

64 52 ...

Notes for changing the air conditioning compressor (amount of refrigerant oil of new air conditioning compressor known)



Special tools required:

- [00 9 030](#)



Note:

This procedure only applies if the **new air conditioning compressor has a label with the amount of refrigerant oil.**

A [different procedure](#) applies for air conditioning compressors **without a label indicating the amount of refrigerant oil.**



Important!

Risk of damage!

Remove the air conditioning compressor without damaging and without the use of force!

Air conditioning compressors with plastic belt pulleys:

- Avoid impacts/knocks to plastic belt pulley (caused by tools, contact with base).
- Return faulty air conditioning compressors in their original packaging only and with sealed connected branches.



Important!

When starting up a new air conditioning compressor for the first time, it is absolutely essential to carry out the following breaking-in procedure:

- Switch on Air conditioning system
- Set all air vents in the dashboard to "OPEN"

- Start engine and let it stabilise at idle speed
- Set blower output to min. 75% of max. blower output
- Switch on heating and air conditioning system and run for at least 2 minutes at idle speed

Risk of damage at increased engine speed!



Important!

In the event of a mechanical air conditioning compressor failure and the resulting ingress of chips into the refrigerant circuit, replace the following parts:

All vehicles except I01:

- [air conditioning compressor](#)
- Replace desiccant insert
- Line to the capacitor
- Refrigerant oil

I01 only:

- air conditioning compressor
- Capacitor with desiccant insert/dryer flask
- all expansion valves

Rinse the refrigerant circuit.



All vehicles without I01 with heat pump:

The new air conditioning compressor is filled at the factory with refrigerant oil.

The amount of refrigerant oil in the new air conditioning compressor corresponds to the amount of refrigerant oil for the entire new and unfilled refrigerant circuit.

Only I01 with heat pump:

The new air conditioning compressor and new dryer flask are filled at the factory with refrigerant oil.

The amount of refrigerant oil in the new air conditioning compressor and in the new dryer flask corresponds to the amount of refrigerant oil for the entire new and unfilled refrigerant circuit.

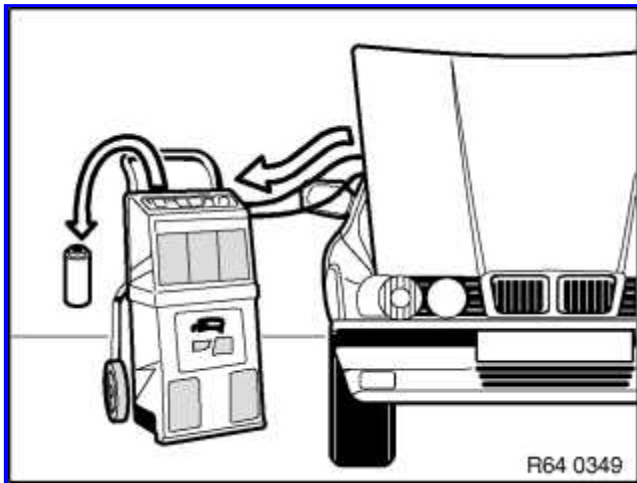


When replacing the air conditioning compressor it is absolutely essential to adapt the amount of refrigerant oil in accordance with the instructions below!

An adaptation is also required for the replacement of the dryer flask.

An adaptation of the amount of refrigerant oil is not required in the following cases:

- Replacement of the complete refrigerant circuit.
- If the refrigerant circuit was rinsed (only I01).



When evacuating the heating and air conditioning system refrigerant oil is also extracted and collected in the oil separator of the A/C service station.

This amount of refrigerant oil is displayed after the extraction of the heating and air conditioning system on the display of the A/C service station.

Take a note of the amount of refrigerant oil displayed on the display of the A/C service station (= **amount of refrigerant oil 1**).

Example:

30 nm read on the display of the A/C service station.

Amount of refrigerant oil 1 = 30 ml

Transfer the refrigerant oil remaining in the previous air conditioning compressor via the oil filler plug completely into a measuring cup.



