

DOC'S BLOCKS
AUTOMOTIVE AIR CONDITIONING REPAIR
CLUTCH GROUND CIRCUIT

Clutches can have several different methods in which they are grounded. They will be one of the following:

- A. Internally grounded.
- B. Externally grounded at the compressor.
- C. Externally grounded at a switch in the compressor.
- D. Externally grounded at some point on the engine.
- E. Externally grounded through the computer.

AC systems, when in operation, there must have 12-volts or charging rate to the clutch at all times. There must be a good ground as well.

Testing for ground should be tested for ohms of resistance with a multimeter. (3-5 ohms) Excess of this is a poor ground. (i.e. 8-10 ohms)

If the clutch won't operate and is grounded at the compressor or at the engine, it may require relocation.

If the problem is low voltage, check accessible wire connections.

In some cases, it may be necessary to install a clutch relay. There are so many connections between the battery and the clutch that resistance can occur and chasing them all down is nearly impossible.

When the system does not have a factory clutch relay, use a GM externally grounder-three prong blower motor relay. Mount it near the compressor, run a wire from the battery to the relay, cut the clutch wire and connect the two ends to the relay.

There will then be 12 volts to the relay and the relay will energize when the AC is turned on. The relay will send charging rate voltage to the clutch.