

# **BMW E39 1996 to 2003 wiring diagrams**

## **Key to circuits**

***Diagram 1:*** Information for wiring diagrams.

***Diagram 2:*** Starting, charging, engine cooling fan, horn, heater blower.

***Diagram 3:*** Headlight washer & heated washer jets, front wash/wipe, cigar lighter & charging socket.

***Diagram 4:*** Rear wash/wipe, audio system, Headlight washer & intensive washing system.

***Diagram 5:*** Heated rear window, electric mirrors, electric windows.

***Diagram 6:*** Central locking.

***Diagram 7:*** Stop lights, headlights, side, tail & no plate lights, reversing lights.

***Diagram 8:*** Direction indicators & hazard warning lights, foglights.

***Diagram 9:*** Headlight levelling, interior lighting.

## Key to symbols

Bulb		Item no.	
Flashing bulb		Single speed pump/motor	
Switch		Twin speed motor	
Multiple contact switch (ganged)		Gauge/meter	
Fuse/fusible link		Earth point	
Resistor		Diode	
Variable resistor		Light emitting diode (LED)	
Variable resistor		Solenoid actuator	
Wire splice, unspecified connector or soldered joint		Heating element	
Connecting wires		Plug and socket connection	
Wire colour (green with yellow tracer)			
Screened cable			
Dashed outline denotes part of a larger item, containing in this case an electronic or solid state device.			
30 DIN standard termination			
b/1 connector B, pin 1			

## Typical luggage compartment fusebox

Fuse	Rating	Circuit protected
F46	15A	Independent ventilation/heater
F47	15A	Independent heater
F48	5A	Alarm
F49	30A	Air suspension
F50	7.5A	Air suspension
F51	-	Not fitted
F52	30A	Cigar lighter
F53	7.5A	Central locking
F54	15A	Fuel pump
F55	20A	Rear wash/wipe
F56	30A	Rear wash/wipe, CD changer, navigation system, on-board monitor, radio
F57	10A	Telephone
F58	10A	Navigation system, on-board monitor, radio, telephone
F59	-	Not fitted
F60	15A	Electronic damper control
F61	-	Not fitted
F62	-	Not fitted
F63	-	Not fitted
F64	-	Not fitted
F65	-	Not fitted
F66	40A	Heated rear window

46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66

## Typical passenger compartment fusebox

Fuse	Rating	Circuit protected
F1	30A	Windscreen wiper
F2	30A	Windscreen washer, headlight washer
F3	15A	Horn
F4	20A	Passenger compartment lighting, luggage compartment lighting, windscreen washer
F5	20A	Sunroof
F6	30A	Electric windows, central locking, electric mirrors
F7	20A	Engine cooling fan
F8	25A	Automatic stability control
F9	15A	Air conditioning, heated washer jets
F10	30A	Passenger seat adjustment
F11	7.5A	Servotronic
F12	5A	Immobilizer
F13	30A	Steering column adjustment, driver's seat adjustment
F14	5A	Engine control
F15	7.5A	Engine control, diagnostic connector
F16	5A	Lighting module
F17	10A	Fuel pump, ABS, automatic stability control
F18	5A	Instrument cluster
F19	-	Not fitted
F20	7.5A	Heated rear window, heater, air conditioning, engine cooling fan, tyre pressure control
F21	5A	Anti-glare interior mirror, driver's seat adjustment, garage door opener, thermal sensor, parking distance control
F22	30A	Engine cooling fan
F23	10A	Heater, independent heater
F24	5A	Instrument cluster, shift gate illumination, tyre pressure control
F25	7.5A	Radio, multi-information display
F26	5A	Windscreen wiper
F27	30A	Central locking, electric windows
F28	30A	Air conditioning, heater blower
F29	30A	Electric mirrors, electric windows, central locking
F30	25A	ABS
F31	10A	ABS automatic stability control, fuel pump,
F32	15A	Heated seats
F33	-	Not fitted
F34	10A	Heated steering wheel
F35	-	Not fitted
F36	-	Not fitted
F37	5A	Immobilizer
F38	5A	Horn, shift gate illumination, diagnostic connector
F39	7.5A	Charging socket, courtesy mirror illumination
F40	5A	Airbag, instrument cluster
F41	5A	Stop light, lighting module, speed control
F42	5A	Airbag
F43	5A	Radio, telephone, on board monitor
F44	5A	Multifunction steering wheel, multi-information display, radio, telephone
F45	7.5A	Roller sun blind
F75	50A	Engine cooling fan
F76	40A	Heater blower

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 75 76  
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

1	Battery	11	Fusible link
2	Ignition switch	12	Horn relay
3	Starter motor	13	LH horn
4	Alternator	14	RH horn
5	Passenger compartment fusebox	15	Horn switch
6	Engine cooling fan stage 1 relay	16	Steering wheel clock spring
7	Engine cooling fan stage 2 relay	17	Heater blower relay
8	Engine cooling fan stage 3 relay	18	Output amplifier
9	Engine cooling fan motor	19	Heater blower motor
10	Dual temperature switch		

## H33054

Wiring diagram for the immobilizer system. The diagram shows the connection of the immobilizer unit to the instrument cluster, ignition feed, ABS/ASC control module, and alternator warning light. The immobilizer unit has terminals for power (+), ground (-), and a switch (Sw). The instrument cluster has terminals for power (30), ground (50), and a 30h terminal. The ignition feed has a 15 terminal and a fuse (F 15). The ABS/ASC control module has a 5 terminal. The alternator warning light has a B+ terminal and a 3 terminal. The diagram is divided into four numbered sections: 1 (Immobilizer), 2 (Instrument cluster), 3 (Ignition feed), and 4 (ABS/ASC control module).

## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

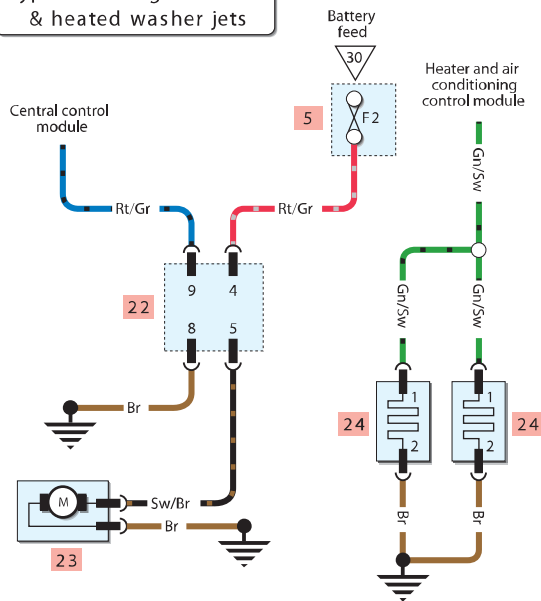
## Key to items

1	Battery	28	Cigar lighter relay
2	Ignition switch	29	General control module
5	Passenger compartment fusebox	30	Wiper relay 1
11	Fusible link	31	Wiper relay 2
22	Headlight washer module	32	Front wiper motor
23	Headlight washer pump	33	Wash/wipe switch
24	Windscreen washer jet heater	34	Washer pump
25	Luggage compartment fusebox		
26	Front cigar lighter		
27	Charging socket		

