

aprilia

RSV mille - **RSV** mille **R**



aprilia part# 8104269

use+maintenancebook



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SAFETY WARNINGS

The following precautionary warnings are used throughout this manual in order to convey the following messages:

 **Safety warning. When you find this symbol on the vehicle or in the manual, be careful to the 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 precedes important information or instructions.

TECHNICAL INFORMATION

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

If not expressly indicated otherwise, for the reassembly of the units repeat the disassembly operations in reverse order.

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

The vehicle **RSV R** has been designed and produced as a single seater (for the transport of the rider only).

The vehicle **RSV R** cannot be used to transport any passenger, luggage and objects.

In this manual, any reference to the transport of passenger, luggage or objects regards only the **RSV** version of the vehicle.

If the glove/tool kit compartment cover has been installed (as an alternative to the passenger seat), the transport of passenger, luggage or objects is forbidden even with **RSV**.

WARNINGS - PRECAUTIONS - GENERAL ADVICE

Before starting the engine, carefully read this manual and in particular the section "SAFE DRIVE".

Your and other people's safety depends not only on your quickness of reflexes and on your agility, but also on what you know about the vehicle, on its efficiency and on your knowledge of the basic information for "SAFE DRIVE".

Therefore, get a thorough knowledge of the vehicle, in such a way as to be able to drive in the traffic safely.

NOTE This manual must be considered as an integral part of the vehicle and must always accompany it, even in case of resale.

aprilia has carried out 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** Official 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** Official Dealers and Service Centers, which guarantee prompt and accurate assistance.

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

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NOTE In some countries the antipollution and noise regulations in force require periodical inspections.

The user of the vehicle in these countries must:

- contact an **aprilia** Official Dealer to have the non-homologated components replaced with others homologated for use in the country in question;
- carry out the required periodical inspections.

NOTE Soon after purchasing the vehicle, write down the identification data indicated on the SPARE PARTS IDENTIFICATION LABEL in the table here below. This label is positioned on the left side of the frame; to read it, it is necessary to remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

aprilia		YEAR				I.M.					
		Y	1	2	3	4					
SPARE PARTS IDENTIFICATION		A	B	C	D	E					
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** Official Dealer as reference data for the purchase of spare parts or specific accessories of the model you have acquired.

In this manual the various versions are indicated by the following symbols:

- RSV** RSV mille
- RSV R** RSV mille R
- ASD** automatic light switching version (Automatic Switch-on Device)
- OPT** optional
-  catalytic version

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

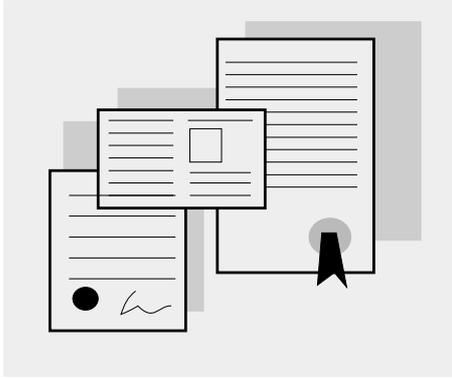
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aprilia



safe drive



BASIC SAFETY RULES

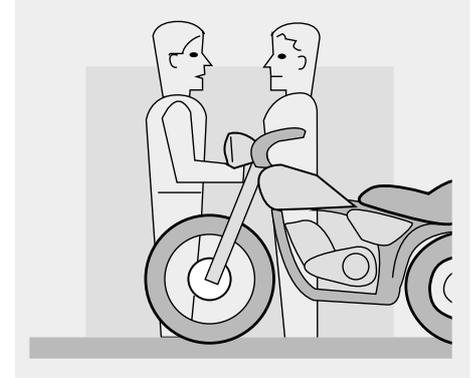
To drive the vehicle it is necessary to be in possession of all the requirements prescribed by law (driving licence, minimum age, psychophysical ability, insurance, state taxes, vehicle registration, number plate, etc.).

Gradually get to know the vehicle by driving it first in areas with low traffic and/or private areas.



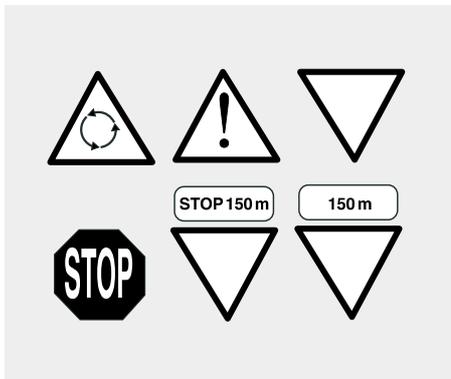
The use of medicines, alcohol and drugs or psychotropic substances notably increases the risk of accidents.

Be sure that you are in good psychophysical conditions and fit for driving and pay particular attention to physical weariness and drowsiness.



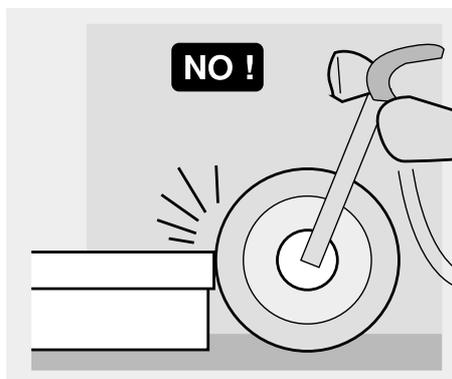
Most road accidents are caused by the driver's lack of experience.

NEVER lend the vehicle to beginners and, in any case, make sure that the driver has all the requirements for driving.



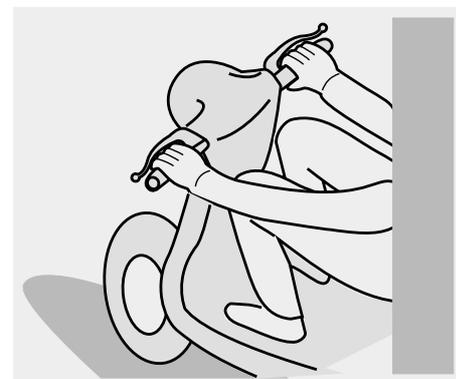
Rigorously observe all road signs and national and local road regulations.

Avoid abrupt movements that can be dangerous for yourself and other people (for example: rearing up on the back wheel, speeding, etc.), and give due consideration to the road surface, visibility and other driving conditions.



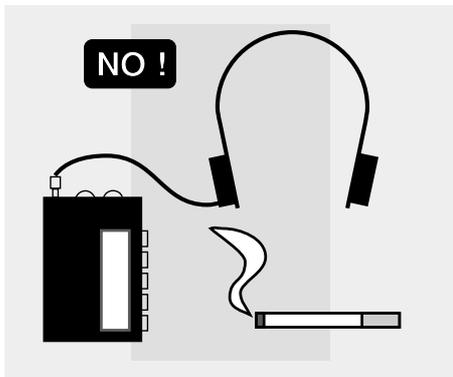
Avoid obstacles that could damage the vehicle or make you lose control.

Avoid riding in the slipstream created by preceding vehicles in order to increase your speed.

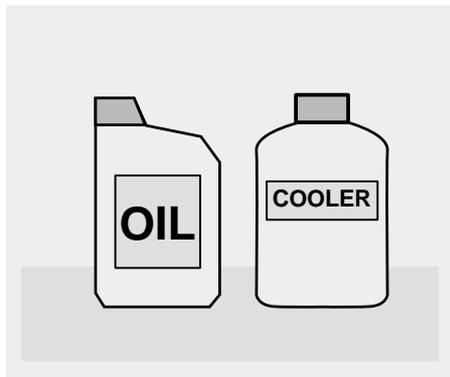


Always drive with both hands on the handlebars and both feet on the footrests (or on the rider's footboards), in the correct driving posture.

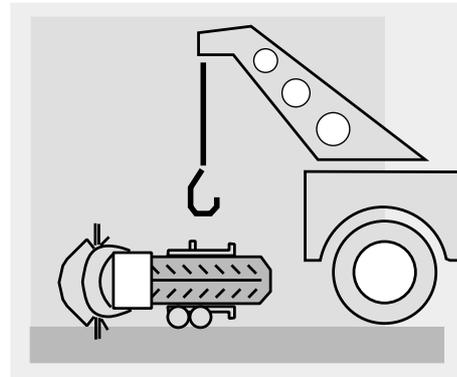
Avoid standing up or stretching your limbs while driving.



The driver should pay attention and avoid distractions caused by people, things and movements (never smoke, eat, drink, read, etc.) while driving.



Use only the vehicle's specific fuels and lubricants indicated in the "LUBRICANT CHART"; check all oil, fuel and coolant levels regularly.

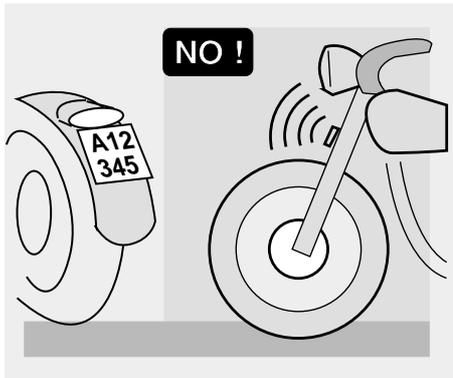


If the vehicle has been involved in an accident, make sure that no damage has occurred to the control levers, pipes, wires, braking system and vital parts.

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

Always remember to report any malfunction to the technicians to help them in their work.

Never use the vehicle when the amount of damage it has suffered endangers your safety.



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

Any modification of the vehicle will result in the invalidity of the guarantee



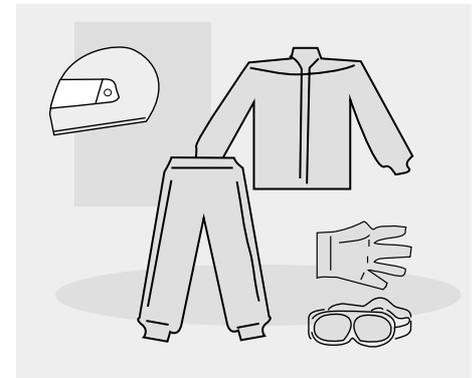
Any modification of the vehicle and/or the removal of original components can compromise vehicle performance levels and safety or even make it illegal.

We recommend respecting all regulations and national and local provisions regarding the equipment of the vehicle.

In particular, avoid all modifications that increase the vehicle's performance levels or alter its original characteristics.

Never race with other vehicles.

Avoid off-road driving.

