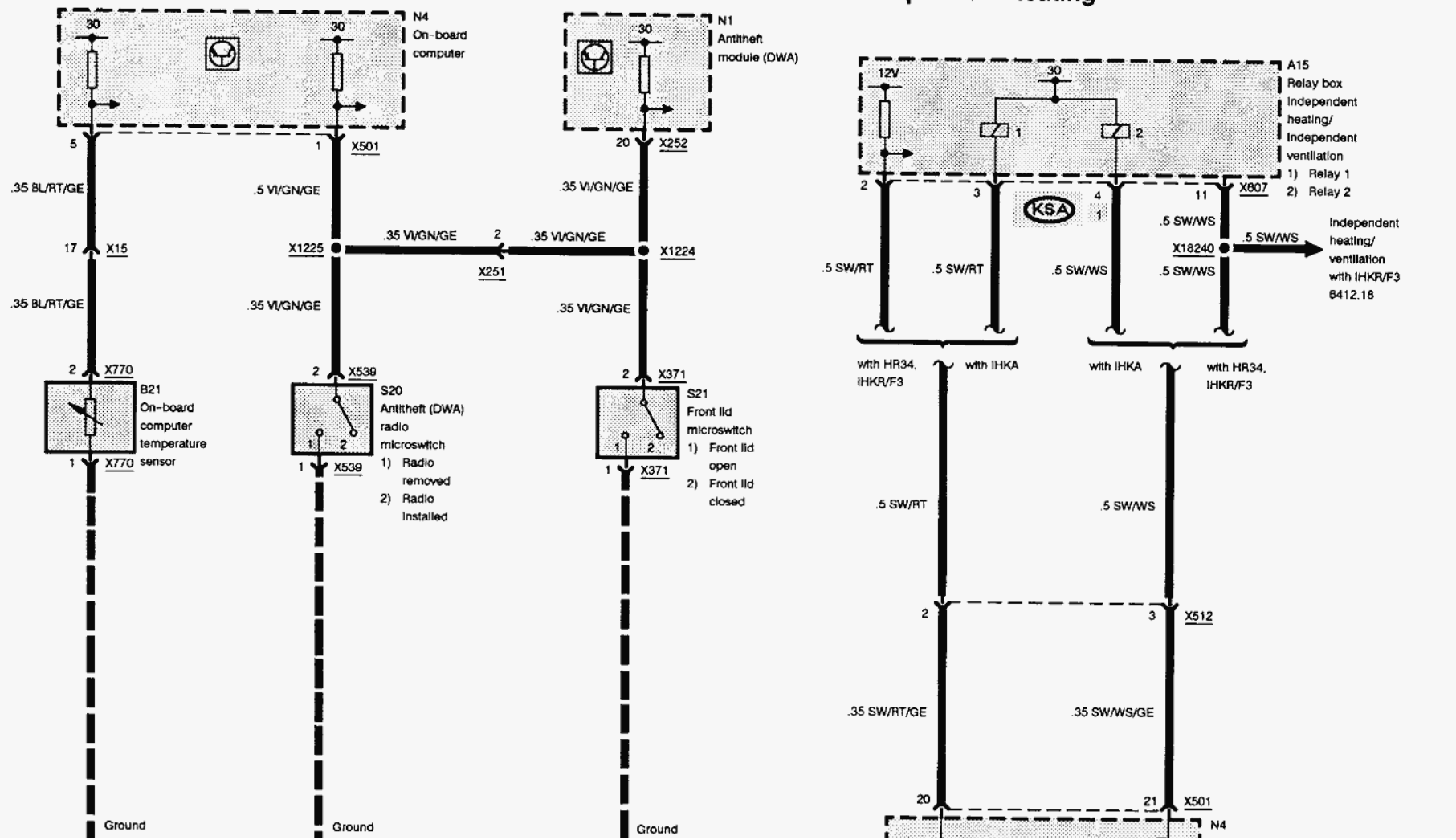
On-board computer (BC IV)



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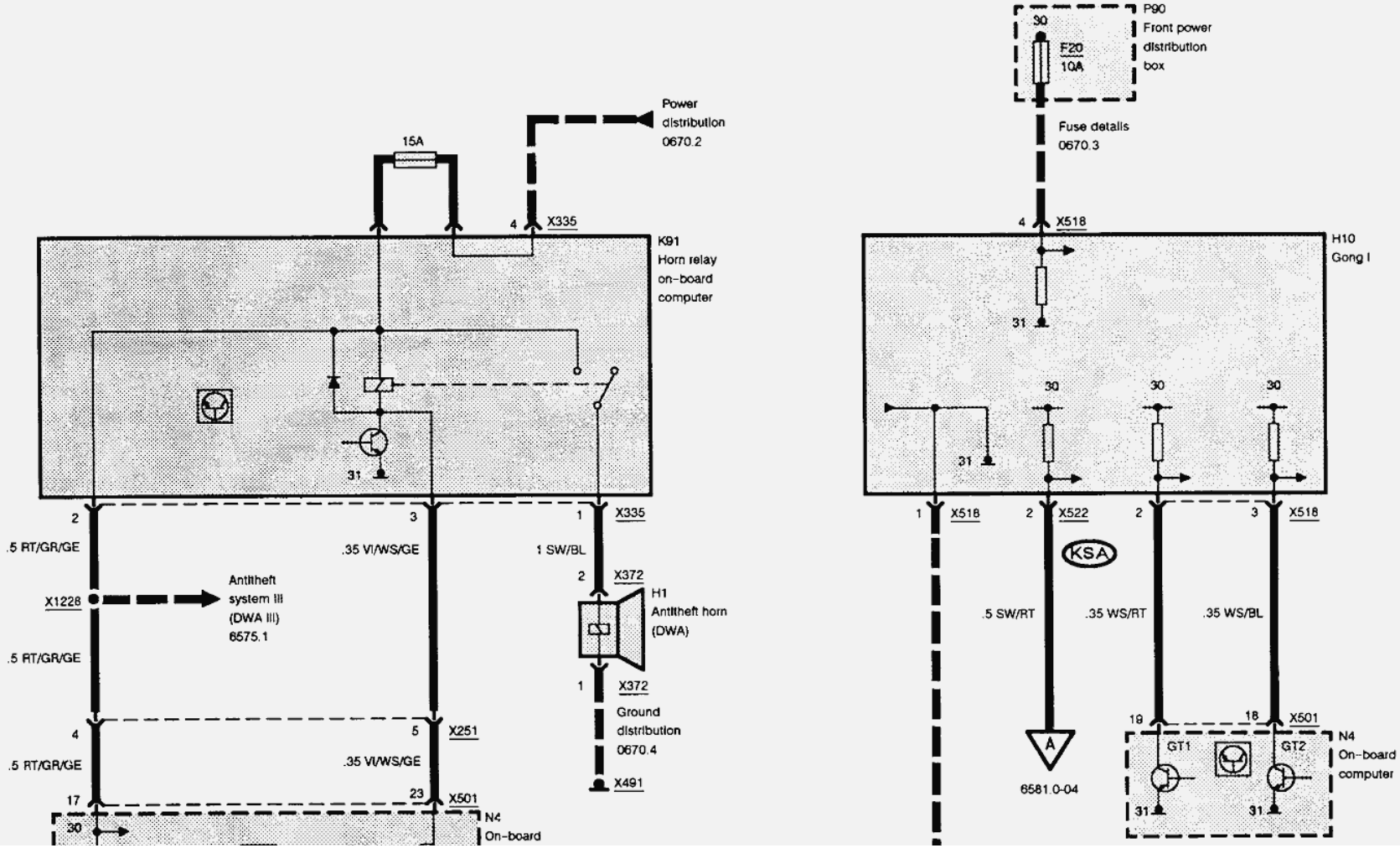
On-board computer (BC IV)

Antitheft horn (DWA), gong



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Ground distribution 0670.4
X491

1994

BMW 5

On-board computer (BC IV)

Fuel gauge, speed signal

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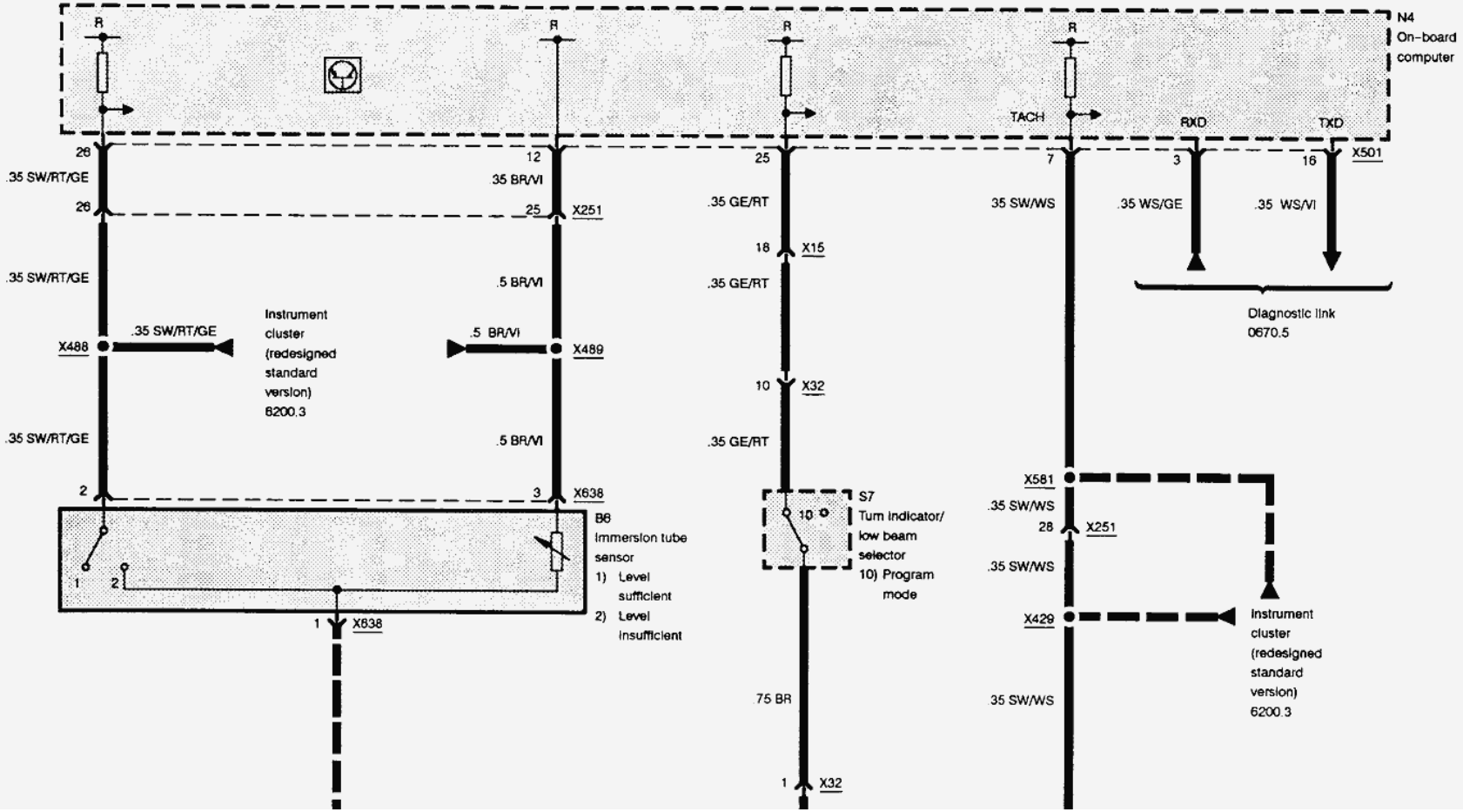
6581.0-03



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BMW 5 On-board computer (BC IV)

KSA

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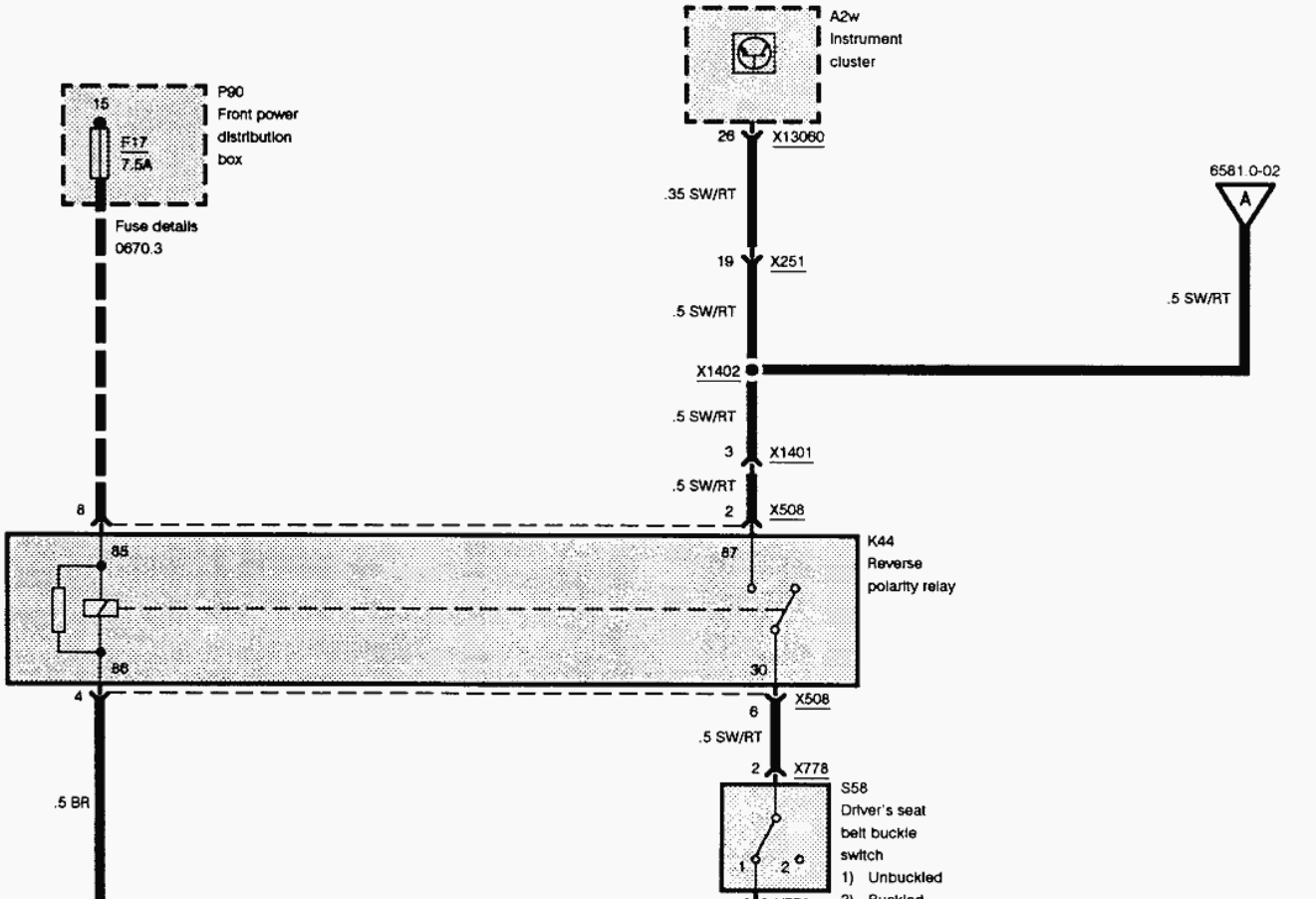

6581.0-04

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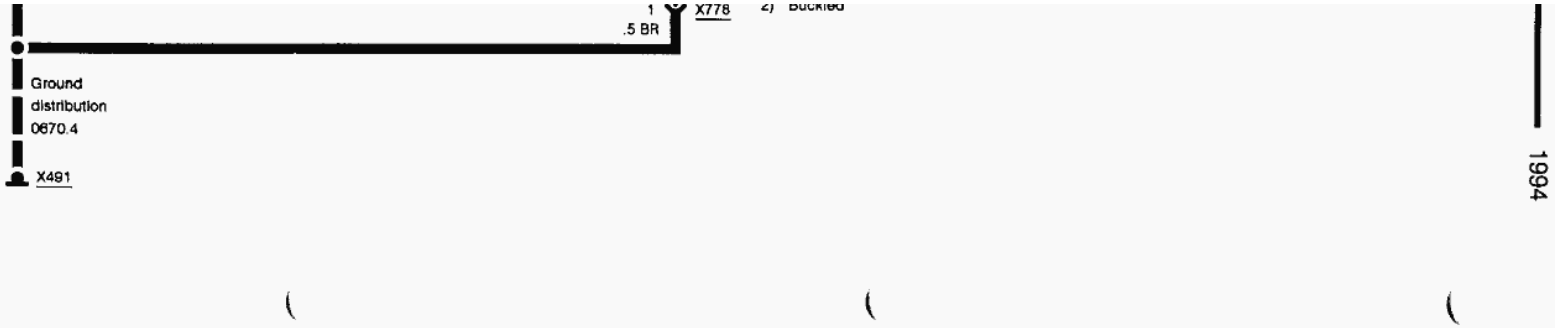

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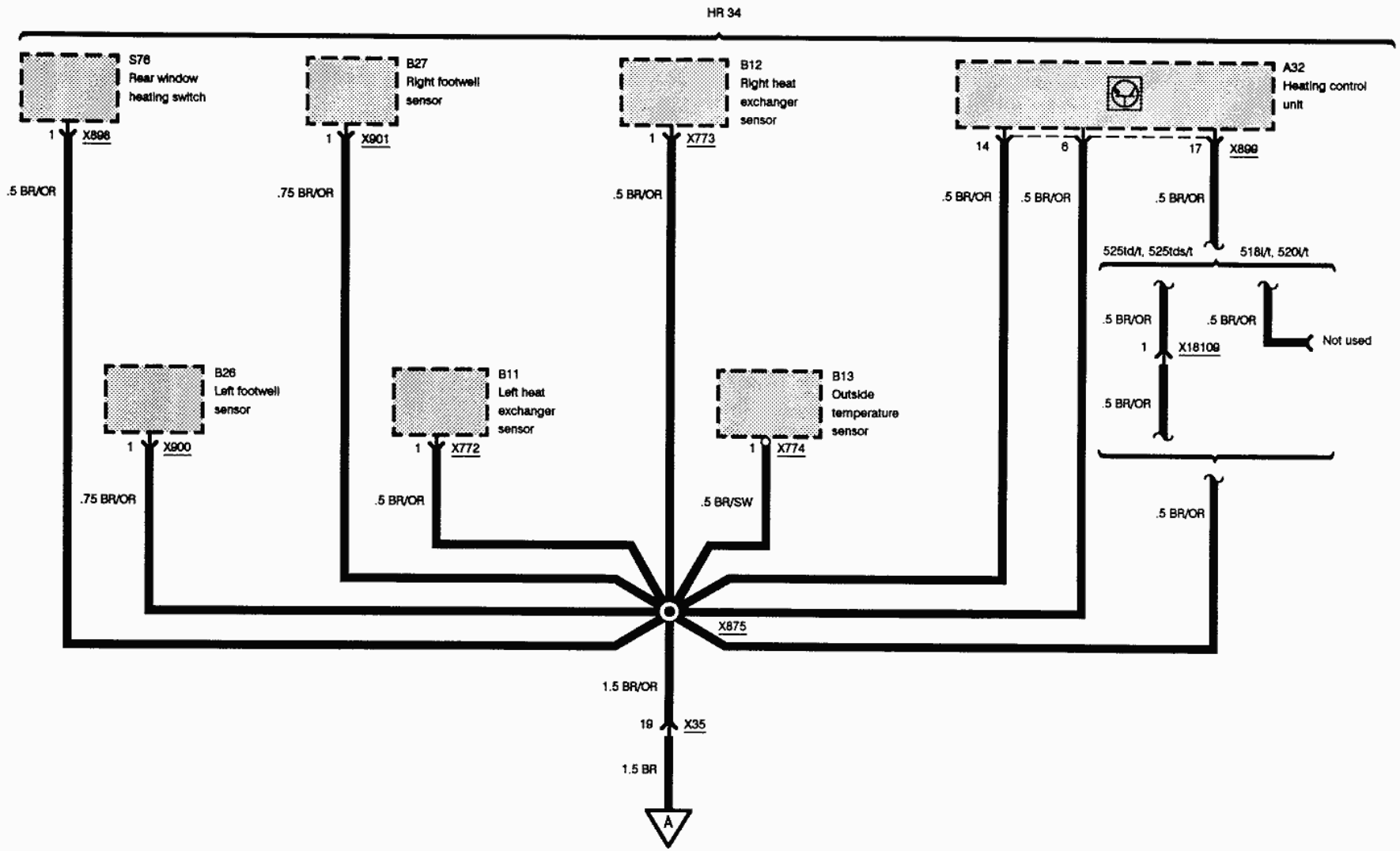
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Ground distribution
Scheme 0670.4

Ground distribution
Ground X165



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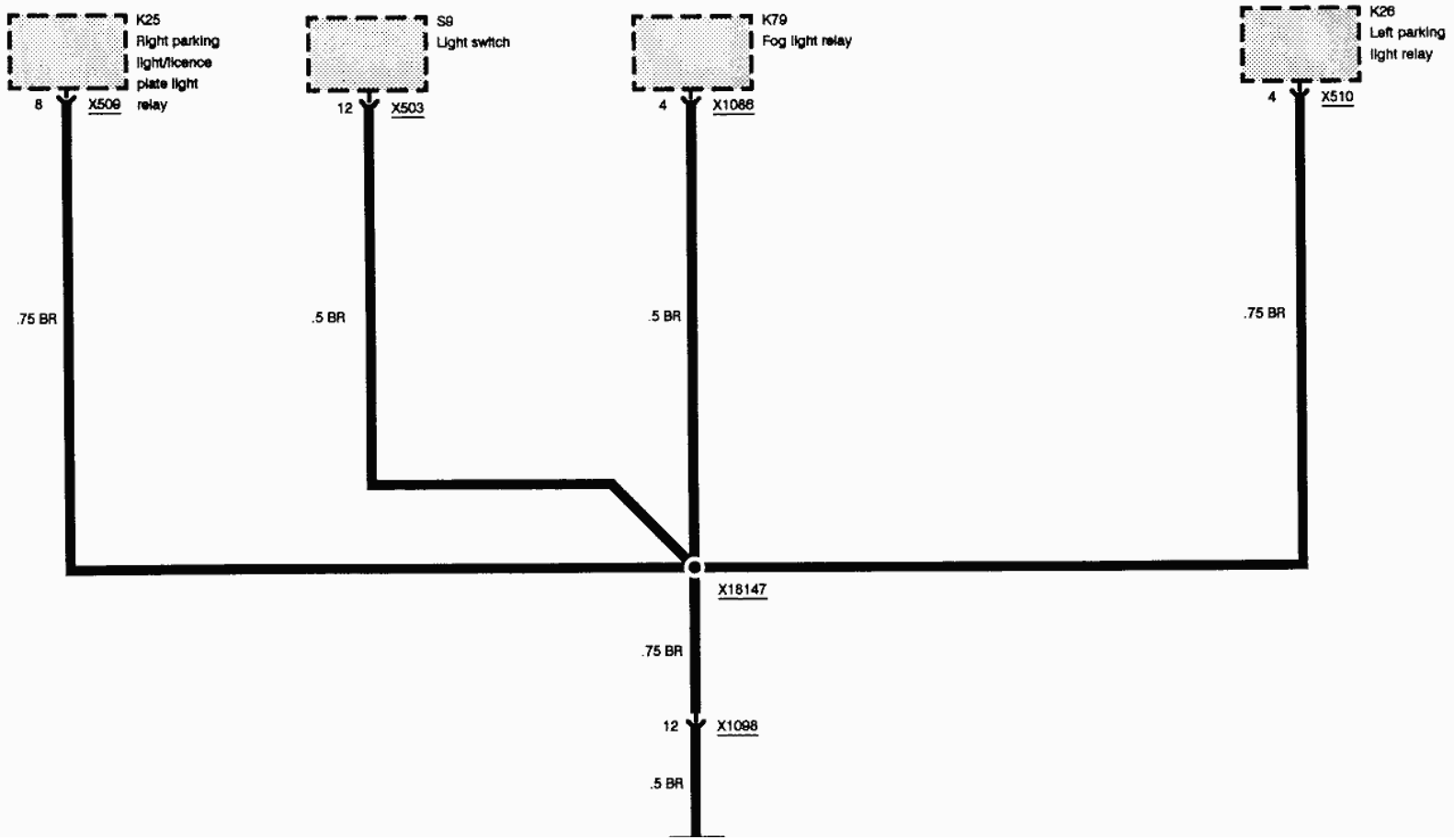
Ground distribution

Ground X165

N S



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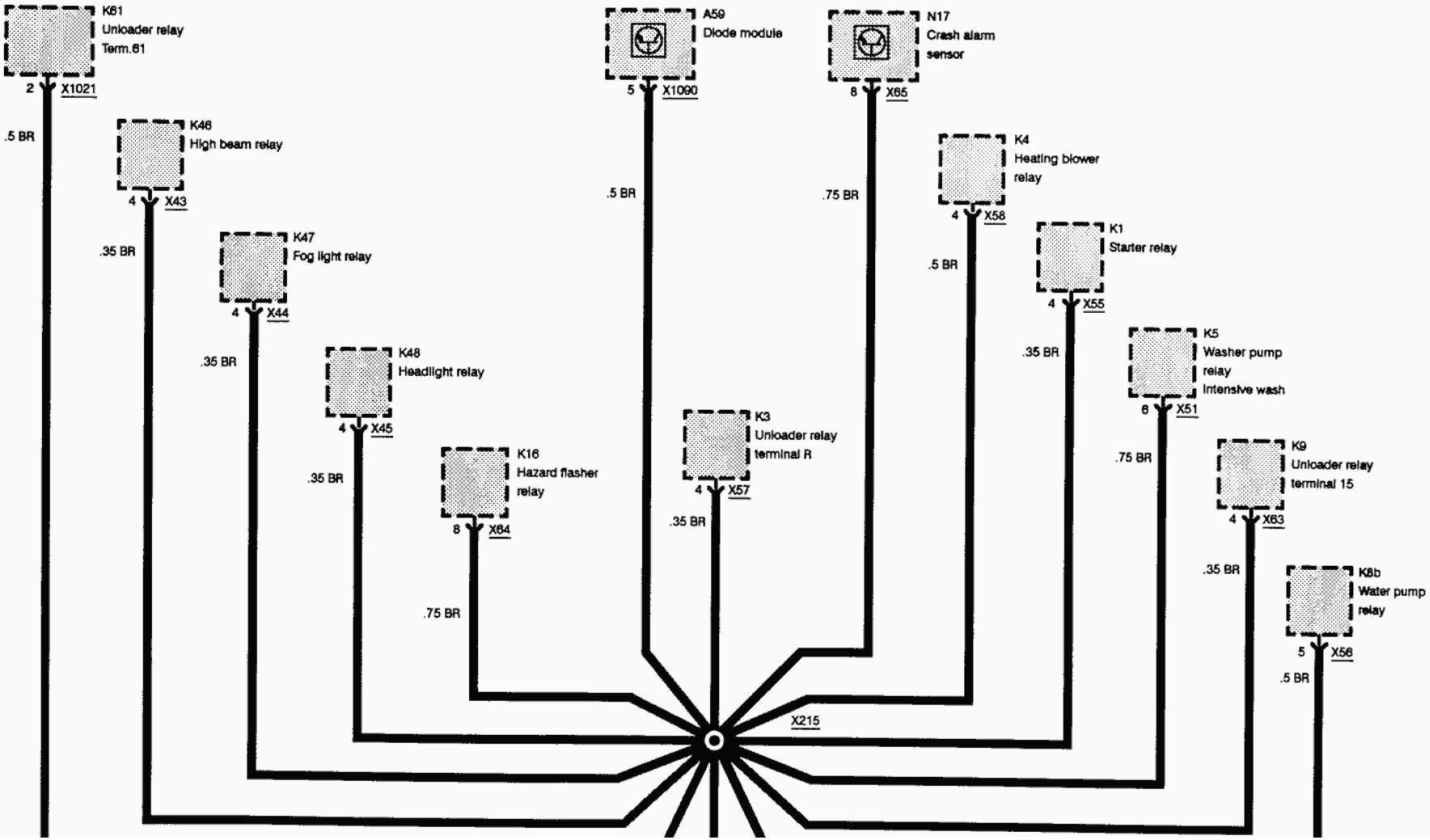
Ground distribution

Ground X165



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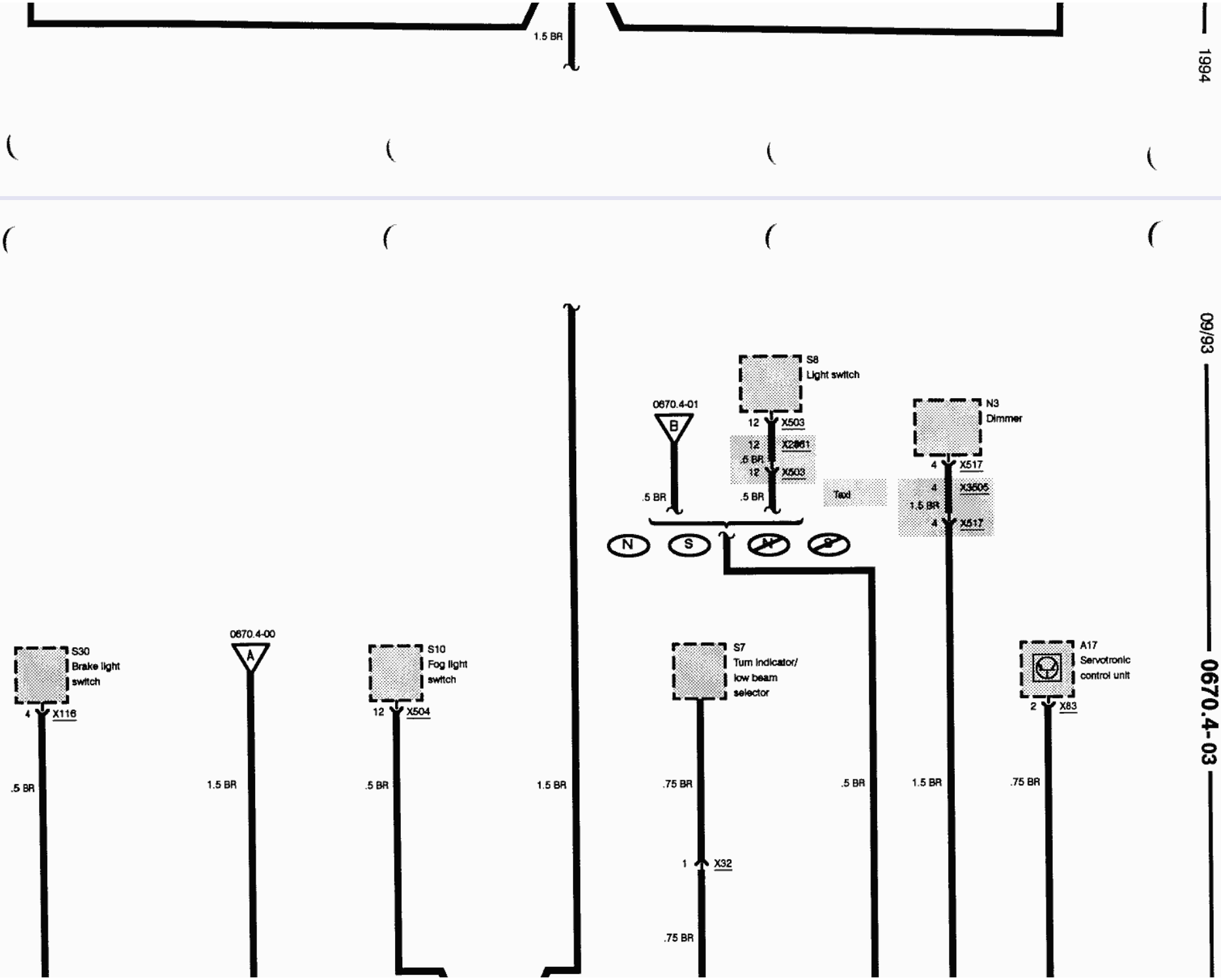

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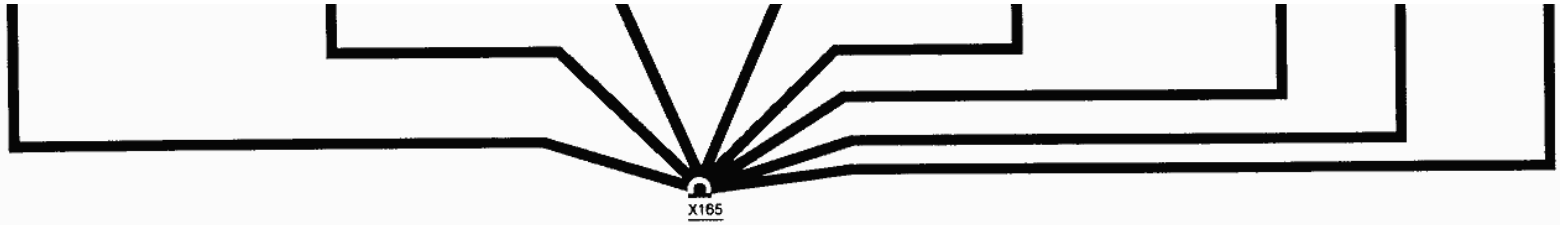

1994

Ground distribution

Ground X166 and X167

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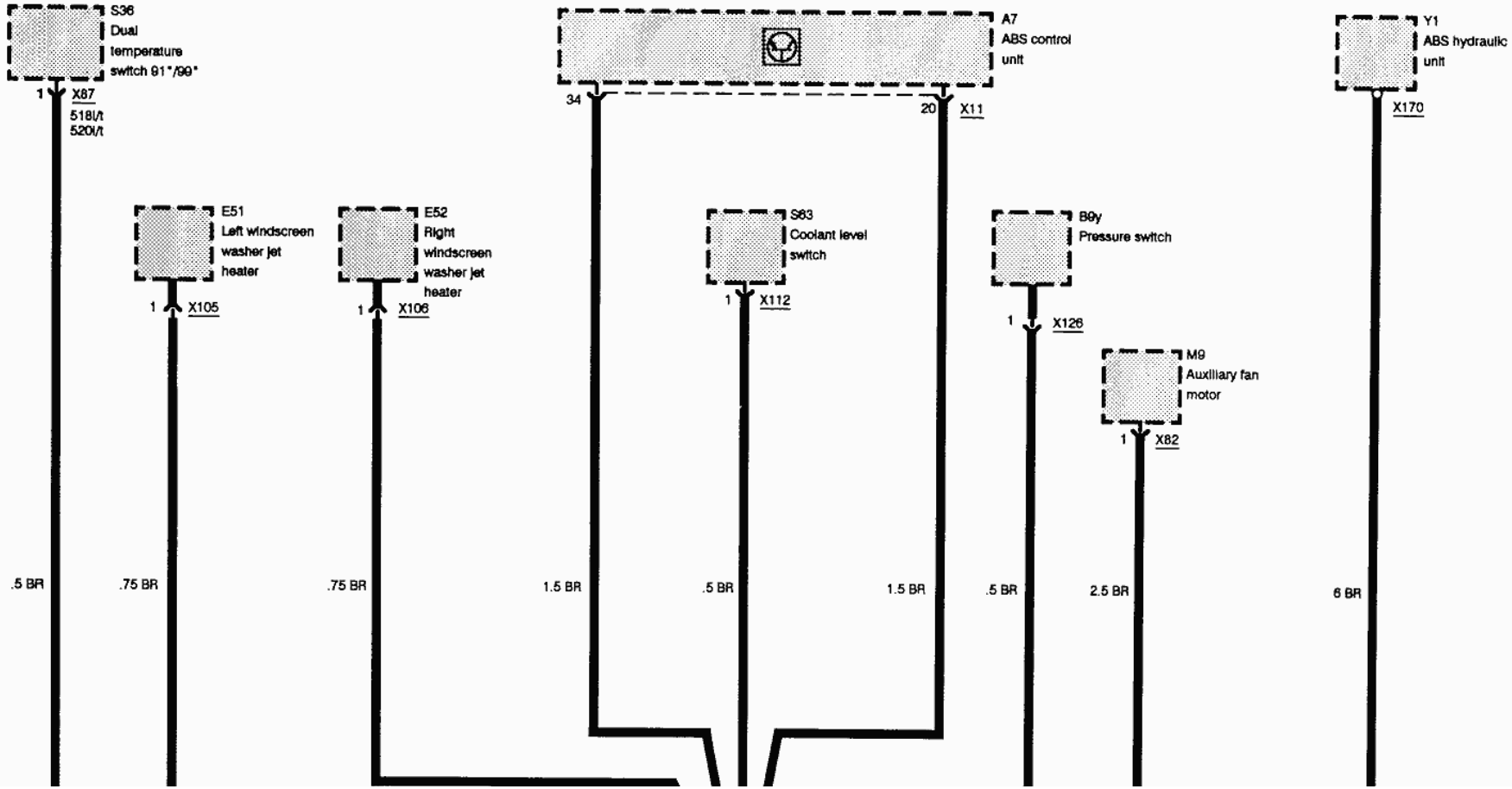

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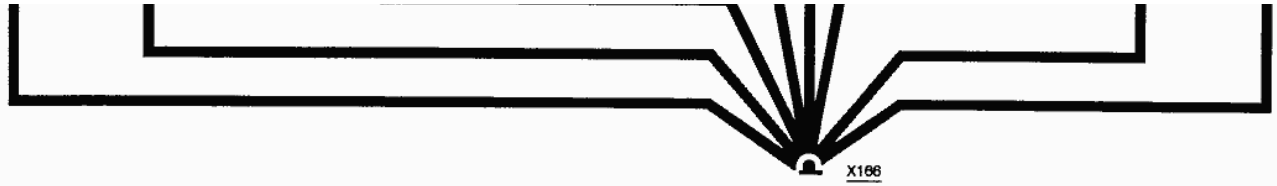

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Ground distribution

Ground X175

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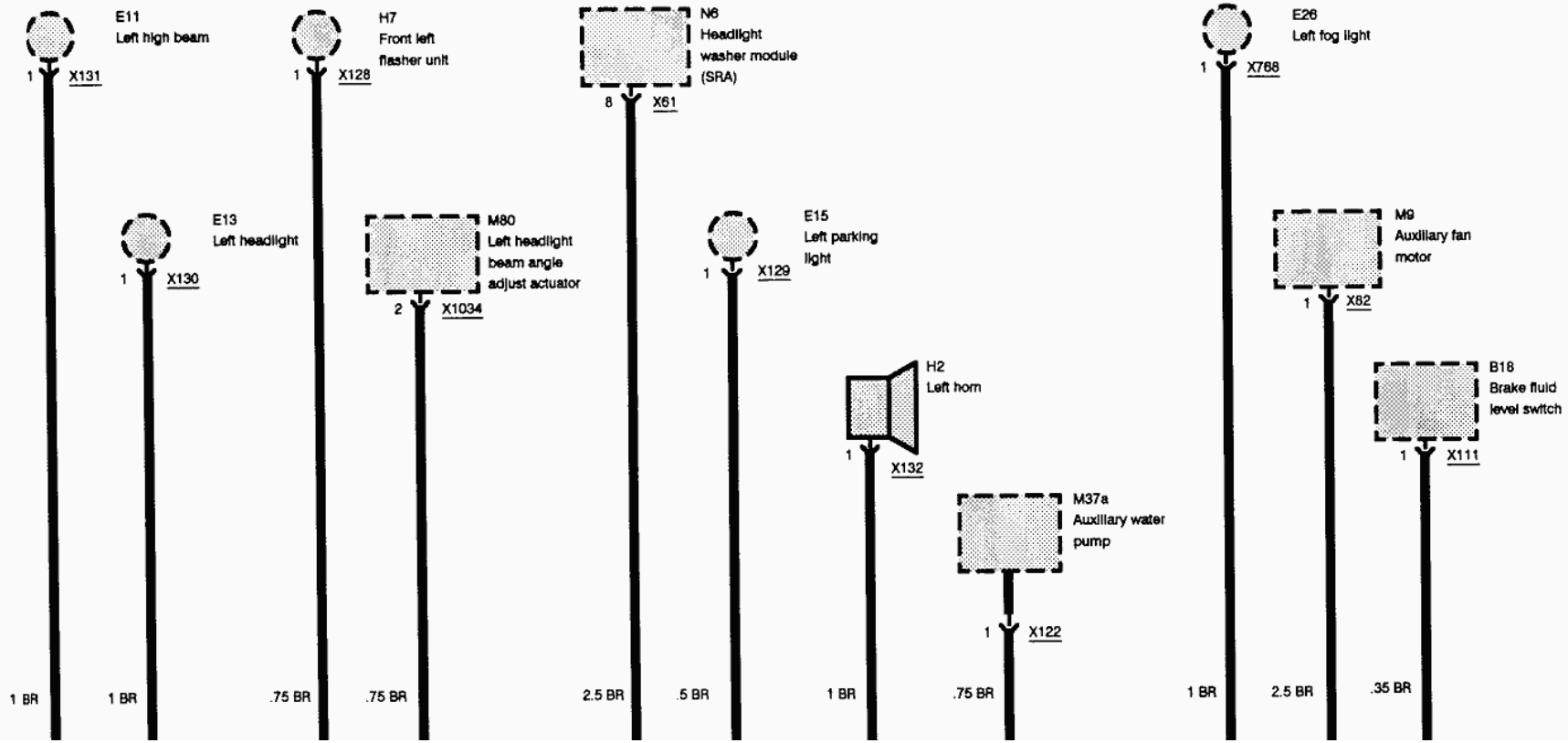
0670.4-05



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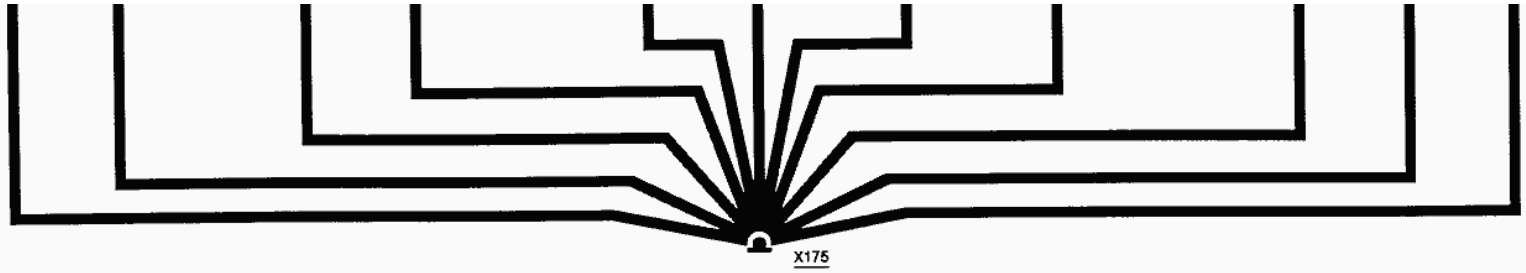
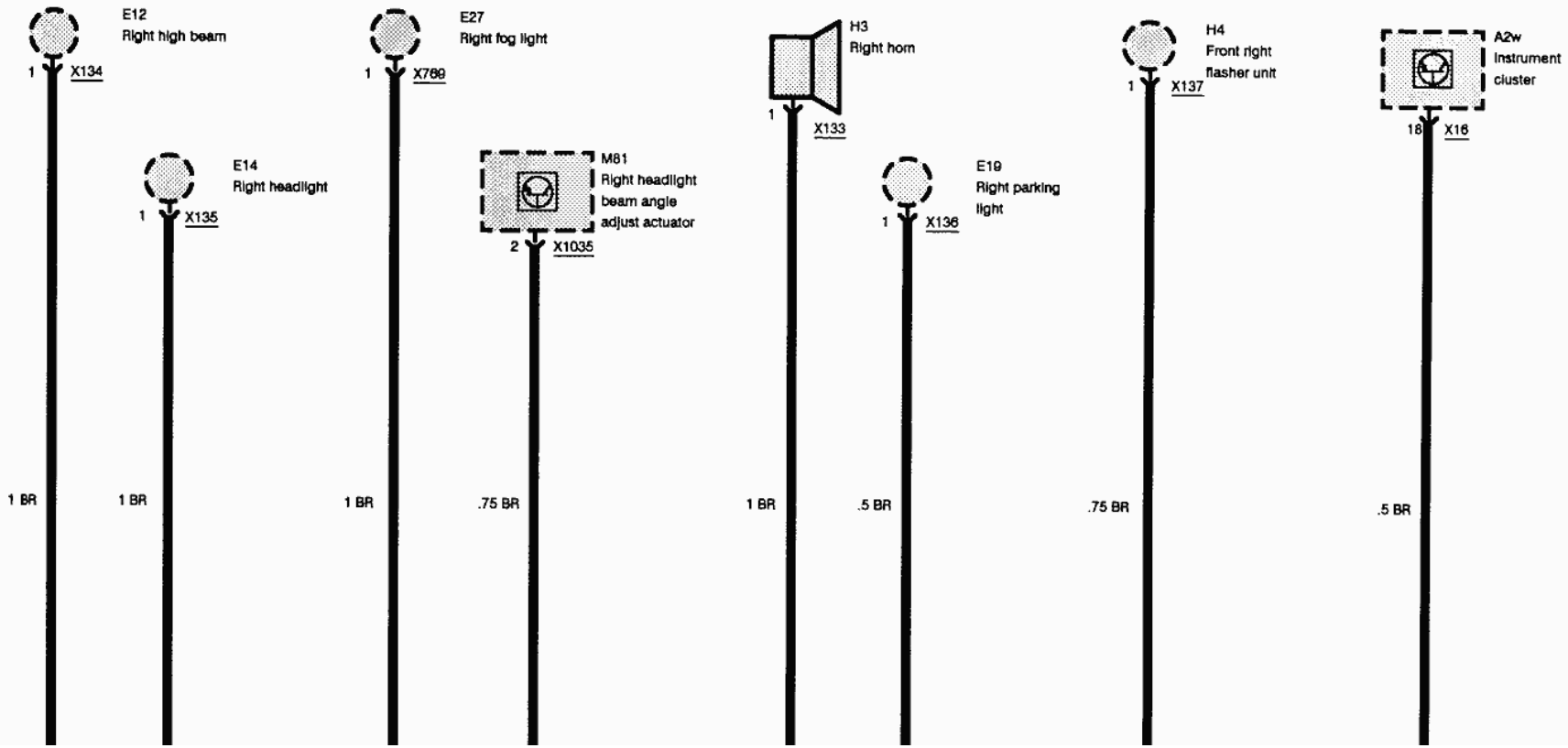


Ground distribution

Ground X179 and X250



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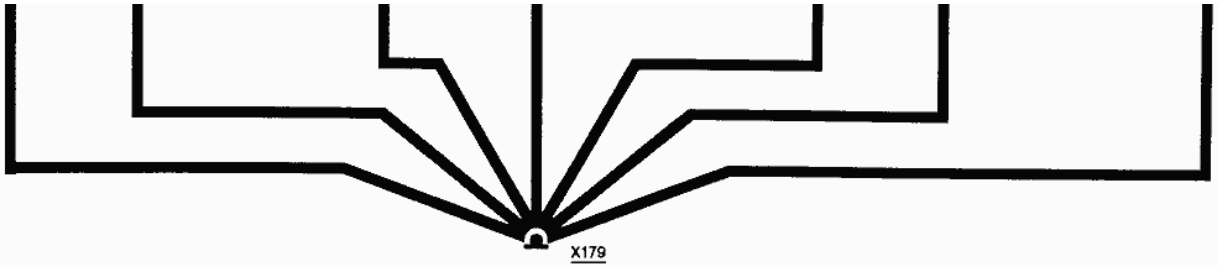

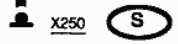

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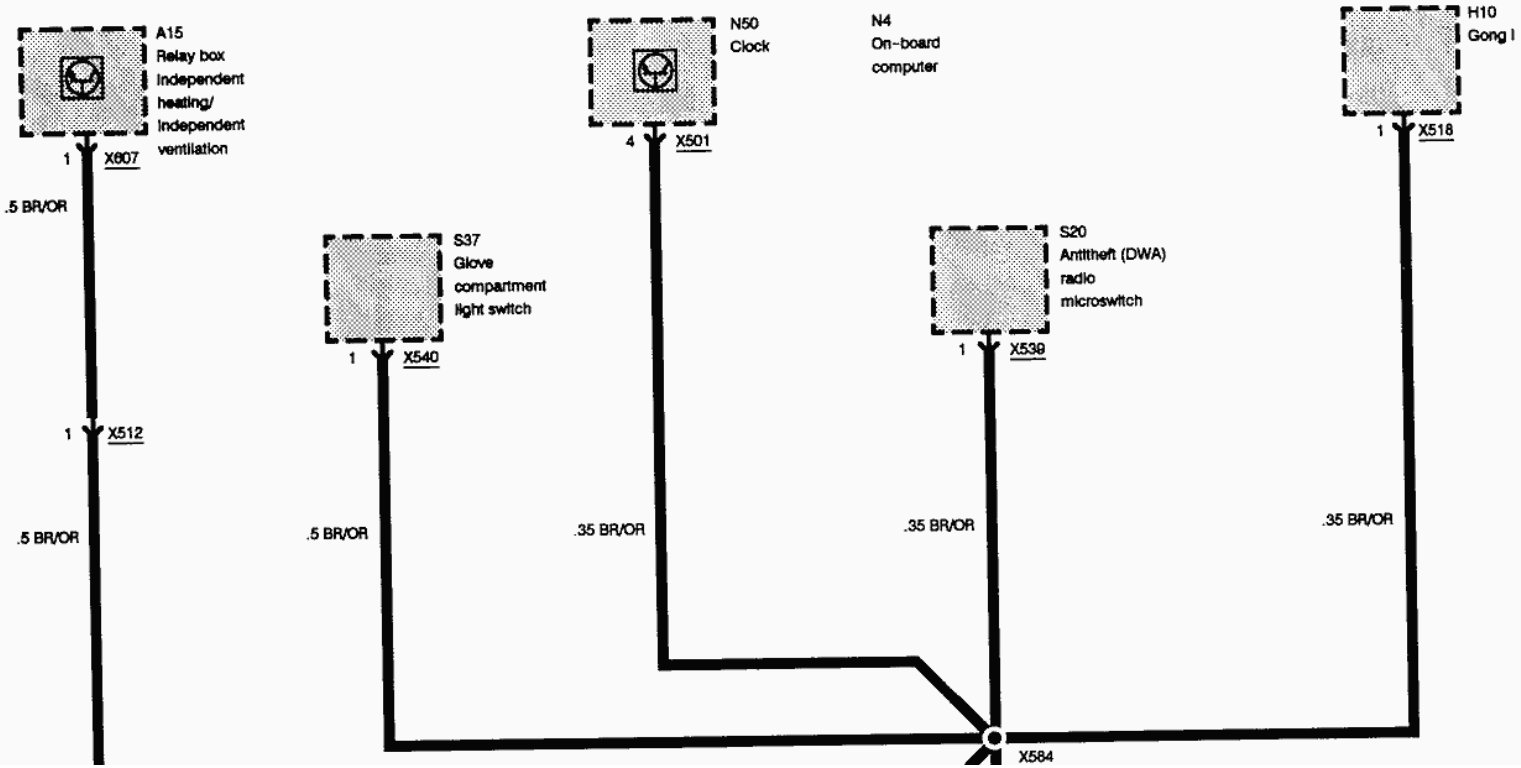
Ground distribution

Ground X490



0670.4-07

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BMW 5

Ground distribution

Ground X490

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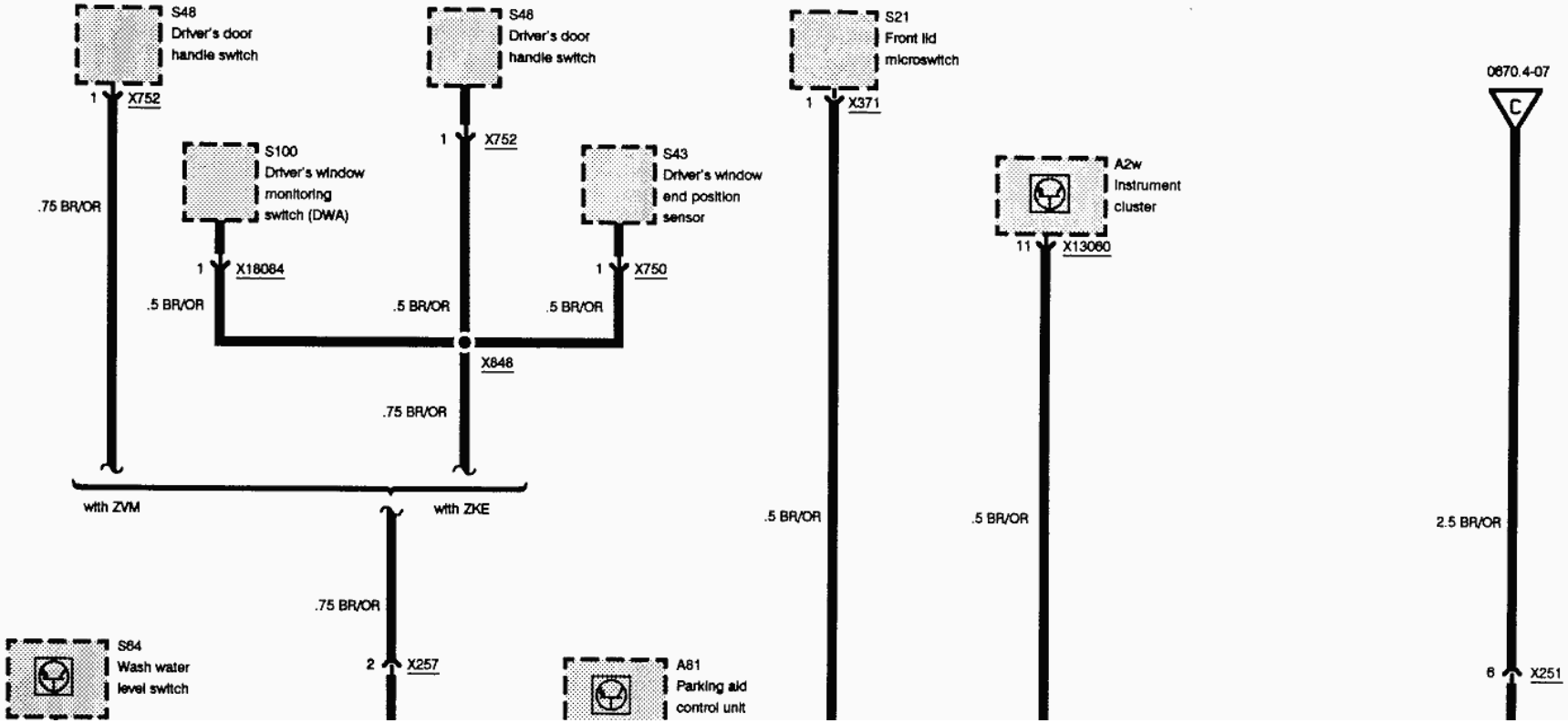
0670.4-08



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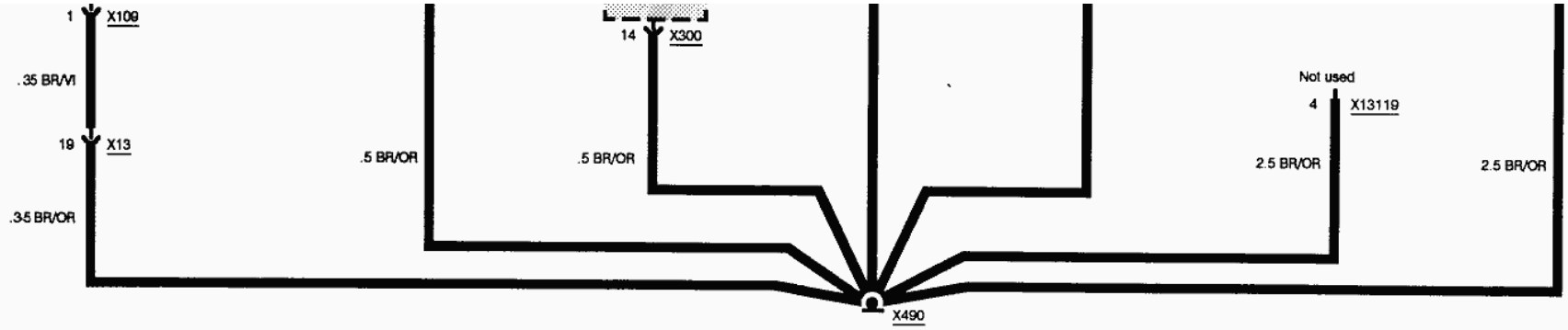

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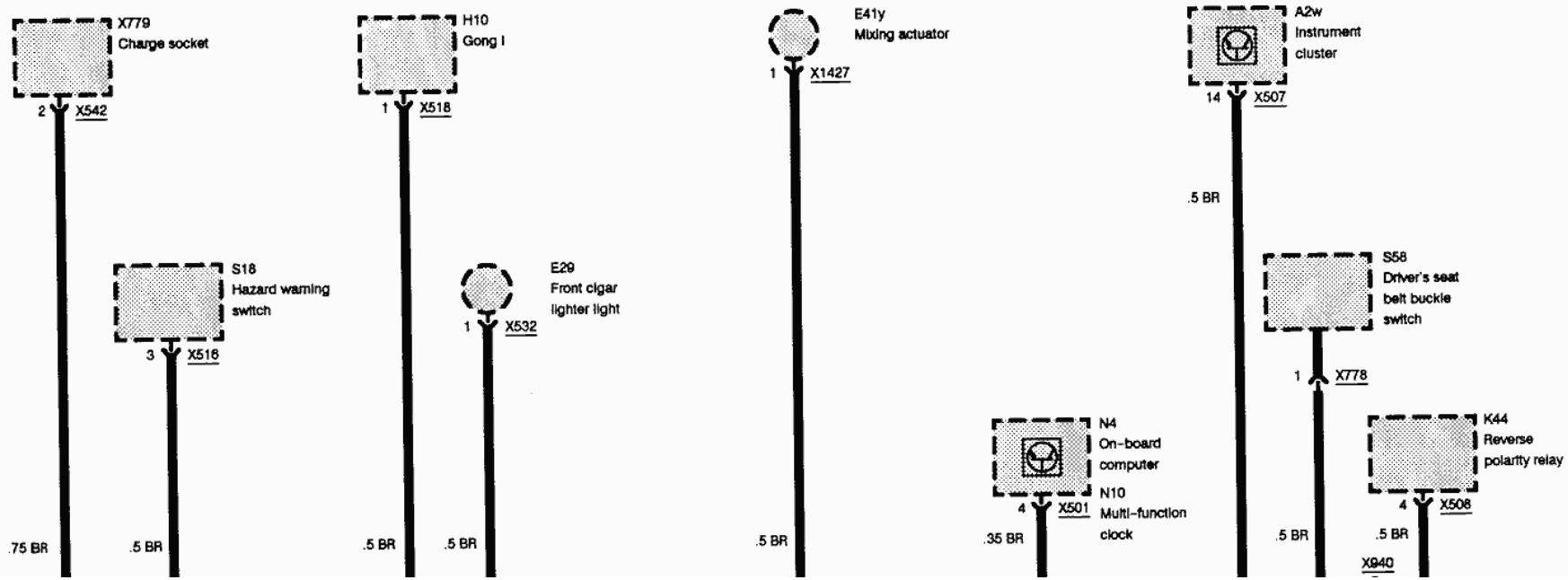
Ground distribution

Ground X491



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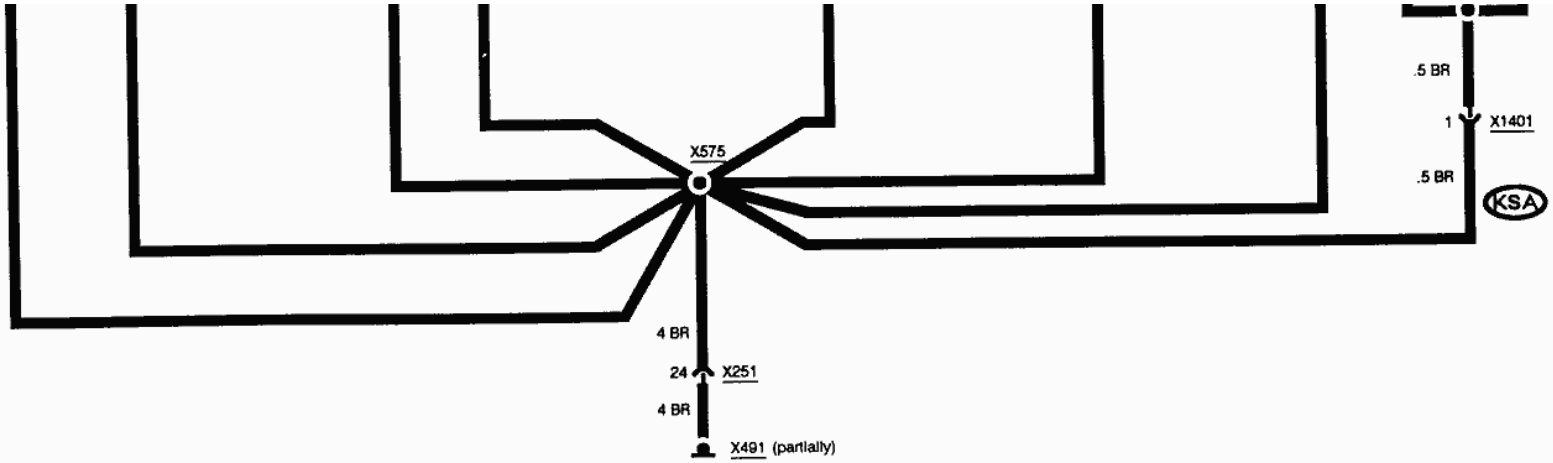

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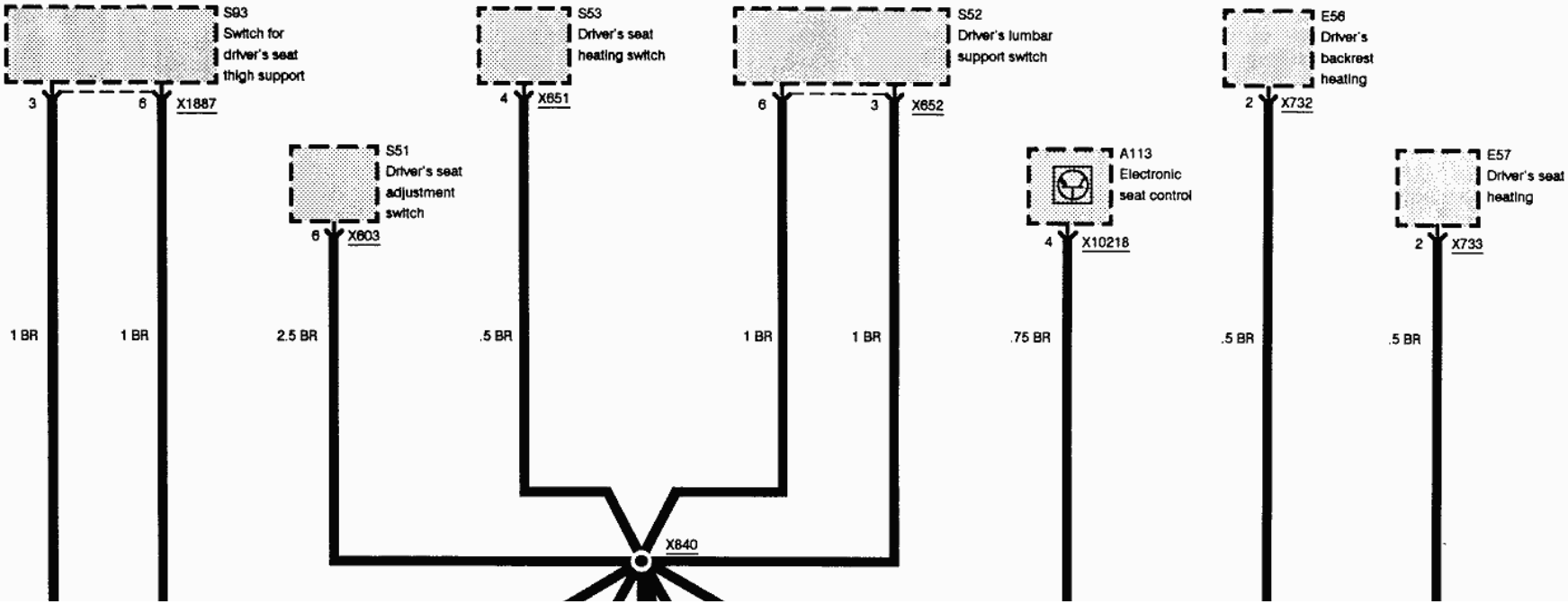
Ground distribution

Ground X491



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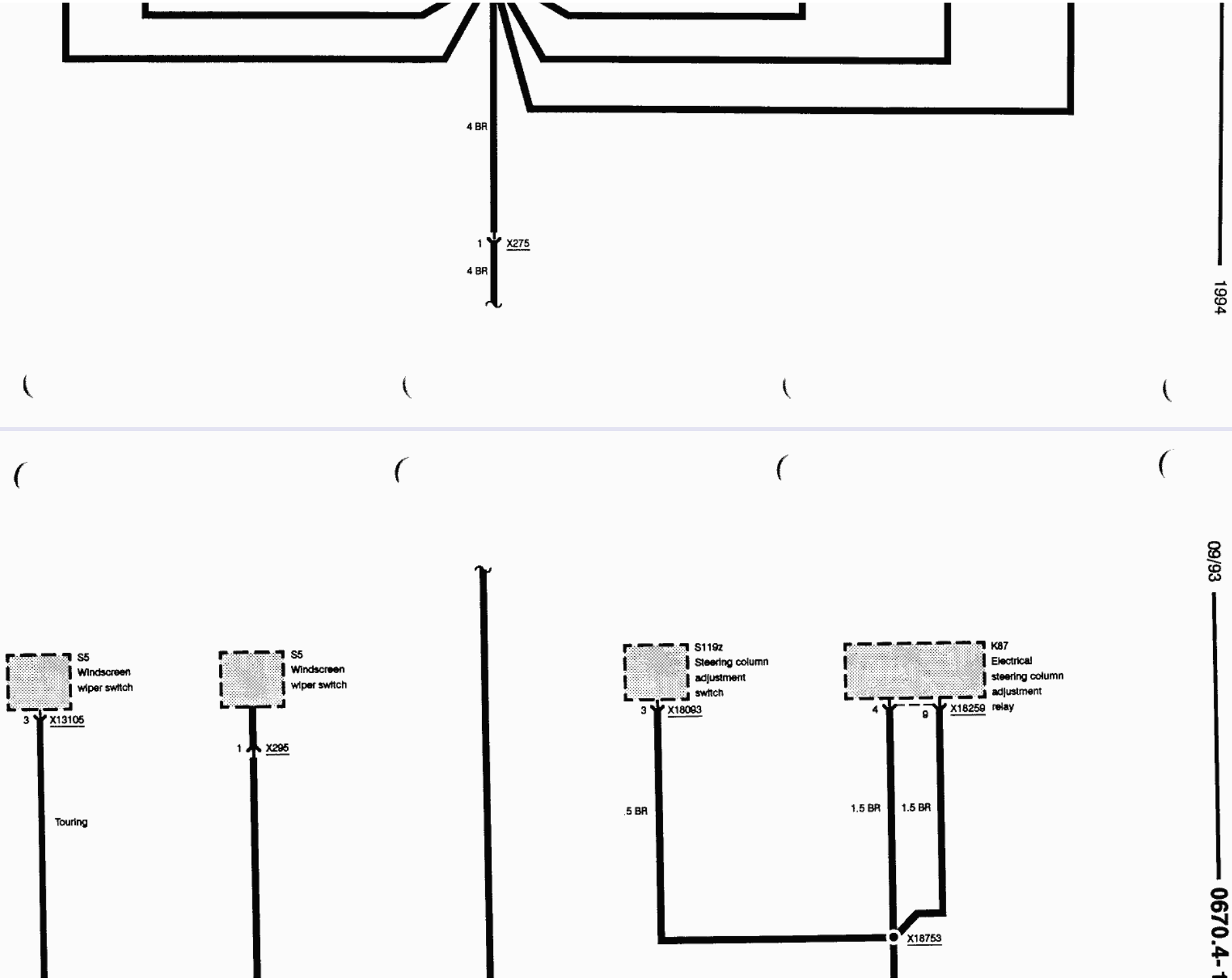

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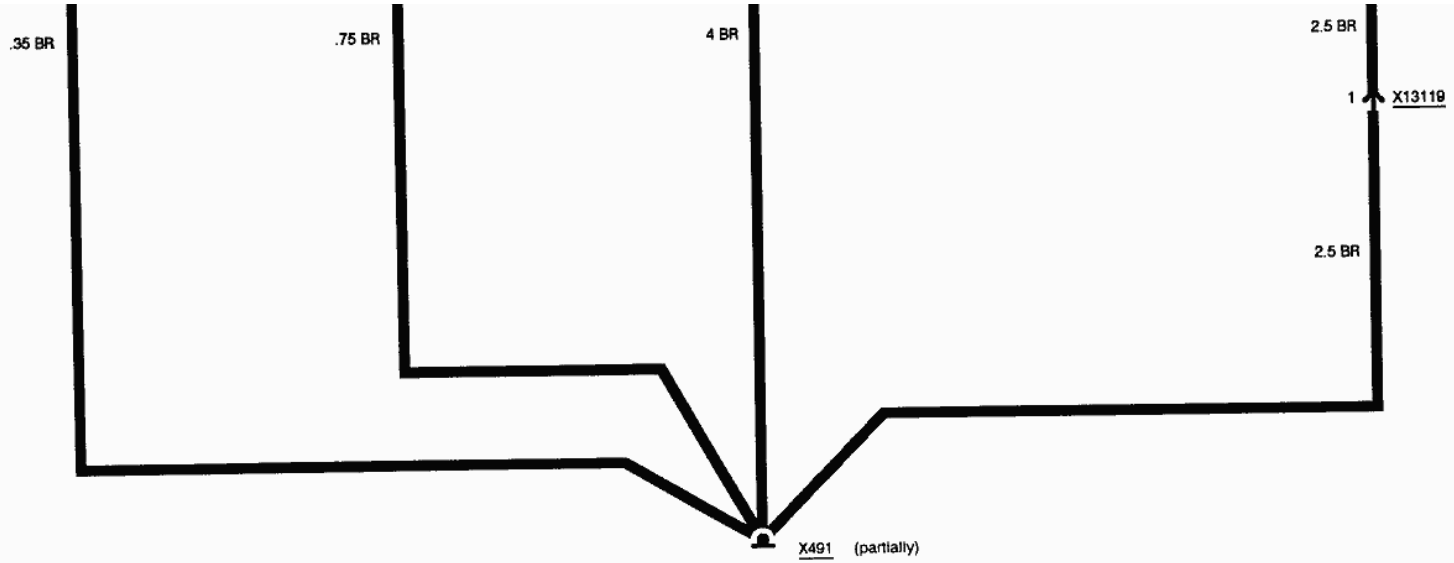

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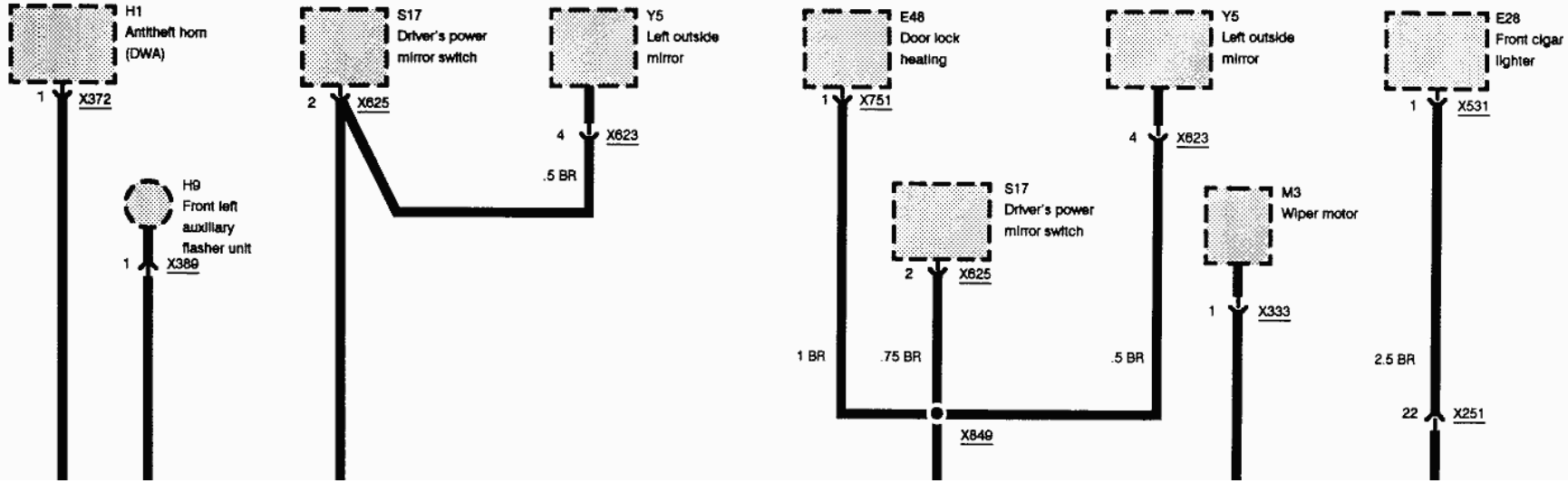
Ground distribution

Ground X491



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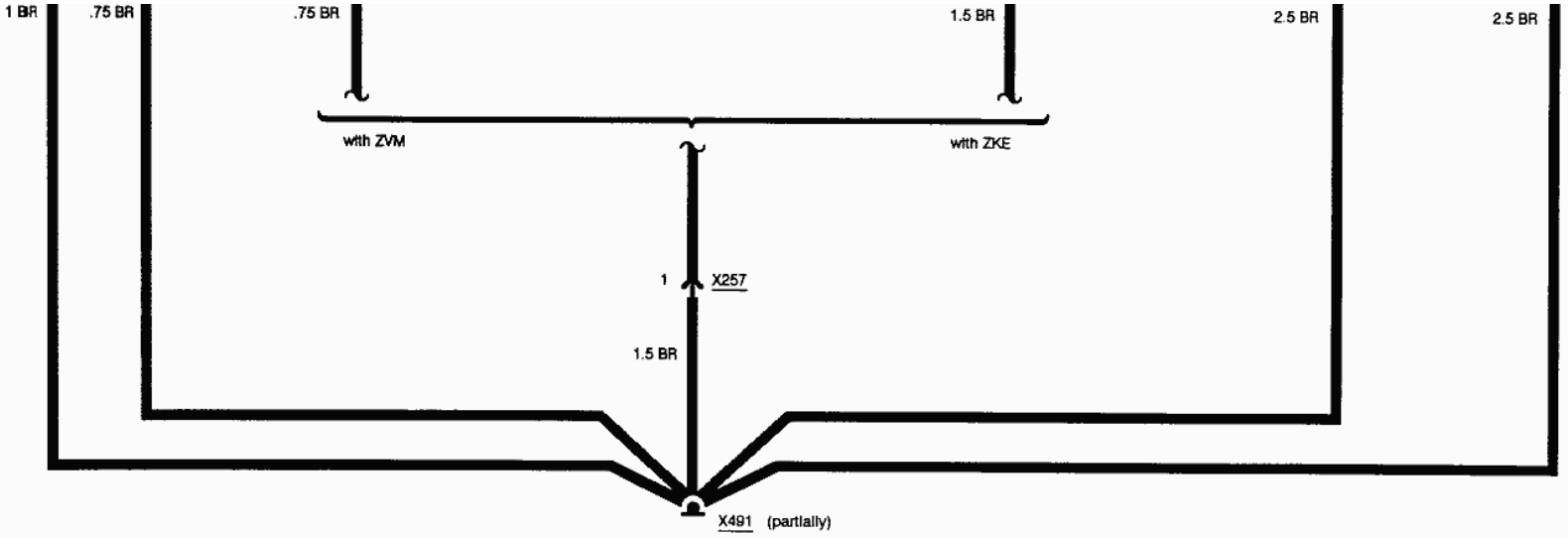
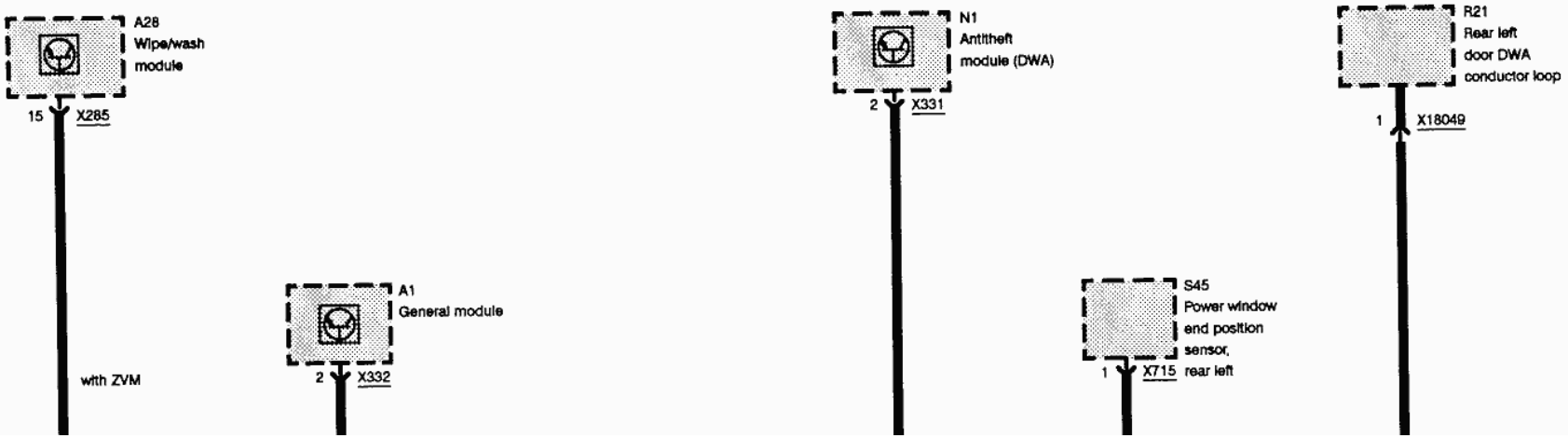


BMW 5

Ground distribution

Ground X492



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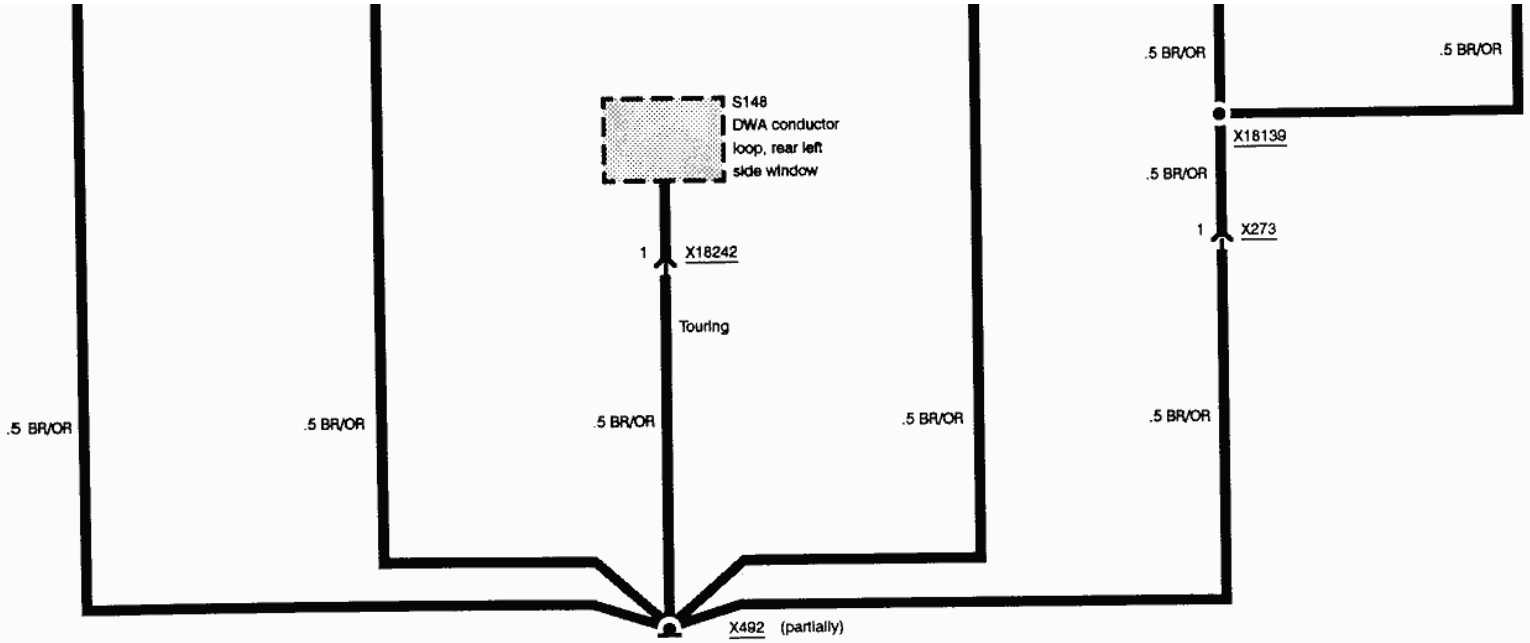

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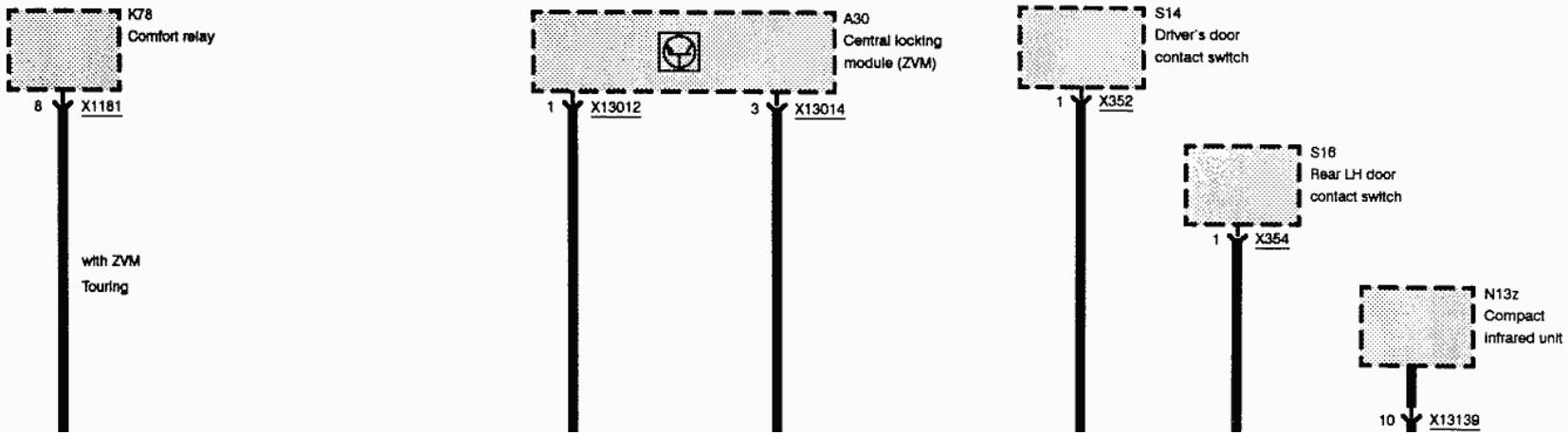
BMW 5

Ground distribution

Ground X492



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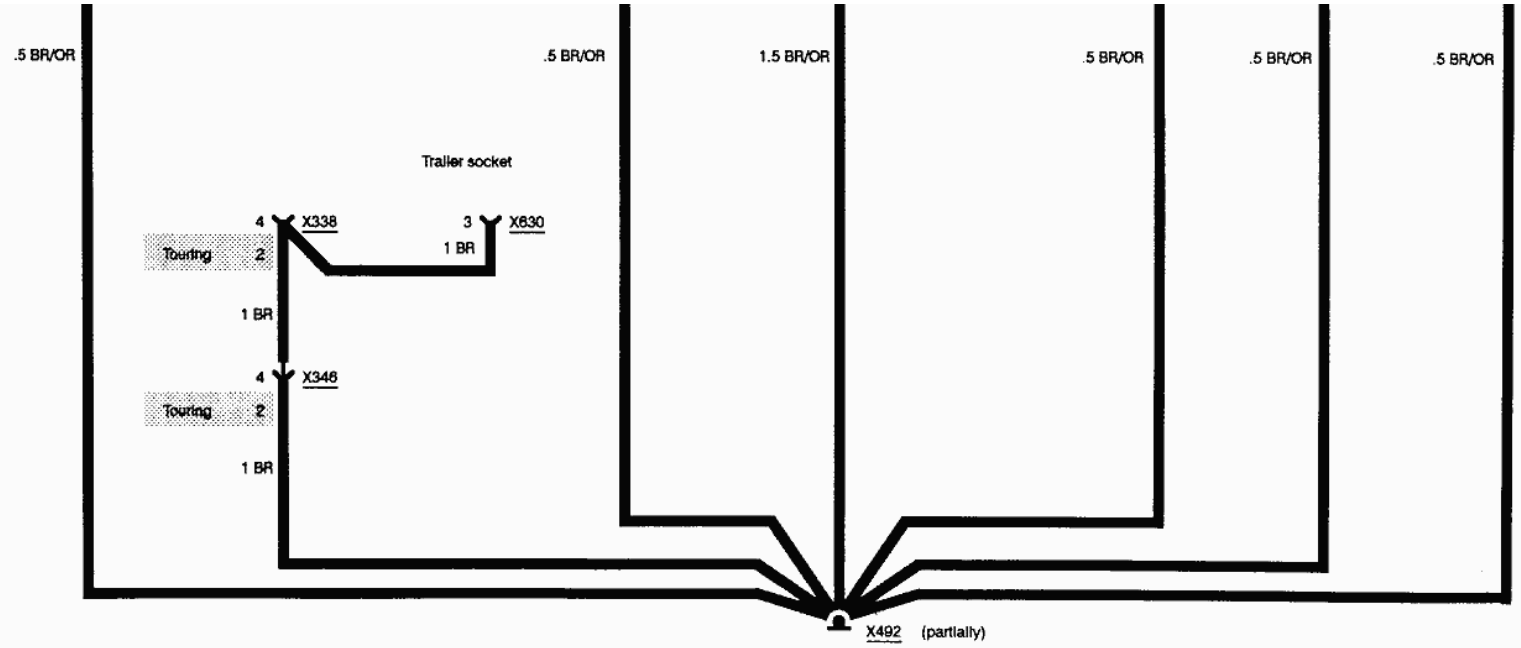
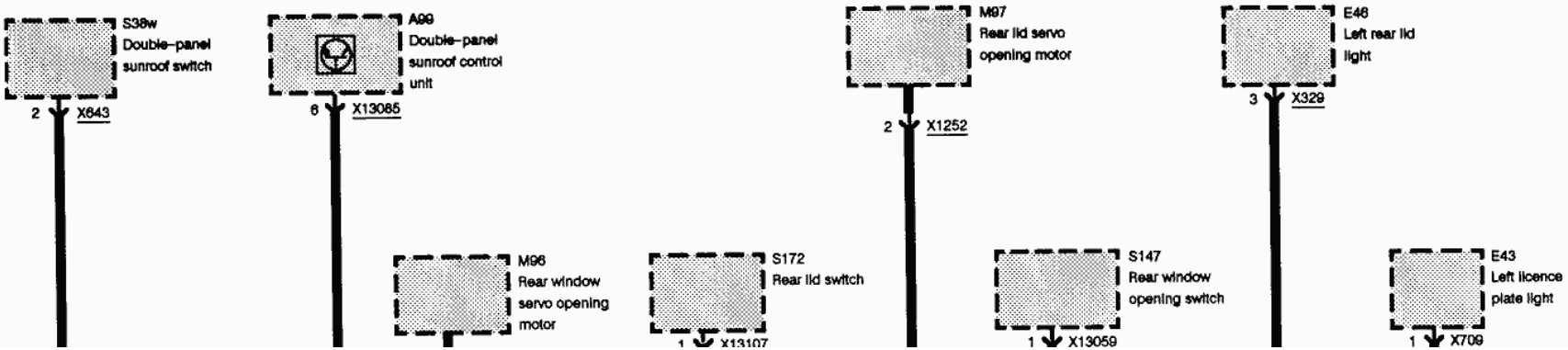


