

Dedicated Harness:

09X202**(Early-92)****09X204****(Late 93-UP)**

SOLENOID TEST: (Engine off)				
Solenoid	TranX Setting	Output Channel	Current Cold-Hot	Resistance Cold-Hot
Solenoid 1 (MV1)	Gear 1	1	0.6 - 0.3	30 - 34 Ω
Solenoid 2 (MV2)	Gear 2	2	0.6 - 0.3	30 - 34 Ω
Solenoid 3 (MV3)	Gear 3	3	0.6 - 0.3	30 - 34 Ω
Lock-Up (MV6)	Gear 5	5	0.6 - 0.3	30 - 34 Ω
Solenoid 5 (MV5)	Gear 6	6	0.6 - 0.3	30 - 34 Ω
EPC (EDS-1) (pulsed)	Gear 7	7	1.3 - 0.8 (@ 50% duty)	5.2 - 6.8 Ω
Solenoid 4 (MV4)	Gear 8	8	0.6 - 0.3	30 - 34 Ω

CAUTION:

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

SHIFT/MONITOR TEST							
GEAR	Solenoid 1 (MV1)	Solenoid 2 (MV2)	Solenoid 3 (MV3)	Solenoid 4 (MV4) Function 1	Lock-Up (MV6)	Solenoid 5 (MV5) Function 3	EPC (EDS-1) (pulsed)
1st	ON	ON	ON	OFF	OFF	OFF	Select Duty
2nd	OFF	ON	ON	OFF	OFF	OFF	Select Duty
3rd	OFF	OFF	ON	ON/OFF	ON/OFF	OFF	Select Duty
4th	OFF	OFF	OFF	ON/OFF	ON/OFF	OFF	Select Duty
5th	ON	OFF	OFF	OFF	ON/OFF	ON/OFF	Select Duty

Notes:

- ◆ MV 4 is used to smooth 3-4 and 4-3 shift change. MV5 is used to smooth 5-4 shift change.
- ◆ Lock Up is normally activated in 3rd, 4th and 5th Gears.
- ◆ Polarity = Common Negative

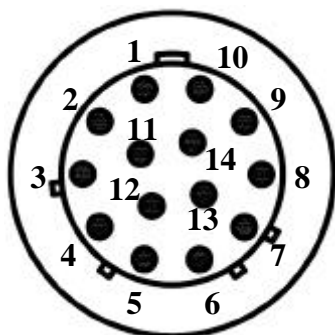
Transmission: **BMW 5HP18**

SENSOR TESTS :

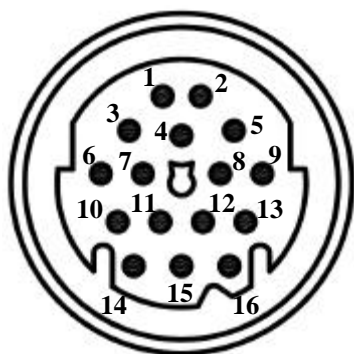
The Transmission Temperature Sensor, Input Speed Sensor and Output Speed Sensor located in the transmission and can be monitored on the Sensor Module. To verify operation please compare against the readings specified in the following tables.

CONNECTORS:

(Looking into harness connectors)



Early - 1992



Late 1993 & Up

TOT Sensor Test	
Connect Multimeter to Sensor Module Test Points 7 & 8	
Resistance	Temperature
970 Ω	72° F

COMMENTS:

The Temperature Sensor is a thermistor, which changes resistance in relation to the temperature of the transmission fluid. As fluid temperature increases, thermistor resistance decreases.

Turbine Speed Sensor Test	
Connect Multimeter to Sensor Module Test Points 5 & 6	
Resistance	Comments
265Ω +/- 10%	Ignition Off

COMMENTS:

The Speed Sensor is Inductive - Dynamic tests can be made using your Multimeter measuring either Voltage AC or Frequency A.C. An AC Voltage and frequency will be produced by the sensor, informing the transmission ECU the turbine speed.

Output Speed Sensor Test	
Connect Multimeter to Sensor Module Test Points 3 & 4	
Resistance	Comments
265Ω +/- 10%	Ignition Off

COMMENTS:

The Speed Sensor is Inductive - Dynamic tests can be made using your Multimeter measuring either Voltage AC or Frequency A.C. An AC Voltage and frequency will be produced by the sensor, informing the transmission ECU the output speed.

NOTE :

RESISTANCE MEASUREMENT'S MUST BE MADE WITH IGNITION OFF. IT MAY ALSO BE NECESSARY TO DISCONNECT THE ECU HARNESS IN SOME CASES.

Wiring Chart				
Case Connector Pin Number	TranX 2000 Harness Wire	Vehicle Function	TranX 2000 Output Location	TranX 2000 25 Way Pin
1	Red/Blue	Turbine Speed Sensor	Sensor 5 Test Point	19
2	Yellow	EPC Solenoid	Channel 7	1
3	Grey	Solenoid 4 (MV 4)	Channel 8	2
4	Pink	Solenoid 3 (MV 3)	Channel 3	5
5	Yellow/Red	Output Speed Sensor	Sensor 4 Test Point	18
6	Green/White	Output Speed Sensor	Sensor 3 Test Point	17
7	Brown	Solenoid 5 (MV 5)	Channel 6	4
8	Blue	Solenoid 1 (MV 1)	Channel 1	7
9	Green	Solenoid 2 (MV 2)	Channel 2	8
10	White/Red	Turbine Speed Sensor	Sensor 6 Test Point	20
11	Violet	Lockup Solenoid (MV 6)	Channel 5	3
12	White/Violet	TOT Sensor	Sensor 7 Test Point	21
13	Red	+12V to Solenoids		12
14	White/Green	TOT Sensor Return	Sensor 8 Test Point	22