

## Special Tools

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Wrench 1/2 x 9/16"	conventional
Ratchet spanner with square socket 6.5 mm dia. in ratchet insert for actuating service valves with spindles	conventional
Gauge set with 3 charging hoses and vacuum pump or evacuating and charging equipment for air-conditioning systems	conventional
Remover and installer for valve insert on service valves with Schrader valve	000 589 24 61 00
Leak tester (Rilo senior leak detector)	conventional

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- 2 Connect hoses (5 and 8 to 10) — as shown in Fig. 3. Make sure that the angular end of the hose (8) with the pressure pin for operating the Schrader valve is connected to connection C on the gauge set (hoses without pressure pin cannot be used here!).
- 3 Turn in spindles of discharge and suction valve (6 and 7) one turn; this will connect the system with the high pressure and low pressure gauges (3 and 4).

### Service Valves with Schrader Valve

- 1 Remove plugs (1) of line connections of both service valves (Fig. 2).
- 2 Connect hoses (5 and 8 to 10) as shown in Fig. 3. Make sure that the angular end of the hoses 5, 8 and 9 with the pressure pin for operating the Schrader valve is connected to connection C on the gauge set or on the connection of the two service valves (hoses without pressure pins cannot be used here).

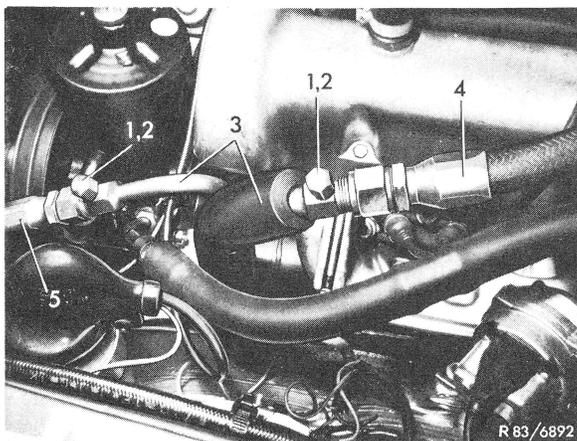


Fig. 2  
Arrangement of service valves with Schrader valve

- |                |   |
|----------------|---|
| 1 Plug         | 4 Hose line from evaporator to compressor |
| 2 Valve insert | 5 Hose line from compressor to condenser  |
| 3 Pipeline     |   |

- 4 Fully open valves A and B on gauge set (2). Close valves on charging cylinder (12) and refrigerant bottle (16).
- 5 Turn on vacuum pump (11) and evacuate system for at least 15 minutes.
- 6 When the required vacuum has been obtained (0.9 — 1.0 atu) fully back out spindles on service valves with spindle (6 and 7) and close valves A and B.
- 7 Disconnect connecting hose (8) and shutoff vacuum pump (11).
- 8 After approx. 15 minutes turn in spindles of suction and discharge valves by one turn and open valves A and B.

If the vacuum is lower by more than 0.15 as compared to the value noted previously, this means that the system has not been evacuated long enough or is leaking. Evacuate system again. If the vacuum is again lower than the value determined before, fill system with approx. 100 g refrigerant (vapor). Use leak tester to test entire system for leaks and leaky points. Then evacuate system again.

- 9 Close valves A and B or on service valves with spindle, backout spindle completely.
- 10 Fill system with refrigerant R 12 (refer to Job No. 83.0—840).

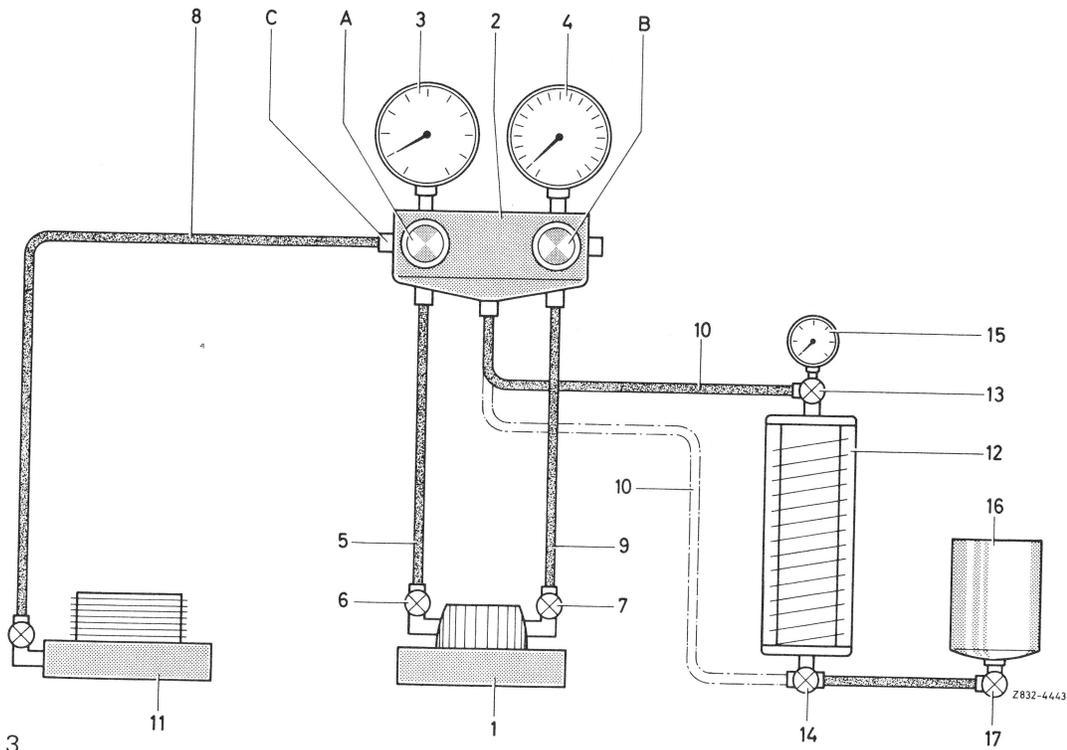


Figure 3

Gauge set and charging cylinder with all connections

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|--------------------------------|---------------------------------|----------------------|------------------------------------|
| A Valve on low-pressure gauge  | 3 Low-pressure gauge            | 8 Hose               | 13 Valve, top                      |
| B Valve on high-pressure gauge | 4 High-pressure gauge           | 9 Hose               | 14 Valve, bottom                   |
| C Schrader valve on gauge set  | 5 Hose                          | 10 Hose              | 15 Pressure gauge                  |
| 1 Refrigerant compressor       | 6 Service valve (suction end)   | 11 Vacuum pump       | 16 Container with refrigerant R 12 |
| 2 Gauge set                    | 7 Service valve (discharge end) | 12 Charging cylinder | 17 Valve on refrigerant container  |