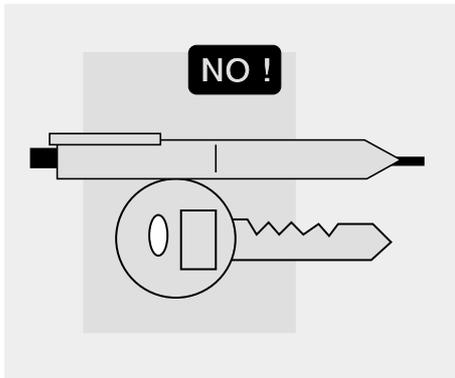


CLOTHING

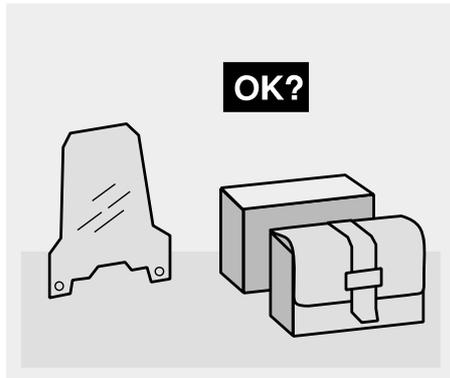
Before starting, always wear a correctly fastened crash helmet. Make sure that it is homologated, in good shape, of the right size and that the visor is clean.

Wear protective clothing, preferably in light and/or reflecting colours. In this way you will make yourself more visible to the other drivers, thus notably reducing the risk of being knocked down, and you will be more protected in case of fall.

This clothing should be very tight-fitting and fastened at the wrists and ankles; strings, belts and ties should not be hanging loose; prevent these and other objects from interfering with driving by getting entangled with moving parts or driving mechanisms.



Do not keep objects that can be dangerous in case of fall, for example pointed objects like keys, pens, glass vials etc. in your pockets (the same recommendations also apply to passengers).



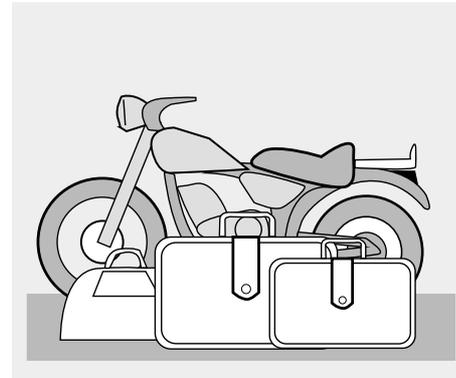
ACCESSORIES

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

Avoid installing accessories that cover horns or lights or that could impair their functions, limit the suspension stroke and the steering angle, hamper the operation of the controls and reduce the distance from the ground and the angle of inclination in turns.

Avoid using accessories that hamper access to the controls, since this can prolong reaction times during an emergency.

Big fairings and windshields installed on the vehicle may produce aerodynamic forces that affect the stability of the vehicle, especially when riding at high speed.



Make sure that the equipment is well fastened to the vehicle and not dangerous during driving.

Do not install electrical devices and do not modify those already existing to avoid electrical overloads, because the vehicle could suddenly stop or there could be a dangerous current shortage in the horn and in the lights.

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

LOAD

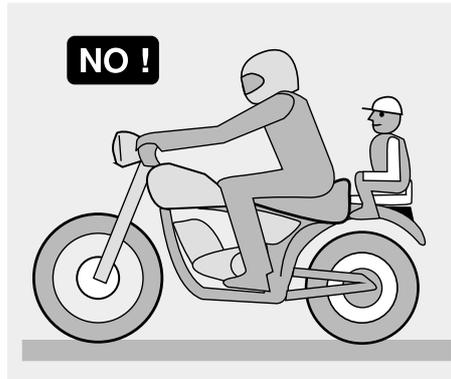
Be careful and moderate when loading your luggage. Keep any luggage loaded as close as possible to the center of gravity of the vehicle and distribute the load uniformly on both sides, in order to reduce imbalance to the minimum. Furthermore, make sure that the load is firmly secured to the vehicle, especially during long trips.

Avoid hanging bulky, heavy and/or danger-



ous objects on the handlebars, mudguards and forks, because the vehicle might respond more slowly in turns and its manoeuvrability could be unavoidably impaired.

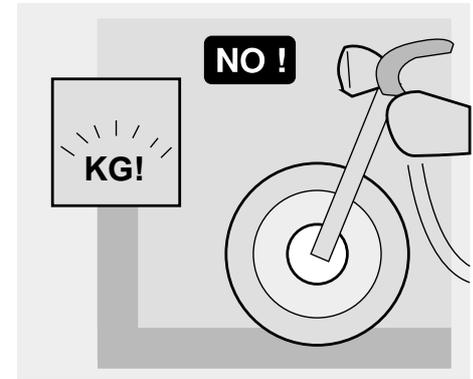
Do not place bags that are too bulky on the vehicle sides and do not ride with the crash helmet, because they could hit people or obstacles, making you lose control of the vehicle.



Do not carry any bag if it is not tightly secured to the vehicle.

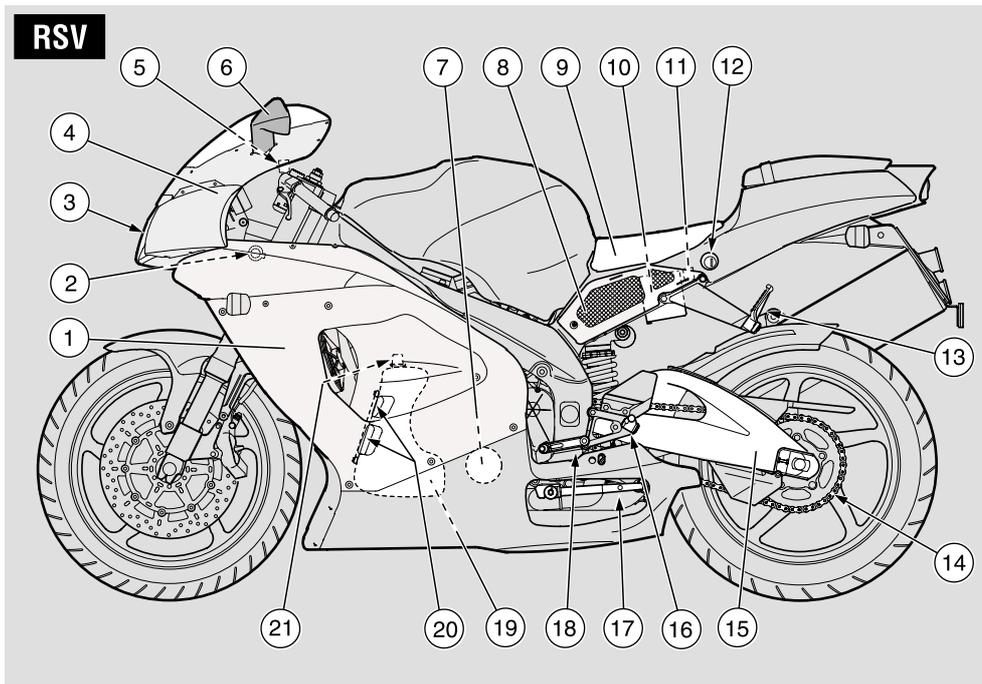
Do not carry bags which protrude too much from the luggage-rack or which cover the lights, horn or indicators.

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



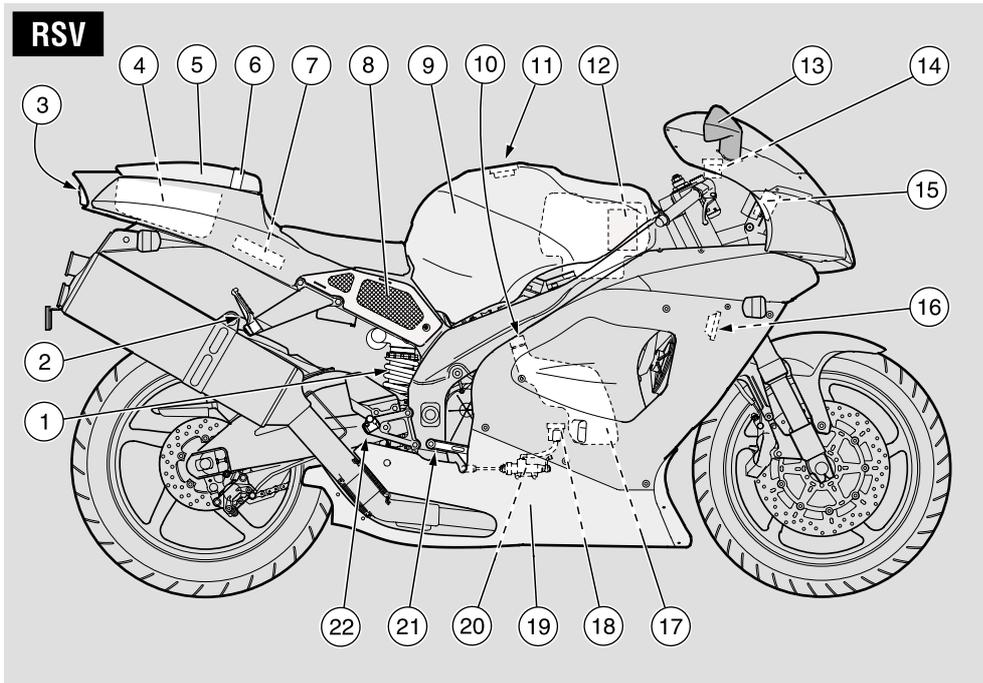
Do not exceed the maximum load allowed for each side-bag.

When the vehicle is overloaded, its stability and its manoeuvrability can be compromised.



