

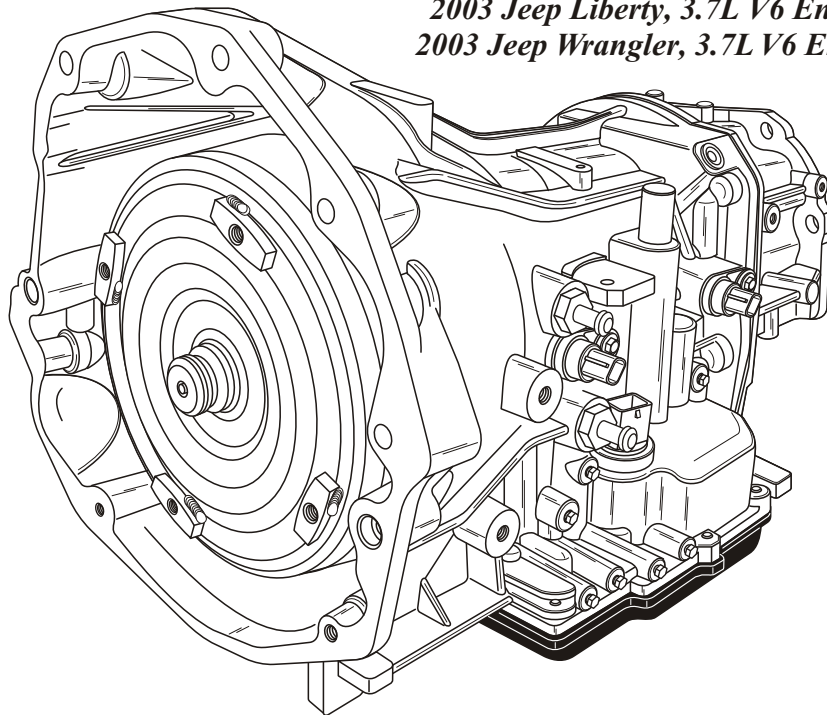
## CHRYSLER 42RLE PRELIMINARY INFORMATION

Beginning at the start of production for the 2003 model year, Chrysler Corporation modified the 42LE (606) transmission and turned it into a Rear Wheel Drive called the **42RLE**.

The majority of the transmission's internal parts as well as operating strategy is virtually identical as the 42LE with the exception of the rear drive section and the hypoid style final drive being eliminated. This transmission is available in both 2WD and 4x4 configurations. The gear ratios and clutch application are also the same as the 42LE.

Figure 1.....	Internal Component Identification
Figure 2.....	Clutch Application Chart
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Figure 4.....	Clutch Pressure & Pressure Port ID/Transmission Temp Sensor
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Figure 12.....	Transmission Solenoid Connector Terminal Identification
Figure 13.....	Transmission Range Sensor Connector Identification
Figure 14.....	2003 Jeep Liberty/42RLE Wiring Diagram

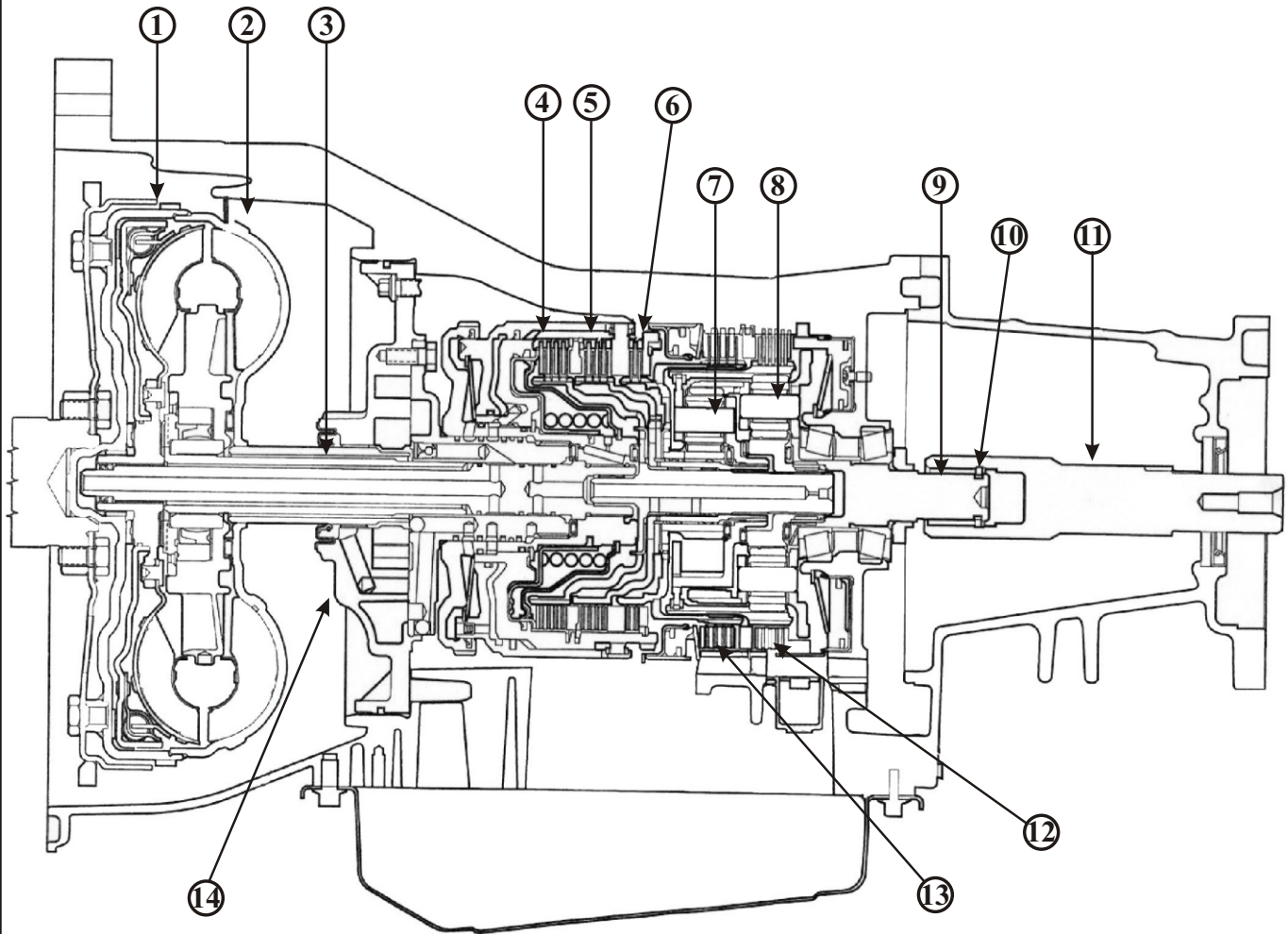
*Found In;  
2003 Jeep Liberty, 3.7L V6 Engine  
2003 Jeep Wrangler, 3.7L V6 Engine*



