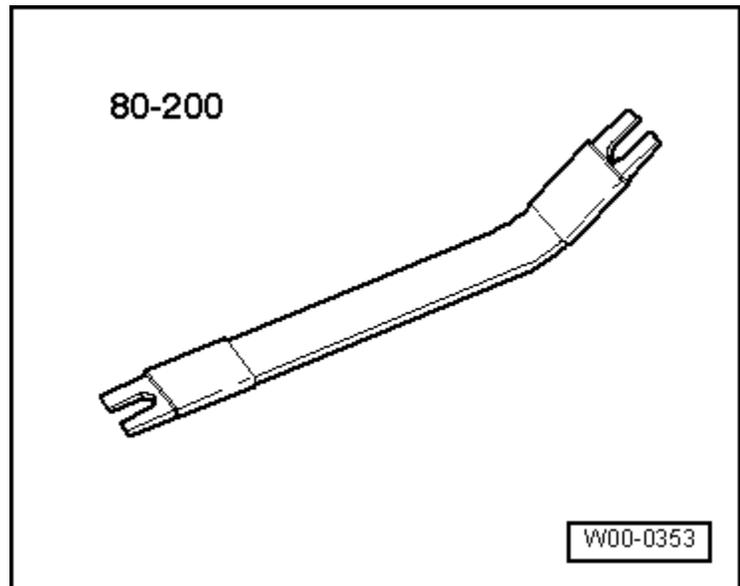


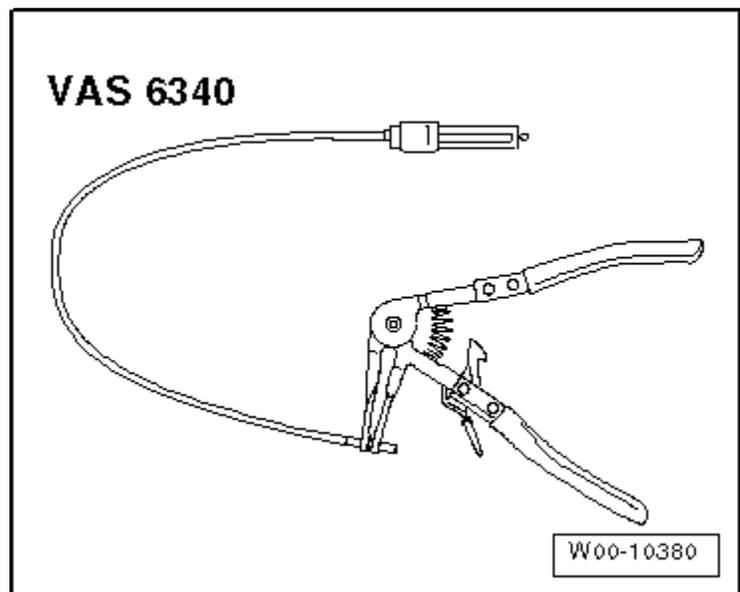
Removing and installing 4/2-way valve

Special tools and workshop equipment required

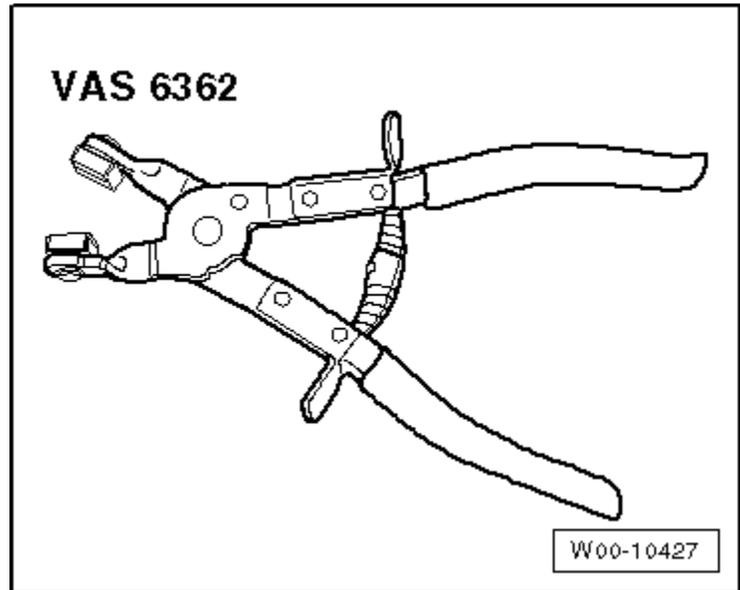
- ◆ Removal lever -80 - 200-



- ◆ Hose clip pliers -VAS 6340-

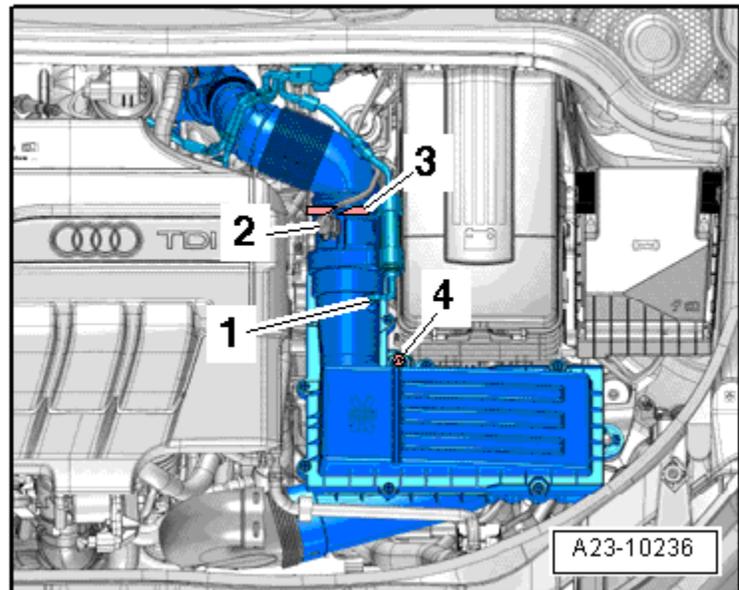


- ◆ Hose clip pliers -VAS 6362-

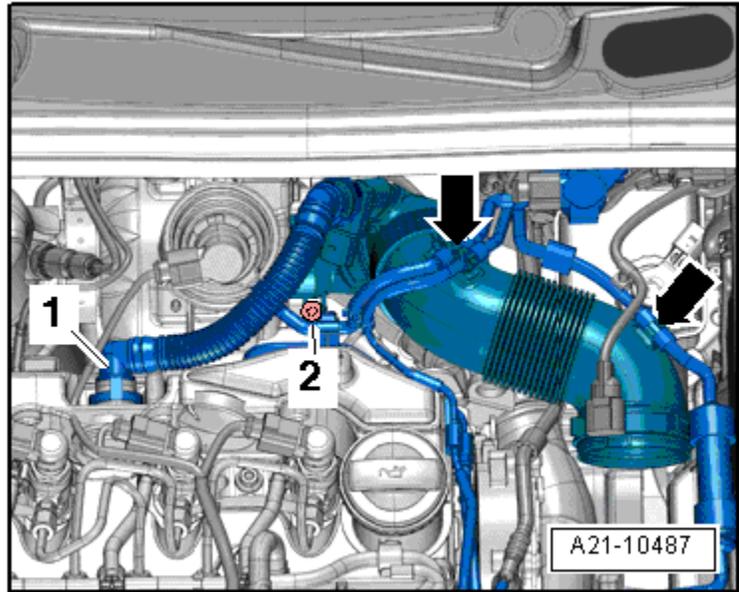