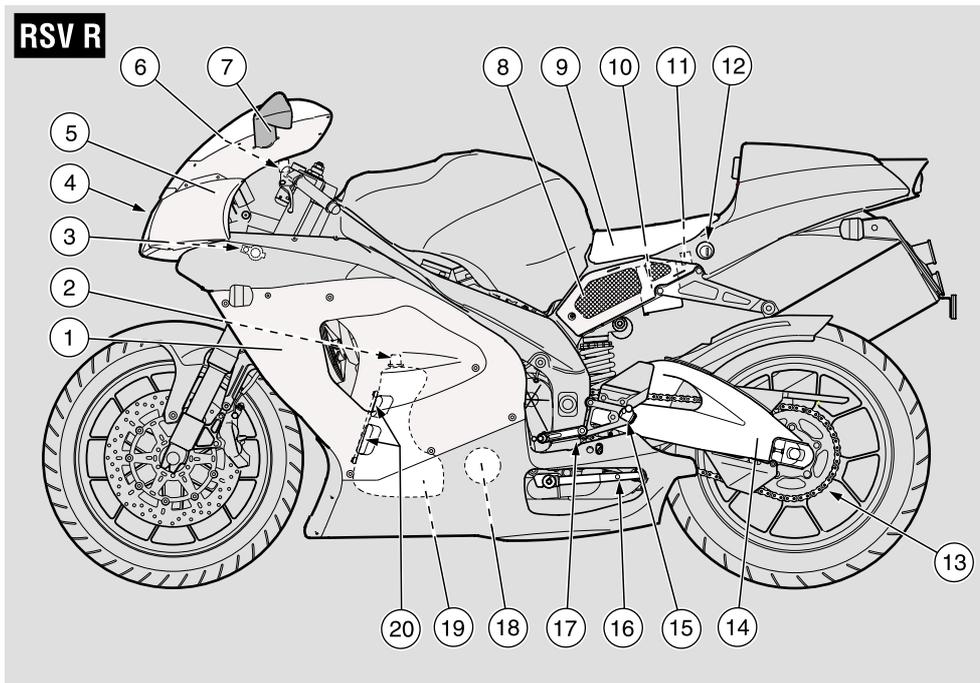
KEY

- | | | | |
|--|------------------------------|---|-------------------------|
| 1) Left fairing | 6) Left rear-view mirror | 13) Passenger left footrest (snapping, closed/open) | 19) Engine oil tank |
| 2) Non-adjustable steering damper (adjustable steering damper <small>RSV OPT</small>) | 7) Engine oil filter | 14) Drive chain | 20) Engine oil level |
| 3) Headlight | 8) Left side cover | 15) Rear fork | 21) Engine oil tank cap |
| 4) Front part of the fairing | 9) Rider saddle | 16) Rider left footrest | |
| 5) Clutch fluid reservoir | 10) Battery | 17) Side stand | |
| | 11) Main fuse carrier (30 A) | 18) Shifting lever | |
| | 12) Passenger seat lock | | |



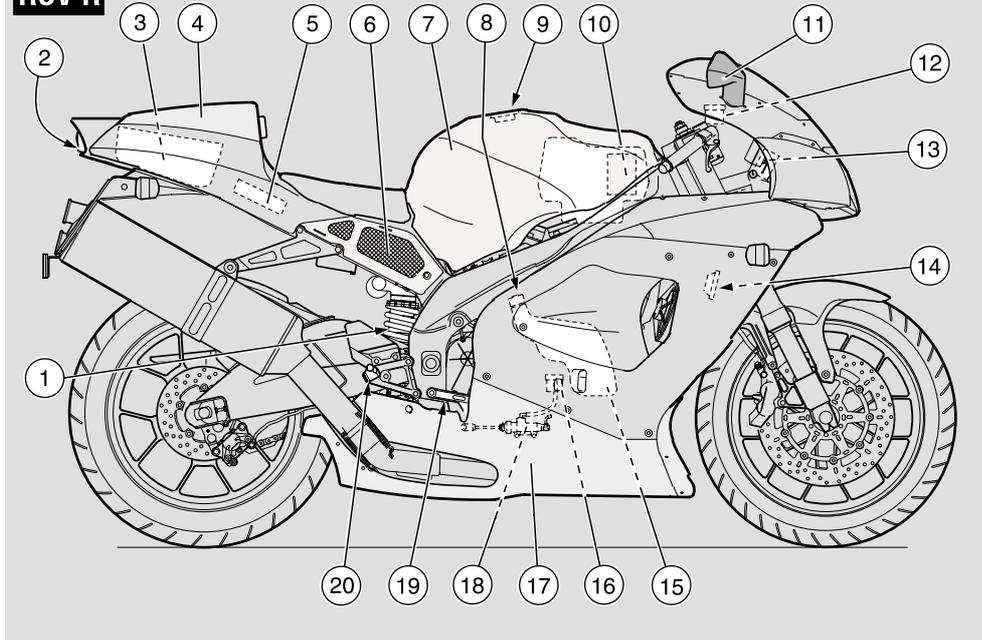
KEY

- | | | | |
|--|--------------------------------|--------------------------------------|------------------------------|
| 1) Rear shock absorber | 6) Passenger grab strap | 13) Right rear-view mirror | 19) Lower fairing |
| 2) Passenger right footrest
(snapping, closed/open) | 7) Electronic unit | 14) Front brake fluid tank | 20) Rear brake pump |
| 3) Rear light | 8) Right side cover | 15) Secondary fuse carrier
(15 A) | 21) Rear brake control lever |
| 4) Glove/tool kit compartment | 9) Fuel tank | 16) Horn | 22) Rider right footrest |
| 5) Passenger seat (glove/tool kit
compartment cover RSV OPT) | 10) Coolant expansion tank cap | 17) Expansion tank | |
| | 11) Fuel tank filler cap | 18) Rear brake fluid tank | |
| | 12) Air cleaner | | |



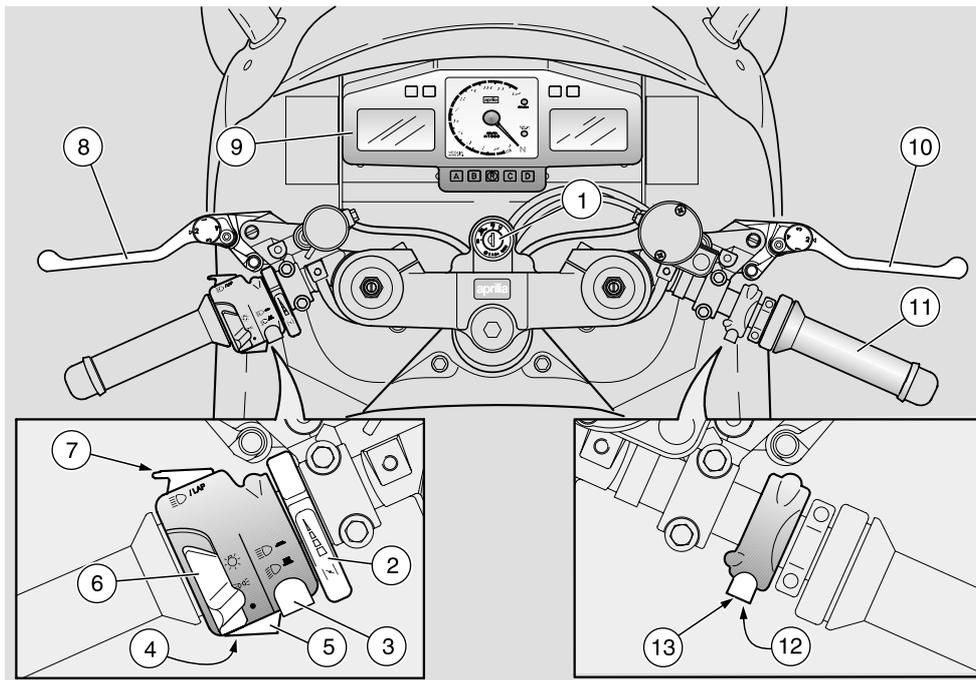
KEY

- | | | | |
|-------------------------------|-------------------------------------|-------------------------|-----------------------|
| 1) Left fairing | 8) Left side cover | 13) Drive chain | 18) Engine oil filter |
| 2) Engine oil tank cap | 9) Rider saddle | 14) Rear fork | 19) Engine oil tank |
| 3) Adjustable steering damper | 10) Battery | 15) Rider left footrest | 20) Engine oil level |
| 4) Headlight | 11) Main fuse carrier (30A) | 16) Side stand | |
| 5) Front part of the fairing | 12) Glove/tool kit compartment lock | 17) Shifting lever | |
| 6) Clutch fluid reservoir | | | |
| 7) Left rear-view mirror | | | |

RSV R**KEY**

- | | | | |
|-------------------------------------|-------------------------------|----------------------------------|------------------------------|
| 1) Rear shock absorber | 7) Fuel tank | 13) Secondary fuse carrier (15A) | 19) Rear brake control lever |
| 2) Rear light | 8) Coolant expansion tank cap | 14) Horn | 20) Rider right footrest |
| 3) Glove/tool kit compartment | 9) Fuel tank filler cap | 15) Expansion tank | |
| 4) Glove/tool kit compartment cover | 10) Air cleaner | 16) Rear brake fluid tank | |
| 5) Electronic unit | 11) Right rear-view mirror | 17) Lower fairing | |
| 6) Right side cover | 12) Front brake fluid tank | 18) Rear brake pump | |

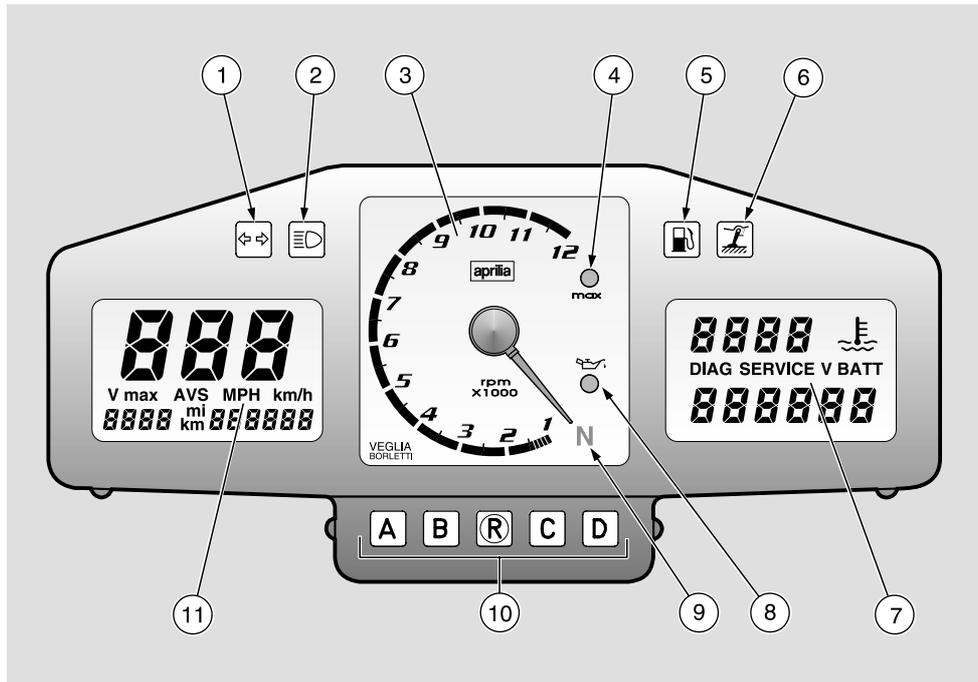
ARRANGEMENT OF THE INSTRUMENTS/CONTROLS



KEY

- | | |
|---|----------------------------------|
| 1) Ignition switch/steering lock (○ - ☒ - Ⓜ) | 8) Clutch lever |
| 2) Cold start lever (⌊\) | 9) Instruments and indicators |
| 3) Dimmer switch (⊞ - ⊞) | 10) Front brake lever |
| 4) Direction indicator switch (↔↔) | 11) Throttle grip |
| 5) Horn push button (🔊) | 12) Start push button (Ⓢ) |
| 6) Light switch (☀ - ☀ - ●) (not provided for ASD) | 13) Engine stop switch (■○ - ■☒) |
| 7) High beam signaller push button (⊞)/LAP push button (multi-function) | |

