



# Technical Service Information

## CHRYSLER 46RE DIAGNOSTIC TROUBLE CODE P1740

**COMPLAINT:** Some 2000-2001 Ram Vans, Dakotas, Ram Trucks and Durangos, may exhibit a flashing Check Engine Light, caused by a DTC P1740, which is a Torque Converter Clutch or Overdrive Solenoid Performance fault.

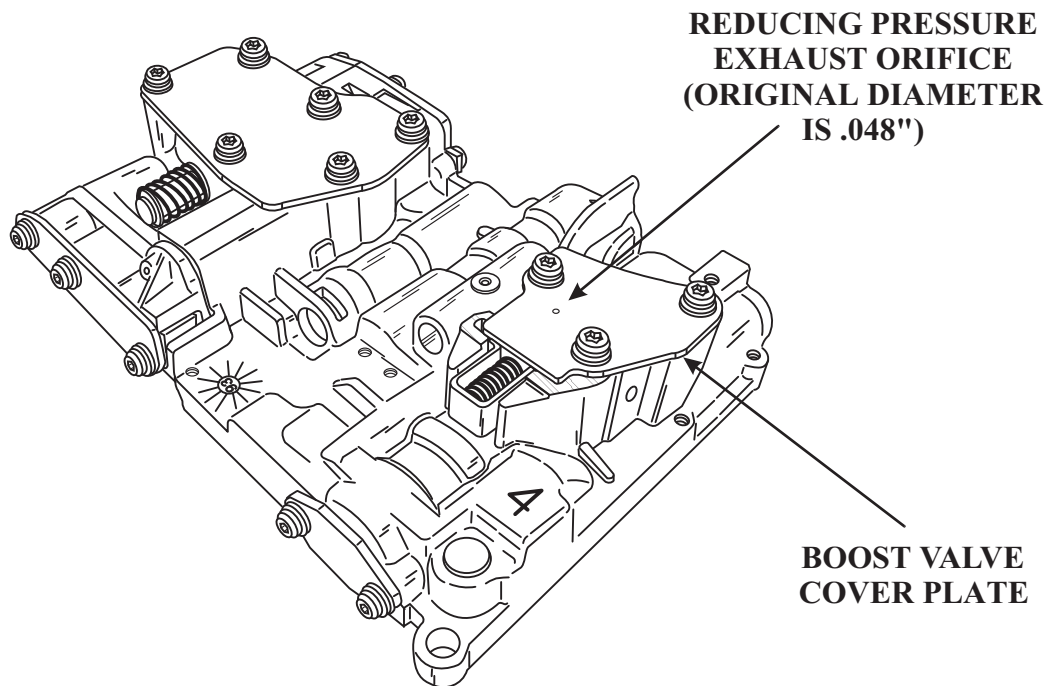
**CAUSE:** The cause may be, a Reducing Pressure Exhaust orifice that is too small, which delays the pressure increase needed when the Torque Converter Clutch is applied. Refer to Figures 2 and 3 for a partial hydraulic schematics explaining the Boost Valves function.

**CORRECTION:** Refer to Figure 1 to locate the Reducing Pressure Exhaust Orifice, which is in the Boost Valve Cover Plate. Remove the plate and enlarge the orifice shown to .069."Chrysler also provides a new Boost Valve Cover Plate which will already have the orifice enlarged.

