

Component Procedures: Starter Relay

Table of Contents

1. Parts and Labor (itype_189)
2. Components (itype_392)
3. Connector Views (itype_47)
4. Components (itype_32)
5. Procedures (itype_376)
6. Component Tests and General Diagnostics (itype_383)

Component Procedures: Starter Relay

Parts and Labor (itype_189)

Parts

| Qualifier | Part # | Name | Price | Note |
|-----------|---------|---------------------|-------|------|
| Relay | 4638094 | 7 - Fuel Pump Relay | 3.45 | |

Labor

| Operation | Qualifier Path | Skill | Std Hrs | Wty Hrs |
|-----------|----------------|-------|---------|---------|
| Replace | Relay, R&R | B | 0.4 | 0.2 |

Components (itype_392)

DESCRIPTION

The starter relay is an electromechanical device that switches battery current to the pull-in coil of the starter solenoid when the ignition switch is turned to the Start position. The starter relay is located in the Power Distribution Center

(PDC), in the engine compartment. See the fuse and relay layout label affixed to the inside surface of the PDC cover for starter relay identification and location.

The starter relay is a International Standards Organization (ISO)

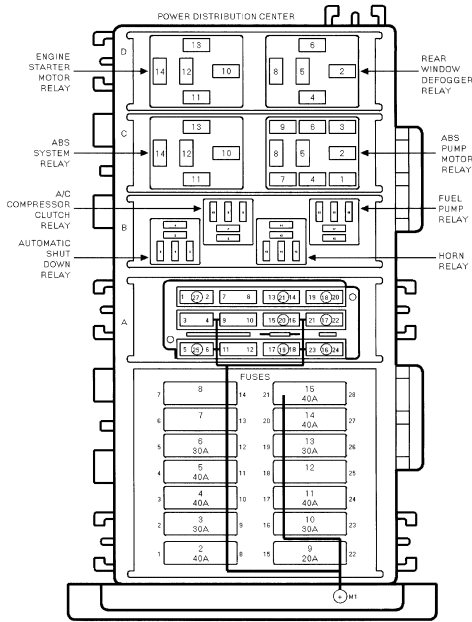
relay. Relays conforming to the ISO specifications have common physical dimensions, current capacities, terminal patterns, and terminal functions.

The starter relay cannot be repaired or adjusted and, if faulty or damaged, it must be replaced.

OPERATION

The ISO relay consists of an electromagnetic coil, a resistor or diode, and three (two fixed and one movable) electrical contacts. The movable (common feed) relay contact is held against one of the fixed contacts (normally closed) by spring pressure. When the electromagnetic coil is energized, it draws the movable contact away from the normally closed fixed contact, and holds it against the other (normally open) fixed contact. When the electromagnetic coil is de-energized, spring pressure returns the movable contact to the normally closed position. The resistor or diode is connected in parallel with the electromagnetic coil in the relay, and helps to dissipate voltage spikes that are produced when the coil is de-energized.

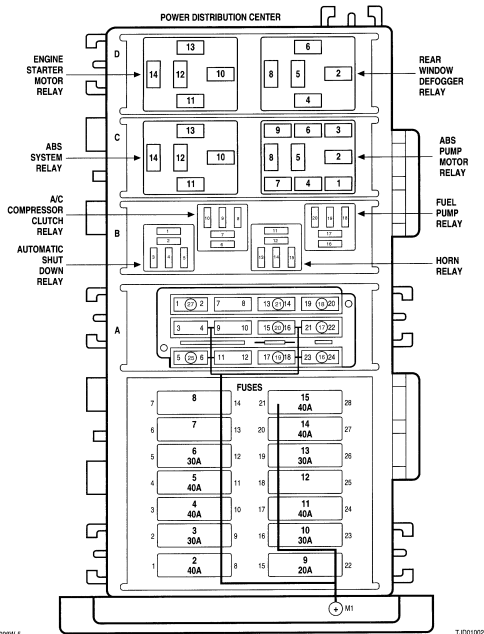
Connector Views (itype_47)



ENGINE STARTER MOTOR RELAY

| CAV | CIRCUIT | FUNCTION |
|-----|--------------|------------------------------------|
| D10 | A2 12PK/BK | FUSED B(+) |
| D11 | T141 14YL/RD | FUSED IGNITION SWITCH OUTPUT (ST) |
| D12 | - | - |
| D13 | T41 20BR/LB | PARK/NEUTRAL POSITION SWITCH SENSE |
| D14 | T40 12BR | ENGINE STARTER MOTOR RELAY OUTPUT |

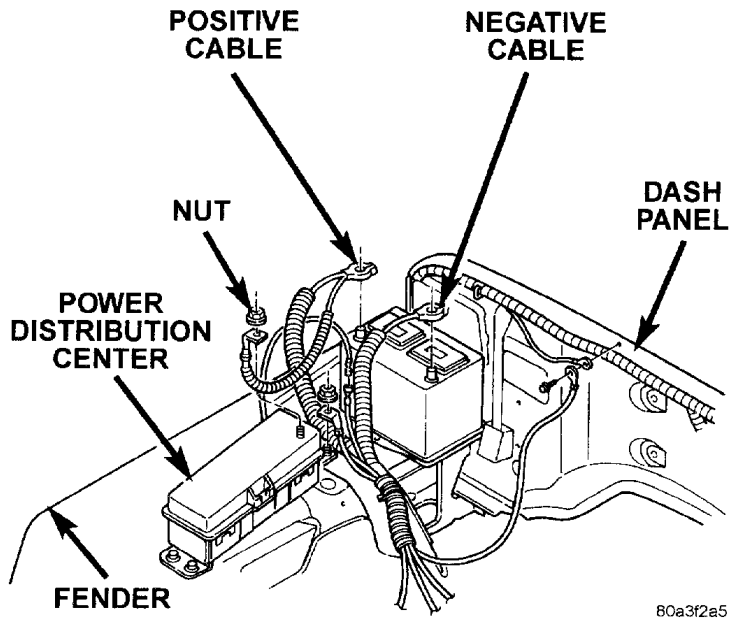
Components (itype_32)



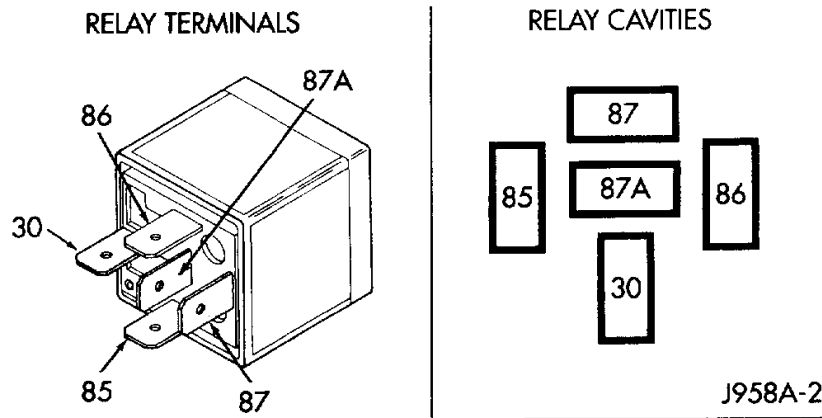
J9964-5

TJ01002

Procedures (itype_376)



Component Tests and General Diagnostics (itype_383)



| TERMINAL LEGEND | |
|-----------------|-----------------|
| NUMBER | IDENTIFICATION |
| 30 | COMMON FEED |
| 85 | COIL GROUND |
| 86 | COIL BATTERY |
| 87 | NORMALLY OPEN |
| 87A | NORMALLY CLOSED |