INSTRUMENTS AND INDICATORS



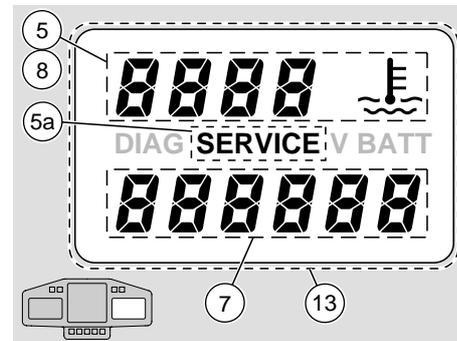
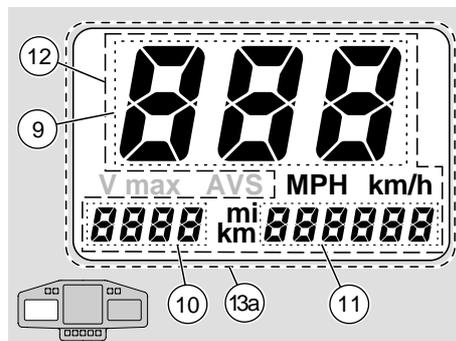
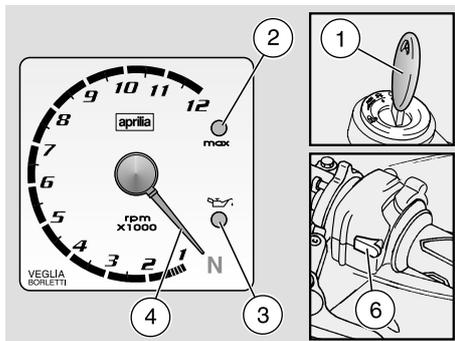
KEY

- | | |
|---|---|
| <ul style="list-style-type: none"> 1) Green direction indicator warning light (↔) 2) Blue high beam warning light (≡▷) 3) Revolution counter 4) Programmable red line warning light LED (<i>max</i>) 5) Amber low fuel warning light (⛽) 6) Amber "side stand down" warning light (⚠) | <ul style="list-style-type: none"> 7) Right multifunction digital display (coolant temperature - clock - battery voltage - chronometer - diagnostic) 8) Red engine oil pressure warning light LED (⚙) 9) Green neutral indicator warning light (N) 10) Multifunction computer programming push buttons 11) Left multifunction digital display (speedometer - odometer) |
|---|---|

INSTRUMENTS AND INDICATORS TABLE

Description		Function		
Direction indicator warning light			Blinks when the direction indicators are on.	
High beam warning light			Comes on when the high beam bulbs are on or when the headlight signaller is operated.	
Revolution counter <i>rpm</i>			Indicates the number of revolutions of the engine per minute. ⚠ CAUTION Never exceed the engine max. speed rate, see p. 56 (RUNNING-IN).	
Red line warning light LED		<i>max</i>	Blinks when the max. rpm set by the user is reached, see p. 22 [SETTING THE RED LINE THRESHOLD (WITH ENGINE OFF ONLY)]. It comes on when the engine max. rpm threshold setting is confirmed, see p. 22 [SETTING THE RED LINE THRESHOLD (WITH ENGINE OFF ONLY)] and whenever the ignition key is rotated to position "O", for about three seconds, see p. 20 (MULTIFUNCTION COMPUTER).	
Low fuel warning light			Comes on when the quantity of fuel left in the tank is about $4.5 \pm 1 \ell$. In this case, top up as soon as possible, see p. 33 (FUEL).	
Side stand down warning light			Comes on when the side stand is down.	
Engine oil pressure warning light LED			Comes on whenever the ignition switch is in position "O" and the engine is not running, thus checking the functionality of the LED. If the light LED does not come on in this phase, contact an aprilia Official Dealer. ⚠ CAUTION If the engine oil pressure warning light LED "" remains on after the start or comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient. In this case, stop the engine immediately and contact an aprilia Official Dealer.	
Neutral indicator warning light			Comes on when the gear is in neutral.	
Multifunction digital display (left side)	Speedometer (km/h - MPH)		Indicates the instantaneous, average or maximum driving speed (in kilometres or miles) according to the presetting, see p. 20 (MULTIFUNCTION COMPUTER).	To alternate the data displayed, see p. 20 (MULTIFUNCTION COMPUTER).
	Odometer (km - mi)		Indicates the partial or total number of kilometres or miles covered.	

Description		Function	
Multifunction digital display (right side)	Coolant temperature (°C/°F)	<p>Indicates the temperature of the coolant in the engine, see p. 20 (MULTIFUNCTION COMPUTER).</p> <p>⚠ CAUTION Do not leave the ignition switch in position "⊗", since the cooling fans would stop independently of the coolant temperature; in this case there would be a further temperature increase.</p> <p>If a temperature of 115 – 120 °C (239 – 248 °F) is displayed, stop the engine, turn the ignition key to position "○" and wait for the disconnection of the cooling fans.</p> <p>At this point turn the ignition key to position "⊗" and check the coolant level, see p. 40 (COOLANT).</p> <p>If the writing "LLL" is displayed, stop the vehicle and let the engine run at 3000 rpm for approximately two minutes, thus allowing the coolant to circulate regularly in the system; then press the engine stop switch to position "⊗" and check the coolant level, see p. 40 (COOLANT). If the writing "LLL" is still displayed after the coolant level has been checked, contact an aprilia Official Dealer.</p> <p>⚠ CAUTION If the maximum allowed temperature (120°C - 248 °F) is exceeded, the engine may be seriously damaged.</p>	To alternate the data displayed, see p. 20 (MULTIFUNCTION COMPUTER).
	Clock	Indicates the hour and minutes according to the presetting, see p. 20 (MULTIFUNCTION COMPUTER).	
	Battery voltage V BATT	Indicates the battery voltage, see p. 20 (MULTIFUNCTION COMPUTER).	
	Chronometer	Indicates the various timings according to the presetting, see p. 20 (MULTIFUNCTION COMPUTER).	
	Diagnostics	<p>Whenever the ignition switch is brought to position "○", the writing "EFI" appears on the right side of the multifunction display for approximately three seconds.</p> <p>⚠ CAUTION If the writing "EFI" is displayed during the normal operation of the engine, this means that the electronic unit has detected an anomaly. In many cases, the engine keeps running with reduced performance levels; immediately contact an aprilia Official Dealer.</p>	



MULTIFUNCTION COMPUTER

When the ignition key (1) is rotated to position "O", the following warning lights come on on the dashboard:

- red line warning light LED "max" (2);
- red engine oil pressure warning light LED "⚡" (3), which remains on until the engine starts.

The pointer (4) of the revolution counter shifts to the maximum value (rpm) set by the user. After about three seconds the red line warning light LED "max" (2) goes off; the pointer (4) of the revolution counter returns to its initial position.

The writing "E F I" (5) appears on the right side of the multifunction display for three seconds.

In this way the component operation is tested.

⚠ CAUTION

After the first 1000 km (625 mi) and suc-

cessively every 7500 km (4687 mi), the writing "SERVICE" (5a) appears on the right display.

In this case contact an **aprilia Official Dealer**, who will carry out the operations indicated in the regular service intervals chart, see p. 60 (REGULAR SERVICE INTERVALS CHART). To make the writing "SERVICE" disappear, press the "LAP" push button (6) and then the push button **B** and keep them pressed for about five seconds.

With the ignition key (1) in position "O" the standard settings on the dashboard are the following:

Right display: Clock (7), coolant temperature in °C (8).

Left display: Instantaneous speed in km/h (9), trip 1 (trip odometer) (10), total kilometers/miles odometer (11).

Upon installation of the battery or of the 30A main fuses:

- the revolution counter pointer (4) makes twelve clockwise clicks, thus checking the operation of the revolution counter itself;
- the instantaneous, maximum and average speed function is set in "km/h";
- the coolant temperature is set in °C;
- the digital clock is set to zero;
- the red line is set at 6000 rpm, indicated by the coming on of the red line warning light LED "max" (red) (2).

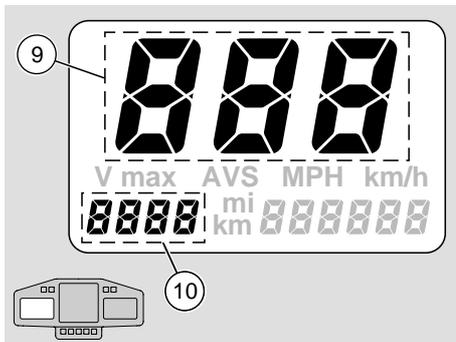
NOTE If necessary, carry out the appropriate adjustments.

SEGMENT OPERATION CHECK

- ◆ Press the push buttons **A** and **B** at the same time.
- ◆ Rotate the ignition key (1) from position "⚡" to position "O".

All the segments (13) (13a) will remain on until the push buttons **A** and **B** are released.

SWITCHING FROM km TO mi (from km/h to MPH) AND VICEVERSA (LEFT DISPLAY)



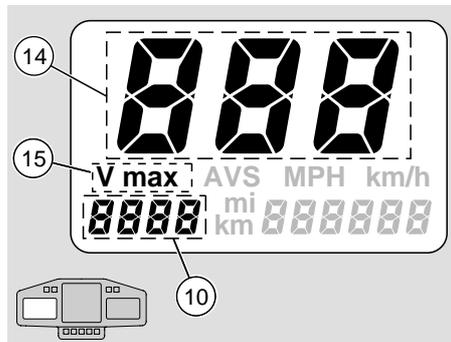
- ◆ Press the push button **A** until, after about five seconds, all the writings (12) on the left display start blinking.
- ◆ Release the push button **A**.
- ◆ Press the push button **B** to change the unit of measurement from “km” to “mi” (from “km/h” to “MPH”) or viceversa.
- ◆ To confirm the setting, press the push button **A** for about five seconds.

SETTING THE INSTANTANEOUS, MAXIMUM AND AVERAGE SPEED (LEFT DISPLAY)

NOTE Two seconds after the vehicle has started moving, the instantaneous speed is automatically shown on the display, even if a different function is set.

When the ignition key is rotated to position “O”, the instantaneous speed (9) and the partial number of kilometres/miles covered “trip 1” (10) appear on the left display.