BMW 5

Ground distribution

Touring

Ground X493



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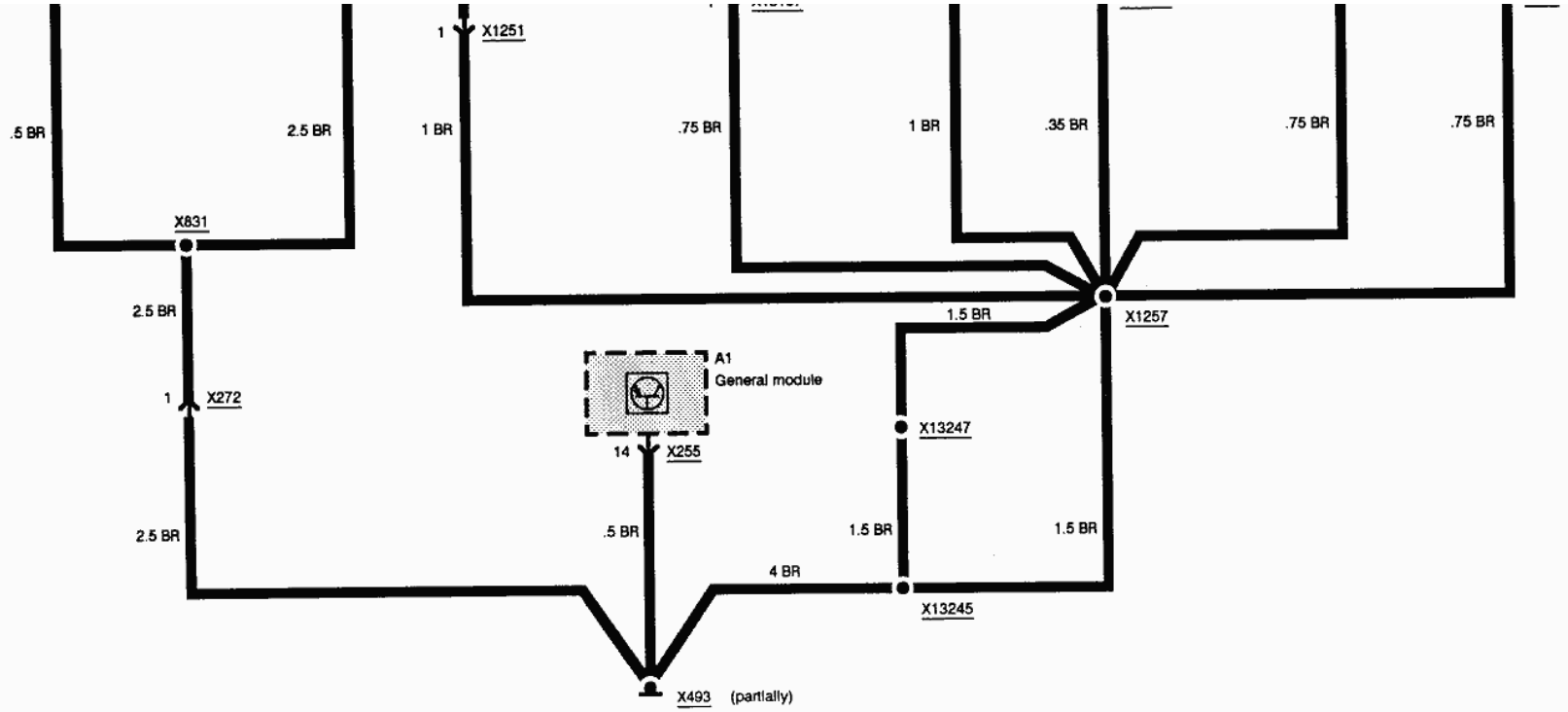


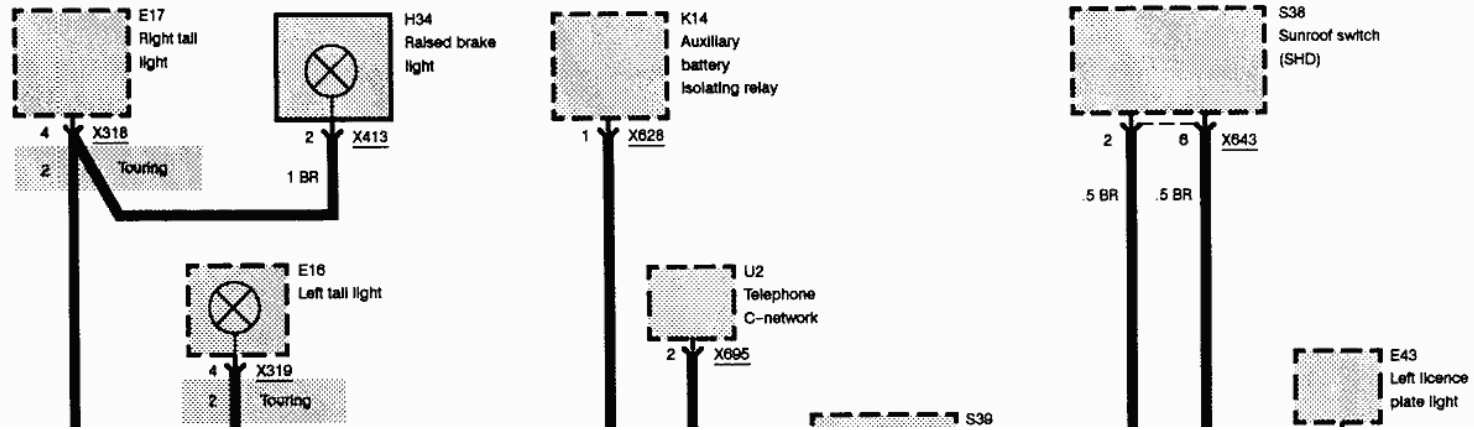
0670.4-15

1994

BMW 5

Ground distribution

Ground X493



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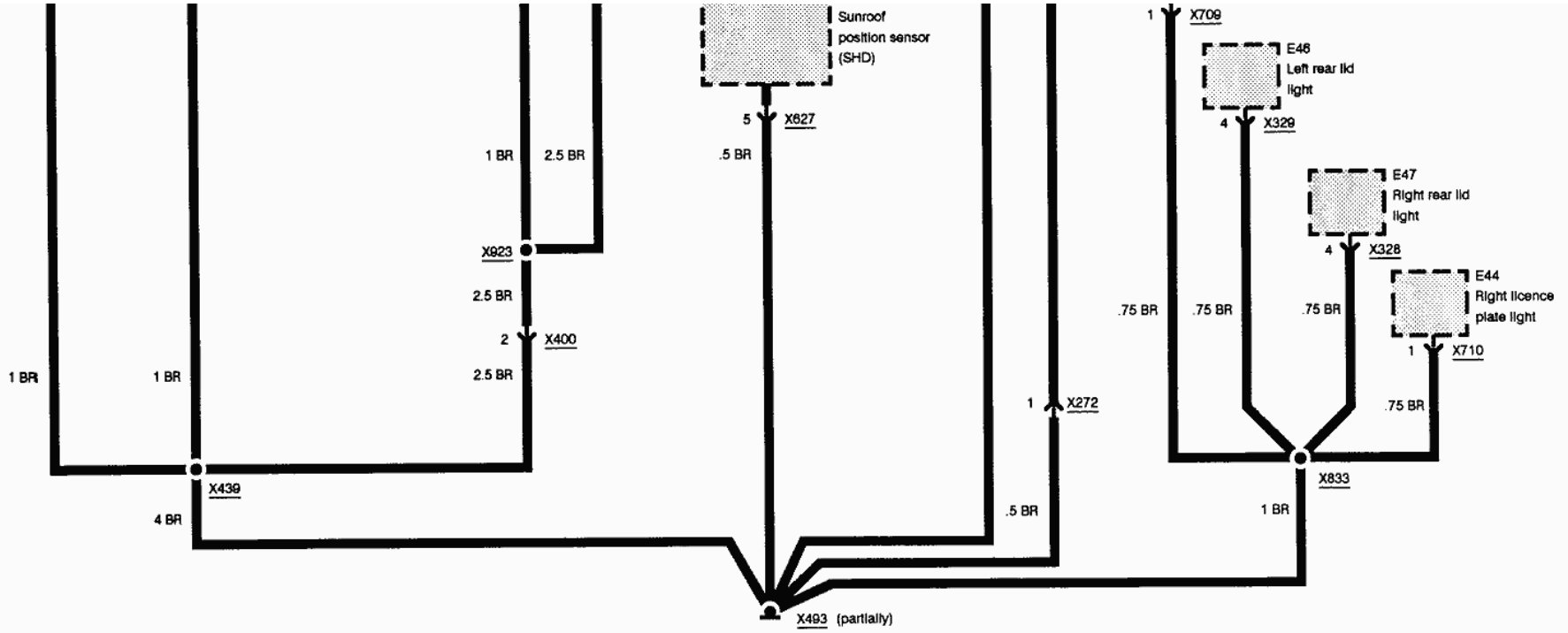

0670.4-16

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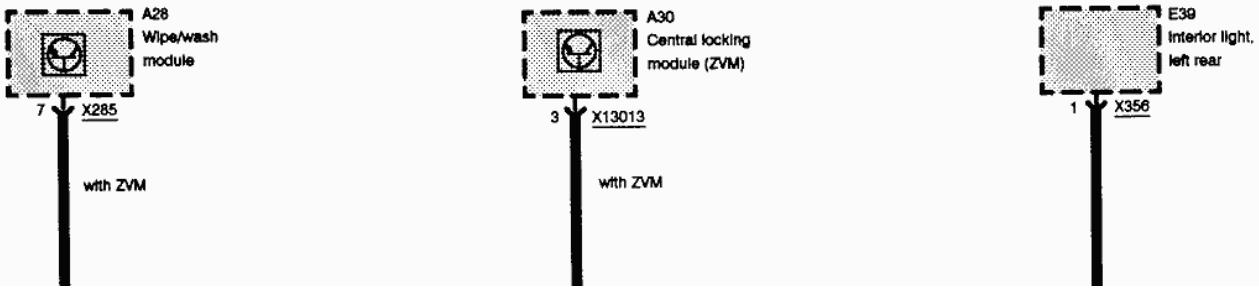
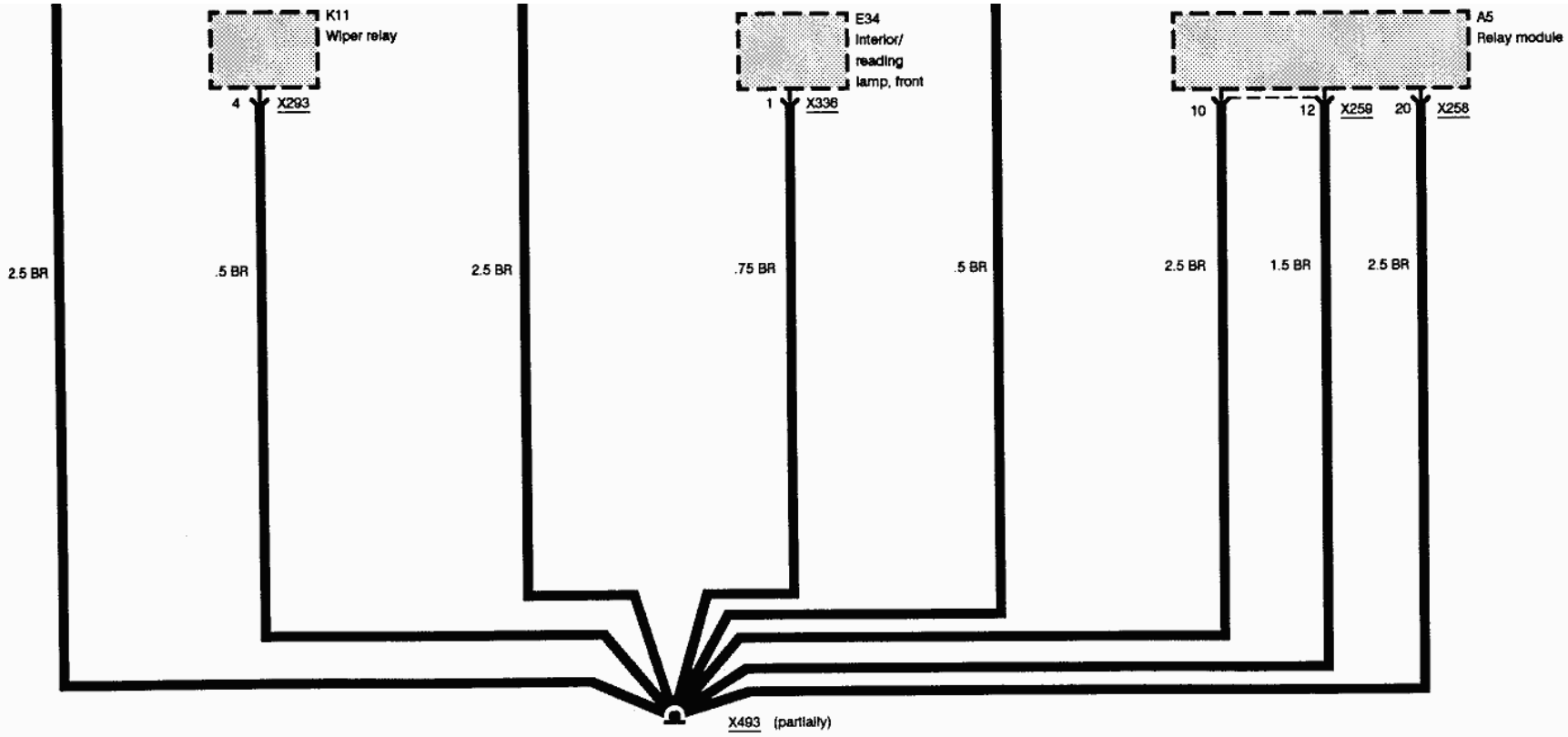
BMW 5

Ground distribution

Ground X493

09/93





0670.4-17

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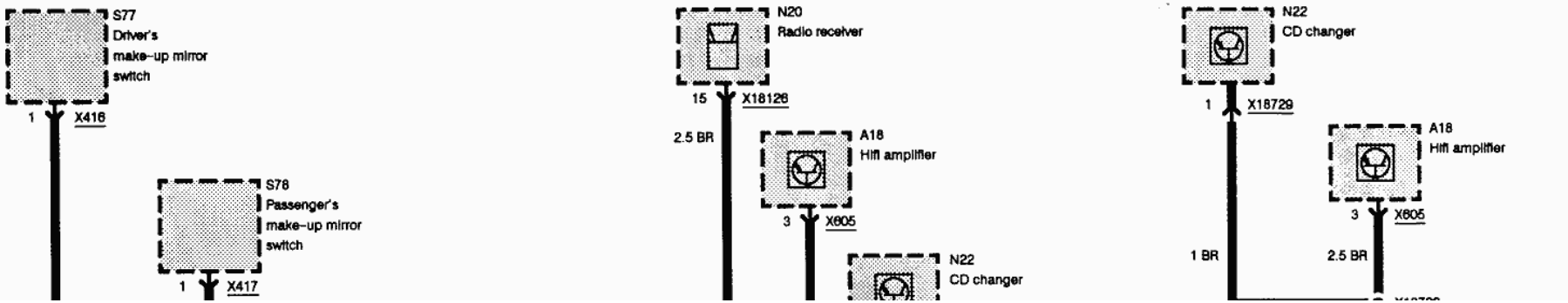
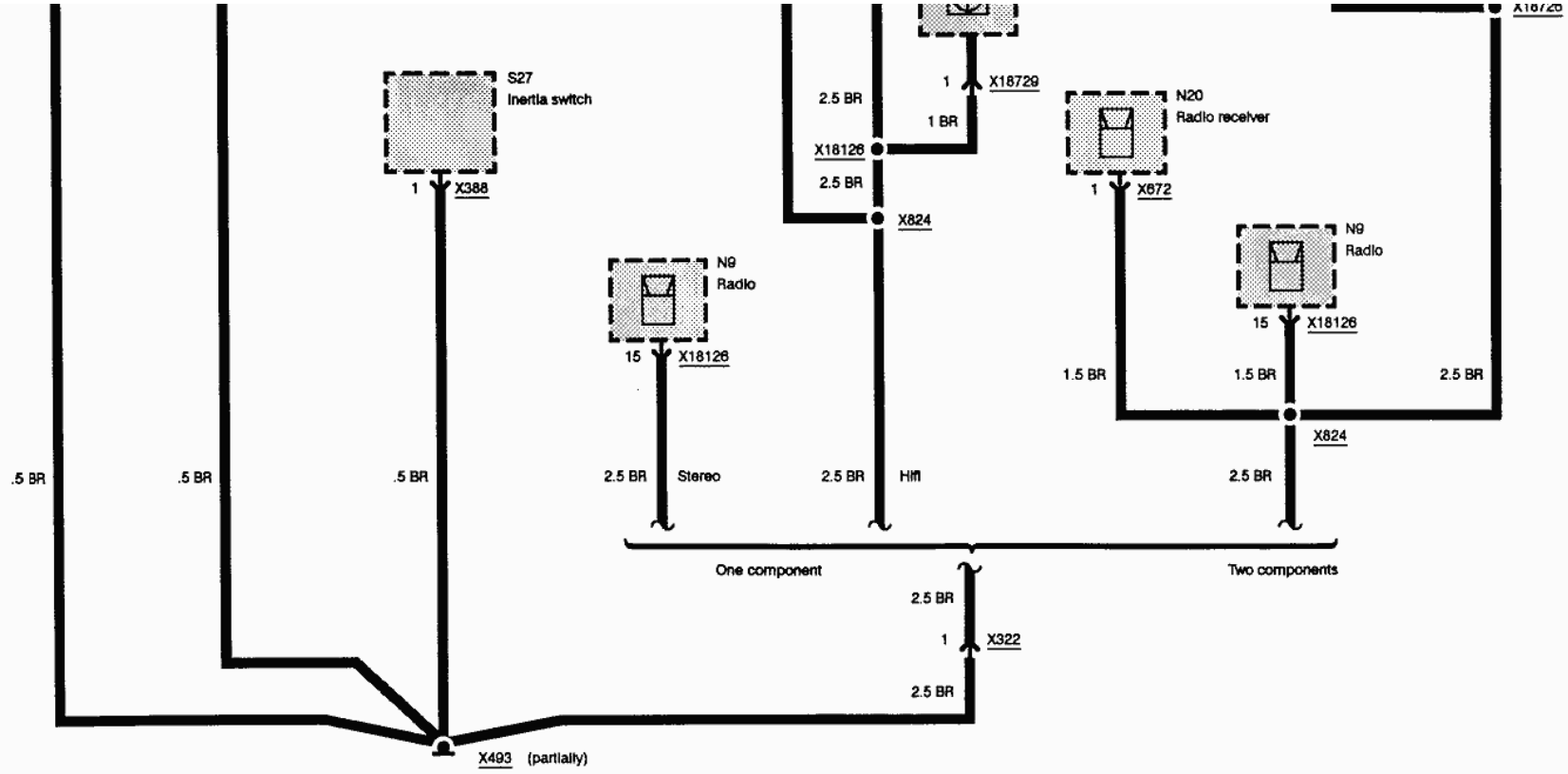
BMW 5

Ground distribution

Ground X493



09/93



0670.4-18

1994

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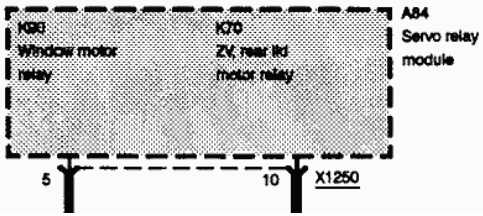
BMW 5

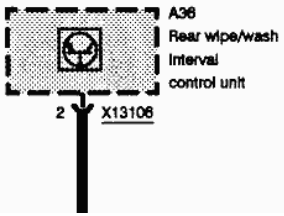
Ground distribution

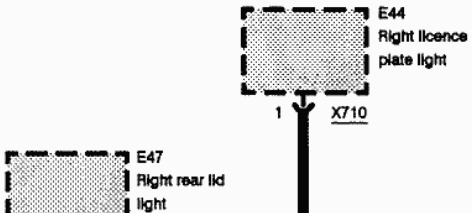
Ground X495

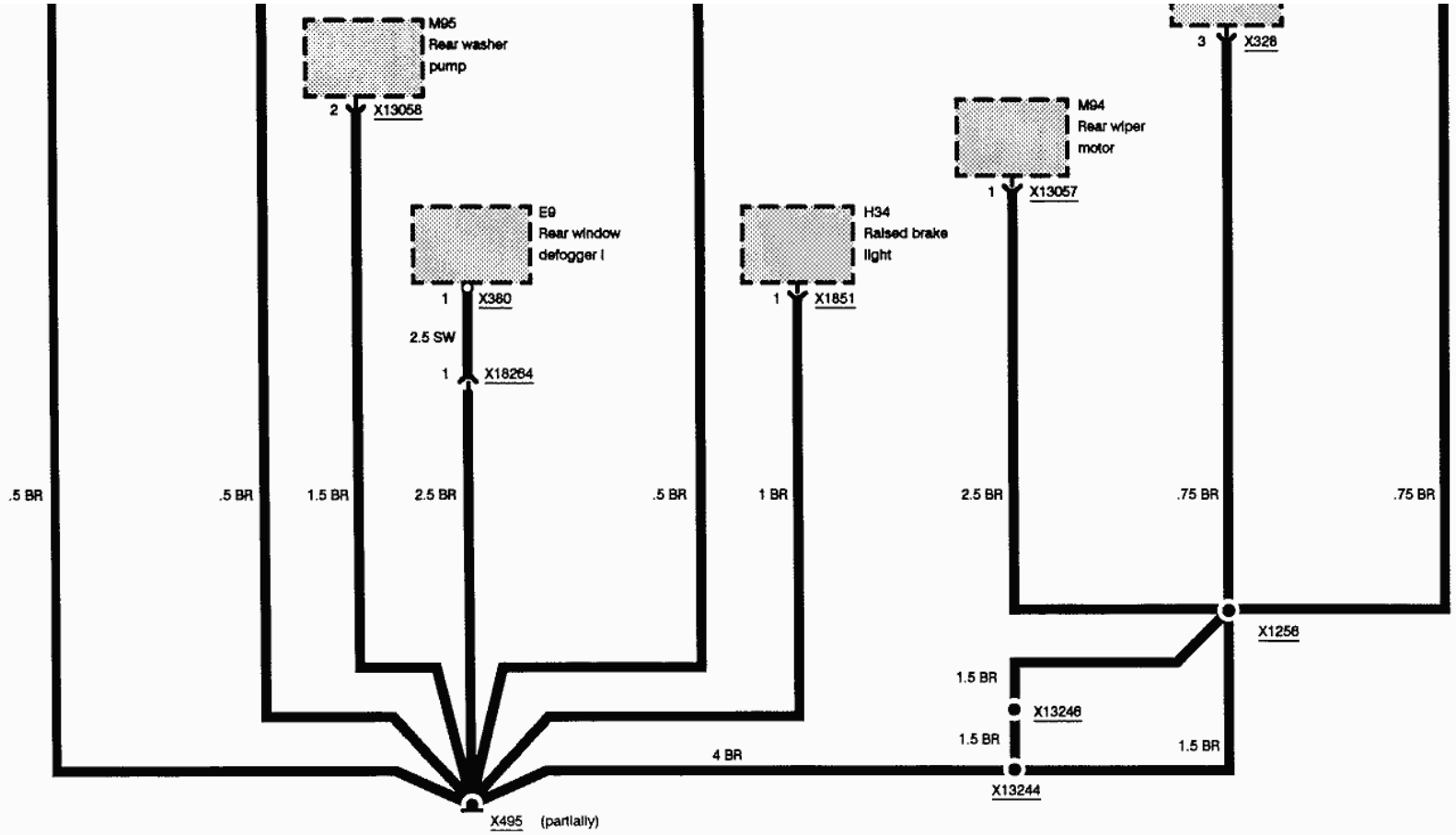
Touring

09/93









0670.4-19

1994

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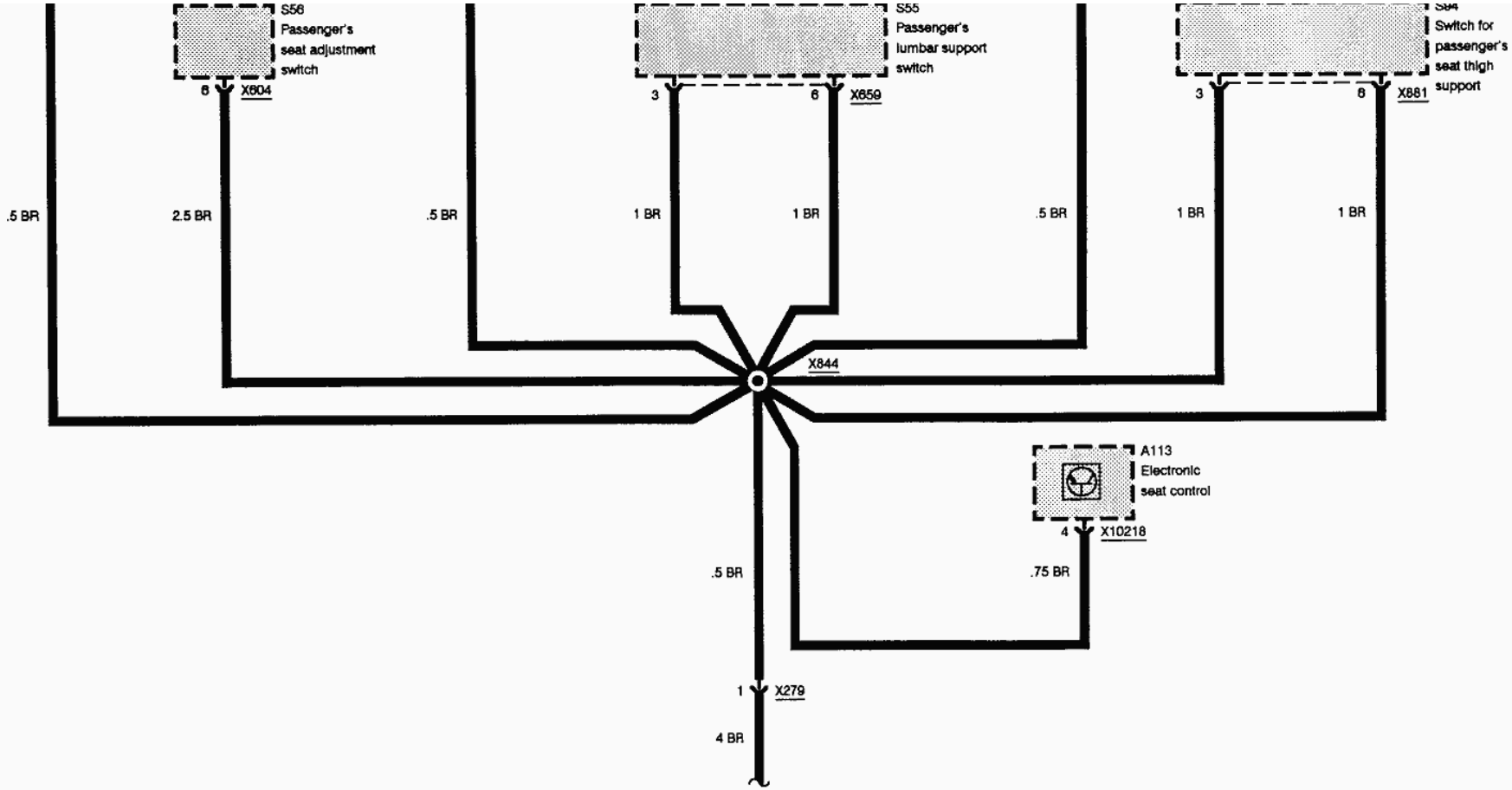
BMW 5

Ground distribution

Ground X495

09/93



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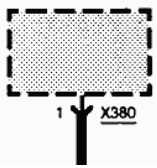

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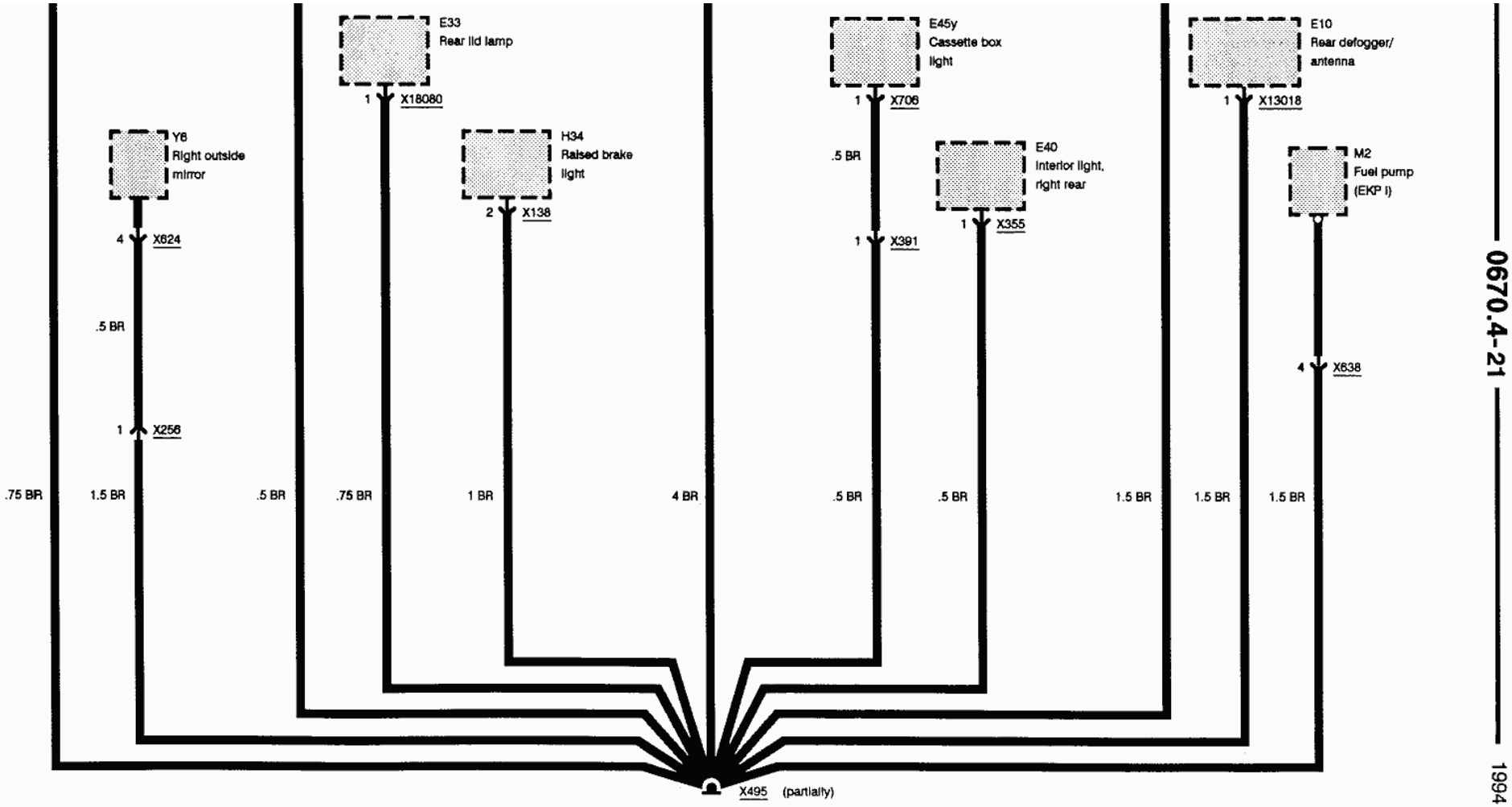

0670.4-21

1994

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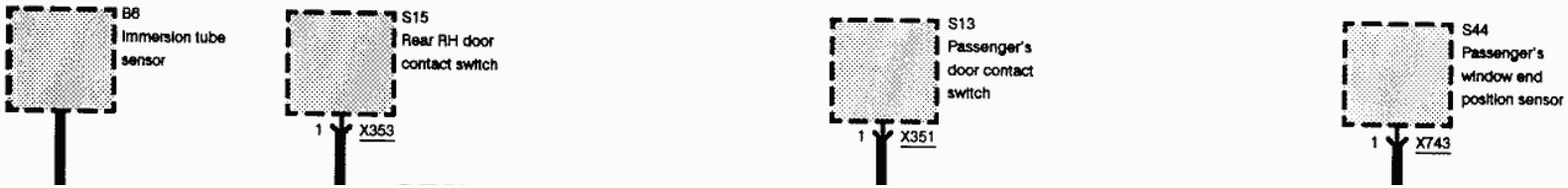
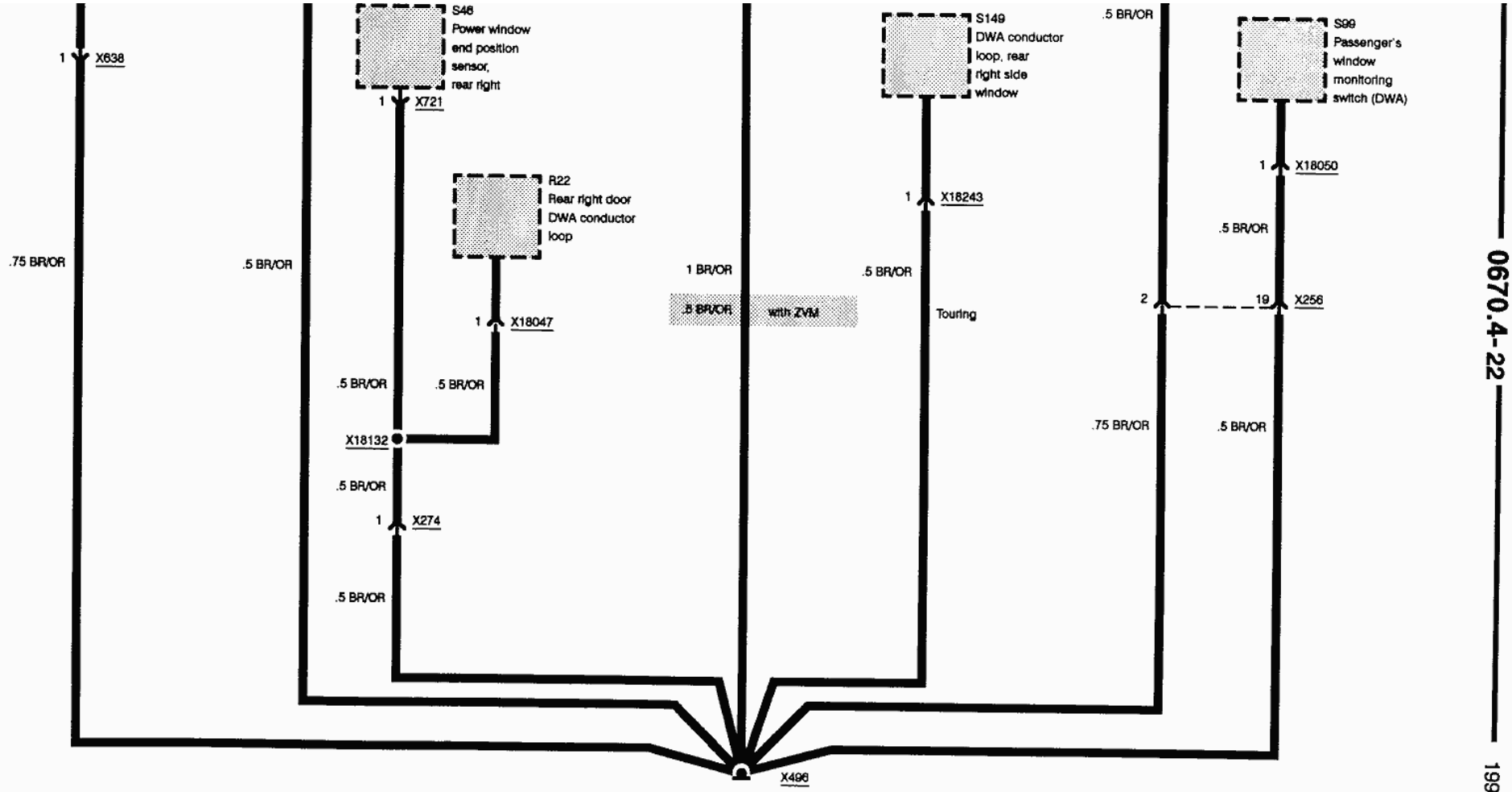
BMW 5

Ground distribution

Ground X496



09/93



0670.4-22

1994

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Ground distribution

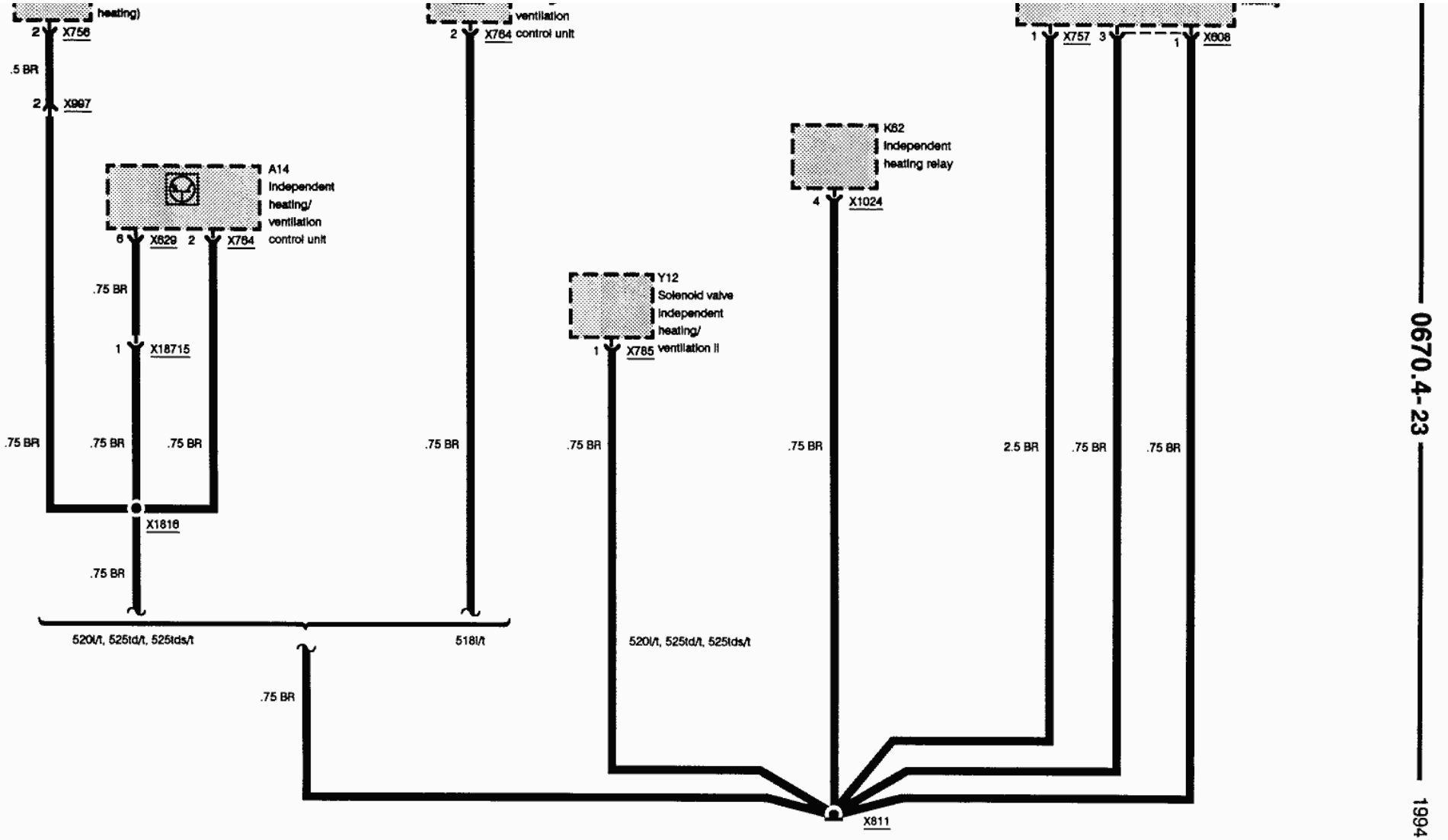
Ground X811

Y7
Metering pump
(independent

A14
Independent
heating/

E50
Independent
heating

09/93



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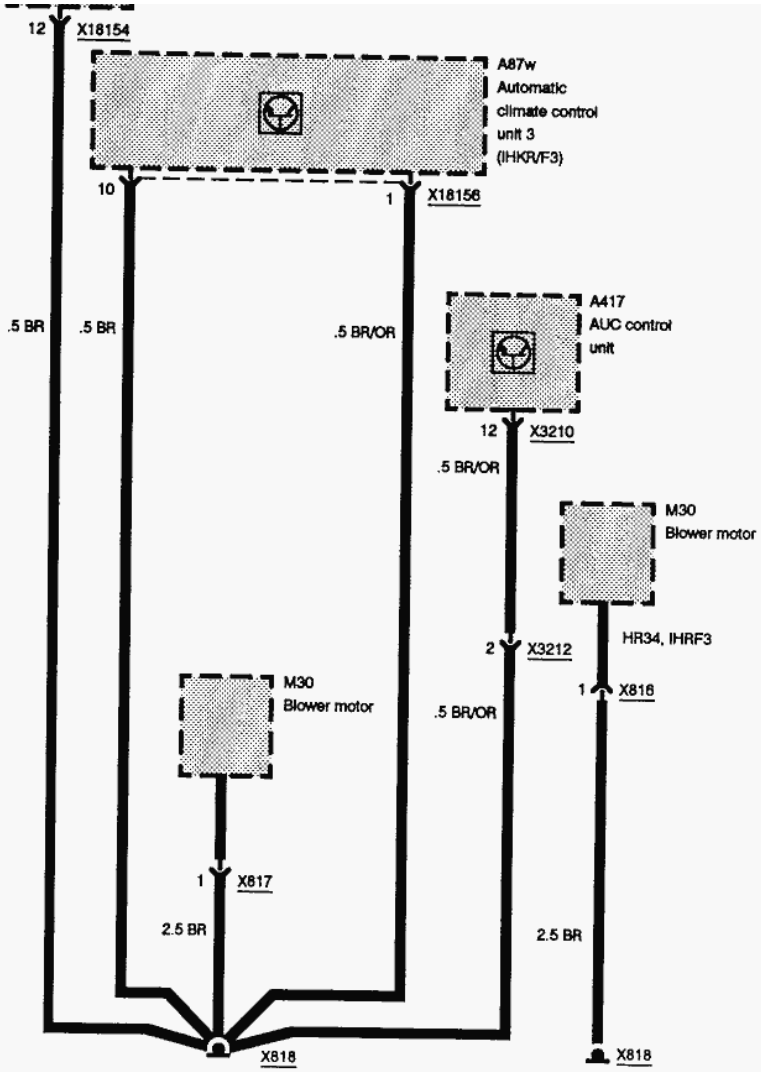
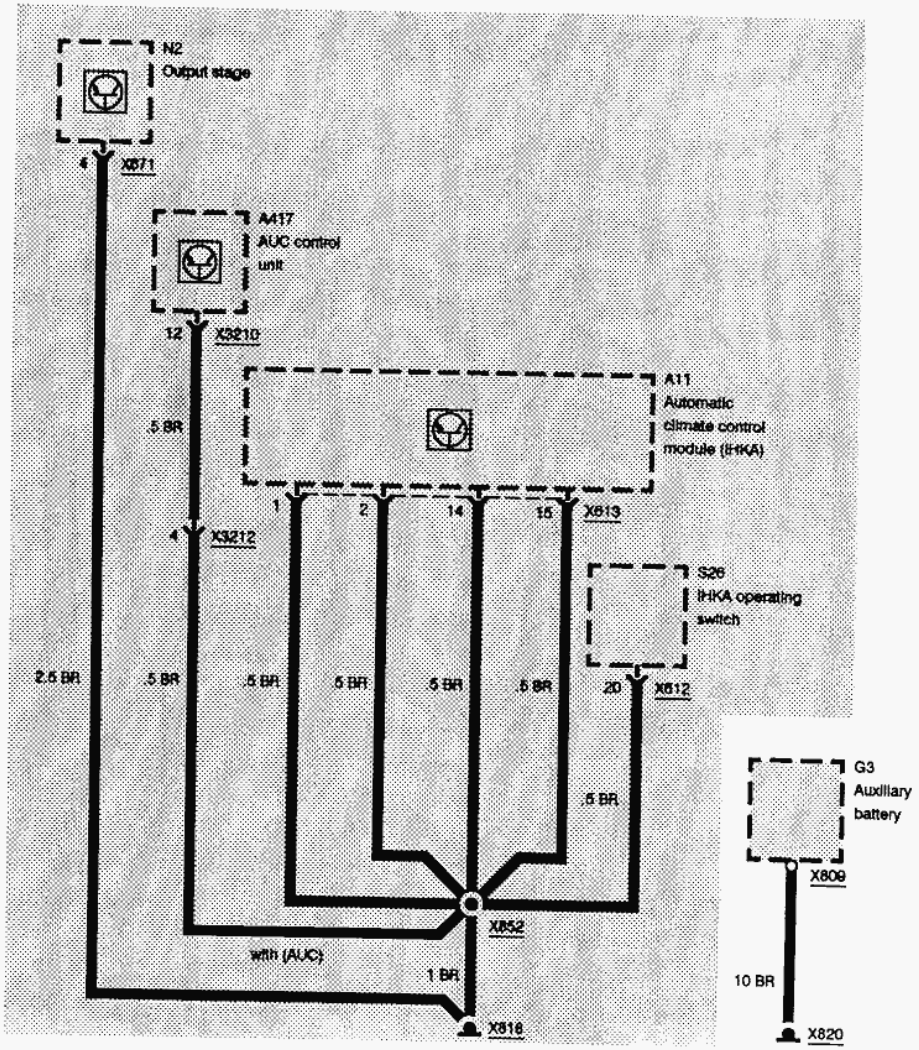
BMW 5

Ground distribution

Ground X818 and X820

09/93





0670.4-24

1994

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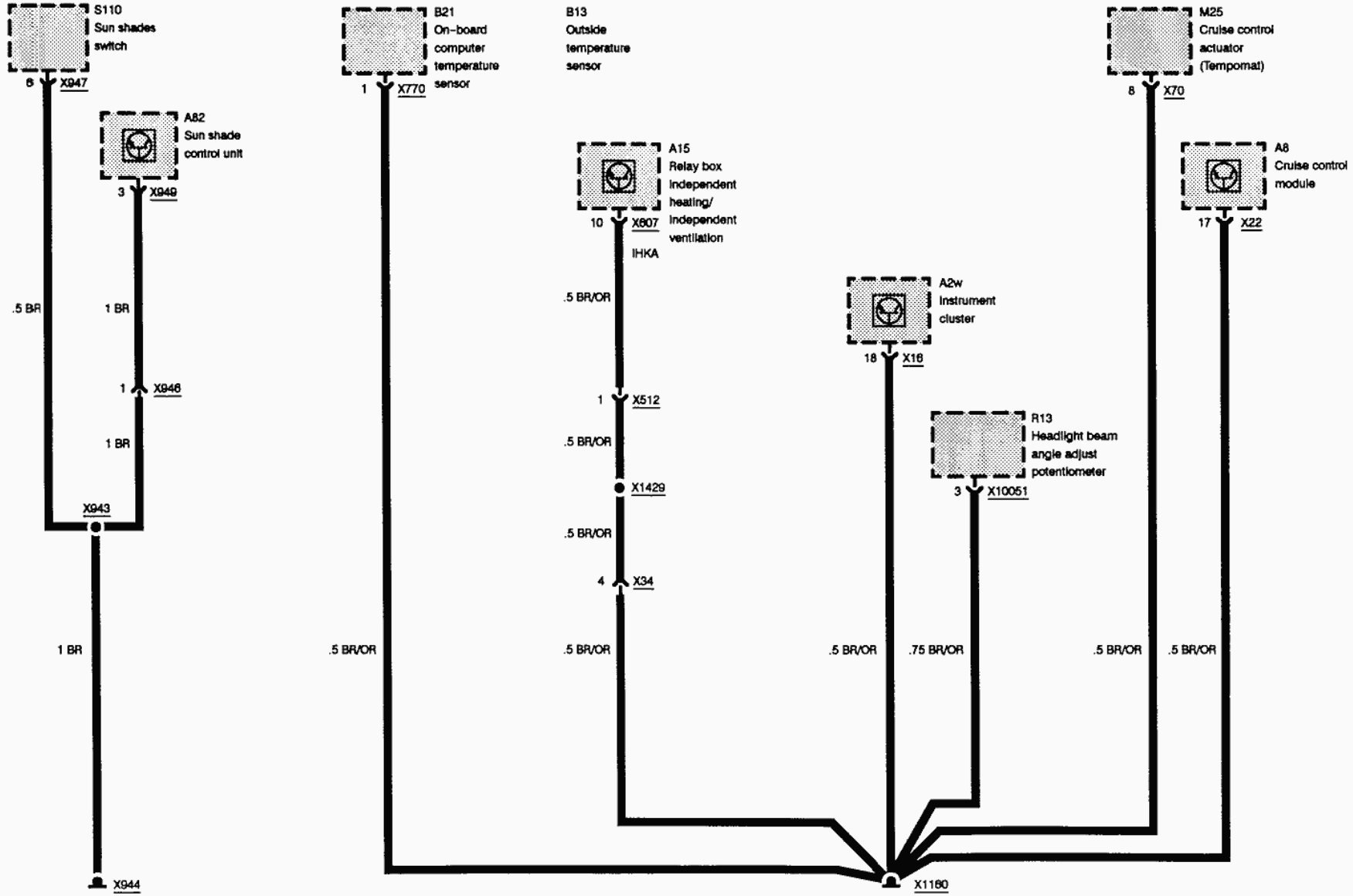
BMW 5

Ground distribution

Ground X944 and X1160

09/9



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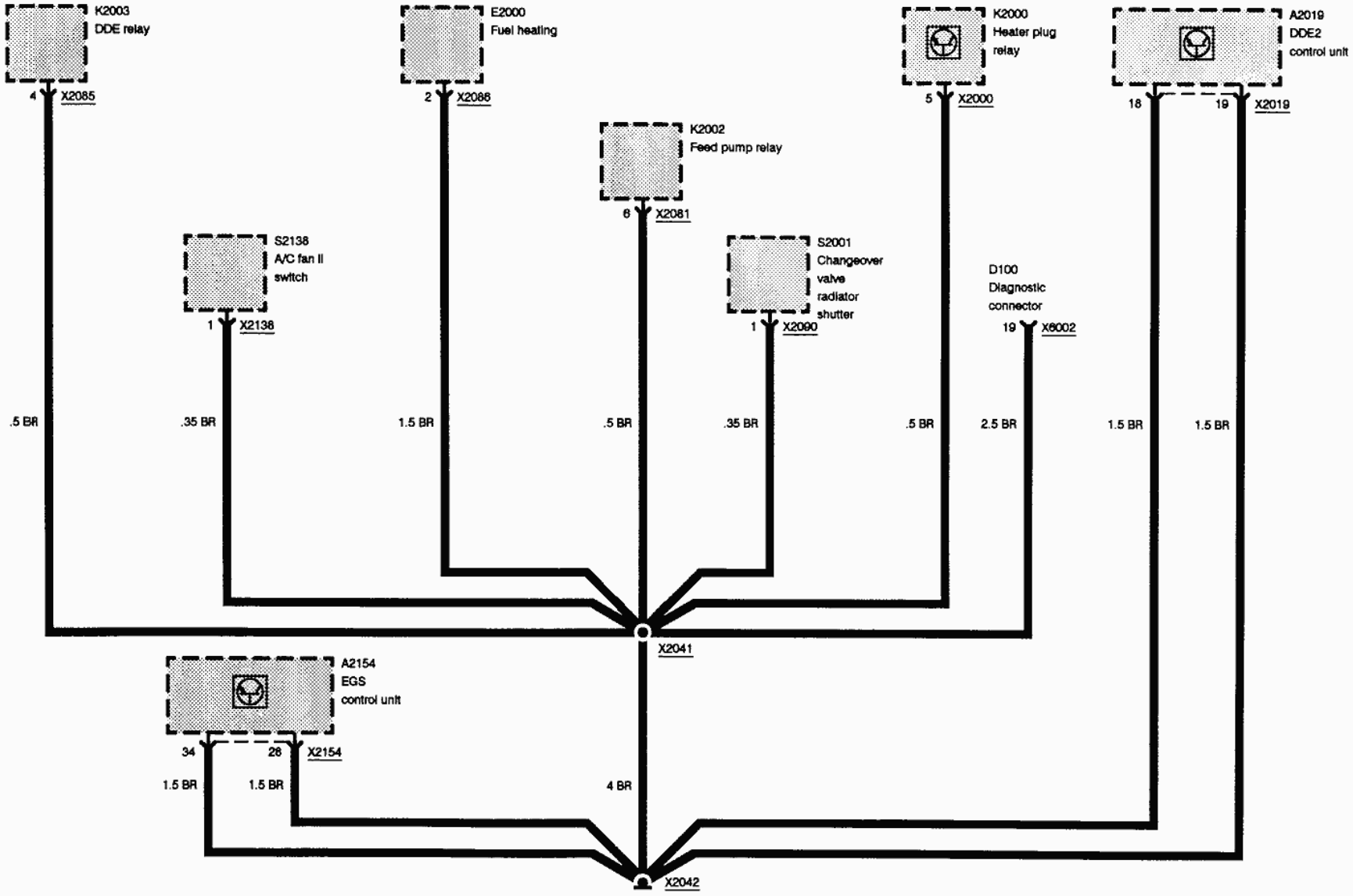
BMW 5

Ground distribution

Ground X2042

525td/t, 525tds/t



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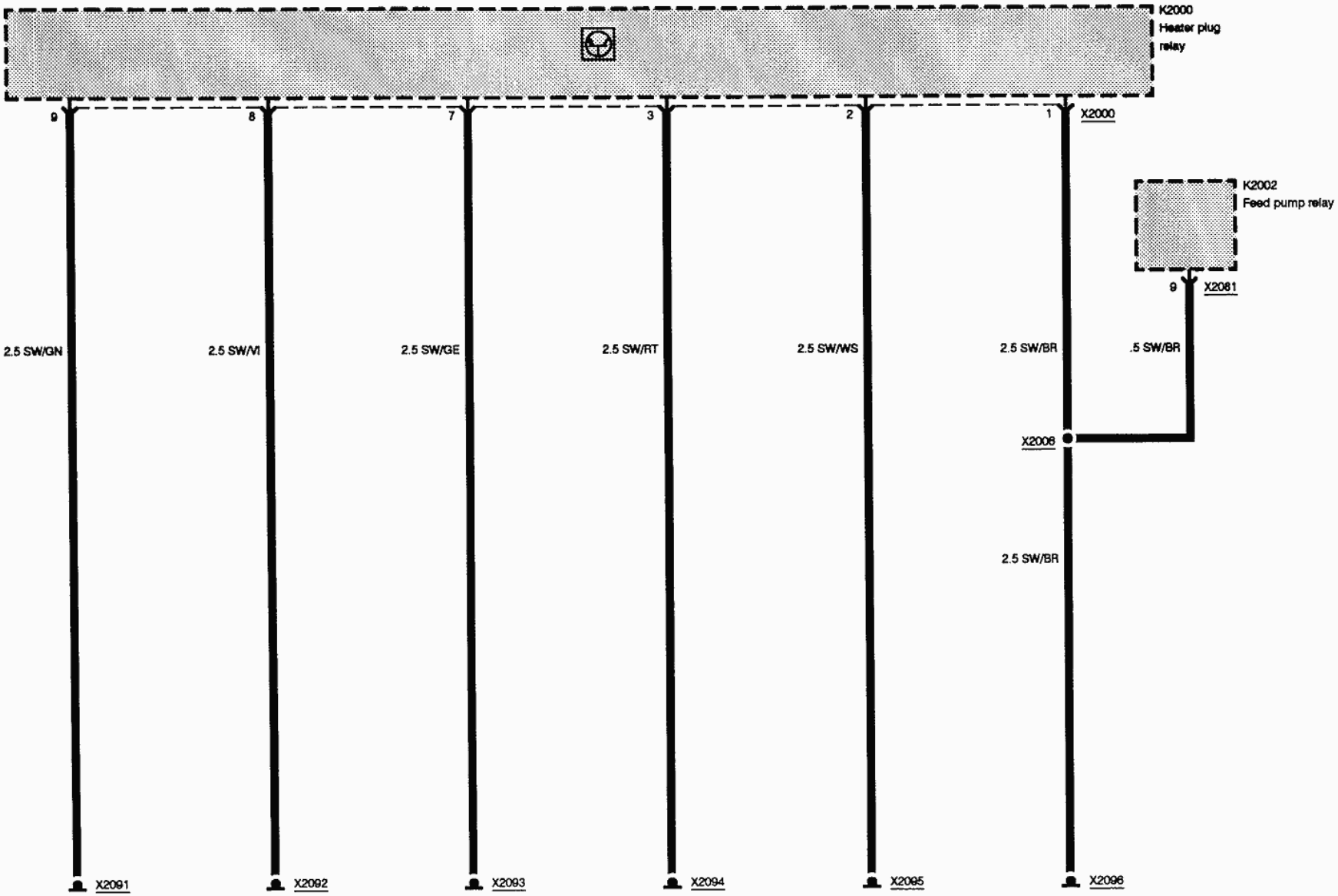
Ground distribution

525tds/t

Ground X2091, X2092, X2093, X2094, X2095 and X2096



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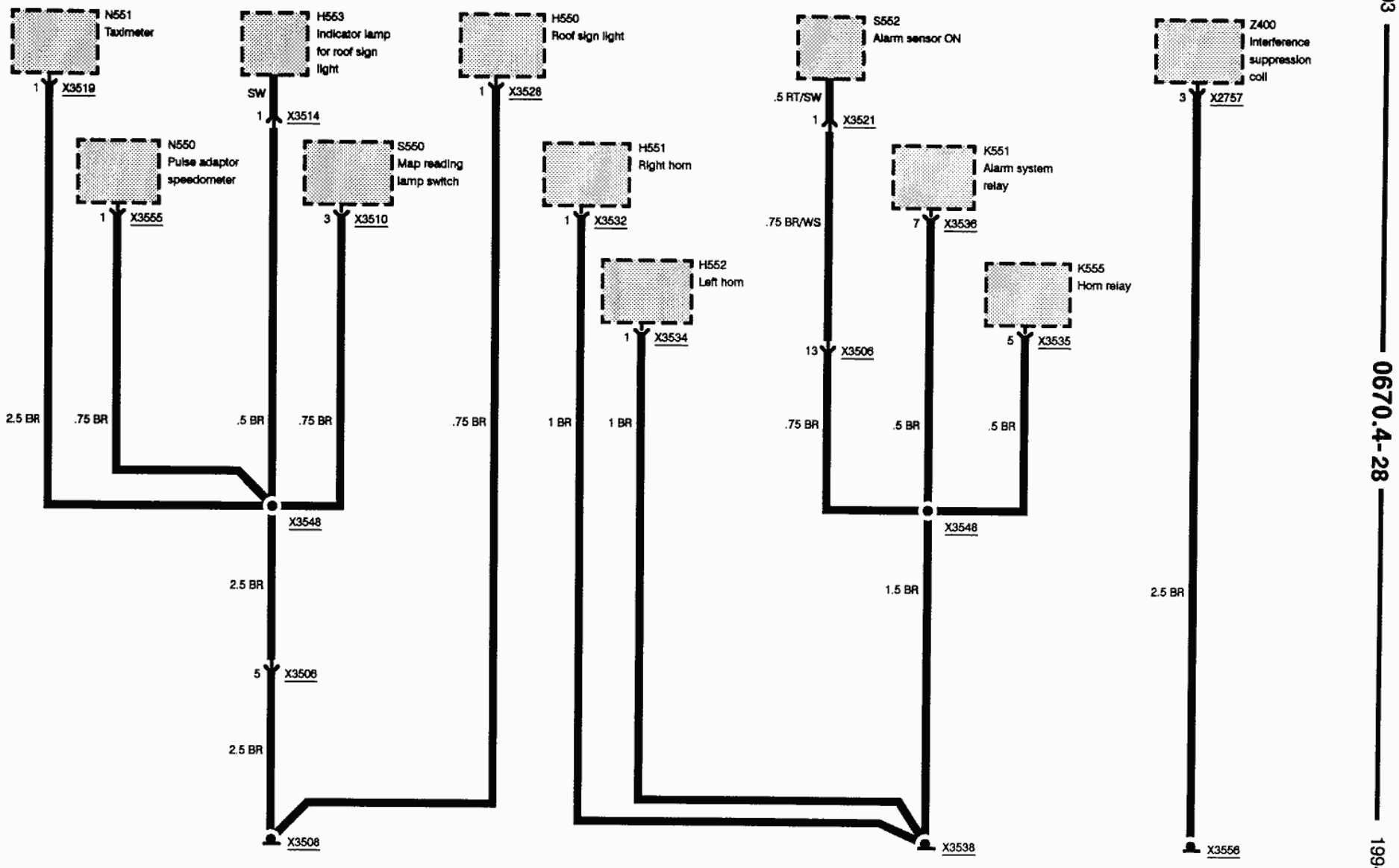
Ground distribution

Ground X3508, X3538 and 3556

Taxi



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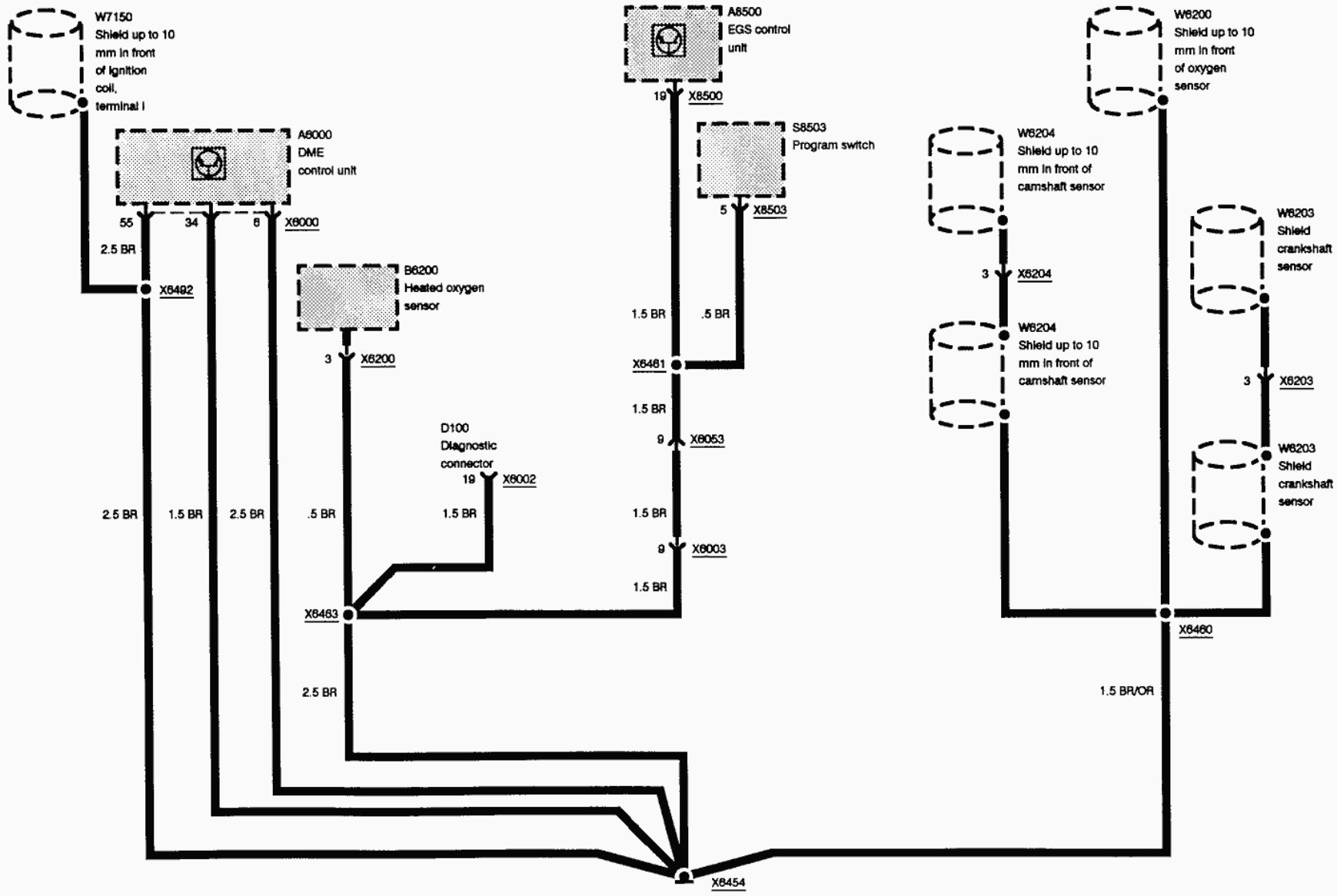
Ground distribution

518i/t

Ground X6454



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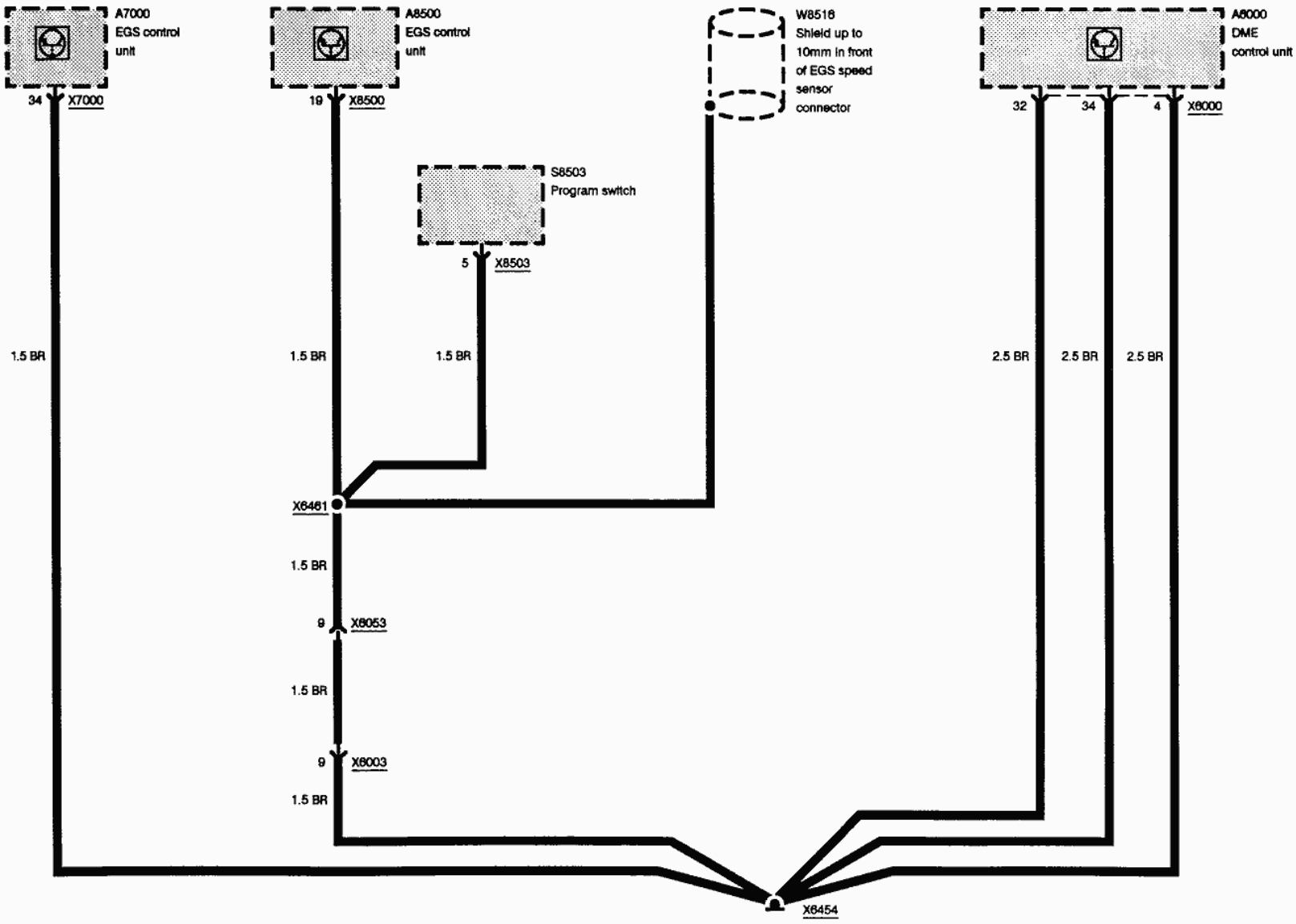
Ground distribution

520i/t

Ground X6454



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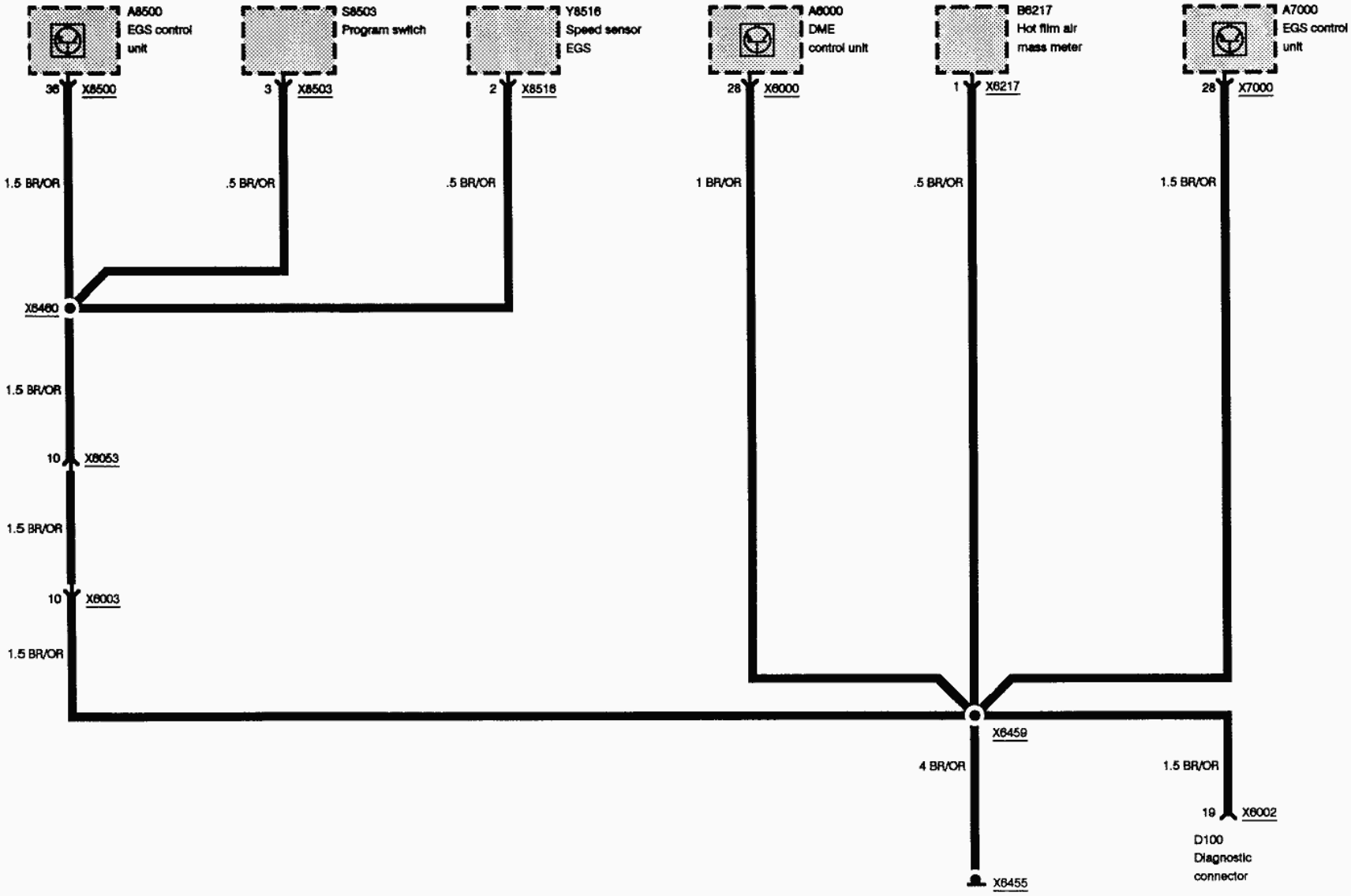
Ground distribution

Ground X6455



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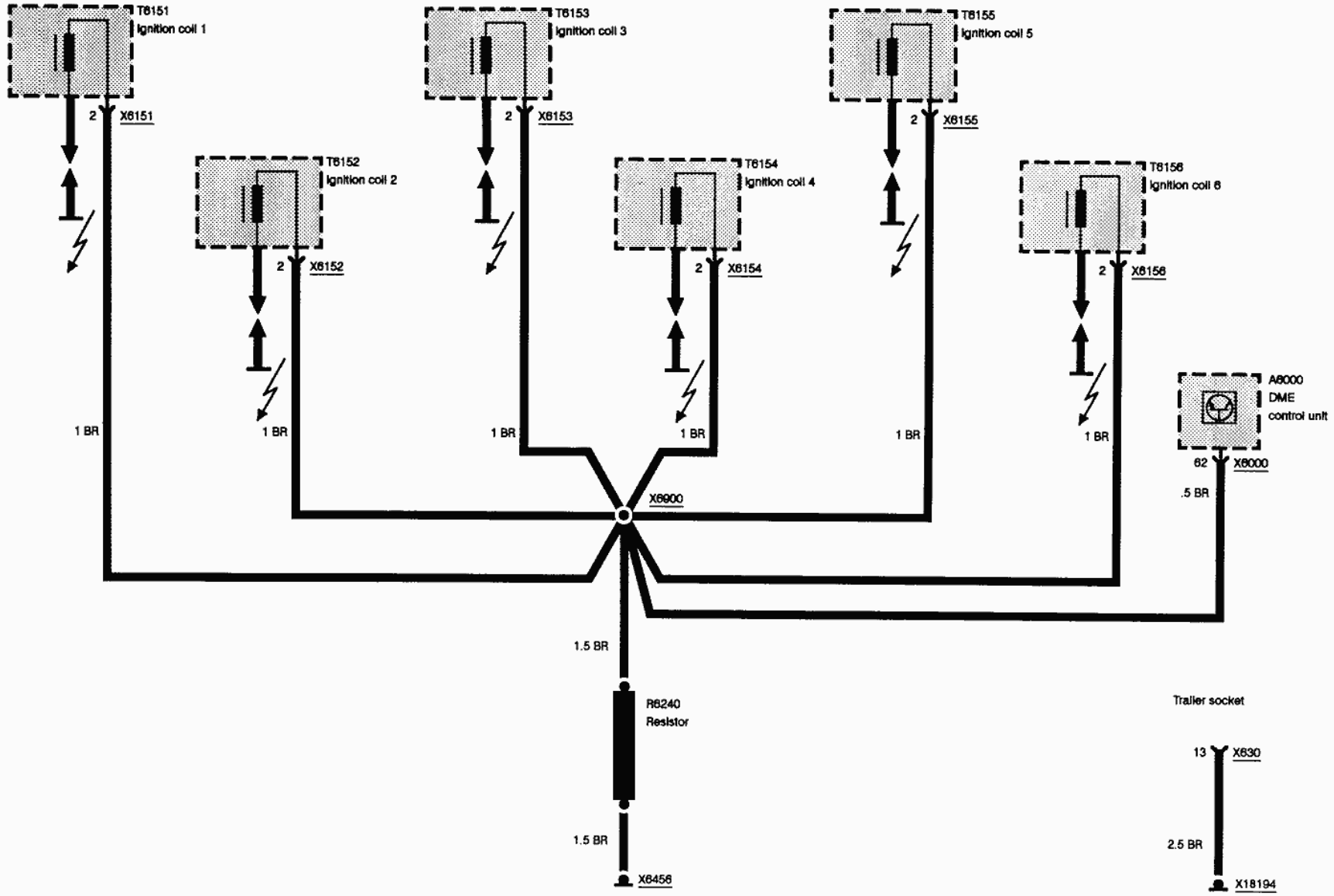
Ground distribution

Ground X6456 and X18194

520i/t



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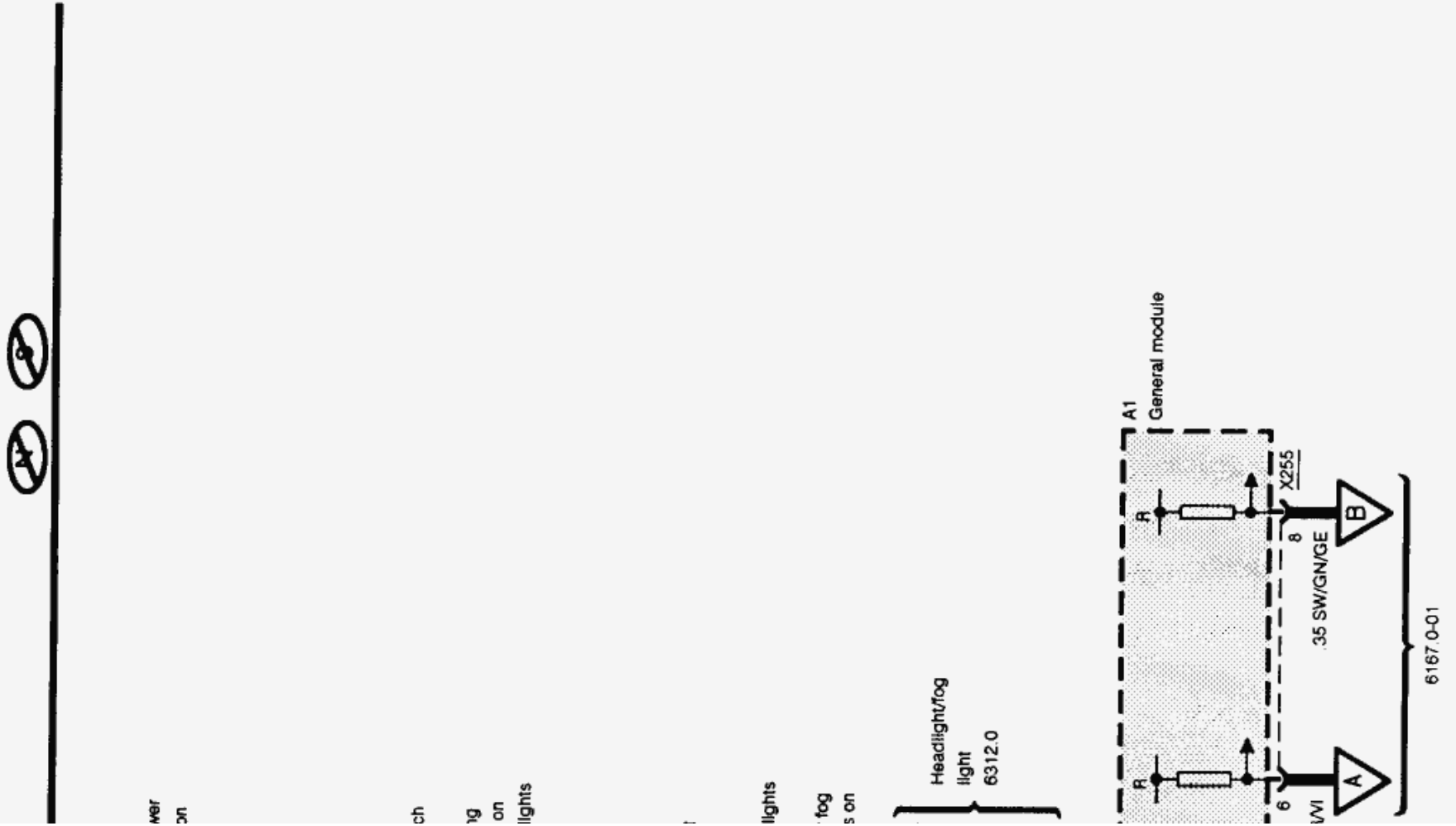
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Headlight washer (ZKE/SRA)

Scheme 6167.0



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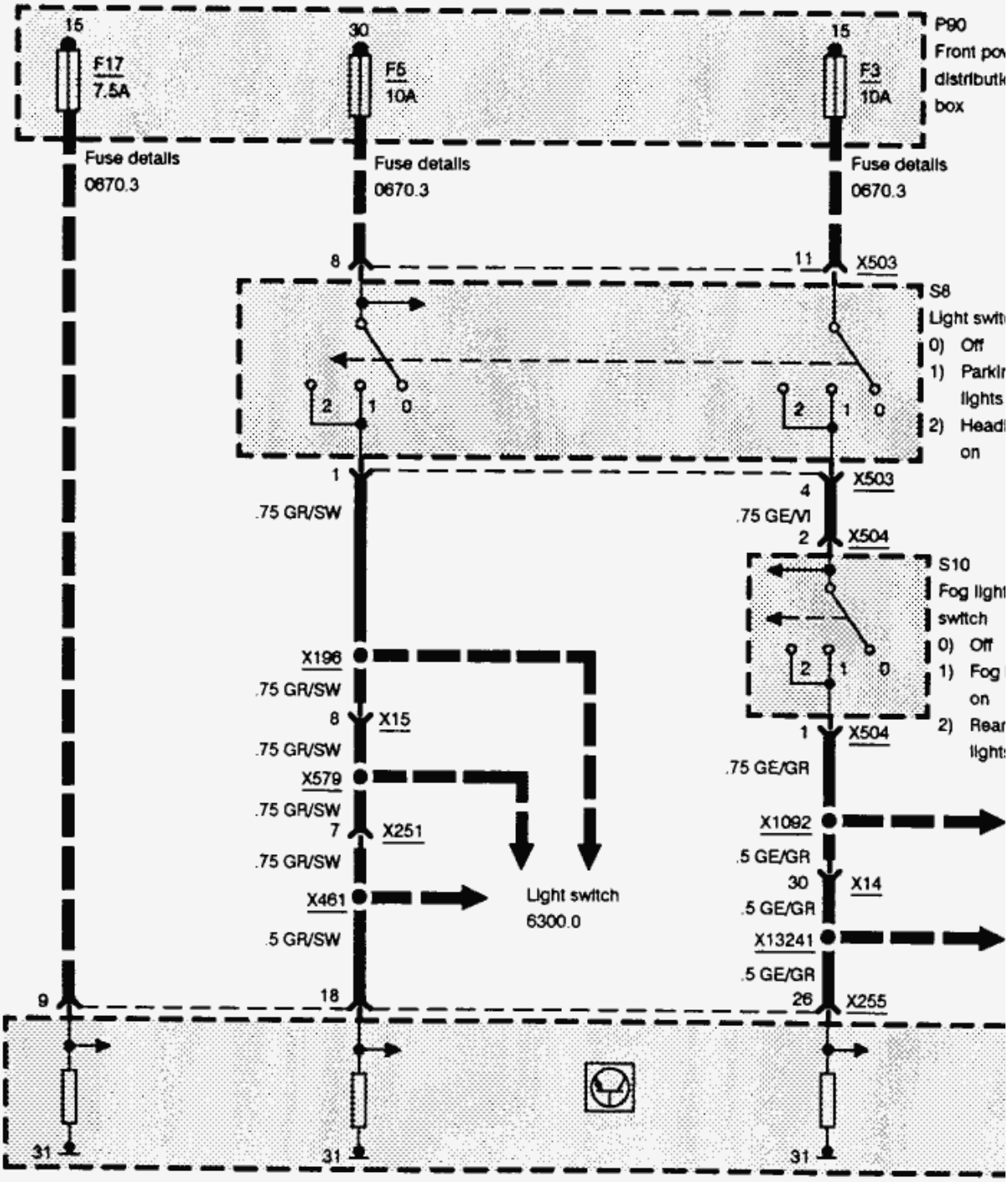
Headlight washer (ZKE/SRA)

Inputs



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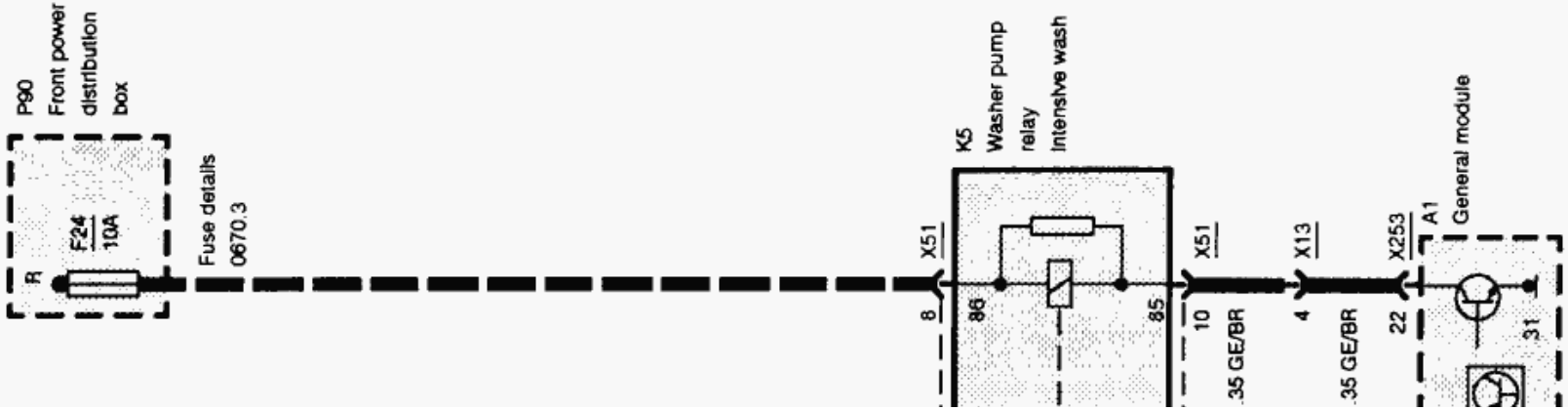

