

FUEL MIXTURE

Damper valve: Removal - Refitting

12A

K9K

REFITTING

I - REFITTING PREPARATION OPERATION

- ☐ Check the condition of the contact surfaces.

II - REFITTING OPERATION FOR PART CONCERNED

- ☐ Refit:
 - a new seal,
 - the damper valve,
 - the damper valve mounting nuts,
 - the connector to the damper valve.
- ☐ Torque tighten the **damper valve mounting nuts (12 N.m)**.

III - FINAL OPERATION

- ☐ Refit:
 - the damper valve bracket,
 - the damper valve bracket mounting bolts,
 - the damper valve duct,
 - the outer air inlet duct.
- ☐ Connect the battery (see **Battery: Removal - Refitting**) .

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

D4F, and 740 or 742 or 764

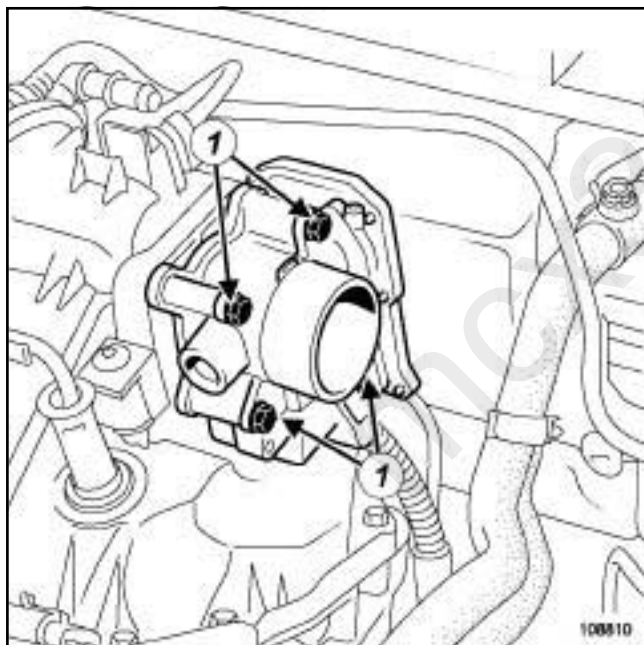
Tightening torques 	
motorised throttle valve mounting bolts	9 N.m

REMOVAL

I - REMOVAL PREPARATION OPERATION

- ☐ Disconnect the battery (see **Battery: Removal - Refitting**).
- ☐ Remove the air filter unit (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page 12A-17).
- ☐ Disconnect the motorised throttle valve connector.

II - OPERATION FOR REMOVAL OF PART CONCERNED



108810

- ☐ Remove:
 - the motorised throttle valve mounting bolts (1),
 - the motorised throttle valve,
 - the motorised throttle valve seal.

REFITTING

I - REFITTING PREPARATION OPERATION

- ☐ Be sure to replace the seal.

II - REFITTING OPERATION FOR PART CONCERNED

- ☐ Refit:
 - the motorised throttle seal.
 - the motorised throttle valve,
 - the motorised throttle valve mounting bolts,
- ☐ Torque tighten the **motorised throttle valve mounting bolts (9 N.m)**.

III - FINAL OPERATION.

- ☐ Connect the motorised throttle valve connector.
- ☐ Refit the air filter box (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page 12A-17).
- ☐ Connect the battery (see **Battery: Removal - Refitting**).
- ☐ Reinitialise the programming for the stops (see **MR 394 Fault finding, 17B, Replacement of components, Motorised throttle valve replacement operation**).

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

K4J or K4M

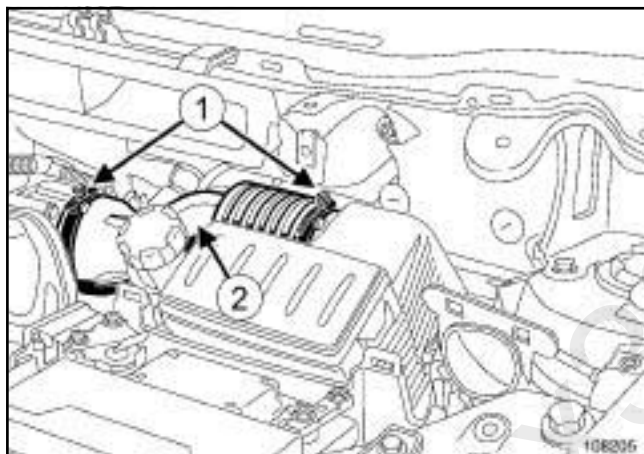
Tightening torques 	
throttle valve bolts	10 N.m
inlet duct clips	6 N.m

