

JS
50

User manual

Ligier would like to thank you

Thank you for choosing one of our products. This manual has been designed to help you get the most out of your vehicle.

We suggest that you read it in detail before driving it for the first time.

In it you will find information, advice and instructions for use; as well as hints, tips and more about the distinctive characteristics of your vehicle, which will prove once again that you have made the right choice.

Using this manual will make it easy to get to know your new vehicle and enjoy many miles of carefree motoring.

The manual

Certain photographs, illustrations and descriptions in this maintenance manual may not always match the model of vehicle used.

The instructions in this manual have been written essentially as a simple and straightforward guide to use. It also contains the basic maintenance procedures and the routine servicing which the vehicle should undergo at any professional workshop.

The handbook also contains instructions for some simple repair tasks.

The operations which are not explicitly described are those for which special equipment and/or technical expertise are necessary. In these circumstances you are advised to contact your local Distributor or authorized LIGIER's Dealer.

Text in bold type or on a grey background contains important safety and vehicle usage instructions.

Table of contents

1. YOUR VEHICLE

Driver's seat	1.1
Dashboard	1.2
Controls	1.3
Central console	1.4
Opening the doors and adjusting rear view mirrors.....	1.5
Identification and keys	1.6
Know your car	1.7

2. USAGE

Running in.....	2.1
Starting.....	2.2
Revolution specific engine functioning 492 DCI	2.3
Fuel.....	2.4

3. MAINTENANCE

In the event of a puncture	3.1
Lifting of the vehicle.....	3.2
Bulb replacement	3.3
Fuses.....	3.4
Fluid level in the braking system .	3.5
Gear Oil level.....	3.6
Engine Oil level.....	3.7
Transmission/Steering/windscreen washer liquid.....	3.8
Coolant air filter	3.9
Servicing	3.10

4. TECHNICAL FEATURES

General features.....	4.1
Bodywork and vehicle maintenance.....	4.2

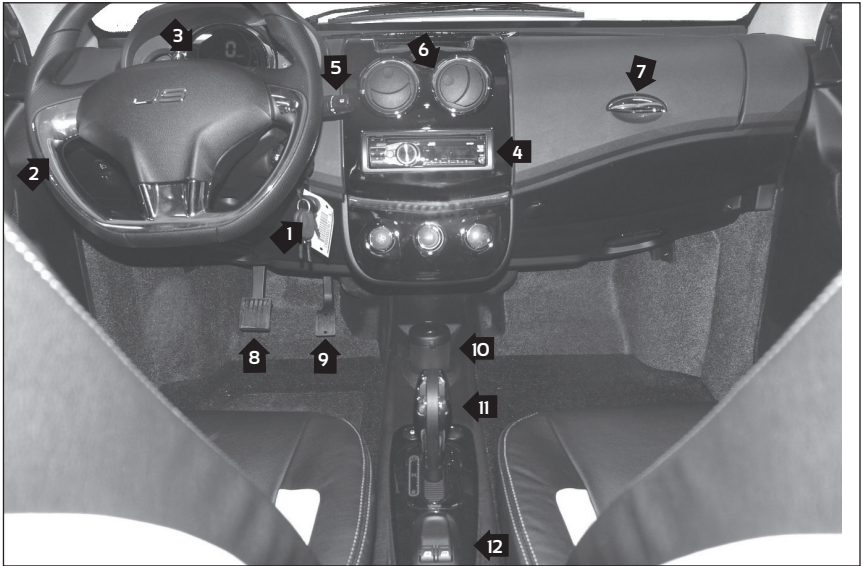
5. ROAD SIGNS



1. YOUR VEHICLE

Driver's seat	1.1
Dashboard	1.2
Controls	1.3
Central console	1.4
Opening the doors and adjusting rear view mirrors	1.5
Identification and keys	1.6
Know your car	1.7

1.1 - DRIVER'S SEAT



1. Main 4 position key operated ignition
2. Multi-purpose control for headlights, indicators, horn & front (according to model) and rear fog lamps
3. Digital kilometre counter
4. Car radio (according to model)
5. Multi-purpose control for front and rear (according to model) windscreen wipers, wing mirror and rear windscreen defrost (according to model)
6. Central console
7. Glove box (lift handle to open)
8. Brake pedal
9. Accelerator pedal
10. Position for movable ashtray (according to model)
11. Forward and reverse drive gear lever
12. Electric window switch

Photo 2

The boot is opened by a pull-lever (in left hand door panel)





Photo 1

1. Driver sun visor, with pocket for papers and ability to be moved sideways to protect the driver from glare.
2. Interior ceiling light, 3 positions with function select button (photo 2).



Light permanently on.



Light permanently off.



Light comes on when door is opened, switches off within approximately 20 seconds after door is closed.

Attention, leaving the ceiling light on when the engine is off will cause the battery to discharge and could cause permanent damage to it.

3. Passenger sun visor, with vanity mirror and sideways rotation.
4. Passenger grab handle (photo 3).
5. Driver and passenger seat belt fastenings (photo 4).
6. Driver's horizontal seat position adjustment. Lift bar to enable slide mechanism and release to lock it (photo 5).
7. Lift the lever to tilt the seat back. The same method is used for both seats (photo 6).

