

- Short-circuit proof design.
- Override function during failure of a temperature sensor or the feedback potentiometer.
- Malfunction indication using light emitting diode (LED) blink code.

### Short-circuit proof design

The circuit board in the tempmatic pushbutton control unit is protected against shorts from any of its externally connected circuits. The respective output signal, i.e. blower and A/C compressor, is switched off, and the blend air flap remains in its present position. The respective output signals are switched on again after the short-circuit has been eliminated.

Due to this modification, the two ampere fuse in the tempmatic pushbutton control unit is no longer required.

### Override function during failure of a temperature sensor or feedback potentiometer

Then tempmatic pushbutton control unit switches to an override function if one of the following components fails:

- In-car temperature sensor
- Outside temperature sensor
- Evaporator temperature sensor
- Coolant temperature gauge sensor
- Feedback potentiometer

● AUX WATER PUMP SHORT

In this case, the blend air flap remains in its present position. The heater valve remains open or opens. The blower continues to blow at the previously set speed, and the legroom flaps open. All other functions are non-operational.

Defective component with wiring	Number of voltage impulses (blinks)	Time of impulse sequences in seconds
In-car temp. sensor	5	10
Outside temp. sensor	10	20
Feedback potentiometer	15	30
Evaporator temp. sensor	20	40
Coolant temp. gauge sensor	25	50

The malfunction indication repeats until the defect is no longer detected. There is a pause of four seconds between each sequence of impulses, at which point the opening and closing of the relay in the blower switch is audible (clicking noise), momentarily switching the blower off. This provides an additional method for diagnosing the defective component by listening to the relay and timing the impulse sequences.

The test procedure for diagnosis using the LED blink code is on page 246.