

Hydraulic Test Program - Test

Connection diagram -  
Pressure gauge and check valve to  
hydraulic unit

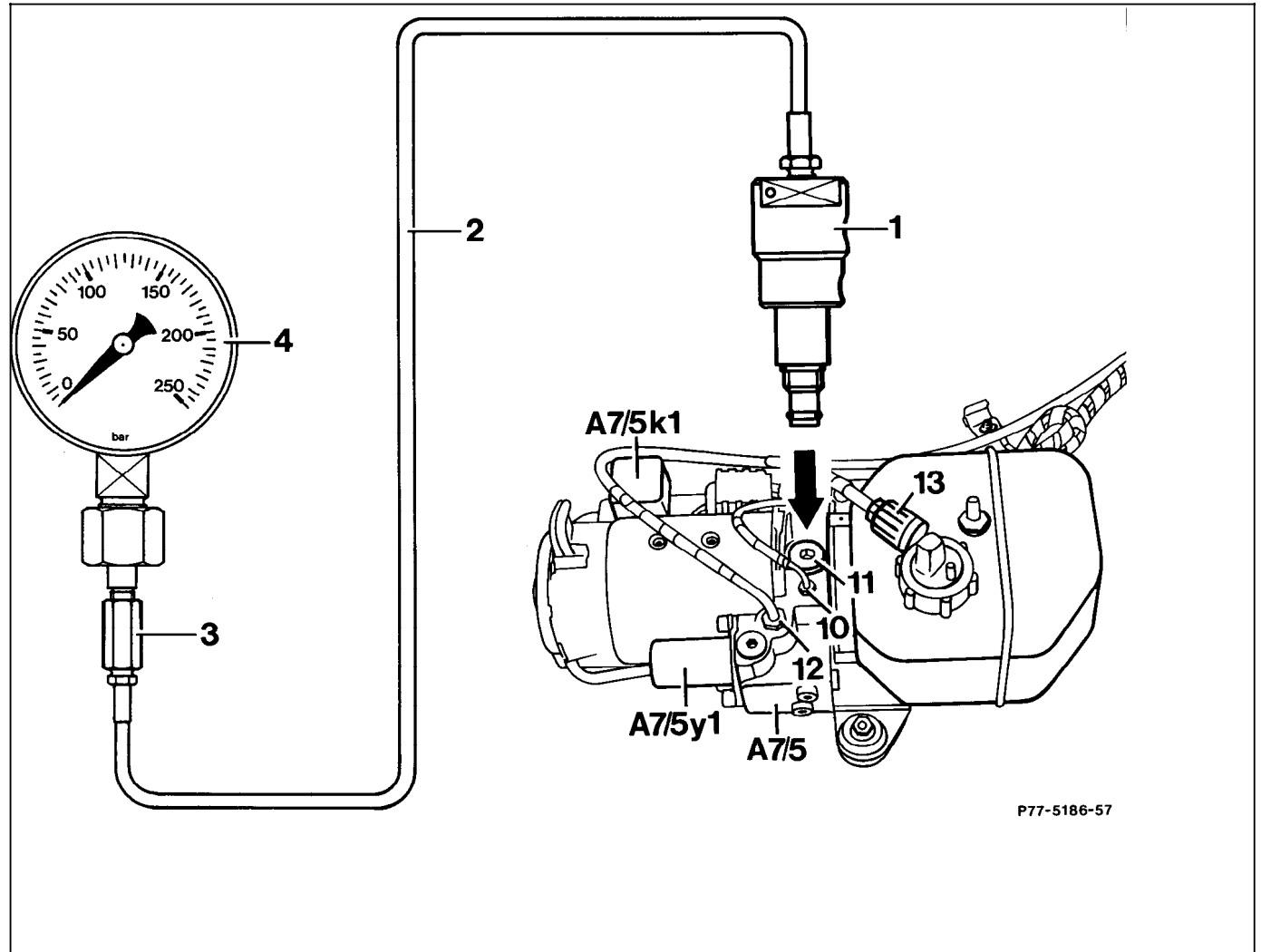


Figure 1

- A7/5 CST/RB hydraulic unit
- A7/5k1 Relay
- A7/5y1 Main valve
- 1 Check valve
- 2 Pressure test line
- 3 Coupling piece
- 4 Pressure gauge
  
- 10 Roll bar hydraulic line
- 11 Test connection
- 12 Soft top hydraulic line
- 13 Return line

P77-5186-57


P77-5186-57

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#### Test Notes

##### The following jobs are the same for all test steps:

- Connection of test equipment to hydraulic unit (Figure 1).  
Torque check valve 129 589 08 63 00 to 5 Nm.
- If hydraulic lines need to be disconnected from the valve blocks during pressure tests, the appropriate soft top position (end position of the hydraulic cylinder) must first be ensured.

All the necessary soft top positions can be achieved by using the soft top switch or by moving the soft top by hand (manual operation, Ignition: **OFF**). The soft top compartment cover can be locked or unlocked by using the emergency tool in the vehicle tool kit (refer to Introduction Manual, Model Year 1993  Models 124, 129, 140, 201.