Removing

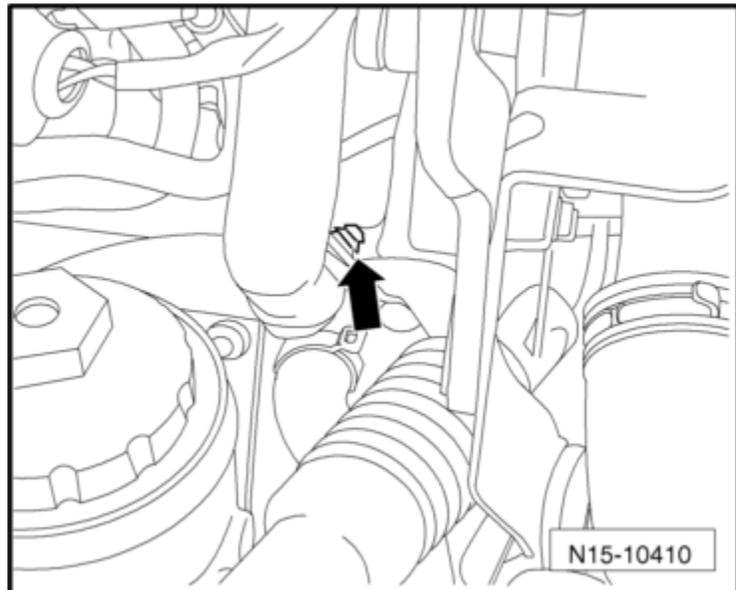
- Drain coolant → Chapter.
- Remove air cleaner housing → Rep. gr.23.



- Press release tabs and disconnect crankcase breather hose -1- from cylinder head cover.
- Move clear vacuum hoses -arrows- at air pipe.
- Remove bolt -2-, swivel air pipe with connection to rear and detach from turbocharger.



