

Volkswagen > GTI, Rabbit > 2006-2007**2.0 Liter 4-Cyl. 4V Turbo Engine Mechanical, Fuel Injection Ignition, Engine Code(s): BPY****19 - Cooling System Components**

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Cooling System, Draining and Filling**Special tools, testers and auxiliary items required**

- ♦ Adapter V.A.G 1274/8
- ♦ Drip tray V.A.G 1306
- ♦ Spring-type clip pliers VAS 5024A
- ♦ Cooling system charge unit VAS 6096

- ♦ Refractometer T10007

Coolant, Draining

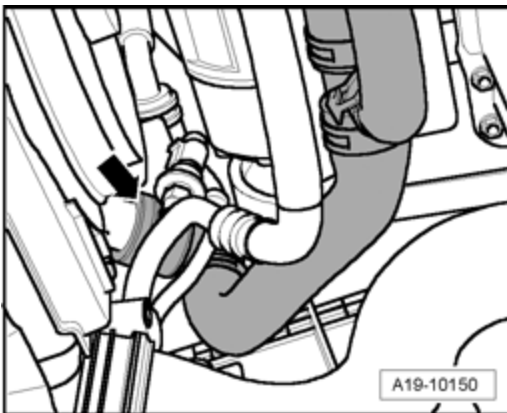
Note:

- ♦ *Drained coolant must be stored in a clean container for disposal or reuse.*
- ♦ *Follow disposal regulations.*

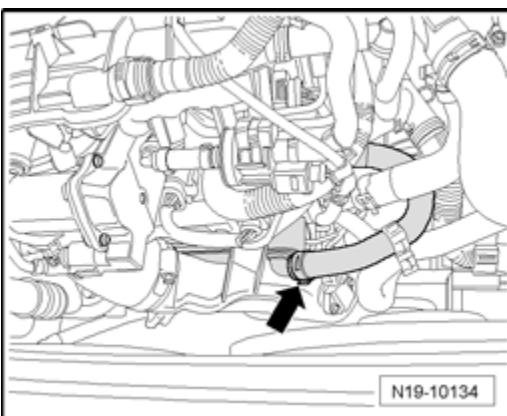
CAUTION!

Hot steam may escape when opening expansion tank. Wear protective goggles and protective clothing to prevent damage to eyes and scalding. Cover the cap with a rag and open very carefully.

- Open cap of coolant expansion tank.
- Remove noise insulation ⇒ Body Exterior - Repair Group 50 .



- Disengage quick acting coupling - **arrow** - and disconnect coolant hose from cooler.



- Also remove hose at oil cooler - **arrow** - .

Coolant, Filling

CAUTION!

Only use tap water for mixing. Well water does not have the quality necessary to ensure proper coolant function.

Note:

- ♦ *On vehicles from model year 2008, only coolant additive G 12 plus-plus conforming to TL VW 774 G may be used.*
- ♦ *On vehicles through model year 2007, coolant additive G 12 plus conforming to TL VW 774 F and G 12 plus-plus conforming to TL VW 774 G can be used.*
- ♦ *G 12 plus plus may be mixed with the previous coolant additive G12 plus. Both are colored purple.*
- ♦ *Coolant additives marked with "Conforms to TL VW 774 G" or "Conforms to TL VW 774 F" prevent freezing and corrosion damage and scaling and they increase the boiling point. For this reason the system must be filled all year round with frost and corrosion protection additives.*
- ♦ *Because of its high boiling point, the coolant improves engine reliability under heavy loads, particularly in countries with tropical climates.*
- ♦ *Freeze protection must be assured to about 25 degree C (in arctic climatic countries to about -35 degree C).*
- ♦ *The coolant concentration must not be reduced by adding water even in warmer seasons and in warmer countries. The coolant additive portion must be at least 40%.*
- ♦ *If for climatic reasons a greater frost protection is required, the amount of coolant additive of can be increased, but only up to 60% (frost protection to about -40 degree C), as otherwise frost protection is reduced again and cooling effectiveness is also reduced.*
- ♦ *The refractometer T10007 is recommended for determining freeze protection density.*
- ♦ *If radiator, heat exchanger, cylinder head or cylinder head gasket is replaced, do not reuse old coolant.*

Recommended mixture ratios:

Frost protection to	Anti-freeze amount	G 12 plus 1) G 12 plus-plus 1)	Water 1) 2)
-25 ° C -35 ° C	40% 50%	3.2 L 4.0 L	4.8L 4.0L

¹⁾ The quantity of coolant can vary depending upon the vehicle equipment.

