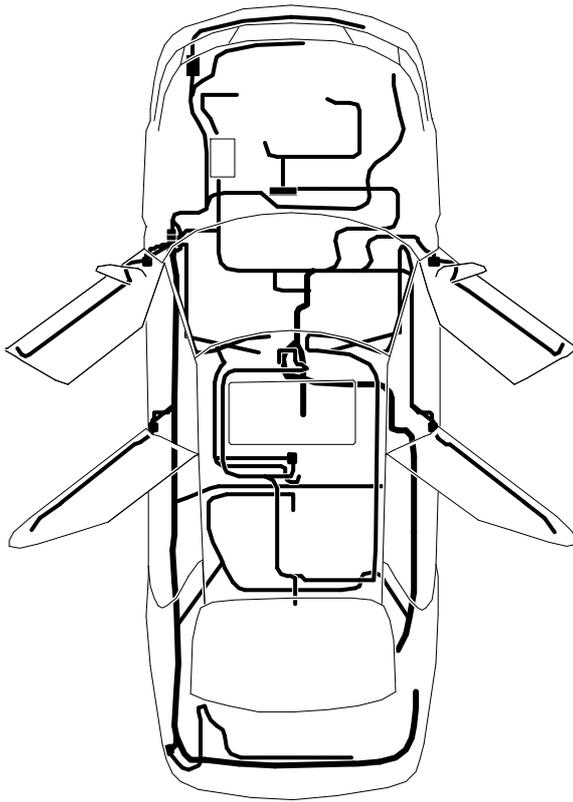


## System overview



E37 1007

## Wiring harnesses

Saab 9-5 has eight wiring harnesses: front, power train, dashboard, front door, rear door, roof, tailgate and rear.

They connect all the electrical components in the car to their intended points of connection.

Some components have their own harnesses for distributing power in the component. The electrically adjustable seat is one such example.

## Main fuse boxes

All electrical distribution units are part of a wiring harness. The distribution units contain all the car's fuses and relays, with the exception of the relay in the passenger seat which allows operation without the ignition being on.

The engine bay contains:

- maxi-fuse box 501 →
- main fuse box in engine bay 342a →
- main relay board in engine bay 342b →

The main fuse box 342a and main relay board 342b in the engine bay are built in to one unit.

The distribution units in the dashboard are divided into two separate units:

- main fuse box 22a →
- main relay board 22b →

### **Power supply**

Power supply for the car is divided into:

- Battery supply
- +30-supply
- Power supply (+15 circuit)
- Power supply (+54 circuit)
- +X-supply
- +B-supply

### **Battery supply**

In addition to being supplied to the maxi fuse box 501, the battery voltage is also supplied directly to the starter motor, generator, both lighting relays as well as a number of fuses in the engine compartment main fuse box and fuse A in the dashboard main fuse box, see → .

These leads are unfused and great care must be exercised when measuring the voltage in these circuits.

The charging system is described in service category "Charging Systems" → .

### **+30-supply**

When the ignition is in the LOCK position and the key is removed, certain fuses and components are still supplied with power. The power supply comes first via one of the maxi fuses and a certain protection exists against short-circuiting. Great care is also recommended when measuring voltage before the fuses in the dashboard main fuse box and ignition switch, stalk switch, ignition switch relay, main relay for engine management system and start relay, see → .

### **+15-voltage**

When the ignition key is turned to the ON or START position, power is supplied from connector pin 15 to a number of fuses in the dashboard main fuse box, see → .

The voltage remains even when the key is turned to the START position.

### **+54-voltage**

In the ON position, voltage is supplied from connector pin 54 to some fuses in the main fuse box in the dashboard as well as the relay coil at ignition relay 21. The relay closes and voltage is supplied via its connector to fuses both in the engine compartment and dashboard fuse boxes, see → .

When the ignition key is turned to the START position, the current is cut. This is to disconnect a large number of consumers during the start procedure so that the starter motor and engine management system will receive the highest possible voltage and ensure engine start.

#### **+X-voltage**

When the ignition key is turned to OFF from LOCK, voltage is fed from the X-pin to the light switch, see → .

The power supply is interrupted when the key is turned to the LOCK position.

