

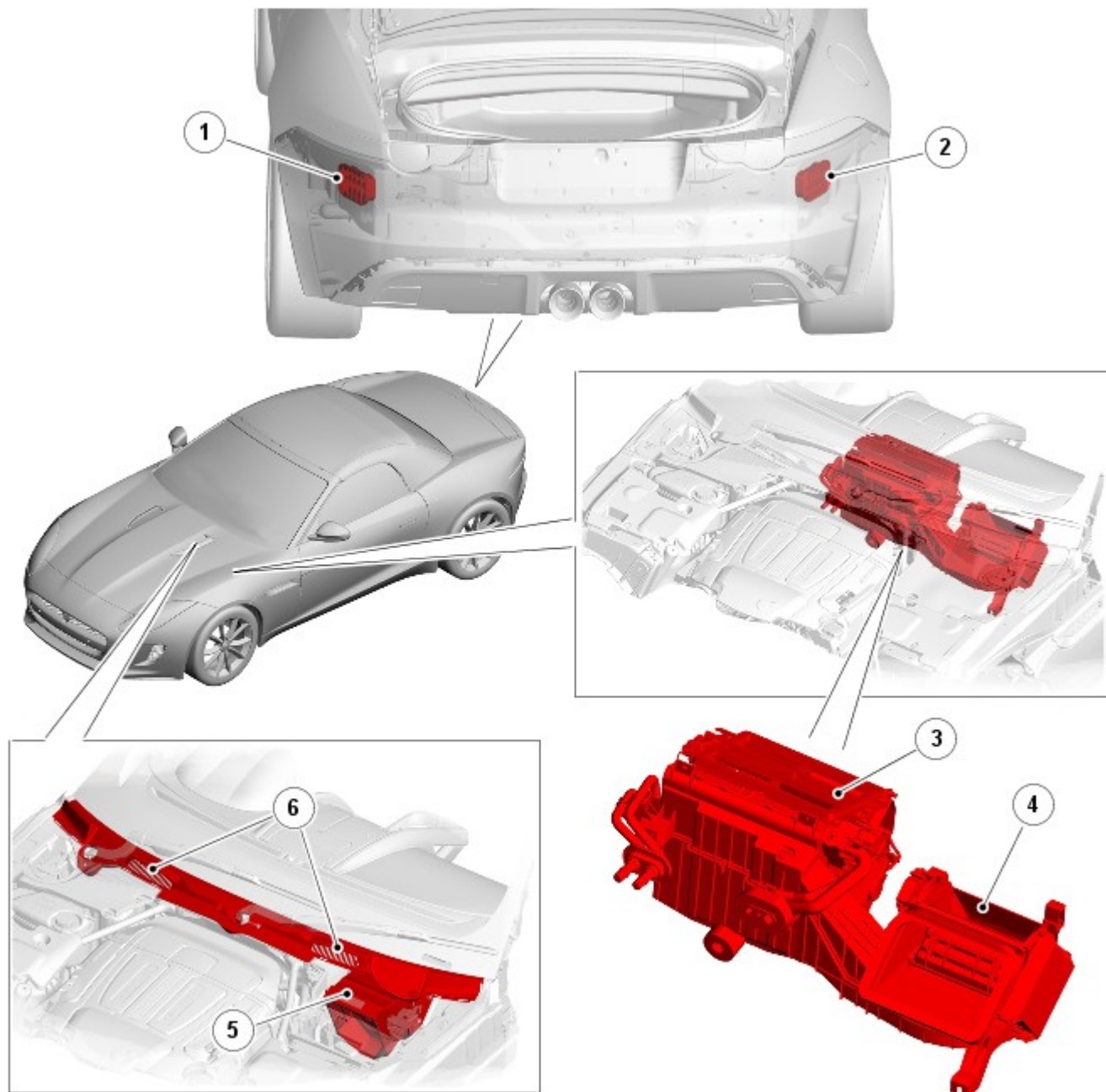
Climate Control - Heating and Ventilation

Description and Operation

COMPONENT LOCATION



NOTE: RHD (right-hand drive) installation shown, LHD (left-hand drive) installation similar.



