

## **Audi > C5 > 1998-2005 Refrigerant R134a - Servicing 87 - Description and Operation**

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### **Block Diagrams for Flushing Circuits**

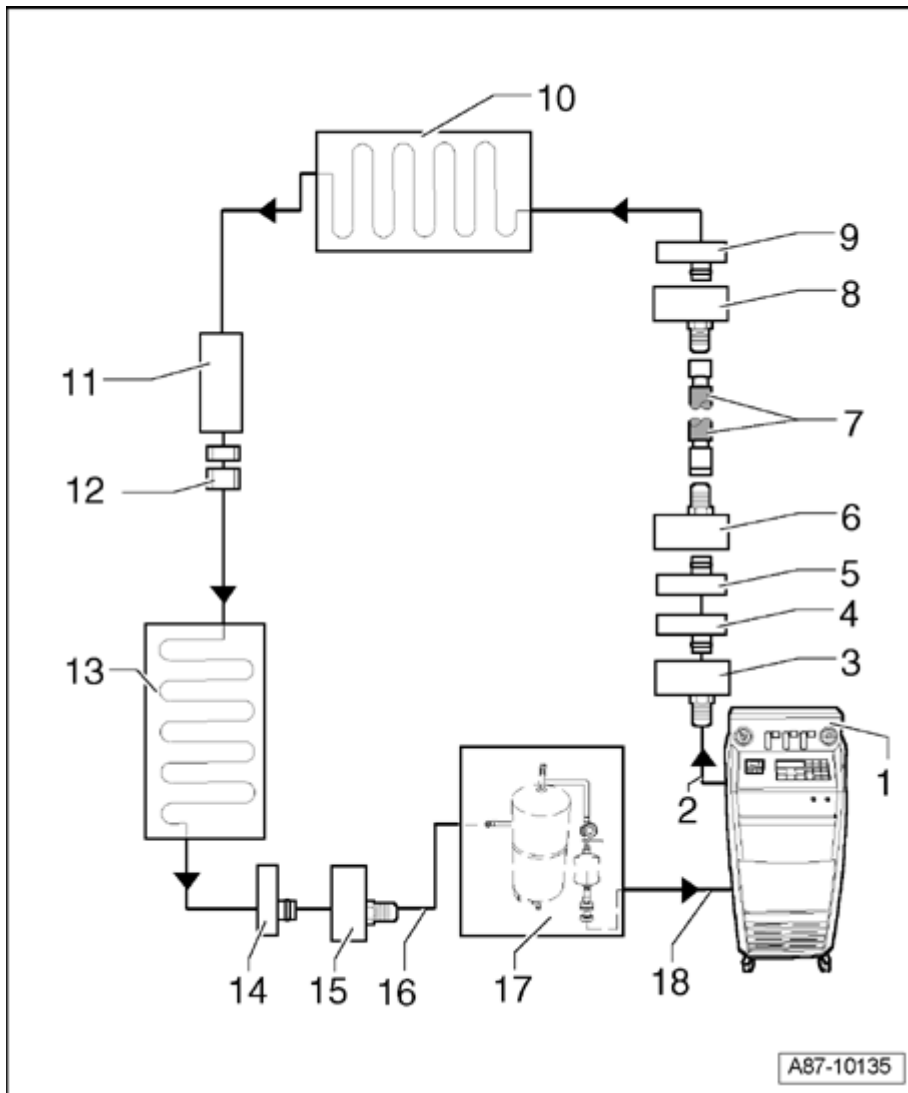
#### **Note:**

- *The arrows in the following illustration show the refrigerant flow when flushing (when flushing, the refrigerant flows in direction opposite to the flow when the air conditioning is operating, therefore the high pressure side of the A/C service station is connected to the low pressure connection toward the compressor).*
- *These block diagrams indicate a refrigerant circuit with restrictor and reservoir and a refrigerant circuit with expansion valve, fluid reservoir and a second evaporator (optional equipment on certain vehicles)*
- *Depending on the A/C service station design, there may be check valves installed between the refrigerant circuit and the A/C service station (to ensure the correct direction of flow of the refrigerant when flushing).*

#### **Refrigerant circuit with restrictor and reservoir**

#### **Note:**

- *On vehicles with restrictor and reservoir, the restrictor and reservoir are removed, the lines disconnected for removing the restrictor are reconnected again. The connections to the reservoir removed are connected by means of two adapters and the fill hose VAS 6338/31 (from the adapter case for VW/Audi passenger cars VAS 6338/1 )*



### 1 - A/C service station

- With electronics and a program for flushing, e.g. A/C service station with flushing equipment VAS 6336 or A/C service station with flushing equipment VAS 6337
- If an A/C service station with no flushing program is used, the procedure must be performed manually (evacuating, flushing 3 times with at least 4 kg refrigerant each, extracting the refrigerant, evacuating).

