

Transmission: **Ford 5R110W**

Transmission Code: **059** (Cold)

Dedicated Harness Set:

**04X213**

**060** (Hot)

<b>SOLENOID TEST: (Engine off)</b>				
Solenoid	TranX Setting	Output Channel	AMPS Cold-Hot	Resistance Cold-Hot
Shift Solenoid PCA	Gear 1	1	0.9 - 1.3	4.1 - 4.7 Ω
Shift Solenoid PCB	Gear 2	2	0.9 - 1.3	4.1 - 4.7 Ω
Shift Solenoid PCC	Gear 3	3	0.9 - 1.3	4.1 - 4.7 Ω
Shift Solenoid PCD	Gear 4	4	0.9 - 1.3	4.1 - 4.7 Ω
TCC Solenoid	Gear 5	5	0.9 - 1.3	4.1 - 4.7 Ω
Shift Solenoid PCE	Gear 6	6	0.9 - 1.3	4.1 - 4.7 Ω
EPC Solenoid	Gear 7	7	0 - (0.8 - 1.2) Duty MIN - MAX	5.1 - 5.8 Ω

**Note:**

Solenoid PCA, PCB, PCC, PCD & PCE pulsed at 50% for shift and solenoid test. Resistance reading on TranX will be 2X actual value.

**CAUTION:**  
Always come to a COMPLETE STOP & TURN ENGINE OFF before changing test modes

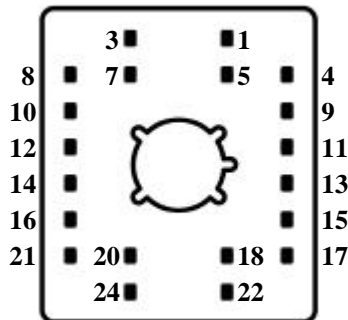
<b>SHIFT/MONITOR TEST</b>							
GEAR	Shift Solenoid PCA	Shift Solenoid PCB	Shift Solenoid PCC	Shift Solenoid PCD	TCC Solenoid (Lockup)	Shift Solenoid PCE (Function 1)	EPC (Pulsed)
1st	ON	OFF	OFF	ON	OFF	ON/OFF*	Select Duty
2nd	ON	ON	OFF	ON	ON/OFF	ON/OFF*	Select Duty
3rd	ON	OFF	ON	ON	ON/OFF	OFF	Select Duty
4th (Cold)	ON	ON	ON	ON	ON/OFF	OFF	Select Duty
4th (Hot)	ON	OFF	OFF	OFF	ON/OFF	OFF	Select Duty
5th	ON	ON	OFF	OFF	ON/OFF	OFF	Select Duty

**Notes:**

- ◆ The cold shift strategy is used when transmission temperature is below 5 deg F (4th Cold has a gear ratio of 1.1:1, 4th Hot has a gear ratio of 1.0:1)
- ◆ **Lock Up** is normally activated in 2nd, 3rd, 4th and 5th Gears.
- ◆ All Shift Solenoids are pulsed at a duty cycle of 50%.
- ◆ **Shift Solenoid PCE** is on in Manual 1st and 2nd, can be on or off in 1st and 2nd.
- ◆ Polarity = Common **Positive**

Transmission: **Ford 5R110W**

**CONNECTOR:**  
(Looking into harness connector)



Transmission Range Sensor		
Connect Multimeter to Sensor Module Test Point 7 & GND, Check 5V supply for sensor between Test Point 8 & GND		
Position	Duty Cycle	Volts
P	7.1 - 23.8%	0.4 - 1.2 V
R	23.9 - 38.5%	1.2 - 1.9 V
N	38.6 - 48.6%	1.9 - 2.4 V
D	48.7 - 58.8%	2.4 - 2.9 V
3	58.9 - 68.1%	2.9 - 3.4 V
2	68.2 - 78.0%	3.4 - 3.9 V
1	78.1 - 90.3%	3.9 - 4.5 V

TOT Sensor Testing	
Connect Multimeter to Sensor Module Test Points 5 & 6	
Resistance	Temperature
100K - 284K $\Omega$	-3° - 31° F
37K - 100K $\Omega$	32° - 68° F
16K - 37K $\Omega$	69° - 104° F
5.0K - 16.0K $\Omega$	105° - 158° F
2.7K - 5.0K $\Omega$	159° - 194° F
1.5K - 2.7K $\Omega$	195° - 230° F
0.8K - 1.5K $\Omega$	231° - 266° F
0.54K - 0.8K $\Omega$	267° - 302° F

## Wiring Chart

Case Connector Pin Number	TranX 2000 Harness Wire	Vehicle Function	TranX 2000 Output Location	TranX 2000 25 Way Pin
1	Brown	Shift Solenoid PCE	Channel 6	4
3	Dark Green	Shift Solenoid PCB	Channel 2	8
4	Red/Green	Shift Solenoid PCD	Channel 4	6
5	Pink	Shift Solenoid PCC	Channel 3	5
7	Red	+12V to PCA & TCC		12
8	Purple	TCC Solenoid	Channel 5	3
9	Green/White	Pressure Switch C	Sensor 3 Test Point	17
10	Yellow	EPC Solenoid	Channel 7	1
11	Yellow/Red	Pressure Switch D	Sensor 4 Test Point	18
12	Blue	Shift Solenoid PCA	Channel 1	7
13	White/Red	Pressure Switch E	Sensor 6 Test Point	20
14	Orange	Pressure Switch A	Sensor 1 Test Point	15
15	White/Purple	Trans Range Park Sensor	Sensor 7 Test Point	21
16	White	Pressure Switch B	Sensor 2 Test Point	16
17	White/Green	Trans Range Park Sensor Return		10
18	Red/Blue	TOT Sensor	Sensor 5 Test Point	19
20	Red	+12V to PCA and PCB		12
21	Red/Brown	Power to Trans Range Park Sensor	Sensor 8 Test Point	22
22	Red/Black	GND for Pressure Switches and TOT		11
24	Red/Brown	+12V for PCC, PCD, PCE		13