

► TASK Diagnose A/C compressor clutch control systems; determine needed action.

MAST
7D2

Time off	_____
Time on	_____
Total time	_____

CDX Tasksheet Number: C374

Vehicle used for this activity:

Year _____ Make _____ Model _____
Odometer _____ VIN _____

1. Research the procedure and specifications to inspect and test the electrical components of the A/C compressor clutch control system in the appropriate service information.

- Specified resistance of the clutch winding: _____ ohms
- A/C cycling switch specifications (if equipped)
Off pressure: _____ psi/kPa
On pressure: _____ psi/kPa
- A/C thermostwitch specifications (if equipped)
Off temperature: _____ °F/°C
On temperature: _____ °F/°C
- A/C duct temperature specifications: _____ °F/°C
- A/C high-pressure cut-out switch specifications
Off pressure: _____ psi/kPa
On pressure: _____ psi/kPa
- A/C low pressure cut-out switch (non-cycling) (if equipped)
Off pressure: _____ psi/kPa
On pressure: _____ psi/kPa
- A/C compressor clutch relay specifications (if equipped)
Relay winding resistance: _____ ohms
Maximum allowable voltage drop across relay contacts: _____ volts
- List all the fuses and/or fusible links for the A/C compressor clutch circuit:
- Does the compressor clutch share a fuse with the blower circuit?
Yes: _____ No: _____

2. Following the specified procedure, activate the A/C system.

- Does the compressor clutch engage? Yes: _____ No: _____
- If yes, continue on to step 3. If no, skip to step 5.

3. List your observations below.

- A/C cycling switch readings (if equipped)
Off pressure: _____ psi/kPa
On pressure: _____ psi/kPa
- A/C thermostwitch readings (if equipped)
Off temperature: _____ °F/°C
On temperature: _____ °F/°C
- A/C duct temperature: _____ °F/°C

- d. A/C high pressure cut-out switch readings (may require condenser airflow blockage to test). (DUE TO THE SAFETY IMPLICATIONS, ONLY PERFORM THIS TEST IF APPROVED BY YOUR SUPERVISOR/INSTRUCTOR.)
 Off pressure: _____ psi/kPa
 On pressure: _____ psi/kPa
- e. Determine any necessary action(s):

4. Have your supervisor/instructor verify the readings. Supervisor's/instructor's initials: _____

NOTE If your instructor signed off on this step, skip to the final check off.

5. If the clutch does not engage, install a gauge set and check for minimum refrigerant pressure. If pressure is insufficient, check for refrigerant leaks, then retest after repair. If pressure is sufficient, measure the voltage applied to the compressor clutch winding.

- a. Applied voltage to the compressor clutch: _____ volts
- b. Compressor clutch winding resistance: _____ ohms
- c. A/C compressor clutch relay readings
 Relay winding resistance: _____ ohms
 Voltage at the relay contact input terminal: _____ volts
 Voltage drop across relay contacts (A/C on): _____ volts
- d. Describe the circuit protection device(s) condition:

6. Determine any necessary action(s):

NOTE If repairs are made, return to step 3 and retest.

7. Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action(s) recommended.

Performance Rating

CDX Tasksheet Number: C374

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Supervisor/instructor signature _____ Date _____