



## CHRYSLER 42RE, 44RE, 46RE, 47RE

### ANOTHER GOVERNOR PRESSURE SENSOR AND SOLENOID ASSEMBLY HARNESS DESIGN CHANGE

**CHANGE:** Beginning in the model year 2000, Chrysler Corporation introduced another new governor pressure sensor (transducer), as a running change, which also required another internal wiring harness for all Chrysler 42RE, 44RE, 46RE and 47RE transmissions. This is now the 4th design governor pressure sensor that we have seen and we will cover all 4 design level changes that have occurred to date, in this bulletin.

#### **PARTS AFFECTED:**

##### ***1ST DESIGN:***

Originally, the Governor Pressure Sensor/Transducer was a 3 terminal sensor, with the Transmission Fluid Temperature (TFT) Sensor mounted on the Overdrive/TCC Solenoid. The original 3 wire sensor is illustrated in Figure 1, and the wiring schematic for these models is shown in Figure 5.

##### ***2ND DESIGN:***

Beginning at the start of production for all 1996 models, Chrysler incorporated the externally mounted TFT sensor into a new design governor sensor, which required a fourth pin to be added to the new sensor. This also necessitated an internal harness change, to accommodate the redesigned 4 terminal governor sensor.

**Reason:** - Increased Transmission Fluid Temperature Sensor accuracy for improved reliability and durability.

The 2nd design 4 wire sensor is illustrated in Figure 2, and the wiring schematic for these models is shown in Figure 6. Each terminal in the new sensor has been identified with the letters A, B, C and D, as shown in Figures 2 and 6.

##### ***3RD DESIGN:***

Late in the 1996 model year, Chrysler again changed the connector on the governor pressure sensor, from the previous straight, to a 90 degree connector. This change however, did not require a new internal harness and solenoid assembly.

**Reason:** - Relieved the stress on the internal harness connector, and once again improved reliability and durability.

The 3rd design 4 wire, 90 degree sensor is illustrated in Figure 3, and the wiring schematic for these models is shown in Figure 6. Each terminal in the new sensor has been identified with the letters A, B, C and D, as shown in Figures 2 and 6.

**Continued on Page 2**



# Technical Service Information

## PARTS AFFECTED: (Cont'd from Page 1)

### 4TH DESIGN:

During the 2000 model year, Chrysler Corporation introduced another new governor pressure sensor (transducer), as a running change, which also required another new internal wiring harness, to accommodate the new sensor. The 4th design governor sensor is made of plastic and has four larger "spade" type terminals, transmits a different signal, has a redesigned connector and a shorter snout where it goes into the adapter body.

**Reason:** - More cost effective because of the material, and the shorter snout allows a much improved flow of governor oil to the sensor, for greatly improved accuracy and reliability. Refer to Figure 8 for illustrations of 3rd and 4th design sensors in the adapter housing.

The 4th design 4 wire, 90 degree sensor is illustrated in Figure 4, and the wiring schematic for these models is shown in Figure 7. Each terminal in the new sensor has been identified with the numbers 1, 2, 3 and 4, as shown in Figures 4 and 7. The 4th design level is illustrated mounted on the valve body in Figure 8. There is also a new design retainer that is required for the 4th design level parts and is illustrated in Figure 8.

## INTERCHANGEABILITY:

**1st Design Level** - 3 pin sensor is not recommended for use in any model, and is no longer available from OEM parts department.

**2nd Design Level** - Will retro-fit back on all models, but requires the upgraded internal harness and solenoid assembly. This one also is not recommended and is no longer available.

**3rd Design Level** - Will retro-fit back on all models, but requires the upgraded internal harness and solenoid assembly, part number 52118500, as shown below.

