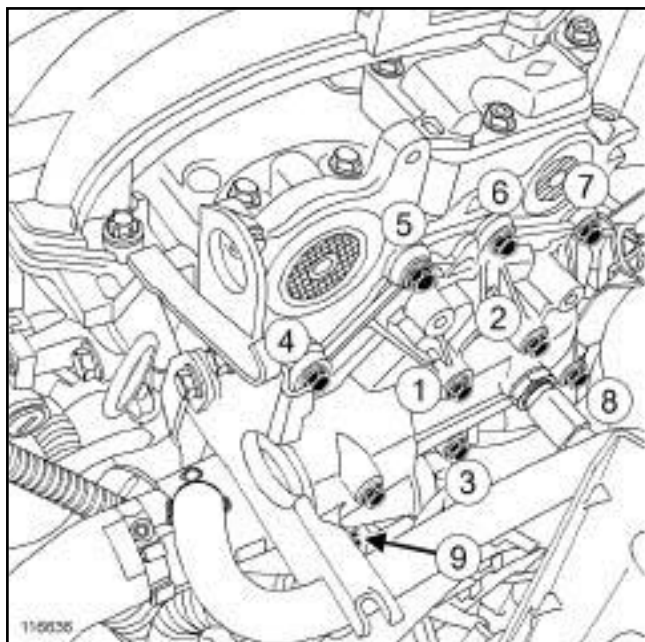


Water chamber: Removal - Refitting

K4M



116636

- ☐ Screw on the water chamber bolts without tightening them.
- ☐ Torque tighten in order:
 - the **coolant outlet unit bolts (initial torque) (4 N.m)**,
 - the **water chamber bolts (12 N.m)**.

III - FINAL OPERATION

- ☐ Connect:
 - the coolant temperature sensor,
 - the expansion bottle hose,
 - the passenger compartment heater hose,
 - the top hose to the water chamber.
- ☐ Refit the air resonator (see **12A, Fuel mixture, Air resonator: Removal - Refitting**, page 12A-2) .
- ☐ Fill the cooling system (see **19A, Cooling, Cooling system: Draining - Refilling**, page 19A-6) .
- ☐ Connect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Bleed the cooling system (see **19A, Cooling, Cooling system: Draining - Refilling**, page 19A-6) .

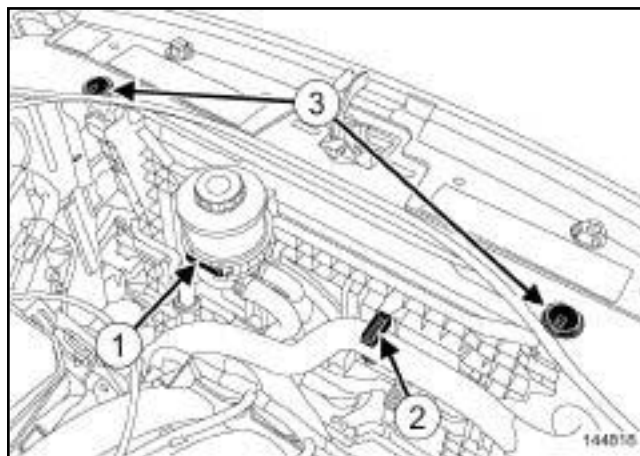
K4M

REMOVAL

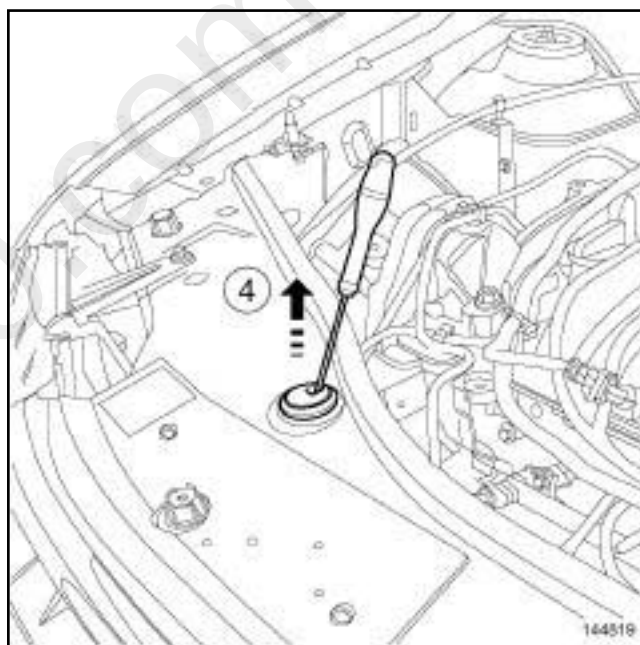
I - REMOVAL PREPARATION OPERATION

- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Remove:
 - the injector rail protector (see **13B, Diesel injection, Injector rail: Removal - Refitting**, page **13B-25**) ,
 - the air resonator (see **12A, Fuel mixture, Air resonator: Removal - Refitting**, page **12A-2**) .

