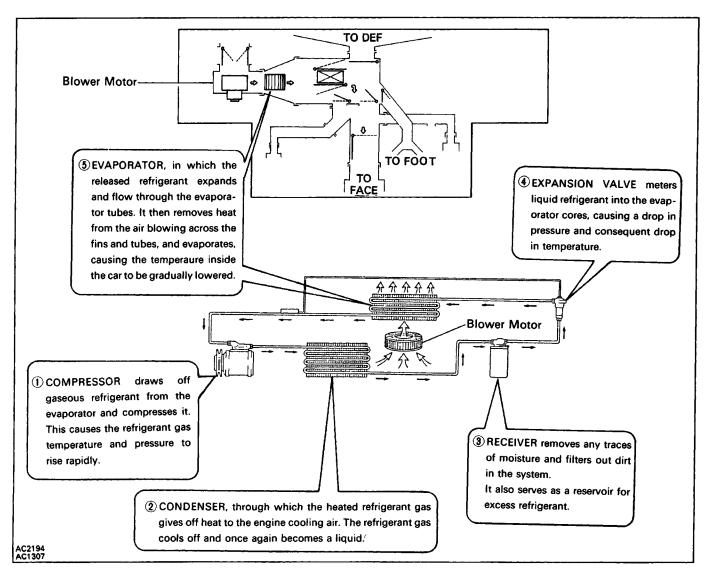
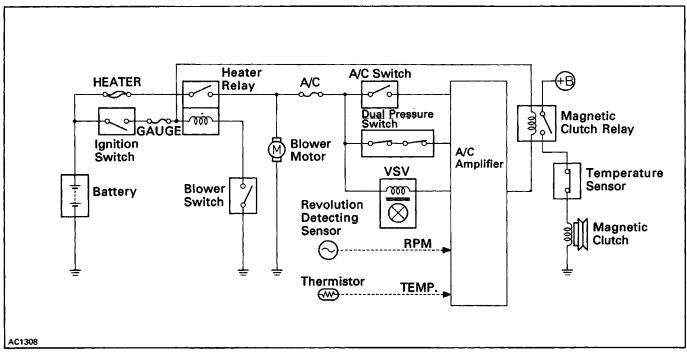


GENERAL DESCRIPTION REFRIGERATION CYCLE

- 1. The compressor discharges high temperature and high pressure refrigerant containing the heat absorbed from the evaporator plus heat created by the compressor in a discharge stroke.
- 2. This gaseous refrigerant flows into the condenser. In the condenser, the gaseous refrigerant condenses into liquid refrigerant.
- 3. This liquid refrigerant flows into the receiver which stores and filters the liquid refrigerant till the evaporator requires the refrigerant.
- 4. The liquid refrigerant is changed by the expansion valve into a low temperature, low pressure liquid and gaseous mixture.
- 5. This cold and foggy refrigerant flows to the evaporator. Vaporizing the liquid in the evaporator, the heat from the warm air stream passing through the evaporator core is transferred to the refrigerant. All the liquid is changed into the gaseous refrigerant in the evaporator and only heat–laden gaseous refrigerant is drawn into the compressor. Then the process is repeated again.



PRINCIPLE OF A/C ELECTRICAL CIRCUIT



HOW IS MAGNETIC CLUTCH ENERGIZED?

The general process until the magnetic clutch is energized is shown below.

- (1) Ignition Switch "ON"
- (2) Blower Switch "ON" ———— Heater Relay "ON" (Blower Motor "RUN")
- (3) A/C Switch "ON" A/C Amplifier "ON" (A/C Amp. Main Power Supply)
- (4) Dual Pressure Switch "ON": Refrigerant Condition (206 kPa (2.1 kgf/cm², 30 psi) less than 2,648 kPa (27 kgf/cm², 384 psi)).
- (5) Thermistor supplies temperature signal of evaporator to A/C amplifier.
- (6) VSV "ON" → E/G Idle UP
- (7) Magnetic Clutch Relay "ON"
- (8) Temperature Sensor "ON". Temperature of Temperature Sensor is less than 180°C (356°F).
- (9) Magnetic Clutch "ON"

(10) Revolution Detecting Sensor supplies RPM signal of compressor to A/C amplifier. If compressor is not locked, magnetic clutch is continuously energized.



