



# Technical Service Information

## **THM 4L60-E NO FORWARD MOVEMENT IN THE D4 OR D3 SELECTOR POSITIONS**

**COMPLAINT:** When the manual shift lever is placed into the "D4" selector position, the vehicle does not move. This normally indicates that we have made a mistake with the forward sprag assembly, or the forward clutch pack. In the past, to verify this we would simply move the manual shift lever to the "D3" position to apply the overrun clutch, and the vehicle would move if we had made one of the mistakes listed above. In this case the vehicle still does not move until we move the selector lever to the "D2" position.

**CAUSE:** The THM 4L60-E overrun clutch application is much different than the previous 700-R4 transmission. The 700-R4 applies the overrun clutch any time the selector lever is moved into the "D3" position, as seen in the 700 apply chart in Figure 1.  
*The THM 4L60-E when in the "D3" position upshifts and downshifts normally between 1st, 2nd and 3rd gears. However, in 1st and 2nd gears, Shift Solenoid "B" is energized and the 2-3 shift valve train is in the downshifted position. The 2-3 shift valve when in the downshifted position blocks "D3" oil from entering the overrun clutch clutch circuit and opens the overrun clutch circuit to an exhaust port at the 2-3 shift valve. This prevents overrun clutch apply and engine braking in the "D3" position, in 1st and 2nd gears only. There is no engine braking or overrun clutch apply until you are in 3rd gear. Refer to the THM 4L60-E apply chart in Figure 1.*

**CORRECTION:** The above explanation means that you will have to move the selector lever on any 4L60-E transmission into the "D2" or the Manual 1st selector position to determine if any mistakes have been made in the forward clutch or forward sprag area.

## THM 700-R4 APPLICATION CHART

RANGE	GEAR	FORWARD CLUTCH	2-4 BAND	3-4 CLUTCH	FORWARD SPRAG	OVERRUN CLUTCH	REVERSE INPUT	LO/REV CLUTCH	LO-ROLER CLUTCH
P/N									
OD	1st	ON			HOLD				HOLD
	2nd	ON	ON		HOLD				
	3rd	ON		ON	HOLD				
	4th	ON	ON	ON					
D3	1st	ON			HOLD	ON			HOLD
	2nd	ON	ON		HOLD	ON			
	3rd	ON		ON	HOLD	ON			
D2	1st	ON			HOLD	ON			HOLD
	2nd	ON	ON		HOLD	ON			
M1	1st	ON			HOLD	ON		ON	HOLD
REV	Rev						ON	ON	

## THM 4L60-E APPLICATION CHART

RANGE	GEAR	SHIFT SOLENOID		FORWARD CLUTCH	2-4 BAND	3-4 CLUTCH	FORWARD SPRAG	OVERRUN CLUTCH	REVERSE INPUT	LO/REV CLUTCH	LO-ROLER CLUTCH
		1-2	2-3								
P/N		ON	ON								
OD	1st	ON	ON	ON			HOLD				HOLD
	2nd	OFF	ON	ON	ON		HOLD				
	3rd	OFF	OFF	ON		ON	HOLD				
	4th	ON	OFF	ON	ON	ON					
D3	1st	ON	ON	ON			HOLD				HOLD
	2nd	OFF	ON	ON	ON		HOLD				
	3rd	OFF	OFF	ON		ON	HOLD	ON			
D2	1st	ON	ON	ON			HOLD	ON			HOLD
	2nd	OFF	ON	ON	ON		HOLD	ON			
M1	1st	ON	ON	ON			HOLD	ON		ON	HOLD
REV	Rev	ON	ON						ON	ON	

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Figure 1