

# aprilia

**SR** 50



**aprilia** part# 8202441

**use+maintenance**book



First edition: October 2004

Reprint: September 2006/A


Produced and printed by:  
**VALLEY FORGE DECA**  
Ravenna , Modena, Torino

**DECA S.r.l.**  
Registered Main Office  
Via Vincenzo Giardini, 11  
48022 Lugo (RA) - Italy -  
Tel. 0545-216611  
Fax 0545-216610  
www.vftis.com  
deca@vftis.spx.com

On behalf of:  
**Piaggio & C. S.p.A.**  
via G. Galilei, 1 - 30033 Noale (VE) - Italy  
Tel. +39 - (0)41 58 29 111  
Fax +39 - (0)41 44 10 54  
www.aprilia.com

## **SAFETY WARNINGS**

The symbols and warnings used throughout this manual have the following meanings:

 **Safety warning. This symbol attached to the vehicle or in the manual indicates a potential risk of personal injury. Non-compliance with the indications given in the messages preceded by this symbol may result in grave risks for your and other people's safety and for the vehicle!**

### **WARNING**

**Indicates a potential hazard which may result in serious injury or even death.**

### **CAUTION**

**Indicates a potential hazard which may result in minor personal injury or damage to the vehicle.**

**NOTE** The word "NOTE" in this manual identifies important information or instructions.

## **TECHNICAL INFORMATION**

★ The operations preceded by this symbol must be repeated on the opposite side of the vehicle.

Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.

The terms "right" and "left" are referred to the rider seated on the vehicle in the normal riding position.

## **WARNINGS - PRECAUTIONS - GENERAL ADVICE**

Before starting the engine, read this manual thoroughly paying special attention to section "SAFE RIDING".

Your and other people's safety largely depends on your reflexes and agility, but there are other key factors, such as your knowledge of the vehicle's operation and condition, as well as of the basic rules of "SAFE RIDING". Becoming thoroughly familiar with vehicle is essential to mastering safe riding techniques in traffic.

**NOTE** This manual must be considered as an integral part of the vehicle and must always accompany it, also in the event the vehicle is resold.

**aprilia** has drafted this manual with the maximum attention, in order to supply the user with correct and updated information. However, since **aprilia** constantly improves the design of its products, there may be slight discrepancies between the characteristics of your vehicle and those described in this manual. For any clarification concerning the information contained in this manual, do not hesitate to contact your **aprilia** Authorised dealer.

For control and repair operations not expressly described in this publication, for the purchase of **aprilia** genuine spare parts, accessories and other products, as well as for specific advice, contact exclusively **aprilia** Authorised Dealers and Service Centres, which guarantee prompt and accurate assistance.

Thank you for choosing **aprilia**. We wish you a nice ride.

All rights of electronic storage, reproduction and total or partial adaptation with any means reserved for all Countries.

**NOTE** Some countries have statutory emission and noise control regulations in place requiring that motor vehicles undergo periodical inspections.

Users in these countries must:

- contact an **aprilia** Authorised Dealer to have

the non-homologated components replaced with others homologated for use in the country in question;

- have their vehicles inspected at the required intervals.

**NOTE** Soon after purchasing the vehicle, write down the identification data indicated on the SPARE PARTS IDENTIFICATION LABEL in the table here below. The label is on the frame left tube.

<b>aprilia</b>					YEAR				
SPARE PARTS IDENTIFICATION					I.M.				
I	UK	A	P	SF	B	D	F	E	GR
NL	CH	DK	J	SGP	SLO	IL	ROK	MAL	RCH
HR	AUS	USA	BR	RSA	NZ	CDN			

These data indicate:

- YEAR = year of manufacture (Y, 1, 2, ...);
- I.M. = modification code (A, B, C, ...);
- COUNTRY CODES = homologation country (I, UK, A, ...).

and are to be supplied to the **aprilia** Authorised Dealer as reference data for the purchase of spare parts or specific accessories of the model you have acquired.

Market versions are identified by the following symbols throughout the manual:

- OPT** optional
- IE 361** electronic injection Purejet engine
- IE 50** electronic injection Ditech engine
- C 364** Carburettor

## VERSION:

- I** Italy
- UK** United Kingdom
- A** Austria
- P** Portugal
- SF** Finland
- B** Belgium
- D** Germany
- F** France
- E** Spain
- GR** Greece
- NL** Holland
- CH** Switzerland
- DK** Denmark
- J** Japan
- SGP** Singapore
- SLO** Slovenia
- IL** Israel
- ROK** South Korea
- MAL** Malaysia
- RCH** Chile
- HR** Croatia
- AUS** Australia
- USA** United States of America
- BR** Brazil
- RSA** South Africa
- NZ** New Zealand
- CDN** Canada

## GENERAL INDEX

<b>SAFETY WARNINGS .....</b>	<b>2</b>
<b>TECHNICAL INFORMATION .....</b>	<b>2</b>
<b>WARNINGS - PRECAUTIONS - GENERAL</b>	
<b>ADVICE .....</b>	<b>2</b>
GENERAL INDEX .....	4
BASIC SAFETY RULES .....	6
CLOTHING .....	8
ACCESSORIES .....	8
LOAD .....	9
<b>ARRANGEMENT OF THE MAIN ELEMENTS</b>	<b>10</b>
<b>LOCATION OF INSTRUMENTS/CONTROLS</b>	<b>12</b>
<b>INSTRUMENTS AND INDICATORS .....</b>	<b>13</b>
MULTIFUNCTION DIGITAL	
COMPUTER <b>C 364</b> .....	14
MULTIFUNCTION DIGITAL	
COMPUTER <b>IE 50</b> <b>IE 361</b> .....	15
INSTRUMENTS AND INDICATORS TABLE .....	17
<b>MAIN INDEPENDENT CONTROLS .....</b>	<b>19</b>
CONTROLS ON LEFT HANDLEBAR .....	19
CONTROLS ON RIGHT HANDLEBAR .....	19
IGNITION SWITCH .....	20
STEERING LOCK .....	20
UNLOCKING/LOCKING THE SEAT .....	21
HELMET COMPARTMENT / GLOVE	
COMPARTMENT .....	21
GLOVE COMPARTMENT .....	21
ANTITHEFT HOOK .....	22
BATTERY COMPARTMENT / TOOL KIT .....	22
BAG HOOK .....	22
ACCESSORIES <b>OPT</b> .....	23
<b>MAIN COMPONENTS .....</b>	<b>24</b>
FUEL .....	24
LUBRICANTS .....	25
TRANSMISSION FLUID .....	25
MIXER OIL .....	25
BRAKE FLUID - RECOMMENDATIONS .....	26
DISC BRAKES .....	27
COOLANT .....	28
CHECKING AND TOPPING UP .....	29
TYRES .....	30
CATALYTIC SILENCER .....	31
EXHAUST MUFFLER/EXHAUST SILENCER .....	31

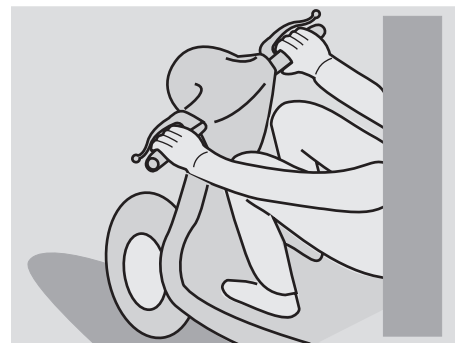
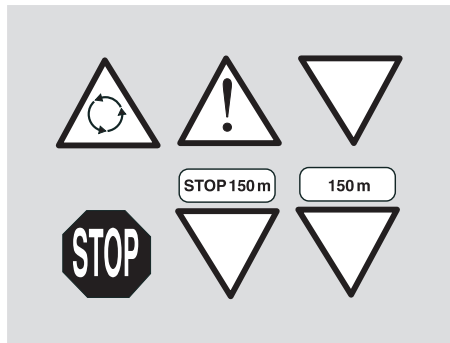
<b>INSTRUCTIONS FOR USE .....</b>	<b>32</b>
PRE-RIDE CHECKS CHART .....	32
STARTING .....	33
MOVING OFF AND RIDING .....	35
RUNNING-IN .....	37
STOPPING .....	38
PARKING .....	38
PLACING THE VEHICLE ON THE STAND .....	39
SUGGESTIONS TO PREVENT THEFT .....	39
<b>MAINTENANCE .....</b>	<b>40</b>
SCHEDULED MAINTENANCE CHART .....	41
IDENTIFICATION DATA .....	43
REAR WHEEL .....	46
CHECKING THE BRAKE PADS FOR WEAR .....	47
REMOVING THE FRONT COVER .....	48
REMOVING THE REAR BRAKE CALLIPER .....	48
REMOVING THE EXHAUST	
SILENCER <b>C 364</b> .....	49
REMOVING THE EXHAUST	
SILENCER <b>IE 50</b> <b>IE 361</b> .....	49
IDLING ADJUSTMENT .....	50
ADJUSTING THE THROTTLE CONTROL <b>C 364</b> .....	50
SPARK PLUG .....	51
BATTERY .....	52
LONG INACTIVITY OF THE BATTERY .....	52
REMOVING THE BATTERY .....	52
INSTALLING THE BATTERY .....	53
CHECKING BATTERY FLUID LEVEL .....	53
CHARGING THE BATTERY .....	53
CHANGING THE FUSES .....	54
VERTICAL ADJUSTMENT OF THE HEADLIGHT	
BEAM .....	55
BULBS .....	55
CHANGING THE HEADLIGHT BULBS (LOW/HIGH	
BEAM) .....	55
CHANGING THE FRONT TURN INDICATOR	
BULBS .....	56
CHANGING THE REAR TURN INDICATOR	
BULBS .....	57
CHANGING THE TAIL LIGHT / STOP BULBS .....	58
<b>TRANSPORT .....</b>	<b>59</b>
DRAINING THE FUEL TANK .....	59
<b>CLEANING .....</b>	<b>60</b>
LONG PERIODS OF INACTIVITY .....	61

<b>TECHNICAL DATA .....</b>	<b>62</b>
LUBRICANT CHART .....	65
WIRING DIAGRAM - SR 50 DITECH <b>IE 50</b> .....	66
WIRING DIAGRAM KEY -	
SR 50 DITECH <b>IE 50</b> .....	67
CABLE COLOUR .....	67
SCOOTER WIRING DIAGRAM -	
SR 50 PUREJET <b>IE 361</b> .....	68
WIRING DIAGRAM KEY - SR 50 PUREJET <b>IE 361</b> .....	69
CABLE COLOUR .....	69
SCOOTER WIRING DIAGRAM - SR 50 <b>C 364</b> .....	70
SCOOTER WIRING DIAGRAM KEY -	
SR 50 <b>C 364</b> .....	71
CABLE COLOUR .....	71
AUTHORISED DEALERS AND SERVICE	
CENTRES .....	72

# aprilia



safe riding



## BASIC SAFETY RULES

To drive the vehicle, you must satisfy certain legal requirements (driving licence, minimum age limit, psychophysical fitness, insurance, vehicle licence tax, vehicle registration, number plate, etc.).

Begin to familiarise yourself with the vehicle by riding in low traffic areas and/or private ground.

Certain prescribed medicines, alcohol, drugs and psychotropic substances will affect your riding, thereby increasing the risk of an accident.

Your riding is also affected by your physical and mental condition - do not ride if you are feeling ill, upset, tired or sleepy.

Most road accidents are caused by inexperienced riders.

NEVER lend your vehicle to a beginner and make sure any person borrowing your vehicle fills the legal requirements for driving.

Strictly observe all posted signs and national and local road regulations.

Avoid any sudden or risky manoeuvres that may endanger your and other people's safety (for example: wheelies, speeding, etc.), and adjust your riding style to road surface conditions, visibility, etc.

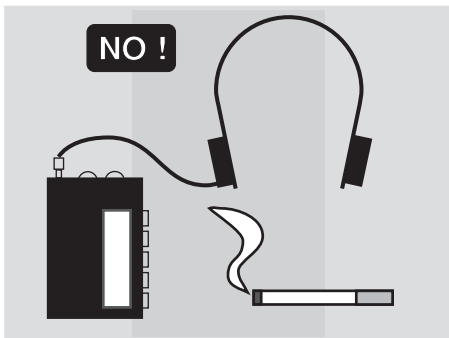
Avoid obstacles that could damage the vehicle or make you lose control of the vehicle.

Avoid riding in the slipstream of vehicles ahead in order to increase your speed.

## ⚠ WARNING

**Always keep both hands on the handlebars and both feet on the footboard (or on the rider's footrests), in the correct driving posture.**

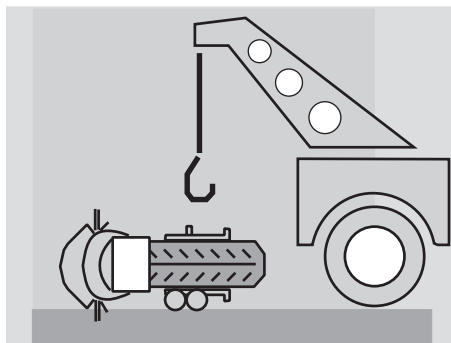
Do not stand up or stretch your limbs while riding.



Do not allow yourself to become distracted by other persons or by smoking, eating, drinking, reading etc. when riding.

Use only the specified fuels and lubricants indicated in the "LUBRICANT CHART" and check oil, fuel and coolant levels at regular intervals.

If the vehicle has been involved in an accident, check the control levers, pipes and hoses, wires, the braking system and key components for damage.



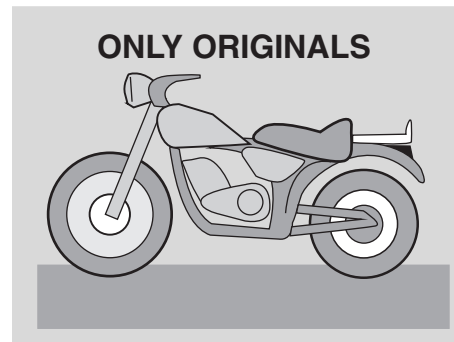
If necessary, have the vehicle inspected by an **aprilia** Authorised Dealer who should carefully check the frame, handlebars, suspensions, safety parts and all the devices that you cannot check by yourself.

Remember to report any malfunction to the technicians and/or mechanics to facilitate their work.

Never use the vehicle when the amount of damage it has suffered makes it unsafe to ride.

Never change the position, inclination or colour of: number plate, turn indicators, lights and horns.

Any modification made to the vehicle will invalidate the warranty.



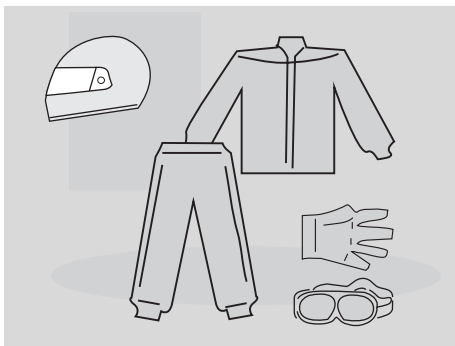
Making any modifications to the vehicle and/or removing the original components can adversely affect vehicle performance and safety or make it illegal to ride.

Observe applicable law and all national and local regulations concerning vehicle equipment.

In particular, avoid any modifications apt to enhance performance or alter the vehicle's original specifications.

Never race with other vehicles.

Do not ride off road.

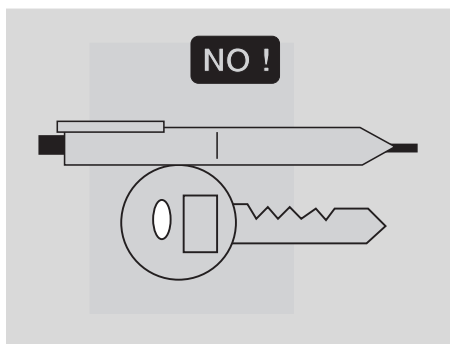


## CLOTHING

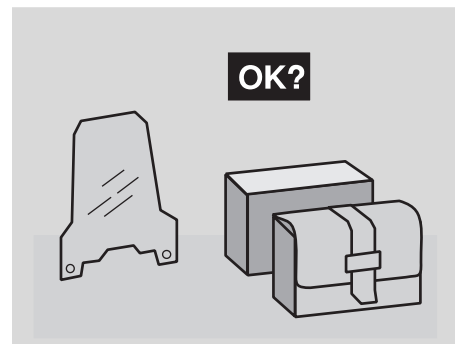
Always wear and fasten your helmet correctly before moving off. Make sure your helmet complies with applicable regulations, is not damaged, is the right size and keep the visor clean.

Wear protective clothing, preferably bright and/or reflective clothing. This will ensure you are easily seen by other road users and reduce the risk of an accident, besides affording improved protection in the event of a fall.

Wear tight-fitting clothing fastened at the wrists and ankles; make sure no strings, belts and ties are hanging loose; make sure no items of clothing or other objects can distract you or become entangled with moving parts or with the handlebars.



Do not ride with sharp or pointed objects in your pockets as they might cause injury in the event of a fall (this includes keys, pens, glass vials, etc. - note that the same applies to your passenger).



## ACCESSORIES

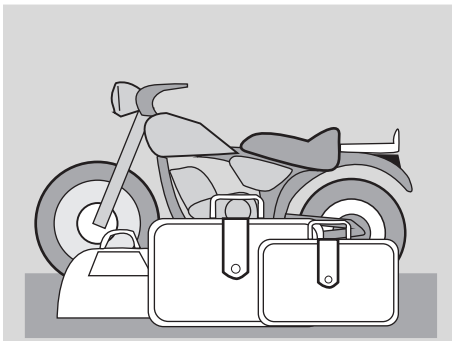
The owner of the vehicle is responsible for the choice, installation and use of any accessory.

Any accessories installed must not cover the horns or lights or impair their operation, restrict suspension travel and steering angle, impair the operation of any vehicle controls or affect ground clearance or bank angle in a bend.

Avoid using accessories that may hamper access to vehicle controls, as this can slow down your reaction in an emergency.

Large fairings and windshields may affect the vehicle's aerodynamics and make it unstable, especially at high speeds.





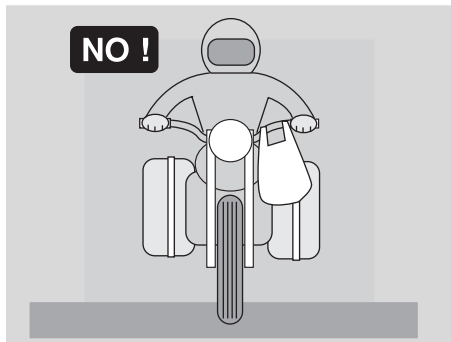
Make sure any accessories installed are fastened securely to the vehicle and will not affect safety during riding.

Do not install or modify any electric devices in such a manner as to exceed vehicle capacity, as this may lead to a power shortage or failure causing the engine to stop suddenly or rendering the horn and lights inoperative.

**aprilia** recommends the use of genuine accessories (**aprilia** genuine accessories).

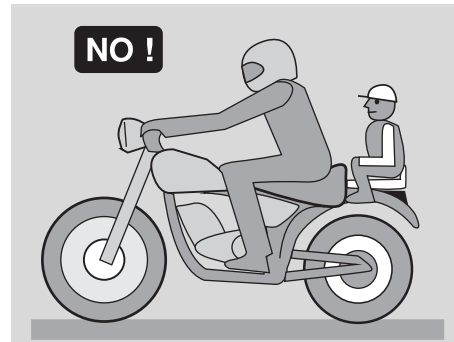
## LOAD

Be careful not to overload the vehicle with exceeding luggage. Place your luggage as close as possible to the centre of gravity of the vehicle and make sure its weight is evenly distributed across both sides of the vehicle to keep it stable. Make sure that the luggage is firmly secured to the vehicle, especially before long trips.



Avoid fixing bulky, heavy and/or dangerous objects to the handlebars, mudguards and forks - this could slow down the vehicle's response in turns and would inevitably affect handling.

Do not secure bulky bags to the vehicle sides, as they could hit people or obstacles when riding, resulting in loss of control.



Do not carry any luggage unless firmly secured to the vehicle.

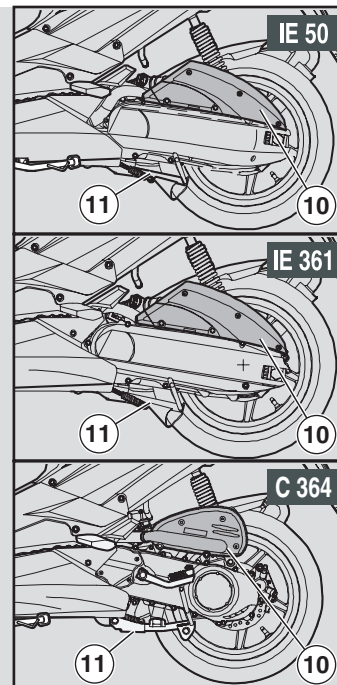
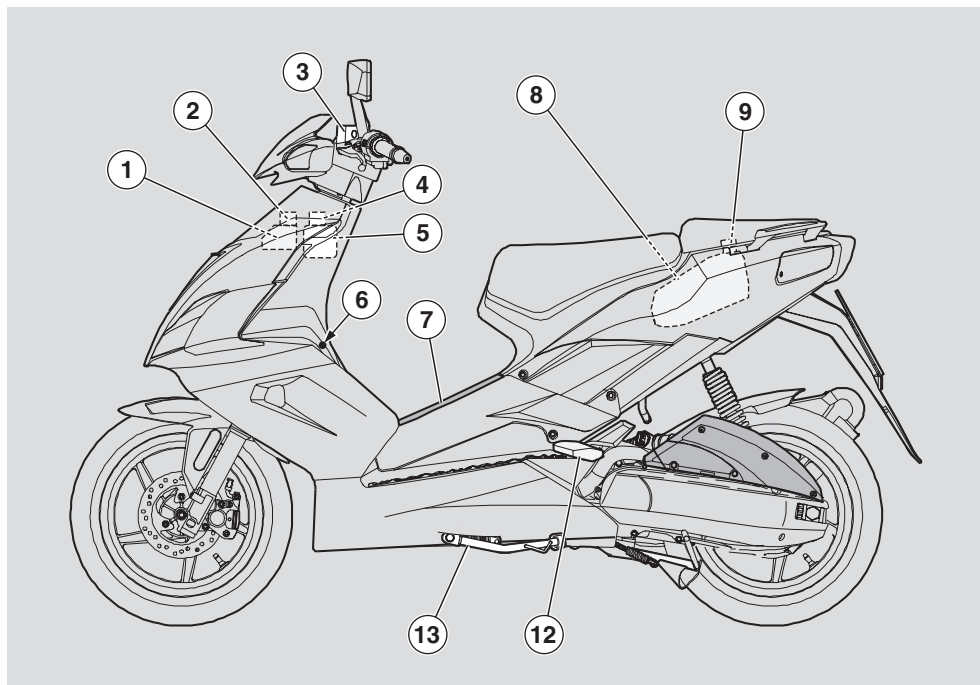
Do not carry any bags which protrude too much over luggage rack or cover the lights, horn or indicators.