- Unclip wiring harness from retainer -arrow-.



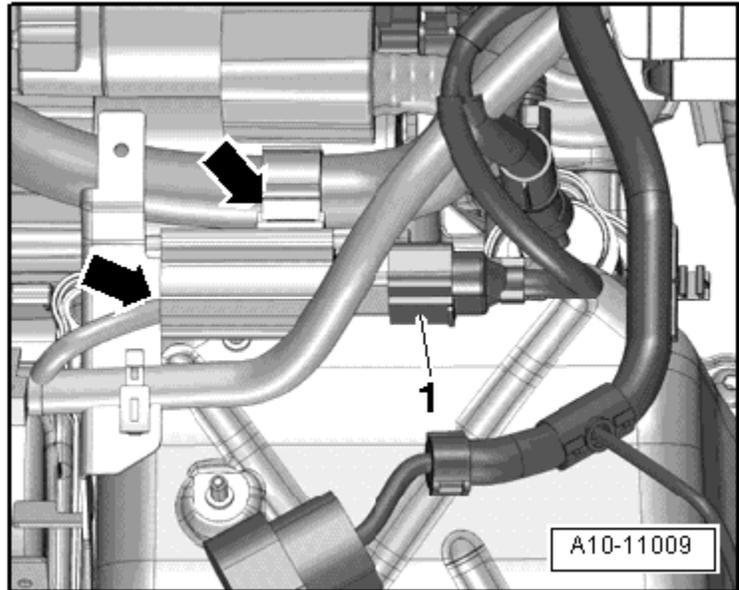


WARNING

Risk of injury as the radiator fans may start up automatically.

Even when the ignition is switched off, the radiator fans can start up without warning due to accumulated heat in the engine compartment, etc.

- Move clear wiring harnesses -arrows- and electrical connector -1- at bracket.