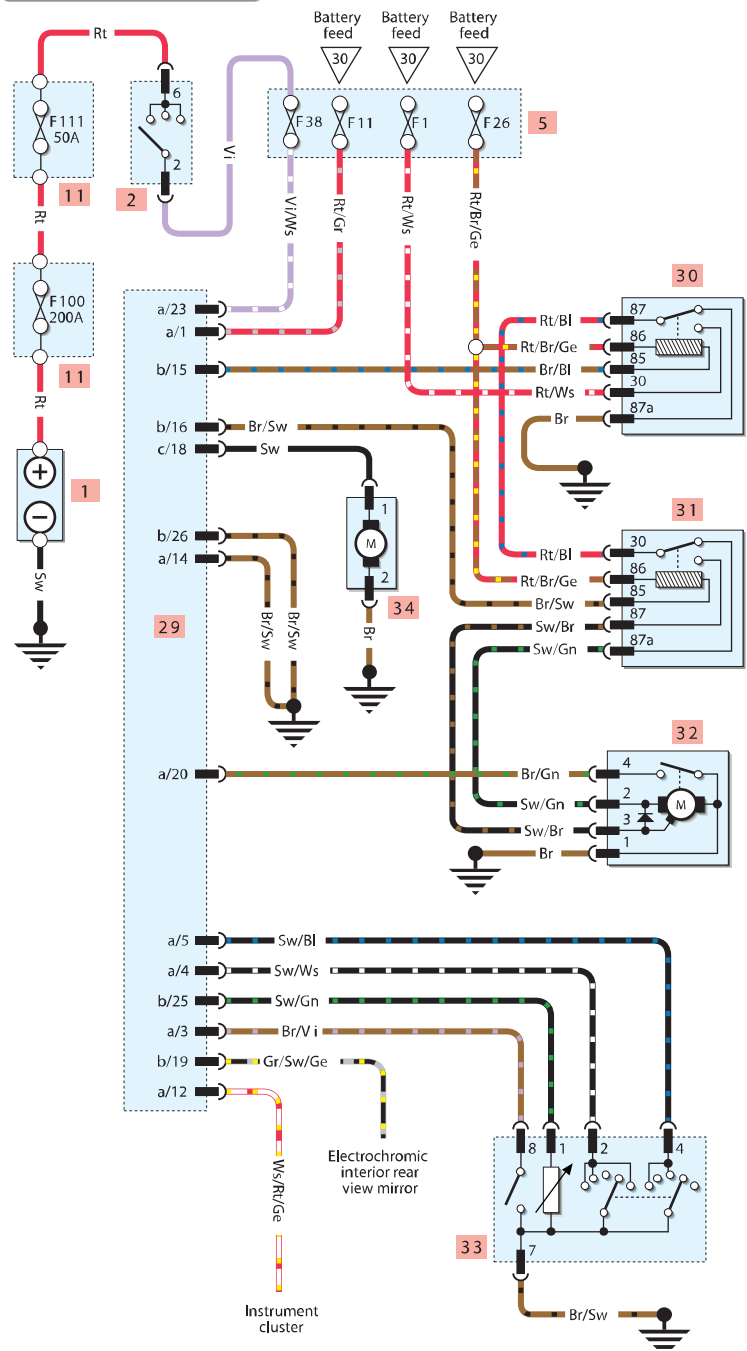
Diagram 3

H33055

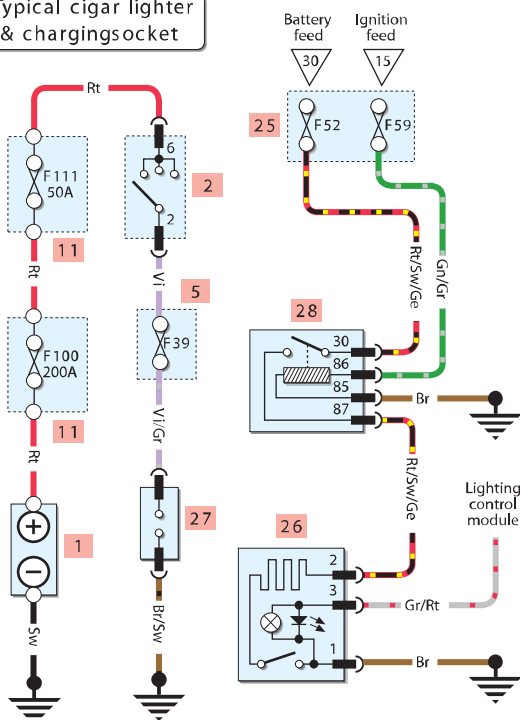
### Typical headlight washer & heated washer jets



### Typical front wash/wipe



### Typical cigar lighter & chargingsocket



Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

- 1 Battery
- 2 Ignition switch
- 5 Passenger compartment fusebox
- 11 Fusible link
- 25 Luggage compartment fusebox
- 33 Wash/wipe switch
- 38 Rear wash/wipe control unit
- 39 Tailgate/boot open switch
- 40 Rear washer pump
- 41 Headlight washer module

- |    |                       |    |                  |
|----|-----------------------|----|------------------|
| 42 | Headlight washer pump | 52 | RH front speaker |
| 43 | Intensive washer pump | 53 | RH rear speaker  |
| 44 | Unload relay          |    |                  |
| 45 | Antenna module        |    |                  |
| 46 | CD changer            |    |                  |
| 47 | Audio unit            |    |                  |
| 48 | LH tweeter            |    |                  |
| 49 | LH front speaker      |    |                  |
| 50 | LH rear speaker       |    |                  |
| 51 | RH front tweeter      |    |                  |

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## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

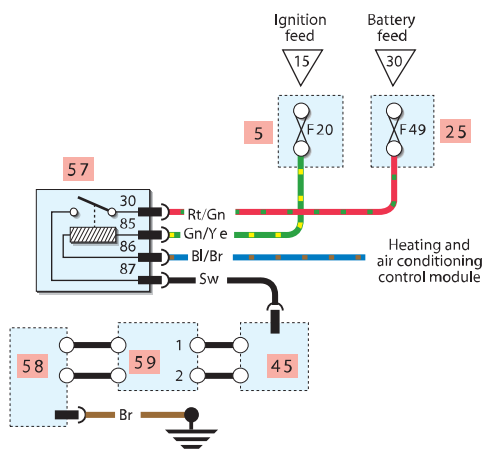
## Key to items

1	Battery	60	Driver's mirror assembly	69	LH rear window motor
2	Ignition switch	61	Passenger's mirror assembly	70	LH rear jamming switch
5	Passenger compartment fusebox	62	Driver's door module	71	LH rear door window switch
11	Fusible link	63	Driver's window motor	72	RH rear window motor
29	General control module	64	Driver's jamming switch	73	RH rear jamming switch
45	Antenna module	65	Passenger's door module	74	RH rear door window switch
57	Heated rear window relay	66	Passenger's window motor		
58	FM amplifier lockout circuit	67	Passenger's jamming switch		
59	Heated rear window	68	Passenger's door window switch		