II - REMOVAL OPERATION



144818



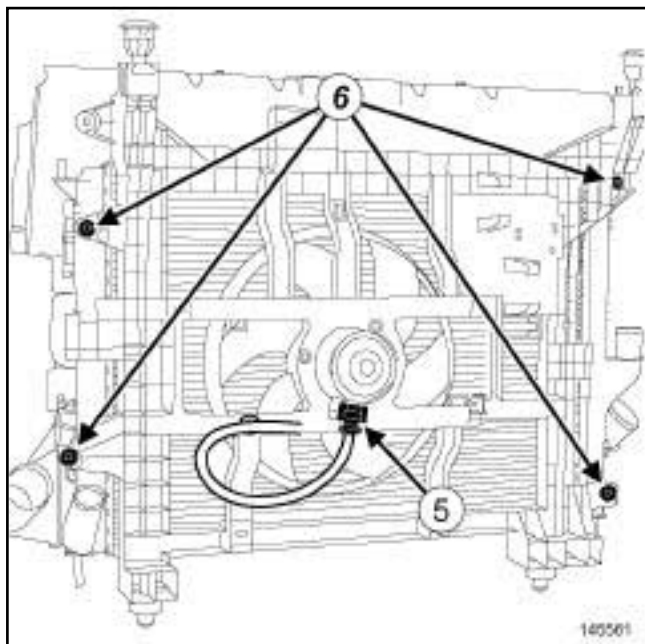
144819

- ☐ Unclip:
 - the power-assisted steering hoses on the fan assembly,
 - the power-assisted steering fluid reservoir from its support at (1) ,
 - the engine coolant hose at (2) .
- ☐ Press on the clips of the centring pins (3) on the engine cooling fan assembly using a screwdriver and pull them according to the direction of the arrow (4) .
- ☐ Secure the power-assisted steering fluid reservoir to the engine.
- ☐ Remove the power assisted steering fluid reservoir bracket.

Engine cooling fan assembly: Removal - Refitting

K4M

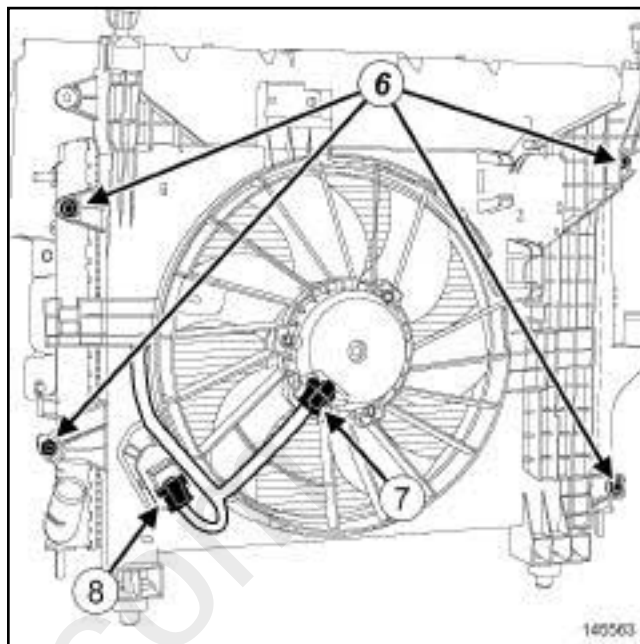
STANDARD HEATING RECIRCULATION



145561

- ☐ Disconnect the cooling fan assembly connector (5) .
- ☐ Unclip the engine cooling fan assembly wiring.
- ☐ Move aside the wiring of the engine cooling fan assembly.
- ☐ Remove the engine cooling radiator bolts (6) .