**4th Design Level** - **"Will Not" retro-fit back.** The 4th design level, is for 2000 model year and later only, that are so equipped. Some 2000 models may be equipped with the 3rd design level parts. 3rd Design level parts must be used in 3rd design level vehicles, and 4th design level parts must be used in 4th design level vehicles. **They will not interchange!**

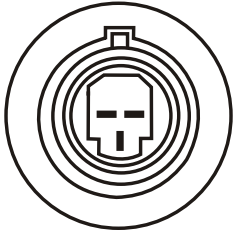
## SERVICE INFORMATION:

|   |            |
|---|------------|
| Governor Pressure Sensor/Transducer (3rd Design Level) .....    | 56041403AA |
| Internal Harness And Solenoid Assembly (3rd Design Level) ..... | 52118500   |
| Retaining Clip (3rd Design Level) .....                         | 4617219    |

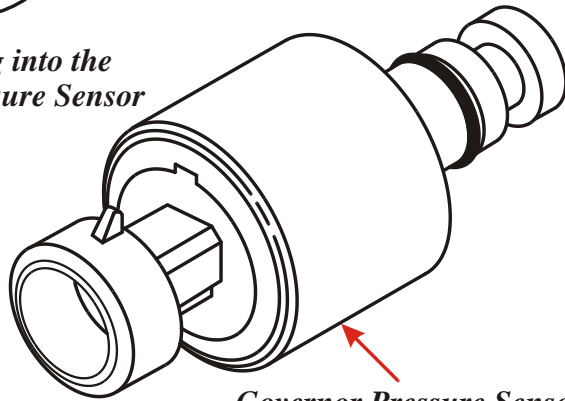
|   |            |
|---|------------|
| Governor Pressure Sensor/Transducer (4th Design Level) .....    | 56028196AA |
| Internal Harness And Solenoid Assembly (4th Design Level) ..... | 52118500AB |
| Retaining Bracket (4th Design Level) .....                      | 52117937AB |

## "1ST DESIGN" 3 PIN GOVERNOR PRESSURE SENSOR WITH "TFT" LOCATED ON SOLENOID ASSEMBLY

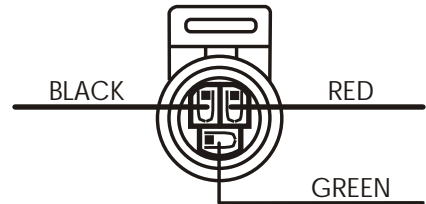
*No Longer Available For Service.*



*View looking into the  
Governor Pressure Sensor*



*Governor Pressure Sensor*



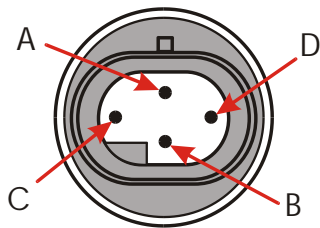
*View looking into the "1st Design"  
Sensor Harness Connector*

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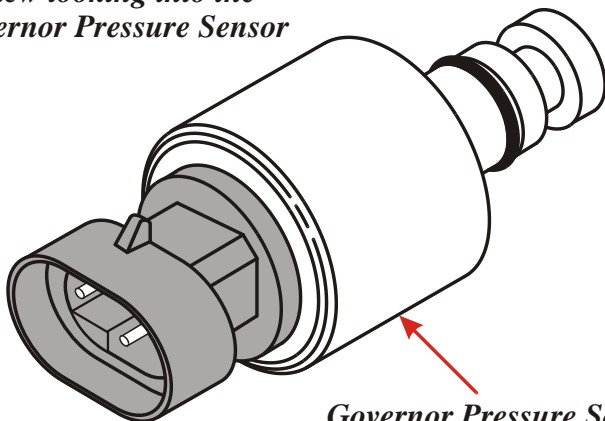
Figure 1