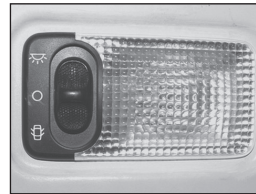


Photo 2



Photo 3

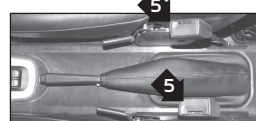


Photo 4

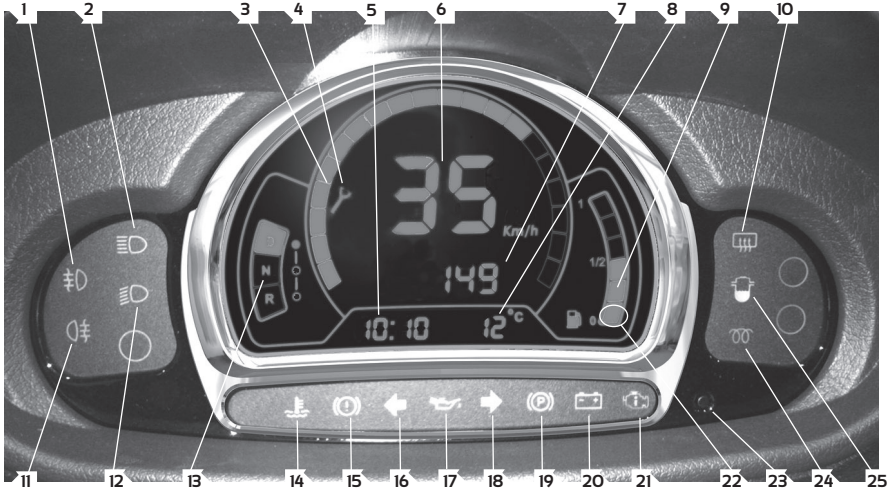


Photo 5



Photo 6

1.2 - DIGITAL DASHBOARD



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Front fog lamp indicator (according to model) 2. Headlamp indicator 3. Digital speedbar 4. Oil change indicator 5. Clock 6. Speed indicator 7. Trip counter 8. External temperature indicator 9. Fuel level indicator 10. Rear windscreen defrost indicator (according to model) 11. Rear fog-lamp indicator 12. Dipped beam indicator 13. Forward gear indicator "D", neutral "N" and reverse gear "R" 14. Engine coolant temperature alert indicator 15. Brake pad wear and brake fluid level indicator 16. Left indicator 17. Oil pressure alert indicator | <ol style="list-style-type: none"> 18. Right indicator 19. Hand brake indicator 20. Battery charge indicator 21. Engine fault indicator (DCI only) 22. Fuel level indicator 23. Trip counter reset 24. Pre-heat indicator Water in fuel filter indicator 25. (DCI engine only) |
|--|--|

ATTENTION!

If one of the safety lamps (engine coolant temperature, oil pressure or engine fault) should illuminate whilst driving, you must stop the vehicle as soon as possible and contact your Ligier dealer.

Setting the clock

- ◆ Turn the ignition key to the ACC position (Accessory).
- ◆ The number of kilometres to the next oil change appears (photo 1).
- ◆ Hold down button "23" on the dashboard for 5 seconds: the clock is displayed and the numbers will flash (photo 2).
- ◆ One short press (less than 1 second) on button "23" increments the hour display.
- ◆ One long press (more than 3 seconds) on button "23" will switch to the flashing minutes display.
- ◆ One short press on button "23" will then increment the minutes display.
- ◆ One long press will then confirm the changes made.



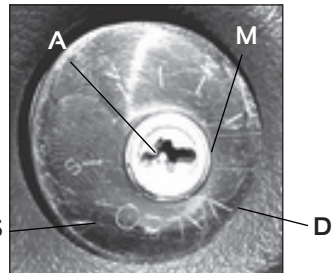
Photo 1



Photo 2

Total kilometres and trip counter

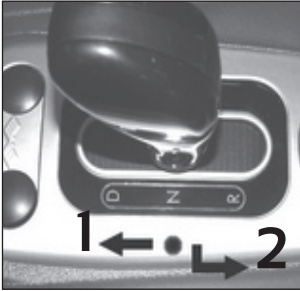
- ◆ When the ignition key is in the APC position (vehicle in operation), the display shows the total kilometres of the vehicle.
- ◆ One short press on button "23" on the dashboard will display the trip counter. One long press on button "23" will then reset the trip counter.
- ◆ One short press returns to the total kilometre display.



Neiman key positions

- S. Engine stop
- A. (ACC) Accessory
- M. (APC) + after ignition
- D. Start

1.3 - THE CONTROLS



A. Gear lever

- 1 Forward drive
- Neutral
- 2 Reverse gear

To go forwards, push the lever in the direction of forward drive "D" until it engages and then accelerate gradually. A "D" indicator light will illuminate on the dashboard screen.

To put the vehicle into reverse, push down on the top of the gear lever and then pull it backwards until it engages in the "R" position.

If fitted to the vehicle, the beep of the reversing sensor will sound. A "D" indicator light will illuminate on the dashboard screen.

! ATTENTION!

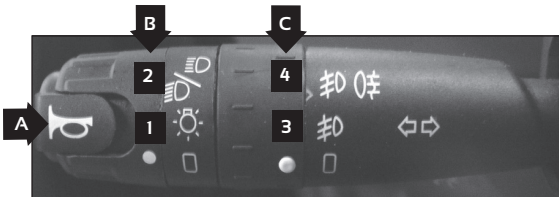
It is obligatory to push the gear lever only when the engine rpm is in slow motion, vehicle not in motion.

! ATTENTION!

(FOR VEHICLES WITH THE DCI ENGINE ONLY).

In neutral "N", the rpm engine can be increased only when : the brake pedal is simultaneously pressed OR a door is opened OR the handbrake is engaged.

B. Full/dipped beam switch



A : Press this button to activate the horn.

Turn the white round of the trimmer **B** in position **1** to switch on the side lights front and rear, in position **2** to switch on the dipped beam, pull the lever towards you to switch on the full beam headlights.

Turn the white round of the trimmer **C** in position **3** to switch on the front fog lamps, in position **4** to switch on rear+front fog lamps.

Push up the lever will switch on the right indicator light, push down the lever will switch on the left indicator light.

C. Windscreen washer/wiper switch (photo 1)

A long press on the button **A** activates the defrosting of the rear window and external rearview mirrors, according to model. The extinction is automatic.

Turn the trimmer **B** in position **1** will activate the rear windscreen wiper, according to model. The position above is not used. Push down the lever will make a going/return of the front wiper. Push up the lever on first step will activate the intermittent functioning of front windscreen wiper, according to model, on second step : slow speed, on third step : high speed.

ATTENTION!

Do not operate the windscreen wipers if the windscreen is dry and dirty. Always use the windscreen washer liquid before switching on the wipers in order not to scratch the windscreen.

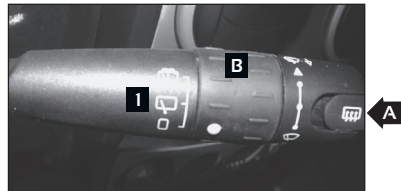


Photo 1

D. Electric window switch

(photo 2, according to model)

If the vehicle has electric windows, hold down the button to lower the window on the required side. Release it to stop the window at the height desired. Pull the button upwards to raise the window and release it to stop the window at the height desired. The left hand switch is equipped with a sequential mode. With the window closed, press on the button until a click is felt, and then release it: the window will lower fully automatically. This system also works when raising the window.



Photo 2

E. Central locking

(photo 3, according to model)

A single press on button "3" will lock the driver and passenger doors from the inside. An orange lamp will illuminate on the button to show that it is in operation. A further press will unlock the doors.



