

VEHICLE MAINTENANCE



Note, one or more warnings are present in this procedure



Equipment required

Diagnostic tool



WARNING

Before carrying out any operation on a vehicle fitted with the Stop & Start system, always follow the safety instructions (see 01D, Mechanical introduction, Vehicle: Precautions for the repair)

The Renault maintenance programme includes all checks, top-ups, adjustments, and part replacements necessary for vehicle maintenance. For information on the specific service intervals for the vehicle, refer to the maintenance booklet or to the ICM.

1. CONTENT OF THE DIFFERENT TYPES OF SERVICES AND THE ANNUAL INTERMEDIATE VISIT:

1-SERVICES:

The types of service (Maintenance Service, General Service, Renault Service) and the operations to be performed may vary depending on the vehicle and the date of manufacture. Thus to know which specific checks and operations should be performed on the vehicle, refer to the vehicle's maintenance booklet.

1- ANNUAL INTERMEDIATE VISIT:

For vehicles for which the service maintenance is to be performed no later than every 2 years, a non-obligatory visit including the following operations is advised:

- check the engine oil level,
- check the level, condition, and sealing of the brake fluid circuit,
- check the coolant level,
- check the level, condition, and sealing of the power-assisted steering circuit,
- check the washer fluid level,
- electronic fault finding of the battery with the test tool,
- electronic fault finding of the computers,
- condition of the windscreen and rear view mirrors,
- wear of the windscreen wiper and rear wiper blades,
- check the exterior lighting and signals,

- condition and pressure of the tyres (including emergency spare wheel or tyre repair aerosol),
- condition of gaiters, rubber mounting bushes, and ball joints,
- check the exhaust system,
- sealing of the front and rear shock absorbers,
- wear of the front and rear brake pads and brake discs.

NOTE: the content of the intermediate visit, as well as its commercial name, may vary from one country to another. Thus additional checks and / or operations could be added to this list. For more information, please contact the manufacturer's technical teams in your country

2. VEHICLES FITTED WITH OCS:

The OCS (Oil Control System) function fitted on certain models detects driving profiles that cause premature degradation of the engine oil. Under certain conditions of use (frequent driving at low speeds, door to door driving, extended driving at idle speed, driving towing a trailer caravan of more than 500 kg), the vehicle will alert the driver that a service (in particular, an oil change) is necessary. This service alert is indicated to the driver via the "service or oil change interval" information provided by the instrument panel.

MODELS FITTED WITH THE OCS:

Model	engine	Engine suffix	Vehicles affected:
TWINGO II	D4F	780	All
TWINGO II	K9K	718	All
CLIO III and MODUS	D4F	784	All
CLIO III	D4F	742	Vehicles manufactured from 24/06/08
MODUS	D4F	742	All
MODUS	K9K	764	Vehicles manufactured from 23/08/07
CLIO III	K9K	764	Vehicles manufactured at FLINS and VALLADOLID from 10/09/07 Vehicles manufactured at BURSA from 17/09/07
KANGOO II	K9K	All	All
MEGANE II and SCENIC II	K9K	732	Vehicles manufactured at DOUAI from 19/06/07 Vehicles manufactured at PALENCIA from 27/06/07 Vehicles manufactured at BURSA from 20/06/07
MEGANE II and SCENIC II	M9R	721	Vehicles manufactured from 30/05/07

MEGANE II and SCENIC II	M9R	722	Vehicles manufactured at DOUAI from 10/07/07 Vehicles manufactured at PALENCIA from 09/07/07
MEGANE II	M9R	724	Vehicles manufactured from 07/05/2007
MEGANE II	F9Q	816	Vehicles manufactured at DOUAI from 25/04/07 Vehicles manufactured at PALENCIA from 27/04/07 Vehicles manufactured at BURSA from 11/05/07
MEGANE II	F9Q	818	Vehicles manufactured at DOUAI and PALENCIA from 30/05/07 Vehicles manufactured at BURSA from 13/06/07
MEGANE III	K9K	832, 834, 836, 837	All
MEGANE III	F9Q, F4R	All	All
LAGUNA III	K9K,M9R,V9X	All	All
ESPACE IV	M9R	740	Vehicles manufactured from 12/03/07
ESPACE IV	M9R	760	Vehicles manufactured from 26/03/07
ESPACE IV	M9R	761	Vehicles manufactured from 01/06/07
MASTER	G9U	632, 650	All

