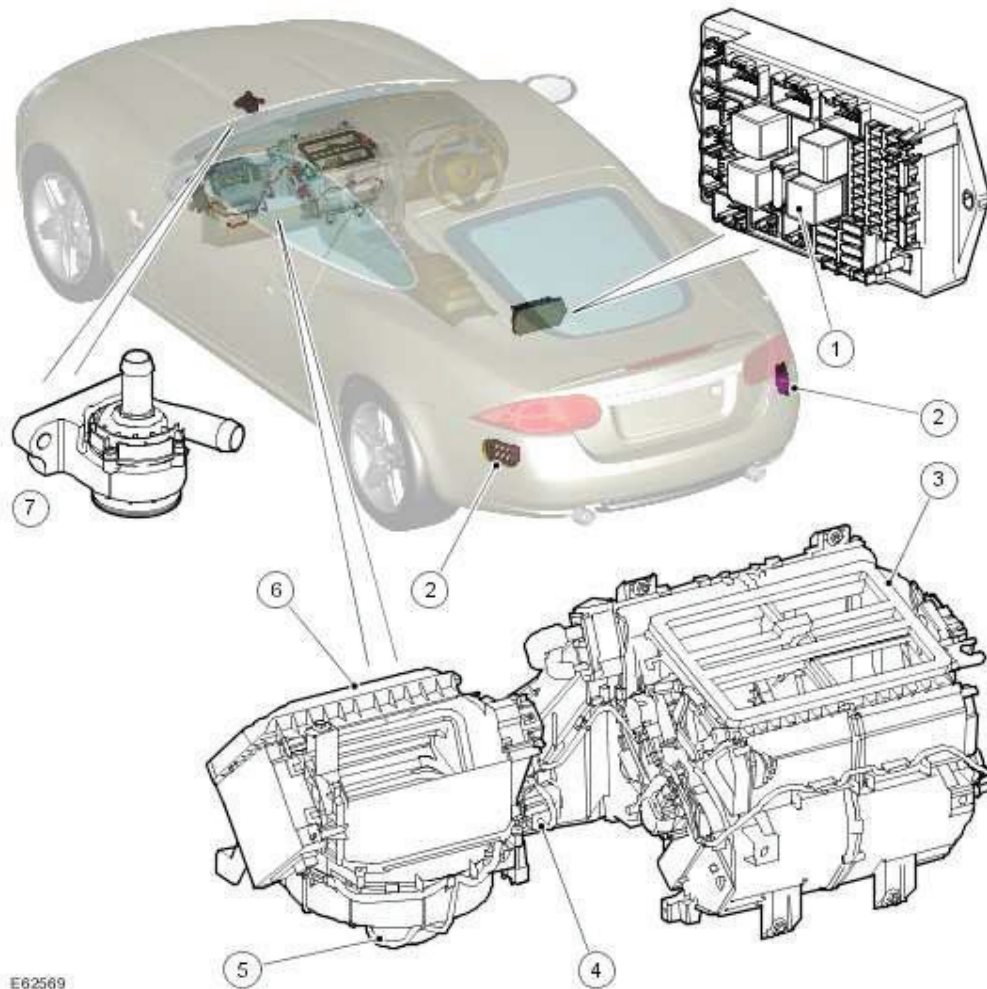


Heating and Ventilation

COMPONENT LOCATION

NOTE:

RHD (right-hand drive) shown, LHD (left-hand drive) similar



E62569

Item	Part Number	Description
1		Blower relay
2		Ventilation outlets (2 off)

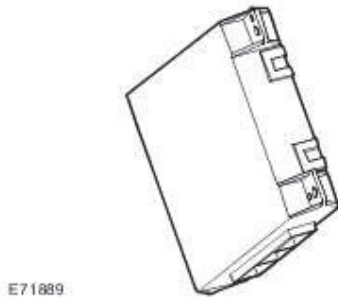
3		Heater assembly
4		Blower motor control module
5		Blower
6		Air inlet
7		Heater coolant pump

INTRODUCTION

The heating and ventilation system controls the temperature and flow of air supplied to the vehicle interior. The system is dual zone, and can provide different temperature settings for the Left Hand (LH) and Right Hand (RH) side of the cabin. The system can be operated in 'Automatic' or 'Manual' mode, with temperature settings being selected using the control switches located below the TSD.