REMOVAL

I - REMOVAL PREPARATION OPERATION

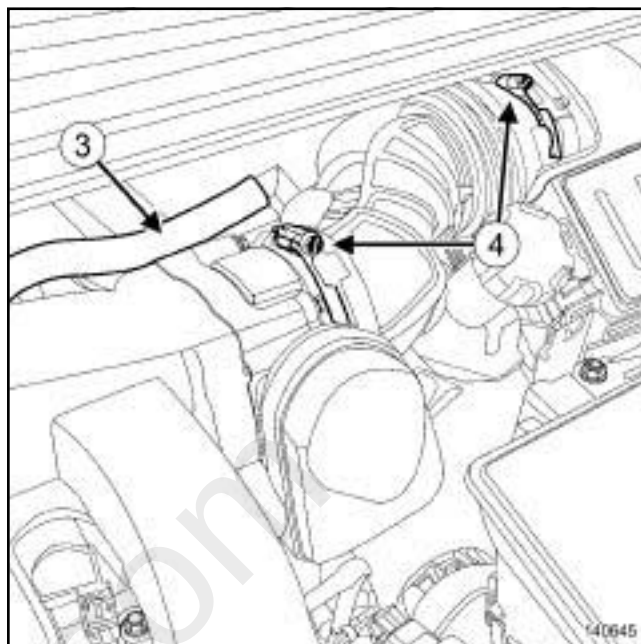
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).

K4J – K4M, and 800 or 801 or 804

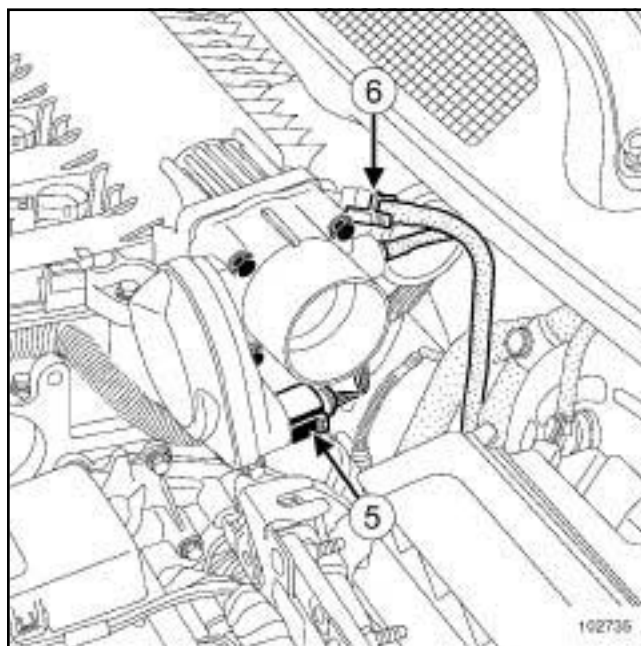


- ☐ Remove:
 - the air inlet duct clips (1) ,
 - the air inlet duct (2) .

K4M, and 862



- ☐ Remove:
 - the oil vapour rebreathing pipe (3) ,
 - the air inlet duct clips (4) ,
 - the air inlet duct.



- ☐ Disconnect:
 - the throttle valve connector (5) ,

FUEL MIXTURE

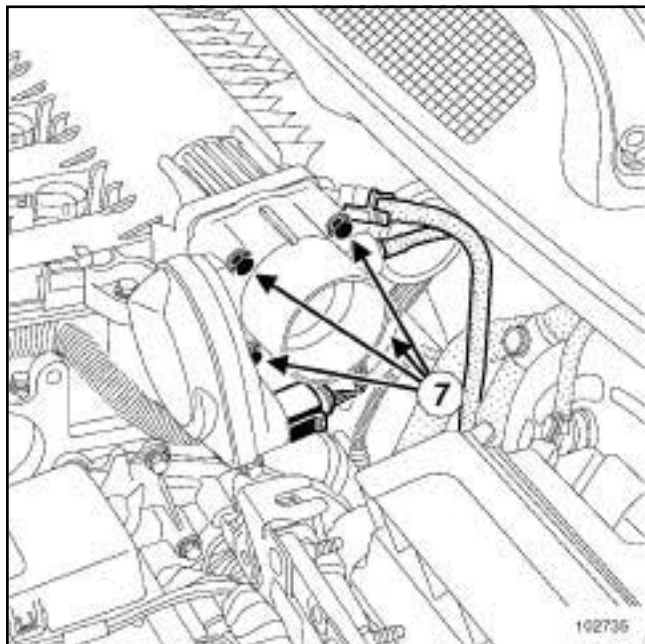
Throttle valve: Removal - Refitting

12A

K4J or K4M

- the fuel vapour recirculation solenoid valve pipe (6)

II - OPERATION FOR REMOVAL OF PART CONCERNED



❑ Remove:

- the throttle valve bolts (7) ,
- the throttle valve.