Photo 3





1.4 - CENTRAL CONSOLE

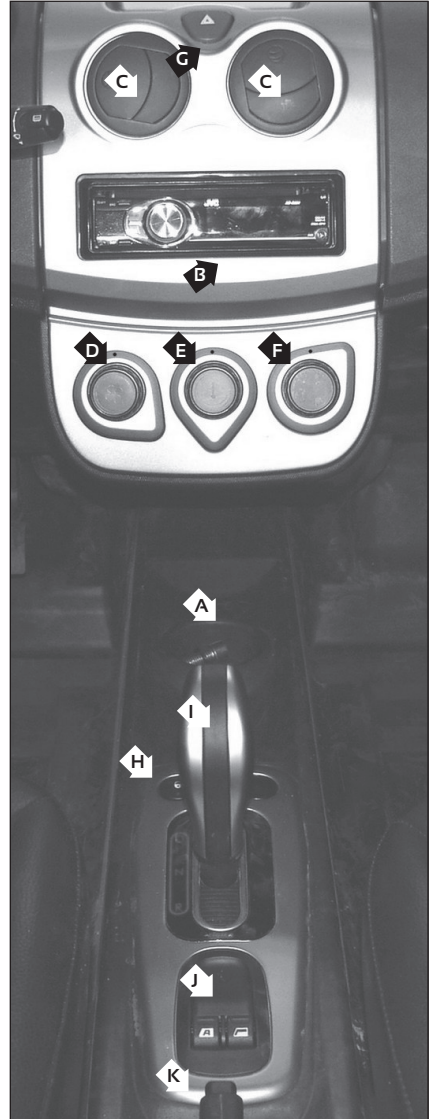
- A. Storage space
- B. Slot for car radio
- C. Rotational air vents
- D. Ventilation speed adjustment
- E. Ventilation temperature adjustment
- F. Ventilation direction adjustment (detail below)
- G. Hazard lights switch
- H. Interior central locking button
- I. Forward/neutral/reverse gear selection lever
- J. Driver side sequential electric window switch (according to model)
- K. Handbrake lever.

ATTENTION!

Whenever the vehicle is stopped for any length of time, the handbrake should be used.

Detail of ventilation positions

-  Windscreen demister vent
-  Windscreen demister + air at feet
-  Air at feet + rotating air vent
-  Rotating air vent



1.5 - DOOR/BONNET OPENING

- A. Exterior door handle ([photo 1](#)).
- B. Interior door handle ([photo 2](#)).
- C. Wing mirror adjustment knob ([photo 3](#)).

Attention: the doors should not be used as support for getting in and out of the vehicle, as this could cause them to become misaligned and lead to leakage problems.

Opening the front bonnet

D. Front bonnet release, located under the dashboard on the left hand side. Pull to release the bonnet catch ([photo 4](#)) and then, push it back.

◆ Lift the locking lever "1" in order to open the bonnet ([photo 5](#)).

◆ Lift the bonnet, unclip the prop "2" from the holder "3" ([photo 6](#)).

◆ Insert the bent end of the prop "4" into the slot "5" in the plastic casing of the bonnet ([photo 7](#)).

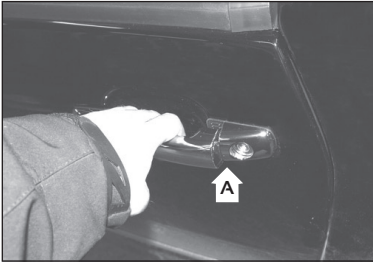


Photo 1

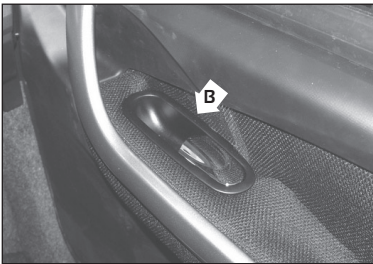


Photo 2

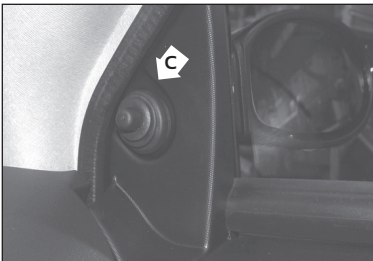


Photo 3

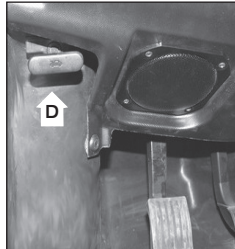


Photo 4

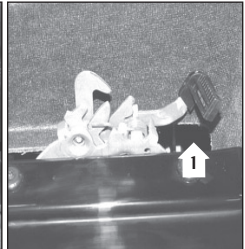


Photo 5

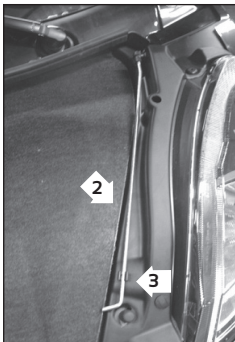


Photo 6

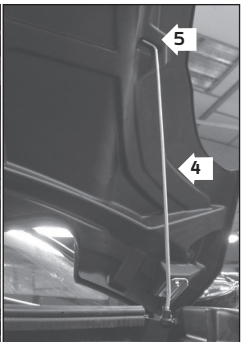


Photo 7

1.6 - IDENTIFICATION AND KEYS

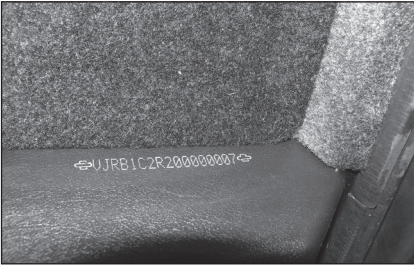


Photo 1

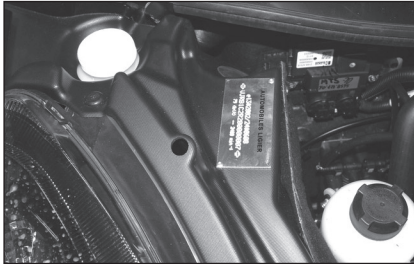


Photo 2

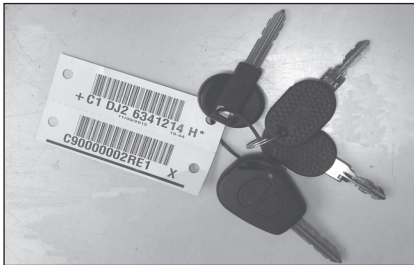


Photo 3

Vehicle identification

Each car can be identified in two different ways:

- ◆ The serial number is stamped onto the front floor of the vehicle; in front of the passenger's seat. (photo 1).

The engine specifications are shown on a plate fixed to the front of the engine block.

- ◆ Manufacturer's plate with the serial number etched onto it. This is located under the bonnet, riveted onto the right headlight cover next to the screen wash bottle (photo 2). Push up the engine soundproofing cover to have access to it.

In the event of any claim or order for spare parts, always give the chassis number.

Keys (photo 3)

The vehicle is delivered with a set of keys including:

- ◆ 2 door and ignition keys (including one with remote control locking, if the vehicle is fitted with it);
- ◆ 2 keys for opening the fuel tank;
- ◆ 1 bar coded label to be retained.