Resetting “trip 1” (10): with the odometer set on the instantaneous speed function, press

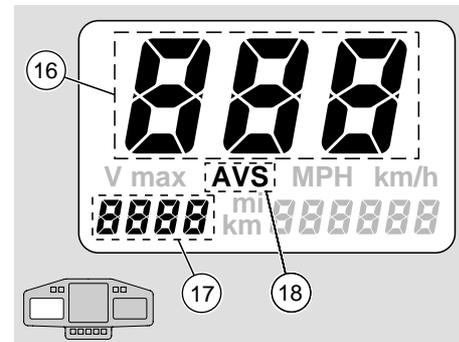


- the push button **R** for about two seconds.
- ◆ To display the maximum speed (14) and the distance “trip 1” (10), press the push button **B** for about one second. The writing “V max” (15), the maximum speed (14) and the distance “trip 1” (10) are displayed.

Resetting the maximum speed (14): with the odometer set on the “V max” function, press the push button **R** for about 2 seconds.

NOTE The measurement of the maximum speed is relevant to the distance covered from the last setting to zero of the maximum speed itself. The distance “trip 1” (10) shown on the display indicates the number of kilometres/miles covered from the last setting to zero, to the distance “trip 1”.

- ◆ To display the average speed (16) and the distance “trip 2” (17), press the push button **B** again for about 1 second.



The writing “AVS” (18), the average speed (16) and the distance “trip 2” (17) are displayed.

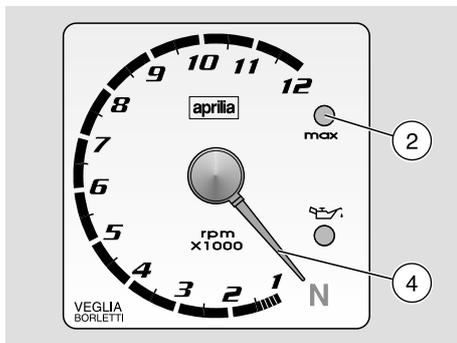
Resetting the average speed (16) and the distance “trip 2” (17): with the odometer set on the “AVS” function, press the push button **R** for about 1 second.

NOTE The measurement of the average speed is relevant to the distance “trip 2” (odometer).

The distance “trip 2” (17) shown on the display indicates the number of kilometres/miles covered from the last setting to zero.

If more than 1000 km (625 mi) are covered without setting “trip 2” to zero, the value of the average speed will be wrong.

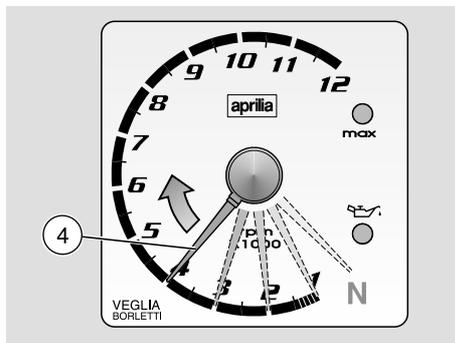
- ◆ To display the instantaneous speed (13) and the distance “trip 1” (10), press the push button **B** again.



SETTING THE RED LINE THRESHOLD (WITH ENGINE OFF ONLY)

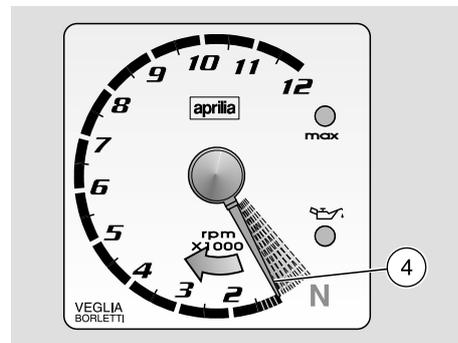
When the maximum rpm set is exceeded, the red line warning light LED “max” (2) positioned on the dashboard starts blinking.

If the push button **C** is pressed for less than one second, the pointer of the revolution counter (4) shifts to the red line value for three seconds, after which it returns to its initial position.



For the adjustment, proceed as follows:

- ◆ Press the push button **C**, release it and press it **C** again within 3 seconds. The pointer (4) moves increasing the value by 1000 rpm at each click, as long as **C** is kept pressed; when it has reached the maximum value, it starts again from the beginning.
- ◆ Press the push button **C** until the desired rpm value has been set.
- ◆ If the push button **C** is released and then pressed again within 3 seconds, intermittently, the pointer (4) moves increasing the value by 100 rpm at each click; when it has reached the maximum value, it starts again from the beginning.



NOTE It is not possible to set the red line at values lower than 2000 rpm or higher than 12000 rpm.

⚠ CAUTION

Never exceed the recommended rpm, see p. 56 (RUNNING-IN).

- ◆ To confirm, release the push button **C**. After three seconds, the red line threshold setting is stored.

NOTE The setting is confirmed by the coming on of the red line warning light LED “max” (2).

MULTIFUNCTION (RIGHT DISPLAY)

The right display (multifunction) includes the coolant temperature in °C (°F) (8) and the digital clock (7) as standard settings.

NOTE When the engine is cold, the writing "cold" blinks.

By pressing the push button **D**, the following functions can be obtained in sequence:

Standard setting: Temperature in °C and digital clock



Battery voltage (V BATT)



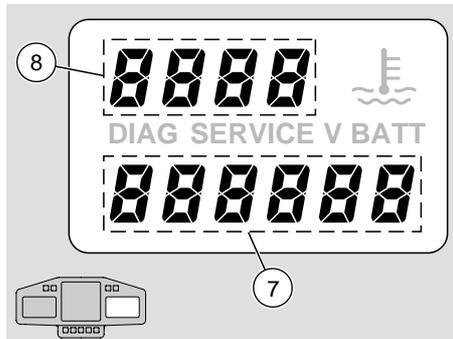
Setting the hour



Setting the minutes



Setting °C or °F



STANDARD SETTING: COOLANT TEMPERATURE AND DIGITAL CLOCK

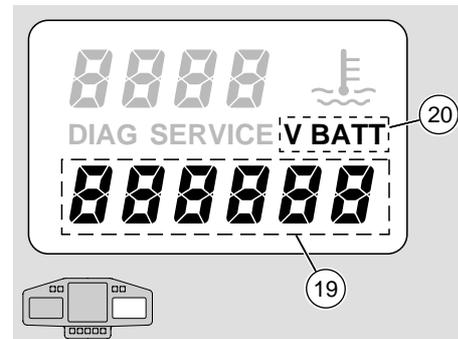
The coolant temperature value (8) is shown in the upper part of the right display. It is possible to switch from °C to °F and viceversa, see p. 24 (SETTING °C OR °F).

- When the temperature is below 35°C (95°F), the writing "cold" (8) blinks on the right display.

- When the temperature is over 115°C (239°F), the value (8) blinks on the right display, even if a function different from the standard setting has been set.
- When the temperature is over 130°C (266°F), the writing "LLL" (8) appears on the right display.

⚠ CAUTION

If the writing "LLL" is displayed with a temperature below 130°C (266°F), there may be a failure of the electric circuit. In this case, contact an **aprilia** Official Dealer.

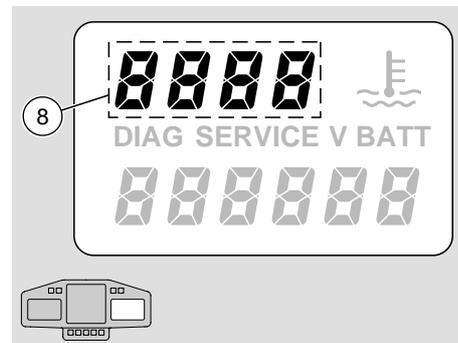
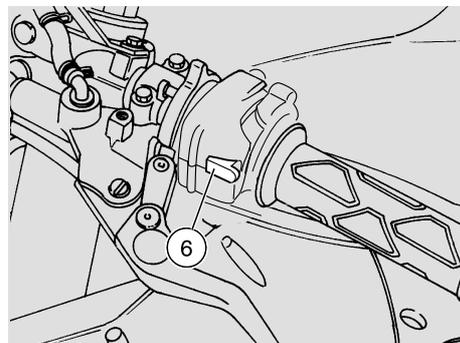
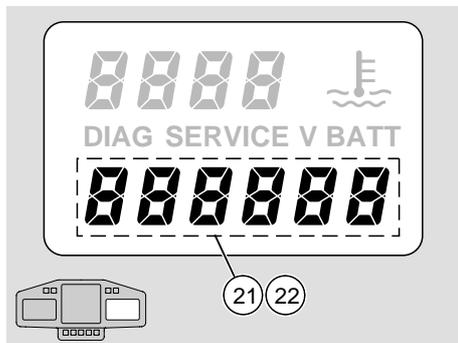


Thermometer range on the display: 35–130°C (95–266 °F).

The digital clock (7) appears in the lower part of the right display. To set or modify hour and minutes, see p. 24 (SETTING THE HOUR) and (SETTING THE MINUTES).

BATTERY VOLTAGE - VBATT

- ◆ If the push button **D** is pressed once, the battery voltage expressed in volt (19) appears in the lower part of the right display, while the coolant temperature (8) is displayed in the upper part. The writing "V BATT" (20) is displayed. The recharge circuit functions correctly if at 4000 rpm the battery voltage with low beam on is included between 13 and 15 V.



SETTING THE HOUR

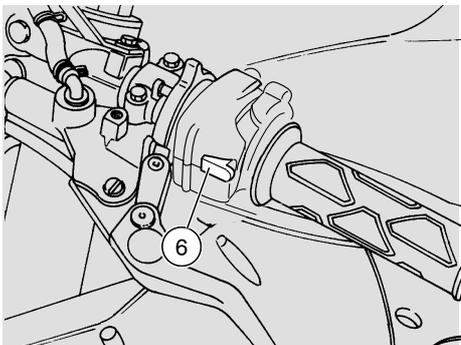
- ◆ When the push button **D** is pressed for the second time, the hour segments (21) start blinking in the lower part of the right display (digital clock).
- ◆ To modify the hour setting, press the "LAP" push button (6) on the left part of the handlebar.
- ◆ To confirm the hour setting, press the push button **D**.

SETTING THE MINUTES

- ◆ When the push button **D** is pressed for the third time, the minute segments (22) start blinking in the lower part of the right display (digital clock).
- ◆ To modify the minute setting, press the "LAP" push button (6) on the left part of the handlebar.
- ◆ To confirm the minute setting, press the push button **D**.

SETTING °C OR °F

- ◆ When the push button **D** is pressed for the fourth time, the segments of the coolant temperature in °C or °F (8) start blinking in the upper part of the display.
- ◆ To modify from °C to °F setting, or vice versa, press the "LAP" push button (6) on the left part of the handlebar.
- ◆ To confirm the setting, press the push button **D**.



