

Technical Service Bulletin

SUBJECT: CVT HYDRAULIC PRESSURE TEST PROCEDURE - SERVICE MANUAL REVISION			No: TSB-15-23A-002
			DATE: February, 2015
			MODEL: See Below
CIRCULATE TO:	<input type="checkbox"/> GENERAL MANAGER	<input type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input type="checkbox"/> WARRANTY PROCESSOR	<input type="checkbox"/> SALES MANAGER

PURPOSE

This bulletin corrects the hydraulic pressure settings and updates the special tools used in the CVT hydraulic pressure test in the indicated service manuals.

AFFECTED VEHICLES


- 2008 - 2015 Lancer
- 2009 - 2015 Lancer Sportback
- 2008 - 2015 Outlander
- 2011 - 2014 Outlander Sport / RVR

AFFECTED SERVICE MANUALS

- 2008 - 2010 Lancer, Group 23A - CVT -->
Diagnosis --> Hydraulic Pressure Test
Special Tools
- 2009 - 2010 Lancer Sportback, Group 23A - CVT -->
Diagnosis --> Hydraulic Pressure Test
Special Tool
- 2011 - 2015 Lancer / Lancer Sportback, Group 23A - CVT -->
Diagnosis --> Hydraulic Pressure Test
Special Tools
- 2008 - 2015 Outlander, Group 23A - CVT -->
Diagnosis --> Hydraulic Pressure Test
Special Tools
- 2011 - 2014 Outlander Sport / RVR, Group 23A - CVT -->
Diagnosis --> Hydraulic Pressure Test
Special Tools

SPECIAL TOOLS

The following essential tool supersession from MMC's part number to MMNA's part number is not shown in this bulletin. Please use the MMNA part number where this bulletin advises the MMC part number.

Tool	Tool number and name	Supersession	Application
	MD998330 Oil Pressure Gauge (435 PSI)	MLR-9873 Assembly, Pressure Gauge (2000 PSI)	Measurement of hydraulic pressure

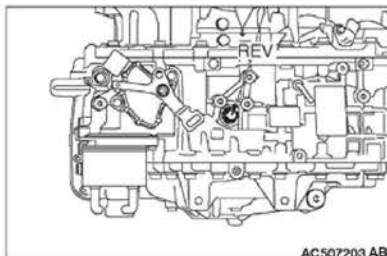
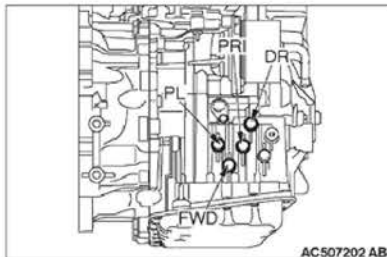
Please make the changes indicated to the:
 2008 – 2010 Lancer service manual,
 2009 – 2010 Lancer Sportback service manual,
 2011 – 2014 Lancer / Lancer Sportback service manual,
 2008 – 2013 Outlander service manual,
 2011 – 2014 Outlander Sport / RVR service manual,
 Group 23A – CVT ---> Diagnosis ---> Hydraulic Pressure Test

HYDRAULIC PRESSURE TEST

⚠ CAUTION

The transmission fluid temperature should be between 70 – 80°C (158 – 176°F) during the test.

1. Check the transmission fluid level and temperature. Check engine coolant temperature.
 - Transmission fluid level: "HOT" mark on the dipstick
 - Transmission fluid temperature: 70 – 80°C (158 – 176°F)
 - Engine coolant temperature: 80 – 100°C (176 – 212°F)
2. Raise the vehicle so that the wheels are free to turn.
3. ~~Connect the special tools (3.0 MPa (427 psi) oil pressure gauge [MD998330] and joint [MD998331, MB992127]) to each pressure discharge port.~~



NOTE:

DR: Torque converter output pressure port
PRI: Primary pressure port
PL: Line pressure port
FWD: Forward clutch pressure port
REV: Reverse brake pressure port

<Incorrect>

4. Restart the engine.
5. Check that there are no leaks around the special tool port adapters.

⚠ WARNING

For safety, operators must not stand in front of and at the rear of the vehicle during this test.