REFITTING

I - REFITTING PREPARATION OPERATION

- ❑ parts always to be replaced: Throttle valve seal (11,04,06,25).

- ❑ Use **SURFACE CLEANER** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to clean and degrease:

- the throttle valve joint face if it is to be re-used,
- the inlet distributor seal housing.

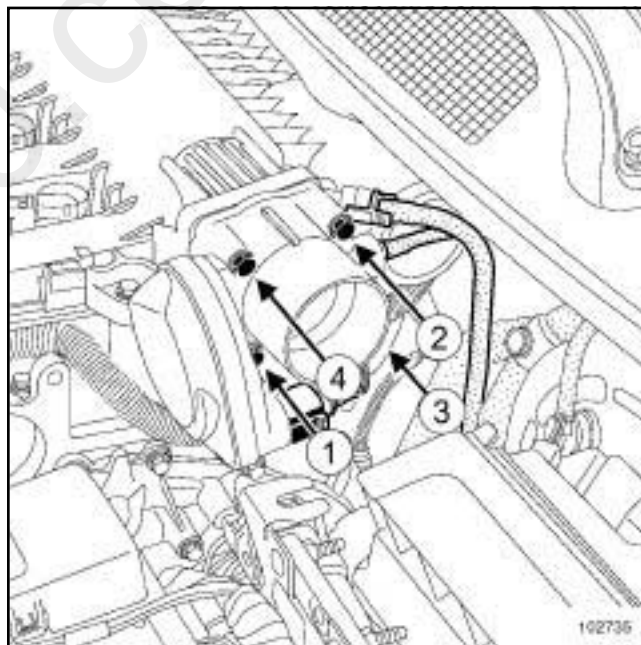
WARNING

To ensure proper sealing, the gasket surfaces must be clean, dry and not greasy (avoid any finger marks).

WARNING

Do not scrape the joint faces of the aluminium, any damage caused to the joint face will result in a risk of leaks.

II - REFITTING OPERATION FOR PART CONCERNED



- ❑ Refit the throttle valve, fitted with a new seal.
- ❑ In order, torque tighten the **throttle valve bolts (10 N.m)**.

III - FINAL OPERATION

❑ Connect:

- the fuel vapour recirculation solenoid valve pipe,
- the throttle valve connector.

❑ Refit:

- the air inlet duct,

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

K4J or K4M

- the air inlet duct clips.

- ☐ Torque tighten the **inlet duct clips (6 N.m)**.

K4M, and 862

- ☐ Refit the oil vapour rebreathing pipe.

- ☐ Connect the battery (see **Battery: Removal - Refitting**) (80A, Battery).

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

M4R

Special tooling required

Mot. 1448 Remote operation pliers for hose clips.

Tightening torques

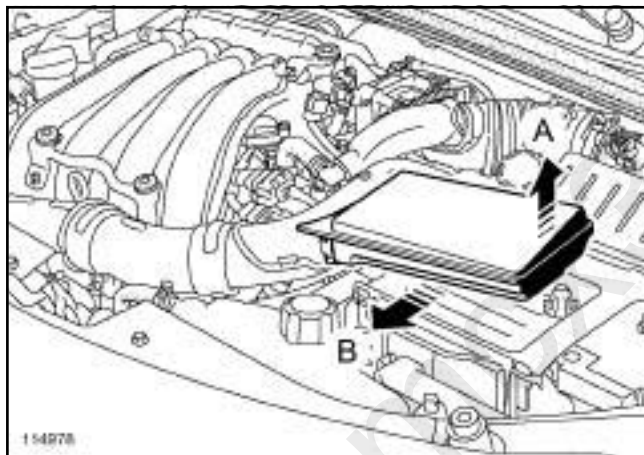
motorised throttle valve mounting bolts **10 N.m**

