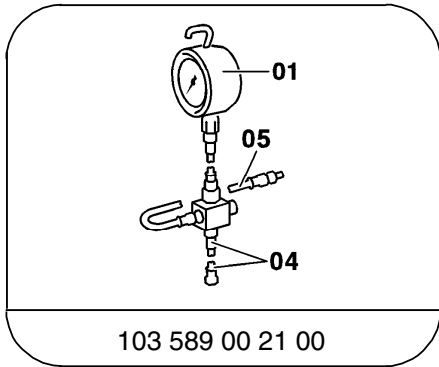


Hydraulic Test Program - Multi-disc Clutches

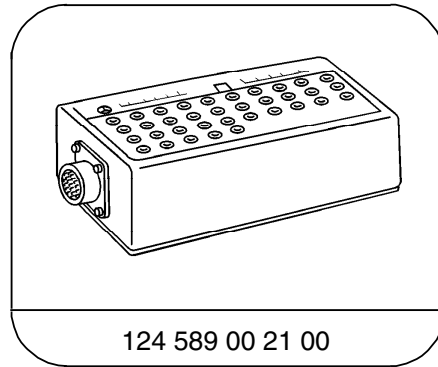
Preparation for test

1. Check, and correct, if necessary oil level in reservoir.
2. Remove plastic cover over hydraulic unit.
3. For test step ⇒ 3.0, connect socket box according to connection diagram, figure 5.

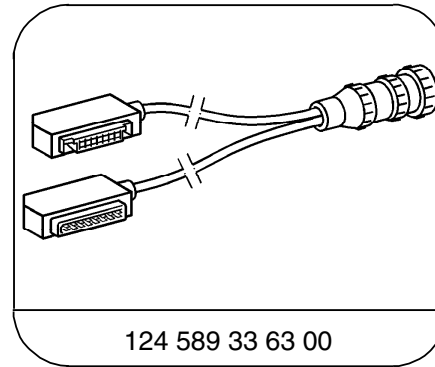
Special Tools



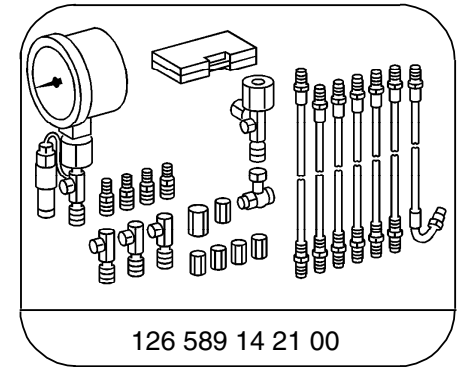
Tester



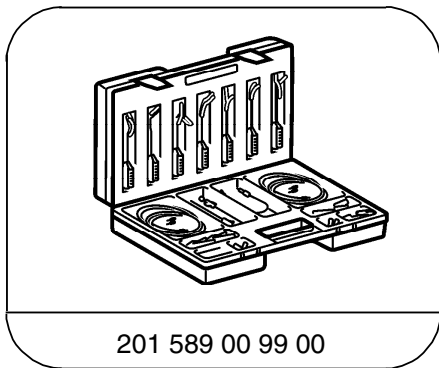
35-pin socket box



Test cable

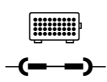


Tester



Electrical connecting set

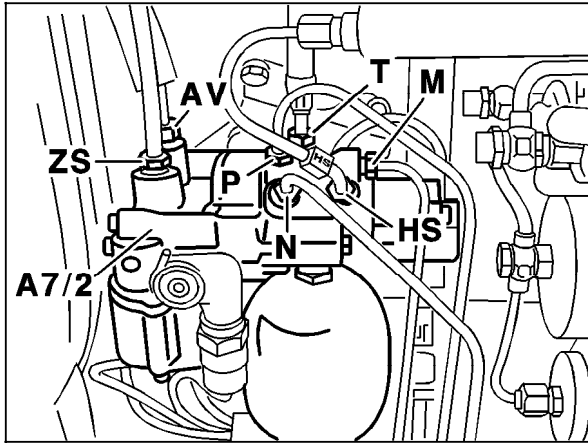
Hydraulic Test Program - Multi-disc Clutches