E149933

Item	Description
1	Left ventilation outlet
2	Right ventilation outlet
3	Climate control assembly
4	Air intake duct
5	Air filter housing
6	Air intake grilles

OVERVIEW

The heating and ventilation system controls the temperature and flow of air supplied to the vehicle interior. The system is single or dual zone, depending on vehicle specification. The two systems contain the same hardware, but with different software to produce the functionality required by each system.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

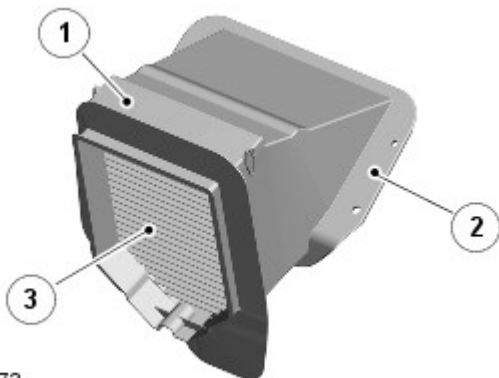
The heating and ventilation system consists of:

- An air filter housing
- An air intake duct
- A climate control assembly
- Two ventilation outlets.

Fresh or recirculated air flows into the climate control assembly from the intake duct, then through the distribution ducts to the vehicle interior. Fresh air is drawn through two intake grilles in the leaf screen, then through the air filter housing. Air from the vehicle interior exhausts through two ventilation outlets.

DESCRIPTION

Air Filter Housing



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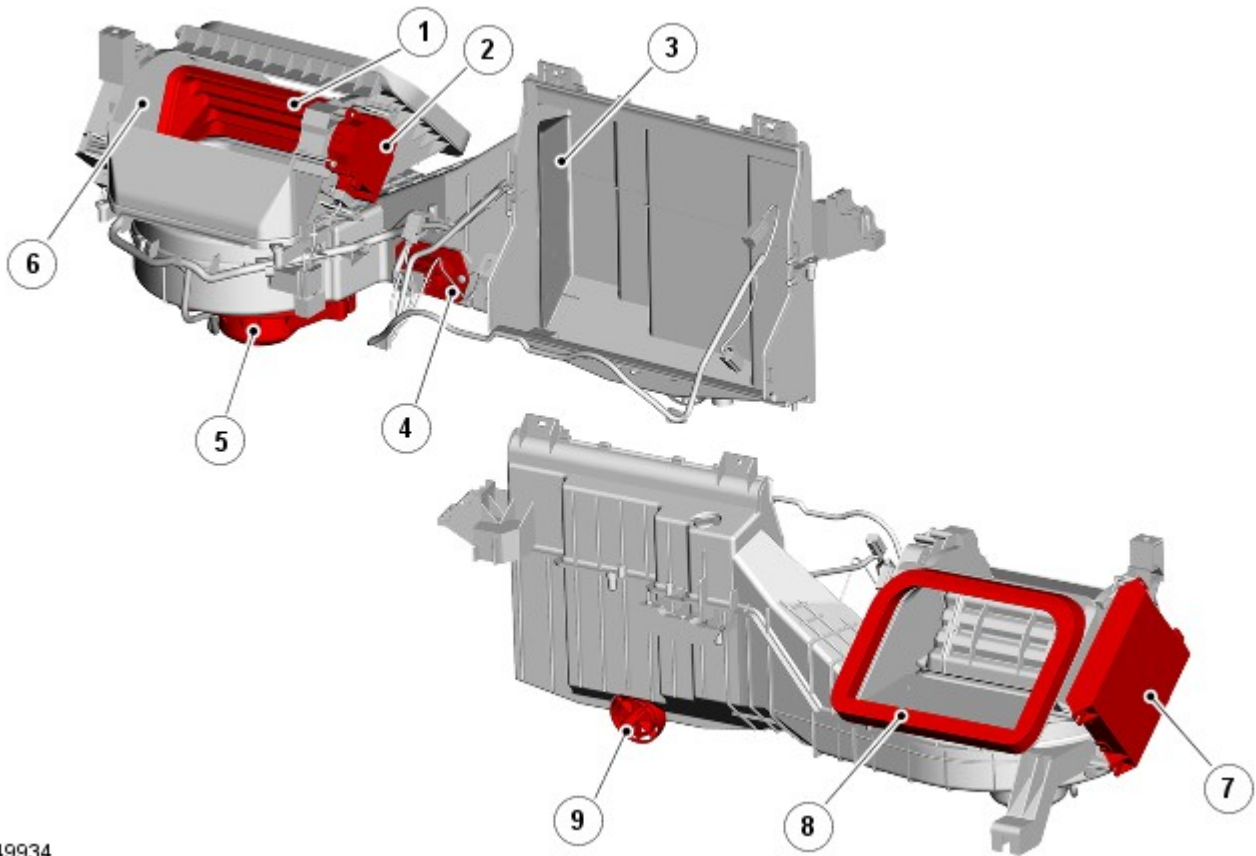
Item	Description
1	Cover
2	Housing
3	Air filter

The air filter housing is attached to the engine bulkhead panel, on the passenger side of the engine compartment. A cover in the top of the housing provides access to the air filter.