air inlet duct clips **6 N.m**

REMOVAL

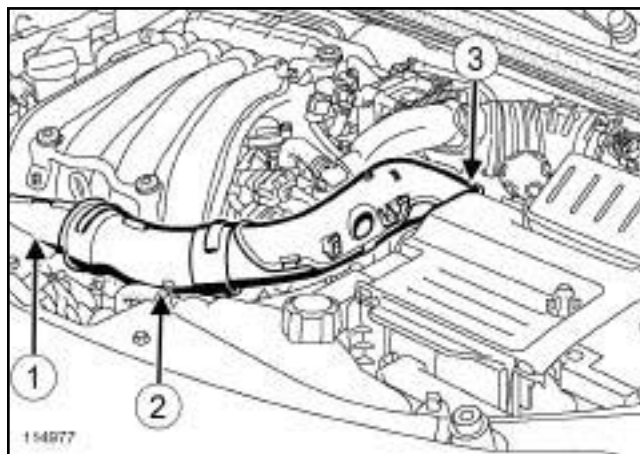
I - REMOVAL PREPARATION OPERATION

- ☐ Remove the engine cover.
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**).



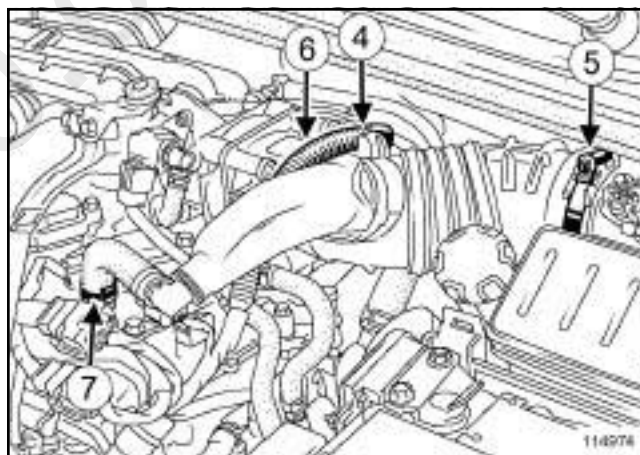
114978

- ☐ Lift the air resonator (A) to remove it from the battery cover.
- ☐ Pull the air resonator towards the front of the vehicle (B) to remove it.



114977

- ☐ Detach the air intake sleeve:
 - from the front end panel at (1) ,
 - from the air resonator on the front end panel at (2) ,
 - from the air filter unit at (3) .
- ☐ Remove the air inlet sleeve.



114974

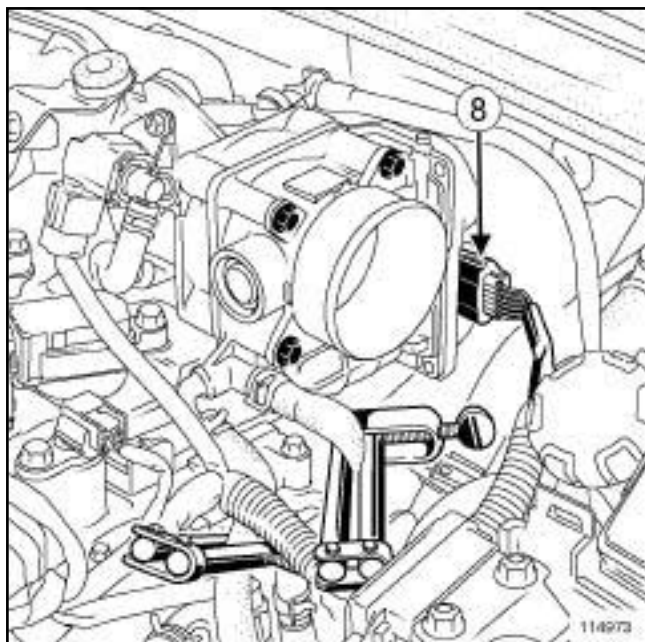
- ☐ Detach the wiring harness from the air inlet duct at (4) .
- ☐ Undo the air duct mounting clips:
 - on the air flow sensor (5) ,
 - on the motorised throttle valve (6) .
- ☐ Remove the oil vapour rebreather duct (7) from the rocker cover using the (**Mot. 1448**).
- ☐ Remove the air inlet duct.