TRAFIC	M9R	All	Vehicles manufactured from 01/12/06
TRAFIC	G9U	630	All

3. PROCEDURES FOR PERFORMING OPERATIONS AND CHECKS DURING THE MAINTENANCE OR SERVICE:

The customer must be warned if a check reveals a fault.

Checks marked with an asterisk depend on the vehicle or the country.

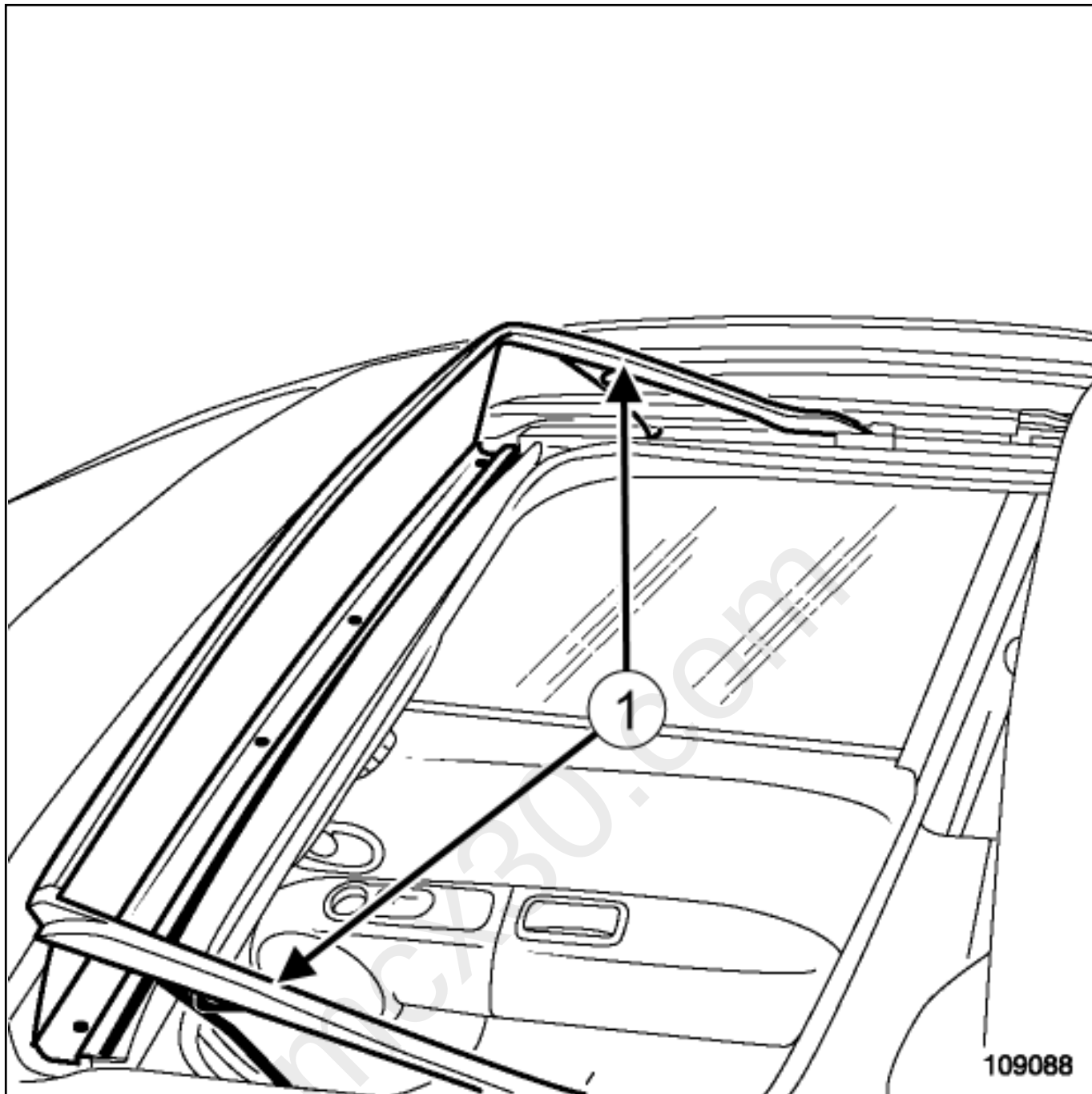
1- BODYWORK: ANTICORROSION CHECK

-  Visually inspect the condition of the:
- vehicle,
 - underside of the vehicle,
 - wheel arches.

Indicate any damage to the underbody protection, and all cuts, ruptures, scratches or corrosion anywhere on the vehicle.

This inspection contributes to the validity of the anticorrosion warranty. It is therefore necessary to complete the maintenance sheets in the maintenance booklet.

