

LAND ROVER DISCOVERY



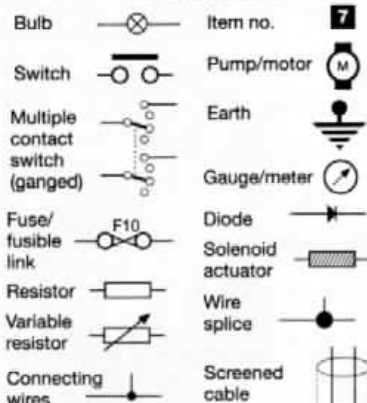
1989 to 1998 (G to S registration) Petrol & Diesel

Haynes **Service and Repair Manual**



Includes **Roadside Repairs** and **MOT Test Checks**

Key to symbols



Connections to other circuits (e.g. diagram 3/grid location B2. Direction of arrow denotes current flow.)

Wire - interconnecting

Denotes alternative wiring variation (brackets)

Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

Wire colour (Green wire with white tracer)

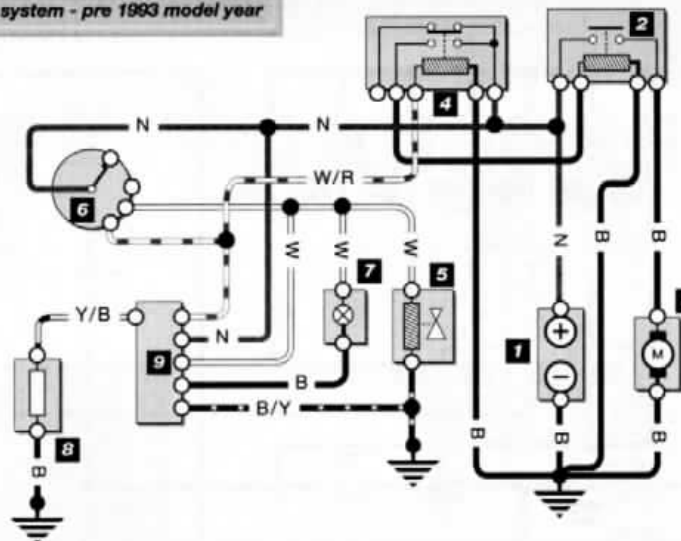
Fuse	Rating	Circuit protected
A1	10A	Headlights dipped beam and power wash
A2	10A	Headlights dipped beam
A3	10A	RH headlight main beam
A4	10A	LH headlight main beam
A5	5A	RH front/rear sidelights and instrument illumination
A6	5A	LH front/rear sidelights, no. plate lights, radio, cigar lighter, clock and heater illumination
A7	20A	Windscreen wash/wipe
A8	20A	Air conditioning, heater relay and fan
A9	30A	Heated rear window
B1	5A	Radio memory, interior light and clock
B2	10A	Rear foglights
B3	15A	Direction indicators, stop and reversing lights, headlight levelling, air cond./heater relay
B4	15A	Trailer socket
B5	15A	Horns
B6	10A	Tailgate wash/wipe and clock
B7	10A	Cigar lighter
B8	10A	Fuel pump relay

Fuse	Rating	Circuit protected
B9	10A	Radio
C1	30A	Electric window relay
C2	30A	Electric window relay
C3	15A	Central locking
C4	3A	Electric mirrors
C5	20A	Air conditioning fans
C6	20A	Air conditioning fans
C7	5A	Air conditioning compressor clutch
C8	15A	Hazard warning lights
C9		Not used

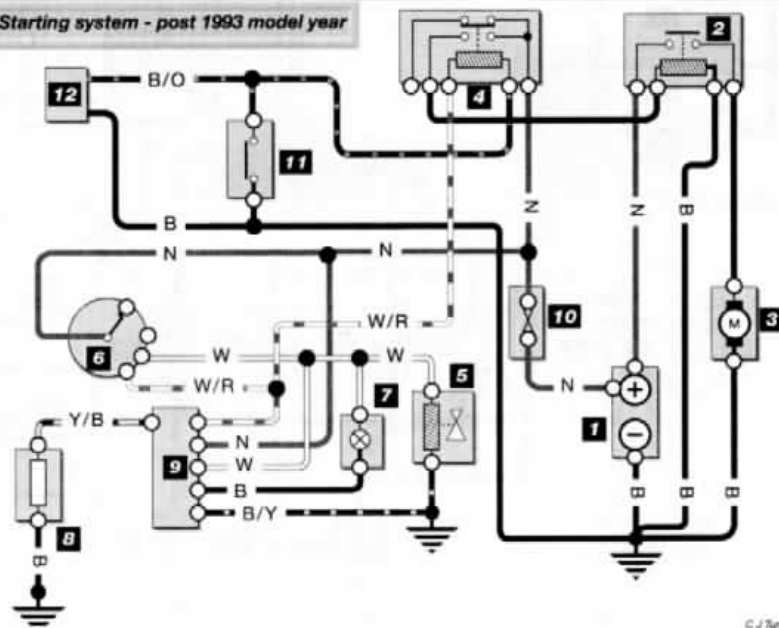
Key to items

- 1 Battery
- 2 Starter solenoid
- 3 Starter motor
- 4 Starter relay
- 5 Fuel shut-off solenoid
- 6 Ignition switch
- 7 Cold start W/L
- 8 No 1 glow plug
- 9 Glow plug timer
- 10 Fusible link (post 1993 model)
- 11 Inhibitor switch (automatic transmission)
- 12 Alarm ECU

Starting system - pre 1993 model year

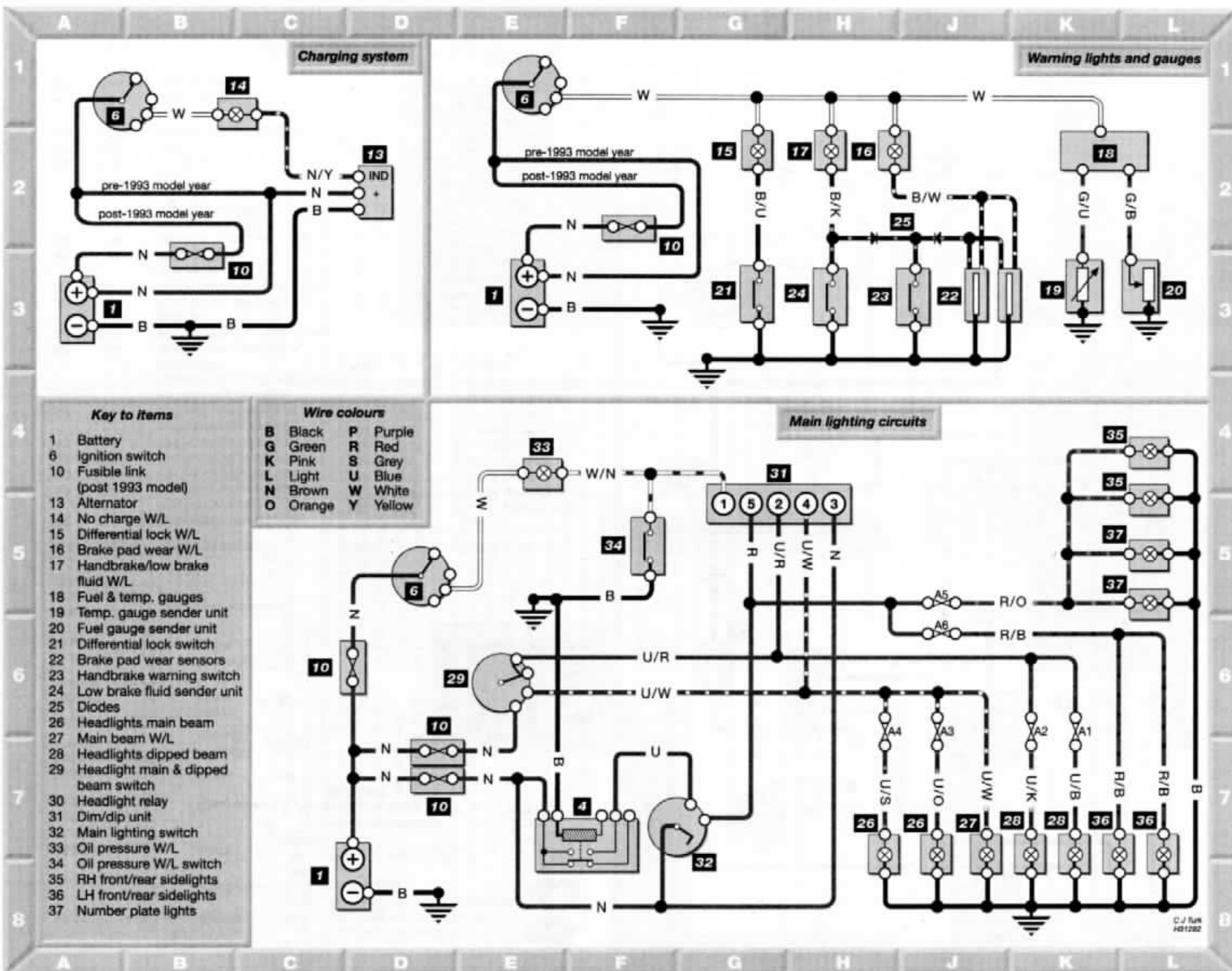


Starting system - post 1993 model year

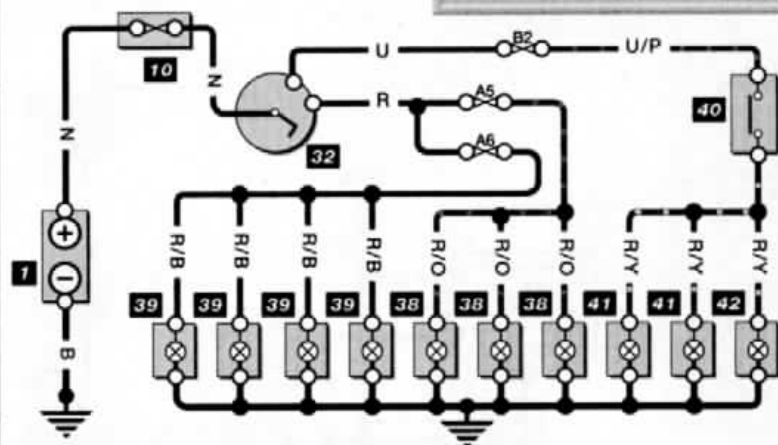


C J Turk
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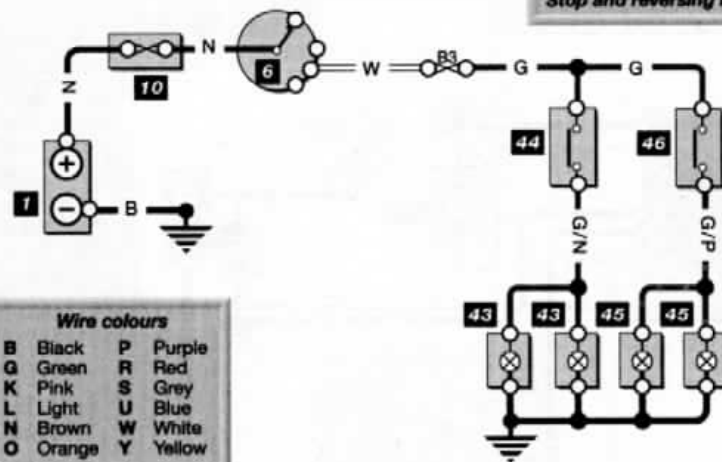
Diagram 1 : Information for wiring diagrams - pre-1995



Switch illumination and rear foglight



Stop and reversing lights



Key to items

- 1 Battery
- 6 Ignition switch
- 10 Fusible link (post 1993 model)
- 32 Main lighting switch
- 38 Instrument cluster and switch illumination
- 39 Radio, clock, cigar lighter and heater illumination
- 40 Rear foglight switch
- 41 Rear foglight
- 42 Rear foglight W/L
- 43 Reversing lights
- 44 Reversing light switch
- 45 Stop lights
- 46 Stop light switch
- 47 Hazard flasher switch and warning light
- 48 Direction indicator flasher unit
- 49 Direction indicator switch
- 50 Direction indicator W/L
- 51 Direction indicator trailer warning light
- 52 LH indicator lights (including trailer)
- 53 RH indicator lights (including trailer)

Direction indicators and hazard warning lights

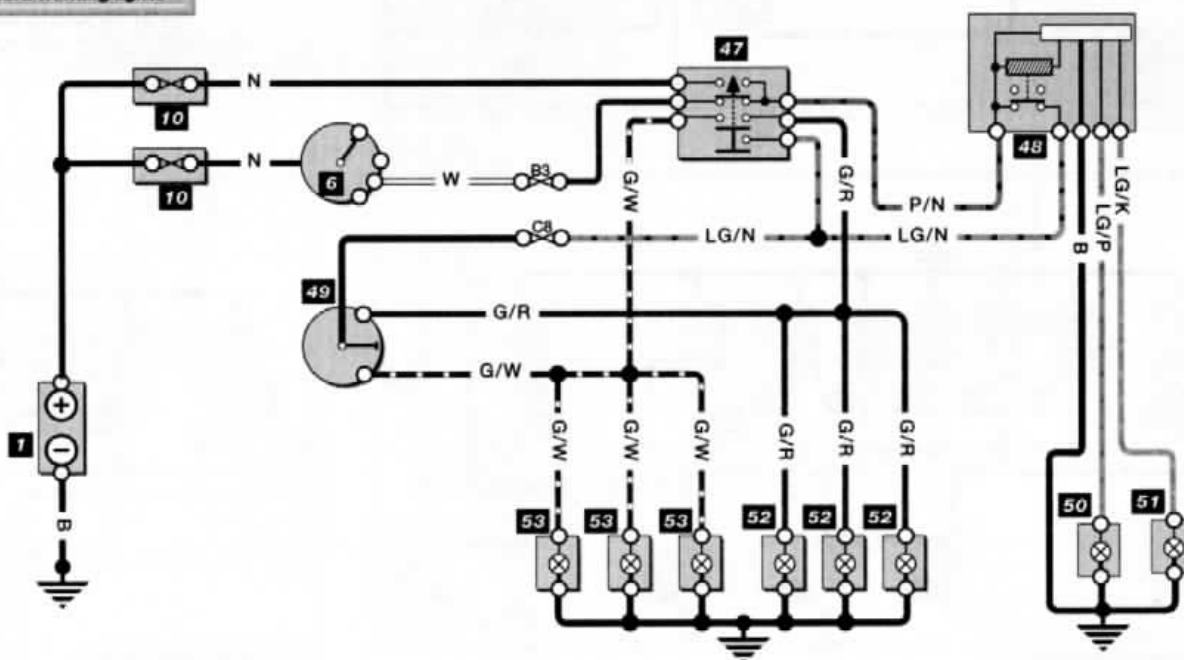
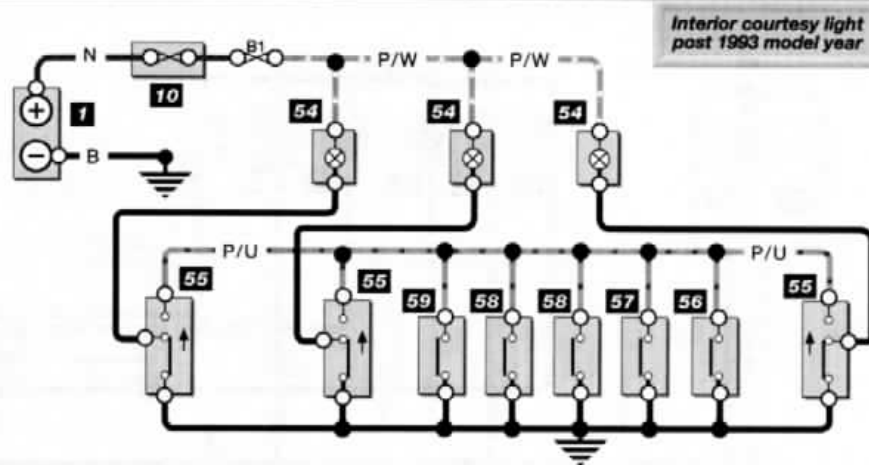
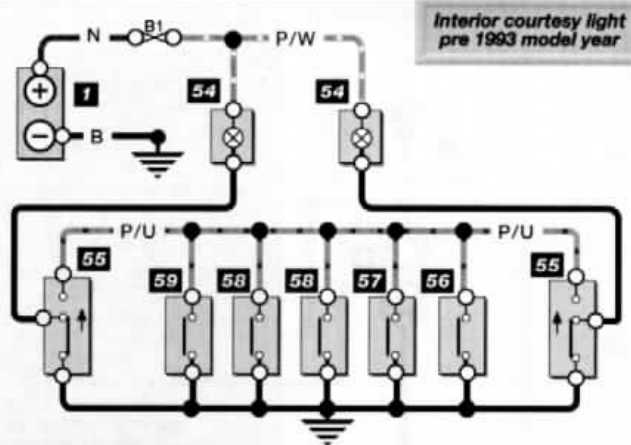
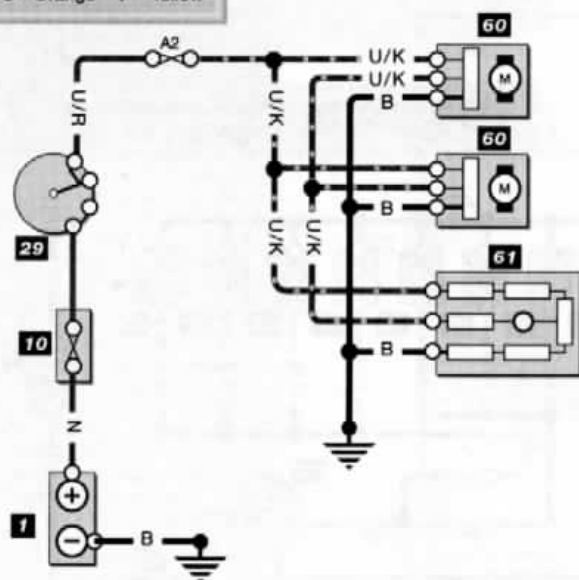


