

# COMPUTER RELEARN PROCEDURES

## 1993 Jeep Cherokee

1991-93 GENERAL INFORMATION  
Chrysler Motors Computer Relearn Procedures

All Domestic Models

### INTRODUCTION

Vehicles equipped with engine or transmission computers may require a relearn procedure after the vehicle battery is disconnected. Many vehicle computers memorize and store vehicle operation patterns for optimum driveability and performance. When the vehicle battery is disconnected, this memory is lost. The computer will use default data until new data from each key start is stored. As the computer memorizes vehicle operation for each new key start, driveability is restored. Vehicle computers may memorize vehicles operation patterns for 40 or more key starts.

Customers often complain of driveability problems during the relearn stage because the vehicle acts differently then before being serviced. Depending on the type and make of vehicle and how it is equipped, the following complaints (driveability problems) may exist:

- \* Harsh Or Poor Shift Quality
- \* Rough Or Unstable Idle
- \* Hesitation Or Stumble
- \* Rich Or Lean Running
- \* Poor Fuel Mileage

These symptoms and complaints should disappear after a number of drive cycles have been memorized. To reduce the possibility of complaints, after any service which requires battery power to be disconnected, vehicle should be road tested. These procedures are especially important if the vehicle is equipped with an electronically controlled automatic transmission or transaxle. Always complete the procedure before returning the vehicle to the customer.

### COMPUTER RELEARN PROCEDURES

#### ALL EXCEPT VEHICLES WITH A-604 TRANSAXLE

NOTE: If repairs other than battery replacement have been made to late model Chrysler Motors vehicles, always refer to verification tests VER-1, 2, and 3 in the ENGINE PERFORMANCE section.

Automatic Transmission

- \* Set parking brake, and start engine in "P" or "N" position. Warm-up vehicle to normal operating temperature or until cooling fan cycles.
- \* Allow vehicle to idle for one minute in "N" position. Select "D" and allow engine to idle for one minute.
- \* Accelerate at normal throttle position (20-50%) until vehicle shifts into top gear.
- \* Cruise at light to medium throttle.
- \* Decelerate to a stop, allowing vehicle to downshift, and use brakes normally.
- \* Process may be repeated as necessary.

Manual Transmission

- \* Place transmission in Neutral position.

- \* Ensure the emergency brake has been set and all accessories are turned off.
- \* Start engine and bring to normal operating temperature.
- \* Allow vehicle to idle in Neutral for one minute.
- \* Initial relearn is complete; process will be completed during normal driving.

## VEHICLES WITH A-604 TRANSAXLE

**NOTE:** If repairs other than battery replacement have been made to late model Chrysler Motors vehicles, always refer to verification tests VER-1, 2, and 3 in the ENGINE PERFORMANCE section.

This procedure should be used on any Chrysler vehicle equipped with an A-604 transaxle. It will quickly optimize shift quality after disconnecting battery or loss of voltage supply to the transaxle controller.

1) Warm transaxle to normal operating temperature by allowing engine to idle for proper time depending on ambient temperature. See TRANSAXLE FLUID WARM-UP TIME table.

### TRANSAXLE FLUID WARM-UP TIME TABLE

Ambient Temperature	Engine Idle Time (Minutes)
0°F (-18°C)	8
20°F (-7°C)	6
40°F (4°C)	4
60°F (16°C)	2
80°F (27°C)	0

2) To set transaxle upshift learn procedure, operate vehicle and maintain constant throttle opening during shifts.

**CAUTION:** DO NOT move accelerator pedal during transaxle upshifts.

3) Accelerate vehicle with throttle opening angle in range of 10 to 50 degrees. Operate vehicle until transaxle performs 1-2, 2-3, and 3-4 upshifts at least 15-20 times.

**NOTE:** Accelerating vehicle from stop to approximately 45 MPH at moderate throttle angle (20-25 degrees) is sufficient.

4) To set transaxle kickdown learn procedure, operate vehicle with vehicle speed less than 25 MPH, making 5-8 wide-open throttle kickdowns to 1st gear from either 2nd or 3rd gear.

**CAUTION:** Allow transaxle to operate in 2nd or 3rd gear at least 5 seconds before performing kickdown.

5) With vehicle speed greater than 25 MPH, make 5-8 part throttle to wide-open throttle kickdowns to either 3rd or 2nd gear from 4th gear (for example, 4-3 or 4-2 kickdowns).

**CAUTION:** Operate transaxle in 4th gear for at least 5 seconds at steady throttle position before performing kickdown.