

# STARTER - PARIS-RHONE

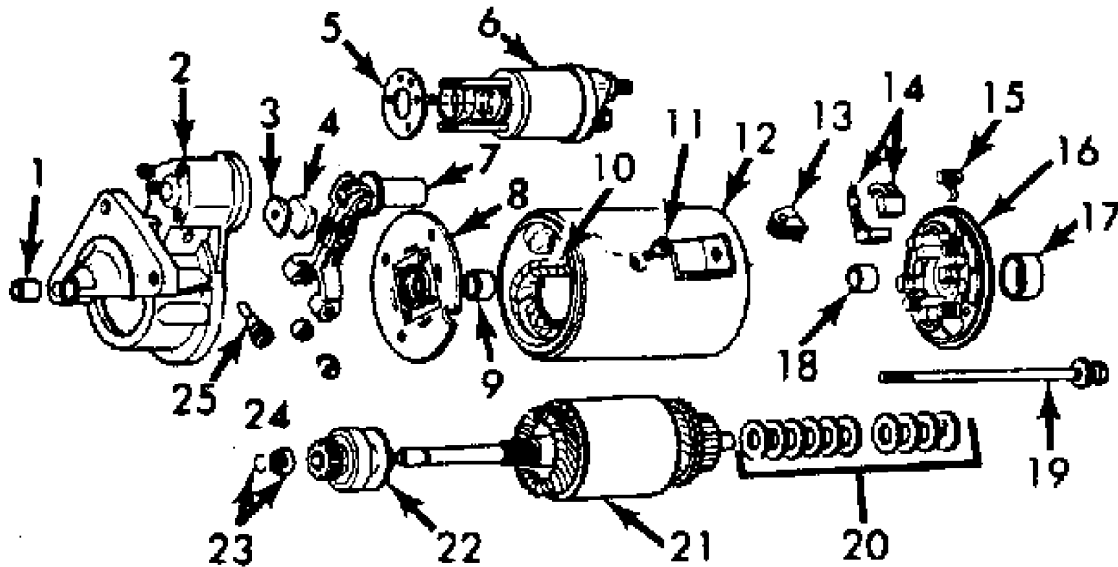
1988 Jeep Cherokee

Starters  
JEEP PARIS-RHONE

Cherokee, Comanche, Wagoneer

## DESCRIPTION

Starter is a 4-pole, 4-brush type direct series wound motor. The engagement mechanism is integral with the starter and controls switching on and off of motor and shifting of the starter pinion.



- |                                    |                             |
|------------------------------------|-----------------------------|
| 1. End Housing Bushing             | 13. Grommet                 |
| 2. Drive-End Housing               | 14. Brush Set               |
| 3. Spacer                          | 15. Brush Spring            |
| 4. Pad                             | 16. Brush Holder            |
| 5. Solenoid Plate                  | 17. Cap                     |
| 6. Solenoid                        | 18. Brush Holder Bushing    |
| 7. Pinion Shift Yoke               | 19. Through Bolts           |
| 8. Support Plate                   | 20. Armature Brake Assembly |
| 9. Support Plate Bushing           | 21. Armature                |
| 10. Field Winding & Pole Shoe Sets | 22. Starter Drive Pinion    |
| 11. Pole Shoe Screw                | 23. Drive Pinion Stop       |
| 12. Armature Housing               | 24. Shift Yoke Pivot Pins   |
|                                    | 25. Shift Yolk Axle         |

Fig. 1: Exploded View of Paris-Rhone Starter Motor  
Courtesy of Chrysler Motors.

## OPERATION

1) Voltage is applied to ignition switch through fuse "B" at all times. Voltage is also applied at all times to the contact on starter solenoid, terminal "B".

2) With ignition switch in "START" position, battery voltage is applied from fusible link "B", to ignition switch, and to the coil of the starter relay to ground.

3) The coil of the starter relay engages closing relay contacts. With start relay contacts closed, battery voltage is applied to starter solenoid. Both solenoid windings are energized.

4) The pull-in and hold-in windings work together to magnetically pull starter gear into ring gear. At the same time the plunger also closes solenoid switch contacts in the starter solenoid. Full battery voltage is now applied directly to the starter motor and it cranks the engine.

NOTE: Use the amperage draw reading after the starter motor has obtained its maximum RPM.

## TROUBLE SHOOTING

- \* Check the battery for a broken or cracked casing.
- \* Check that all connections to battery and starter are clean and tight.
- \* Check electrolyte level of battery. Levels that are too high or too low may cause poor starter motor performance.
- \* Check battery by measuring specific gravity of electrolyte in each cell with a hydrometer.

NOTE: No further testing or troubleshooting procedures available from manufacturer.

## STARTER SPECIFICATIONS

STARTER MOTOR SPECIFICATIONS TABLE

Application	Specification
Cold Cranking Voltage (Minimum)	9.6 Volts
Cold Cranking Amps	
Cherokee & Wagoneer	350 Amps
Comanche	120 Amps

## TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Left Side Engine Mount-to-Block	40 (54)
Left Side Engine Mount-to-Bell Housing Bolt	35 (47)
Left Side Engine Mount-to-Frame Sill Bolt	48 (65)
Starter Mounting Bolts	37 (50)
	INCH Lbs. (N.m)
Starter Relay "B+" Terminal Nut	18 (2)