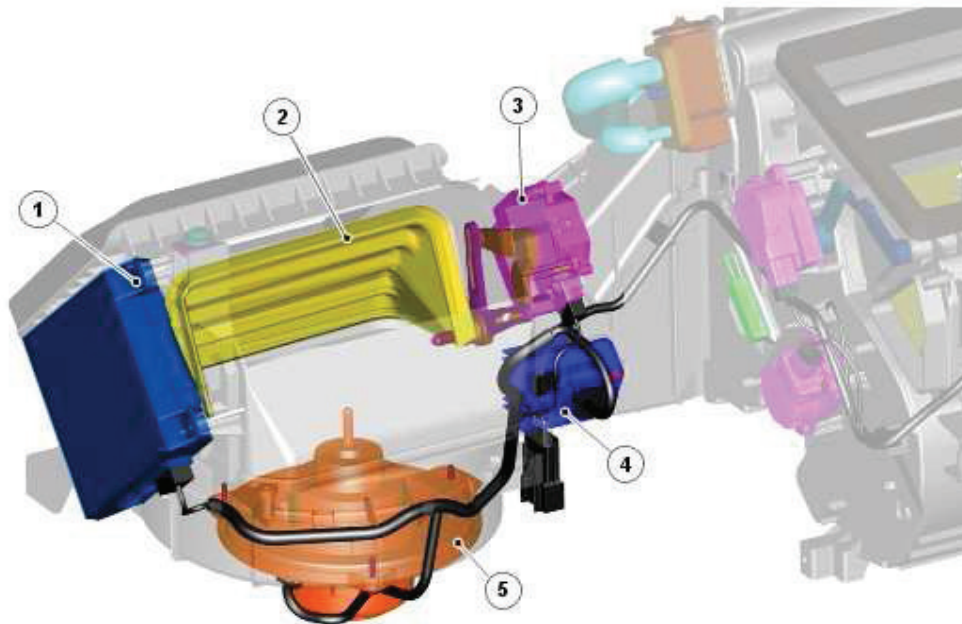
For information on how to operate the heating and ventilation system, refer to the Owner's Handbook.

AUTOMATIC TEMPERATURE CONTROL MODULE



Many of the features and operations of the heating and ventilation system are controlled by the Automatic Temperature Control (ATC) module, which is located on the end of the air inlet duct casing. For additional information, refer to Control Components (412-04)

AIR INLET DUCT



E73138

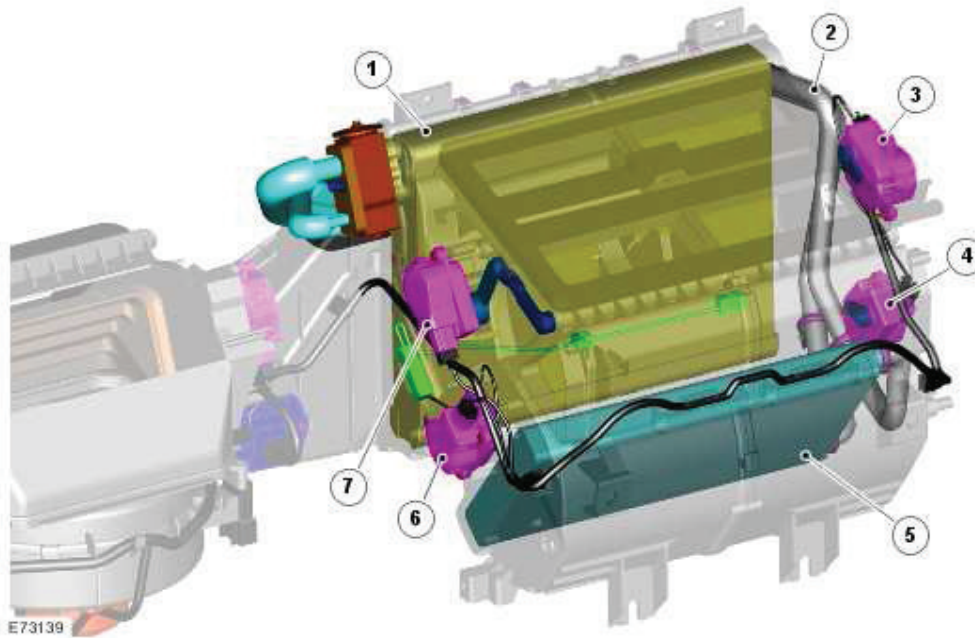
Item	Part Number	Description
1		ATC module
2		Fresh/recirculated air door
3		Fresh/recirculated air door motor
4		Blower motor control module
5		Blower motor and fan assembly

