

Перевести	EN
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Яндекс.Переводчик

GENERAL

The air conditioner system takes advantage of the plug-in hybrid EV system.

FEATURES

BETTER PRODUCT PACKAGE

- The driver can always create a comfortable interior by activating the electric compressor and electric heater regardless of the drive mode.
 - Both a most comfortable interior and energy saving (improved fuel efficiency) are achieved by coordinated control with other vehicle systems.
 - The drive battery can be cooled down even during driving regardless of climate control activating condition in the interior.
 - A right/left independent temperature control function is available as standard, thus improving comfort.
 - A remote climate control, which is compatible with the MITSUBISHI remote control system, allows the driver to cool or warm the interior prior to departure.
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ECO FRIENDLINESS

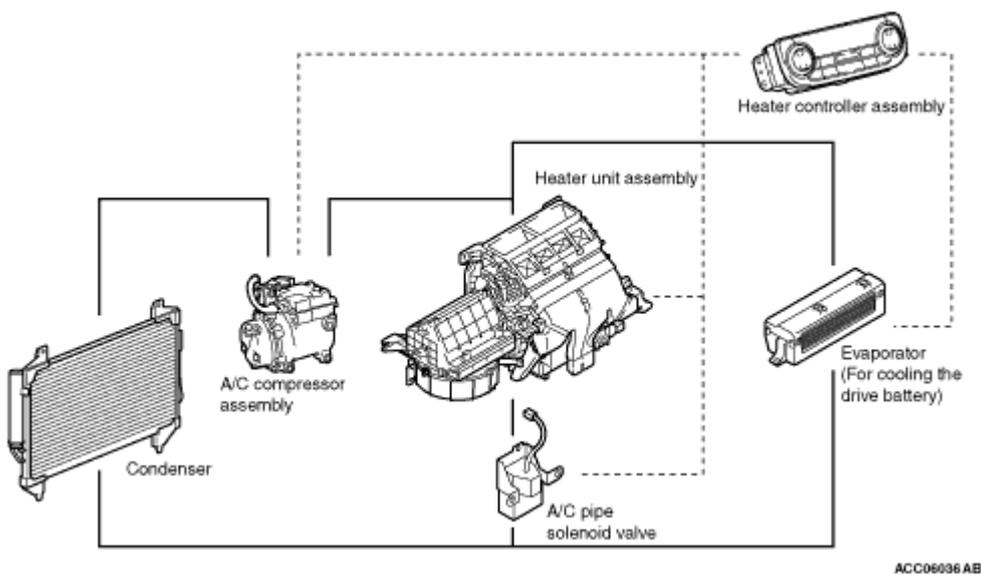
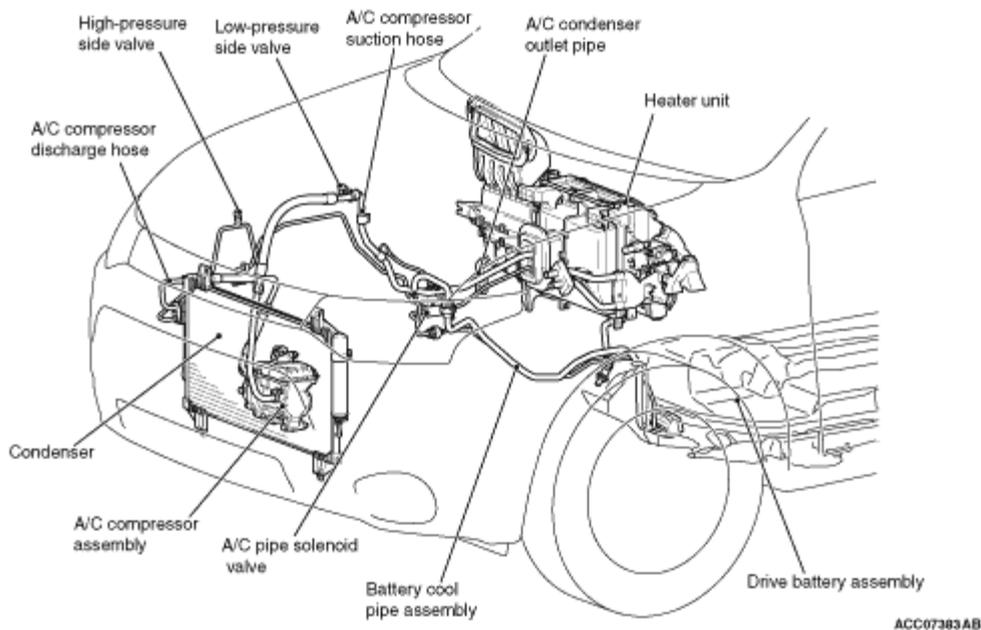
- Under certain conditions, the air conditioner can be operated even when the engine is not running. This reduces CO2 emissions.
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SPECIFICATIONS