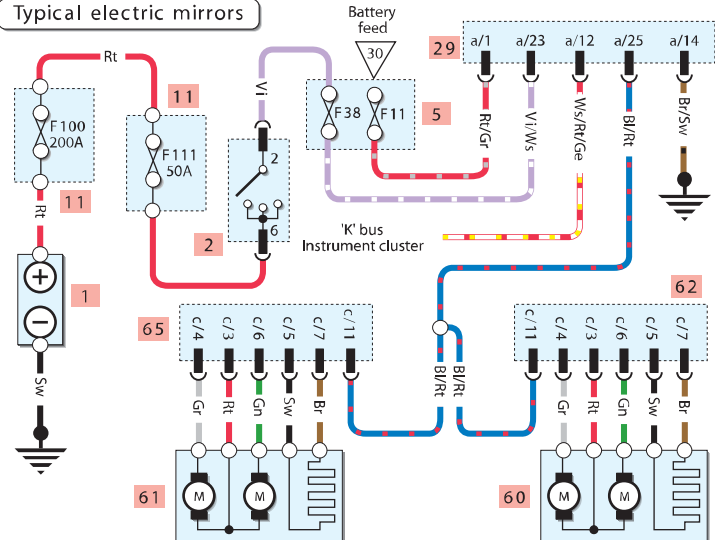
## Diagram 5

H33057

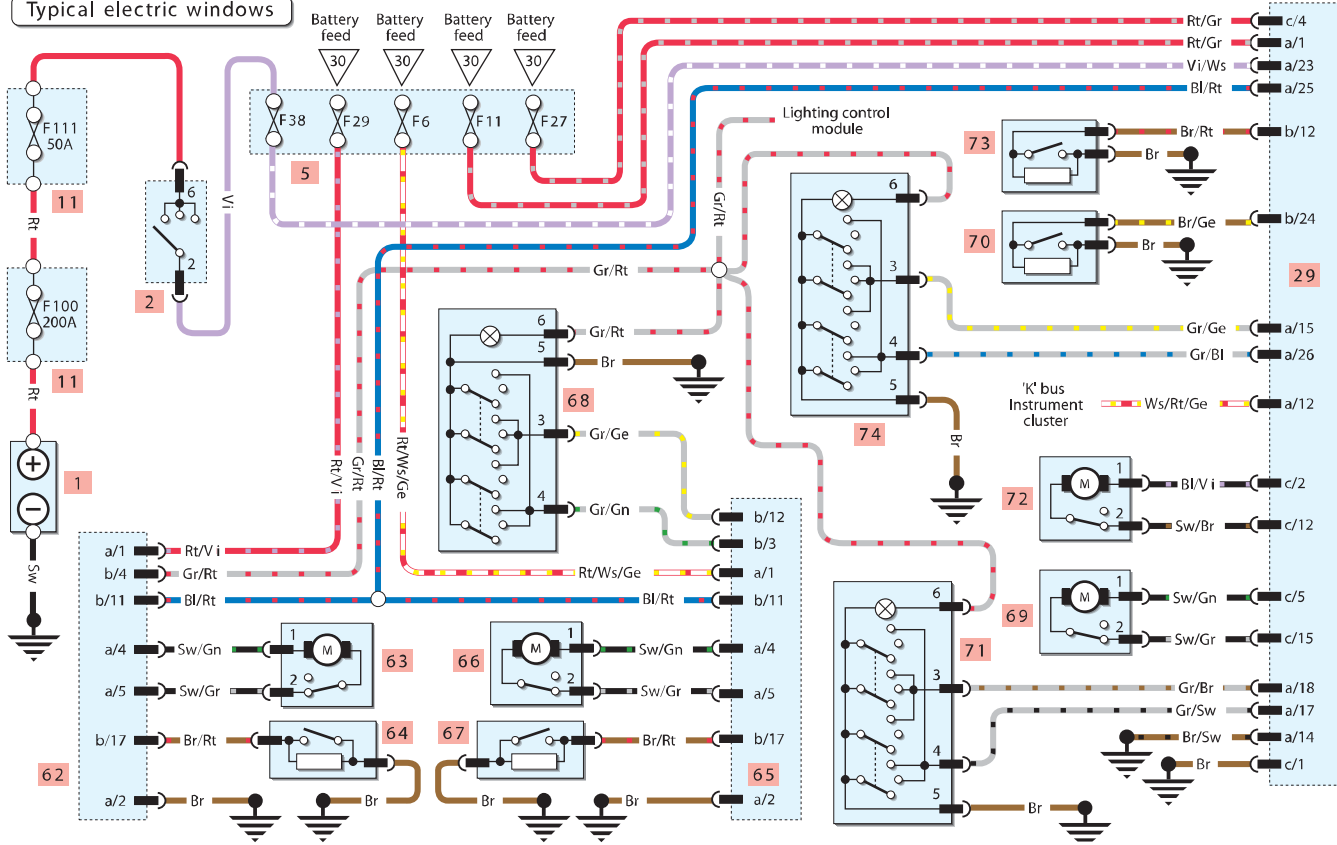
### Typical heated rear window



### Typical electric mirrors



### Typical electric windows



## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

## Key to items

- 1 Battery
- 2 Ignition switch
- 5 Passenger compartment fusebox
- 11 Fusible link
- 25 Luggage compartment fusebox
- 29 General control module
- 62 Driver's door module
- 65 Passenger's door module
- 78 Driver's door lock switch
- 79 Driver's door lock motor