Diagram 3 : Direction indicators, fog, stop and reversing lights - pre'95

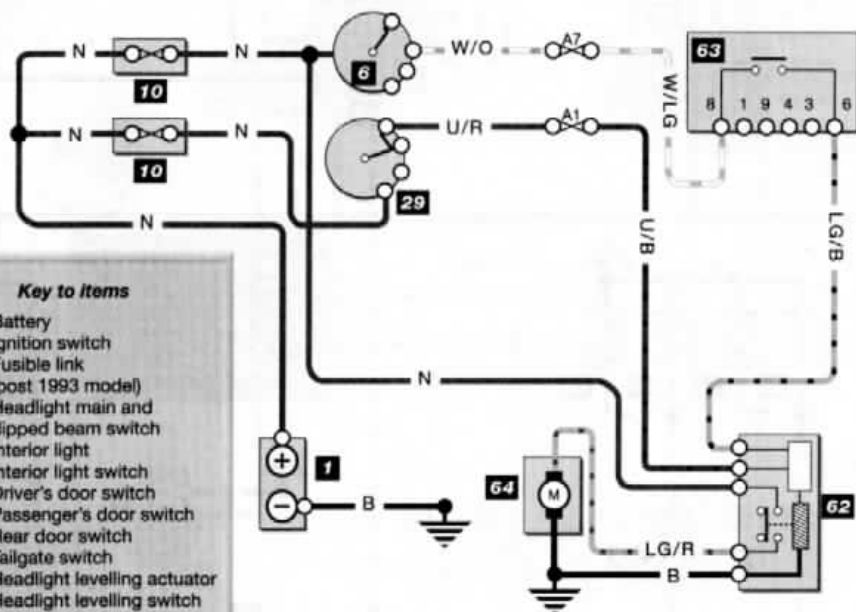


Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow



Headlight levelling



Headlight wash

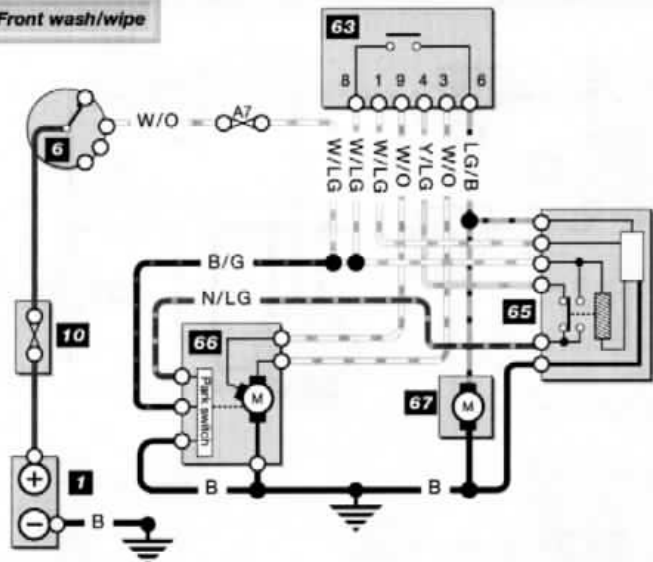
Key to items

- 1 Battery
- 6 Ignition switch
- 10 Fusible link (post 1993 model)
- 29 Headlight main and dipped beam switch
- 54 Interior light
- 55 Interior light switch
- 56 Driver's door switch
- 57 Passenger's door switch
- 58 Rear door switch
- 59 Tailgate switch
- 60 Headlight levelling actuator
- 61 Headlight levelling switch
- 62 Headlight washer relay
- 63 Wash/wipe switch
- 64 Headlight washer pump

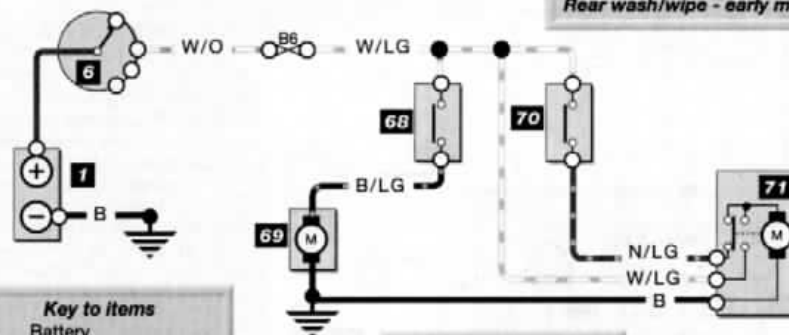
C.J. Tuck
H01294

Diagram 4 : Interior courtesy lighting, headlight wash and levelling - pre'95

Front wash/wipe



Rear wash/wipe - early models



Key to items

- 1 Battery
- 6 Ignition switch
- 10 Fusible link (post 1993 model)
- 32 Main lighting switch
- 63 Wash/wipe switch
- 65 Front wiper relay
- 66 Front wiper motor
- 67 Front washer pump
- 68 Rear washer switch
- 69 Rear washer pump
- 70 Rear wiper switch
- 71 Rear wiper motor
- 72 Rear wash/wipe relay
- 73 Cigar lighter
- 74 Clock
- 75 Horns
- 76 Horn switch

Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

Rear wash/wipe - later models

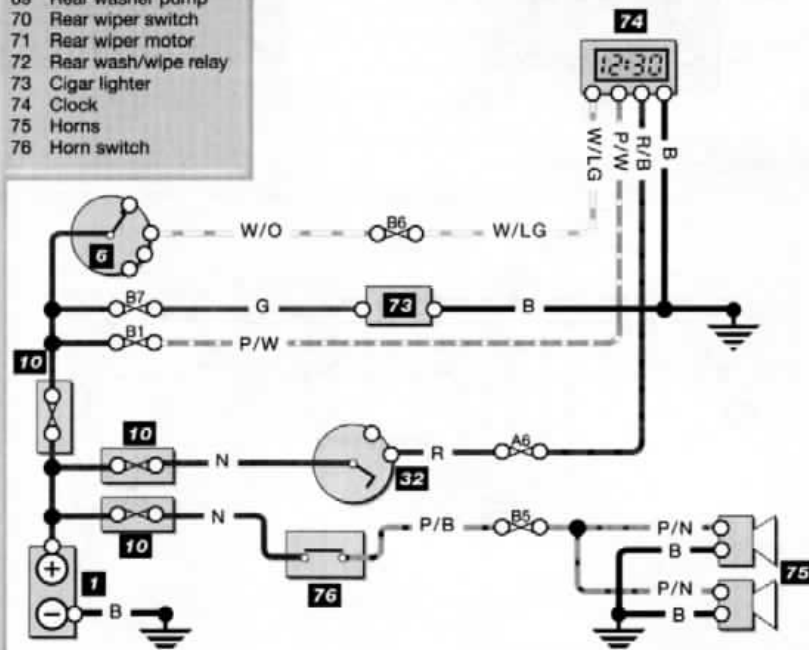
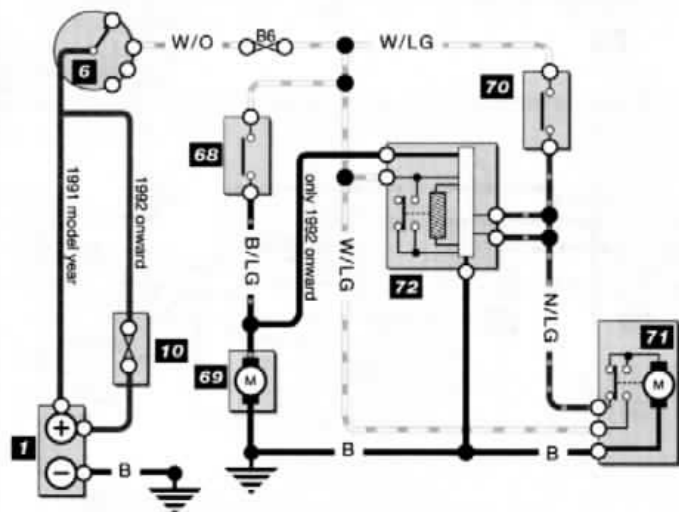
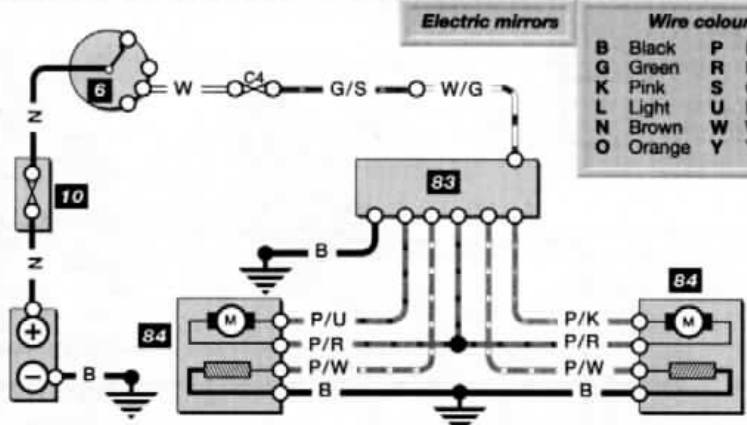
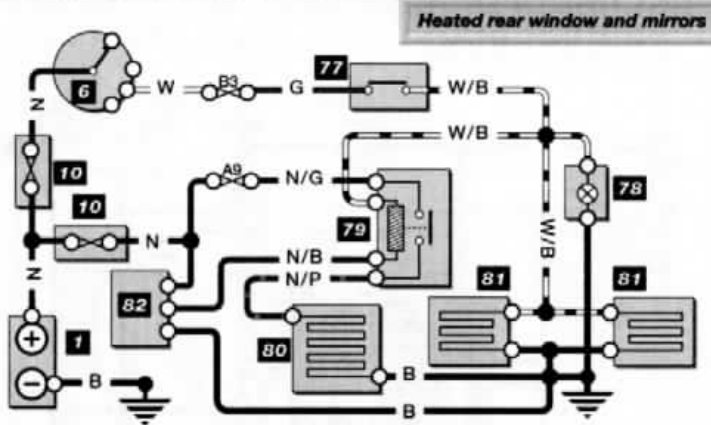
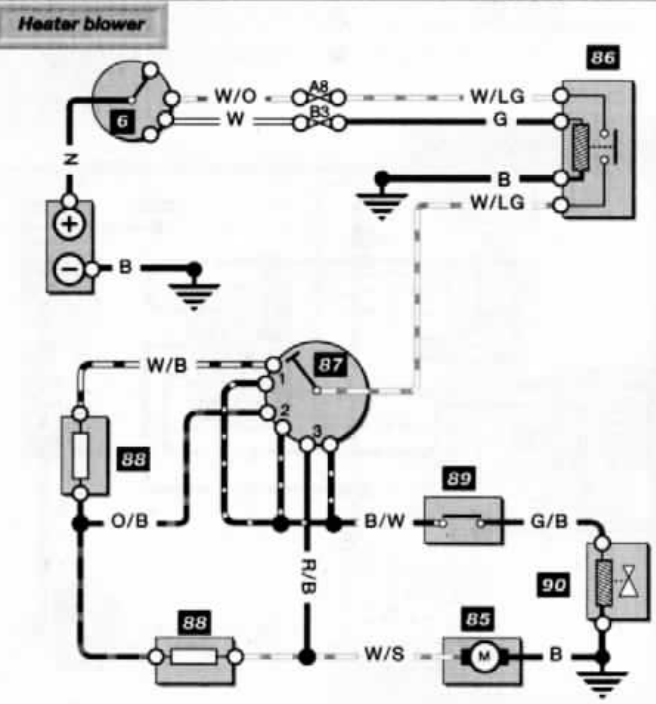


Diagram 5 : Front and rear wash/wipe, horn, clock and cigar lighter - pre'95



Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow



- Key to items**
- 1 Battery
 - 6 Ignition switch
 - 10 Fusible link (post 1993 model)
 - 77 Heated rear window switch
 - 78 HRW indicator
 - 79 HRW relay
 - 80 Heated rear window
 - 81 Heated door mirror
 - 82 Voltage sensitive switch - models with air conditioning
 - 83 Electric mirror control switch
 - 84 Electric door mirror - containing motor and clutch assembly
 - 85 Heater blower motor
 - 86 Air conditioning/heater relay
 - 87 Heater blower switch
 - 88 Heater blower resistors
 - 89 Vacuum valve control switch
 - 90 Vacuum valve
 - 91 Driver's door locking actuator
 - 92 Passenger's door locking actuator
 - 93 Tailgate locking actuator
 - 94 Rear door locking actuator