6. 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.
7. If the pressure is not within the standard value, stop the engine and refer to the hydraulic pressure test diagnosis table.
8. Remove the O-ring from the port plug and replace it.
9. Remove the special tool, and install the plugs to the hydraulic pressure ports.
10. Start the engine and check that there are no leaks around the plugs.

<Correct>

Connect the special tools (3.0 MPa (435 psi) oil pressure gauge [MD998330], 15MPa (2,715 psi) power steering oil pressure gauge* [MB990662*] and joint [MD998331, MB992127]) to each pressure discharge port.

NOTE: *: Before measuring the primary pressure or the line pressure with the transmission range at P or N, replace the gauge of the power steering oil pressure gauge (MB990662) with the gauge of the oil pressure gauge (MD998330).

Please make the changes indicated to the 2015 Lancer / Lancer Sportback service manual, Group 23A – CVT --> Diagnosis --> Hydraulic Pressure Test

HYDRAULIC PRESSURE TEST

⚠ CAUTION

The transmission fluid temperature should be between 70 – 80°C (158 – 176°F) during the test.

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 - Engine coolant temperature: 80 – 100°C (176 – 212°F)
2. Raise the vehicle so that the wheels are free to turn.
3. Connect the special tools (3.0 MPa (427 psi) oil pressure gauge [MD998330], 15 MPa (2,175 psi) power steering oil pressure gauge* [MB990662*] and joint [MD998331, MB992127]) to each pressure discharge port.

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NOTE:

DR: Torque converter output pressure port

PRI: Primary pressure port

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FWD: Forward clutch pressure port

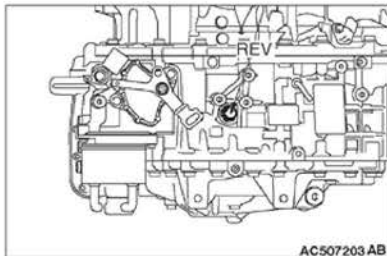
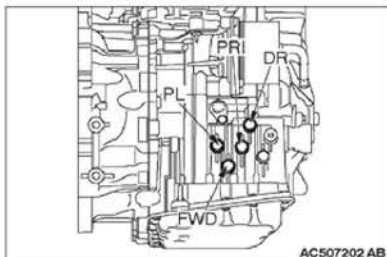
REV: Reverse brake pressure port

4. Restart the engine.
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~~427 psi~~ **<Incorrect>**
oil pressure gauge [MD998330], 15 MPa (2,175 psi) power steering oil pressure gauge* [MB990662*] and joint [MD998331, MB992127]) to each pressure discharge port.
435 psi
<Correct>

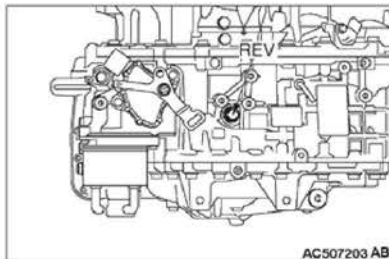
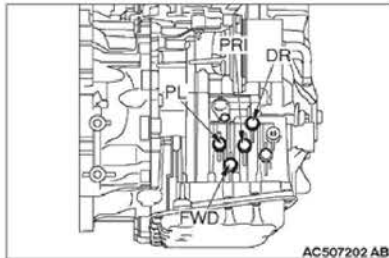
Please make the changes indicated on page 4 and 5 to the 2014 – 2015 Outlander service manual, Group 23A – CVT --> Diagnosis --> Hydraulic Pressure Test

HYDRAULIC PRESSURE TEST

CAUTION

The transmission fluid temperature should be between 70 – 80°C (158 – 176°F) during the test.

