FORD, LINCOLN, MERCURY
SHIFT SOLENOID FAILURE CHARTS

COMPLAINT: When a shift solenoid fails to operate it will affect one or more gears depending on how many shift solenoids are used. It is common knowledge that transmissions that use two shift solenoids will lose two gears when one solenoid fails. But which gears will the transmission lose? That depends on which solenoid has failed and whether the solenoid has failed open or closed. Then there are transmissions that use more than two shift solenoids, which makes it more difficult to determine if a failed shift solenoid is causing the transmission shift problems.
Codes for mechanical shift solenoid failure along with gear ratio error codes may be stored, but in most cases the technician already knows the transmission is not shifting properly.

CAUSE: A lack of comprehensive shift solenoid failure charts easily accessible to the technician.

CORRECTION: The charts listed under Service Information, will indicate which gears are affected by a mechanical solenoid failure as well as engine braking availability.

SERVICE INFORMATION:

AXODE/AX4S SOLENOID APPLICATION CHART					
GEAR SELECTOR POSITION	**PCM COMMANDED GEAR**	**ENGINE BRAKING**	**SHIFT SOLENOID 1**	**SHIFT SOLENOID 2**	**SHIFT SOLENOID 3**
P/R/N	P/R/N	NO	OFF[1]	ON[1]	OFF
Ⓓ	1	NO	OFF	ON	OFF
Ⓓ	2	YES	ON	ON	OFF
Ⓓ	3	NO	OFF	OFF	ON
Ⓓ	4	YES	ON	OFF	ON
D or 3[2]	1	NO	OFF	ON	OFF
D or 3[2]	2	YES	ON	ON	OFF
D or 3[2]	3	YES	OFF	OFF	OFF
2[3]	2	YES	ON	ON	OFF
1	1	YES	OFF	ON	OFF

[1]Not contributing to powerflow.

[2]Some vehicles are equipped with an overdrive cancel switch, while others must be pulled out of overdrive by moving the shift lever.

[3]Vehicles with a Transmission Control Switch (TCS) will have a Manual 2 position. Vehicles without a Transmission Control Switch will have a Manual 3 position.

Figure 1

AXODE/AX4S SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1	1	1
2	1	1	1	
3	3	3		
4	3			

SS1 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	2	2	2	2
2	2	2	2	
3	4	2		
4	4			

SS2 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	3	3	3	2
2	2	2	2	
3	3	3		
4	4			

SS2 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1	1	1
2	2	2	2	
3	1	1		
4	2			

Figure 2

AXODE/AX4S SOLENOID FAILURE CHARTS...*continued*

SS3 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	1	1
2	2	2	2	
3	3	3		
4	2			

SS3 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	1	1
2	2	2	2	
3	3	3		
4	4			

Figure 3

AX4N/4F50N SOLENOID APPLICATION CHART

GEAR SELECTOR POSITION	PCM COMMANDED GEAR	ENGINE BRAKING	SHIFT SOLENOID 1	SHIFT SOLENOID 2	SHIFT SOLENOID 3
P/N	P/N	NO	OFF[1]	ON[1]	OFF[4]
R	R	YES	OFF	OFF	OFF
Ⓓ	1	NO	OFF	ON	OFF
Ⓓ	2	NO	OFF	OFF	OFF
Ⓓ	3	NO	ON	OFF	ON
Ⓓ	4	YES	ON	ON	ON
D or 3[2]	1	NO	OFF	ON	OFF
D or 3[2]	2	NO	OFF	OFF	OFF
D or 3[2]	3	YES	ON	OFF	OFF
2[3]	2	YES	OFF	OFF	OFF
1	1	YES	OFF	ON	OFF

[1]Not contributing to powerflow.

[2]Some vehicles are equipped with an overdrive cancel switch, while others must be pulled out of overdrive by moving the shift lever.

[3]Vehicles with a Transmission Control Switch (TCS) will have a Manual 2 position. Vehicles without a Transmission Control Switch will have a Manual 3 position.

[4]Shift Solenoid 3 will be turned "ON" when transmission fluid temperature is below 100º F when the vehicle is equipped with a Transmission Control Switch (TCS) to prevent a cold creep condition.