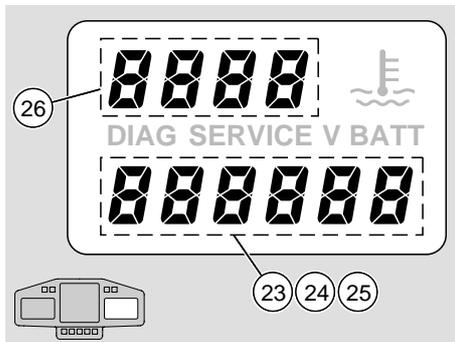
CHRONOMETER (RIGHT DISPLAY)

The chronometer makes it possible to measure the time per lap with the vehicle on a racetrack and to store the data, in such a way as to be able to consult them successively.

When the "CHRONOMETER" function has been selected, it is not possible to recall the following functions:

- maximum speed "V max";
- average speed "AVS";
- distance "trip 2".

- ◆ To operate the chronometer, press the "LAP" push button (6) and, within seven seconds, the push button **D**.
- ◆ To start timing, press the "LAP" push button (6) and release it immediately.
- ◆ To store the time acquired, press the "LAP" push button (6).



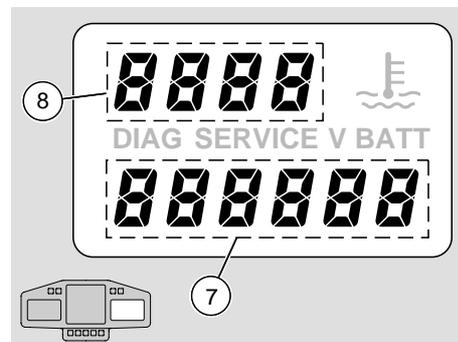
The "LAP" push button (6) is not enabled for 10 seconds and the last time stored (23) is shown on the display.

After which, the chronometer with the current timing (24) is displayed, starting from ten seconds.

- ◆ To display the first time stored (25), press the push button **B**.
- ◆ To be able to see the stored times in sequence, press the "LAP" push button (6). The writings L 1, L 2, L 3, L 4, etc. (26) are displayed.
- ◆ To start timing again, press the push button **B**.

NOTE It is possible to store max. 40 times, after which the "LAP" push button (6) is not effective any longer.

- ◆ To set the memory to zero, press the push button **A** and the "LAP" push button (6) at the same time for two seconds.
- ◆ To leave the chronometer function, press



the "LAP" push button (6) and the push button **D**.

The coolant temperature (8) and the digital clock (7) appear on the right display (multi-function).

NOTE When the engine is cold, the writing "cold" blinks.

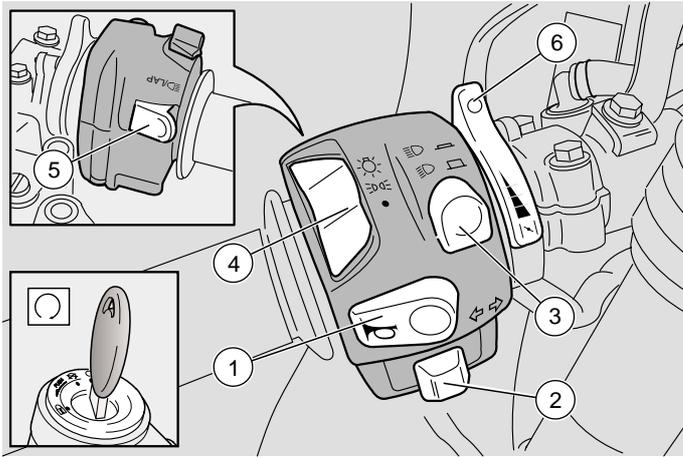
DIAGNOSTICS

Whenever the ignition switch is turned to position "O", the writing "E F I" is displayed for about three seconds.

⚠ CAUTION

If the writing "E F I" is displayed during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact an aprilia Official Dealer.



CONTROLS ON THE LEFT PART OF THE HANDLEBAR

NOTE The electrical parts work only when the ignition switch is in position "O".

1) HORN PUSH BUTTON (H)

The horn is activated when the push button is pressed.

2) DIRECTION 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. To turn off the direction indicator, press the switch.

3) DIMMER SWITCH (☐☐☐ - ☐☐☐)

When the light switch is in position "☐☐☐": if the dimmer switch is in position "☐☐☐", the high beam comes on; while if it is in position "☐☐☐", the low beam comes on.

3) DIMMER SWITCH (☐☐☐ - ☐☐☐) ASD

When it is in position "☐☐☐" the parking lights, the dashboard light and the low beam are always on. When it is in position "☐☐☐", the high beam comes on.

4) LIGHT SWITCH (☐☐☐ - ☐☐☐ - ●)

(not provided for ASD)

When the light switch is in position "●", the lights are off; when the switch is in position "☐☐☐", the parking lights and the dashboard light are on; when the switch is in position "☐☐☐", the parking lights, the dashboard light and the low beam are on. The high beam can be operated by means of the dimmer switch.

5) HIGH BEAM SIGNALLER PUSH BUTTON (☐☐☐)/LAP PUSH BUTTON (multifunction)

NOTE For the setting of the functions, see p. 20 (MULTI-FUNCTION COMPUTER).

This push button makes it possible to use the high beam signaller in case of danger or emergency, or displays the various preset functions on the right multifunction display:

- hour and minutes;
- coolant temperature (°C or °F);
- chronometer.

The high beam blinking is operated by pressing the push button, independently of the position of the light switch (☀ - ☞☞ - ●).

NOTE To disconnect the high beam blinking, release the push button.

6) COLD START LEVER (↘)

The starter for the cold start of the engine is operated by rotating the lever "↘" downwards.
To disconnect the starter, move the lever "↘" to its initial position.

CONTROLS ON THE RIGHT PART OF THE HANDLEBAR

NOTE The electrical parts work only when the ignition switch is in position "○".

7) ENGINE STOP SWITCH (■ ○ - ■ ☒)

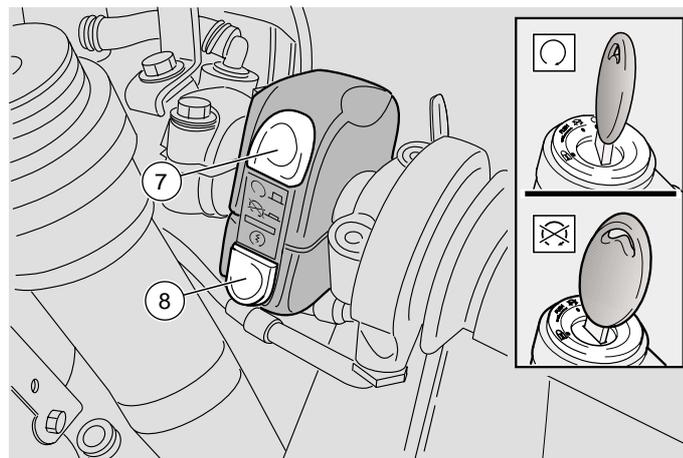
⚠ WARNING

Do not operate the engine stop switch "■ ○ - ■ ☒" in running conditions.

This is a safety or emergency switch.
When the switch is in position "■ ○", it is possible to start the engine; the engine can be stopped by moving the switch to position "■ ☒".

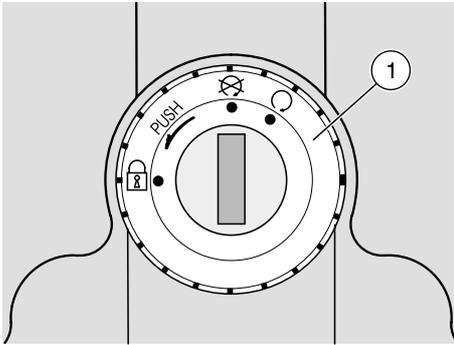
⚠ CAUTION

With stopped engine and ignition switch in position "■ ○", the battery may discharge.
When the vehicle has come to rest, after stopping the engine, move the ignition switch to position "■ ☒".



8) START PUSH BUTTON (⊕)

When the start push button "⊕" is pressed, the starter makes the engine run. For the starting, see p. 50 (STARTING).



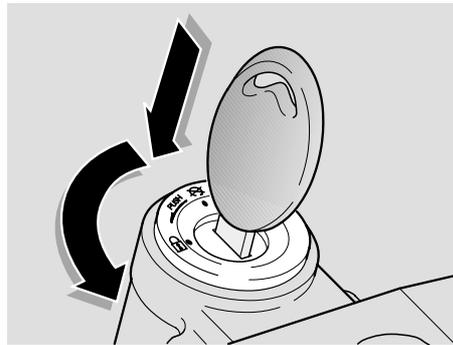
IGNITION SWITCH

The ignition switch (1) is positioned on the upper plate of the steering column.

NOTE The key operates the ignition switch/steering lock, the fuel tank lock and the glove/tool kit compartment lock.

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

NOTE Do not keep the spare key on the vehicle.



STEERING LOCK

⚠ WARNING

Never turn the key to position “🔒” in running conditions, in order to avoid losing control of the vehicle.

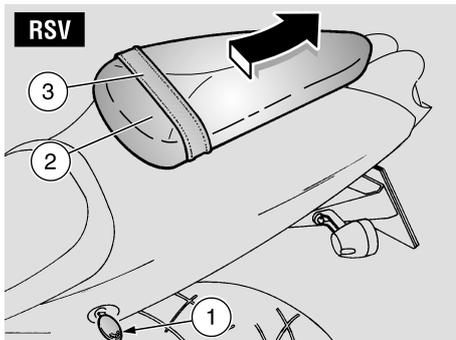
OPERATION

To lock the steering:

- ◆ Turn the handlebar completely leftwards.
- ◆ Turn the key to position “🔒”.
- ◆ Press the key and rotate it to position “🔑”.
- ◆ Extract the key.

Position	Function	Key removal
 Steering lock	The steering is locked. It is neither possible to start the engine, nor to switch on the lights.	It is possible to remove the key.
	Neither the engine, nor the lights can be switched on.	It is possible to remove the key.
	The engine and the lights can be switched on.	It is not possible to remove the key.

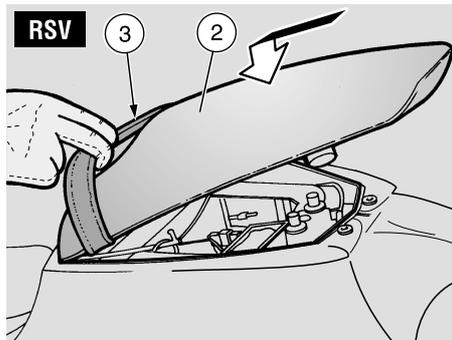
AUXILIARY EQUIPMENT



UNLOCKING/LOCKING THE PASSENGER SEAT **RSV**

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Introduce the key (1) in the seat lock.
- ◆ Rotate the key (1) anticlockwise, lift and withdraw the seat (2) from behind.