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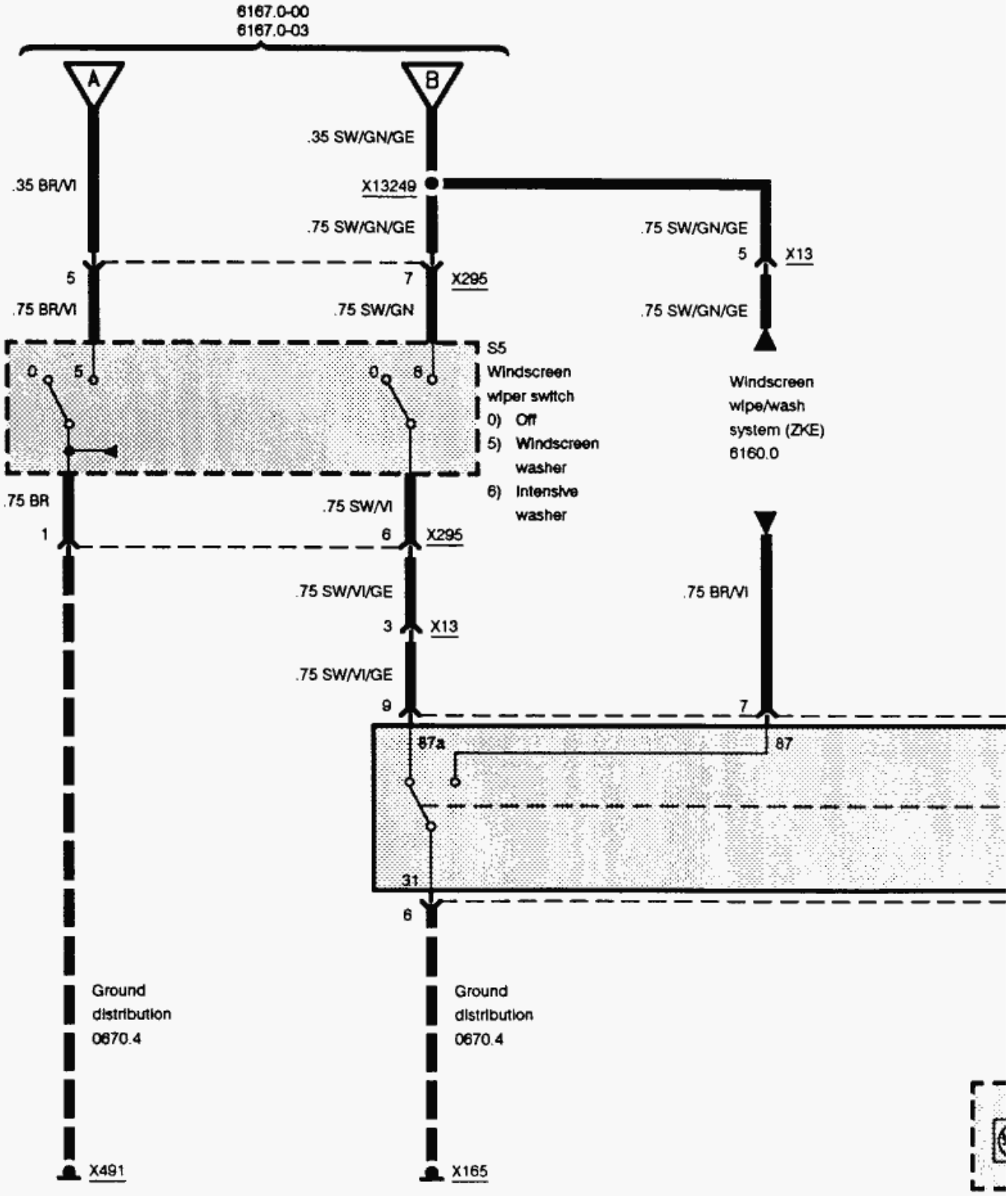
Headlight washer (ZKE/SRA)

Inputs



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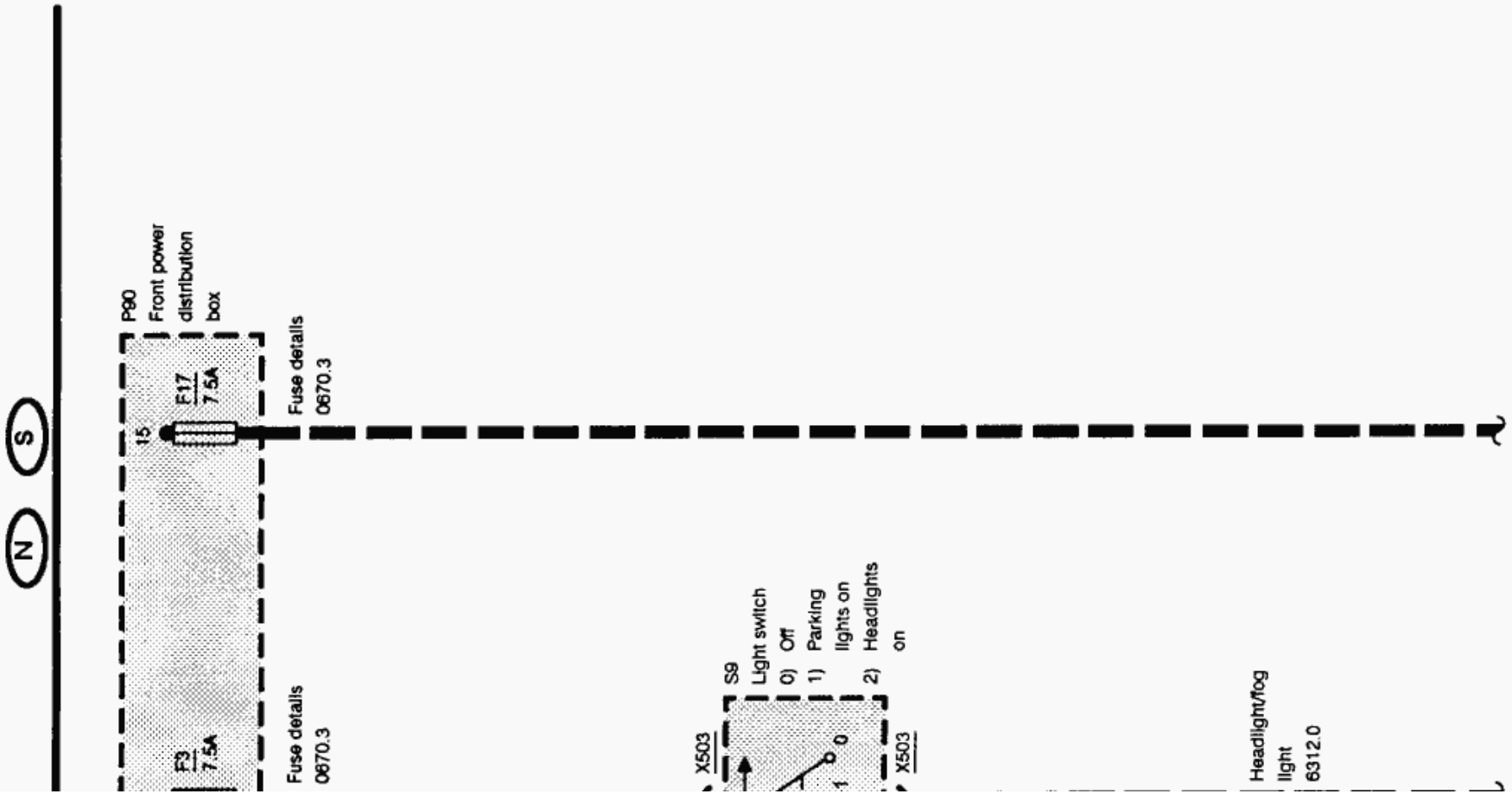

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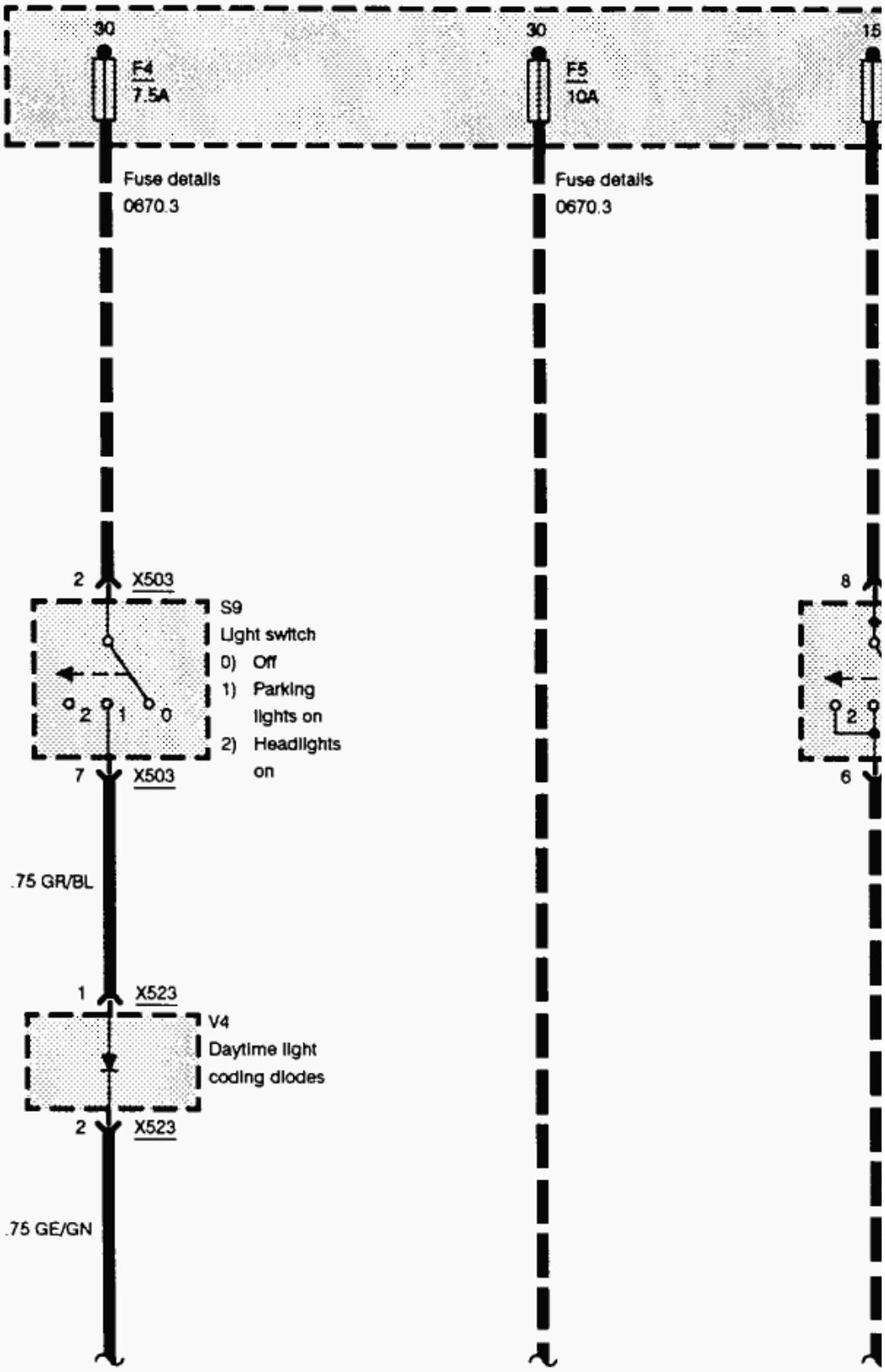
Headlight washer (ZKE/SRA)

Inputs



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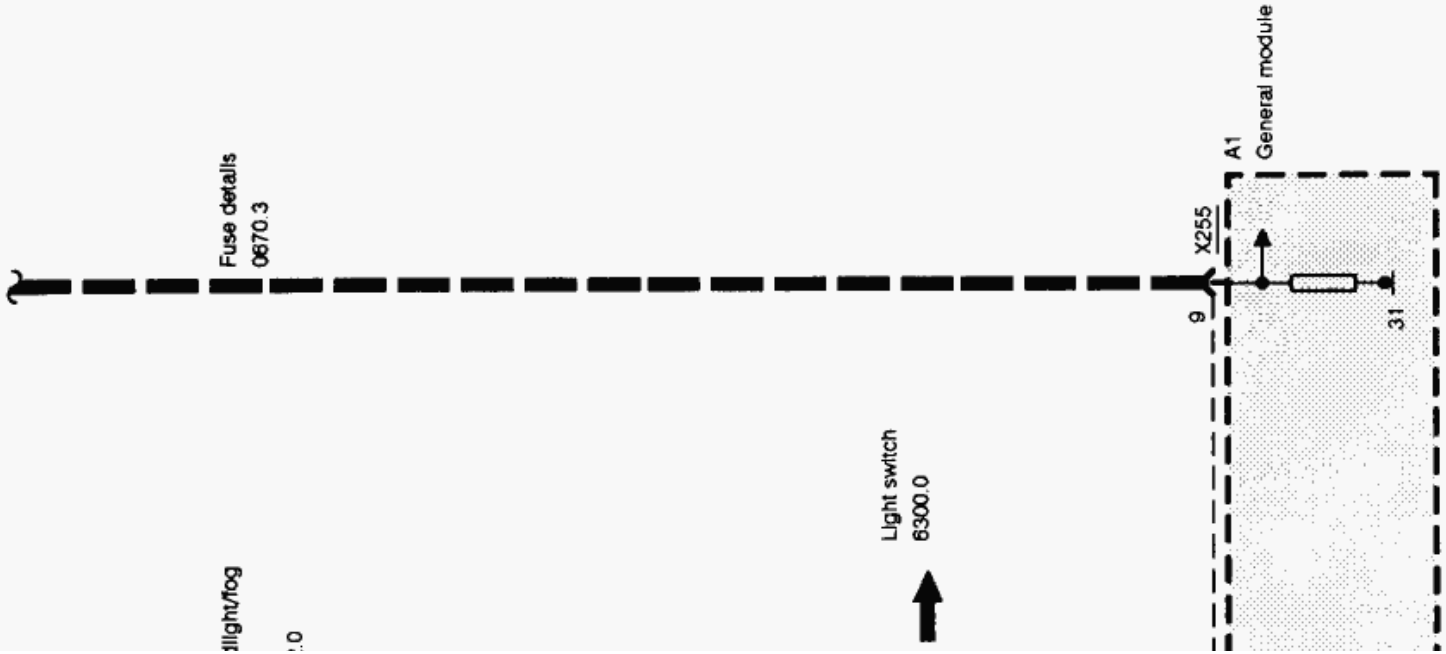

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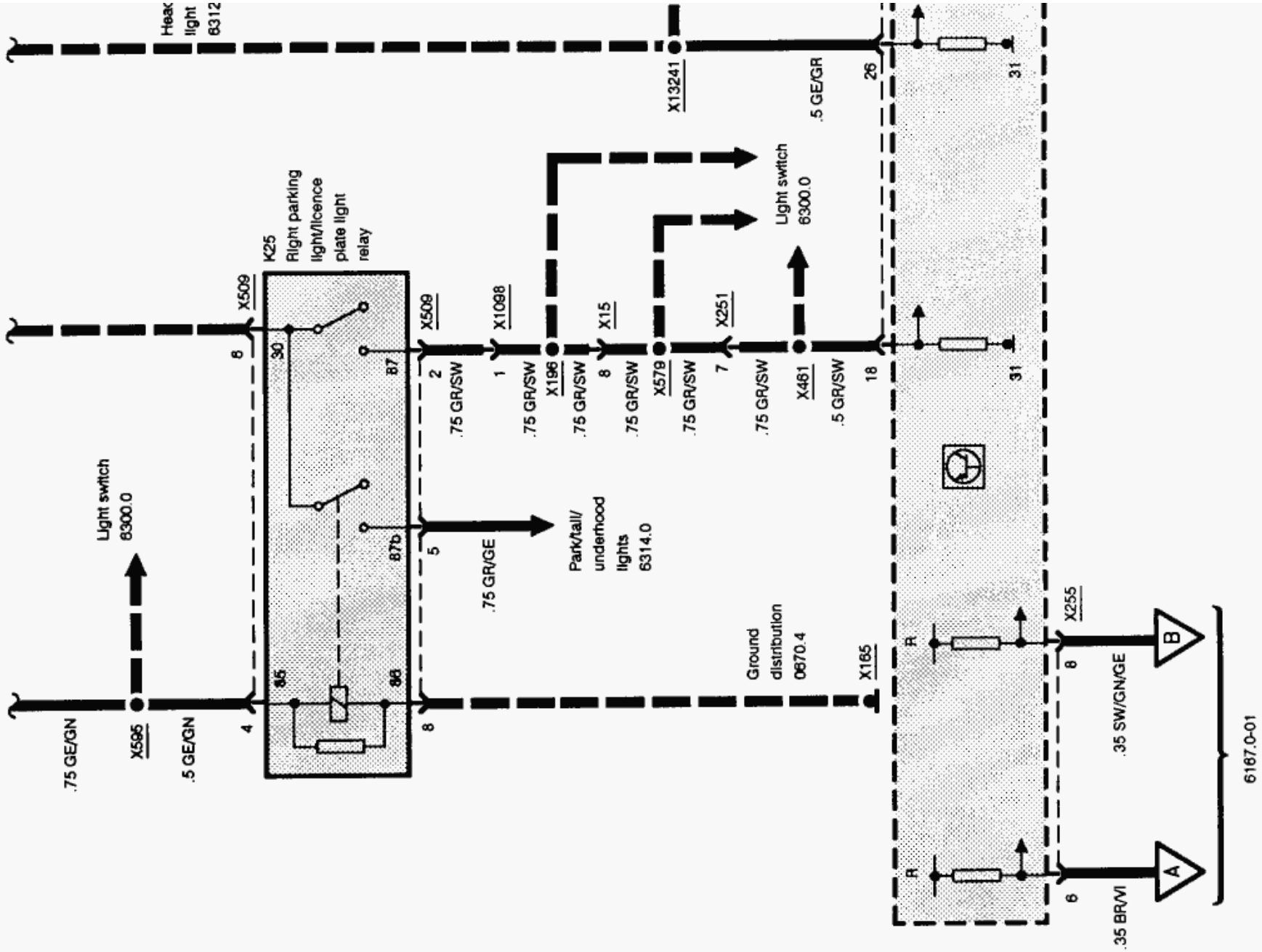

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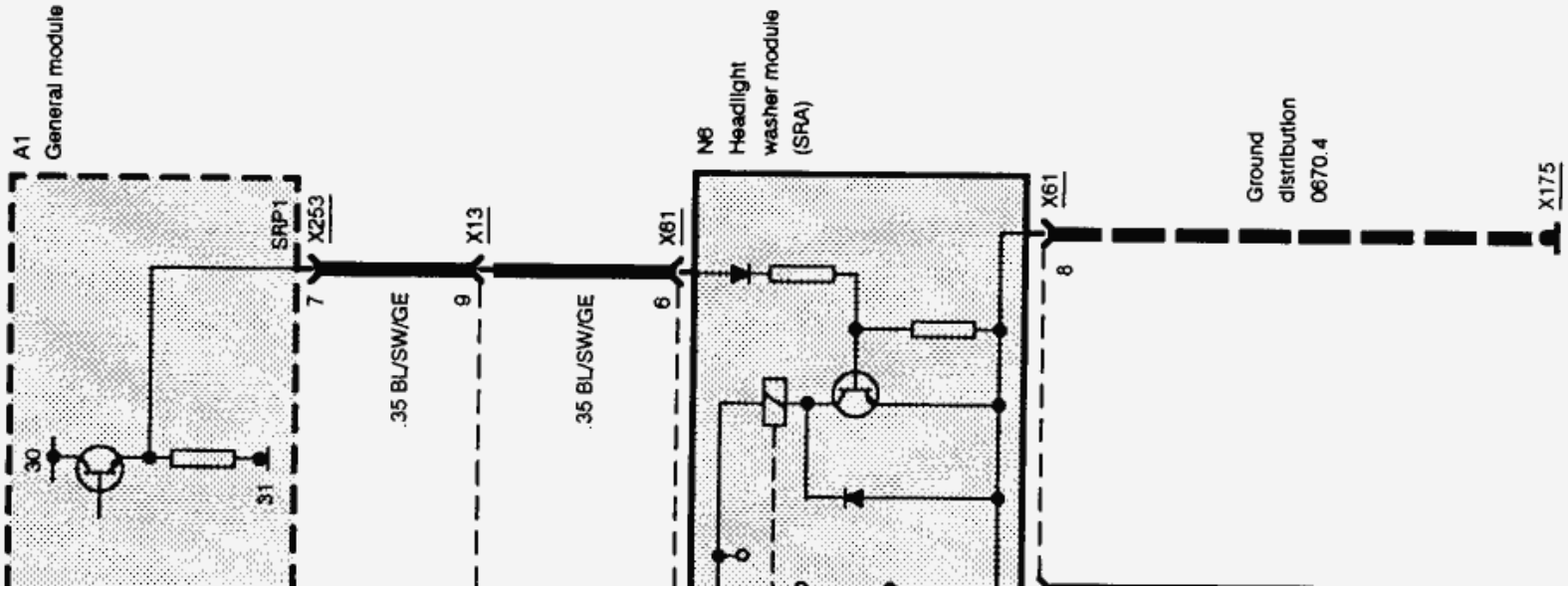

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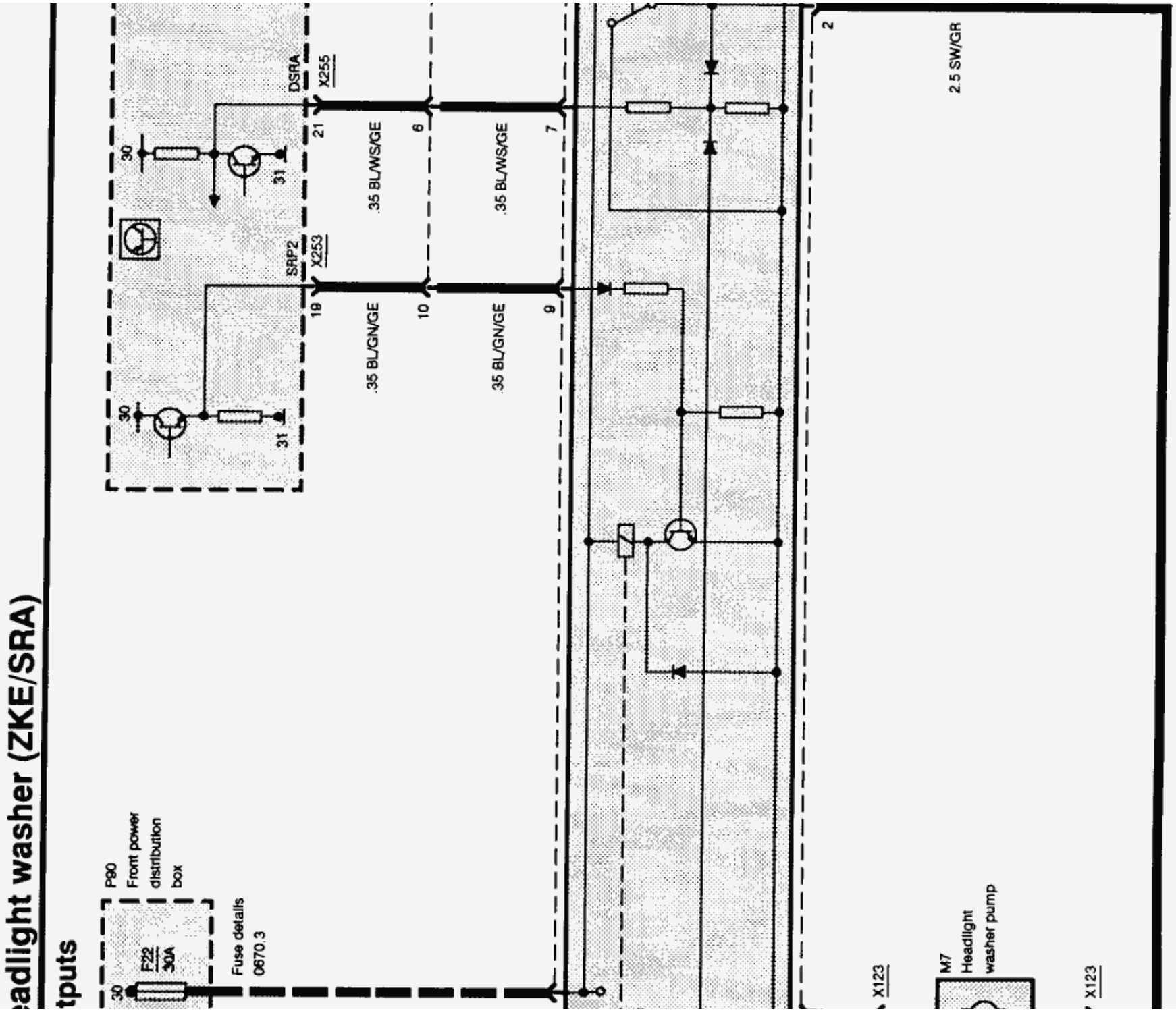

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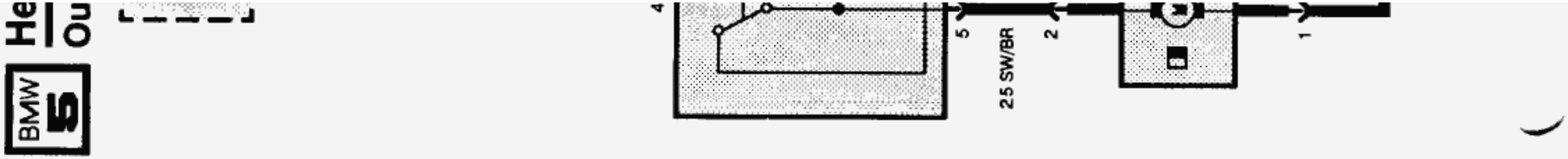

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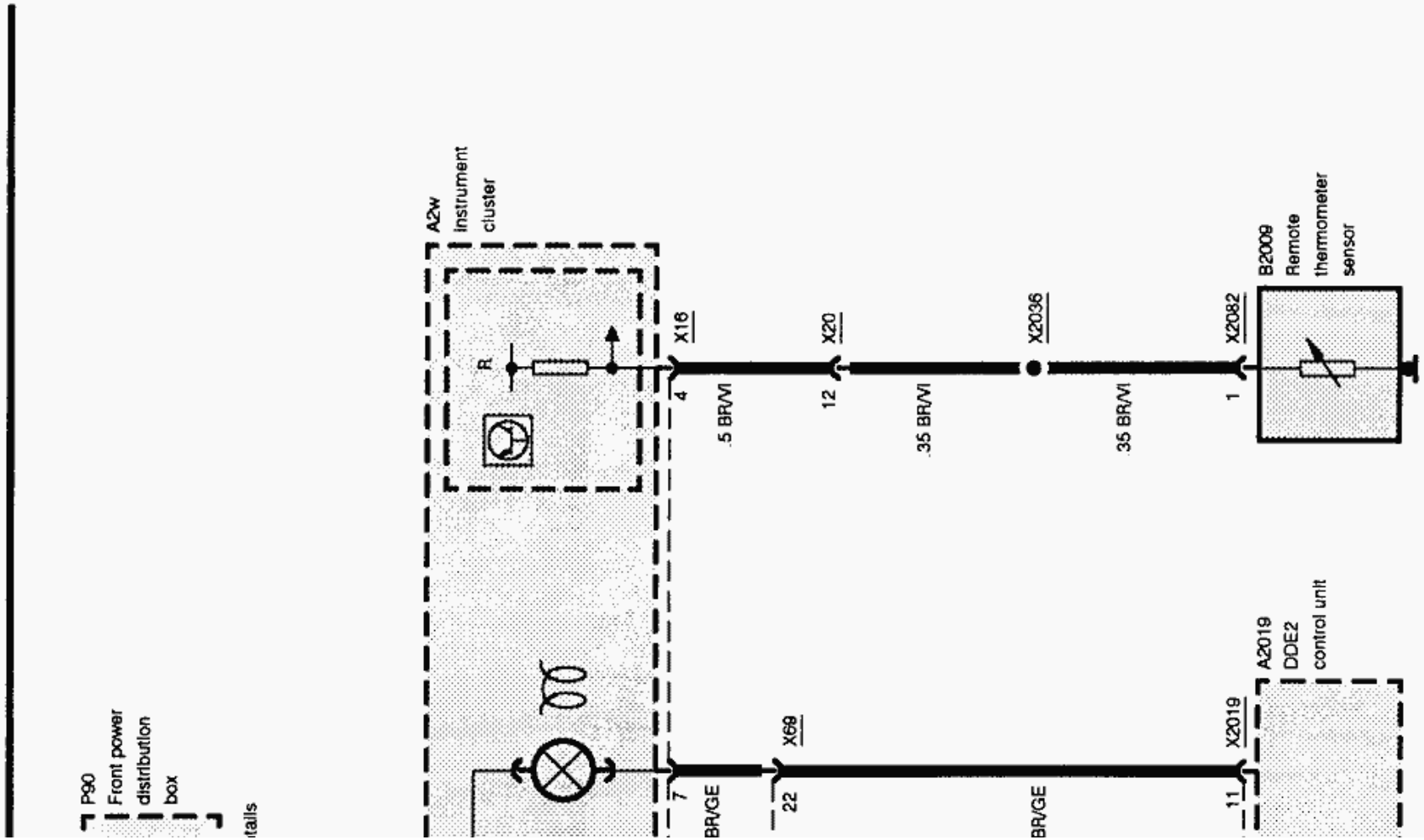
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Preheating system

Scheme 1220.0

09/93 — 1220.0-00 — 1994



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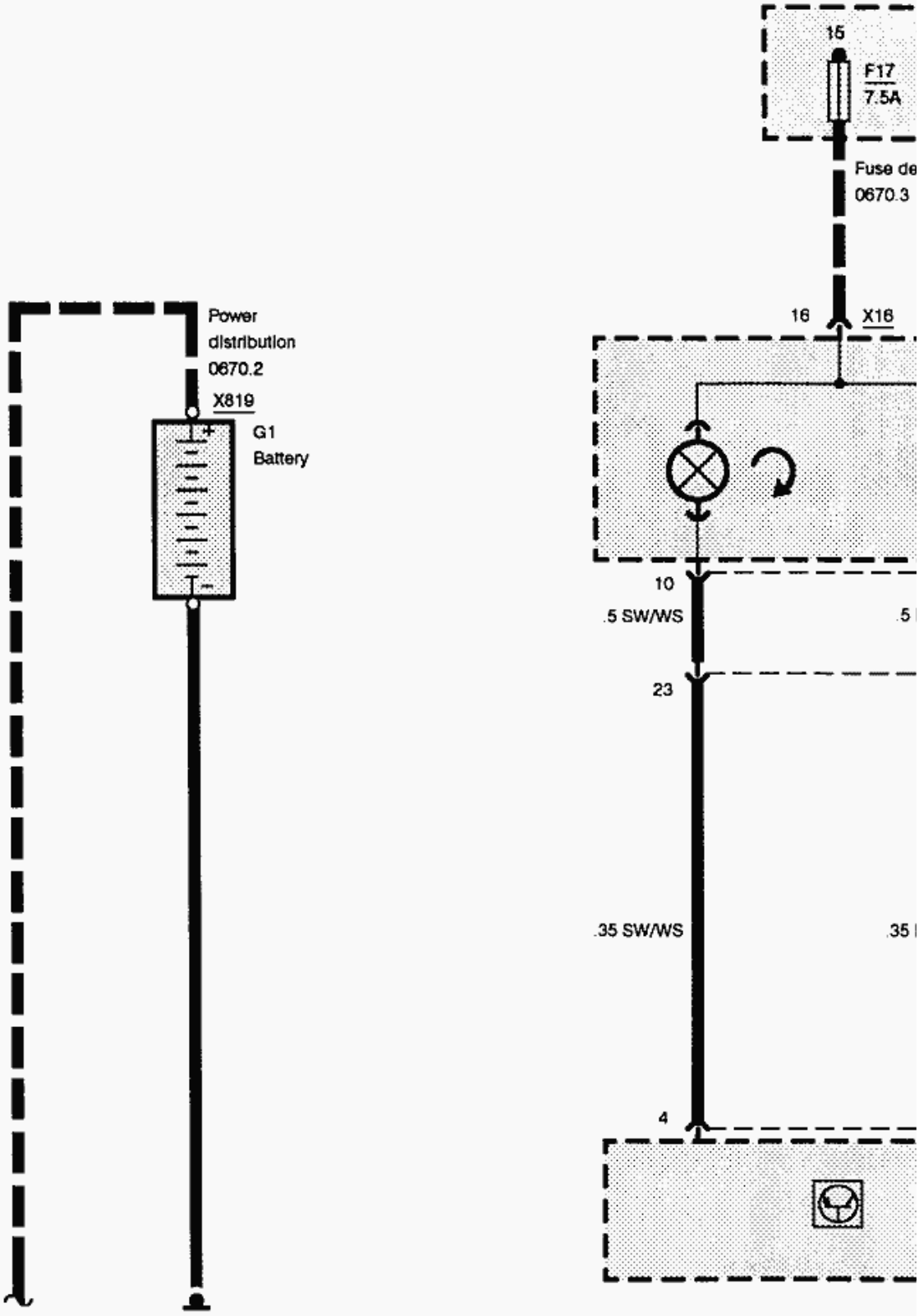
Preheating system



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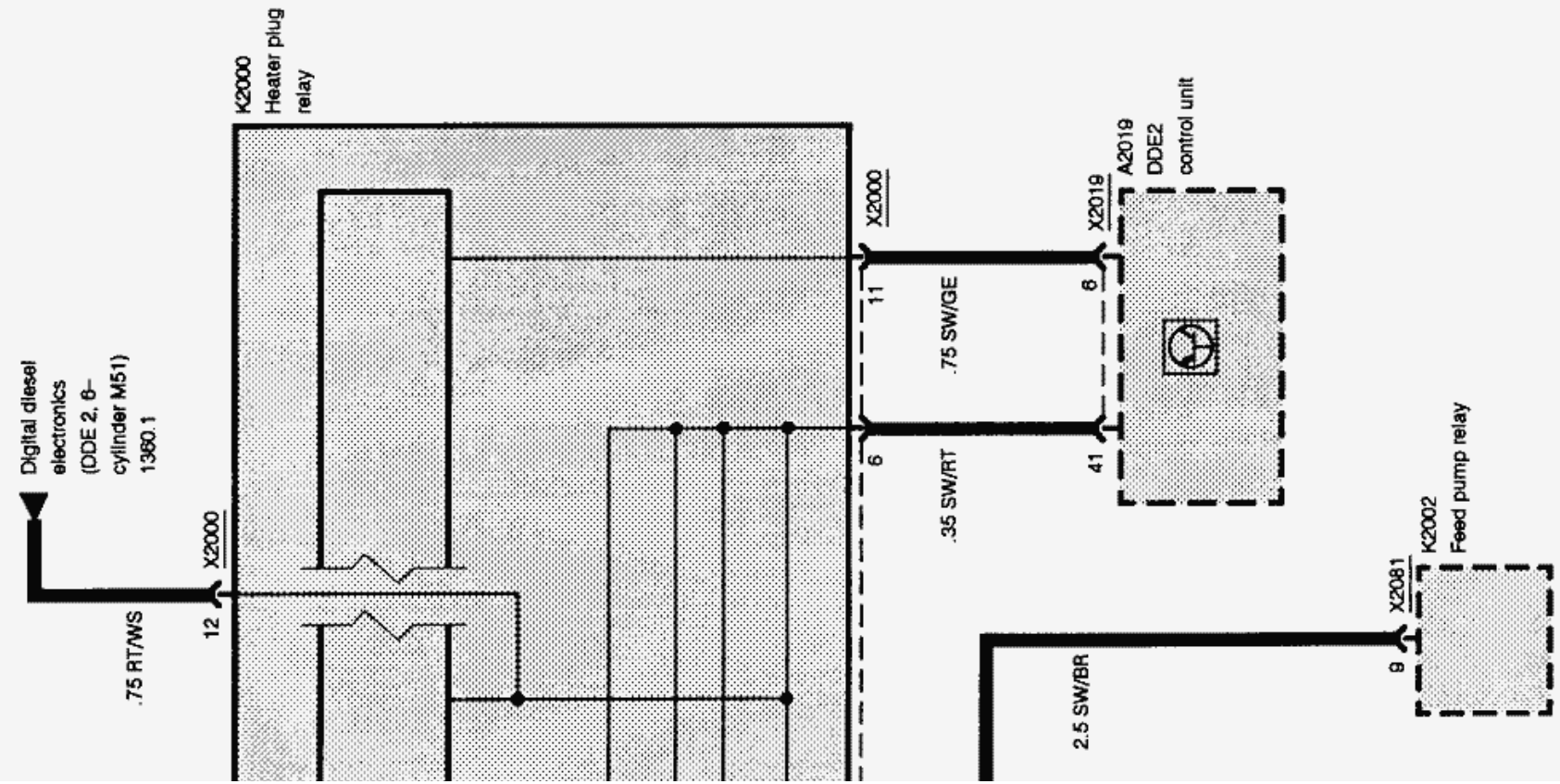

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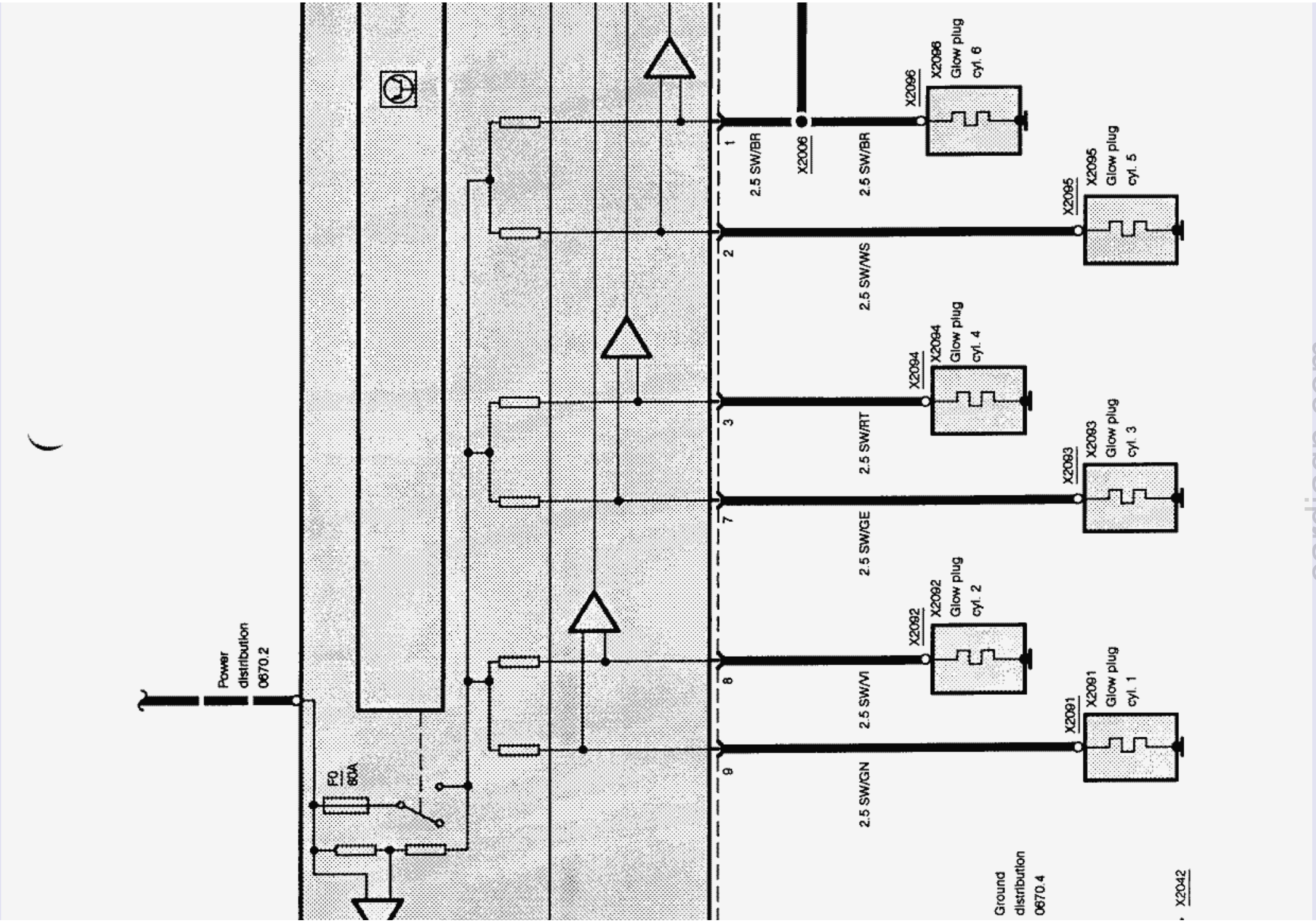
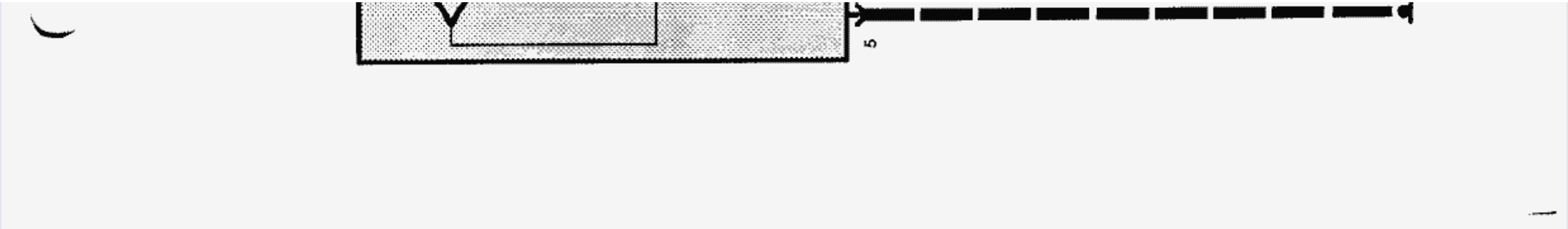


cardiagn.com



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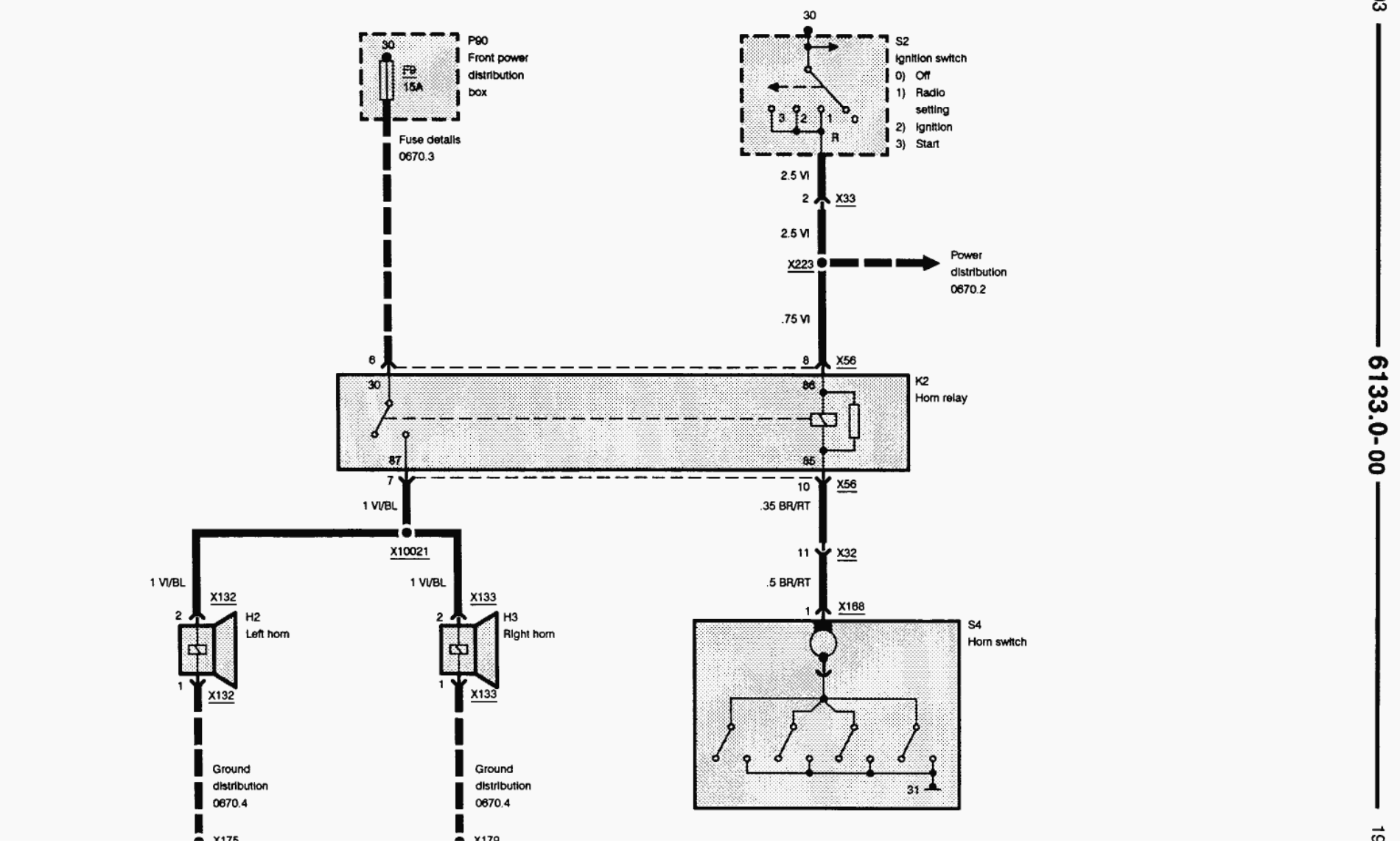
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Horn
Scheme 6133.0

Horn



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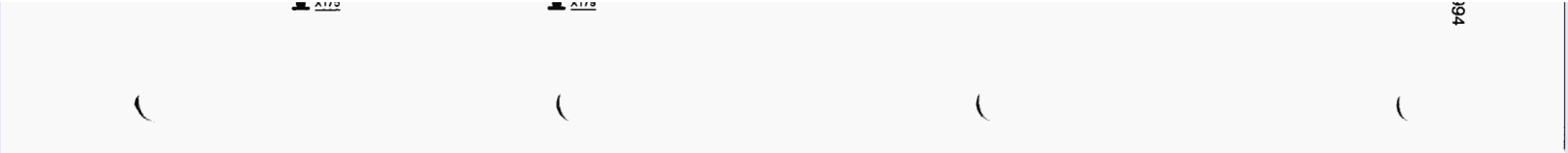

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

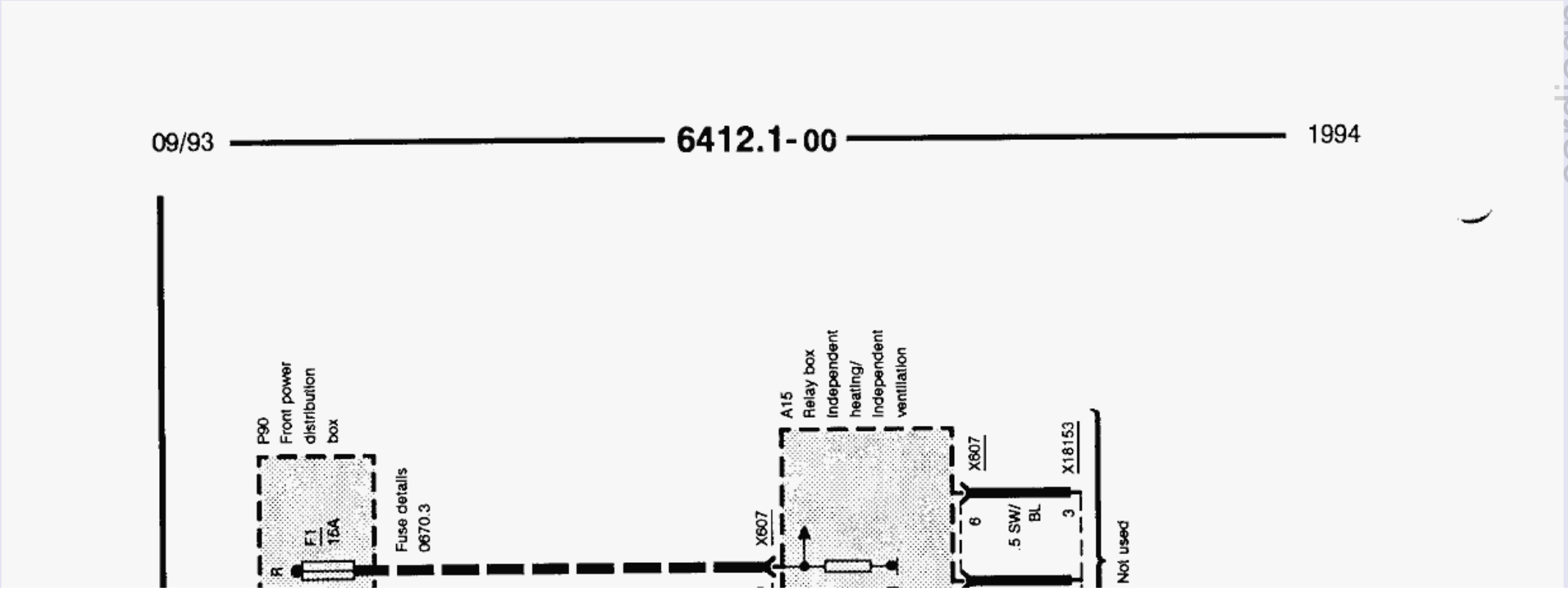
Independent heating/ventilation with HR34

Scheme 6412.1

Pin Assignment X607

Pin	Type	Description/Function	Connection
1	E	Terminal 30	Fuse
2	A	Signal, independent heating	Independent heating relay
3	E	Signal, independent heating	On-board computer
4	E	Signal, independent ventilation	On-board computer
5		not used	
6	A	Signal, ventilation flap	IHKA operating switch
7	E	Signal, independent ventilation, flap position	IHKA operating switch
8	E	Signal, independent heating, flap position	IHKA operating switch
9	E	Terminal 61	Unloader relay
10	M	Ground	Ground connection
11	E	Terminal R	Fuse F1
12	A	Activation, control unit/stop valve	Independent heating/ventilation control unit/ stop valve

E = Input, A = Output, M = Ground



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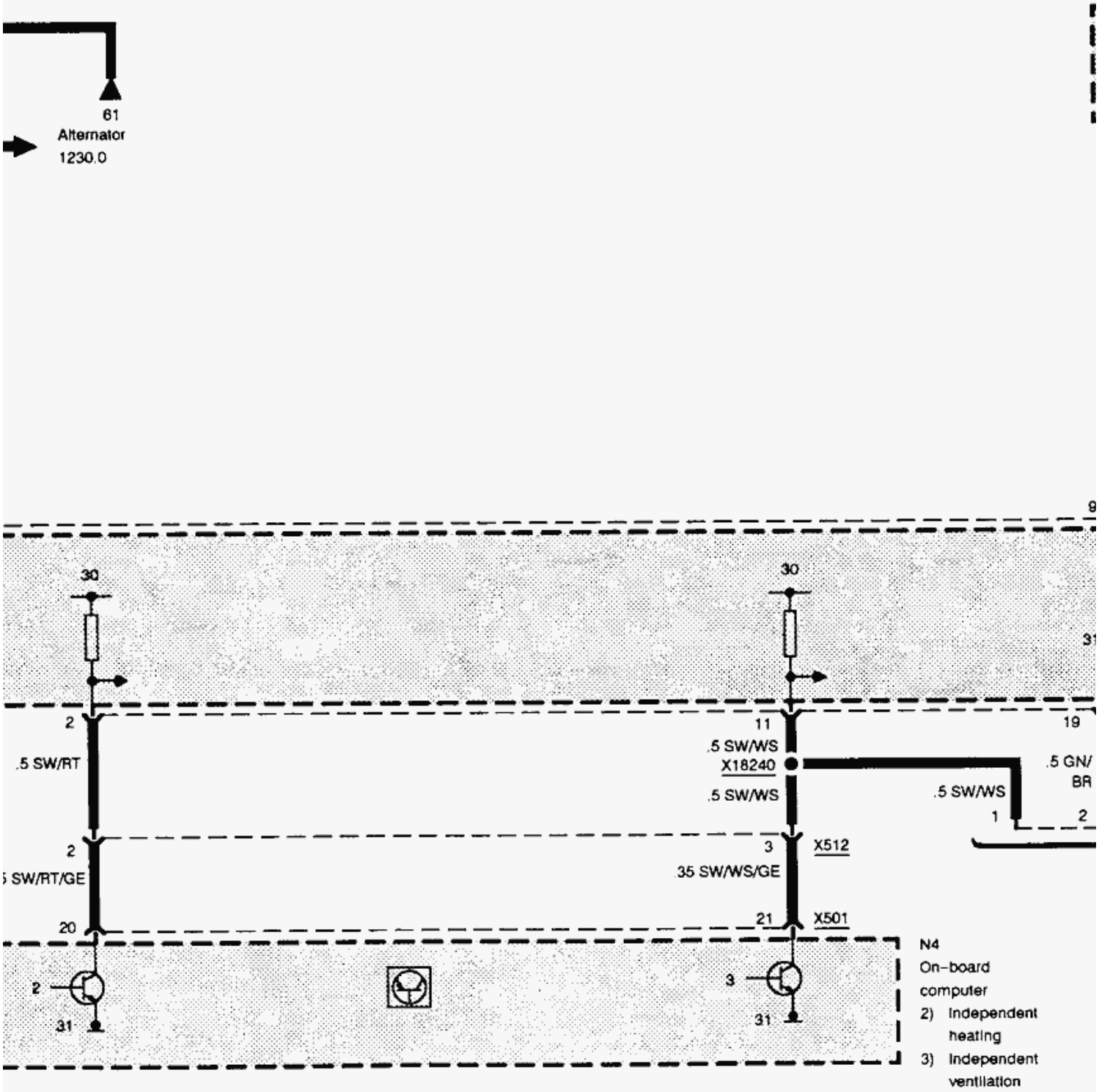
eating/ ventilation with HR34



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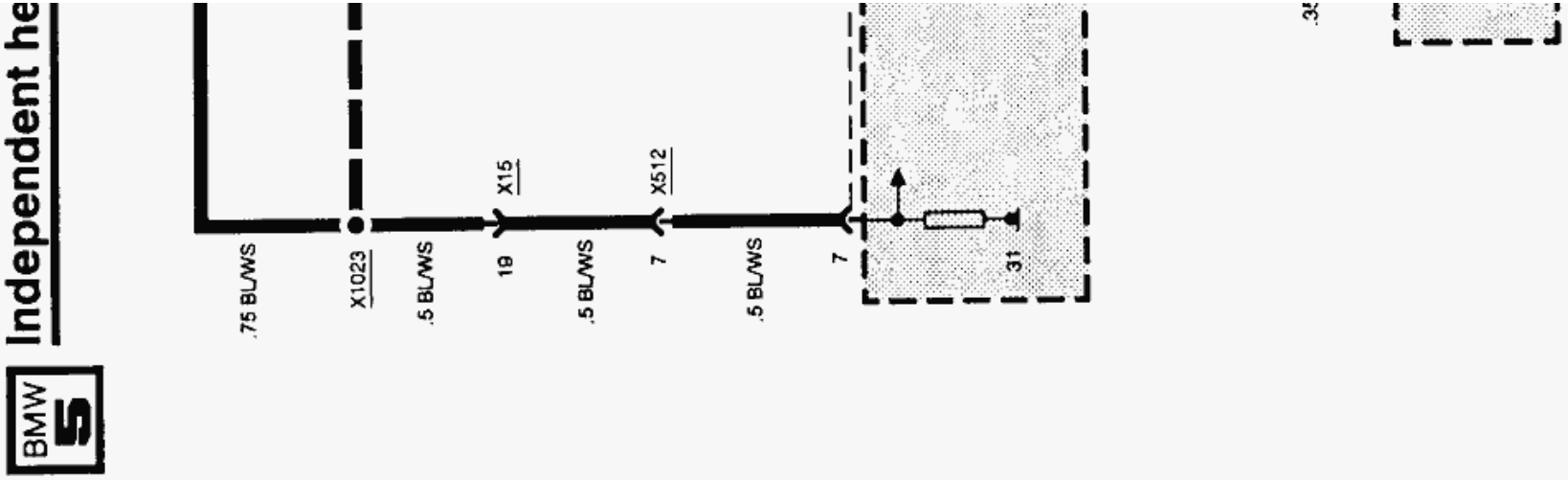
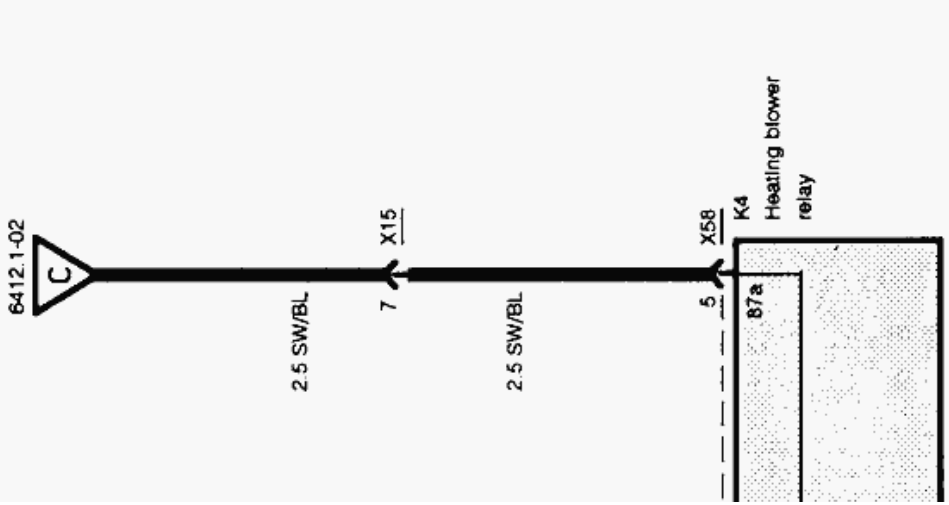
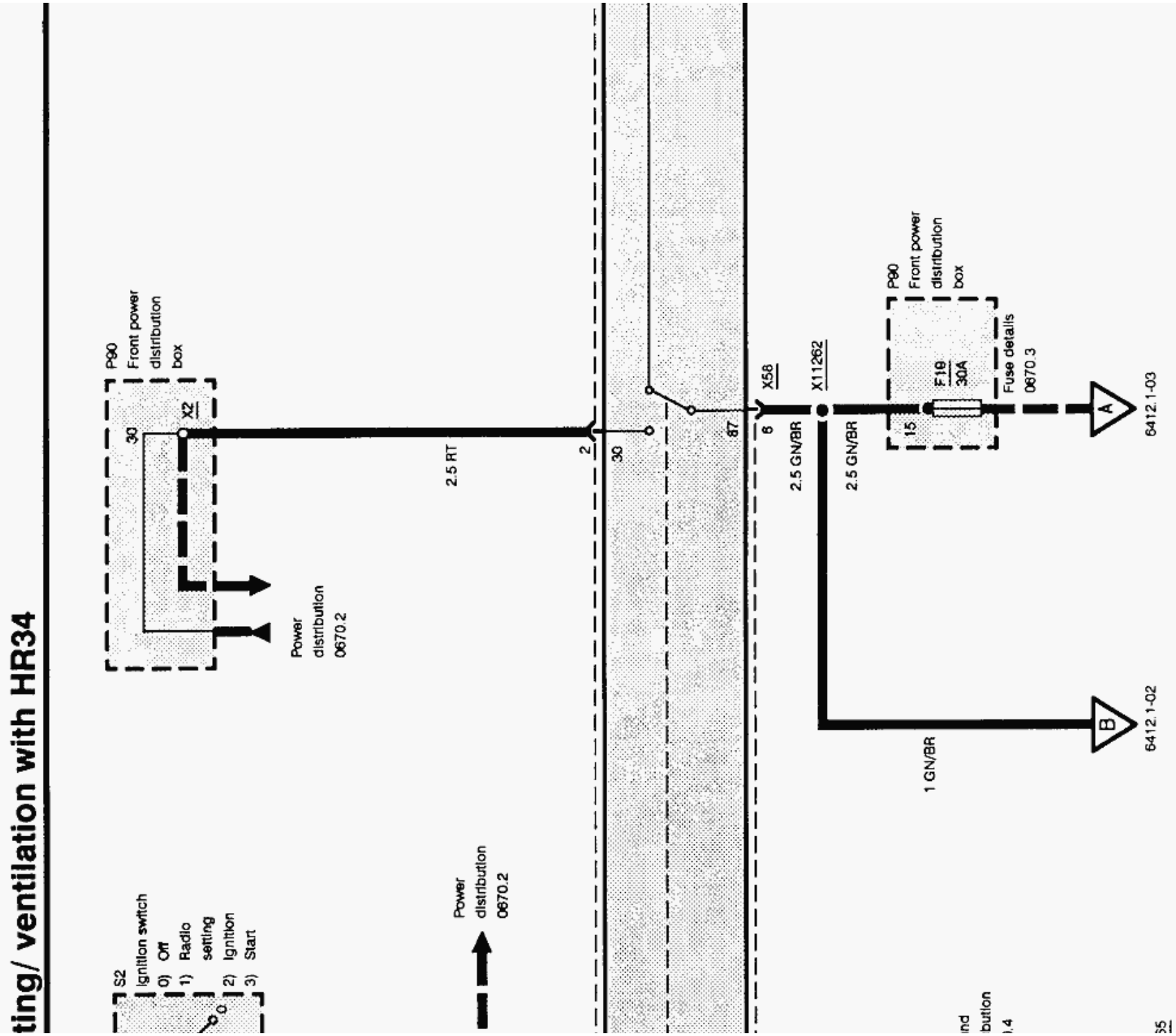




cardiagn.com



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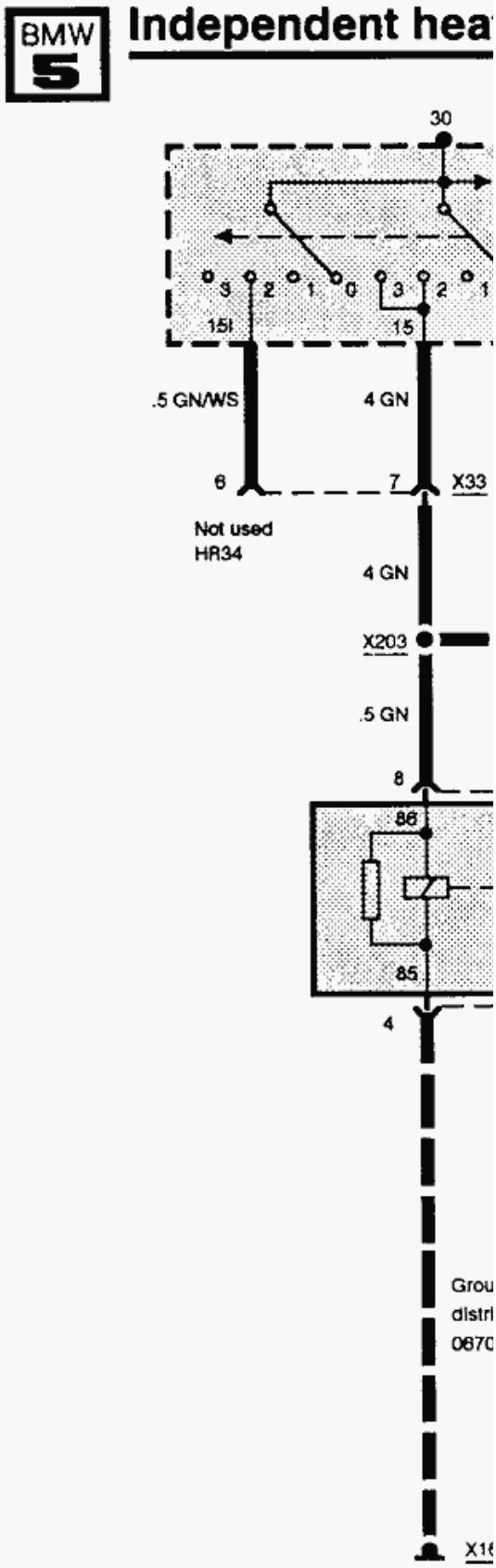

09/93

6412.1-02

1994

A15
Relay box
Independent
heating/
Independent
ventilation

GN/BR/GE

5
X899
A32
Heating control
unit
31

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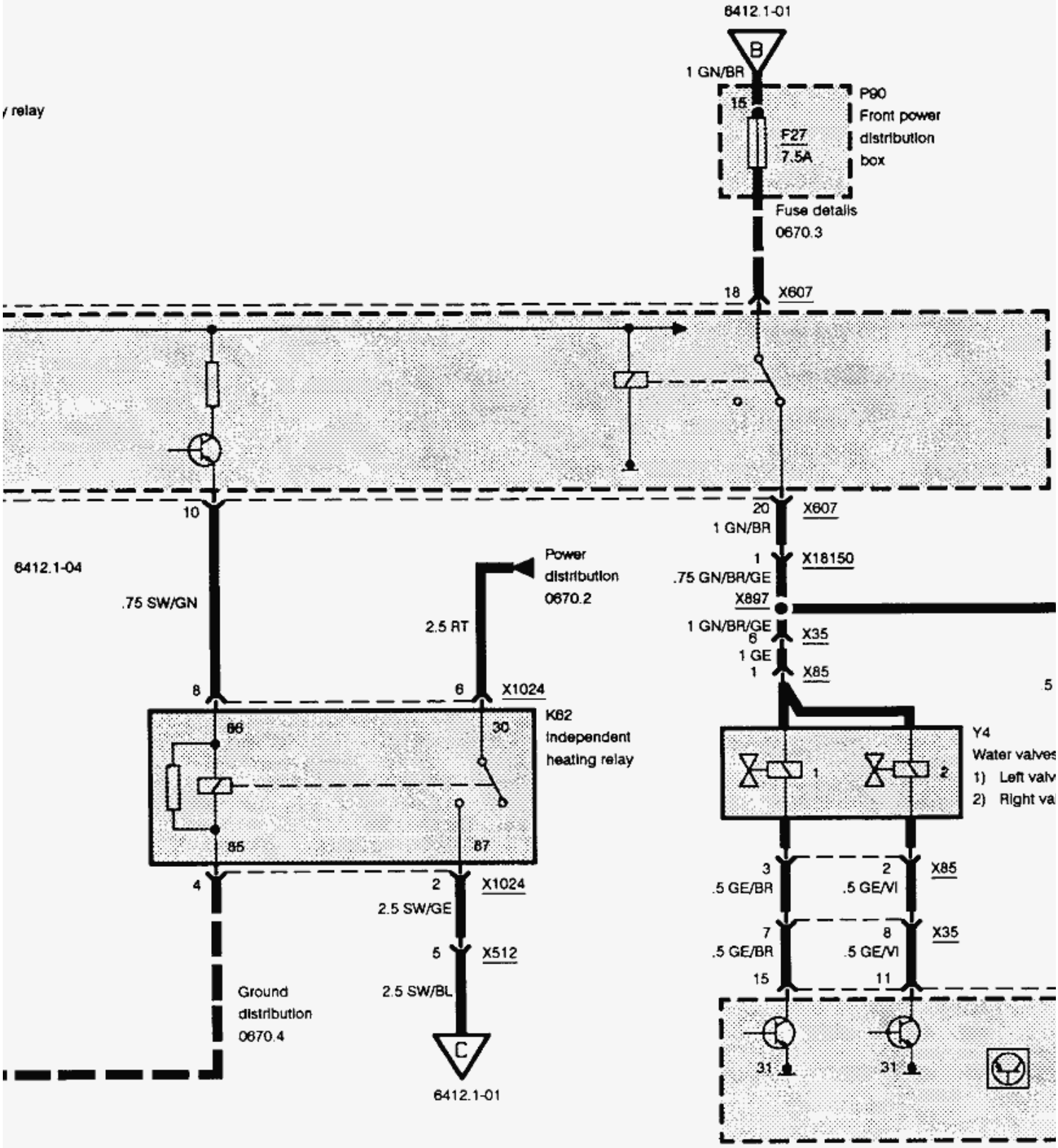
g/ ventilation with HR34



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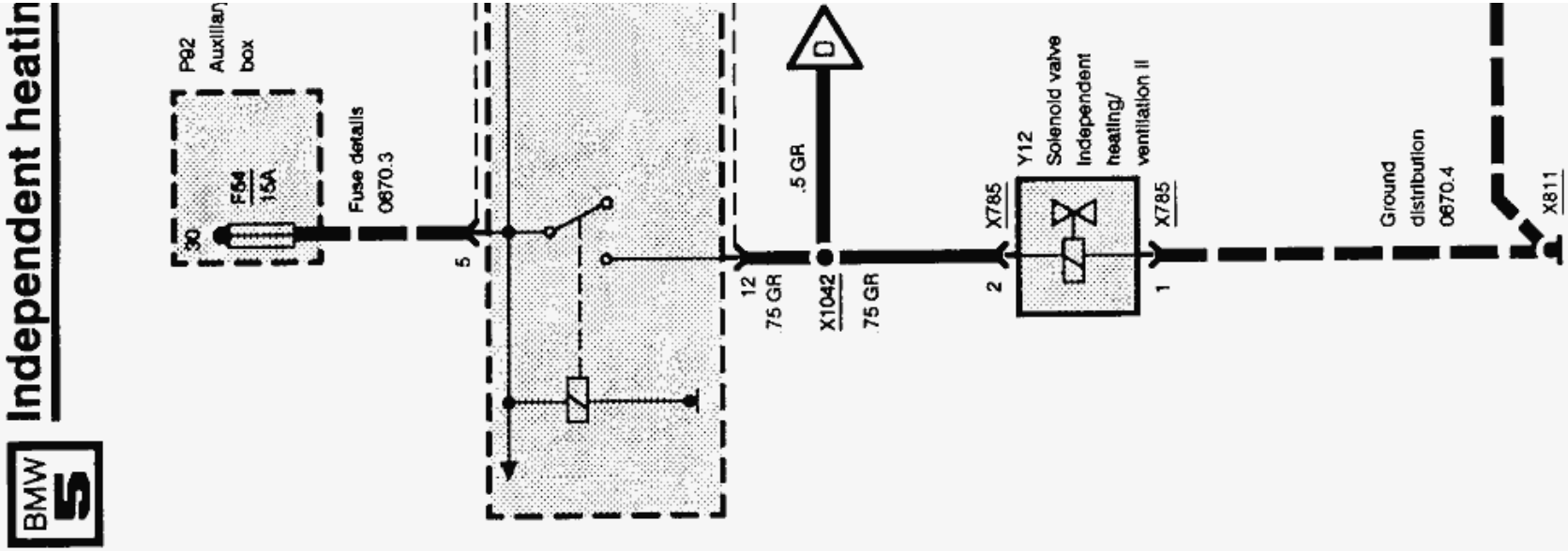

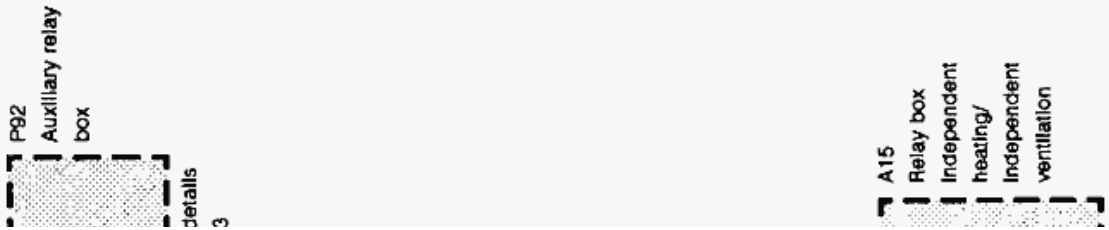

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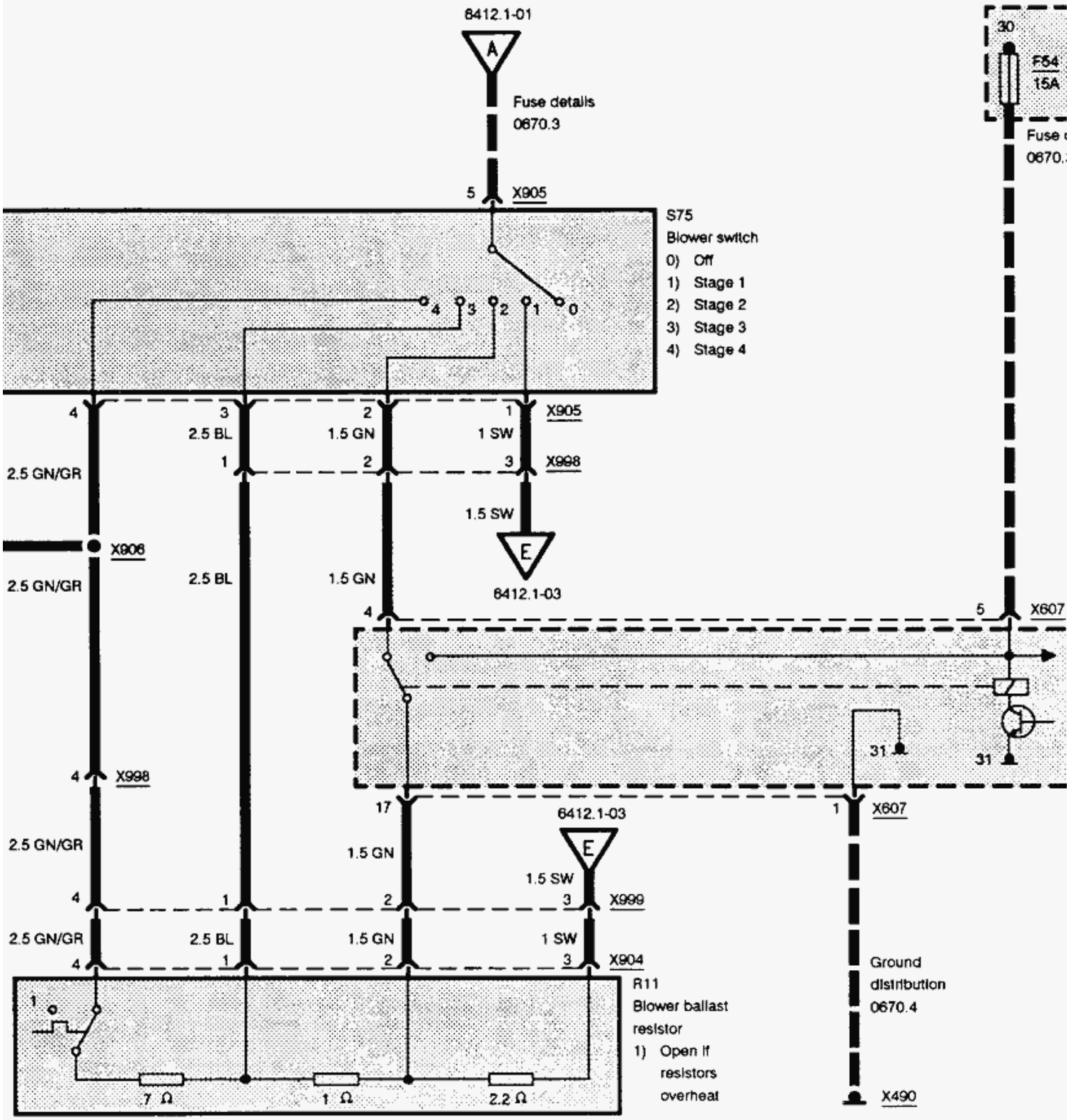
/ventilation with HR34



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Independent heating

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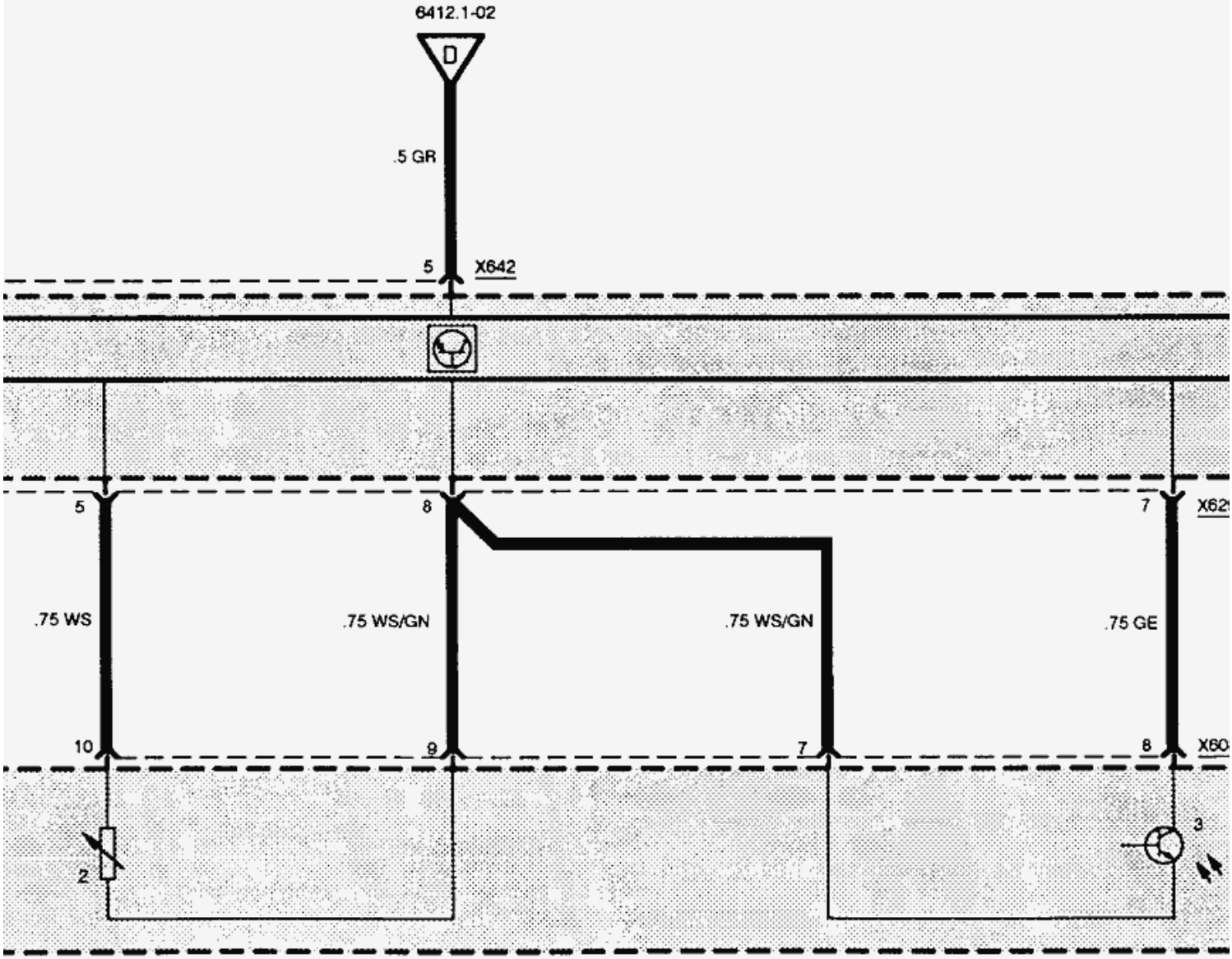
ventilation with HR34



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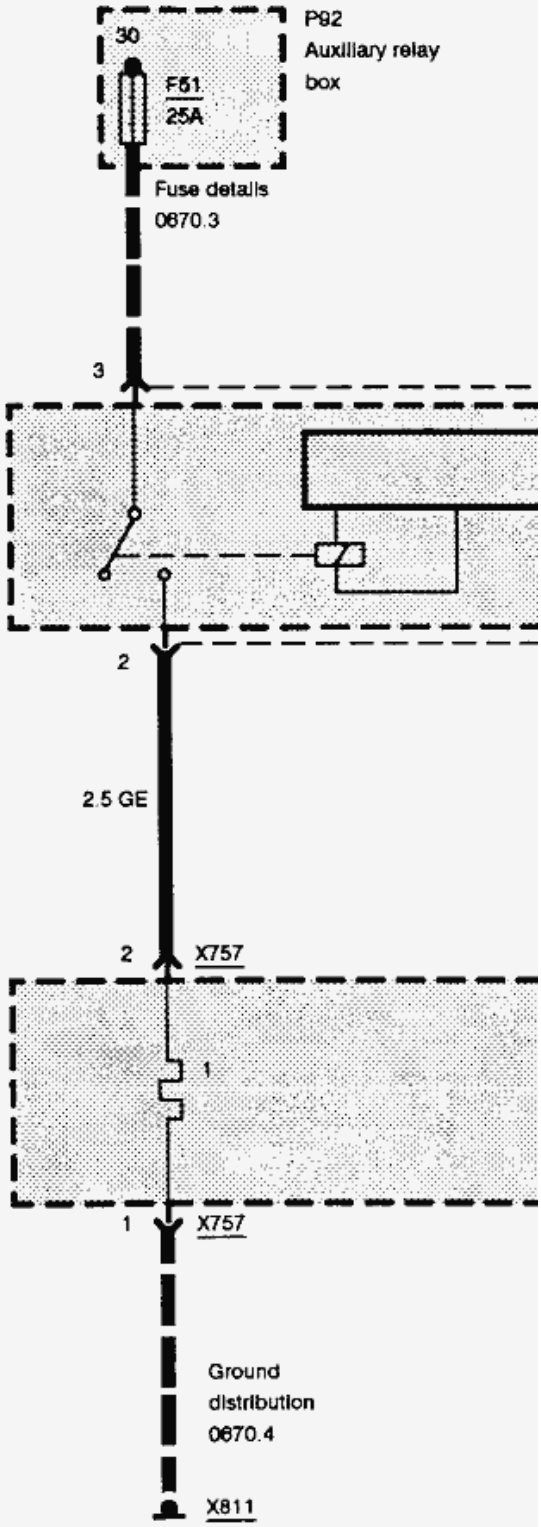
Independent heating/



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Independent
heating/
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control unit

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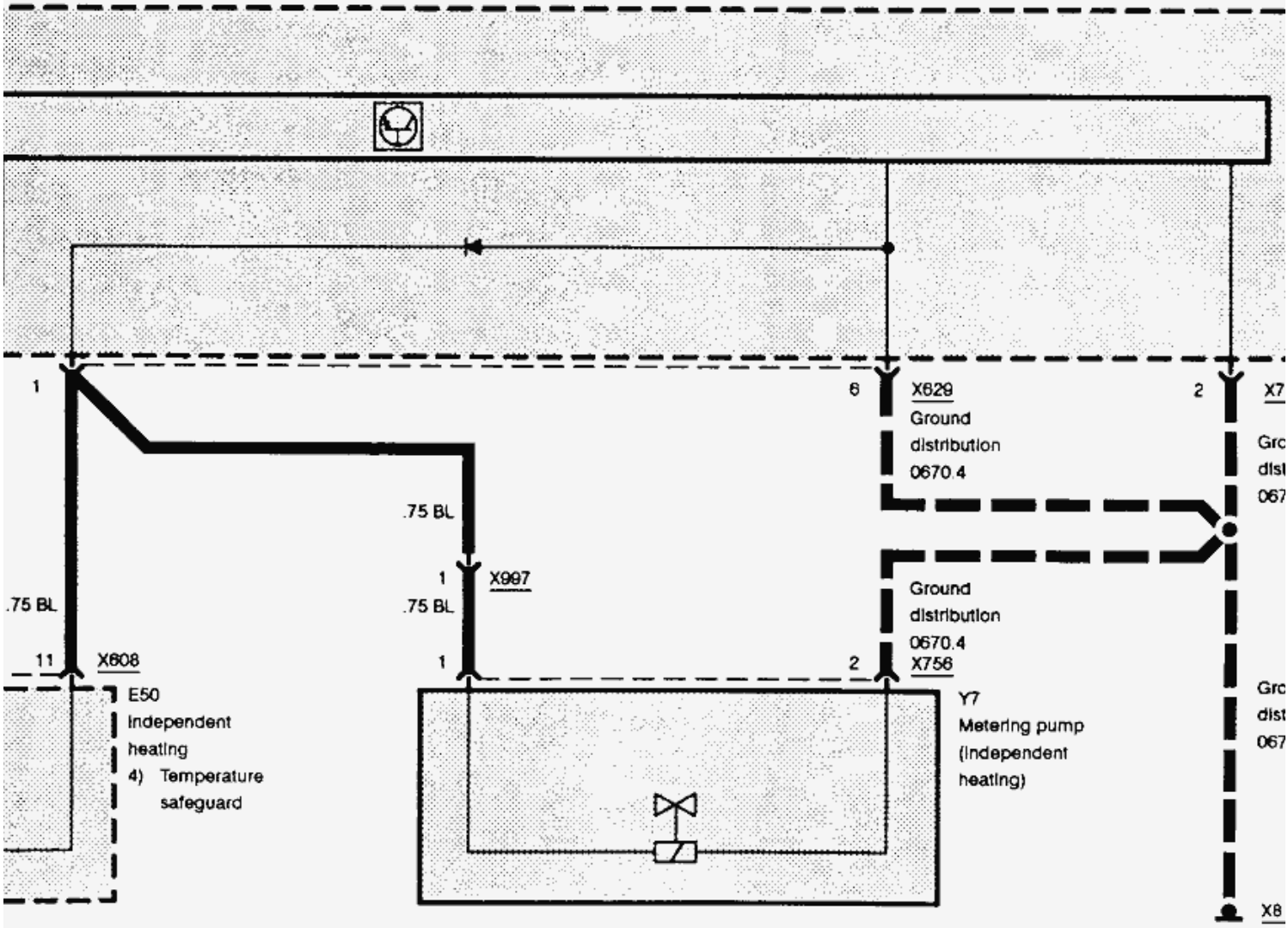
entilation with HR34



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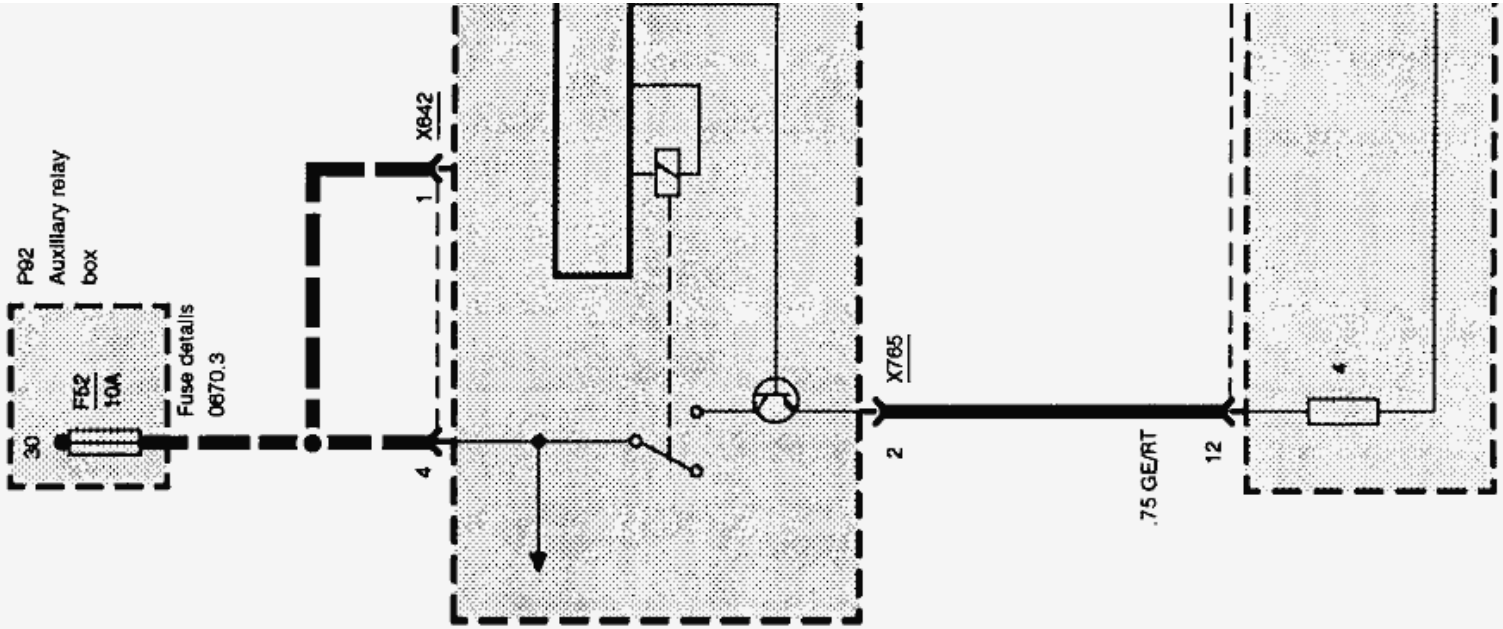
Independent heating/ v