## "2ND DESIGN" 4 PIN "STRAIGHT" GOVERNOR PRESSURE SENSOR WITH "TFT" INCORPORATED INSIDE THE SENSOR

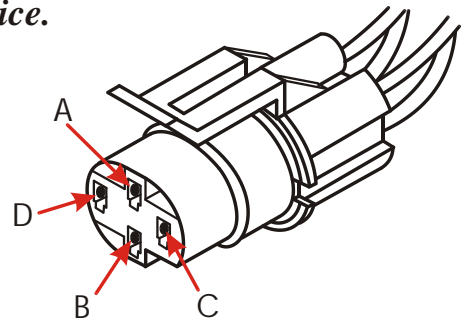
*No Longer Available For Service.*



*View looking into the  
Governor Pressure Sensor*



*Governor Pressure Sensor*



*View looking into "2nd Design"  
Governor Pressure Sensor Connector*

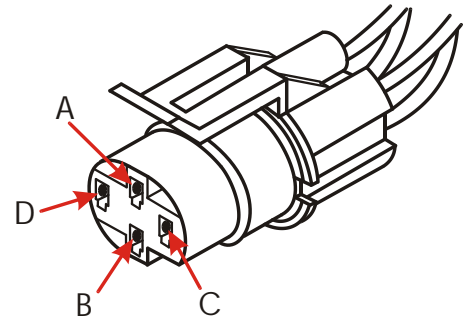
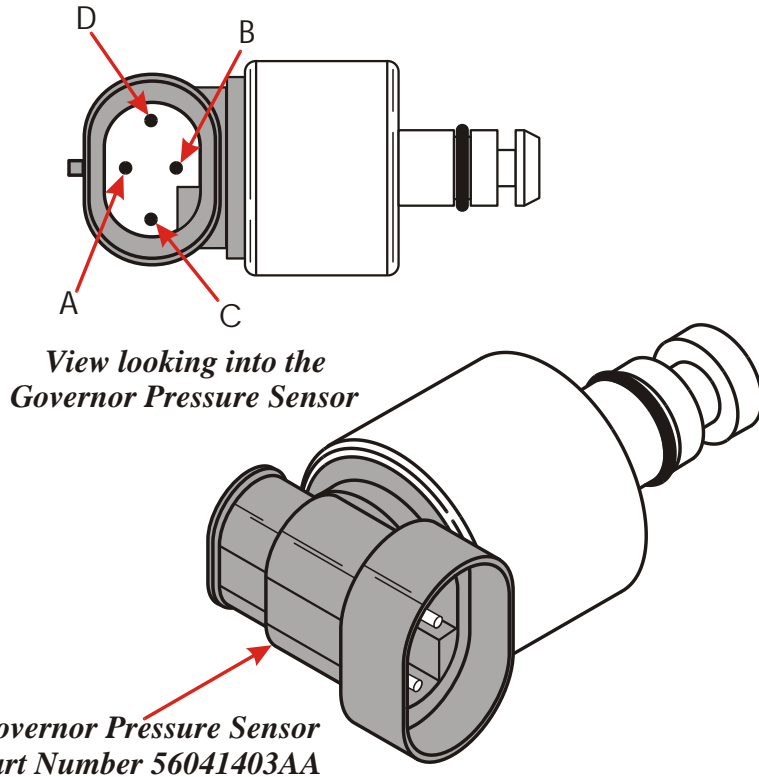
| Pin Number | All Models |
|------------|------------|
| A          | RED        |
| B          | WHITE      |
| C          | BLACK      |
| D          | GREEN      |

| PIN | FUNCTION                                     |
|-----|--|
| A   | 5-Volt supply to sensor from PCM             |
| B   | Governor Pressure Sensor Signal to PCM       |
| C   | Transmission Fluid Temperature Signal to PCM |
| D   | Governor Pressure Sensor Ground              |

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Figure 2

## "3RD DESIGN" 4 PIN "90 DEGREE" GOVERNOR PRESSURE SENSOR WITH "TFT" INCORPORATED INSIDE THE SENSOR



| Pin Number | All Models |
|------------|------------|
| A          | RED        |
| B          | WHITE      |
| C          | BLACK      |
| D          | GREEN      |

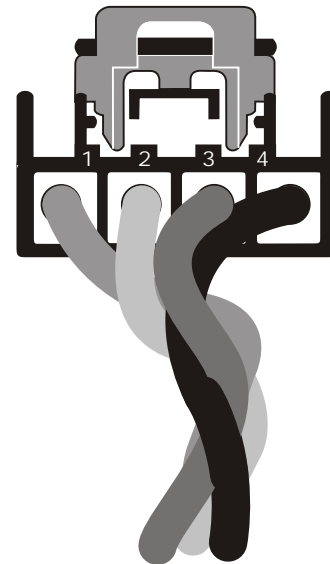
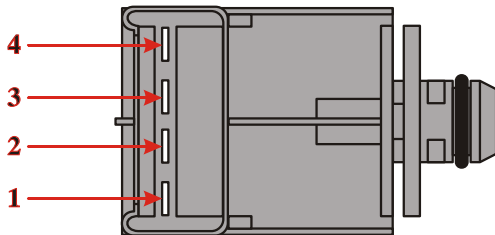
| PIN | FUNCTION                                     |
|-----|--|
| A   | 5-Voltsupply to sensor from PCM              |
| B   | Governor Pressure Sensor Signal to PCM       |
| C   | Transmission Fluid Temperature Signal to PCM |
| D   | Governor Pressure Sensor Ground              |