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

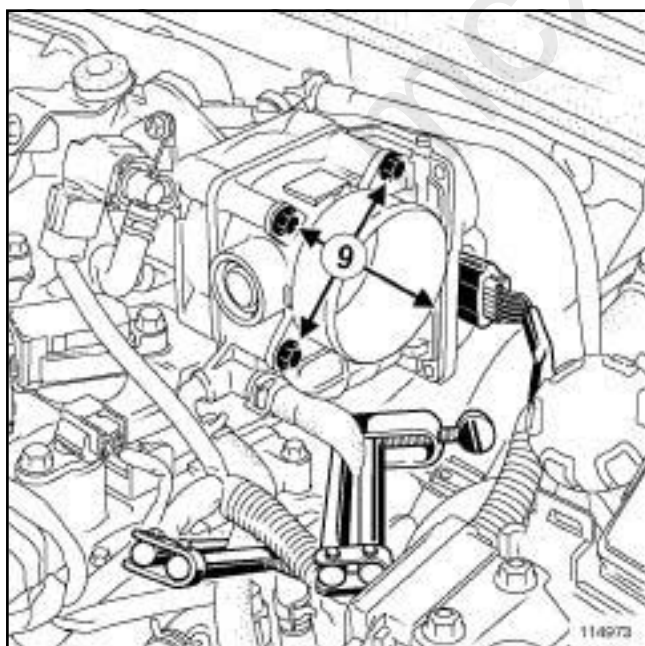
M4R



114973

- ☐ Fit hose clamps on the motorised throttle valve hoses.
- ☐ Remove the hoses from the motorised throttle valve using the **(Mot. 1448)**.
- ☐ Disconnect the motorised throttle valve connector **(8)**.

II - REMOVAL OF PART CONCERNED



114973

- ☐ Remove:
 - the motorised throttle valve mounting bolts **(9)**,
 - the motorised throttle valve,

- the inlet distributor gasket.

REFITTING

I - REFITTING PREPARATION OPERATION

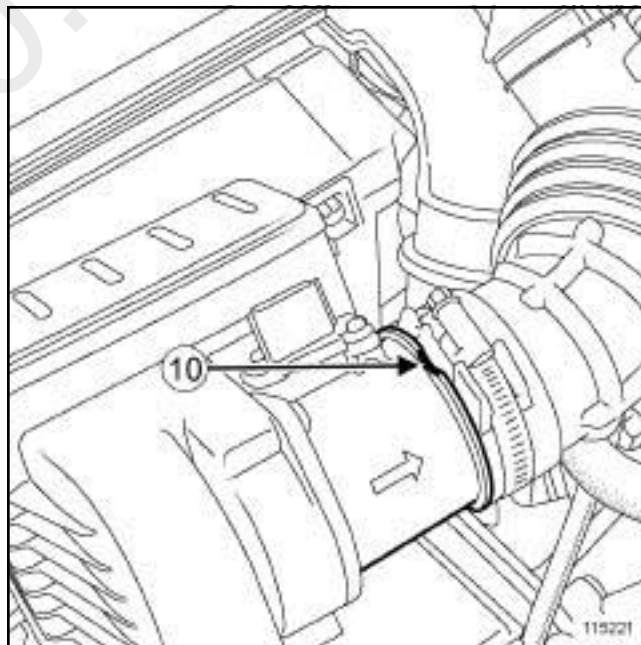
- ☐ The motorised throttle valve seal must always be re-placed.

II - REFITTING PART CONCERNED

- ☐ Finger tighten the motorised throttle valve mounting bolts.
- ☐ Torque tighten the **motorised throttle valve mounting bolts (10 N.m)**.

III - FINAL OPERATION

- ☐ Connect the motorised throttle valve connector.
- ☐ Connect the motorised throttle valve hoses using the **(Mot. 1448)**.
- ☐ Remove the hose clamps from the motorised throttle valve hoses.



115221

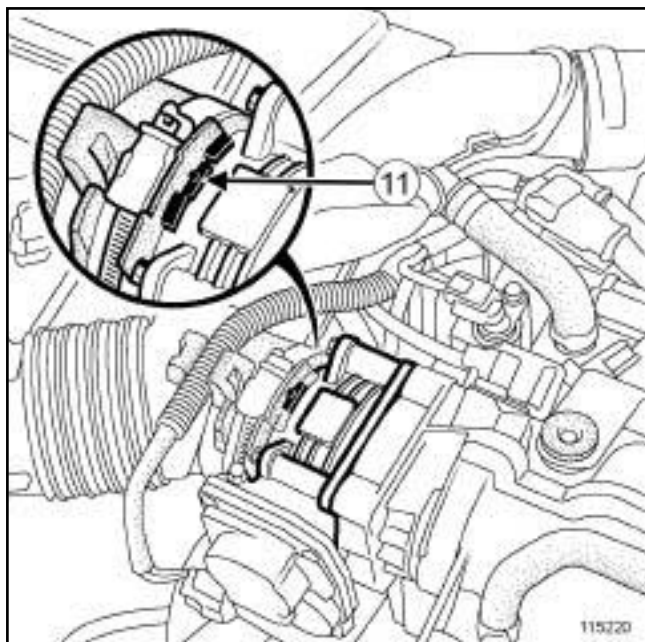
- ☐ Fit the air inlet duct on the air flow sensor, paying attention to the fitting mark **(10)**.