[4]Shift Solenoid 3 will be turned "ON" when transmission fluid temperature is below 50º F when the vehicle is NOT equipped with a Transmission Control Switch (TCS) to prevent a cold creep condition.

Figure 4

AX4N/4F50N SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	2	1
2	2	2	2	
3	2	2		
4	1			

SS1 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	3	3	3	3
2	3	3	3	
3	3	3		
4	4			

SS2 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	2	2	2	2
2	2	2	2	
3	3	3		
4	3			

SS2 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	1	1
2	1	1	1	
3	4	3		
4	4			

SS3 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	1	1
2	2	2	2	
3	3	3		
4	3			

SS3 ALWAYS ON	Gearshift Lever Position			
	Ⓓ	D or 3	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	1	1
2	2	2	2	
3	3	3		
4	4			

Figure 5

CD4E SOLENOID APPLICATION CHART

GEAR SELECTOR POSITION	PCM COMMANDED GEAR	ENGINE BRAKING	SHIFT SOLENOID 1	SHIFT SOLENOID 2
P/N	P/N	NO	OFF	ON
R	R	YES	OFF	OFF
OD	1	NO	ON	ON
OD	2	NO	OFF	ON
OD	3	NO	OFF	OFF
OD	4	YES	ON	OFF
D[1]	1	NO	ON	ON
D[1]	2	YES	OFF	ON
D[1]	3	YES	OFF	OFF
2	2	YES	OFF	ON
1	1	YES	ON	OFF*

[1]**Overdrive Canceled.**

* Up to 1996. 1997 and later this solenoid is "ON"

Figure 6

CD4E SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	OD	D	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	2	2		2
2	2	2	2	
3	3	3		
4	3			

SS1 ALWAYS ON	Gearshift Lever Position			
	OD	D	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	1	1	1	
3	4	4		
4	4			

SS2 ALWAYS OFF	Gearshift Lever Position			
	OD	D	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	4	4		1
2	3	3	3	
3	3	3		
4	4			

SS2 ALWAYS ON	Gearshift Lever Position			
	OD	D	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		4
2	2	2	2	
3	2	2		
4	1			

Figure 7

4R44E/4R55E SOLENOID APPLICATION CHART					
GEAR SELECTOR POSITION	**PCM COMMANDED GEAR**	**ENGINE BRAKING**	**SHIFT SOLENOID 1**	**SHIFT SOLENOID 2**	**SHIFT SOLENOID 3**
P/R/N	P/R/N	NO	ON	OFF	OFF
OD	1	NO	ON	OFF	OFF
OD	2	NO	ON	ON	OFF
OD	3	NO	OFF	OFF	OFF
OD	4	NO	OFF	OFF	ON
OD OFF[1]	1	YES	ON	OFF	OFF
OD OFF[1]	2	YES	ON	ON	OFF
OD OFF[1]	3	YES	OFF	OFF	OFF
2	2	YES	ON	ON	OFF
1	1	YES	ON	OFF	OFF

[1]Transmission Control Switch "ON", overdrive canceled.

Figure 8

4R44E/4R55E SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	OD	**OD OFF**	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	3	3		2
2	2	2	2	
3	3	3		
4	4			

SS1 ALWAYS ON	Gearshift Lever Position			
	D	**OD OFF**	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	2	2	2	
3	1	1		
4	1.86[1]			

SS2 ALWAYS OFF	Gearshift Lever Position			
	OD	**OD OFF**	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	1	1	2	
3	3	3		
4	4			

SS2 ALWAYS ON	Gearshift Lever Position			
	D	**OD OFF**	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	2	2		2
2	2	2	2	
3	2	2		
4	2			

[1]When Shift Solenoid 1 fails "ON", a gear ratio between 1st and 2nd gear (1.86) will be created

Figure 9

4R44E/4R55E SOLENOID FAILURE CHARTS...*continued*

SS3 ALWAYS OFF	Gearshift Lever Position			
	OD	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1		1
2	2	2	2	
3	3	3		
4	3			

SS3 ALWAYS ON	Gearshift Lever Position			
	D	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1.86[1]	1.86[1]		1.86[1]
2	1.11[2]	1.11[2]	1.11[2]	
3	4	4		
4	4			

[1]When Shift Solenoid 1 fails "ON", a gear ratio between 1st and 2nd gear (1.86) will be created

