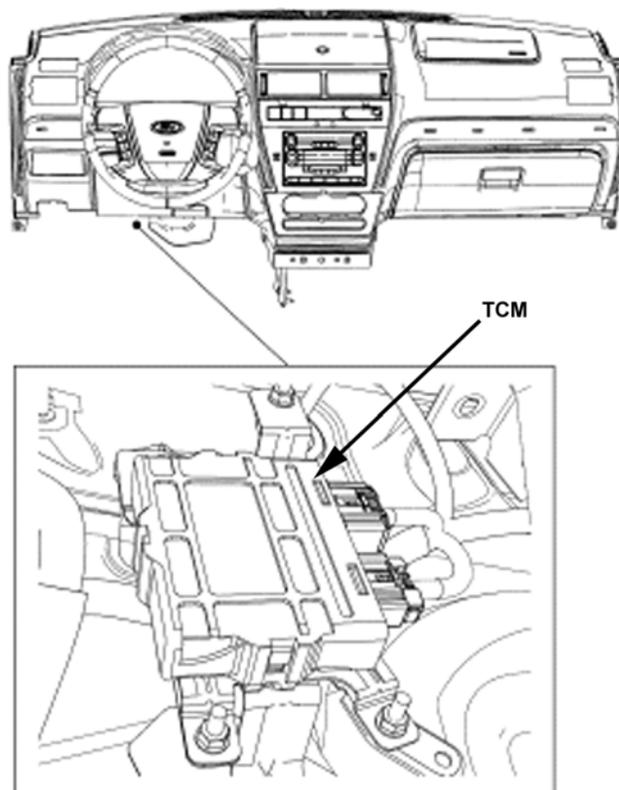


**Subject:** Connector pinouts and component locations for 2006 Ford Fusion and Mercury Milan 2.3L with the FNR5 transmission

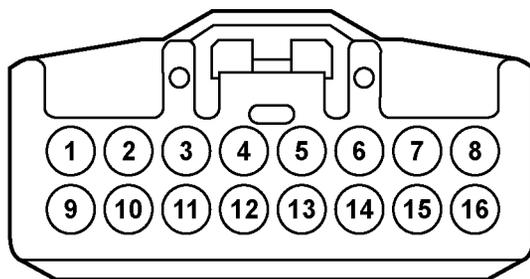
**Source:** Ford service manuals

The FNR5 is a five-speed automatic transaxle. This reference contains the following diagrams:

- [Figure F1064-1](#) Transmission control module (TCM) location
- [Figure F1064-2](#) TCM connector pinouts (2 sheets)
- [Figure F1064-3](#) Transmission connector locations
- [Figure F1064-4](#) Transmission connector pinouts (3 sheets)
- [Figure F1064-5](#) Valve body solenoid identification and location
- [Figure F1064-6](#) Main valve body internal harness connectors and schematic



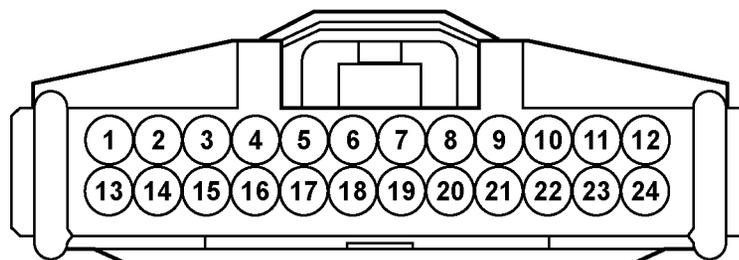
**Figure F1064-1** Transmission control module (TCM) location



View: Harness side, backprobing

Transmission Control Module (TCM) Connector A	
Pin	Function
1	Ground
2	FNR5 relay switched output
3	Voltage at all times (overload protected)
4	Not used
5	Linear pressure control solenoid (PCA) –
6	Linear pressure control solenoid (PCA) +
7	Shift solenoid C (SSC)
8	Shift solenoid A (SSA)
9	Ground
10	FNR5 relay switched output
11	Not used
12	Shift solenoid F (SSF)
13	Shift solenoid E (SSE)
14	Shift solenoid D (SSD)
15	Pressure control solenoid B (PCB)
16	Shift solenoid B (SSB)