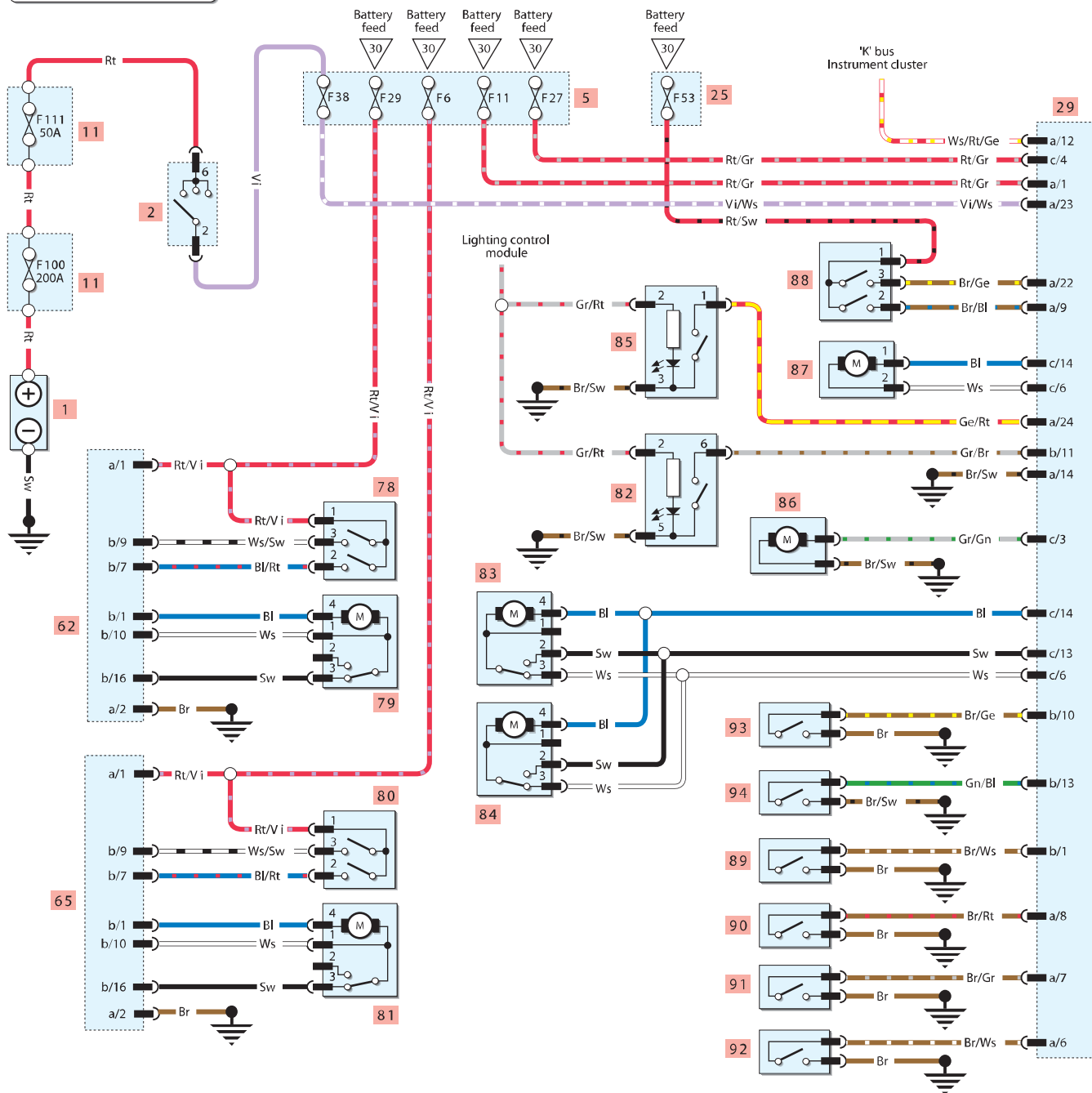
- 80 Passenger's door lock switch
- 81 Passenger's door lock motor
- 82 Tailgate/boot release switch
- 83 LH rear door lock
- 84 RH rear door lock
- 85 Central locking master switch
- 86 Tailgate/boot lock motor
- 87 Fuel filler flap lock motor
- 88 Tailgate/boot lock switch
- 89 Driver's door contact switch

- 90 Passenger's door contact switch
- 91 LH rear door contact switch
- 92 RH rear door contact switch
- 93 Tailgate/boot unlocking switch
- 94 Inertia switch

## Diagram 6

H33058

### Typical central locking



## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

## Key to items

1	Battery
2	Ignition switch
5	Passenger compartment fusebox
11	Fusible link
96	Stop light switch
97	Lighting control module
98	LH stop light
99	RH stop light
100	High level stop light
101	LH reversing light

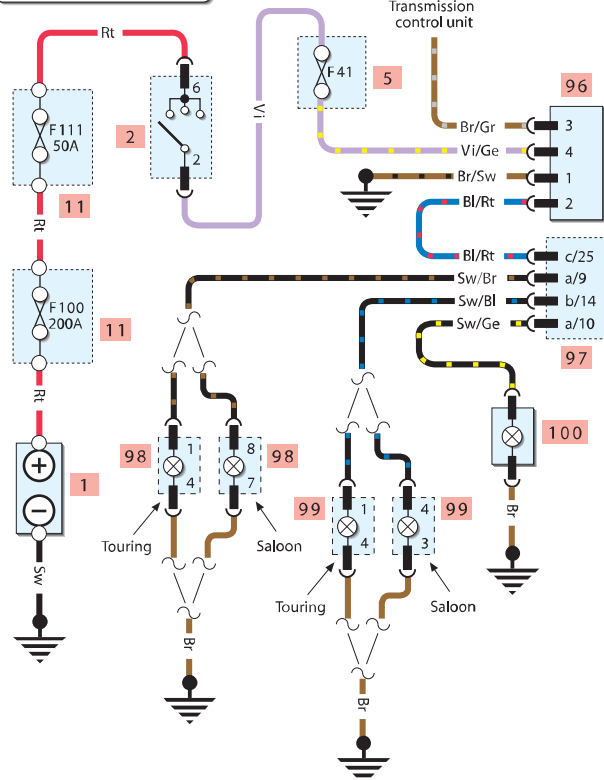
102	RH reversing light
103	Reversing light switch
104	Light switch
a	= side/headlights
b	= flasher/dip
105	RH headlight high beam
106	RH headlight low beam
107	RH parking light
108	LH headlight high beam
109	LH headlight low beam

