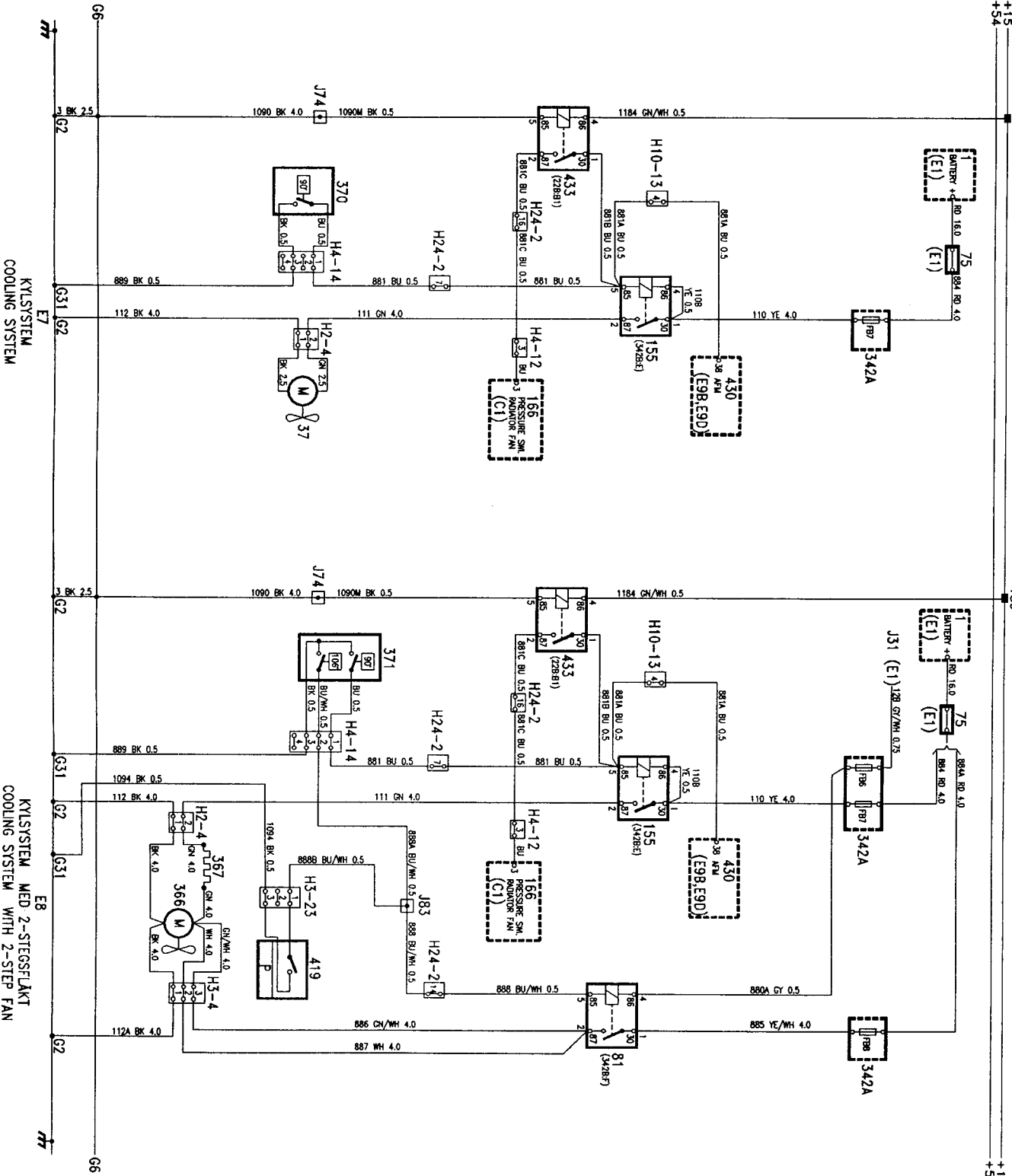


# Cooling system with/without 2-speed radiator fan



## Operation

Irrespective of the position of the ignition switch, the power supply is taken from fuse 7 to relay 155.

When the engine coolant temperature reaches about 90°C (194°F), temperature switch 370 will close, the relay will operate and radiator fan 37 will start.

## Two-speed radiator fan

Certain cars are equipped with a 2-speed radiator fan which ensures more efficient cooling.

Temperature switch 371 has two pairs of contacts, one of which closes when the coolant temperature reaches 90°C (194°C) and the other when it reaches 106°C (222°C).

*At a coolant temperature of about 90°C (194°F)*

Relay 155 is energized and its contacts close. Radiator fan 366 is then supplied with current from fuse 7 via resistor 367.

*At a coolant temperature of about 106°C (222°F)*

Relay 81 is energized and its contacts close. Current is then supplied from fuse 8 to radiator fan 366, which then runs at full speed.

## Pressure switch 419

Cars for certain markets are fitted with pressure switch 419. When the pressure in the AC system exceeds 22 bar, pressure switch 419 closes, causing relay 81 to operate and radiator fan 366 to start.

## Relay for disconnection of radiator fan 433

To prevent the battery being run down when the radiator fan continues to operate after the engine has been switched off, (after-running), there is a relay 433 which breaks the circuit as soon as the ignition is turned off.

## Fault-tracing hints

- 1 Check fuse 7 and check that the supply to it is live.
- 2 Check that the supply to relay 155 is live.
- 3 Check that the relay operates and check the operation of the radiator fan by shorting the temperature switch contacts.
- 4 Warm up the engine to operating temperature and check the operation of the temperature switch.
- 5 Check the connectors, wiring and earth connections.

## Two-speed radiator fan

Check resistor 367, temperature switch 371 and relay 81.

Disconnect 3-pole connector H3-4 and take a reading.

## Locations of components

1	Battery in the engine compartment		<i>24-pole connector</i>
37	Radiator fan motor, on the left-hand side at the front	H24-2	Behind the left-hand headlamp
75	Distribution block, positive battery supply, on the battery tray	G2	Earthing point, battery tray, on left-hand wheel housing
81	Relay for the 2-speed radiator fan, in the electrical distribution box in the engine compartment (342B:F)	G31	Earthing point, right-hand structural member, behind the right-hand headlamp
155	Relay for the radiator fan, in the electrical distribution box in the engine compartment (342B:E)		
159	Distribution terminal + 15 in the electrical distribution box behind the glove box.		
166	Pressure switch for radiator fan on the drying agent container in front of the right wheel housing		
342 A	Fuse holder in the electrical distribution box in the engine compartment 366		
	Motor for the 2-speed radiator fan, on the left-hand side at the front		
367	Resistor, beside the radiator fan motor		
370	Temperature switch, single-position, on the left-hand side of the radiator		
371	Temperature switch, two-position, on the left-hand side of the radiator		
419	Pressure switch for the AC system (ME), under the radiator on the right-hand side		
430	AFM control unit in the engine compartment on the left behind the bulkhead partition		
433	Relay for disconnection of radiator fan in the electrical distribution box behind the glove box (22B:B1)		
	<i>2-pole connector</i>		
H2-4	At the radiator fan motor		
	<i>3-pole connector</i>		
H3-4	At the radiator fan motor		
H3-23	Under the front bumper behind the right-hand fog light		
	<i>4-pole connector</i>		
H4-12	At the right-hand wheel housing alongside the drying agent container.		
H4-14	At the temperature switch on the right-hand side of the radiator		
	<i>10-pole connector</i>		
H10-13	On the left in the engine compartment alongside the windscreen wiper motor		

Components

