

## 1999 GENERAL INFORMATION

### Computer Relearn Procedures - DaimlerChrysler

## INTRODUCTION

Vehicles equipped with engine or transmission/transaxle computers may require a computer relearn procedure after the vehicle battery is disconnected. Vehicle computers memorize and store vehicle operation patterns for optimum driveability and performance. When the vehicle battery is disconnected, this memory is lost, resulting in a driveability problem. Depending on the vehicle and how it is equipped, the following driveability problems may exist:

- Rough or unstable idle.
- Hesitation or stumble.
- Rich or lean running.
- Poor fuel mileage.
- Harsh or poor transmission/transaxle shift quality.

Default data is used until NEW data from each key start is stored. As the computer restores its memory from each new key start, driveability is restored.

Driveability problems may occur during the computer relearn stage. To accelerate computer relearn process after battery removal and installation, specified computer relearn procedures should be performed. See appropriate procedures under specified manufacturer.

## COMPUTER RELEARN PROCEDURES

### ALL MODELS

**NOTE:** Read all procedures listed to determine why each procedure is to be performed before proceeding.

### Vehicle Driveability Computer Relearn Procedure

Manufacturer does not provide a specified computer relearn procedure for obtaining proper driveability. If vehicle battery was disconnected or Powertrain Control Module (PCM) was replaced, driving the vehicle will enable the PCM to perform a computer relearn procedure for obtaining proper driveability. Inform customer that driveability may differ from what they are accustomed to until the PCM completes the computer relearn procedure.

**NOTE:** If Powertrain Control Module (PCM) was replaced, the correct vehicle mileage and Vehicle Identification Number (VIN) must be programmed into the PCM to prevent Diagnostic Trouble Codes (DTCs) from being set in the Anti-Lock Brake System (ABS) module and Supplemental Restraint System (SRS) module. To program PCM and clear DTCs from ABS and SRS modules, proceed to


appropriate procedure listed. If replacing Powertrain Control Module (PCM) on models equipped with a Smart Key Immobilizer Module (SKIM), the secret key data must also be updated to enable engine starting. To update secret key data, proceed to appropriate procedure listed.

**Programming PCM & Clearing DTCs From ABS & SRS Modules**

Connect scan tool to Data Link Connector (DLC) below driver's side of instrument panel. Using scan tool, enter correct VIN and mileage into PCM. Using scan tool manufacturer's instructions, clear DTCs from ABS and SRS modules.

**Updating Secret Key Data**

Connect scan tool to Data Link Connector (DLC) below driver's side of instrument panel. Go to ENGINE, then MISC menu on scan tool. Place the SKIM in SECURED ACCESS MODE by using the appropriate Personal Identification Number (PIN) for this vehicle. PIN may be obtained from the owner, vehicle's invoice, or from the manufacturer. Select UPDATE THE SECRET KEY DATA. The data will be transferred from Smart Key Immobilizer Module (SKIM) to the PCM.

**NOTE:** If 3 attempts are made to enter the SECURED ACCESS MODE using the incorrect Personal Identification Number (PIN), the SECURED ACCESS MODE will be locked out for one hour. To exit this locked-out mode, leave ignition switch in the ON position for one hour with all accessories turned off. It may be necessary to monitor battery state and connect a battery charger.

**FWD CARS & FWD VANS**

**Transaxle Shift Quality Quick Learn Procedure (All FWD Cars Except Avenger & Sebring Coupe, & All FWD Vans)**

1. Transaxle shift quality quick learn procedure must be performed to provide proper transaxle operation if any of the following have been done:
  - Vehicle battery was disconnected.
  - Transaxle assembly was replaced.
  - Transmission Control Module (TCM) was replaced.
  - Solenoid assembly was replaced.
  - Valve body was reconditioned or replaced.
2. Transaxle shift quality quick learn procedure must be performed using Chrysler's Diagnostic Readout Box III (DRB-III) scan tool. Following conditions must be met when performing transaxle shift quality quick learn procedure:
  - Brakes must be applied.
  - Engine speed must be greater than 500 RPM.
  - Throttle position sensor angle must be less than 3 degrees.
  - Shift lever must remain in designated position until prompted to shift to overdrive.
  - Shift lever must remain in overdrive after the shift to overdrive until scan tool indicates procedure


is complete.

- Calculated oil temperature must be within 60-200°F (16-93°C).
3. Connect scan tool to Data Link Connector (DLC) below driver's side of instrument panel. For DLC location, see appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
  4. Go to TRANSMISSION display on scan tool. Go to MISCELLANEOUS display on scan tool. Select QUICK LEARN PROCEDURE display on scan tool. Follow instructions displayed on scan tool to perform transaxle shift quality quick learn procedure. Remove scan tool.

#### **Transaxle Shift Quality Quick Learn Procedure (Avenger & Sebring Coupe)**

1. Transaxle shift quality quick learn procedure must be performed to provide proper transaxle operation after replacing or overhauling transaxle. After transaxle work is completed, clear any Diagnostic Trouble Codes (DTCs) as necessary. Connect Chrysler's Diagnostic Readout Box III (DRB-III) scan tool to Data Link Connector (DLC) below driver's side of instrument panel. For DLC location, see appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
2. Select SPECIAL FUNCTION on scan tool. Set scan tool to QUICK LEARN mode. Follow scan tool manufacturer's instructions to perform transaxle shift quality quick learn procedure. Remove scan tool.

#### **Pinion Factor Procedure (All FWD Cars Except Avenger & Sebring Coupe, & All FWD Vans)**

1. Electronic pinion factor procedure must be performed to provide proper speedometer operation if Transmission Control Module (TCM) is replaced. If pinion factor procedure is not performed, improper speedometer readings may exist or speedometer may not operate. Pinion factor procedure must be performed using Chrysler's Diagnostic Readout Box (DRB-III) scan tool.
2. Connect scan tool to Data Link Connector (DLC) below driver's side of instrument panel. For DLC location, see appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. Select TRANSMISSION system, MISCELLANEOUS functions, then PINION FACTOR. Scan tool will now display tire size. If tire size is incorrect, press ENTER key and select correct size. Press PAGE BACK key to exit procedure.

#### **Pinion Factor Procedure (Avenger & Sebring Coupe)**

1. Transaxle uses rotation speed of output shaft to calculate vehicle speed and cumulative distance travelled. Therefore, it is necessary to input or update tire size into TCM memory after TCM has been replaced or tire size has been changed.
2. Select SPECIAL FUNCTION on Chrysler's Diagnostic Readout Box (DRB-III) scan tool. Set scan tool to PINION FACTOR mode. Input tire size into TCM memory.

**NOTE: New TCMs do not have tire size input into memory. TCM may also be referred to as EATX module.**