Do not carry pets or children sitting on the glove compartment or on the luggage rack.

Do not exceed the maximum load capacity of each luggage rack.

The overloaded vehicle will become unstable and handle poorly.

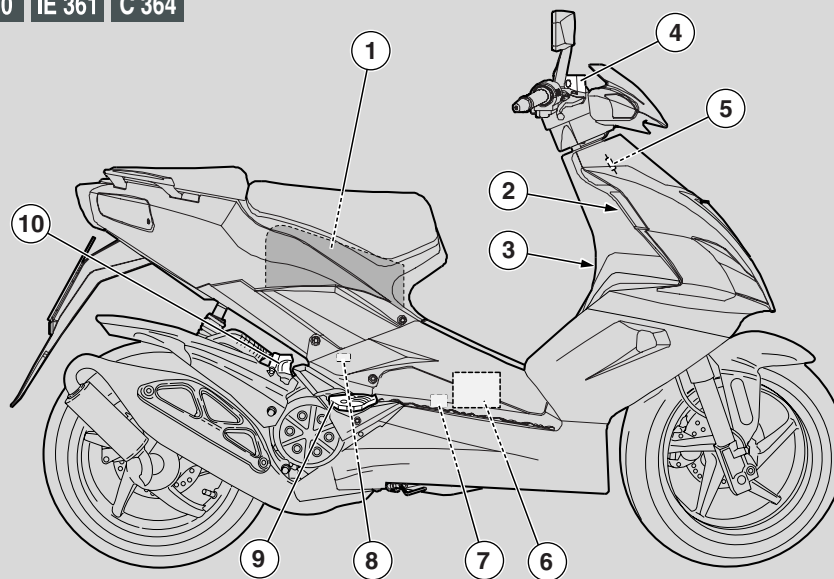
## ARRANGEMENT OF THE MAIN ELEMENTS



### KEY

- |                                |   |                            |
|--------------------------------|---|----------------------------|
| 1) Coolant tank                | 5) Mixer oil reservoir                  | 10) Air filter             |
| 2) Coolant expansion tank plug | 6) Seat lock                            | 11) Centre stand           |
| 3) Rear brake fluid reservoir  | 7) Battery compartment / tool kit cover | 12) Left passenger footpeg |
| 4) Mixer oil reservoir cap     | 8) Fuel tank                            | 13) Side stand <b>OPT</b>  |
|                                | 9) Fuel tank filler plug                |                            |

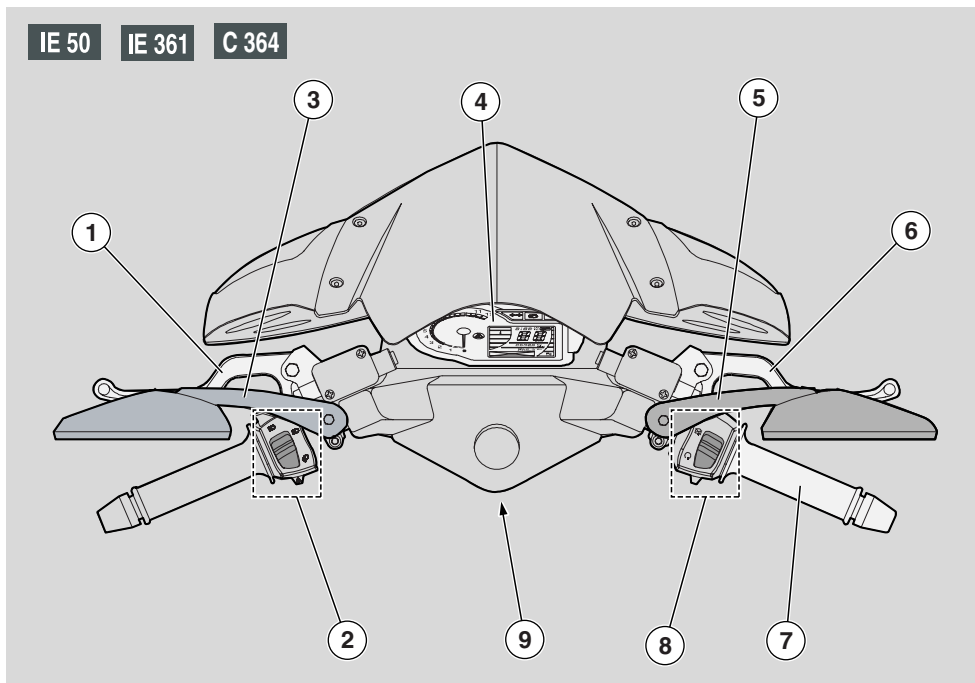
IE 50 IE 361 C 364



## KEY

- |   |                 |  |
|---|-----------------|--|
| 1) Helmet compartment / glove compartment | 5) Warning horn | 9) Right passenger footpeg   |
| 2) Ignition switch/steering lock          | 6) Battery      | 10) Antitheft hook (for the Aprilia "Body-Guard" shielded cable <b>OPT</b> ) |
| 3) Bag hook                               | 7) Fuse carrier |  |
| 4) Front brake fluid reservoir            | 8) Spark plug   |  |

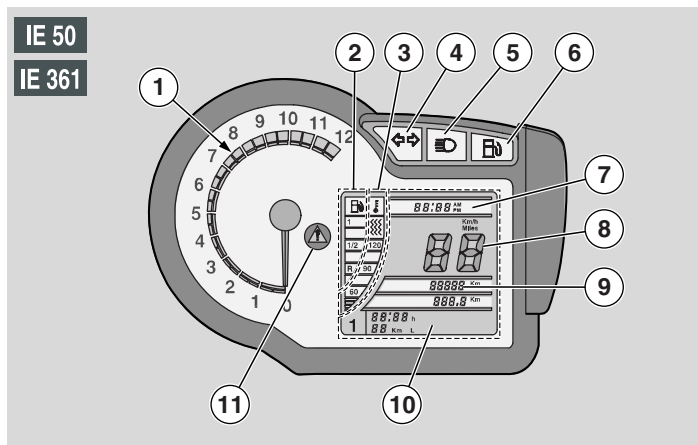
## LOCATION OF INSTRUMENTS/CONTROLS



### KEY

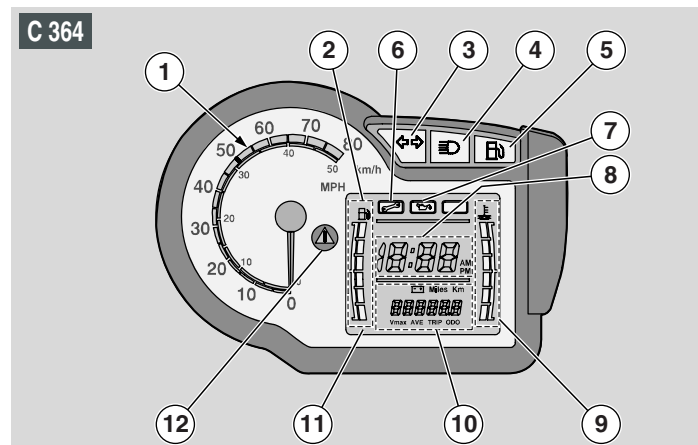
- |  |   |  |
|--|---|--|
| 1) Rear brake lever                                      | 5) Right rear-view mirror                                 | 9) Ignition switch/steering lock (○-⊗-⊞) |
| 2) Electrical controls on the left side of the handlebar | 6) Front brake lever                                      |  |
| 3) Left rear-view mirror                                 | 7) Throttle grip  |  |
| 4) Instruments and indicators                            | 8) Electrical controls on the right side of the handlebar |  |

## INSTRUMENTS AND INDICATORS



### KEY

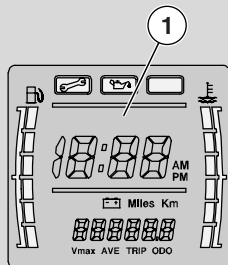
- 1) Rev counter
- 2) Fuel level indicator (🛢️)
- 3) Coolant temperature indicator (🌡️)
- 4) Green turn indicator warning light (↻↻)
- 5) Blue high beam warning light (≡▷)
- 6) Amber low fuel light (🛢️)
- 7) Clock
- 8) Speedometer
- 9) Odometer
- 10) Multifunction indicator: odometer (ODO) / trip meter (TRIP) / battery voltage (🔋)
- 11) Red general warning light (⚠️)



### KEY

- 1) Speedometer
- 2) Fuel level indicator (🛢️)
- 3) Green turn indicator warning light (↻↻)
- 4) Blue high beam warning light (≡▷)
- 5) Amber low fuel light (🛢️)
- 6) Service warning
- 7) Mixer oil reserve light (🛢️)
- 8) Digital clock
- 9) Coolant temperature indicator (🌡️)
- 10) Multifunction indicator: odometer (ODO) / trip meter (TRIP) / battery voltage (🔋)
- 11) Red general warning light (⚠️)

C 364



## MULTIFUNCTION DIGITAL COMPUTER C 364

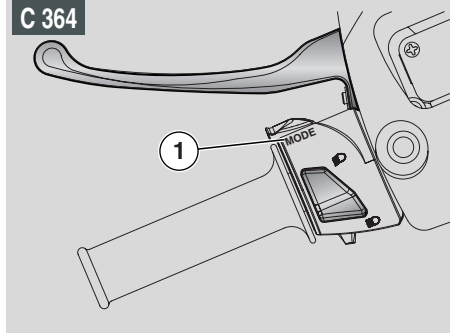
### Multifunction indicator functions

Use the Mode button (2), on handlebar left side, to select among various functions: clock setting, odometer (ODO), trip meter (TRIP), battery voltage value and trip meter reset.

### Odometer (ODO)

When the instrument panel is switched on, the multifunction display (1) shows the odometer function (ODO).

C 364



### TRIP function (TRIP)

With the odometer display (ODO), press the Mode button (2) once to display the function (TRIP). Hold down the Mode button (2) for at least three seconds to reset stored trip value.

### Battery voltage

With the odometer display, press the Mode button (2) twice to display the battery function.

### Conversion of unit of measurement - Km/Mi

When battery voltage is displayed on multifunction display (1), hold down the Mode button (2) for more than ten seconds to change the unit of measurement from kilometres (Km) to miles (Mi). While pressing the button, the current unit of measurement is flashing. Should the button be pressed for less than ten seconds, the conversion will not take place.

## Setting the clock

**NOTE** For safety reasons, it is possible to set this function when vehicle is stopped only.

Hold down the Mode button (2) for at least three seconds.

The column dividing hours and minutes will start flashing.

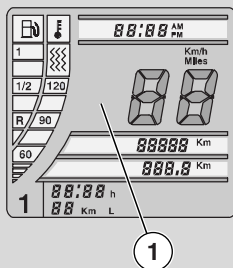
Set the hour value, it will increase by one unit every time you press the Mode button (2).

Hold down the Mode button (2) again for at least three seconds to shift to minute setting. The indicated value will increase by one unit every time the Mode button (2) is pressed.

Hold down the Mode button (2) for at least three seconds to go back to hour setting.

If no key has been touched for three seconds, the display will automatically quit the clock setting function.

IE 50 IE 361



## MULTIFUNCTION DIGITAL COMPUTER IE 50 IE 361

### Using the MODE joystick (2)

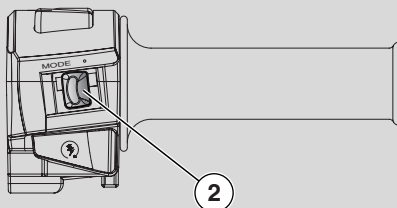
Using the MODE joystick (2) on handlebar right side, it is possible to choose various functions in sequence; move the MODE joystick (2) to the right or to the left (UP/DOWN) to scroll the functions, select the function by pressing rapidly, confirm data by pressing for a longer period.

### Multifunction indicator functions

Move the UP/DOWN joystick (2) to display the sequence of the various functions:

TRIP 1 → TRIP 2 → BATTERY VOLTAGE → CHRONOMETER → MENU

IE 50 IE 361



### TRIP1 - TRIP2 functions

The two pages display two stored values for: trip meter, average speed, maximum speed. The values can be reset by holding down the MODE joystick (2) for a certain time.

### Battery Voltage function

Battery voltage is displayed

### Chronometer function

Quickly press the MODE joystick (2) to start the chronometer.

If the MODE joystick (2) is pressed before 10 seconds have elapsed since chronometer start, current measure is cancelled and a new one is started.

If the MODE joystick (2) is pressed after 10 seconds have elapsed since chronometer start, current measure is stopped, stored and a new one is started.

Hold down MODE joystick (2) for a certain time to stop the measurements.

It is possible to store up to 16 times in a row, that can be displayed on the CHRONOMETER screen under the Menu function (see "Menu Function").

### Menu function

Press the MODE joystick (2) for a certain time to enter the Menu. Press again the MODE joystick (2) to access the SETTINGS and CHRONOMETER sub-menus.

SETTINGS - Press again the MODE joystick (2) to access the following sub-menus: "Time setting", "Code change" and "Language setting":

- Time setting: (from the SETTINGS menu) briefly press on MODE joystick (2) to enter the setting function. Set the time using the UP/DOWN joystick (2), confirm it with the MODE joystick (2). Using UP/DOWN joystick (2) shift to minutes, confirm the set value with the MODE joystick (2).
- Code change: (from the SETTINGS menu) shortly press on the MODE joystick (2) to enter the function for setting the 5-digit safety code. Set the first digit using the UP/DOWN joystick (2), confirm it with the MODE joystick (2). Then set the following digit.

**NOTE** The safety code will be necessary to start the vehicle with a key not fitted with a transponder or in any case not initialised on the vehicle.

**NOTE** The safety code stored on any new vehicle is 00000.

**NOTE** Every time a new vehicle is started, the instrument panel issues a warning to prompt the rider to customise the safety code. It is recommended to set the your personal code instead of the standard one, take note of the new code and keep it in a safe place, not on the scooter itself and remember to hand it over to the new owner in case of sale.

- Language setting: (from the SETTINGS menu) briefly press on the MODE joystick (2) to enter this function, use the UP/DOWN joystick (2) to set the desired language among the ones available, select it by pressing on the MODE joystick (2) for a certain time.

**CHRONOMETER** - this menu allows you to display and delete the stored values:

- Display: enter this menu to display the times recorded using the Chronometer function. Briefly press on the MODE joystick (2) to quit time display mode.

- Delete: enter this menu to delete the times recorded using the Chronometer function. All values can be deleted by holding down the MODE joystick (2) for a certain time.












### **WARNING**


**Always select the desired function with vehicle stopped.**



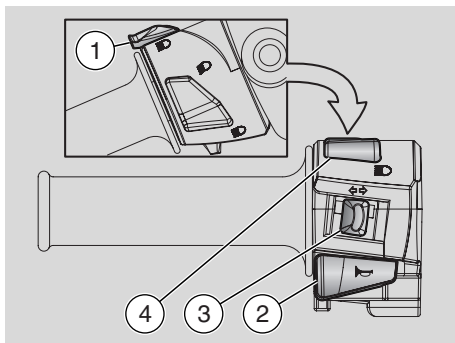
## INSTRUMENTS AND INDICATORS TABLE

**NOTE** Turn the key to ON (○), for the first three seconds all pilot lights, the instrument panel backlighting and the digital display indicators will come on, thus carrying out the starting check routine.

Description	Function
Direction indicator warning light	It blinks when the right or left direction indicator is on.
Mixer oil reserve indicator 	<div>  <b>CAUTION</b> </div> <b>It shows together with the alarm light to indicate that the mixer oil level is in reserve; top up mixer oil, see page 25 (MIXER OIL).</b>
Speedometer	Indicates road speed.
High beam warning light 	Comes on when the headlight high beam is on or when you flash the high beam (PASSING↕).
Low fuel warning light 	<p>It comes on when the quantity of fuel left in the tank is 1.2 ℓ.</p> <p><b>When the light comes on, refuel as soon as possible, see page 24 (FUEL).</b></p>
Fuel level indicator 	It indicates the approximate fuel level in the tank.
Digital clock	Displays current hour and minutes.
Coolant temperature indicator 	<p>It indicates the approximate temperature of the coolant in the engine. When the first section comes on, the temperature allows you to ride the vehicle. The normal running temperature range is indicated by the central area of the scale. In case of excessive temperature, the alarm light comes on. In this case, stop the engine and check coolant level, see page 28 (COOLANT).</p> <div>  <b>CAUTION</b> </div> <b>Exceeding the maximum coolant temperature allowed may lead to severe engine damage.</b>
Alarm light 	<p>It comes on to warn about a general failure, also the relevant icon will show on the digital display. Check the failure and fix it.</p> <p>It comes on in case of: mixer oil reserve, coolant high temperature, temperature sensor signal interrupt, fuel sensor signal interrupt, problems with the injection system  .</p> <p>It turns on for a few seconds when ignition switch is turned to "○" position.</p> <div>  <b>CAUTION</b> </div> <ul style="list-style-type: none"> <li>- If the light goes off, it is possible to start the engine.</li> <li>- If the light stays on for more than 10 sec. the engine can be started but it is necessary to contact an <b>aprilia</b> Authorised Dealer.</li> <li>- If the light flashes, DO NOT start the engine and contact an <b>aprilia</b> Authorised Dealer.</li> <li>- If the light stays on, the vehicle is faulty, contact an <b>aprilia</b> Authorised Dealer.</li> </ul>

Description	Function
<b>Service icon</b> 	<p>It comes on to warn that the vehicle is due for service.</p> <p>The icon will come on and flash 300 km before the next scheduled service and will stay on when mileage set for service is reached.</p>
<b>Multifunction indicator</b>	<p>It displays the auxiliary functions, see page 14 - 15 (MULTIFUNCTION DIGITAL COMPUTER)</p>

## MAIN INDEPENDENT CONTROLS



### CONTROLS ON LEFT HANDLEBAR

**NOTE** The electric components only operate when the ignition switch is in the “O” position.

- 1) **PASSING BUTTON** (↕) IE 50 IE 361  
Press the button (PASSING) to activate the high beam flasher.

**NOTE** Release the button “↕” to disable the high beam flasher.

- 1) **MODE BUTTON** C 364  
Press this button to display the multifunction Display pages.
- 2) **HORN BUTTON** (🔊)  
Press this button to operate the horn.
- 3) **TURN INDICATOR SWITCH** (↔)  
To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the

right. Press the switch to cancel the signal.

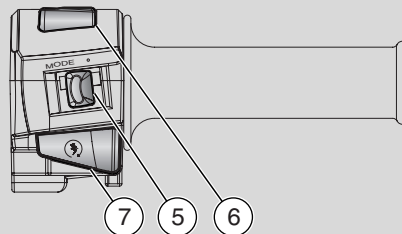
- 4) **LIGHT DIMMER SWITCH** (🔦 - 🔦)  
If the dimmer switch is in position “🔦”, the high beam comes on; while if it is in position “🔦”, the low beam comes on.

### CONTROLS ON RIGHT HANDLEBAR

**NOTE** The electric components only operate when the ignition switch is in the “O” position.

- 5) **MODE BUTTON** IE 50 IE 361  
Move the MODE joystick (5) to the left/right or press it to scroll and select the multifunction display pages UP/DOWN .
- 6) **ENGINE STOP SWITCH** (O - ⚡)  
7) **STARTER BUTTON** (🔧)  
Press the button “🔧” to have the starter motor crank the engine. For the starting procedure, see page 33 (STARTING)

IE 50 IE 361



### ⚠ WARNING

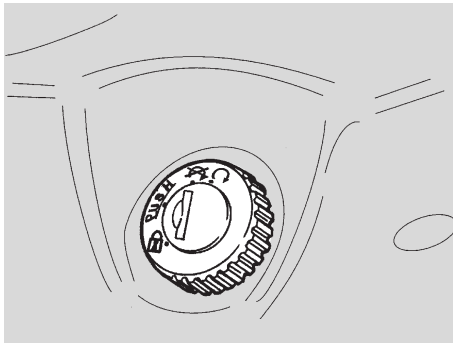
**Do not operate the engine stop switch “O - ⚡” while riding.**

This switch serves as a safety or emergency switch. With the switch in position “O”, it is possible to start the engine; the engine can be stopped by moving the switch to position “⚡”.