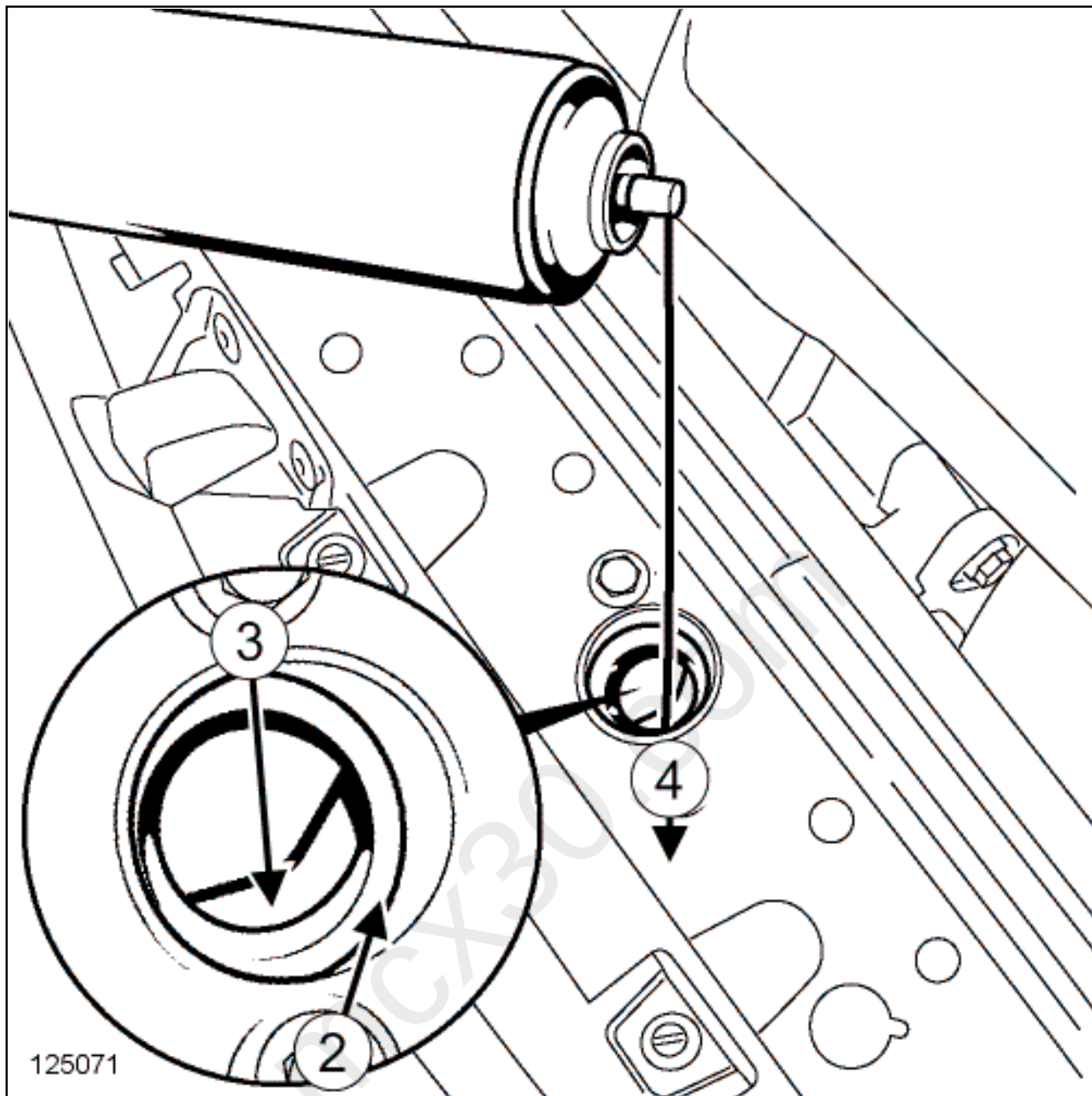
2- BODYWORK: CLEANING THE DEFLECTOR ARMS AND PANORAMIC SUNROOF MOBILE PANEL



Use a dry, lint-free cloth to clean the sunroof deflector arms(1) and the section of the mobile panel with which they come into contact.