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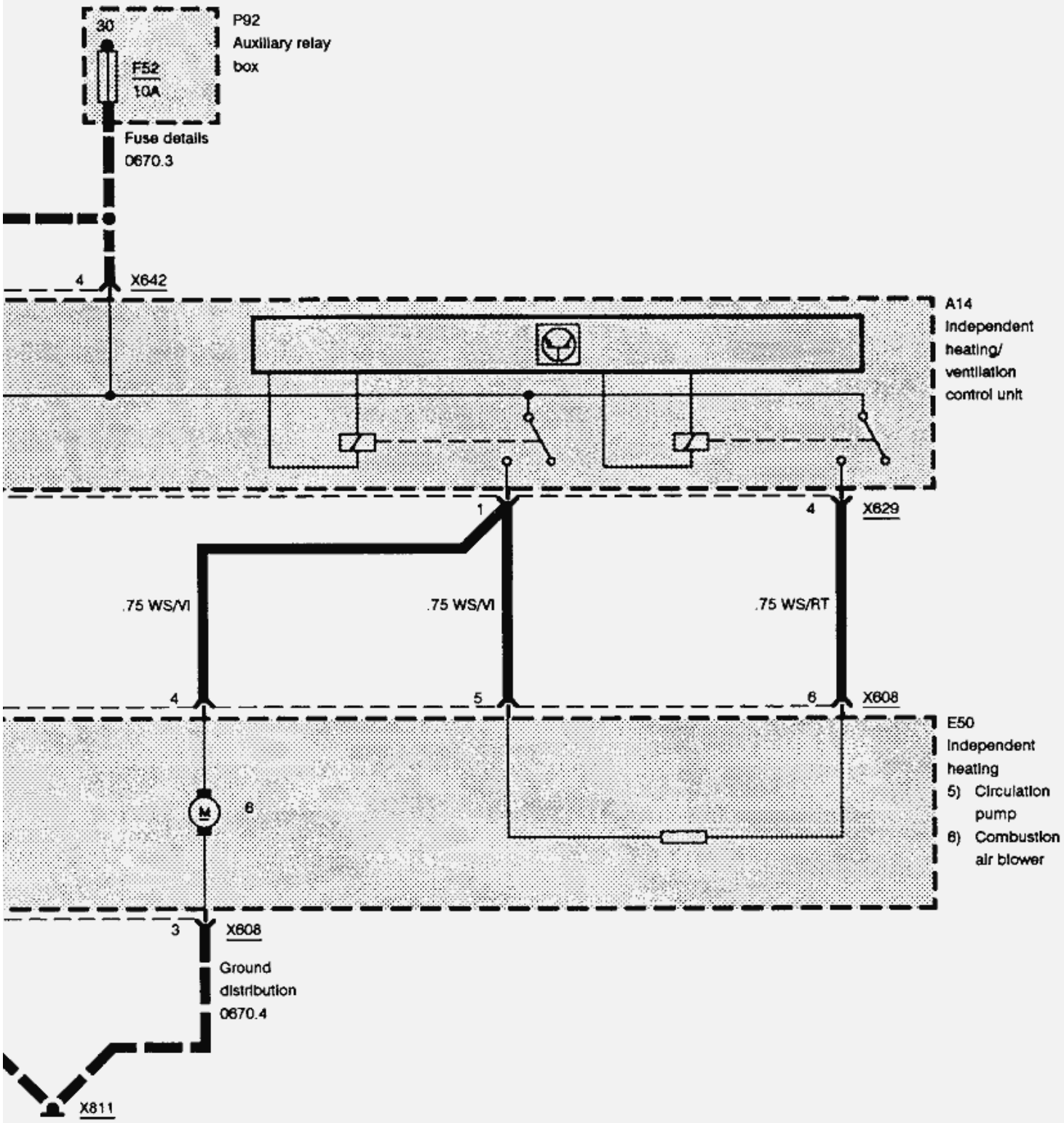
tilation with HR34



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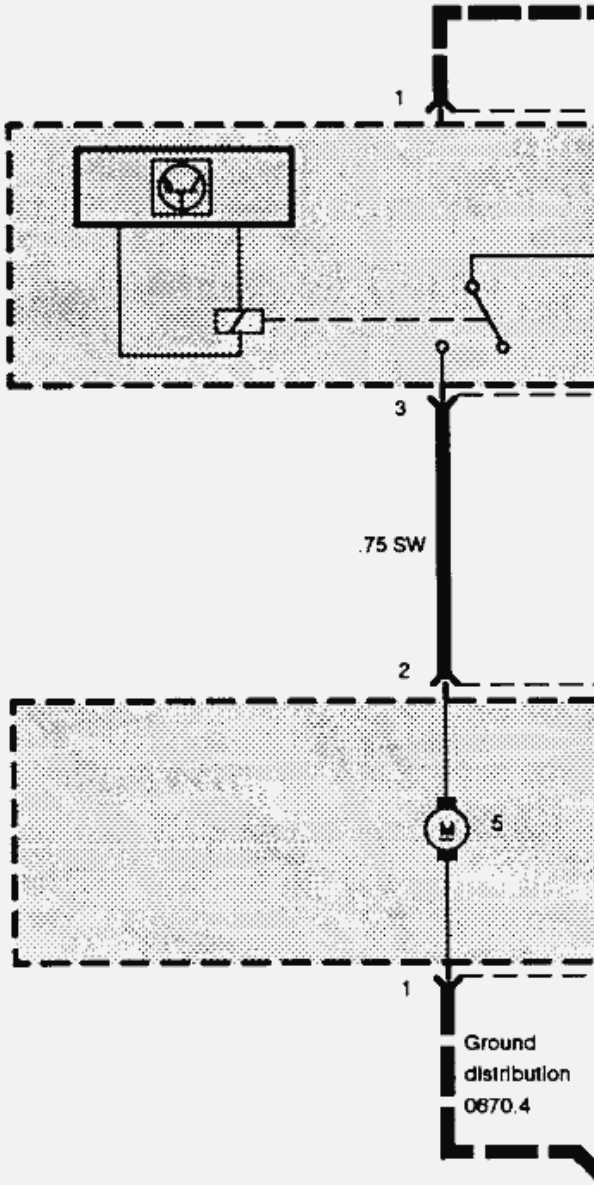
Independent heating/ vent



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Electrical troubleshooting manual

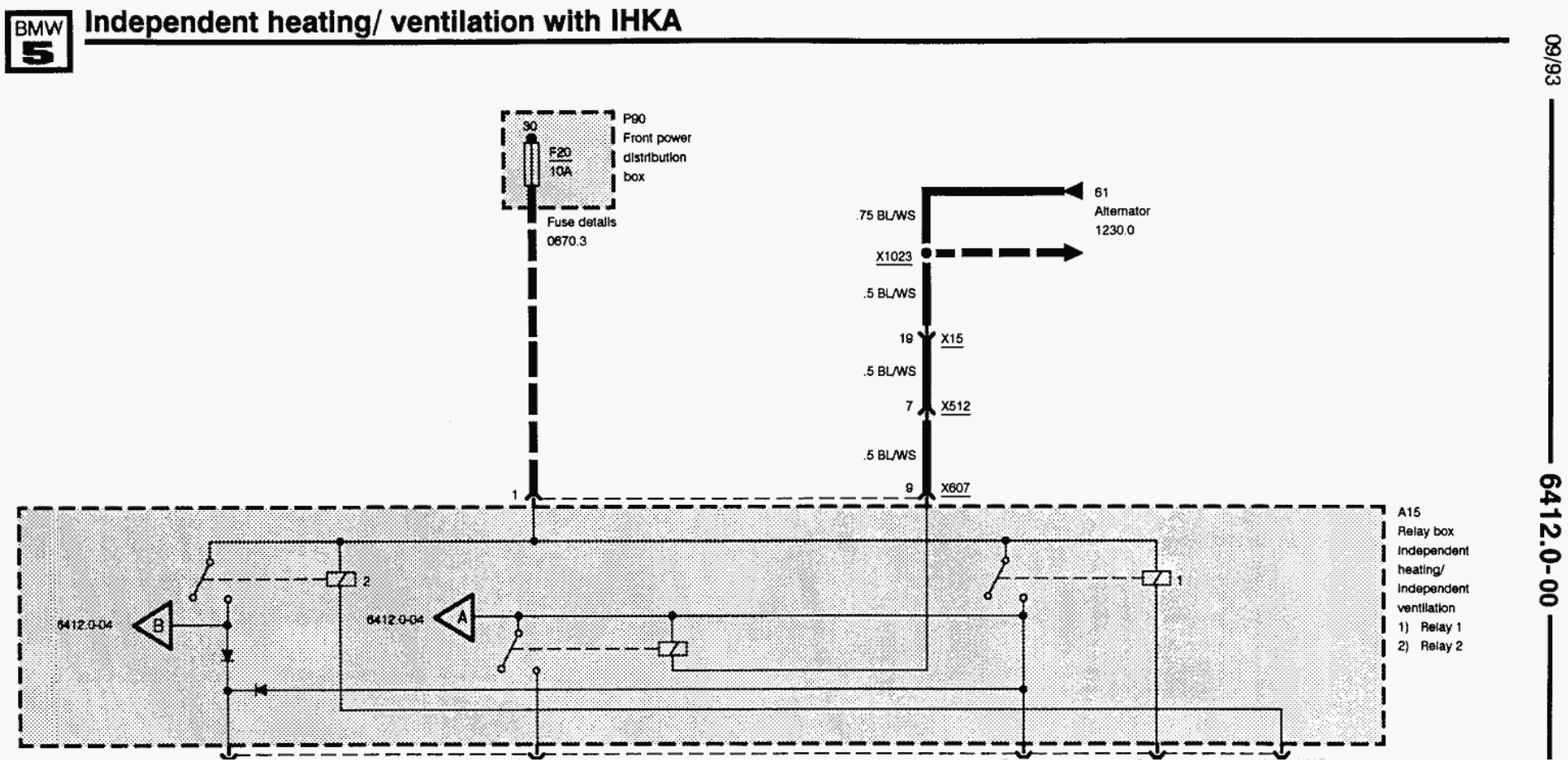
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent heating/ventilation with IHKA
Scheme 6412.0

Pin Assignment X607

Pin	Type	Description/Function	Connection
1	E	Terminal 30	Fuse
2	A	Signal, independent heating	Independent heating relay
3	E	Signal, independent heating	On-board computer
4	E	Signal, independent ventilation	On-board computer
5		not used	
6	A	Signal, ventilation flap	IHKA operating switch
7	E	Signal, independent ventilation, flap position	IHKA operating switch
8	E	Signal, independent heating, flap position	IHKA operating switch
9	E	Terminal 61	Unloader relay
10	M	Ground	Ground connection
11	E	Terminal R	Fuse F1
12	A	Activation, control unit/stop valve	Independent heating/ventilation control unit/ stop valve

E = Input, A = Output, M = Ground



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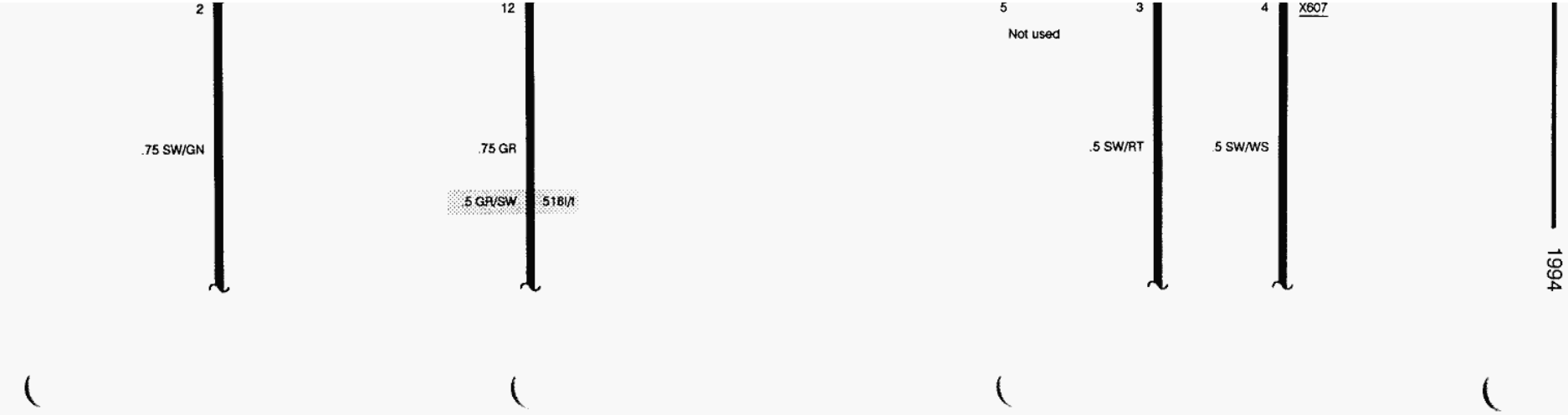

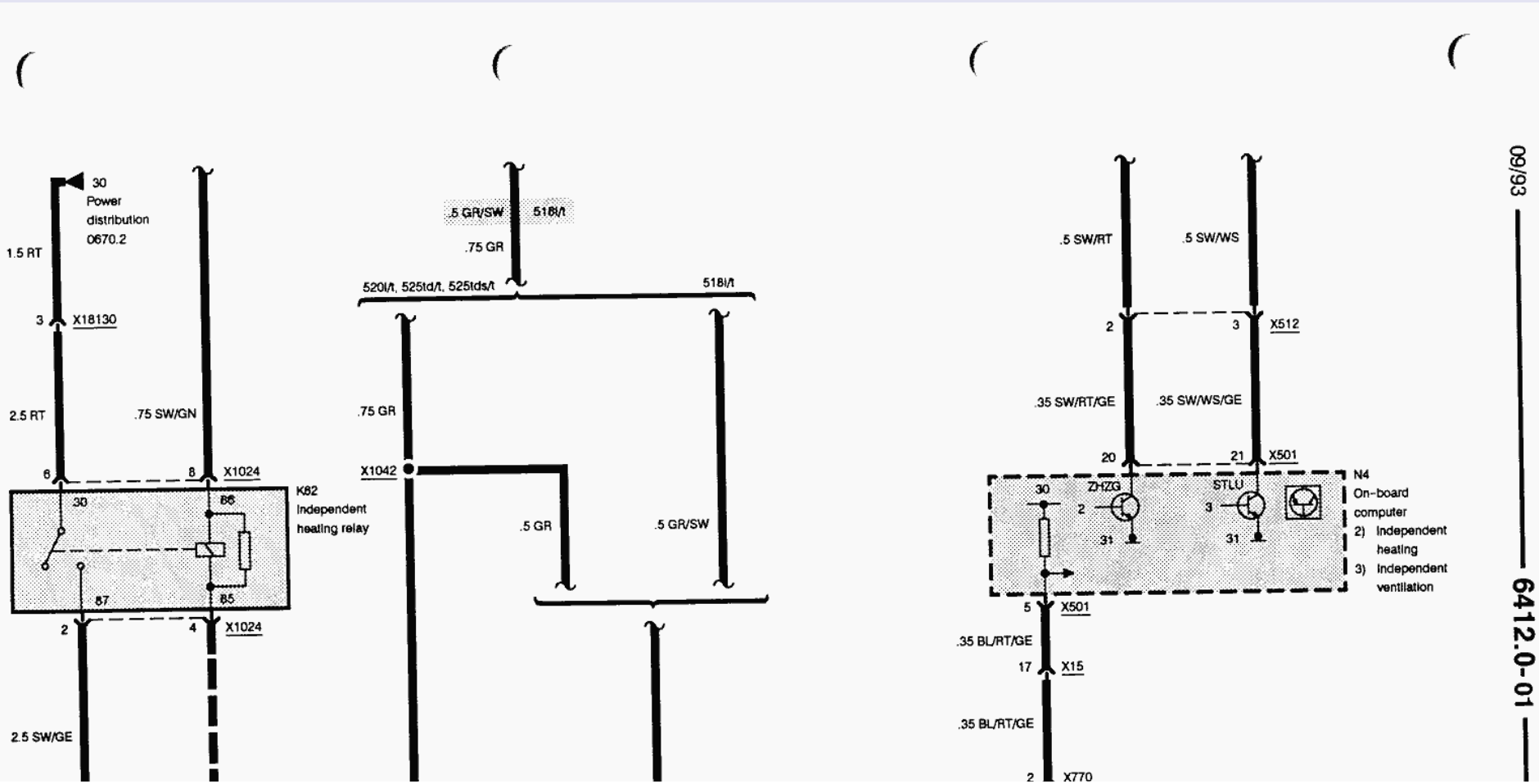

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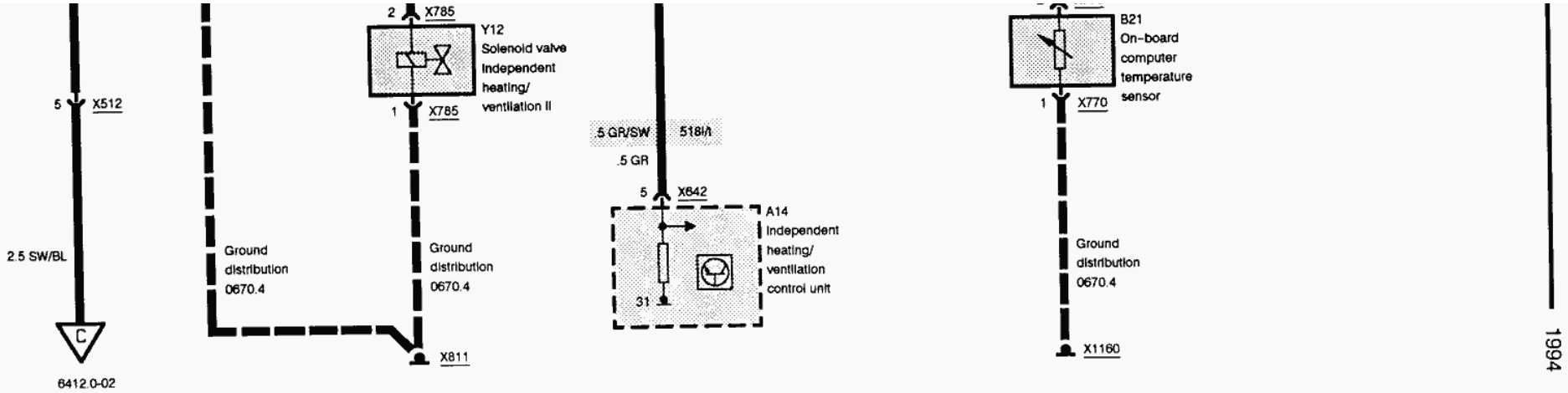
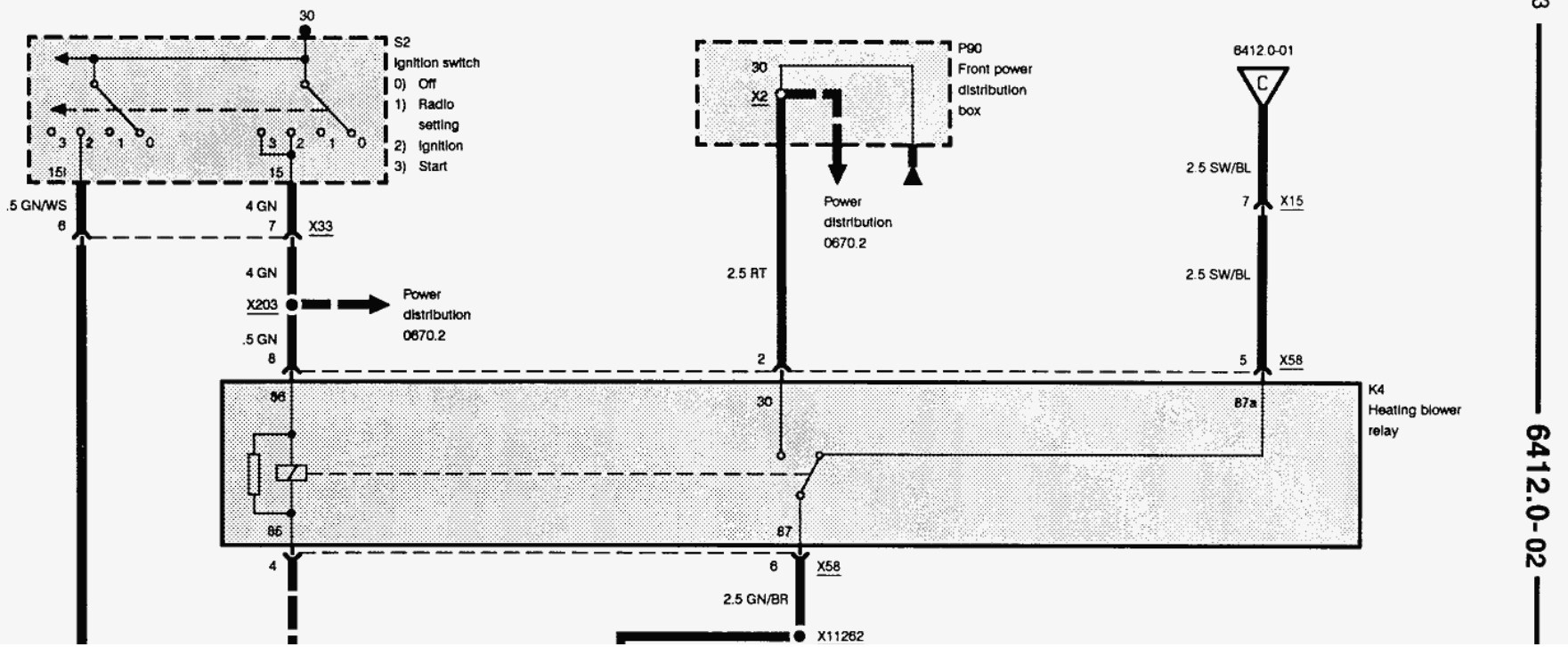


Independent heating/ ventilation with IHKA



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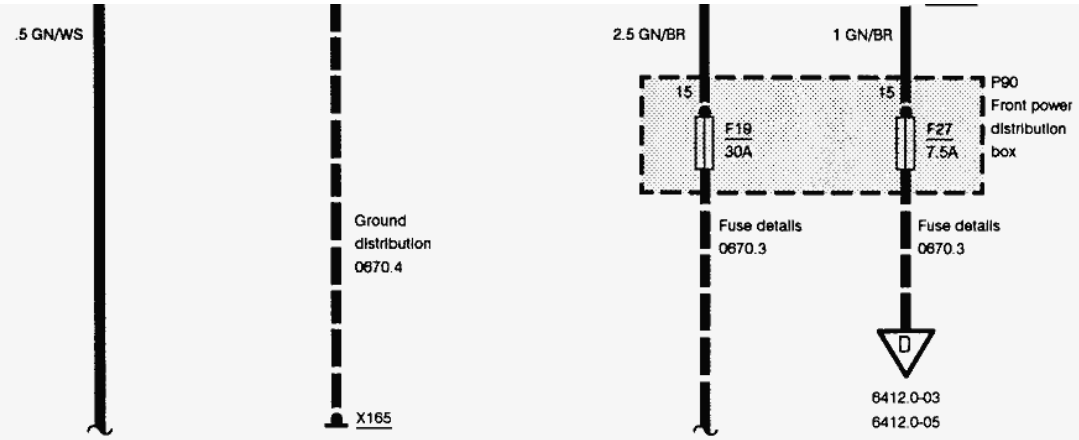

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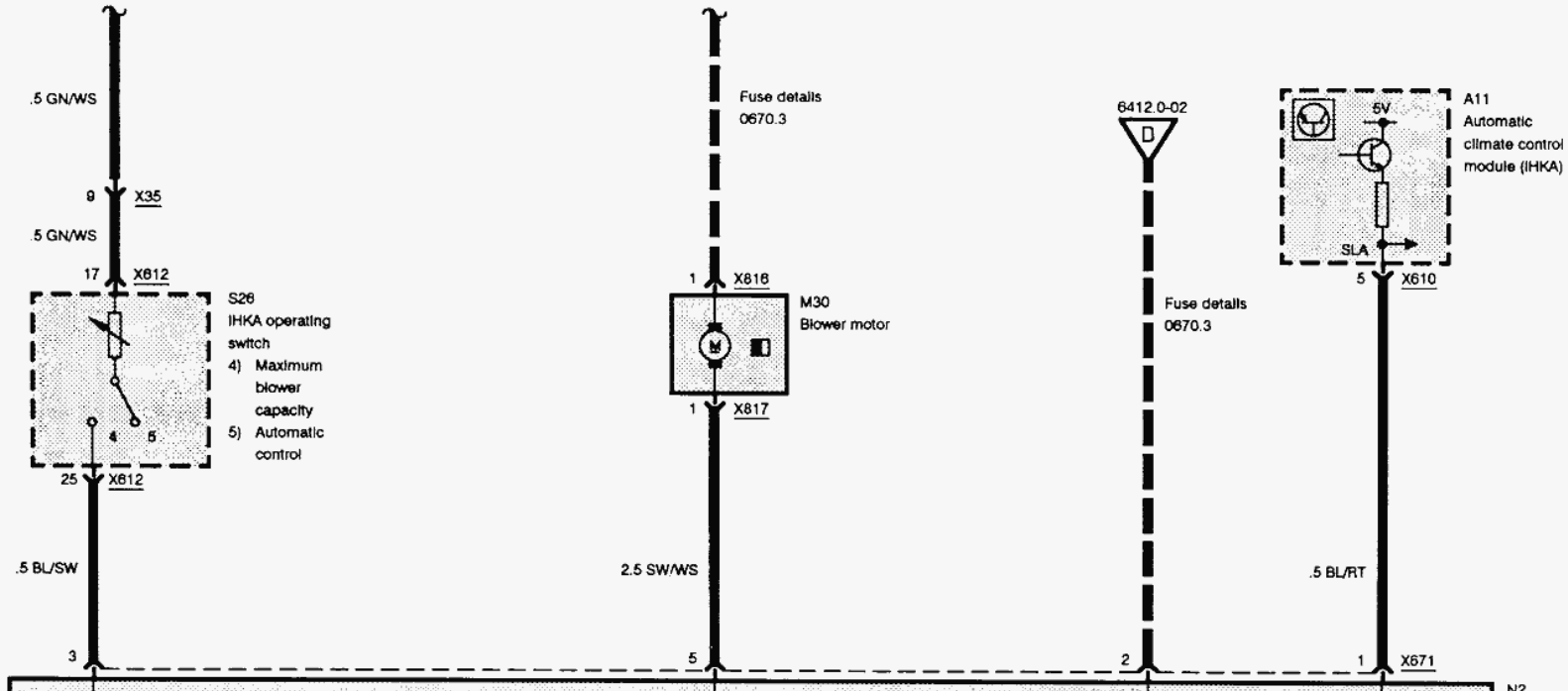

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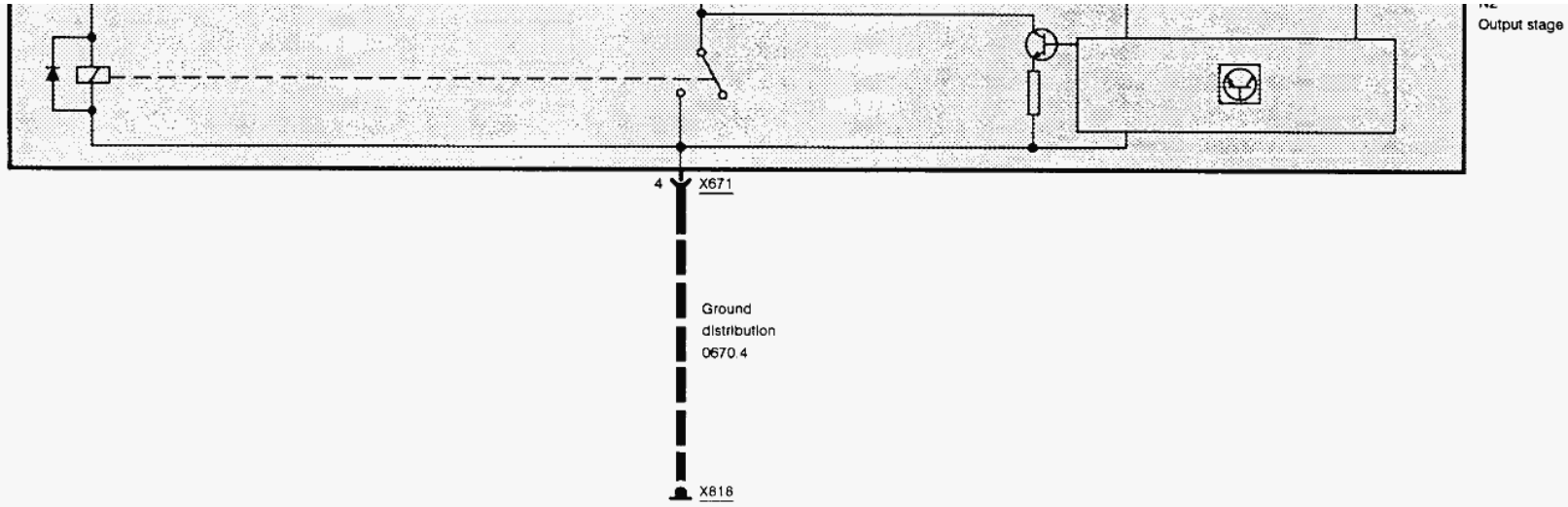

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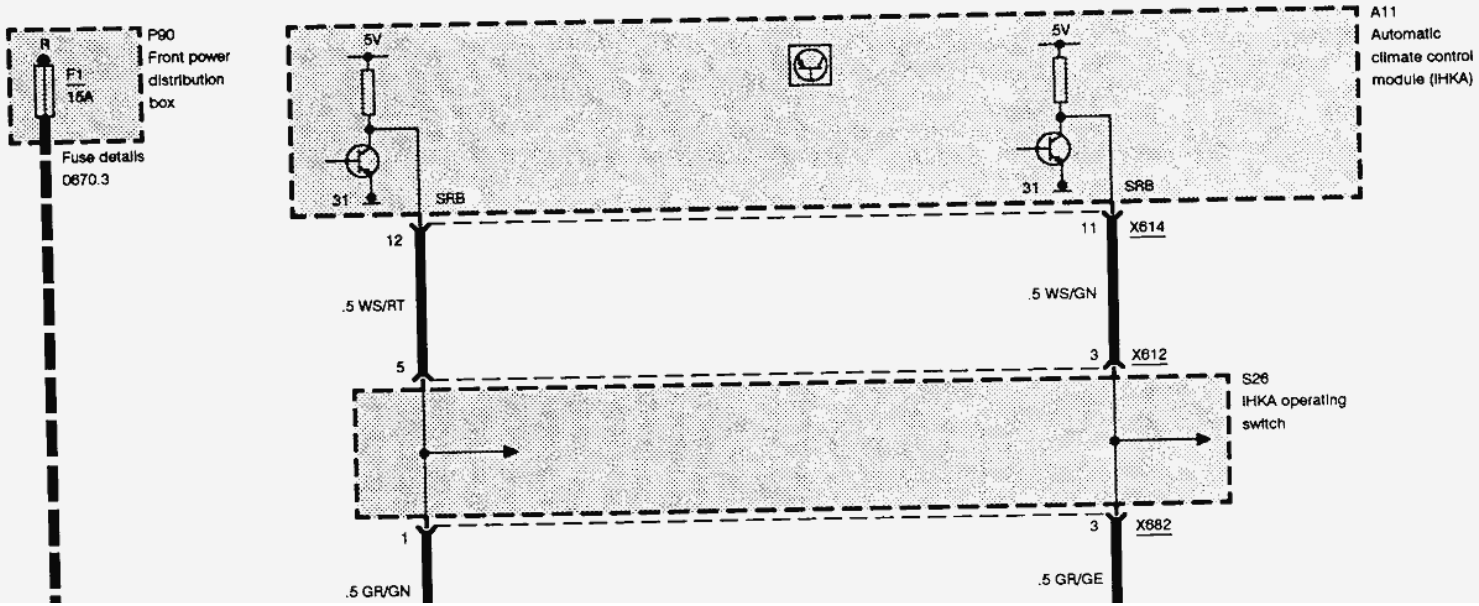
Independent heating/ ventilation with IHKA



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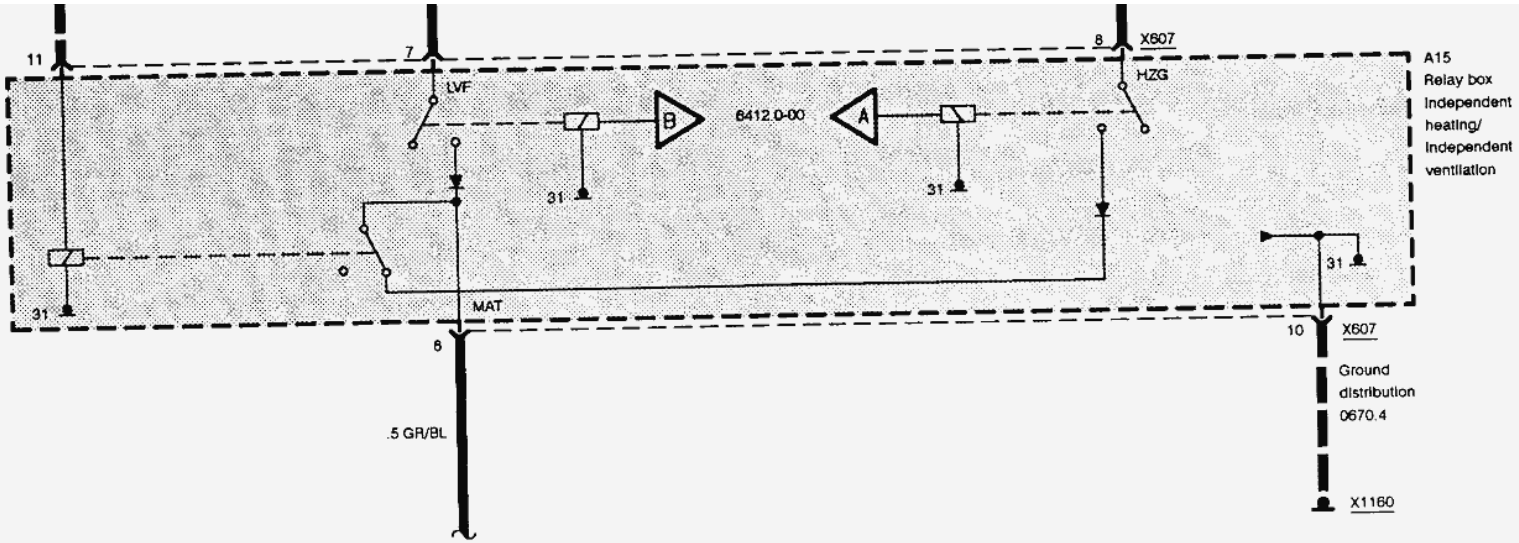

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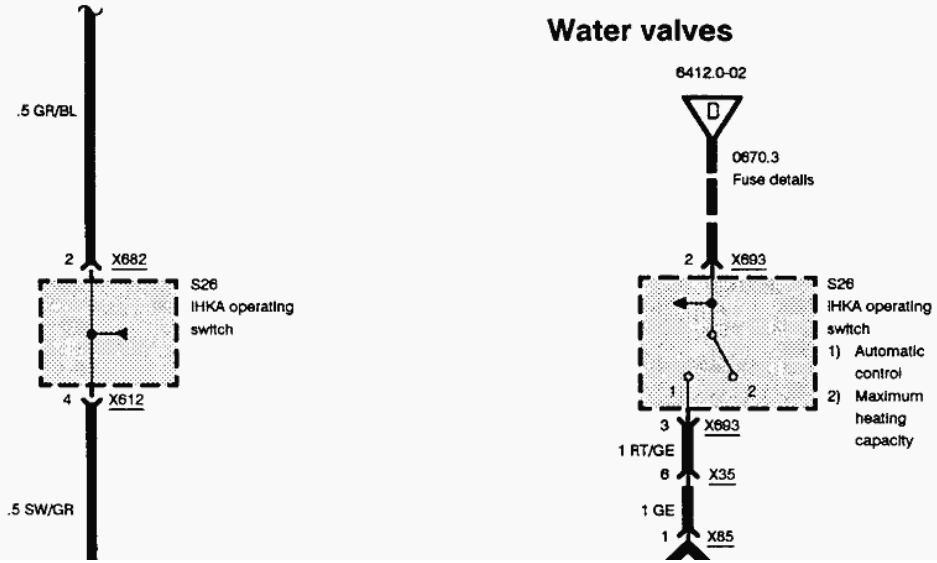
Water valves



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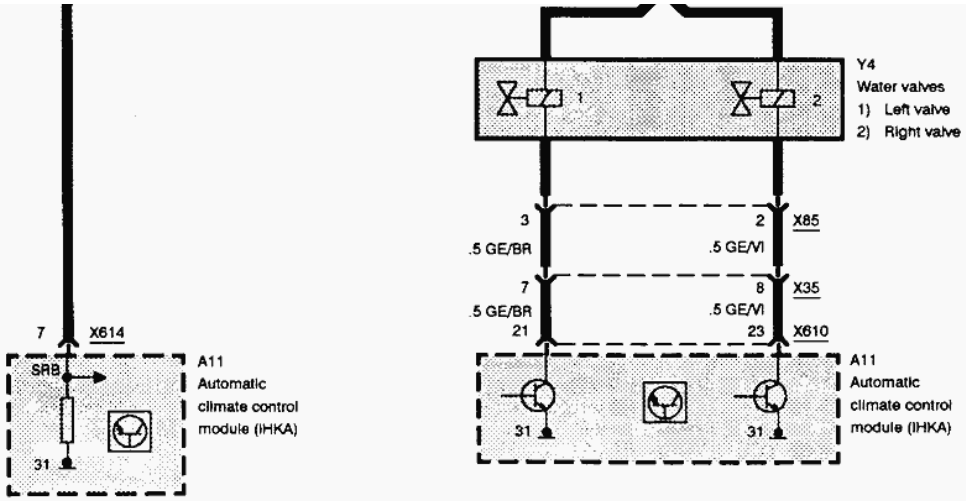

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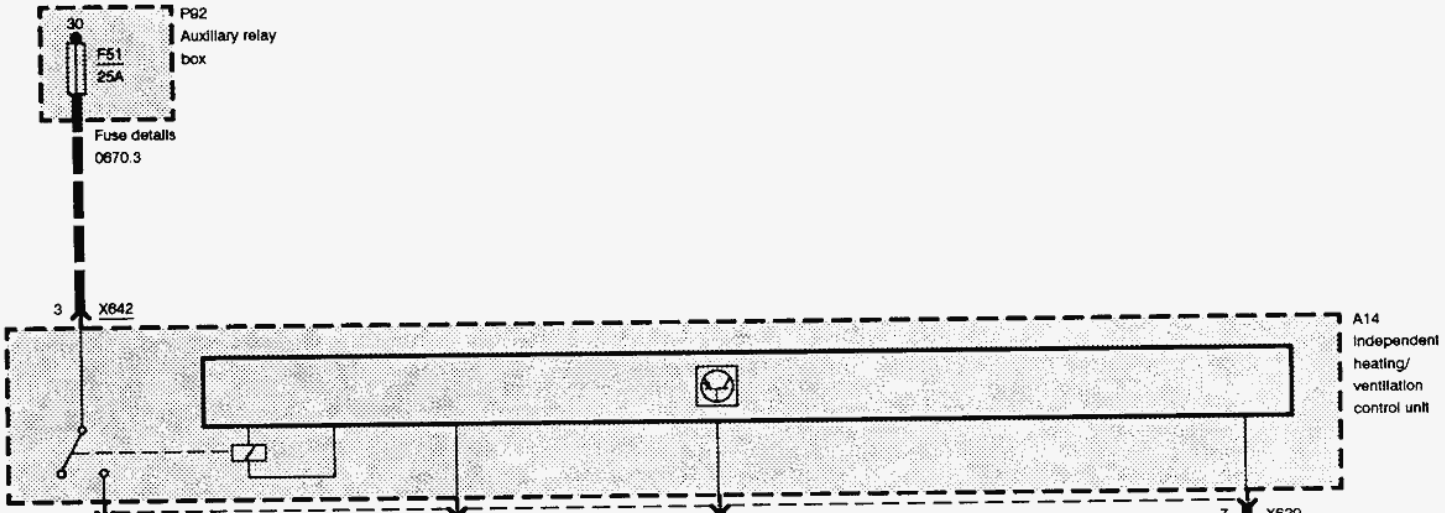
Independent heating/ ventilation with IHKA



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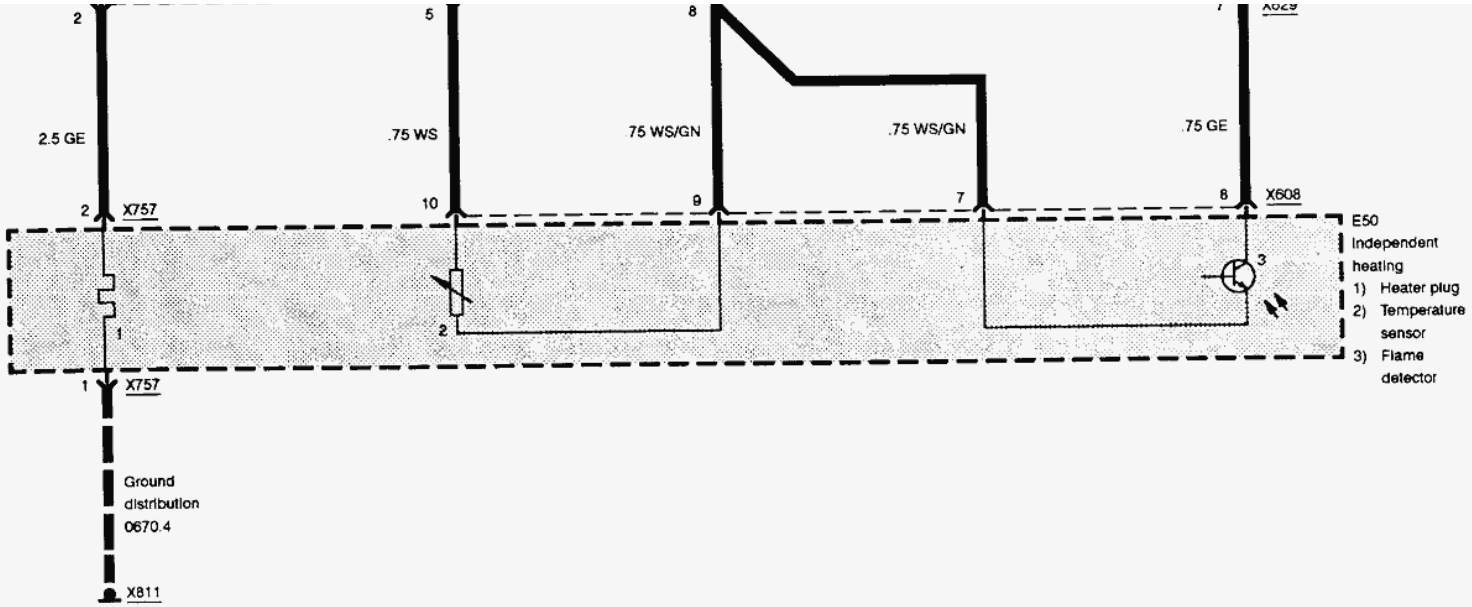

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Independent heating/ ventilation with IHKA

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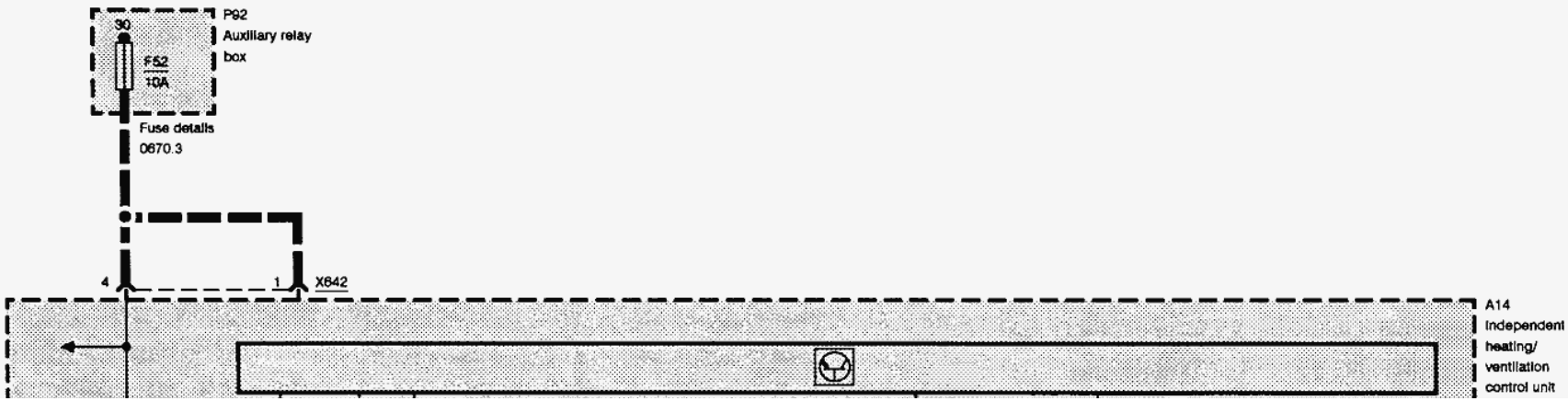

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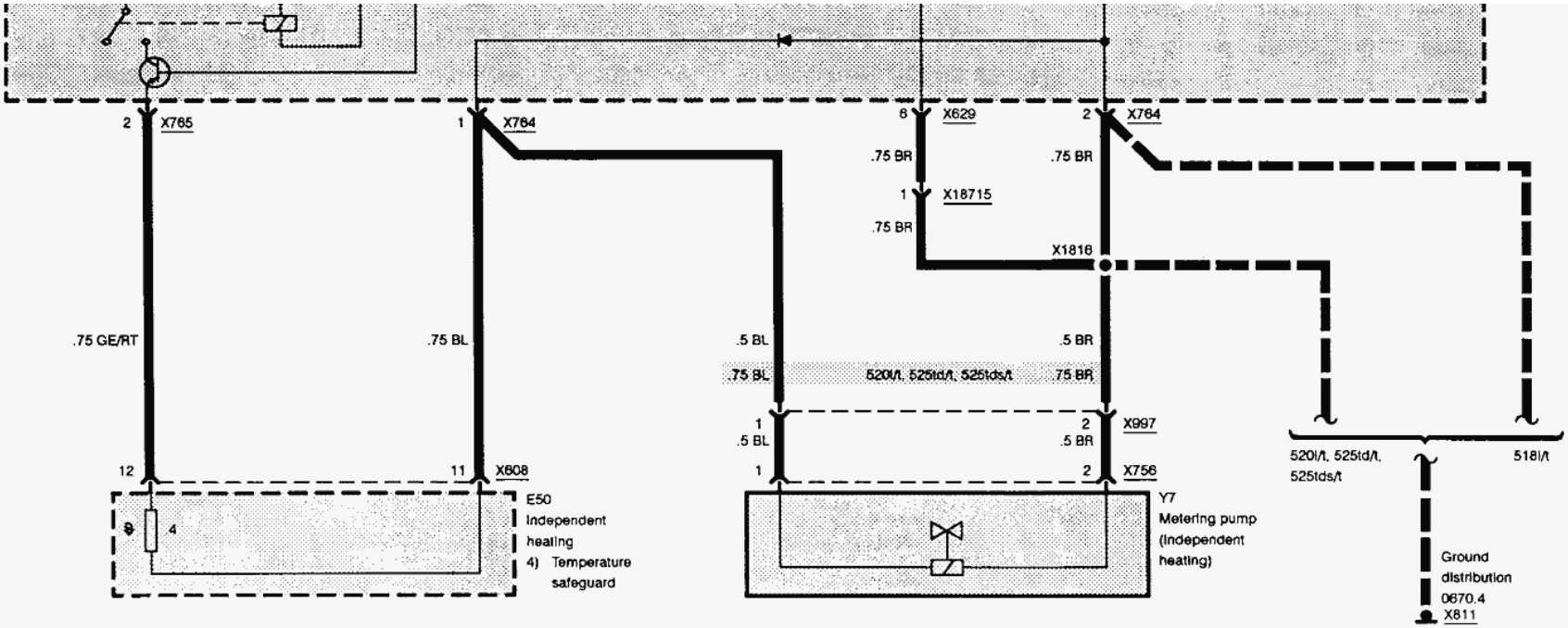

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Independent heating/ ventilation with IHKA

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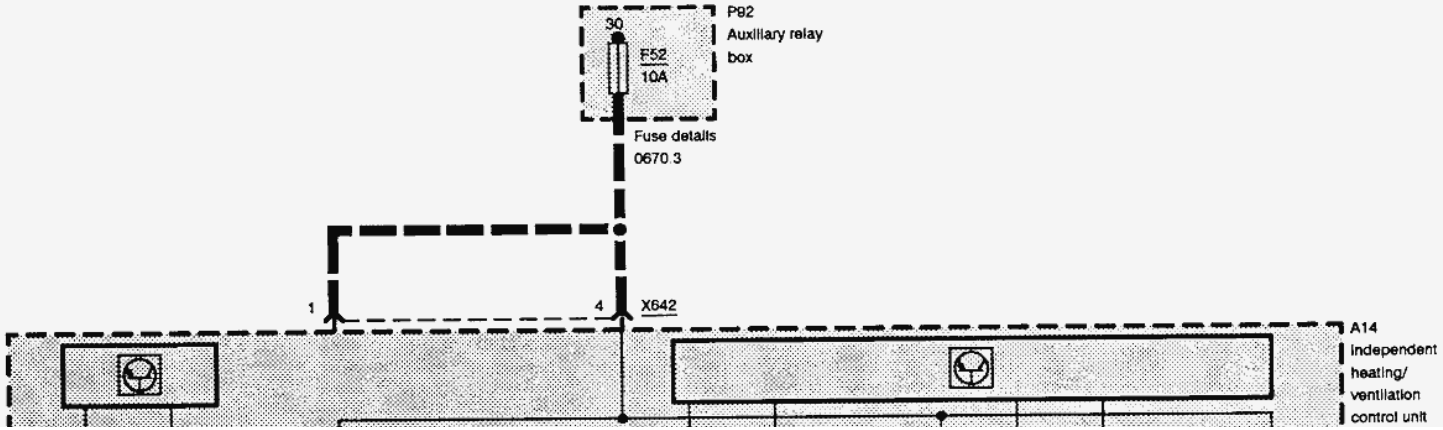

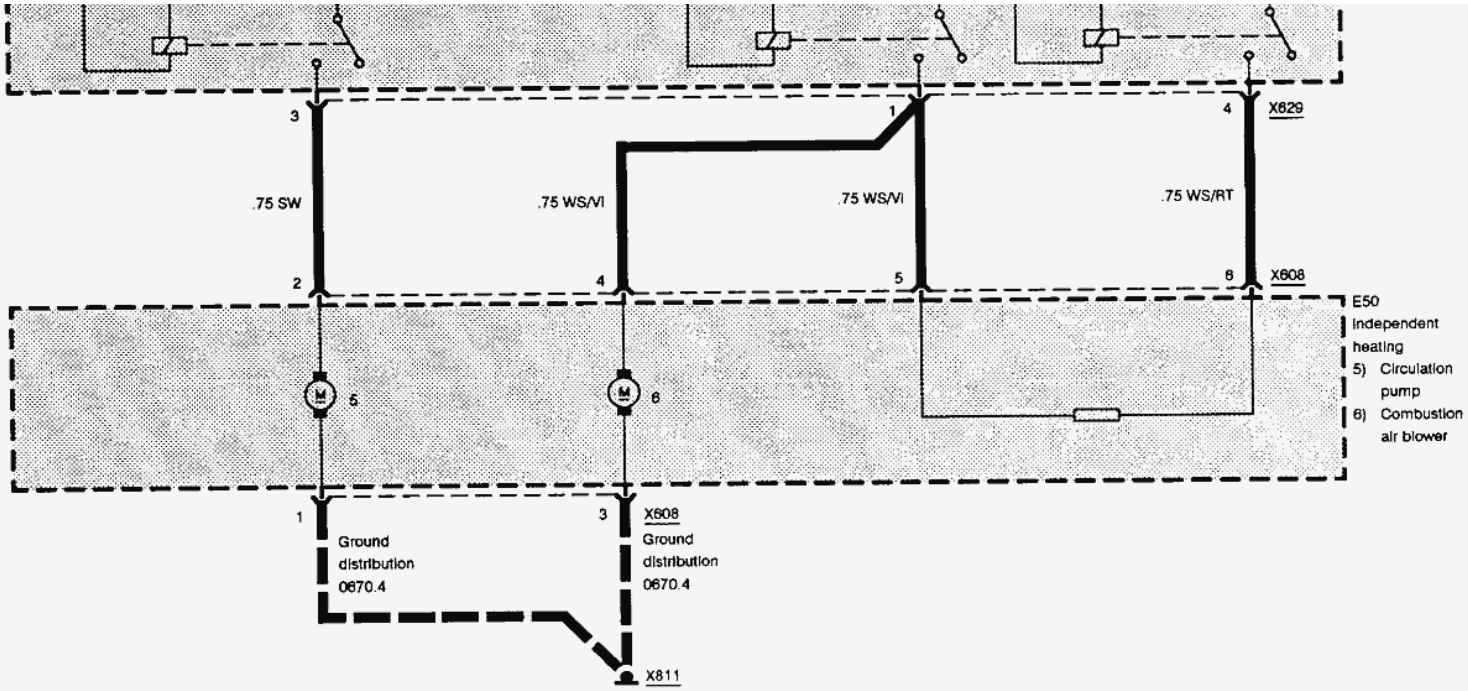

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Electrical troubleshooting manual

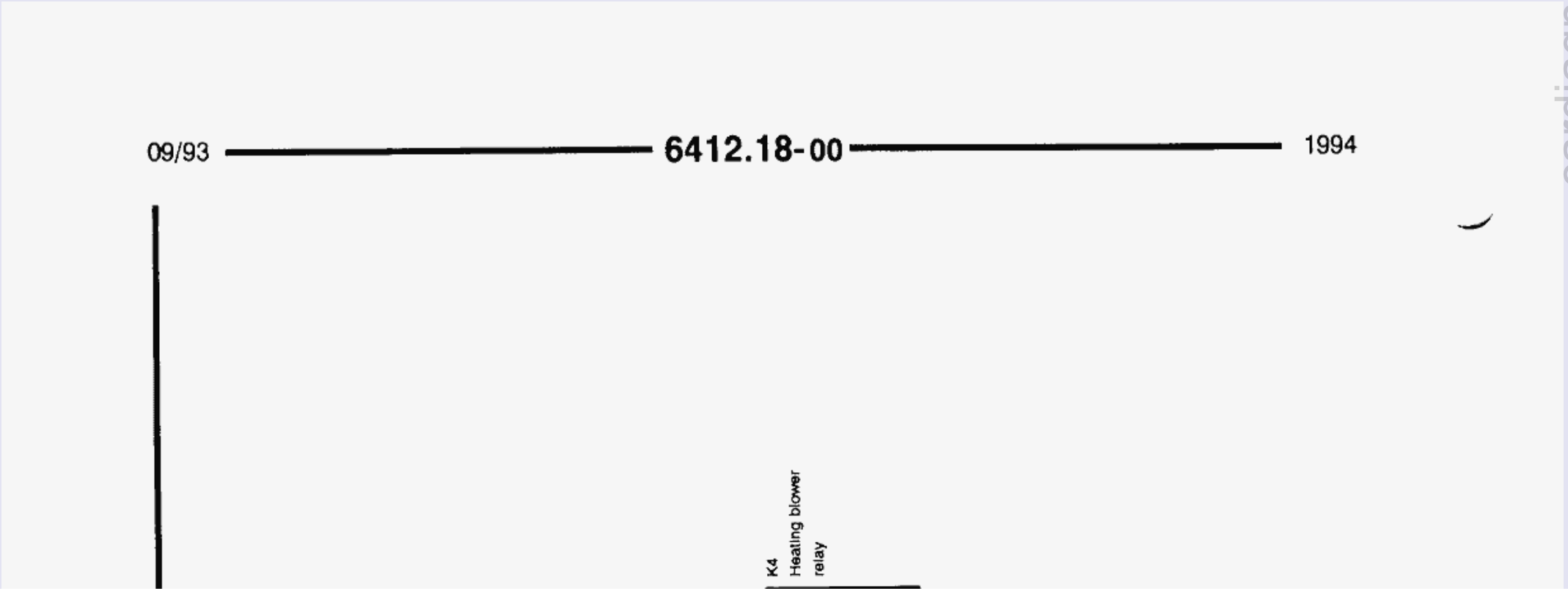
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent heating/ventilation with IHKR/F3
Scheme 6412.18

Pin Assignment X607

Pin	Type	Description/Function	Connection
1	E	Terminal 30	Fuse
2	A	Signal, independent heating	Independent heating relay
3	E	Signal, independent heating	On-board computer
4	E	Signal, independent ventilation	On-board computer
5		not used	
6	A	Signal, ventilation flap	IHKA operating switch
7	E	Signal, independent ventilation, flap position	IHKA operating switch
8	E	Signal, independent heating, flap position	IHKA operating switch
9	E	Terminal 61	Unloader relay
10	M	Ground	Ground connection
11	E	Terminal R	Fuse F1
12	A	Activation, control unit/stop valve	Independent heating/ventilation control unit/ stop valve

E = Input, A = Output, M = Ground



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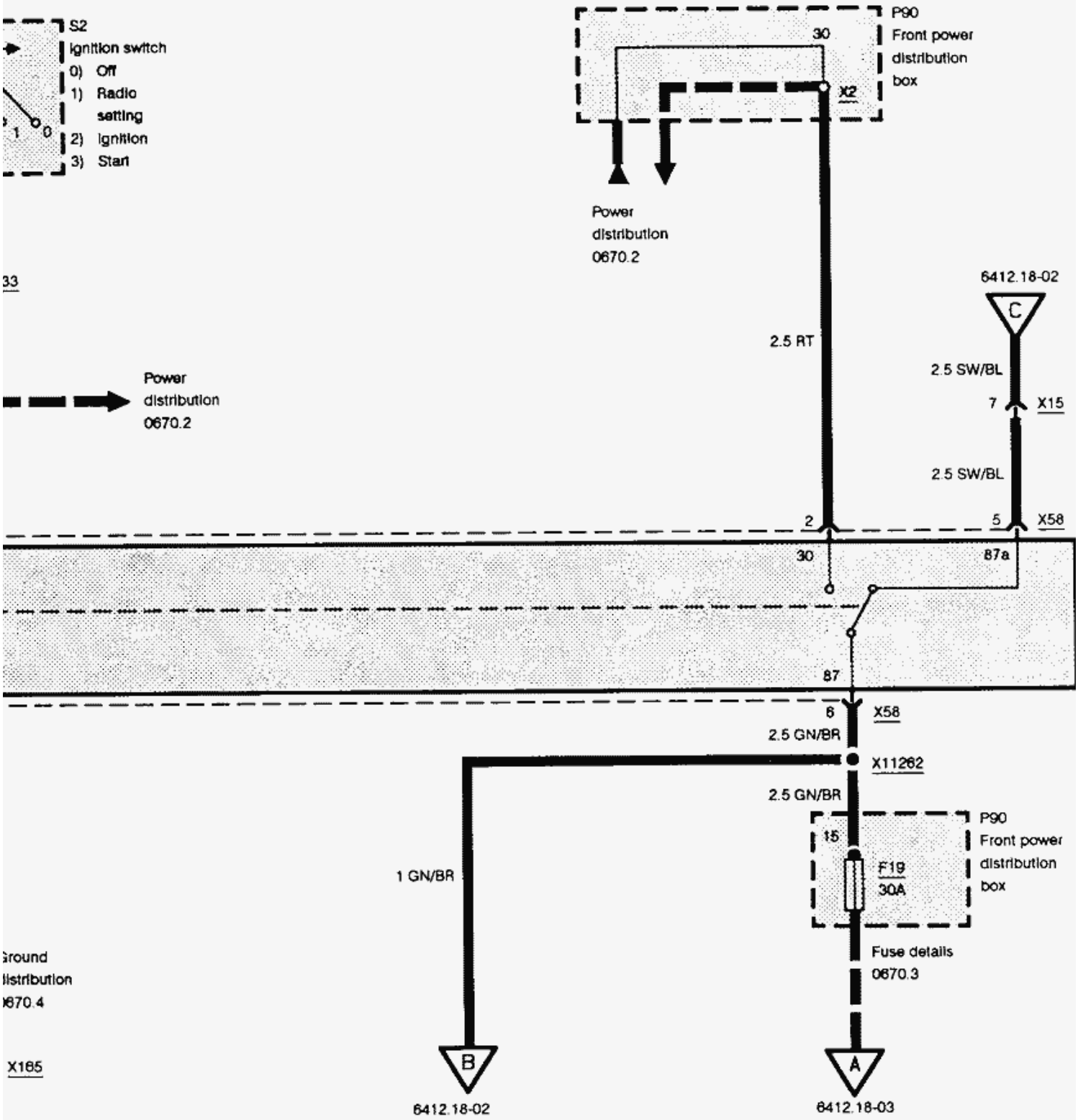
ating/ ventilation with IHKR/F3



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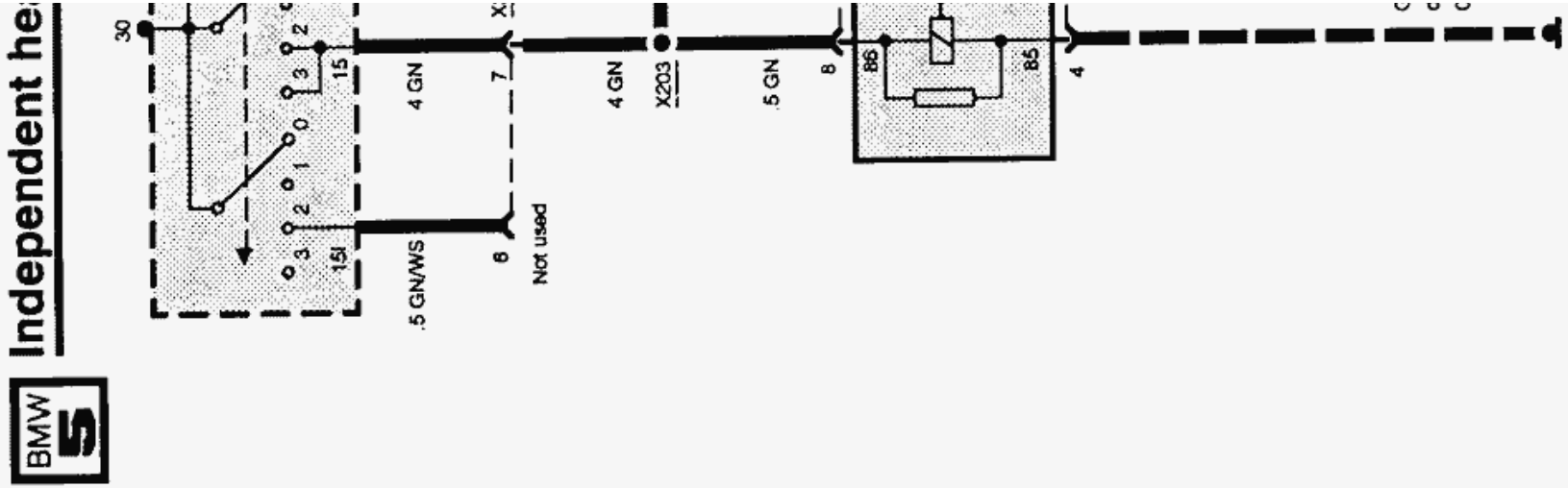

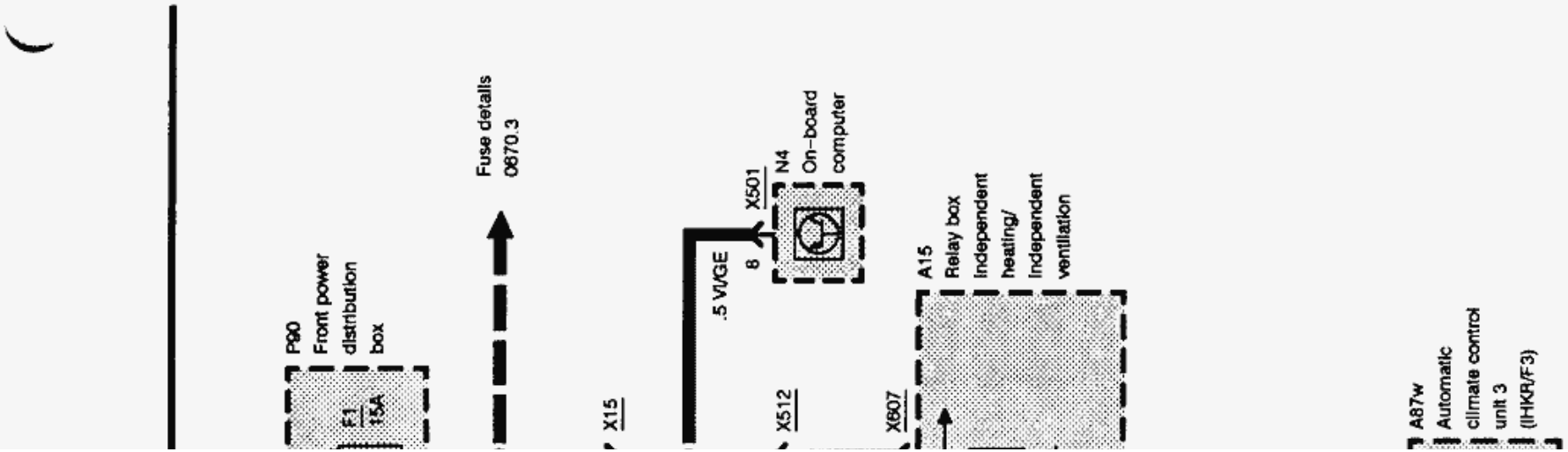

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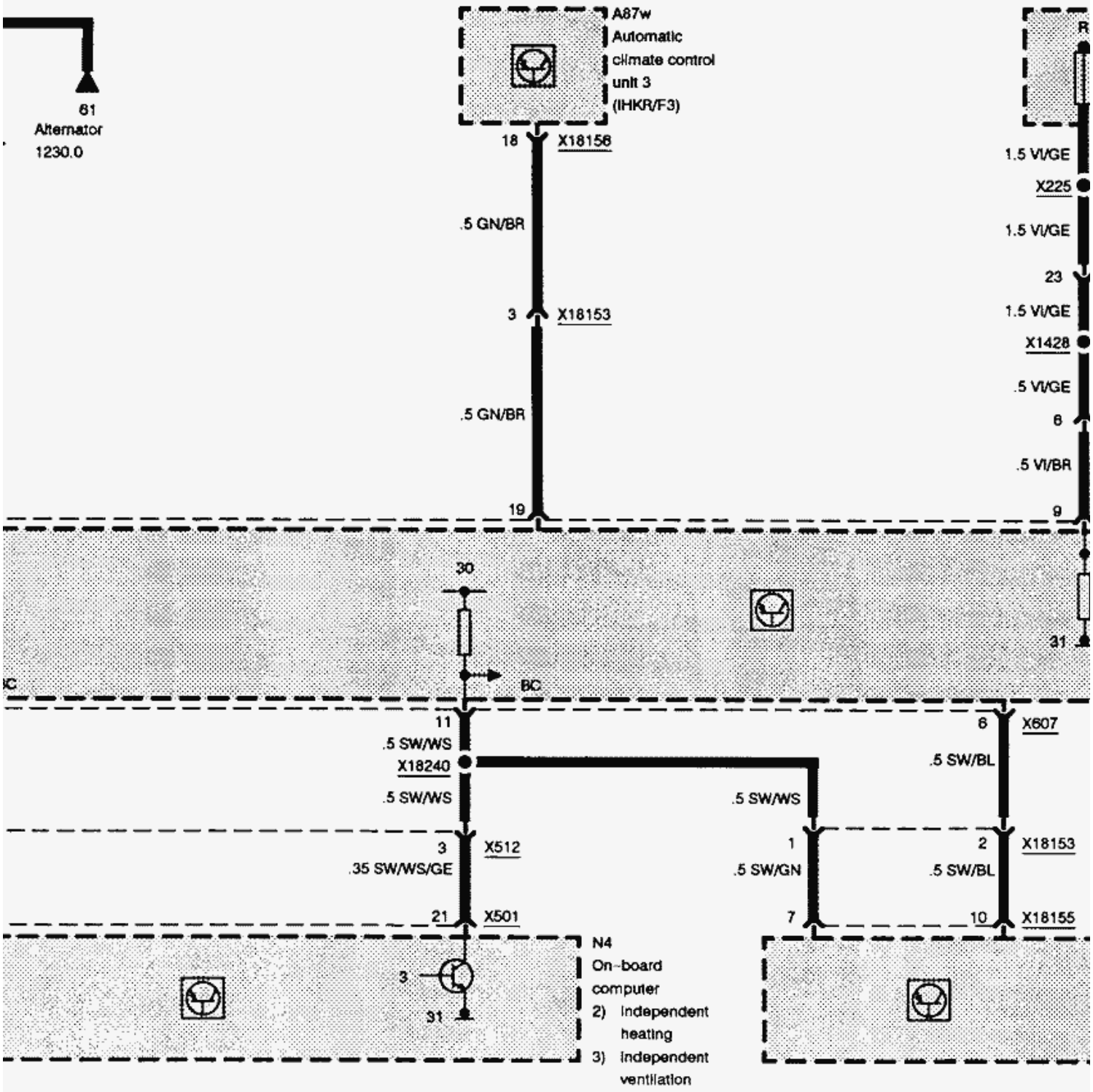

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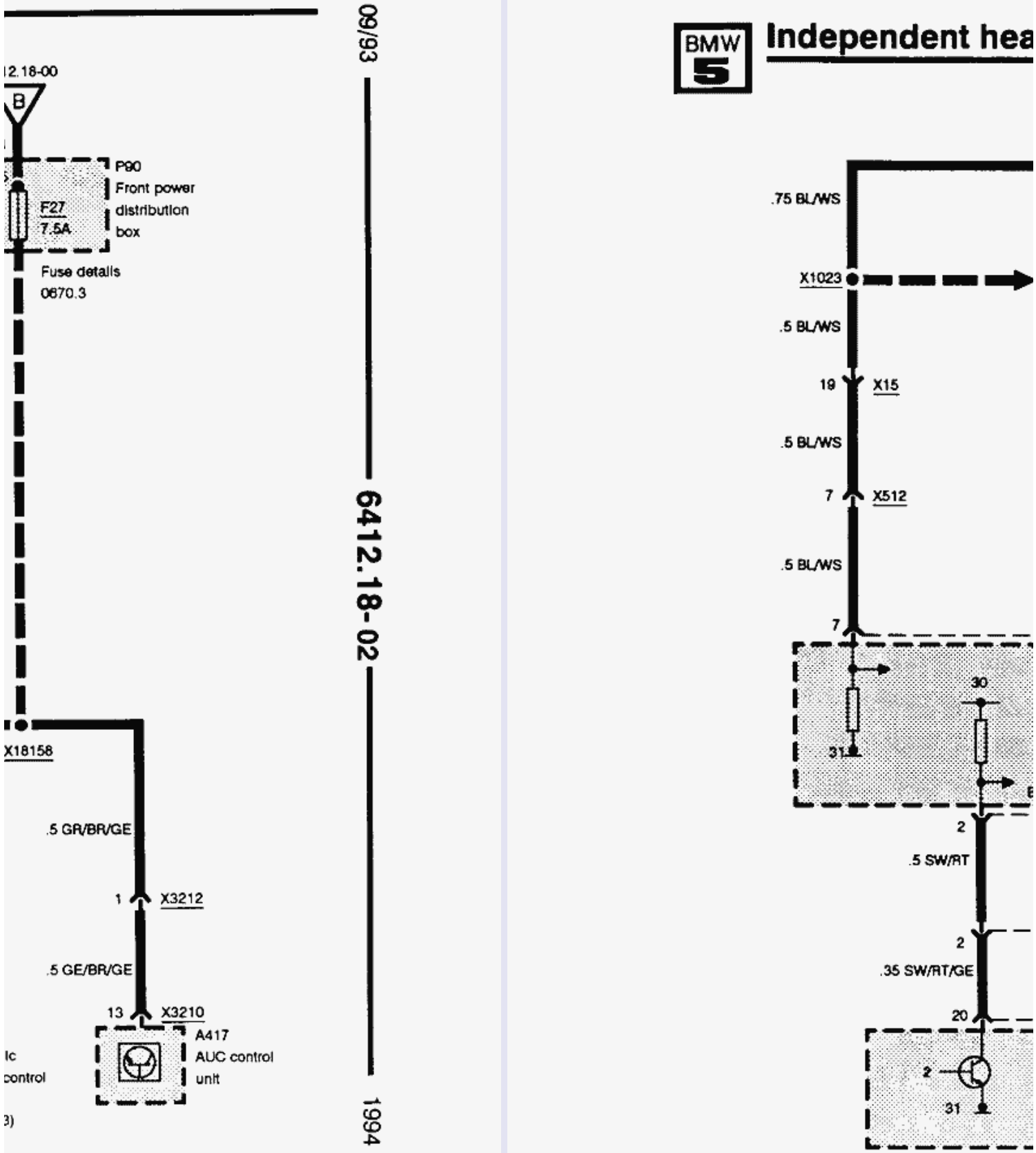
Independent hea



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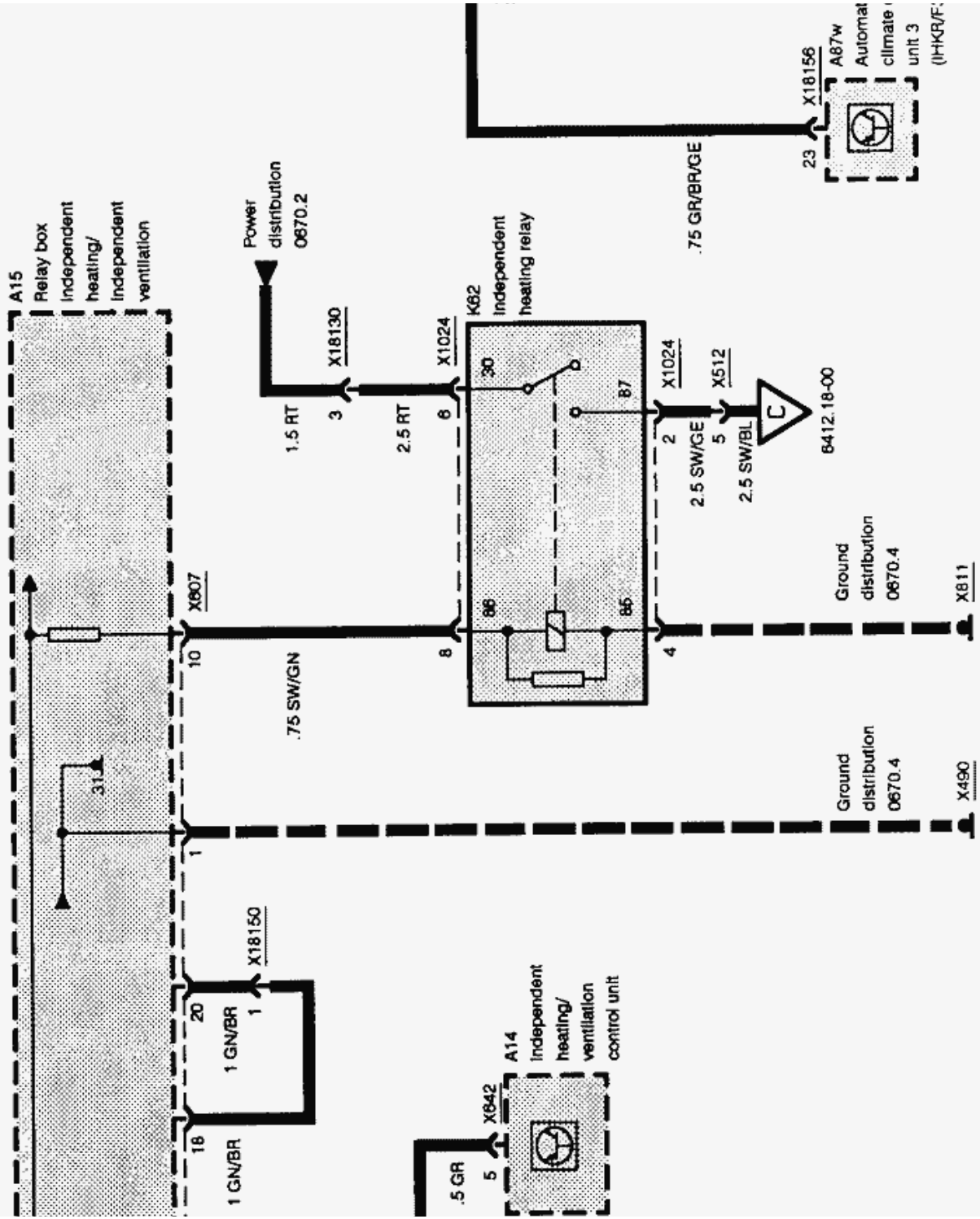
g/ ventilation with IHKR/F3



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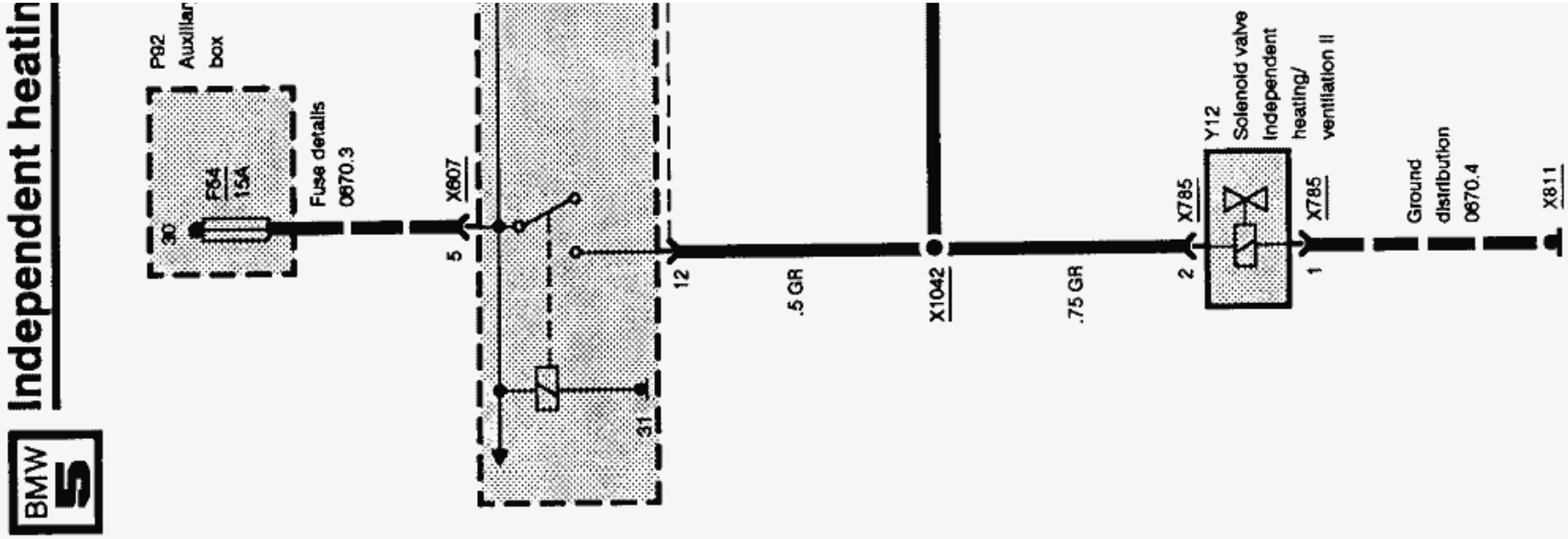

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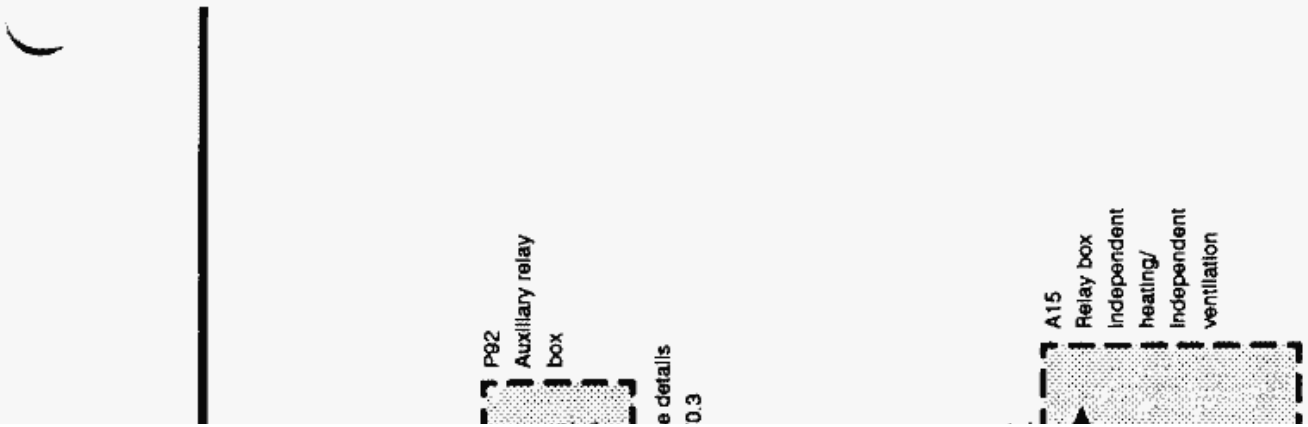

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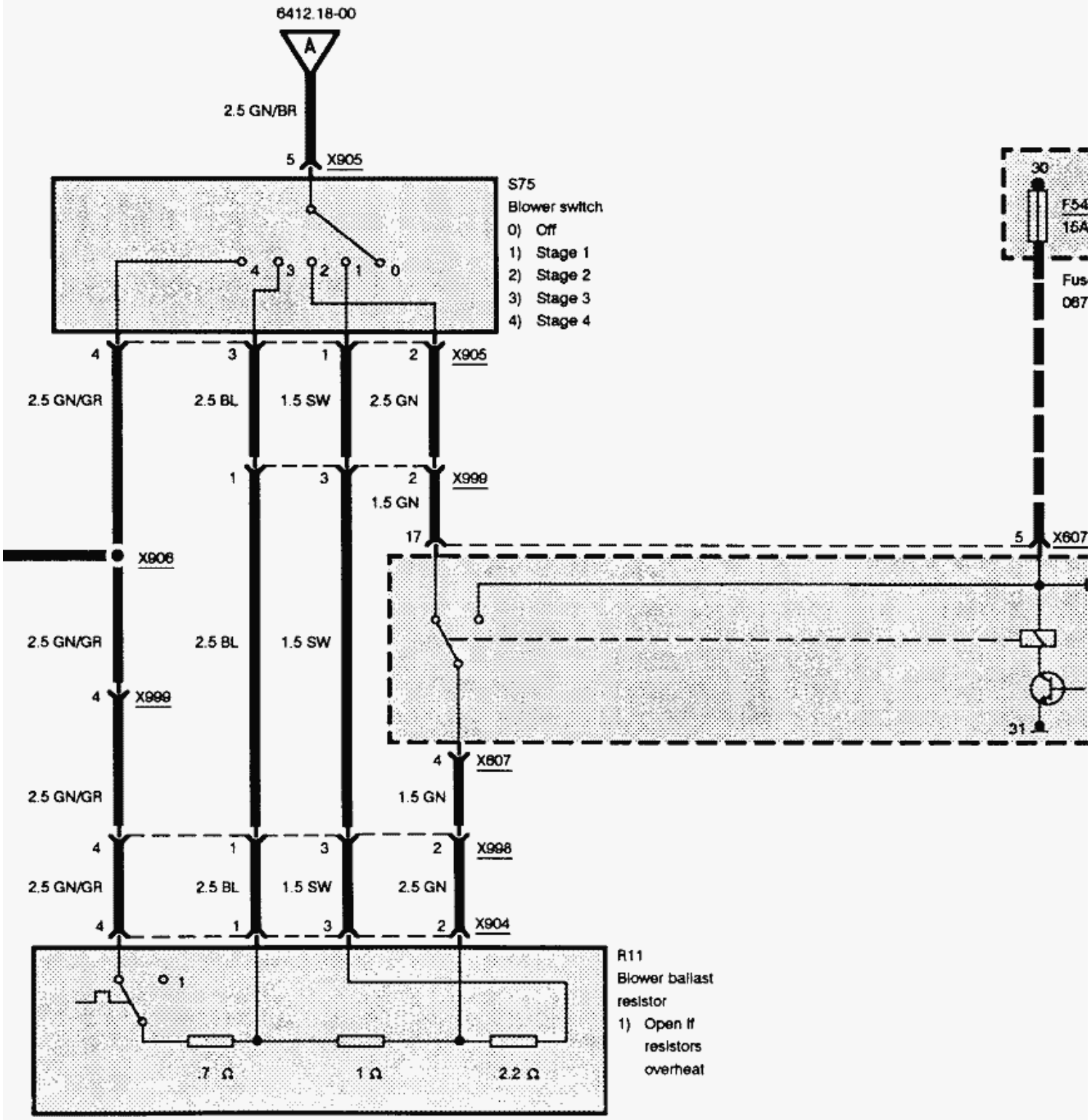
g/ ventilation with IHKR/F3