The air inlet duct is installed behind the instrument panel on the passenger side. Inlet air passes through the cabin filter and into the air inlet duct where it enters the blower. A servo motor mounted on the air inlet duct allows fresh or recirculated air to be selected. Operation of the fresh/recirculated door is controlled by the ATC module.

BLOWER

The blower is contained within the air inlet duct assembly and consists of an open hub, centrifugal fan powered by an electric motor. Operation of the blower is controlled by the ATC module using a relay located in the auxiliary junction box and the blower motor control module. The blower motor control module is installed in the air inlet duct downstream of the blower, where any heat generated during operation is dissipated by the air flow.

HEATER ASSEMBLY



Item	Part Number	Description
1		A/C evaporator
2		Heater coolant pipes
3		Windshield distribution door motor
4		RH temperature blend motor
5		Heater core
6		LH temperature blend motor
7		Face and feet distribution door motor

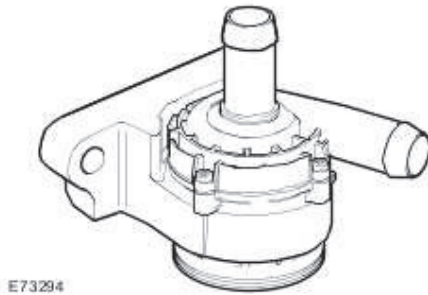
The heater assembly controls the temperature of the air supplied to the air distribution ducts, as directed by the ATC module. The heater assembly is installed on the vehicle center line, between the instrument panel and the engine bulkhead.

The heater assembly consists of a casing which contains the Air Conditioning (A/C) evaporator, the heater core, 2 air distribution control doors, and 2 temperature blend control doors.

The A/C evaporator is controlled as part of the A/C system. For additional information, refer to Air Conditioning (412-03)

The heater core provides the heat source to warm the air being supplied to the cabin. The heater core is an aluminium 2 pass, fin and tube heat exchanger, and is installed across the width of the heater housing. Two aluminium 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 coolant pump. For additional information, refer to Engine Cooling (303-03)

HEATER COOLANT PUMP



A heater coolant pump is mounted on the RH rear face of the radiator housing. The pump is electrically driven and provides the necessary flow rate of engine coolant to the heater core. Operation of the pump is controlled by the Central Junction Box (CJB) on receipt of medium speed Controller Area Network (CAN) bus signals from the ATC module.

The pump will run when the engine is running and operates at a single speed. The CJB broadcasts pump status over the medium speed CAN bus for use by other vehicle systems.

NOTE:

The pump can be forced to run when the engine is not running if required. For additional information, refer to Engine Cooling (303-03)

VENTILATION OUTLETS

The ventilation outlets allow the free flow of air through the passenger compartment. The outlets are installed in the LH and RH rear quarter panels, below the tail lamps.

Each ventilation outlet consists of a grille covered by a soft rubber flap, and is effectively a non-return valve. The flaps open and close automatically depending on the differential between cabin and outside air pressures.

PRINCIPLES OF OPERATION

Operation of the heating and ventilation system is controlled by the ATC module. For additional information, refer to Control Components (412-04)