#### **+B-voltage**

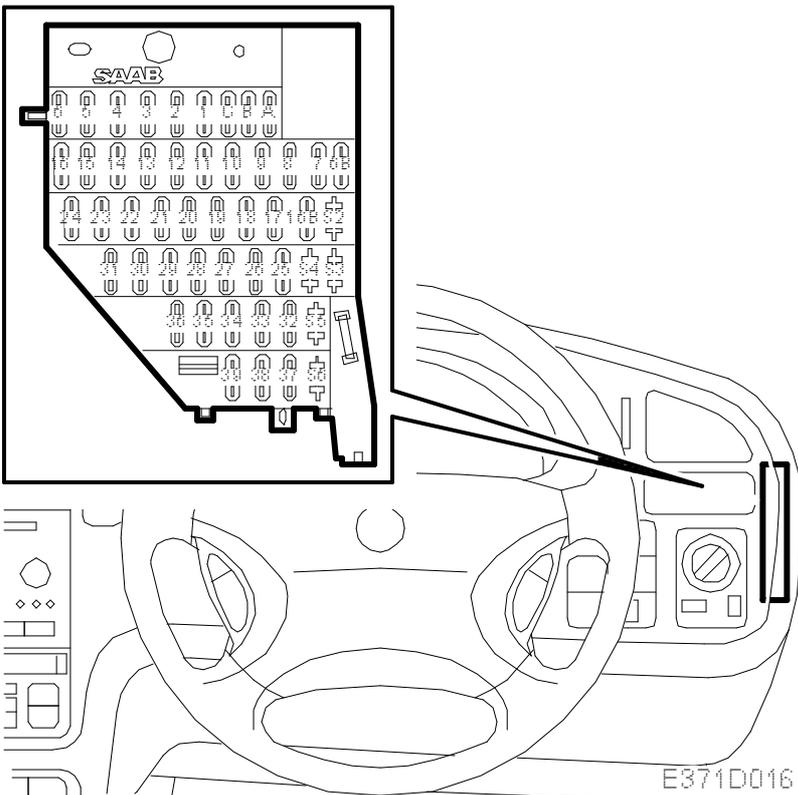
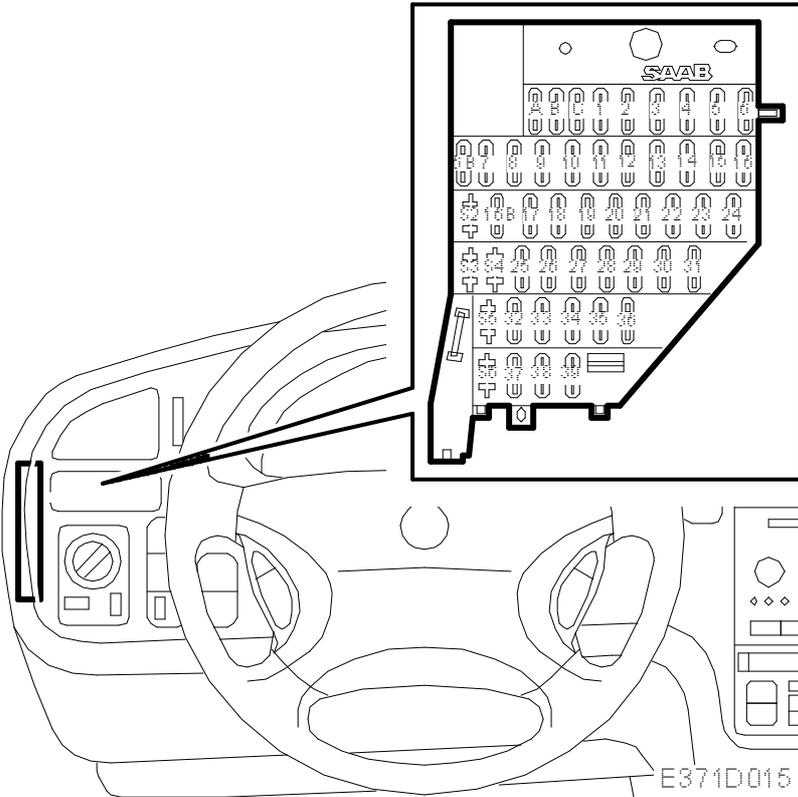
When the ignition key has been turned to OFF from LOCK, voltage is fed from pin B to fuse 5 in the dashboard main fuse board, see → .

The power supply is only interrupted when the key is removed from the ignition.

### Fuse box 22a in the dashboard

**Location:** On the short side of the dashboard by the driver's door.

The upper socket is for incoming voltage.