[2]When Shift Solenoid 3 fails "ON", a gear ratio between 2nd and 3rd gear (1.11) will be created

Figure 10

5R55E SOLENOID APPLICATION CHART

GEAR SELECTOR POSITION	PCM COMMANDED GEAR	ENGINE BRAKING	SHIFT SOLENOID 1	SHIFT SOLENOID 2	SHIFT SOLENOID 3
P/R/N	P/R/N	NO	ON	OFF	OFF
OD	1	NO	ON	OFF	OFF
OD	2	NO	ON	OFF	ON
OD	3	NO	ON	ON	OFF
OD	4	NO	OFF	OFF	OFF
OD	5	NO	OFF	OFF	ON
OD OFF[1]	1	NO	ON	OFF	OFF
OD OFF[1]	2	NO	ON	OFF	ON
OD OFF[1]	3	YES	ON	ON	OFF
OD OFF[1]	4	YES	OFF	OFF	OFF
2	2	YES	ON	ON	OFF
1	1	YES	ON	OFF	OFF

[1]Transmission Control Switch "ON", overdrive canceled.

Figure 11

5R55E SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	OD	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	4	4	3	3
2	5	5		
3	3	3		
4	4	4		
5	5			

[1]

SS1 ALWAYS ON	Gearshift Lever Position			
	D	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	3	1
2	2	2	1.11[1]	
3	3	3		
4	1	1		
5	2			

[1]When Shift Solenoid 3 fails "ON", a gear ratio between 3rd and 4th gear (1.11) will be created

SS2 ALWAYS OFF	Gearshift Lever Position			
	OD	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	3	1
2	2	2	1.11[1]	
3	2	2		
4	4	4		
5	5			

[1]When Shift Solenoid 3 fails "ON", a gear ratio between 3rd and 4th gear (1.11) will be created

SS2 ALWAYS ON	Gearshift Lever Position			
	D	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	3	3	3	3
2	1.11[1]	1.11[1]	1.11[1]	
3	3	3		
4	3	3		
5	1.11[1]			

[1]When Shift Solenoid 3 fails "ON", a gear ratio between 3rd and 4th gear (1.11) will be created

SS3 ALWAYS OFF	Gearshift Lever Position			
	OD	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	1	1	3	1
2	1	1	3	
3	3	3		
4	4	4		
5	4			

SS3 ALWAYS ON	Gearshift Lever Position			
	D	OD OFF	2	1
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED			
1	2	2	3	1
2	2	2	1.11[1]	
3	1.11[1]	1.11[1]		
4	5	5		
5	5			

[1]When Shift Solenoid 3 fails "ON", a gear ratio between 3rd and 4th gear (1.11) will be created

Figure 12

5R55N/W/S SOLENOID APPLICATION CHART								
GEAR SHIFTER POSITION	**PCM GEAR COMMAND**	**SHIFT SOL 1**	**SHIFT SOL 2**	**SHIFT SOL 3**	**SHIFT SOL 4**	**PRESSURE CONTROL SOLENOID A**	**PRESSURE CONTROL SOLENOID B**	**PRESSURE CONTROL SOLENOID C**
P/N	P/N	ON	OFF	OFF	ON	L*	L/H#	L*
R	R	ON	OFF	OFF	ON	L*	H^	H^
D5	1	ON	OFF	OFF	ON	L/H#	L*	L*
D5	2	ON	OFF	ON	ON	L*	L/H#	L*
D5	3	ON	ON	OFF	ON	L/H#	L*	L*
D5	4	OFF	OFF	OFF	ON	L/H#	L*	H^
D5	5	OFF	OFF	ON	ON	L/H#	L/H#	H^
D5 +/-	1	ON	OFF	OFF	ON	H^	H^	L*
D5 +/-	2	ON	OFF	ON	ON	H^	H^	L*
D5 +/-	3	ON	ON	OFF	ON	H^	H^	L*
D5 +/-	4	OFF	OFF	OFF	ON	H^	H^	H^
D5 +/-	5	OFF	OFF	ON	ON	H^	H^	H^
D4	1	ON	OFF	OFF	ON	L/H#	L*	L*
D4	2	ON	OFF	ON	ON	L*	L/H#	L*
D4	3	ON	ON	OFF	ON	L/H#	L*	L*
D4	4	OFF	OFF	OFF	OFF	L/H#	L/H#	H^
3	3	ON	ON	OFF	OFF	L/H#	L/H#	L*
2	2	ON	OFF	ON	OFF	L/H#	L/H#	L*
1	1	ON	OFF	OFF	OFF	L/H#	L/H#	L*