*Special Thanks to Frank at Phoenix Remanufactured Transmissions,  
for the use of the 42RLE used for these illustrations.*

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## 42RLE INTERNAL COMPONENT LOCATION AND IDENTIFICATION



- 1 FLYWHEEL
- 2 TORQUE CONVERTER
- 3 INPUT SHAFT
- 4 UNDERDRIVE CLUTCH
- 5 OVERDRIVE CLUTCH
- 6 REVERSE CLUTCH
- 7 FRONT PLANETARY CARRIER

- 8 REAR PLANETARY CARRIER
- 9 PRIMARY OUTPUT SHAFT
- 10 CIR-CLIP
- 11 SECONDARY OUTPUT SHAFT
- 12 LOW/REVERSE CLUTCH
- 13 2ND/4TH CLUTCH
- 14 OIL PUMP ASSEMBLY

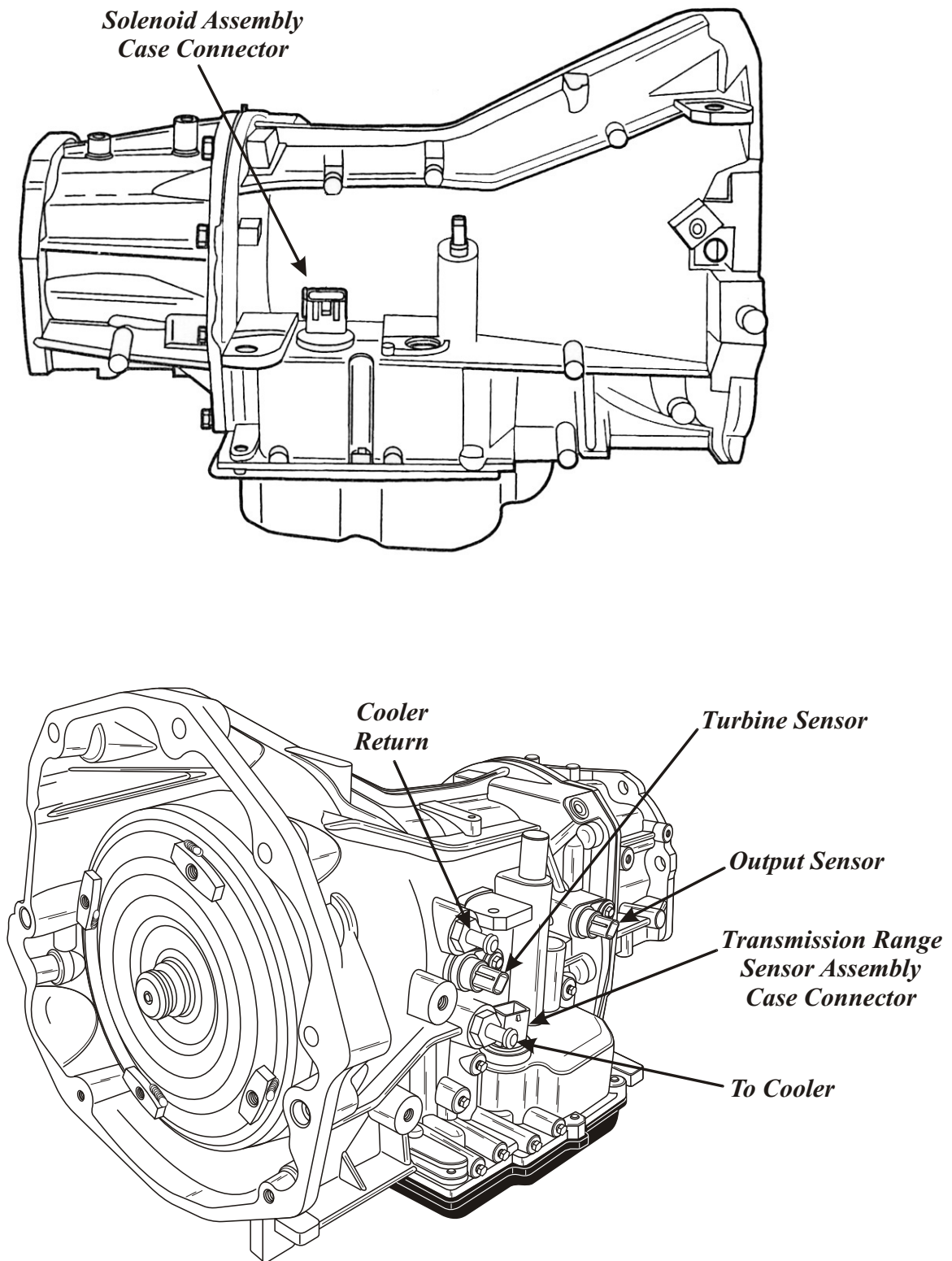
Figure 1



## Technical Service Information

<b>42RLE CLUTCH APPLICATION CHART</b>					
<i>Shift Lever Position</i>	<b>DRIVING CLUTCHES</b>			<b>HOLDING CLUTCHES</b>	
	<i>Underdrive</i>	<i>Overdrive</i>	<i>Reverse</i>	<i>2/4</i>	<i>Low/Reverse</i>
<i>Park</i>					<i>ON</i>
<i>Reverse</i>			<i>ON</i>		<i>ON</i>
<i>Neutral</i>					<i>ON</i>
<i>"OD"-1st</i>	<i>ON</i>				<i>ON</i>
<i>"OD"-2nd</i>	<i>ON</i>			<i>ON</i>	
<i>"OD"-3rd</i>	<i>ON</i>	<i>ON</i>			
<i>"OD"-4th</i>		<i>ON</i>		<i>ON</i>	
<i>"D*"-1st</i>	<i>ON</i>				<i>ON</i>
<i>"D*"-2nd</i>	<i>ON</i>			<i>ON</i>	
<i>"D*"-3rd</i>	<i>ON</i>	<i>ON</i>			
<i>"L*"-1st</i>	<i>ON</i>				<i>ON</i>
<i>"L*"-2nd</i>	<i>ON</i>			<i>ON</i>	
<i>"L*"-3rd</i>	<i>ON</i>	<i>ON</i>			
<i>* The vehicle's upshifts and downshifts speeds are increased when in these selector positions</i>					

