Component Procedures: A/C Signal

Table of Contents

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Components (itype_392)

AIR CONDITIONING (A/C) CONTROLS-
PCM
INPUT
The A/C control system information applies to factory installed air conditioning units.
A/C SELECT SIGNAL
: When the A/C switch is in the ON position, an input signal is sent to the
Powertrain Control Module
(PCM)
. The signal informs the PCM that the A/C has been selected. The PCM adjusts
idle speed
to a pre-programmed rpm through the
Idle Air Control
(
IAC
)
motor to compensate for increased engine load.
A/C REQUEST SIGNAL
: Once A/C has been selected, the powertrain
control module
(PCM) receives the A/C request signa]. from the clutch cycling pressure switch. The input indicates that the evaporator pressure is in the proper range for A/C application. The PCM uses this input to cycle the A/C compressor clutch (through the A/C relay). It will also determine the correct engine idle speed through the idle air control (IAC) motor position.
If the A/C low-pressure switch or high-pressure switch opens (indicating a low or high refrigerant pressure), the PCM will not receive an A/C request signal. The PCM will then remove the ground from the A/C relay. This will deactivate the A/C compressor clutch.
If the switch opens, (indicating that evaporator is not in proper pressure range), the PCM will not receive the A/C request signal. The PCM Will then remove the ground from the A/C relay, deactivating the A/C compressor clutch.