110	LH parking light
111	RH number plate light
112	LH number plate light
113	LH tail light
114	LH tailgate tail light
115	RH tail light
116	RH tailgate tail light

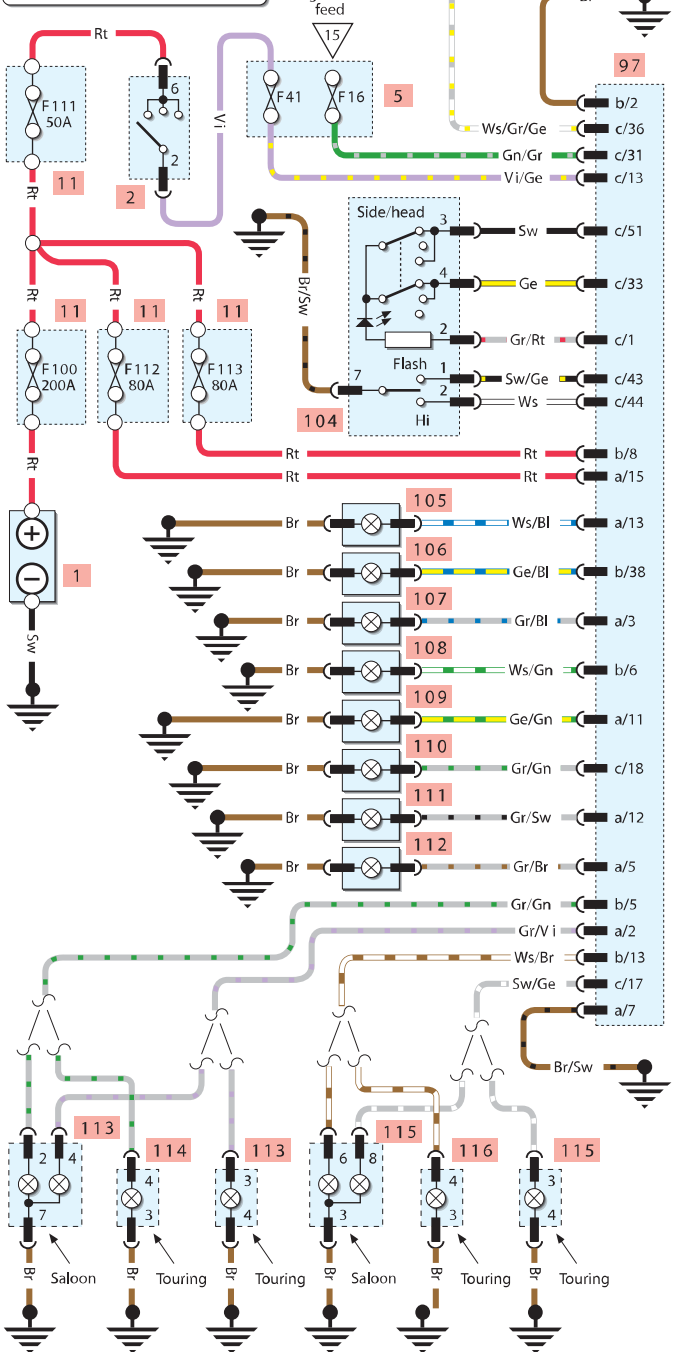
## Diagram 7

H33059

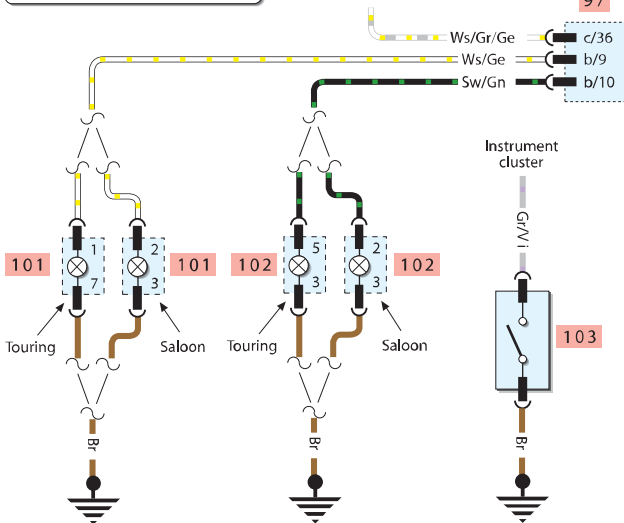
### Typical stop lights



### Typical headlights, side, tail & no plate lights



### Typical reversing lights





## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

## Key to items

- 1 Battery
- 2 Ignition switch
- 5 Passenger compartment fusebox
- 11 Fusible link
- 97 Lighting control module
- 104 Light switch
- c = direction indicator switch
- 120 LH front direction indicator
- 121 LH direction indicator side repeater