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Figure 3

## "4TH DESIGN" 4 PIN "PLASTIC" GOVERNOR PRESSURE SENSOR WITH "TFT" INCORPORATED INSIDE THE SENSOR

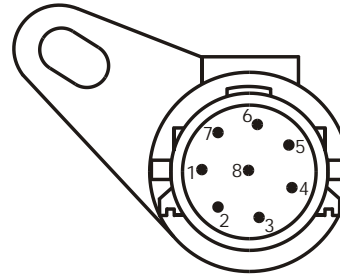
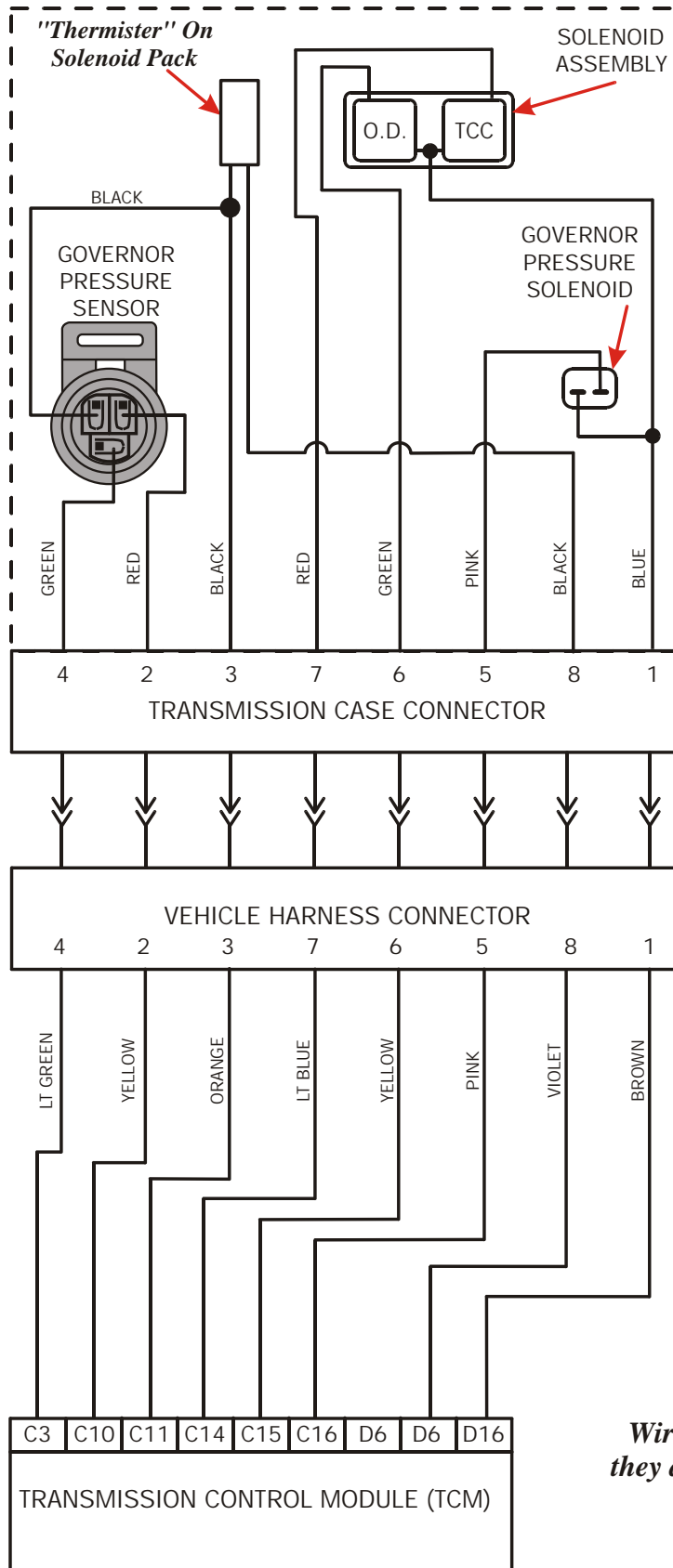
FOR 2000 AND LATER MODELS "ONLY"