Item		Specifications
A/C control panel type		Push button with LCD
Heating capacity (W)		5.5
Cooling capacity (W)		5.7
Compressor type		EV24AN5
Refrigerant	Type	R134a
	Charge quantity (g)	570 - 610

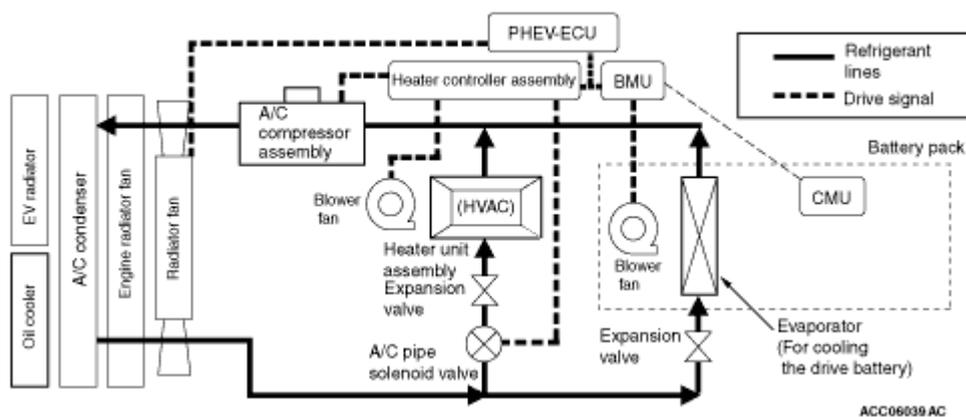
STRUCTURE

COOLING SYSTEM



- A dual evaporator system is used. The first evaporator is used for the air conditioner, and the second evaporator is used to cool the drive battery only.
- The electric A/C compressor can operate regardless of the drive mode. Because of this, it can be used to cool the drive battery during quick charging.
- An A/C pipe solenoid valve is located upstream of the evaporator. This valve enables the system to cool down the drive battery even when the air conditioner is off.

