



Technical Service Information

MAZDA N4AEL STACKED SHIFTS

- COMPLAINT:** After overhaul, it may be noted that the N4AEL Transmission found in 1987-1991 Mazda 929s shift early or "stack shift" at light throttle openings. It will seem that 2nd gear is missing and 3rd gear will occur on top of 1st gear at about 12-14 mph. 4th gear may occur as low as 19 mph. These shift characteristics may feel wrong, as the vehicle feels sluggish after the first shift at low speeds.
- CAUSE:**
- CORRECTION:** This feeling usually goes away and the shifts spread out if the vehicle is driven more aggressively.

The EC-AT Computer strategy allows 1-2 upshifts as early as 7 mph at light throttle when the "normal" mode is selected. The shifts at 1/8 throttle or less occur at 7 mph, 13 mph, and 19 mph. See Figure 1. It is not until 1/4 throttle or more that the shifts are perceptibly spread out.

As long as other shift quality concerns have been addressed, (See ATSG Bulletin 92-28), no other action is necessary or possible. THIS IS NORMAL OPERATION.

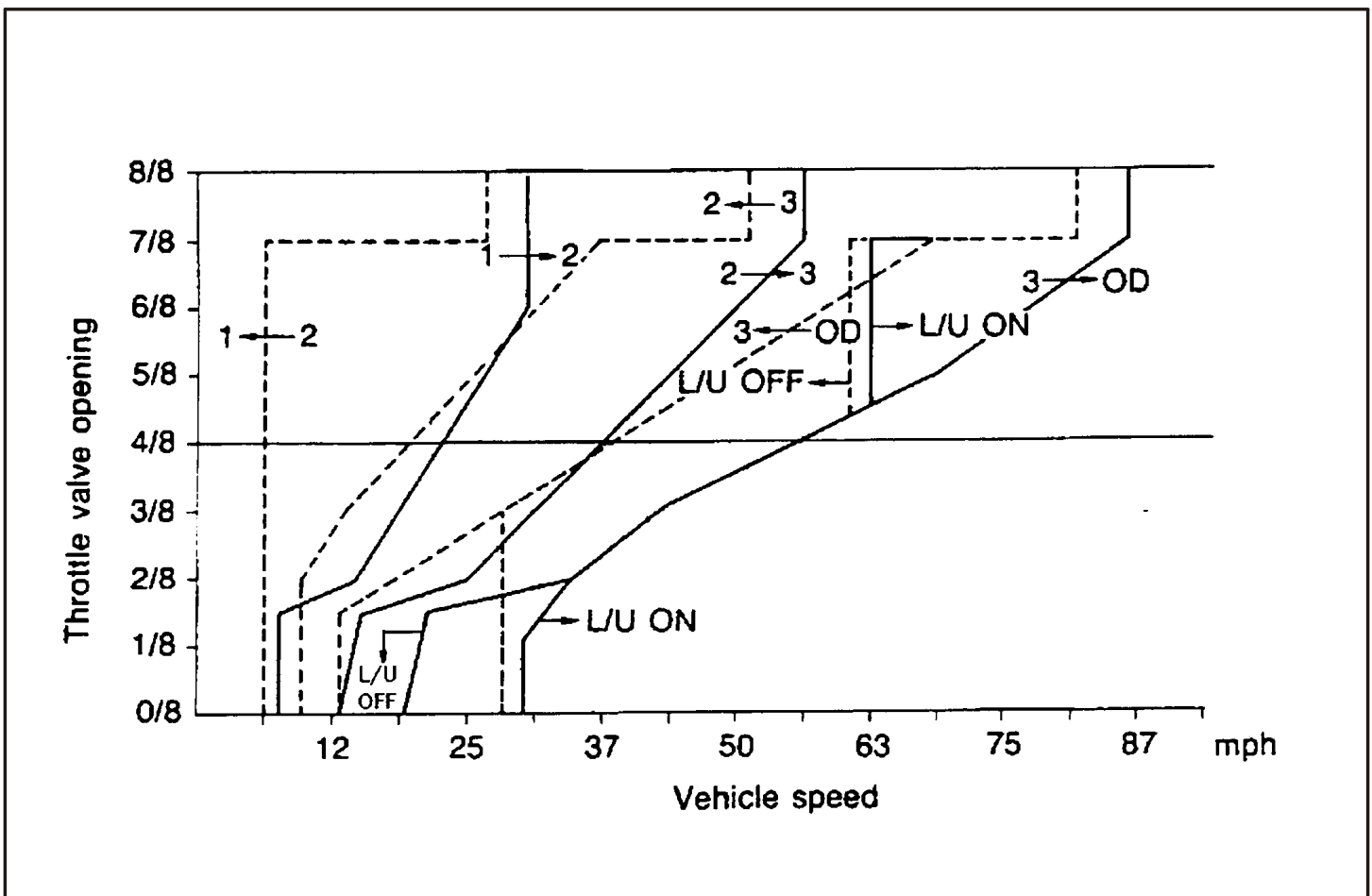


Figure 1