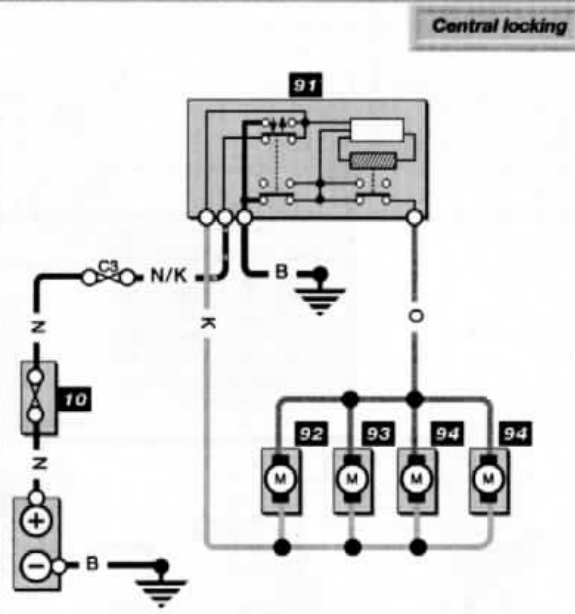
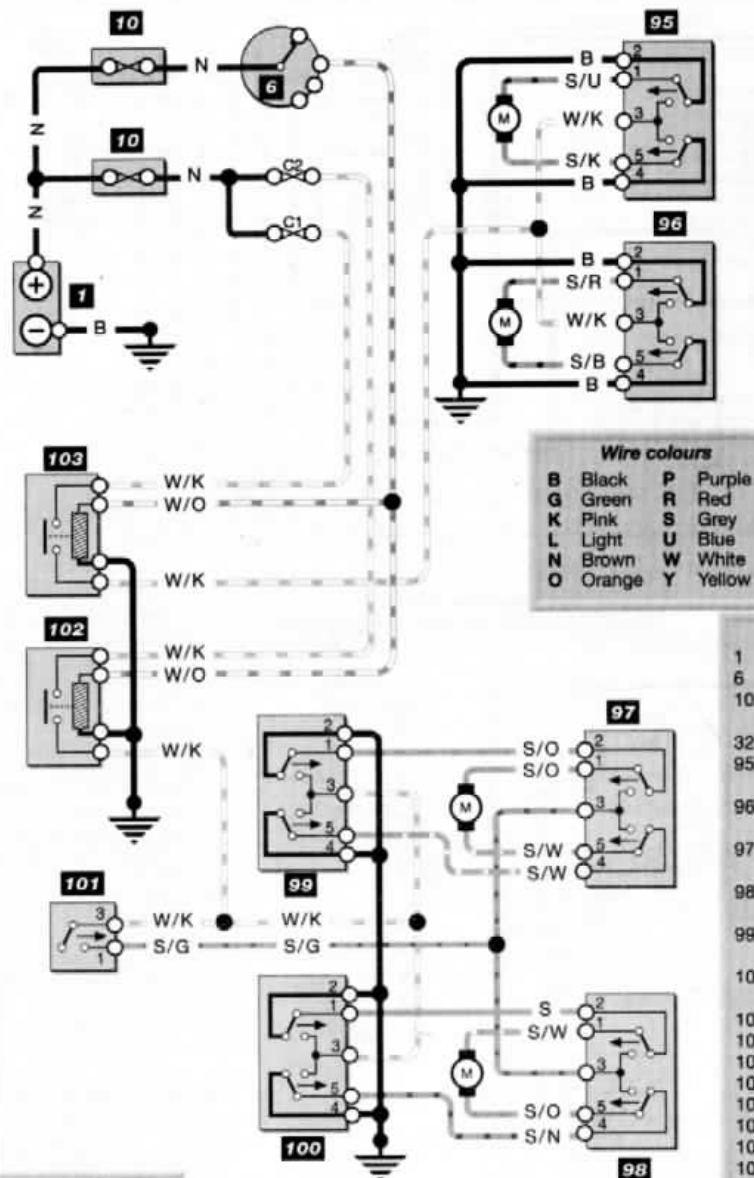


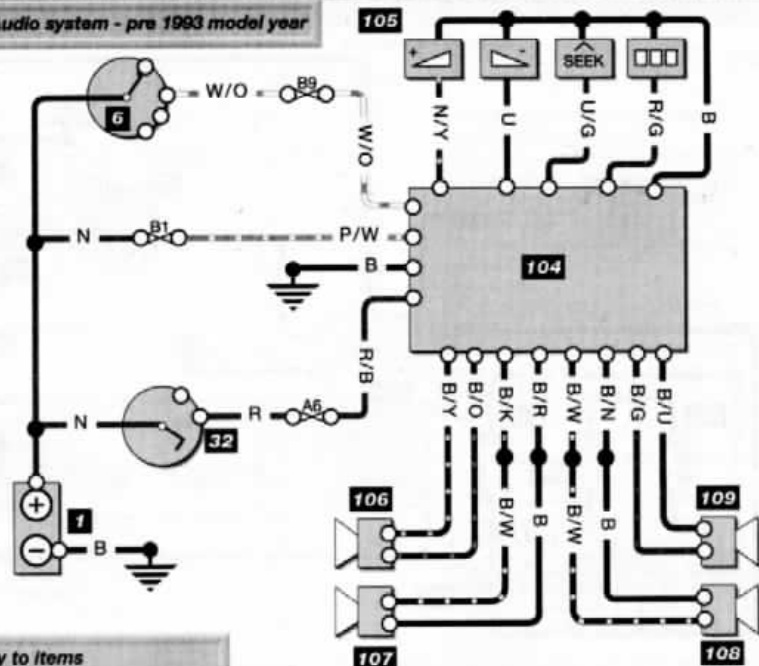
Diagram 6 : Heated rear window, electric mirrors, heater blower and central locking - pre'95

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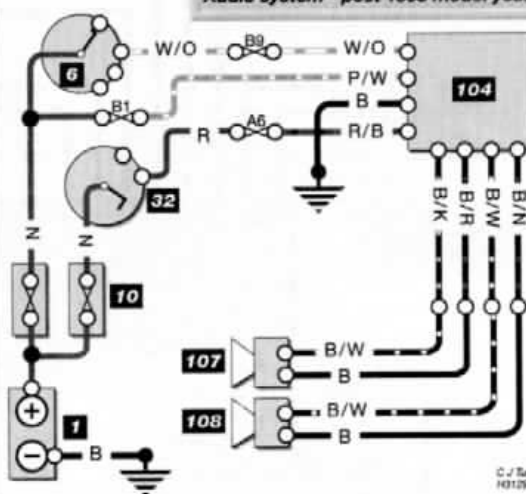


Electric windows

Audio system - pre 1993 model year



Audio system - post 1993 model year



C J/Ten
1031297

Diagram 7 : Electric windows and low specification audio systems - pre'95

Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

Key to items

- 1 Battery
6 Ignition switch
10 Fusible link
(post 1993 model)
32 Main lighting switch
104 Radio/cassette player
105 Satellite controls
106 LH rear speaker
107 LH front speaker
108 RH front speaker
109 RH rear speaker
110 Subwoofer
111 Power amplifier connection (unused)
112 Remote power amp
113 CD player
114 390 ohm resistor
115 470 ohm resistor
116 820 ohm resistor

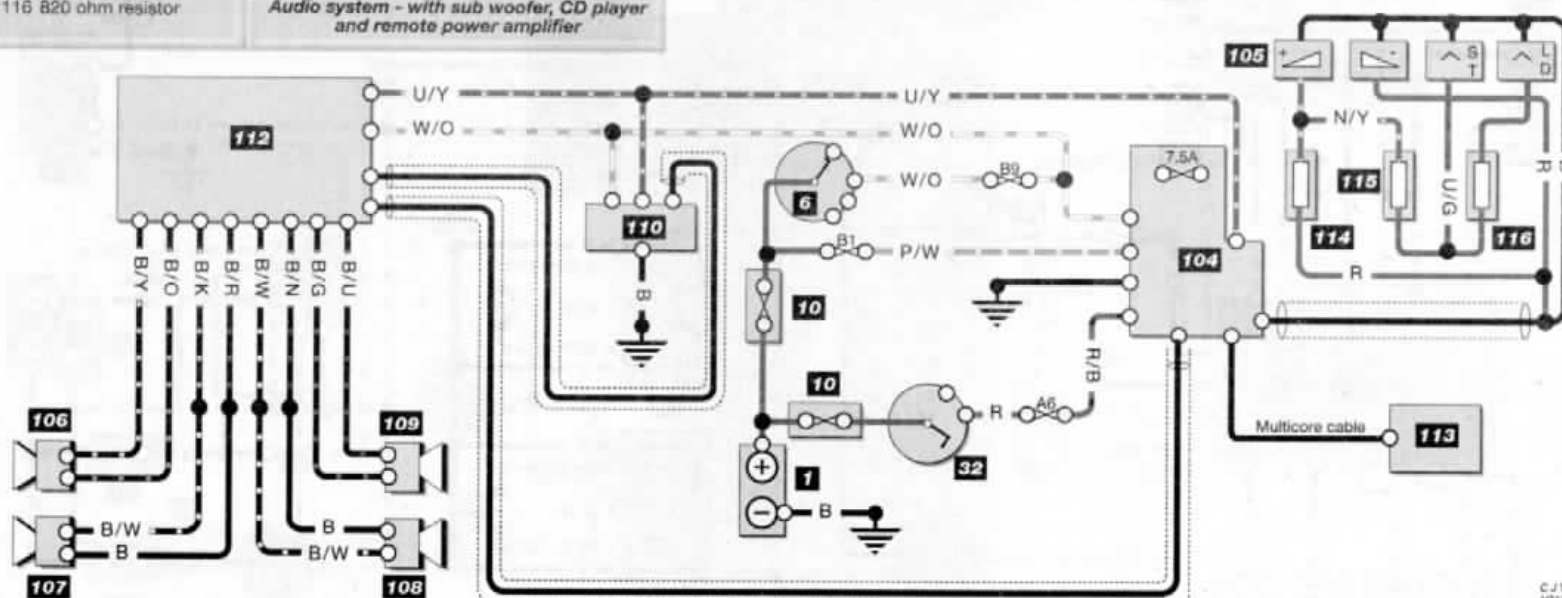
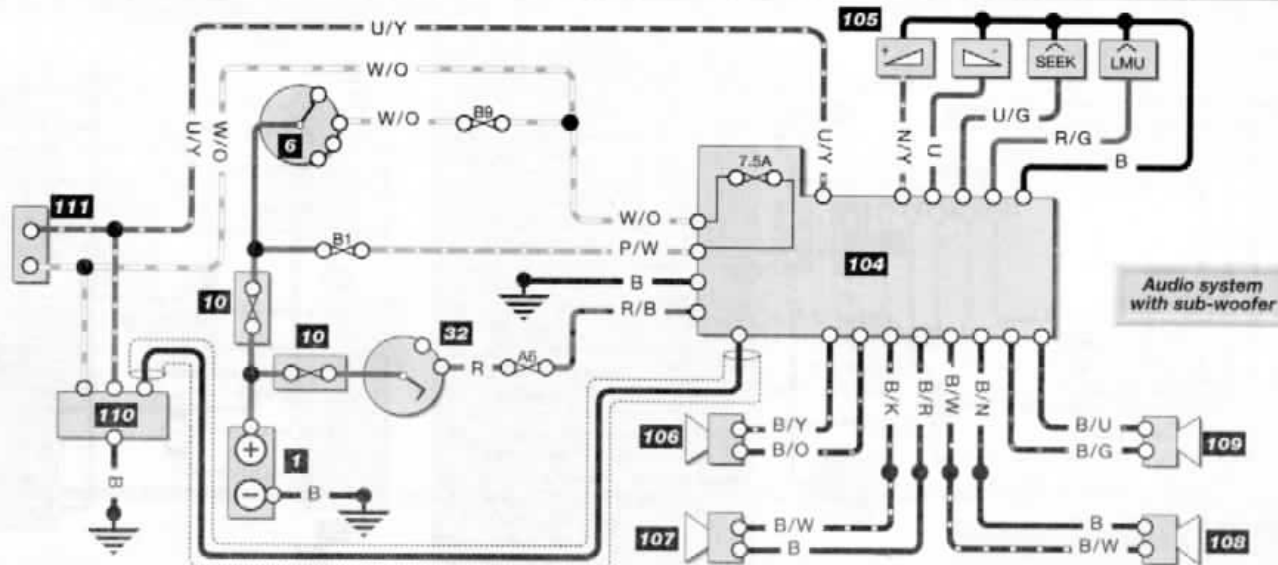
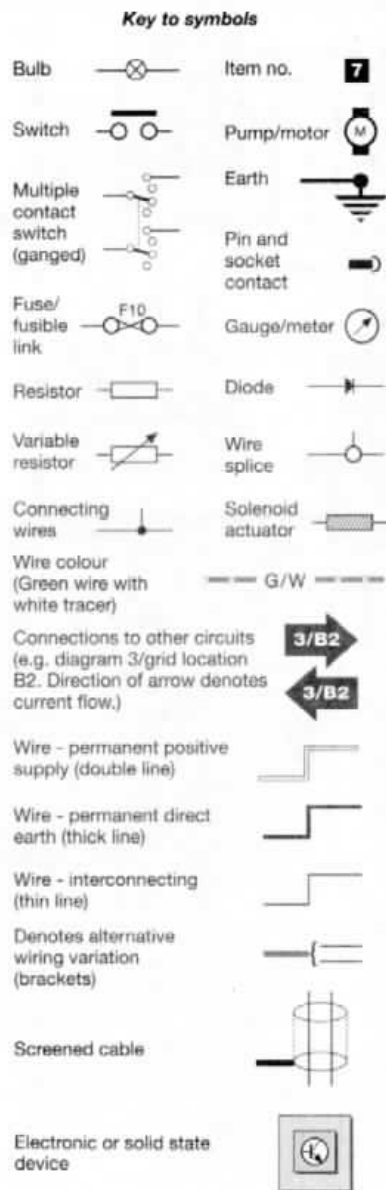


Diagram 8 : High specification audio systems - 1993 to 1995



Engine fusebox

Fuse	Rating	Circuit protected
F1	30A	Heated rear window
F2	20A	Sidelights, headlights
F3	30A	Cooling fan relay (petrol), air con. compressor clutch and condenser fan relays
F4	20A	Horn relay, hazard warning switch
F5	30A	ABS load relay
F6	15A	Fuel pump relay (petrol), multifunction relay unit (petrol)
F7	20A	Engine load control relay

Satellite fusebox 1 (on passenger fusebox)

Fuse	Rating	Circuit protected
F1	15A	Alarm
F2	20A	Alarm, power wash relay
F3	10A	Engine management and air cond. (petrol), glow plugs and EGR valve control module (Diesel)
F4	5A	Stop light switch, ABS
F5	10A	Alarm
F6	25A	Ignition load relay and air cond.

Satellite fusebox 2 (on passenger fusebox)

Fuse	Rating	Circuit protected
F1	30A	Electric window control unit
F2	30A	Electric window control unit
F3	10A	ABS diagnostic connector
F4	15A	Right front door lock actuator
F5	30A	Sunroof control unit
F6	20A	Clock, radio, interior lighting, alarm, trailer socket

Standard terminal identification (typical)

15	Ignition switch 'ignition' position
30	Battery +ve
31	Earth
50	Ignition switch 'start' position
85	Relay winding input
86	Relay winding earth
87	Relay output
R	Ignition switch 'accessory' position

Denotes white 7 way connector, terminal no 3.
Dashed outline denotes part of a larger item

Denotes standard terminal identification i.e. battery +ve



Passenger fusebox

Fuse	Rating	Circuit protected
F1	15A	Stop light switch, hazard warning switch, multifunction unit
F2	10A	Multifunction unit, headlight levelling, LH side/tail light, number plate light, rear air cond. switch illumination
F3	10A	Radio
F4	10A	Instrument cluster, RH headlight
F5	10A	LH headlight
F6	20A	Cigar lighter
F7	10A	Airbag control module, instrument cluster
F8	10A	RH side/tail light, multifunction unit, glovebox light switch, headlight levelling, interior illumination
F9	10A	Rear foglight switch
F10	10A	LH headlight
F11	10A	RH headlight, multifunction switch
F12	10A	Multifunction unit, key in switch, shiftlock illumination, CD changer
F13	10A	Multifunction unit, interlock relay 2
F14	10A	Multifunction unit, park/neutral switch (auto.), reversing light switch (manual), instrument cluster, airbag, clock
F15	10A	Ignition load relay, electric window control unit
F16	20A	Front wash/wipe
F17	10A	Starter relay
F18	10A	Rear wash/wipe, gear selector illumination, cruise control switch, mirror control switch