### ⚠ CAUTION

**With the engine stopped and the ignition switch in position “O”, the battery may run flat.**

**When the vehicle has come to a standstill and you have stopped the engine, set the ignition switch to position “⚡”.**



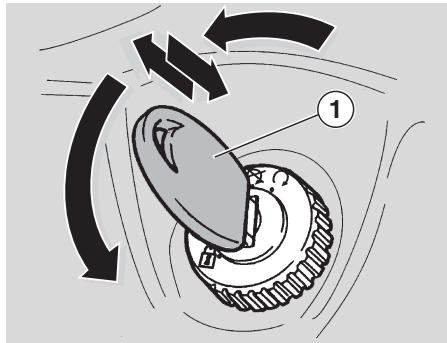
## IGNITION SWITCH

The ignition switch is positioned on the right side of the steering head.

**NOTE** The key (1) operates the ignition switch / steering lock, the battery compartment / tool kit lock and the seat lock.

Two keys are supplied together with the vehicle (one spare key).

**NOTE** Store the spare key in a safe place (other than the vehicle).



## STEERING LOCK

### ⚠ WARNING

**Never turn the key to position "⛔" when riding, or you will lose control of the vehicle.**




### OPERATION

To lock the steering:

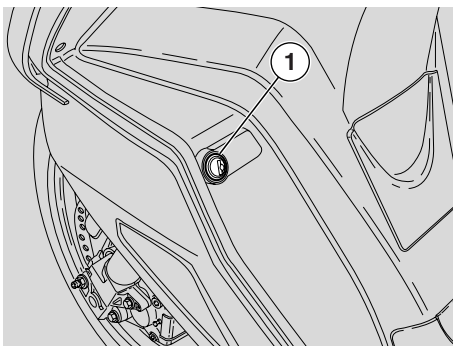
- ◆ Turn the handlebar fully to the left.
- ◆ Turn the key (1) to position "⛔", and press it.

**NOTE** Turn the key and steer the handlebar at the same time.

- ◆ Turn the key (1) anticlockwise (to the left), then steer the handlebar slowly, until the key (1) reaches position "⛔".
- ◆ Extract the key.

Position	Function	Key removal
Steering lock 	The steering is locked. It is not possible to start the engine or switch on the lights.	It is possible to remove the key.
	Neither the engine, nor the lights will operate.	It is possible to remove the key.
	The engine can be started, the direction indicators, the horn, the MIX oil warning light, the fuel warning light, the temperature indicator (only if engine is hot) and the fuel gauge are enabled.	It is not possible to remove the key.

## AUXILIARY EQUIPMENT



### UNLOCKING/LOCKING THE SEAT

To unlock and lift the seat:

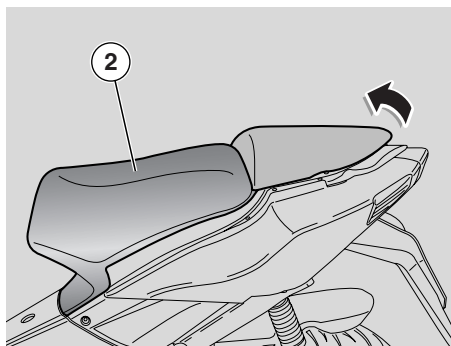
- ◆ Place the vehicle on the stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Insert the key in the lock on the inner front shield (1).
- ◆ Turn the key clockwise and raise the seat (2).

**NOTE** Before taking the seat down and locking it, check that the key has been removed from the helmet compartment /glove compartment.

- ◆ To lock the seat, lower and press it (without exerting too much pressure), thus making the lock snap shut.

### WARNING

Before leaving, make sure that the seat is properly locked.



### HELMET COMPARTMENT / GLOVE COMPARTMENT

Thanks to the helmet/glove compartment, you need not carry the helmet or other encumbering objects with you every time you park the vehicle.

The compartment is positioned under the seat.

To reach this compartment, proceed as follows:

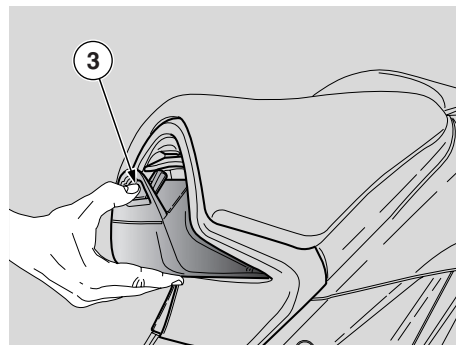
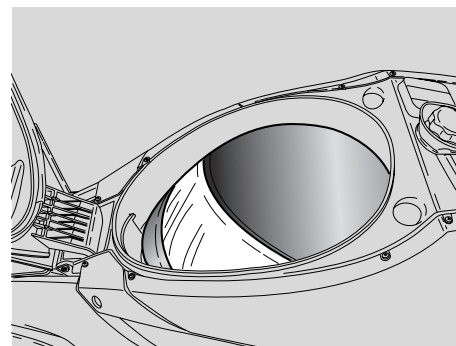
- ◆ Raise the seat (2), see on the side (UNLOCKING/LOCKING THE SEAT).

**NOTE** Position the helmet with the opening down, as shown.

### WARNING

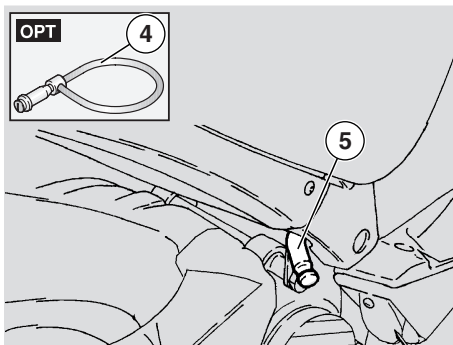
Do not load the crash helmet / glove compartment too much.

Maximum allowed weight: 2.5 kg.



### GLOVE COMPARTMENT

The vehicle is equipped with a glove compartment at the front end of the seat. Push on the glove compartment opening lever (3).



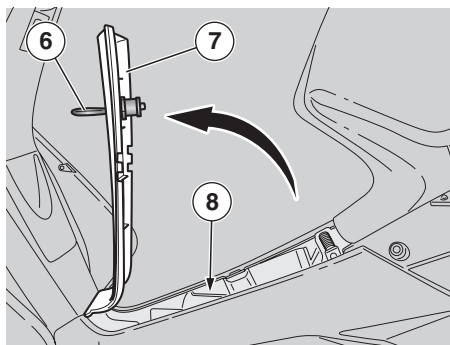
### ANTITHEFT HOOK

The anti-theft hook (5) is positioned on the right side of the vehicle, near the rider's footboard.

To prevent the vehicle from being stolen, it is advisable to secure it with the **aprilia** "Body-Guard" shielded cable **OPT** (4), available at any **aprilia** Authorised Dealer.

#### **⚠ WARNING**

**Do not use the hook to lift the vehicle or for any purpose other than securing the vehicle once it has been parked.**



### BATTERY COMPARTMENT / TOOL KIT

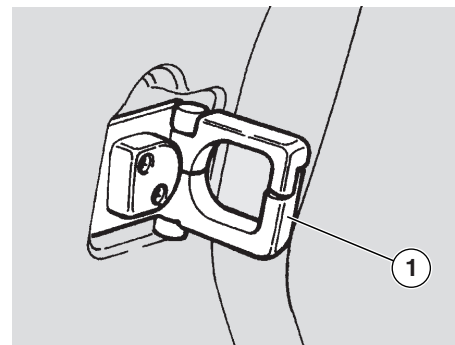
This compartment is positioned in the lower part of the vehicle, between the footboards.

To reach this compartment, proceed as follows:

- ◆ Insert the key (6) in the lock.
- ◆ Turn the key (6) clockwise, pull it and raise the cover (7).

The tool kit (8) includes:

- no. 1 tool case;
- **C 364** no. 1 21-mm plug socket wrench;
- **IE** no. 1 16-mm plug socket wrench;
- **C 364** no. 1 rod for socket wrench;
- no. 1 flat/cross-head screwdriver, PH-type, size 2;
- no. 1 screwdriver handle;
- no. 1 4-mm hexagonal wrench ;
- **IE** no. 1 13-mm hexagonal wrench ;



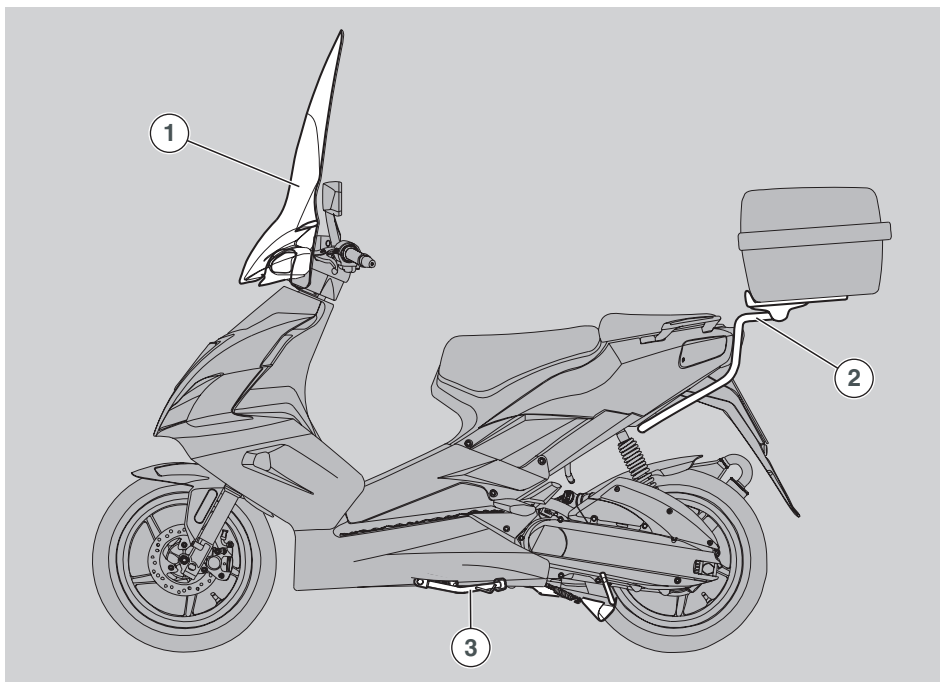
### BAG HOOK

#### **⚠ WARNING**

**Do not hang excessively bulky bags or parcels to the hook, as this may seriously compromise the manoeuvrability of the vehicle or the movement of your feet.**

The bag hook (1) is positioned on the front part of the inner shield.

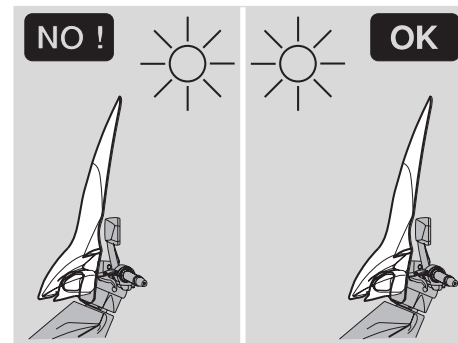
**Maximum allowed weight: 1.5 kg**



## ACCESSORIES OPT

The following accessories are available:

- large windscreen (1);
- luggage rack (2);
- Side stand (3);
- New Concept additional Top Case.



### **⚠ CAUTION**

Indirect sunlight from behind reflecting on the windscreen might damage the instrument panel. It is recommended to park the vehicle with the sun shining in front of it.

## MAIN COMPONENTS

### FUEL

#### WARNING

The fuel used in internal combustion engines is highly flammable and can become explosive under particular conditions.

It is important to refuel and service the vehicle in a well-ventilated area, with the engine off.

Do not smoke while refuelling or near fuel vapours, in any case avoid contact with naked flames, sparks and any other heat source or source of ignition to prevent fires or explosion.

Avoid spilling fuel, as it may ignite when in contact with hot engine parts.

In the event of accidental spillage, make sure that the area has completely dried before starting the engine.

Never fill the tank to the brim, as fuel expands from heat and when left under direct sunlight.



**Tighten the filler plug securely after refuelling.**

**Avoid contact with skin, do not inhale fuel vapours; do not swallow fuel or transfer it between different receptacles using a hose.**

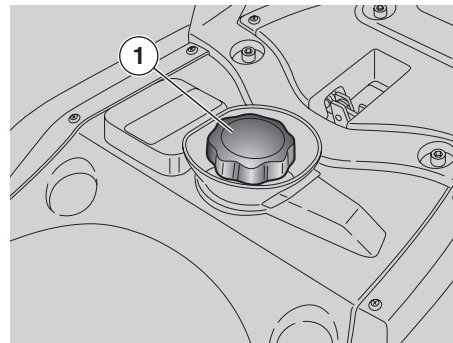
**DO NOT RELEASE FUEL INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

Use only unleaded fuel, in conformity with the DIN 51607 standard, min. O.N. 95 (R.O.N.) and 85 (M.O.N.).

**To refuel, proceed as follows:**

- ◆ Raise the seat, see page 21 (UNLOCKING/LOCKING THE SEAT).



- ◆ Release and remove the filler plug (1).

**FUEL TANK CAPACITY**

(reserve included): 7.0 ℓ

**TANK RESERVE:** 1.2 ℓ

**Do not put additives or other substances into the fuel.**

**If a funnel or other system is used for topping up, make sure that it is perfectly clean.**

- ◆ Refuel.
- ◆ Refit the plug (1).

#### CAUTION

**Make sure that the plug is well tightened.**



## LUBRICANTS

### WARNING

Prolonged or repeated contact with oil may cause severe skin damage. Wash your hands carefully after handling engine oil.

Wear latex gloves during servicing.

KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

### CAUTION

Proceed with care.

Do not spill the oil!

Take care not to smear any component, the area in which you are working and the surrounding area.

Carefully remove any trace of oil.

In case of oil leakage or malfunctions, contact an **aprilia** Authorised Dealer.



## TRANSMISSION FLUID

Have the transmission oil level checked every 4000 km (2500 mi), or every 12 months.


Have the transmission fluid changed after the first 500 km (312 mi) and then every 12000 km (7500 mi) or every 2 years.



Have inspection and replacement carried out by an **aprilia** Authorised Dealer.

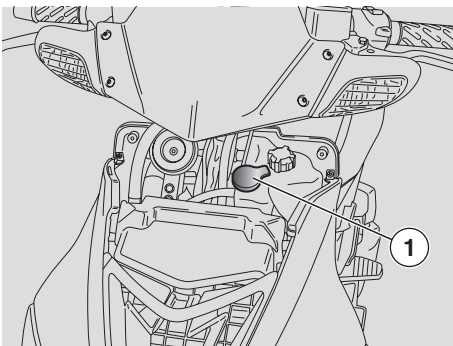
## MIXER OIL

Top up mixer oil tank every 500 km (312 mi)  , 2000 km (1240 mi) .

This vehicle is equipped with separate mixer mixing fuel with oil necessary for engine lubrication; see page 65 (LUBRICANT CHART).

 The vehicle features a control unit that manages an electronic pump ensuring correct oil quantity for engine lubrication; see page 65 (LUBRICANT CHART).

The reserve is indicated by the general alarm light () that comes on and by the mixer oil reserve icon "" that is displayed on the instrument panel, see page 13 (INSTRUMENTS AND INDICATORS).



### ⚠ CAUTION

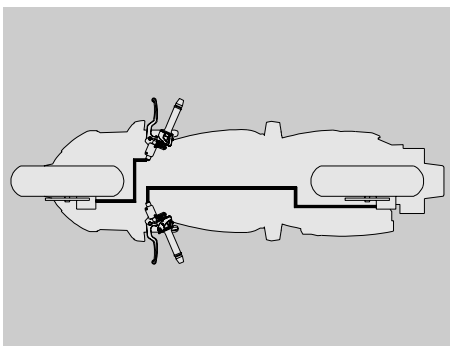
Using the vehicle with no mixer oil left seriously damages the engine. In the event you run out of mixer oil or the mixer oil hose is removed, contact an **aprilia** Authorised Dealer that will bleed the system. This operation is necessary because engine might be damaged if running with air in the mixer oil system.

To top up mixer oil proceed as follows:

- ◆ Remove the front cover upper panel; see page 48 (REMOVING THE FRONT COVER)
- ◆ Remove the cap (1).

TANK CAPACITY: 1.2 ℓ

TANK RESERVE: 0.2 ℓ



### ⚠ CAUTION

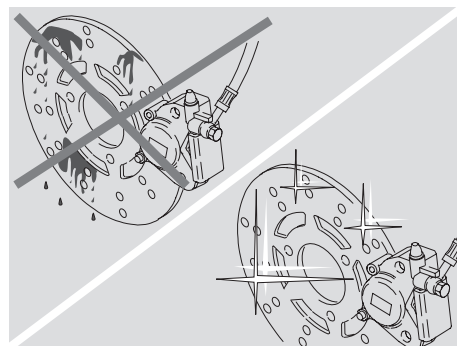
Do not put additives or other substances into the oil.

If a funnel or other system is used for topping up, make sure that it is perfectly clean.

- ◆ Top up.
- ◆ Refit the plug (1).

### ⚠ CAUTION

Make sure that the plug is well tightened.



### BRAKE FLUID - recommendations

### ⚠ WARNING

Sudden changes in brake lever play or a spongy feel of the lever may indicate problems with the hydraulic system. If in doubt about the proper operation of the brake or if you are not able to perform routine checks, contact an **aprilia** Authorised Dealer.

Pay special attention to the brake disc and friction material, making sure that they are neither dirty nor oily, especially after maintenance operations or inspections.

Make sure the brake hose is not twisted or worn.

**KEEP AWAY FROM CHILDREN.**

**DO NOT RELEASE INTO THE ENVIRONMENT.**

## DISC BRAKES

### WARNING

The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working; check them before every trip.

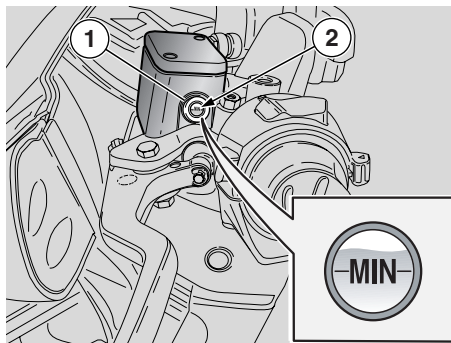
A dirty disc will soil the pads, leading to loss of braking efficiency. Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

Have brake fluid changed at an **aprilia** Authorised Dealer every two years.

If in doubt about the proper operation of the clutch or if you are not able to perform routine checks, do not hesitate to contact an **aprilia** Authorised Dealer.

**NOTE** This vehicle is equipped with front and rear disc brakes operated by independent hydraulic circuits. The following information applies to both braking systems.

Brake fluid level decreases gradually as the brake pads wear down.



The brake reservoirs are positioned on the handlebar, near the brake lever couplings.

Periodically check brake fluid level, see (CHECK) and pads for wear, see page 47 (CHECKING THE BRAKE PADS FOR WEAR).

### WARNING

**Do not use the vehicle if the braking system is leaking fluid.**

### CHECK

To check the brake fluid level, proceed as follows:

**MIN** = minimum level.

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND)

- ◆ Rotate the handlebar, so that the fluid (1) contained in the brake reservoir is parallel to the "**MIN**" mark stamped on the glass gauge (2).
- ◆ Make sure that the brake fluid contained in the reservoir (1) exceeds the "**MIN**" mark stamped on the glass gauge (2).

### WARNING

**Do not ride the vehicle if the level is below "**MIN**" mark.**

### CAUTION

**Brake fluid level decreases as the brake pads wear down.**

If the fluid is below the "**MIN**" mark:

- ◆ Check the brake pads for wear, see page 47 (CHECKING THE BRAKE PADS FOR WEAR).
- If the pads and/or the disc do not need replacing:
- ◆ Contact an **aprilia** Authorised Dealer that will top up the fluid.

### CAUTION

**Check the brake for proper operation. When the brake lever has exceeding travel or if you notice a loss of braking, contact an **aprilia** Authorised Dealer. The braking system may need bleeding.**

## COOLANT

### ⚠ CAUTION

**Do not ride when coolant is below the minimum level MIN.**

Check the coolant level every 2000 km (1250 mi) and after long trips; have the coolant changed by an **aprilia** Authorised Dealer every 2 years.

### ⚠ WARNING

**Coolant is toxic when ingested. Contact with eyes or skin may cause irritation. In the event of contact with eyes or skin, rinse repeatedly with abundant water and seek medical advice. In the event of ingestion, induce vomiting, rinse mouth and throat with abundant water and seek medical advice immediately.**

**DO NOT RELEASE INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

**Take care not to spill coolant onto hot engine parts. It may ignite and produce invisible flames. Wear latex gloves during servicing. Contact an **aprilia** Authorised Dealer for the replacement.**

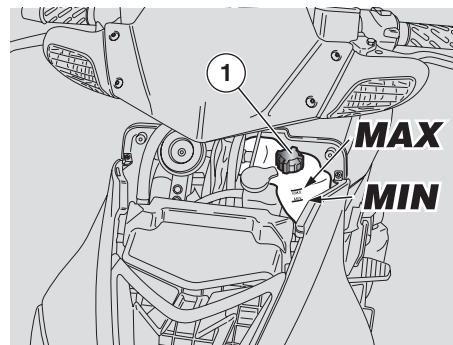


Coolant mixture is a 50% solution of water and antifreeze.

This is the ideal solution for most operating temperatures and provides good corrosion protection.

This solution is also suited to the warm season, as the mixture is less prone to evaporative loss and will reduce the need for top-ups.

In addition, less water evaporation means fewer mineral salts depositing in the radiator, which helps preserve the efficiency of the cooling system.