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- Raise the vehicle so that the wheels are free to turn.
- Connect the special tools (3.0 MPa (427 psi) oil pressure gauge [MD998330] and joint [MD998331, MB992127]) to each pressure discharge port.



NOTE:

DR: Torque converter output pressure port
 PRI: Primary pressure port
 PL: Line pressure port
 FWD: Forward clutch pressure port
 REV: Reverse brake pressure port

<Incorrect>

- Restart the engine.
- Check that there are no leaks around the special tool port adapters.

WARNING

For safety, operators must not stand in front of and at the rear of the vehicle during this test.

- 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.
- If the pressure is not within the standard value, stop the engine and refer to the hydraulic pressure test diagnosis table.
- Remove the O-ring from the port plug and replace it.
- Remove the special tool, and install the plugs to the hydraulic pressure ports.
- Start the engine and check that there are no leaks around the plugs.

Connect the special tools (3.0 MPa (435 psi) oil pressure gauge [MD998330], 15MPa (2,715 psi) power steering oil pressure gauge* [MB990662*] and joint [MD998331, MB992127]) to each pressure discharge port.

NOTE*: Before measuring the primary pressure or the line pressure with the transmission range at P or N, replace the gauge of the power steering oil pressure gauge (MB990662) with the gauge of the oil pressure gauge (MD998330).

<Correct>

Standard hydraulic pressure table

Measuring conditions		Standard hydraulic pressure MPa (psi)				
Selector lever position	Engine speed	Forward clutch pressure [Pressure at FWD]	Reverse brake pressure [Pressure at REV]	Primary pressure [Pressure at PRI]	Line pressure [Pressure at PL]	Torque converter [Pressure at DR]
P	Idling	0 (0)	0 (0)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)
R		0 (0)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)
N		0 (0)	0 (0)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)
D		0.5 – 1.0 (73 – 145)	0 (0)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)
Ds <Vehicles without paddle shift>		0.5 – 1.0 (73 – 145)	0 (0)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)
L		0.5 – 1.0 (73 – 145)	0 (0)	0.1 – 1.5 (15 – 218)	0.5 – 1.0 (73 – 145)	0.1 – 1.5 (15 – 218)

<Correct>
 0.5 – 3.2 (73 – 464)

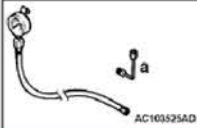

<Incorrect>


<Incorrect>

0.5 – 3.2 (73 – 464)
 <Correct>

Please make the changes indicated to the:
 2008 – 2010 Lancer service manual,
 2009 – 2010 Lancer Sportback service manual,
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 2008 – 2015 Outlander service manual,
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 Group 23A – CVT ---> Special Tools

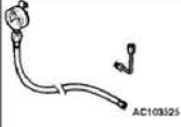
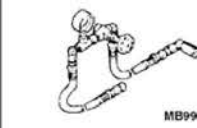
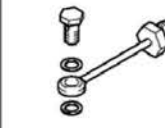

, 435 psi <Added>

Tool	Tool number and name	Supersession	Application
	MD998330 a: MD998331 Oil pressure gauge (3.0 MPa) a: Joint	MD998330-01	Hydraulic pressure measurement
	MB992127 Joint	-	

	MB990662 Power steering oil pressure gauge (15 MPa, 2,175 psi)	MB990662-01	
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<Added>

Please make the changes indicated to the 2015 Lancer / Lancer Sportback service manual, Group 23A - CVT ---> Special Tools.

Tool	Tool number and name	Supersession	Application
	MD998330 (Includes MD998331) Oil pressure gauge (3.0 MPa, 427 psi)	MD998330-01 <Incorrect>	Measurement of hydraulic pressure
	MB990662 Power steering oil pressure gauge (15 MPa, 2,175 psi)	MB990662-01 435 psi <Correct>	
	MB992127 Joint	-	
	MB995062 Flushing tool	MLR-6906-C or Equivalent	Flushing cooler and tube