FUEL MIXTURE

Throttle valve: Removal - Refitting

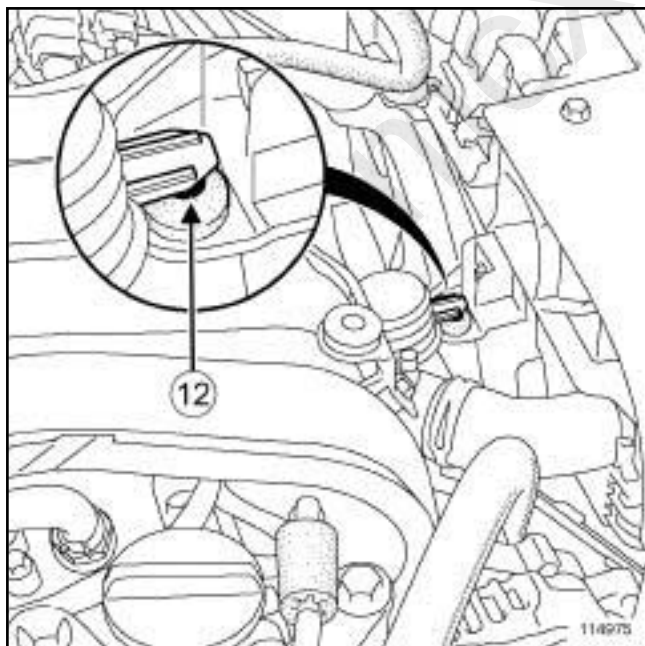
12A

M4R



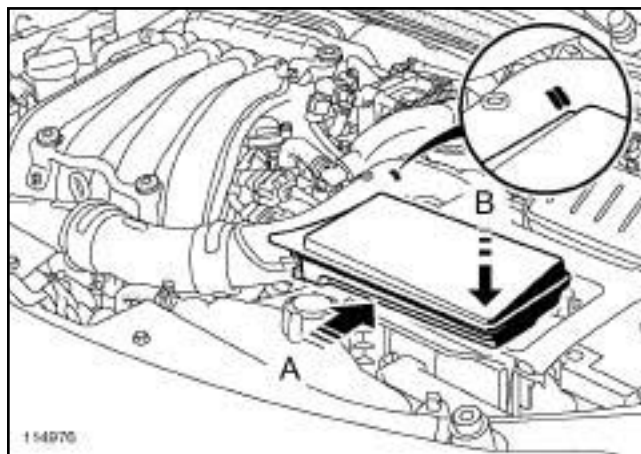
115220

- ☐ Fit the air inlet duct on the motorised throttle valve, paying attention to the fitting mark (11) .
- ☐ Connect the oil vapour rebreather duct on the rocker cover using the (Mot. 1448).
- ☐ Torque tighten the **air inlet duct clips (6 N.m)**.
- ☐ Clip the wiring harness on the air inlet duct.



114975

- ☐ Before refitting the air intake sleeve, check that the front end panel air resonator's upper mounting is correctly clipped at (12) .
- ☐ Refit the air intake sleeve.



114976

- ☐ Push the air resonator towards the rear of the vehicle (A) until the air resonator's rear face is located between the two marks on the air intake sleeve.
- ☐ Push the air resonator (B) to fit it onto the battery cover.
- ☐ Connect the battery (see **Battery: Removal - Refitting**) .
- ☐ Bleed the cooling circuit (see **19A, Cooling, Cooling system: Draining - Refilling**, page 19A-16) .
- ☐ Refit the engine cover.