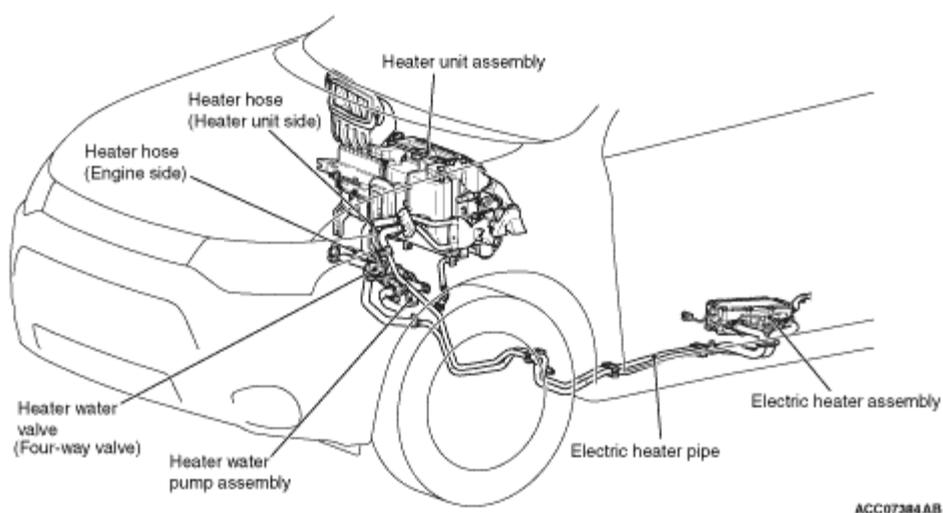
DRIVE BATTERY COOLING SYSTEM

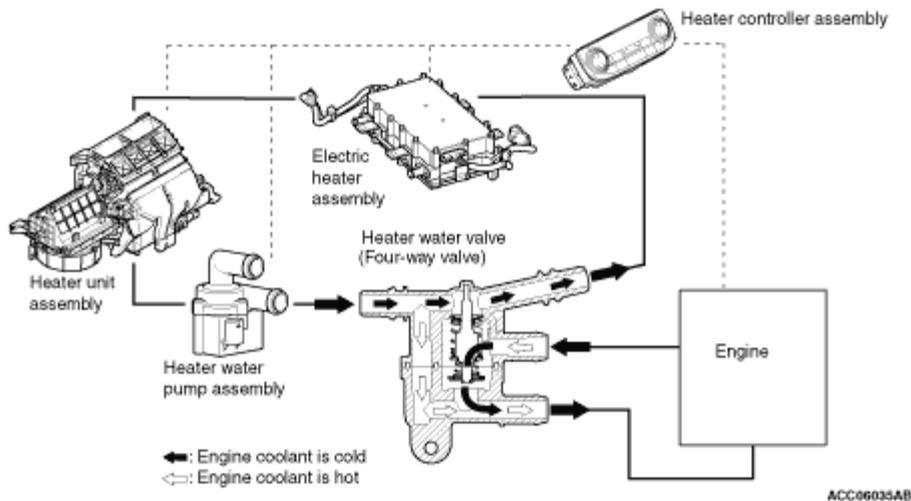


- General information on the battery cooling system

1. The PHEV-ECU recognises that the drive battery is activated (Ready status) or the quick charger is connected.
2. The battery management unit (BMU) informs the PHEV-ECU of the current battery temperature.
3. The PHEV-ECU commands the A/C control panel and the BMU to distribute air or cool down the battery according to the current battery temperature.
4. The A/C control panel activates the A/C compressor. The A/C compressor runs.
5. The BMU activates the battery cooling fan according to the command from the PHEV-ECU.

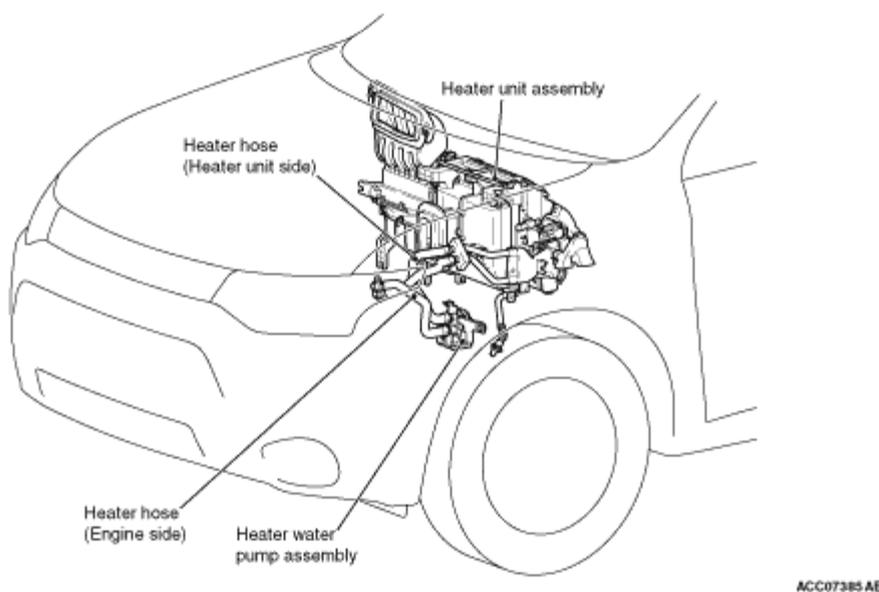
HEATING SYSTEM (VEHICLES WITH ELECTRIC HEATER)

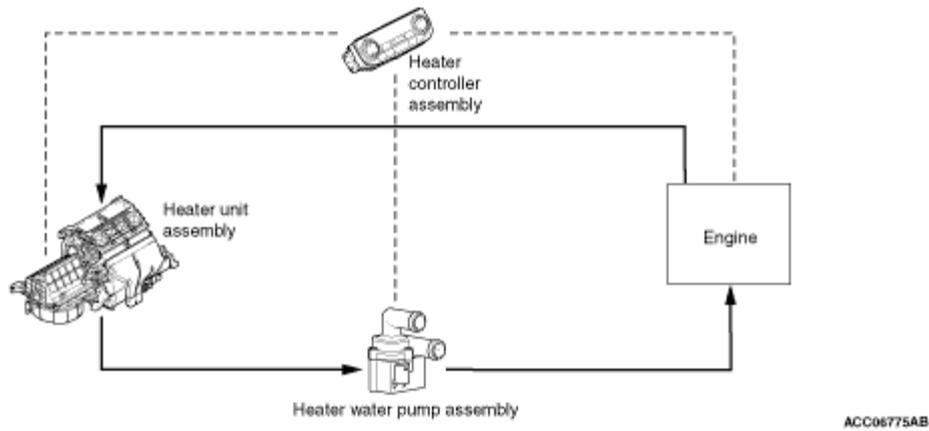




- When the engine is cool during the EV driving mode, the thermo valve in the heater water valve (four-way valve) will close to isolate the heater-side circuit from the engine-side circuit. Due to this, the electric heater can warm the interior effectively.
- When the engine is hot, the thermo valve will open to circulate the engine coolant through the heater-side circuit to utilise the engine heat for the interior heating. Due to this, the electric heater can consume less electric power. In addition, enough heating performance can be ensured even in extremely cold climates.