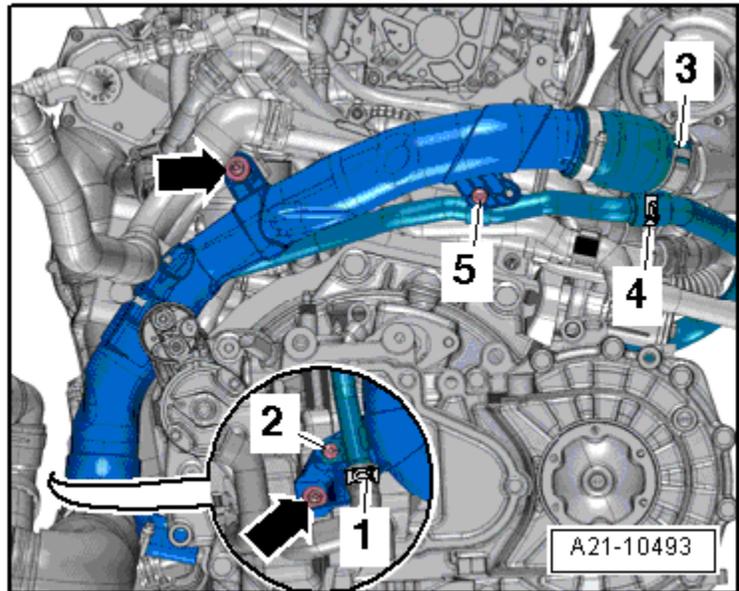


- Remove bolts -2, 5- and -arrows-.
- Using removal lever -80 - 200-, move clear electrical wiring and hoses at air pipe (left-side).
- Loosen hose clip -3- and detach air pipe (left-side).



Note

Disregard -items 1, 4-.

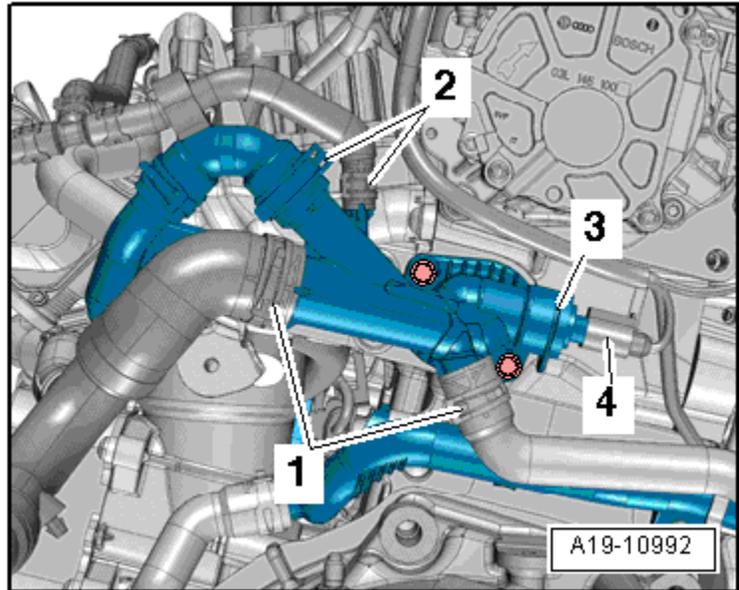


- Release hose clips -1- and detach coolant hoses.



Note

Disregard -items 2, 3, 4-.