AIR CONDITIONING

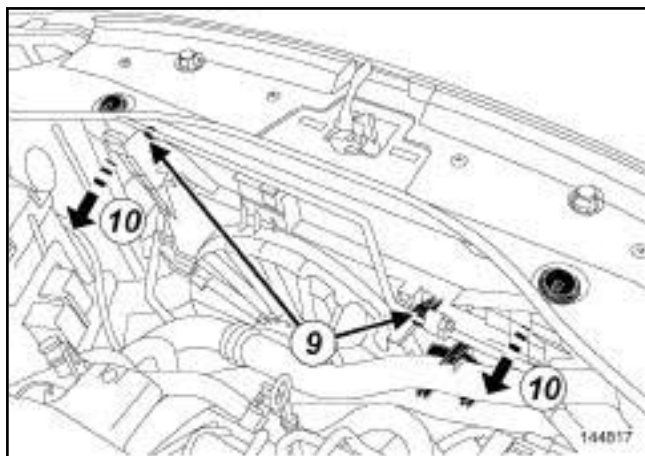


145563

- ☐ Disconnect:
 - the engine cooling fan assembly connector (7) ,
 - the engine cooling fan assembly resistor connector (8) .
- ☐ Unclip the engine cooling fan assembly wiring.
- ☐ Move aside the wiring of the engine cooling fan assembly.
- ☐ Remove the engine cooling radiator bolts (6) .

Engine cooling fan assembly: Removal - Refitting

K4M



- ☐ Unclip the « condenser - expansion valve » connecting pipe at (9) .

WARNING

In order to avoid any refrigerant leaks, do not damage (defom, twist, etc.) the pipe.

- ☐ Pull the fan assembly according to the arrows (10) passing it under the «condenser - expansion valve » connecting pipe.

☐
Note:

Do not damage the cooling unit vanes (radiator, condenser, etc.) during handling.

- ☐ Remove the engine cooling fan assembly from above the vehicle.

In the event of replacement

- ☐ Remove from the fan assembly:
 - the power-assisted steering hose clips,
 - the wiring clip.

REFITTING**I - REFITTING PREPARATION OPERATION****In the event of replacement**

- ☐ Refit on the fan assembly:
 - the power-assisted steering hose clips,
 - the wiring clip.

II - REFITTING OPERATION

- ☐ Proceed in the reverse order to removal.
- ☐ Connect the battery (see **Battery: Removal - Refitting**) (80A, Battery).

III - CHECKING THE OPERATION OF THE FAN UNIT

- ☐ Start the engine.
- ☐ Disconnect the coolant temperature sensor connector.
- ☐ Check the operation of the fan assembly.
- ☐ Connect the coolant temperature sensor connector.
- ☐ Switch off the engine.