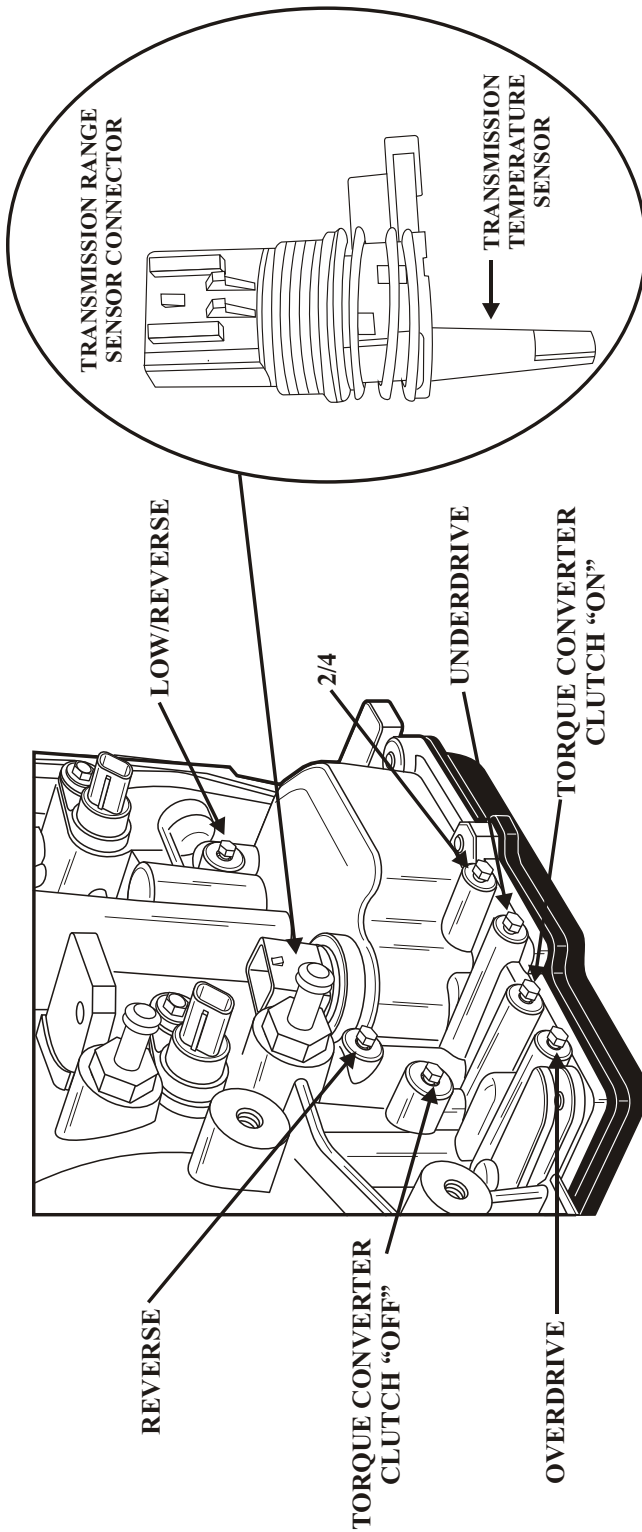
Figure 2



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Figure 3  
AUTOMATIC TRANSMISSION SERVICE GROUP

## CLUTCH PRESSURE AND PRESSURE PORT IDENTIFICATION



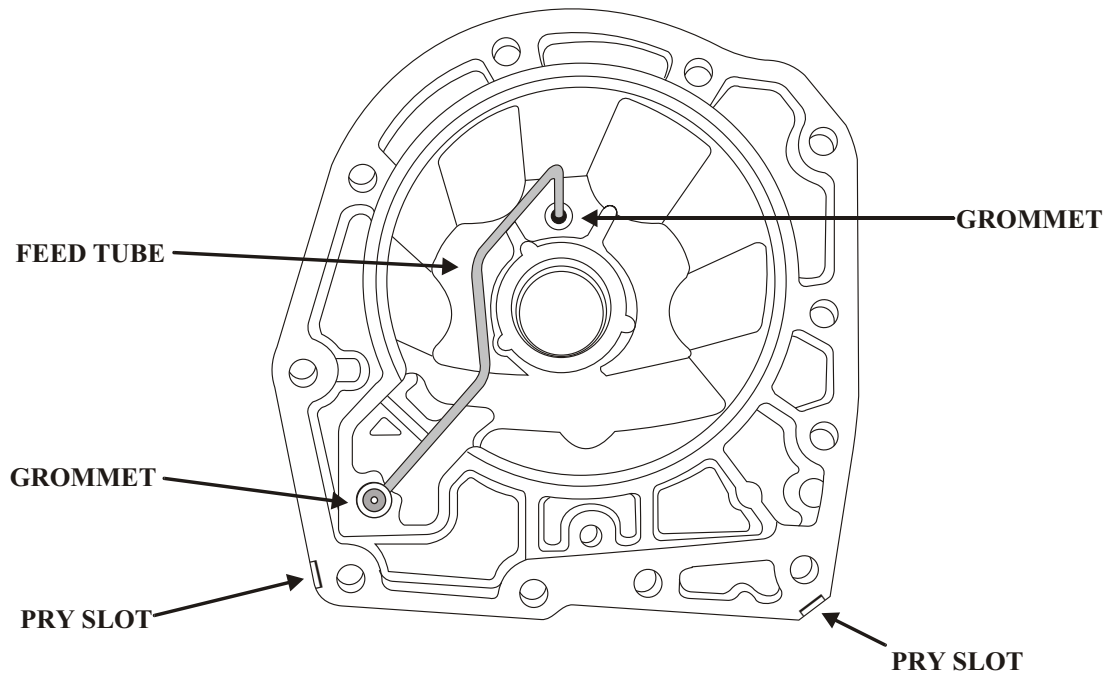
**42RLE CLUTCH PRESSURE CHART**

GEAR SELECTOR POSITION	ACTUAL GEAR	UNDERDRIVE CLUTCH	OVERDRIVE CLUTCH	REVERSE CLUTCH	TORQUE CONVERTER CLUTCH "OFF"	TORQUE CONVERTER CLUTCH "ON"	2/4 CLUTCH	LOW/REVERSE CLUTCH
PARK 0 MPH	PARK	0 - 2	0 - 5	0 - 2	60 - 110	45 - 100	0 - 2	115 - 145
REVERSE 0 MPH	REVERSE	0 - 2	0 - 7	165 - 235	50 - 110	35 - 85	0 - 2	165 - 235
NEUTRAL 0 MPH	NEUTRAL	0 - 2	0 - 5	0 - 2	60 - 110	45 - 100	0 - 2	115 - 145
LOW 20 MPH	FIRST	110 - 145	0 - 5	0 - 2	60 - 110	45 - 100	0 - 2	115 - 145
<sup>3</sup> 30 MPH	SECOND	110 - 145	0 - 5	0 - 2	60 - 110	45 - 100	115 - 145	0 - 2
<sup>3</sup> 45 MPH	THIRD	75 - 95	75 - 95	0 - 2	60 - 90	45 - 80	0 - 2	0 - 2
OD 30 MPH	FOURTH	0 - 2	75 - 95	0 - 2	60 - 90	45 - 80	75 - 95	0 - 2
OD 50 MPH	FOURTH WITH TCC	0 - 2	75 - 95	0 - 2	0 - 5	60 - 95	75 - 95	0 - 2