1.7 - KNOW YOUR CAR

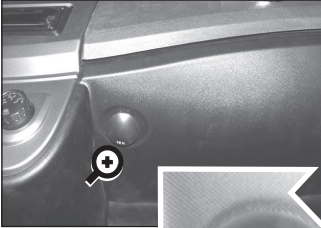


Photo 1

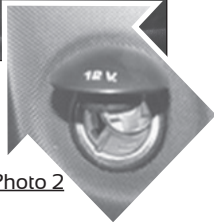


Photo 2

12 V socket

A 12 volt socket is located beneath the glove compartment ([photo 1](#)) for electrical connection of external devices.

- ◆ Lift the plastic cover and plug in ([photo 2](#)).

Attention: using this socket with the engine switched off will discharge the battery and could cause damage.

Reversing sensor/ parking aid

([photo 3](#), according to model).

Detects potential obstacles when the car is reversing. The closer the vehicle gets the faster the beep sounds. A continuous beep means that the obstacle is less than 20 cm from the rear bumper of your vehicle.

The sensor is automatically activated when reverse gear is selected. 2 beeps sound to indicate that it is activated.

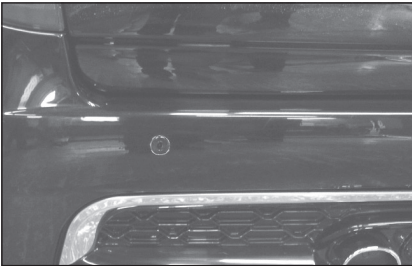


Photo 3

Storage

There are several open or closed storage compartments in the car:

- ◆ deep side pockets in each door ([photo 2](#));
- ◆ the glove compartment on the dashboard ([photo 3](#)).
Lift handle 1 to open ([photo 4](#));
- ◆ on the central tunnel in front of the gear lever;
- ◆ under the passenger seat for the handbook and logbook, as well as the puncture repair spray.



Photo 4



Photo 5

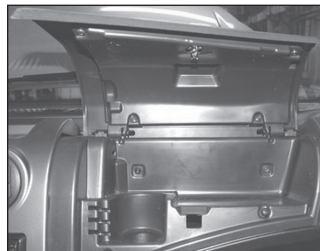


Photo 6

2. UTILISATION

Running in.....	2.1
Starting.....	2.2
Revolution engine Specific fonctionning (492 DCI).....	2.3
Fuel.....	2.4

2.1 - RUNNING IN



For the first kilometres:

- ◆ Avoid fast acceleration and sharp braking.
- ◆ Check oil and coolant levels frequently.
- ◆ Carry out the first service at 5,000 km (see servicing section)

2.2 - STARTING

Starting the engine (photos 1 and 2)

1. Ensure that the gear lever is in neutral "N" on the lever and "N" displayed on the dashboard "1".
2. Put the handbrake on.
3. Switch on the ignition. At the starting position ("M") (diagram page 5) a beep will sound.
4. Wait for the preheating indicator to turn off.
5. Activate the starter within 6 seconds after the preheating light has gone off. 2 beeps will sound if the engine has not been started within the time limit. In this event repeat the procedure.

If a beep sounds instead of the engine starting, then one of the gears is engaged. In this event, return the lever to neutral and activate the starter.

If the engine does not start immediately, repeat the procedure.

IMPORTANT : once the engine has started, check that the oil pressure and engine fault lights have gone out.

Switching off the engine

1. Put the vehicle into neutral ("N")
2. Switch off the ignition
3. Wait for the engine to stop
4. Put on the handbrake

Starting the vehicle

1. With the engine running in slow motion, put the gear lever into the drive position without pressing on the accelerator.
2. Release the handbrake.
3. Accelerate gradually



Photo 1

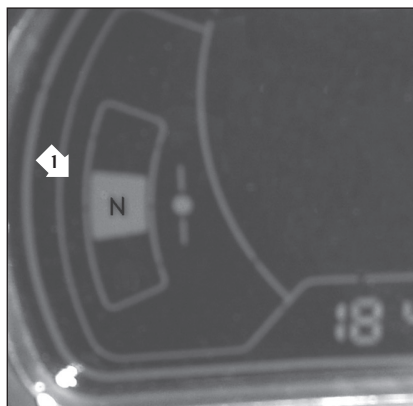


Photo 2



ATTENTION!

◆ The engine will not start if a gear is engaged. (warning beep).

◆ In neutral "N", a safety device prevents the engine from being accelerated using the pedal unless the brake pedal has been previously pressed.

(ON VEHICLES WITH THE DCI ENGINE ONLY).

◆ Exhaust gases are toxic. Do not carry out these procedures in an enclosed area.

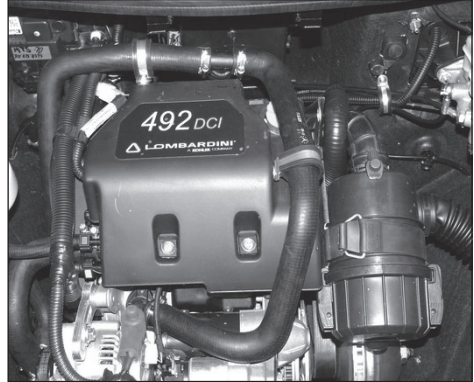
2.3 - SPECIFIC FUNCTIONNING OF A VEHICLE ASSEMBLED WITH A REVOLUTION (492 DCI) ENGINE

2.3.1. - EASY PARKING

A vehicle assembled with the Revolution (492 DCI) engine has originally a particularity of use : the parking assistance called **EASY PARKING**.

The system is like the driving of a vehicle with an automatic gearbox.

The **EASY PARKING** system get activated each time the lever is handled in any sense.



Vehicle started, in slow motion, the driver presses on the brake pedal and then select a sense of motion with the lever : when releasing the brake pedal (without pressing on the accelerator pedal), the vehicle while slowly accelerate and will stay at a speed of 7km/h. This configuration will help the parking in any sense of motion.

Vehicle in use, the driver releases the accelerator pedal (the topology of the road has no incidence) without pressing on the brake pedal : the engine brake will decrease the engine rpm untill the speed is around 7 km/h.

ATTENTION : when the vehicle is in **EASY PARKING** way, moving at 7km/h at the starting or after deceleration, a long press on the brake pedal will immobilize the vehicle but will not desactivate the **EASY PARKING** : the releasing of the brake pedal will make going forward the way of motion handled with the lever inverter.

To desactivate the EASY PARKING mode, do one of the 3 operations mentioned hereafter:

- pull out the handbrake lever
- put the inverter lever at neutral
- open a door

2.3.2. - SECURITY

If the vehicle does a start stop with a door opened or if a door is opened during the use, the engine power will decrease voluntarily.