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Figure 4

## WIRE SCHEMATIC FOR 1ST DESIGN GOVERNOR PRESSURE SENSOR



Transmission Case Connector



Harness Connector

| PIN | FUNCTION                                   |
|-----|--|
| 1   | 12V POWER IN FROM TCM TERMINAL D16         |
| 2   | 5V FEED TO GOVERNOR PRESSURE SENSOR        |
| 3   | GOVERNOR PRESSURE SENSOR GROUND            |
| 4   | GOVERNOR PRESSURE SENSOR SIGNAL TO PCM     |
| 5   | GROUND CONTROL, GOVERNOR PRESSURE SOLENOID |
| 6   | PCM GROUND FOR OVERDRIVE SOLENOID          |
| 7   | PCM GROUND FOR CONVERTER CLUTCH SOLENOID   |
| 8   | TRANSMISSION OIL TEMPERATURE SIGNAL TO PCM |

### NOTE:

Wire colors will vary as they are model dependent.

## WIRE SCHEMATIC FOR 2ND AND 3RD DESIGN GOVERNOR PRESSURE SENSOR

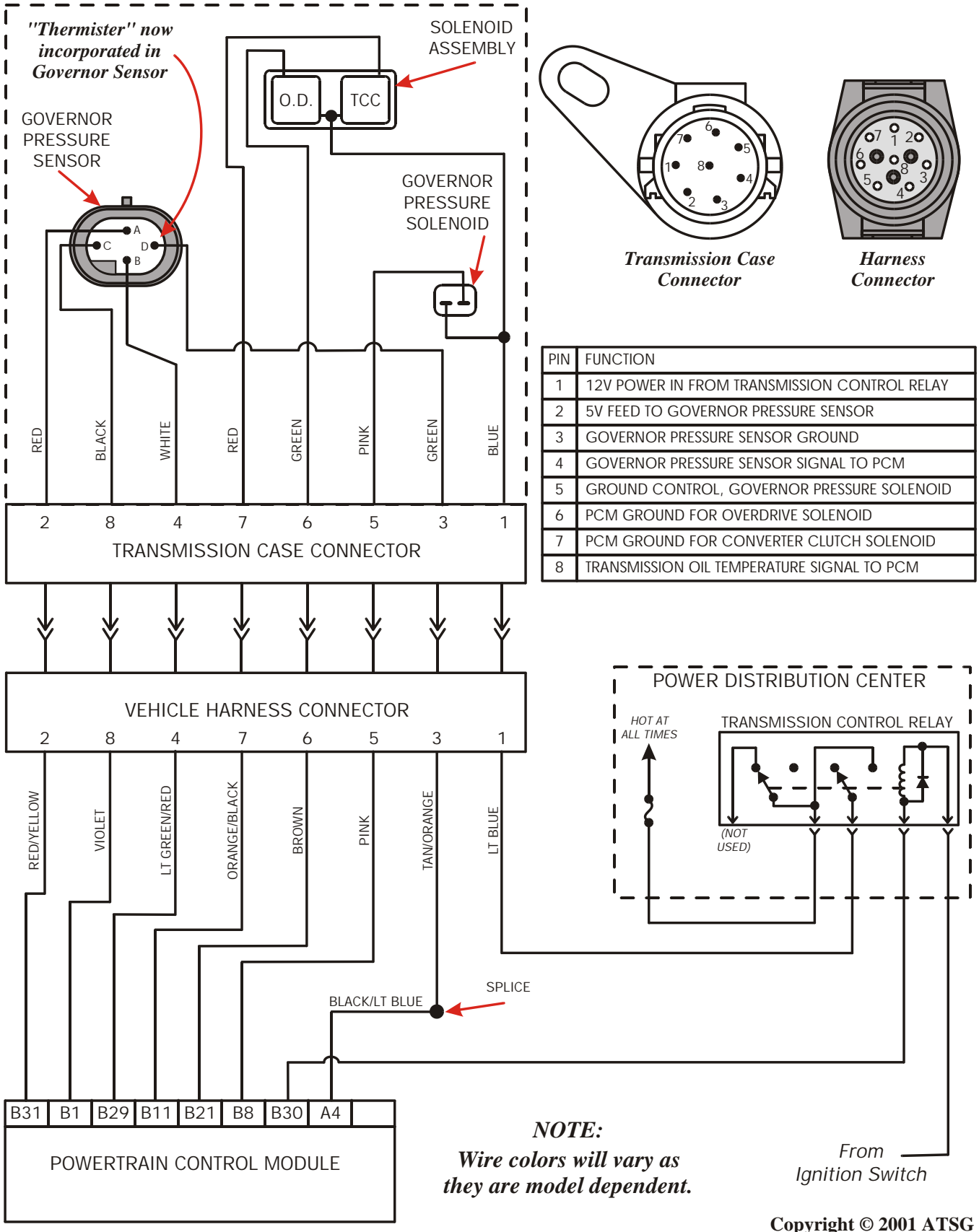


Figure 6

## WIRE SCHEMATIC FOR 4TH DESIGN GOVERNOR PRESSURE SENSOR

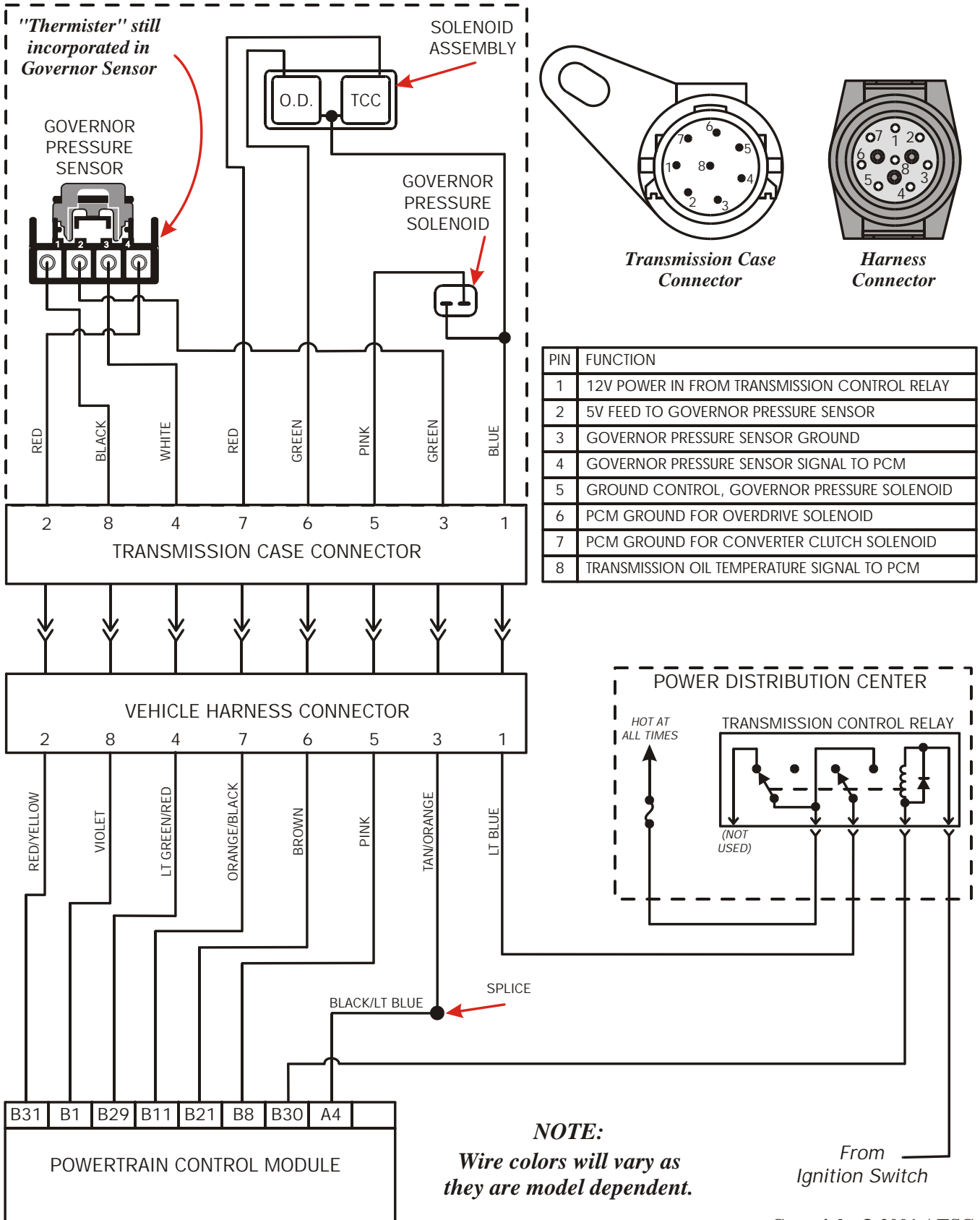


Figure 7



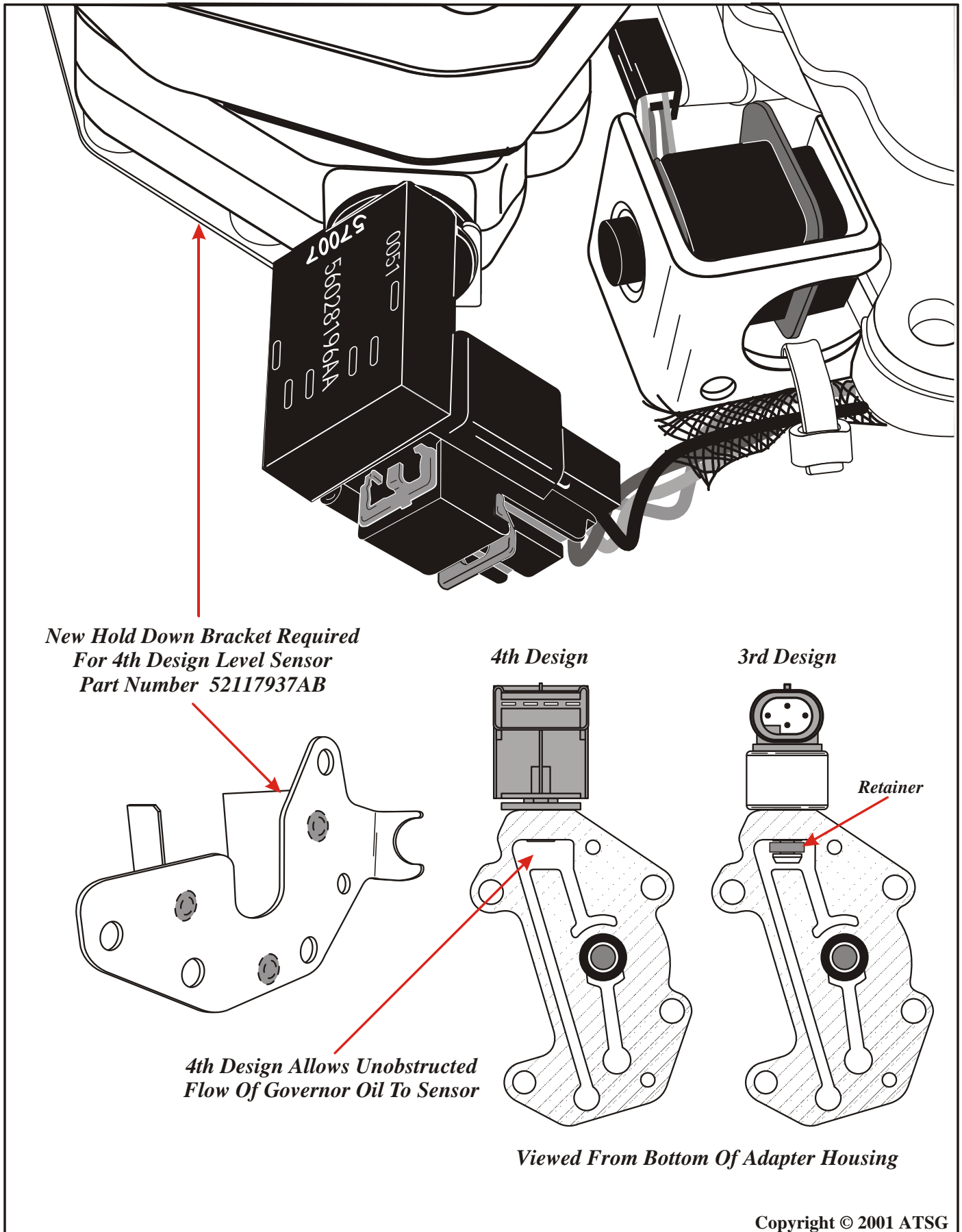


Figure 8