Engine cooling fan assembly: Removal - Refitting

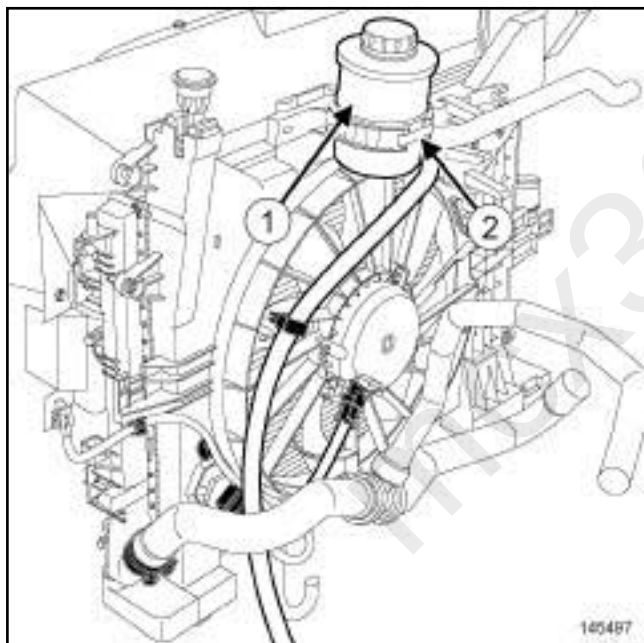
K9K

REMOVAL

I - REMOVAL PREPARATION OPERATION

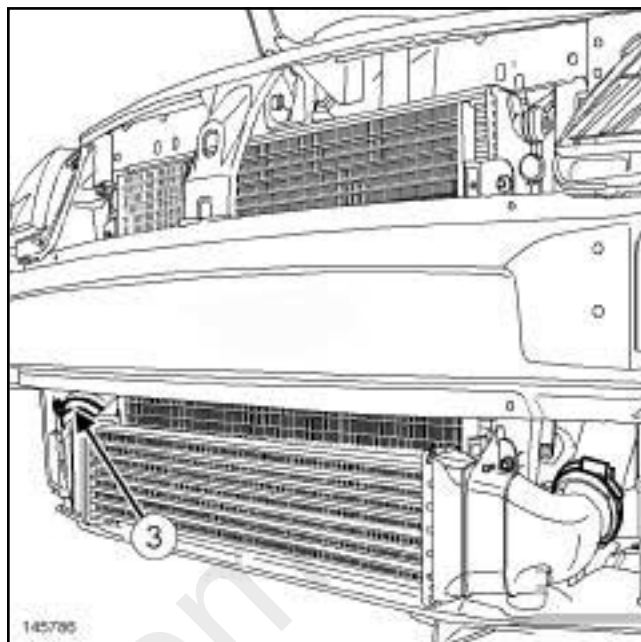
- ☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (02A, Lifting equipment).
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Remove:
 - the engine cover,
 - the air intake sleeve,
 - the front bumper (see **Front bumper assembly: Exploded view**) (55A, Exterior protection).

STANDARD HEATING RECIRCULATION



145497

- ☐ Unclip:
 - the power-assisted steering hoses on the fan assembly,
 - the power-assisted steering fluid reservoir (1) from its support at (2) .
- ☐ Secure the power-assisted steering fluid reservoir to the engine.
- ☐ Remove the power assisted steering fluid reservoir bracket.

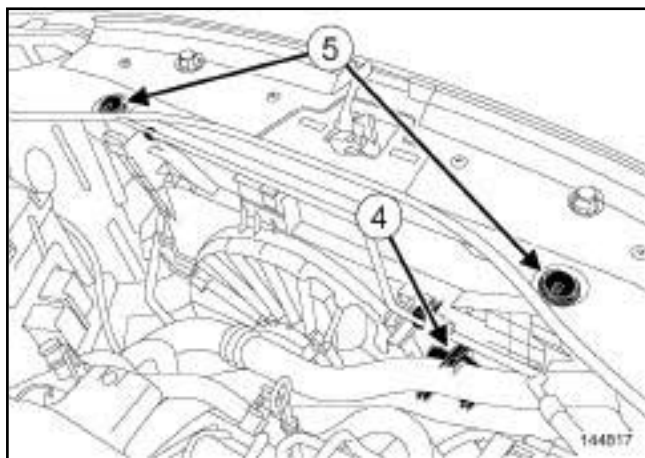


145786

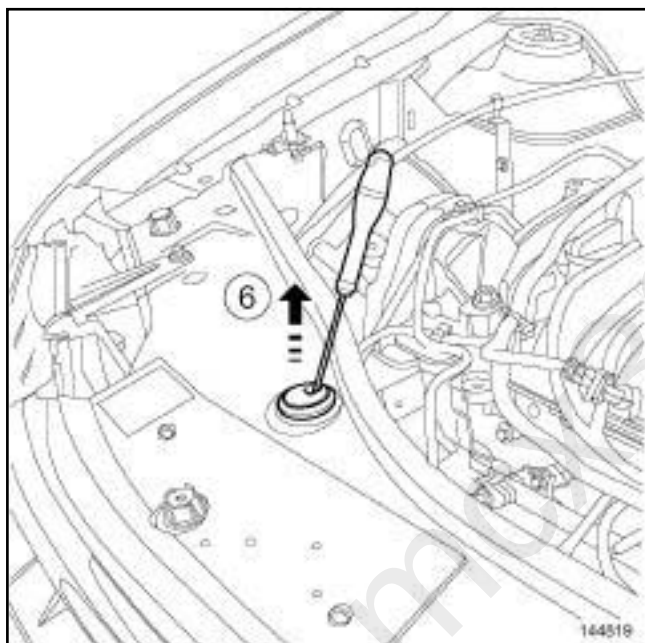
- ☐ Disconnect the intercooler duct at (3) .