2.4 - FUEL

Engine

Fuel: use only commercial diesel, tank capacity: 17-l.

IMPORTANT : In freezing weather, add a special anti-freeze to the diesel in the proportion indicated on the bottle. **ATTENTION :** some supplier are delivering fuel already containing anti-freeze in a variable quantity.



ATTENTION!

- ◆ Before filling with fuel, the engine must be switched off.
- ◆ Fuel is highly inflammable.
avoid spilling fuel onto a hot engine.
- ◆ Do not go near the open fuel tank with a naked flame or a lighted cigarette: danger of fire.
- ◆ Also avoid putting the face too close to the open fuel tank so that harmful vapours are not inhaled.
- ◆ Do not use a mobile phone when filling up with fuel.
- ◆ The wrong type of fuel can cause irreversible damage to the engine, and is not covered by the warranty.
- ◆ The engine will not tolerate the use of fuel of the type:
 - Bio diesel containing more than 20% methyl ester or greater than B20
 - Vegetabel oil
 - Domestic fuel oil
 - Kerosene (for heating)
 - Diesel stored in jerrycans or galvanised containers

3. MAINTENANCE

In the event of a puncture	3.1
Lifting of the vehicle	3.2
Bulb replacement	3.3
Fuses	3.4
Fluid level in braking system	3.5
Gear oil level	3.6
Engine oil level.....	3.7
Transmission/Steering/windscreen washer liquid.....	3.8
Cooling system air filter.....	3.9
Servicing	3.10

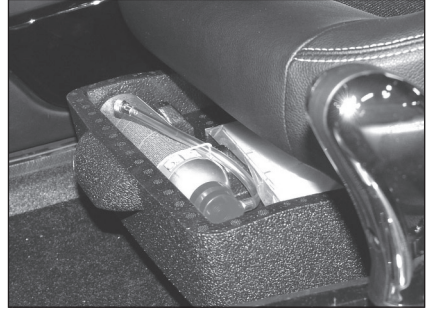
3.1 - IN THE EVENT OF A PUNCTURE

TYRE PRESSURES - Front and rear: 1.2 bar

PUNCTURE REPAIR SEALANT

your vehicle is equipped with a puncture repair sealant which is located in a plastic case under the passenger's seat.

To use, follow the instructions on the sealant can.

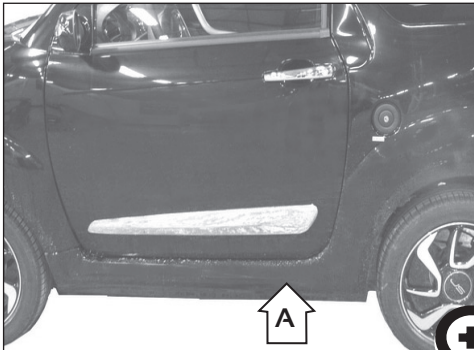


The condition of the tyres should be frequently checked. Abnormal wear may be due to a misaligned axle system.

ATTENTION, your vehicle must only be driven for a short time with a tyre that has been repaired using the puncture repair sealant.

The damaged tyre should be repaired or replaced as soon as possible, as it may deflate or rupture.

3.2 - LIFTING OF THE VEHICLE



Vehicle have lifting points on the left side and on the right side in the area of the marker A.



3.3 - BULB REPLACEMENT

Front headlight (photos 1, 2 and 3)

For access to the bulbs, there is an opening with a plastic cover on the top of each front wheel arch.

Replacing the side light "1":

- Unplug the connector from the bulb holder;
- Turn the bulb holder 1/4 turn to the left and pull gently;
- Turn the bulb 1/4 turn to the left.

Replacing the indicator "2":

- Unplug the connector from the bulb holder;
- Turn the bulb holder 1/8 turn to the left and pull gently;
- Turn the bulb 1/4 turn to the left.

Replacing the headlight "3":

- Unplug the connector from the bulb holder;
- Pull away the rubber covering;
- Unhook the retaining spring;
- Replace the bulb and reassemble the fitting.

Thumbwheel "A" adjusts the headlight from right to left.

The height of the headlight can also be adjusted mechanically via the upper access opening.

Rear light unit (photo 4)

To replace the reversing, indicator, brake and fog lights:

1. Unscrew the 2 screws then unclip the light unit "4".
2. Turn the bulb holder in question to the left to unclip it, then change the bulb and replace the bulb holder.
3. Fix the light unit back into position with the screws, then clip on the protective caps.

Registration plate lamp (photo 5)

1. Using a flat bladed screwdriver, remove the transparent cover "5" by placing the end of the screwdriver in one of the two slots on each side of the cover and lifting gently.
2. Change the bulb and replace the cover.

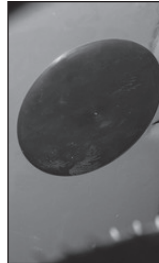


Photo 1

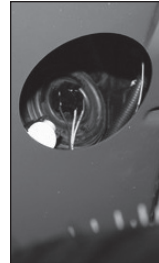


Photo 2

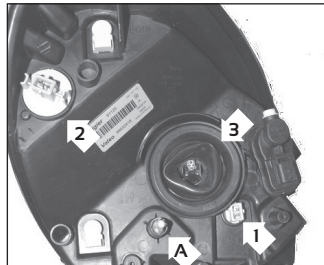


Photo 3

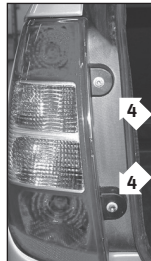


Photo 4

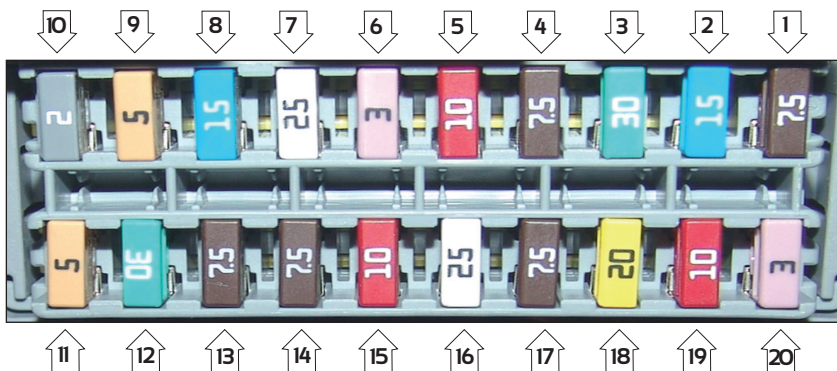


Photo 5

3.4 - CHANGING FUSES

FUSES

If there is no electrical power, first check the fuses which are located under the dashboard on the passenger side



N°	Function
1	Indicators supply
2	Central locking
3	Preheating supply
4	Fuel pump supply
5	Ventilation supply (DCI engine)
6	Headlight adjustment control and motor + APC central locking
7	Window opening control
8	12 V socket
9	Car radio
10	Speedometer unit accessory input
11	APC speedometer unit, indicator control lever relay supply and APC supply to engine cluster

N°	Function
12	Dci ECU or Progress alternator control
13	Ventilation motor for vehicle interior
14	Brake lights, gear lever lamps and reversing lights
15	Defrost power supply, defrost relay and windscreen wiper control
16	Headlight control power supply
17	Speedometer unit power supply
18	Power supply to front and rear windscreen wiper return
19	Ceiling light and car radio power supply
20	Power supply to relay control and constant + to engine cluster

3.5 - FLUID LEVEL IN BRAKE SYSTEM



Brake fluid bottle

The brake fluid bottle is situated under the bonnet on the driver side.