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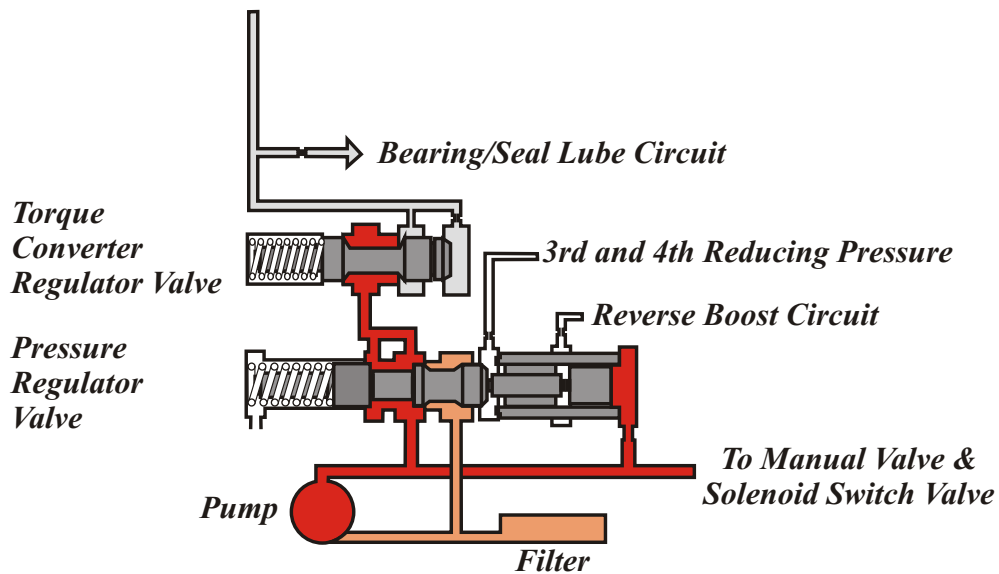
Figure 4