### 2 - Refrigerant hose of the A/C service station

- From the high pressure side of the A/C service station (mostly red) to the connection for the low pressure side of the compressor on the refrigerant circuit (larger diameter)

### 3 - Adapter for connecting low pressure side to refrigerant circuit

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **4 - Connection of low pressure side to refrigerant circuit**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

- On refrigerant line from compressor to reservoir

#### **5 - Connection to reservoir**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

- On refrigerant line from compressor to reservoir

#### **6 - Adapter for bridging removed reservoir**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **7 - Fill hose for refrigerant ⇒ [Adapter for Assembly of Flushing Circuits](#)**

- For example fill hose VAS 6338/31 (from the adapter case for VW/Audi passenger cars VAS 6338/1 )

#### **8 - Adapter for bridging removed reservoir**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **9 - Connection to reservoir**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

#### **10 - Evaporator**

#### **11 - Component location of restrictor**

- The restrictor is removed.

- Removing restrictor ⇒ Heating, Ventilation and Air Conditioning - Repair Group 87

#### **12 - Threaded connections in refrigerant line**

- Thread together again after removing restrictor ⇒ Heating, Ventilation and Air Conditioning - Repair Group 87

### 13 - Condenser

### 14 - Connection of high pressure side to refrigerant circuit

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

### 15 - Adapter for connection of high pressure side on refrigerant circuit

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- From the adapter case for VW/Audi passenger cars VAS 6338/1

### 16 - Fill hose to flushing device for refrigerant circuits

- From connection to high pressure side of compressor on refrigerant circuit (smaller diameter) to input of flushing device for refrigerant circuits.

### 17 - Flushing equipment for refrigerant circuits

- Different versions and different designs, e.g. flushing equipment for refrigerant circuits VAS 6336/1 or flushing equipment for refrigerant circuits VAS 6337/1
- With filter, sight glass, safety valve, heating, refrigerant vessel etc. (depending on version).
- Depending on the A/C service station design and the flushing device for refrigerant circuits, there may be a check valve installed at the output of the flushing device for refrigerant circuits (to ensure the correct flow direction of the refrigerant when flushing).

### 18 - Refrigerant hose of the A/C service station

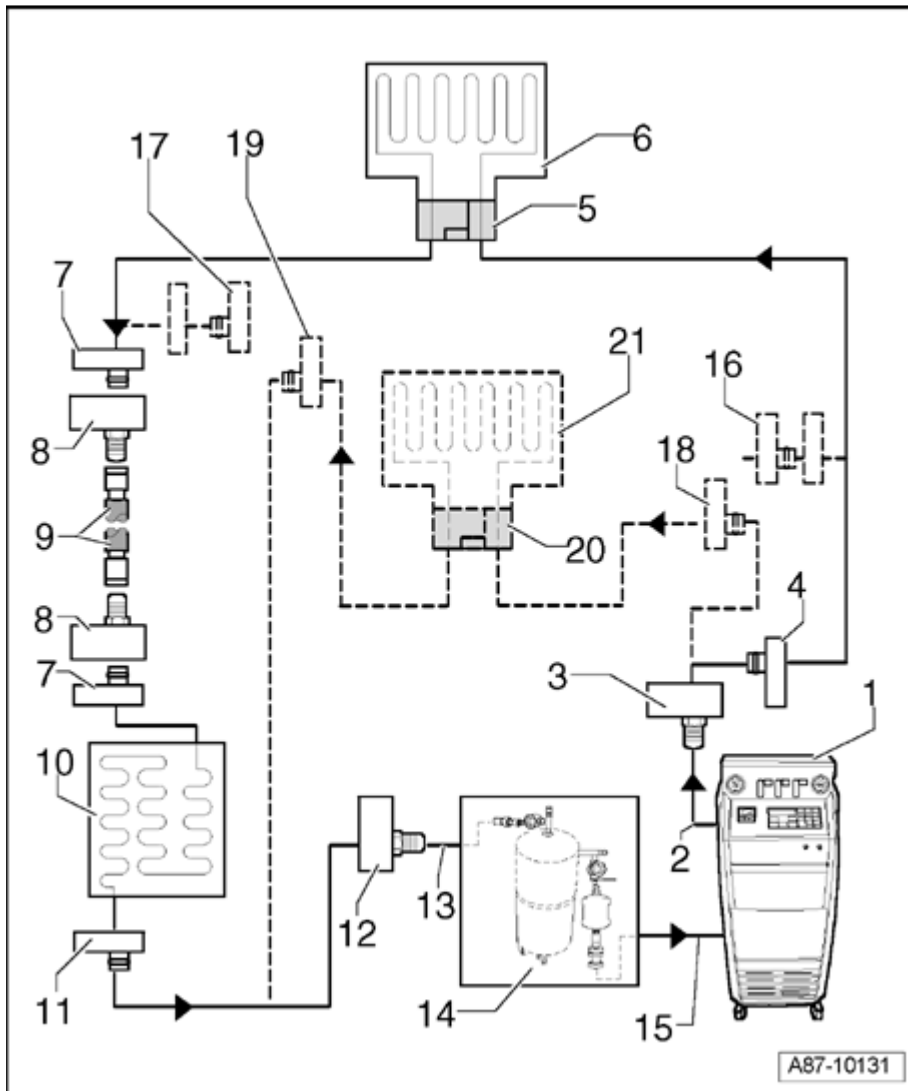
- From the low pressure side of the A/C service station (mostly blue) to the output of the flushing device for refrigerant circuits.