The level can be seen through the bottle and must not fall below the "MIN" mark on the bottle. Top up if necessary with a brake fluid suitable for the vehicle.

Change the brake fluid every 50,000-km or every 3 years using a DOT4 type fluid.

3.6 - GEAR OIL LEVEL

Gear box (photo 1)

The gear box is situated to the rear of the engine.

It has a capacity of 0.8 litres
(Oil type 80W/90)

Check oil level frequently. Top up if necessary with gear oil suitable for the vehicle.

- A. Drain plug "1".
- B. Filling "2".
- C. Checking the level "3".

Change the gear oil every 10,000 km or every 2 years.

Using unsuitable lubricants for the gear box will increase wear on the moving parts and may cause serious damage.

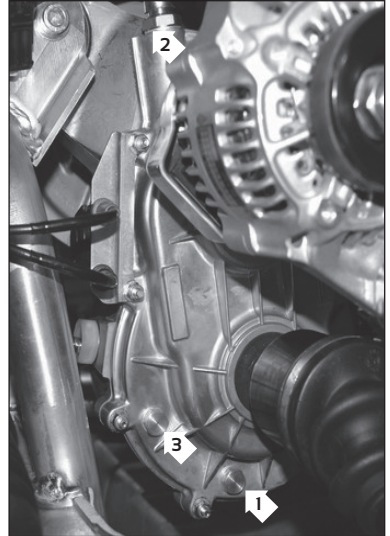


Photo 1

Attention. Using too much or too little oil may cause the gear box to fail.



ATTENTION!

Used oil contains substances hazardous to the environment.

To change the gear oil, you are advised to contact a LIGIER dealer who is equipped to collect used oil in accordance with legal standards and with respect to the environment.

3.7 - ENGINE OIL LEVEL

3.7.1. - LDW492 REVOLUTION DCI ENGINE

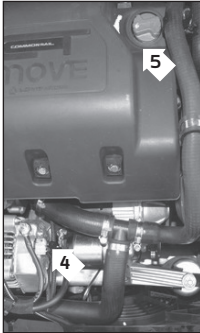


Photo 2

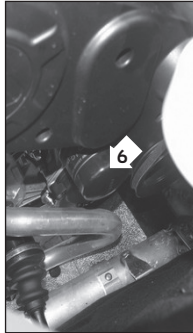


Photo 3

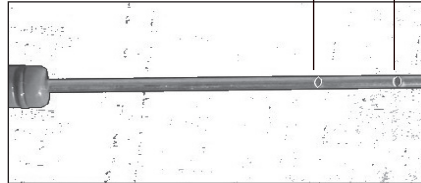


Photo 4

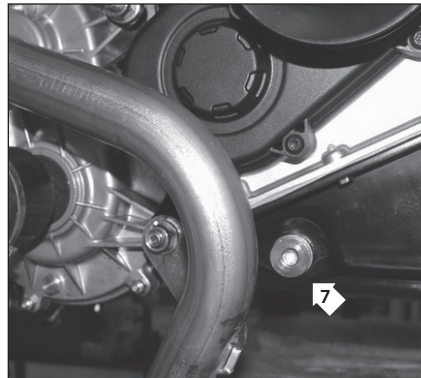


Photo 5

Engine: greasing - lubrication

(photo 2-3-4)

Engine oil capacity is 2.1 litres (5W/40 type oil).

Check oil level frequently. Top up if necessary with an engine oil suitable for the vehicle.

1. Dipstick "4" (photo 2).

The level should be between the "min" and the "max" markings for normal vehicle operation (photo 4).

2. Oil filler cap "5" (photo 2).

3. Oil filter "6" (photo 3).

The engine oil should be changed either by suction using an approved device, or by draining it from the drain plug 7 (photo 5).

Check the oil level every 2500 km. Please refer to the maintenance periodicity per engine type for the purges and filter replacement.

Attention. Using too much or too little oil may cause the engine to fail.

3.7.2. - PROGRESS ENGINE

Engine, greasing, lubrication

(photos 2 and 3)

Engine oil capacity is 1.4 litres (5W/40 type oil).

Check oil level frequently. Top up if necessary with an engine oil suitable for the vehicle.

1. Dipstick "4" (photo 2). The level should be between the "min" and the "max" markings for normal vehicle operation (photo 3).

2. Oil filler cap "5" (photo 2).

3. Oil filter "6" (photo 2).

The engine oil may be changed either by suction using an approved device, or by draining it from the drain plug "7".

Check the oil level every 2500 km. Please refer to the maintenance periodicity per engine type for the purges and filter replacement.

Attention. Using too much or too little oil may cause the engine to fail.

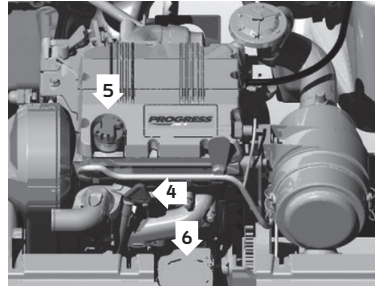


Photo 2

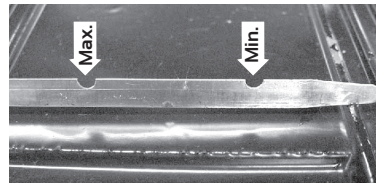


Photo 3

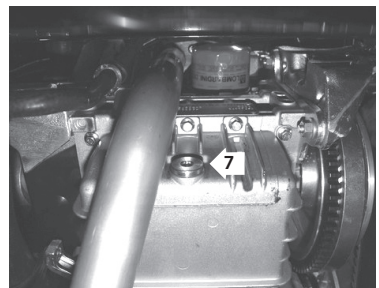


Photo 4

3.8 - TRANSMISSION/STEERING/ WINDSCREEN WASHER LIQUID

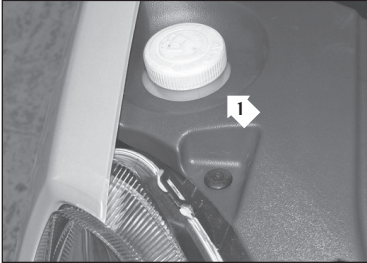


Photo 7

Windscreen washer liquid (photo 7)

The bottle is situated under the bonnet, on the passenger side in the curve of the wing. To fill, remove the cap "1" and add a mixture of demineralized water and windscreen washer liquid.