## ADAPTOR HOUSING



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Figure 5



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Figure 6



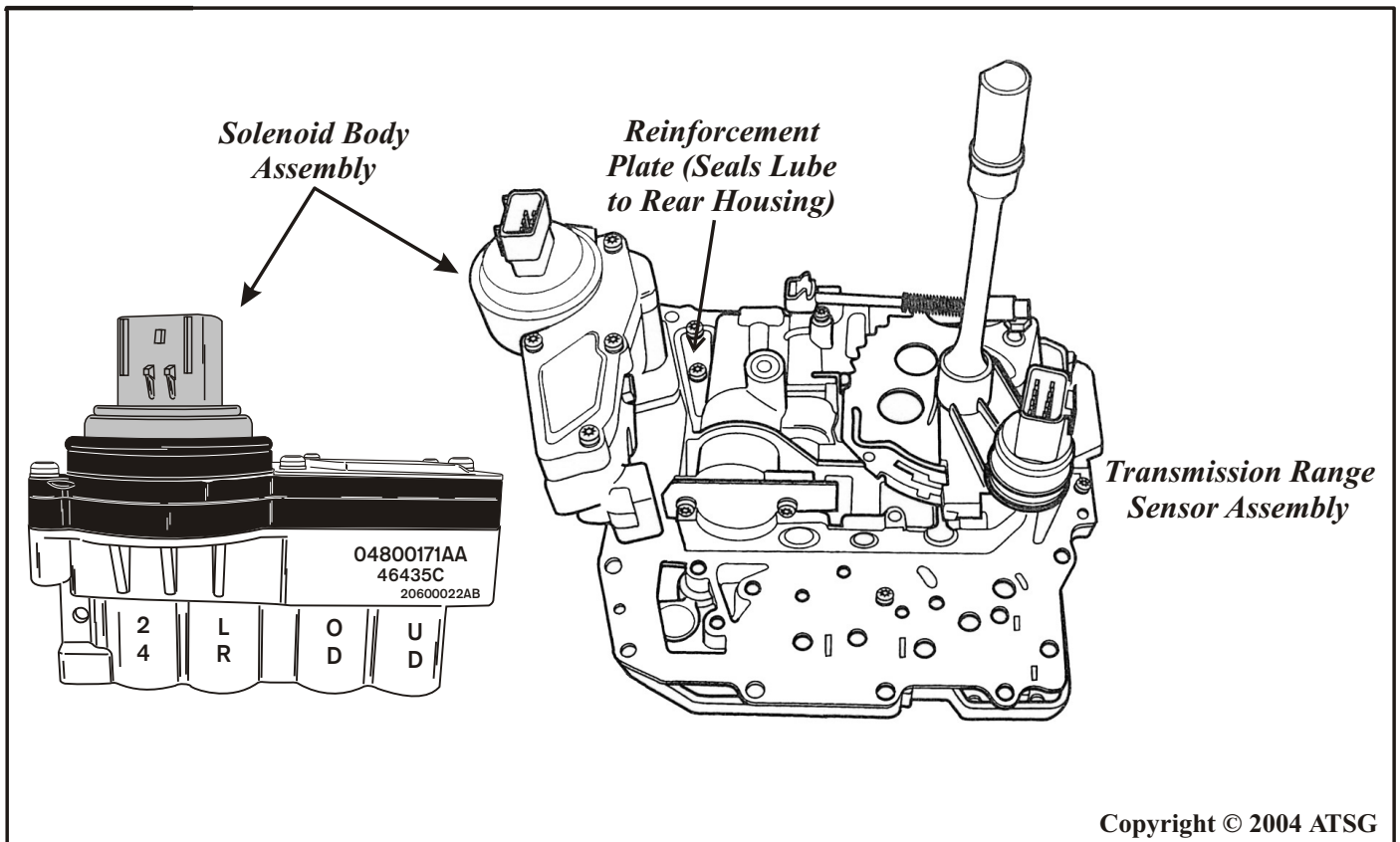


Figure 7

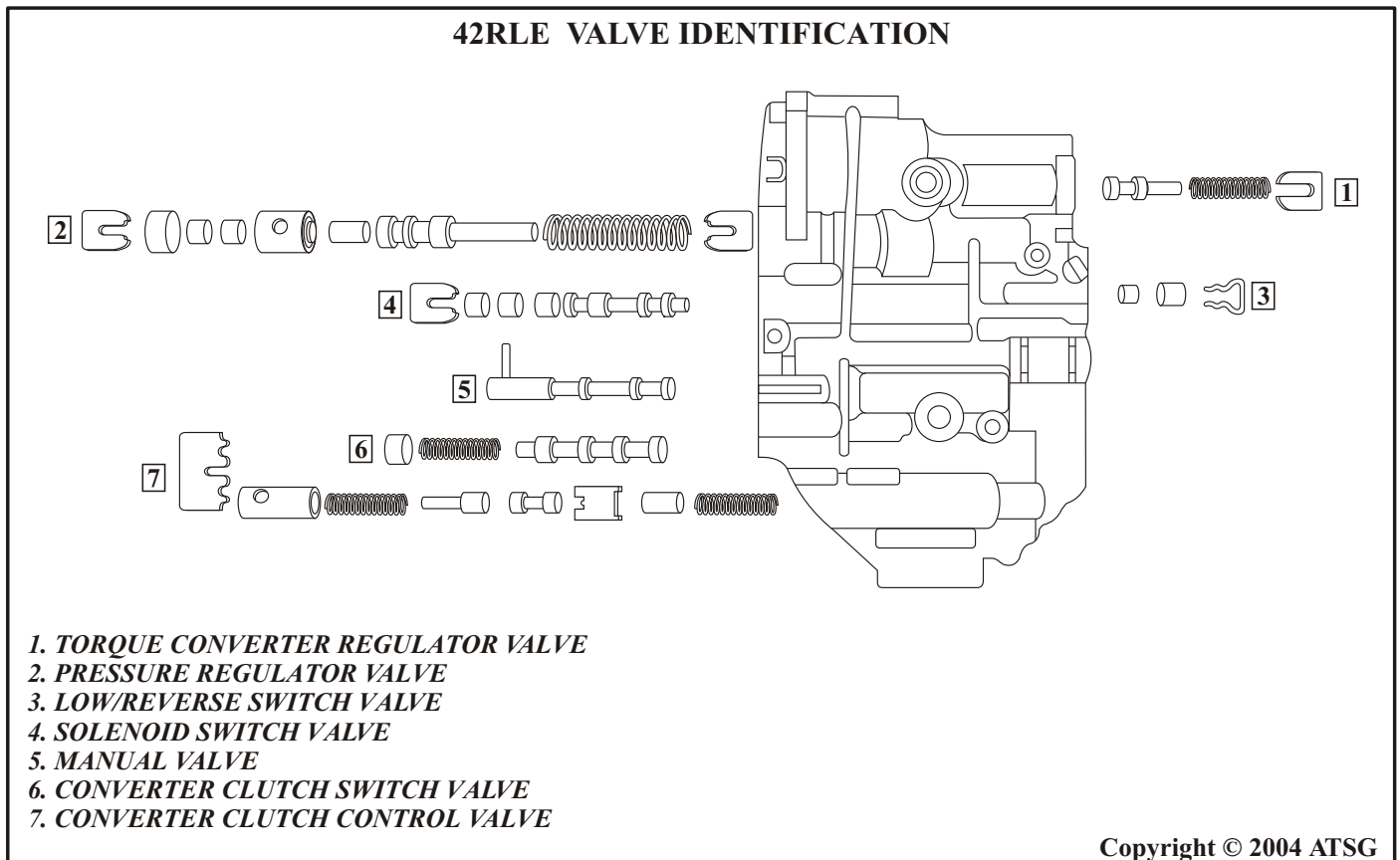
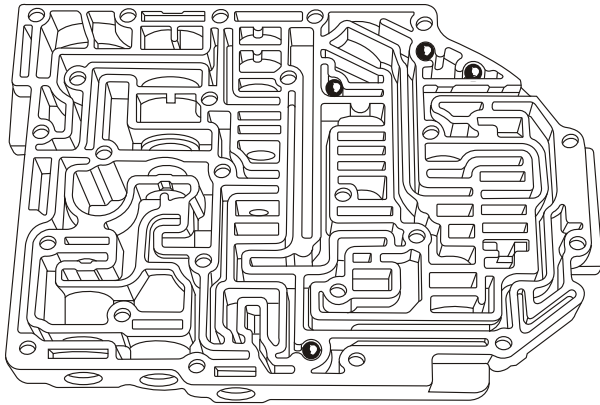