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Independent heating

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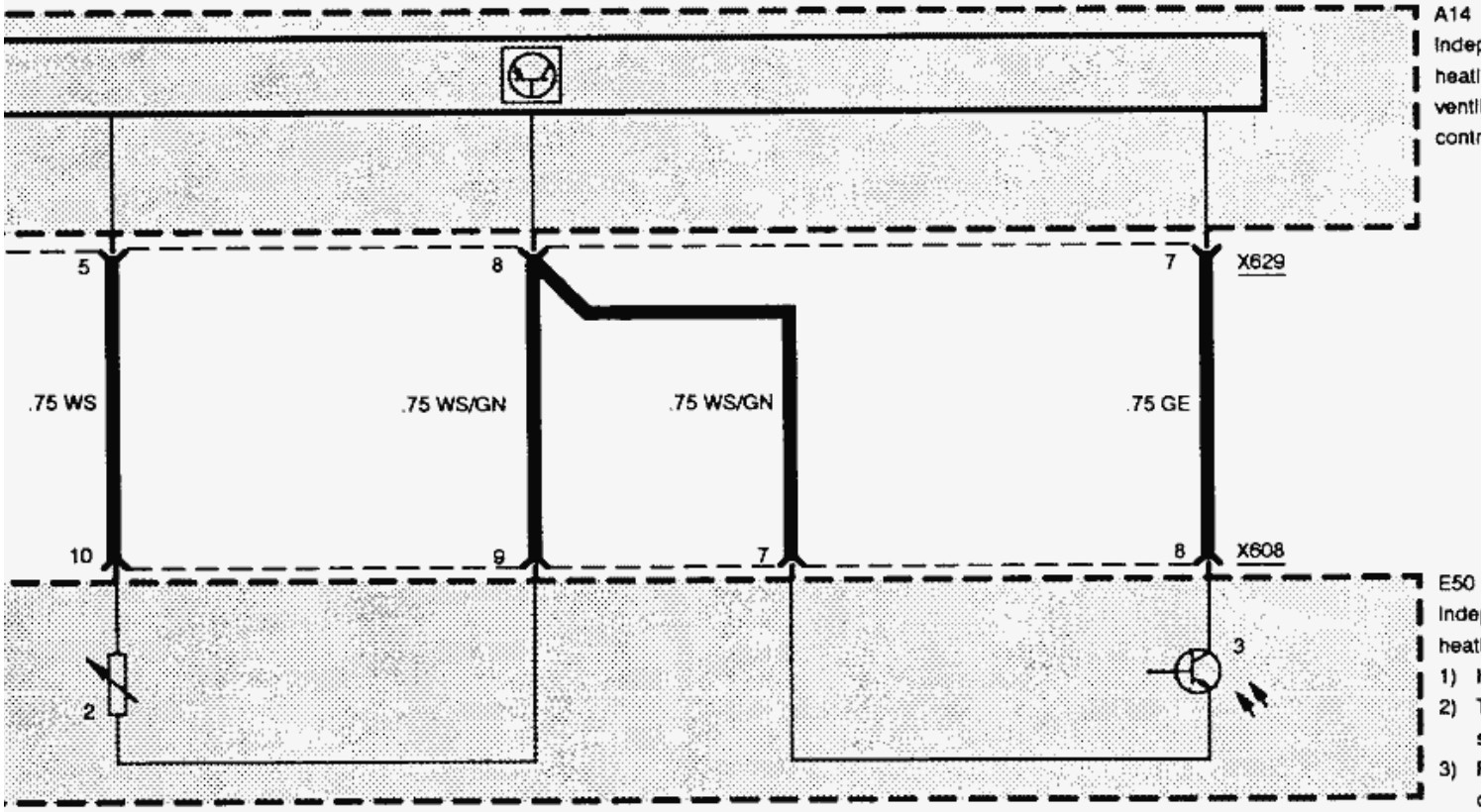
ventilation with IHKR/F3



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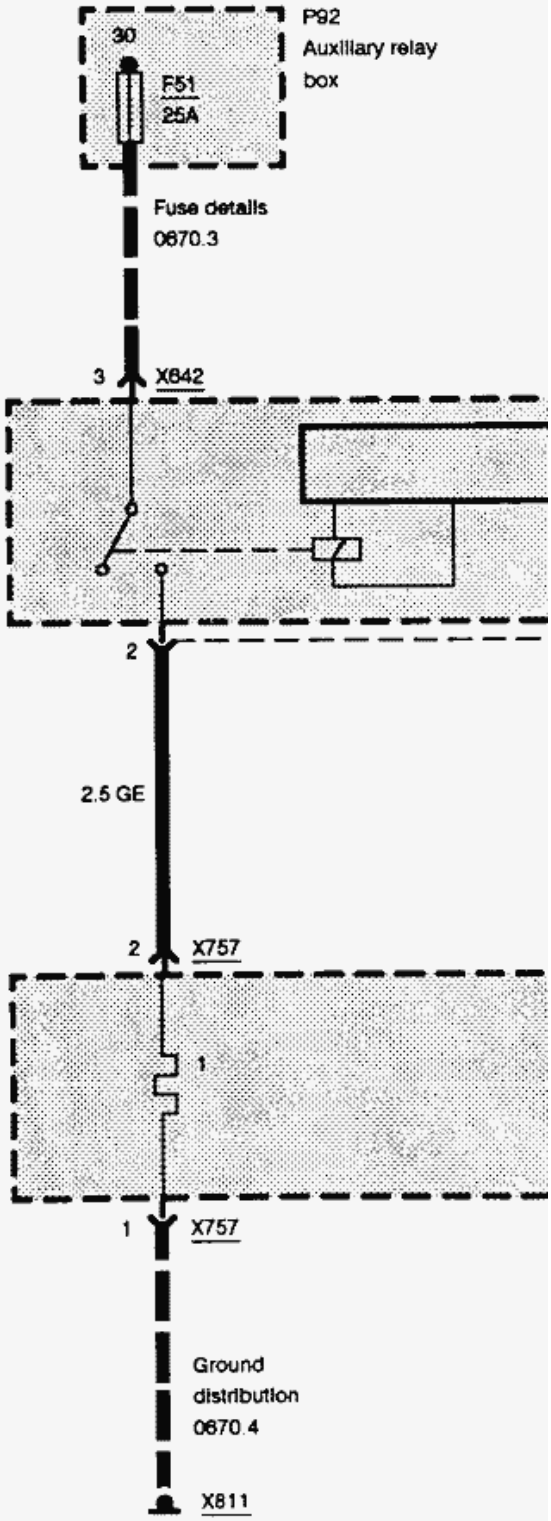
Independent heating/ v



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Independent
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ventilation
control unit

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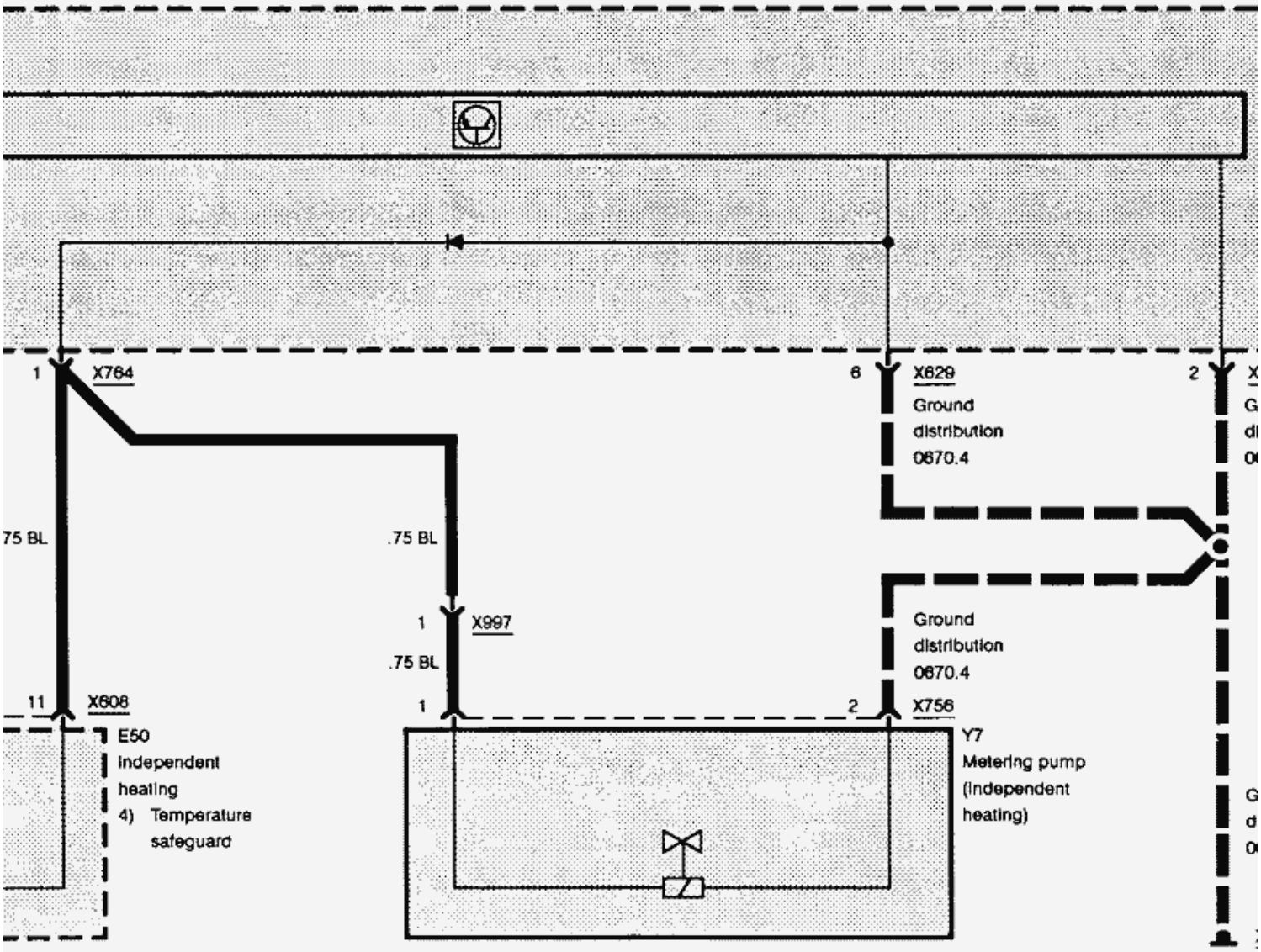
entilation with IHKR/F3



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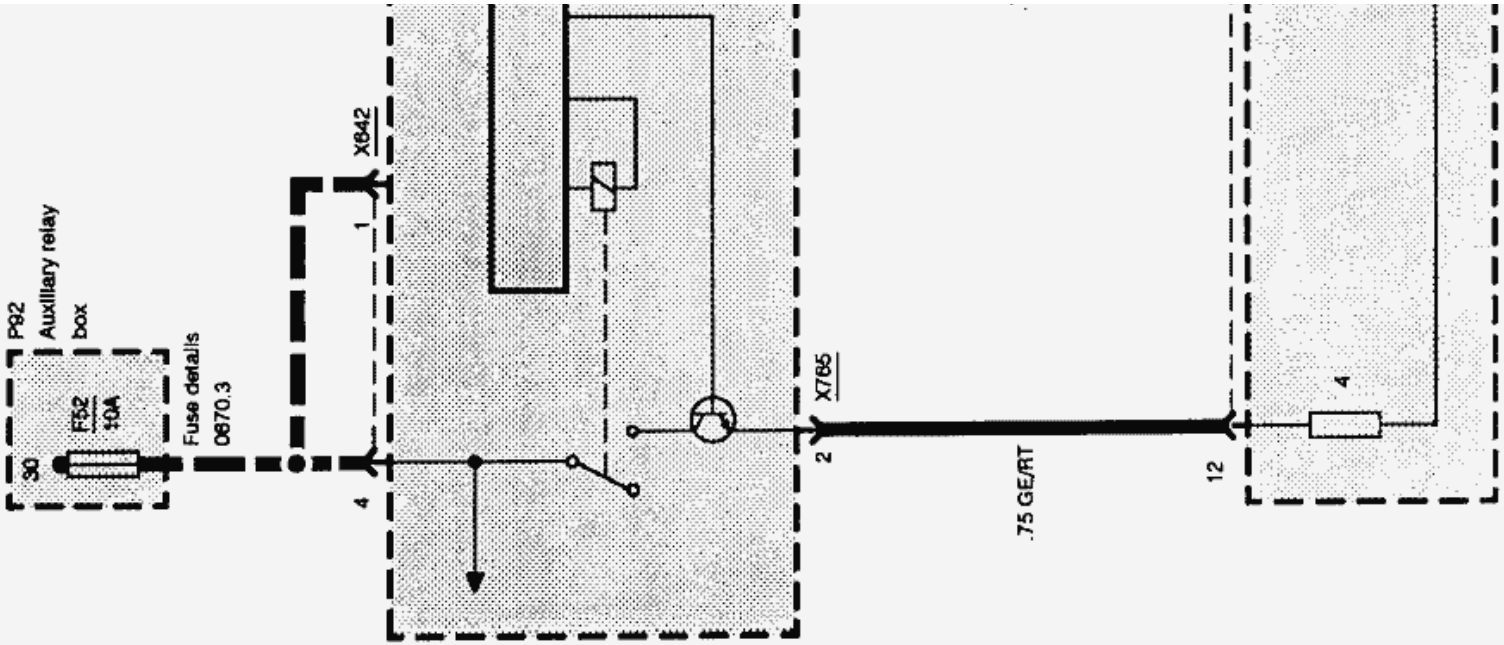
Independent heating/ ve



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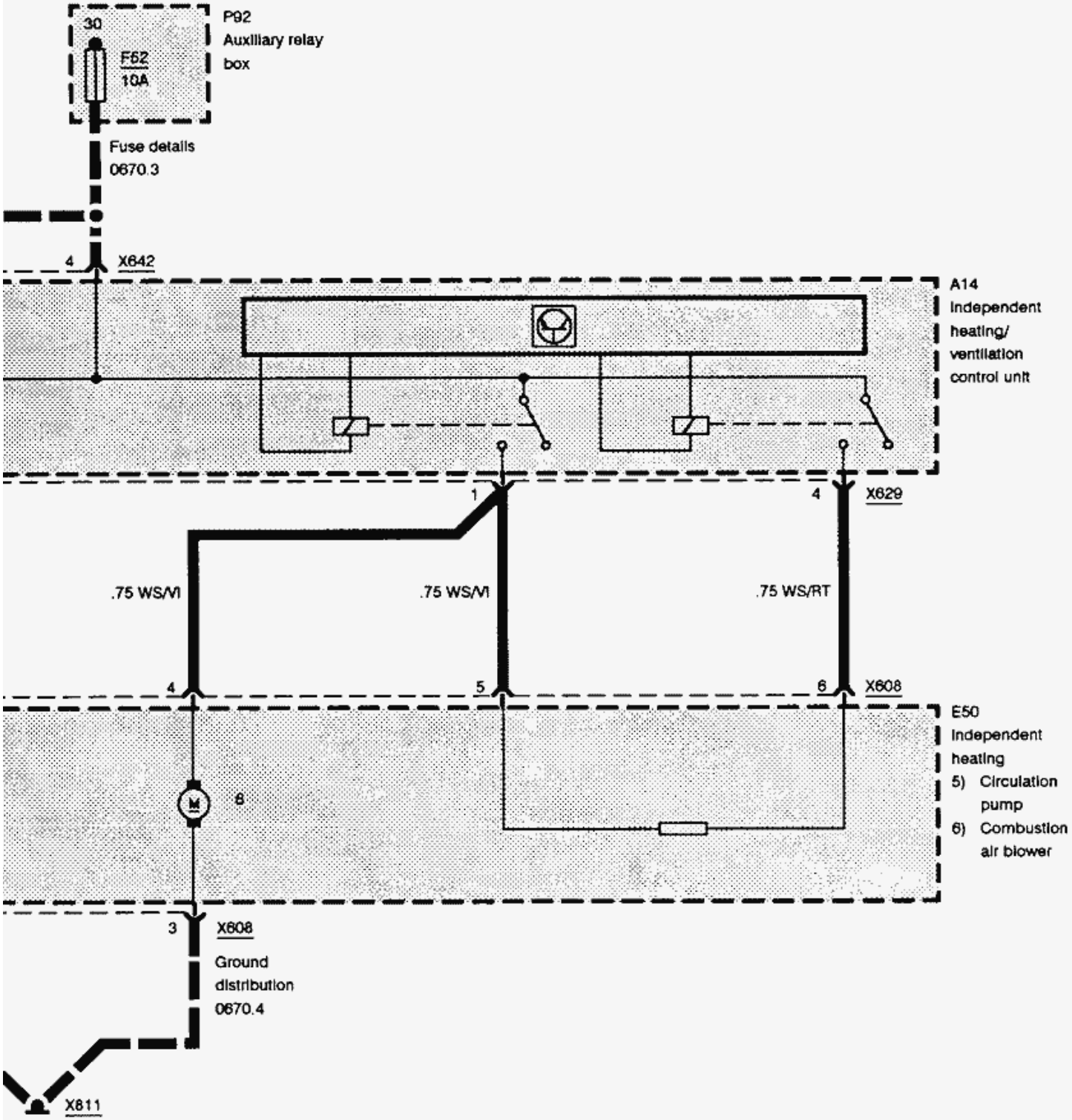

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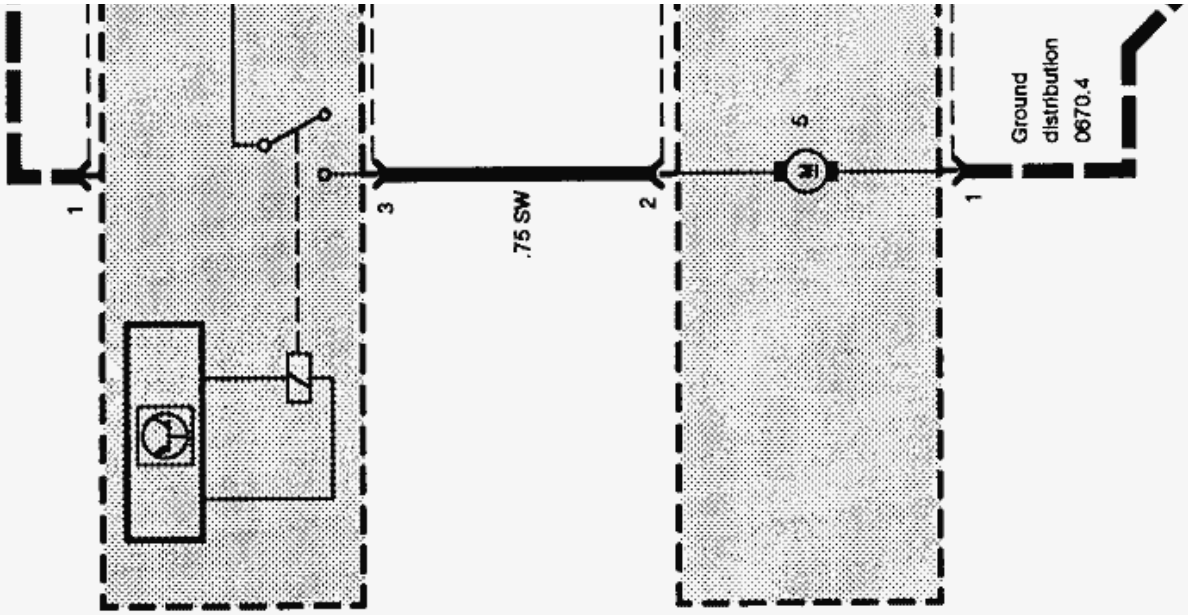
Independent heating/ venti



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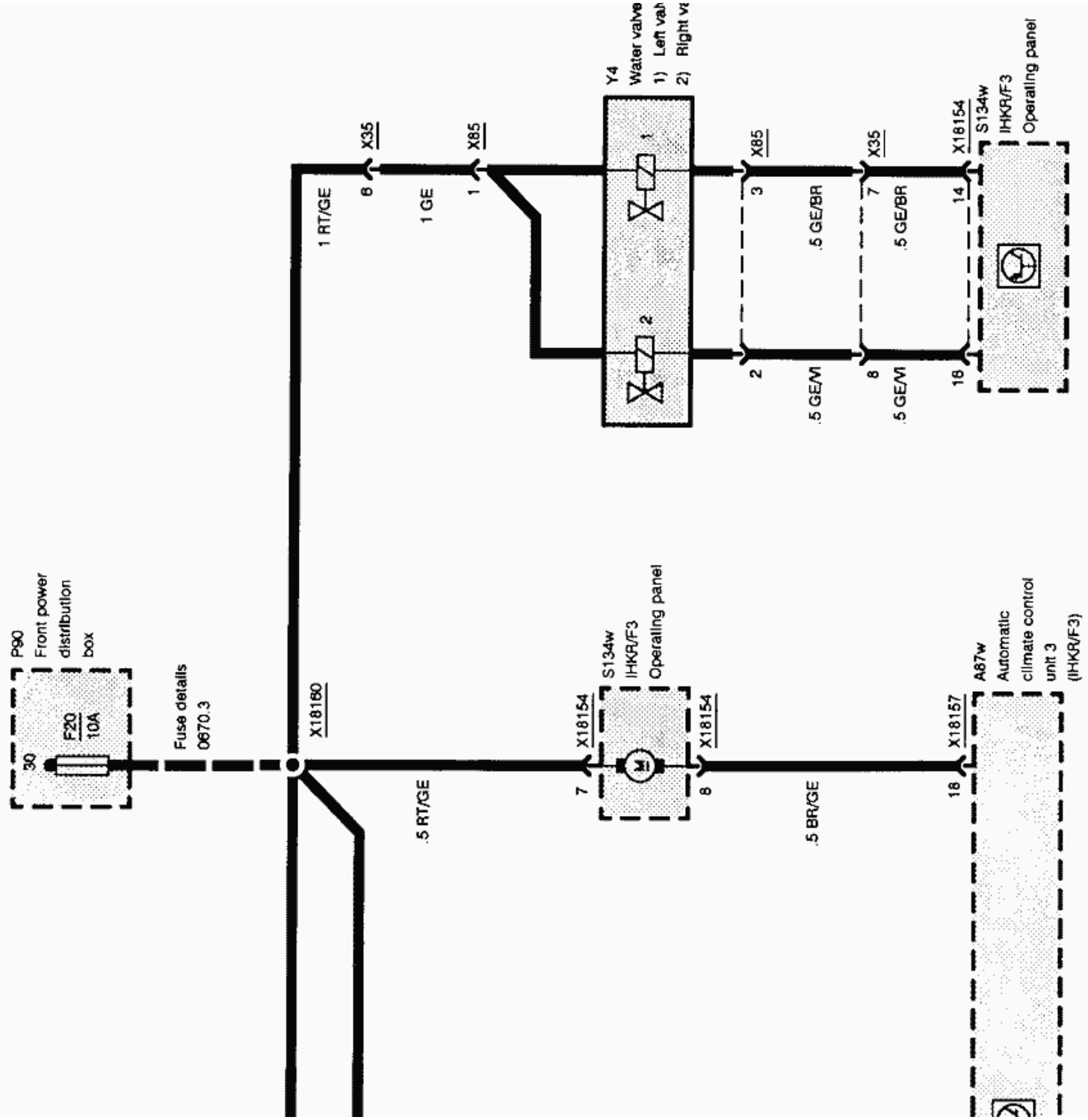
ation with IHKR/F3



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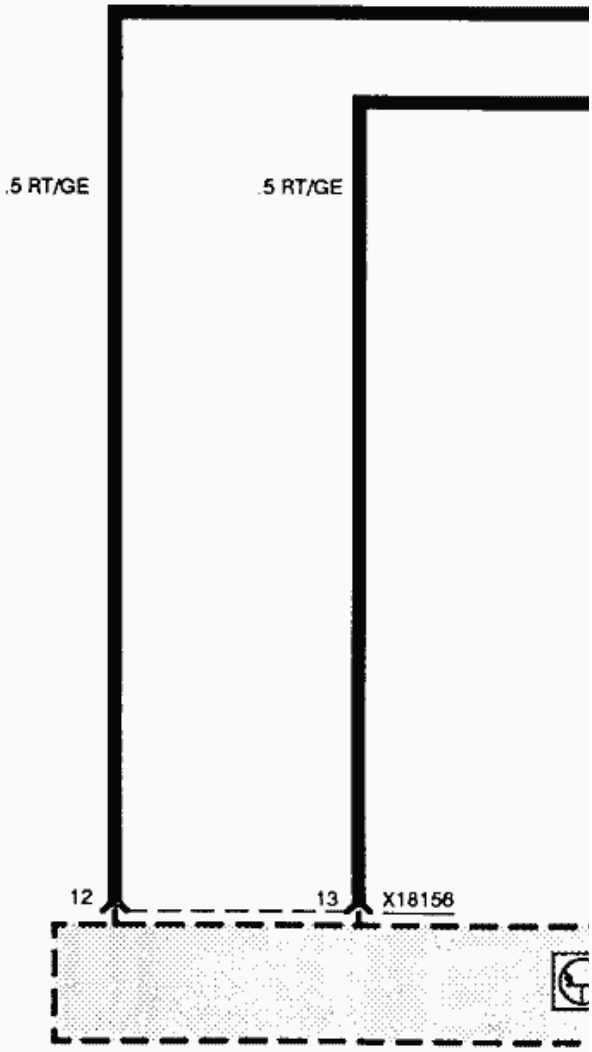
Independent heating/ ventil



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Electrical troubleshooting manual

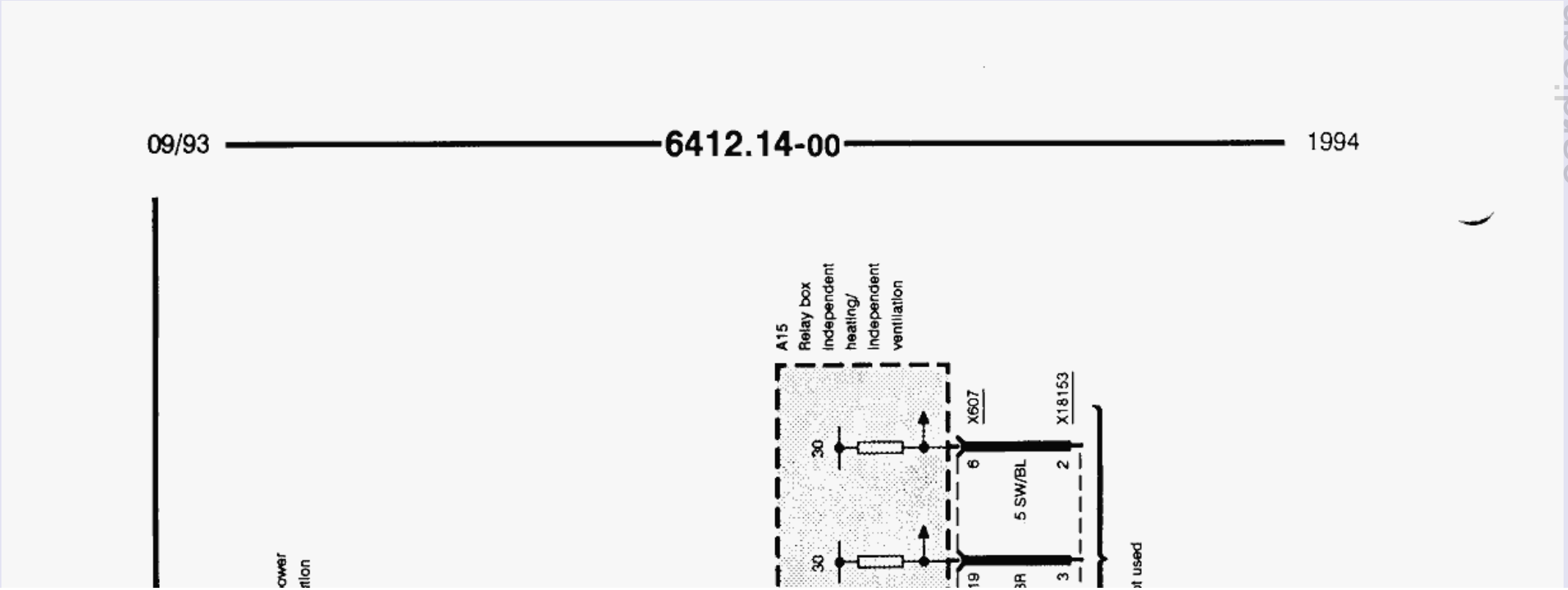
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent heating/ventilation with IHRF3
Scheme 6412.14

Pin Assignment X607

Pin	Type	Description/Function	Connection
1	E	Terminal 30	Fuse
2	A	Signal, independent heating	Independent heating relay
3	E	Signal, independent heating	On-board computer
4	E	Signal, independent ventilation	On-board computer
5		not used	
6	A	Signal, ventilation flap	IHKA operating switch
7	E	Signal, independent ventilation, flap position	IHKA operating switch
8	E	Signal, independent heating, flap position	IHKA operating switch
9	E	Terminal 61	Unloader relay
10	M	Ground	Ground connection
11	E	Terminal R	Fuse F1
12	A	Activation, control unit/stop valve	Independent heating/ventilation control unit/ stop valve

E = Input, A = Output, M = Ground



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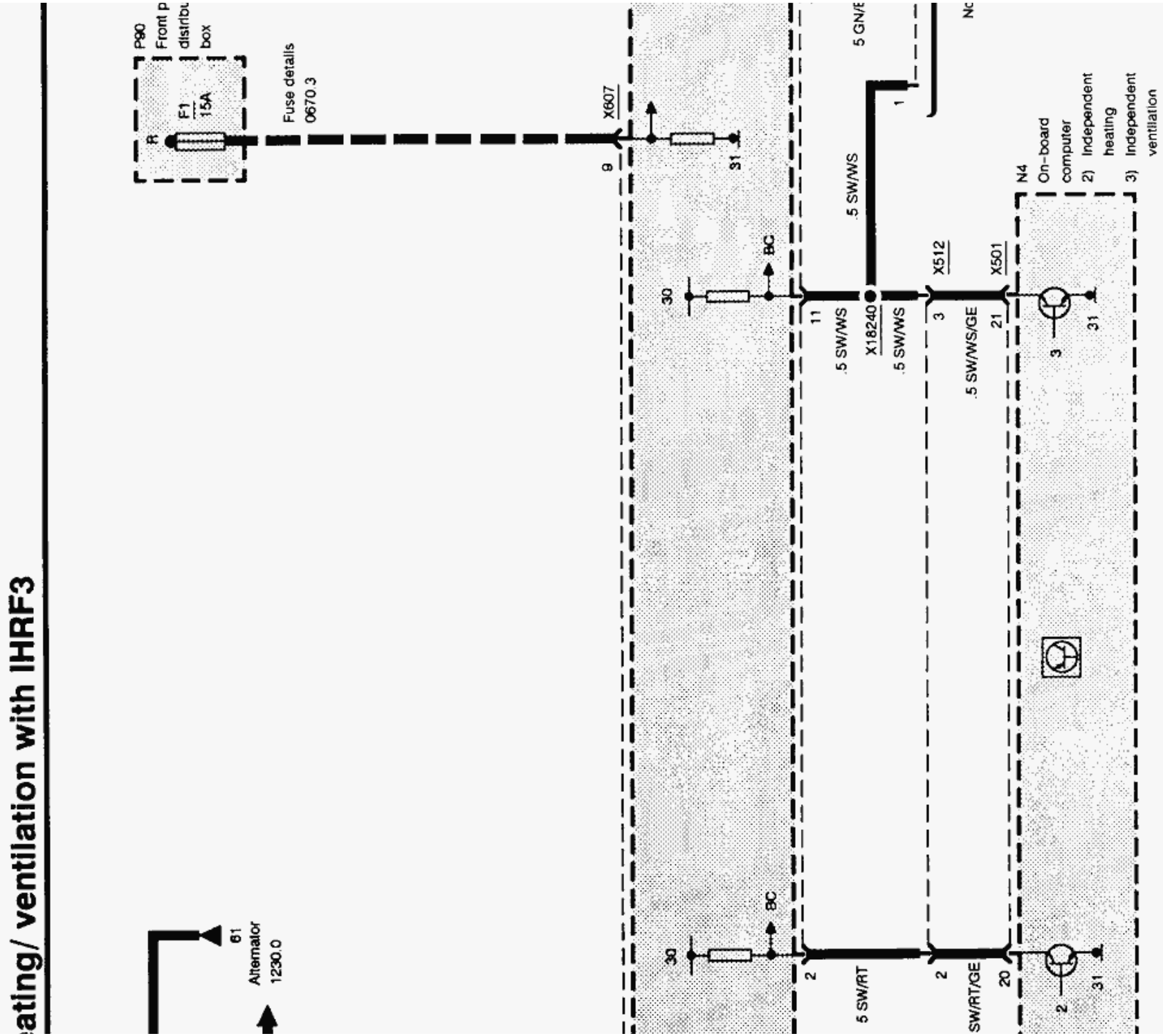

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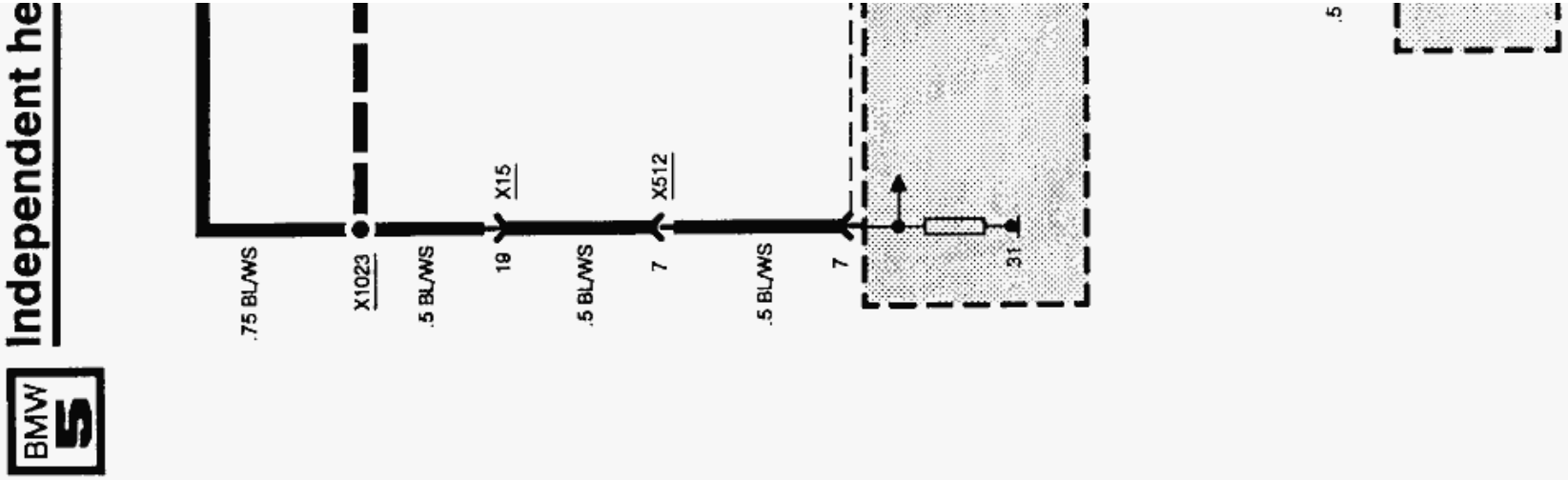

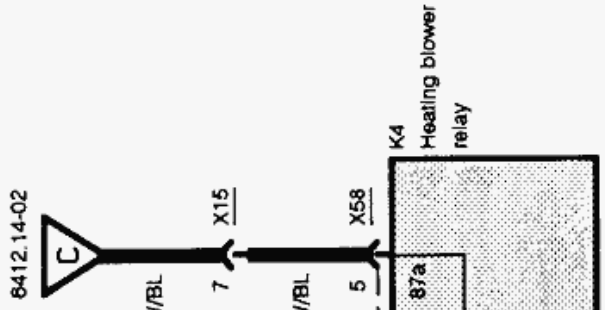

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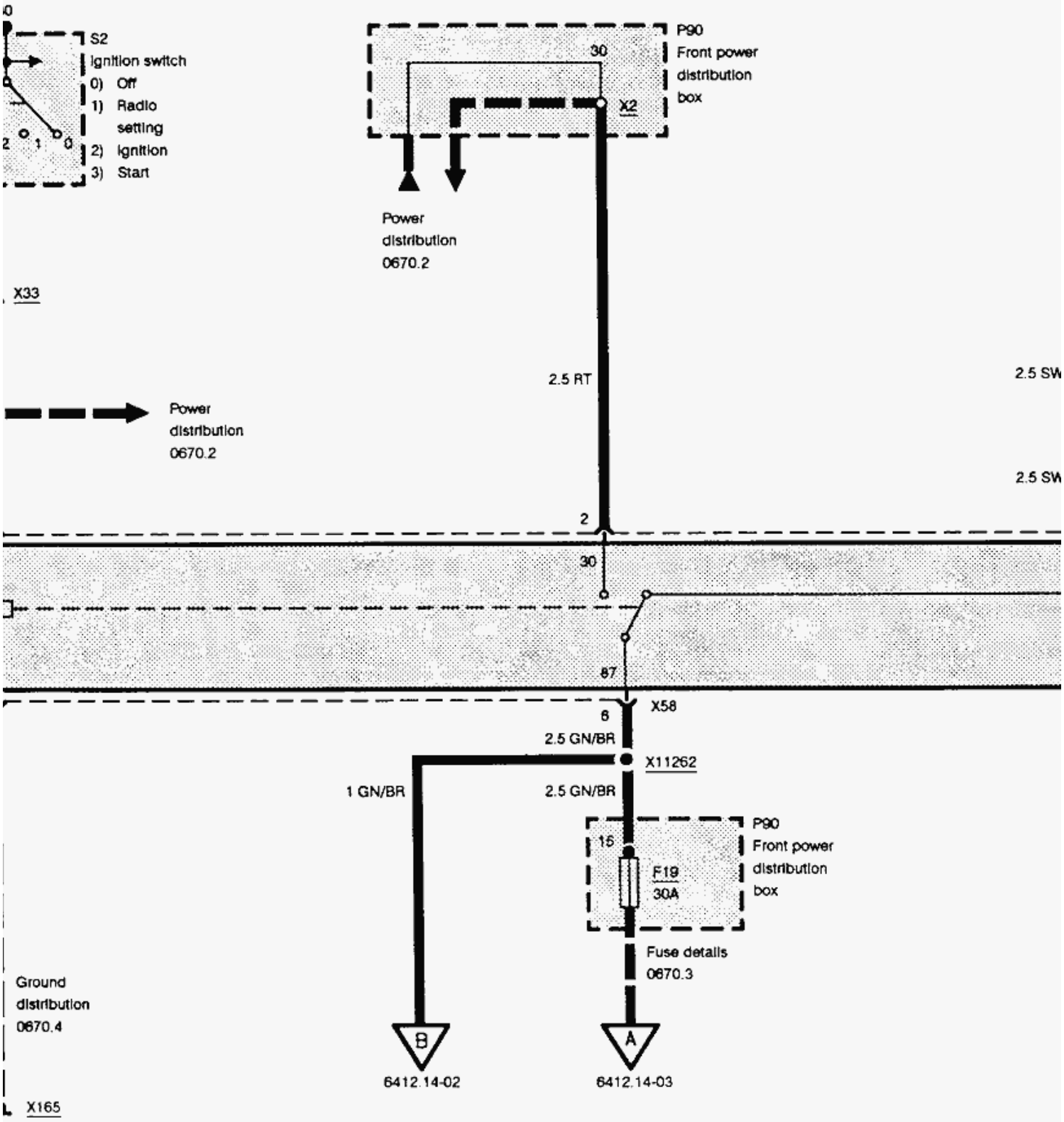
ting/ ventilation with IHRF3



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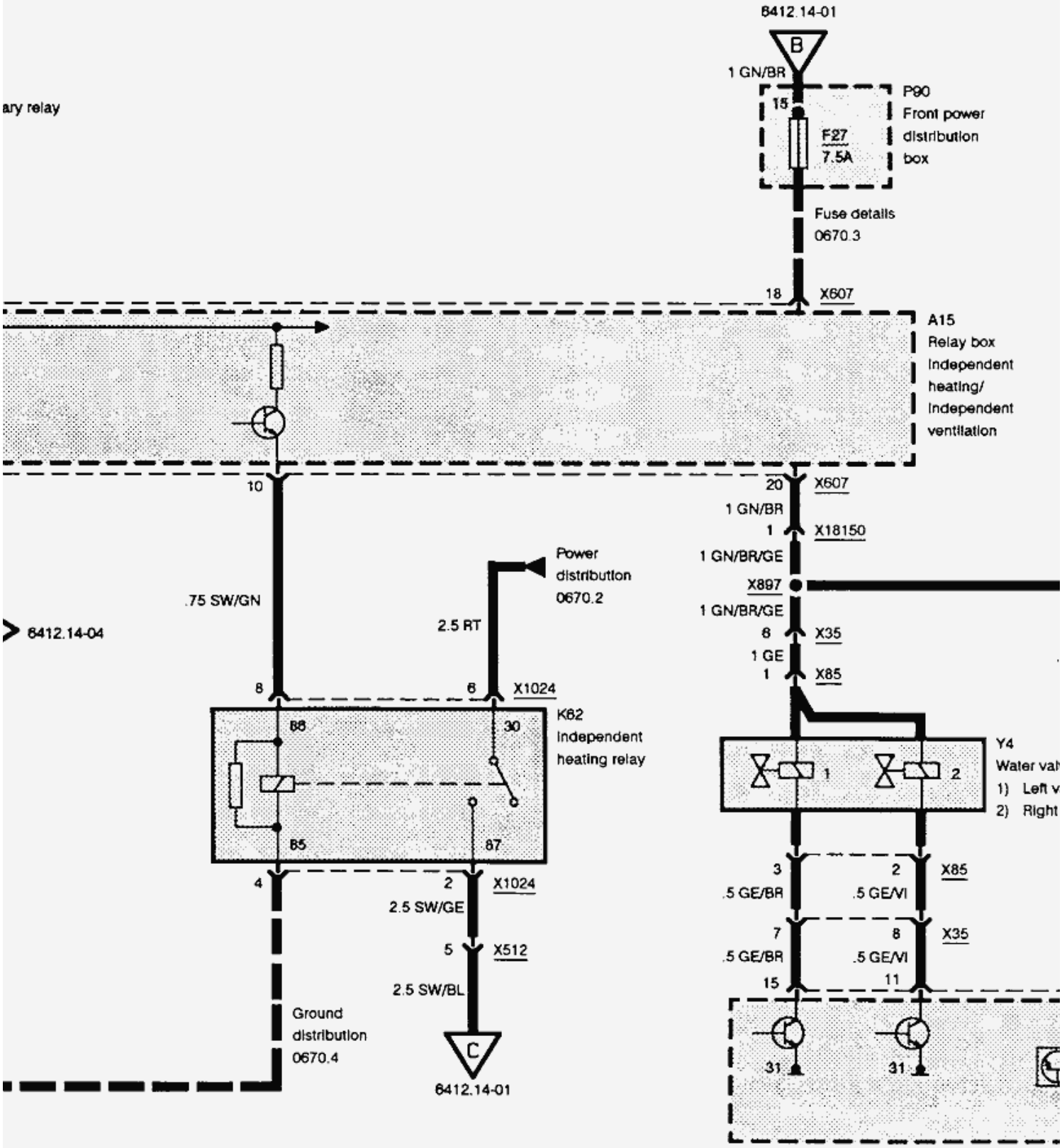
ng/ ventilation with IHRF3



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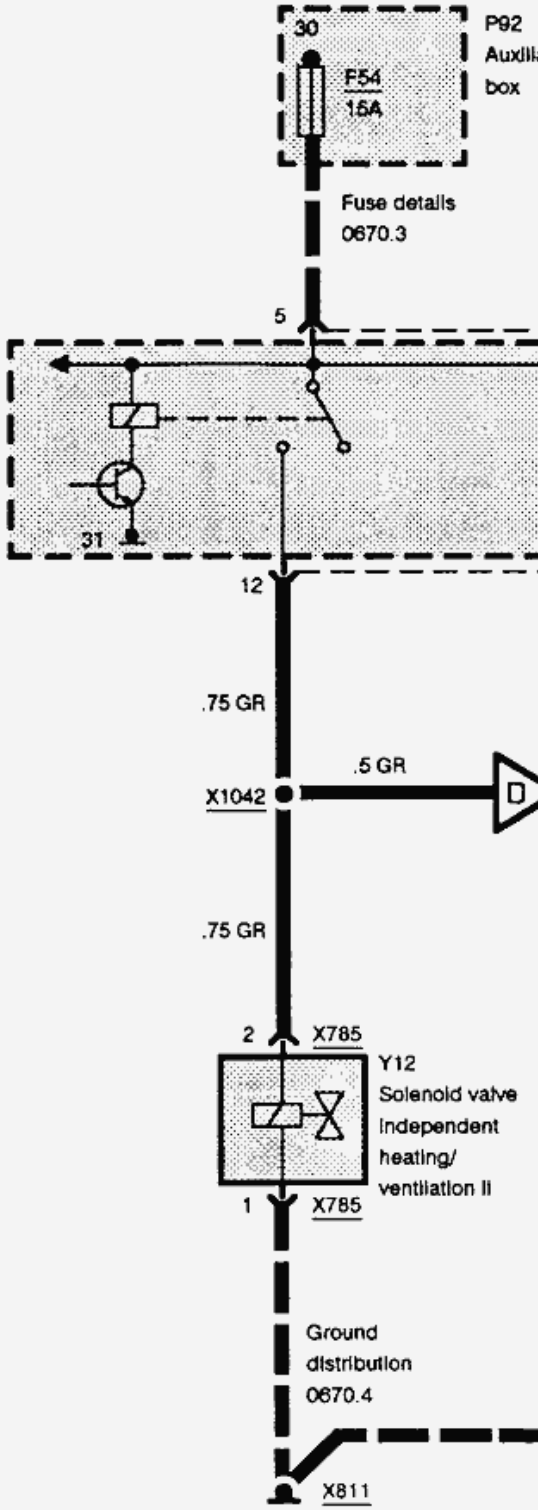
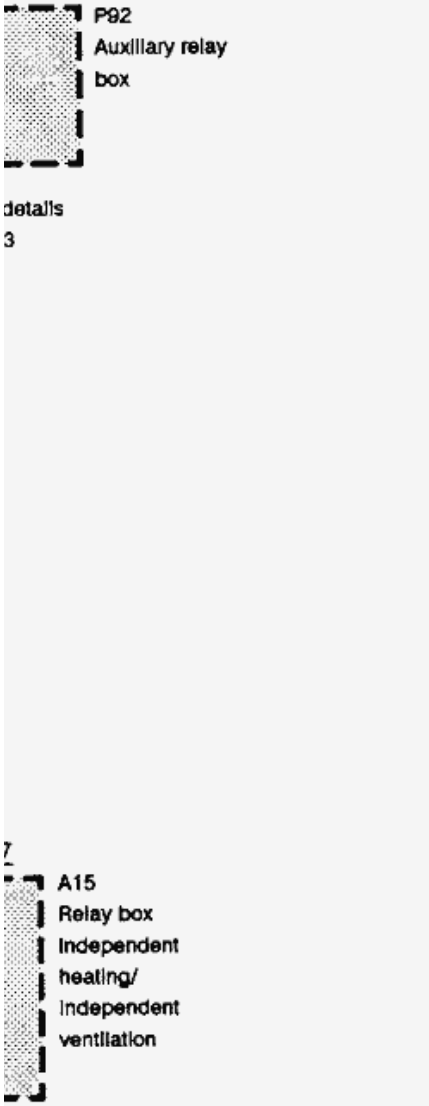
BMW 5

Independent heati





09/93 6412.14-03 1994

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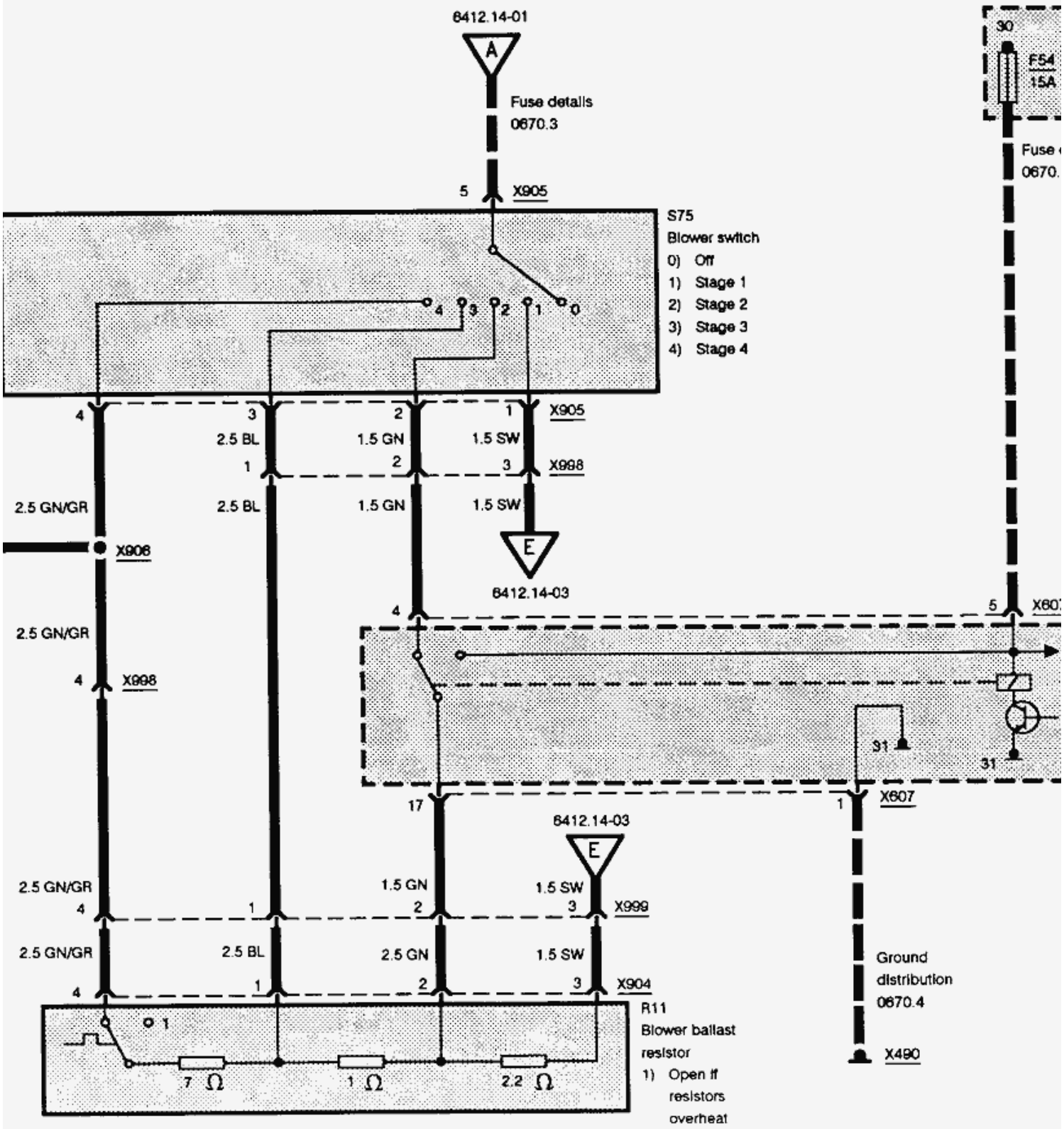
g/ ventilation with IHRF3



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Independent heating

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4
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0
dependent
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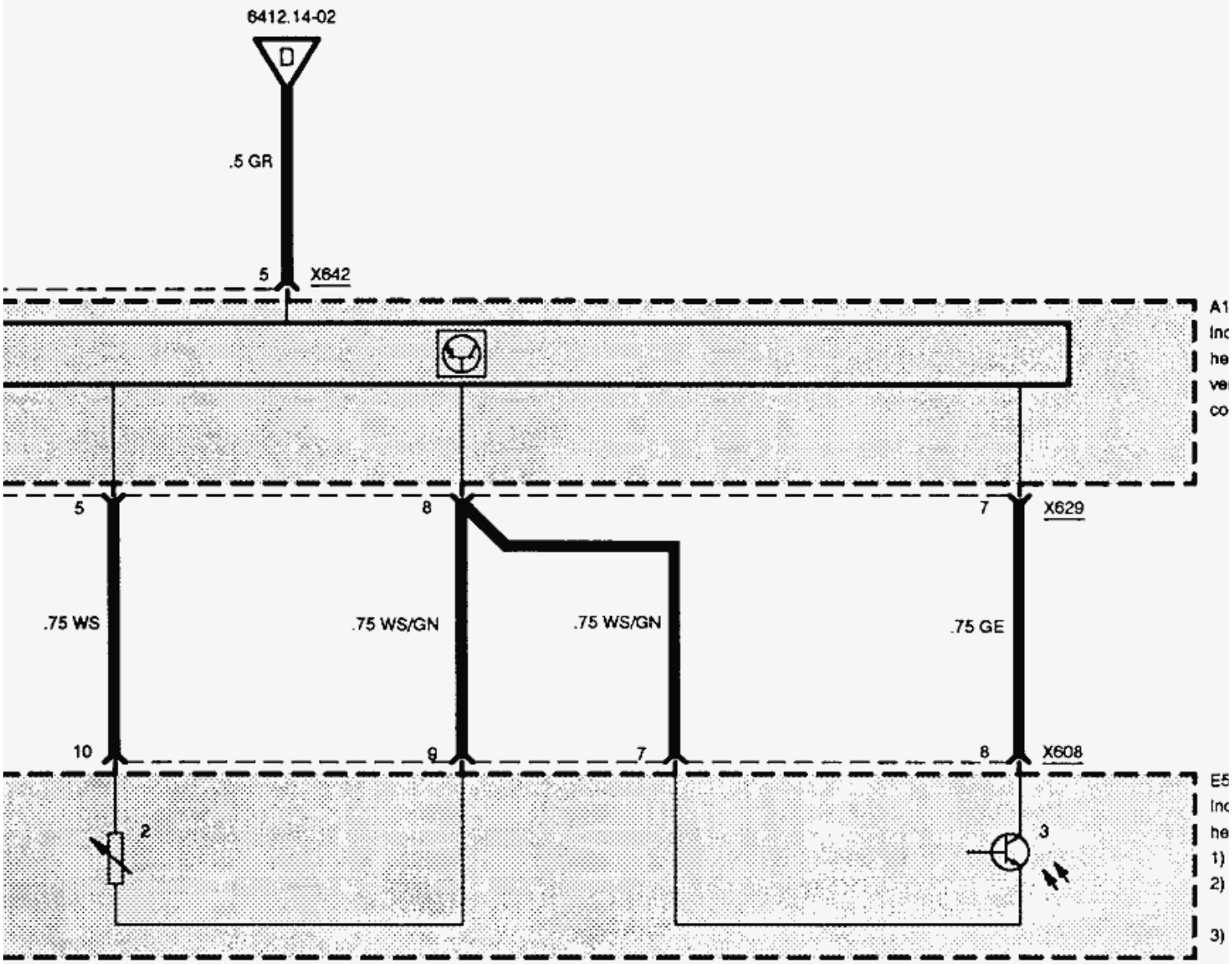
Heater plug
Temperature
sensor
Flame
detector

ventilation with IHRF3



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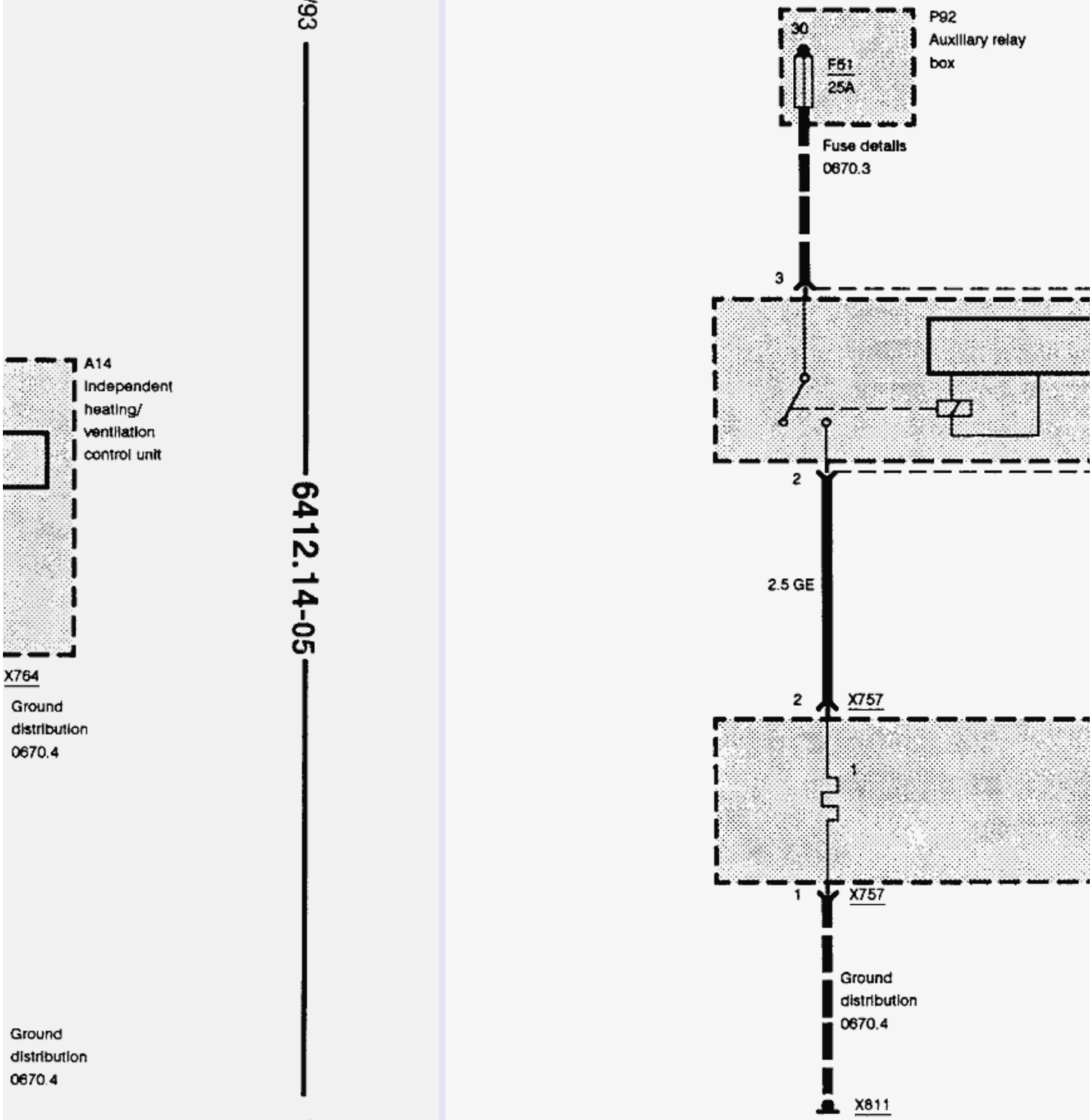
BMW 5

Independent heating/



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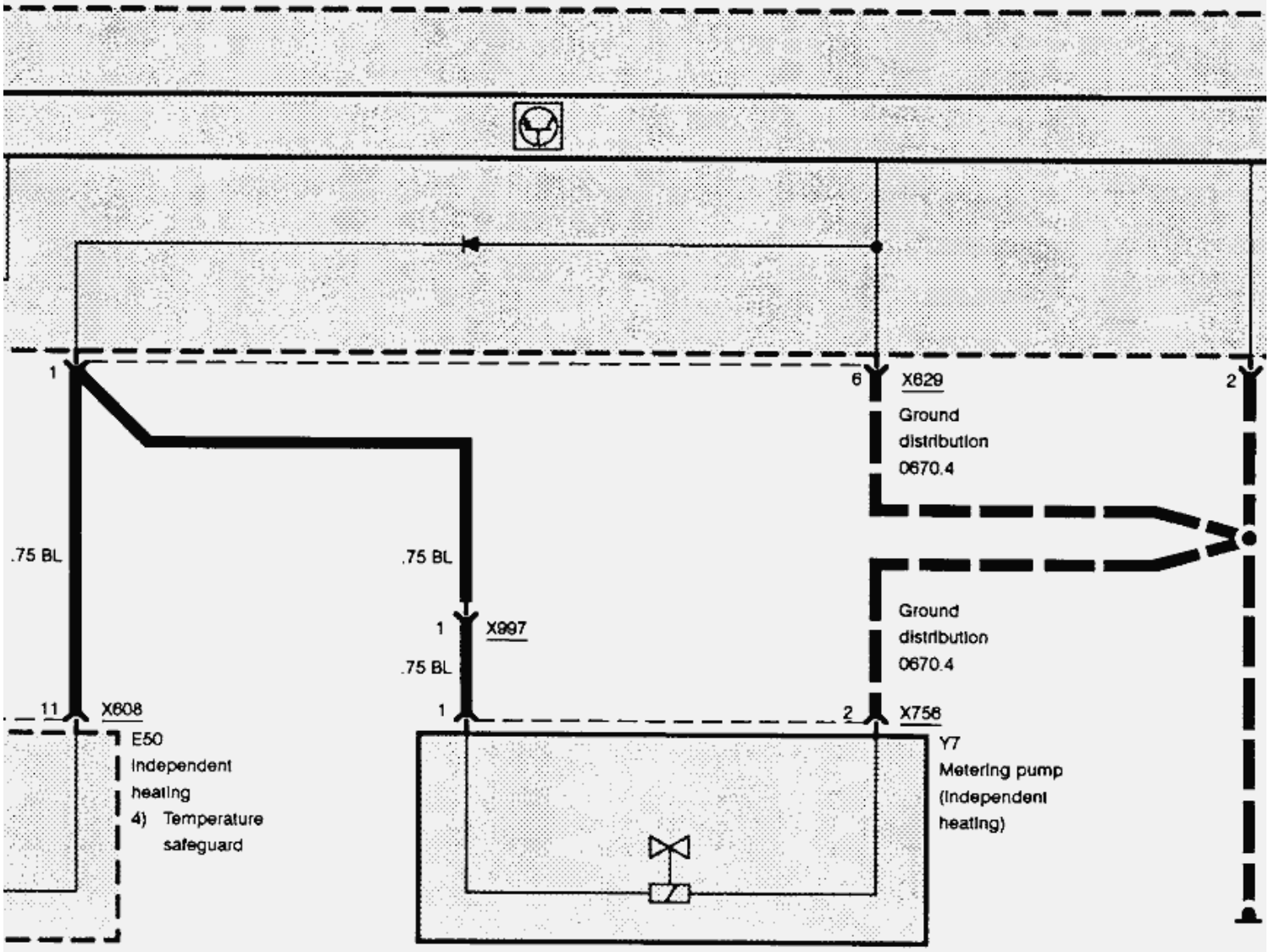
entilation with IHRF3



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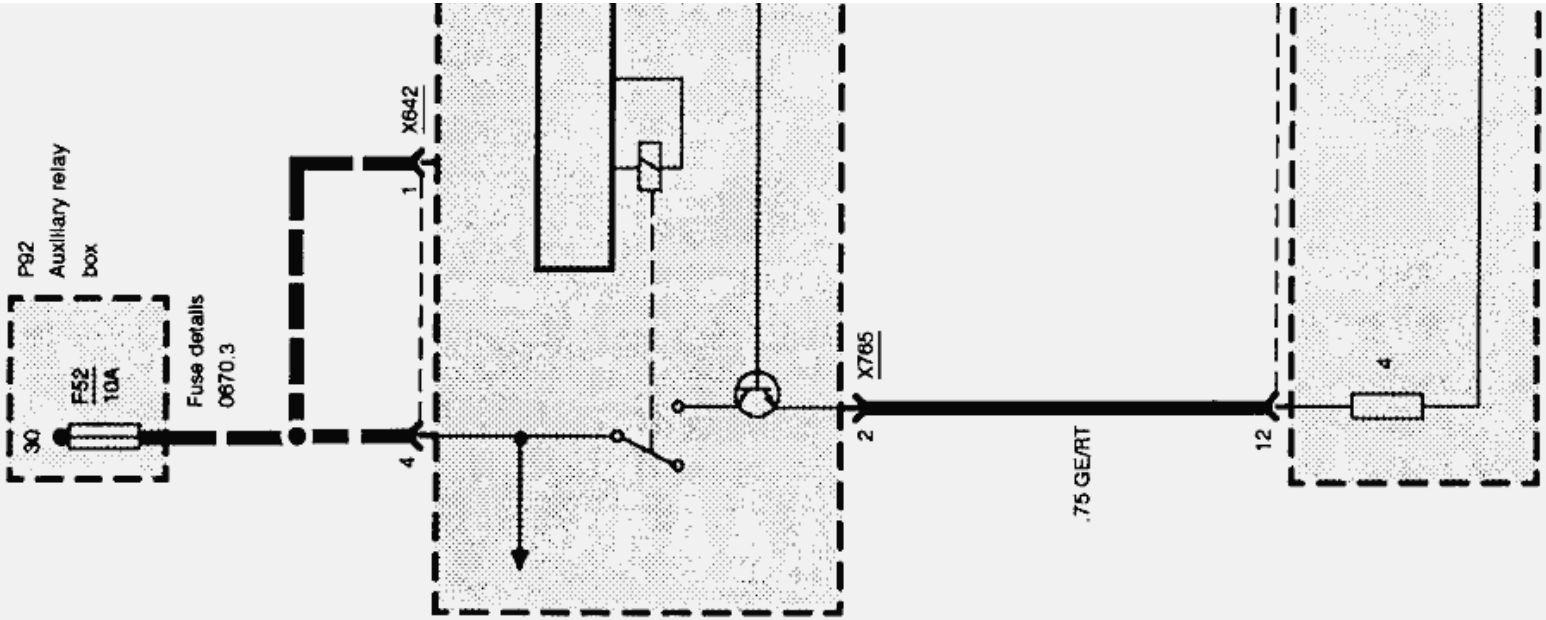
Independent heating/ v



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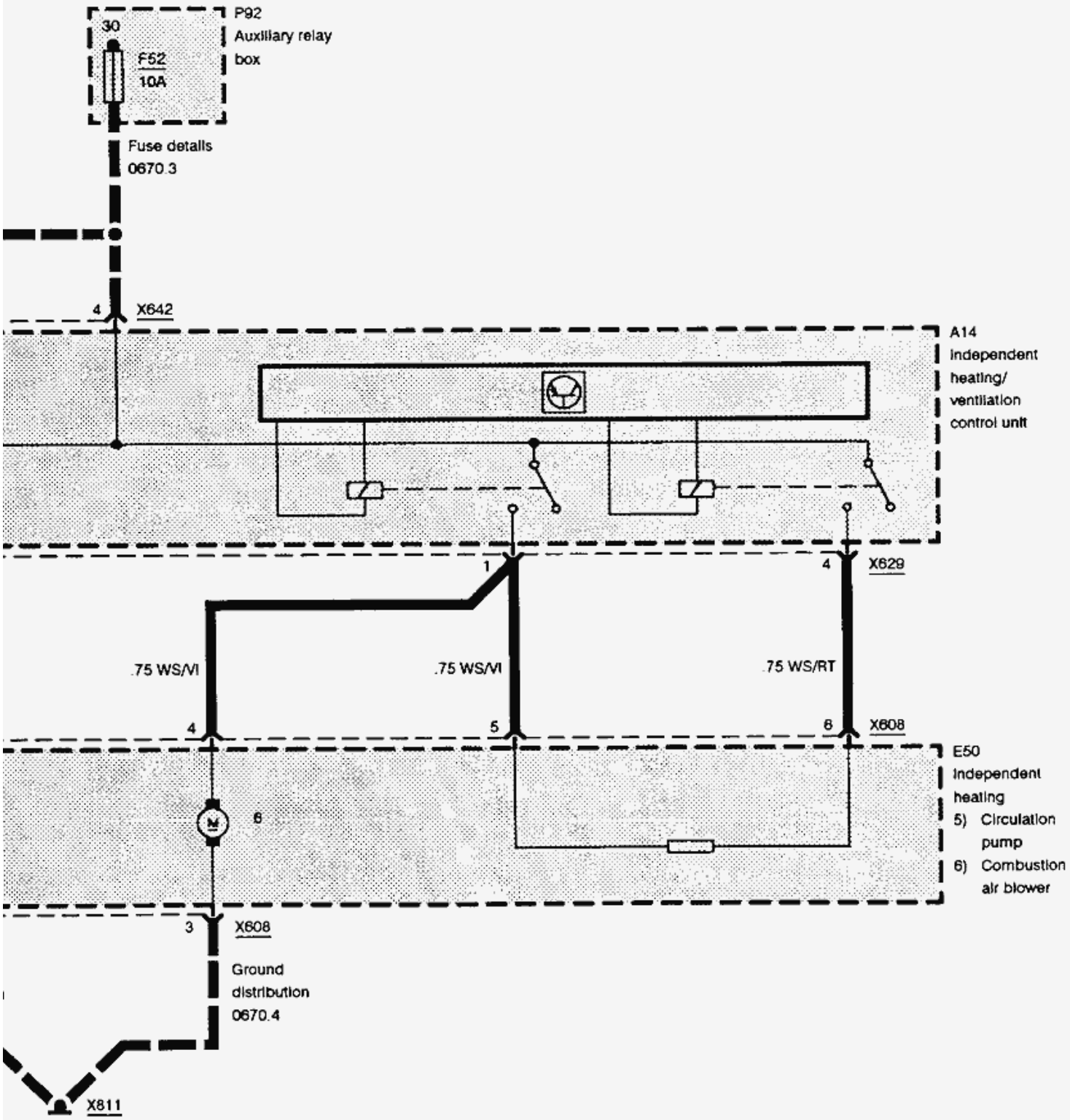
tilation with IHRF3



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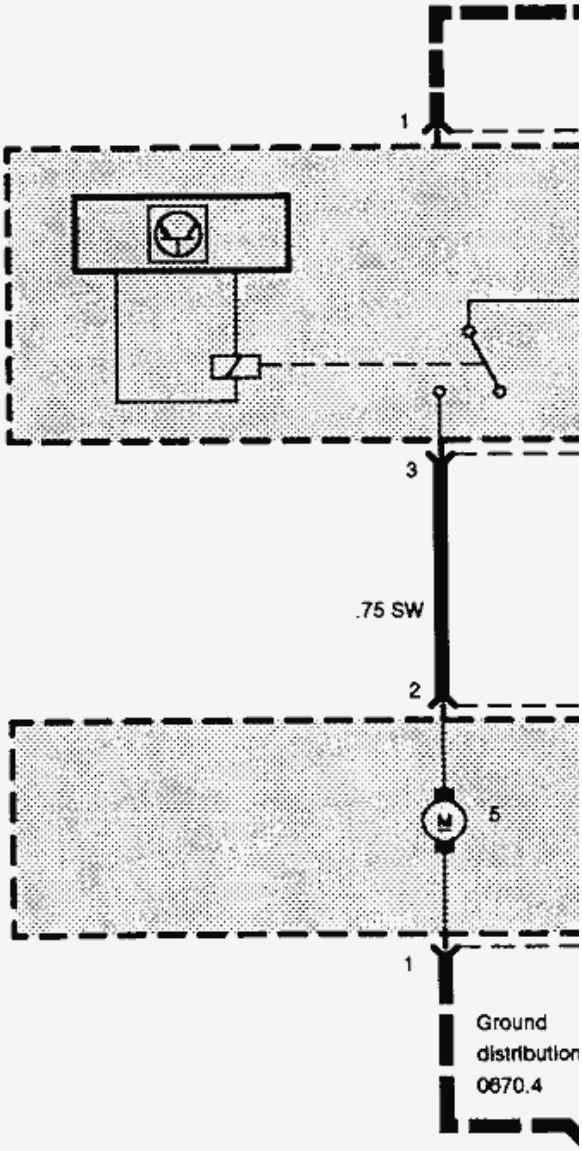
BMW 5

Independent heating/ ven



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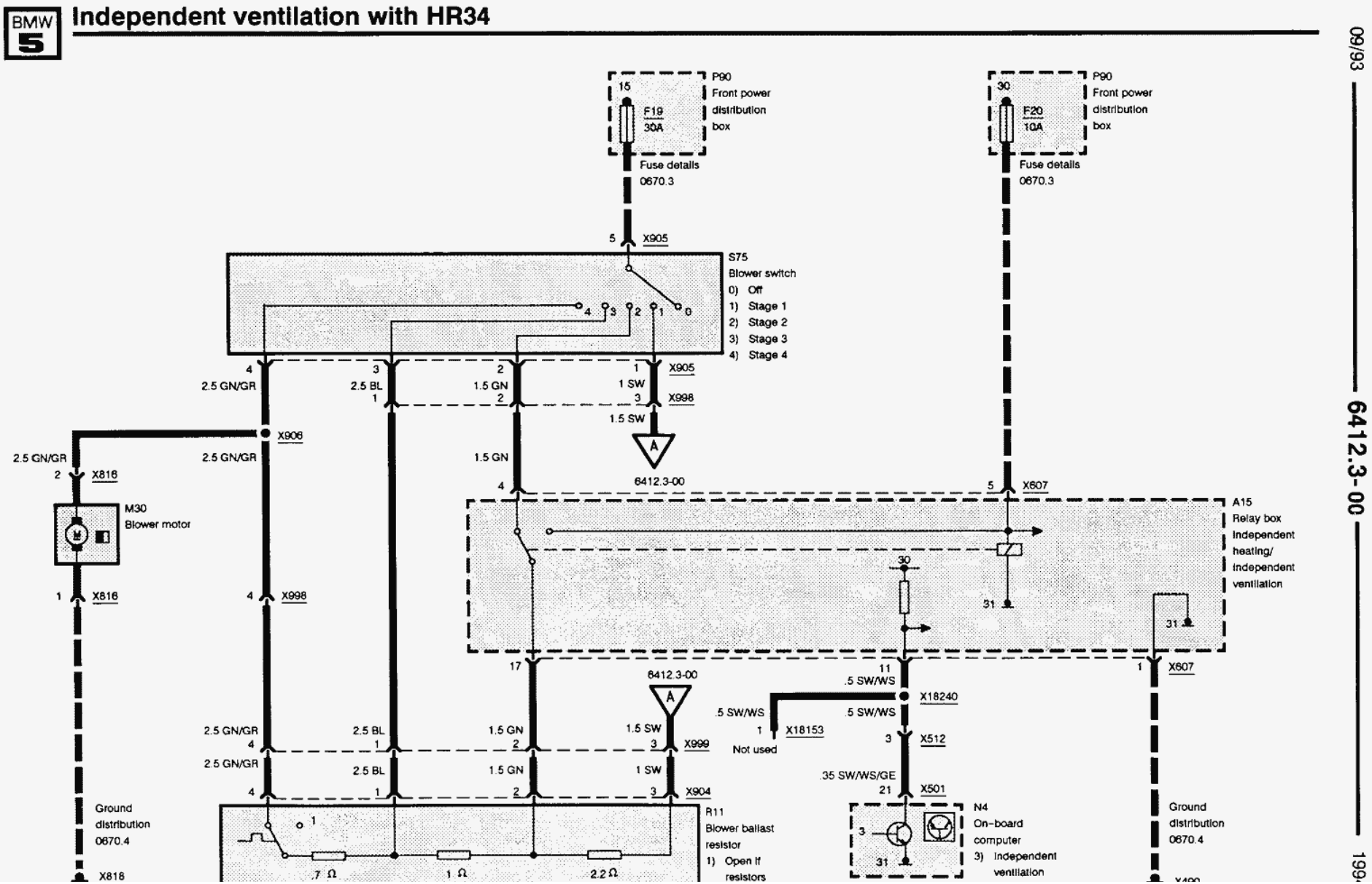
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent ventilation with HR34
Scheme 6412.3



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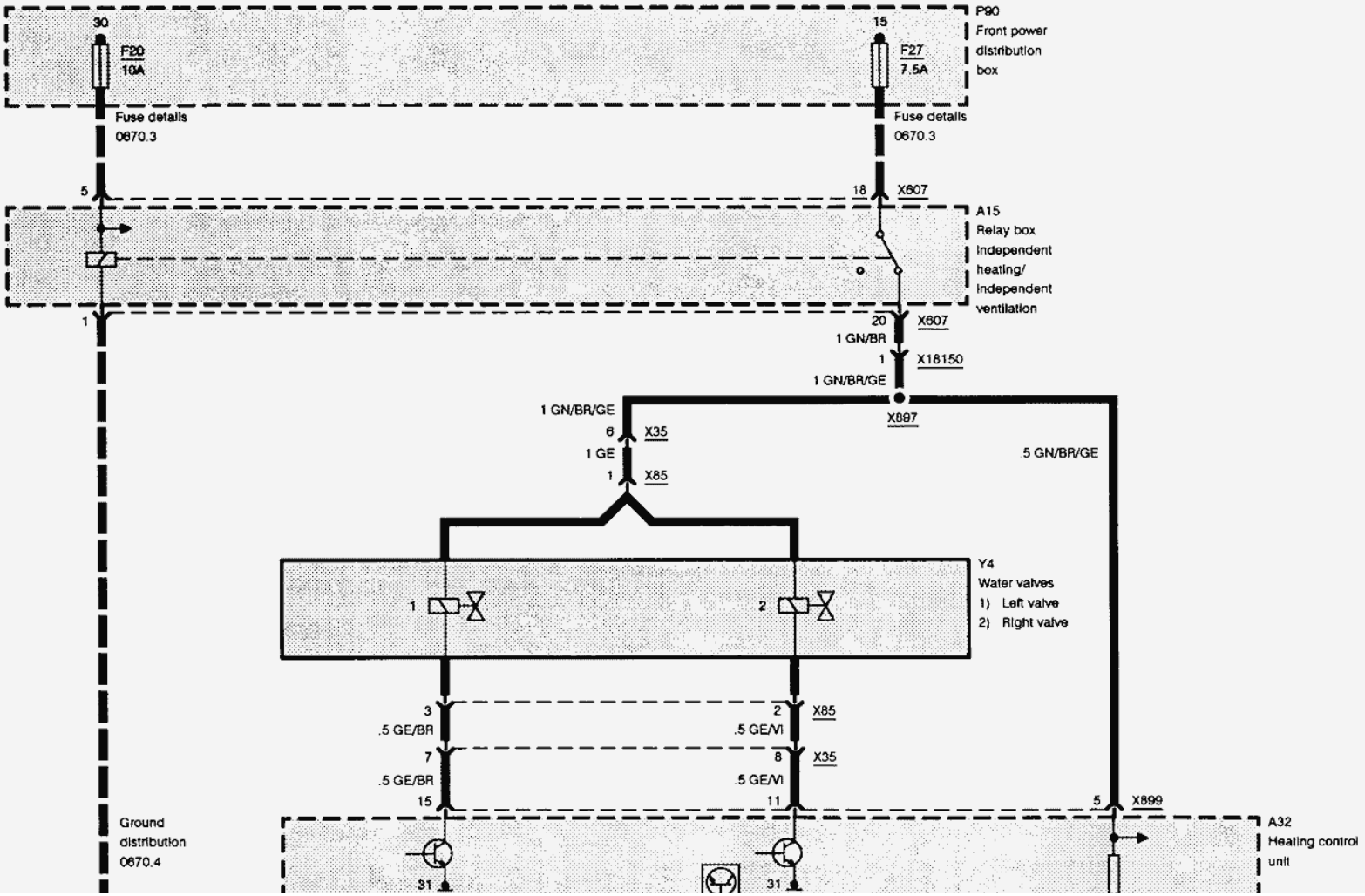
overheat

Independent ventilation with HR34



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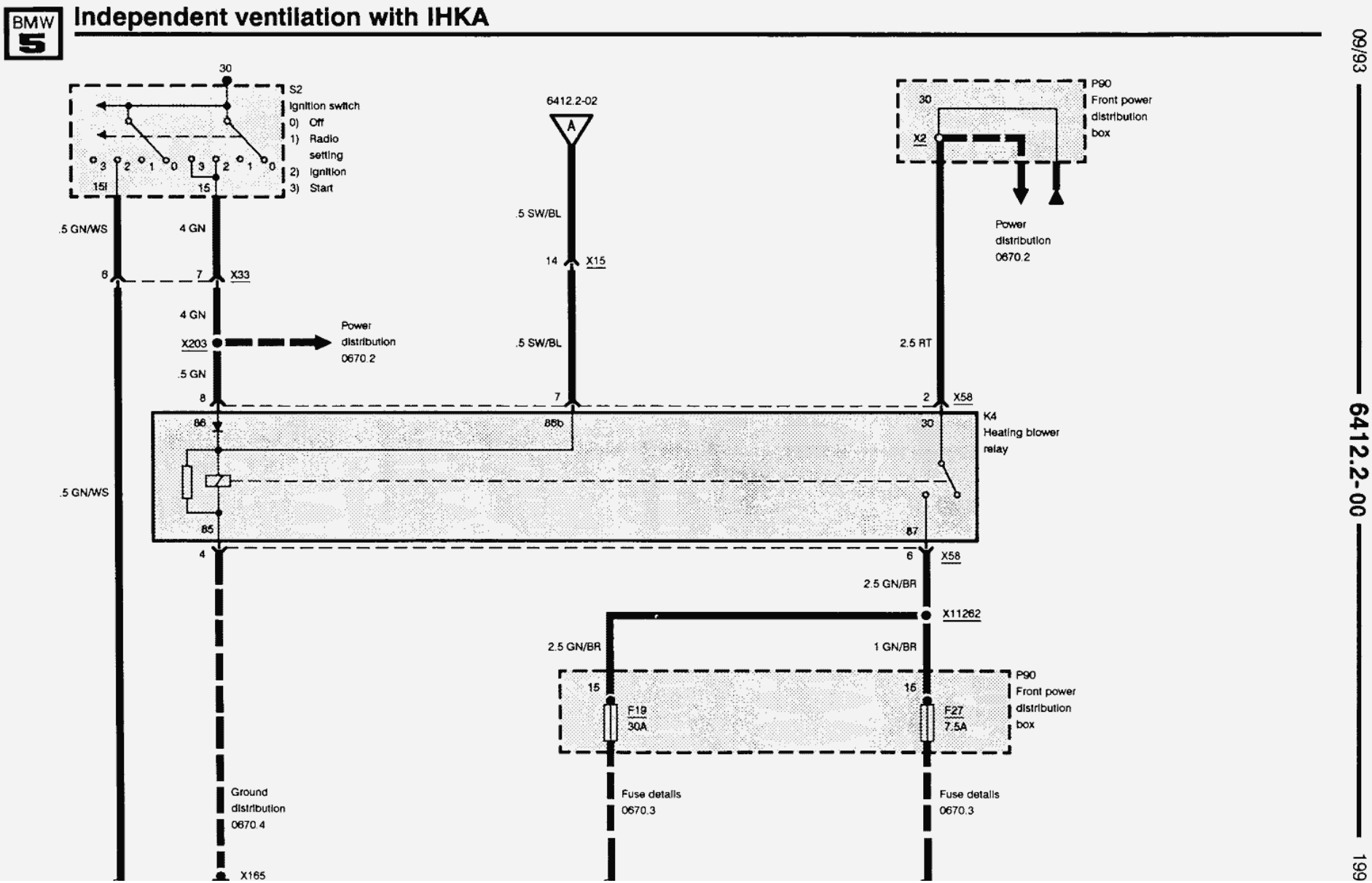
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent ventilation with IHKA
Scheme 6412.2



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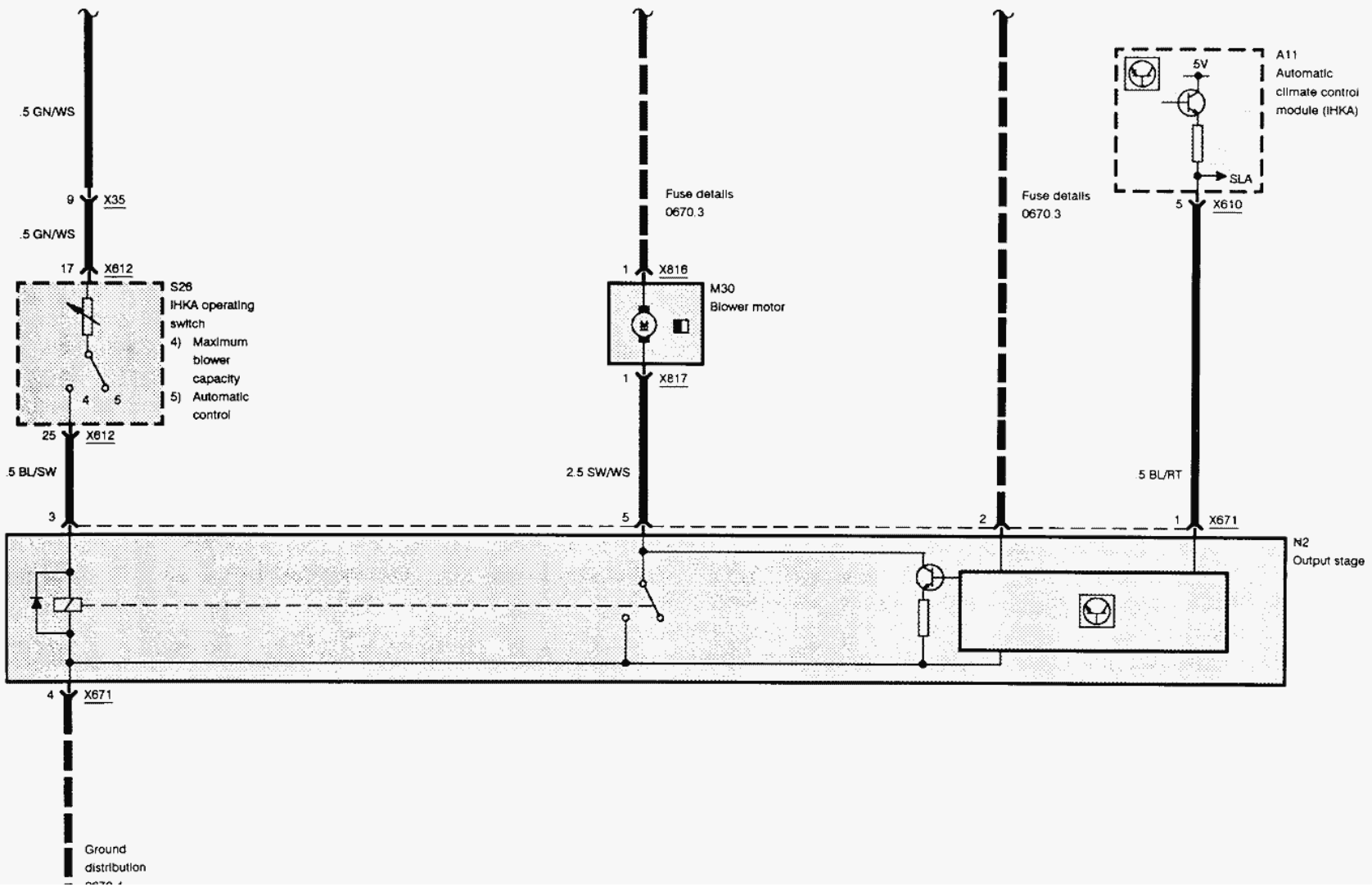

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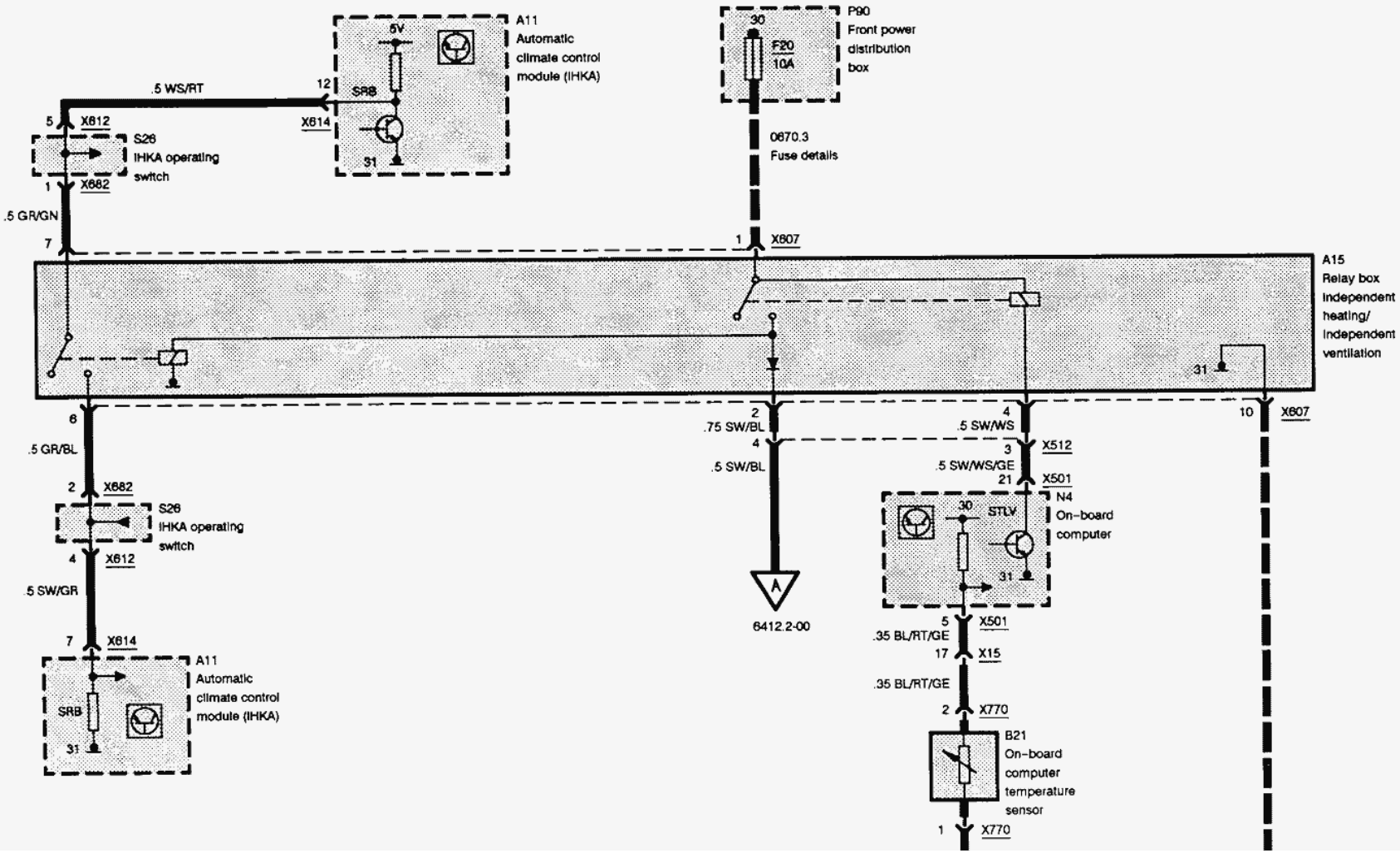
Independent ventilation with IHKA



