

TSB 95-8-3

FORD:

1994 THUNDERBIRD

LINCOLN-MERCURY:

1994 COUGAR

This TSB is being republished in its entirety to update the Service Procedure to allow for PCM reprogramming and to include references to follow if installing a Ford authorized remanufactured transmission.

CALIBRATION:

4-16F-R00, 4-16F-R10, 4-16T-R00, 4-16T-R10, 4-18A-R05, 4-18A-R11, 4-18B-R05, 4-18B-R10, 4-18P-R05, 4-18P-R10, 4-18A-R10.

WARNING:

THIS MODIFICATION IS AUTHORIZED ONLY FOR THE LISTED ENGINE. PERFORMING THIS MODIFICATION ON OTHER ENGINE CALIBRATIONS IS UNAUTHORIZED AND COULD CREATE LIABILITY UNDER APPLICABLE FEDERAL OR LOCAL LAWS.

ISSUE:

A delayed/soft/slow concern may occur during the 1-2 upshift (3.8L engine only), and a "hesitation or sag" during 3-4 upshift (3.8L and 4.6L engines). This is caused by the 1994 shift calibration in the Powertrain Control Module (PCM) and Transmission Main Control Assembly. The calibration is revised for the 1995 model year to reduce the previously-mentioned conditions. If replacing transmission with a Ford authorized remanufactured transmission, the following Service Procedure must be followed or damage to the transmission could occur.

ACTION:

Refer to the following Service Procedure if any of the previously-mentioned concerns exist. If a Ford authorized remanufactured transmission is being installed, follow the Service Procedure with the exception of replacing the main control.

- **4.6L Engine** - Reprogram or replace the PCM with the 1995 calibration (see Application Charts) and replace the Transmission Main Control Assembly with the revised 1995 part. Refer to the following Service Procedure.
- **3.8L Engine** - Replace the PCM with the 1995 calibration (see Application Charts) and replace the Transmission Main Control Assembly with the revised 1995 part. Refer to the following Service Procedure.

CAUTION:

THE PCM RECALIBRATION OR REPLACEMENT AND TRANSMISSION MAIN CONTROL ASSEMBLY CHANGES MUST BE DONE TOGETHER OR TRANSMISSION OVERDRIVE BAND DAMAGE WILL RESULT. DO NOT USE THE 1994 MAIN CONTROL ASSEMBLY WITH THE 1995 PCM CALIBRATION, OR THE 1994 PCM CALIBRATION WITH THE 1995 MAIN CONTROL ASSEMBLY.

CAUTION:

IF INSTALLING A FORD AUTHORIZED REMANUFACTURED TRANSMISSION WITH A 1995 LEVEL MAIN CONTROL, THE PCM CALIBRATION MUST BE CHANGED TO THE 1995 LEVEL. THE FORD AUTHORIZED REMANUFACTURED TRANSMISSION WITH THE 1995 LEVEL MAIN CONTROL WILL BE TAGGED TO INDICATE THE 1995 LEVEL MAIN CONTROL HAS BEEN INSTALLED. FAILURE TO UPDATE THE PCM COULD RESULT IN DAMAGE TO THE FORD AUTHORIZED REMANUFACTURED TRANSMISSION. THE

MAIN CONTROL WILL NOT HAVE TO BE REPLACED. THE UPDATED MAIN CONTROL IS INCLUDED WITH THE FORD AUTHORIZED REMANUFACTURED TRANSMISSION. REFER TO THE SERVICE PROCEDURE FOR DETAILS.

SERVICE PROCEDURE

1. Perform normal diagnosis and repair any concerns found. Refer to 1994 Powertrain Control/Emissions Diagnosis (PC/ED) Car/Truck Service Manual for diagnosis procedures and repair.
2. Use the appropriate step for the specific engine.

4. 6L Engine

- Dealers with SBDS: reprogram the PCM with the appropriate calibration per the attached Application Chart using the June or later calibration update CD ONLY which will be available late May. From SBDS Calibration Selection Menu, select only the one that mentions "Per Transmission Customer Complaint TSB."
- Dealers without SBDS: Replace PCM assembly per the attached Application Charts.

NOTE:

FOR CALIBRATION 4-18A-R10, REPLACEMENT OF ALL EIGHT (8) FUEL INJECTORS WILL BE REQUIRED TO COMPLETE CALIBRATION UPDATE (REFER TO THE APPLICATION CHARTS).

3. 8L Engine

- Replace PCM assembly per the attached Application Charts.
3. Install ID tag on main control (found in the Main Control Assembly package).
 4. Install the new Transmission Main Control Assembly per the Application Charts. Refer to the 1994 Thunderbird/Cougar Service Manual, Section 07-01, Pages 108-109 for removal procedure, and Pages 163-165 for installation procedure and torque specifications.

NOTE:

THE 4R70W TRANSMISSION PAN GASKET IS REUSABLE. CLEAN, INSPECT AND REUSE PAN GASKET AND FILTER.

5. Install the transmission identification sticker (found in the Transmission Main Control Assembly package) on the transmission pan to identify the change for future service.
6. Complete and attach the engine calibration modification decal (attach to radiator core support) that denotes the calibration change and the transmission main control change.

Obtain an Authorized Modifications Decal and list the date, dealer number, and summary of alterations performed. Select a prominent place adjacent to the Vehicle Emission Control Information Decal suitable for installing the Authorized Modifications Decal. Clean the area, install the decal, and cover it with a clear plastic decal shield.

UAAZ
3 3.8L ENGINE / CALIFORNIA / 3.27 AXLE / PCM CALIBRATION CHART 3
AA^
3 OLD 3 NEW 3 OLD PCM PART 3 NEW PCM PART 3 OLD 3 NEW 3
3 CALIBRATION 3 CALIBRATION 3 NUMBER 3 NUMBER 3 TRANSMISSION 3 TRANSMISSION 3
3 3 3 3 3 MAIN CONTROL 3 MAIN CONTROL 3
3 3 3 3 3 PART NUMBER 3 PART NUMBER 3
AA^
3 4-16T-R00 3 5-16T-R00 3 F4SF-12A650-CA 3 F5SZ-12A650-BA 3 F4SP-7A100-BA 3 F5SZ-7A100-A 3
3 4-16T-R10 3 5-16T-R00 3 F4SF-12A650-CB 3 F5SZ-12A650-BA 3 F4SP-7A100-BA 3 F5SZ-7A100-A 3
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UAAZ
3 PART NUMBER 3 PART NAME 3
AA^
3 F5SZ-12A650-AA 3 Powertrain Control Module (PCM) 3
3 F5SZ-12A650-BA 3 Powertrain Control Module (PCM) 3
3 F5SZ-12A650-CA 3 Powertrain Control Module (PCM) 3
3 F5SZ-12A650-DA 3 Powertrain Control Module (PCM) 3
3 F5SZ-12A650-EA 3 Powertrain Control Module (PCM) 3
3 F5SZ-7A100-A 3 Transmission Main Control 3
3 F5SZ-7A100-B 3 Transmission Main Control 3
3 F4SZ-9F593-A 3 Fuel Injector 3
AAU

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SUPERSEDES: 95-4-7

WARRANTY STATUS: Eligible Under The Provisions Of Bumper To Bumper Warranty Coverage