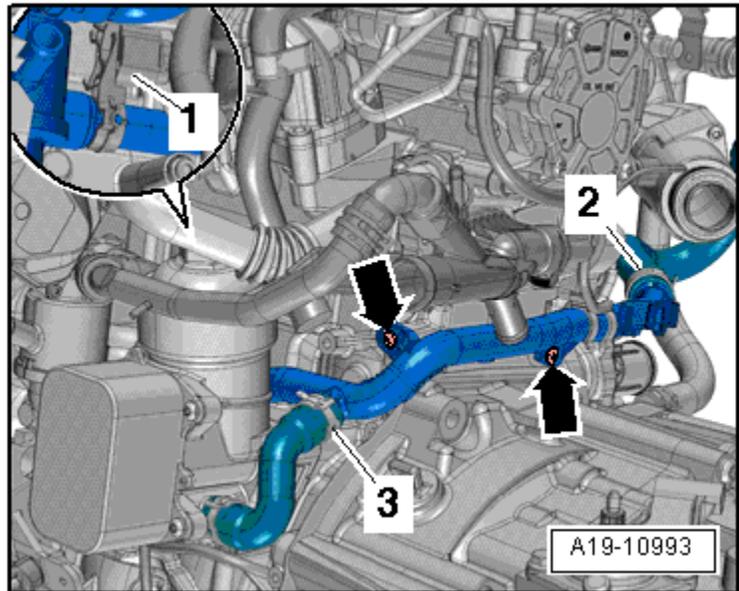


- Take electrical connector -1- for Hall sender -G40- out of retainer.
- Remove bolts -arrows-, pull off coolant pipe (front) from 4/2-way valve to left side and leave in installation position.