### SERVICE INFORMATION:

Boost Valve Cover Plate .....04617015

### REDUCING PRESSURE EXHAUST ORIFICE LOCATION

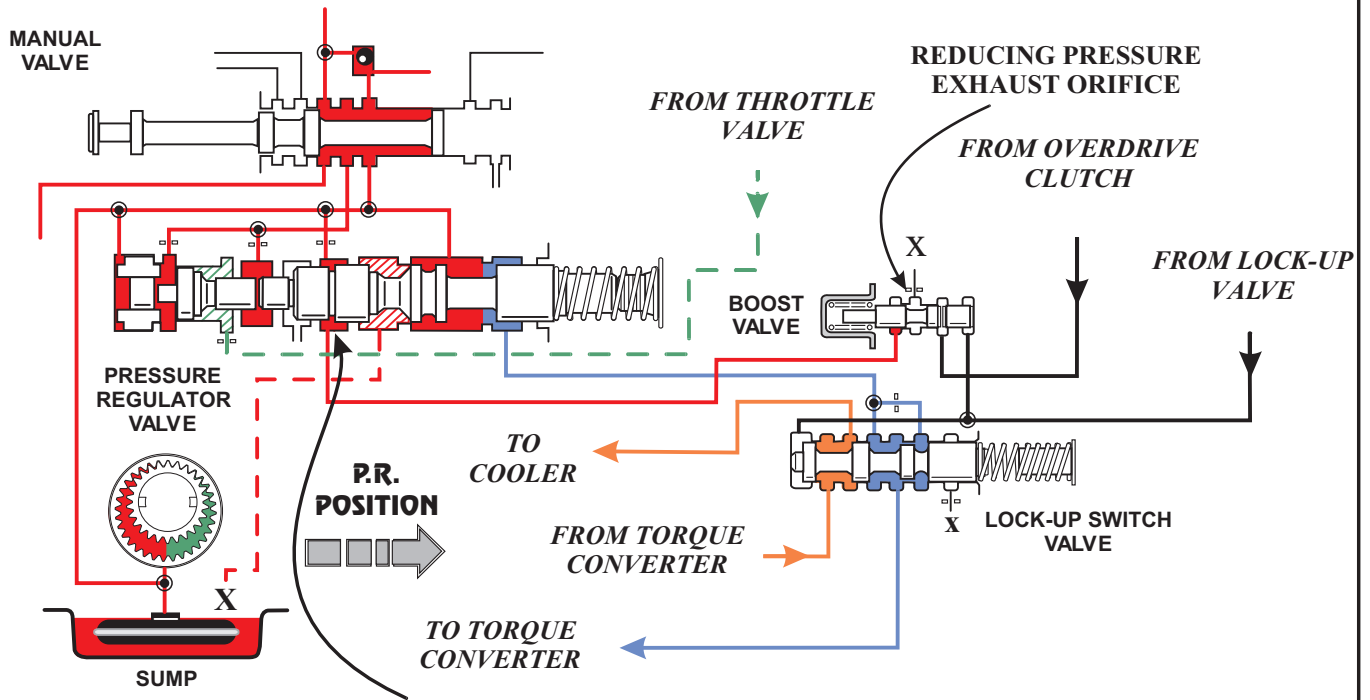


**REMOVE THE BOOST VALVE COVER PLATE AND  
ENLARGE THE REDUCING PRESSURE EXHAUST  
ORIFICE TO .069"**

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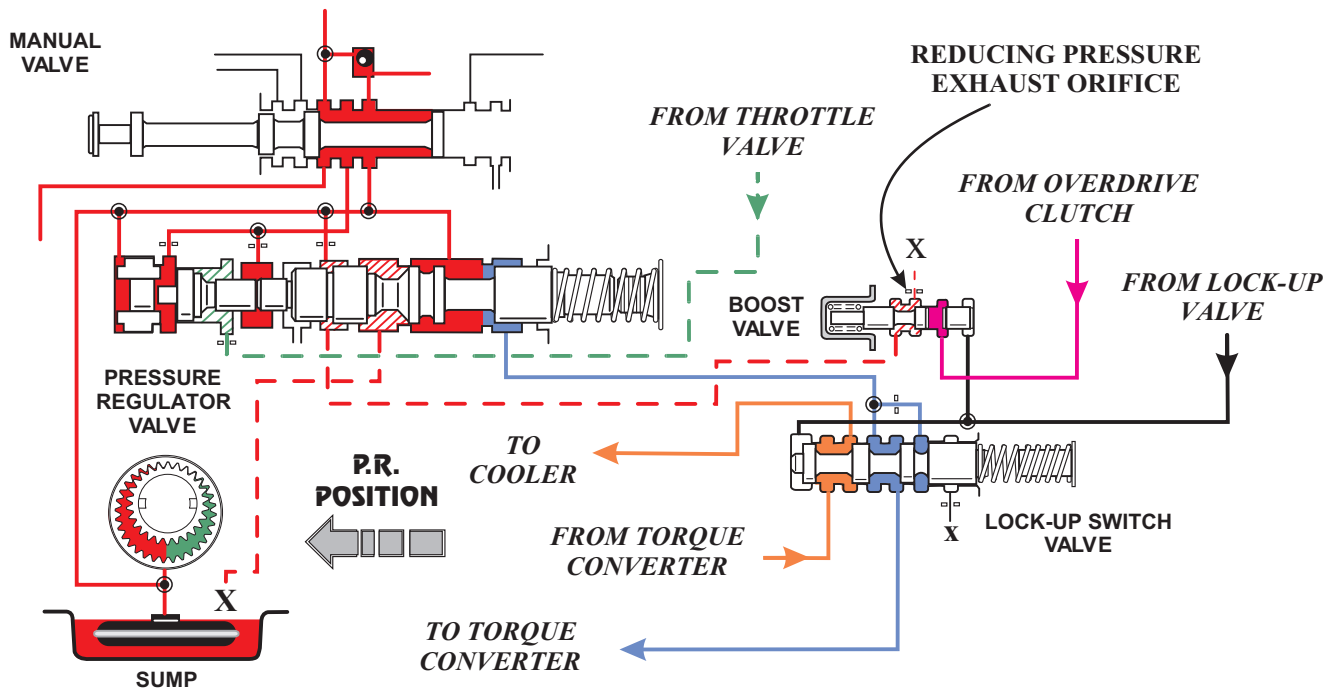
Figure 1

## PARTIAL HYDRAULIC SCHEMATIC OF PRESSURE REGULATOR VALVE "DRIVE" POSITION 1st thru 3rd GEAR



**Summary:** Reducing pressure is applied to the 3rd land of the Pressure Regulator Valve which forces the valve to the right reducing line pressure when in 1st 2nd and 3rd gear.