K9K

II - REMOVAL OPERATION



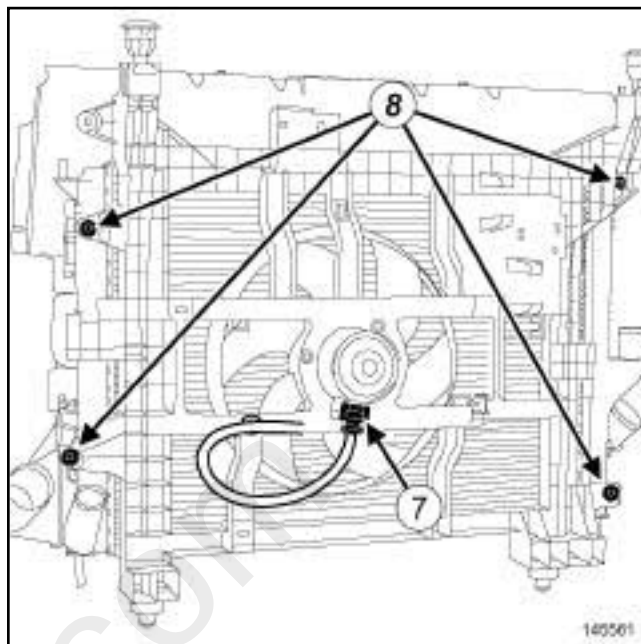
144817



144819

- ☐ Unclip the following from the support (4) :
 - the intercooler duct on the fan assembly,
 - the engine coolant hose.
- ☐ Press on the clips of the centring pins (5) on the engine cooling fan assembly using a screwdriver and pull them according to the direction of the arrow (6) .

STANDARD HEATING RECIRCULATION

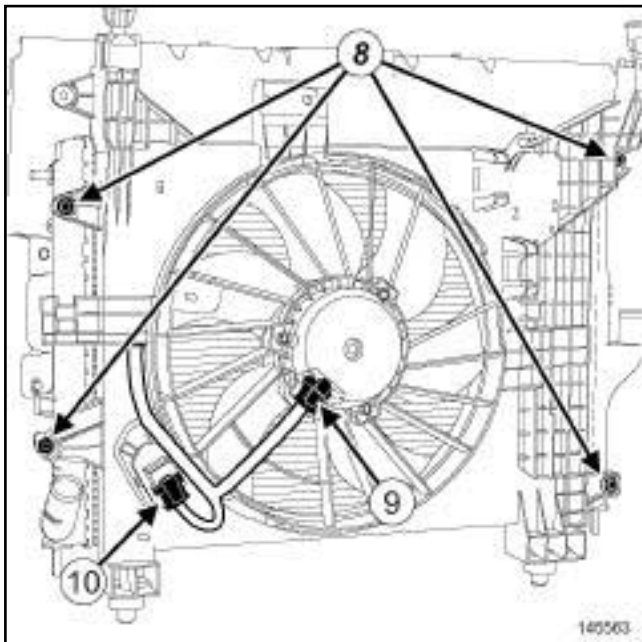


145561

- ☐ Disconnect the cooling fan assembly connector (7) .
- ☐ Unclip the engine cooling fan assembly wiring.
- ☐ Move aside the wiring of the engine cooling fan assembly.
- ☐ Remove the engine cooling radiator bolts (8) .

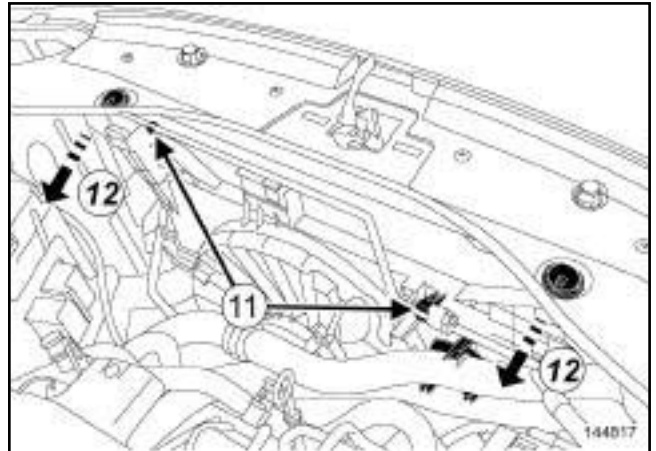
K9K

AIR CONDITIONING



145563

- ☐ Disconnect:
 - the engine cooling fan assembly connector (9) ,
 - the engine cooling fan assembly resistor connector (10) .
- ☐ Unclip the engine cooling fan assembly wiring.
- ☐ Move aside the wiring of the engine cooling fan assembly.
- ☐ Remove the engine cooling radiator bolts (8) .



144817

- ☐ Unclip the « condenser - expansion valve » connecting pipe at (11) .

WARNING

In order to avoid any refrigerant leaks, do not damage (deform, twist, etc.) the pipe.

- ☐ Pull the fan assembly according to the arrows (12) passing it under the «condenser - expansion valve » connecting pipe.

☐**Note:**

Do not damage the cooling unit vanes (radiator, condenser, etc.) during handling.

- ☐ Remove the engine cooling fan assembly from above the vehicle.

In the event of replacement

- ☐ Remove from the fan assembly:
 - the power-assisted steering hose clips,
 - the wiring clip,
 - the support of the intercooler duct and coolant hose on the fan assembly.