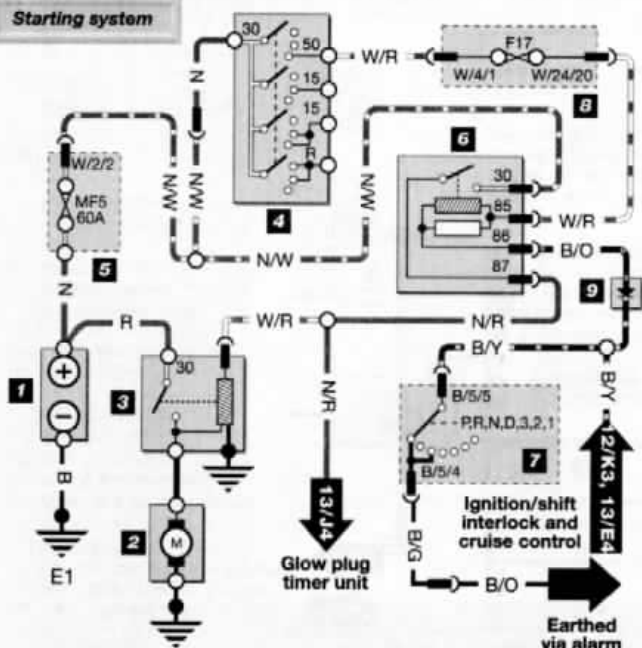
Earth locations

E1	RH front of engine compartment, behind battery
E2	LH front of engine compartment inner wing
E3	RH front of engine compartment, behind battery
E4	Lower RH rear engine compartment
E5	Lower LH front of engine compartment
E6	Lower RH rear engine compartment
E7	Mounted on bonnet
E8	Near starter
E9	LH rear corner of engine
E10	RH side of bulkhead
E11	Behind RH footwell trim panel
E12	Behind LH footwell trim panel
E13	Behind LH side of fascia
E14	Behind LH footwell trim panel
E15	Beneath centre console
E16	LH side of luggage compartment
E17	RH side of luggage compartment
E18	RH side of tailgate

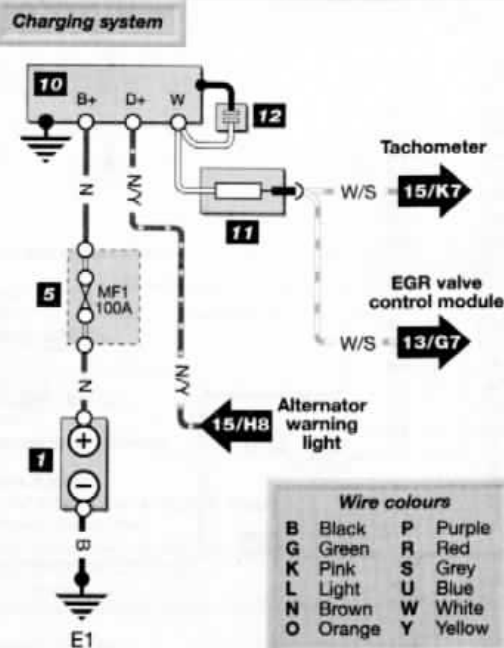
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Diagram 9 : Information for wiring diagrams - 1995 on

Starting system



Charging system



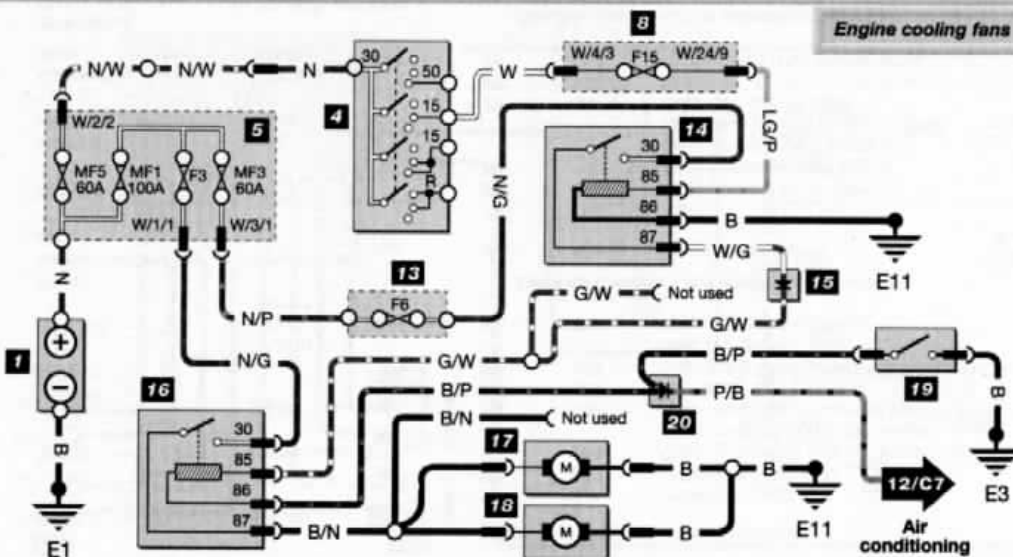
Key to items

- 1 Battery
- 2 Starter motor
- 3 Starter solenoid
- 4 Ignition switch
- 5 Engine fusebox
- 6 Starter relay
- 7 Starter inhibitor switch
- 8 Passenger fusebox
- 9 Starter relay diode
- 10 Alternator
- 11 Phase tap resistor
- 12 Suppressor
- 13 Satellite fusebox 1
- 14 Ignition load relay
- 15 Fan timer diode
- 16 Condenser fan relay
- 17 RH condenser fan
- 18 LH condenser fan
- 19 Condenser fan switch
- 20 Condenser fan control diode 1
- 21 Horn relay
- 22 LH horn
- 23 RH horn
- 24 Rotary coupler (with cruise control)
- 25 Horn switches (with cruise control)
- 27 Steering column brush/slip rings (without cruise control)
- 28 Horn switch (without cruise control)
- 146 Lighting switch (without cruise control)

Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

Engine cooling fans



Horns

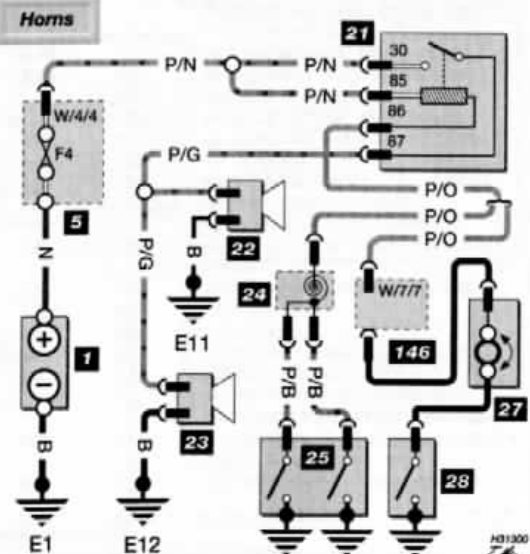


Diagram 10 : Starting, charging, engine cooling fans and horns - 1995 on

Key to items

- 1 Battery
- 4 Ignition switch
- 5 Engine fusebox
- 8 Passenger fusebox
- 13 Satellite fusebox 1
- 14 Ignition load relay
- 32 Front blower motor relay
- 33 Air supply selector switch
- 34 Water valve
- 35 LH maximum cool switch
- 36 RH maximum cool switch
- 37 Ventilation control panel illumination
- 38 Air supply selector diode
- 39 Air recirculation solenoid
- 40 A/C recirculation in-line fuse
- 41 Front blower resistor unit
- 42 Front fan switch
- 43 Front blower motor
- 44 Rear A/C illumination relay
- 45 Rear A/C fan speed relay
- 46 Rear A/C switch amplifier relay
- 47 Rear A/C switch amplifier
- 48 Passenger rear A/C switch
- 49 Main rear A/C switch
- 50 Rear blower motor relay
- 51 Rear blower motor
- 52 Rear blower resistor unit
- 53 Passenger rear fan speed switch
- 54 Rear A/C switch amplifier in-line fuse

Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

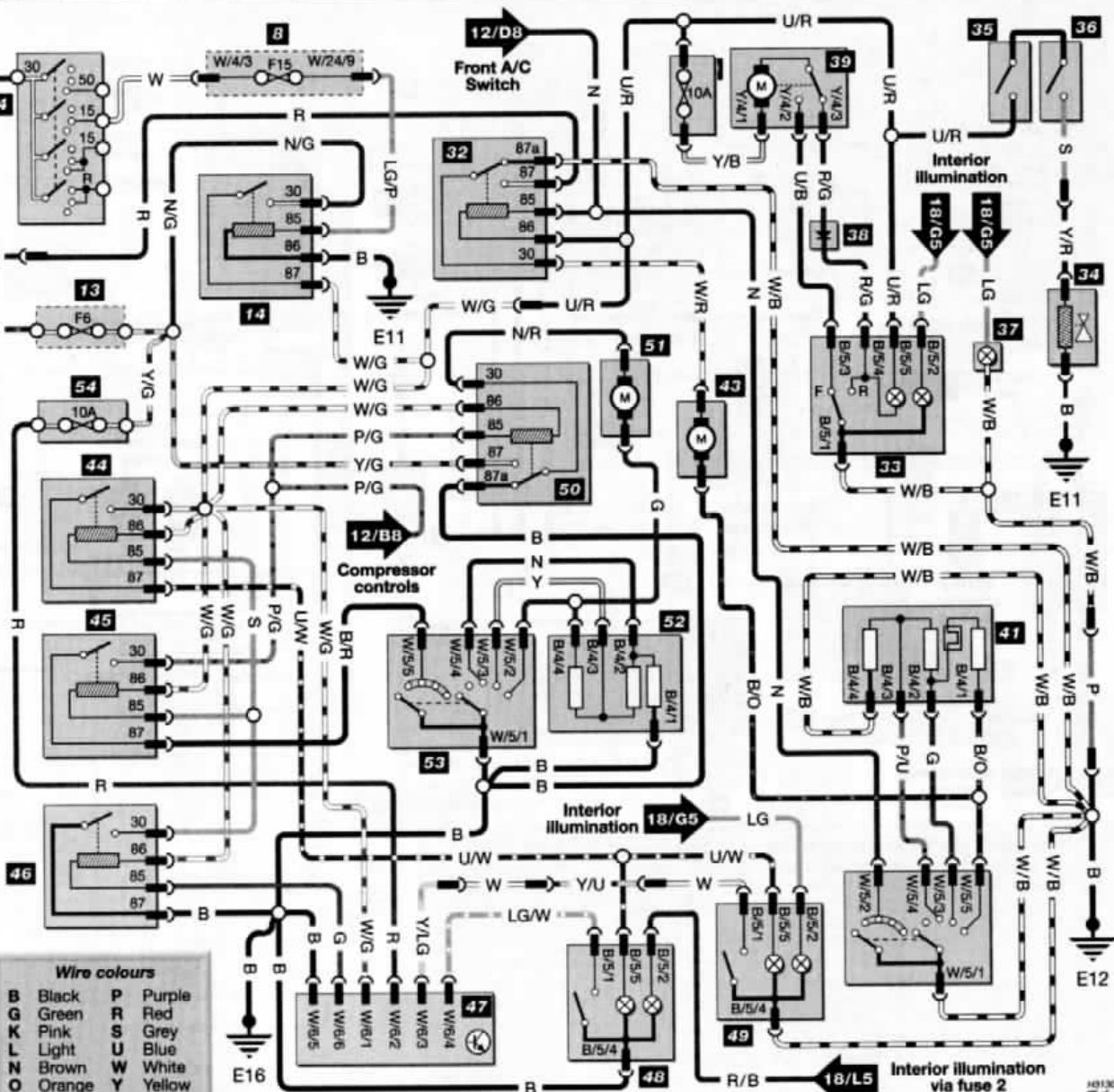
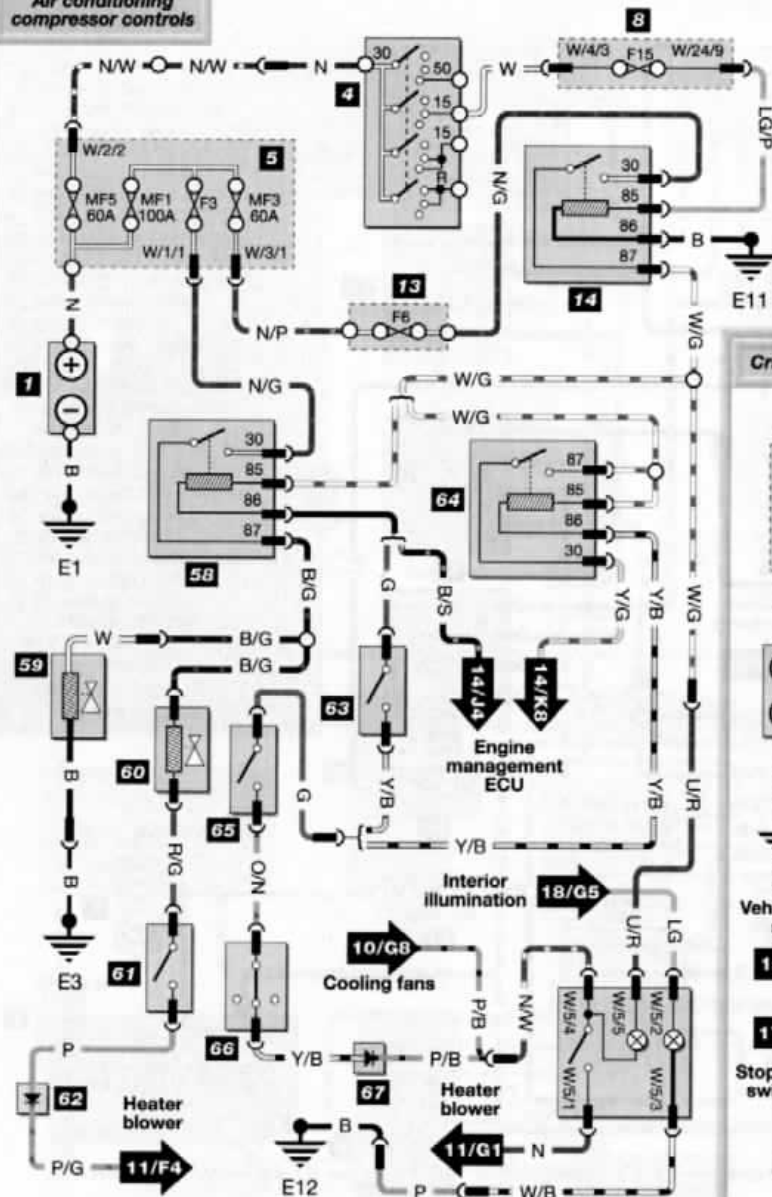


Diagram 11 : Air conditioning and blower controls - 1995 on

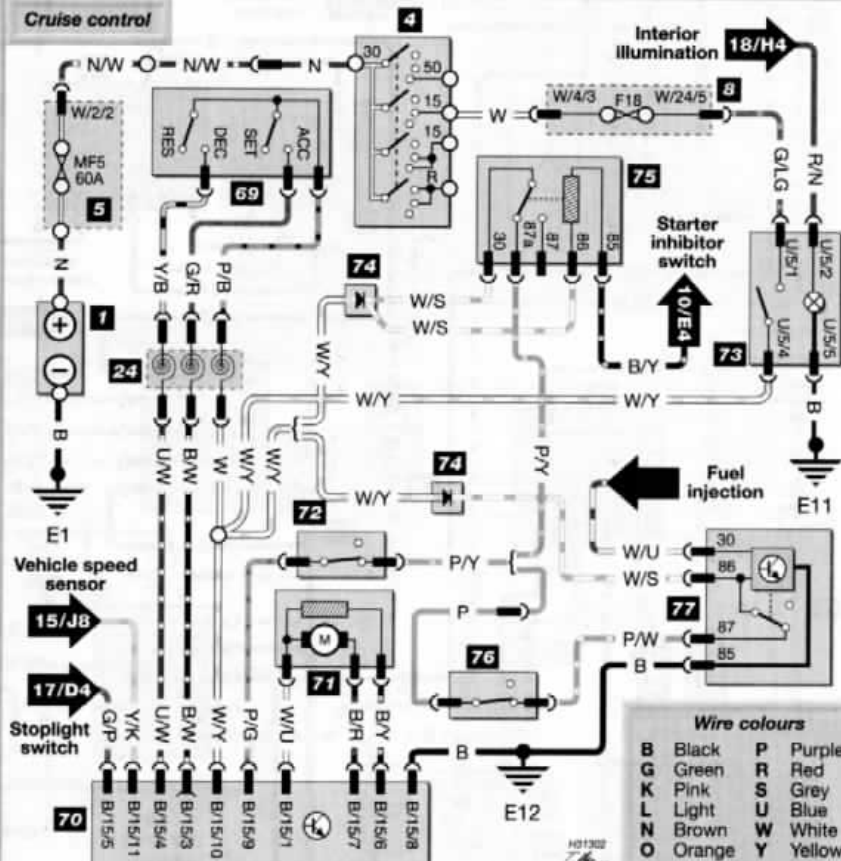
Air conditioning compressor controls



Key to items

- | | |
|--|---|
| 1 Battery | 64 A/C logic relay (with electronic diesel control) |
| 4 Ignition switch | 65 Front A/C evaporator temp. switch |
| 5 Engine fusebox | 66 A/C dual pressure switch |
| 8 Passenger fusebox | 67 Condenser fan control diode 2 |
| 13 Satellite fusebox 1 | 68 Front A/C switch |
| 14 Ignition load relay | 69 Steering wheel switches |
| 24 Rotary coupler (with cruise control) | 70 Cruise control ECU |
| 58 Compressor clutch relay | 71 Vacuum pump |
| 59 Compressor clutch | 72 Brake switch vent valve |
| 60 Rear A/C water valve | 73 Cruise control switch |
| 61 Rear A/C evaporator temp. switch | 74 Cruise control diode |
| 62 Rear A/C water valve diode | 75 Cruise control lock-out relay (auto.trans.) |
| 63 Compressor cut-out switch (without electronic diesel control) | 76 Clutch switch (manual transmission) |
| | 77 Speed trip module (manual transmission) |