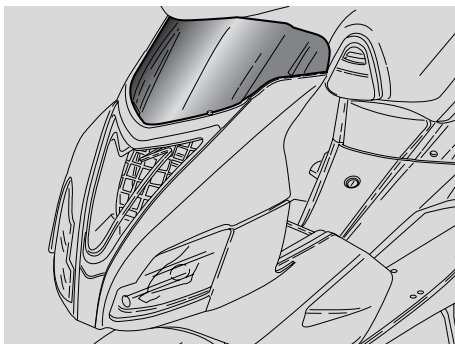


When temperature drops below zero degrees centigrade, check the cooling system frequently and add more antifreeze (up to 60% maximum) to the solution.

Use distilled water in the coolant mixture. Tap water will damage the engine.

### ⚠ WARNING

**Do not remove the expansion tank plug (1) when the engine is hot, since coolant is very hot and under pressure. If it gets in contact with the skin or with clothes, it may cause severe burns and/or damage.**



## CHECKING AND TOPPING UP

### ⚠ WARNING

**Wait for the engine to cool down before checking or topping up coolant level.**

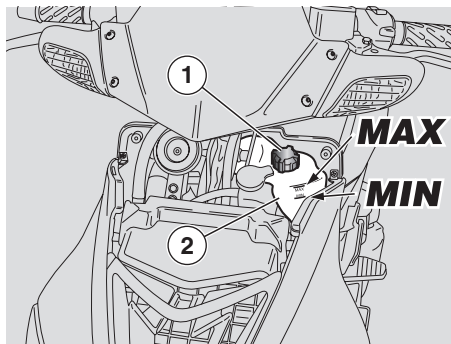
- ◆ Stop the engine and wait until it has cooled down.

**NOTE** Position the vehicle on firm and flat ground.

- ◆ Remove the front cover, see page 48 (REMOVING THE FRONT COVER).
- ◆ Make sure that the level of the fluid contained in the expansion tank (2) is included between the "MIN" and "MAX" marks.

**MIN** = minimum level

**MAX** = maximum level



If not so:

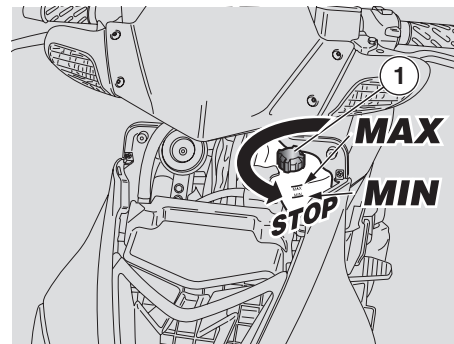
- ◆ Loosen the filler plug (1) (by turning it anticlockwise), without removing it.
- ◆ Wait a few seconds in order to release any residual pressure.
- ◆ Unscrew and remove the plug (1).

### ⚠ WARNING

**Coolant is toxic when ingested. Contact with eyes or skin may cause irritation. Do not put your fingers or any other object into the filler opening in order to ensure that there is coolant.**

### ⚠ CAUTION

**Do not add any additives or other products. If a funnel or other system is used for topping up, make sure that it is perfectly clean.**



### ⚠ CAUTION

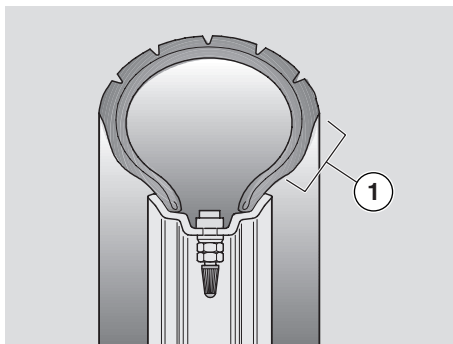
**Never top up beyond the "MAX" level mark or coolant will leak out when the engine is running.**

- ◆ Top up with coolant, see page 65 (LUBRICANT CHART) up to just below the "MAX" mark.
- ◆ Refit the filler plug (1).

### ⚠ CAUTION

**If coolant level drops too quickly or the tank is empty, check the cooling circuit for leaks. Contact an **aprilia** Authorised Dealer for the repair operation.**

- ◆ Refit the inspection cover, ensure it is correctly secured.



## TYRES

This vehicle is equipped with tubeless tyres.

### **WARNING**

Periodically check the tyre inflation pressure at room temperature, see page 62 (TECHNICAL DATA).

Measuring pressure on hot tyres will lead to inaccurate measurement. It is especially important to measure tyre pressure before and after a long trip. Overinflated tyres will not absorb bumps when riding on rough road surfaces and resulting vibration is transferred through the handlebar, giving a harsh ride and reducing tyre grip especially during cornering. Conversely, underinflation will put more stress on the sidewalls (1) and the tyre may slip on the rim or even come off the rim, leading to loss of control.

The tyres could come off the rims under harsh braking. Finally, the vehicle could skid during cornering.

Inspect tyre surface condition and check for wear, as worn tyres lead to poor road holding and handling.

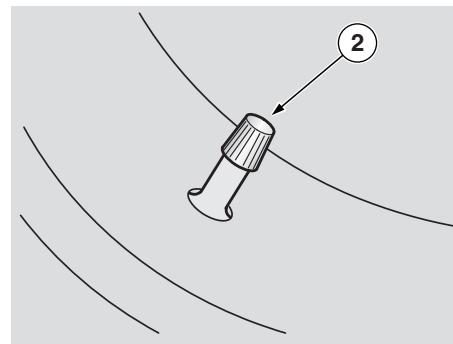
Some of the tyres approved for this vehicle are equipped with wear indicators. There are several kinds of wear indicators. For more information on how to check the tyres for wear, contact your Dealer. Visually inspect the tyres for wear and have them changed if worn.

Old tyres, even if not completely worn down, may become hard and provide poor grip. In this case, have the tyres changed.

Have a tyre changed when worn or punctured, if the puncture in the tread is larger than 5 mm.

Have the wheels balanced after each tyre repair.

Tyres should be changed with tyres of different type and model as specified by the manufacturer, see page 62 (TECHNICAL DATA); using different tyres than the specified ones will adversely affect vehicle handling.

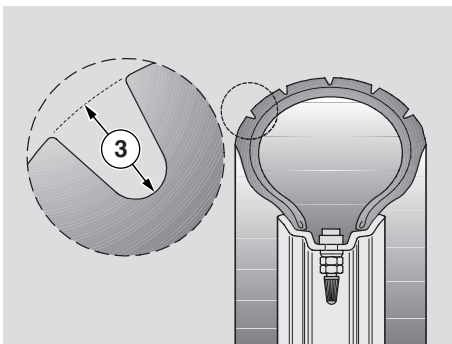


Do not install tube tyres on tubeless tyre rims or vice versa.

Make sure that the tyres always have their valve (2) sealing caps on, to prevent them from suddenly going flat.

Change, repair, maintenance and balancing operations are very important and should be carried out by qualified technicians with appropriate tools.

Have your tyres and wheels serviced at an **aprilia** Authorised Dealer or a specialised tyre repairer.



**If the tyres are new, they may still be covered with a slippery film: drive carefully for the first kilometres/miles. Do not oil the tyres with unsuitable fluids.**

#### MINIMUM TREAD DEPTH LIMIT (3)

front: ..... 1.5 mm  
rear: ..... 1.5 mm

However, the minimum tread depth must not be less than prescribed by regulations in force in the country where the vehicle is used.

#### CATALYTIC SILENCER

##### **WARNING**

**Do not park the vehicle (catalytic version) close to dried brushwood or in places where children are likely to get in contact with it, because the catalytic muffler reaches very high operating temperature. Pay utmost attention and avoid any contact until it has cooled down.**

The catalytic version of this vehicle fits a silencer with "platinum-rhodium" two-way metal catalytic converter.

This device provides for the oxidation of the CO (carbon monoxide) and of the HC (unburned hydrocarbons) contained in the exhaust gases, changing them into carbon dioxide and steam, respectively.

The high temperature of the exhaust gas due to the catalytic reaction, also burns oil particles thus keeping the silencer clean and eliminating any smoke.

To ensure long trouble-free operation of the catalytic converter and to reduce any possible problems regarding the fouling of the thermal unit and of the exhaust, it is necessary to avoid covering long distances with the engine running at constantly low rpm.

It is sufficient to alternate these periods with periods in which the engine runs at relatively high rpm, even if only for a few seconds, but rather frequently.

The above indications are especially important when cold starting the engine, in this case, the rpm suitable for "triggering" the catalytic reaction are easily reached, just ensure that the cylinder temperature is at least 50° C; and this happens a few seconds after starting.

##### **CAUTION**

**Use unleaded fuel only. Lead will damage the catalytic converter.**

## EXHAUST MUFFLER/EXHAUST SILENCER

### **WARNING**

**Tampering with the noise control system is prohibited.**

Owners are warned that the law may forbid:

- The removal or disconnection of any device or element of design incorporated into any new vehicle to limit the noise emissions before its sale or delivery to the final purchaser or while it is in use except if carried out for maintenance, repair or replacement purposes; and
- The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Check the exhaust muffler/silencer and the silencer pipes, making sure that they show no traces of rust or holes and that the exhaust system is operating properly.

If the exhaust system noise increases, contact an **aprilia** Authorised Dealer immediately.

## INSTRUCTIONS FOR USE





### WARNING

Check the vehicle before each ride to ensure safe riding. (See the PRE-RIDE CHECKS CHART on the side). Failure to perform these checks may lead to severe personal injury or vehicle damage.

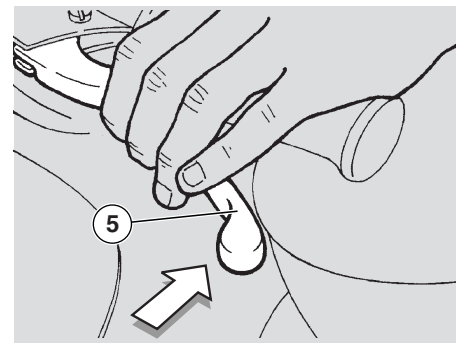
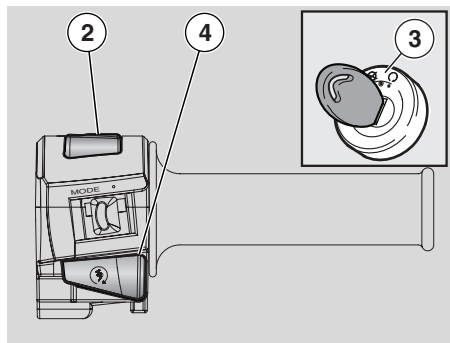
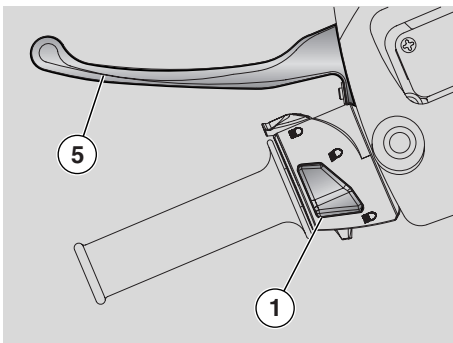
For the tightening torques of nuts and bolts that are not indicated in this manual, please contact an **aprilia** Authorised Dealer. The tightening of a component at the wrong driving torque may be dangerous for your and other people's safety.

If you have any doubts on the operation of the vehicle controls or believe that any vehicle components might be faulty, do not hesitate to contact an **aprilia** Authorised Dealer. It does not take long to carry out a check-up and this operation ensures you much more safety.

### PRE-RIDE CHECKS CHART

Part	Check	page
Disc brakes	Check the operation, the fluid level and make sure there are no leaks. Check the pads for wear. Top up, if necessary.	27 47
Throttle	Check for smooth operation; throttle should snap fully open and closed at all positions of the steering. If necessary, adjust and/or lubricate it.	35
Mixer oil	Check and/or top up, if necessary.	25
Wheels / tyres	Check tyre surface, inflation pressure. Check for wear or damage. Remove any foreign matter that may be stuck in the tread grooves.	30
Brake levers	Make sure that they work smoothly. If necessary, lubricate the joints.	
Steering	Steering should rotate smoothly and evenly. There should be no play or looseness.	
Centre stand and side stand 	Make sure that they work smoothly and that the spring tension brings them back to their normal position. Lubricate joints and connections, if necessary.	39
Fastening elements	Make sure that the fastening elements are not loose. Adjust or tighten as required.	-
Fuel tank	Check the fuel level and top up, if necessary. Make sure there are no leaks or obstacles in the circuit.	24 59
Coolant	Coolant level in the expansion tank must be between the "MIN" and "MAX" marks. Top up, if necessary.	28 29
Engine stop switch (  -  )	Make sure that it operates correctly.	19
Lights, warning lights, general alarm light, horn and electrical devices	Check the proper functioning of all the devices. Change the bulbs or fix the fault in case of failure.	55 58
Injection pump 	Make sure that it operates correctly.	





## STARTING

### ⚠ WARNING

Exhaust gases contain carbon monoxide, which is extremely toxic if inhaled. Do not start the engine in an enclosed space or poorly ventilated area.

Failure to observe this warning may lead to loss of consciousness or even death by asphyxia.


Do not get on the vehicle for starting it. Do not start the engine with the vehicle positioned on the side stand.

### ELECTRIC STARTING

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND)
- ◆ Make sure that the dimmer switch (1) is in position "☺".
- ◆ Set the engine kill switch (2) to position "○".

- ◆ Turn the key (3) and set the ignition switch to position "○".

**NOTE** Do not leave the ignition to "○" with engine off for a long time to prevent the battery from getting flat.

- ◆ Check that the "general alarm" light goes off (see page 13) .
- ◆ Lock at least one wheel, by pulling a brake lever (5).

If this operation is not carried out, the start relay receives no current and therefore the starter does not run.

**NOTE** After a long period of inactivity, carry out the operations described at page 29 (STARTING AFTER A LONG PERIOD OF INACTIVITY).

### ⚠ CAUTION

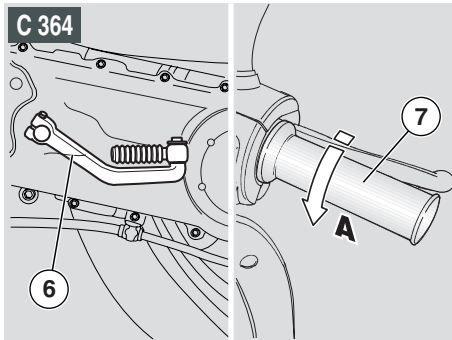
**Press the starter button "Ⓢ" (5) without accelerating and release it as soon as the engine starts.**

**NOTE** Do not hold down the starter button "Ⓢ" (4) for more than five seconds or the battery could run flat. If the engine does not start within this lapse of time, wait ten seconds before operating the starter button "Ⓢ" (4) again.

Avoid pressing the starter button "Ⓢ" (4) when the engine is running, or the starter motor may damage.

**NOTE** Start the engine and then allow 15-20 seconds without touching the throttle (especially at very low temperatures) in order to let the engine warm up.

- ◆ Do not accelerate and at the same time operate the brake levers until moving off. To start, see page 35 (MOVING OFF AND RIDING).



### KICK START C 364

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND) Move to the left side of the vehicle.
- ◆ Make sure that the dimmer switch (1) is in position "☰".
- ◆ Turn the key (3) and set the ignition switch to position "O".
- ◆ Set the engine kill switch (2) to position "O".
- ◆ Operate the brake levers (5) to lock both wheels and avoid losing control of the vehicle when starting.
- ◆ Use your right foot to operate the kick start (6), and release immediately.
- ◆ Repeat this operation, if necessary, until engine starts.

### STARTING WITH FLOODED ENGINE

If the starting is not carried out properly or if there is too much fuel in the intake ducts, the engine may get flooded.

To clean a flooded engine:

### ⚠ CAUTION

**Do not operate the kick starter with engine running.**

Press the start push-button "Ⓢ" (4) for a few seconds (letting the engine crank) with completely open throttle (7) (**Pos. A**).

### STARTING WITH COLD ENGINE

When the room temperature is low (near or below 0°C), it may be difficult to start the engine at the first attempt.

If so:

- ◆ Hold down the starter button "Ⓢ" (4) for at least five seconds and open the throttle grip (7) slightly (**Pos. A**).

### If the engine starts:

- ◆ Release of the throttle twistgrip (7).
- ◆ If idle speed is erratic, flip the throttle grip (7) moderately several times.

To start, see page 35 (MOVING OFF AND RIDING).

### If the engine fails to start

Wait a few seconds and repeat the COLD START PROCEDURE.

- ◆ If necessary, remove the spark plug, see page 51 (SPARK PLUG) and make sure that it is not wet.
- ◆ If the spark plug is wet, clean and dry it.

Before reinstalling it:

**NOTE** Put a clean cloth on the cylinder, near the spark plug seat, in order to protect it from oil sprays.

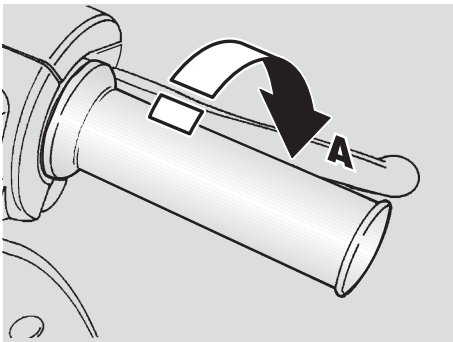
- ◆ Press the start push-button "Ⓢ" (4) and let the starter run for about five seconds without accelerating.

### STARTING AFTER A LONG PERIOD OF INACTIVITY

After a long period of inactivity, if the start is not immediate, this may be due to the fact that the fuel circuit is partially empty.

If so:

- ◆ Press the starter push-button "Ⓢ" (4) for about five seconds, in order to ensure the filling of the float chamber.



## MOVING OFF AND RIDING

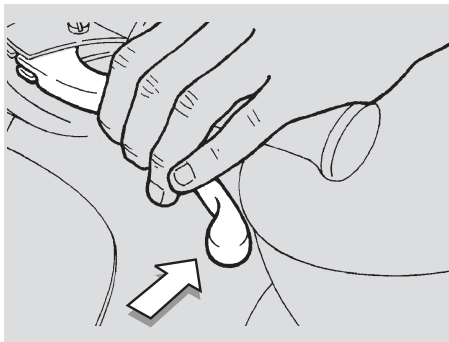
**NOTE** Before moving off, carefully read section "Safe Riding", see page 5 (SAFE RIDING).

### ⚠ CAUTION

If, while riding, the fuel reserve light "F" on the instrument panel comes on, it means that the fuel reserve is being used. Refuel as soon as possible, see page 24 (FUEL).

### ⚠ WARNING

Any mention to the use of the vehicle with passenger is to be intended as referred only to the countries where this is allowed.



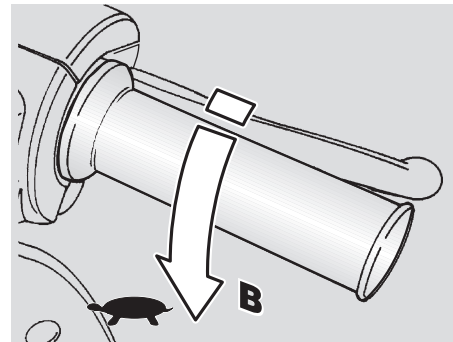
While riding, keep your hands on the handlebar and your feet on the footpegs.

**NEVER RIDE IN ANY POSITION OTHER THAN THE RECOMMENDED RIDING POSITION.**

If you are riding with a passenger, give your passenger proper instructions to avoid problems when manoeuvring. Before leaving, make sure that the stand/stands is/are completely up.

To move off:

- ◆ Release the throttle grip (Pos. A), engage the rear brake, then move the vehicle down the stand.
- ◆ Get on the vehicle, keeping at least one foot on the ground in order not to lose balance.
- ◆ Adjust the rear-view mirrors.



### ⚠ WARNING

With the vehicle stopped, try to familiarise with the use of the mirrors.

- ◆ Release the brake lever and accelerate by rotating the throttle grip moderately (Pos. B); the vehicle will start moving.

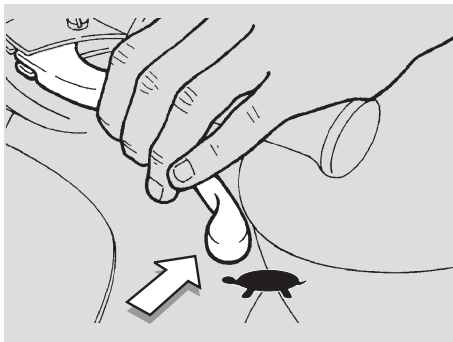
### ⚠ CAUTION

Do not start off abruptly when the engine is cold.

To reduce emissions and fuel consumption, ride slowly until covering several miles to warm the engine up to operating temperature.

### ⚠ WARNING

Avoid opening and closing the throttle repeatedly and continuously, so that you do not accidentally lose control of the vehicle.



### **⚠ WARNING**

If you have to brake, put on both brakes in order to obtain smooth deceleration, properly exerting pressure on the braking parts.

By putting on the front brake only or the rear brake only, you considerably reduce the braking force, thus running the risk of locking one wheel and consequently losing grip.

To stop uphill, decelerate completely and use the brakes to keep the vehicle at standstill.

Do not use engine braking or the clutch and the converter may overheat.

When approaching a turn, slow down and brake and take the turn at moderate, constant speed or accelerate slightly; braking in a turn will greatly increase your chances of skidding.

Continued application of the brakes on long downhill grades may cause the brakes to overheat, thereby reducing braking efficiency. Shift down to use engine braking and apply both brakes intermittently.

Never ride downhill with the engine off!