<b>No.</b>	<b>Rating</b>	<b>Type</b>	<b>Function</b>	<b>Illus.</b>
A	30 A	+30	Wiring for a trailer	<a href="#">→</a>
B	10 A	+15	TCM	<a href="#">→</a>
C	7.5 A	+54	Electrically adjustable door mirror DICE	<a href="#">→</a>
1	15 A	+30	Brake lights	<a href="#">→</a>
2	15 A	+54	Reversing lights	<a href="#">→</a>
3	10 A		Parking lights, LH	<a href="#">→</a>
4	10 A		Parking lights, RH	<a href="#">→</a>
5	7.5 A	+B	DICE/TWICE	<a href="#">→</a>
6	30 A	+54	Electric window lifts	<a href="#">→</a>
6B	5 A		Brake lights, wiring for a trailer	<a href="#">→</a>
7	10 A		Multiport fuel injection	<a href="#">→</a>
8	15 A	+30	Telephone SID Interior lighting SPA	<a href="#">→</a>
9	15 A	+30	Audio/CD changer Data link connector	<a href="#">→</a>
10	15 A	+30	Electrically heated rear seat PMM	<a href="#">→</a>

Fog lights			
11	30 A	+30	Electrically adjustable passenger seat →
Central locking system			
12	7.5 A	+30	TCM →
13	20 A	+30	Radio/Amplifier →
14	30 A		Trionic →
DI			
Mass air flow sensor			
A/C compressor			
15	15 A		Heated oxygen sensor →
16	20 A	+30	DICE/Direction indicators →
16B	5 A	+30	Road toll function →
17	20 A	+30	MIU →
Trionic			
DICE/TWICE			
18	7.5 A		Electrically heated rear-view mirrors →
19	20 A		Fuel pump →
20	15 A	+30	ACC →
Interior lighting			
Rear fog lights			
21	10A	+15	Radio →
ADM			
22	40 A	+30	Ventilation fan motor →

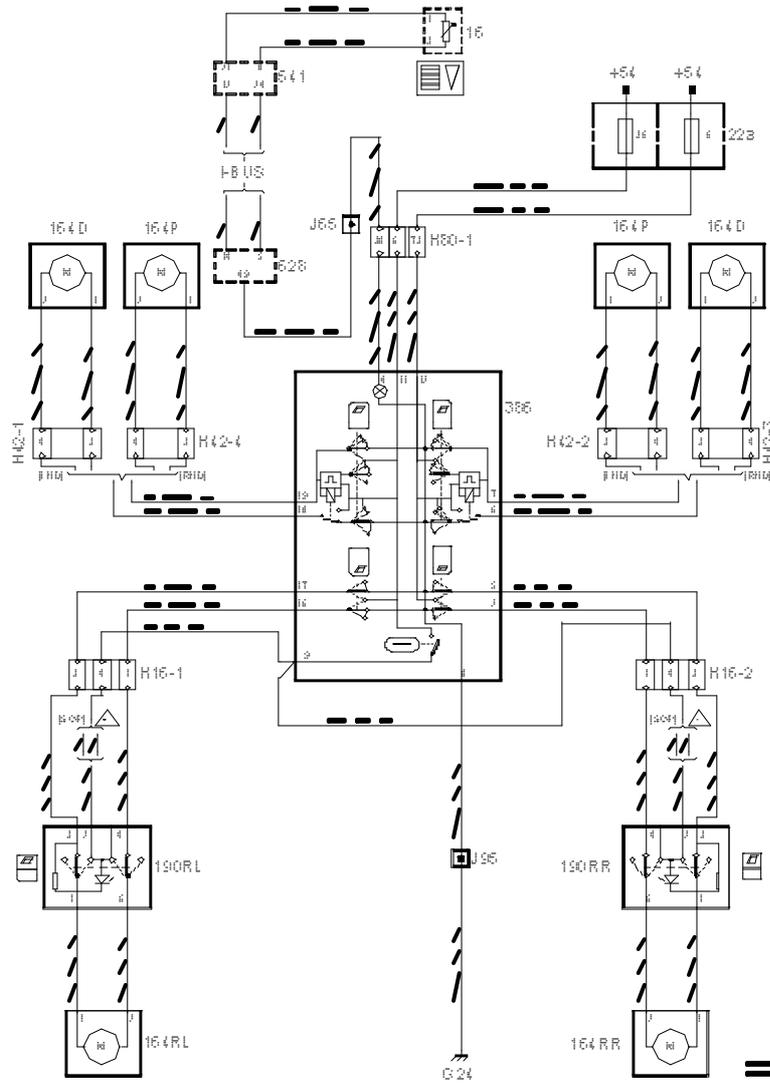
SAI pump motor			
23	15 A	+30	Sunroof →
24	40 A	+30	Electrically heated rear window →
25	30 A	+30	Electrically adjustable driver's seat →
Filler flap solenoid			
26	7.5 A	+15	ABS →
27	10 A	+15	Seat belt warning →
Main instrument display panel			
DICE			
SPA			
28	7.5 A	+15	Airbag →
29	7.5 A	+15	TCM →
30	7.5 A	+50	Starter motor →
31	7.5 A	+54	Cruise control system →
Headlamp beam adjustment			
ACC/MCC			
32	15 A	+54	Seat ventilation →
33	7.5 A	+54	Switch, direction indicators →
34	30 A	+54	Cigarette lighter →
35	15 A	+54	Daylight driving lights →
36	30 A	+54	Switch, window lifts →
37	30 A	+54	Windscreen wipers →
38	30 A	+54	Electric heating, seats →