Cruise control



Wire colours

B Black	P Purple
G Green	R Red
L Pink	S Grey
K Light	U Blue
N Brown	W White
O Orange	Y Yellow

Diagram 12 : Air conditioning compressor controls and cruise control - 1995 on

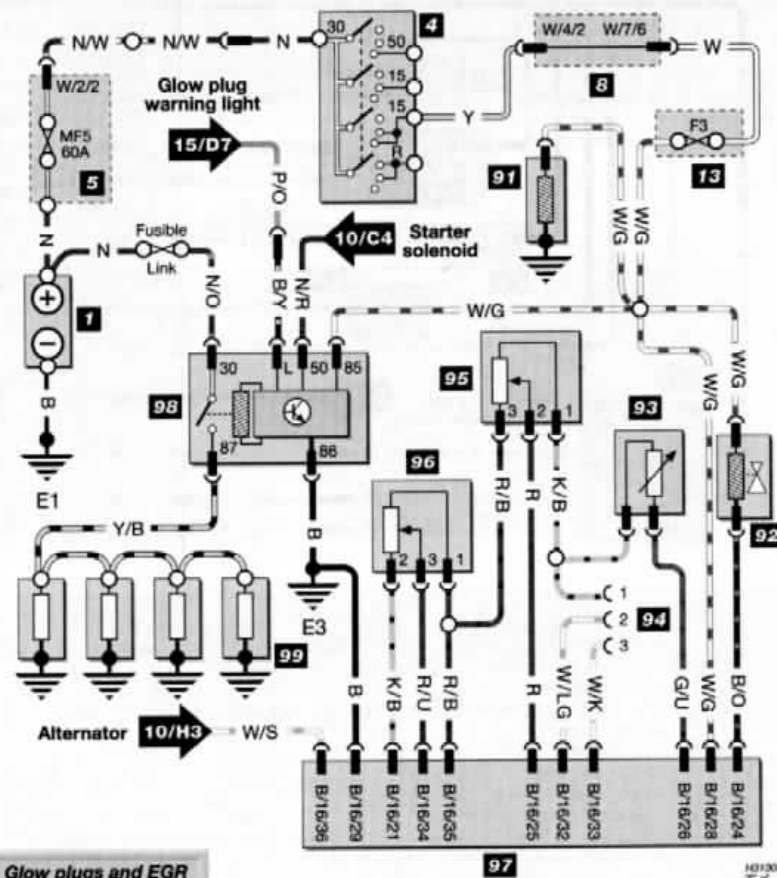
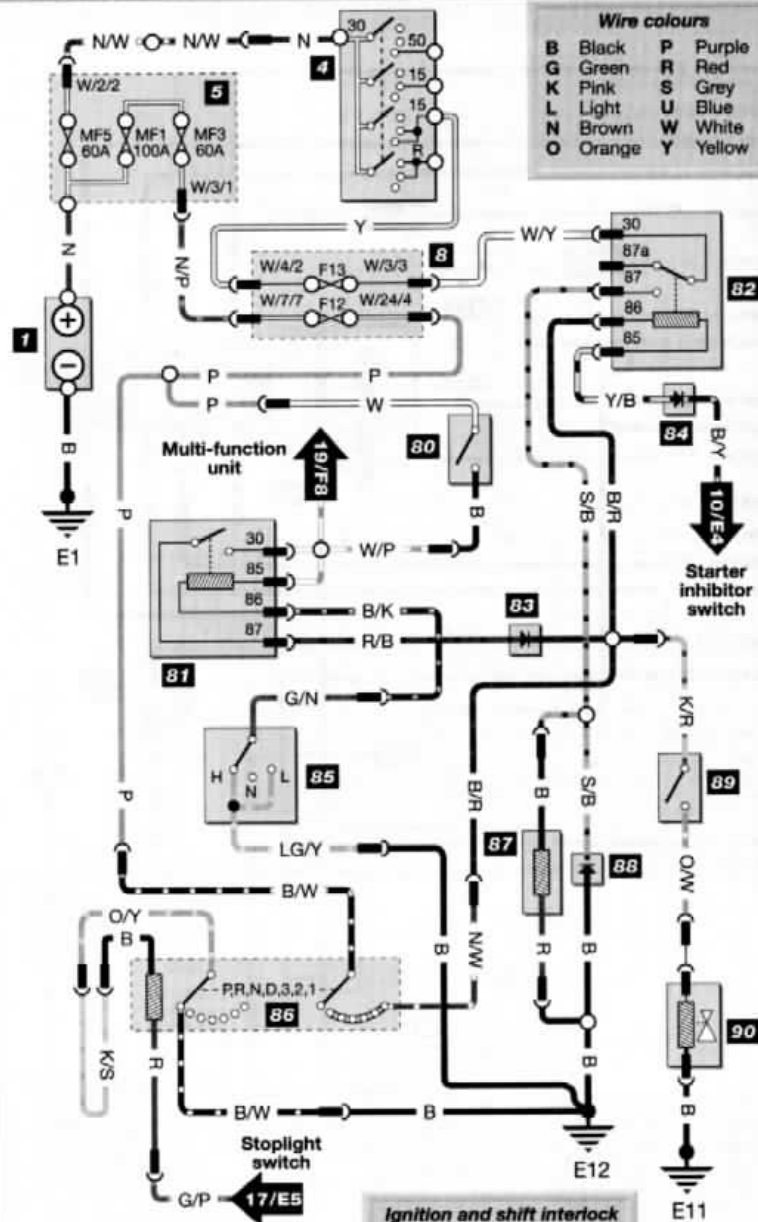


Diagram 13 : Ignition and shift interlock, glow plugs and exhaust gas recirculation - 1995 on

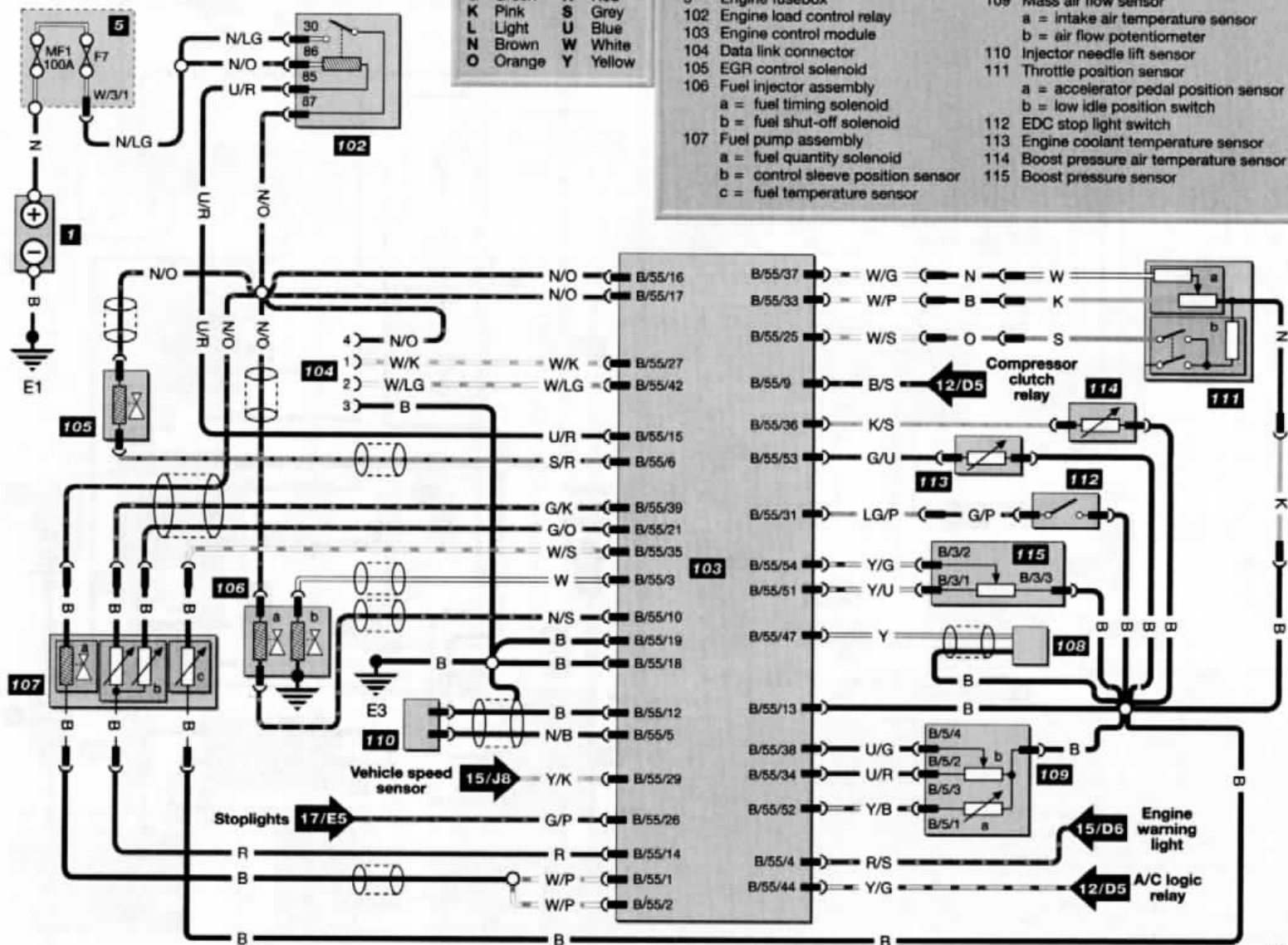
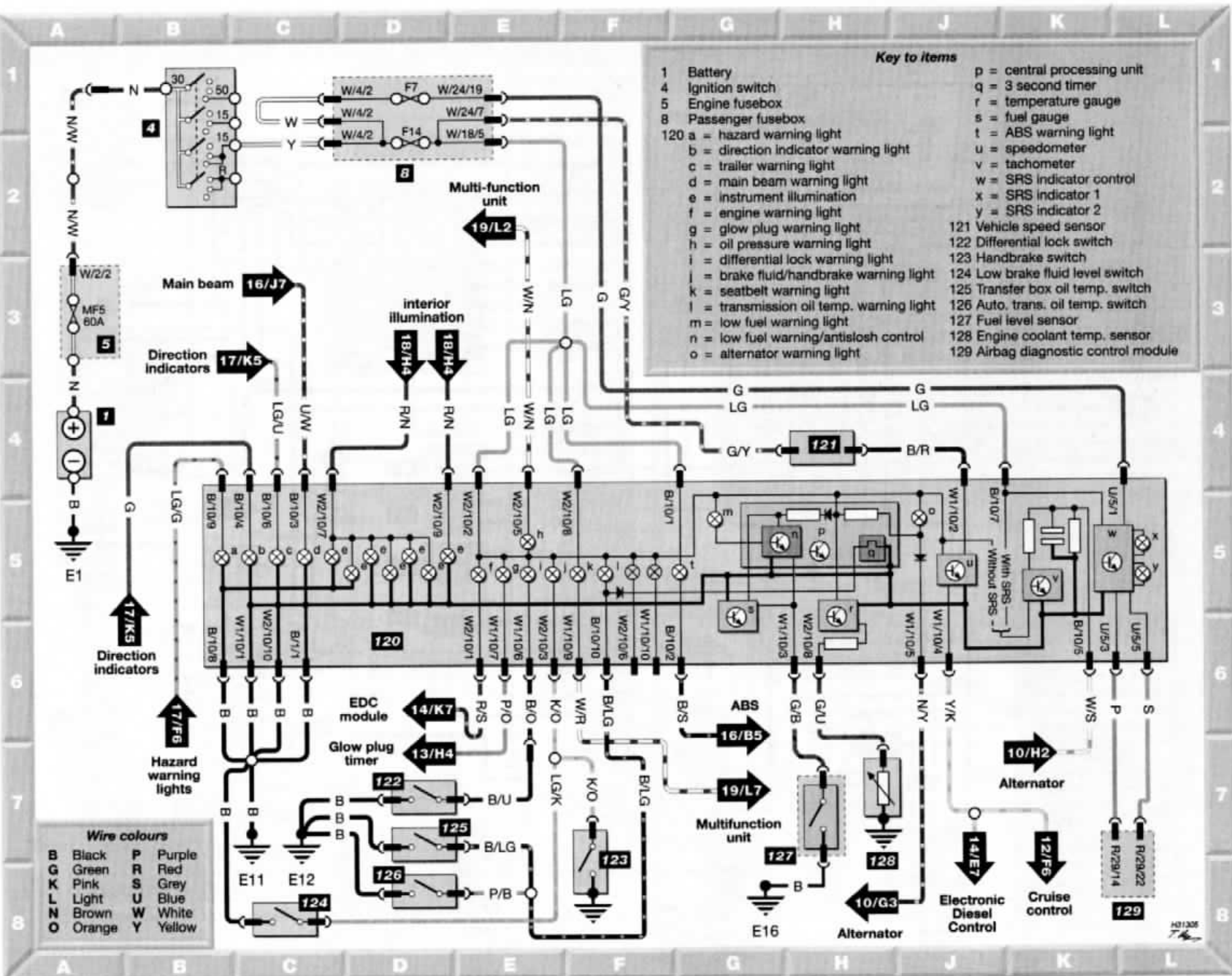
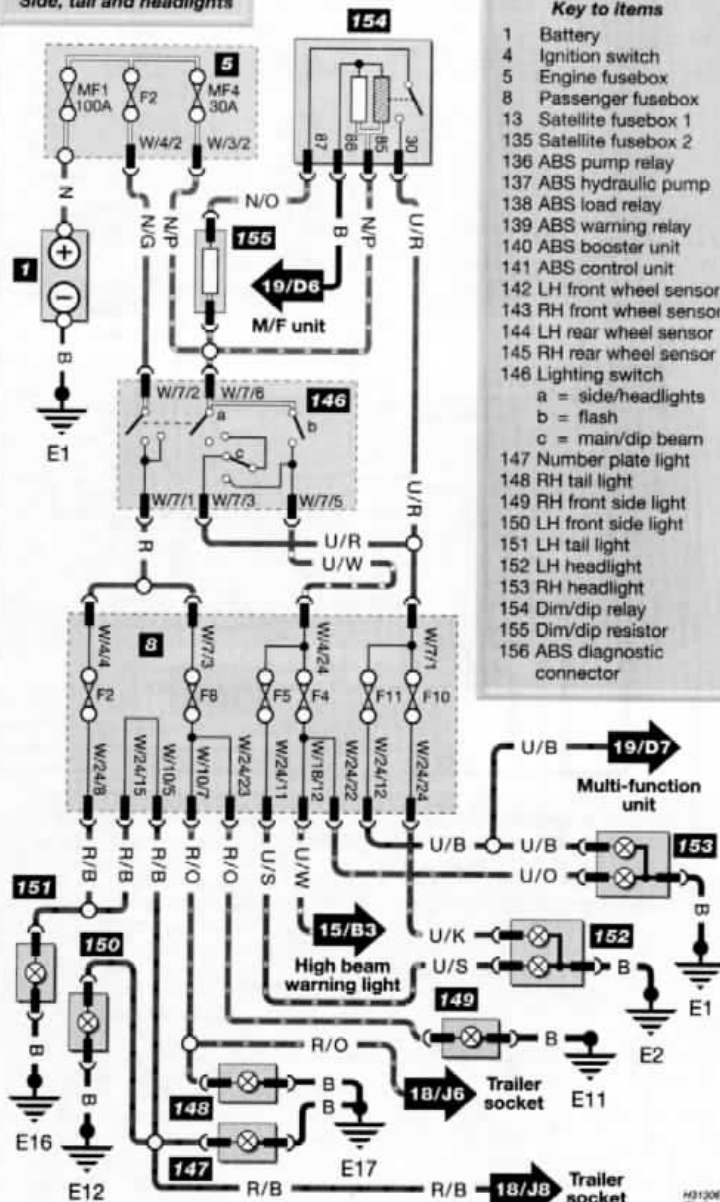