Air Intake Duct



NOTE: RHD air intake duct shown, LHD air intake duct is mirror image.



E 149934

Item	Description
1	Recirculation door
2	Recirculation motor
3	Air outlet to climate control assembly
4	Blower control module
5	Blower
6	Recirculation air intake
7	Automatic temperature control module
8	Fresh air intake
9	Condensate drain tube

The air intake duct is installed behind the instrument panel, on the passenger side, and connects the fresh air intake in the bulkhead panel to the climate control assembly. The air intake duct also contains:

- An intake for recirculation air
- A recirculation door
- The blower
- The blower control module.

The recirculation door is installed between the fresh and recirculation air intakes, to control the source of incoming air. The recirculation door is operated by an electric motor controlled by the ATCM.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

A condensate drain on the underside of the air intake duct connects with the top of the floor tunnel.

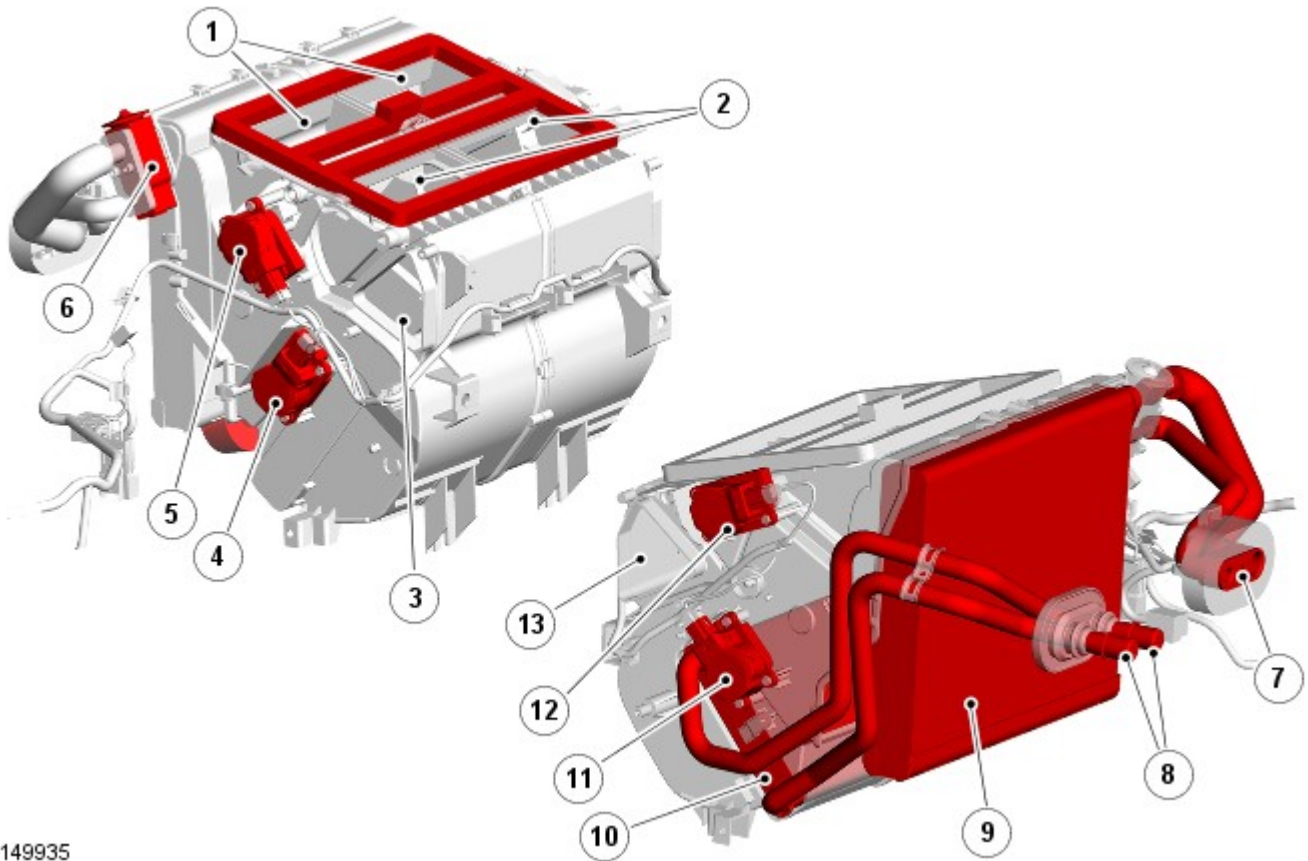
BLOWER

The blower consists of a centrifugal fan powered by an electric motor. Operation of the blower is controlled by the ATCM. For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

Climate Control Assembly



NOTE: RHD climate control assembly shown, LHD climate control assembly similar.



E 149935

Item	Description
1	Demist air outlets
2	Face air outlets
3	Left feet air outlet
4	Left temperature blend motor
5	Face/Feet distribution motor
6	Thermostatic expansion valve
7	Air conditioning pipes
8	Coolant pipes
9	Evaporator
10	Heater core
11	Right temperature blend motor
12	Demist distribution motor
13	Right feet air outlet

The climate control assembly controls the temperature of the air supplied to the air distribution ducts, as directed by the ATCM. The climate control assembly is installed on the vehicle center-line, between the instrument panel and the bulkhead panel.

The climate control assembly consists of a casing, which contains an evaporator, heater core, distribution doors and temperature blend doors. Internal passages integrated into the casing guide the air through the casing and separate it into two flows, one for the left outlets and one for the right outlets.