Figure F1064-2 TCM connector pinouts (sheet 1 of 2)



View: Harness side, backprobing

Transmission Control Module (TCM) Connector B	
Pin	Function
1	High speed CAN +
2	Not used
3	
4	
5	Signal return
6	Oil temperature signal
7	Turbine shaft speed (TSS) sensor return
8	Turbine shaft speed (TSS) sensor signal
9	Not used
10	
11	
12	
13	High speed CAN -
14	Not used
15	
16	FNR5 transmission relay control
17	Output shaft speed (OSS) sensor signal
18	Not used
19	Intermediate shaft speed (ISS) sensor signal
20	Transmission fluid pressure switch signal
21	Transmission range sensor signal
22	Not used
23	
24	

Figure F1064-2 TCM connector pinouts (sheet 2 of 2)

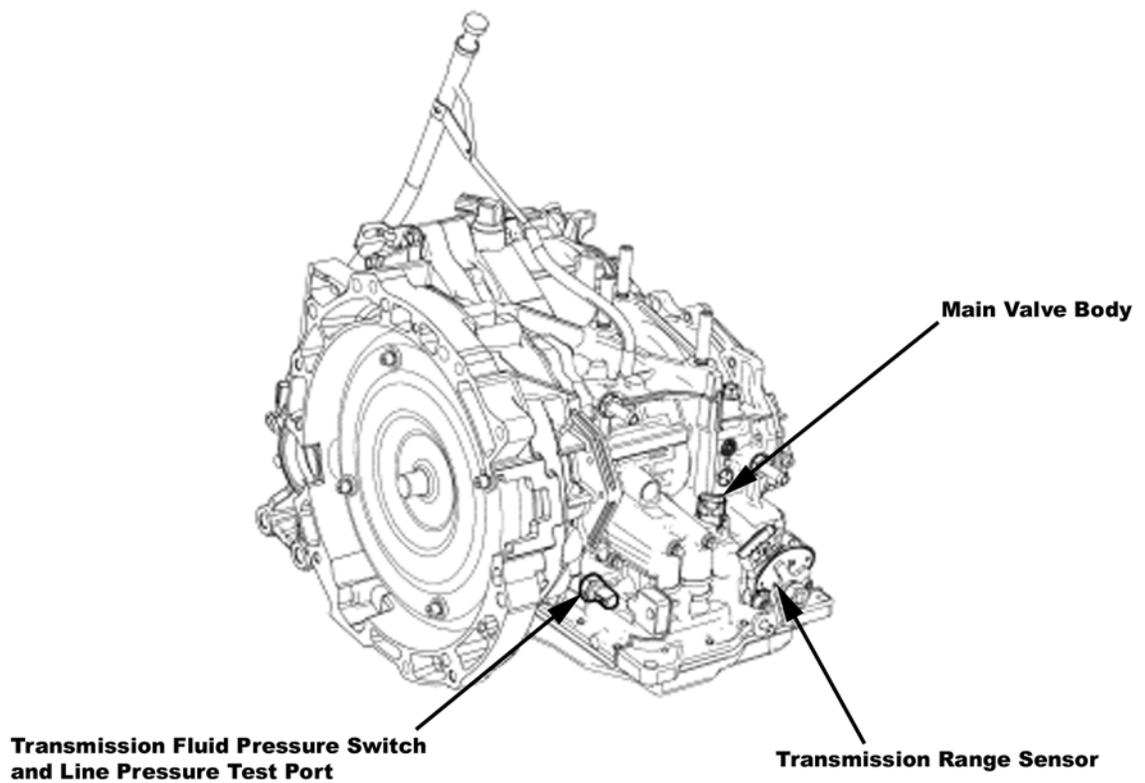
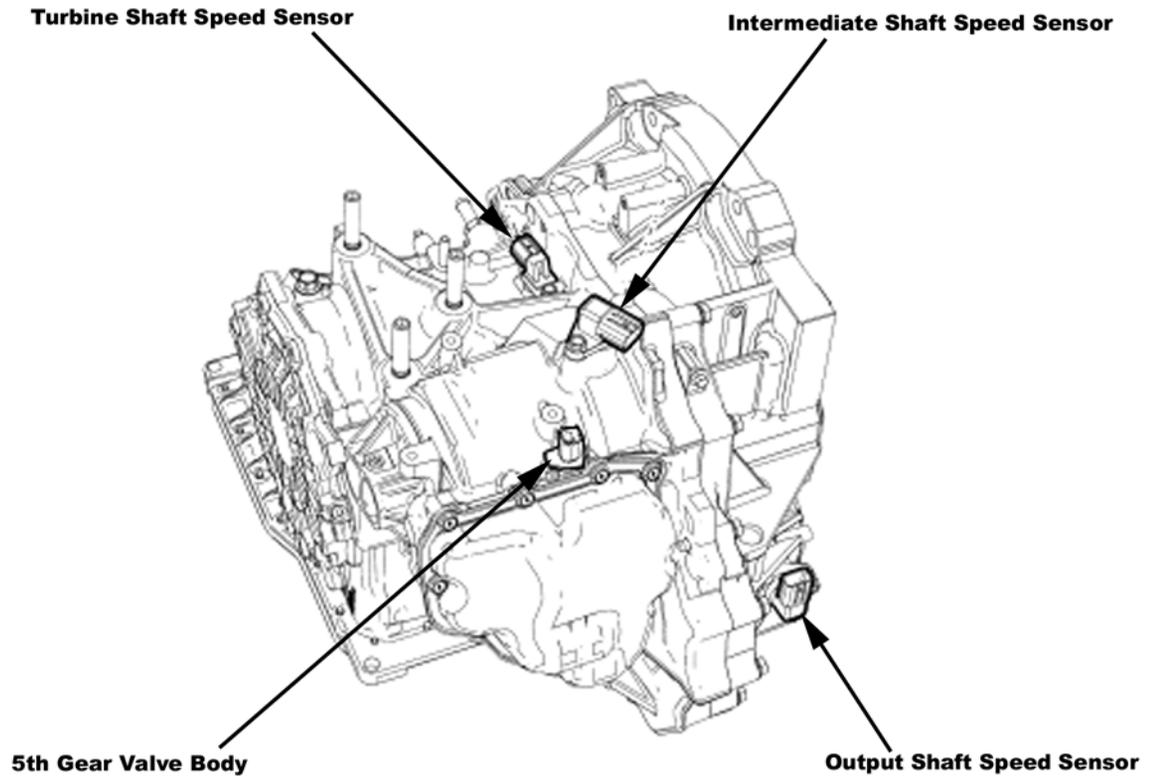
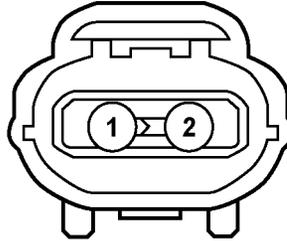
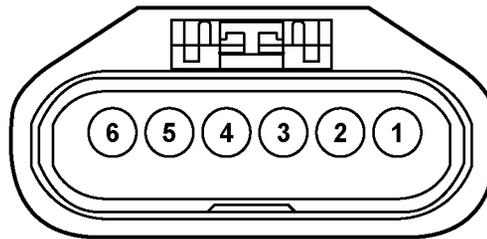