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

F4R

Equipment required

Diagnostic tool

Tightening torques

bolt of the reinforcement bracket on the throttle valve	12 N.m
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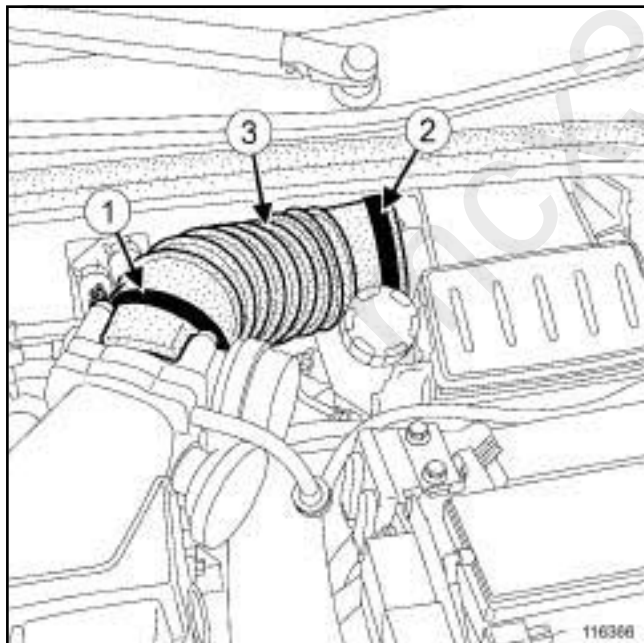
nut of the reinforcement bracket	9 N.m
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throttle valve bolts	10 N.m
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air inlet pipe clips between the air filter unit and the throttle valve	6 N.m
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REMOVAL

I - REMOVAL PREPARATION OPERATION



116366

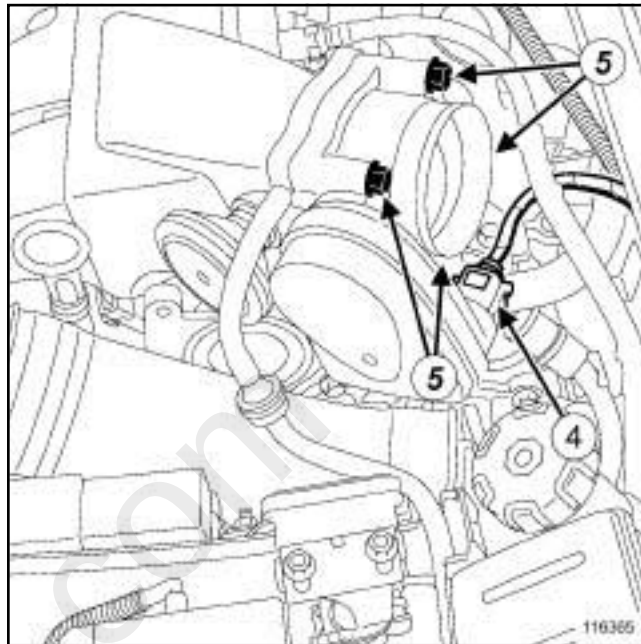
☐ Undo:

- the clip (1) on the air inlet pipe between the air filter box and the throttle valve on the damper valve side,
- the clip (2) on the air inlet pipe between the air filter box and the throttle valve on the air filter box side.

- ☐ Remove the air inlet pipe (3) between the air filter box and the throttle valve.

II - OPERATION FOR REMOVAL OF PART CONCERNED

F4R, and 830



116365

- ☐ Disconnect the connector (4) from the throttle valve.

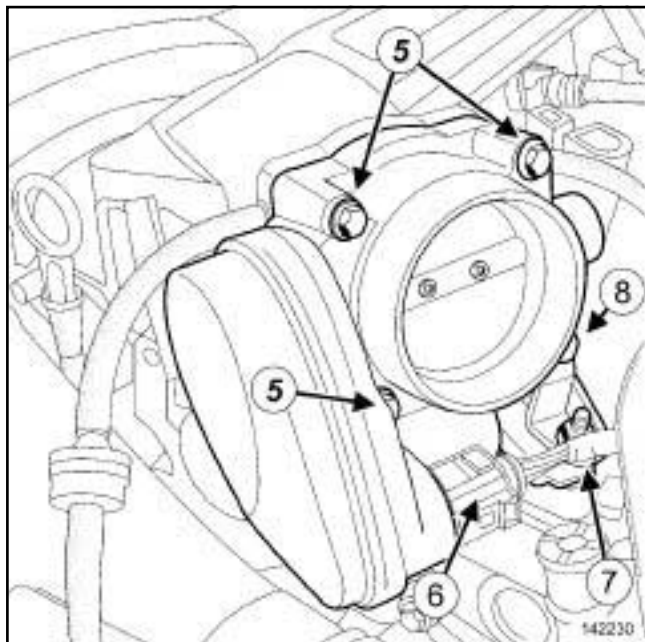
FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

F4R

F4R, and 832



142230

☐ Disconnect the connector (6) from the throttle valve.