In the event of a lock failure, the fabric bow can only be opened by unscrewing the lock pin from inside the vehicle.

#### Pressure test

##### **WARNING!**

Keep hands clear of soft top mechanism, windshield frame and soft top compartment cover.

The hydraulic circuits and components responsible for a specific soft top movement can be tested separately.

Disconnected hydraulic lines should be held in a container (connect a transparent hose such as windshield washer hose).

Hydraulic components that leak should be replaced. During pressure tests, the valve block connections **must** be plugged with plug 129 589 00 91 01.

If hydraulic components need to be replaced, the disconnected hydraulic lines must be plugged with plug 129 589 00 91 07, while the connections of valve blocks and hydraulic cylinders must be plugged **immediately** using plug 129 589 00 91 11 to prevent the possible entry of dirt.

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	<b>Check system pressure</b>	Connect pressure gauge according to connection diagram (Figure 1).	<p><b>Soft top completely closed</b>                      Ignition: <b>ON</b>  <b>Press</b> and hold RB switch to retract roll bar. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      ⇒ 2.0.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 2.0	<b>Test hydraulic unit</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 10, 12 (Figure 1) close off using plug 129 589 00 91 02/03.</p>	<p><b>Soft top completely closed</b></p> <p>Ignition: <b>ON</b>                      Press and hold RB switch to retract roll bar. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	175 – 195 bar	<p><b>&lt;175 bar:</b>                      if the pressure displayed on the pressure gauge does <b>not</b> drop, replace hydraulic unit.</p> <p>If the pressure displayed on the pressure gauge does drop, the Main valve (A7/5y1, Figure 1) is leaking.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 3.0	<b>Retract roll bar (Figure 7)</b>	Connect pressure gauge according to connection diagram (Figure 1).	<p><b>Roll bar extended.</b></p> <p>Ignition: <b>ON</b>                      Press and hold RB switch to retract roll bar. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      ⇒ 3.1.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 3.1	Retract roll bar (Figure 7)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line No. 101, 110 from valve block (Y57, Figure 3). Close connection with plug 129 589 00 91 01.</p>	<p><b>Roll bar extended.</b></p> <p>Ignition: <b>ON</b></p> <p>Press and hold RB switch to retract roll bar. Have an assistant unplug relay (A7/5k1) (Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Valve block (Y57, Figure 6) Left or right locking pawl (Figure 6, Position 4a, 4b).</p> <p><b>If nominal value is attained:</b> Roll bar hydraulic cylinder (Figure 6, Position 4).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 4.0	<b>Extend roll bar (Figure 8)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line No. 101, 110 from valve block (Y57, Figure 3). Close connection with plug 129 589 00 91 01.</p>	<p><b>Roll bar retracted.</b></p> <p>Ignition: <b>ON</b>                      Press and hold RB switch to extend roll bar. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      Valve block (Y57, Figure 6).</p> <p><b>If nominal value is attained:</b>                      Roll bar hydraulic cylinder (Figure 6, Position 4).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.0	<b>Opening fabric bow lock (Figure 9)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 44, 47 from Valve block (Y56, Figure 4) close connection using plug 129 589 00 91 01 Pull plug off valve block (Y55y7 and Y55y8, Figure 2).</p>	<p><b>Starting position: Soft top completely closed.</b>                      Front latches unlocked, soft top frame pushed up in front. Unscrew fabric bow lock pins from inside vehicle, set fabric bow upright, open soft top compartment cover. Remove trim panels in soft top compartment, soft top compartment cover latched, fabric bow lowered.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      ⇒ 5.1.</p> <p><b>If nominal value is attained:</b>                      Fabric bow lock (Figure 6, Position VB).</p>



Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.1	Opening fabric bow lock (Figure 9)	Connect pressure gauge according to connection diagram (Figure 1). Disconnect hydraulic line no. 31 from valve block (Y56, Figure 4) close connection using plug 129 589 00 91 01. Connect hydraulic lines no. 44, 47 leave valves (Y55y7 and Y55y8) disconnected.	<p>Front latches unlocked, soft top frame pushed up in front, soft top compartment cover latched, fabric bow lowered.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an additional <b>5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 5.2.</p> <p><b>If nominal value is attained:</b> Soft top compartment cover lock hydraulic cylinder (Figure 6, Position VD).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.2	Opening fabric bow lock (Figure 9)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 35, 37 from valve block (Y56, Figure 4), close connection using plug 129 589 00 91 01. Connect hydraulic line no. 31, leave valves (Y55y7 and Y55y8) disconnected.</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow lowered.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 5.4.</p> <p><b>If nominal value is attained:</b> ⇒ 5.3.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.3	Opening fabric bow lock (Figure 9)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 35, leave valves (Y55y7 and Y55y8) disconnected.</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow lowered.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      Left soft top compartment cover hydraulic cylinder (Figure 6, Position 2).</p> <p><b>If nominal value is attained:</b>                      Right soft top compartment cover hydraulic cylinder (Figure 6, Position 3).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 5.4	Opening fabric bow lock (Figure 9)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 41 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01.</p> <p>Connect hydraulic line no. 35, 37, leave valves (Y55y7 and Y55y8) disconnected.</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow lowered.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Valve block (Y55, Figure 6).</p> <p><b>If nominal value is attained:</b> Valve block (Y56, Figure 6).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 6.0	<b>Raising fabric bow (Figure 10)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 41 from valve block (Y55, Figure 2) close connection using plug 129 589 00 91 01. Disconnect plug from valve (Y55y7).</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 6.1.</p> <p><b>If nominal value is attained:</b> ⇒ 5.0.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 6.1	Raising fabric bow (Figure 10)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 85, 87 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01. Leave valve (Y55y7) and hydraulic line no. 41 disconnected.</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Valve block (Y55, Figure 6).</p> <p><b>If nominal value is attained:</b> ⇒ 6.2.</p>