Figure F1064-3 *Transmission connector locations*



View: Harness side, backprobing

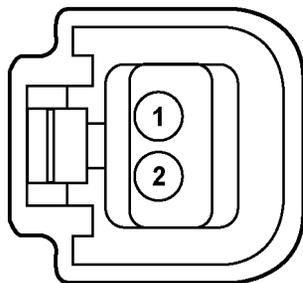
Turbine Shaft Speed (TSS) Sensor	
Pin	Function
1	Turbine shaft speed sensor signal
2	Turbine shaft speed sensor signal return



View: Harness side, backprobing

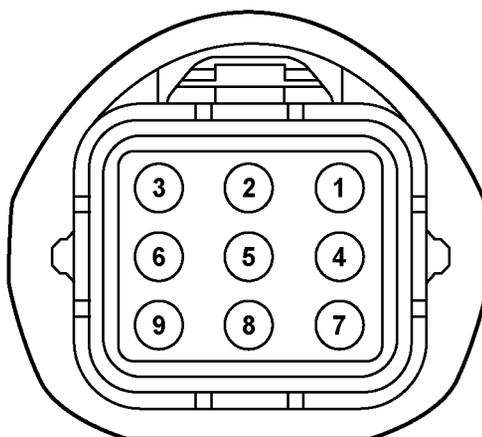
Transmission Range (TR) Sensor	
Pin	Function
1	Ground
2	Transmission range sensor return
3	Transmission range sensor signal
4	Not used
5	
6	Park/neutral switch signal

Figure F1064-4 Transmission connector pinouts (sheet 1 of 3)



View: Harness side, backprobing

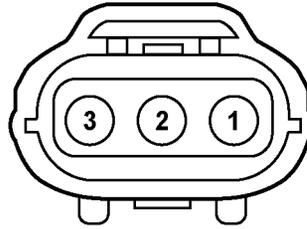
5th Gear Valve Body Connector	
Pin	Function
1	On/Off solenoid F
2	Duty solenoid PCB



View: Harness side, backprobing

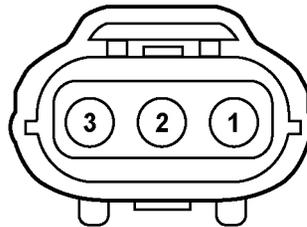
Main Valve Body Connector	
Pin	Function
1	Duty solenoid C
2	Linear pressure control solenoid (PCA) +
3	Duty Solenoid A
4	Oil temperature signal return
5	Oil temperature signal
6	On/Off solenoid D
7	Linear pressure control solenoid (PCA) -
8	On/Off solenoid E
9	Duty Solenoid B

Figure F1064-4 Transmission connector pinouts (sheet 2 of 3)



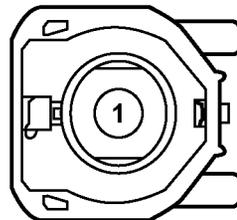
View: Harness side, backprobing

Intermediate Shaft Speed (ISS) Sensor	
Pin	Function
1	Ground
2	Intermediate speed shaft sensor signal
	FNR5 relay switched output



View: Harness side, backprobing

Output Shaft Speed (OSS) Sensor	
Pin	Function
1	Ground
2	Output speed shaft sensor signal
3	FNR5 relay switched output



View: Harness side, backprobing

Transmission Fluid Pressure Switch	
Pin	Function
1	Transmission fluid pressure switch signal

Figure F1064-4 Transmission connector pinouts (sheet 3 of 3)