Read the amount of refrigerant oil at the measuring cup. Add **at least 10 ml extra to the amount of refrigerant oil read, but note an overall total of 50 ml (= amount of refrigerant oil 2).**

Example:

20 ml read at measuring cup:

$20 \text{ ml} + 10 \text{ ml extra} = 30 \text{ ml} < 50 \text{ ml}$

Amount of refrigerant oil 2 = 50 ml



Turn the belt pulley during the filling process.

This allows more refrigerant oil to flow out of the previous air conditioning compressor.

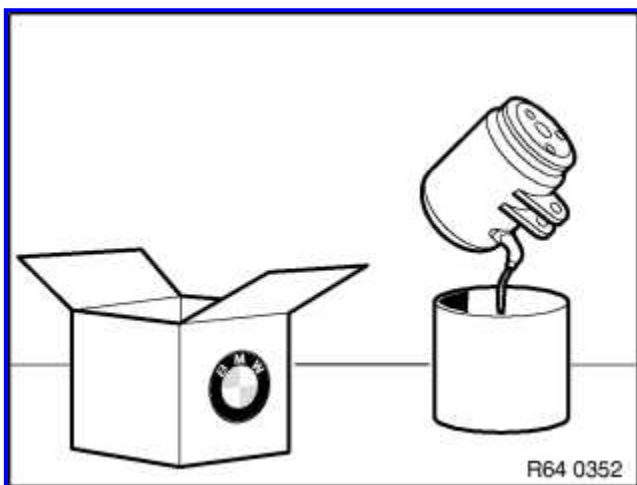


Determination of the amount of refrigerant oil to be filled in the refrigerant circuit:

Amount of refrigerant oil to be filled = amount of refrigerant oil 1 + amount of refrigerant oil 2

Example:

Amount of refrigerant oil to be filled = $30 \text{ ml} + 50 \text{ ml} = \underline{80 \text{ ml}}$



Open oil filler plug. Drain the following amount of refrigerant oil from the new air conditioning compressor into a clean measuring cup:

Amount of refrigerant oil to be drained = amount of refrigerant oil of new air conditioning compressor - amount of refrigerant oil to be filled

Example:

Amount of refrigerant oil of new air conditioning compressor:
150 ml

Amount of refrigerant oil to be drained = $150 \text{ ml} - 80 \text{ ml} = \underline{70 \text{ ml}}$

70 ml must be drained from the new air conditioning

compressor.



Installation note:

Replace sealing rings.

Use special tool [00 9 030](#) to mount sealing rings without damaging them.

Tightening torque [64 52 2AZ](#).



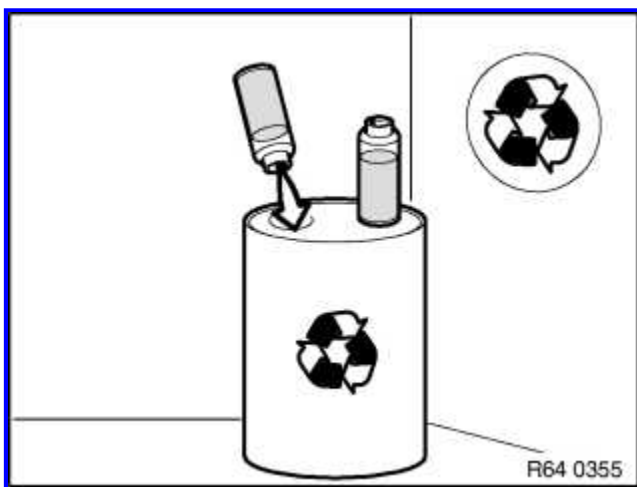
The drained new refrigerant oil can be filled into the expansion tank of the A/C service station after draining.



On account of its hygroscopic properties, refrigerant oil must not be stored in open containers.



If the new, drained refrigerant oil is not filled straight away into the expansion tank of the A/C service station, it must be disposed of properly.



The refrigerant oil drawn off from the oil separator of the A/C service station and from the previous air conditioning compressor **must not be reused and must be correctly disposed of.**

Observe country-specific waste disposal regulations.



Installation note:

If the refrigerant circuit is open for longer than 24 hours:

- Replace desiccant insert