### Refrigerant circuit with expansion valve, fluid reservoir and second evaporator

#### Note:

- *This block diagram shows a refrigerant circuit with expansion valve, fluid reservoir and a second evaporator (optional equipment on certain vehicles).*
- *On vehicles with expansion valve and fluid reservoir, the expansion valve is removed and replaced by an adapter. Depending on the vehicle, the fluid reservoir is also removed and the connections to the fluid reservoir are connected by means of two adapters and a fill hose.*
- *On a vehicle with only one evaporator, components from item "16" are not present*

*or are not needed.*



### 1 - A/C service station

- With electronics and a program for flushing, e.g. A/C service station with flushing equipment VAS 6336 or A/C service station with flushing equipment VAS 6337
- If an A/C service station with no flushing program is used, the procedure must be performed manually (evacuating, flushing 3 times with at least 4 kg refrigerant each, extracting the refrigerant, evacuating).

### 2 - Refrigerant hose of the A/C service station

- From the high pressure side of the A/C service station (mostly red) to the connection for the low pressure side of the compressor on the refrigerant circuit (larger diameter)

### 3 - Adapter for connecting low pressure side to refrigerant circuit

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **4 - Connection of low pressure side to refrigerant circuit**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

#### **5 - Adapter for the removed expansion valve**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **6 - Evaporator**

#### **7 - Connection to fluid reservoir**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- Neither installed on vehicles with dryer cartridge in fluid reservoir at condenser nor with fluid reservoir installed in condenser ⇒ Heating, Ventilation and Air Conditioning - Repair Group 87 .

#### **8 - Adapter for bridging removed fluid reservoir**

- Not installed in all vehicles
- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- From the adapter case for VW/Audi passenger cars VAS 6338/1

#### **9 - Fill hose for refrigerant ⇒ [Adapter for Assembly of Flushing Circuits](#)**

- For example fill hose VAS 6338/31 (from the adapter case for VW/Audi passenger cars VAS 6338/1 )

#### **10 - Condenser**

- If a fluid reservoir with dryer cartridge is installed at the condenser, the dryer cartridge must be removed (reseal fluid reservoir at or in condenser) ⇒ Heating, Ventilation and Air Conditioning - Repair Group 87
- If the fluid reservoir is directly installed at the condenser, the fluid reservoir must be removed and replaced only after flushing ⇒ Heating, Ventilation and Air Conditioning - Repair Group 87

#### **11 - Connection of high pressure side to refrigerant circuit**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)

## **12 - Adapter for connection of high pressure side on refrigerant circuit**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- From the adapter case for VW/Audi passenger cars VAS 6338/1

## **13 - Fill hose to flushing device for refrigerant circuits**

- From connection to high pressure side of compressor on refrigerant circuit (smaller diameter) to input of flushing device for refrigerant circuits.

## **14 - Flushing equipment for refrigerant circuits**

- Different versions and different designs, e.g. flushing equipment for refrigerant circuits VAS 6336/1 or flushing equipment for refrigerant circuits VAS 6337/1
- With filter, sight glass, safety valve, heating, refrigerant vessel etc. (depending on version).
- Depending on the A/C service station design and the flushing device for refrigerant circuits, there may be a check valve installed at the output of the flushing device for refrigerant circuits (to ensure the correct flow direction of the refrigerant when flushing).

## **15 - Refrigerant hose of the A/C service station**

- From the low pressure side of the A/C service station (mostly blue) to the output of the flushing device for refrigerant circuits.

## **16 - Adapter to seal output to second evaporator**

- Only necessary on certain vehicles with optional equipment "second evaporator"
- From the adapter case for VW/Audi passenger cars VAS 6338/1

## **17 - Adapter to seal output to second evaporator**

- Only necessary on certain vehicles with optional equipment "second evaporator"
- From the adapter case for VW/Audi passenger cars VAS 6338/1

## **18 - Connection of low pressure side on refrigerant circuit to second evaporator**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- Only present on certain vehicles with optional equipment "second evaporator"

**19 - Connection of high pressure side on refrigerant circuit to second evaporator**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- Only present on certain vehicles with optional equipment "second evaporator"

**20 - Adapter for removed expansion valve at second evaporator**

- Different versions depending on vehicle ⇒ [Adapter for Assembly of Flushing Circuits](#)
- Only necessary on certain vehicles with optional equipment "second evaporator"
- From the adapter case for VW/Audi passenger cars VAS 6338/1

**21 - Second evaporator**

- Only present on certain vehicles with optional equipment "second evaporator"

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