☐ Remove:

- the nut (7) of the reinforcement bracket on the oil separator,
- the bolt (8) of the reinforcement bracket on the throttle valve,
- the reinforcement bracket.

☐ Remove:

- the throttle valve bolts (5) ,
- the throttle valve.

REFITTING

I - REFITTING PREPARATION OPERATION

☐ **parts always to be replaced: Throttle valve seal (11,04,06,25).**

☐ Use **SURFACE CLEANER** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to clean and degrease:

- the throttle valve joint face if it is to be re-used,
- the seal housing on the inlet distributor.

II - REFITTING OPERATION FOR PART CONCERNED

☐ Refit the throttle valve, fitted with a new seal.

F4R, and 832

☐ Refit:

- the reinforcement bracket,
- the bolt of the reinforcement bracket on the throttle valve,
- the nut of the reinforcement bracket on the oil separator.

☐ Torque tighten:

- the **bolt of the reinforcement bracket on the throttle valve (12 N.m)**,
- the **nut of the reinforcement bracket (9 N.m)**.

☐ Refit the throttle valve bolts.

☐ Torque tighten the **throttle valve bolts (10 N.m)**.

☐ Connect the throttle valve connector.

III - FINAL OPERATION

☐ Refit the air inlet duct between the throttle valve and the air filter box.

☐ Torque tighten the **air inlet pipe clips between the air filter unit and the throttle valve (6 N.m)**.

☐ Using the **Diagnostic tool**, check that there are no faults stored by the computer, and clear them if necessary.

FUEL MIXTURE

Throttle valve: Removal - Refitting

12A

D4F, and 784

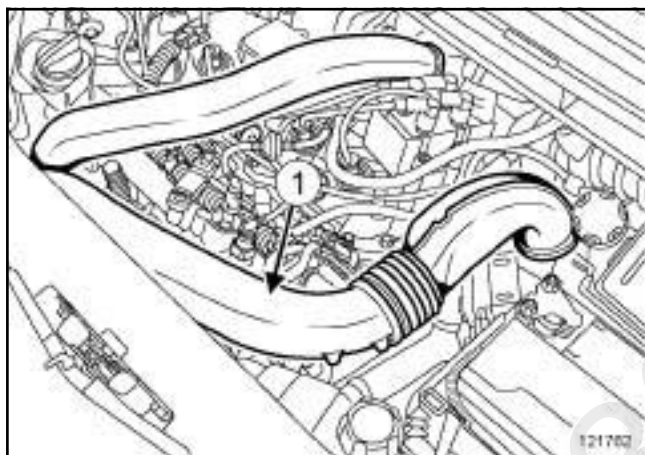
Tightening torques

throttle valve bolts	10 Nm
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REMOVAL

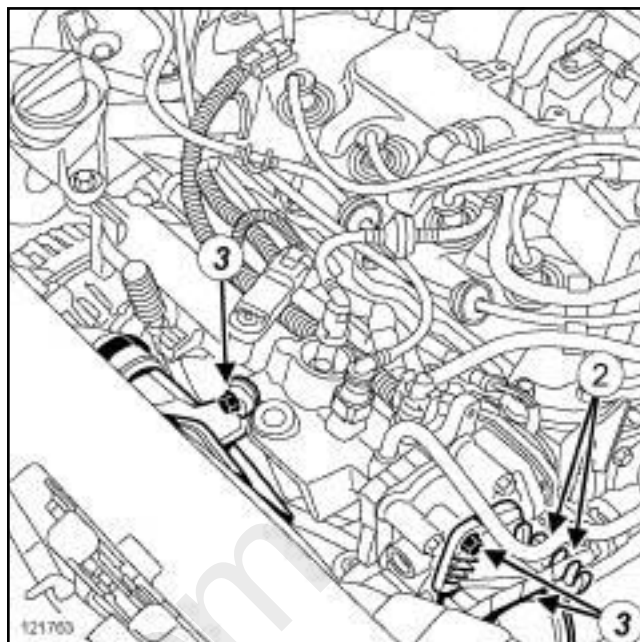
I - REMOVAL PREPARATION OPERATION

- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (MR 392, 80A, Battery).
- ☐ Remove the front engine cover.



121762

- ☐ Disconnect the air filter unit air inlet pipe (1) .



121763

- ☐ Detach at (2) :
 - the wiring harness,
 - the vacuum pipe.
- ☐ Remove the intercooler air outlet pipe bolts (3) .
- ☐ Move the intercooler outlet air pipe to one side.