Test step	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	Central differential lock multi-disc clutch (ZS) Engagement pressure	Service valve in “TEST” position or release accumulator pressure at screw plug (16). ⊗ 250 bar gauge connected to “ZS” (Fig. 1-3)	Engine: at idle Service valve in operating position or switch (S7/3) in “FUNKTION” position.	25 – 36 bar	Central differential lock valve (A7/2y2), 4MATIC hydraulic unit (A7/2).
⇒ 2.0	Front axle drivetrain multi-disc clutch (AV) Engagement pressure	Service valve in “TEST” position or release accumulator pressure at screw plug (16). ⊗ 250 bar gauge connected to “AV” on hydraulic unit (Fig. 1-3)	Engine: at idle Service valve in operating position or switch (S7/3) in “FUNKTION” position.	25 – 36 bar	Front axle drivetrain valve (A7/2y1), 4MATIC hydraulic unit (A7/2).
⇒ 3.0	Rear axle differential lock multi-disc clutch (HS) Engagement pressure	Service valve in “TEST” position or release accumulator pressure at screw plug (16). ⊗ 250 bar gauge connected to “HS” (Fig. 1-3)  2 ————— 8	Ignition: OFF Unplug 4MATIC control module (N30/2) Engine: at idle Service valve in operating position or switch (S7/3) in “FUNKTION” position.	25 – 36 bar	Rear axle differential lock valve (A7/2y3), 4MATIC hydraulic unit (A7/2).

Hydraulic Test Program - Multi-disc Clutches

Test step	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 4.0 only vehicles up to 04/91	Front axle drivetrain multi-disc clutch (AV) Application pressure	Service valve in “ TEST ” position. ⊗ 10 bar gauge connected to “ AV ” on hydraulic unit (Fig. 1, 5)	Ignition: OFF Unplug 4MATIC control module (N30/2) Engine: at idle Service valve in operating position	approx. 1.3 bar	⇒ 4.1
⇒ 4.1	Return line N Residual pressure	Service valve in “ TEST ” position. On vehicles with level control: level control valve in position “L”, Fig. 6 ⊗ 10 bar gauge connected between “ N ” on hydraulic unit and disconnected line (Fig. 1, 4)	Engine: at idle Service valve in operating position	5 – 6 bar	Service valve. If pressure is reached: 4MATIC hydraulic unit (A7/2).

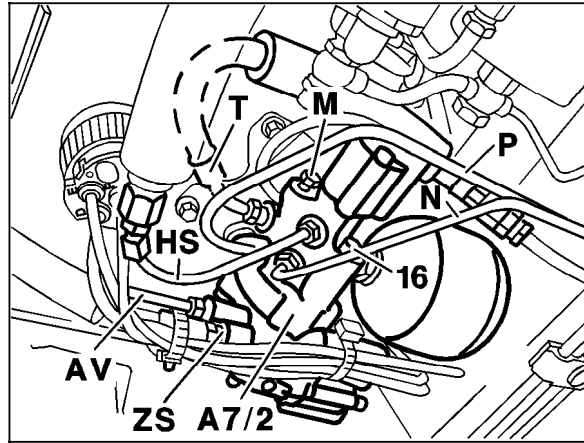
Hydraulic Test Program - Multi-disc Clutches



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Figure 1

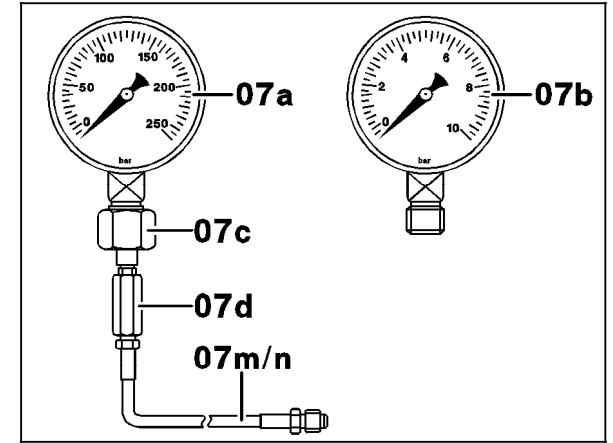
- A7/2 4MATIC hydraulic unit
- AV Front axle drivetrain solenoid valve connection
- HS Rear axle differential lock solenoid valve connection
- M Measuring connection with screw plug
- N Return line to service valve with connection to level control valve
- P Pressure line
- T Hydraulic unit return line
- ZS Central differential lock solenoid valve connection