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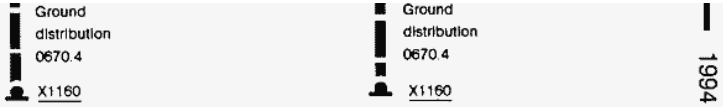

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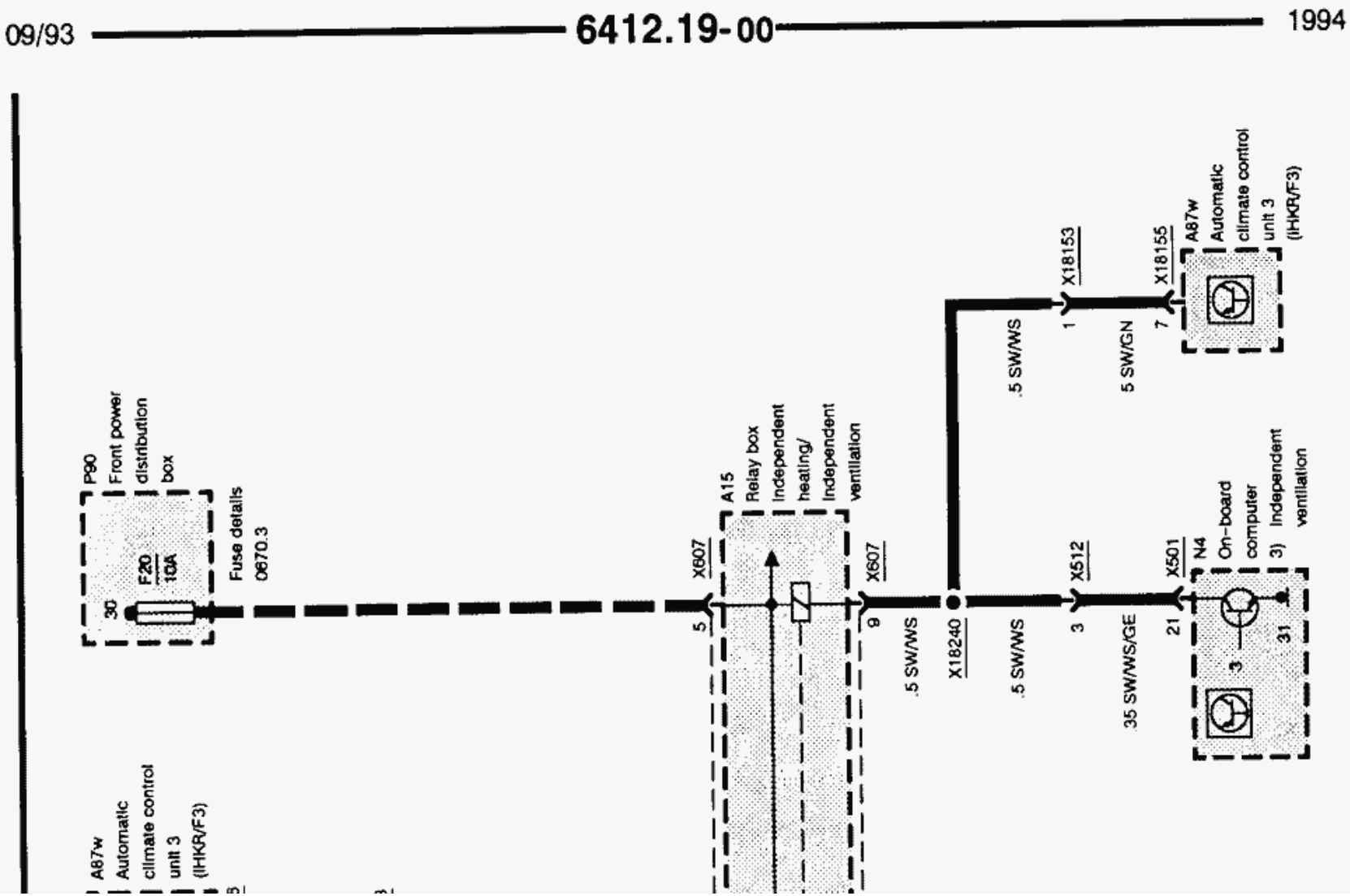
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent ventilation with IHKR/3

Scheme 6412.19



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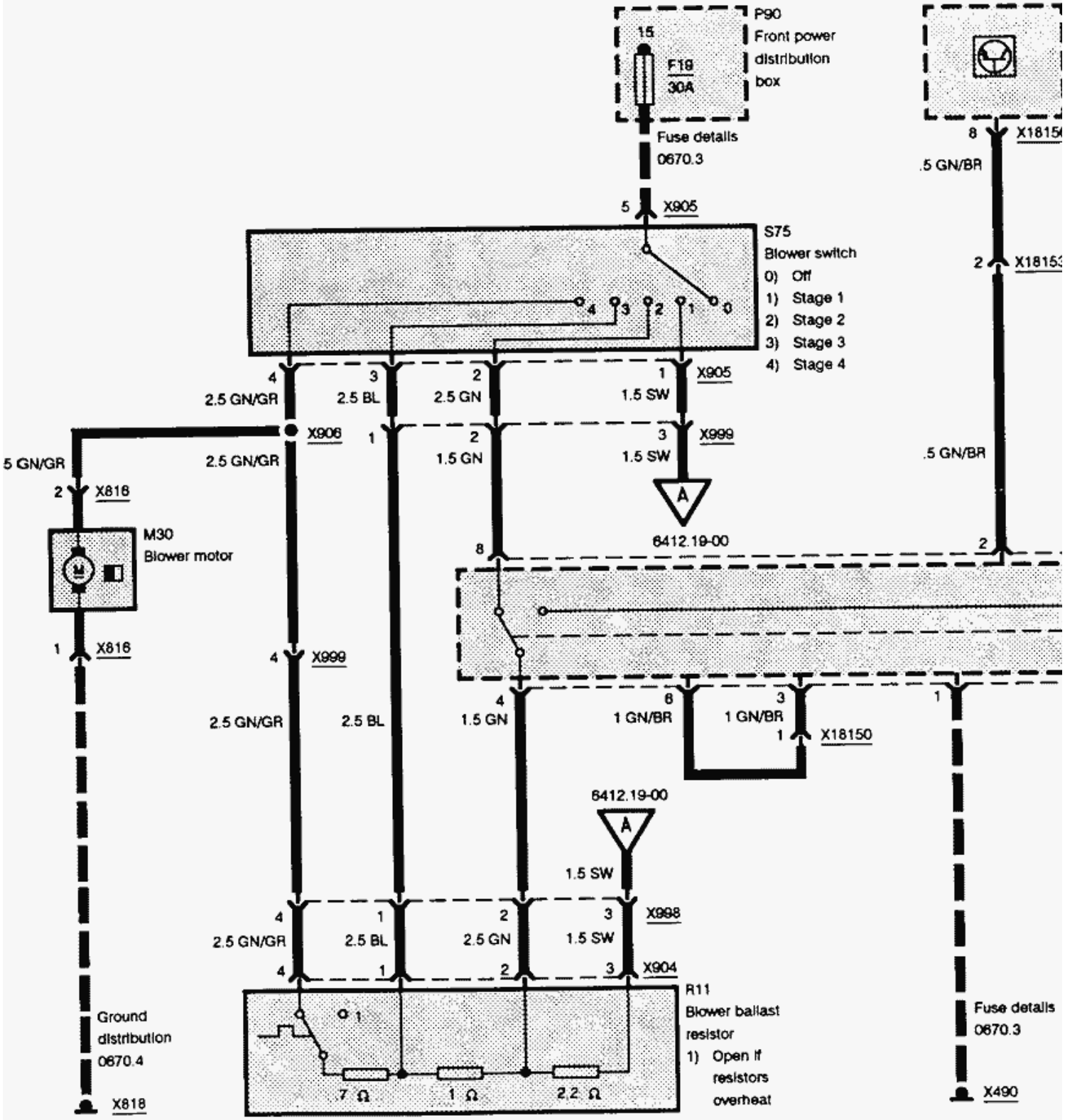
Independent ventilation with IHKR/3



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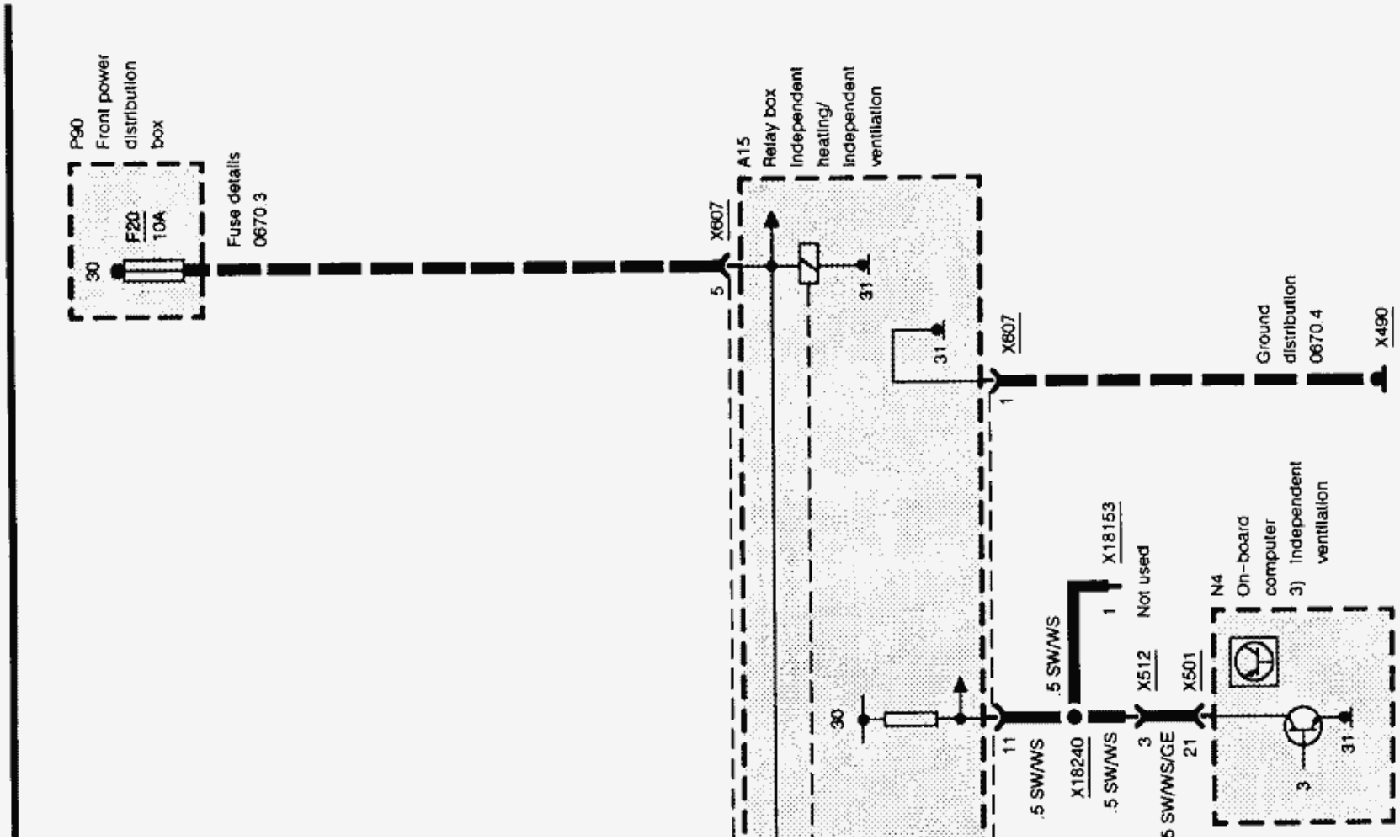
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Independent ventilation with IHRF3

Scheme 6412.15

09/93 — 6412.15-00 — 1994



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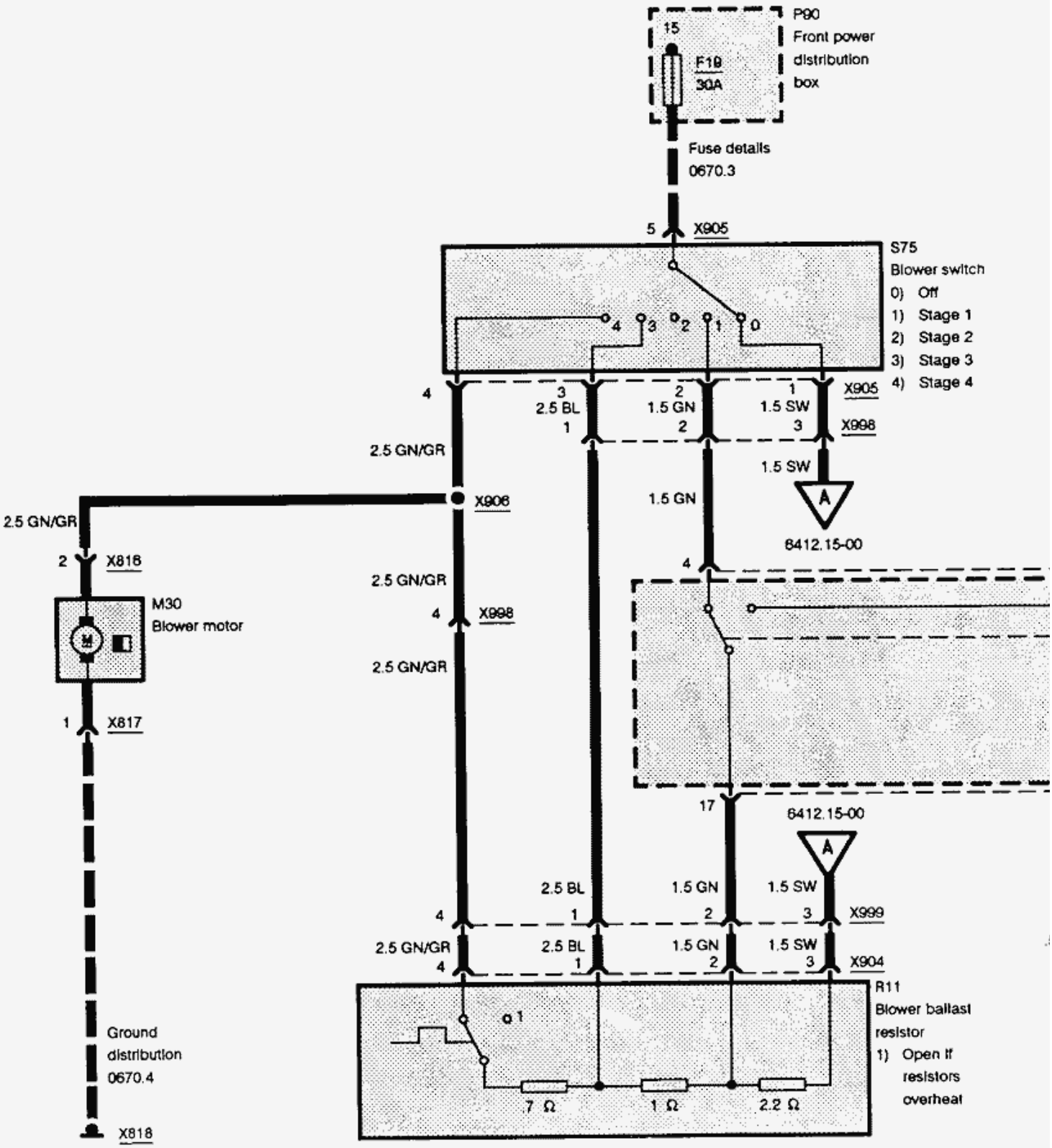
Independent ventilation with IHRF3



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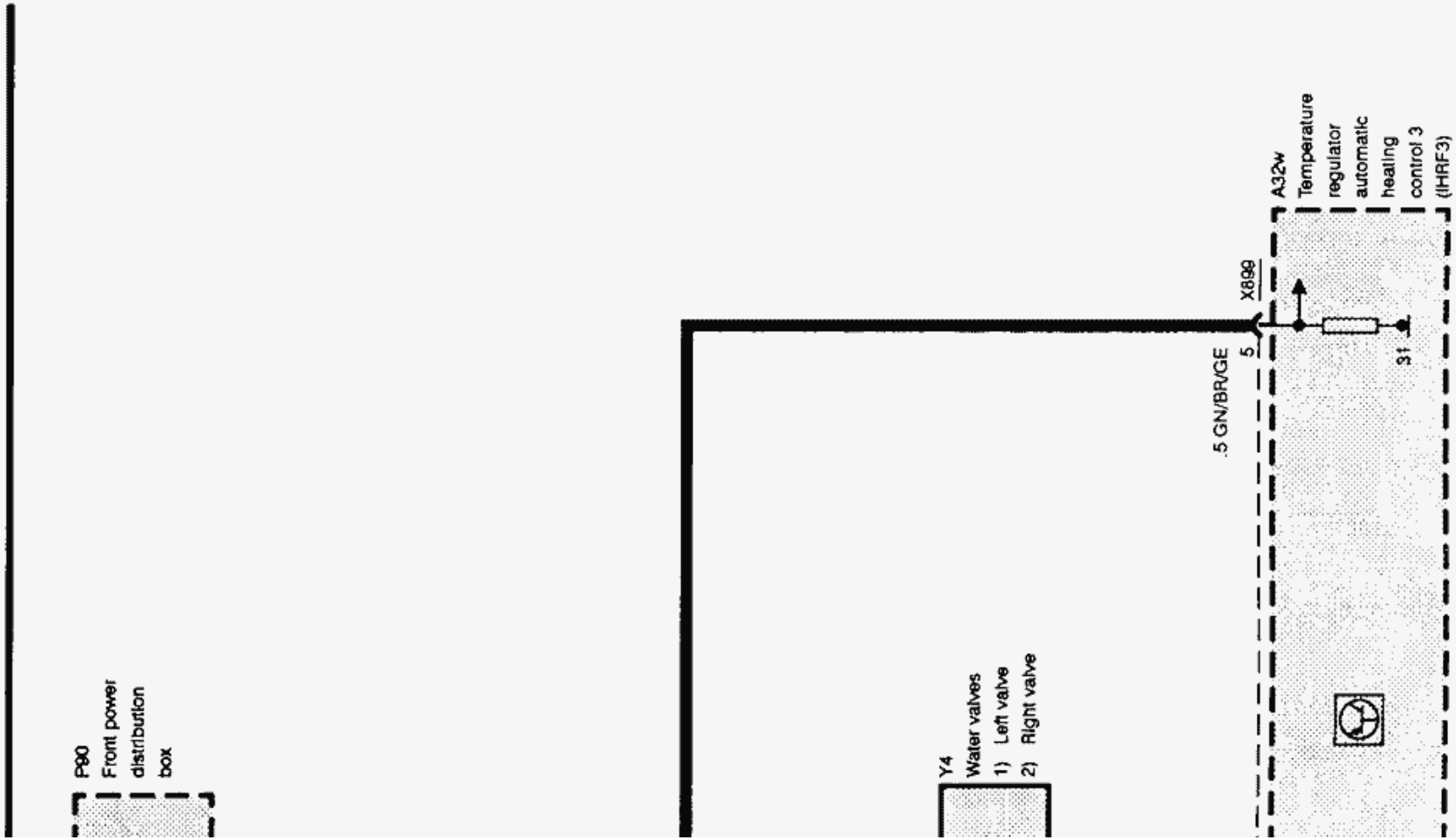

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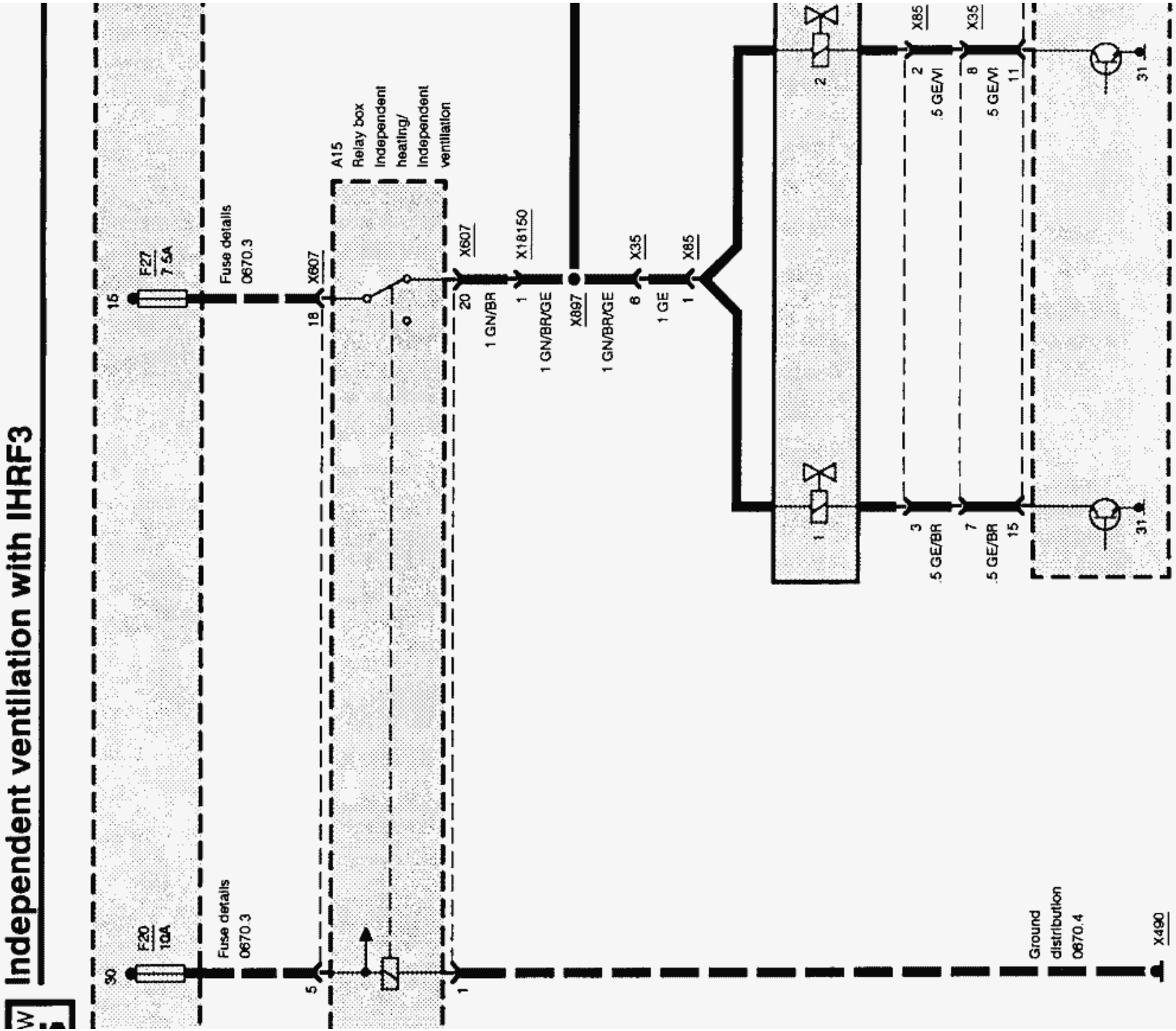
Independent ventilation with IHRF3



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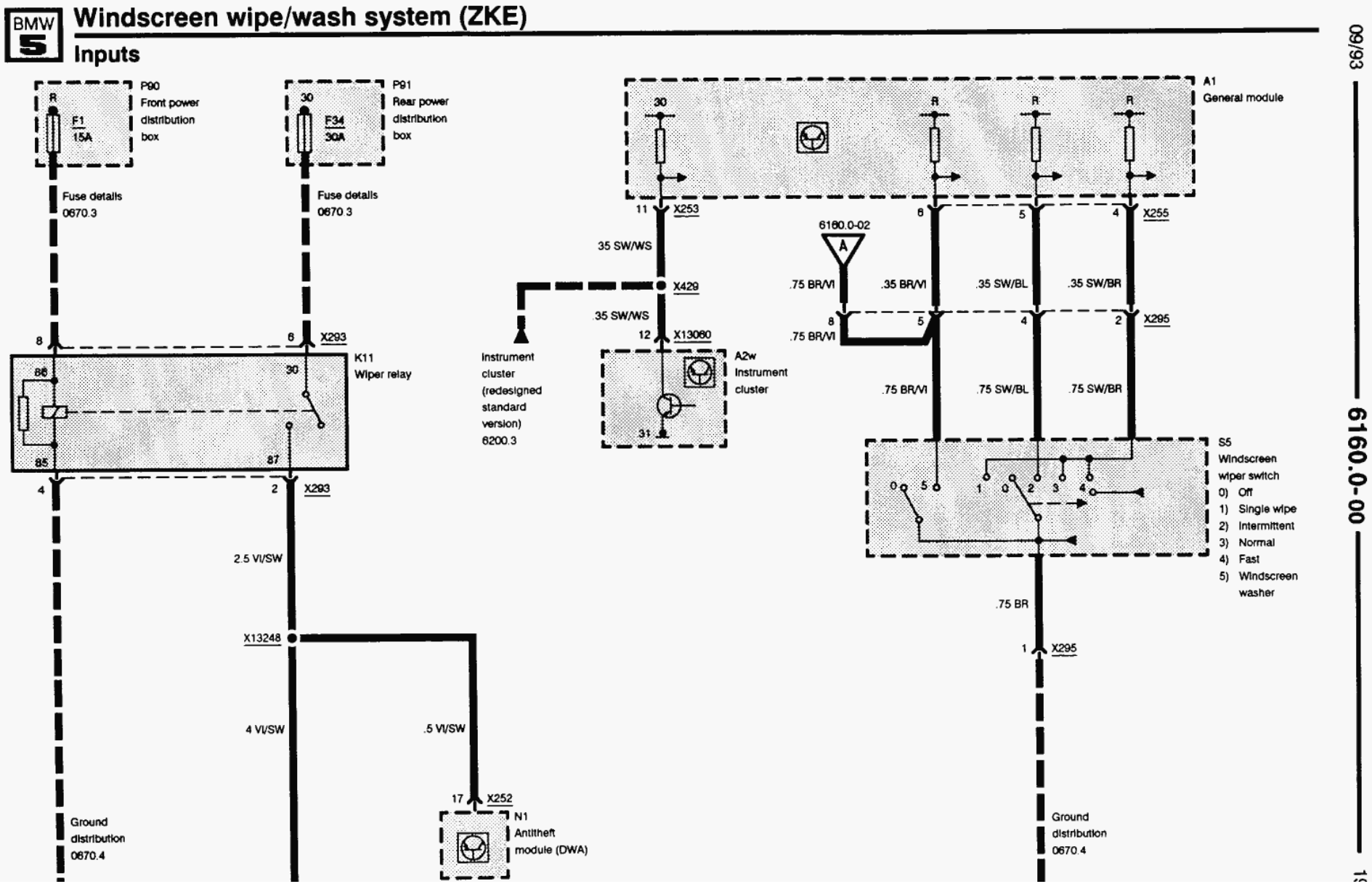
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Windscreen wipe/wash system (ZKE)
Scheme 6160.0



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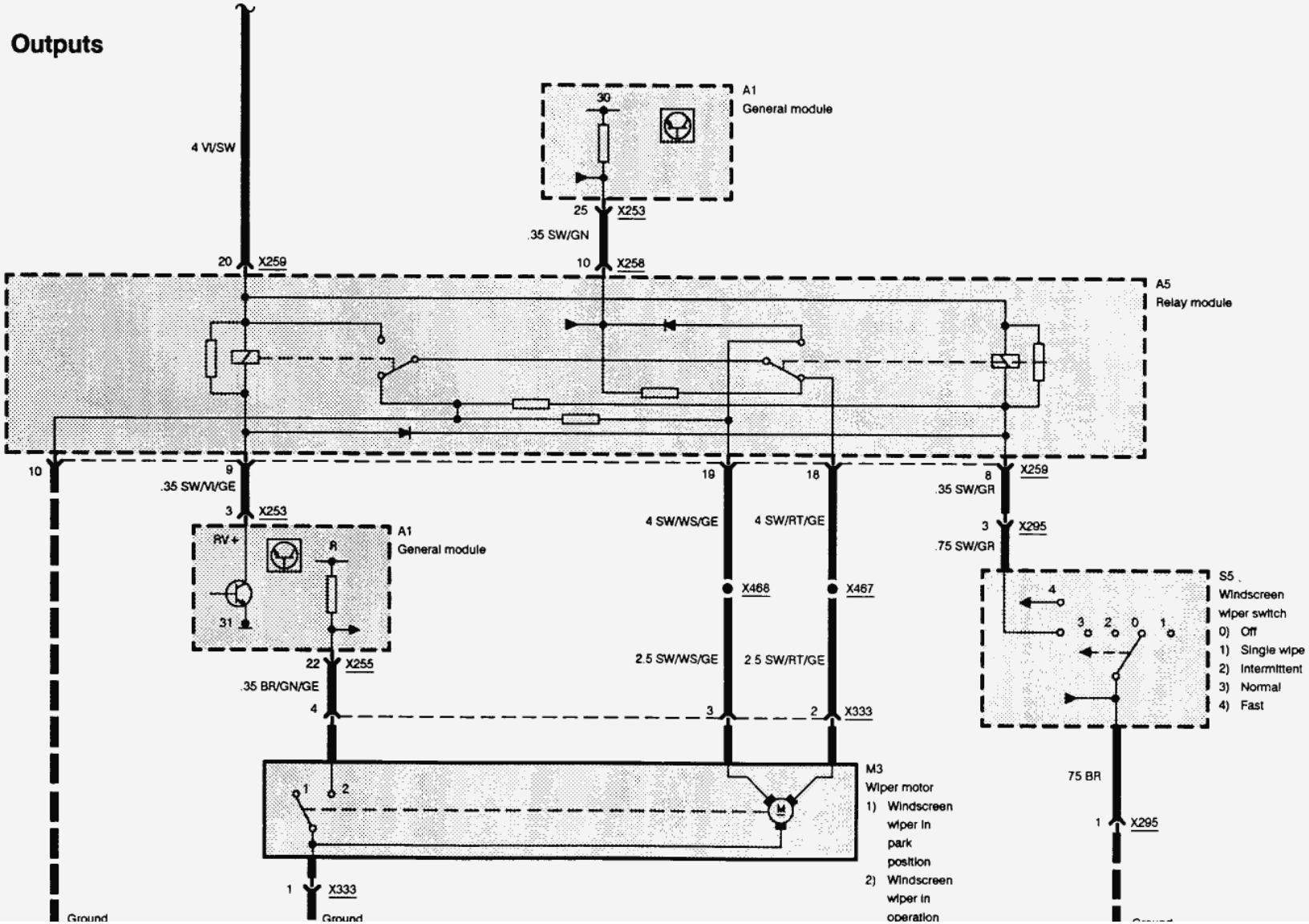
Outputs



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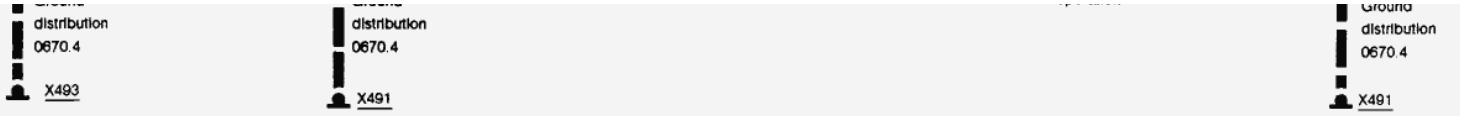


1994

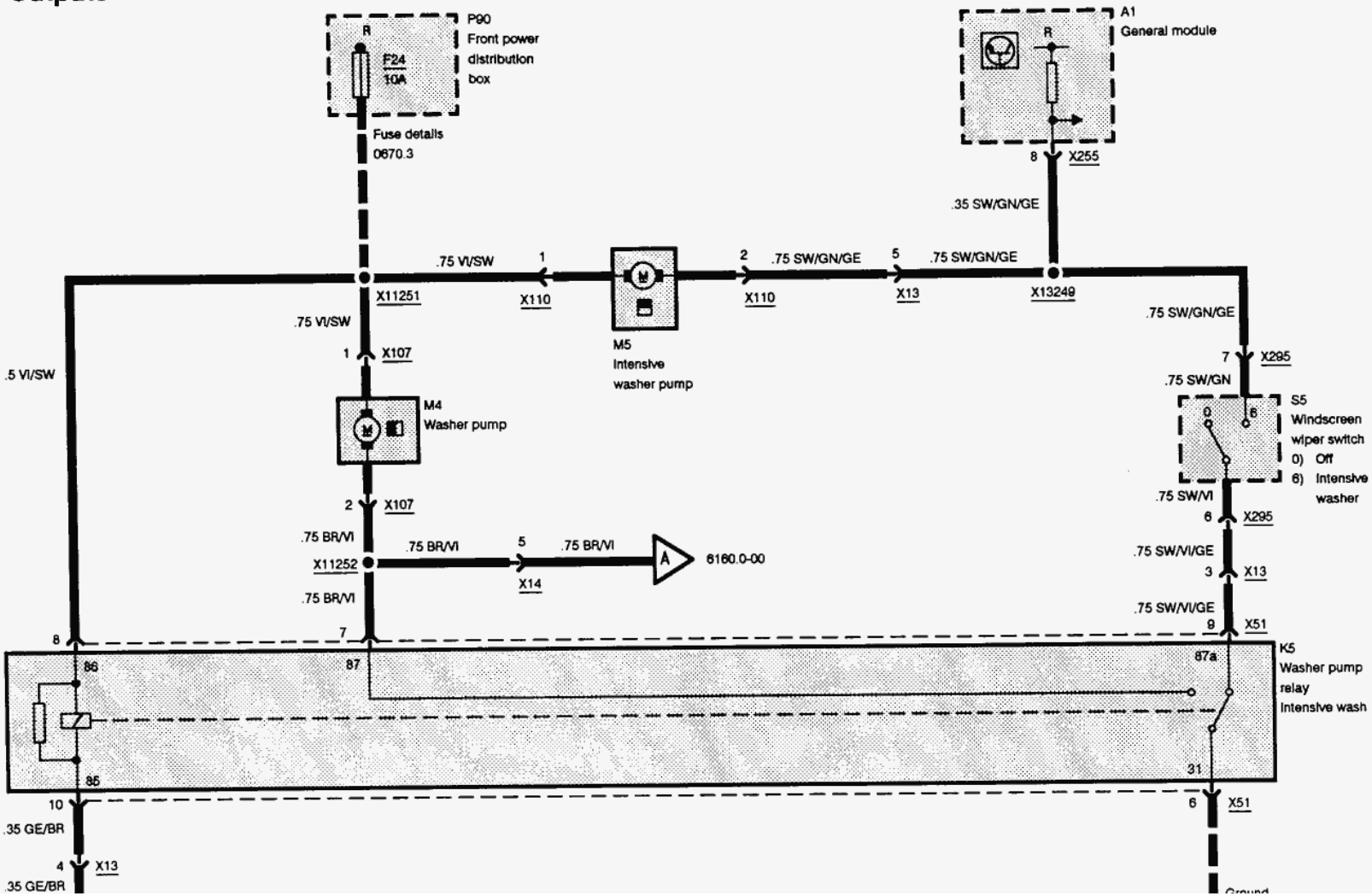
BMW 5

Windscreen wipe/wash system (ZKE)

Outputs

09/93

6160.0-02



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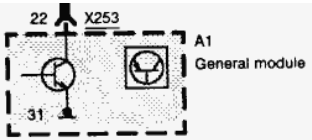

distribution
0670.4

X165

1994

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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Introduction
Scheme 0110.0

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.

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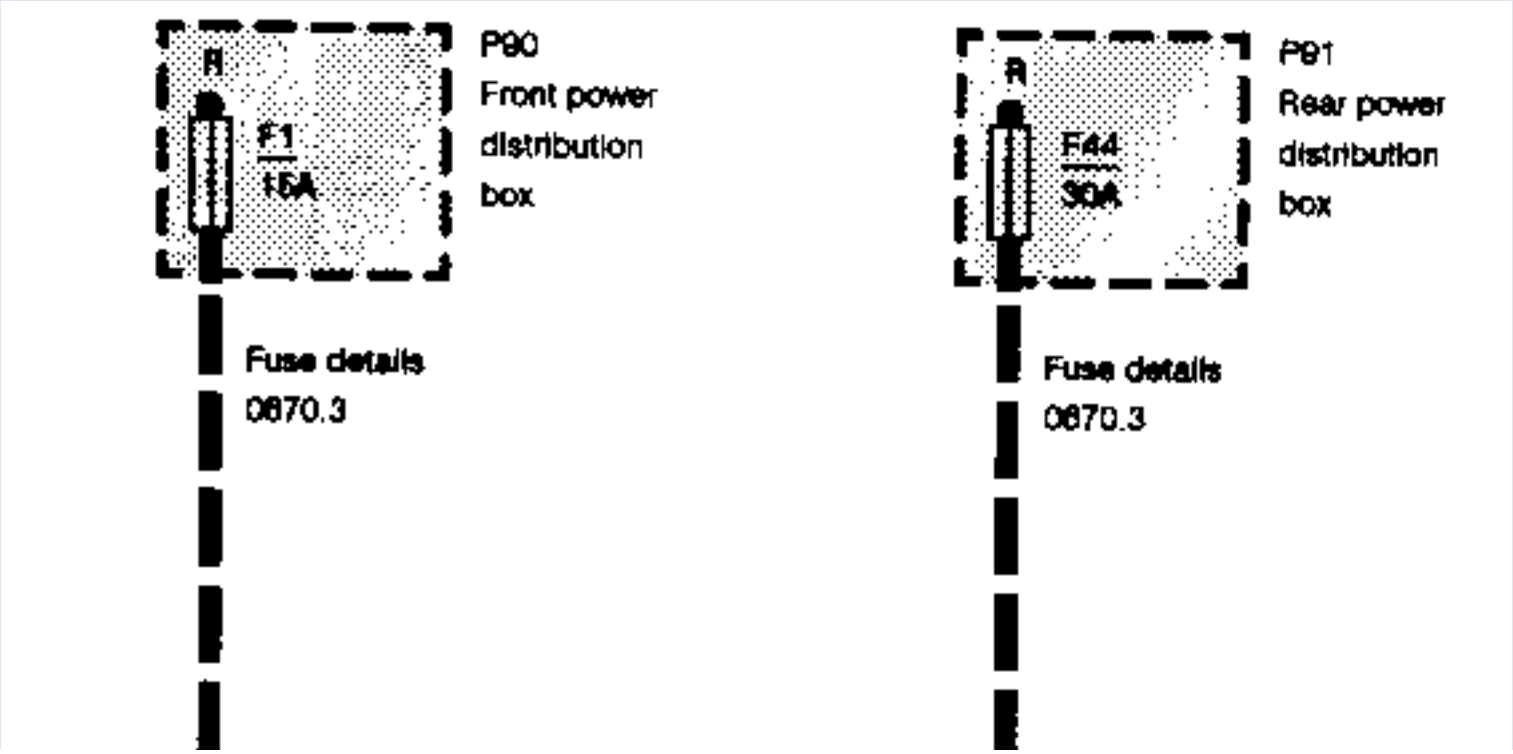

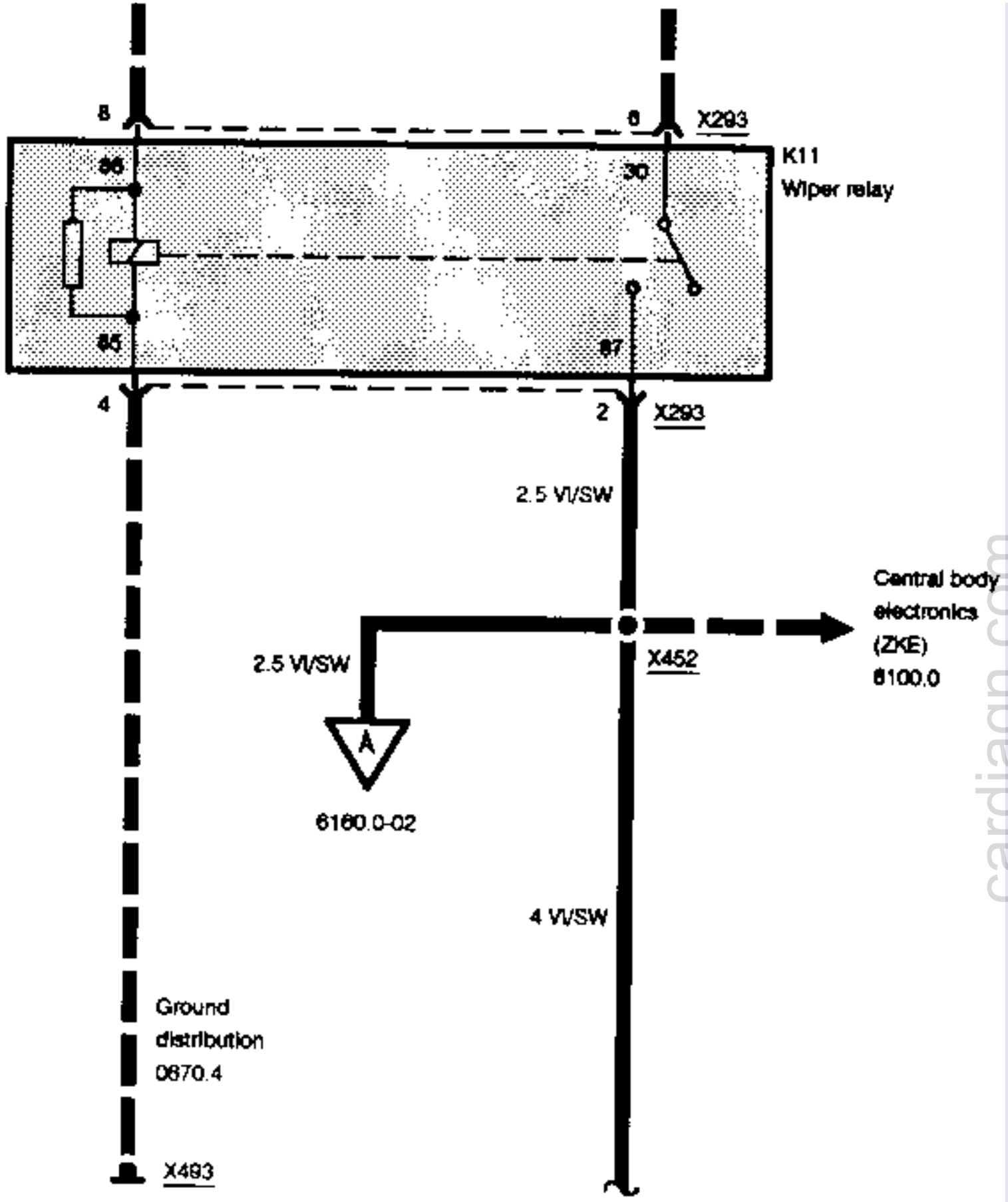

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General conventions

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 P91).

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 dashed 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 dashed 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 A in the open arrow is continued on page 6160.0-02.

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

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Electrical troubleshooting manual
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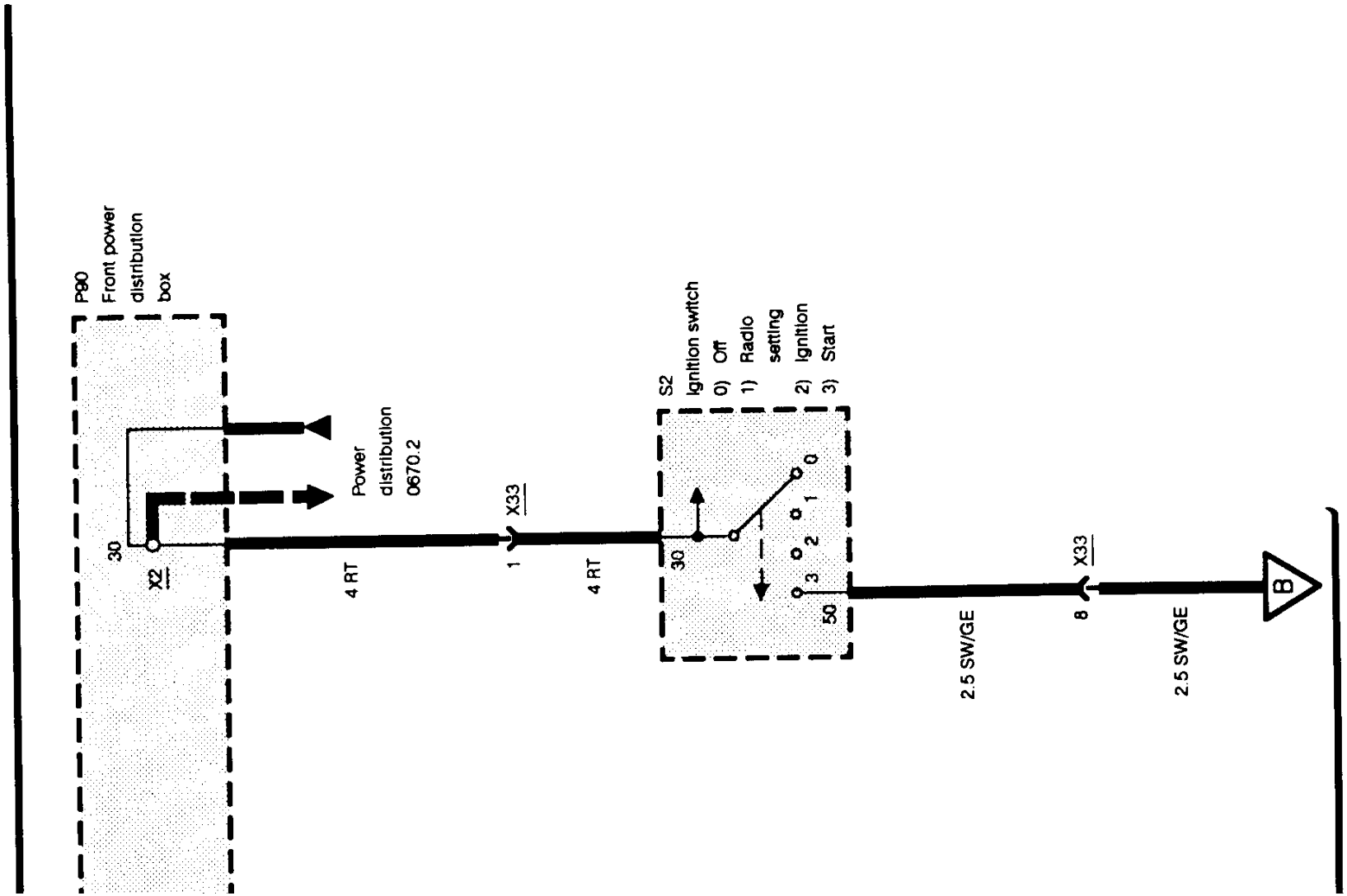
Starter
Scheme 1240.0

09/93 — **1240.0-00** — 1994



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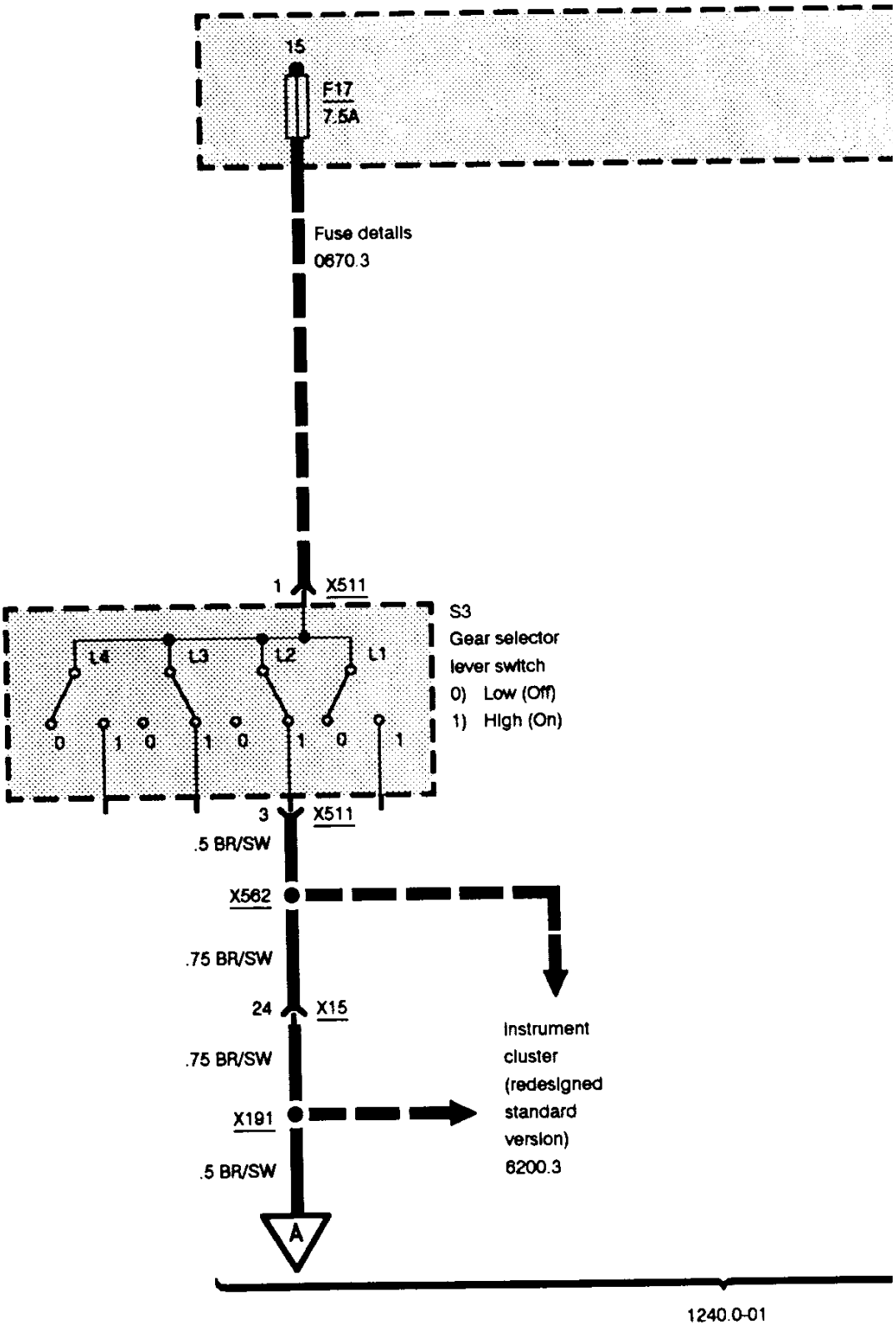
Starter

EGS A4S 310R

	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0
1	1	0	1	0

EGS A5S 310Z
EGS A5S 310Z
(diesel)

	L1	L2	L3	L4
P	1	1	0	1
R	1	0	0	0
N	1	1	1	0
D	0	0	0	1
4	0	0	1	1
3	1	0	1	1
2	0	0	1	0



1240.0-01

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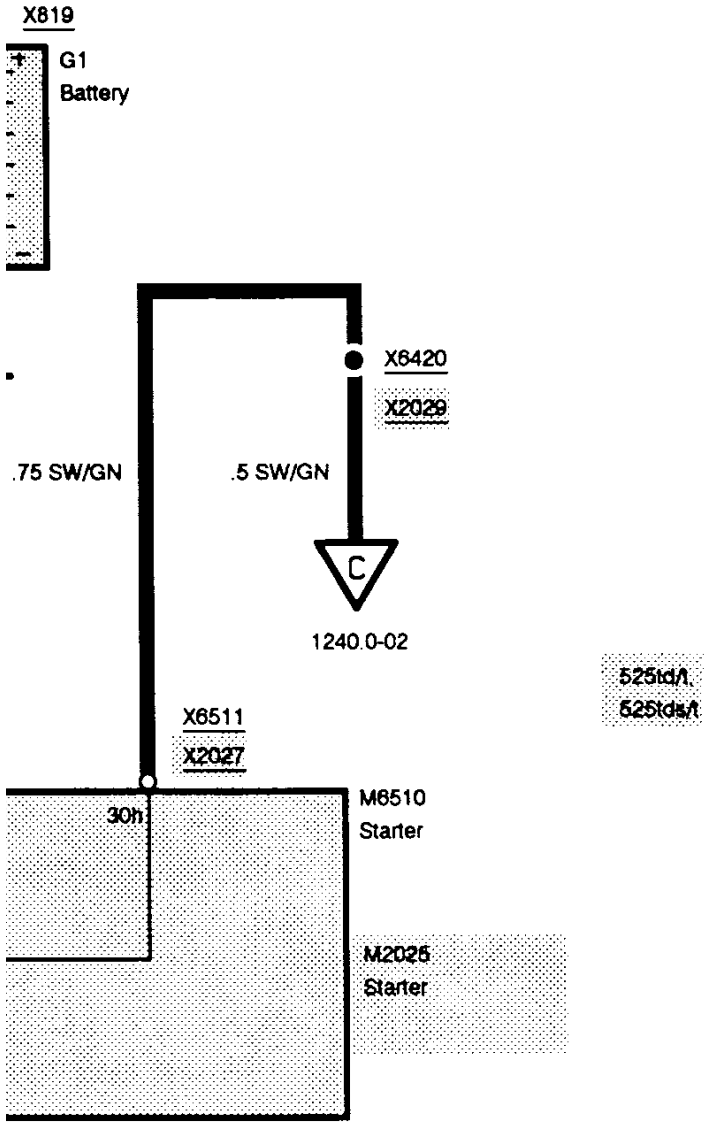

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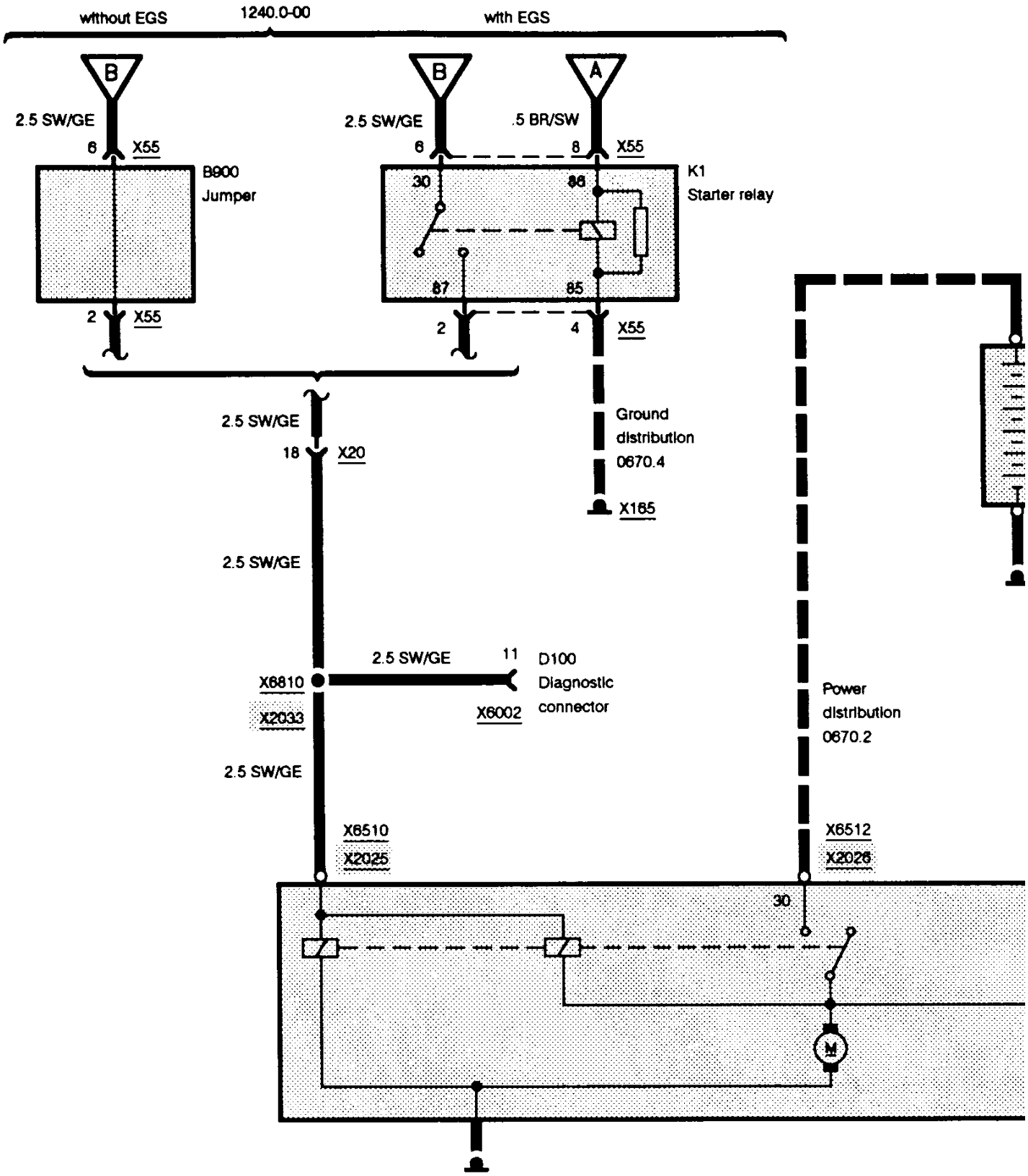
Starter



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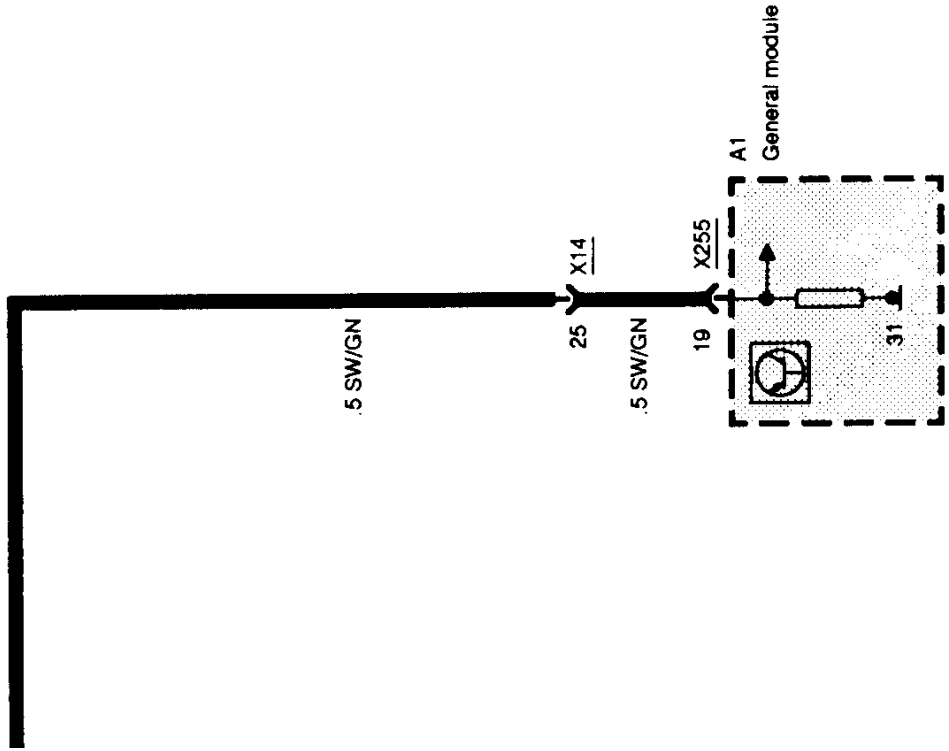

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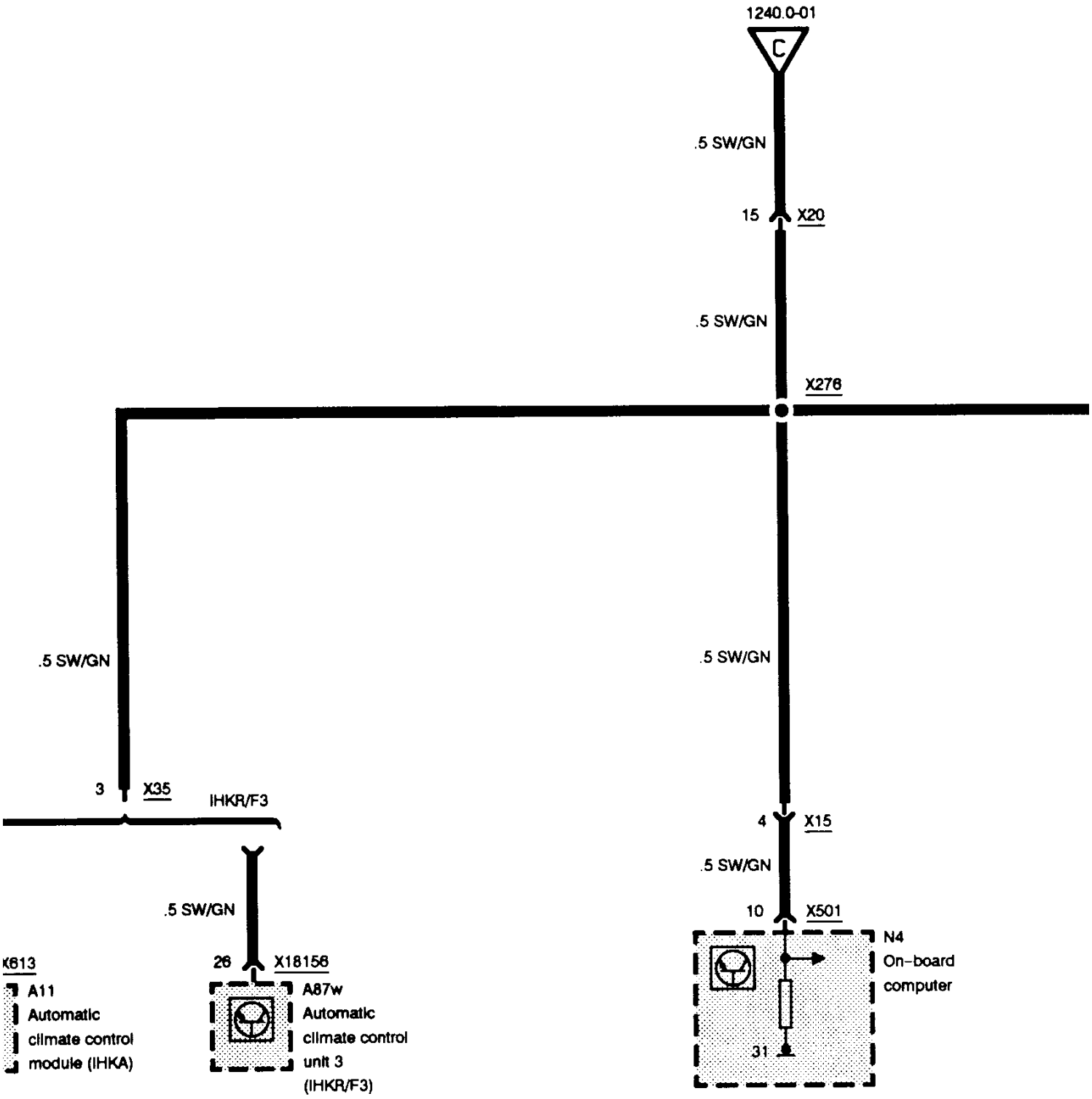

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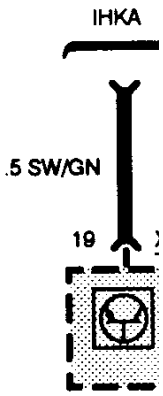
Start



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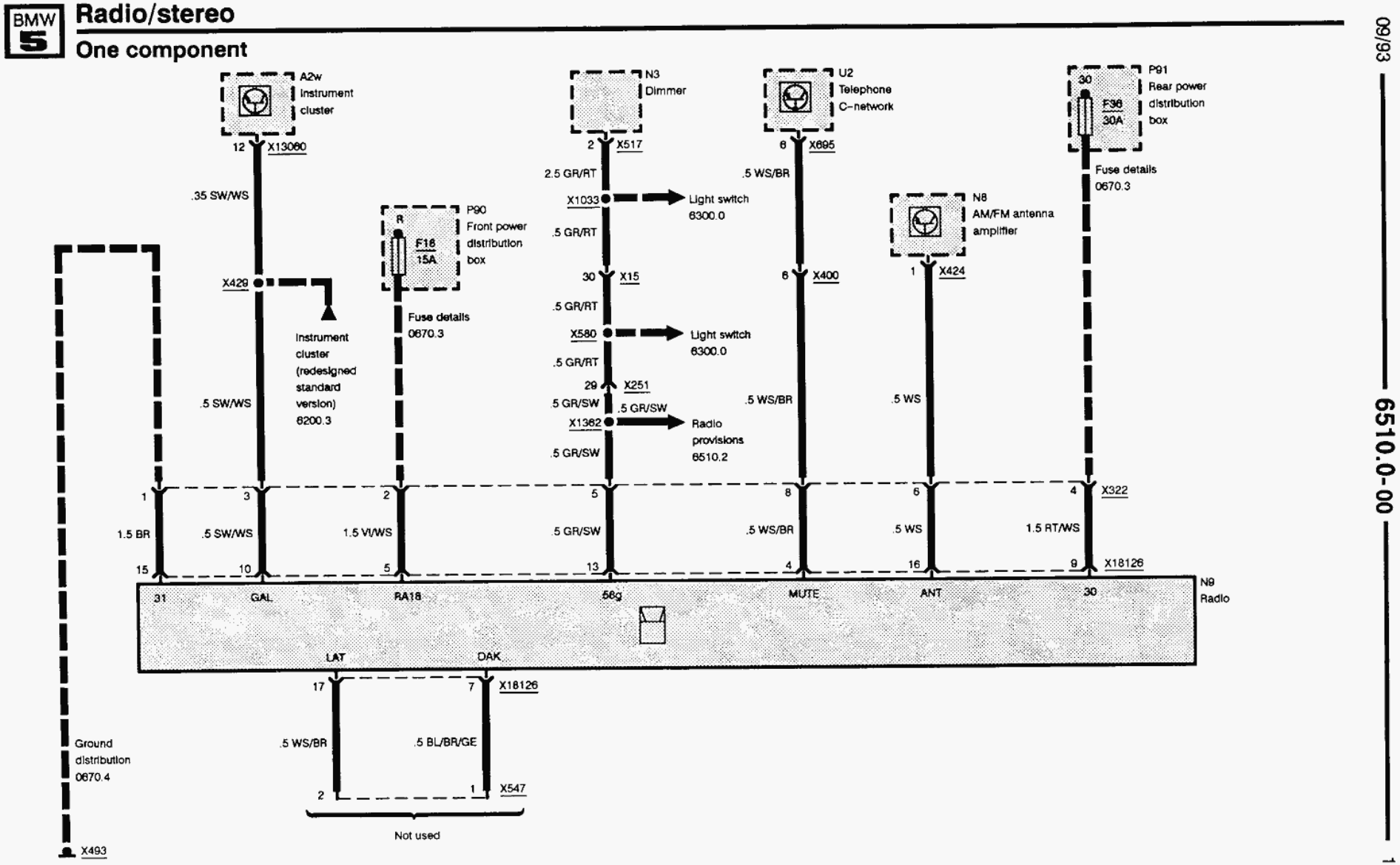
Radio/stereo
Scheme 6510.0



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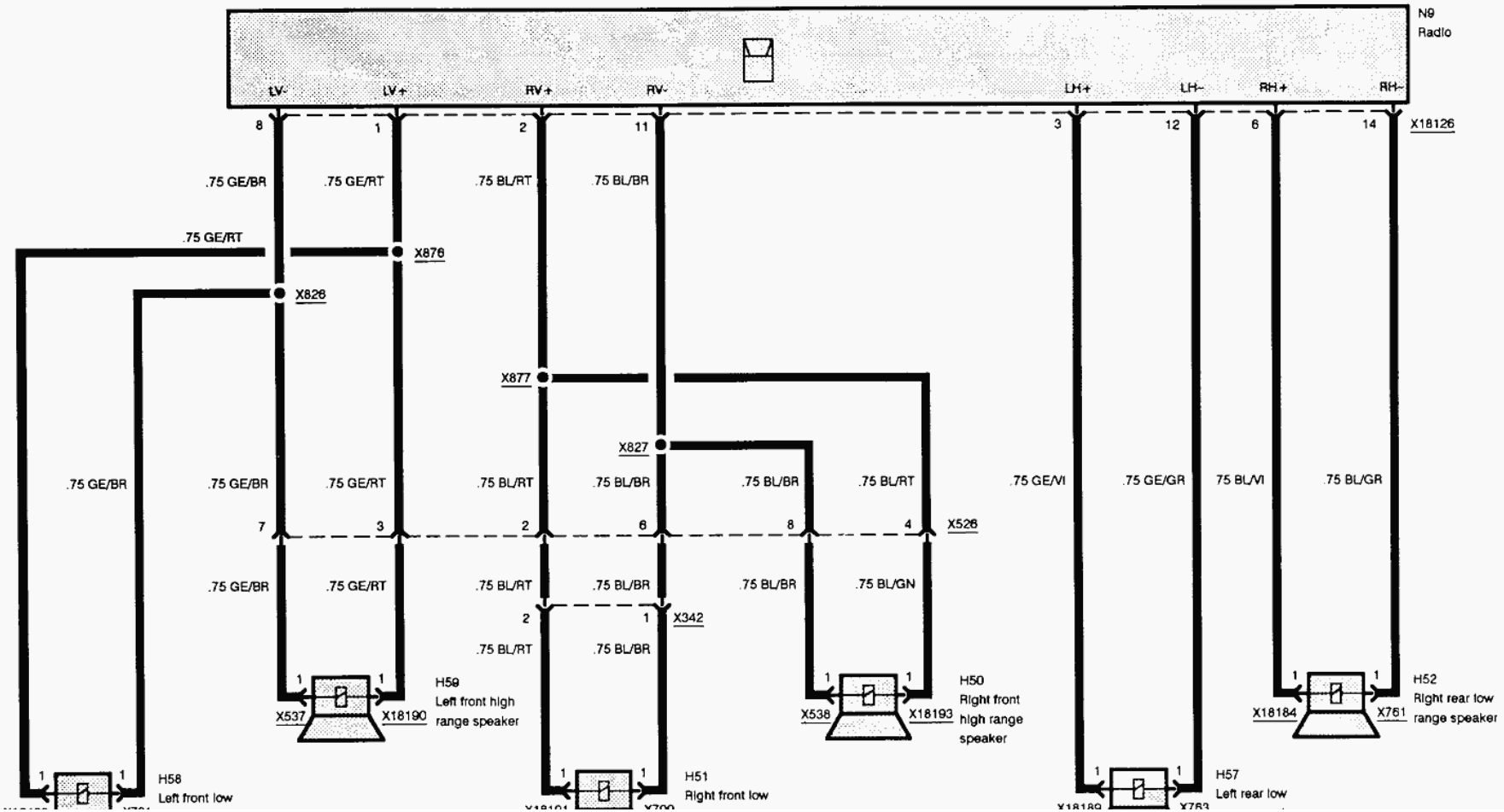
Radio/stereo

Speaker activation (1 component)



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6510.0-01

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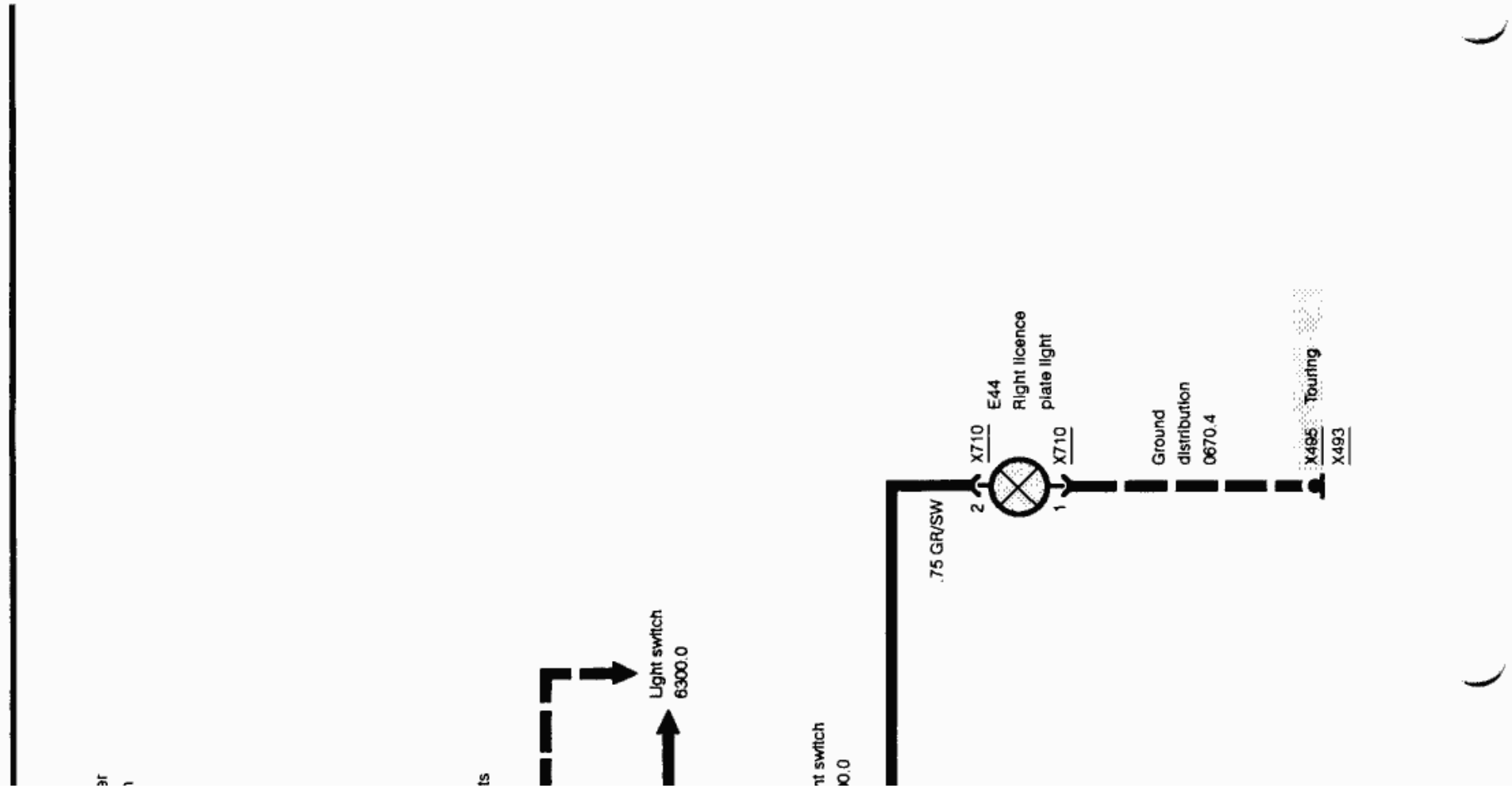
Licence plate/luggage compartment lights

Scheme 6320.0

09/93 — 6320.0-00 — 1994



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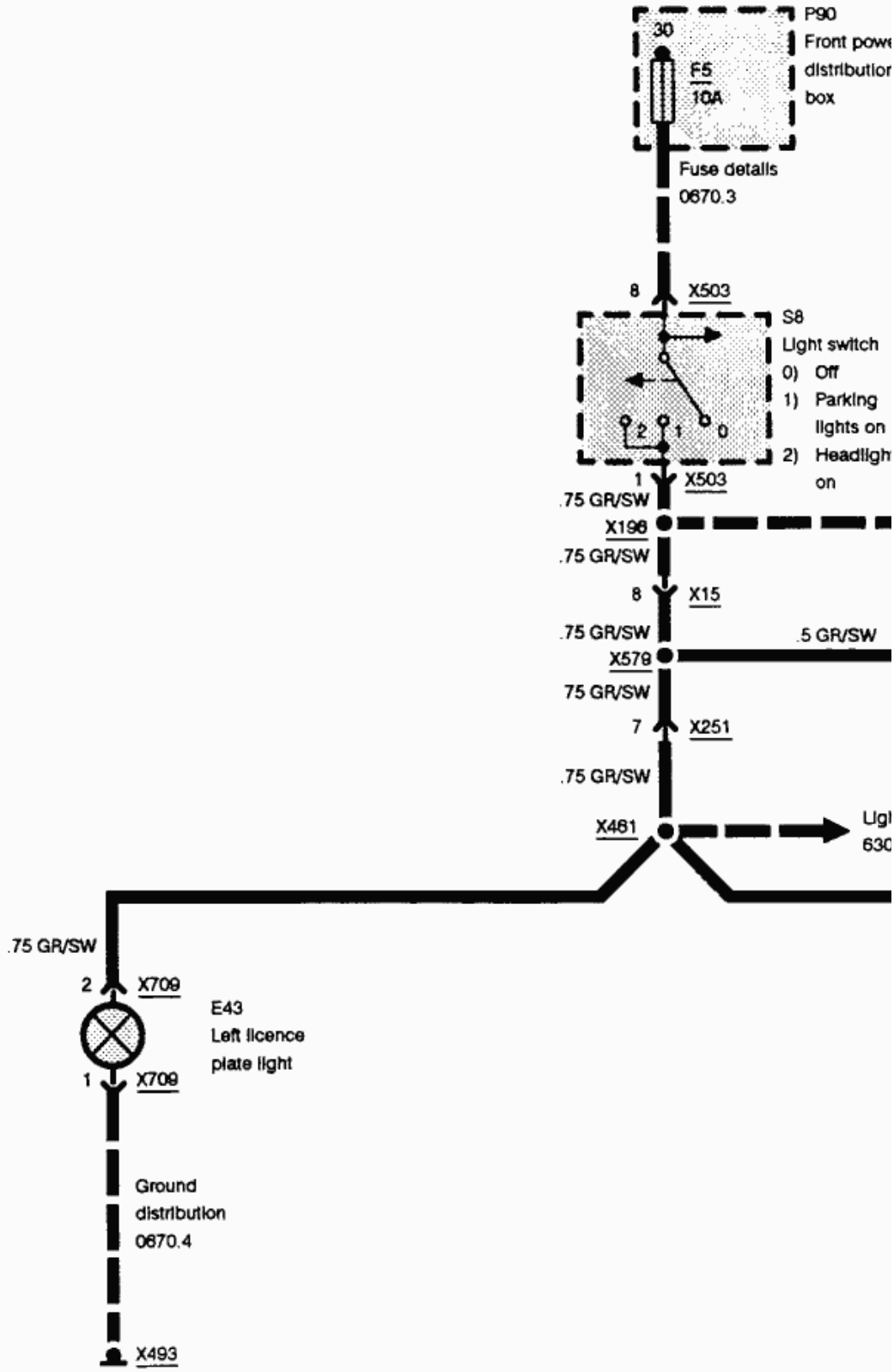
Licence plate/ luggage compartment lights

Licence plate lights



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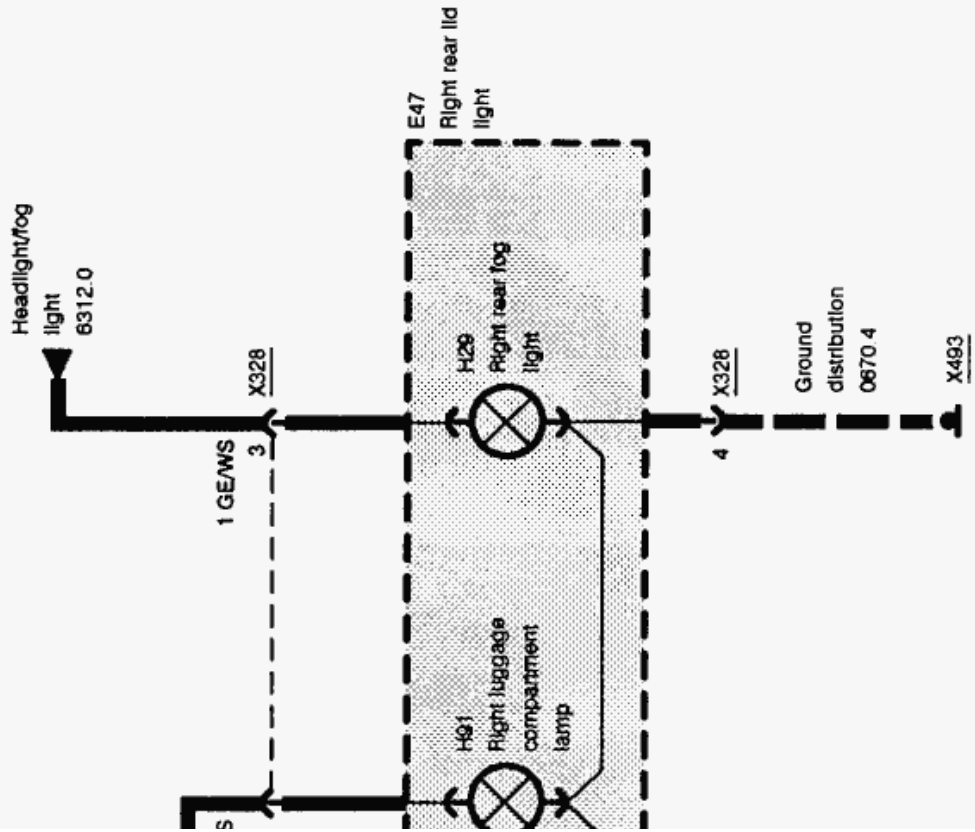

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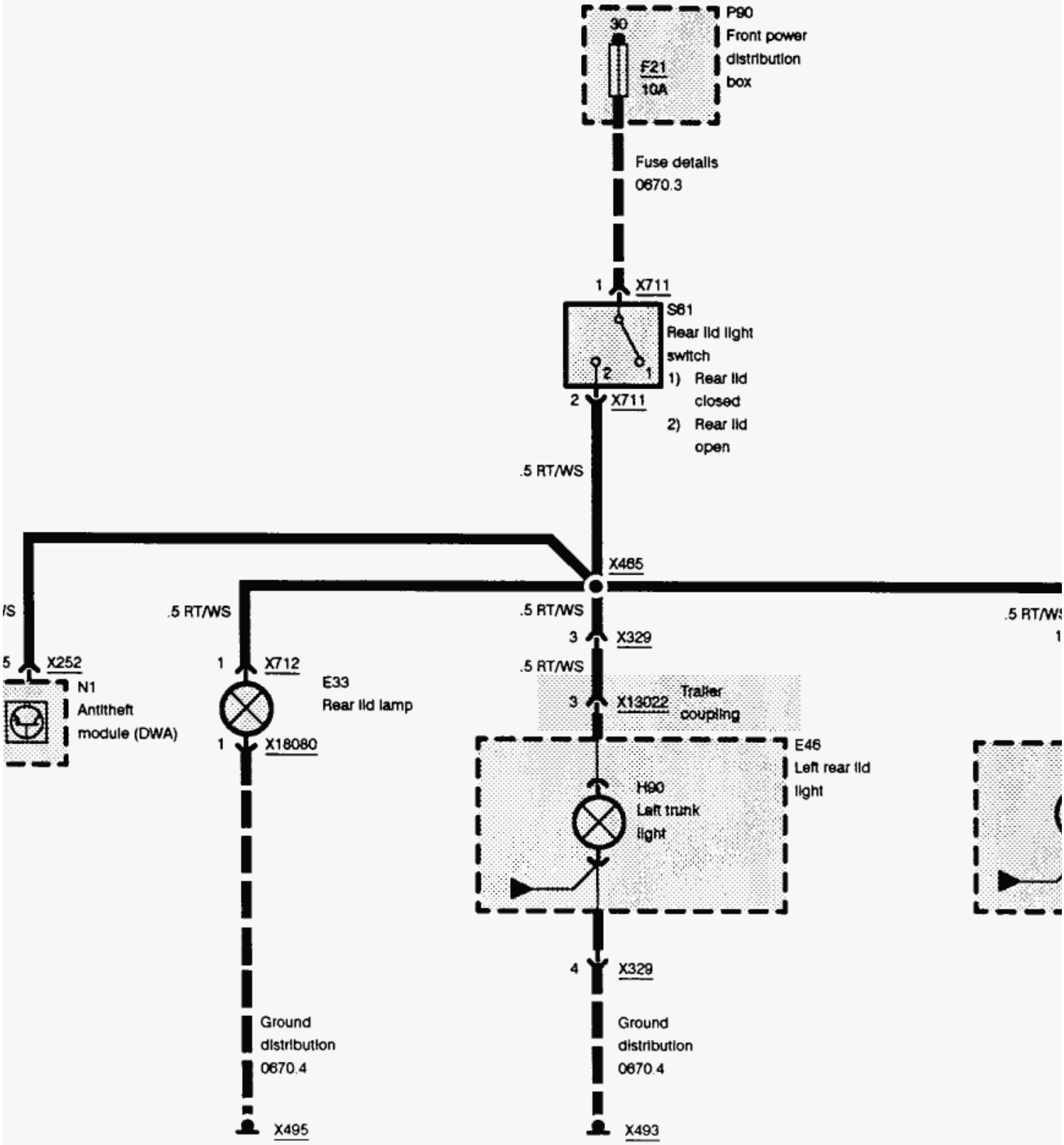
Licence plate/ luggage compartment lights