39 20 A +30 Limp-home solenoid

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**List of components**

<b>No.</b>	<b>Name Location</b>	<b>Illustration</b>
<b>Components</b>		
16	Rheostat, instrument lighting  in light switch panel between steering wheel and driver's door	
22a	Main fuse board, dashboard  on end of dashboard at driver' door	
164D	Motor, electric window lift, driver  in door	
164P	Motor, electric window lift, passenger  in door	
164RL	Motor, electric window lift, left rear  in door	
164RR	Motor, electric window lift, right rear  in door	
190RL	Switch, electric window lift, left rear  in door	
190RR	Switch, electric window lift, right rear  in door	
386	Switch unit, electrically operated windows/sunroof  in floor console between the seats	
541	SID  in the centre of the dashboard	

628 Control module, DICE →

**LHD:** above dashboard relay board

**RHD:** behind dashboard relay board

### 16-pin connectors

H16-1 In the left-hand B-pillar →

H16-2 In the right-hand B-pillar →

### 42-pin connector

H42-1 On leading edge of driver's door (LHD) →

H42-2 On leading edge of passenger door (LHD) →

H42-3 On leading edge of driver's door (RHD) →

H42-4 On leading edge of passenger door (LHD) →

### 80 pin connectors

H80-1 In connector console under left-hand A-pillar →

### Crimp connections

J65 **LHD:** Approx. 40 mm from the MIU (20-pin connector) branching point, towards its 12-pin connector →