NOTE Before lowering and locking the seat (2), make sure that you have not left the key in the glove/tool kit compartment.

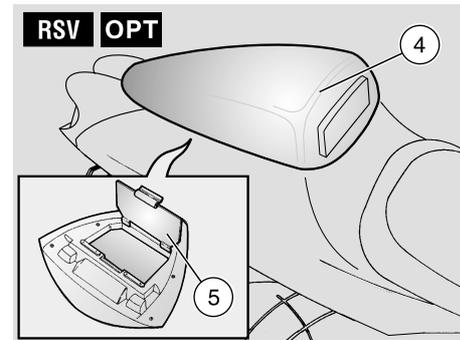


To lock the seat (2), proceed as follows:

- ◆ Introduce its front part under the passenger grab strap (3).
- ◆ Position the seat and press it, making the lock snap.

⚠ WARNING

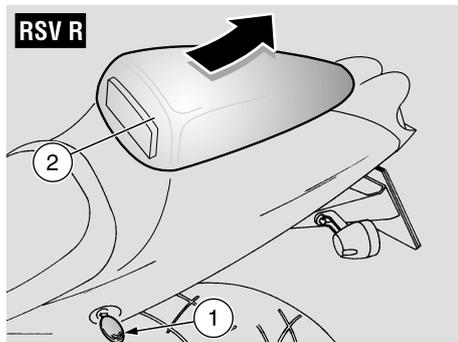
Before leaving, make sure that the seat (2) is properly locked.



NOTE Upon request it is possible to supply the glove/tool kit compartment cover **OPT** (4) to be used instead of the passenger seat.

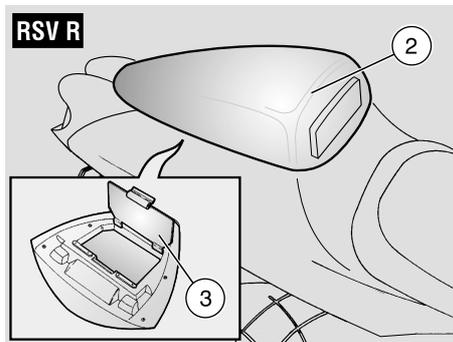
If the glove/tool kit compartment cover is used, the passenger grab strap must be folded and put inside the glove/tool kit compartment: for the installation and removal, see p. 29 (UNLOCKING/LOCKING THE PASSENGER SEAT **RSV**).

A useful compartment is available under the glove/tool kit compartment cover; to reach it, it is sufficient to release and remove the flap (5).



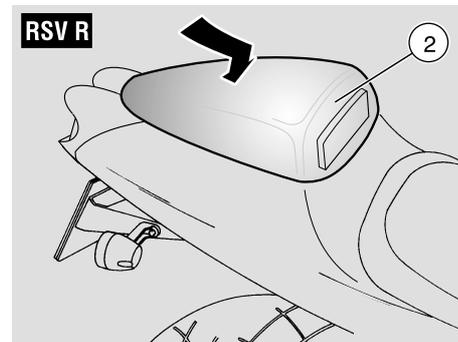
UNLOCKING/LOCKING THE GLOVE/TOOL KIT COMPARTMENT COVER RSV R

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Introduce the key (1) in the lock.
- ◆ Turn the key (1) anticlockwise, raise and withdraw the glove/tool kit compartment cover (2) from behind.



A useful compartment is available under the glove/tool kit compartment cover; to reach it, it is sufficient to release and remove the flap (3).

NOTE Before lowering and locking the glove/tool kit compartment cover (2), make sure that you have not left the key in the glove/tool kit compartment.

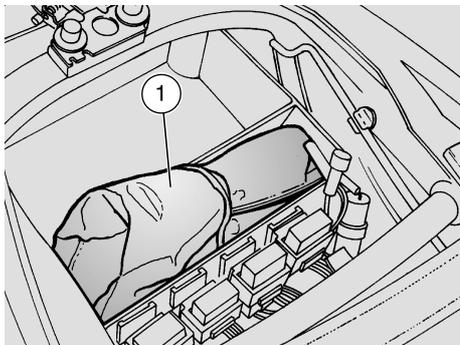


To lock the glove/tool kit compartment cover (2):

- ◆ Introduce the lower front projections in the relevant recesses on the rear part of the fairing.
- ◆ Position the glove/tool kit compartment cover in its seat and press it, so that the lock snaps.

⚠ WARNING

Before leaving, make sure that the glove/tool kit compartment cover (2) is correctly locked.



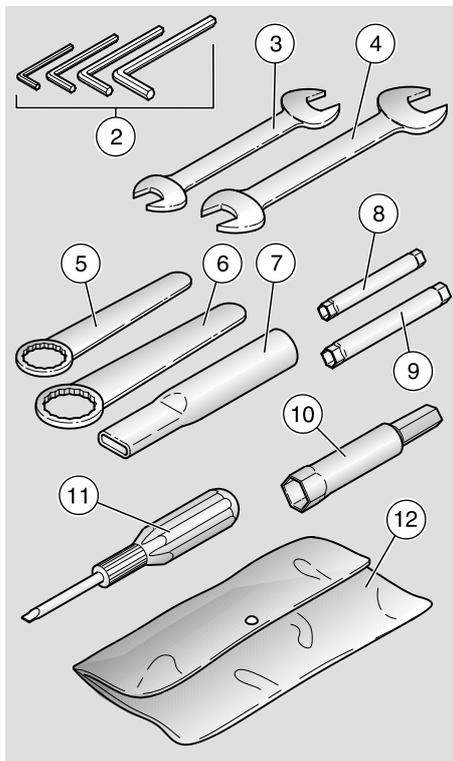
GLOVE/TOOL KIT COMPARTMENT

To reach the glove/tool kit compartment, proceed as follows:

- ◆ **RSV** Remove the passenger seat (or the glove/tool kit compartment cover **OPT**), see p. 29 (UNLOCKING/LOCKING THE PASSENGER SEAT **RSV**).
- ◆ **RSV R** Remove the glove/tool kit compartment cover, see p. 30 (UNLOCKING/LOCKING THE GLOVE/TOOL KIT COMPARTMENT COVER **RSV R**).

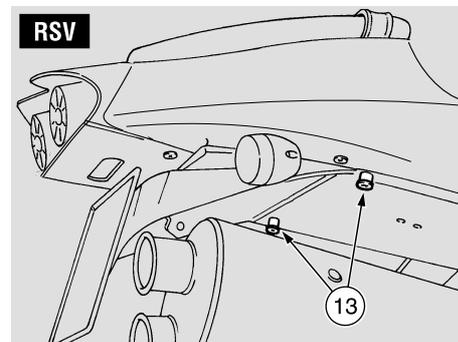
The tool kit (1) includes:

- 3, 4, 5, 6 mm bent hexagon spanners (2);
- 8 – 10 mm double fork spanner (3);
- 11 – 13 mm double fork spanner (4);
- 22 mm simple box spanner (5);
- 32 mm simple box spanner (6);
- extension for simple box spanners (7);
- 6 – 7 mm double socket spanner (8);
- 8 – 10 mm double socket spanner (9);



- 16 mm socket spanner for spark plug (10);
- double-ended, cross-/cut-headed screwdriver (11);
- tool case (12).

Maximum allowed weight: 1.5 kg.



LUGGAGE RACK FASTENINGS **RSV**

Small luggage can be anchored to the passenger seat, by means of elastic bands that must be fixed to the two fastenings (13).

Maximum allowed weight: 9 kg.

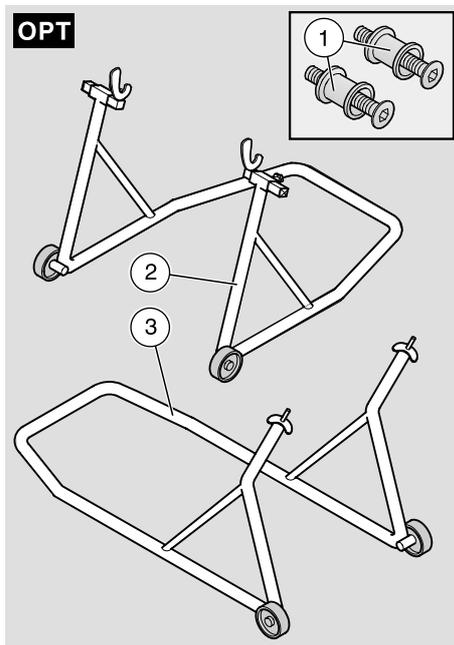
⚠ WARNING

The luggage must have reduced dimensions and must be anchored securely.

SPECIAL TOOLS **OPT**

To perform some specific operations, it is advisable to use the following special tools (to be requested to an **aprilia** Official Dealer):

Tool	Operations	Page
Pins (1) for the rear support stand	To position the vehicle on the rear support stand.	62
Rear support stand (2)	Engine oil and engine oil filter change.	60
	Rear wheel disassembly.	66
	Drive chain adjustment.	69
	Removal of the lower fairing.	71
Front support stand (3).	Front wheel disassembly.	64

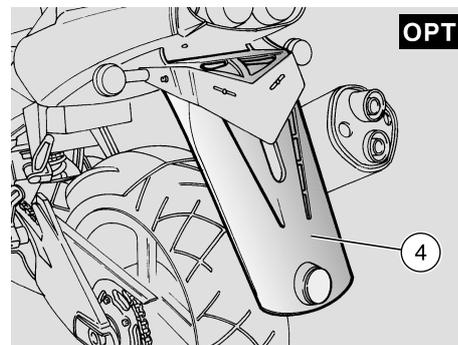


ACCESSORIES

The following accessories:

- “R” front fork;
- “R” rear shock absorber;
- adjustable steering damper;

supplied as standard equipment with the RSV mille R, can be installed also on the RSV mille (contact an **aprilia** Official Dealer).



NUMBER PLATE-HOLDER EXTENSION **OPT**

The number plate-holder extension (4) can be used when the road surface is wet, in fact it reduces the reach of the water spray caused by the rear wheel.

NOTE The number plate-holder extension (4) is supplied as standard component in the countries where this is required for the homologation.

MAIN COMPONENTS

FUEL

⚠ WARNING

The fuel used for internal combustion engines is extremely inflammable and in particular conditions it can become explosive.

It is important to carry out the refuelling and the maintenance operations in a well-ventilated area, with the engine off. Do not smoke while refuelling or near fuel vapours, in any case avoid any contact with naked flames, sparks and any other heat source to prevent the fuel from catching fire or from exploding.

