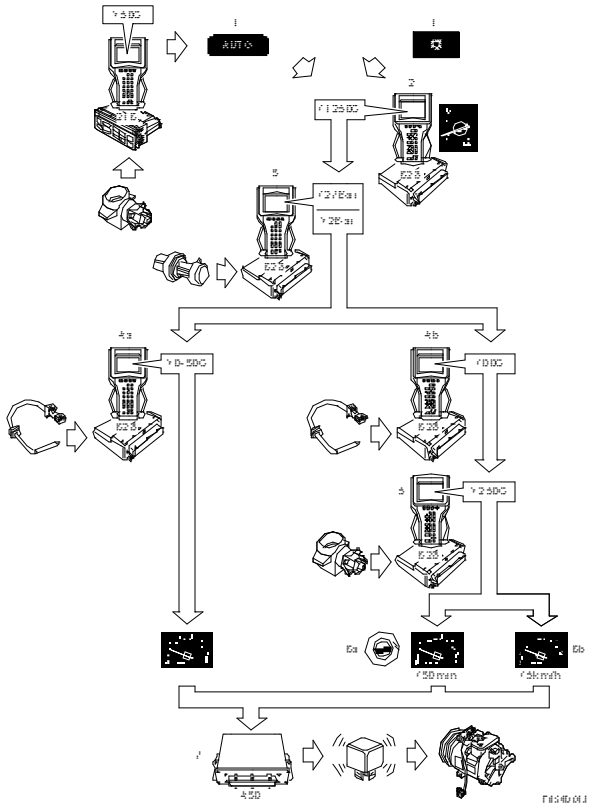
Engaging the A/C



A/C request

A number of conditions must be met before the A/C relay is grounded and the A/C compressor clutch engages.

On MCC systems with A/C, this is done manually. To activate the A/C request, the fan must be set to positions 1-4 and the A/C button in position ON.

For ACC, the A/C request is automatic when the ACC panel is on (that is, OFF is not pressed in), ECON **is not** selected and the outside temperature exceeds 5°C.

Engaging the A/C

1. The A/C request comes from the MCC with A/C or ACC.

   On the MCC with A/C, the signal goes via a direct lead and on the ACC the information is put on the bus.
2. The engine temperature must be below 125°C. DICE receives the information on the bus from TRIONIC.

3. The condenser pressure must be below 27 bar and higher than 1.75 bar. The pressure sensor detects the condenser pressure.

4. The evaporator temperature must comply with the following conditions:

4.a. If the evaporator temperature is above 3°C, DICE sends information on the A/C request to TRIONIC, step 7.

4.b. If the evaporator temperature is below 0°C, the A/C compressor electromagnetic clutch will be supplied with voltage only if steps 5 and 6 are fulfilled.

5. The outside temperature must be above 25°C. This information comes from the SID.

6. One of the following conditions must be fulfilled:

6.a. The engine must have been running for less than 30 minutes.

6.b. The speed must be below 5 km/h.

7. The conditions are fulfilled for A/C request and TRIONIC grounds the A/C relay on the condition that the engine is running. When the relay is grounded, power is output via the overheating protection to the compressor magnetic clutch. The overheating protection is built into the magnetic clutch. If the overheating protection is activated, the magnetic clutch must be replaced.

Important

If any diagnostic trouble codes are generated for any of the sensors at the values above, the conditions for engaging the A/C will not be fulfilled.