

BMWAG

Electrical troubleshooting manual

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

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Passenger's make-up mirror switch, 878 *6332.0	Press Here
Passenger's seat adjustment switch, 856 *5200.0	Press Here
Passenger's seat cushion tilt motor, M61 *5200.0	Press Here
Passenger's seat heating, E58 *5203.0	Press Here
Passenger's seat heating switch, 854 *5203.0	Press Here
Passenger's seat height adjustment motor, M59 *5200.0	Press Here
Passenger's seat lumbar support motor, M56 *5212.0	Press Here
Passenger's seat movement motor, M60 *5200.0	Press Here
Passenger's thigh support motor, M66 *5200.0	Press Here
Passenger's window end position sensor, S44 *5133.0	Press Here
Passenger's window monitoring switch (DWA), S99 *6575.1	Press Here
Passenger's window motor, M23 *5133.0	Press Here
Pedal value sensor, R10 *1360.1-05	Press Here
Power distribution *0670.2-00	Press Here
Power distribution chart *0670.0-00	Press Here
Power mirrors *5116.0-00	Press Here
Power seats *5200.0-00	Press Here
Power window end position sensor, rear left, S45 *5133.0	Press Here

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, ÅP *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

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
Right 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

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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BMWAG

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	

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



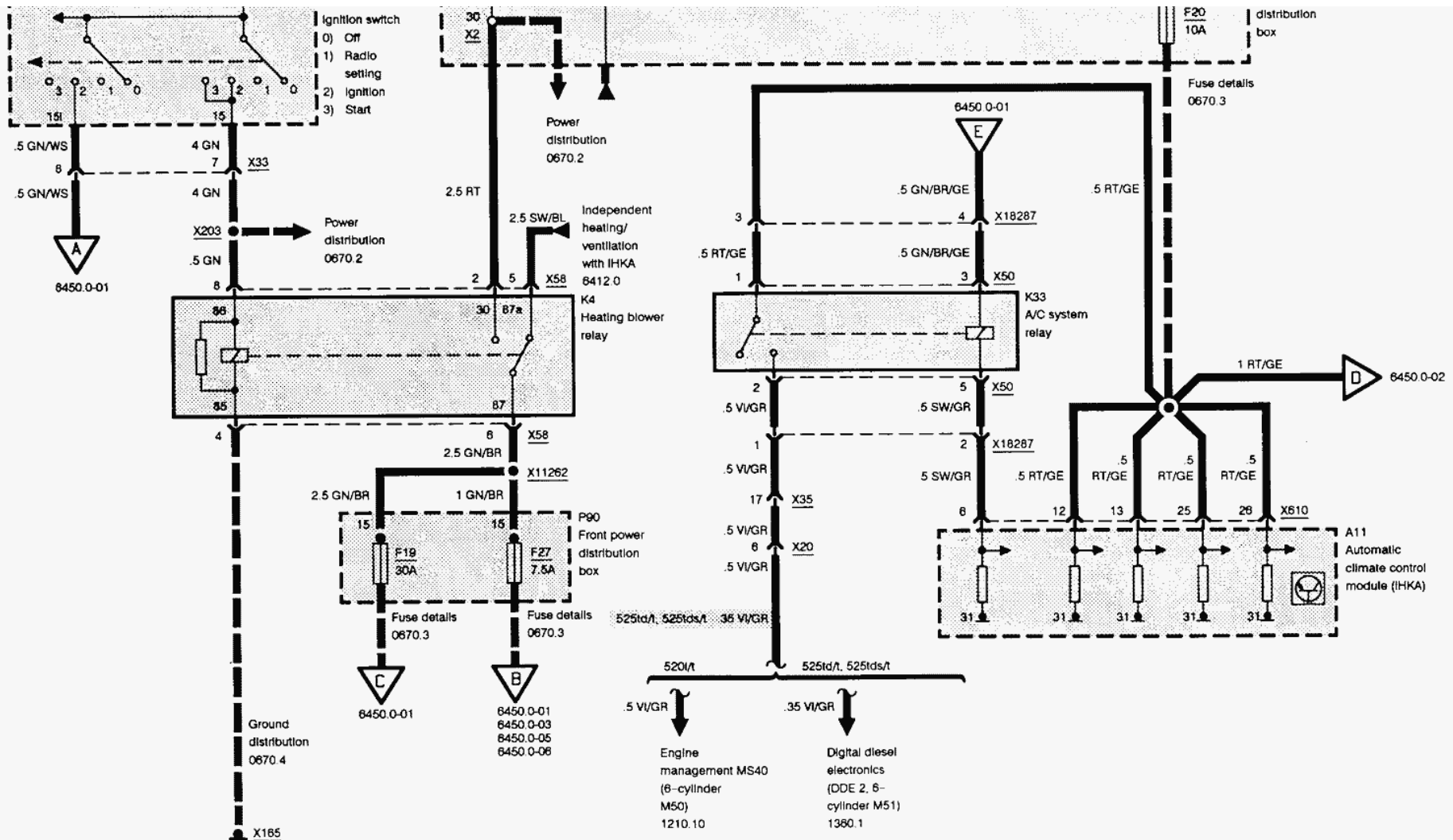
Automatic climate control (IHKA)