3- BODYWORK: CHECKING THE BONNET LOCK LUBRICATION AND OPERATION

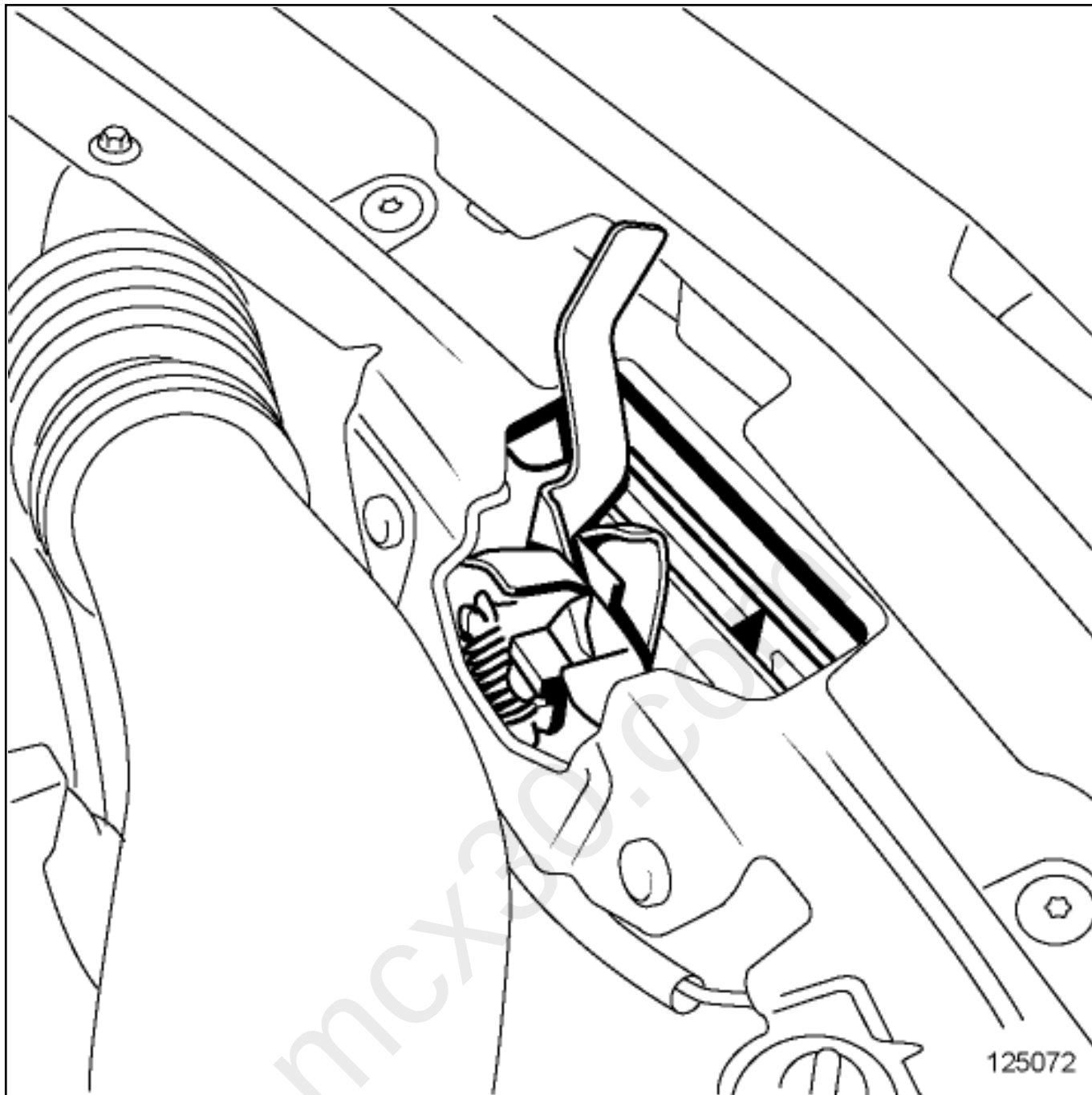
1)GUILLLOTINE TYPE LOCK



As shown in the photo above, apply silicone-free lubricant [Vehicle: Parts and consumables for the repair](#) (04B, Consumables - Products) between the casing of the catch(2) and the catch segment(3) in the direction of the catch segment hinge shaft(4) .

Let it set for 1 minute, then manoeuvre 10 times from the bonnet release catch in the passenger compartment.

2)OTHER TYPES OF LOCK



Apply silicone-free lubricant [Vehicle: Parts and consumables for the repair](#) (04B, Consumables - Products) to the catch assembly.

Let it set for 1 minute, then manoeuvre 10 times from the bonnet release catch in the passenger compartment.

4- ENGINE: DRAINING THE ENGINE OIL

The oil grade is essential for maintaining the service life of the engine. Carefully follow the manufacturer's recommendations specified in the Technical Note (see **Engine oil: Specifications**) (Technical Note 6013A,

04A, Lubricants).

Use the correct quantity of oil and the correct sump plug sealing washer(see **Engine oil: Draining - Refilling**) (10A, Engine and peripherals).

After topping up, let the oil run for approximately 10 minutes before checking the level. The oil level maximum mark on the dipstick must never be exceeded (risk of damage to the engine).

5- ENGINE: REPLACING THE OIL FILTER

Replace the engine oil filter after each oil service(see **Oil filter: Removal - Refitting**) (10A, Engine and peripherals).