Hydraulic Test Program - Test

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⇒ 6.2	Raising fabric bow (Figure 10)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 85, leave no. 41 and valve (Y55y7) disconnected.</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, soft top compartment cover locked, fabric bow raised.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      Left fabric bow hydraulic cylinder (Figure 6, Position 5).</p> <p><b>If nominal value is attained:</b>                      Right fabric bow hydraulic cylinder (Figure 6, Position 6).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 7.0	<b>Unlocking soft top compartment cover lock (Figure 11)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 31, 32 from valve block (Y56, Figure 4), close connection using plug 129 589 00 91 01. Disconnect connector from valve (Y55y7 and Y55y8, Figure 2).</p>	<p>Front locks open, soft top closed, front of soft top frame pushed up, fabric bow raised, soft top compartment cover locked.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Valve block (Y56, Figure 6).</p> <p><b>If nominal value is attained:</b> Soft top compartment cover lock (Figure 6, Position VD).</p>



Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 8.0	<b>Raising soft top compartment cover (Figure 12)</b>				<b>Hydraulic fault not possible.</b>  Check adjustment of soft top compartment cover, check for smooth operation of cover hinges.
⇒ 9.0	<b>Lowering fabric bow (Figure 13)</b>	⇒ 19.0	⇒ 19.0	120 – 195 bar	⇒ 19.0.

Hydraulic Test Program - Test

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⇒ 10.0	<b>Opening soft top (Figure 14)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 41, 61, 63 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01.</p>	<p>Soft top compartment cover raised. Lower soft top into compartment.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      Valve block (Y55, Figure 6).</p> <p><b>If nominal value is attained:</b>                      ⇒ 10.1.</p>

Hydraulic Test Program - Test

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⇒ 10.1	Opening soft top (Figure 14)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 63, leave no. 41, 61 disconnected.</p>	<p>Soft top compartment cover raised, lower soft top into compartment.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt; 120 bar:</b>                      Left soft top drive hydraulic cylinder (Figure 6, Position 7).</p> <p><b>If nominal value is attained:</b>                      Right soft top drive hydraulic cylinder (Figure 6, Position 8).</p>

Hydraulic Test Program - Test

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⇒ 11.0	<b>Closing soft top compartment cover (Figure 15)</b>	Connect pressure gauge according to connection diagram (Figure 1)	<p>Front locks open, soft top lowered into soft top compartment, soft top compartment cover raised.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	⇒ 5.2

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⇒ 12.0	<b>Locking soft top compartment cover lock (Figure 16)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 31, 47 from valve block (Y56, Figure 4), close connection using plug 129 589 00 91 01. Disconnect connectors from valves (Y56y3 and Y56y4, Figure 4, Y55y6, Figure 2).</p>	<p>Soft top lowered into soft top compartment, soft top compartment cover raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to open soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt; 120 bar:</b> ⇒ 5.4</p> <p><b>If nominal value is attained:</b> Soft top compartment cover lock hydraulic cylinder (Figure 5, Position VD).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 13.0	<b>Unlocking soft top compartment cover lock (Figure 11)</b>	Connect pressure gauge according to connection diagram (Figure 1).	<b>Starting position: Soft top opened completely. ⇒ 1.0 and 2.0 carried out.</b>		Soft top compartment cover lock pin binding.  Adjust lock pin.  Soft top compartment cover lock defective.
⇒ 14.0	<b>Raising soft top compartment cover (Figure 12)</b>				<b>Hydraulic fault not possible.</b>  Check adjustment of soft top compartment cover, check for smooth operation of cover hinges.