***Low Line Pressure**
^ High Line Pressure
 # Variable Line Pressure, PCM Controlled

Figure 13

5R55N SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position	
	D5	**D4**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	3	3
2	2	2
3	3	3
4	4	M-4
5	5	

SS1 ALWAYS ON	Gearshift Lever Position	
	D5	**D4**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	1
2	2	2
3	3	3
4	1	M-1
5	2	

Figure 14

5R55N SOLENOID FAILURE CHARTS...*continued*

SS2 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	1	1
4	4	M-4
5	5	

SS2 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	3	3
2	2	2
3	3	3
4	4	M-4
5	5	

SS3 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	1	1
3	1	3
4	4	M-4
5	4	

SS3 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1 or 2	1 or 2
2	2	2
3	3 or 1.6:1*	3 or1.6:1*
4	4 or 5	4 or 5
5	5	

***When Shift Solenoid 3 fails "ON", a gear ratio between 2nd & 3rd gears will be obtained.**

SS4 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1 or M-1	1 or M-1
2	M-2	M-2
3	3 or M-3	M-3
4	4 or M-4	M-4
5	5	

SS4 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	4	4
5	5	

REVERSE ALWAYS OFF	Gearshift Lever Position
	R
SOLENOID FAULT	ACTUAL GEAR OBTAINED
SS1 Stuck OFF	REVERSE
SS2 Stuck OFF	REVERSE
SS3 Stuck OFF	REVERSE
SS4 Stuck OFF	REVERSE

REVERSE ALWAYS ON	Gearshift Lever Position
	R
SOLENOID FAULT	ACTUAL GEAR OBTAINED
SS1 Stuck ON	REVERSE
SS2 Stuck ON	NEUTRAL
SS3 Stuck ON	REVERSE
SS4 Stuck ON	REVERSE

Figure 15

5R55N SOLENOID FAILURE CHARTS...*continued*

PRESSURE SOLENOID "A" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1/Slips	1
2	2	2
3	1/Slips	1
4	4/Slips	M-4
5	5	

PRESSURE SOLENOID "A" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	4	M-4
5	5	

PRESSURE SOLENOID "B" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	1	1
3	3	3
4	4	4
5	4	

PRESSURE SOLENOID "B" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	4	M-4
5	5	

PRESSURE SOLENOID "C" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	3	3
5	1.16:1*	

PRESSURE SOLENOID "C" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	4	M-4
5	5	

***When Pressure Control Solenoid "C" fails "LOW", a gear ratio between 3rd & 4th gears will be obtained.**

Figure 16

5R55W/S SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	M-2
3	3	M-3
4	4	M-4
5	5	

SS1 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	M-1
2	2	M-2
3	3	M-3
4	1	M-1
5	2	

SS2 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	M-1
2	2	M-2
3	1	M-1
4	4	M-4
5	5	

SS2 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	3	M-3
2	2	1.1:1*
3	3	M-3
4	4	M-4
5	5	

SS3 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	M-1
2	1	M-1
3	3	M-3
4	4	M-4
5	5	

SS3 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	2	M-2
2	2	M-3
3	3	1.1:1*
4	4 or 5	5
5	5	

SS4 ALWAYS OFF	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1 or M-1	M-1
2	M-2	M-2
3	3 or M-3	M-3
4	4 or M-4	M-4
5	5	

SS4 ALWAYS ON	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	ACTUAL GEAR OBTAINED	
1	1	1
2	2	2
3	3	3
4	4	4
5	5	

Figure 17

5R55W/S SOLENOID FAILURE CHARTS...*continued*

REVERSE ALWAYS OFF	Gearshift Lever Position
	R
SOLENOID FAULT	**ACTUAL GEAR OBTAINED**
SS1 Stuck OFF	NEUTRAL
SS2 Stuck OFF	REVERSE
SS3 Stuck OFF	REVERSE
SS4 Stuck OFF	REVERSE