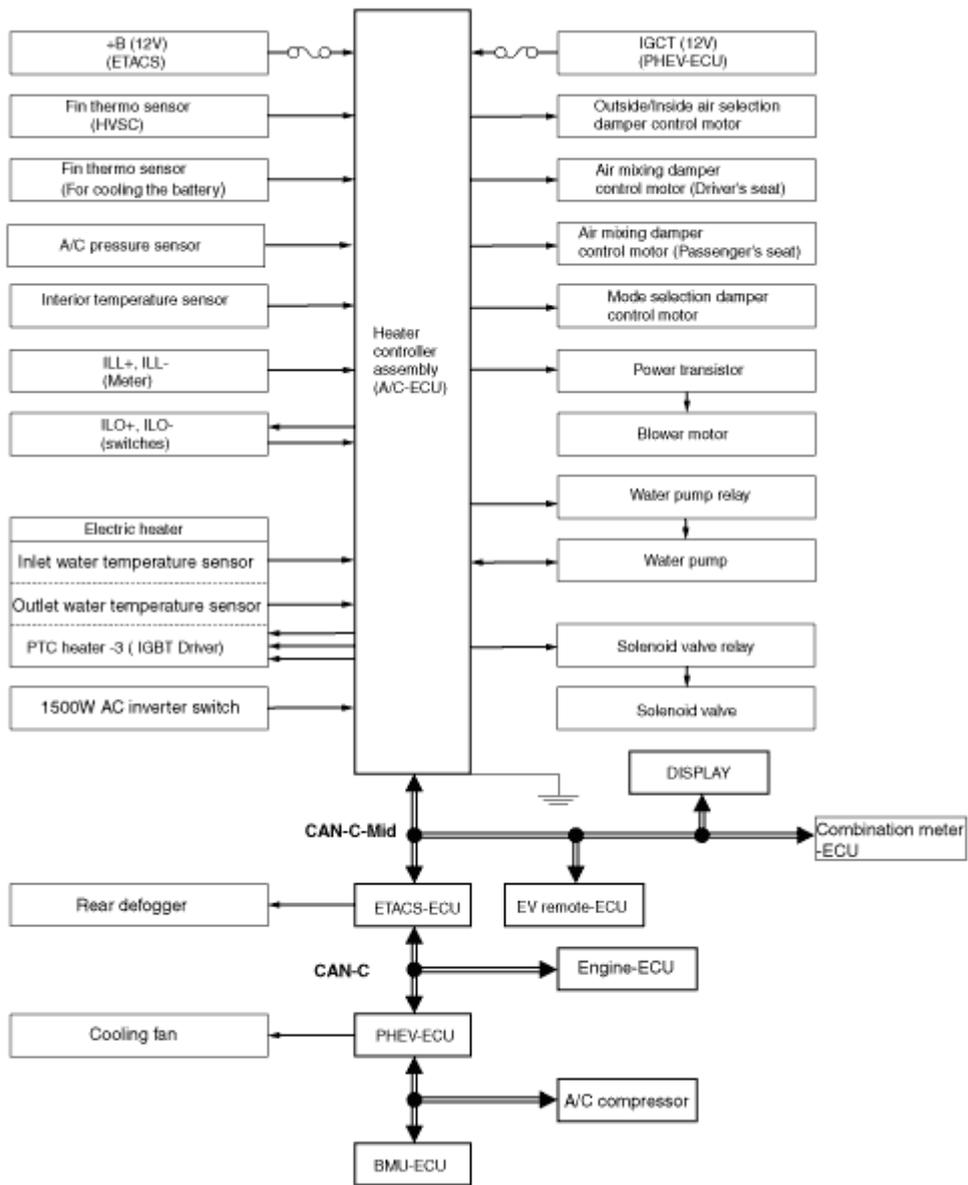
HEATING SYSTEM (VEHICLES WITHOUT ELECTRIC HEATER)





- To warm the interior, the system will start the engine to use the engine heat (hot engine coolant). The system starts and stops the engine based on the engine starting criteria flag, which is calculated on ambient temperature and air conditioner conditions. If the system determines that the engine should be stopped, the engine will stop. Then the system will drive the heater water pump assembly (electric water pump) to circulate the hot engine coolant through the heater-side circuit.

Communication



The A/C control panel (A/C-ECU) controls the air conditioner-related high voltage components intensively and communicates with the A/C compressor via CAN.

[Yandex.Metrica](https://yandex.ru/metrica)


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