### **⚠ WARNING**

If the road surface is wet or slippery (snow, ice, mud, etc.), ride slowly, do not brake or swerve suddenly, or you may lose grip and fall.

Watch out for obstacles or sudden changes in the road surface.

Uneven roads, rails, manhole covers, indications painted on the road surface, building site metal plates become rather slippery by rain. For this reason all these obstacles have to be carefully avoided, driving smoothly and bending the vehicle as little as possible.

### **⚠ WARNING**

Signal your intention to change lane or turn in good time using the turn indicators and avoid sudden swerving or movements.

Switch off the direction indicators as soon as you have changed direction.

Be extremely careful when overtaking or being overtaken.

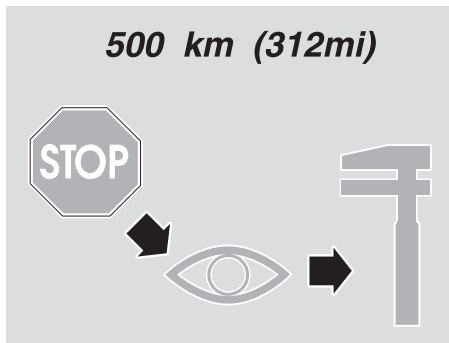
When riding in the rain, the spray thrown up by the tyres of large vehicles will reduce your vision; the air wave created by a large vehicle may make you lose control of the vehicle.

### **⚠ WARNING**

If the general alarm light (⚠) and the mixer oil reserve icon "🛢" come on during normal engine operation, it means that mixer oil reserve is being used; in this case, top up mixer oil, see page 25 (MIXER OIL).

### **⚠ CAUTION**

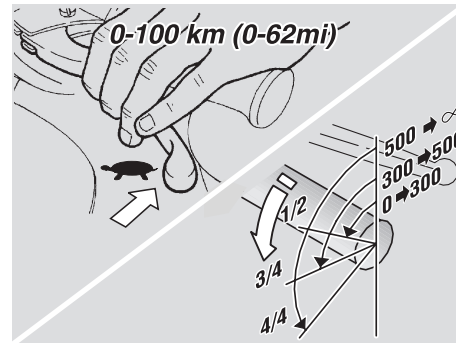
If the general alarm light (⚠) and the coolant temperature indicator "🌡" reach maximum temperature, stop the engine and check coolant level, see page 28 (COOLANT).



### **RUNNING-IN**

### **⚠ WARNING**

After the first 500 km (312 mi), carry out the checking operations indicated in the column "After running-in", see page 41 (SCHEDULED MAINTENANCE CHART), in order to avoid hurting yourself or other people and/or damaging the vehicle.



Correct engine running is essential to ensuring proper performance and durability.

Twisty, hilly roads are ideal for an effective running-in of engine, suspension and brakes.

For the first 500 km (312 mi), keep to the following indications:

#### **◆ 0- 100 km (0- 62 mi)**

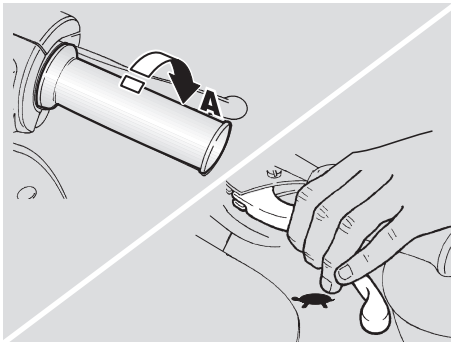
Until you have covered the first 100 km (62 mi), use the brakes gently and avoid harsh, prolonged braking. This will help the brake pads bed in properly against the brake discs.

#### **◆ 0- 300 km (0- 187 mi)**

Do not keep the throttle twistgrip open for more than half its travel for too long.

#### **◆ 300- 500 km (187- 312 mi)**

Do not keep the throttle twistgrip open for more than 3/4ths of its travel for too long.

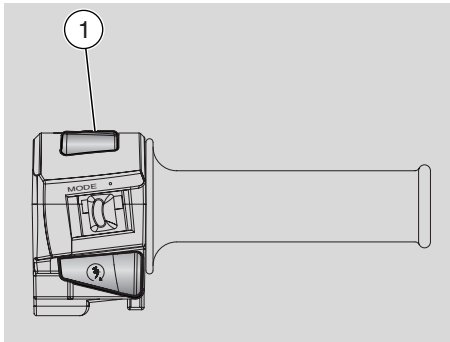


## STOPPING

### ⚠ WARNING

If possible, avoid stopping abruptly, slowing down suddenly and braking at the last moment.

- ◆ Release the throttle grip (pos. A) and gradually put on the brakes to stop the vehicle.
- ◆ If you need to stop only briefly, keep at least one brake applied.



## PARKING

### ⚠ WARNING

Park the vehicle on firm and level ground, to prevent it from falling.

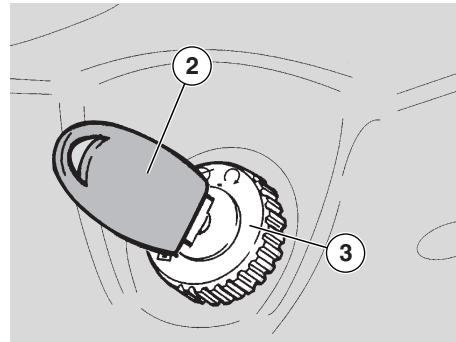
Do not lean the vehicle against a wall, or lay it on the ground.

**Make sure that the vehicle, and in particular hot vehicle components, may not put the safety of persons and children at risk.**

**Do not leave the vehicle unattended with the engine running or the key in the ignition switch.**

**Do not sit on the vehicle when the stand is down.**

- ◆ Stop the vehicle, see on the side (STOPPING).
- ◆ Set engine kill switch (1) to "X" (where fitted).



### ⚠ CAUTION

**With the engine stopped and the ignition switch in position "O", the battery may run flat.**

- ◆ Rotate the key (2) and set the ignition switch (3) to position "X".
- ◆ Place the vehicle on the stand, see page 39 (PLACING THE VEHICLE ON THE STAND).

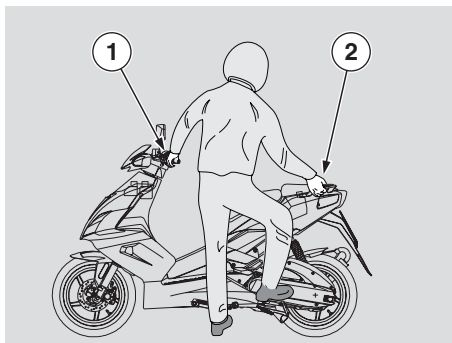
### ⚠ CAUTION

**It is not necessary to close the fuel tap when the engine is off, since it is equipped with an automatic sealing system.**

### ⚠ CAUTION

**Never leave the key in the ignition switch.**

- ◆ Lock the steering, see page 15 (STEERING LOCK) and extract the key (2).

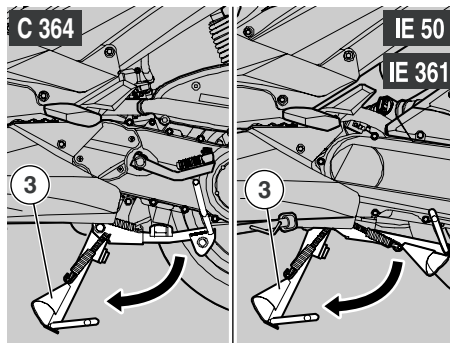


## PLACING THE VEHICLE ON THE STAND

Carefully read page 38 (STOPPING).

### CENTRE STAND

- ◆ Grasp the left grip (1) and the left grab rail (2).
- ◆ Push down the stand lever (3).



### SIDE STAND OPT

- ◆ Grasp the left grip (1) and the left grab rail (2).

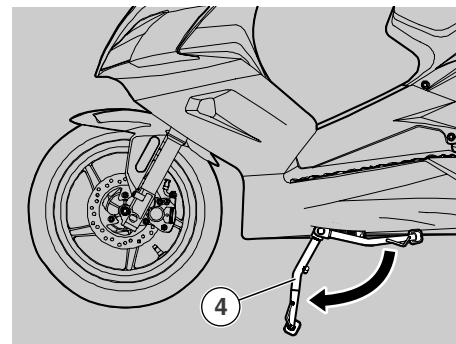
## ⚠ WARNING

**Risk of falling and overturning.**  
When the vehicle is straightened from the parking position to the driving position, the stand goes automatically up.

- ◆ Push on the side stand (4) with your right foot and lower it completely.
- ◆ Lean the vehicle to the side until the stand is resting on the ground.
- ◆ Turn the handlebar fully to the left.

## ⚠ WARNING

**Make sure that the vehicle is stable.**



## SUGGESTIONS TO PREVENT THEFT

### ⚠ CAUTION

Do not use any “brake lock” devices. Failure to heed this warning can seriously damage the braking system and lead to an accident thus provoking serious injuries or death.

NEVER leave the key in the ignition switch and always use the steering lock.

Park the vehicle in a safe place, possibly in a garage or at a guarded parking place.

If possible, use the appropriate **aprilia** “Body-Guard” shielded cable OPT, or an additional antitheft device.

Make sure you have all the necessary documents with you and that the road tax has been paid.

Write your personal data and telephone number in this page to help trace the vehicle back to you in the event it is stolen and subsequently recovered.

SURNAME: .....

NAME: .....

ADDRESS: .....

.....

TELEPHONE NO.: .....

**NOTE** Recovered vehicles are often traced back to the owner thanks to his/her details recorded in the Owner's Manual.

## MAINTENANCE

### WARNING

**Risk of fire.**

**Keep fuel and other flammable substances away from electric components.**

**Before beginning any maintenance operation or any inspection of the vehicle, stop the engine, extract the key from the ignition switch, wait until the engine and the exhaust system have cooled down and if possible lift the vehicle by means of the proper equipment, on firm and flat ground.**

**Before proceeding, make sure that the room in which you are working is properly ventilated.**

**Keep away from the red-hot parts of the engine and of the exhaust system, in order to avoid burns.**

**Do not put any vehicle parts into your mouth: vehicle components are not edible and some of them are harmful or even toxic.**

### CAUTION

**Unless expressly indicated otherwise, reassembly is a reversal of the disassembly procedure.**  
**Wear latex gloves during servicing.**



Normally, the owner can take care of routine maintenance. However, some maintenance operations require specific tools and are best left to experienced mechanics.

If you need assistance or technical advice, contact your **aprilia** Authorised Dealer, for guaranteed accurate, prompt service.



We recommend having the vehicle road-tested at the **aprilia** Authorised Dealer after repair or servicing.

In addition, perform the "Pre-ride checks" after each maintenance operation, see page 32 (PRE-RIDE CHECKS CHART).




## SCHEDULED MAINTENANCE CHART

OPERATIONS TO BE CARRIED OUT BY THE aprilia Authorised Dealer (CAN BE CARRIED OUT BY THE USER AS WELL).

Component	After running-in [500 km (312 mi)]	Every 4000 km (2500 mi) or 12 months	Every 8000 km (5000 mi) or 24 months
Battery / Electrolyte level	①	①	
Spark plug	①	③	
Carburettor - idle speed (  excluded)	④	①	
Throttle operation	①	①	
Lighting system	①	①	
Stop light switch		①	
Brake fluid (check level)		①	
Mixer oil	every 500 km (312 mi): ①		
Mixer oil 	every 2000 km (1240 mi): ①		
Wheels - tyres and inflating pressure	every month:①		
Battery terminals tightening	①		
Front and rear brake wear	①	every 2000 km (1240 mi): ①	
① = check and clean, adjust, lubricate or change, if necessary; ② = clean; ③= change; ④= adjust. <b>Carry out the maintenance operations more frequently if you use the vehicle in rainy and dusty areas or on uneven ground.</b>			

## OPERATIONS TO BE CARRIED OUT BY THE **aprilia** Authorised Dealer

Component	After running-in [500 km (312 mi)]	Every 4000 km (2500 mi) or 12 months	Every 8000 km (5000 mi) or 24 months
Rear shock absorber			①
Bowden cables and controls	①	①	
Drive belt			③
Steering tube bearings and steering play	①	①	
Wheel bearings		①	
Brake discs		①	
Clamps	every 12000 km (7440 mi): ①		
Air filter	①		②
Fuel filter		every 12000 km (7440 mi): ①	
Vehicle operation	①	①	
Braking systems / brake discs	①	①	
Brake fluid	every 2 years: ③		
Coolant	every 2000 km (1240 mi): ① / every 2 years: ③		
Exhaust muffler/exhaust silencer		①	
Mixer / throttle operation	①	①	
Fork fluid and oil seal	every 12000 km (7440 mi): ①		
Transmission fluid	③	①	every 12000 km (7440 mi) or 2 years: ③
Front pulley	every 12000 km (7440 mi): ①		
Injector cleaning 	every 16000 km (9920 mi): ②		
Front converter rollers and guides	every 12000 km (7440 mi): ③		
Wheels / tyres and inflating pressure	①	①	
Nut, bolt, screw tightening	①	①	
Fuel hose	every 4000 km (2500 mi): ② / every 2 years: ③		
Braking system lines	every 4000 km (2500 mi): ① / every 2 years: ③		
Mixer oil hoses	①	①	every 2 years: ③
Clutch wear		①	

① = check and clean, adjust, lubricate or change, if necessary; ② = clean; ③ = change; ④ = adjust.

**Carry out the maintenance operations more frequently if you use the vehicle in rainy and dusty areas or on uneven ground.**

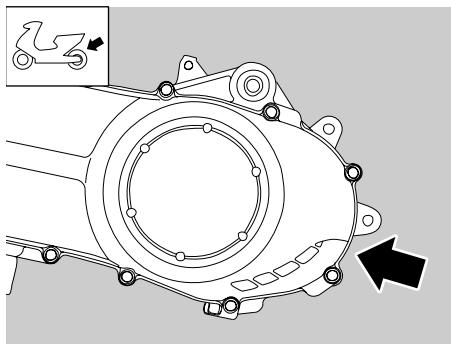


## IDENTIFICATION DATA

It is a good rule to note the frame and engine numbers in the space provided in this manual.

The frame number must be quoted when purchasing spare parts.

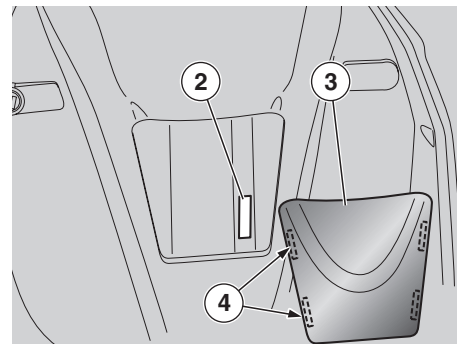
**NOTE** Altering a vehicle identification numbers is illegal and punished by the law with fines and imprisonment. In addition, altering the frame number invalidates the warranty.



## ENGINE NUMBER

The engine number is stamped near the lower support of the rear shock absorber.

Engine no. \_\_\_\_\_

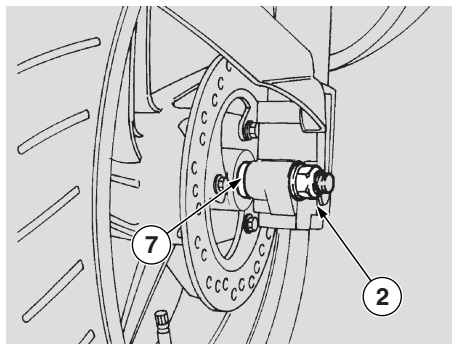
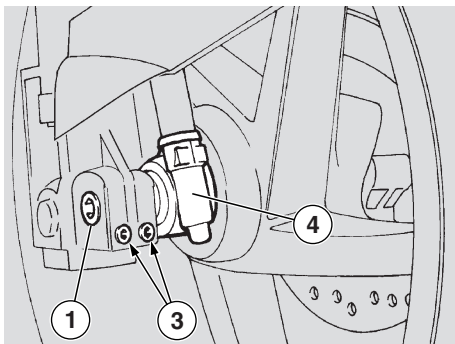


## FRAME NUMBER

The frame number (2) is stamped on the central tube of the frame. To be able to read it, it is necessary to remove the cover (3).

**NOTE** Cover (3) can be fitted only in one position. Tabs (4) are on the sides.

Frame no. \_\_\_\_\_



## FRONT WHEEL

### DISASSEMBLY

Carefully read page 40 (MAINTENANCE).

**NOTE** Prepare a support 210 mm high and a support base 200 x 200 mm.

- ◆ Place the support under the vehicle and a spongy cloth between them, so that the front wheel can move freely and the vehicle cannot fall down.

### WARNING

Make sure that the vehicle is stable.

- ◆ Hold the wheel shaft (1) with an hexagonal wrench.
- ◆ Loosen and remove the nut (2), collect the washer.

**Wheel shaft nut driving torque: 50 Nm (5.0 kgm).**

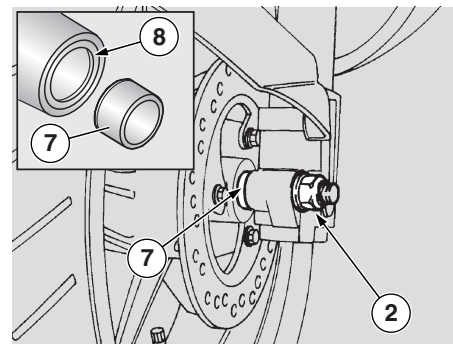
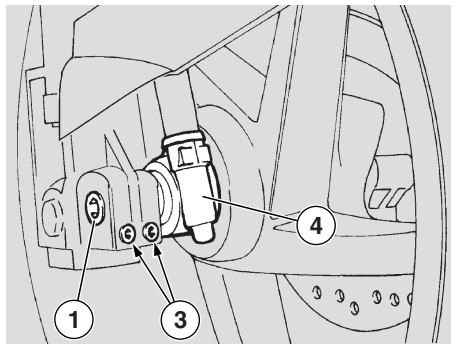
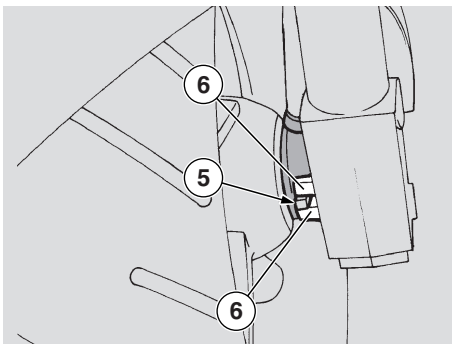
- ◆ Loosen the two screws (3) on wheel shaft clamp.

**Torque wrench setting for wheel shaft pinch bolts: 10 Nm (1.0 kgm).**

- ◆ Fit the wheel shaft (1) by pushing on its threaded end and using a rubber mallet, if necessary.

**NOTE** Check odometer fitment (4) and spacer (7) location to be able to refit them in the correct way.

- ◆ Support the front wheel and manually slide out the wheel shaft.
- ◆ Carefully remove the wheel while sliding out the brake disc from the calliper.
- ◆ Disengage the odometer fitment (4).



## REFITTING THE WHEEL

Carefully read page 40  
(MAINTENANCE).

### ⚠ CAUTION

While reassembling the wheel, be careful not to damage the brake pipe, the disc and the pads.

To refit the front wheel, act as follows:

- ◆ Position the wheel in-between the fork legs, set the disc between the brake calliper pads.
- ◆ Position odometer fitment tab (4) in its housing on the wheel hub.
- ◆ Fit tooth (5) of odometer fitment in the two rotation locking pins (6) located on the fork.
- ◆ Working from the right side of the vehicle (direction of travel), fit the shaft (1).

### ⚠ CAUTION

The spacer (7) remains positioned in its seat on the wheel; should it come out of its seat, position it correctly (see figure) without forcing the dust seal (8).

- ◆ Fit the spacer (7) in-between the hub and the fork left leg.
- ◆ Fit the washer, hold wheel shaft (1) with a hexagonal wrench, tighten nut (2).

**Wheel shaft nut driving torque:**  
**50 Nm (5.0 kgm).**

- ◆ Remove the support under the vehicle.
- ◆ Keep the front brake lever squeezed in and press down repeatedly on the handlebars to compress the front fork. The fork legs in this way will correctly settle.
- ◆ Tighten the two screws (3) on wheel shaft clamp.

**Torque wrench setting for wheel shaft pinch bolts: 10 Nm (1.0 kgm).**

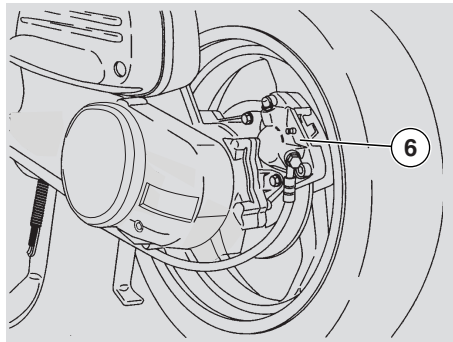
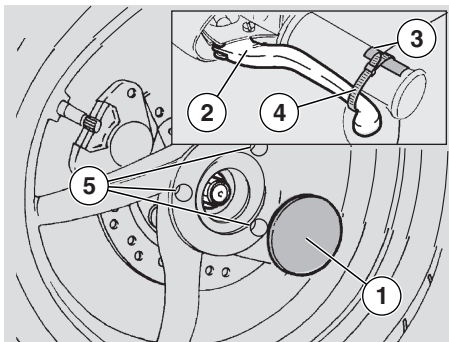
- ◆ Make sure the following components have not become contaminated with lubricants:
  - tyre;
  - wheel;
  - brake disc.

### ⚠ WARNING

After reassembly, pull the front brake lever repeatedly and check the correct operation of the braking system.