Hydraulic Test Program - Test

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⇒ 15.0	<b>Closing soft top (Figure 17)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 70, 72 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01. Disconnect connector from valve (Y55y8, Figure 2).</p>	<p>Front locks open, soft top compartment cover raised.</p> <p>Close soft top manually, front of soft top frame pushed up, fabric bow lowered.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 15.2.</p> <p><b>If nominal value is attained:</b> ⇒ 15.1.</p>

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⇒ 15.1	Closing soft top (Figure 17)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 72, leave no. 70 and valve (Y55y8) disconnected. Disconnect connector from valve (Y55y8, Figure 2).</p>	<p>Front locks open, soft top compartment cover raised, soft top closed, soft top frame pushed up in front, fabric bow lowered.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Left soft top hydraulic actuating cylinder (Figure 6, Position 7).</p> <p><b>If nominal value is attained:</b> Right soft top hydraulic actuating cylinder (Figure 6, Position 8).</p>



Hydraulic Test Program - Test

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⇒ 15.2	Closing soft top (Figure 17)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 41 from valve block (Y55, Figure 2) close connection using plug 129 589 00 91 01. connect valve (Y55y8).</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, soft top compartment cover raised, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Valve block (Y55, Figure 6).</p> <p><b>If nominal value is attained:</b> Valve block (Y56, Figure 6).</p>

Hydraulic Test Program - Test

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⇒ 16.0	<b>Raising fabric bow (Figure 10)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1)</p> <p>Disconnect hydraulic line no. 41, 85, 87 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01.</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, soft top compartment cover raised, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 15.2.</p> <p><b>If nominal value is attained:</b> ⇒ 16.1.</p>

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⇒ 16.1	Raising fabric bow (Figure 10).	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 85, leave no. 87 disconnected.</p>	<p>Soft top open at front, soft top closed, soft top frame pushed up in front, soft top compartment cover raised, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Left fabric bow hydraulic cylinder (Figure 6, Position 5).</p> <p><b>If nominal value is attained:</b> Right fabric bow hydraulic cylinder (Figure 6, Position 6).</p>

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⇒ 17.0	<b>Lowering soft top compartment cover (Figure 15)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 35, 37 from valve block (Y56, Figure 4), close connection using plug 129 589 00 91 01. Disconnect connector from valve (Y55y7 and Y55y8, Figure 2) .</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised, soft top compartment cover raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 15.2.</p> <p><b>If nominal value is attained:</b> ⇒ 17.1.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 17.1	Lowering soft top compartment cover (Figure 15)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 35, hold no. 37 in a container and leave valve (Y55y7 and Y55y8) disconnected.</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised, soft top compartment cover lowered.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      Left soft top compartment cover hydraulic cylinder (Figure 6, Position 3).</p> <p><b>If nominal value is attained:</b>                      Right soft top compartment cover hydraulic cylinder (Figure 6, Position 2).</p>


Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 18.0	<b>Locking soft top compartment cover lock (Figure 16)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 31, 35, 37 from valve block (Y56, Figure 4), close connection using plug 129 589 00 91 01. Disconnect connector from valve (Y56y3, Figure 4).</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised, soft top compartment cover raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> ⇒ 15.2.</p> <p><b>If nominal value is attained:</b> ⇒ 18.1.</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 18.1	Locking soft top compartment cover lock (Figure 16)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 31, Leave no. 35, 37 and valve (Y56y3) disconnected. Disconnect connector from valve (Y55y9, Figure 2).</p>	Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised, soft top compartment cover raised.		<p><b>&lt;120 bar:</b> Soft top compartment cover lock hydraulic cylinder (Figure 6, Position VD).</p> <p><b>If nominal value is attained:</b> ⇒ 18.2</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 18.2	Locking soft top compartment cover lock (Figure 16)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 35, hold no. 37 in a container and leave valve (Y56y3) disconnected.</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top.</p> <p> <b>Soft top compartment cover will close.</b> Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Left soft top compartment cover hydraulic cylinder (Figure 6, Position 2).</p> <p><b>If nominal value is attained:</b> Right soft top compartment cover hydraulic cylinder (Figure 6, Position 3).</p>



Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 19.0	<b>Lowering fabric bow (Figure 13)</b>	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Disconnect hydraulic line no. 41, 94, 96 from valve block (Y55, Figure 2), close connection using plug 129 589 00 91 01.</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, soft top compartment cover raised, soft top compartment cover locked, fabric bow raised.</p> <p>Ignition: <b>ON</b>                      Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b>                      Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b>                      ⇒ 15.2</p> <p><b>If nominal value is attained:</b>                      ⇒ 19.1</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 19.1	Lowering fabric bow (Figure 13)	<p>Connect pressure gauge according to connection diagram (Figure 1).</p> <p>Connect hydraulic line no. 94, leave no. 41 disconnected, hold no. 96 in a container.</p>	<p>Front locks open, soft top closed, soft top frame pushed up in front, soft top compartment cover locked, fabric bow lowered. Place wooden blocks (2 pieces, 80mm x 60mm x 20mm) between the soft top compartment cover and the fabric bow next to the latches on the left and right.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Left fabric bow hydraulic cylinder (Figure 6, Position 5).</p> <p><b>If nominal value is attained:</b> Right fabric bow hydraulic cylinder (Figure 6, Position 6).</p>