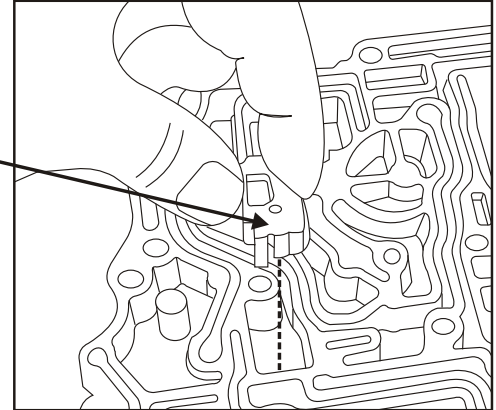
Figure 8

## 42RLE CHECKBALL LOCATIONS



**FOUR (4) CHECKBALLS IN VALVE BODY**

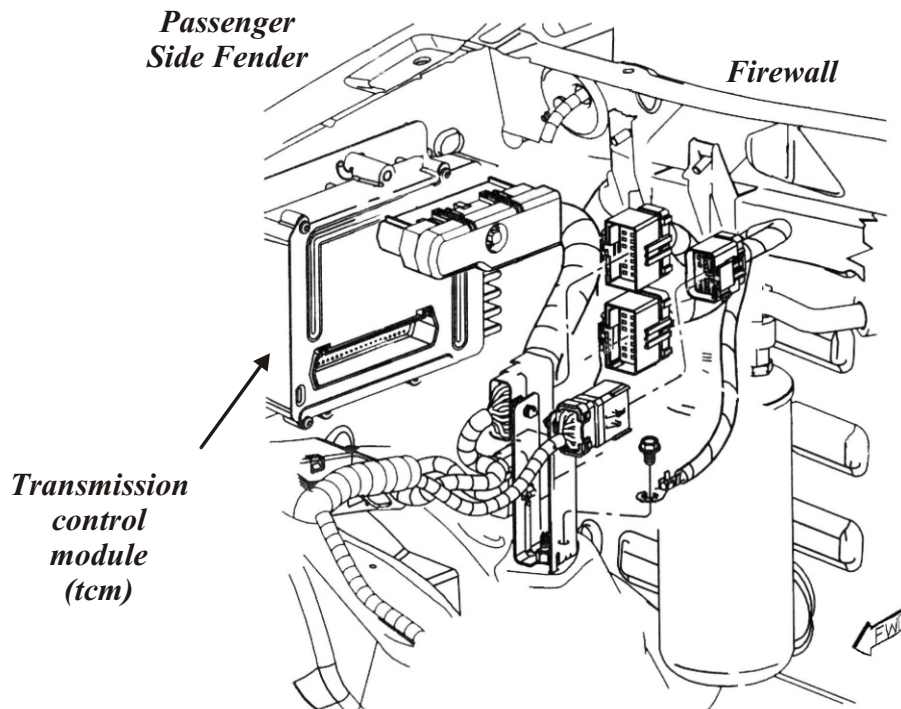
*Installing the  
thermal valve  
in the transfer  
plate*



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Figure 9

## TCM LOCATION

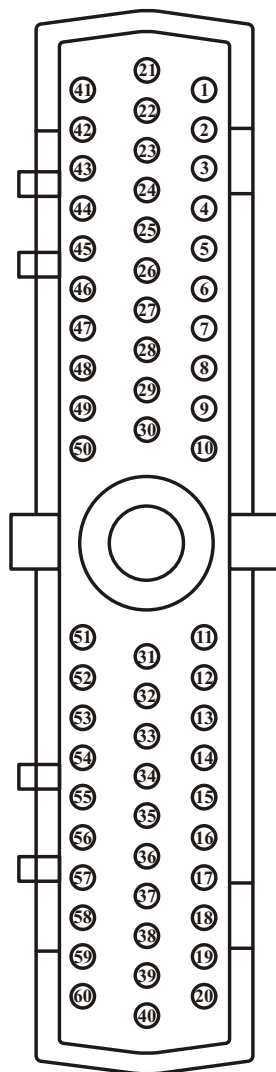


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Figure 10



## CHRYSLER 42RLE 60-WAY CONNECTOR PIN CAVITY IDENTIFICATION AND FUNCTION



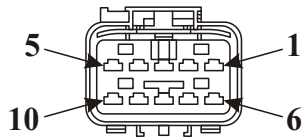
*Harness Connector View  
Terminal Side*