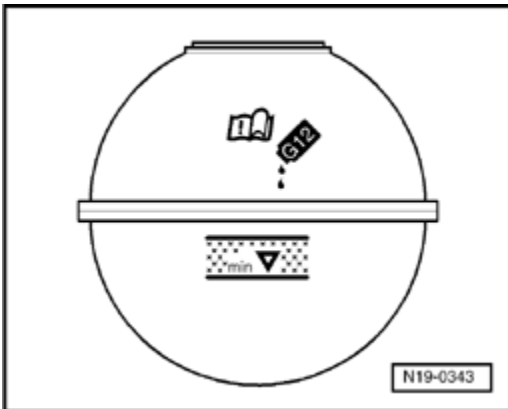
2) Only use clean tap water.

– Install noise insulation ⇒ Body Exterior - Repair Group 50 .

Using cooling system filler unit VAS 6096 :

- Screw adapter V.A.G 1274/8 on to expansion tank.
- Fill coolant circuit using cooling system filling unit VAS 6096 ⇒ Operating instructions for cooling system filler unit VAS 6096 .

Without cooling system filler unit VAS 6096 :



- Slowly fill coolant up to top marking of hatched area on expansion tank.
- Close expansion tank.

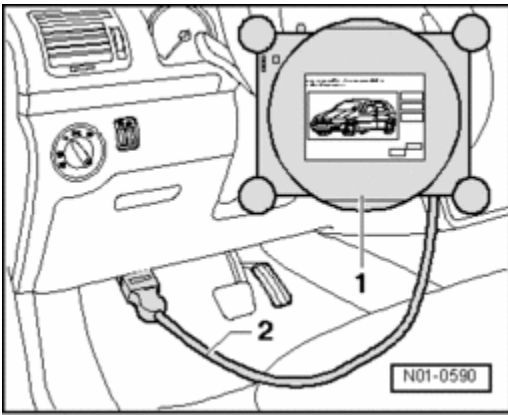
Vehicles without auxiliary heater

- Start engine and maintain an engine speed of about 2000 rpm for approximately 3 minutes.
- Allow engine to run until Coolant Fan V7 starts running.

Vehicles with auxiliary heater

CAUTION!

Auxiliary heater should only be switched on if coolant circuit is filled as described below.



- Connect vehicle diagnosis, testing and information system VAS 5051 A as follows:
- Connect diagnostic cable connector to Data Link Connector (DLC) in drivers footwell.
- Start engine and maintain an engine speed of about 2000 rpm for approximately 3 minutes.
- Press buttons for "Vehicle Self-Diagnosis" , "18 - Auxiliary Heater" and "Output Diagnostic Test Mode (DTM)" on display in succession.
- Press right arrow button on display until you reach Engine Coolant (EC) Switch-Off Valve (heater) N279 Output Diagnostic Test Mode (DTM).
- Now conduct Engine Coolant (EC) Switch-Off Valve (heater) N279 Output Diagnostic Test Mode (DTM). Continue to maintain 2000 RPM for approximately 1 min.
- Allow engine to run until Coolant Fan V7 starts running.

Continuation for all vehicles

CAUTION!

Hot steam may escape when opening expansion tank. Wear protective goggles and protective clothing to prevent damage to eyes and scalding. Cover the cap with a rag and open very carefully.

- Check coolant level and top off if necessary. With engine at operating temperature, coolant level must be at top marking, with engine cold, it must be in center of hatched area.

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