

COOLING RADIATOR: REMOVAL - REFITTING



Note, one or more warnings are present in this procedure



Special tooling required

Remote operation pliers for hose clips.

Mot. 1448



WARNING

■ To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair:

- [Vehicle: Precautions for the repair](#) .



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

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.



CAUTION

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

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

REMOVAL

1. REMOVAL PREPARATION OPERATION

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

WARNING

DANGER: HIGH VOLTAGE VEHICLE.



Risks of serious burns or electric shocks that may prove fatal.

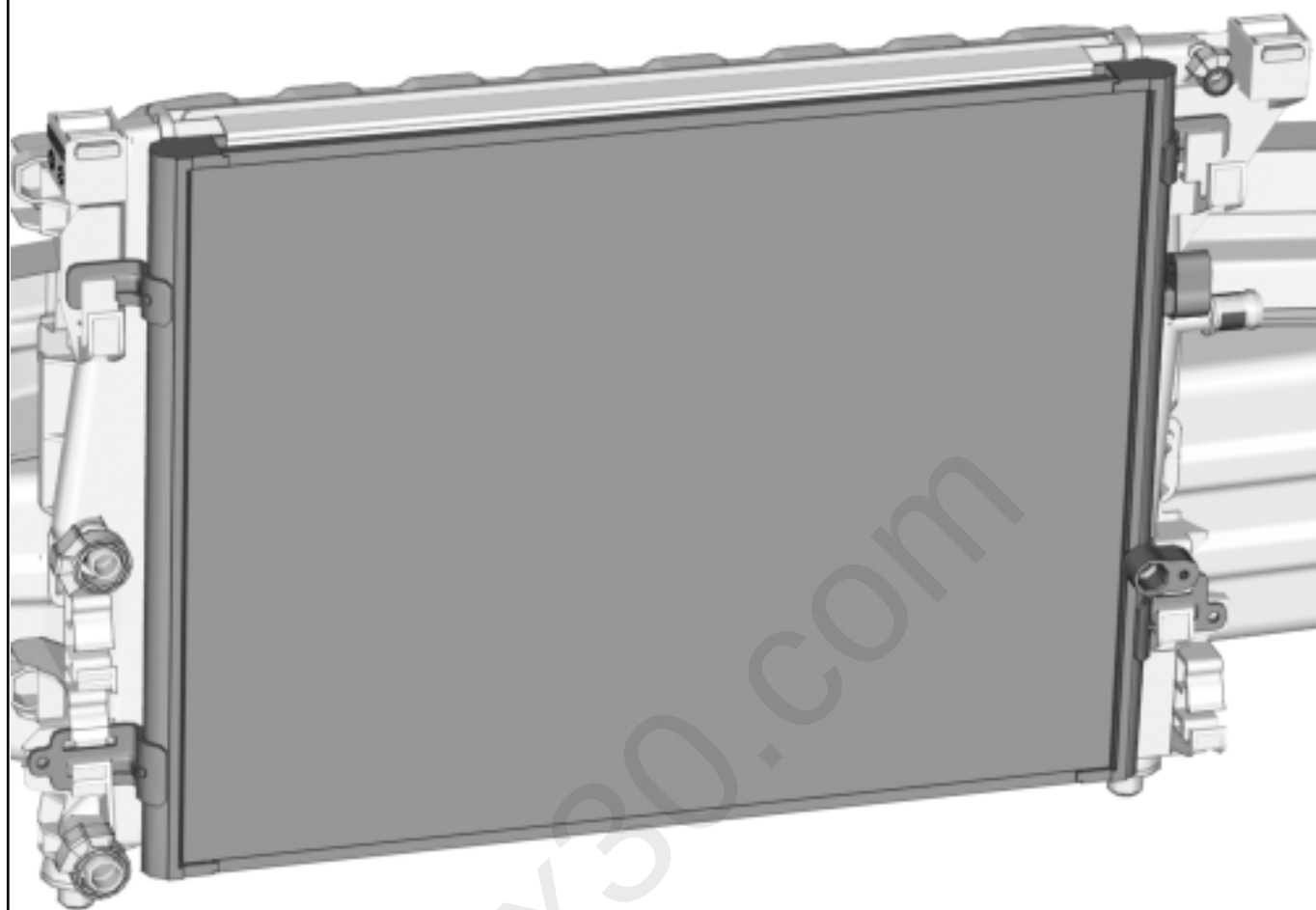
Before carrying out any work on the vehicle, it is essential that you follow the instructions regarding vehicle lockout. This work must be carried out by an employee who is qualified and authorised to work on a high-voltage onboard network[Vehicle: Precautions for the repair](#) .

- Lockout the vehicle[Vehicle: Lockout - Removal of lockout](#) .