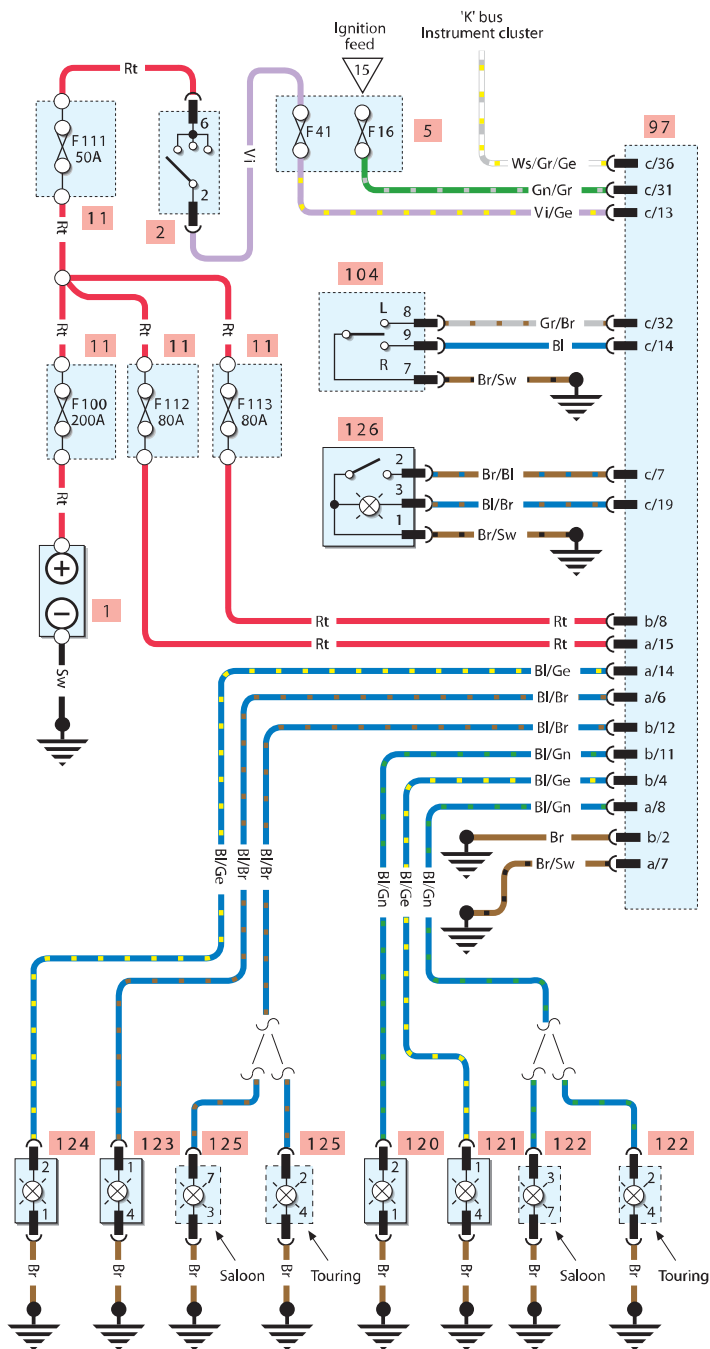
- 122 LH rear direction indicator
- 123 RH front direction indicator
- 124 RH direction indicator side repeater
- 125 RH rear direction indicator
- 126 Hazard warning switch
- 127 Foglight switch
- 128 LH front foglight
- 129 RH front foglight
- 130 LH rear foglight