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Figure 2

- A7/2 4MATIC hydraulic unit
- AV Front axle drivetrain solenoid valve connection
- HS Rear axle differential lock solenoid valve connection
- M Measuring connection with screw plug
- N Return line to service valve with connection to level control valve
- P Pressure line
- T Hydraulic unit return line
- ZS Central differential lock solenoid valve connection
- 16 Pressure release screw plug

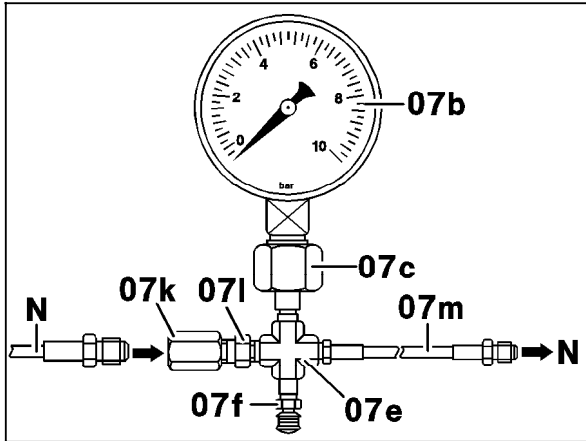


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Figure 3

- 07a 0-250 bar pressure gauge
- 07b 0-10 bar pressure gauge
- 07c Connecting fitting for pressure gauge
- 07d Connecting fitting M10x1 both ends
- 07m Pressure test hose M10x1/M12x1 (for AV/HS connection)
- 07n Pressure testing hose M10x1/M14x1.5 (for connection ZS)

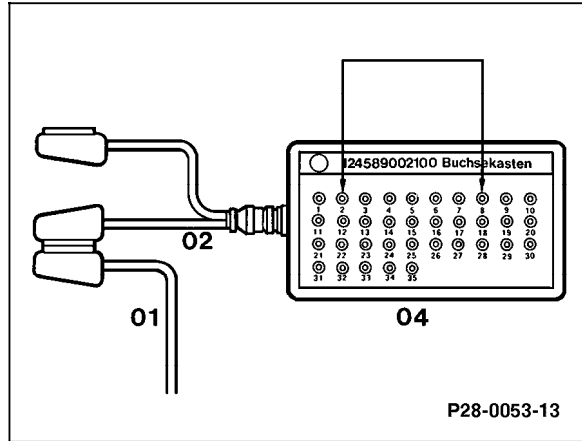
Hydraulic Test Program - Multi-disc Clutches



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Figure 4

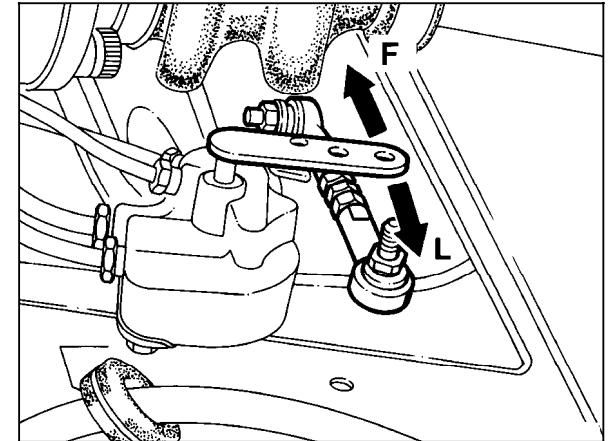
- 07b 0-10 bar pressure gauge
- 07c Connecting fitting for pressure gauge
- 07e 4-way fitting
- 07f Bleeder screw
- 07k Connecting fitting M12x1 both ends
- 07l Adapter fitting M10x1/M12x1
- 07m Pressure test hose M10x1/M12x1
- N Measurement connection for return line to service valve with connection to level control valve



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Figure 5

- 01 Connector from 4MATIC control module (N30/3)
- 02 Test harness
- 04 Socket box



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Figure 6

- F = Fill
- L = Empty