**RHD:** Approx. 260 mm from grounding point G41S branching point, towards the MIU

J95 Approx. 150 mm from branching point RH seat towards FR door →

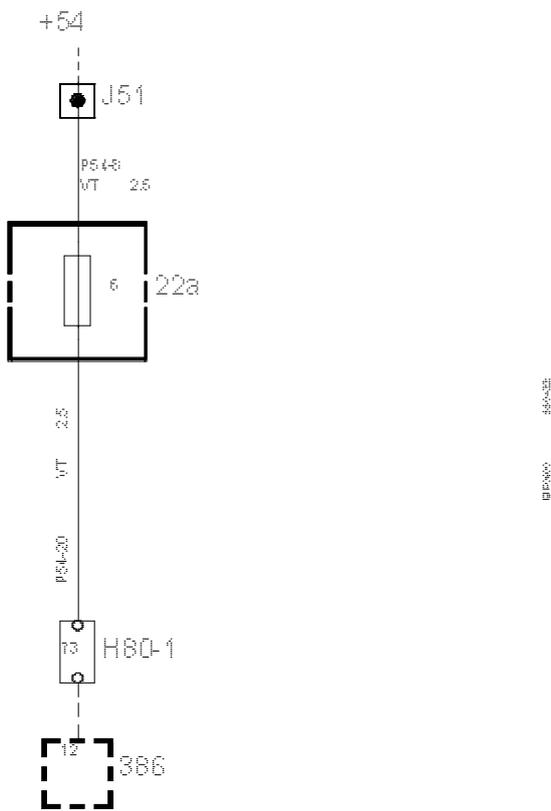
**Grounding points**

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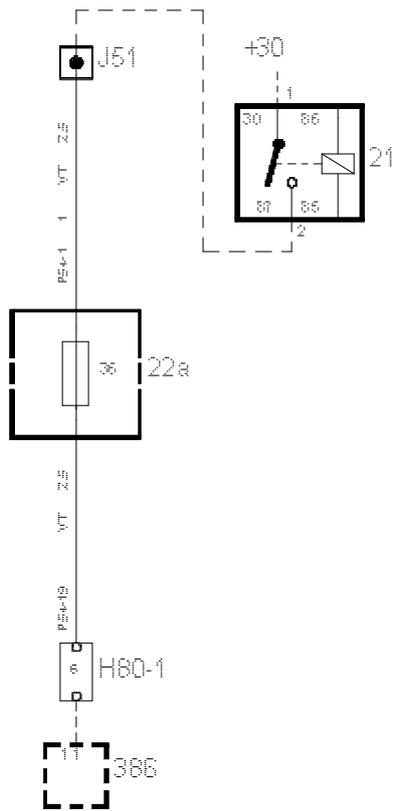
G24	Behind seat member under right-hand seat	
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### Fuse 6, fuse box 22a in the dashboard

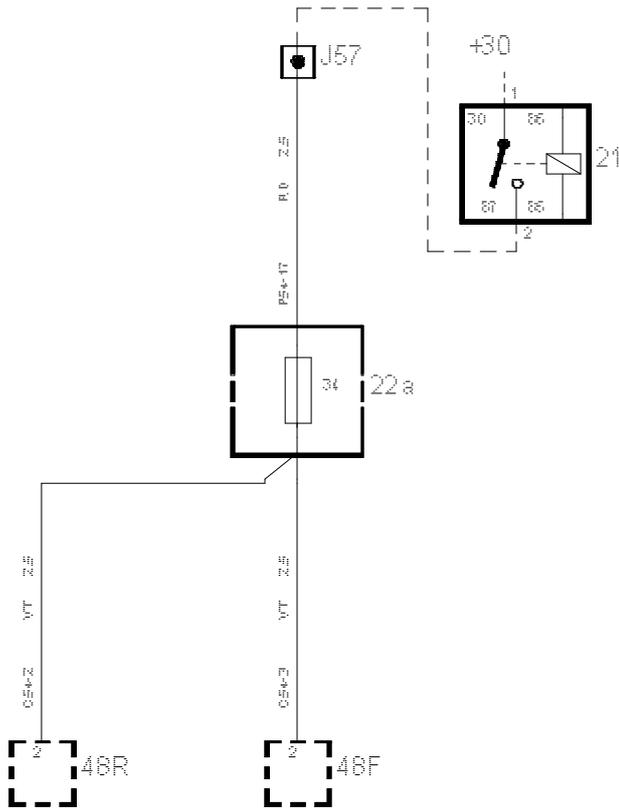


### Fuse 36, fuse box 22a in the dashboard



1800000002

### Fuse 34, fuse box 22a in the dashboard



REVISIONS:

### Lead marking

The leads are marked with a three-part lead code, e.g.:

### **P15-5 YE/GY 2.5**

where :

The first part (P15-5) is a position number

The second part (YE/GY) is a colour code

The third part (2.5) is the lead area in mm<sup>2</sup>

### **Position number**

All leads have an alphabetical designation followed by an individual number.

The letter indicates the group of systems to which the lead belongs:

- **C** Comfort systems
- **D** Diagnostics
- **E** Engine systems
- **G** Gearbox systems
- **I** Instrumentation systems
- **L** Lighting systems
- **P** Power supply systems
- **Q** Anti-theft alarm
- **S** Safety systems
- **T** Telecom systems
- **V** View systems
- **W** Warning systems
- **X** Other systems (e.g. bus)

The number is individual except for:

- 15 = +15-supply
- 30 = +30-supply
- 31 = ground
- 54 = +54-supply

Leads with the same letter and number, e.g. E110, E110-1, E110-2 etc., generally belong to the same function.

### Colour code

The following colour codes are used in the wiring diagrams of the manual. The colour codes can also be used in combination, e.g. RD/BU, GY/WH.

As of M01, dual-colour cables have been introduced with at least two colour fields of each colour. Some small wiring harnesses may still have the old type of colour marking.

Code	Colour
BK	Black
BN	Brown
BU	Blue
GN	Green
GY	Grey
OG	Orange
PK	Pink
RD	Red
VT	Violet
WH	White
YE	Yellow

### Lead area

Indicates the cross-sectional area in mm<sup>2</sup> and is of immediate importance for the lead's

current capacity.

### **Resistance to temperature**

As of M00, the front harness and engine harness of Saab 9-3 have a new type of cable casing with a greater resistance to temperature. When cables in these harnesses are replaced, cables with the new type of insulation must be used.