6- ENGINE: CHECKING THE EXHAUST SYSTEM

 Visually inspect:

- that there is no corrosion, piercing or impact to the silencer, expansion chamber, catalytic converter and particle filter*,
- that the rubber mounting bushes are not torn or cracked,
- that the exhaust pipe is not in contact with the underside of the vehicle.

7- ENGINE: BLEEDING WATER FROM THE FUEL FILTER* (IF THE PART HAS NOT REACHED ITS REPLACEMENT INTERVAL)

Bleed the water from the fuel filter by unscrewing the water bleed cap and letting the water run into a suitable container(see **Fuel filter: Removal - Refitting**) (13A, Fuel supply).

8- ENGINE: CHECKING THE CLUTCH PLAY* (EXCEPT FOR AUTOMATIC COMPENSATION)

(Logan and Sandero only) Use the recommended checking procedure(see **Clutch control: Adjustment**) (37A, Mechanical component controls).

9- CHECKING THE LEVELS, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: HYDRAULIC POWER-ASSISTED STEERING*

Check the hydraulic steering fluid level: it should be between the minimum and maximum level on the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

10- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: COOLING

Check the coolant level: it should be between the minimum and maximum level on the reservoir.

Visually check the circuit sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

11- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: HYDRAULIC BRAKE/CLUTCH*

Visually check the circuit sealing, checking the condition and that there are no leaks around the engine compartment, under the vehicle or at the unions.

