

**A/T - E4OD No Upshifts or Harsh Upshifts/4th Gear Starts**[Notes](#)

TECHNICAL BULLETIN # 230A

TRANSMISSION: E4OD

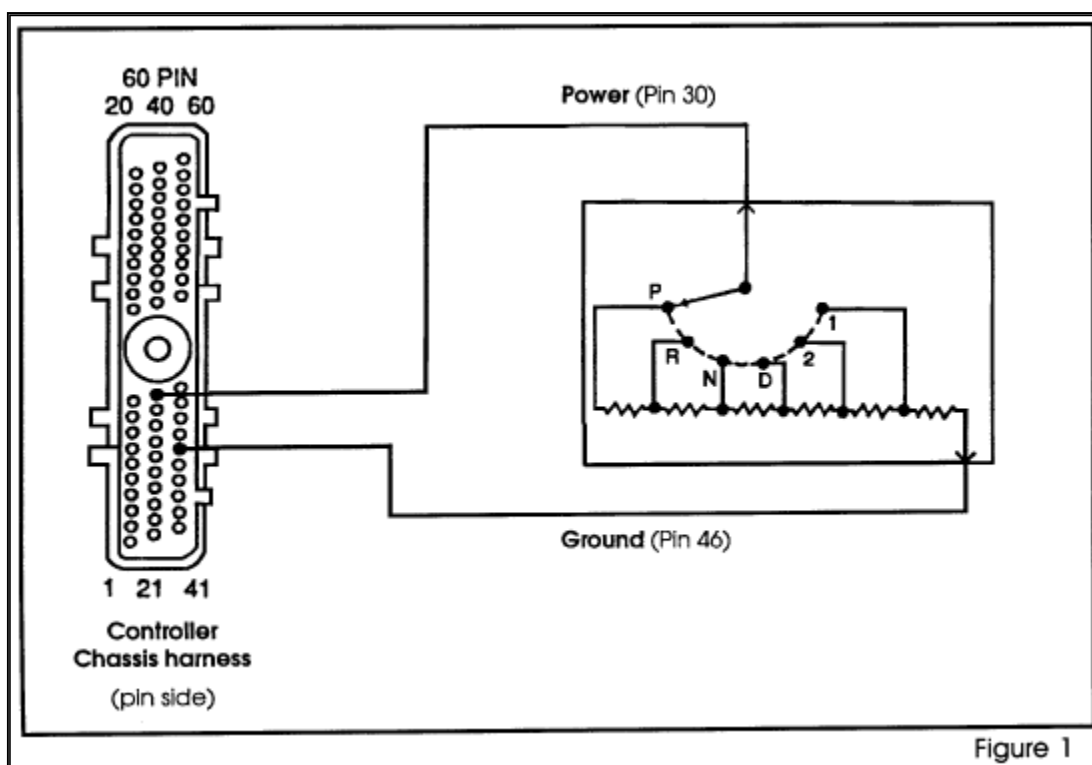
SUBJECT:

No upshift 4th [gear](#) starts, harsh upshifts, neutrals out after shifts

APPLICATION: Ford-E/F Series, Bronco

DATE: Jan 1995

E4OD

No Upshifts, 4th [Gear](#) Starts, Harsh Upshifts, Neutrals Out After Shifts

Zoom

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All of these concerns can be the result of an inappropriate Manual Lever Position (MLP) sensor signal. The MLP sensor consists of six resistors connected in series (ganged).

The resistance of the MLP sensor will vary based on which range the transmission is in. The MLP circuit can be checked using the following steps.

(Step 1)

Check the MLPS ground: Turn the ignition on. The voltage on pin 46 (sensor

ground ) should not exceed .1v. If the voltage is excessive, add an additional ground to the existing ground wire (figure 2).

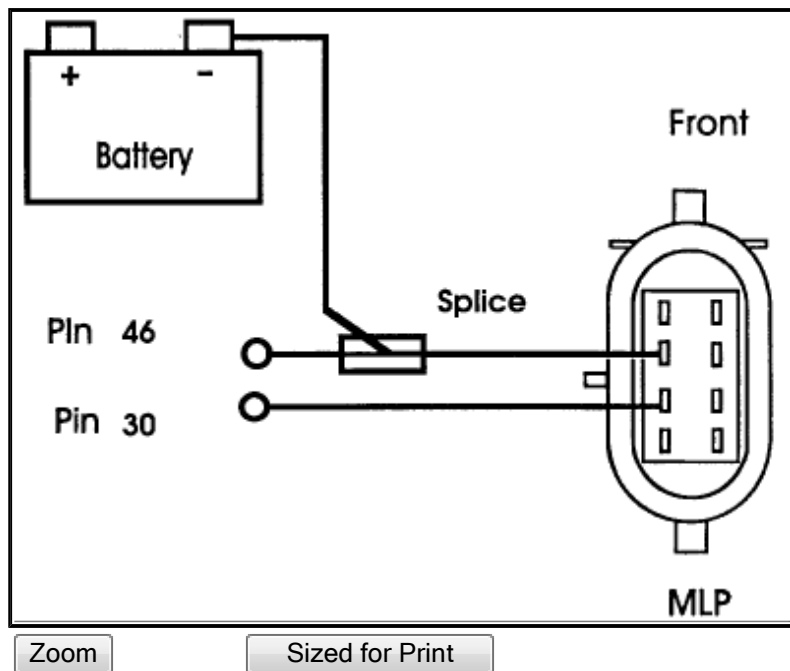


Figure 2 Splice an additional ground from the existing ground wire to a known good ground. The negative post of the battery is the best. This view is of the pins of the MLP connector pins.