Hydraulic Test Program - Test

Test step	Scope of test	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 20.0	<b>Locking fabric bow lock (Figure 18)</b>	Connect pressure gauge according to connection diagram (Figure 1). Disconnect connector from valve (Y55y9, Figure 2).	<p>Front locks open, soft top closed, soft top frame pushed up in front, fabric bow raised, soft top compartment cover locked, fabric bow lock opened.</p> <p>Ignition: <b>ON</b> Press and hold power soft top switch to close soft top. Have an assistant unplug relay (A7/5k1, Figure 1) <b>after 5 sec.</b> Keep switch depressed an <b>additional 5 sec.</b></p> <p><b>Read test pressure:</b></p> <p><b>Release test pressure:</b> Press soft top switch briefly several times.</p>	120 – 195 bar	<p><b>&lt;120 bar:</b> Hydraulic cylinder fabric bow lock (Figure 6, Position VB).</p> <p><b>If nominal value is attained:</b> Lock mechanism, Lock pin improperly adjusted.</p>

Hydraulic Test Program - Test

Right CST valve block (Y55)

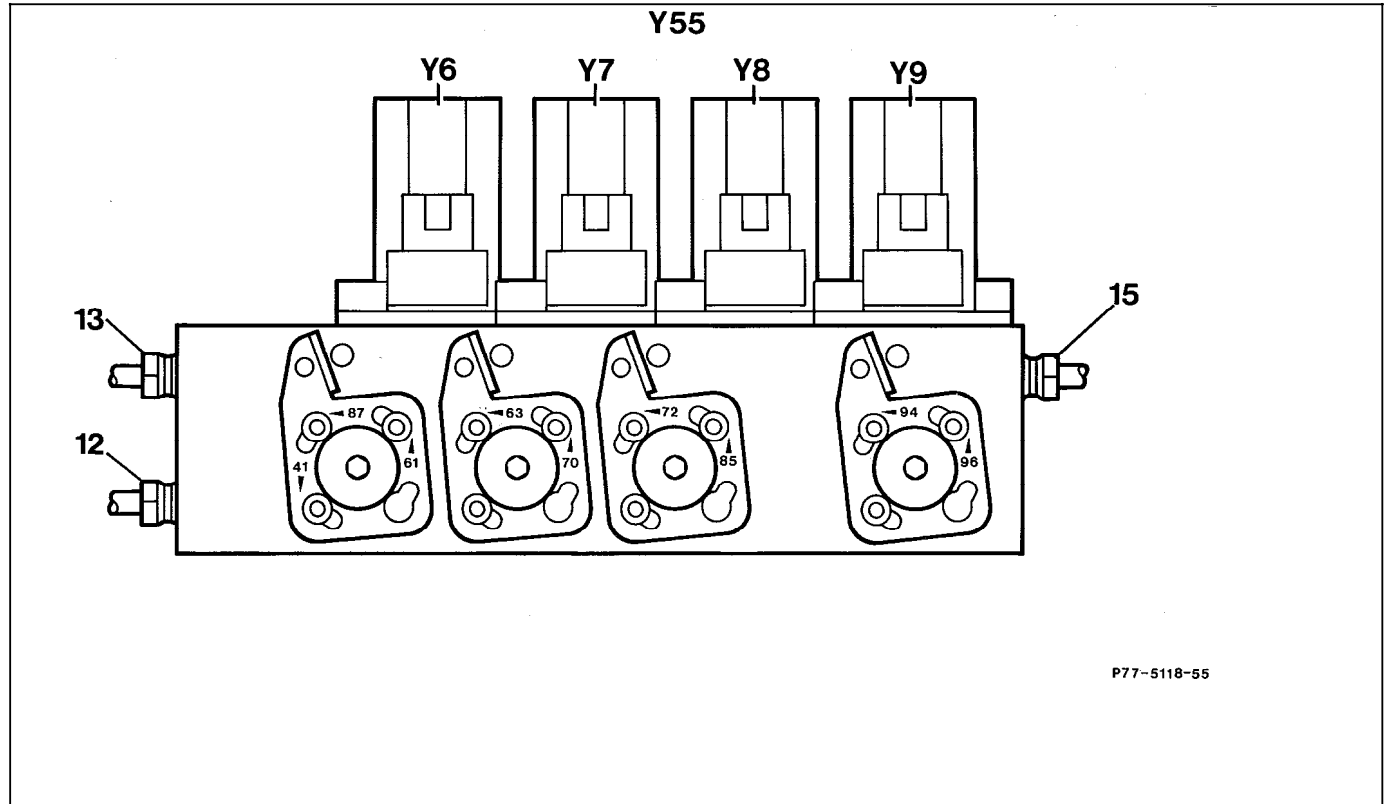


Figure 2

- Y55y6 Soft top "open" valve
- Y55y7 Soft top "close" valve
- Y55y8 Fabric bow "raise" valve
- Y55y9 Fabric bow "lower" valve

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Hydraulic Test Program - Test

RB valve block (Y57)