Diagram 14 : Electronic Diesel control - 1995 on



Side, tail and headlights

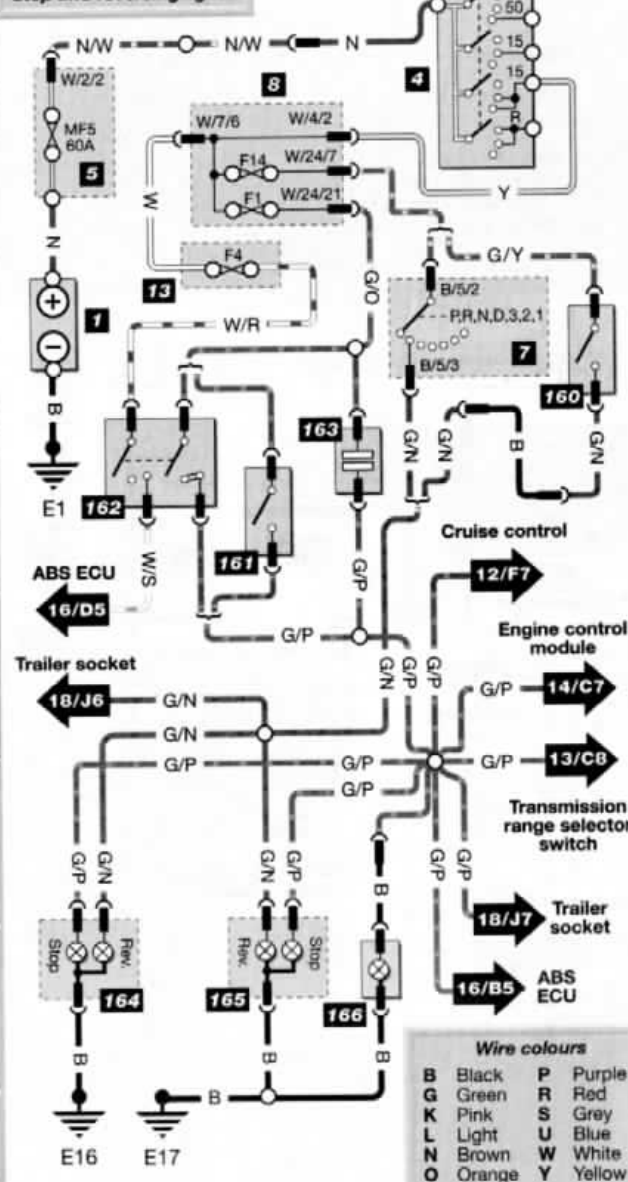


Key to items

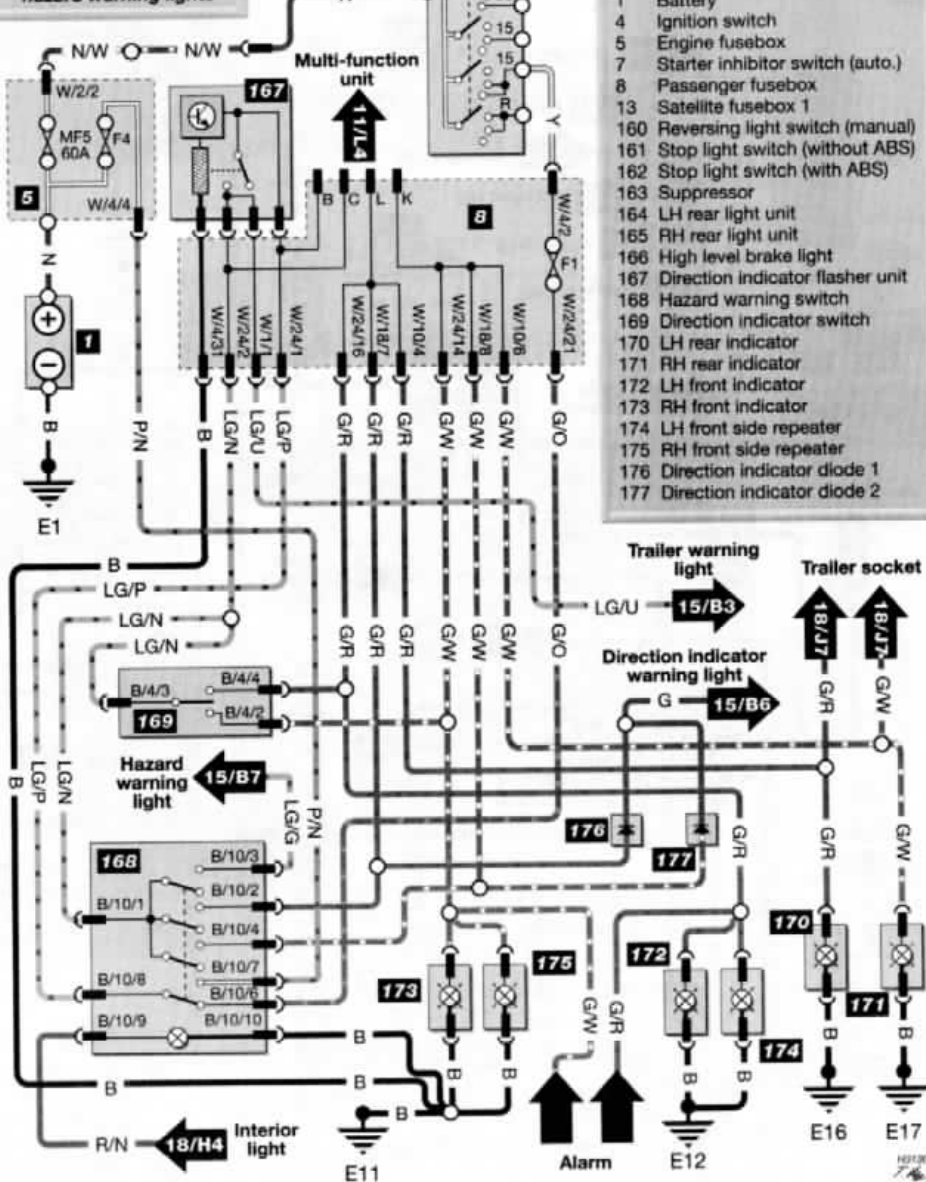
- 1 Battery
- 4 Ignition switch
- 5 Engine fusebox
- 8 Passenger fusebox
- 13 Satellite fusebox 1
- 135 Satellite fusebox 2
- 136 ABS pump relay
- 137 ABS hydraulic pump
- 138 ABS load relay
- 139 ABS warning relay
- 140 ABS booster unit
- 141 ABS control unit
- 142 LH front wheel sensor
- 143 RH front wheel sensor
- 144 LH rear wheel sensor
- 145 RH rear wheel sensor
- 146 Lighting switch
 - a = side/headlights
 - b = flash
 - c = main/dip beam
- 147 Number plate light
- 148 RH tail light
- 149 RH front side light
- 150 LH front side light
- 151 LH tail light
- 152 LH headlight
- 153 RH headlight
- 154 Dim/dip relay
- 155 Dim/dip resistor
- 156 ABS diagnostic connector

Diagram 16 : Anti-lock brakes, side, tail and headlights - 1995 on

Stop and reversing lights



Direction indicators and hazard warning lights

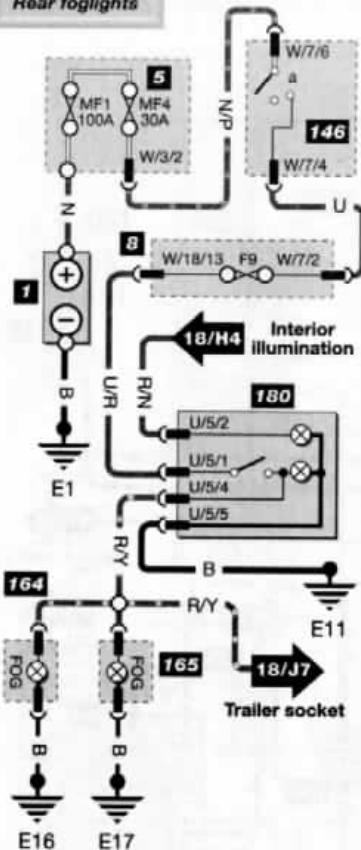


Key to items

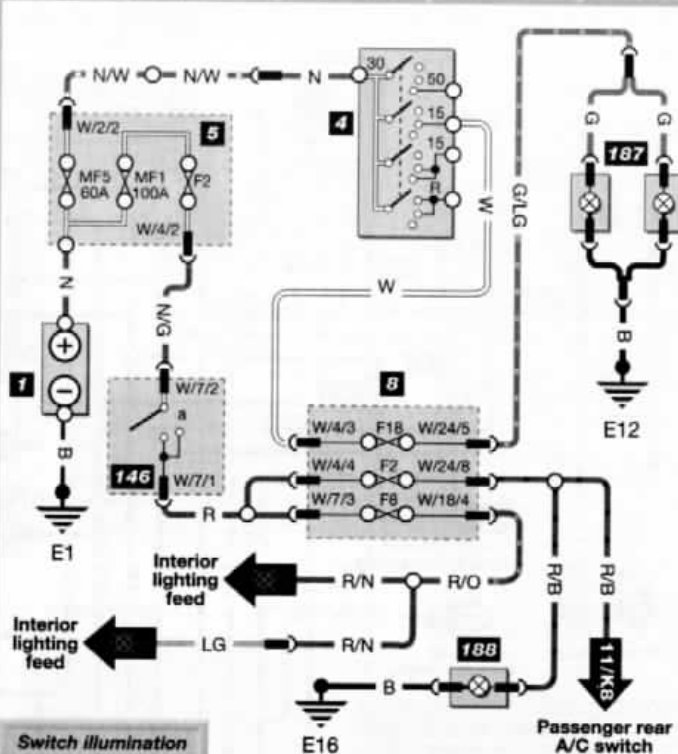
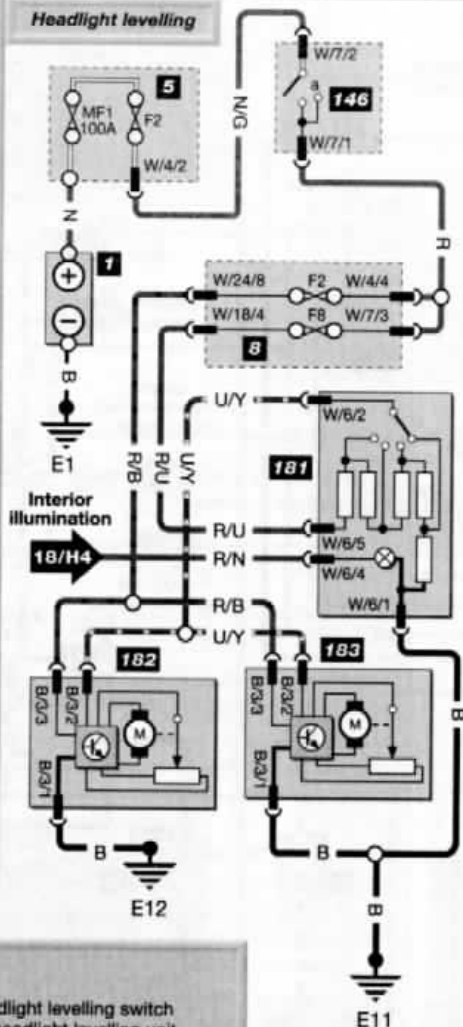
- Battery
- Ignition switch
- Engine fusebox
- Starter inhibitor switch (auto.)
- Passenger fusebox
- Satellite fusebox 1
- Reversing light switch (manual)
- Stop light switch (without ABS)
- Stop light switch (with ABS)
- Suppressor
- LH rear light unit
- RH rear light unit
- High level brake light
- Direction indicator flasher unit
- Hazard warning switch
- Direction indicator switch
- LH rear indicator
- RH rear indicator
- LH front indicator
- RH front indicator
- LH front side repeater
- RH front side repeater
- Direction indicator diode 1
- Direction indicator diode 2

Diagram 17 : Stop, reversing and direction indicator lights - 1995 on

Rear foglights



Headlight levelling



Key to items

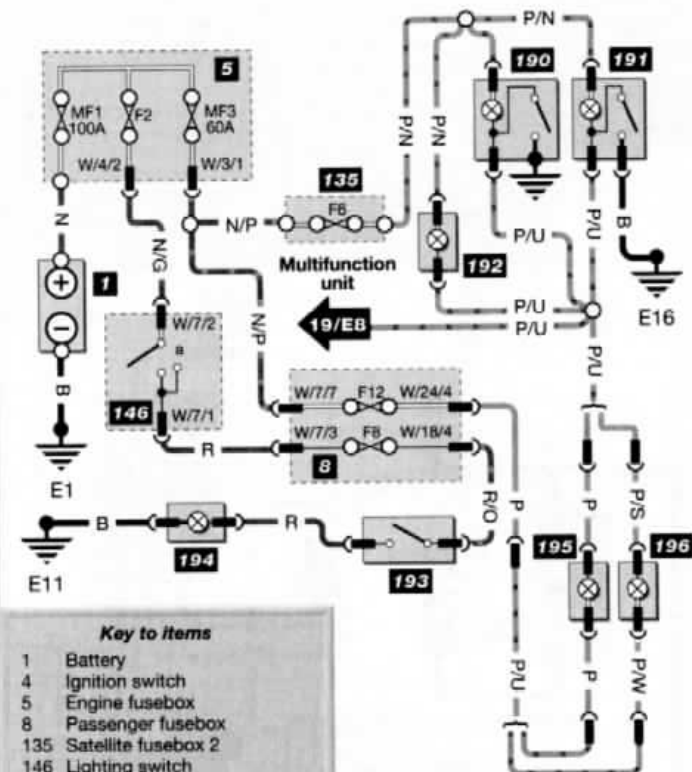
- | | |
|--------------------------|---|
| 1 Battery | 181 Headlight levelling switch |
| 4 Ignition switch | 182 LH headlight levelling unit |
| 5 Engine fusebox | 183 RH headlight levelling unit |
| 8 Passenger fusebox | 184 Seven pin trailer socket |
| 135 Satellite fusebox 2 | 185 Single pin trailer socket A |
| 146 Lighting switch | 186 Single pin trailer socket B |
| a = side/headlights | 187 Auto. transmission gear selector illumination |
| 164 LH rear light unit | 188 A/C switch illumination |
| 165 RH rear light unit | |
| 180 Rear foglight switch | |

Wire colours

- | | |
|----------|----------|
| B Black | P Purple |
| G Green | R Red |
| K Pink | S Grey |
| L Light | U Blue |
| N Brown | W White |
| O Orange | Y Yellow |

Diagram 18 : Rear fog lights, headlight levelling, trailer socket and switch illumination - 1995 on