Variable speed drive units (photo 8)

The variable speed drive belt must be replaced every 10,000 km or every 2 years, and checked every 5,000 km.

IMPORTANT: do not use grease for cleaning or lubricating the variable speed drive units or the drive belt. These operate "dry". Clean with compressed air at each service and clean the variators with acetone only.



Photo 8

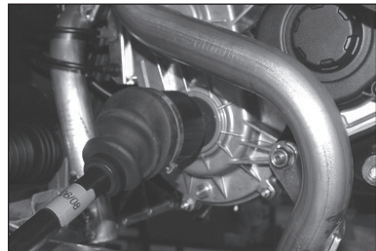


Photo 9

Axle shafts (photo 9)

The joints should not require any maintenance or greasing.

Check the protective seals every 5,000 km or once per year. They may become damaged by gravel or other materials.

Steering (photo 10)

The steering rack should not require any maintenance or greasing.

Check the protective seals every 5,000 km or once per year. They may become damaged by gravel or other materials.

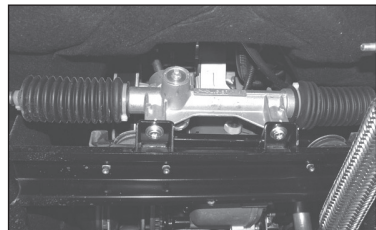


Photo 10

3.9 - COOLANT / AIR FILTER

Coolant (Photo 11)

The coolant container is situated under the bonnet on the passenger side. The coolant should be suitable down to: -25°C . (type LR 25)

Do not use "red" type coolant

The level can be seen through the container and should be kept between the MIN and MAX marks. Top up with coolant to the MAX mark.

If the coolant level drops frequently, see your LIGIER approved dealer.

CAUTION: always check the coolant level when the engine is cold. Check the level every 2,500 km.

Refer to the INTERVALS table by engine type to see how often the fluid should be changed.

Air filter (photos 12)

The air filter is located under the bonnet to the right of the engine.

To access, undo the two clips and remove the plastic cover on the cartridge.

When replacing the cover, ensure that clip A is not too close to hose B.

Refer to the INTERVALS table by engine type to see how often it should be cleaned and replaced.



Photo 11

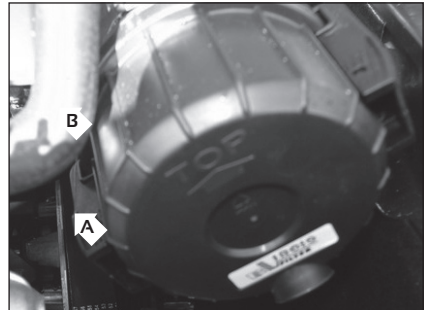


Photo 12

Attention, if the cap on the coolant container is removed when the engine is hot, the cooling circuit will be under pressure and water vapour may spray out causing serious burns.

If the vehicle is used in dusty conditions the air filter may need to be serviced more frequently.

3.10 - SERVICING



SERVICING TASKS

Engine:

For the detail of maintenance work to be done for each engine type, refer to the INTERVALS tables in the "scheduled servicing" section of the warranty booklet. At each service, the following tasks should also be carried out:

Check fluid levels:

- brake fluid
- coolant
- engine oil
- gear oil
- windscreen washer liquid:

Checks:

- tightness of engine and gear box mountings
- solidity of transmission system and steering
- tightness of exhaust mounting & clamps
- diesel and oil gaskets
- tyre pressures and wear
- belt tension and wear (variable speed drive, distributor, alternator)
- lamps and lights
- fuel and cooling system hoses

Cleaning:

- radiator fins
- variable speed drives

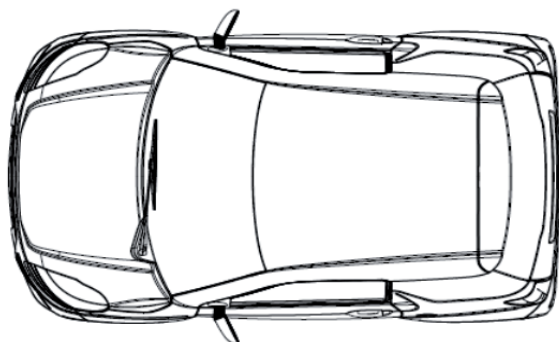
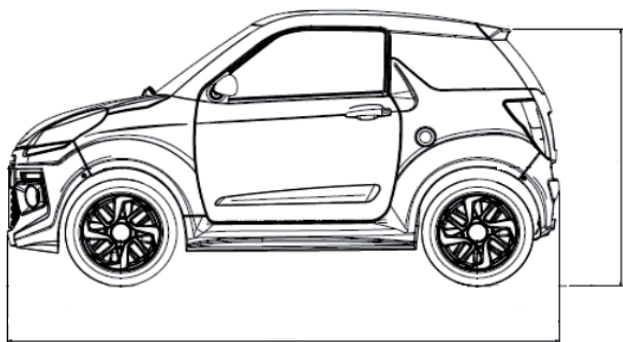
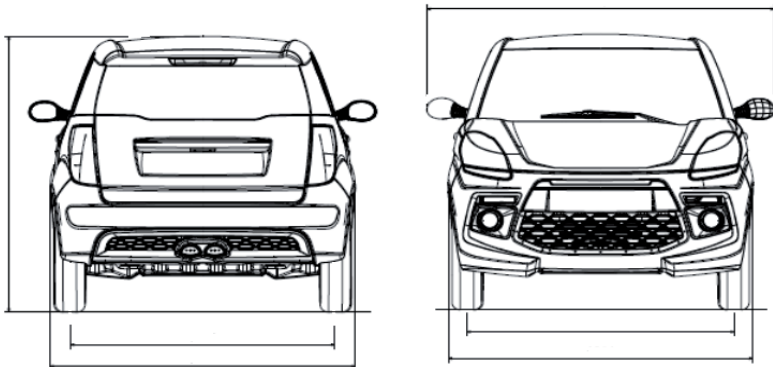
Adjustments:

- gear change cables
- geometry (wheel alignment, toe-in problems)