- 131 LH tailgate foglight
- 132 RH rear foglight
- 133 RH tailgate foglight

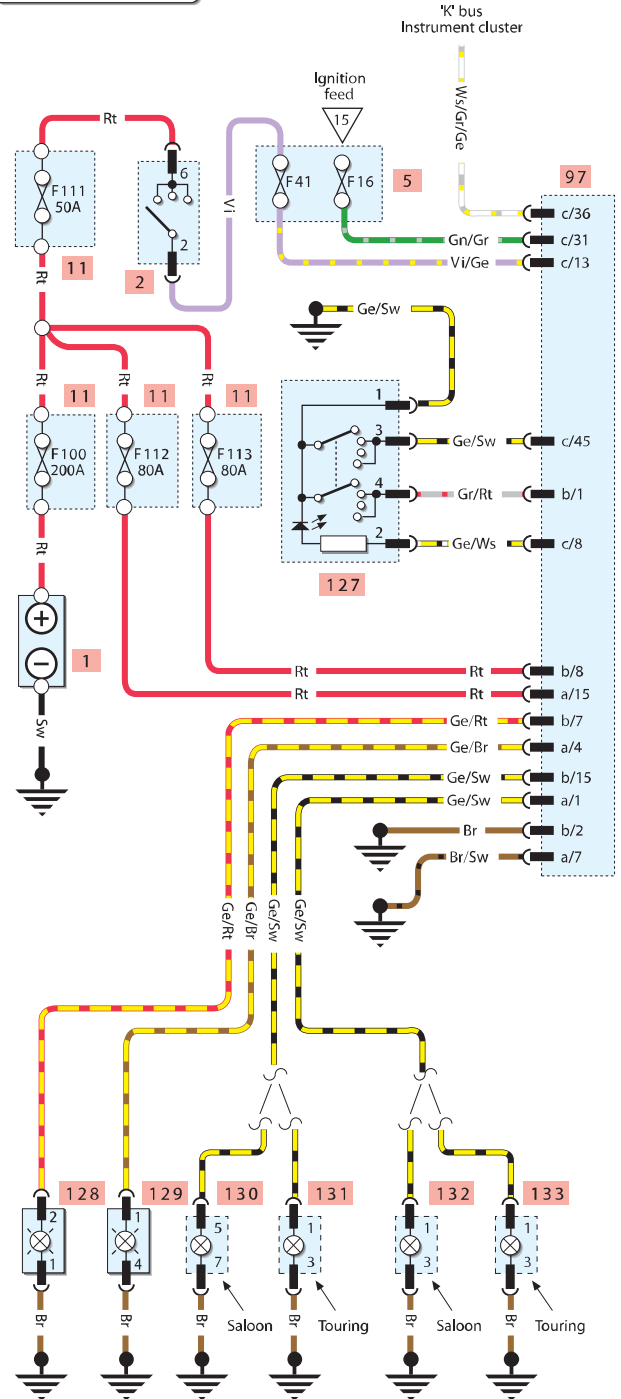
## Diagram 8

H33060

### Typical direction indicators & hazard warning lights



### Typical foglights



## Wire colours

Bl	Blue	Vi	Violet
Br	Brown	Ws	White
Ge	Yellow	Or	Orange
Gr	Grey	Rt	Red
Gn	Green	Sw	Black

## Key to items

1	Battery
2	Ignition switch
5	Passenger compartment fusebox
11	Fusible link
29	General control module
86	Tailgate/boot lock motor
89	Driver's door contact switch
90	Passenger's door contact switch
91	LH rear door contact switch
92	RH rear door contact switch

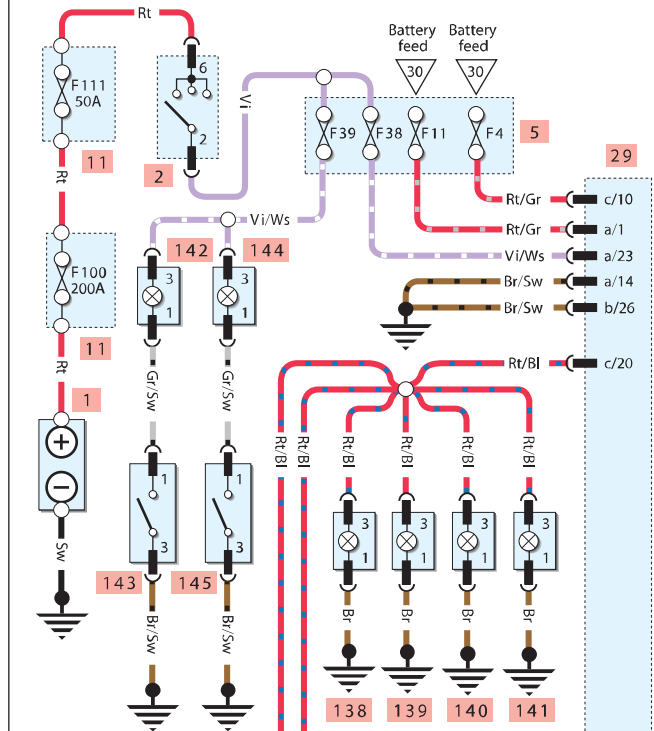
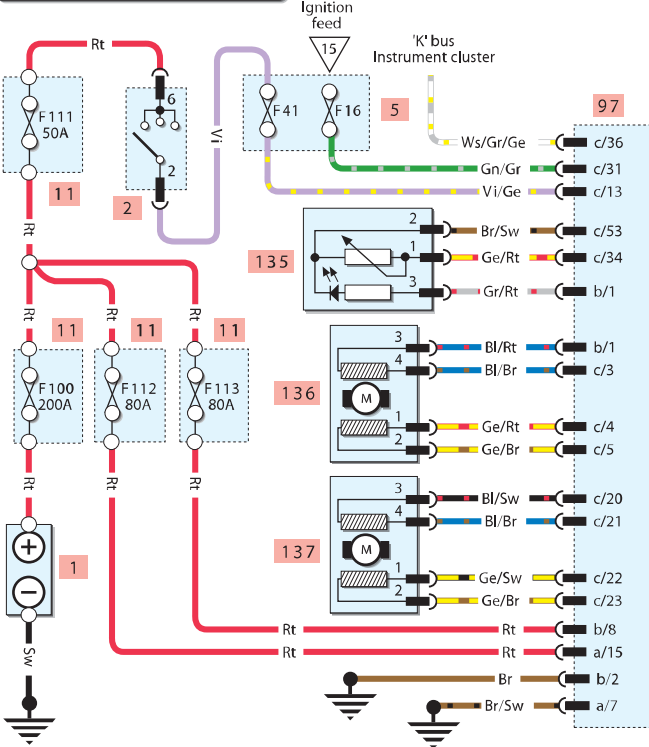
97	Lighting control module
135	Headlight levelling adjuster
136	LH headlight levelling actuator
137	RH headlight levelling actuator
138	Driver's door courtesy light
139	Passenger's door courtesy light
140	LH rear door courtesy light
141	RH rear door courtesy light
142	Driver's vanity mirror light
143	Driver's vanity mirror light switch

144	Passenger's vanity mirror light
145	Passenger's vanity mirror light switch
146	Front interior light
147	Rear interior light (touring)
148	LH rear interior light (saloon)
149	RH rear interior light (saloon)
150	Luggage compartment light
151	Glove box light
152	Glove box light switch

## Diagram 9

H33061

### Typical headlight levelling



### Typical interior lighting