MLP Voltage (Pin 30)	
Park .....	4.4v
Reverse .....	3.6v
Neutral .....	2.8v
Drive .....	2.1v
Manual Second .....	1.4v
Manual Low .....	0.7v

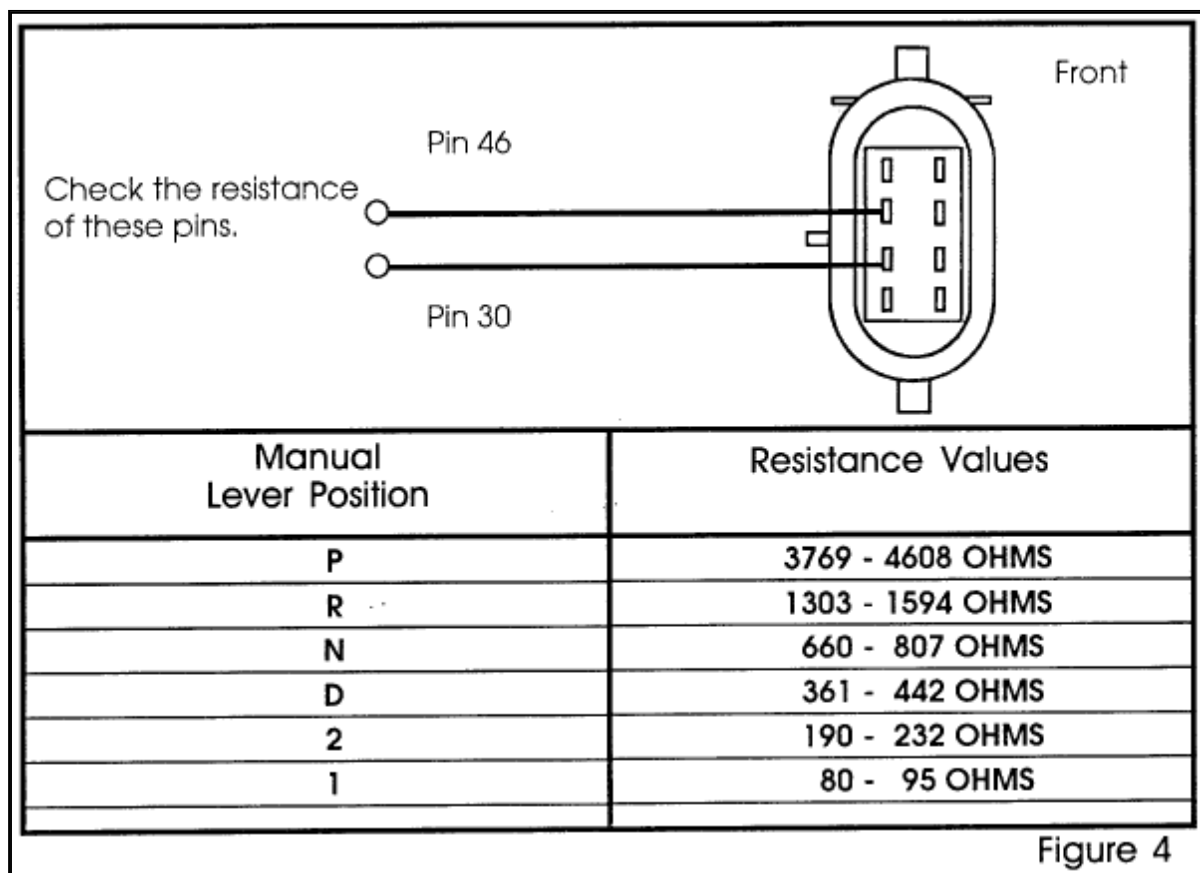
**Figure 3**

Below the table are two buttons: 'Zoom' and 'Sized for Print'.

(Step 2)  
 Check the MLPS voltage: The voltage at pin 30 should vary-in increments- according to the position of the manual lever (figure 3).

MLP voltage (ignition on) should be within 20% of these specifications.

**Note** It is recommended that you use a break-out box. If a break-out box is not available, you will need to pierce the wires to pins 30 and 46 for these tests.



Zoom

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(Step 3)

Check the resistance of the MLPS: The resistance of the MLPS (pins 30 and 46) should change-in increments-with the position of the manual lever (figure 4).

**Note** If this test is being done with a break-out box, disconnect the computer first (make sure the ignition is off). If this test is being done without a break-out box, disconnect the MLPS from the vehicle harness.

REVISED

This is a revised bulletin.

Remove bulletin 230 from your files.

**Note** Testing beyond this point will include tests of the harness. Consult the appropriate repair manual for this.