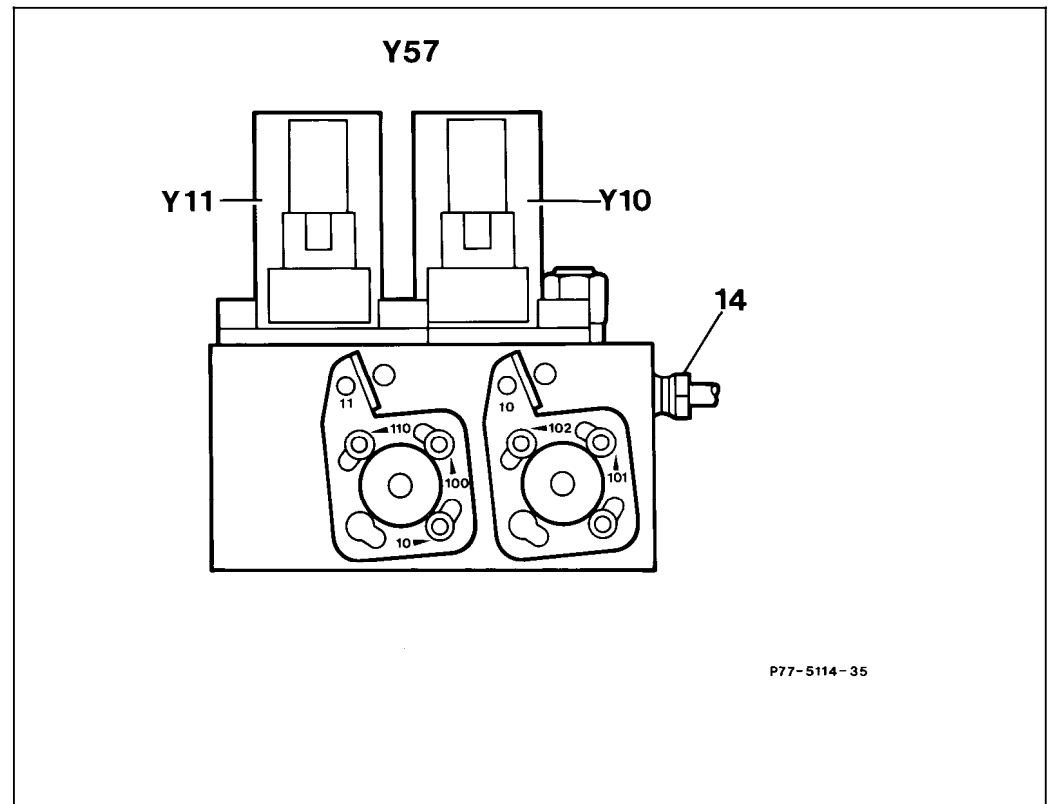


Figure 3

- Y57y10 Rod side valve
- Y57y11 Piston side valve

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P77-5114-35

Hydraulic Test Program - Test

Left CST valve block (Y56)