- Remove:

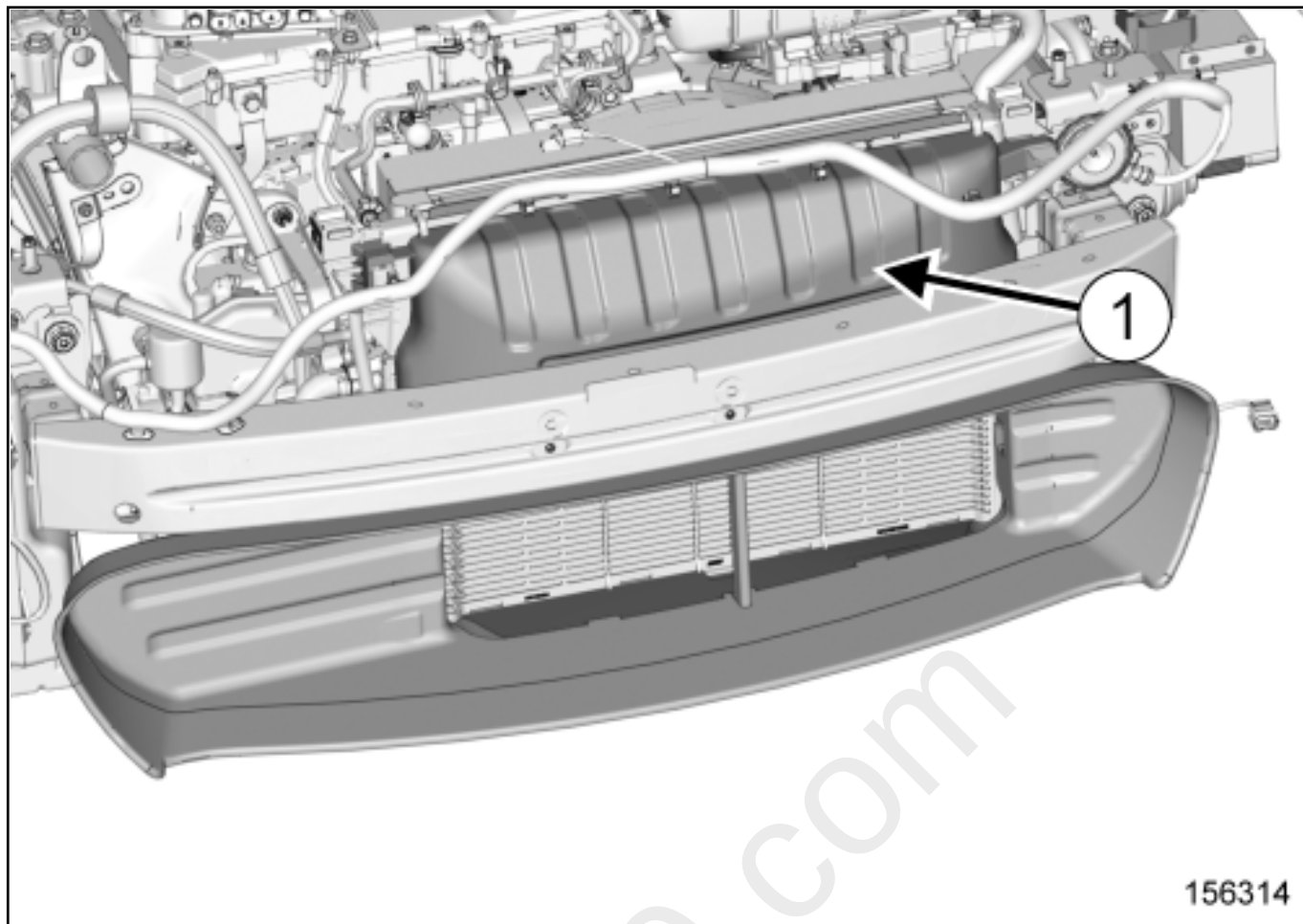
- the engine undertray,
- the front wheels[Front hub carrier assembly: Exploded view](#) ,
- the front section of the front wheel arch liners[Exterior body front trim assembly: Exploded view](#) ,
- the front bumper[Front bumper assembly: Exploded view](#) ,
- the headlights(see **Front signals - lighting assembly: Exploded view**) ,
- the engine cooling fan assembly[\(see 19A, Cooling, Coolant circuit assembly: Exploded view\)](#) .

- Drain the cooling system[\(see 19A, Cooling, Cooling system: Draining - Refilling\)](#) .



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- Unclip the air conditioning condenser from the cooling radiator.
- Move the air conditioning condenser.



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- Unclip the wiring from the upper air deflector(1) .
- Remove:
 - the lower air deflector,
 - the upper air deflector.
- Unclip air conditioning solenoid valve connector from the cooling radiator.

2. REMOVAL OPERATION

- Separate the clips using the tool Remote operation pliers for hose clips.(Mot. 1448) from [\(see 19A, Cooling, Coolant circuit assembly: Exploded view\)](#) :
 - the hose between cooling radiator and electric traction reduction gearing,
 - the degassing hose,
 - the hose between cooling radiator and expansion bottle,
 - the hose between cooling radiator and electric coolant pump.
- Disconnect [\(see 19A, Cooling, Coolant circuit assembly: Exploded view\)](#) :
 - the hose between cooling radiator and electric traction reduction gearing,
 - the degassing hose,
 - the hose between cooling radiator and expansion bottle,
 - the hose between cooling radiator and electric coolant pump.

- Unclip the hose between cooling radiator and electric traction reduction gearing.
- Remove the cooling radiator([see 19A, Cooling, Coolant circuit assembly: Exploded view](#)) .

REFITTING

1. REFITTING OPERATION

- Proceed in the reverse order to removal.
- Remove the lockout of the vehicle([Vehicle: Lockout - Removal of lockout](#)) .
- Fill and bleed the cooling system([see 19A, Cooling, Cooling system: Draining - Refilling](#)) .



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XSL version : 3.02 du 22/07/11