**Check the wheel truing.**

It is recommended to have the tightening torques, the wheel truing and balancing checked by an **aprilia** Authorised Dealer, in order to avoid any failure that might seriously injure the rider and/or other people.



## REAR WHEEL

### DISASSEMBLY

Carefully read page 40 (MAINTENANCE).

- ◆ Remove the exhaust silencer, see page 49 (REMOVING THE EXHAUST SILENCER).
- ◆ Remove the cover (1).
- ◆ Operate the rear brake lever (2), then use a piece of cardboard (3) and fit a plastic tie (4) so to keep the rear brake lever on.
- ◆ Release and remove the three screws (5), collect the washers.

**Screws (5) driving torque:**  
50 Nm (5.0 kgm).

- ◆ Remove the plastic tie (4) and the piece of cardboard (3).
- ◆ Release of the rear brake lever.
- ◆ Slide out the wheel, do not damage the rear brake master cylinder (6).

**NOTE** Only use **aprilia** Genuine Spare Parts.

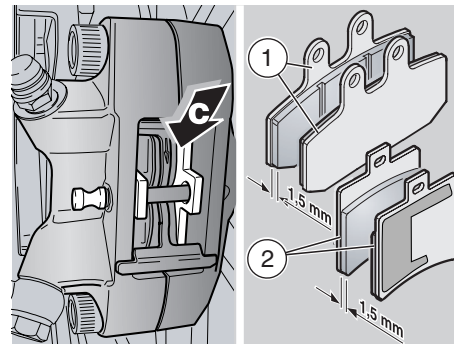
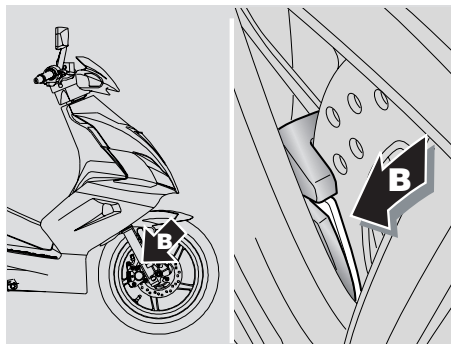
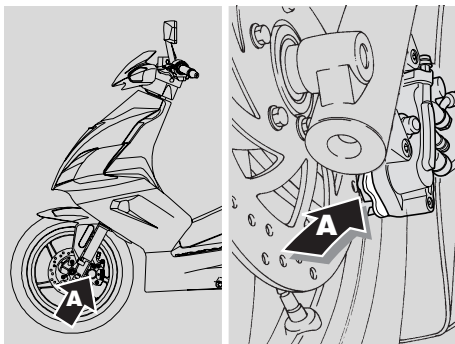
- ◆ Reassemble and then check that the following parts are not dirty:
  - tyre;
  - wheel;
  - brake disc.



### ⚠ WARNING

**After refitting, work the rear brake lever repeatedly and check for proper operation of the brake. Check the wheel truing.**

**It is recommended to have the tightening torques, the wheel truing and balancing checked by an **aprilia** Authorised Dealer, in order to avoid any failure that might seriously injure the rider and/or other people.**



## CHECKING THE BRAKE PADS FOR WEAR

Carefully read page 26 (BRAKE FLUID - recommendations), (DISC BRAKES) and page 40 (MAINTENANCE).

**NOTE** The following instructions apply to both braking systems.

Check the brake pad wear after the first 500 km (312 mi) and then every 2000 km (1250 mi). The rate at which brake pads will wear depends on vehicle usage, riding style and road surface condition.

### ⚠ WARNING

Inspect the brake pads before each ride.

Outlined below is a quick brake pad inspection procedure:

- ◆ Position the vehicle on the centre stand.
- ◆ Visually check in-between brake disc and pads as follows.

Use a flashlight and a mirror, proceed as follows:

### FRONT BRAKE CALLIPERS

- From below, on the front part, for the left pad (A).
- from above, on the front part, for the right pad (B), looking through the rim.

### REAR BRAKE CALLIPER

- From above, on the rear part, for both pads (C).

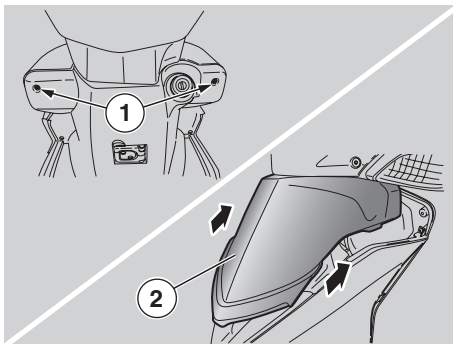
### ⚠ WARNING

If brake pads were allowed to wear down until uncovering the metal substrate, metal-to-metal contact with the brake disc would lead to rattle and the brake calliper sparking; this would result in loss of braking and brake disc damage, causing a dangerous riding condition.

- ◆ Have the brake pads changed when the lining material of even just one pad is worn down to nearly 1.5 mm, or when any one of the wear indicators is no longer visible.
- Front brake pads (1);
- rear brake pads (2).

### ⚠ WARNING

Contact an **aprilia** Authorised Dealer for the replacement.

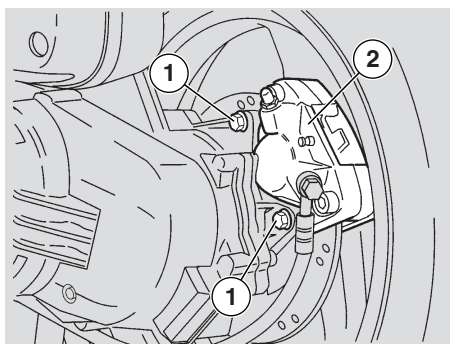


## REMOVING THE FRONT COVER

Carefully read page 40 (MAINTENANCE).

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ Pull up to release the front cover front panel.
- ◆ Remove the cover support panel (2).

**NOTE** Upon reassembly, fit the tabs correctly in the appropriate seats.



## REMOVING THE REAR BRAKE CALLIPER

Carefully read page 40 (MAINTENANCE).

### ⚠ WARNING

**A dirty disc will soil the pads, leading to loss of braking efficiency. Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.**

**Riding with damaged discs will put your safety, that of other persons and the vehicle at risk.**

**Check the conditions of the rim and have it changed if it is damaged.**

### ⚠ CAUTION

**While disassembling and reassembling the wheel, be careful not to damage the brake pipes, the discs and the pads.**

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Manually turn the wheel so that the gap between two spokes corresponds to the brake calliper (2).
- ◆ Unscrew and remove the two screws (1).
- ◆ Remove the oil plug and remove the rear wheel, if necessary, see page 46 (REAR WHEEL).

**Brake calliper screws (1) driving torque: 27 Nm (2.7 kgm).**

- ◆ On reassembly, use Loctite 243 on the screws (1).

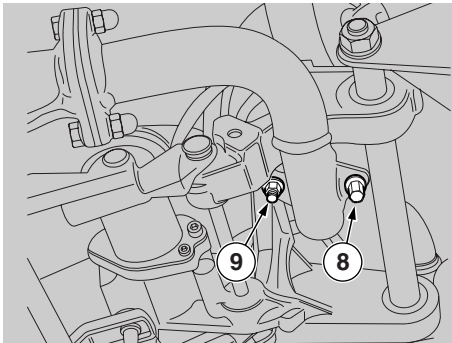
**NOTE** When refitting the brake calliper, renew the screws (1) securing the calliper (2).

### ⚠ CAUTION

**Do not operate the brake lever when the callipers are not in place, or the pistons might fall out leading to brake fluid spillage.**

**Should it be the case, please contact an **aprilia** Authorised Dealer, that will carry out the necessary service operations.**





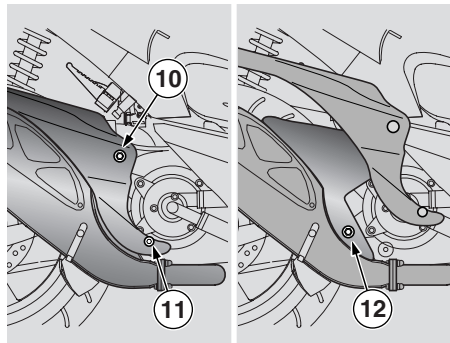
- ◆ Carefully slide out calliper (2) from the disc and remove it.

### ⚠ CAUTION

After reassembly, pull the brake lever repeatedly and check the correct functioning of the braking system.

### ⚠ CAUTION

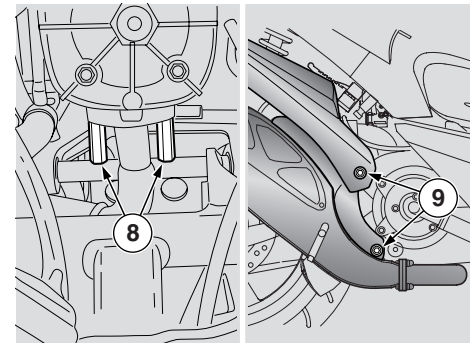
When reassembling, make sure that brake calliper line is properly secured with relevant hose guides.



## REMOVING THE EXHAUST SILENCER IE 50

Carefully read page 40 (MAINTENANCE).

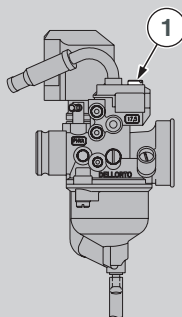
- ◆ Unscrew and remove the screw (8).
- Screw (8) driving torque:**  
10 Nm (1.0 kgm).
- ◆ Unscrew and remove the screw (9).
- Screw (9) driving torque:**  
10 Nm (1.0 kgm).
- ◆ Loosen and remove the screw (10) securing the silencer to the engine.
- Screw (10) driving torque:**  
27 Nm (2.7 kgm).
- ◆ Loosen and remove the screw (11) securing the mudguard to the engine.
  - ◆ Raise the mudguard.
  - ◆ Loosen and remove the screw (12) securing the silencer to the engine.
  - ◆ Remove the silencer.



## REMOVING THE EXHAUST SILENCER IE 361 C 364

Carefully read page 40 (MAINTENANCE).

- ◆ Loosen and remove the two stud bolts (8).
- Brake stud bolt (8) driving torque:**  
10 Nm (1.0 kgm).
- ◆ Loosen and remove the screws (9) securing the silencer to the engine.
- Screw (9) driving torque:**  
27 Nm (2.7 kgm).
- ◆ Remove the silencer.



## IDLING ADJUSTMENT C 364

Carefully read page 40 (MAINTENANCE).

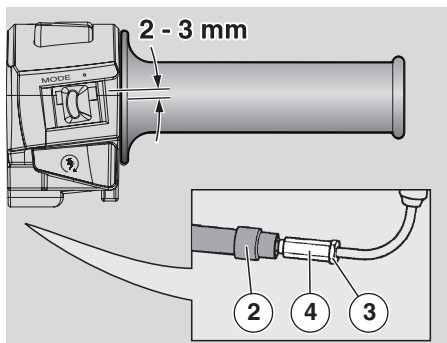
Adjust the idling after the first 500 km (312 mi) and every time it is erratic.

To carry out this operation, proceed as follows:

- ◆ Ride for a few miles until reaching the operating temperature, then stop the engine.
- ◆ Remove the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Connect an electronic rev counter to the spark plug cable.

### WARNING

Before proceeding, make sure that the room in which you are working is properly ventilated.



- ◆ Start the engine.
- ◆ Ensure that the light switch is set to "D" position.

The engine idle speed must be approximately  $1700 \pm 100$  rpm. In this case the engine does not make the rear wheel rotate.

If necessary:

**NOTE** It is possible to fit different models of carburettors or throttle bodies on this vehicle. For the adjuster position, see the figure.

- ◆ Turn adjuster screw (1) on the carburettor.

**NOTE** Do not turn the air adjusting screw to avoid variations of the carburetion setting.

By SCREWING IT (clockwise), you increase the engine rpm.

By UNSCREWING IT (anticlockwise), you decrease the engine rpm.

- ◆ Turn the throttle twistgrip, accelerating and decelerating a few times to make sure that it operates correctly and to check if the idling speed is constant.

**NOTE** If necessary, contact an Aprilia Authorised Dealer.

## ADJUSTING THE THROTTLE CONTROL

Carefully read, see page 40 (MAINTENANCE).

The ideal slack of the throttle control should be about 2-3 mm.

To adjust the slack, proceed as follows:

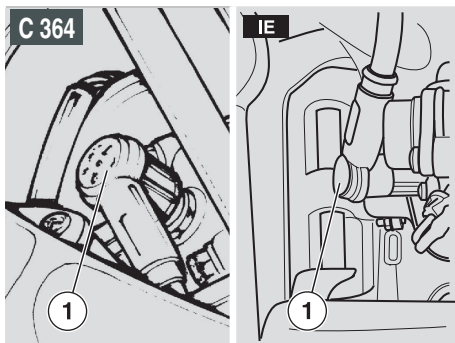
- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection (2).
- ◆ Slacken the nut (3).
- ◆ Turn adjuster (4), located at the throttle cable end.

When finished:

- ◆ Tighten the nut (3), lock adjuster (4) and fit the rubber gaiter (2).

### WARNING

When finished, turn the handlebar to make sure its movement does not affect the engine idle rpm and check that the throttle grip - when opened and then released - returns smoothly to the closed position.



## SPARK PLUG

Carefully read page 40 (MAINTENANCE).

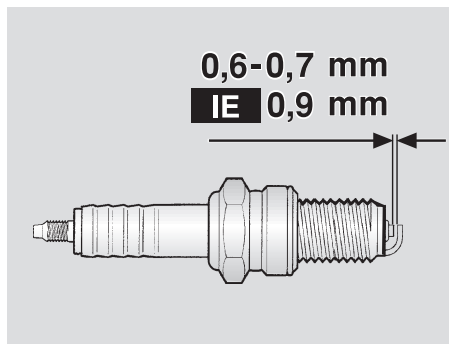
Check the spark plug after the first 500 km (312 mi), and successively every 4000 km (2500 mi) or 12 months.

Periodically remove the spark plug and clean it carefully, removing carbon deposits; change it if necessary.

To remove and clean the spark plug:

### WARNING

Before carrying out the following operations, let the engine and the silencer cool down to ambient temperature, in order to avoid burns.



- ◆ Remove the battery compartment cover.
- ◆ Remove the tool kit compartment.
- ◆ Pull the cap off the spark plug (1).
- ◆ Remove all the dirt from the base of the spark plug, then unscrew it with the spanner you will find in the tool kit and extract it from its seat, taking care that neither dust nor other substances enter the cylinder.
- ◆ Make sure that there are neither carbon deposits, nor corrosion marks on the electrode and on the central part; if necessary, clean them with the special cleaners for spark plugs, with an iron wire and/or a metal brush.
- ◆ Energetically blow some air, in order to prevent the removed residues from getting into the engine.
- ◆ Change the spark plug if it shows cracks on the insulating material, corroded electrodes or excessive deposits.
- ◆ Check the electrode gap with a feeler gauge.

- ◆ The gap must be **0.6 – 0.7 mm**; **IE 0.9 mm** if necessary, adjust it, carefully bending the earth electrode.
- ◆ Make sure that the washer is in good condition. With the washer on, screw the spark plug by hand in order not to damage the thread.
- ◆ Tighten using the spanner supplied with the tool kit. Screw in each spark plug by one half turn to compress the washer.

**Spark plug driving torque:**  
**20 Nm (2 kgm).**

### CAUTION

**The spark plug must be tightened firmly, otherwise the engine may overheat and severe damage may occur.**

**Use recommended spark plugs only, see page 62 (TECHNICAL DATA). A spark plug of the wrong rating may shorten engine life and cause loss of performance.**

- ◆ Fit the cap on the spark plug (1).
- ◆ Refit the tool kit compartment.
- ◆ Refit the battery compartment cover.

## BATTERY

Carefully read page 40  
(MAINTENANCE).

### WARNING

Risk of fire.

Keep fuel and other flammable substances away from electric components.

Battery fluid is toxic, caustic and corrosive; it contains sulphuric acid and contact with skin will cause severe burns. Wear protective clothing and a face or eye protection before servicing the battery.

In case of contact with skin, rinse with plenty of fresh water.

In case of contact with eyes, rinse with plenty of water for fifteen minutes and immediately contact an eye specialist without delay.

If the electrolyte is accidentally swallowed, drink a lot of water or milk, then continue drinking magnesium milk or vegetable oil and consult a doctor without delay.

The battery gives off explosive gases and must be kept away from flames and sources of ignition or heat; do not smoke near the battery.

Charge or use the battery in a well-ventilated place. Do not inhale the gasses produced by the battery under charging.

**KEEP AWAY FROM CHILDREN.**

Avoid leaning the vehicle at steep angles or you might spill battery fluid.

### CAUTION

Never invert the battery cables. Ensure that the ignition switch is in position "⊗" before connecting or disconnecting the battery, otherwise some components might damage.

Connect first the positive cable (+) and then the negative cable (-).

Disconnect in the reverse order.

Battery fluid is corrosive.

Do not spill it, especially on plastic parts.

### **LONG INACTIVITY OF THE BATTERY**

If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent sulphation, see page 53 (CHARGING THE BATTERY)

- ◆ Remove the battery, see page 52 (REMOVING THE BATTERY) and store it in a cool, dry place.

To avoid degradation in the wintertime or while the vehicle is stored away, check

battery charge at regular intervals (monthly).

- ◆ Recharge the battery fully at a normal charge rate, see page 53 (CHARGING THE BATTERY)

If you are leaving the battery installed to the vehicle, disconnect the cables from the terminals.

### **REMOVING THE BATTERY**

Carefully read page 52 (BATTERY).

- ◆ Remove the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Make sure that the ignition switch is in position "⊗".
- ◆ Disconnect first the negative (-) and then the positive cable (red, +).
- ◆ Remove the battery breather pipe.
- ◆ Remove the battery, and put it on a flat surface in a cool, dry place.

### WARNING

Once removed, the battery must be stored in a safe place and kept away from children.

- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT)

## INSTALLING THE BATTERY

Carefully read page 52 (BATTERY).

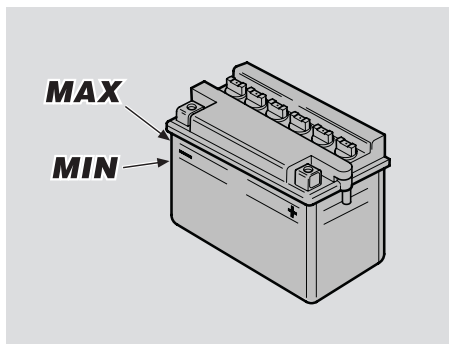
- ◆ Remove the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT).
- ◆ Remove the tool kit compartment.
- ◆ Refit the battery into its mount.
- ◆ Connect the battery breather pipe.

### ⚠ CAUTION

Always connect the battery breather pipe, to prevent the sulphuric acid vapours from corroding the electric system, painted parts, rubber elements or gaskets when they exit the breather pipe itself.

The breather pipe must be connected in such a way as not to be squashed, otherwise it may cause a pressure increase inside the battery, with the risk of damaging it.

- ◆ Connect first the red positive cable (+) and then the negative (-).
- ◆ Coat the terminals of cables and battery with special grease or Vaseline.
- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT).



## CHECKING BATTERY FLUID LEVEL

Carefully read page 52 (BATTERY).

- ◆ Remove the battery from its compartment, see page 52 (REMOVING THE BATTERY).
- ◆ Make sure that battery fluid level is between the "MIN" and "MAX" marks on the battery.

If not so:

- ◆ Release and remove the caps.

### ⚠ CAUTION

Top up with distilled water only. Do not exceed the "MAX" mark, because battery fluid expands when the battery is under charging.

- ◆ Add distilled water only until achieving correct level.

### ⚠ CAUTION

After topping up, put back the element caps in the correct position.

- ◆ Refit the caps.

## CHARGING THE BATTERY

Carefully read page 52 (BATTERY).

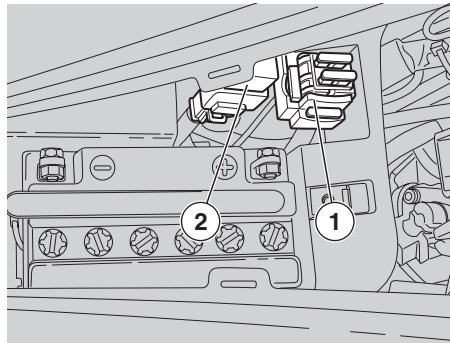
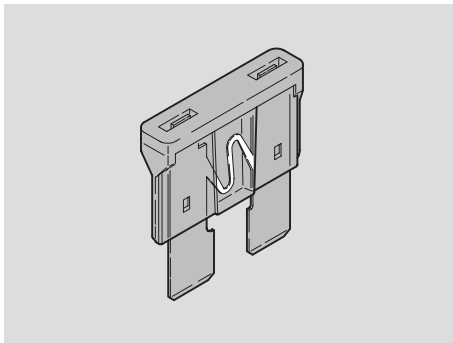
- ◆ Remove the battery from its compartment, see page 52 (REMOVING THE BATTERY).
- ◆ Release and remove the caps.
- ◆ Check electrolyte level, see page 53 (CHECKING BATTERY FLUID LEVEL).
- ◆ Connect the battery to a battery charger.
- ◆ Recommended charge rate is 1/10th of battery capacity.
- ◆ After charging the battery, check battery fluid level again and top up with distilled water if needed.
- ◆ Tighten the caps.

### ⚠ CAUTION

When you disconnect the battery charger, allow 5-10 minutes before refitting the battery, as it will keep producing gas for a few minutes.

### ⚠ WARNING

Charge or use the battery in a well-ventilated place. Do not inhale the gasses produced by the battery under charging.