■ Check the brake fluid level:

- If the level is between the minimum and maximum, do not add brake fluid as wear on the discs, pads, drums and linings leads to a progressive drop in the brake fluid level in the tank which will usually be rectified once these components are replaced. However, the brake fluid level should never drop below the minimum mark.
- If there is an abnormal loss of fluid, the cause of which cannot be found with this check, advise the customer.

12- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: SEQUENTIAL GEARBOX HYDRAULIC UNIT*

Check the hydraulic unit oil level: it should be between the minimum and maximum level on the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

13- CHECKING THE LEVEL, CONDITION AND SEALING OF THE HYDRAULIC CIRCUITS: SEQUENTIAL GEARBOX HYDRAULIC CLUTCH*

Check the hydraulic clutch fluid level, it should be at the middle level of the reservoir.

Visually check the sealing, ensuring that there are no leaks, or any abnormal loss of fluid.

Top up, if necessary.

14- CHECKING THE CHASSIS: CONDITION OF THE GAITERS, RUBBER MOUNTING BUSHES AND BALL JOINTS

Check the condition of the driveshaft and steering rubber gaiters, all ball joints and the rubber mounting bushes. There must not be any signs of tearing or cracks.

15- CHECKING THE CHASSIS: TYRE CONDITION AND PRESSURE (INCLUDING EMERGENCY SPARE WHEEL OR PRESENCE OF TYRE-REPAIR AEROSOL)

Check that the tread depth of the tyres has not reached the wear warning strips, explain the degree of tyre wear to the customer.

Check that there is no abnormal tyre wear, and no bulges, blisters, tears or foreign objects (sharp

object, screw, etc.).

Check and readjust the tyre inflation pressure when cold according to the type of driving.

Check the pressure and condition of the emergency spare wheel, or if not supplied with the vehicle, check that there is a tyre repair aerosol in the vehicle.

Adhere to the recommended pressure shown on the label on the door (if the vehicle does not have one, refer to the Driver's Handbook or (see **Tyre pressure: Identification**) (35A, Wheels and tyres).

16- CHECKING THE CHASSIS: PRESENCE OF THE WHEEL VALVE CAPS

Check that each valve cap is present.

17- CHECKING THE CHASSIS: SEALING OF THE FRONT AND REAR SHOCK ABSORBERS

Visually check that there is no oil leaking along the length of the shock absorbers.

18- CHECKING THE CHASSIS: WEAR ON THE FRONT AND REAR BRAKE DISCS AND PADS*

When carrying out a quality check, it is essential to remove the wheels (an impact wrench may only be used to remove the wheels) [Wheel: Removal - Refitting](#) (35A, Wheels and tyres).

Check the thickness of the brake pads and compare to the minimum authorised value [Brake: Specifications](#) (30A, General information). In case of partial wear, advise the customer of the degree of wear to the brake pads.

Check the thickness of the front brake discs [Front brake disc: Description](#) (31A, Front axle components) and the thickness of the rear brake discs (see **Rear brake disc: Description**) (33A, Rear axle components). In case of partial wear, advise the customer of the degree of wear to the brake discs.

19- CHECKING VISIBILITY: EXTERIOR LIGHTING AND SIGNALS

Check the side lights, dipped headlights, main beam headlights, front and rear fog lights, the direction indicators and side mounted indicators, the reversing lights, the hazard warning lights, the brake lights, the registration plate lighting and the additional cornering lights*.

20- CHECKING VISIBILITY: INTERIOR LIGHTING

Checking door lighting, interior lights and sun visors, glovebox and luggage compartment lights.

21- CHECKING VISIBILITY: CONDITION OF THE WINDSCREEN AND DOOR MIRRORS

Check that there are no cracks or chips.

22- CHECKING VISIBILITY: WEAR ON THE FRONT AND REAR WINDSCREEN WIPER BLADES

Check the quality of the wiping function and check that the wiper blades are not torn or cracked.

23- CHECKING VISIBILITY: FRONT AND REAR WINDSCREEN WASHER FLUID LEVEL

Check that there is windscreen washer fluid present.

Top up, if necessary.

