

Allow the engine to cool until the coolant temperature is less than 50°C.



Adjust the coolant fluid level to the "MAXIMUM" mark.



Refit the expansion bottle cap.

5. FINAL OPERATION



Remove the coolant recovery tray.



Proceed in the reverse order to removal.



[Repair-10x06x01-01x73-1-85-1.xml](#)



XSL version : 3.02 du 22/07/11

COOLING SYSTEM: DRAINING-REFILLING



Note, one or more warnings are present in this procedure



Special tooling required

Remote operation pliers for hose clips.

Mot. 1448

Instrument for testing the cooling circuit and the expansion bottle valve. Contains caps 554-01, 554-04, 554-06

Ms. 554-07

Set of trim removal levers.

Car. 1363

Fault finding and filling - bleeding the cooling circuit.

Mot. 1700

Equipment required

compressed air nozzle

coolant recovery tray

WARNING

When working in the engine compartment, take care as the radiator fan(s) may start up unexpectedly (risk of being cut).

 To avoid any risk of serious burns when the engine is hot:



do not open the expansion bottle cap,

do not drain the cooling system,

do not open the bleed screw(s).



CAUTION

Prepare for the flow of fluid, and protect the surrounding components.

CAUTION

When carrying out a repair that requires a complete change, it is essential to flush the circuit with clean water, blast compressed air through the circuit to drive out the water, fill and bleed the circuit and then measure the effective protection.



The criteria to be met are:



■ protection down to $-25^{\circ}\text{C} \pm 2$ for cold and temperate countries,



■ protection down to $-40^{\circ}\text{C} \pm 2$ for "extreme cold" countries.

Location and specifications (tightening torques, parts always to be replaced, etc.) ([see 19A, Cooling, Coolant circuit assembly: Exploded view](#)) .

1. DRAINING



Position the vehicle on a two-post lift ([Vehicle: Towing and lifting](#)) .



Remove:



■ the expansion bottle cap ([see 19A, Cooling, Coolant circuit assembly: Exploded view](#)) ,



■ the engine undertray.



Position the coolant recovery tray under the vehicle.



Remove the cooling radiator outlet pipe clip ([see 19A, Cooling, Coolant circuit assembly: Exploded view](#)) using the tool Remote operation pliers for hose clips. ([Mot. 1448](#)) .



Open the cooling system by removing the cooling radiator outlet pipe ([see 19A, Cooling, Coolant circuit assembly: Exploded view](#)) using the tool Set of trim removal levers. ([Car. 1363](#)) .

■ Use a compressed air nozzle to blow air into the system through the expansion bottle opening to remove as much coolant as possible.

2. CLEANING

■ Fill the cooling system with water through the expansion bottle.

■ Let the water run until the water collected by the cooling radiator outlet pipe becomes clear.

■ Use a compressed air nozzle to blow air into the circuit through the expansion bottle opening to remove as much water as possible.

■ Refit the previously removed hoses.

3. FILLING

Note:



There are two procedures for filling the cooling system:



■ the procedure using the tool Fault finding and filling - bleeding the cooling circuit. (Mot. 1700) recommended by Renault which saves a considerable amount of time as the cooling system bleed screws do not need to be opened,



the procedure without a special tool.

1- FILLING PROCEDURE USING THE TOOL (MOT. 1700)



Fill the cooling system with engine coolant recommended by the manufacturer [Vehicle: Parts and consumables for the repair](#) using the tool Fault finding and filling - bleeding the cooling circuit. (Mot. 1700) .

For the use of this tool [Cooling system filling and diagnostic tool: Use](#) .



CAUTION

It is essential to open all of the bleed screws to remove as much as air as possible in the cooling system. Failure to perform this procedure may prevent the cooling system from filling properly and may damage the engine.

Open the bleed hole on [\(see 19A, Cooling, Coolant circuit assembly: Exploded view\)](#) :

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- the water chamber,
- the heater matrix coolant outlet pipe.

Fill the engine cooling system via the expansion bottle with coolant recommended by the manufacturer until it overflows [\(see 19A, Cooling, Engine cooling system: Specifications\)](#) .

Fill the expansion bottle until it overflows.

Close all the bleed screws as soon as the coolant starts to flow in a continuous stream.

Pressurise the system using the toolInstrument for testing the cooling circuit and the expansion bottle valve. Contains caps 554-01, 554-04, 554-06([Ms. 554-07](#)) to check that there are no leaks [Engine cooling system: Check](#) .

Tighten the expansion bottle cap.

Clean any surfaces soiled by the coolant.



CAUTION

Do not open the bleed screw whilst the engine is running; this would damage the engine.



Deactivate the air conditioning system so that the engine cooling fan is not operating from the start of the operation.



Start the engine.



Maintain an engine speed of 1500 rpm, until the fan assembly starts for the second time.



Check that the heating is operating correctly.



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