



Main Reasons for a Clutch Failure

Clutch failure can be caused by many things. It is always best to pin point the reason for a failure. Clutch failure is usually caused by high pressure or voltage issues, or a combination of both.

Steps to check:

- 1) Check the refrigerant in the system. With a wrong charge the pressure switches will cause the compressor to constantly engage and disengage. If there is not enough charge the compressor will overheat due to a lack of oil circulating. If there is too much refrigerant, the head pressure will run higher, causing overheating which leads to clutch failure.
- 2) Check for a restriction in the system, such as a blocked condenser. This makes the clutch start to lock up/slip. The belt adds extra force from the engine to the compressor, and will cause the clutch to overheat.
- 3) Check the fan clutch or the fan assembly. An incorrectly performing fan clutch or assembly can raise pressure from not enough air flow over the condenser. With fan assemblies with variable electric fans, check the ohm resistance to make sure it's performing correctly. There are usually more than one relay on these models too. Remember, just because it's turning does not mean it's working correctly.
- 4) Correct oil levels. Make sure the system has the correct amount of oil. An insufficient amount going to the compressor will cause it to lock up and the belt adds extra force from the engine to the compressor, causing the clutch to overheat. Too much oil is just as bad trying to circulate through the system.
- 5) Voltage to the coil. An incorrect voltage to the compressor will cause the clutch to slip and cause excessive wear on the clutch coil and hub. Check the voltage to the compressor and also the relays.

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