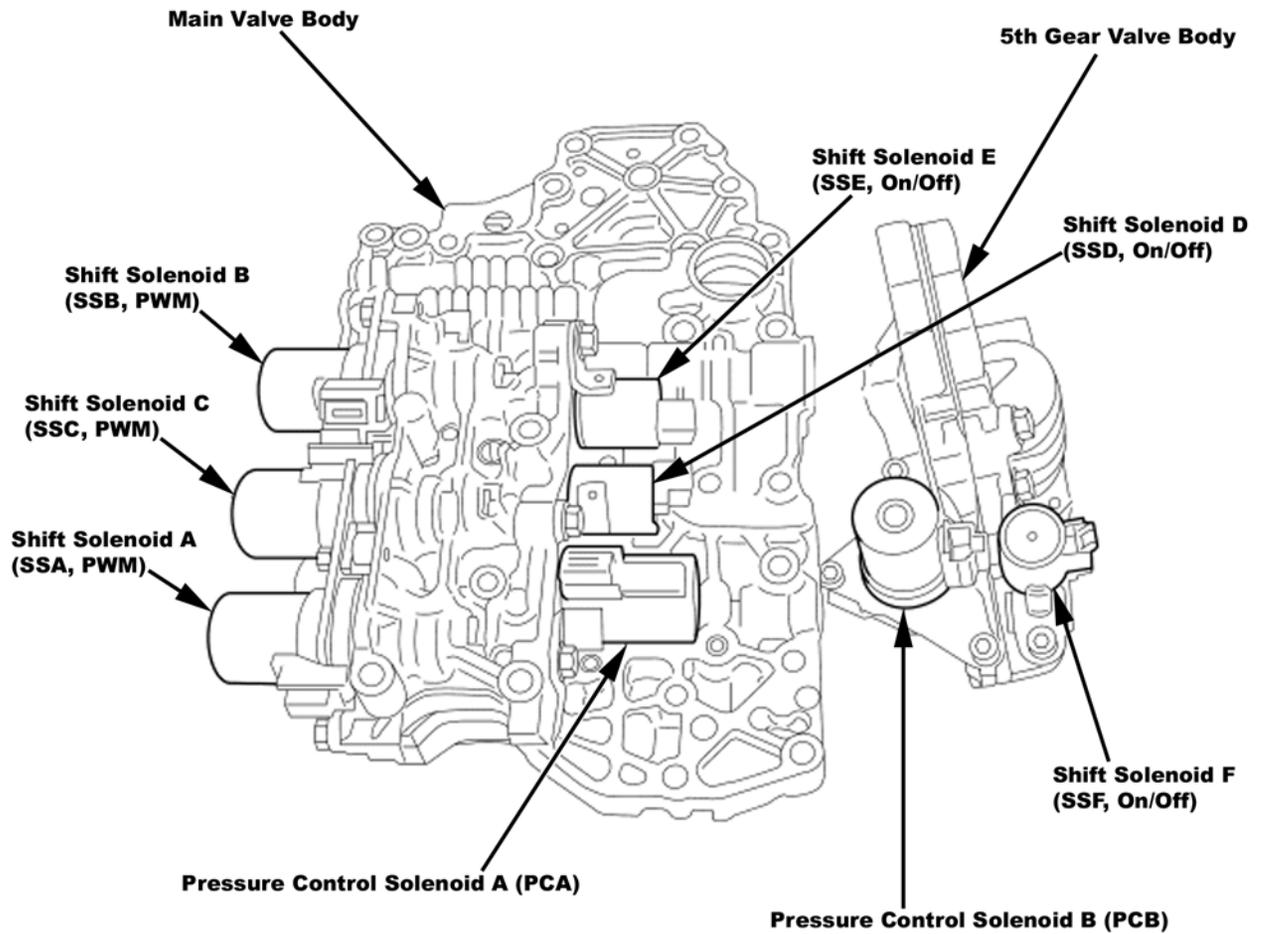
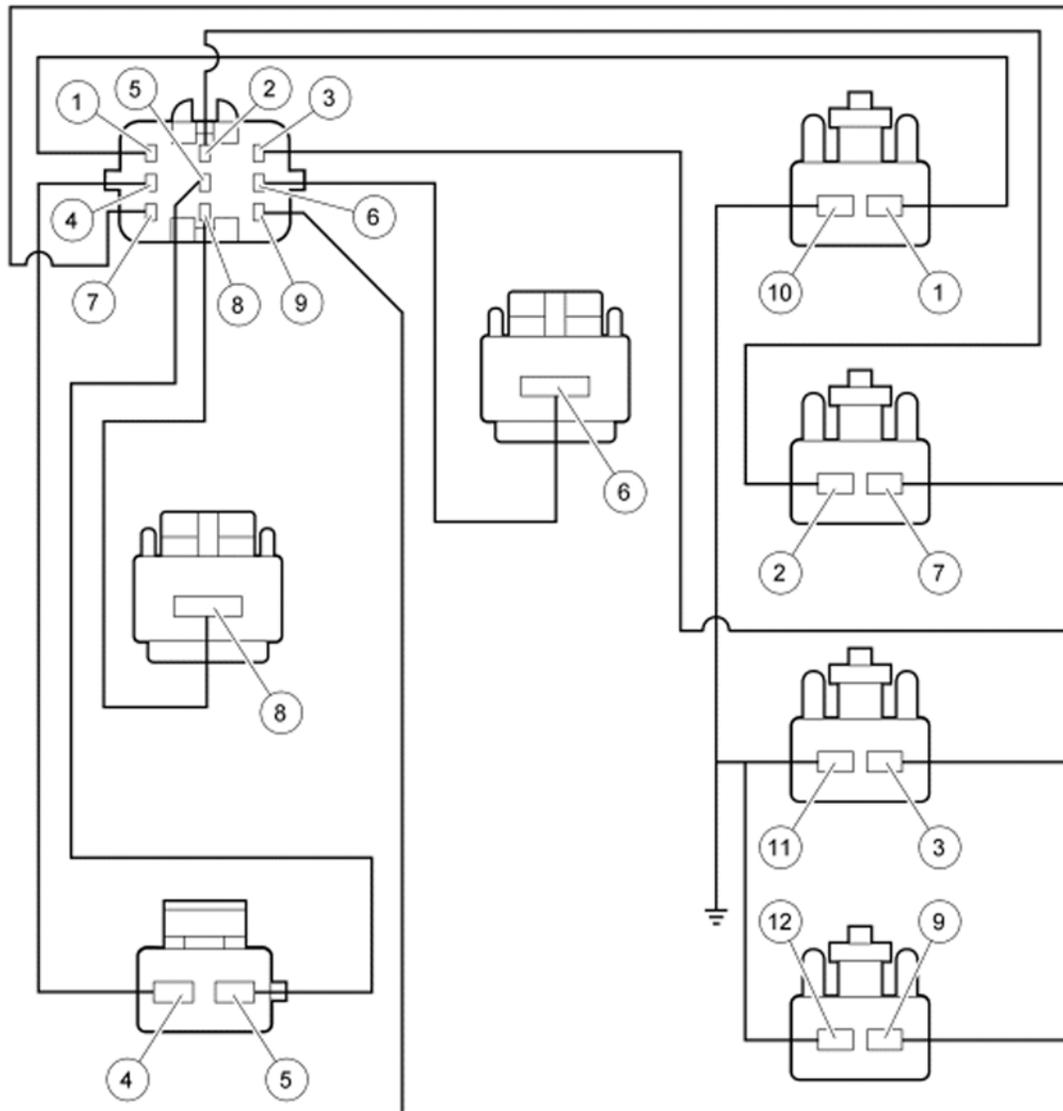


Figure F1064-5 Valve body solenoid identification and location



Pin	Function	Pin	Function
1	Shift Solenoid C (SSC)	7	Pressure Control A (PCA)
2	Pressure Control A (PCA)	8	Shift Solenoid E (SSE)
3	Shift Solenoid A (SSA)	9	Shift Solenoid B (SSB)
4	Trans. Fluid Temperature (TFT) return	10	SSC Ground
5	Trans. Fluid Temperature (TFT) signal	11	SSA Ground
6	Shift Solenoid D (SSD)	12	SSB Ground

Figure F1064-6 Main valve body internal harness connectors and schematic