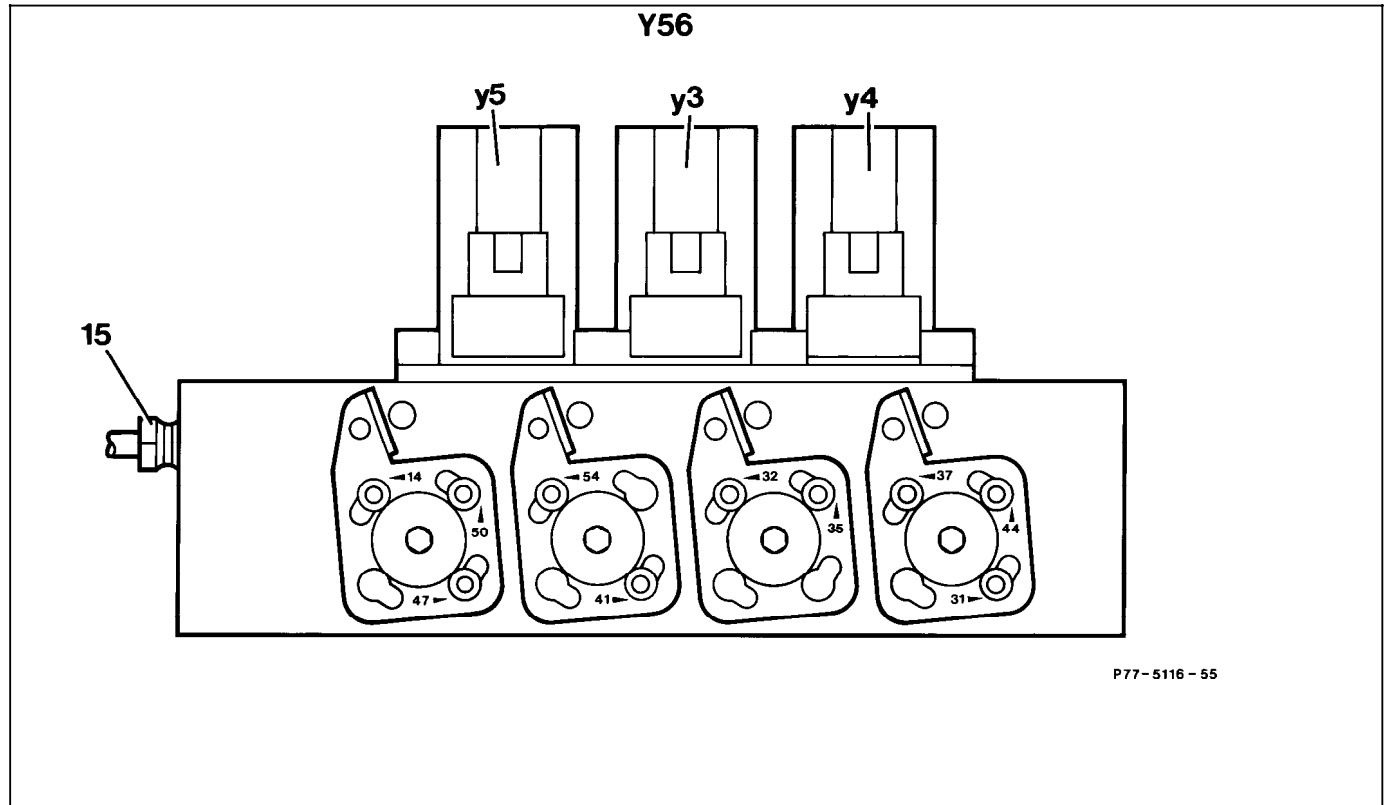


Figure 4  
 Y56y3 Soft top compartment lock valve  
 Y56y4 Fabric bow lock valve  
 Y56y5 Soft top compartment cover drive valve

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## Hydraulic Test Program - Test

## Schematic diagram, hydraulic actuation (soft top closed, roll bar retracted)

### Soft top/Roll bar

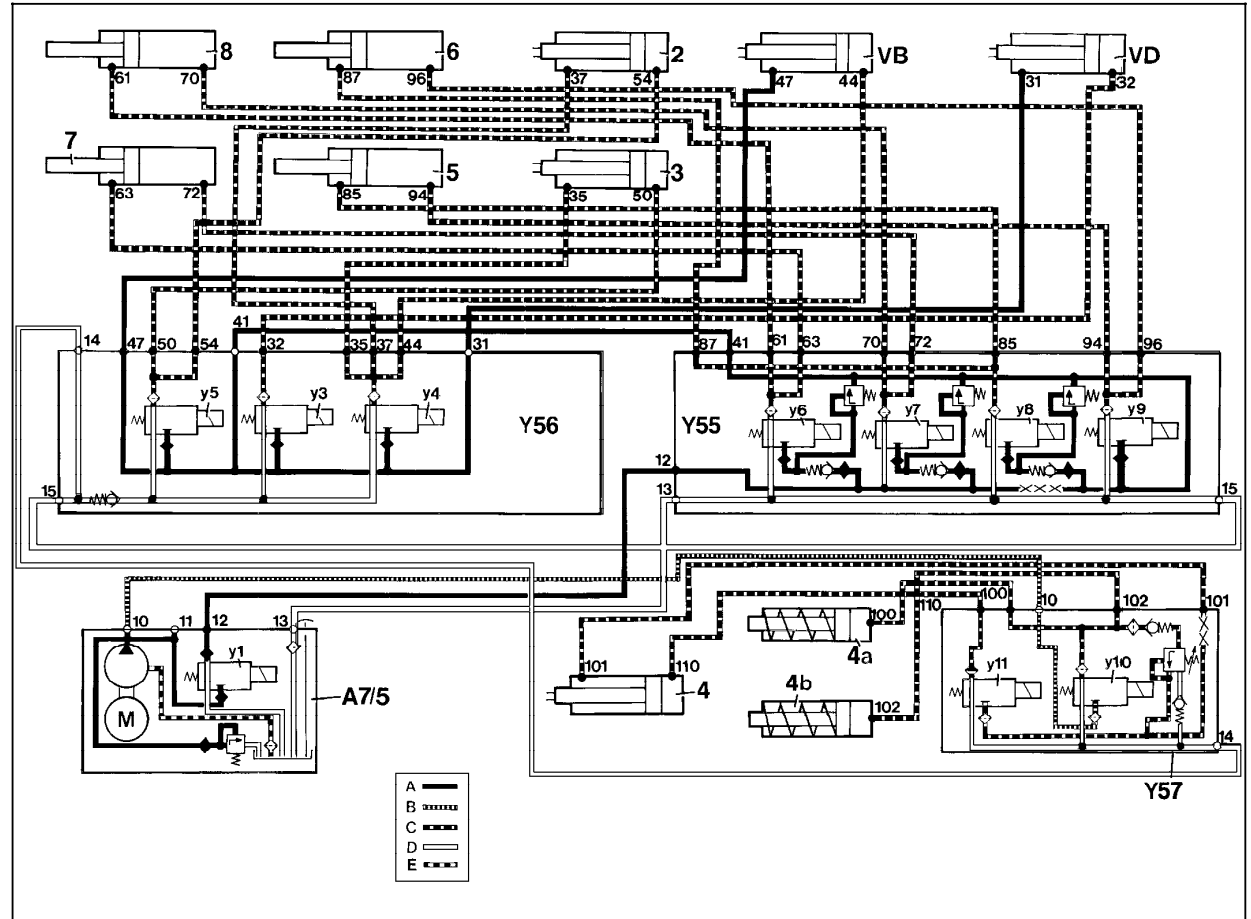
Figure 5

VD Soft top compartment cover lock  
 VB Fabric bow lock

Y55 Right CST valve block  
 Y56 Left CST valve block  
 Y57 RB valve block

A7/5 CST/RB hydraulic unit  
 2/3 Hydraulic cylinder soft top compartment cover, left/right  
 4 RB hydraulic cylinder  
 4a/4b Locking pawl hydraulic cylinder, left/right  
 5/6 Fabric bow hydraulic cylinder, left/right  
 7/8 Soft top hydraulic cylinder, left/right