Current

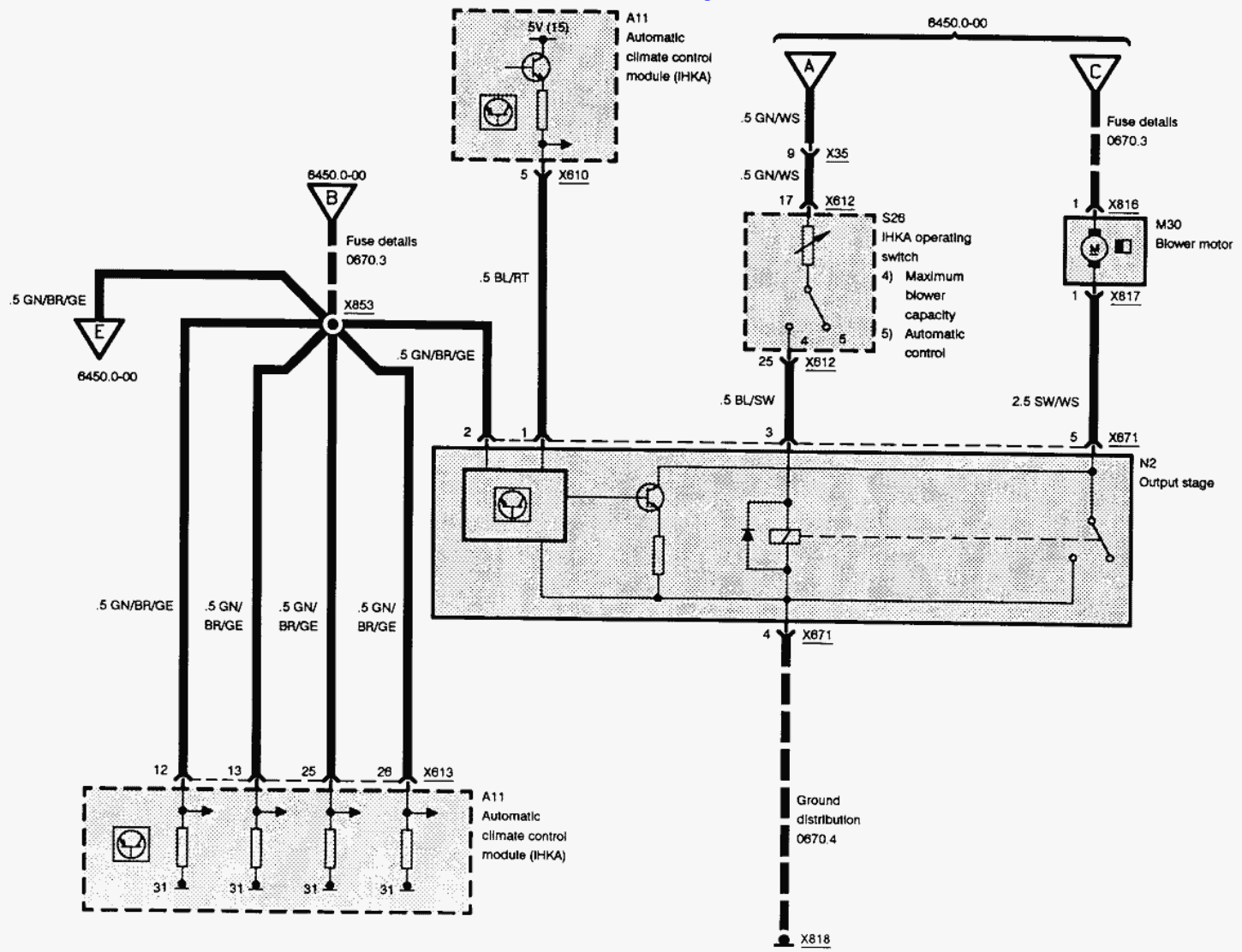
520i/t, 525td/t, 525tds/t

09/93





Air volume control



29/93
6450.0-01
1994