When the **A/C (air conditioning)** system is operating, the evaporator cools and dehumidifies the air entering the climate control assembly. A thermostatic expansion valve is attached to the evaporator. Two tubes attached to the thermostatic expansion valve extend through the engine bulkhead and connect to the **A/C** system in the engine compartment. For additional information, refer to: [Air Conditioning](#) (412-01 Climate Control, Description and Operation).

The heater core reheats a variable proportion of the air flow through the climate control assembly. Two tubes attached to the heater core extend through the engine bulkhead and connect to the engine cooling system. When the engine is running, coolant is constantly circulated through the heater core by the engine coolant pump. For additional information, refer to:

[Engine Cooling](#) (303-03A Engine Cooling - V6 S/C 3.0L Petrol, Description and Operation),
[Engine Cooling](#) (303-03C Engine Cooling - V8 S/C 5.0L Petrol, Description and Operation).

The distribution doors direct the air flow to the face, feet and demist vents as required.

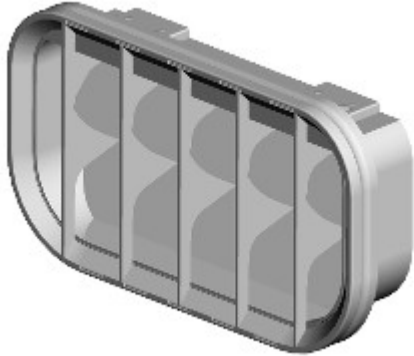
For additional information, refer to: [Air Distribution and Filtering](#) (412-01 Climate Control, Description and Operation).

The temperature blend doors regulate the amount of air flowing through the heater core to control the temperature of the air leaving the climate control assembly. On dual zone systems, the left and right temperature blend doors operate independently to allow different temperatures to be set for the related side of the passenger compartment.

Separate motors operate each of the distribution and temperature blend doors. If a motor is to be replaced, ensure it is replaced with the correct replacement part. Although similar in appearance, each of the motors is different and faults will occur if an incorrect motor is fitted. Operation of the distribution and temperature blend door motors is controlled by the ATCM.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

Ventilation Outlets



E 149936

The ventilation outlets are installed in the left and right rear quarters, behind the bumper.

Each ventilation outlet consists of a grille covered by soft rubber flaps, and is effectively a non-return valve, preventing any odors from entering the vehicle. The flaps open and close automatically depending on the differential between passenger compartment and outside air pressures.

OPERATION

Operation of the heating and ventilation system is controlled by the ATCM.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).