### PARTIAL HYDRAULIC SCHEMATIC OF PRESSURE REGULATOR VALVE "DRIVE" POSITION 4th GEAR

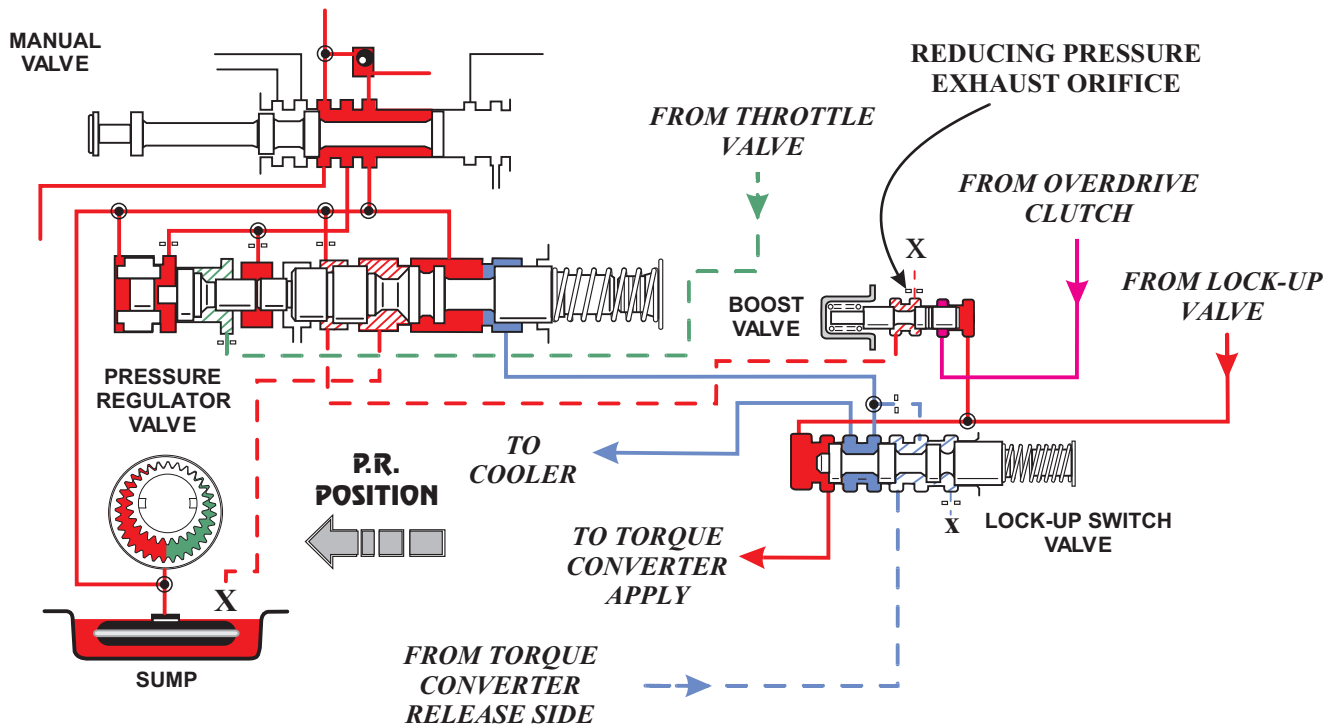


**Summary:** The Boost Valve is stroked via Overdrive Clutch pressure or Lock-up Signal Pressure from the Lock-up Valve, while in 3rd or 4th gear. This drains the Reducing Pressure from the 3rd land of the Pressure Regulator Valve. This allows the Pressure Regulator Valve to move to the left, increasing Main Line Pressure.

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Figure 2

### PARTIAL HYDRAULIC SCHEMATIC OF PRESSURE REGULATOR VALVE "DRIVE" POSITION 4th GEAR WITH TCC "ON"



***Summary: The Boost Valve is stroked via Overdrive Clutch pressure or Lock-up Signal Pressure from the Lock-up Valve, while in 3rd or 4th gear. This drains the Reducing Pressure from the 3rd land of the Pressure Regulator Valve. This allows the Pressure Regulator Valve to move to the left, increasing Main Line Pressure.***

***NOTE: Increasing the diameter of the Reducing Pressure Exhaust orifice, will allow the Pressure Regulator Valve to stroke to the left at a faster rate which will allow Line Pressure to increase quicker for Torque Converter Clutch application and for the 4th clutch application.***

Figure 3