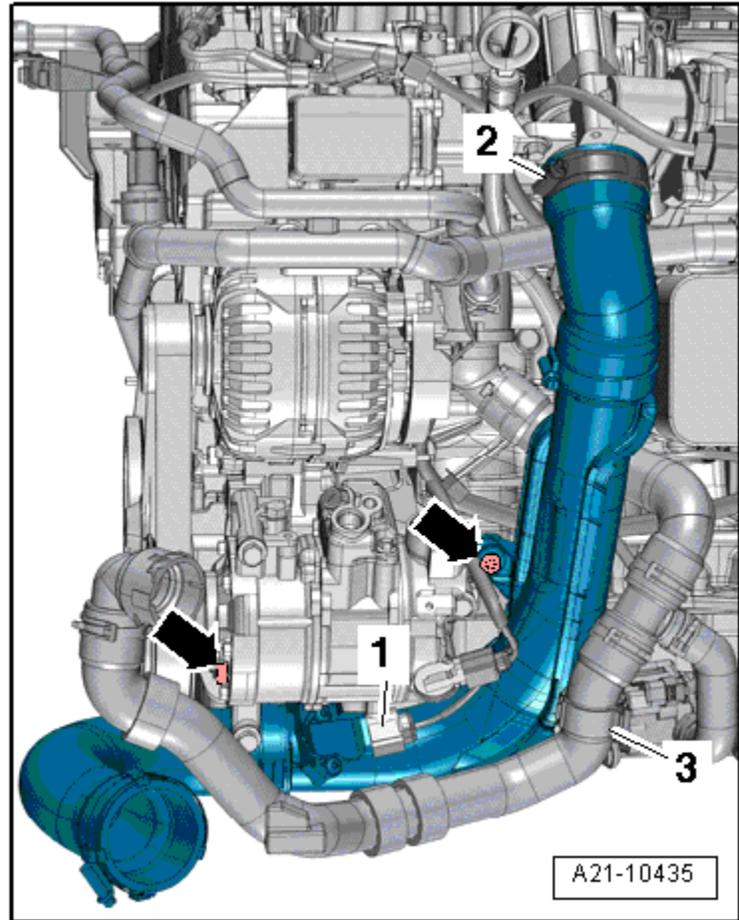


Note

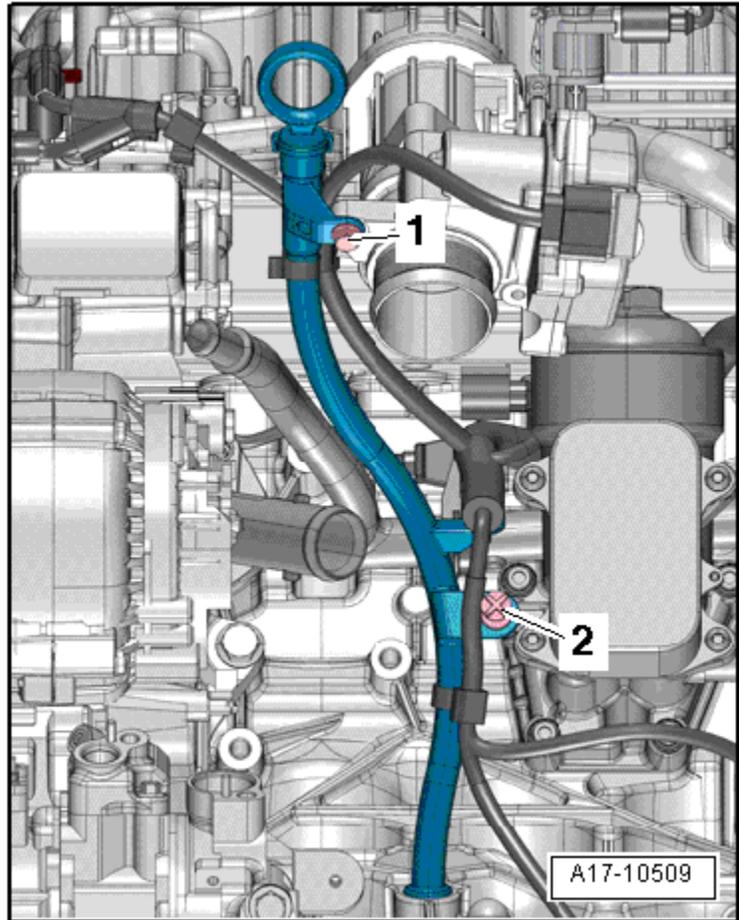
Disregard -items 2, 3-.



- Remove bolts -arrows-.
- Move coolant hose -3- clear.
- Loosen hose clip -2-.
- Unplug electrical connector -1- at charge pressure sender -G31-/intake air temperature sender -G42- and detach air pipe (right-side).



- Pull oil dipstick out slightly and remove bolt -1-.
- Release clip -2- with removal lever -80 - 200-.
- Pull guide tube for oil dipstick upwards out of cylinder block and push to one side.

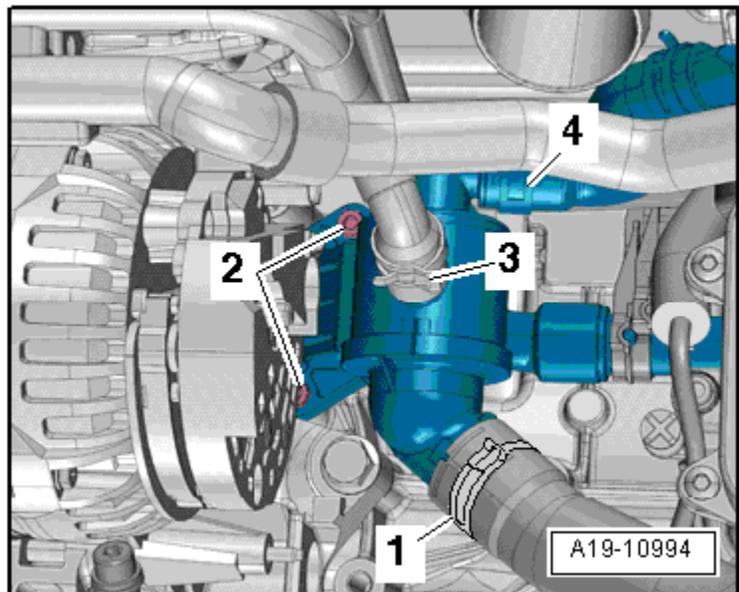


- Remove bolts -2-.
- Loosen hose clips -1, 3, 4-, detach coolant hoses and remove 4/2-way valve.

Installing

Installation is carried out in the reverse order; note the following:

- Tightening torque → Chapter „Coolant pump and 4/2-way valve - exploded view“
- Install dipstick guide tube → Chapter.
- Install coolant pipe (front) → Chapter.
- Install air pipes → Chapter.
- Install intake connecting pipe → Chapter.
- Electrical connections and routing → Current flow diagrams, Electrical fault finding and Fitting locations.
- Install battery mounting and battery → Electrical system; Rep. gr.27.
- Install air cleaner housing → Rep. gr.23.



- Install air hoses with screw-type clips
→ Fig..
- Fill up with coolant → Anchor.