4. TECHNICAL FEATURES

General features.....	4.1
Maintenance of the bodywork and vehicle	4.2



4.1 - GENERAL FEATURES

TYPE LIGHT QUADRICYCLE

Seats: 2 (including driver)
 Front wheel drive and steering.
 Top speed: 45 km/h
 Automatic variable speed transmission
 FWD and REV drive gear
 Empty curb weight: 349 kg
 Curb weight: 400 kg
 Max. permitted gross weight in load : ... 675 kg
 Max. permitted gross weight per axle:
 380 kg (FRT) / 380 kg (REAR)
 Load capacity : 200 kg

DIMENSIONS

Overall length: 2,826 mm
 Overall width (inc. mirrors) : 1,782 mm
 Height unloaded: 1,475 mm
 Wheel base: 1,827 mm
 Front track width: 1,372 mm
 Rear track width: 1,356 mm

BRAKING

Hydraulic system
 Front and rear disk brakes
 Mechanical hand brake
 Liquid: type DOT4

GEARBOX

Capacity : 0,8 liters - Oil : 80W/90

BATTERY

12V-40 Ah-320A

TYRES

Front and rear: 155 / 65 R14 or 145/70R13

TYRE PRESSURES

FRT tyre pressures: 1.2 bar
 REAR tyre pressures: 1.2 bar
 No spare wheel / antipuncture spray

BULBS

Front lights:

- dip/full beam: 12V 60/55 W H4
 - sidelights: 12V 5W
 - indicator: 12V 21W

Rear lights:

- brake lights: 12V 10W
 - Side lights: 12V 3W
 - Reversing light: 12V 21W
 - Indicator: 12V 21W
 - Fog light: 12V 21W
 - Registration plate light: 12V 5W
 - Ceiling light: 12V 5W

	Revolution DCI 492	Progress
Type	4 stroke twin cylinder common rail	4 stroke twin cylinder indirect injection
Displacement	480 cm ³	505 cm ³
Internal diameter	69 mm	72 mm
Stroke	64 mm	62 mm
Max power	4Kw at 3200 rpm	
Fuel	Diesel	
Capacité réservoir	17 Litres	
Alternator	55A, 480W, belt driven	
Ignition	1,1 kw electric	
Cooling system	3,1 Litres	3,2 Litres
Greasing system	2,1 Litres	1,4 Litres
Oil type	5W40	

PROBLEM	POSSIBLE CAUSES	SOLUTION
The engine will not start.	No fuel	Fill the fuel tank
	Unsuitable fuel	Replace
	Frozen fuel	Add diesel anti-freeze
	Diesel filter clogged or full of water	Have it changed
	Weak battery	Check, recharge, replace
	No pre-heating	Contact a LIGIER dealer.
	After these checks, engine still will not start	Contact a LIGIER dealer.
After starting, the oil pressure light fails to go out	No oil in the engine	Check level with the dipstick (engine cold) and top up if necessary.
	Greasing system damaged	Contact a LIGIER dealer. Do not run engine when light is on
After starting, the engine stops, falters, fails to pick up speed	Fuel level too low	Fill the fuel tank
	Water in the fuel system	Clean the tank and diesel filter and fill with clean diesel
	Fuel is frozen	Drain off and add diesel anti-freeze
	Air filter clogged	Clean it or change it
Black smoke from the exhaust	Injection system faulty	Contact a LIGIER dealer.
Blue smoke from the exhaust	Engine too cold	Accelerate the engine for a while to allow temperature to rise
	Oil level too high	Check and change if necessary
	High oil consumption	Contact a LIGIER dealer.

4.2 - MAINTENANCE OF THE BODYWORK AND VEHICLE

MAINTENANCE RECOMMENDATION

Wash the bodywork of your vehicle with soapy water.

- Use a natural sponge for washing
- Rinse bodywork with clean water
- Dry bodywork with a chamois leather to avoid smearing
- Do not immerse the engine in water or wash with a jet spray
- To clean the interior plastics, use a specialised alcohol-free product



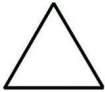
To prevent any premature damage to the bodywork of your vehicle:

- ◆ Do not use an automatic car wash or high pressure cleaner.
- ◆ Do not use water that is hotter than 50°C.
- ◆ Do not use detergents or thinners.
- ◆ Do not use any abrasive polish on the vehicle
- ◆ Do not wash the vehicle in full sun, or in freezing weather.

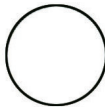
If you do not respect the indication written above, it can damage the ABS material of the bodywork (scratching, deformation, discoloration, cracking).

5. ROAD SIGNS

ROAD SIGN CATEGORIES



Triangle = danger



Round = prohibition or obligation



Prohibition



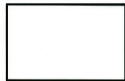
Obligation



End of prohibition



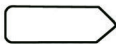
End of obligation



or

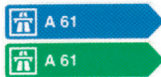


= indication



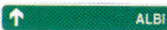
DIRECTION

Blue



➡ Connection to a motorway

Green



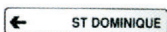
➡ Routes selected for large towns

Yellow



➡ Temporary route

White



➡ Direction

PRORITY SIGNS



➡ Give way to left and to right



➡ Give way to left and to right



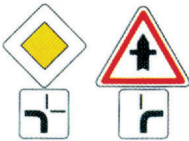
➡ Give way to the right



➡ Priority: you can go



➡ But look out for dangers such as an emergency vehicle or a vehicle which ignores the road signs



➡ The thickest line shows the priority road



➡ Level crossing with gates



➡ Level crossing without gates

TRAFFIC LIGHTS

Traffic lights without signs



- ➡ Look to the right and to the left
- ➡ Go



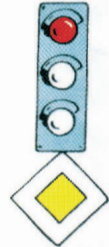
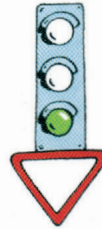
- ➡ Stop



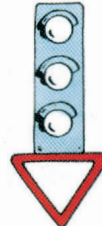
- ➡ Stop
- ➡ Wait for the green light

Traffic lights with signs

- ➡ Lights are working
- ➡ Ignore the signs



- ➡ Lights not working or orange light flashing
- ➡ The signs must be respected



ROADS PROHIBITED TO LIGHT QUADRICYCLES AND MOTORCYCLES



➡ Traffic prohibited to all vehicles in both directions



➡ No entry to any vehicle



➡ No entry to motorcycles and light quadricycles



➡ No entry to any motor vehicle



➡ Cycle route prohibited to quadricycles



➡ Bus lane



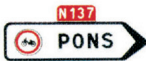
➡ Cars only, quadricycles prohibited



➡ Motorway sliproad, quadricycles prohibited



➡ Right turn prohibited for motorcycles and light quadricycles



➡ Route prohibited to motorcycles and light quadricycles

ATTENTION

Light quadricycles are considered by law to be motorcycles. Even when registered, they are prohibited on some roads.