## CHANGING THE FUSES

Carefully read page 40  
(MAINTENANCE).

### ⚠ CAUTION

**Do not repair faulty fuses.**  
**Never use a fuse of a rating other than specified.**  
**This could damage the electric system or cause a short circuit, with the risk of fire.**

**NOTE** When a fuse fitted in a particular position keeps blowing frequently, there might be a short circuit or overloading. In this case, contact an **aprilia** Authorised Dealer.

Checking the fuses is recommended whenever an electric component fails to operate or is malfunctioning, or when the engine does not start.

### Check as follows:

- ◆ Set the ignition switch to "⏻" to avoid any short-circuit.

- ◆ Remove the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Extract all fuses one by one and check for blown fuses. A blown fuse is identified by the filament in the centre being broken.
- ◆ Before replacing a fuse, identify the cause of the failure, if possible.
- ◆ Replace the blown fuse with a new one with equal current rating.

**NOTE** When you use one of the spare fuses, remember to add a new spare fuse into the proper seat.

- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 22 (BATTERY COMPARTMENT / TOOL KIT)

### ARRANGEMENT OF THE FUSES: C 364

- 7.5A fuse (1) - From ignition switch to:
- Instrument panel key-operated power
  - 1. Stoplights

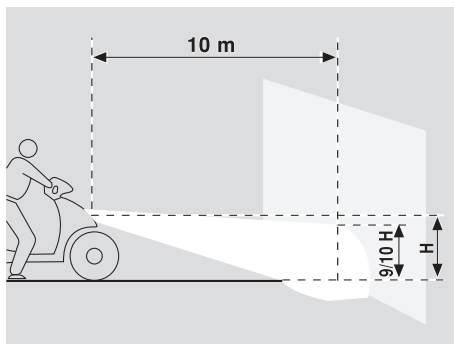
- 2. Mixer oil reserve sensor
  - 3. Fuel sensor
  - 4. Coolant temperature sensor
  - Turn indicators circuit;
  - Warning horn;
  - Diagnostics circuit.
- 15A fuse (2) - From battery to:
- Rectification/charge circuit;
  - Ignition switch;
  - Positive permanent on instrmt panel.

### ARRANGEMENT OF THE FUSES IE 361

- 10A fuse (1) - From ignition switch to:
- Lights
  - Low/High beam relay
  - Warning horn
  - Diagnostics circuit
- 15A fuse (2) - From battery to:
- Rectification/charge circuit
  - Ignition switch
  - Positive permanent on instrument panel
  - Injection relay
  - Engine kill switch
  - Instrument panel key-operated power
  - 1. Stoplights
  - 2. Mixer oil reserve sensor
  - 3. Fuel sensor
  - 4. Coolant temperature sensor

### ARRANGEMENT OF THE FUSES IE 50 :

- 10A fuse (1) - From ignition switch to:
- Warning horn
  - Rectification/charge circuit
  - Stoplights
  - Injection relay
  - Engine kill switch
  - Instrument panel key-operated power
  - 1. Turn indicators
  - 2. Mixer oil reserve sensor
  - 3. Fuel sensor
  - 4. Coolant temperature sensor



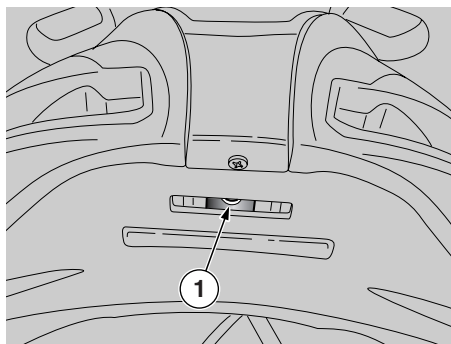
## VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM

**NOTE** According to the provisions of the standards in force in the country where the vehicle is used, there can be different specific procedures for inspecting the beam.

### Italian provisions:

For a quick beam inspection, place the vehicle on level ground, ten metres away from a vertical wall. Switch on the low beam, sit astride the vehicle and make sure that the light spot on the wall is just below the horizontal line of the headlight (about nine-tenths of overall height).

- ◆ Using an adjustable wrench, turn the screw (1).  
By **TURNING IT CLOCKWISE**, you set the beam downwards.  
By **TURNING IT ANTICLOCKWISE**, you set the beam upwards.



## BULBS

Carefully read page 40 (MAINTENANCE).

### ⚠ WARNING

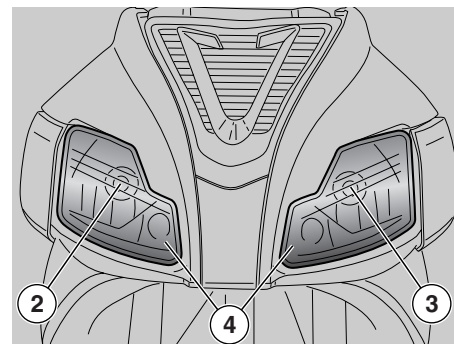
**Risk of fire. Keep fuel and other flammable substances away from electric components.**

### ⚠ CAUTION

**Before changing a lamp, place the vehicle on the centre stand and the ignition switch to "⊗", allow a few minutes for it to cool down. Wear clean gloves or use a clean, dry cloth to handle the new bulb.**

**Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage. If you have handled the bulb with bare hands, clean it with alcohol to avoid any damage.**

**DO NOT PULL ON THE WIRES.**



## CHANGING THE HEADLIGHT BULBS (low/high beam)

Carefully read page 55 (BULBS).

The headlight accommodates:

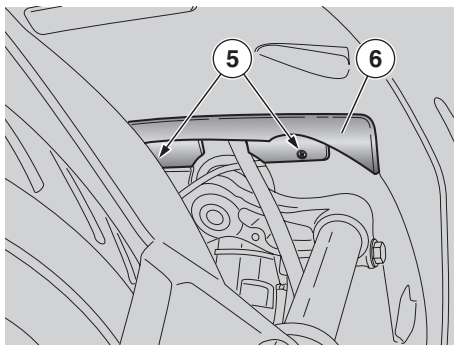
- one low beam light (2), one high beam light (3), two parking lights (4) (only **CH** and **USA** versions).

### LOW / HIGH BEAM BULB

To change the bulbs:

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Loosen the two screws (5).
- ◆ Remove the cover (6), (when refitting, pay attention to the reference teeth).
- ◆ Remove the bulb, with its wiring, turn it clockwise by 1/4th of a turn.

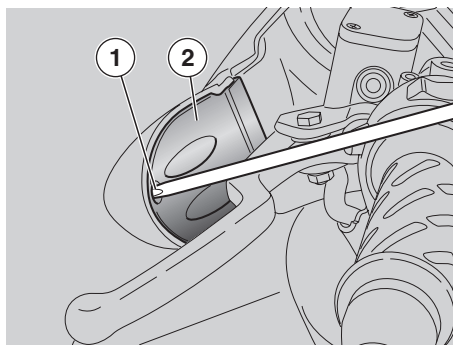




### ⚠ CAUTION

Remove the bulb first, then disconnect the wiring by raising the locking tab.

- ◆ Fit a new bulb of equal rating.



### CHANGING THE FRONT TURN INDICATOR BULBS

Carefully read page 55 (BULBS).

To change the bulbs:

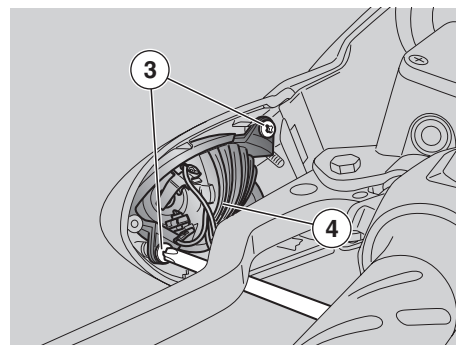
**NOTE** The following information applies to both turn indicators.

- ◆ Unscrew and remove the screw (1).

### ⚠ CAUTION

Proceed with care. Do not damage the tabs and/or their seats.

- ◆ Remove the cover (2).
- ◆ Unscrew and remove the two screws (3).

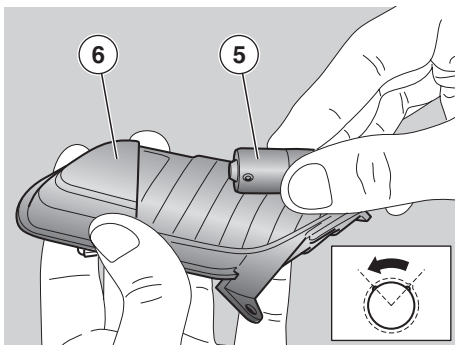


- ◆ Remove the complete turn indicator unit (4).
- ◆ Remove the clear screen.
- ◆ Press the bulb (5) slightly and rotate it anticlockwise.
- ◆ Extract the bulb from its seat.

**NOTE** Insert the bulb into the bulb holder (6), so that the two pins slide into the slots in the holder.

- ◆ Fit a new bulb of equal rating.



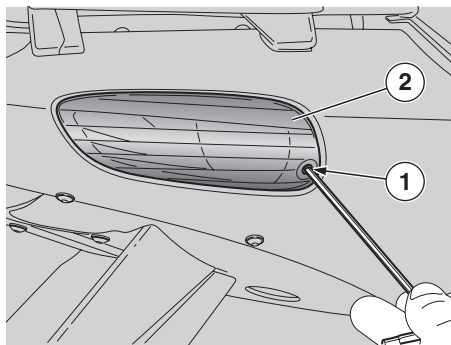


Upon reassembly:

**NOTE** Make sure that the cover (2) locates correctly into its seat on refitting.

### **CAUTION**

**Carefully tighten the screw (1) and the screws (3), do not overtighten to avoid damaging the cover (2) and the complete turn indicator unit (4).**



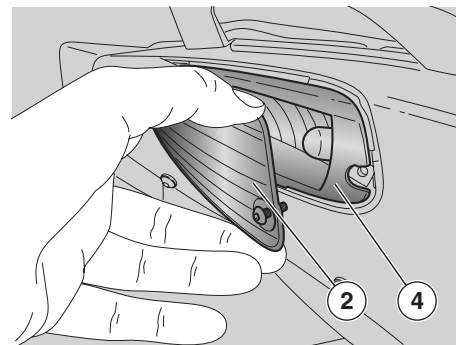
## **CHANGING THE REAR TURN INDICATOR BULBS**

**Carefully read page 55 (BULBS).**

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).

**NOTE** Before changing a bulb, check the fuses, see page 54 (CHANGING THE FUSES).

- ◆ Unscrew and remove the screw (1).

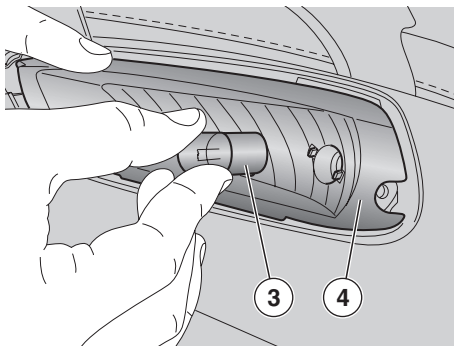


**NOTE** While removing the screen, pay attention to avoid damaging the clutch dog.

- ◆ Remove the shield (2).
- ◆ Press the bulb (3) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (3) from its seat.

**NOTE** Insert the bulb into the bulb holder, so that the two pins slide into the slots in the holder.

- ◆ Fit a new bulb of equal rating.

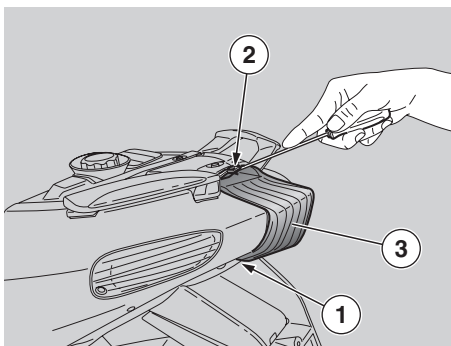


**NOTE** If the bulb holder (4) comes off, refit it into its seat so that the slotted opening of the holder matches the hole for the screw.

Upon reassembly:

**NOTE** Make sure that the lens locates correctly into its seat on refitting.

**NOTE** Tighten the screw (1) moderately and carefully, to avoid damaging the lens.



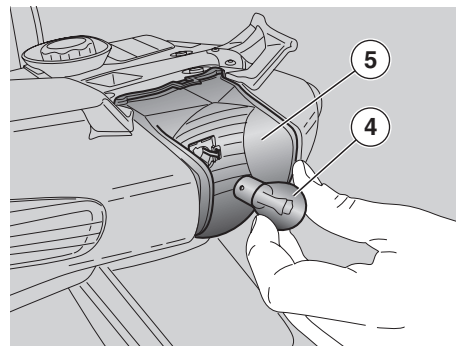
## CHANGING THE TAIL LIGHT / STOP BULBS

Carefully read, see page 55 (BULBS).

**NOTE** Before replacing the bulb, check the fuses, see page 54 (CHANGING THE FUSES) and the STOP light switches.

### To change the bulbs:

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).
- ◆ Using a screwdriver, lever onto locking tab (2).



**NOTE** While removing the screen, pay attention to avoid damaging the clutch dog.

- ◆ Remove the shield (3).
- ◆ Extract the bulb (4) from its seat.

**NOTE** Insert the bulb into the bulb holder (4), so that the two pins slide into the slots in the holder.

- ◆ Fit a new bulb of equal rating.

### **WARNING**

Before transporting the vehicle, it is necessary to completely empty the fuel tank and the carburettor (on carburettor versions), see below (DRAINING THE FUEL TANK) making sure that both are completely dry.

During transport, the vehicle must be kept in vertical position and be firmly anchored, in order to avoid any leakage of fuel, oil or coolant.

### **WARNING**

If stranded, do not have the vehicle towed - contact a roadside service firm instead.

## **DRAINING THE FUEL TANK**

(carburettor version only)

Carefully read page 24 (FUEL).

### **WARNING**

Risk of fire.

Allow for the engine and exhaust silencer to cool down completely before proceeding.

Fuel vapours are noxious to human health. Before proceeding, make sure that the room in which you are working is properly ventilated.

Do not inhale fuel vapours.

Do not smoke, nor use naked flames.

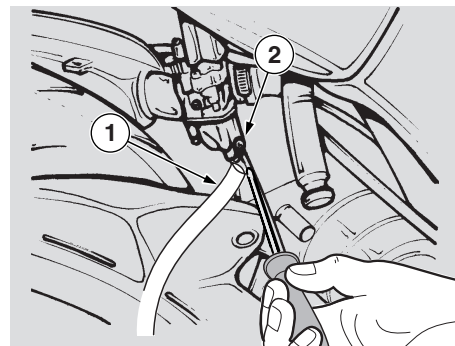
### **DO NOT RELEASE FUEL INTO THE ENVIRONMENT.**

- ◆ Place the vehicle on the centre stand, see page 39 (PLACING THE VEHICLE ON THE STAND)
- ◆ Stop the engine and wait until it has cooled down.
- ◆ Remove the rear mudguard.
- ◆ Prepare a container large enough to hold the fuel in the tank and place it on the floor on the left side of the vehicle.
- ◆ Remove the fuel filler plug.
- ◆ Drain fuel using a manual pump or similar system.

### **WARNING**

After draining the tank, put back the filler plug in the proper position.

- ◆ Refit the fuel filler plug.



To drain the carburettor completely, proceed as follows:

- ◆ Put the free end of the hose (1) into a receptacle.
  - ◆ Loosen drain screw (2) under the float chamber to drain the carburettor.
- When all the fuel has flowed out of the carburettor:
- ◆ Tighten the drain screw (2) completely.

### **WARNING**

Tighten the drain screw (2) with care, to avoid fuel leakages from the carburettor during refuelling.

If necessary, contact an **aprilia** Authorised Dealer.

## CLEANING

Clean the vehicle frequently if it is used in particular areas or conditions, such as:

- ◆ Pollution (urban and industrial areas)
- ◆ High salinity and humidity (sea areas, hot and damp climates).
- ◆ Seasonal/environmental conditions (salt and chemicals spread on the roads in the wintertime).
- ◆ Make sure to clean off any industrial residue and pollutants, tar, dead insects, bird droppings, etc. from the body panels and fairings.
- ◆ Avoid parking the vehicle under trees. Resins, fruits or leaves falling from the trees may contain aggressive chemical substances that may damage the paintwork.

### WARNING

After the vehicle has been washed, braking efficiency could be temporarily impaired because the friction surfaces of the braking systems may still be wet. Ride carefully as braking distance will be longer. Operate the brakes repeatedly to restore normal operation.

Carry out the preliminary checking operations, see p. 27 (PRELIMINARY CHECKING OPERATIONS).

To remove dirt and mud from painted surfaces, use a low-pressure water jet on dirty areas, remove mud and dirt

with a soft car body sponge soaked with abundant water and shampoo (2 - 4% parts of shampoo).

Then rinse with plenty of water and dry with chamois leather.

To clean the outer parts of the engine use a degreaser, brushes and wipers.

### CAUTION

To clean the lights, use a sponge soaked with water and a mild detergent, rubbing the surfaces delicately and rinsing frequently with plenty of water.

Wash the vehicle thoroughly before applying silicone wax.

Do not wash the vehicle under the sun, especially in the summertime, when the body is still warm, as the shampoo will dry before you can rinse it away and could damage the paint.

Do not use fluids at a temperature higher than 40°C to clean the plastic components of the vehicle.

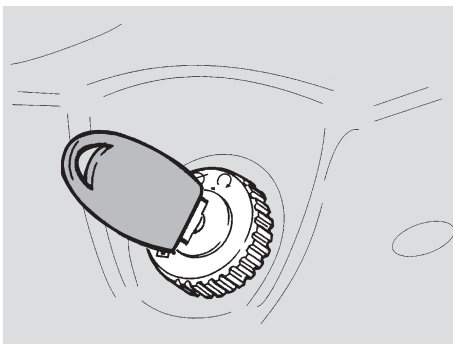


Do not aim high-pressure water/air jets or steam jets at the following parts: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, silencer, glove/tool kit compartment, ignition switch/steering lock, cooler or radiator fins, fuel filler plug, lights and electric connections.

Do not use alcohol or solvents to clean the rubber and plastic parts and the seat: use water and mild soap.

### WARNING

Do not apply protection waxes to the seat, or it may become slippery.



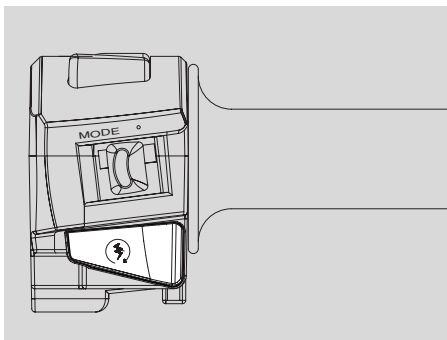
### LONG PERIODS OF INACTIVITY

When the vehicle is to remain unused for long periods, some precautions are necessary to avoid damage.

Do not postpone necessary repairs or you could forget them when you take the vehicle out of storage; a general check up is also recommended.

Proceed as follows:

- ◆ Remove the battery, see page 52 (REMOVING THE BATTERY) and page 52 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see page 61 (CLEANING).
- ◆ Polish painted surfaces with wax.
- ◆ Inflate the tyres, see page 30 (TYRES).



- ◆ By means of a suitable support, position the vehicle so that both tyres are raised from the ground.
- ◆ Store the vehicle in an unheated, dry place, away from sunlight, where temperature is reasonably steady.
- ◆ Wrap and tie a plastic bag around the exhaust pipe opening to keep moisture out.
- ◆ Cover the vehicle avoiding plastic or waterproof covers.



### AFTER STORAGE








- ◆ Remove the cover and clean the vehicle, see page 60 (CLEANING).
- ◆ Check battery charge, see page 53 (CHARGING THE BATTERY) and fit it, see page 53 (INSTALLING THE BATTERY).
- ◆ Fill the fuel tank, see page 24 (FUEL).
- ◆ Carry out the preliminary checking operations, see page 32 (PRE-RIDE CHECKS CHART).