Interior illumination



Multi-function unit

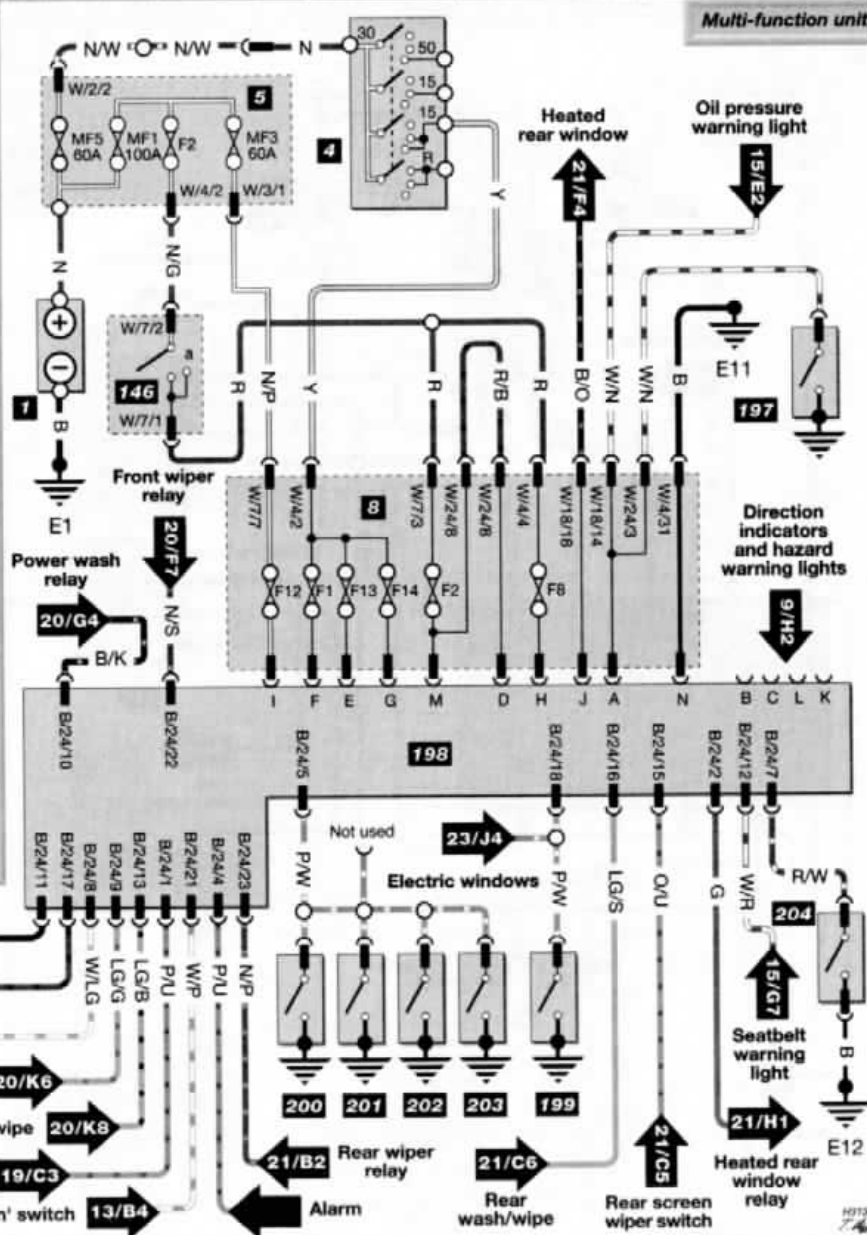
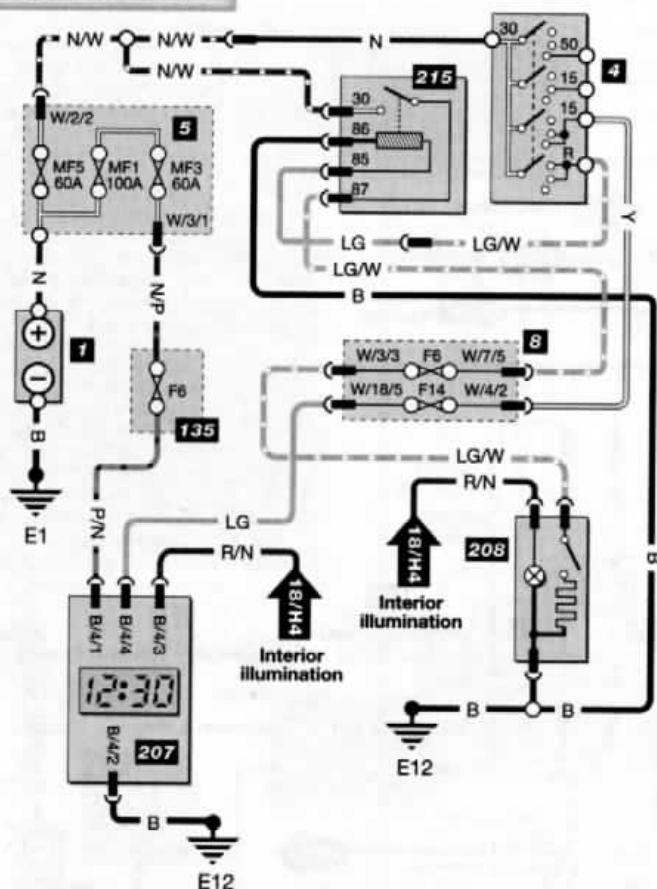


Diagram 19 : Interior illumination and multi-function unit - 1995 on

Cigar lighter and clock



Front wash/wipe

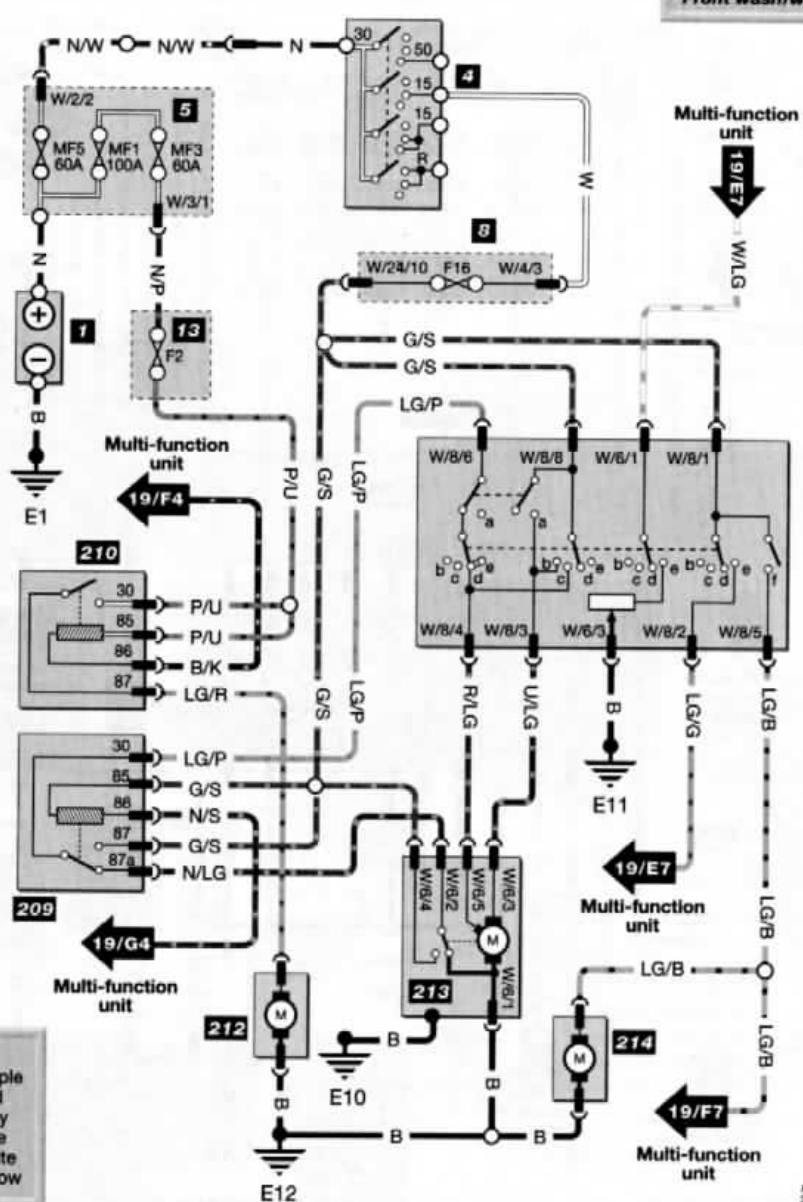
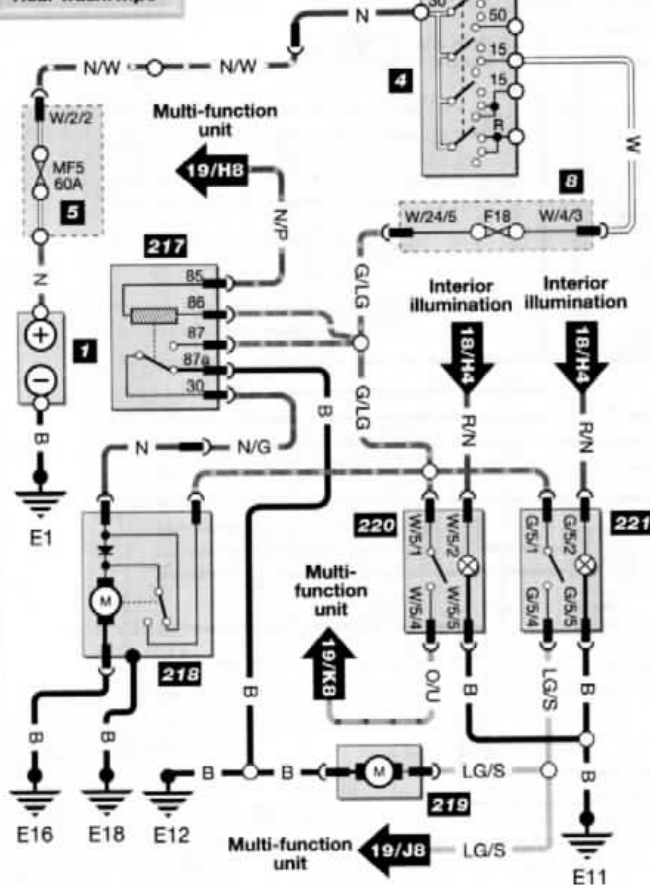


Diagram 20 : Clock, cigar lighter and front wash/wipe - 1995 on

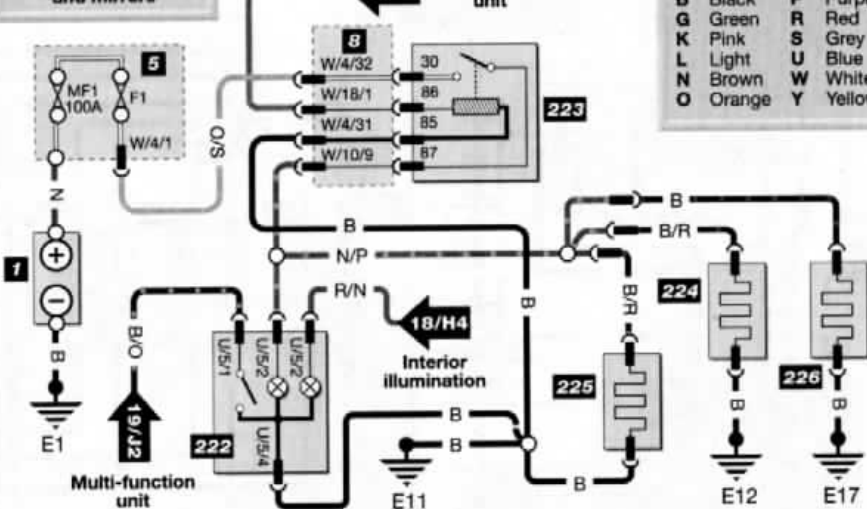
Rear wash/wipe



Key to items

- | | |
|-------------------------------|-------------------------------------|
| 1 Battery | 223 Heated rear window relay |
| 4 Ignition switch | 224 LH heated mirror |
| 5 Engine fusebox | 225 RH heated mirror |
| 8 Passenger fusebox | 226 Heated rear window |
| 135 Satellite fusebox 2 | 227 Sunroof control unit |
| 217 Rear wiper relay | 228 Front sunroof motor |
| 218 Rear wiper motor | 229 Rear sunroof motor |
| 219 Rear screen washer pump | 230 Front sunroof switch |
| 220 Rear screen wiper switch | 231 Rear sunroof switch |
| 221 Rear screen washer switch | 232 Passenger's rear sunroof switch |
| 222 Heated rear window switch | 233 Rear sunroof lockout switch |

Heated rear window and mirrors



Wire colours

- | | |
|----------|----------|
| B Black | P Purple |
| G Green | R Red |
| K Pink | S Grey |
| L Light | U Blue |
| N Brown | W White |
| O Orange | Y Yellow |