24- LABELS: CHECKING THE AIRBAG SAFETY AND ENGINE COMPARTMENT LABELS ARE PRESENT AND CORRECTLY POSITIONED

- Check that the vehicle has the following original safety labels:
 - airbag, located on the windscreen, sun visor and passenger side of the dashboard,
 - battery, oil, cooling system, heating and air conditioning system, engine cooling fan located in the engine compartment.

25- ELECTRONIC FAULT FINDING: BATTERY WITH TEST TOOL

Check the condition of the battery with the MIDTRONICS R330tool [Battery: Removal - Refitting](#) (Technical Note 6002A, 80A, Battery).

26- ELECTRONIC FAULT FINDING: COMPUTERS WITH FAULT FINDING COMPUTER

Note:



Always check the condition of the battery before carrying out fault finding on the computers as insufficient voltage can affect the computers.

The purpose of this procedure is to see if any of the computers are faulty.

- The following tools are essential for carrying out fault finding on these systems:
 - a Diagnostic tool,
 - a CAN probe.

Running fault finding on the computers shows up possible faults not displayed by the system self-test procedure, and allows them to be cleared, following the procedure.

27- ELECTRONIC FAULT FINDING: OPERATION OF THE INSTRUMENT PANEL WARNING LIGHTS

Check that the following warning lights come on when the ignition is switched on:

- STOP warning light,
- SERVICE warning light.

28- REINITIALISATION: MAINTENANCE/OIL SERVICE DISPLAY*

Reset the maintenance/oil service interval display (see Driver's Handbook).

29- SERVICE SHEETS: AFFIXING THE SERVICE LABEL IN THE ENGINE COMPARTMENT*

Fill in the étiquette d'entretien and affix it in the engine compartment.

4. SUPPLEMENTARY OPERATIONS:

The removal and refitting procedures and some of the checks to be carried out during maintenance are set out in the repair manuals or the technical notes. The information and repair procedures given below are specific to the maintenance programme.

For an exhaustive description of the operations to be carry out during the maintenance operation, refer to the vehicle's maintenance booklet.

1- REPLACEMENT OF THE ACCESSORIES BELT, ROLLERS, AND PULLEYS (PULLEY TO BE REPLACED DEPENDING ON THE VEHICLE)

When replacing the belt, it is essential to replace the tensioning rollers and fixed rollers across the whole range. It is also necessary to replace the damper pulley (also known as the crankshaft accessories pulley) or the alternator pulley on certain engines, see below.

Table of pulleys to be replaced during maintenance only according to the accessories belt replacement frequency. The vehicles concerned are those for which the maintenance booklets mention a replacement for certain engines. The detail of the vehicle variants concerned is given below (vehicles manufactured after June 2006):

¹⁾IN EUROPE

RECOMMENDATIONS FOR REPLACING THE DAMPER PULLEY (CRANKSHAFT ACCESSORIES PULLEY):

Engine type	Engine suffix	Recommendation for replacing the damper pulley during maintenance operations
F4R	714, 715, 720, 760, 761, 762, 763, 764, 765, 766, 767, 770, 771, 774, 776, 784, 786, 787, 792, 794, 795, 796, 797, 800, 811, 820, 830, 867, 870, 886, 887, 896, 897.	To be replaced every time the accessories belt and its rollers are replaced
F9Q	260, 262, 264, 660, 664, 670, 674, 680, 755, 757, 758, 759, 800, 803, 804, 808, 812, 814, 816, 818, 820.	
M9R	610, 700, 720, 721, 722, 740, 760, 761, 780, 812.	
G9T equipped with air conditioning	600 ,605, 606, 607, 642, 645, 702, 703, 706, 707, 710, 712, 720, 722, 742, 743, 750.	
G9U equipped with air conditioning	630, 632, 650, 720, 724, 730, 750, 754.	