### WARNING

**Have a test ride at moderate speed in a low-traffic area.**

## TECHNICAL DATA

<b>Dimensions</b>	Max. length (with rear mudguard extension)	1860 mm
	Max. Width	705 mm
	Max. height (headlight fairing included)	1120 mm
	Seat height	795 mm
	Wheelbase	1290 mm
	Minimum ground clearance	100 mm
	Loadless weight (in running order)	108 kg
<b>Engine</b>	Type	2 strokes
	Model <b>C 364</b>	C364M
	Model <b>IE 361</b>	C361M
	Model <b>IE 50</b>	Aprilia engine ditech
	Number of cylinders	horizontal single-cylinder
	Total displacement	49.38 cu. cm
	Bore / stroke <b>C 364</b> <b>IE 361</b>	40 mm / 39.3 mm
	Bore / stroke <b>IE 50</b>	41.0 mm / 37.4 mm
	Compression ratio <b>C 364</b>	12.1 ± 0.5 : 1
	Compression ratio <b>IE 361</b>	12.4 ± 0.5 : 1
	Compression ratio <b>IE 50</b>	12.3 ± 0.5 : 1
	Starting <b>C 364</b>	electric + kick starter
	Starting <b>IE</b>	electric
	Engine idling rpm <b>C 364</b>	1700 ± 100 rpm
	Engine idling rpm <b>IE</b>	2000 ± 50 rpm
<b>Capacities</b>	Clutch	automatic, dry centrifugal clutch
	Gearbox	automatic converter, stepless
	Cooling	Liquid
	Fuel (reserve included)	7.0 l
	Fuel reserve	1.2 l
	Transmission fluid <b>IE 50</b>	130 cu. cm
	Transmission fluid <b>IE 361</b> <b>C 364</b>	75 cu. cm
	Mixer oil (reserve included)	1.2 l
	Mixer oil reserve	0.2 l

<b>Capacities</b>	Coolant	1.2 l (50% antifreeze with ethylene glycol + 50% water)
	Seats	no. 1 (2 in the countries where passenger is allowed)
	Max. carrying load (rider + luggage)	105 kg
	Max. carrying load (rider + passenger + luggage)	180 Kg (in the countries where passenger is allowed)
<b>Transmission</b>	Converter	automatic, stepless
	Primary	V-belt
	Ratios	
	– minimum for stepless gearbox	 3.07 /  3.07 /  2.90
	– maximum for stepless gearbox	 1.37 /  1.24 /  0.75
<b>Carburettor</b>	Final	gears
	Model	
	– Standard	Dell'Orto PHVA 17.5
	Throttle	Ø 17.5 mm
<b>Electronic fuel injection</b> 	Model	
	– Standard	BING 71
	Throttle	Ø 18 mm
<b>Fuel supply</b>	Fuel	unleaded fuel, in conformity with the DIN 51607 standard, min. O.N. 95 (R.O.N.) and 85 (M.O.N.).
<b>Frame</b>	Type	Split single beam
<b>Suspensions</b>	Front	Telescopic fork
	Stroke	90 mm
	Rear	hydraulic monoshock
	Stroke	69 mm
<b>Brakes</b>	Front	disc brake - Ø 190 mm - with hydraulic transmission
	Rear	disc brake - Ø 190 mm - with hydraulic transmission
<b>Wheel rims</b>	Type	alloy
	Front	3.50 x 13"
	Rear	3.50 x 13"
<b>Tyres</b>	Type	tubeless
	Front	130 /60 -13" 53J
	Rear	130 /60 -13" 53J

<b>Tyres</b>	STANDARD INFLATION PRESSURE	
	Front	180 kPa (1.8 bar)
	Rear	200 kPa (2.0 bar)
	INFLATION PRESSURE WITH PASSENGER (in the countries where this is allowed)	
<b>Ignition</b>	Front	180 kPa (1.8 bar)
	Rear	220 kPa (2.2 bar)
	Type <b>C 364</b>	C.D.I. control unit
	Type <b>IE</b>	T.D.I.
<b>Spark plug</b>	Spark advance <b>C 364</b>	20° ± 3° before TDC
	Spark advance <b>IE</b>	mapped to rpm/a (a = throttle opening).
	Standard <b>C 364</b>	CHAMPION RN1C
	Standard <b>IE 361</b>	CHAMPION RG6YCA / RG6YC
	Standard <b>IE 50</b>	NGK-R CPR8E
	As an alternative <b>IE</b>	NGK-R ZMR7AP (recommended) / CR8EKB / CR7EKB
<b>Electric system</b>	Spark plug gap <b>C 364</b>	0.6 – 0.7 mm
	Spark plug gap <b>IE</b>	0.9 mm
	Battery	with maintenance 12 V - 9 Ah
	Fuses	7.5 A - 15 A
	Fuses <b>IE</b>	10 A - 15 A
	Generator (with permanent magnet) <b>C 364</b>	12 V - 70 W
<b>Bulbs</b>	Generator (with permanent magnet) <b>IE 361</b>	12 V - 165 W
	Generator (with permanent magnet) <b>IE 50</b>	12 V - 140 W
	Low beam	12 V - 35 W
	Low/high beam	12 V - 35 W
	Turn indicator light	12 V - 10 W
	Rear brake light / stop	12 V - 5/21 W
<b>Warning lights</b>	Instrument panel lighting	12 V - LED
	High beam	12 V - LED
	Turn indicators	12 V - LED
	Fuel reserve	12 V - LED
	Injection Check <b>IE</b>	12 V - LED



## LUBRICANT CHART



**(Recommended) transmission fluid:**  Agip. GEAR SYNTH, SAE 75W - 90

As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. GL-4 specifications can be used.

**(Recommended) mixer oil:**  Agip 2 CITY 2T.


As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. SJ specifications can be used.

**(Recommended) fork oil:**  Agip FORK 5W or  Agip FORK 20W fork oil.

When you wish to obtain an intermediate response between those offered by  Agip FORK 5W and  Agip FORK 20W, you may mix the different products as follows:

SAE 10W =  Agip FORK 5W 67% of the volume +  Agip FORK 20W 33% of the volume.

SAE 15W =  Agip FORK 5W 33% of the volume +  Agip FORK 20W 67% of the volume.

**Bearings and other lubrication points (recommended):**  Agip GREASE 30.

As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C +140°C, with dripping point 150°C - 230°C, high corrosion protection, good resistance to water and oxidation.

**Battery lead protection:** Neutral grease or Vaseline.

### WARNING


**Use new brake fluid only. Do not mix different brands or types of oil unless you are sure that the different oil bases are compatible.**

**(Recommended) brake fluid:** The system is filled with DOT 4 BRAKE FLUID (Compatible DOT 5)

As an alternative to the recommended product, top brand brake fluid meeting or exceeding SAE J1703, NHTSA 116 DOT 4, ISO 4925 specifications for synthetic brake fluid can be used.

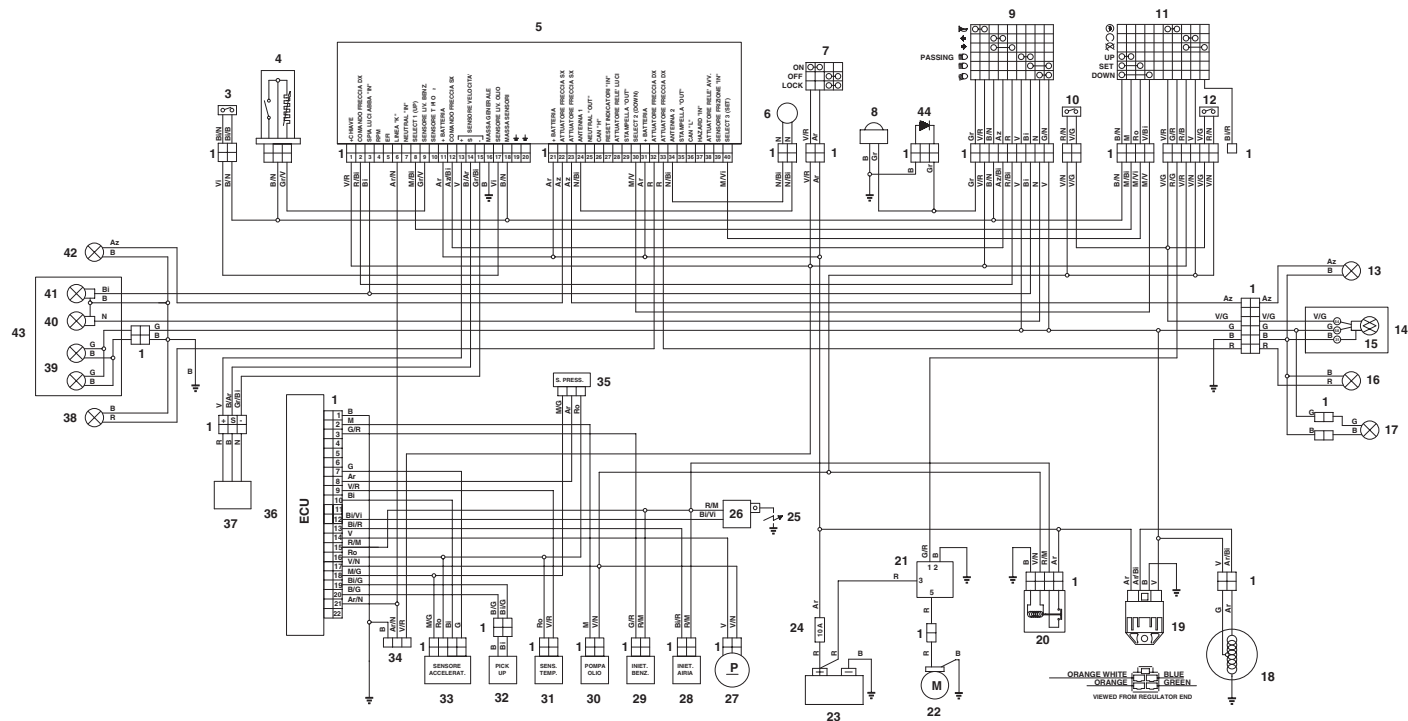
### WARNING

**Use only antifreeze and anticorrosive without nitrite, ensuring protection at -35°C at least.**

**(Recommended) engine coolant:**  Agip COOL.

# **WIRING DIAGRAM - SR 50 DITECH**

IE 50



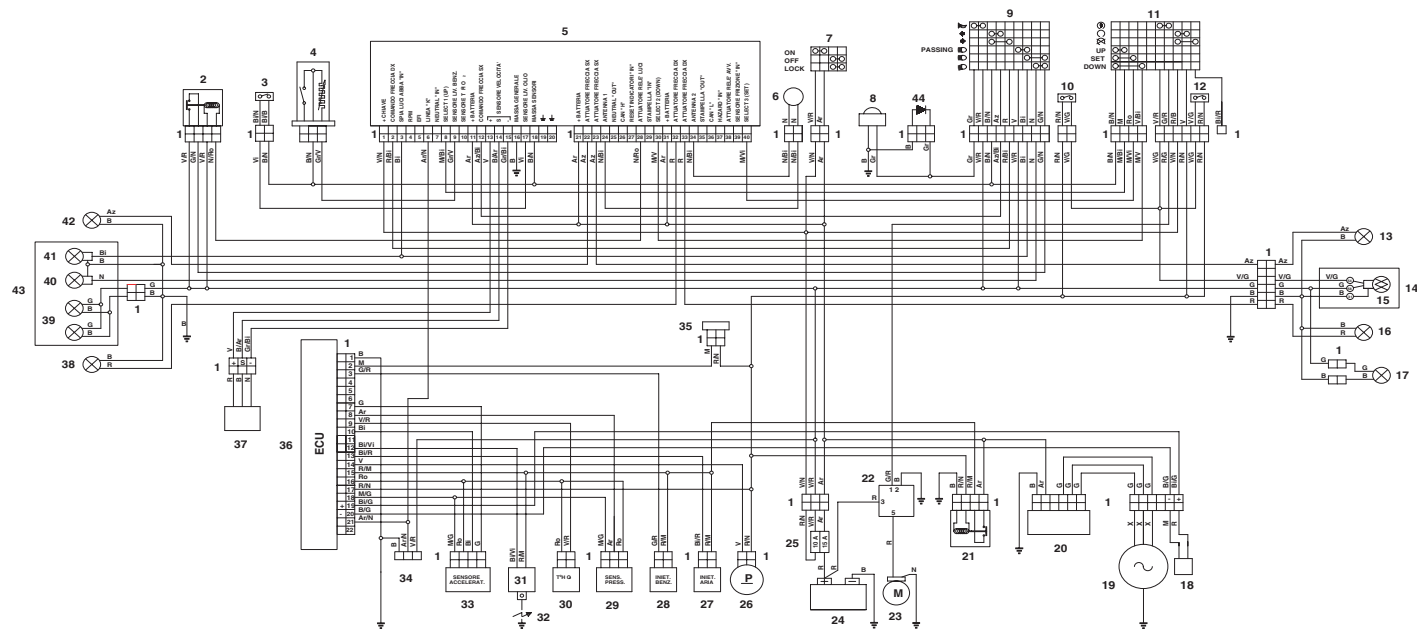
## WIRING DIAGRAM KEY - SR 50 DITECH IE 50

- |   |   |
|---|---|
| 1) Multiple connectors                            | 33) Throttle sensor                                     |
| 2) -  | 34) Serial connector (diag.)                            |
| 3) Oil level switch                               | 35) Pressure sensor (or integrated in the control unit) |
| 4) Fuel level sensor                              | 36) ECU   |
| 5) Instrument panel (matrix)                      | 37) Speed sensor  |
| 6) Immobilizer antenna                            | 38) Front right turn indicator                          |
| 7) Key-operated switch                            | 39) Front parking lights (only for usa/ch versions)     |
| 8) Warning horn                                   | 40) Low beam  |
| 9) Left dimmer switch                             | 41) High beam   |
| 10) Rear brake switch (on left dimmer switch)     | 42) Front left turn indicator                           |
| 11) Right dimmer switch                           | 43) Headlight   |
| 12) Front brake switch (on right dimmer switch)   | 44) Diode   |
| 13) Rear left turn indicator                      | 45) -   |
| 14) Tail light                                    | 46) -   |
| 15) Parking light/brake light                     | 47) -   |
| 16) Rear right turn indicator                     | 48) -   |
| 17) Number plate light (only for usa/ch versions) | 49) -   |
| 18) Generator                                     |   |
| 19) Voltage regulator                             |   |
| 20) Injection relay                               |   |
| 21) Starter relay                                 |   |
| 22) Starter motor                                 |   |
| 23) Battery                                       |   |
| 24) Fuse  |   |
| 25) Spark plug                                    |   |
| 26) H.T. coil                                     |   |
| 27) Fuel pump                                     |   |
| 28) Air injector                                  |   |
| 29) Fuel injector                                 |   |
| 30) Oil pump                                      |   |
| 31) Temperature sensor                            |   |
| 32) Pick-up                                       |   |

## CABLE COLOUR

- Ar** Orange  
**Az** Light blue  
**B** Blue  
**Bi** White  
**G** Yellow  
**Gr** Grey  
**M** Brown  
**N** Black  
**R** Red  
**V** Green  
**Vi** Violet  
**Ro** Pink

# SCOOTER WIRING DIAGRAM - SR 50 PUREJET IE 361



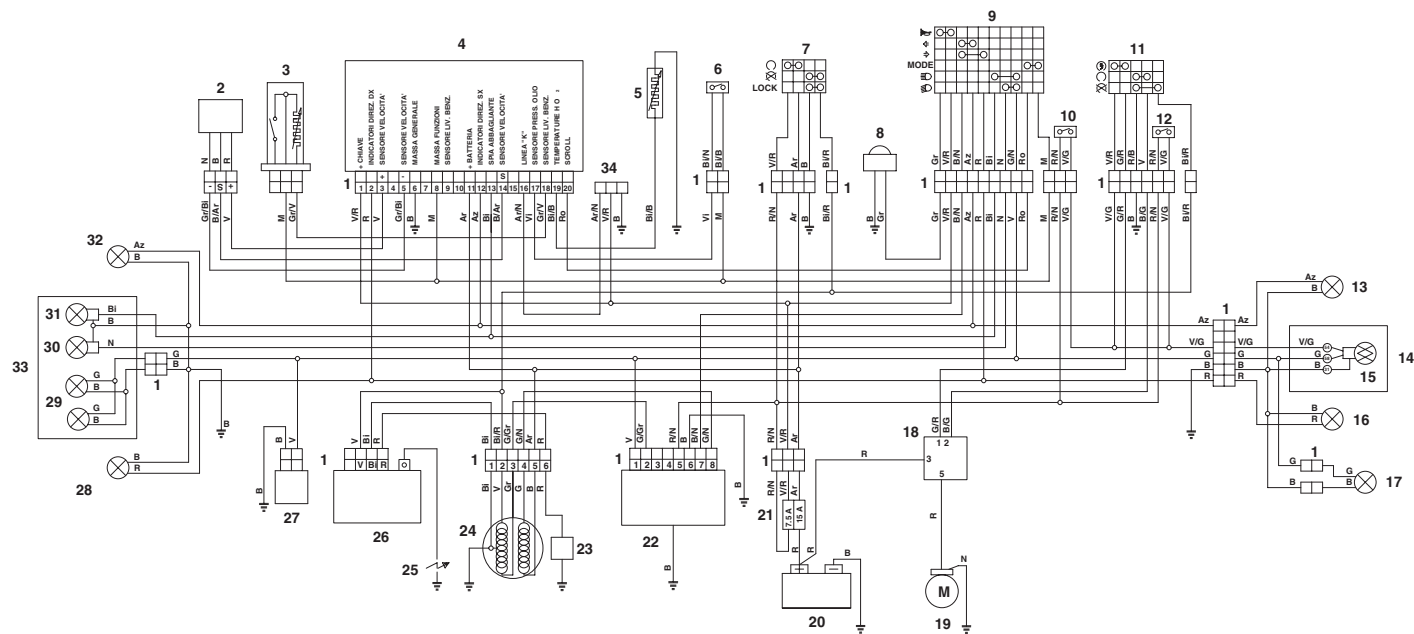
## WIRING DIAGRAM KEY - SR 50 PUREJET IE 361

- |   |   |
|---|---|
| 1) Multiple connectors                                  | 32) Spark plug                                      |
| 2) Low-high beam relay                                  | 33) Throttle sensor                                 |
| 3) Oil level switch                                     | 34) Serial connector (diag.)                        |
| 4) Fuel level sensor                                    | 35) Oil pump  |
| 5) Instrument panel (matrix)                            | 36) ECU   |
| 6) Immobilizer antenna                                  | 37) Speed sensor                                    |
| 7) Key-operated switch                                  | 38) Front right turn indicator                      |
| 8) Warning horn   | 39) Front parking lights (only for usa/ch versions) |
| 9) Left dimmer switch                                   | 40) Low beam  |
| 10) Rear brake switch (on left dimmer switch)           | 41) High beam                                       |
| 11) Right dimmer switch                                 | 42) Front left turn indicator                       |
| 12) Front brake switch (on right dimmer switch)         | 43) Headlight                                       |
| 13) Rear left turn indicator                            | 44) Diode   |
| 14) Tail light  | 45) -   |
| 15) Parking light/brake light                           | 46) -   |
| 16) Rear right turn indicator                           | 47) -   |
| 17) Number plate light (only for USA/CH versions)       | 48) -   |
| 18) Pick-up   | 49) -   |
| 19) Generator   |   |
| 20) Voltage regulator                                   |   |
| 21) Injection relay                                     |   |
| 22) Starter relay (noise proof)                         |   |
| 23) Starter motor                                       |   |
| 24) Battery   |   |
| 25) Fuses   |   |
| 26) Fuel pump   |   |
| 27) Air injector  |   |
| 28) Fuel injector                                       |   |
| 29) Pressure sensor (or integrated in the control unit) |   |
| 30) Head temperature sensor                             |   |
| 31) H.T. coil   |   |

## CABLE COLOUR

- Ar** Orange  
**Az** Light blue  
**B** Blue  
**Bi** White  
**G** Yellow  
**Gr** Grey  
**M** Brown  
**N** Black  
**R** Red  
**V** Green  
**Vi** Violet  
**Ro** Pink

# SCOOTER WIRING DIAGRAM - SR 50 IE 50



## SCOOTER WIRING DIAGRAM KEY - SR 50 IE 50

- |   |                              |
|---|------------------------------|
| 1) Multiple connectors                          | 34) Serial connector (diag.) |
| 2) Speed sensor                                 | 35) -                        |
| 3) Fuel level sensor                            | 36) -                        |
| 4) Instrument panel (easy)                      | 37) -                        |
| 5) Head temperature sensor                      | 38) -                        |
| 6) Oil level switch                             | 39) -                        |
| 7) Key-operated switch                          |                              |
| 8) Warning horn                                 |                              |
| 9) Left dimmer switch                           |                              |
| 10) Rear brake switch (on left dimmer switch)   |                              |
| 11) Right dimmer switch                         |                              |
| 12) Front brake switch (on right dimmer switch) |                              |
| 13) Rear left turn indicator                    |                              |
| 14) Tail light                                  |                              |
| 15) Parking light/brake light                   |                              |
| 16) Rear right turn indicator                   |                              |
| 17) Number plate light (only ch-usa)            |                              |
| 18) Starter relay                               |                              |
| 19) Starter motor                               |                              |
| 20) Battery                                     |                              |
| 21) Fuses                                       |                              |
| 22) Regulator                                   |                              |
| 23) Pick-up                                     |                              |
| 24) Generator                                   |                              |
| 25) Spark plug                                  |                              |
| 26) Transducer                                  |                              |
| 27) Automatic cold start                        |                              |
| 28) Front right turn indicator                  |                              |
| 29) Front parking lights (only ch-usa )         |                              |
| 30) Low beam                                    |                              |
| 31) High beam                                   |                              |
| 32) Front left turn indicator                   |                              |
| 33) Headlight                                   |                              |

## CABLE COLOUR

- Ar** Orange  
**Az** Light blue  
**B** Blue  
**Bi** White  
**G** Yellow  
**Gr** Grey  
**M** Brown  
**N** Black  
**R** Red  
**V** Green  
**Vi** Violet  
**Ro** Pink

## AUTHORISED DEALERS AND SERVICE CENTRES

### THE VALUE OF SERVICE

Thanks to ongoing technical updates and product-specific technical training, **aprilia** Authorised Network engineers are familiar with every detail of this vehicle and have the special equipment required for correct maintenance and repair.

A vehicle kept in sleek running order is a reliable vehicle. Pre-ride checks, proper maintenance at the recommended intervals and using **aprilia** Original Parts only are key factors!

To find contact information of the Authorised Dealer and/or Service Centre nearest you, please consult the Yellow Pages or the map provided at our web site:

**[www.aprilia.com](http://www.aprilia.com)**

When you demand **aprilia** Original Parts, you are purchasing products that have been developed and tested as early as the vehicle design stage. **aprilia** Original Parts systematically undergo strict quality control procedures to ensure total reliability and long service life.

**Piaggio & C. S.p.A.** wishes to thank its customers for the purchase of this vehicle:

- Do not release oil, fuel, polluting substances and components into the environment.
- Do not keep the engine running when not necessary.
- Avoid disturbing noise.
- Respect the environment.