




# SERVICE BULLETIN

QUALITY INFORMATION ANALYSIS  
OVERSEAS SERVICE DEPT. MITSUBISHI MOTORS CORPORATION

<b>SERVICE BULLETIN</b>		No.: MSB-98E23-503	
		Date: 1999-15-05	<b>&lt;Model&gt;</b> (EUR) COLT/LANCER (MG)
<b>Subject:</b> ADDITION/CORRECTION OF HYDRAULIC PRESSURE TEST OF AUTOMATIC TRANSMISSION		<b>&lt;M/Y&gt;</b> 96-10	
<b>Group:</b> AUTOMATIC TRANSMISSION	<b>Draft No.:</b> 98-TA-591618		
<b>INFORMATION</b>	OVERSEAS SERVICE DEPT	 T.NITTA - VICE GENERAL MANAGER QUALITY INFORMATION ANALYSIS	

**1. Description:**

This Service Bulletin informs you concerning addition and correction of the hydraulic pressure test of the automatic transmission.

**2. Applicable Manuals:**

Manual	Pub. No.	Language	Page(s)
'96 COLT/LANCER Workshop Manual chassis	PWME9511	(English)	23-51, 23-52
	PWMS9512	(Spanish)	
	PWMF9513	(French)	
	PWMG9514	(German)	
	PWMD9515	(Dutch)	
	PWMW9516	(Swedish)	

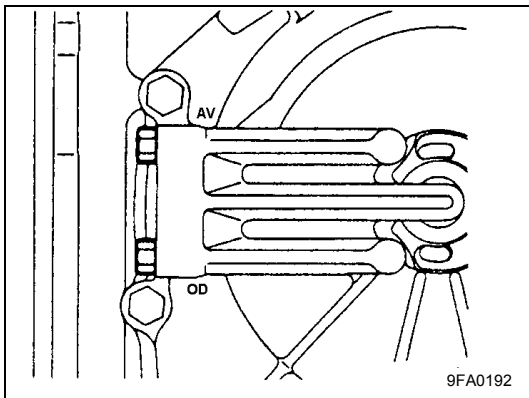
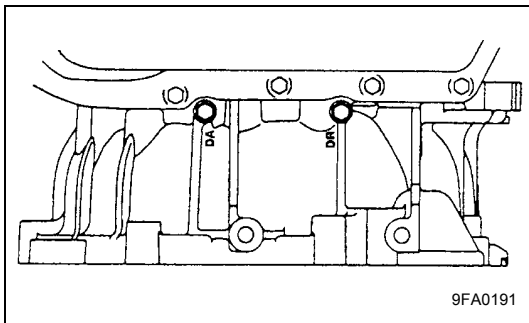
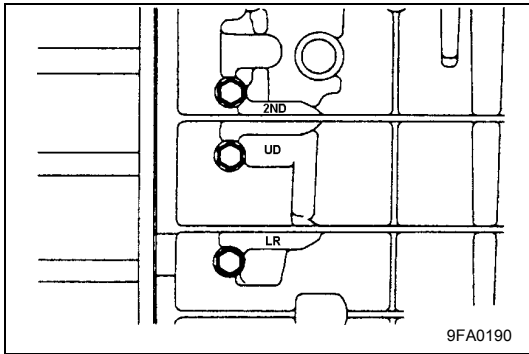
- (6) Move the selector lever to the R position and carry out the same test again.

**Standard value**

**Stall speed: 2,100-2,600 r/min**

**TORQUECONVERTER STALL TEST JUDGEMENT RESULTS**

- a. Stall speed is too high in both D and R ranges
  - Low line pressure
  - Low & reverse brake slippage
- b. Stall speed is too high in D range only
  - Underdrive clutch slippage
- c. Stall speed is too high in R range only
  - Reverse clutch slippage
- d. Stall speed is too low in both D and R ranges
  - Malfunction of torque converter
  - Insufficient engine output



**HYDRAULIC PRESSURE TEST**

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

- (1) Warm up the engine until the automatic transmission fluid temperature is 80-100°C.
- (2) Jack up the vehicle so that the wheels are free to turn.
- (3) Connect the special tools (2,942-kPa oil pressure gauge [MD998330] and joints [MD998332, MD998900] to each pressure discharge port.
- (4) Measure the hydraulic pressure at each port under the conditions given in the standard hydraulic pressure table, and check that the measured values are within the standard value ranges.
- (5) If a value is outside the standard range, correct the problem while referring to the hydraulic pressure test diagnosis table.

**<Added>**


**NOTE**

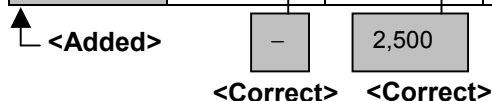
- 2ND: Second brake pressure port
- UD: Under drive clutch pressure port
- LR: Low & reverse brake pressure port
- DR: Torque converter pressure port
- DA: Damper clutch apply pressure port
- RD: Reverse clutch pressure port
- OD: Overdrive clutch pressure port

**STANDARD HYDRAULIC PRESSURE TEST**

Measurements condition			Standard hydraulic pressure kPa					
Selector lever position	Shift position	Engine speed (rpm)	Under drive clutch pressure [UD] <Added>	Reverse clutch pressure [RV] <Added>	Overdrive clutch pressure [OD] <Added>	Low and reverse brake pressure [LR] <Added>	Second brake pressure [2ND] <Added>	Torque converter pressure [DR] <Added>
P	-	2,500	-	-	-	310-390	-	250-390
R	Reverse <Incorrect>	2,500 <Incorrect>	-	1,270 – 1,770	-	1,270 – 1,770	-	500-700
N	 2,500 <Incorrect>	 <Incorrect>	-	-	-	310-390	-	250-390

<Incorrect> <Correct>

 ← L	1st gear	2,500	1,010- 1,050	-	-	1,010-1,050	-	500-700
2	2nd gear	2,500	1,010- 1,050	-	-	-	1,010-1,050	500-700
3	3rd gear	2,500	590-690	-	590-690	-	-	450-650
D	4th gear	2,500	-	-	590-690	-	590-690	450-650



**HYDRAULIC PRESSURE TEST DIAGNOSIS TABLE**

Trouble symptom	Probable cause
All hydraulic pressures are high	In correct transmission control cable adjustment
	Malfunction of the regulator valve
All hydraulic pressures are low	Incorrect transmission control cable adjustment
	Malfunction of the oil pump
	Clogged internal oil filter
	Clogged external oil filter
	Clogged oil cooler
	Malfunction of the regulator valve
	Malfunction of the relief valve
	Incorrect valve body installation
Hydraulic pressure is abnormal in "R" range only	Malfunction of the regulator valve
	Clogged orifice
	Incorrect valve body installation
Hydraulic pressure is abnormal in "3" or "4" range only	Malfunction of the overdrive solenoid valve
	Malfunction of the overdrive pressure control valve
	Malfunction of the regulator valve
	Malfunction of the switch valve
	Clogged orifice
	Incorrect valve body installation