RECOMMENDATIONS FOR REPLACING THE ALTERNATOR PULLEY:

Engine type	Engine suffix	Recommendations for replacing the alternator pulley during maintenance
F4R	813	To be replaced every time the accessories belt and its rollers are replaced

2)OUTSIDE EUROPE

RECOMMENDATIONS FOR REPLACING THE DAMPER PULLEY (CRANKSHAFT ACCESSORIES PULLEY):

Engine type	Engine suffix	Recommendation for replacing the damper pulley
K4J equipped with air conditioning	730, 732, 740, 770, 780.	To be replaced every time the accessories belt and its rollers are replaced
K4M equipped with air conditioning	680, 690, 694, 697, 698, 716, 760, 761, 762, 764, 766, 768, 780, 782, 788.790, 791, 794, 800, 801, 804, 812, 813, 814, 824, 830, 831, 844, 848, 856.	
K4M	858	
F4R	714, 715, 720, 760, 761, 762, 763, 764, 765, 766, 767, 770, 771, 774, 776, 784, 786, 787, 792, 794, 795, 796, 797, 800, 811, 820, 830, 867, 870, 886, 887, 896, 897.	To be replaced every time the accessories belt and its rollers are replaced
K9K	278, 282, 288, 292, 732, 734, 764, 772, 780, 804, 806, 832, 836.	
F9Q	260, 262, 264, 660, 664, 670, 674, 680, 755, 757, 758, 759, 794, 800, 803, 804, 808, 812, 814, 816, 818, 820.	
G9T equipped with air conditioning	600 ,605, 606, 607, 642, 645, 702, 703, 706, 707, 710, 712, 720, 722, 742, 743, 750.	
G9U equipped with air conditioning	630, 632, 650, 720, 724, 730, 750, 754.	
M9R	610, 700, 720, 721, 722, 740, 742, 760, 761, 780, 812.	

M9R	742, 802, 803, 805, 809, 816, 830, 832, 833.	To be replaced every other time the accessories belt and its rollers are replaced
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RECOMMENDATIONS FOR REPLACING THE ALTERNATOR PULLEY:

Engine type	Engine suffix	Recommendations for replacing the alternator pulley during maintenance
F4R	813	To be replaced every time the accessories belt and its rollers are replaced

2- REPLACING THE TIMING BELT AND ROLLERS

When replacing the belt, it is essential to replace the tensioning and fixed rollers across the whole range. Certain vehicle/engine specifications require associated parts to be replaced, therefore it is necessary to consult the repair procedure for the vehicle and engine for further details (see **Timing belt: Removal - Refitting**) (11A, Top and front of engine).

3- CHECKING THE REAR BRAKE LININGS FOR VEHICLES FITTED WITH DRUMS

Check the wheel cylinders for any possible leaks.

Remove any dust from the brake linings using a brake cleaning product.

Check the thickness of the drum linings and compare it to the minimum authorised thickness ([Brake: Specifications](#)) (30A, General information).

4- CLEANING THE AIR CONDITIONING SYSTEM

The air conditioning system is cleaned by cleaning the evaporator ([Evaporator: Cleaning](#)) (62A, Air conditioning) or [Evaporator: Cleaning](#) (Technical Note 6001A, 62A, Air conditioning).

5- SPECIAL NOTES FOR LPG VEHICLES:

Only authorised personnel, i.e. those with specific LPG vehicle training, may work on the LPG system of a vehicle.



- Put the LPG switch in the LPG position,
- switch on the ignition, the tank solenoid valve should "click".

2)CHECKING THAT THERE IS A PLASTIC BLANKING COVER ON THE SAFETY VALVE:

Confirm that there is a blanking cover on the LPG tank overpressure valve.

3)BLEEDING THE EXPANSION VALVE:



The operation should be carried out with the engine warm and stopped:

- Undo the bleed screw of the LPG expansion valve and allow the liquid residue to flow out for approximately a minute into an appropriate container.

6- SPECIAL NOTES FOR CNG VEHICLES

Only authorised personnel, i.e. those with specific CNG vehicle training, may work on the CNG system of a vehicle.

1)VISUAL INSPECTION OF THE TANK AND ITS SUPPORT:

Check that there is no evidence of corrosion, impact, chips or scratches on the CNG tank. Check that the support is in good condition.



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