REVERSE ALWAYS ON	Gearshift Lever Position
	R
SOLENOID FAULT	**ACTUAL GEAR OBTAINED**
SS1 Stuck ON	REVERSE
SS2 Stuck ON	NEUTRAL
SS3 Stuck ON	REVERSE
SS4 Stuck ON	REVERSE

PRESSURE SOLENOID "A" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1/Slips	1
2	2	2
3	1/Slips	1
4	4	M-4
5	5	

PRESSURE SOLENOID "A" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	M-1
2	2	M-2
3	3	M-3
4	4	M-4
5	5	

PRESSURE SOLENOID "B" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	1
2	1	1
3	3	3
4	4	4
5	4	

PRESSURE SOLENOID "B" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	M-1
2	2	M-2
3	3	M-3
4	4	M-4
5	5	

PRESSURE SOLENOID "C" ALWAYS LOW	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	M-1
2	2	M-2
3	3	M-3
4	1	1
5	2	

PRESSURE SOLENOID "C" ALWAYS HIGH	Gearshift Lever Position	
	D5	D4
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**	
1	1	M-1
2	2	M-2
3	3	M-3
4	4	M-4
5	5	

Figure 18

AODE/4R70W SOLENOID APPLICATION CHART				
GEAR SELECTOR POSITION	**PCM COMMANDED GEAR**	**ENGINE BRAKING**	**SHIFT SOLENOID 1**	**SHIFT SOLENOID 2**
P/N	1	NO	ON	OFF
R	1	YES	ON	OFF
Ⓓ or D	1	NO	ON	OFF
Ⓓ or D	2	NO	OFF	OFF
Ⓓ or D	3	YES	OFF	ON
Ⓓ or D	4	YES	ON	ON
D*	1	NO	ON	OFF
D*	2	NO	OFF	OFF
D*	3	YES	OFF	ON
2	2	YES	OFF	OFF
1	1	YES	ON	OFF

***Overdrive Canceled.**

Figure 19

AODE/4R70W SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ or D	D*	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	2	2		2
2	2	2	2	
3	3	3		
4	3			

SS1 ALWAYS ON	Gearshift Lever Position			
	Ⓓ or D	D*	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	1	1	1	
3	4	3		
4	4			

***Overdrive Canceled.**

SS2 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ or D	D*	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	2	2	2	
3	2	2		
4	1			

SS2 ALWAYS ON	Gearshift Lever Position			
	Ⓓ or D	D*	2	1
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	4	3		1
2	3	3	2	
3	3	3		
4	4			

Figure 20

E4OD/4R100 SOLENOID APPLICATION CHART				
GEAR SELECTOR POSITION	**PCM COMMANDED GEAR**	**ENGINE BRAKING**	**SHIFT SOLENOID 1**	**SHIFT SOLENOID 2**
P/N	1	NO	ON	OFF
R	1	NO	ON	OFF
Ⓓ or D	1	NO	ON	OFF
Ⓓ or D	2	NO	ON	ON
Ⓓ or D	3	NO	OFF	ON
Ⓓ or D	4	YES	OFF	OFF
D*	1	NO	ON	OFF
D*	2	NO	ON	ON
D*	3	YES	OFF	ON
2	2	YES	ON	ON
1	1	YES	ON	OFF

***Overdrive Canceled.**

NOTE: 4R100 transmissions that are PTO equipped, will have engine braking in the Ⓓ position in 1st, 2nd and 3rd gears with 4th gear disabled.

Figure 21

E4OD/4R100 SOLENOID FAILURE CHARTS

SS1 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ or D	**D***	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	4	4		2 or 1
2	3	3	2	
3	3	3		
4	4			

SS1 ALWAYS ON	Gearshift Lever Position			
	Ⓓ or D	**D***	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	2	2	2	
3	2	2		
4	1			

SS2 ALWAYS OFF	Gearshift Lever Position			
	Ⓓ or D	**D***	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	1	1		1
2	1	1	2	
3	4	4		
4	4			

SS2 ALWAYS ON	Gearshift Lever Position			
	Ⓓ or D	**D***	**2**	**1**
PCM GEAR COMMANDED	**ACTUAL GEAR OBTAINED**			
1	2	2		1 or 2
2	2	2	2	
3	3	3		
4	3			

***Overdrive Canceled.**

Figure 22