PIN CAVITY	WIRE COLOR	FUNCTION
1	<i>Lt. Green/Black</i>	<i>Transmission Range Sensor T1 Signal</i>
2	<i>Tan/Black</i>	<i>Back-up Lamp Relay Control</i>
3	<i>Violet</i>	<i>Transmission Range Sensor T3 Signal</i>
6	<i>Gray/Black</i>	<i>Crankshaft Position Sensor Signal</i>
7	<i>Pink</i>	<i>SCI Transmit</i>
8	<i>Red</i>	<i>Fused Ignition Switch Output (Crank)</i>
9	<i>Orange/Black</i>	<i>Overdrive Pressure Switch Signal</i>
10	<i>Yellow/Dk.Green</i>	<i>Torque Management Request</i>
11	<i>Dk. Blue</i>	<i>Fused Ignition Switch Output (Crank &amp; Run)</i>
12	<i>Orange/Dk. Blue</i>	<i>Throttle Position Sensor Signal</i>
13	<i>Dk. Blue/Black</i>	<i>Speed Sensor &amp; TFT Ground</i>
14	<i>Lt. Green/White</i>	<i>Output Speed Sensor Signal</i>
15	<i>Pink</i>	<i>Transmission Control Relay Control</i>
16	<i>Red</i>	<i>Transmission Control Relay Output</i>
17	<i>Red</i>	<i>Transmission Control Relay Output</i>
18		
19	<i>Yellow/Dk. Blue</i>	<i>2/4 Clutch Solenoid (ground control)</i>
20	<i>Lt. Blue</i>	<i>L/R-TCC Clutch Solenoid (ground control)</i>
28		
29		
30		
36		
37		
38		
39		
40		
41	<i>White/Pink</i>	<i>Transmission Range Sensor (T41) Signal</i>
42	<i>Violet/White</i>	<i>Transmission Range Sensor (T42) Signal</i>
43	<i>Violet/Yellow</i>	<i>PCI Bus</i>
46	<i>Lt. Green</i>	<i>SCI Recieve</i>
47	<i>Dk. Blue</i>	<i>2/4 Pressure Switch Signal</i>
48		
49	<i>Orange/White</i>	<i>Overdrive Off Switch Signal</i>
50	<i>Dk Green</i>	<i>Low/Reverse Pressure Switch Signal</i>
51	<i>Black/Lt. Blue</i>	<i>Sensor Ground</i>
52	<i>Red/Black</i>	<i>Input Speed Sensor Signal</i>
53	<i>Black</i>	<i>Ground</i>
54	<i>Violet</i>	<i>Transmission Oil Temperature Sensor Signal</i>
55		
56	<i>Red/White</i>	<i>Fused Battery Keep Alive Voltage</i>
57	<i>Black/Yellow</i>	<i>Ground</i>
59	<i>Pink</i>	<i>Underdrive Solenoid (ground control)</i>
60	<i>Brown</i>	<i>Overdrive Solenoid (ground control)</i>

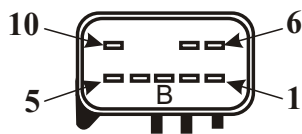
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Figure 11

## Harness Connector View



## Case Connector View



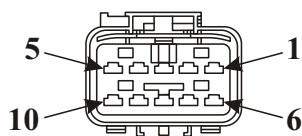
42RLE TRANSMISSION SOLENOID CONNECTOR (10-WAY)		
PIN CAVITY	WIRE COLOR	FUNCTION
1	Brown	Overdrive Solenoid
2	Pink	Underdrive Solenoid
3	Red	12 Volt Input from EATX Relay
4	Yellow/Dk Blue	2/4 Solenoid
5	Dk Blue	2/4 Pressure Switch
6	Orange/Black	Overdrive Pressure Switch
7	Lt Blue	Low/Reverse Solenoid
8	Not Used	Not Used
9	Not Used	Not Used
10	Dk Green	Low/Reverse Pressure Switch

*The resistance of the solenoids and pressure switch resistors remains the same as all previous 41TE and 42LE transaxles. 1.5 to 2.5 ohms for the solenoids and 270 to 330 ohms for the resistors.*

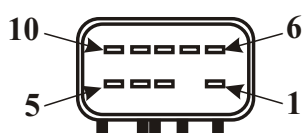
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Figure 12

## Harness Connector View



## Case Connector View



42RLE TRANSMISSION RANGE SENSOR CONNECTOR (10-WAY)		
PIN CAVITY	WIRE COLOR	FUNCTION
1	Dk Blue/White	Fused Ignition Switch Output (Start)
2	Not Used	Not Used
3	Dk Blue/Black	Speed Sensor Ground
4	Violet	Transmission Temperature Sensor Signal
5	Black/White	Park/Neutral Position Signal
6	Violet/Black	Back-Up Lamp Feed
7	Lt Green/Black	Transmission Range Sensor T1 Signal
8	Violet	Transmission Range Sensor T3 Signal
9	Violet/White	Transmission Range Sensor T42 Signal
10	White/Pink	Transmission Range Sensor T41 Signal

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Figure 13