Electric sunroof

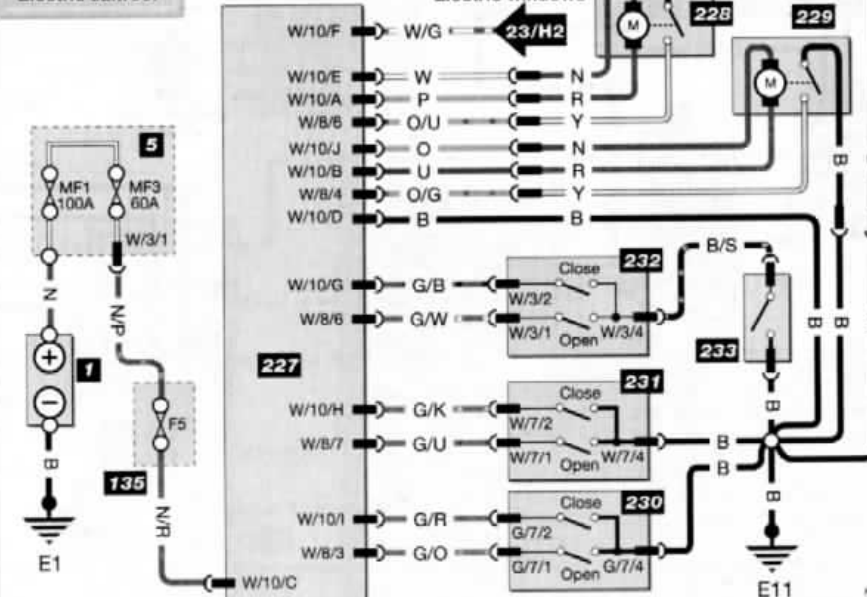


Diagram 21 : Rear wash/wipe, heated rear window/mirrors and electric sunroof

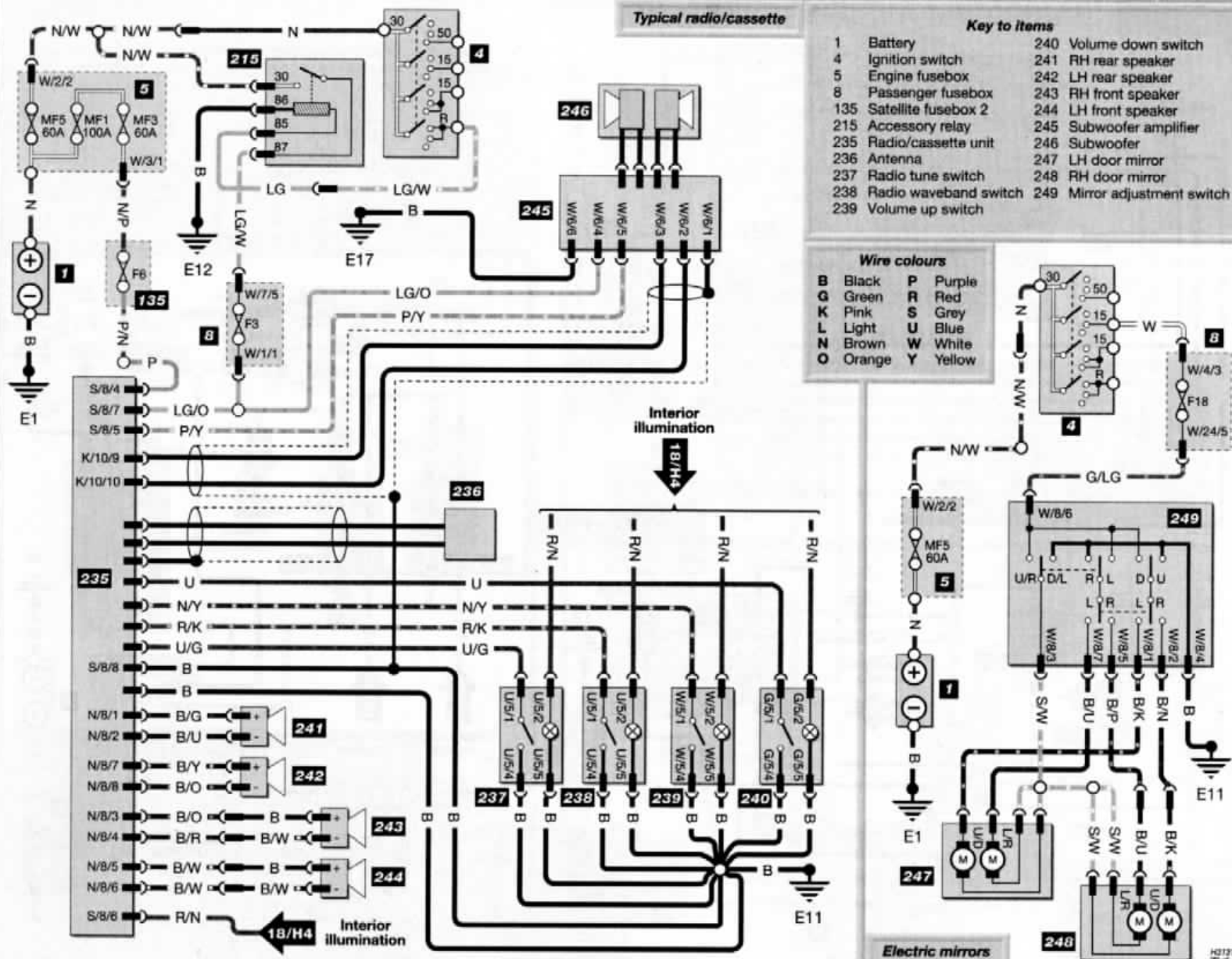
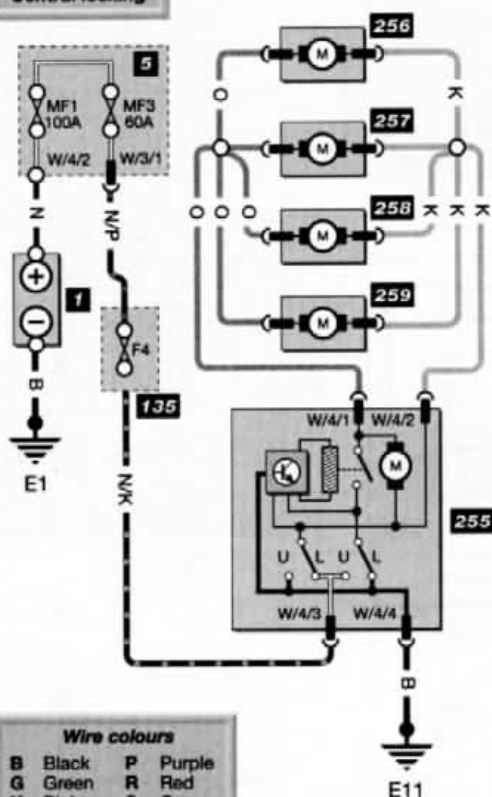


Diagram 22 : Radio/cassette and electric mirrors - 1995 on

Central locking



Wire colours

B	Black	P	Purple
G	Green	R	Red
K	Pink	S	Grey
L	Light	U	Blue
N	Brown	W	White
O	Orange	Y	Yellow

Key to items

1	Battery	261	LH front window motor
4	Ignition switch	262	RH front window motor
5	Engine fusebox	264	LH front switch
8	Passenger fusebox	265	RH front switch
135	Satellite fusebox 2	266	LH rear console switch
255	RH front door lock	267	RH rear console switch
256	Tailgate lock	268	LH rear door switch
257	RH front door lock	269	RH rear door switch
258	LH rear door lock	270	LH rear window motor
259	LH front door lock	271	RH rear window motor
260	Electric window ECU	272	Rear isolator switch

Electric windows

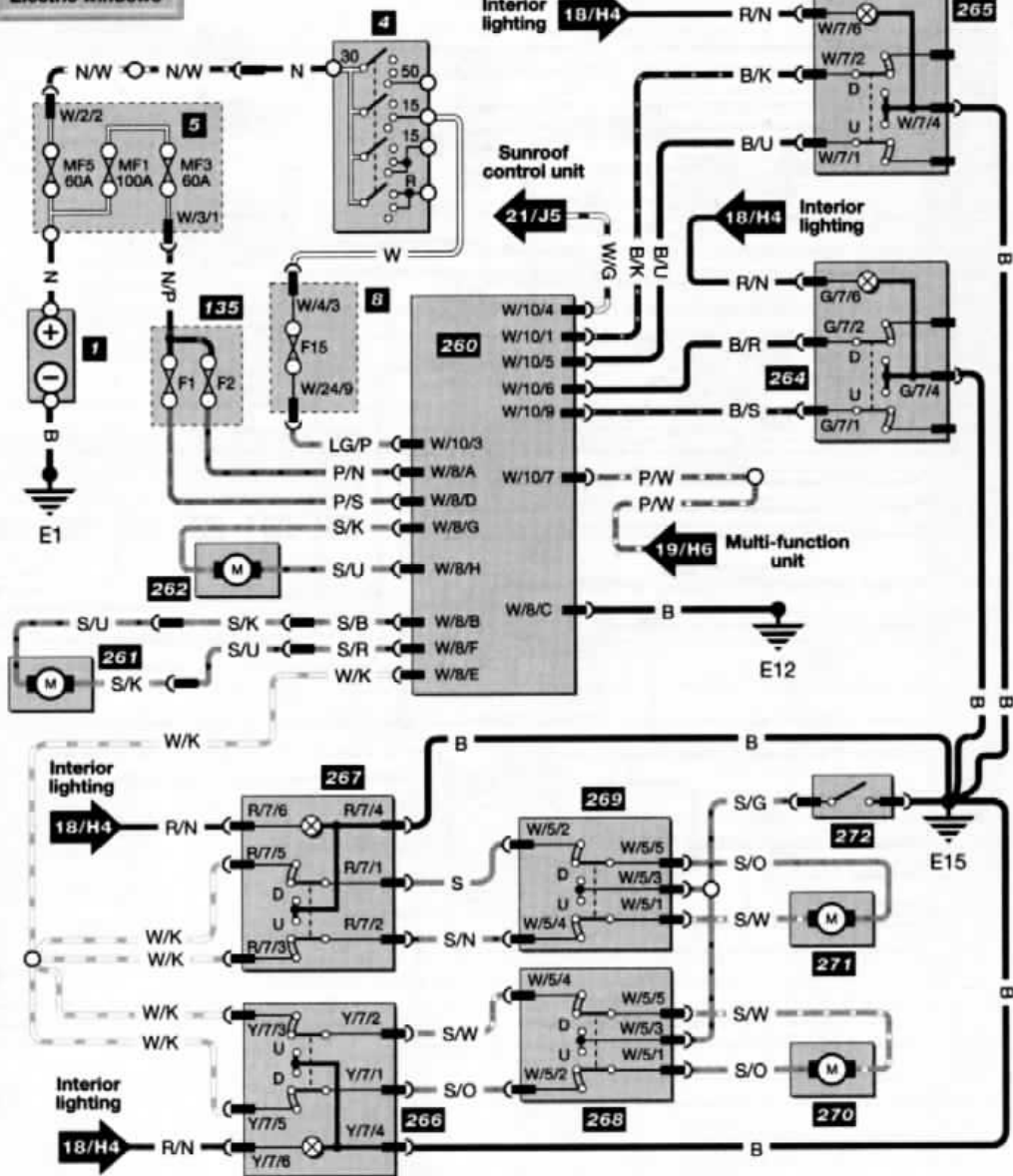
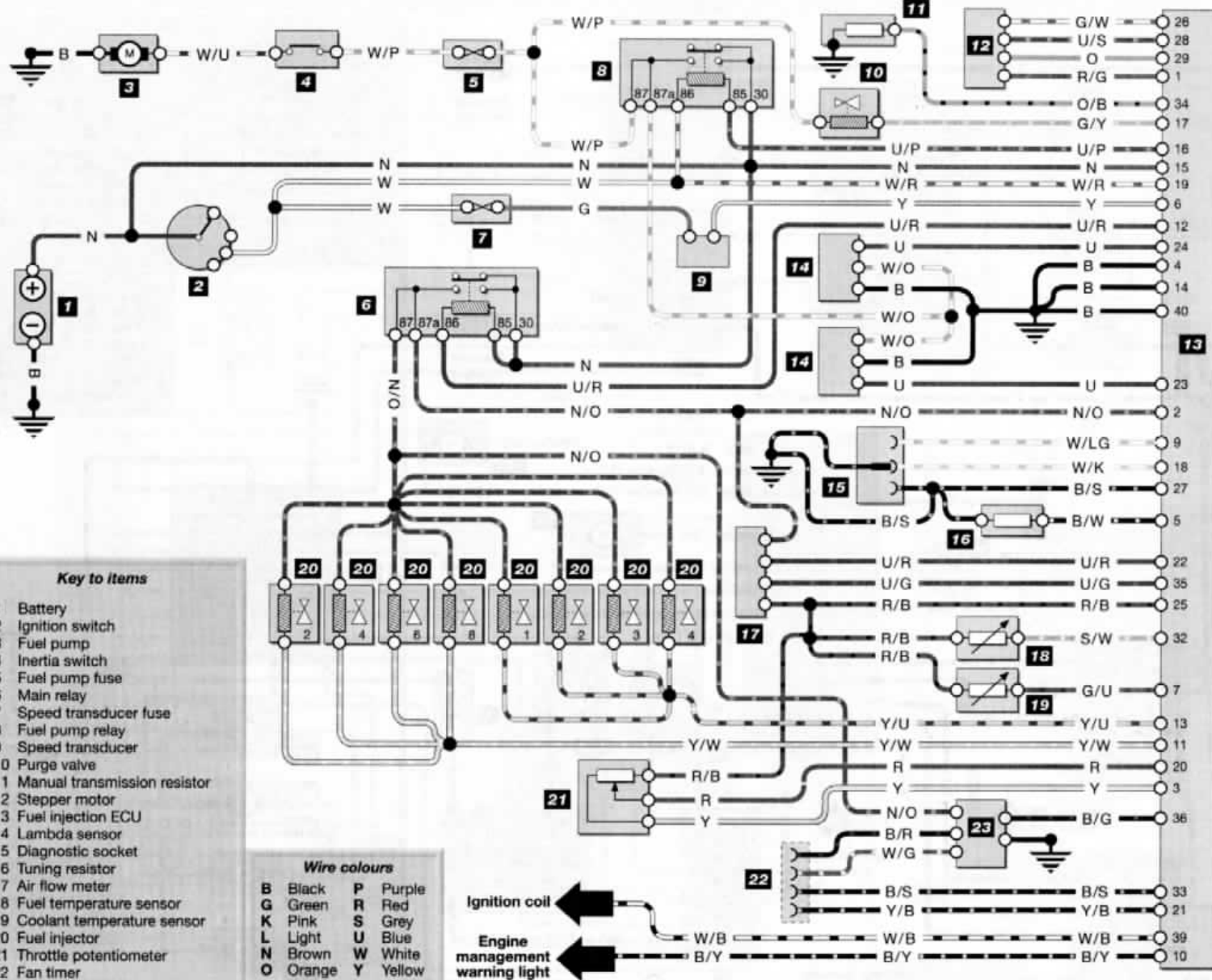


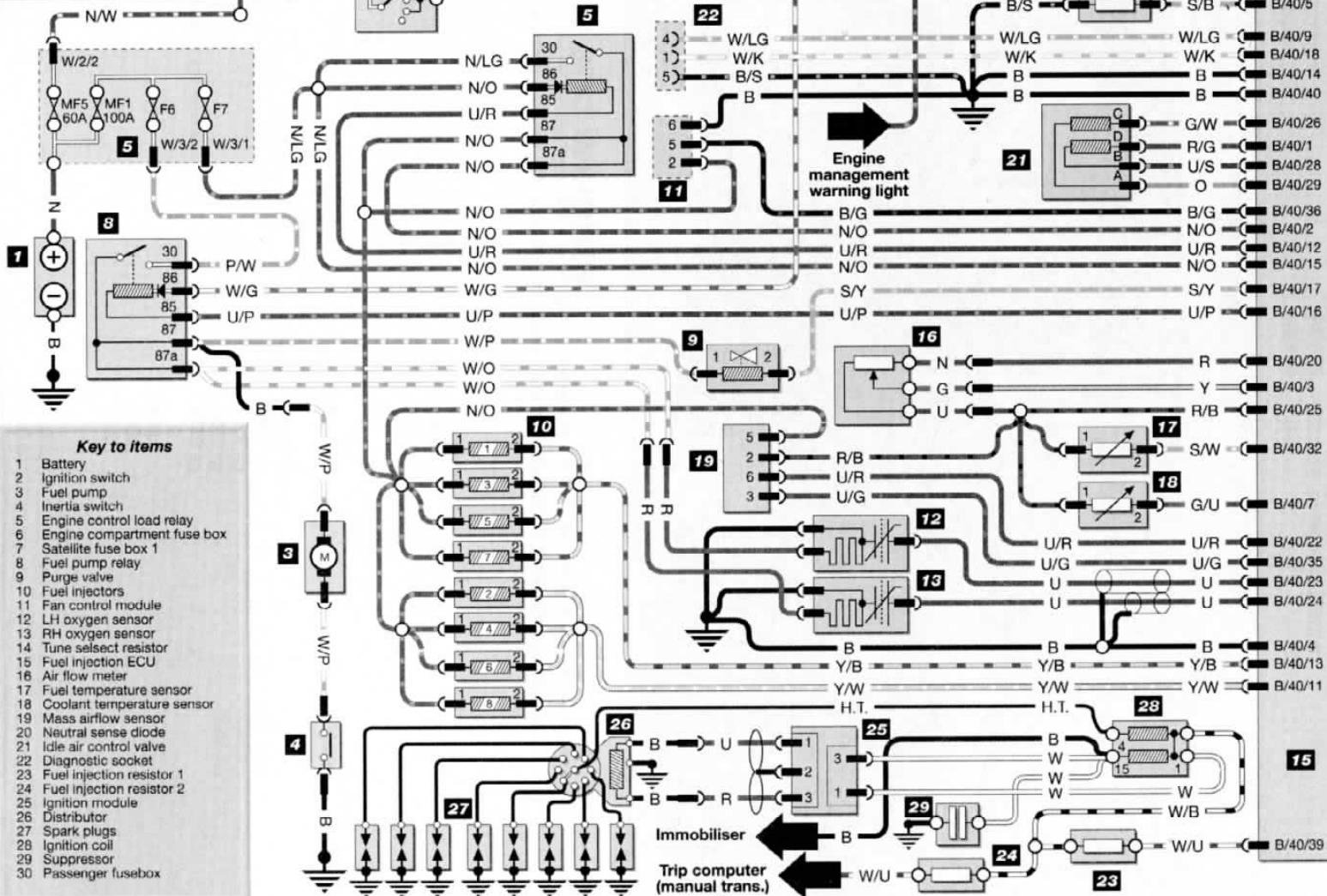
Diagram 23 : Central locking and electric windows - 1995 on



Supplementary diagram for fuel injection - pre '95

Wire colours

B Black	P Purple
G Green	R Red
K Pink	S Grey
L Light	U Blue
N Brown	W White
O Orange	Y Yellow



Supplementary diagram for fuel injection - 1995 on