Luggage compartment lights



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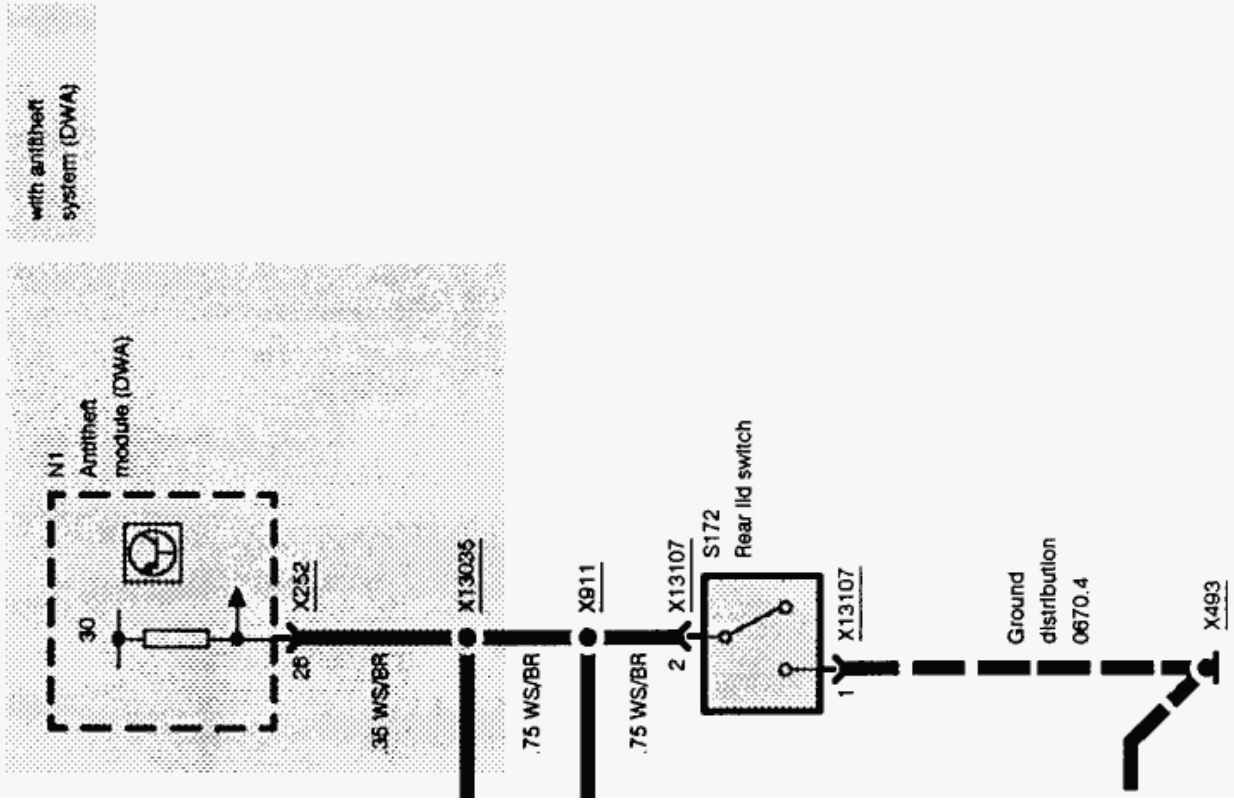
Touring



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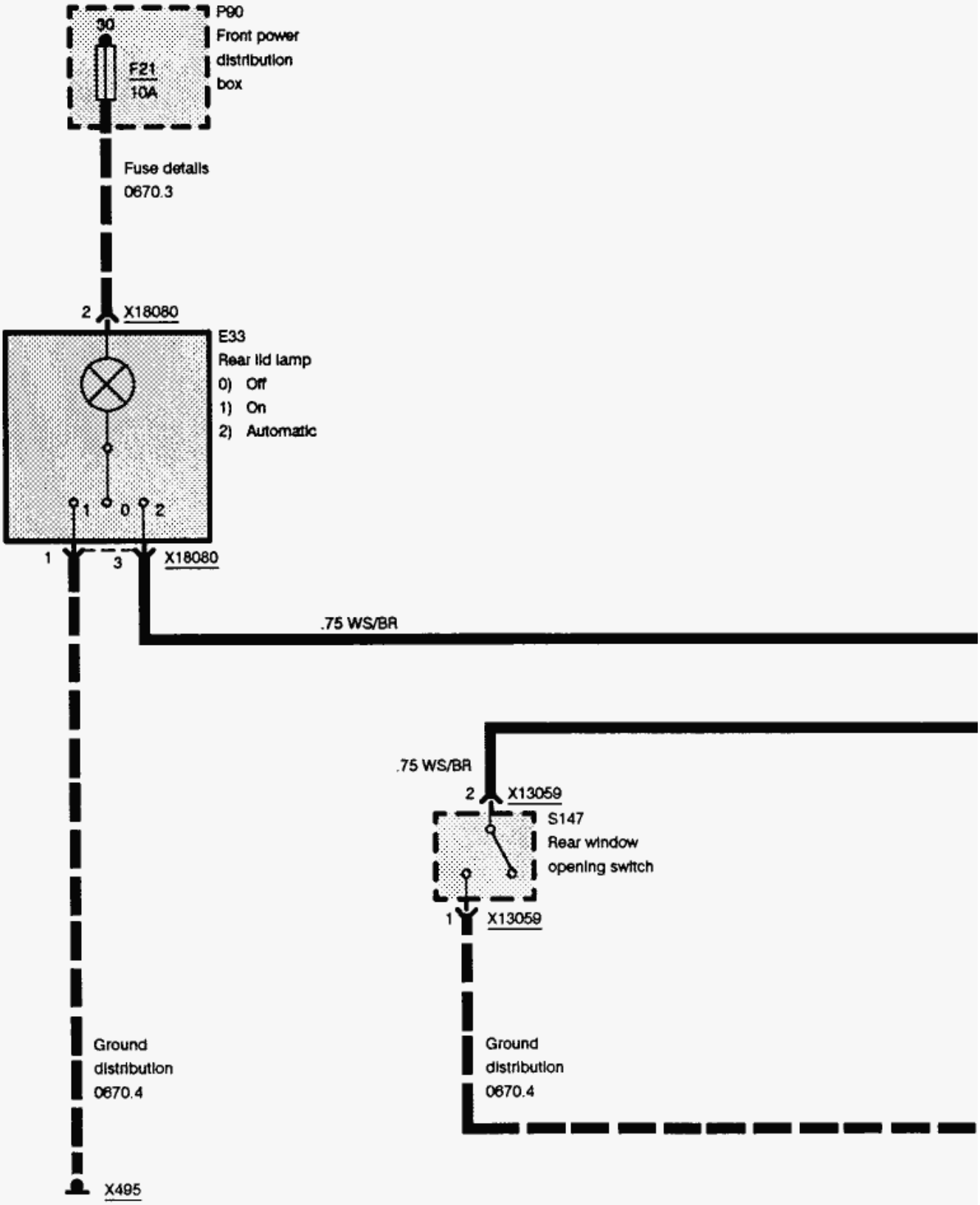
Licence plate/ luggage compartment lights

Luggage compartment lights



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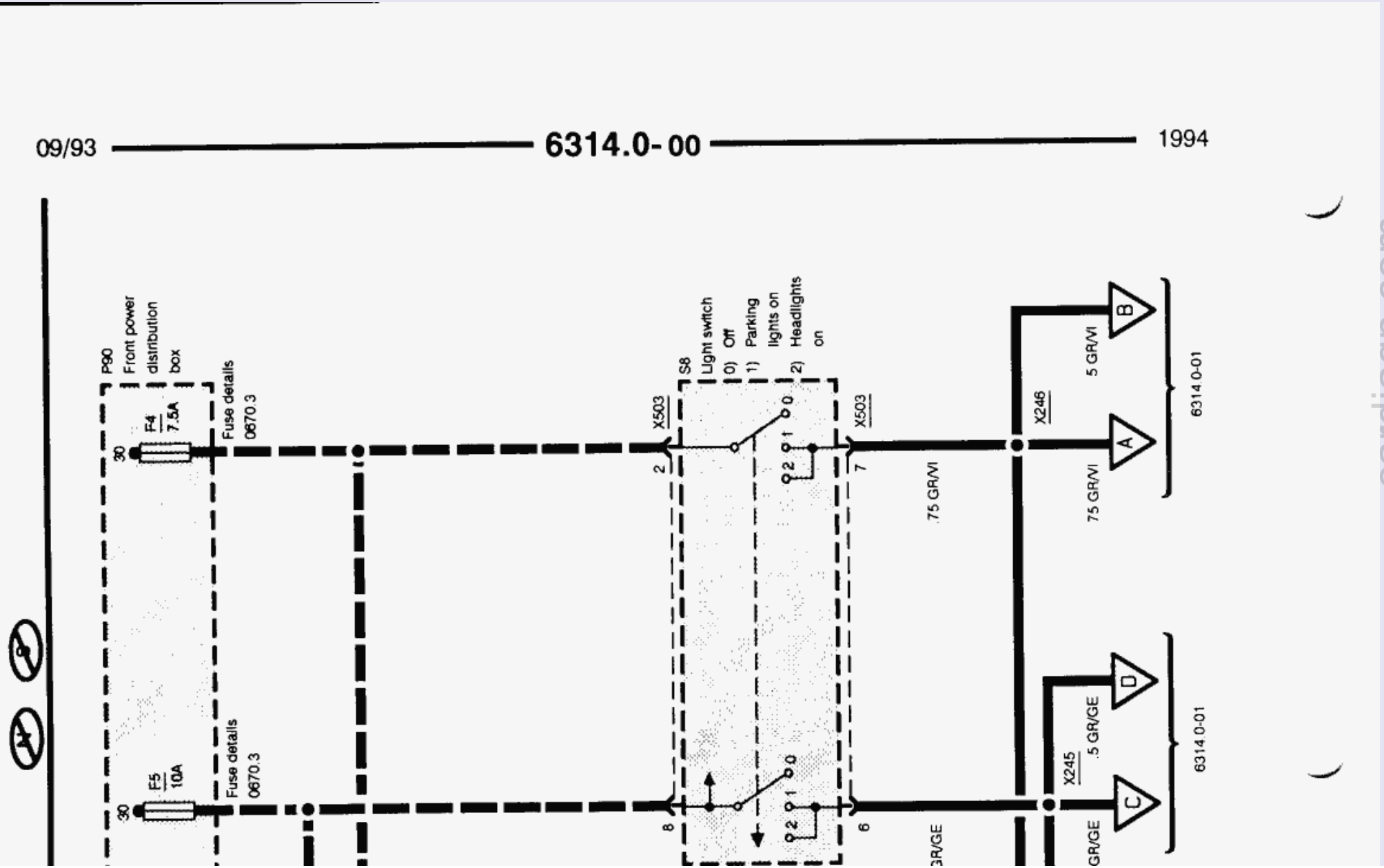
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Park/tail/underhood lights

Scheme 6314.0



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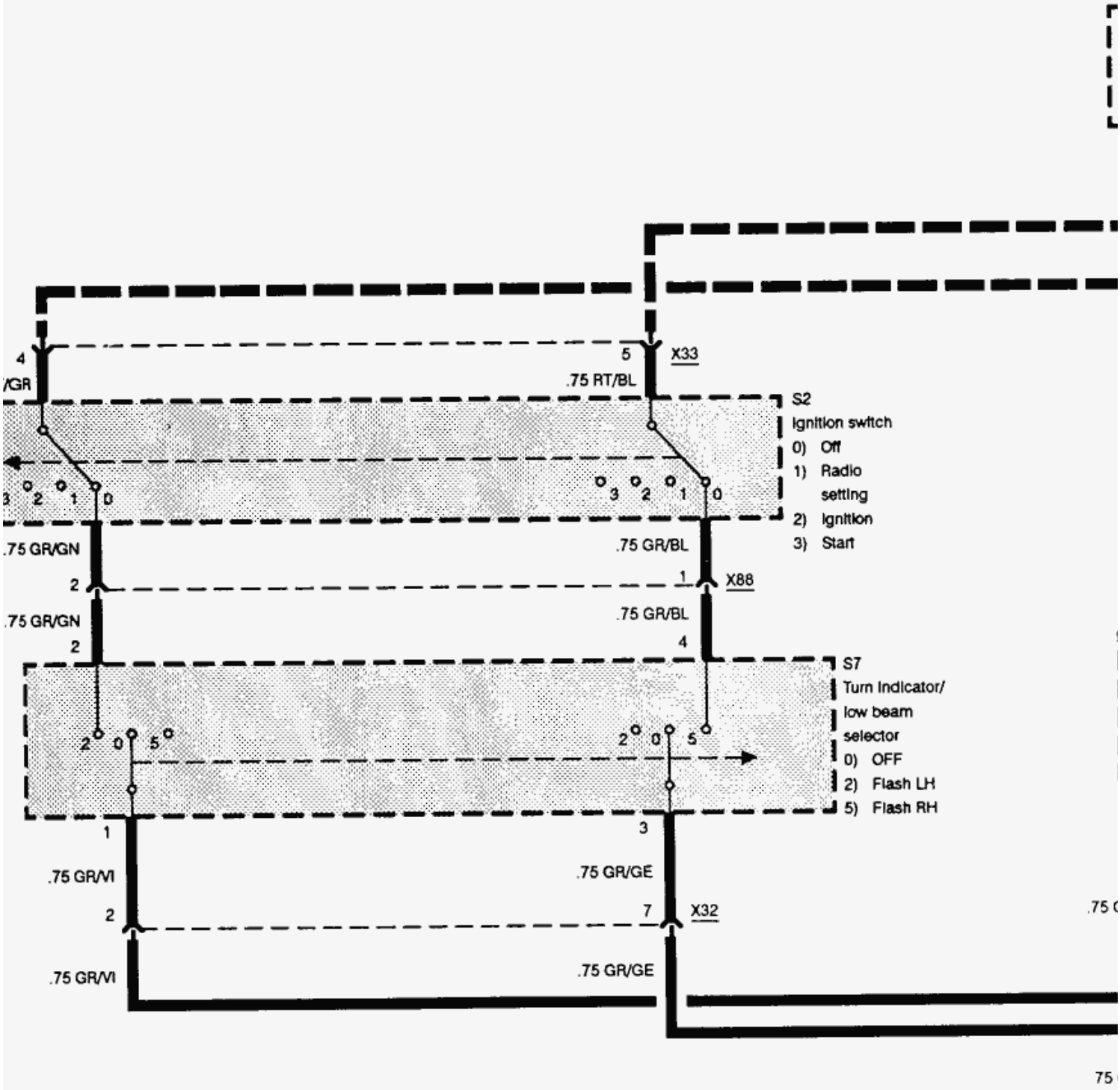
Park/tail/ underhood lights



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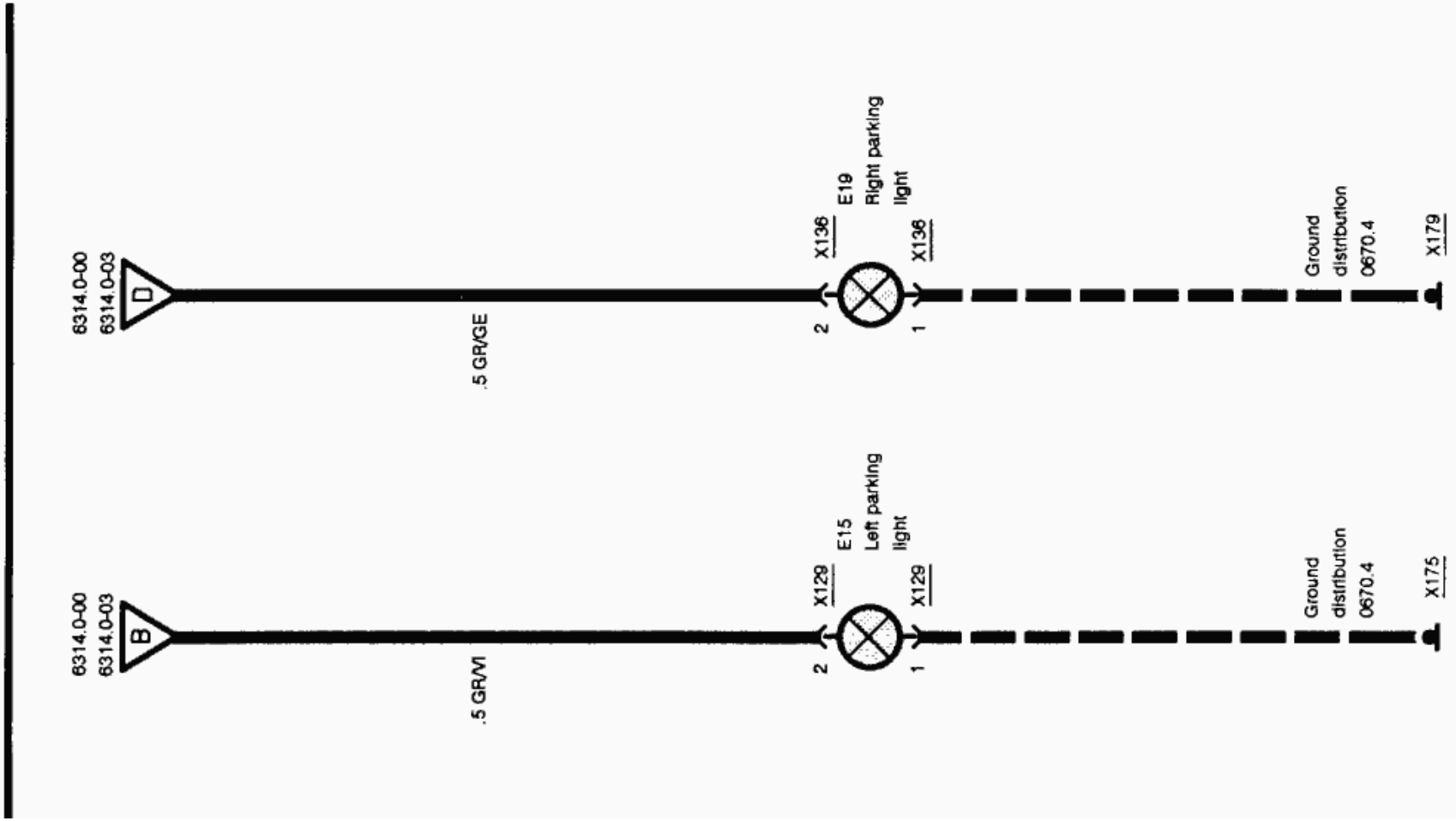

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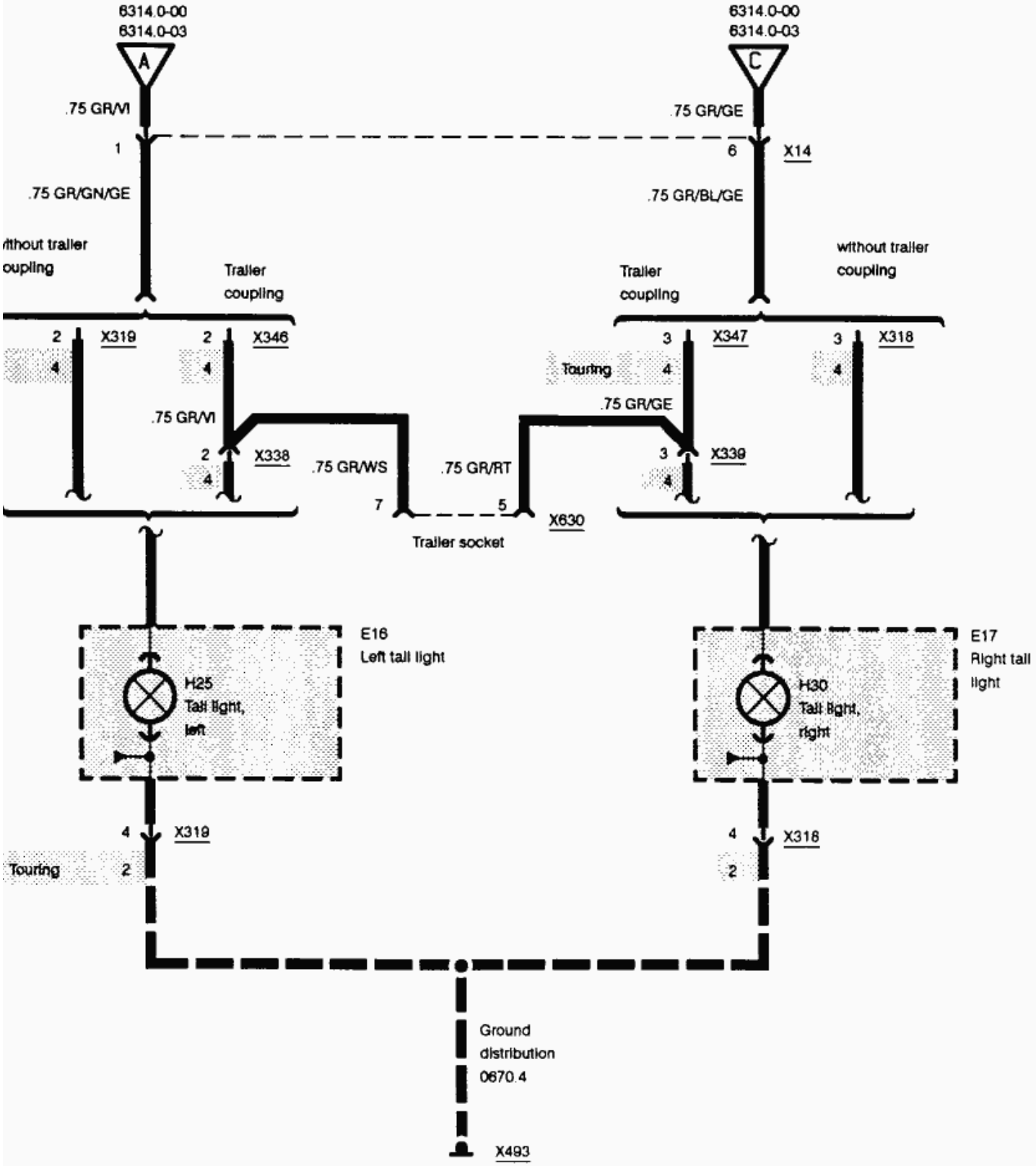
Park/tail/ underhood lights

Parking light/tail light



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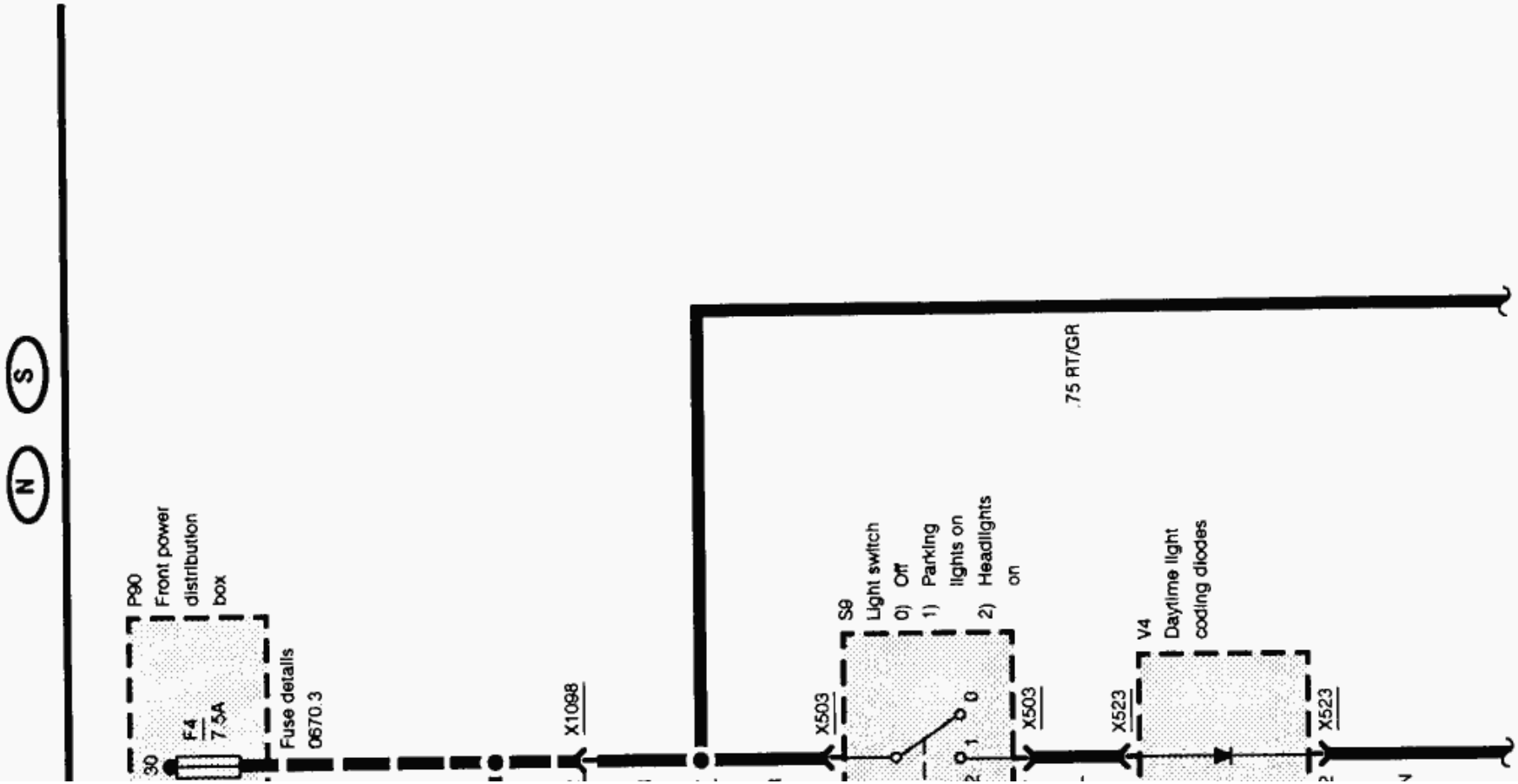

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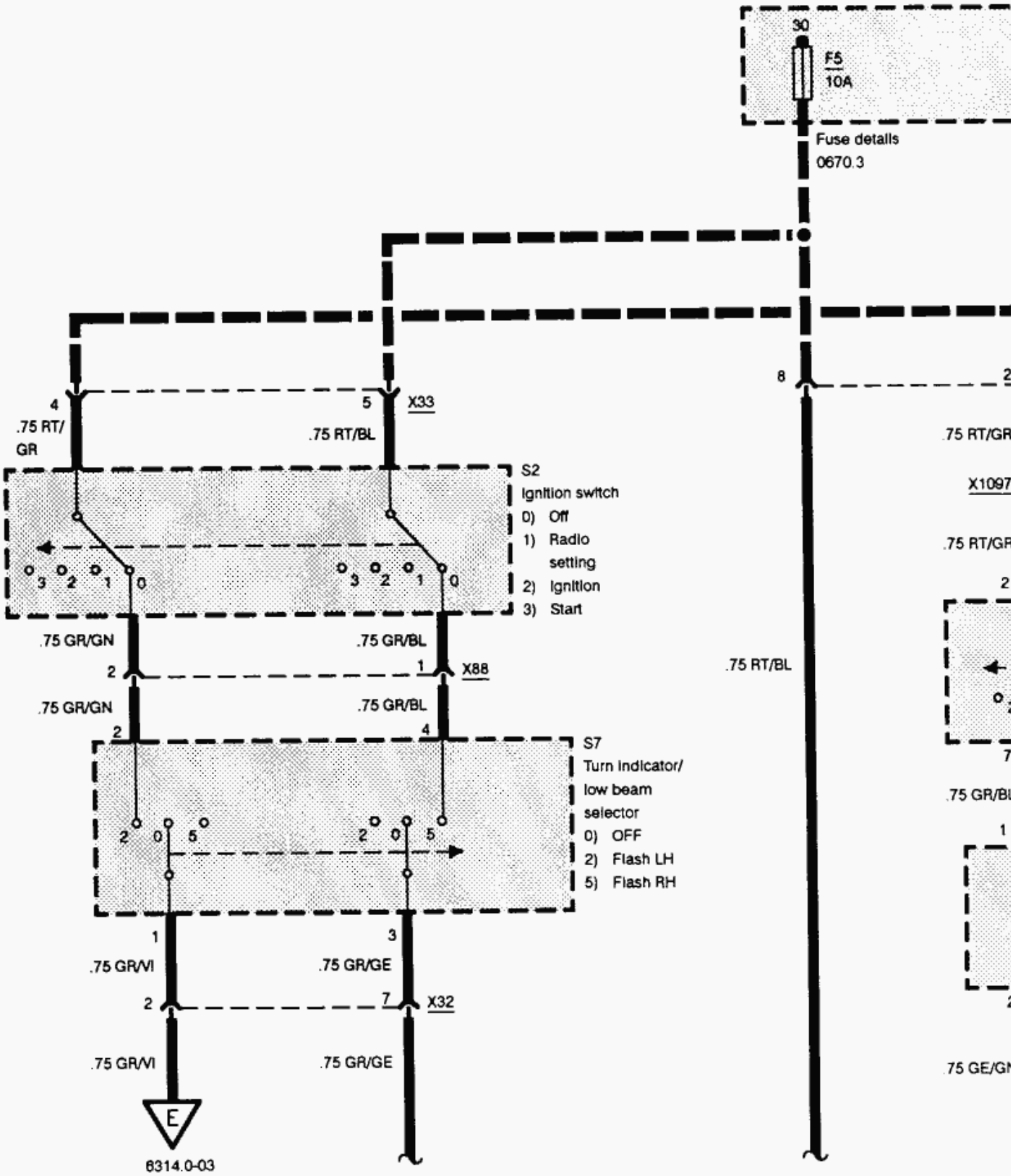
Park/tail/ underhood lights



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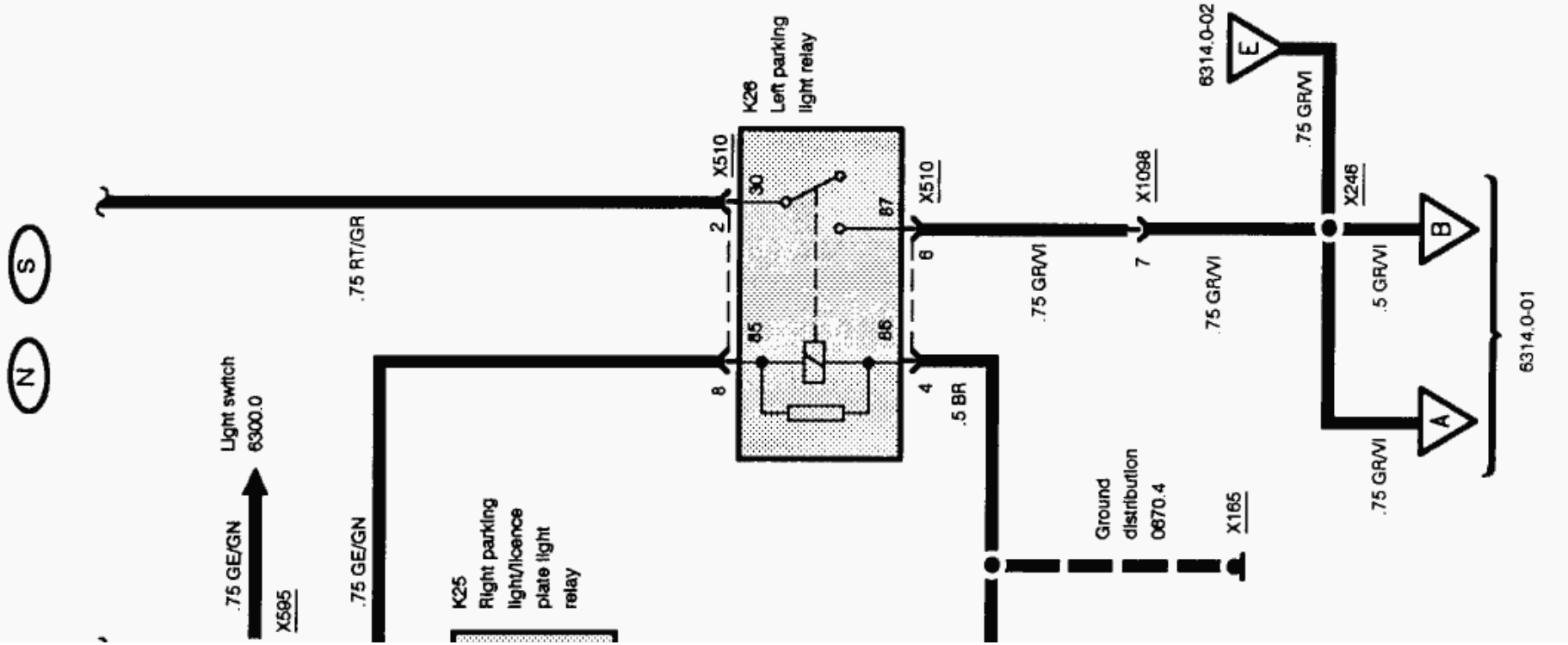

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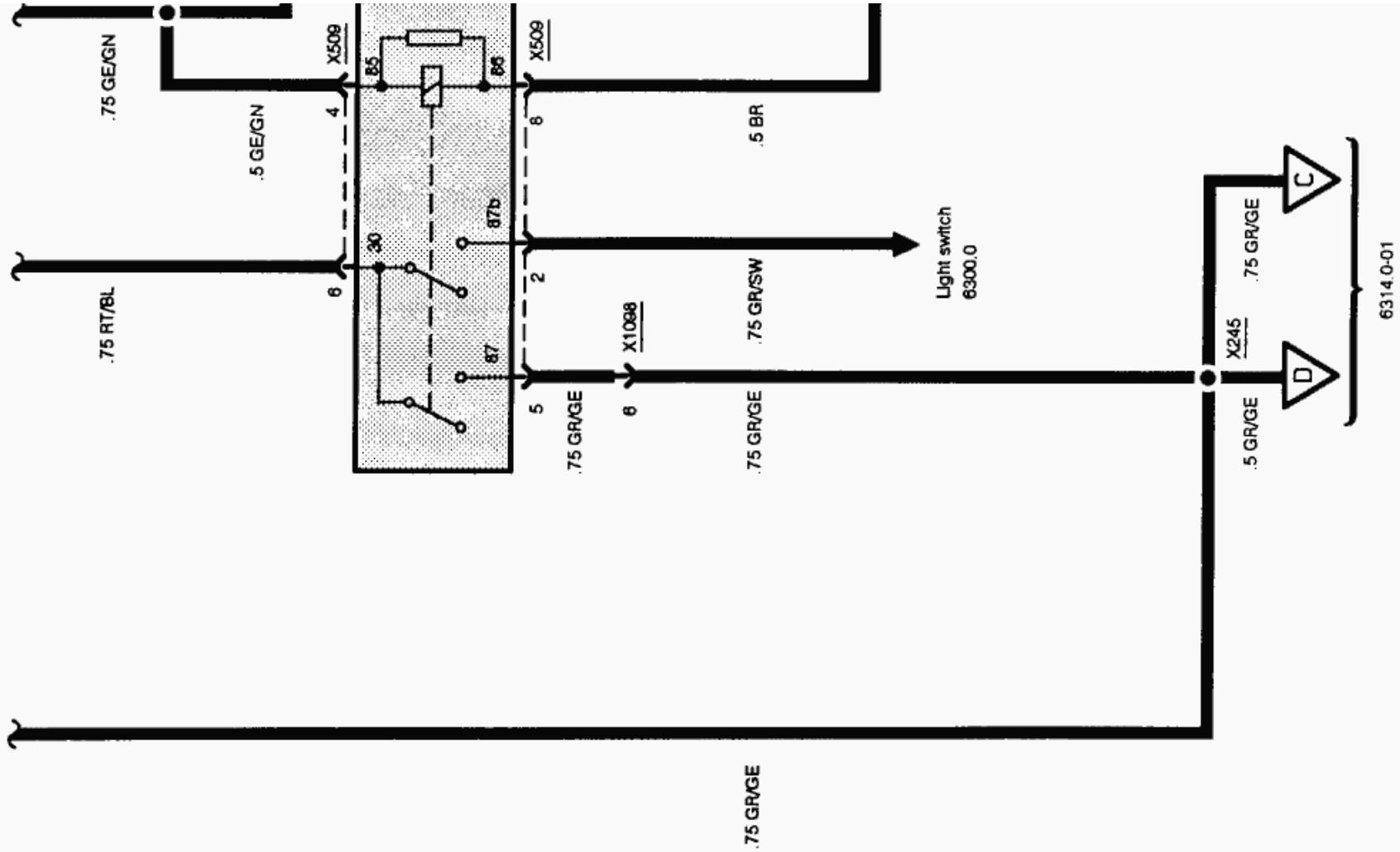

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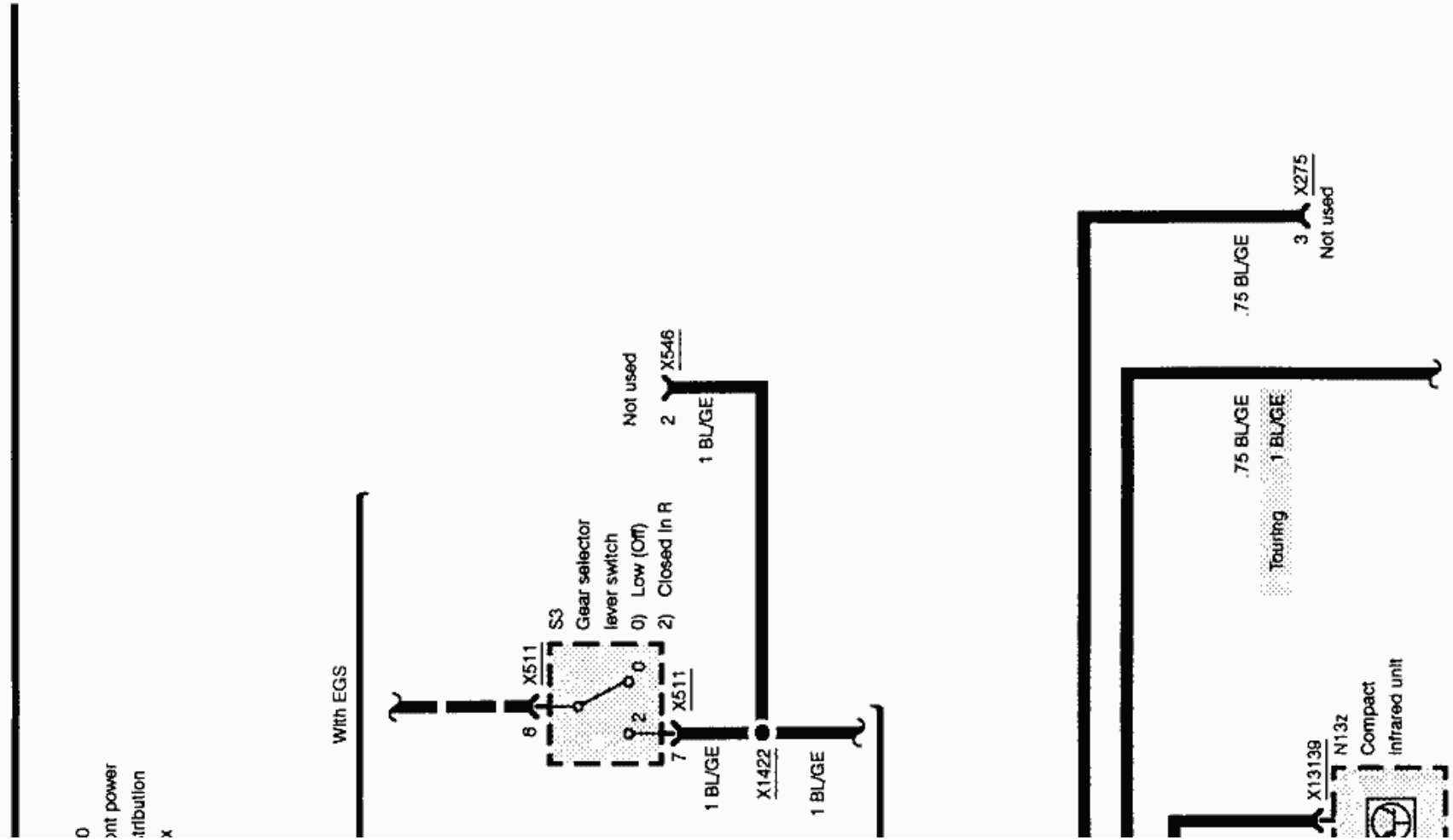
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Reversing lights

Scheme 6322.0

09/93 — 6322.0-00 — 1994



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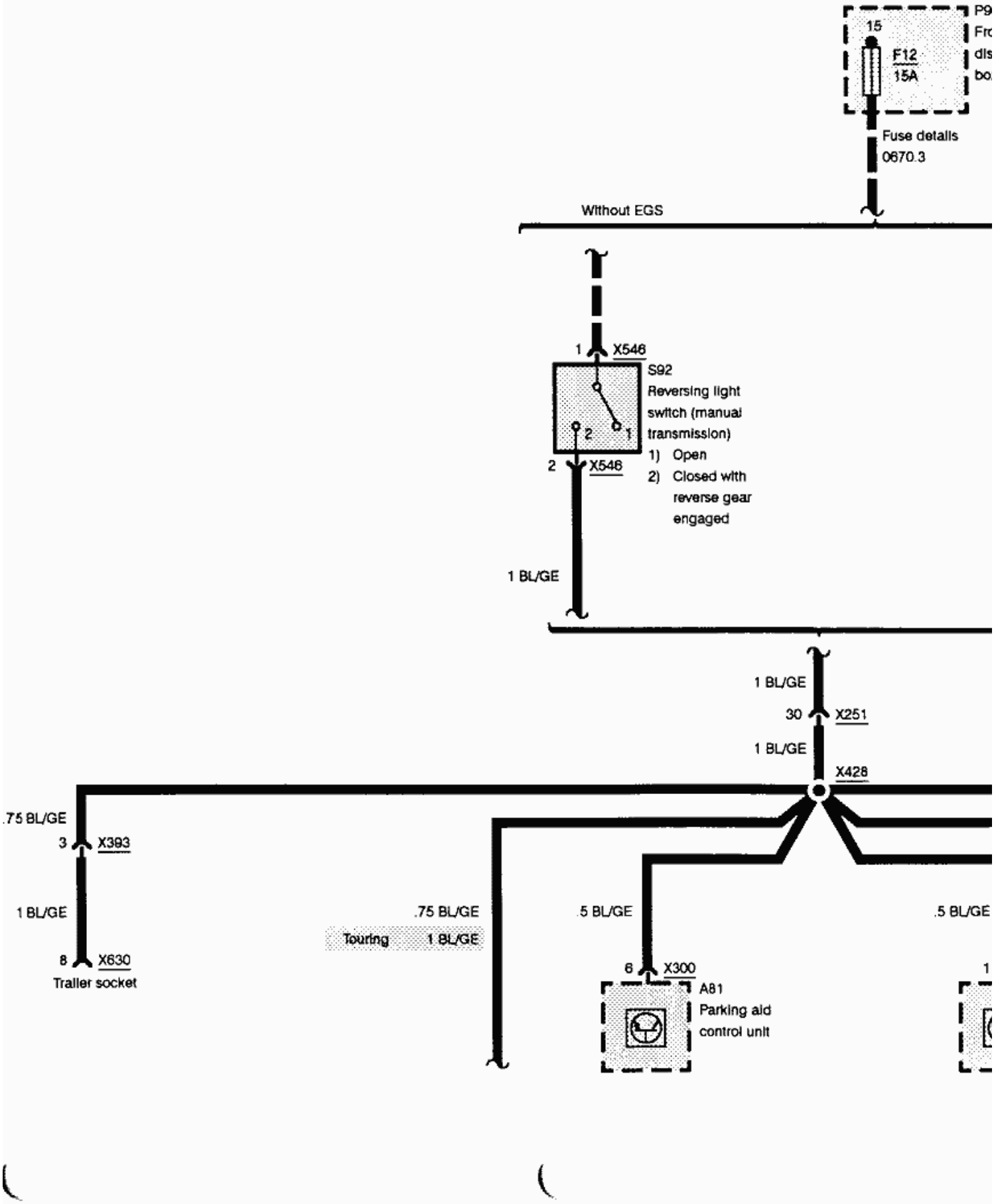
Reversing lights



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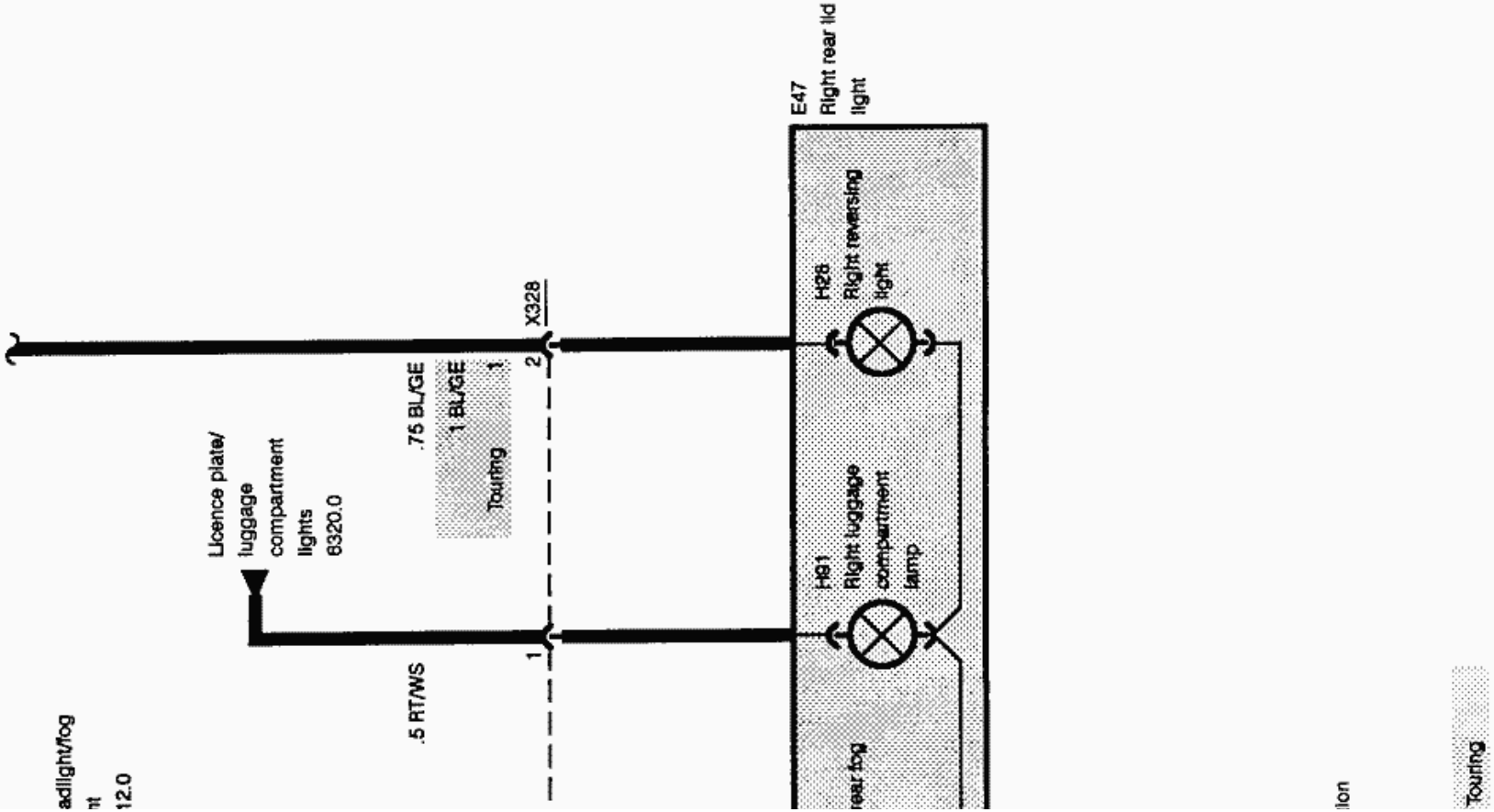

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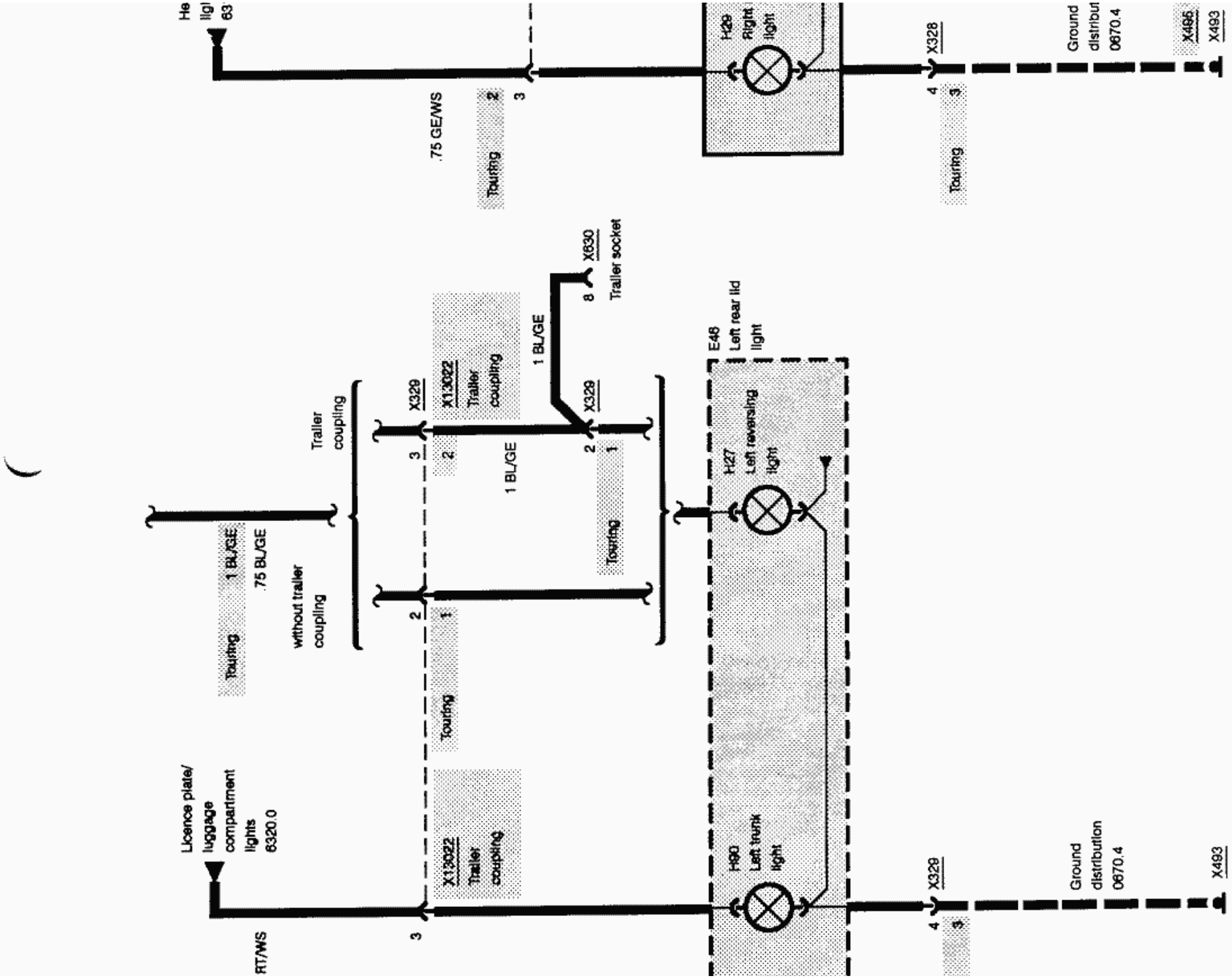

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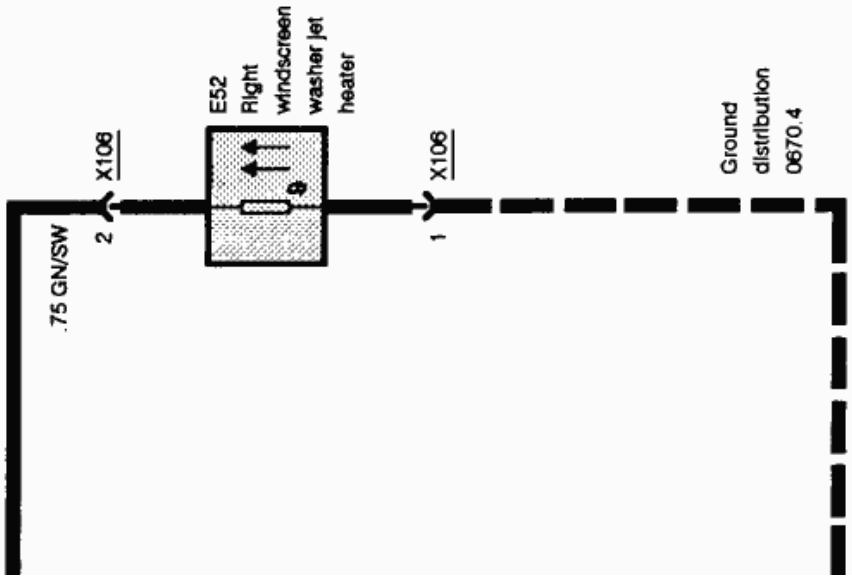
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Windscreen washer Jet heaters

Scheme 6169.0

09/93 — 6169.0-00 — 1994



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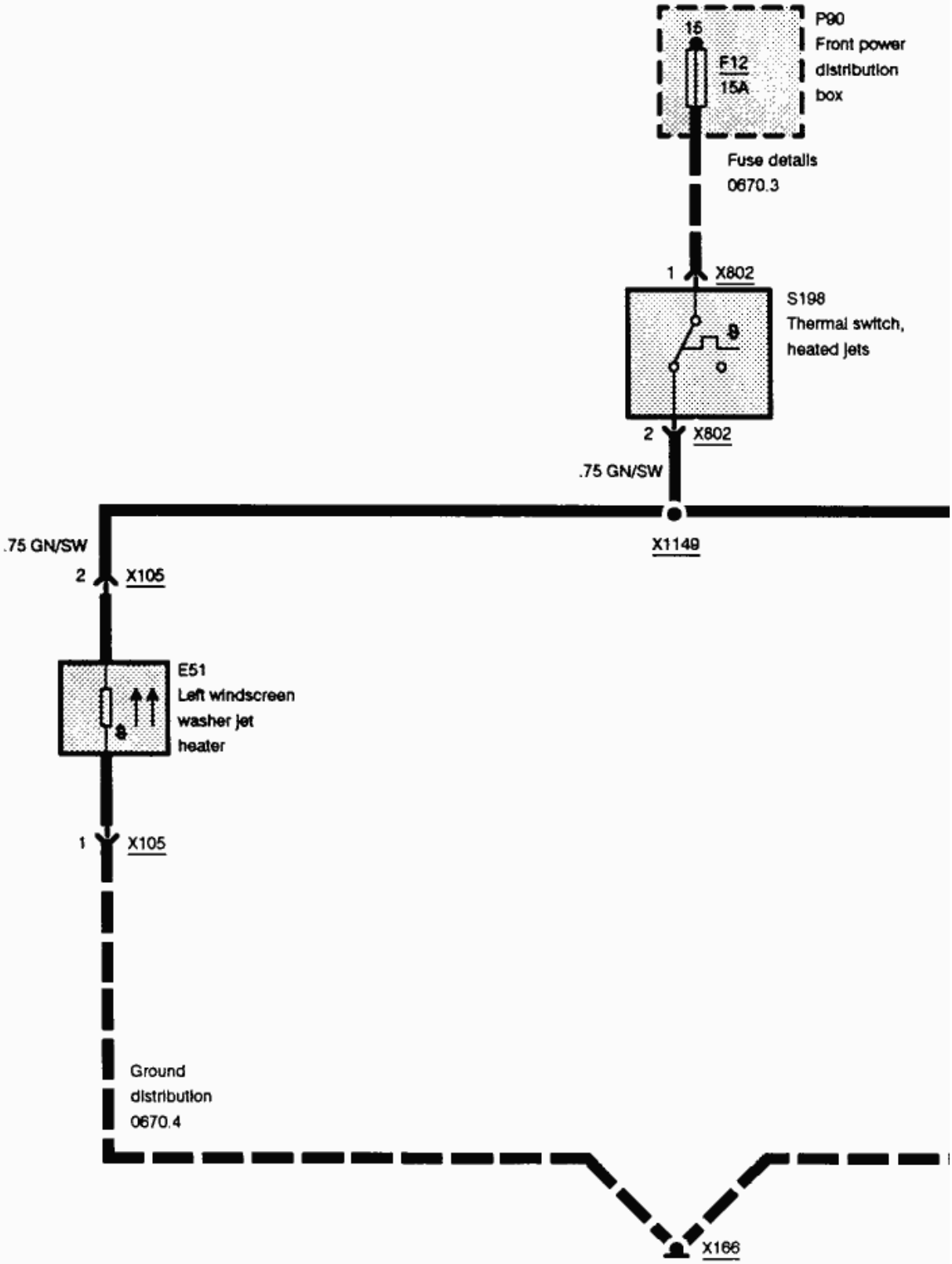
Windscreen washer jet heaters



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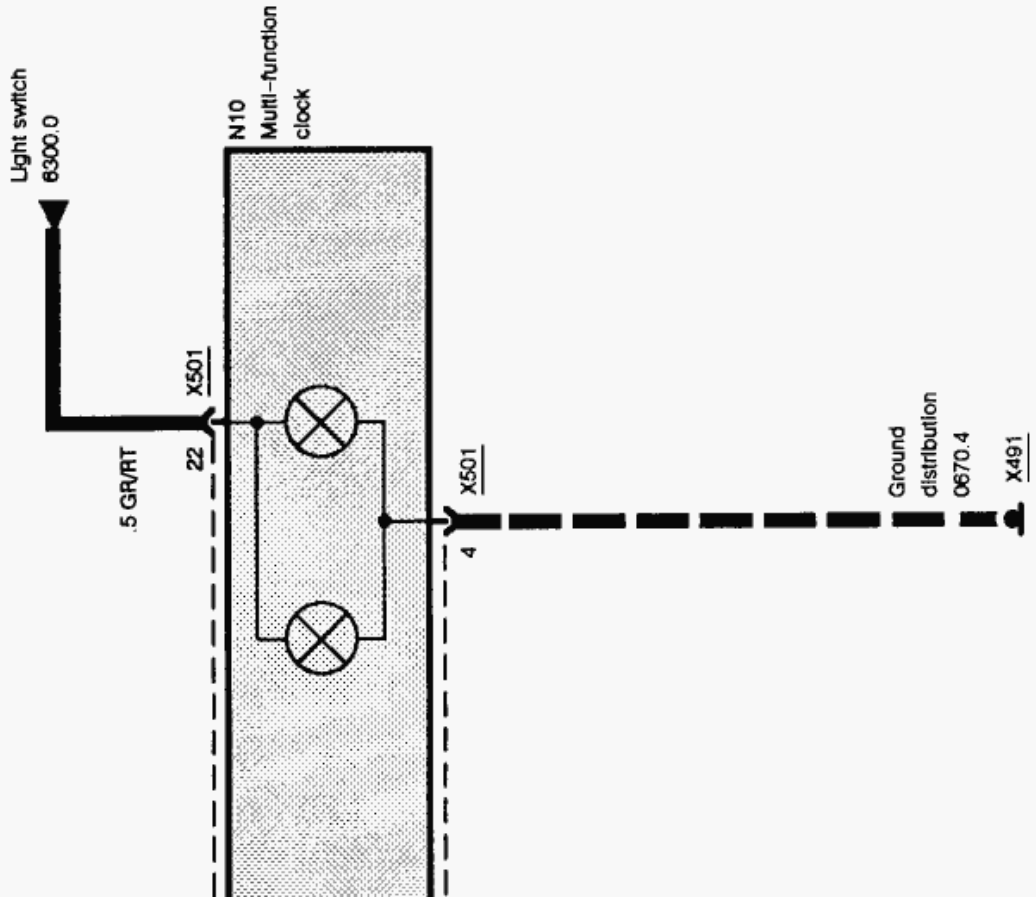
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Multi-function clock

Scheme 6213.2

09/93 — 6213.2-00 — 1994



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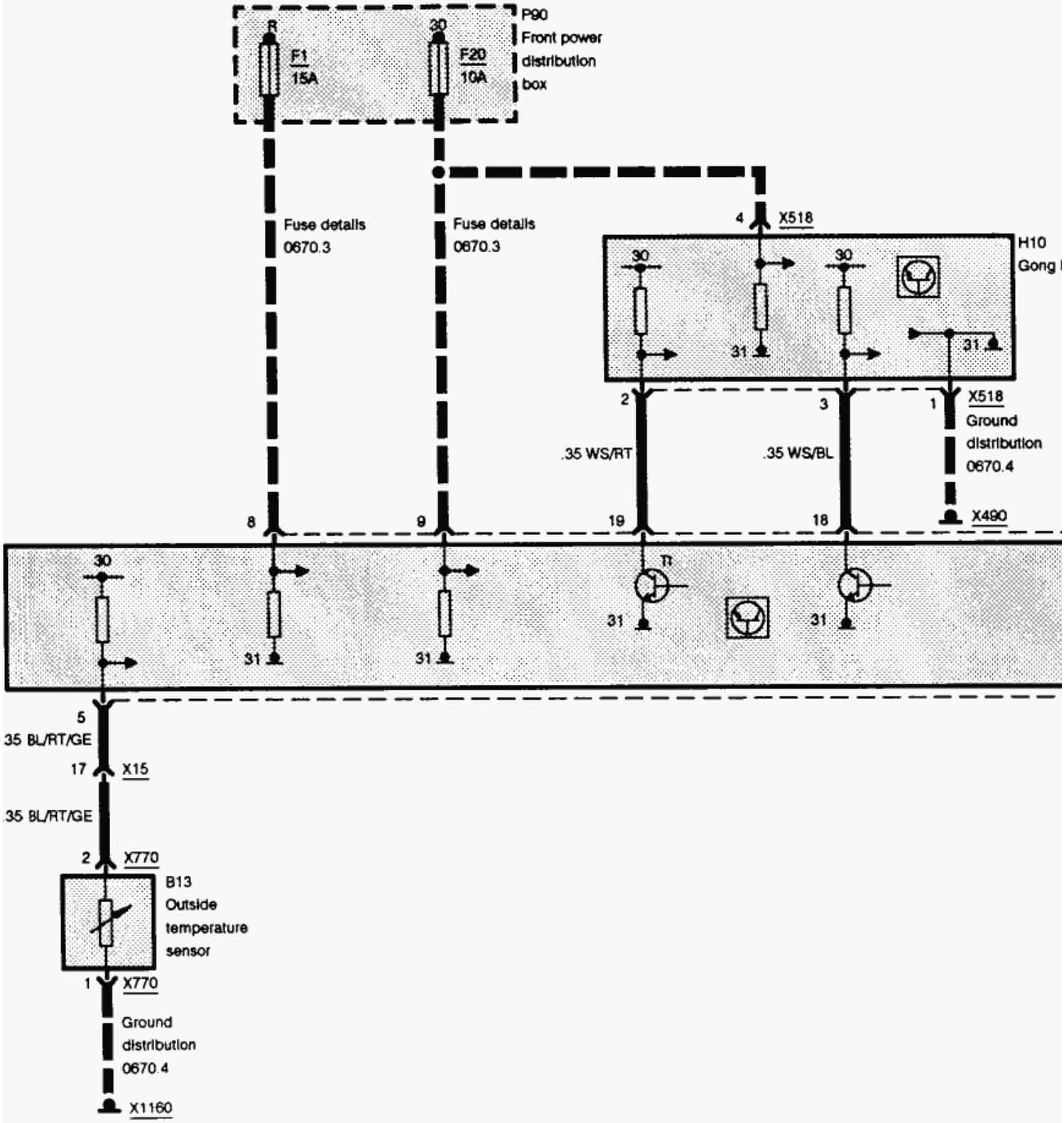
Multi-function clock



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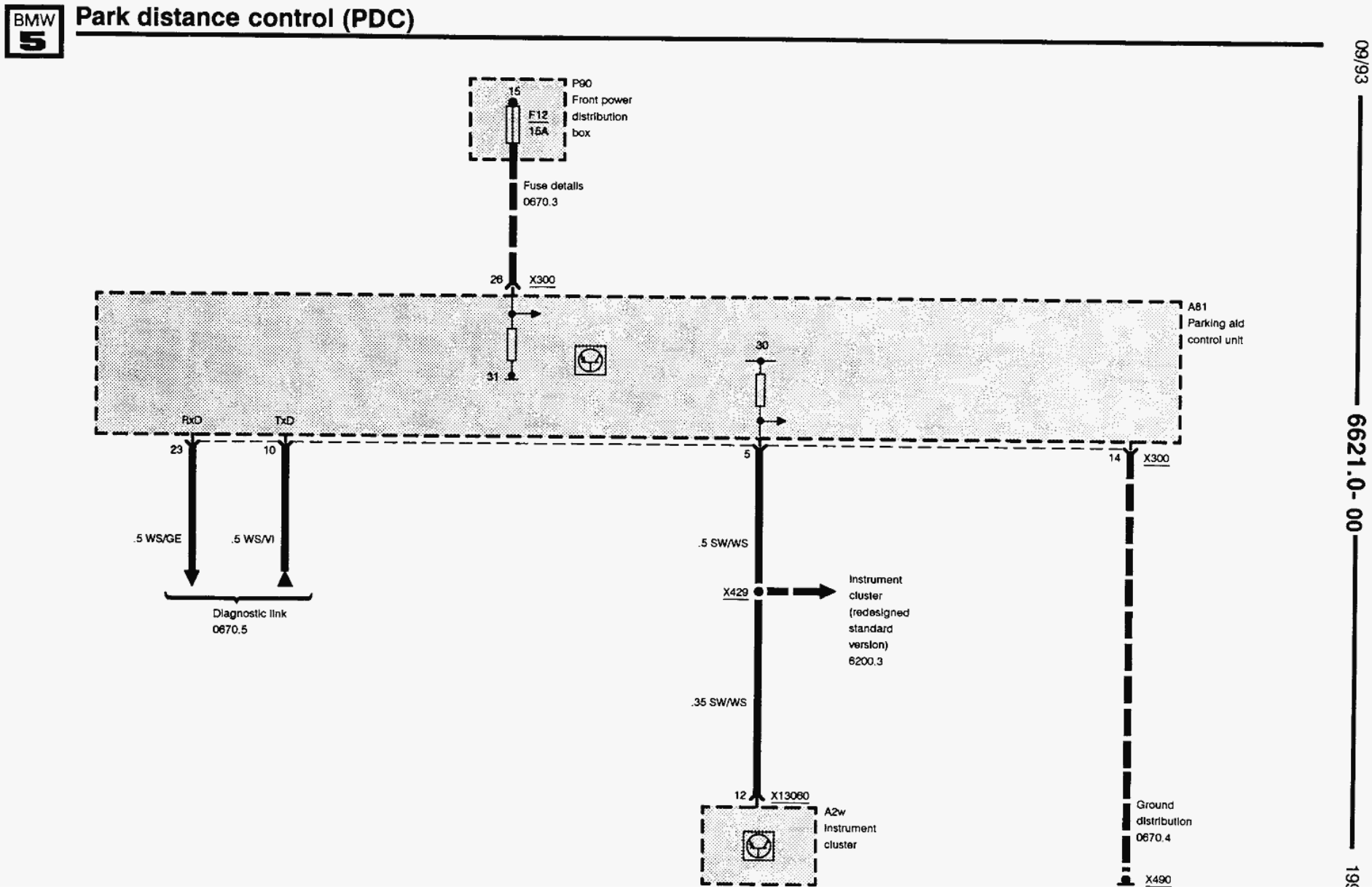
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Park distance control (PDC)
Scheme 6621.0



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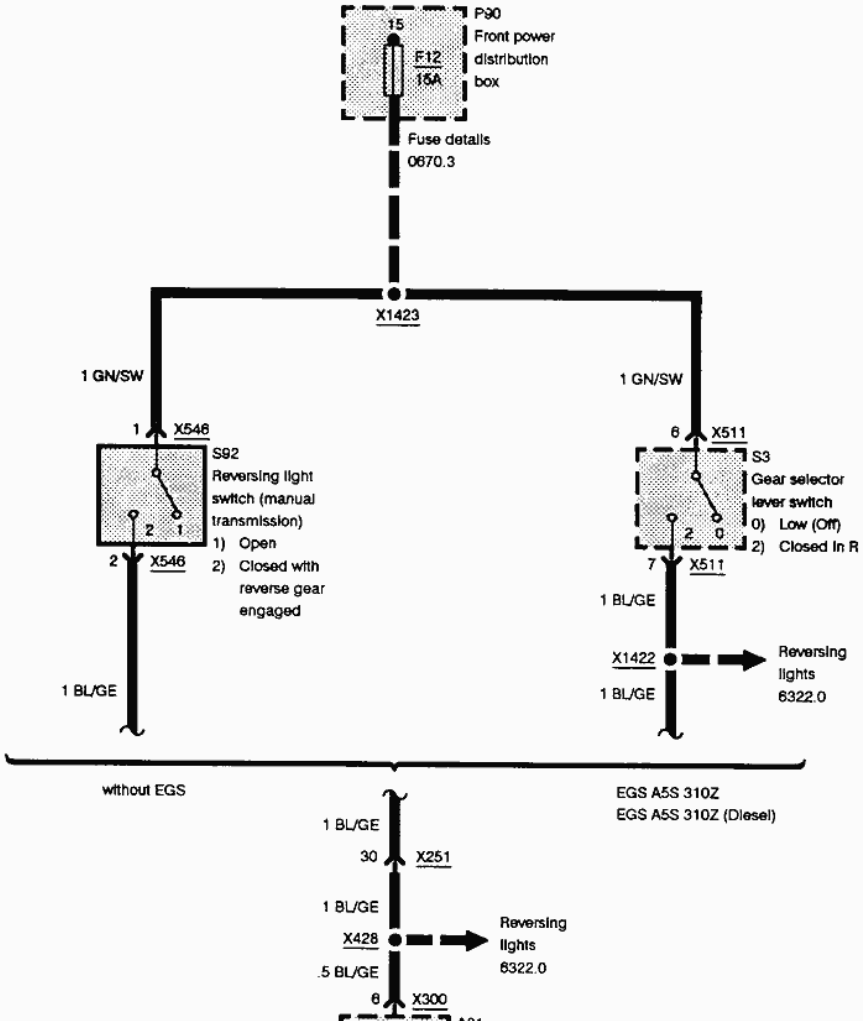
Park distance control (PDC)



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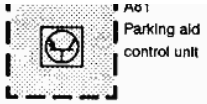

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Park distance control (PDC)

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A81
Parking aid
control unit

13 26 10 23 8 21 25 12 X18013 25 21 X300

.35 BL .35 GE .35 GN .35 RT .5 BL/RT .5 BL/GR

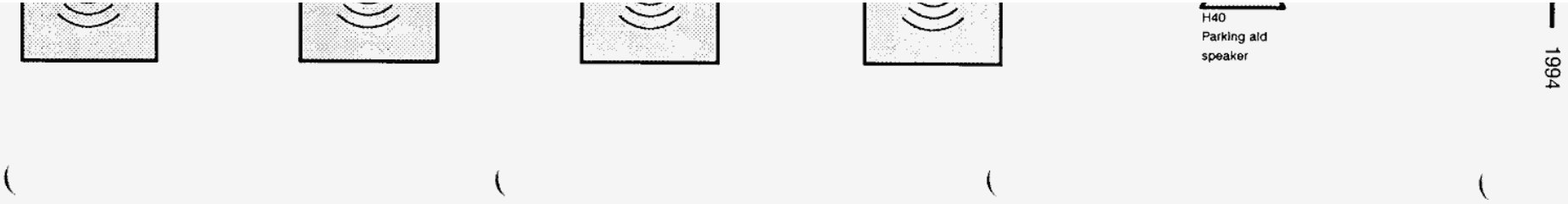
1 2 X18020
B34
Rear left
converter

1 2 X18021
B35
Rear centre
left converter

1 2 X18022
B36
Rear centre
right converter

1 2 X18023
B37
Rear right
converter

2 1
X362



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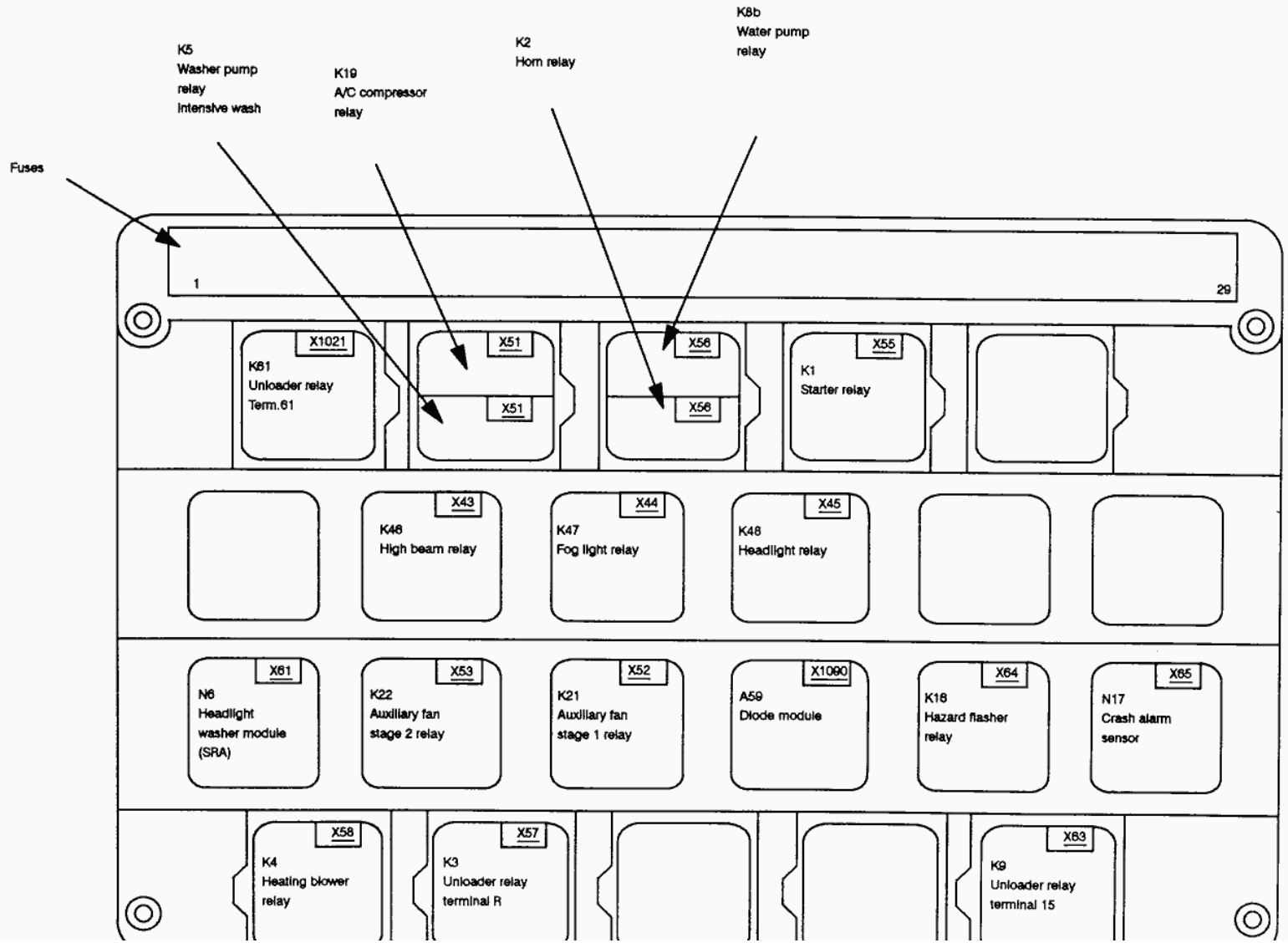
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Power distribution chart
Scheme 0670.0

Power distribution chart

Front power distribution box



09/93 — 0670.0-00 — 19

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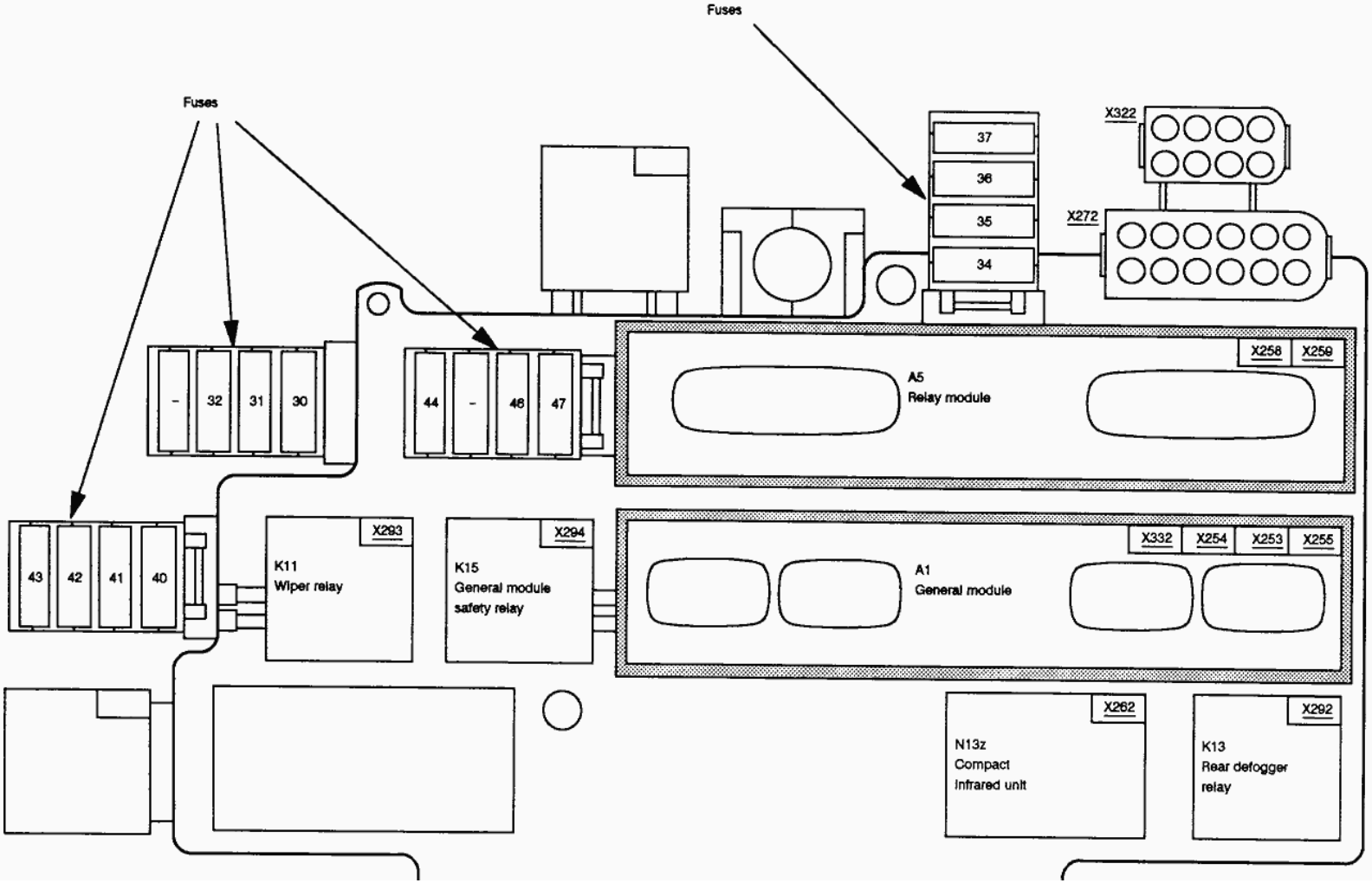
Power distribution chart

Rear power distribution box with ZKE



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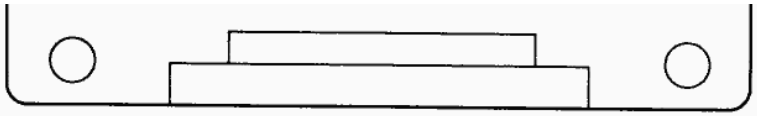
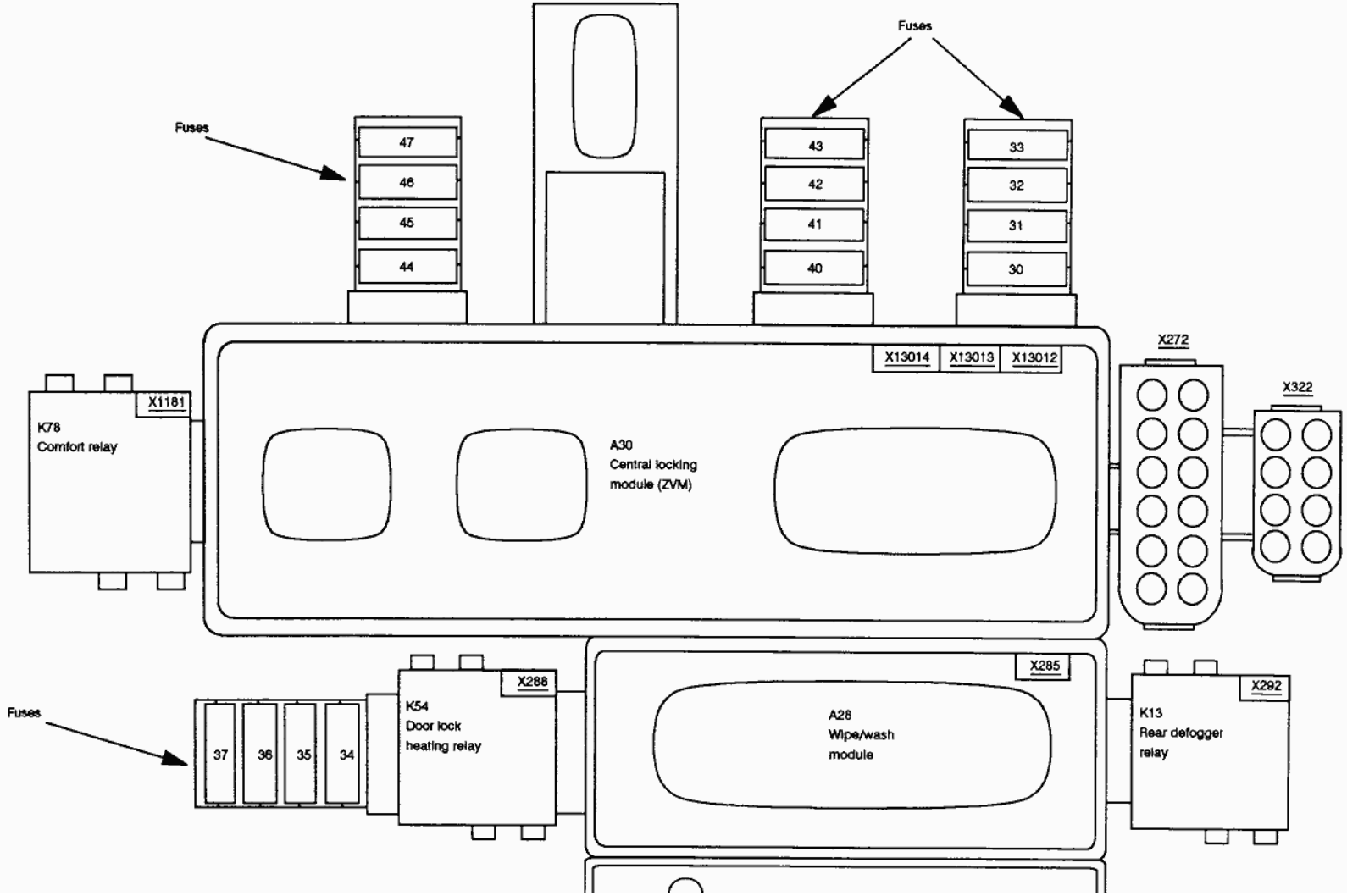


Power distribution chart

Rear power distribution box with ZVM



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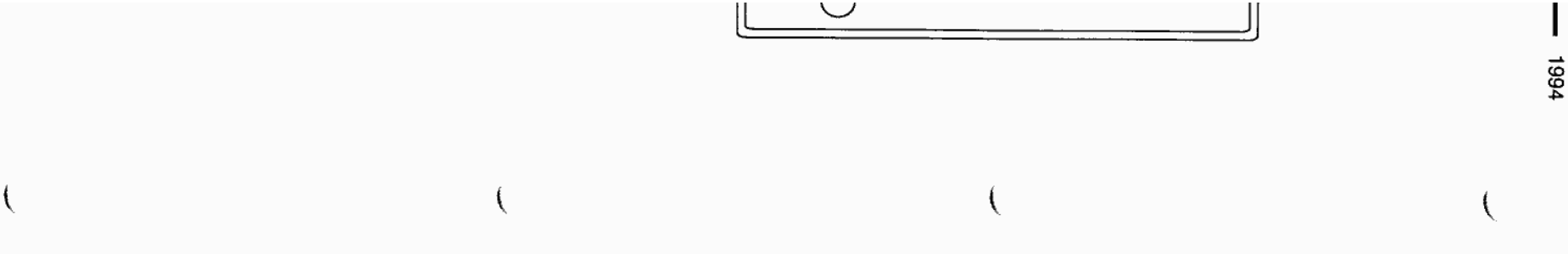

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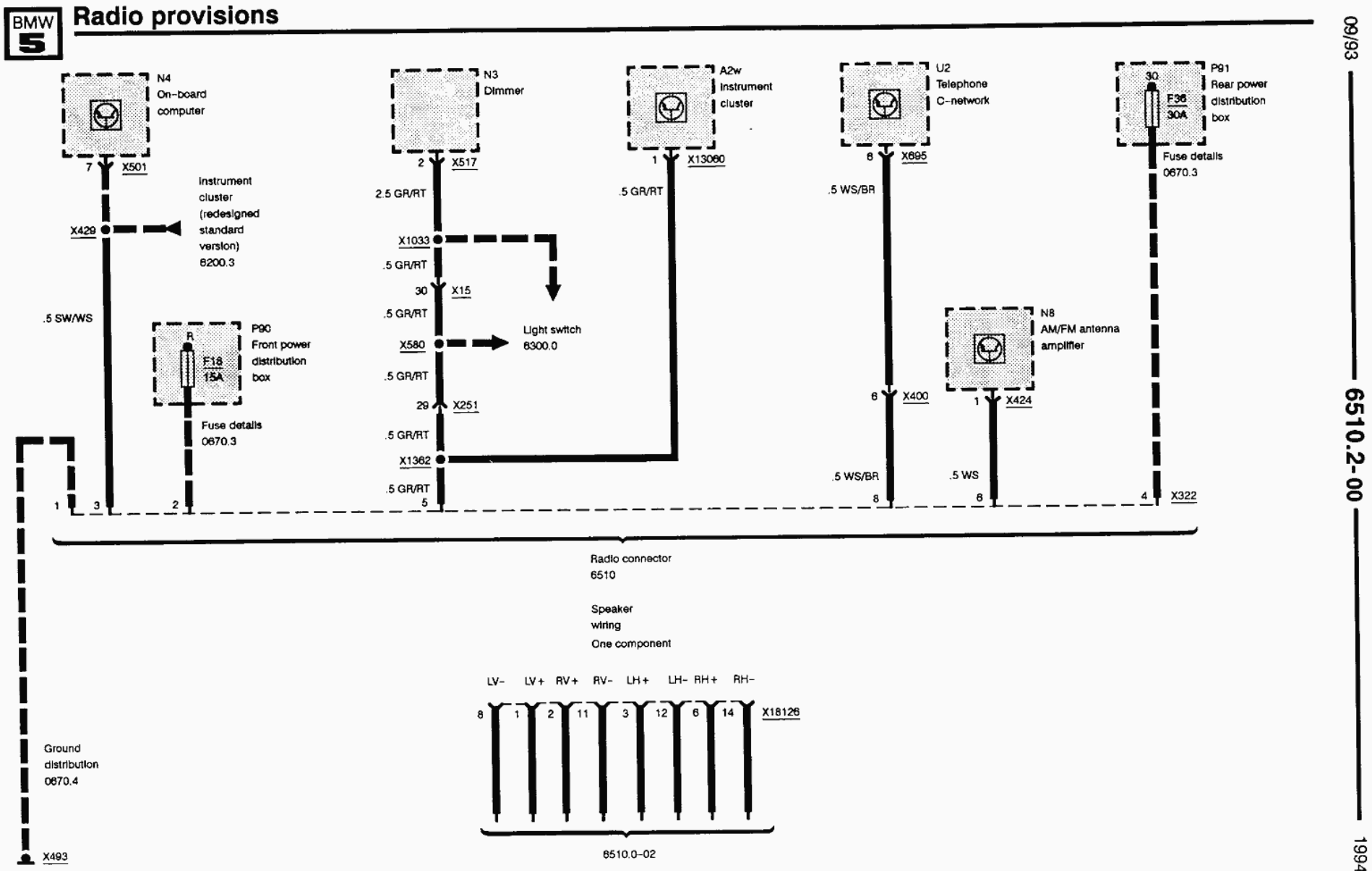
Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Radio provisions
Scheme 6510.2