A Soft top hydraulic circuit  
 B Roll bar hydraulic circuit  
 C Control pressure line  
 D Return line  
 E Suction line



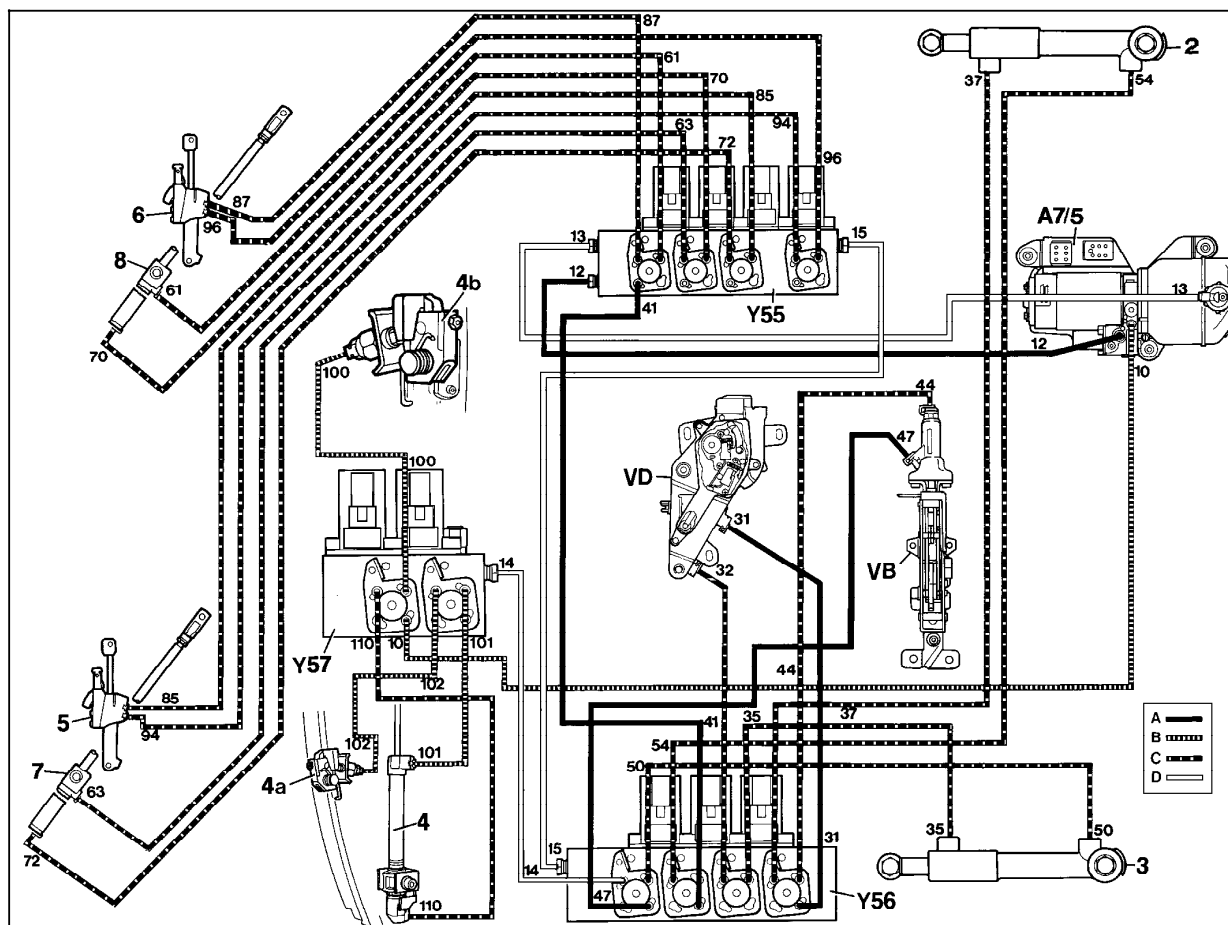
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## Hydraulic Test Program - Test

### Soft top/Roll bar

Figure 6

- VD Soft top compartment cover lock
- VB Fabric bow lock
- Y55 Right CST valve block
- Y56 Left CST valve block
- Y57 RB valve block
- A7/5 CST/RB hydraulic unit
- 2/3 Hydraulic cylinder  
soft top compartment cover, left/right
- 4 RB hydraulic cylinder
- 4a/4b Locking pawl hydraulic cylinder, left/right
- 5/6 Fabric bow hydraulic cylinder, left/right
- 7/8 Soft top hydraulic cylinder, left/right
- A Soft top hydraulic circuit
- B Roll bar hydraulic circuit
- C Control pressure line
- D Return line



P77-5157-06x