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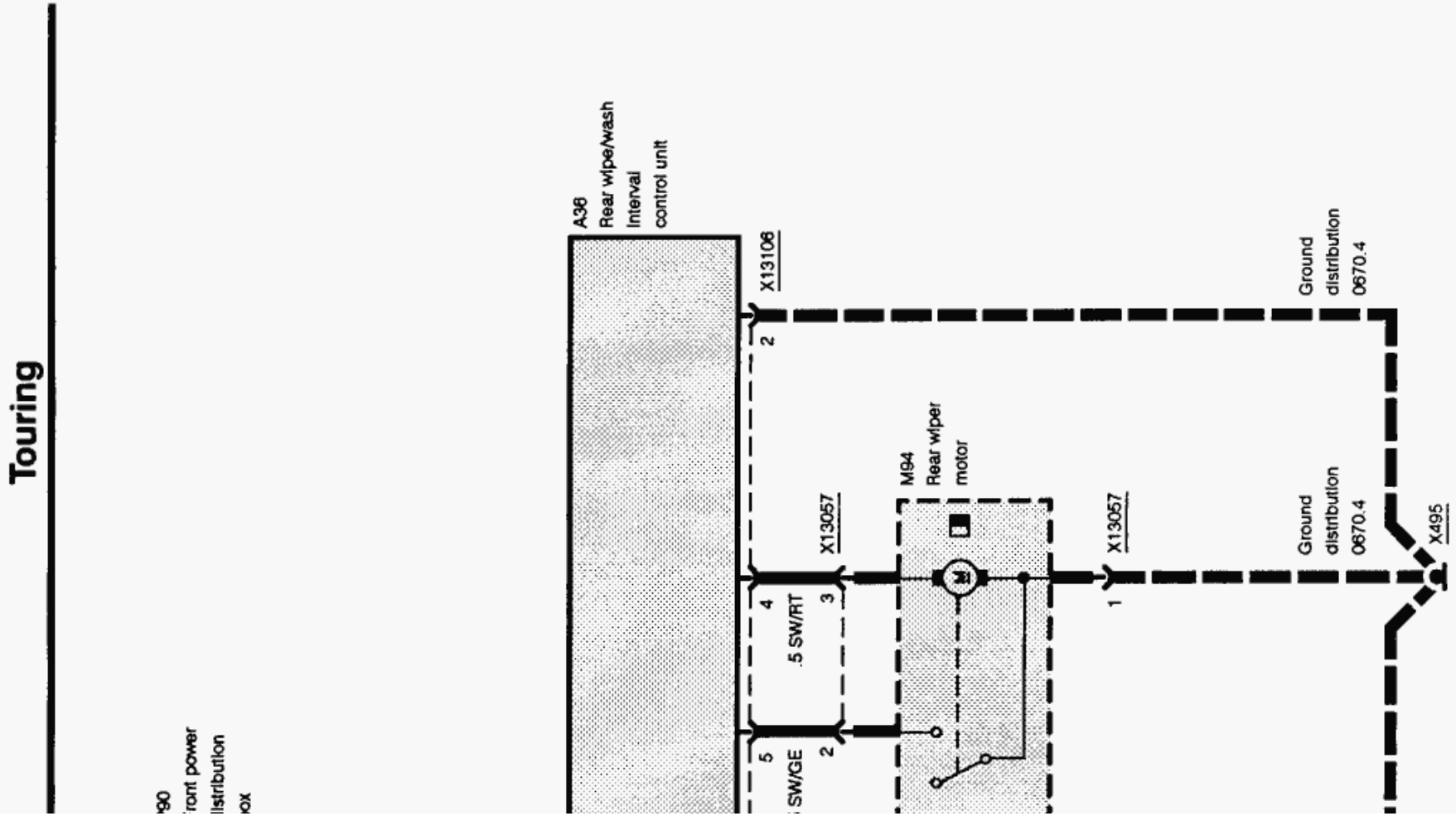
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Rear window wipe/wash system

Scheme 6162.0



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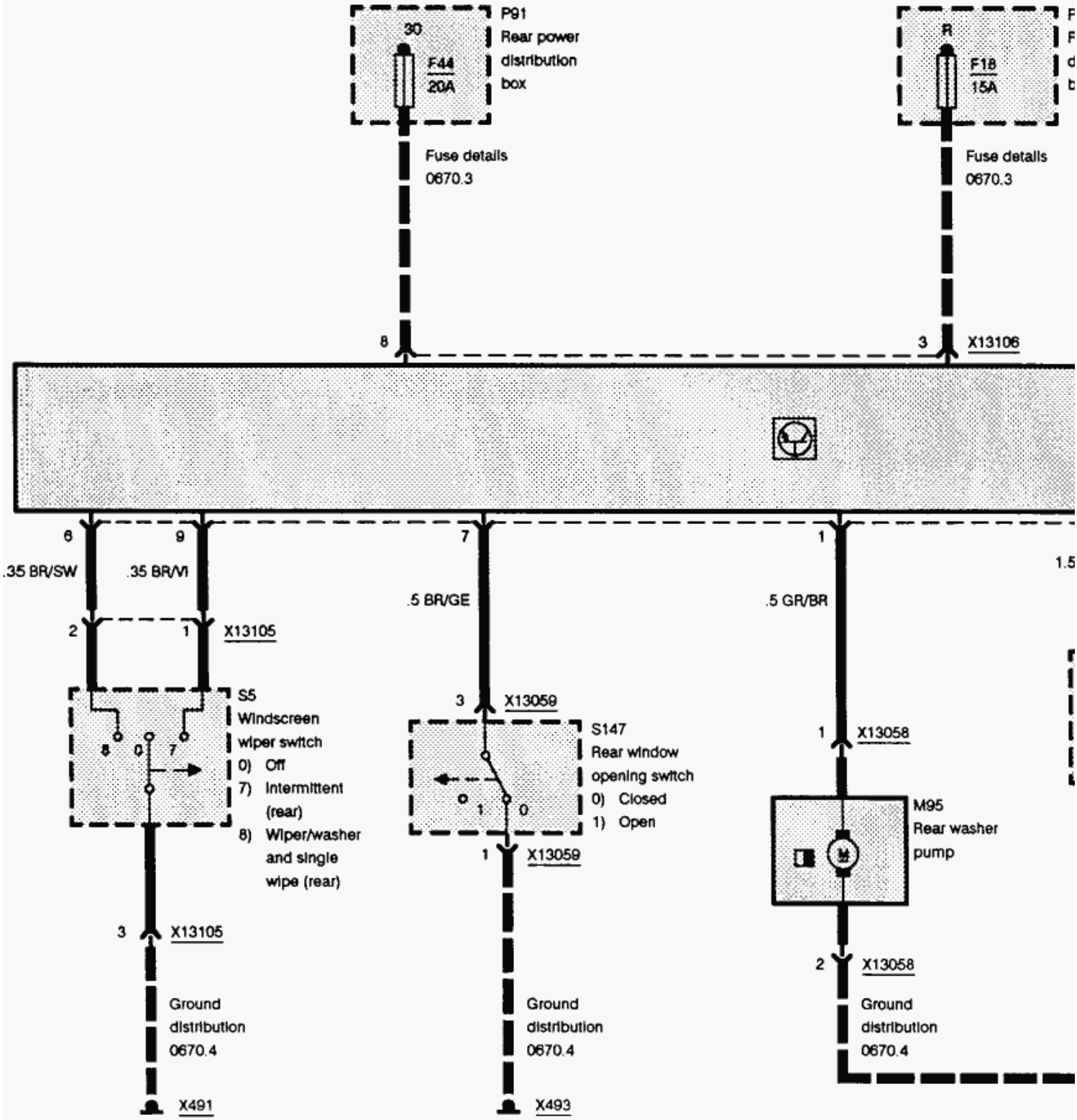
Rear window wipe/wash system



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Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Solder connector location views
Scheme 8000.0

Solder connector location views		
Solder connector	**Wire harness**	**Side**
X181-X207	Front	8000.0-01
X208	Rear	8000.0-03 8000.0-06
X209-X276	Front	8000.0-01
X414-X433	Rear	8000.0-03 8000.0-06
X434	Front	8000.0-01
X435-X479	Rear	8000.0-03 8000.0-06
X530	Daytime light	No Fig
X557-X594	Instrument	8000.0-02
X595	Daytime light	No Fig
X824	Side	No Fig
X831	Sunroof	No Fig
X832	Trailer adapter module	No Fig
X833	Rear	8000.0-03 8000.0-06
X848-X849	Driver's door	No Fig
X852-X859	IHKR/IHKA	8000.0-04
X864	Independent heating/ ventilation	No Fig
X868-X870	Rear seat headrest	No Fig
X875-X897	IHRF3	8000.0-05
X905	IHR2	No Fig
X906	IHRF3	8000.0-05
X918	Independent heating/ ventilation	No Fig
X994-X1095	Front	8000.0-01
X1097	Daytime light	No Fig
X1 149-1 159	Front	8000.0-01
X1225	Instrument	8000.0-02

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X1226-X1362	Rear	8000.0-03 8000.0-06
X1382-X1383	Radio	No Fig
X1402-1460	Instrument	8000.0-02
X1813	Daytime light	No Fig
X1816	Independent heating/ ventilation	No Fig
X2001-X2006	Diesel engine	No Fig
X2028-X2162	Diesel engine	No Fig
X6410-X8015	M40 engine	No Fig
	M50 engine	No Fig
X8024	Rear	8000.0-03 8000.0-06
X8032	EGS	No Fig
X8042-X8557	M50 engine	No Fig
X10021-X11262	Front	8000.0-01
X13074-X13259	Rear	8000.0-03 8000.0-06
X18147	Daytime light	No Fig
X18158	IHKR/F3	No Fig
X18159-X18164	IHR2	No Fig
	IHKR/F3	No Fig
X18240	Independent heating/ ventilation	No Fig

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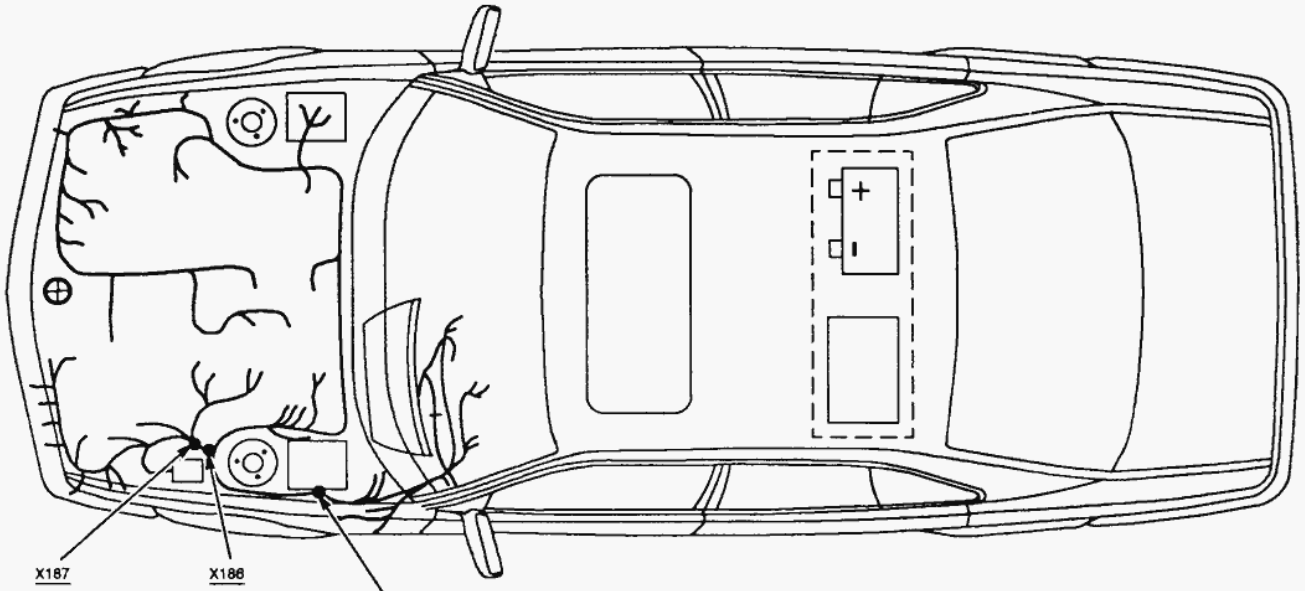
Solder connector location views

Front wire harness



X181 ●	X197 ●	X212 ●	X994 ●	X1095 ●	X11247 ●
X182 ●	X198 ●	X213 ●	X1017 ●	X1149 ●	X11248 ●
X183 ●	X199 ●	X215 ●	X1022 ●	X1152 ●	X11249 ●
X184 ●	X200 ●	X222 ●	X1023 ●	X1159 ●	X11251 ●
X185 ●	X201 ●	X223 ●	X1029 ●	X10021 ●	X11252 ●
X188 ●	X203 ●	X225 ●	X1033 ●	X10027 ●	X11262 ●
X189 ●	X204 ●	X228 ●	X1036 ●	X10060 ●	X11263 ●
X191 ●	X205 ●	X239 ●	X1043 ●	X10080 ●	
X192 ●	X206 ●	X241 ●	X1047 ●	X10081 ●	
X193 ●	X207 ●	X245 ●	X1092 ●	X10090 ●	
X195 ●	X209 ●	X246 ●	X1093 ●	X10091 ●	
X196 ●	X210 ●	X276 ●	X1094 ●	X10093 ●	

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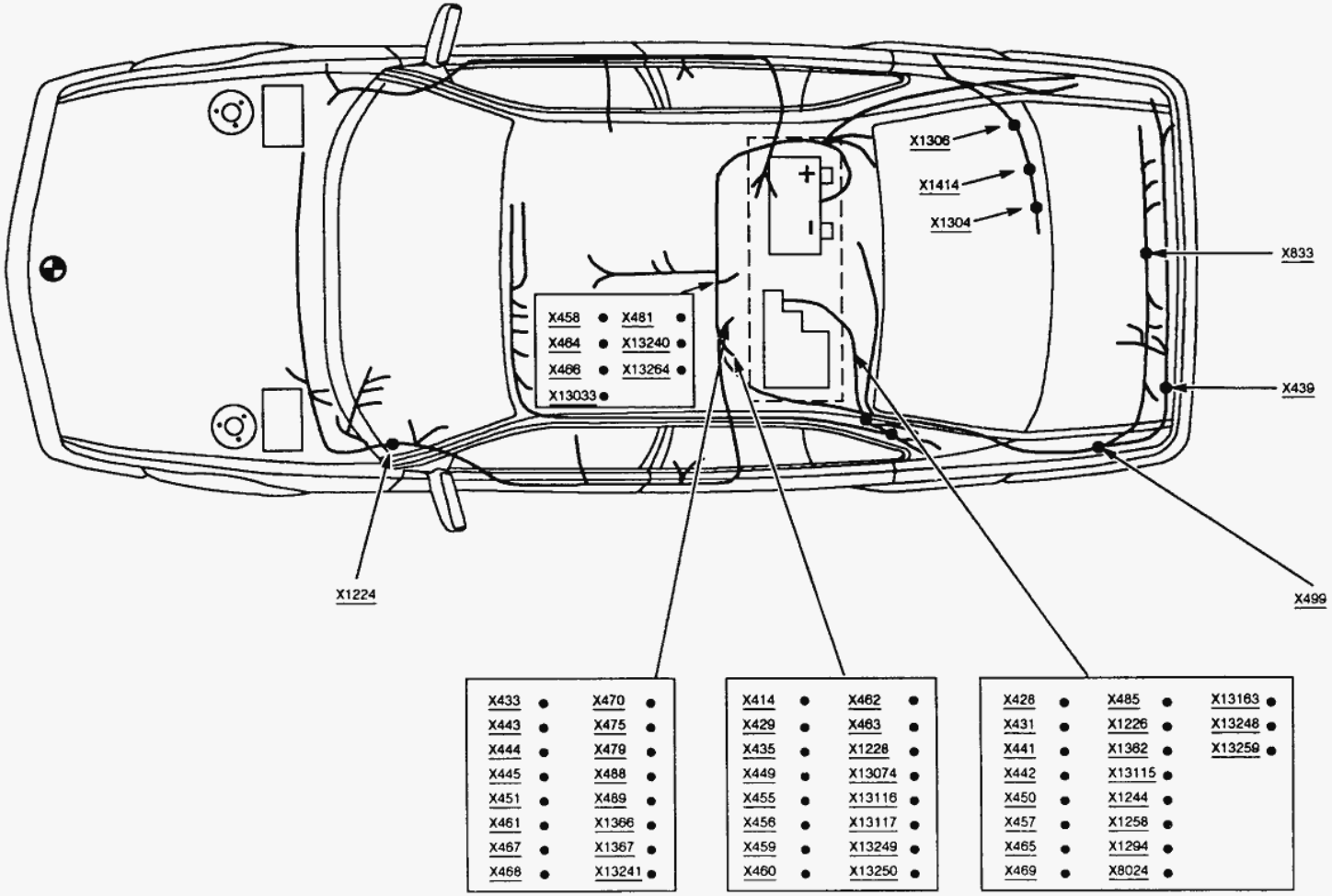
Solder connector location views

Rear wire harness



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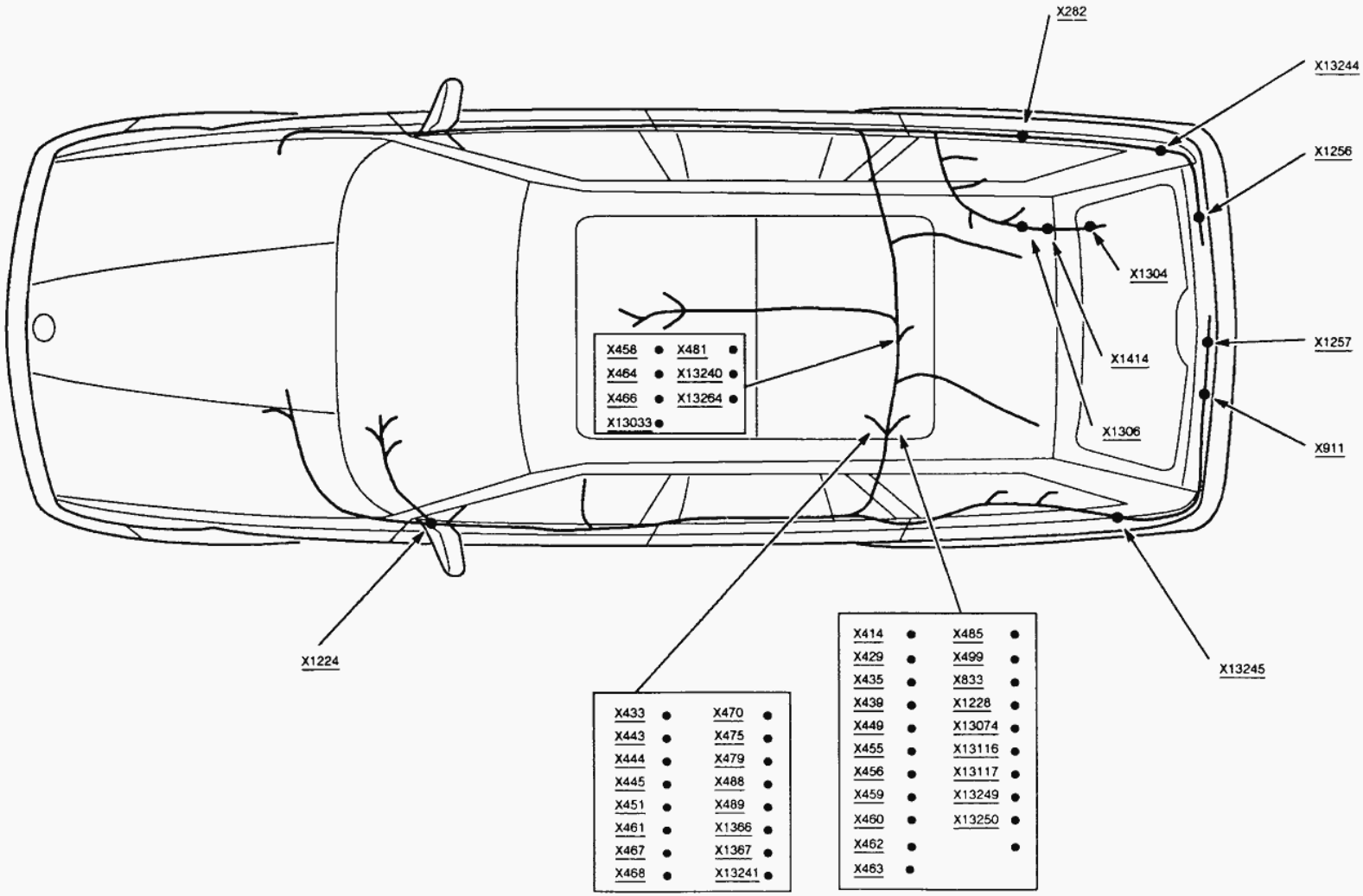
Solder connector location views

Rear wire harness

Touring



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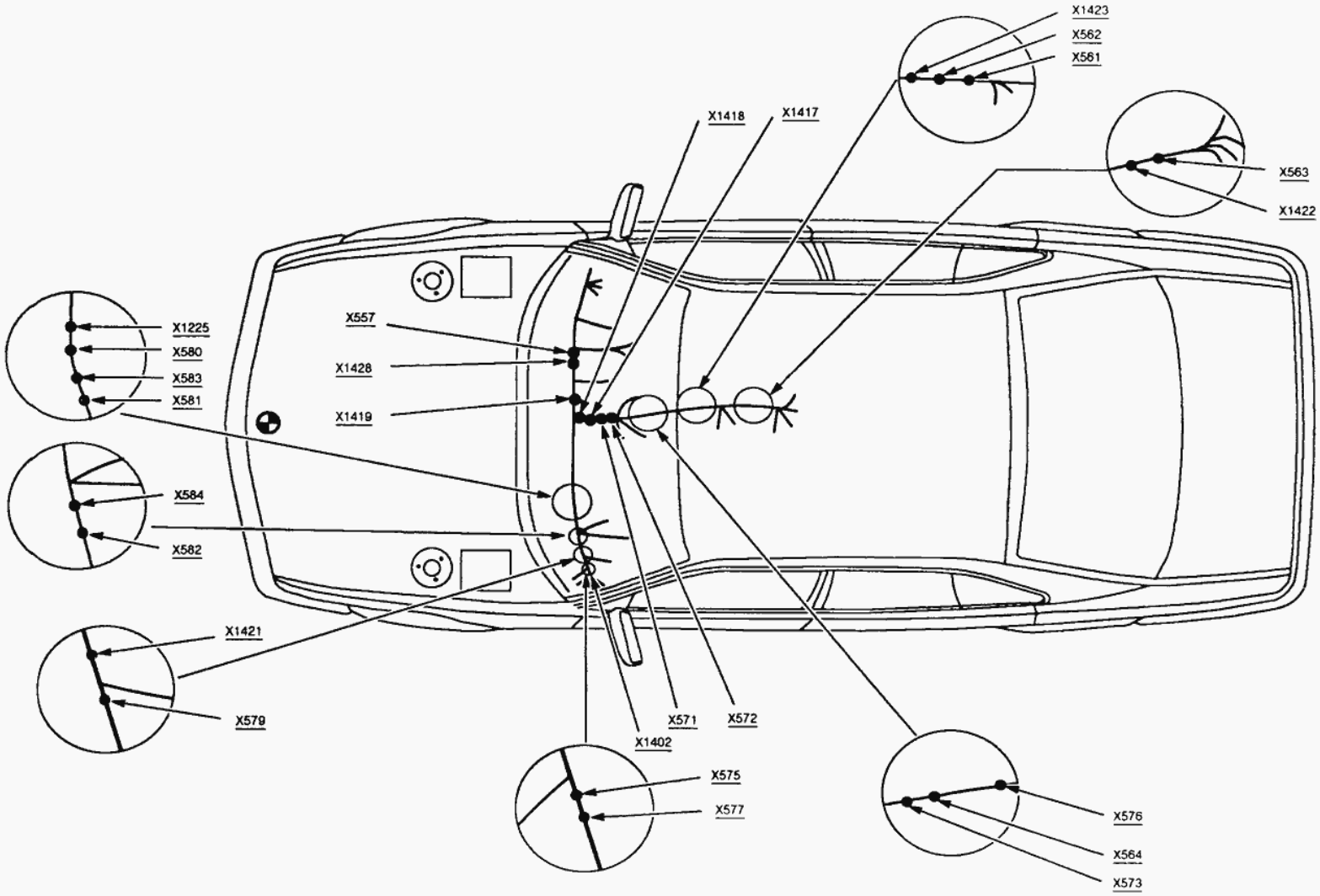
Solder connector location views

Instrument wire harness



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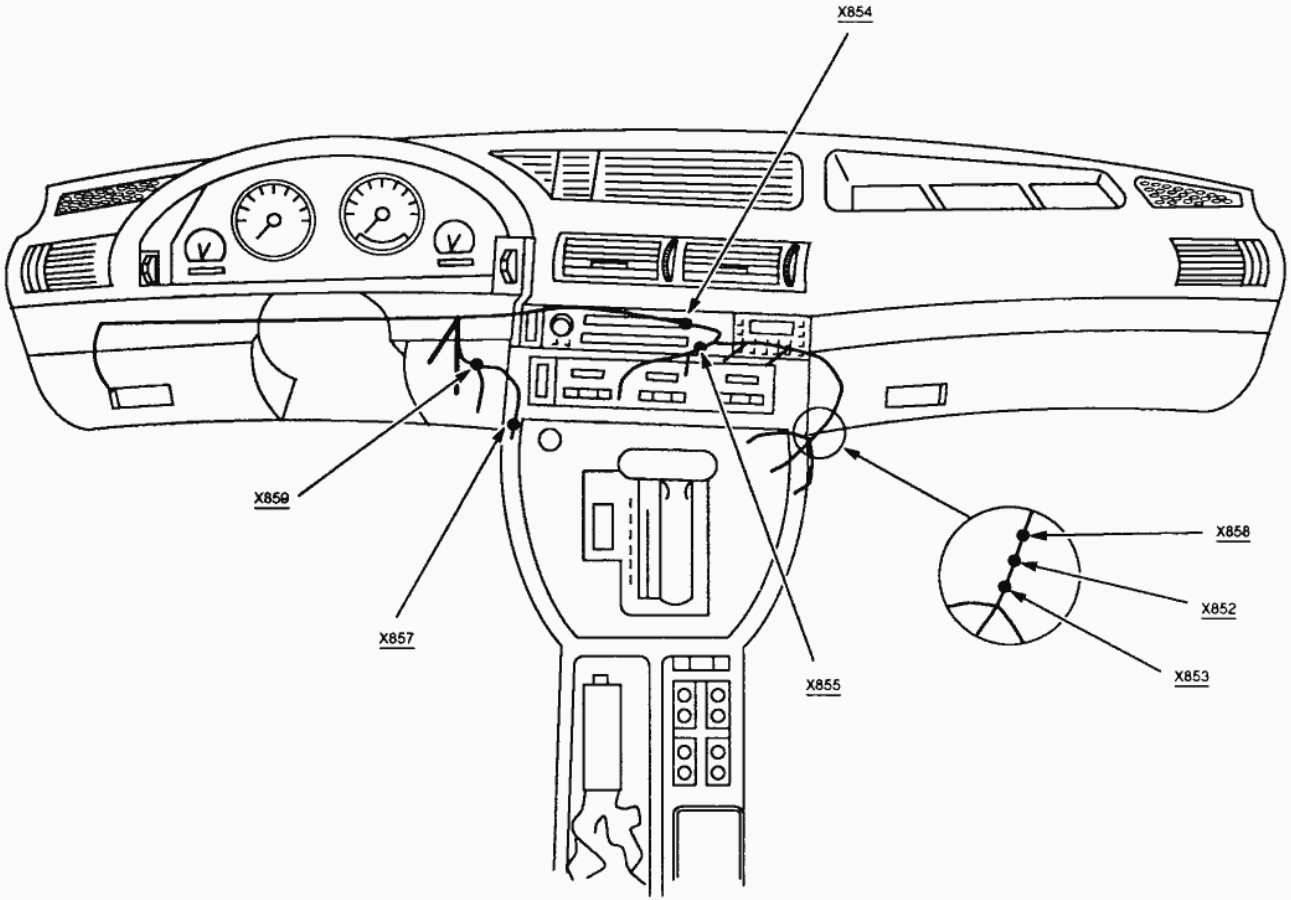
Solder connector location views

IHKA/IHKR wire harness



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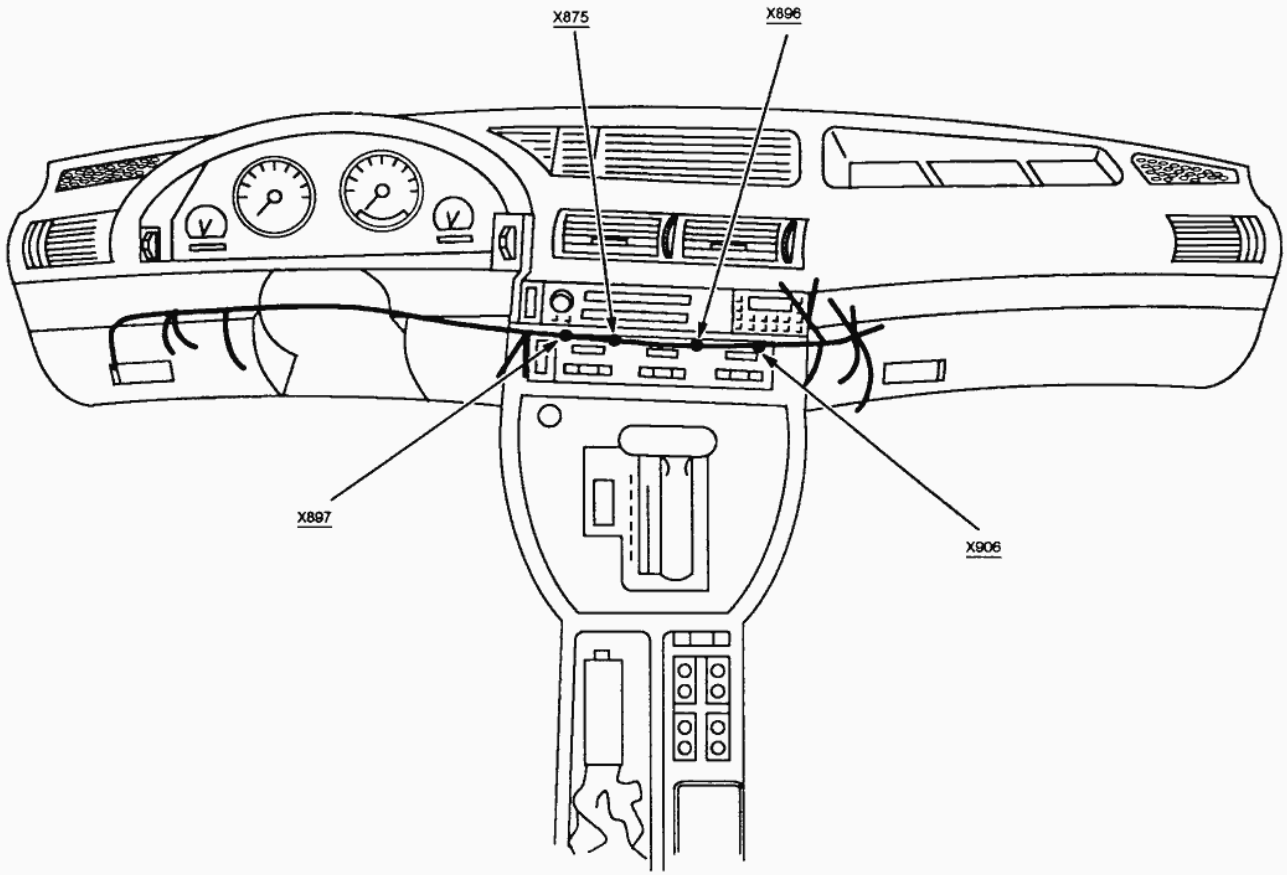
Solder connector location views

Wiring harness for IHRF3



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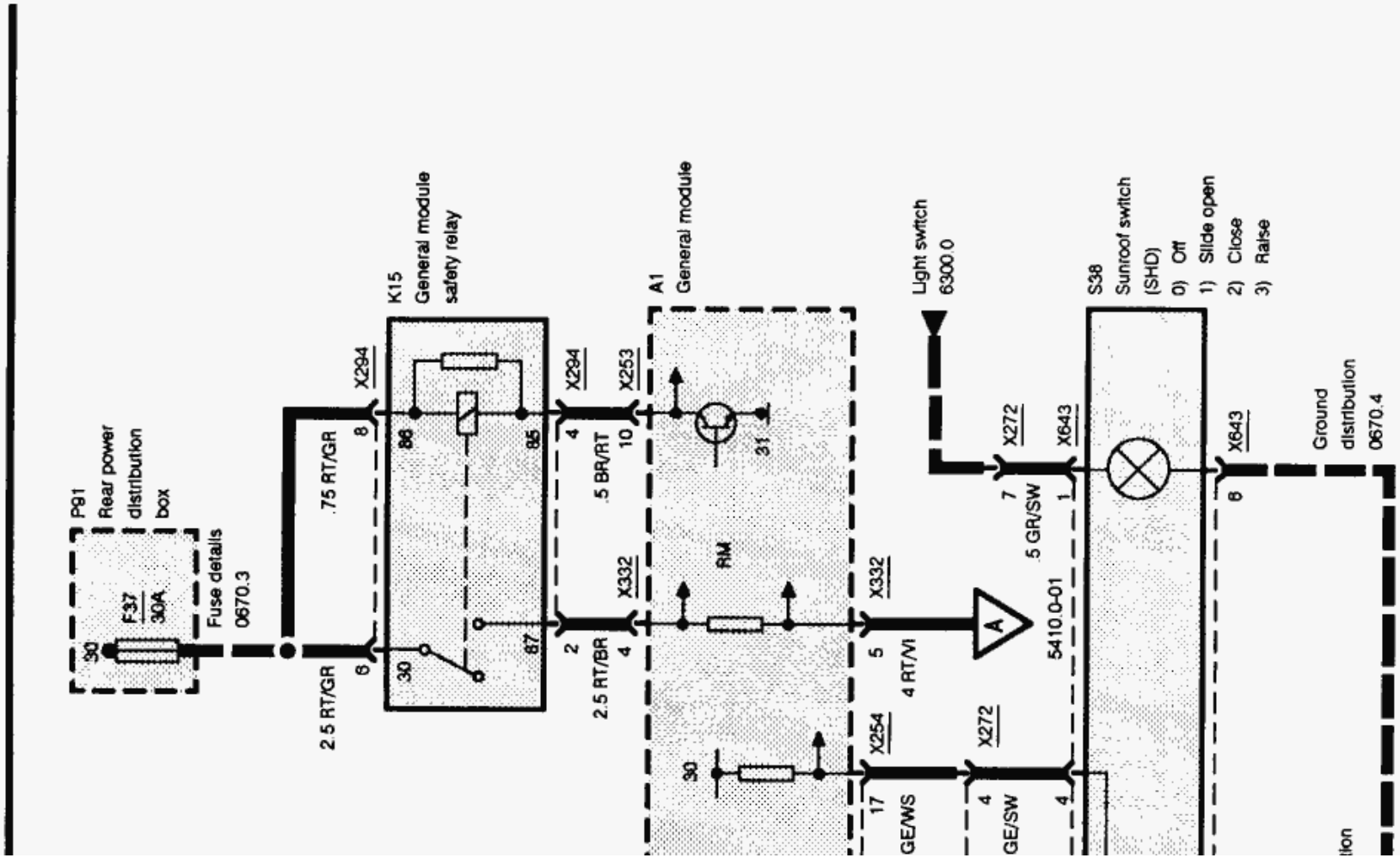
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Sunroof (ZKE/SHD)
Scheme 5410.0

09/93 — 5410.0-00 — 1994



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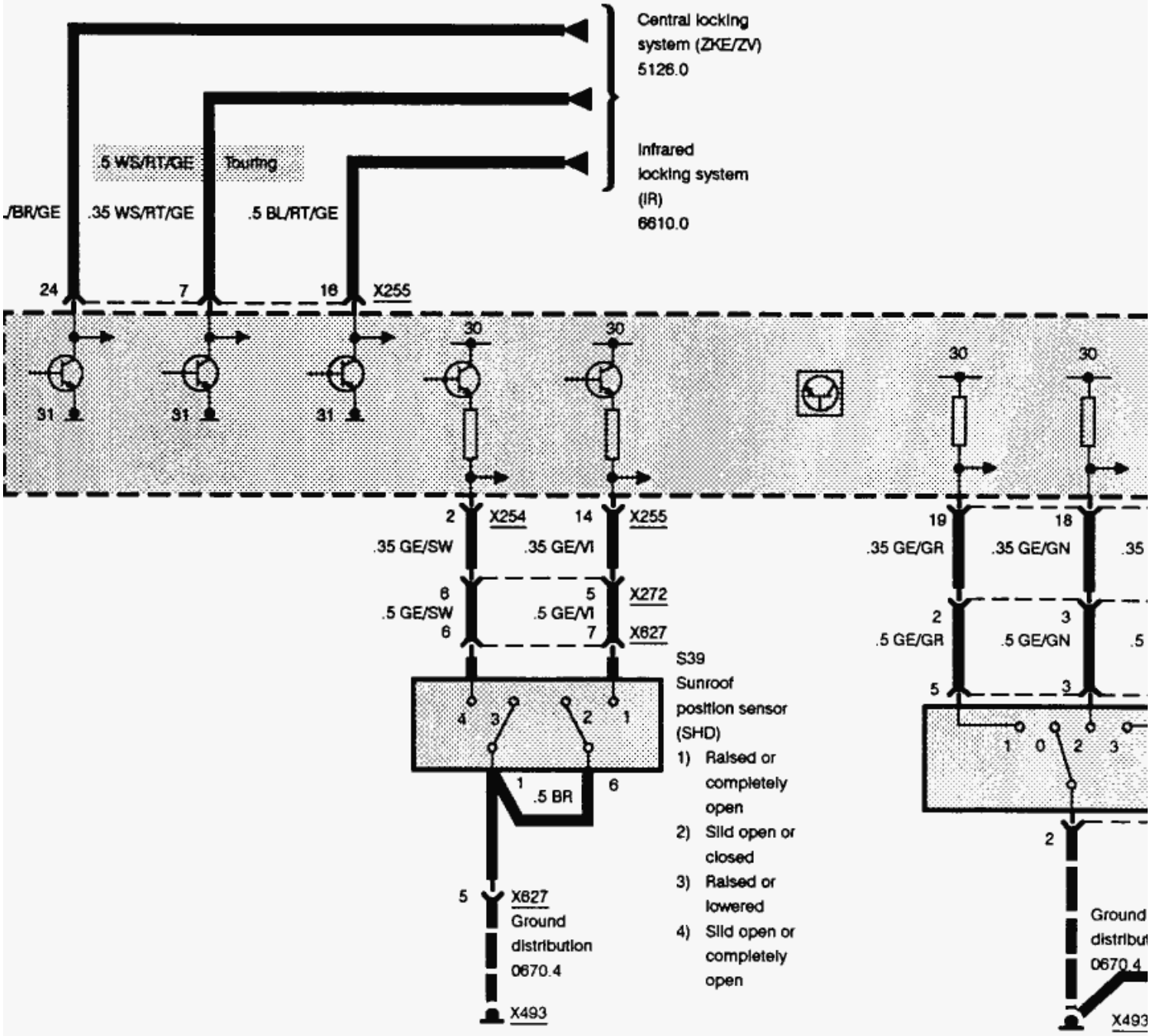
Sunroof (ZKE/SHD)

Inputs



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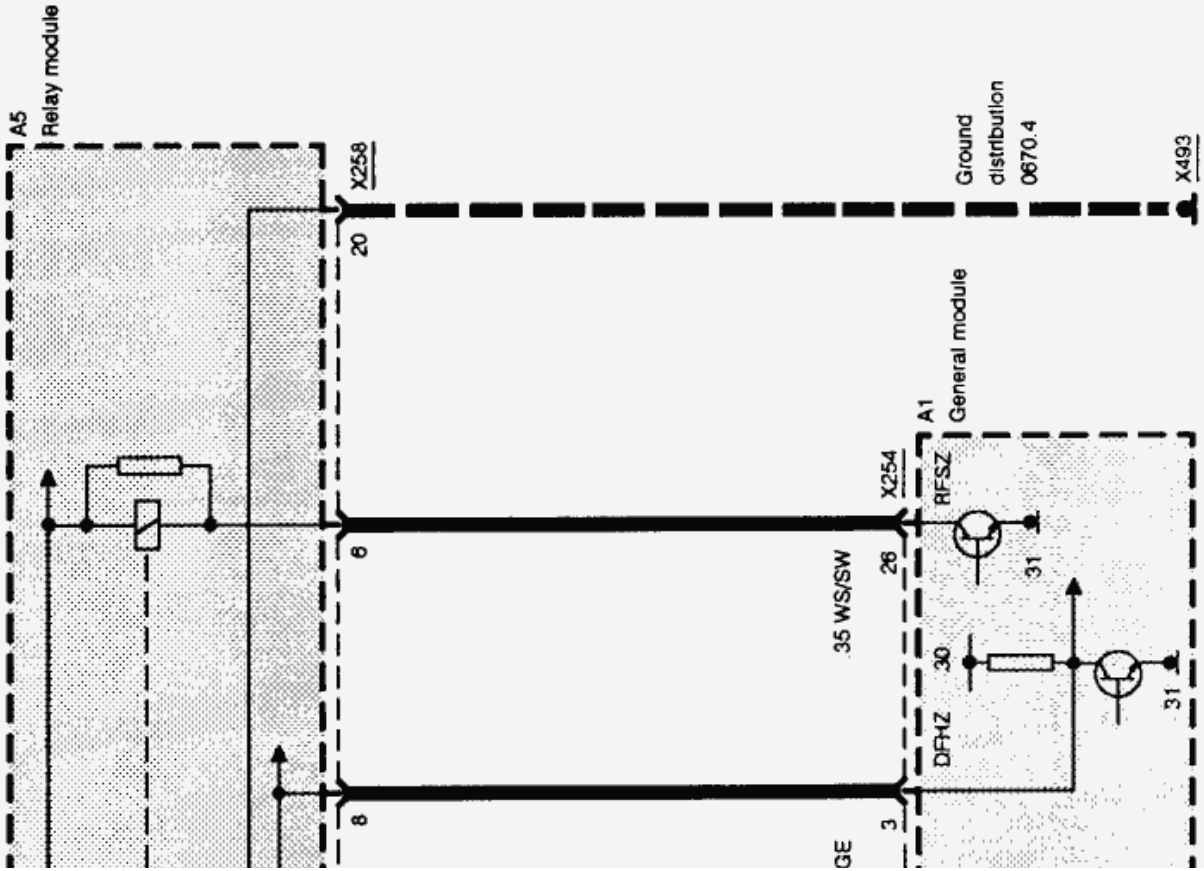

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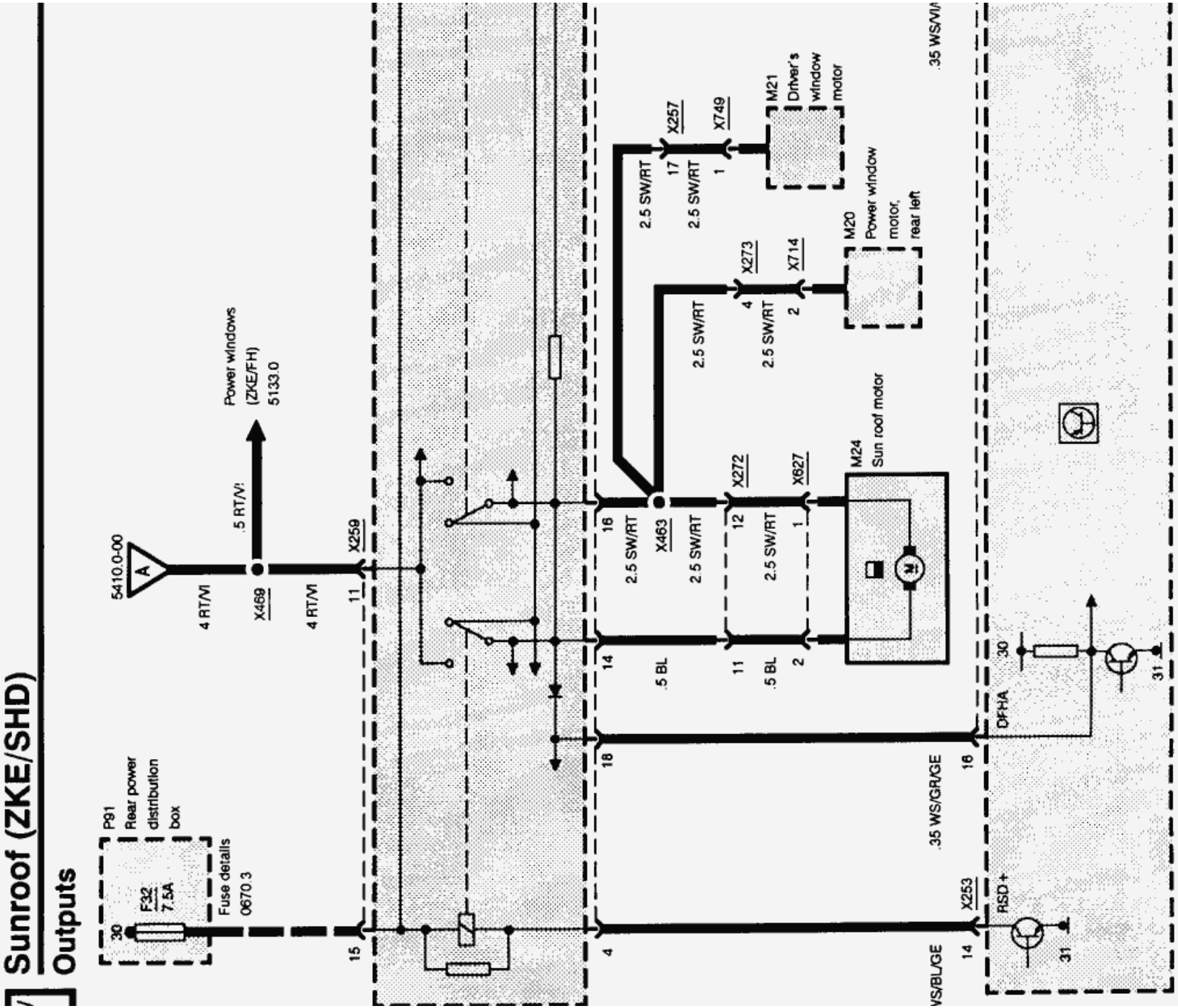

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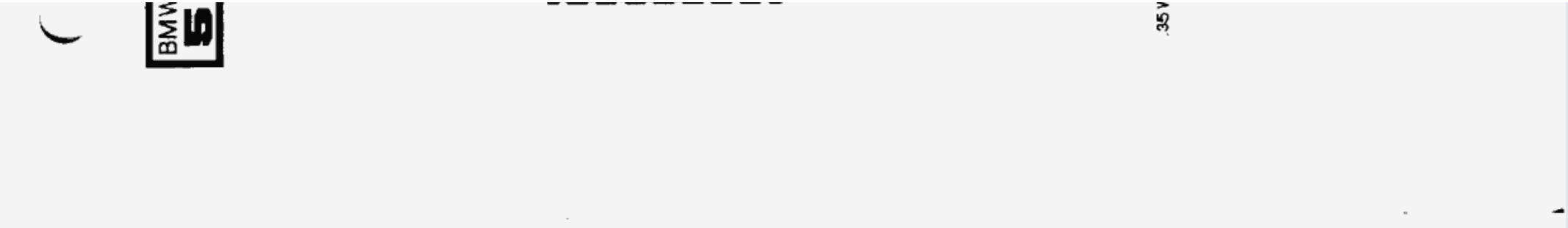

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Electrical troubleshooting manual
5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

SYMBOLS
Scheme 0140.0

Symbols

Battery

Fuses

Fuse link

Automatic cut-out

Solenoid coil

Solenoid valve

Heating element

Loudspeaker without horn

Bulb

Permanent magnet motor one speed

Permanent magnet motor two speeds

Potentiometer
Wiper moved by external force

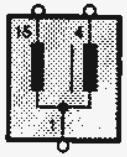
Potentiometer
Change by pressure or temperature

Diode
Current flows in direction of arrow only

Z-diode
for voltage control

LED

Oxygen sensor

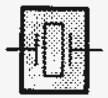


Ignition coil

Control/performance electronics

Radio

Transistor switch


Knock sensor

Reed contact

Overtemperature protection

09/93 — 0140.0-00 — 15

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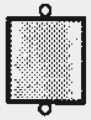
Symbols

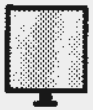
Entire component

Part of a component

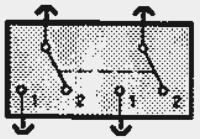

Component with screw terminals

Plug connected at component

Plug connected to connection wire of component


Component housing, connected directly to vehicle ground

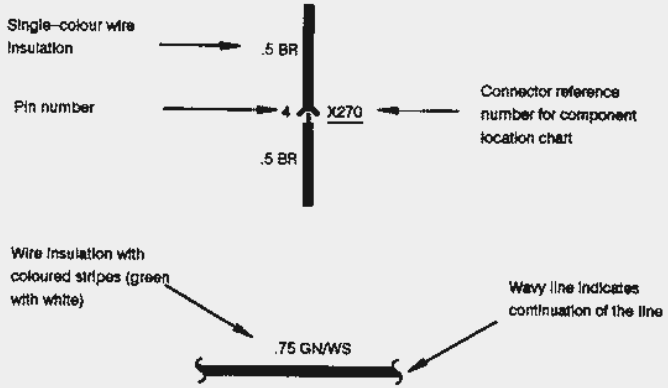
One-pole on/off switch



Two-pole switch

Dashed line indicates mechanical connection between switches

Wire colour	
BL	Blue
BR	Brown
GE	Yellow
GN	Green
GR	Grey
OR	Orange
RS	Pink
RT	Red
SW	Black



Line secured to body (ground connection)

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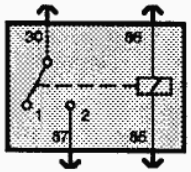
Vi	Violet
WS	White
TR	Transparent

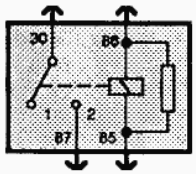
X165 Numbered ground connection for reference in component location chart

BMW 5

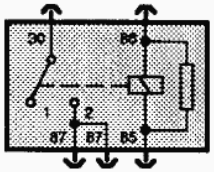
Symbols



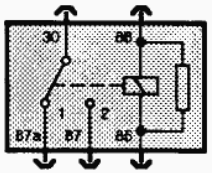
n/o contact relay



n/o contact relay with protective resistor

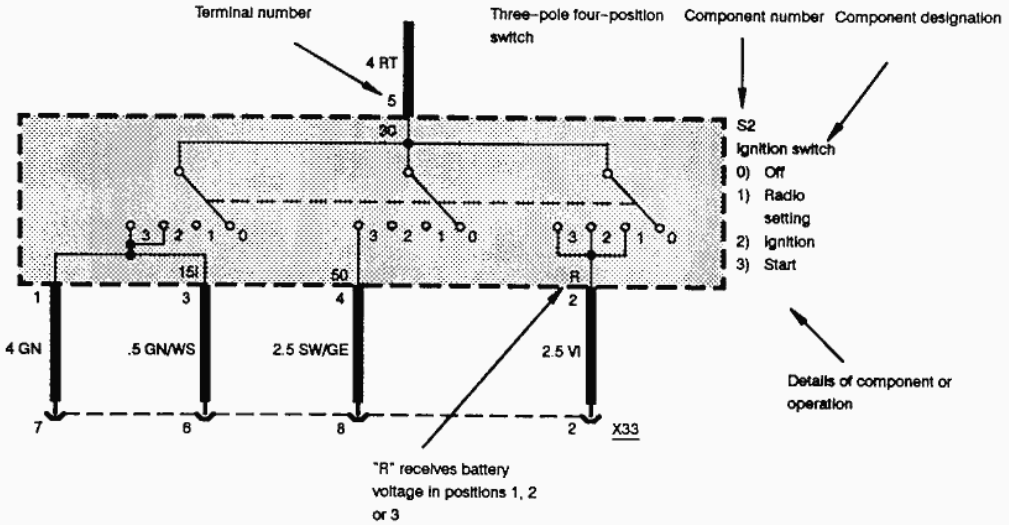


NOC relay with 2 outputs

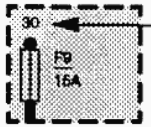


Centre-zero relay with 2 outputs

Terminal number	Designation
30	Relay input
85	Relay output (coil)
86	Relay input (coil)
87	Relay output (switched)
87a	Relay output (non-switched)



Terminal number	Designation	Terminal number	Designation
50	Battery voltage: Ignition switch in position 3	15I	Battery voltage: Ignition switch in position 2
30	Battery voltage: Supplied constantly	R	Battery voltage: Ignition switch in position 1, 2 or 3
15	Battery voltage: Ignition switch in position 2 or 3	31	Ground



Fuse constantly connected in current path

Terminal number	Designation
30	Battery voltage: Supplied constantly
15	Battery voltage: Ignition switch in

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R

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

1994

BMW 5

Symbols

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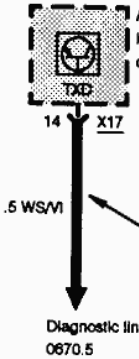
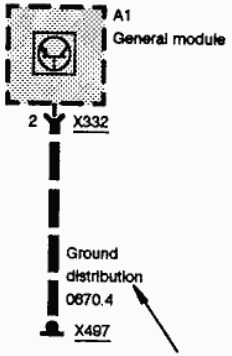
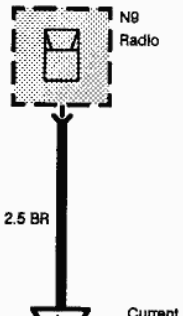
Further circuits connected to fuse 18 are not shown but are listed under "fuse details"



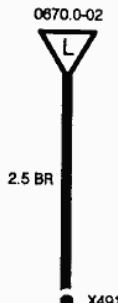
Circuit reference line for connection to another circuit



Further circuits connected at ground X497 are not shown but are listed under "ground distribution"



Current path is continued



Arrow shows direction of current flow and is repeated where current path is continued

0140.0-03

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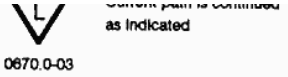
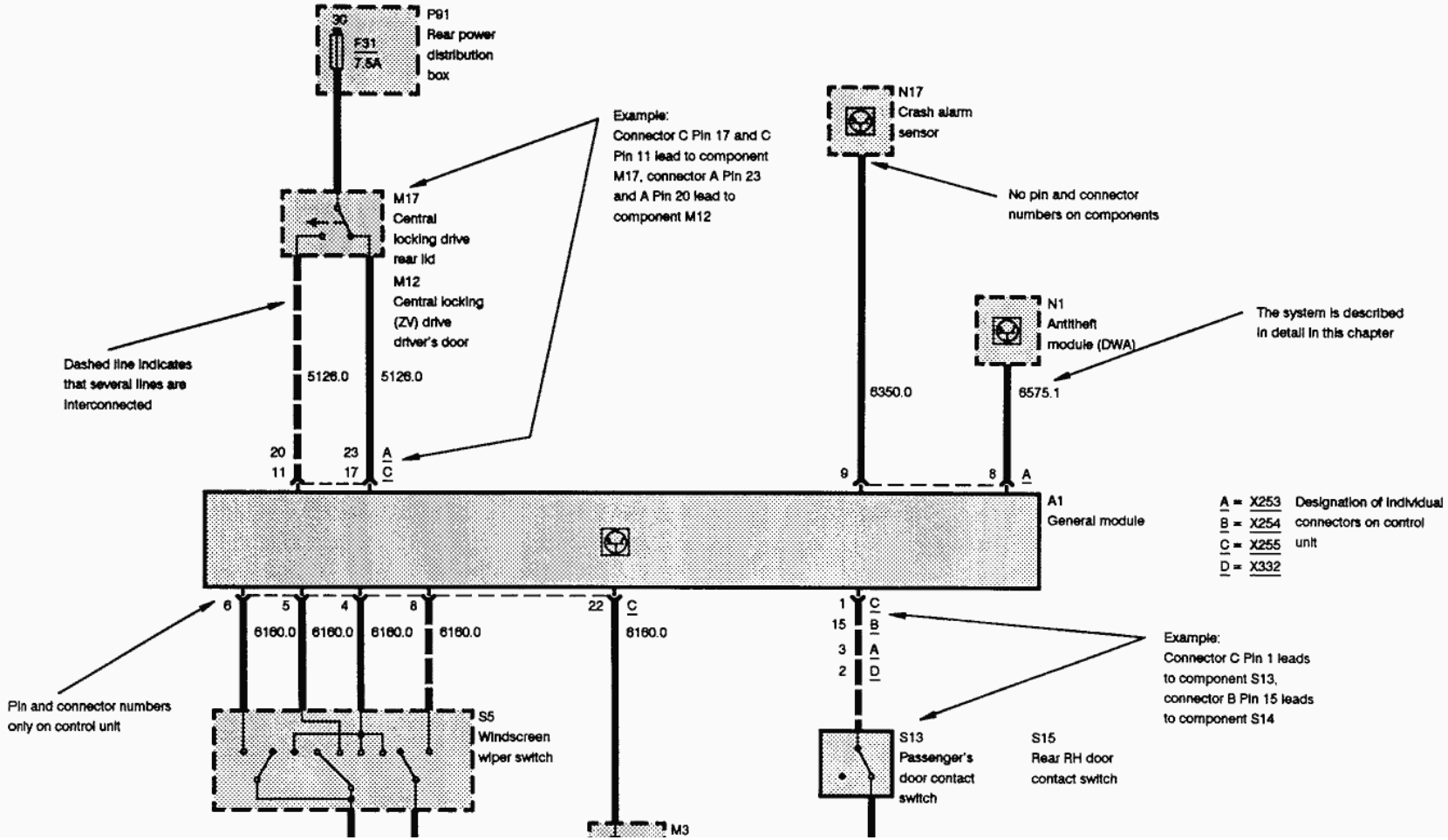


as indicated

Symbols

Block diagram



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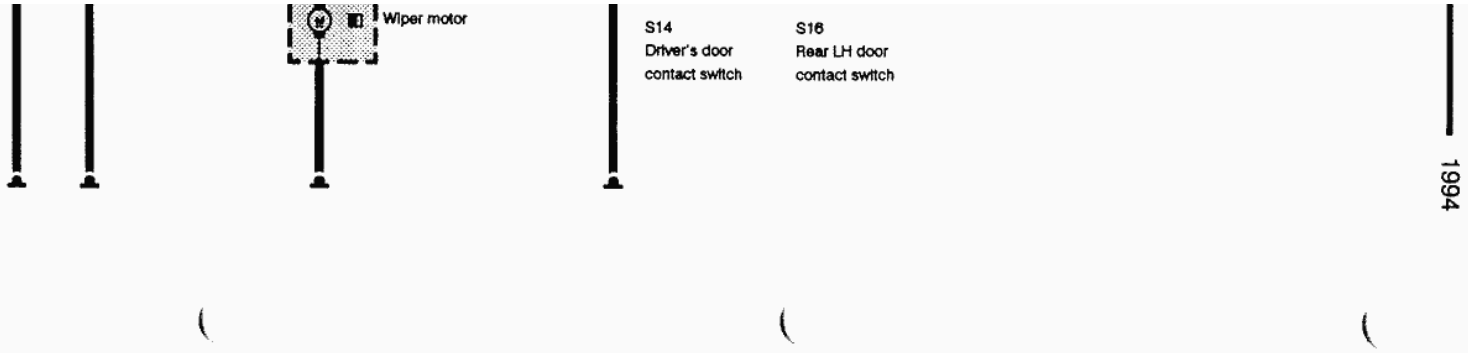

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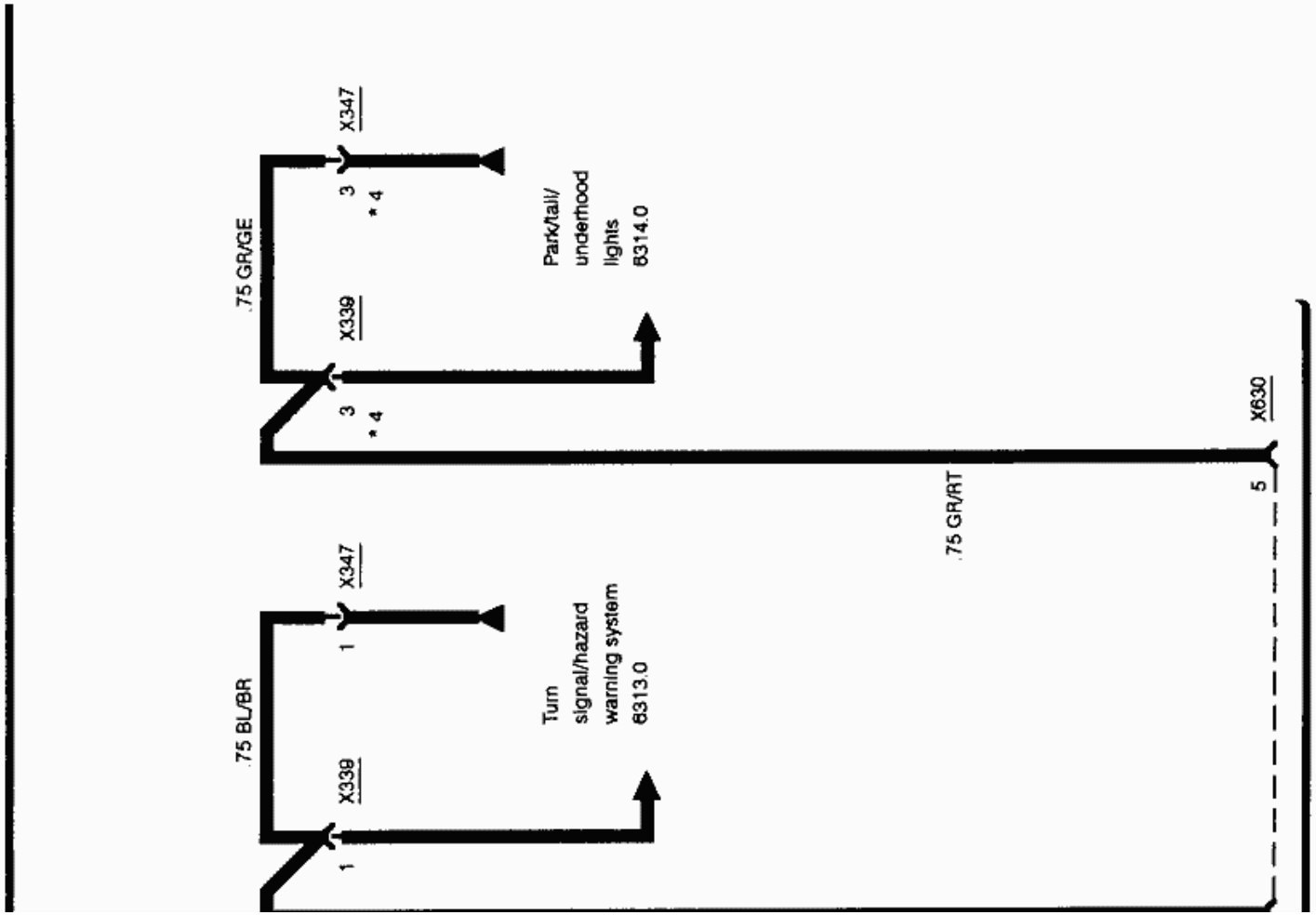
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Trailer coupling

Scheme 6328.1

09/93 — 6328.1-00 — 1994



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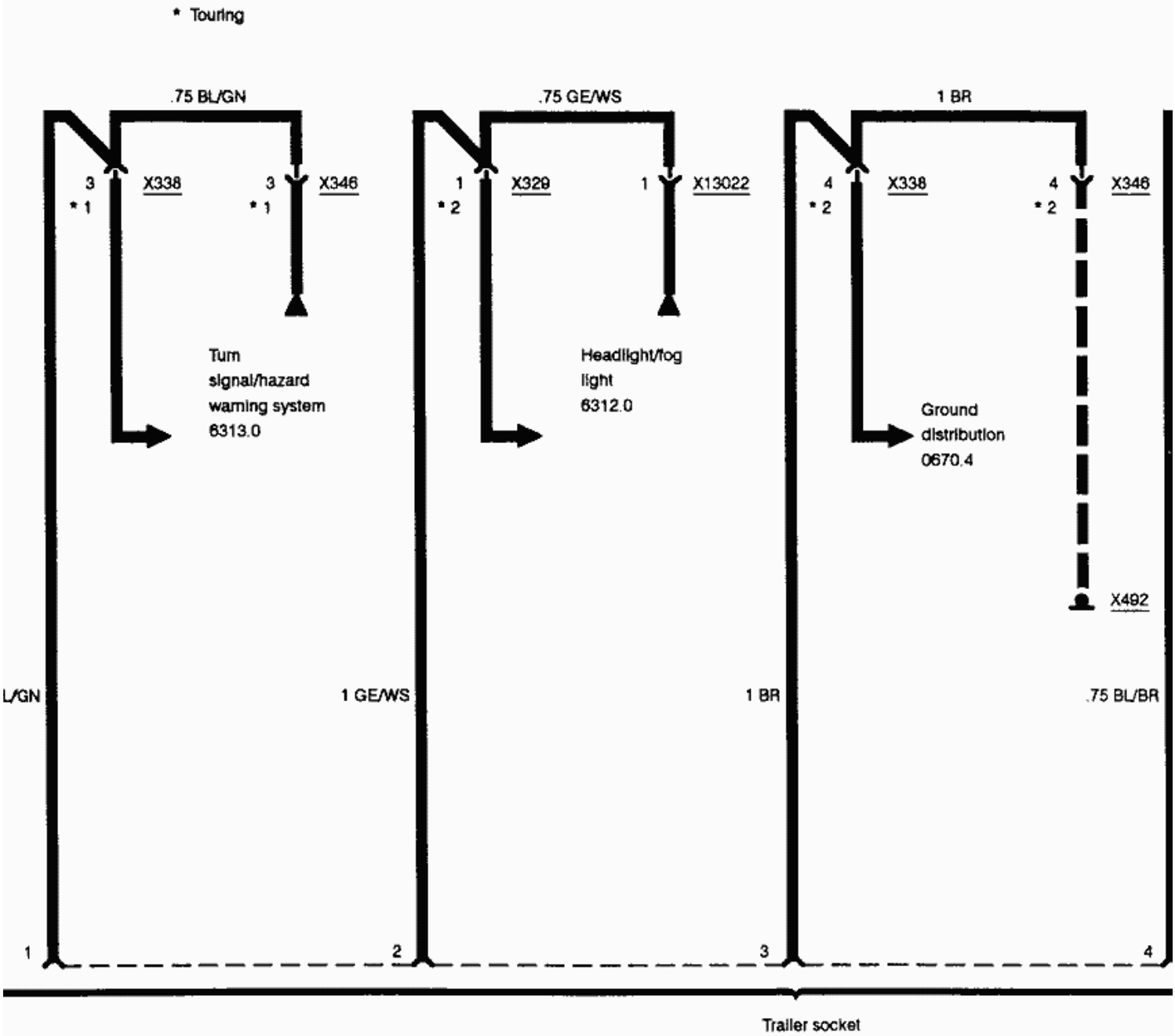
Trailer coupling



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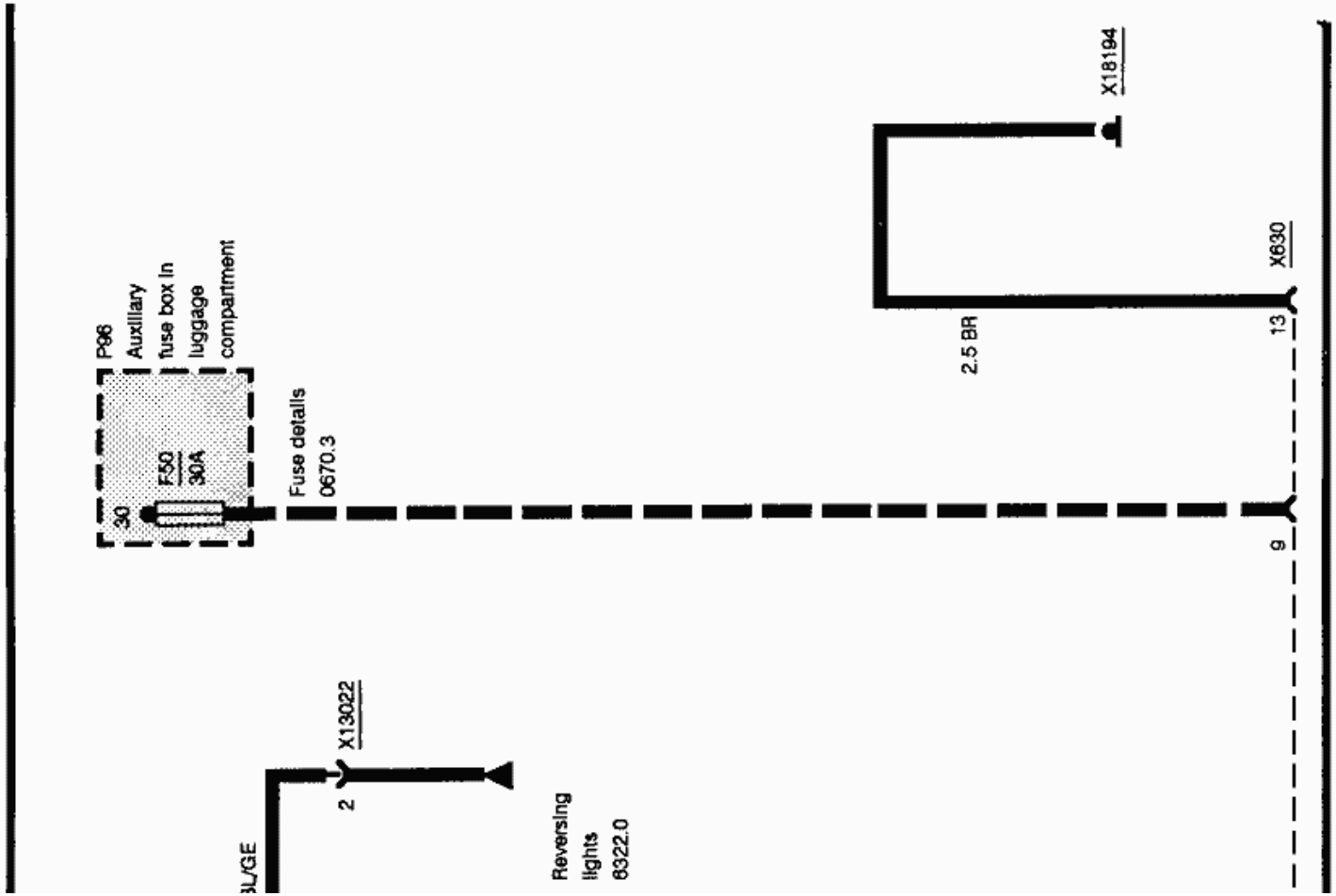

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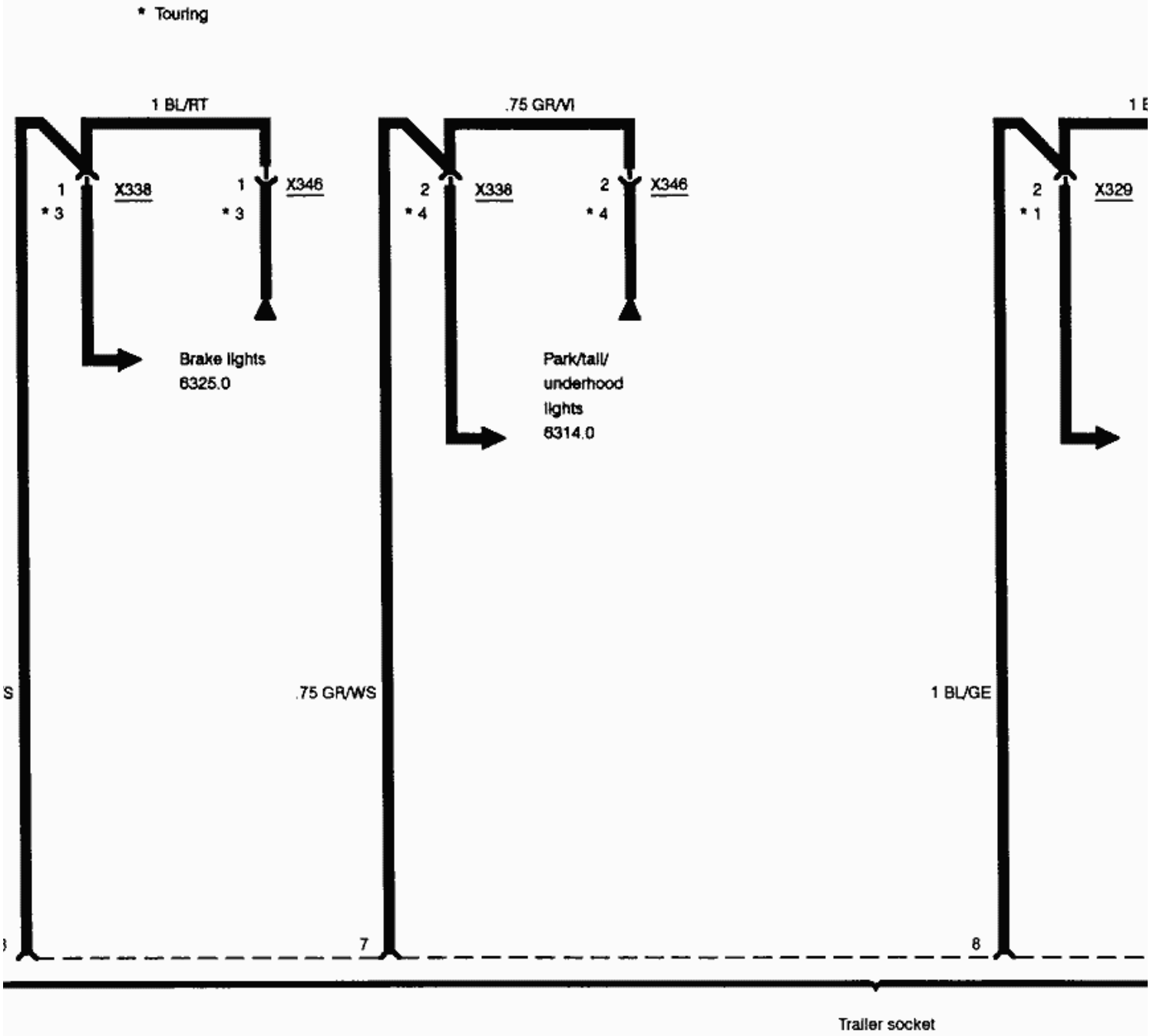
Trailer coupling



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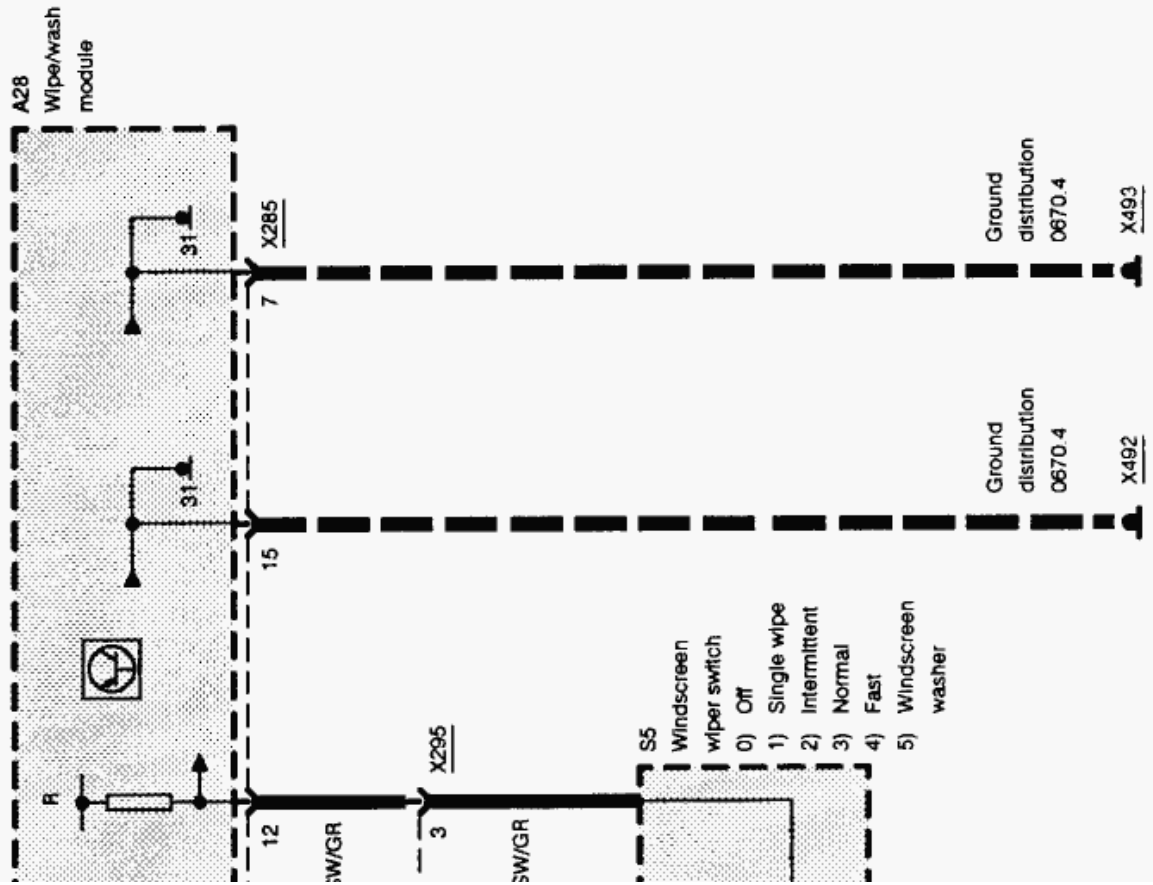
Electrical troubleshooting manual

5 Series - E34 (518i, 520i, 525td, 525tds, incl. touring) Schematics Model year 1994

Wipe/wash module (WWM)

Scheme 6160.1

09/93 — 6160.1-00 — 1994



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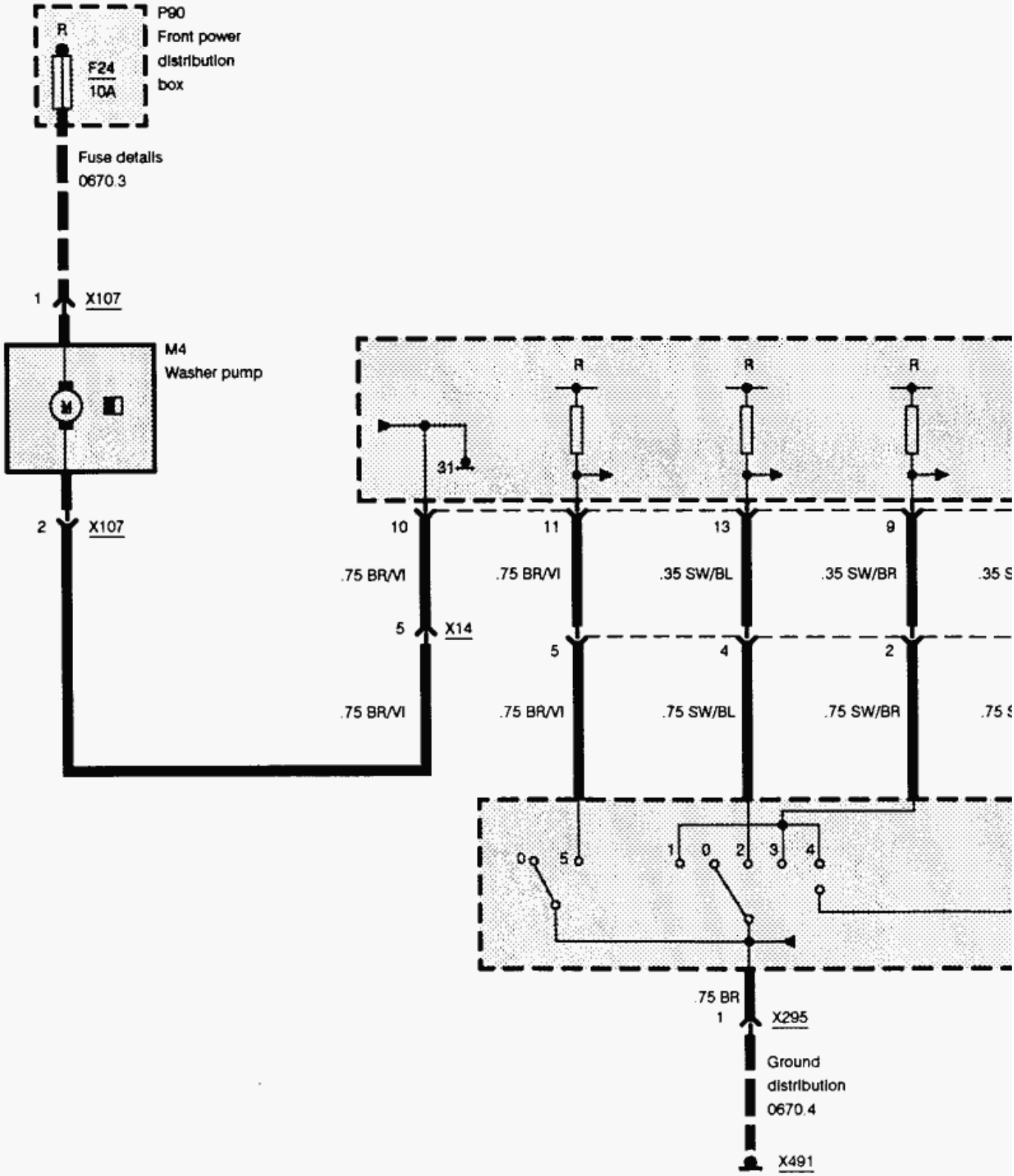
Wipe/wash module (WWM)



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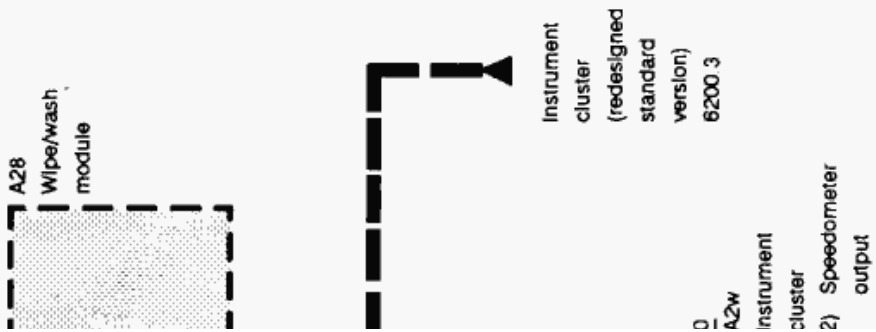

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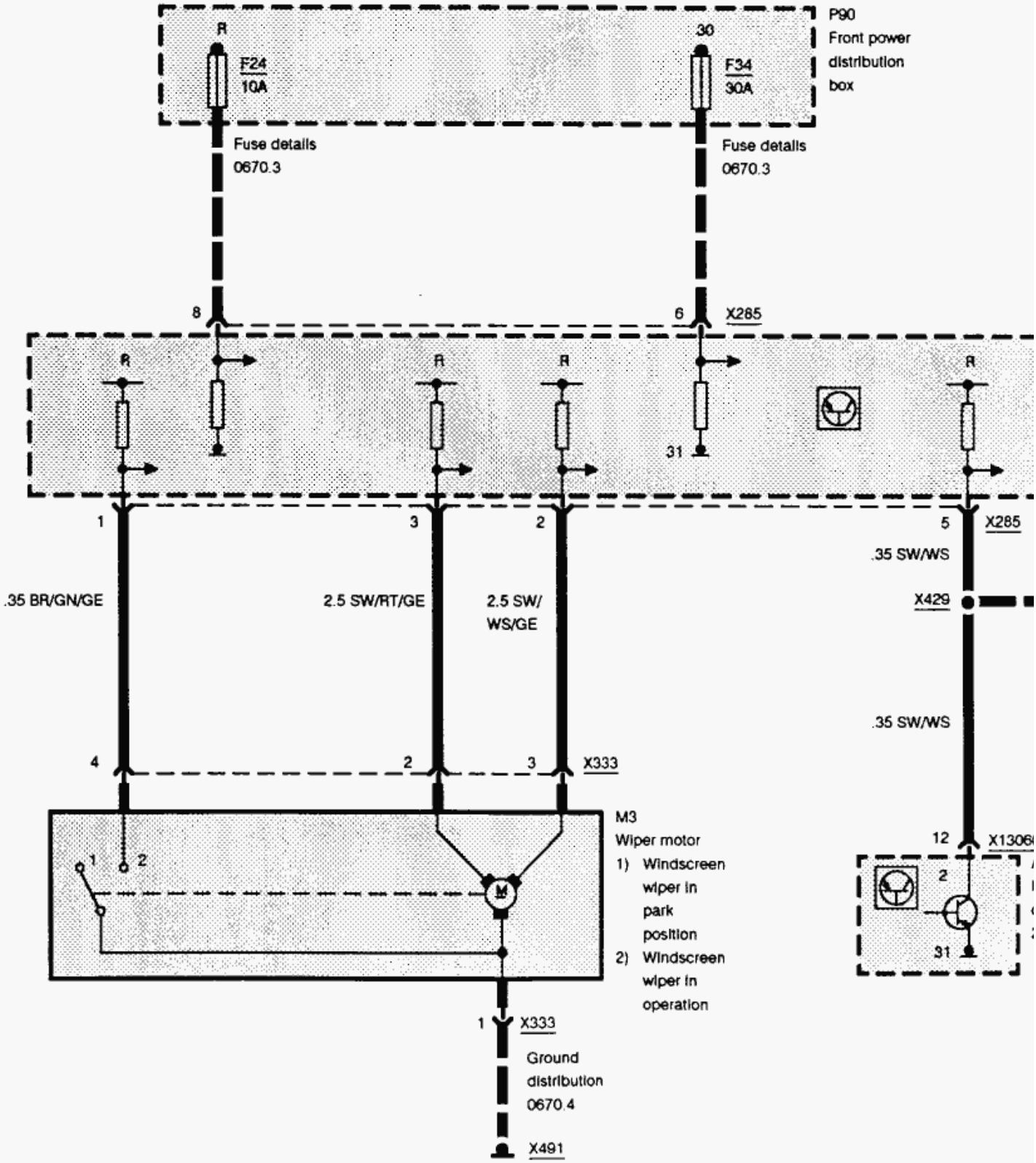
Wipe/wash module (WWM)



http://www.barracuda-central.org/~bmwe34/schemes/6160.1/index.html (4 sur 5)28/07/2003 14:58:57

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