Further, prevent fuel from flowing out of the fuel filler, as it could catch fire when getting in contact with the red-hot surfaces of the engine.

In case some fuel has accidentally been spilled, make sure that the area has completely dried and before starting the vehicle verify that there is no fuel inside the fuel filler neck.

Since petrol expands under the heat of the sun and due to the effects of sun radiation, never fill the tank to the brim.

Screw the plug up carefully after refuelling. Avoid any contact of the fuel with the skin and the inhalation of vapours; do not swallow fuel or pour it from a receptacle into another by means of a tube.

DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

Use only premium grade unleaded petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).

To refuel, proceed as follows:

- ◆ Raise the flap (1).
- ◆ Insert the key (2) in the tank plug lock (3).
- ◆ Turn the key clockwise, pull and open the fuel flap.

FUEL TANK CAPACITY (reserve included): 18 ℓ

TANK RESERVE: 4.5 ± 1 ℓ

⚠ CAUTION

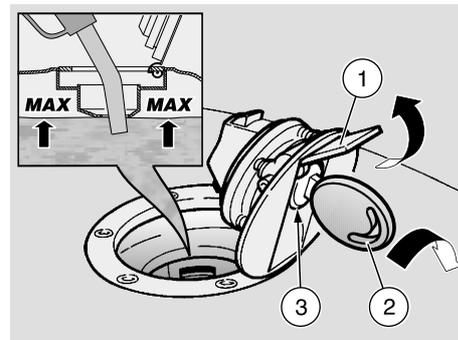
Do not put additives or other substances into the fuel.

If you use a funnel or other similar items, make sure that they are perfectly clean.

⚠ WARNING

Do not fill the tank completely; the maximum fuel level must remain below the lower edge of the filler neck (see figure).

- ◆ Refuel.



After refuelling:

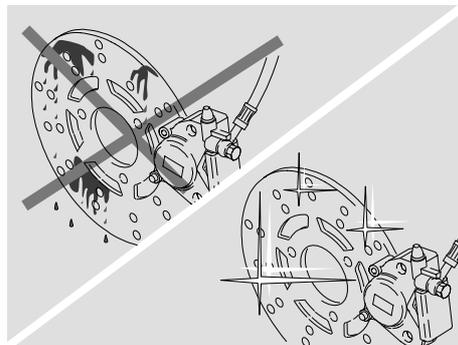
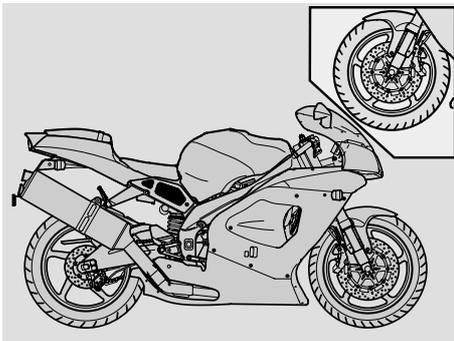
NOTE The cap can be closed only when the key (2) is inserted.

- ◆ With inserted key (2), close the cap by pressing it.

⚠ WARNING

Make sure that the cap is properly closed.

- ◆ Withdraw the key (2).
- ◆ Close the flap (1).



BRAKE FLUID - recommendations

NOTE This vehicle is provided with front and rear disc brakes, with separate hydraulic circuits.

The following information refers to a single braking system, but is valid for both.

⚠ WARNING

Sudden resistance or clearance problems on the brake lever may be due to troubles in the hydraulic system. For any doubt regarding the perfect functioning of the braking system and in case you are not able to carry out the usual checking operations, contact your **aprilia** Official Dealer.

⚠ WARNING

Make sure that the brake discs are neither oily nor greasy, especially after maintenance or checking operations.

Check that the brake cables are neither twisted nor worn out.

Prevent water or dust from accidentally getting into the circuit.

In case maintenance operations are to be performed on the hydraulic circuit, it is advisable to use latex gloves.

If the brake fluid gets in contact with the skin or the eyes, it can cause serious irritations.

⚠ WARNING

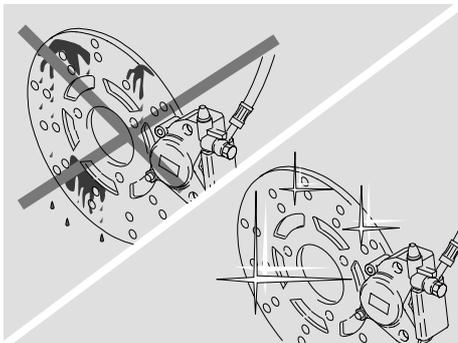
Carefully wash the parts of your body that get in contact with the liquid. Consult a doctor or an oculist if the liquid gets in contact with your eyes.

DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

⚠ CAUTION

When using the brake fluid, take care not to spill it on the plastic or painted parts, since it can damage them.



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.

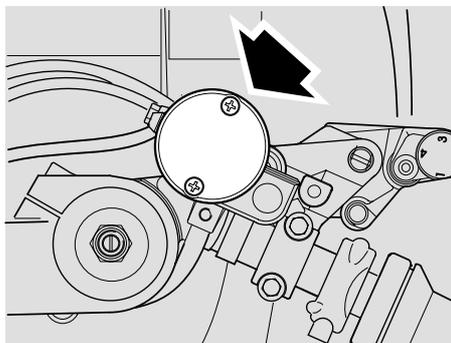
A dirty disc soils the pads, with consequent reduction of the braking efficiency.

Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

The brake fluid must be changed every two years by an **aprilia** Official Dealer.

Use brake fluid of the type specified in the lubricant chart, see p. 113 (LUBRICANT CHART).

NOTE This vehicle is provided with disc brakes with two, front and rear braking systems having separate hydraulic circuits.



The front braking system is with double disc (right and left side).

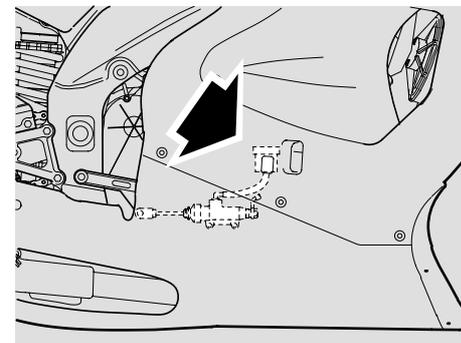
The rear braking system is with single disc (right side).

The following information refers to a single braking system, but is valid for both.

When the disc pads wear out, the level of the fluid decreases to automatically compensate for their wear.

The front brake fluid tank is positioned on the right part of the handlebar, near the front brake lever coupling.

The rear brake reservoir is positioned under the right fairing; to reach it, remove the right fairing, see p. 77 (REMOVING THE SIDE FAIRINGS).



NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

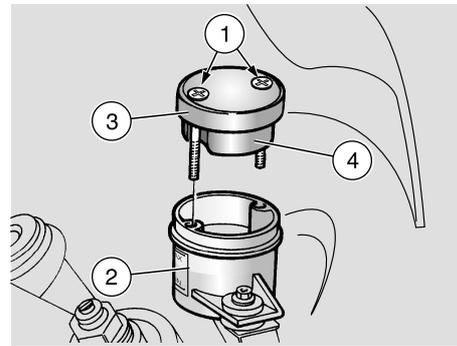
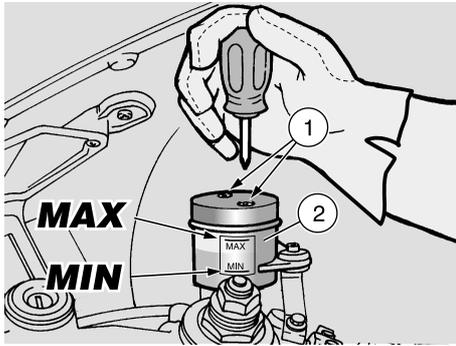
Have the brake discs checked by an **aprilia** Official Dealer after the first 1000 km (625mi) and successively every 7500 km (4687 mi).

Before departure, check the brake fluid level in the reservoirs, see p. 36 (FRONT BRAKE), p. 37 (REAR BRAKE), and the wear of the pads, see p. 88 (CHECKING THE BRAKE PAD WEAR).

Have the brake fluid changed every two years by an **aprilia** Official Dealer.

⚠ WARNING

Do not use the vehicle if the braking system leaks fluid.



FRONT BRAKE

CHECK

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Turn the handlebar completely rightwards.
- ◆ Make sure that the fluid level exceeds the “MIN” mark.

MIN= minimum level

MAX= maximum level

If the fluid does not reach at least the “MIN” mark:

⚠ CAUTION

When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.

- ◆ Check the brake pad wear, see p. 88 (CHECKING THE BRAKE PAD WEAR) and the disc wear.

If the pads and/or the disc do not need re-

placing, provide for topping up.

TOPPING UP

Carefully read p. 34 (BRAKE FLUID - recommendations).

⚠ CAUTION

The brake fluid may flow out of the tank. Do not operate the front brake lever if the screws (1) are loose or, most important, if the brake fluid tank cover has been removed.

- ◆ Unscrew the two screws (1) of the brake reservoir (2) by means of a short, cross-headed screwdriver.

⚠ WARNING

Avoid any prolonged exposure of the brake fluid to the air.

The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.

Leave the brake fluid tank open **ONLY** for the time necessary for topping up.

- ◆ Raise and remove the cover (3) together with the screws (1) and the gasket (4).

⚠ CAUTION

In order not to spill the brake fluid while topping up, do not shake the vehicle.

Do not put additives or other substances into the fluid.

If you use a funnel or other similar items, make sure that they are perfectly clean.

- ◆ Fill the tank (2) with brake fluid, see p. 113 (LUBRICANT CHART), until reaching the correct level between the “MIN” and “MAX” marks.

⚠ CAUTION

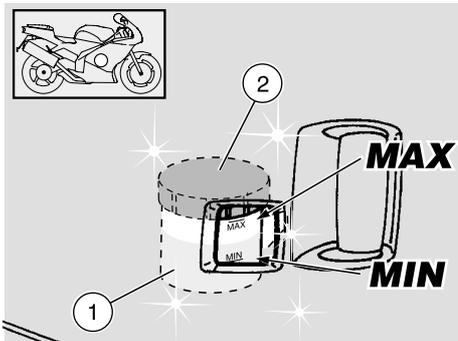
Do not exceed the “MAX” level while topping up.

It is advisable to top up until reaching the “MAX” level only with new pads.

Do not reach the “MAX” level with worn out pads, since this will cause a fluid outflow when the pads are changed.

Check the braking efficiency.

In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an **aprilia** Official Dealer, since it may be necessary to bleed the system.



REAR BRAKE

CHECK

- ◆ Keep the vehicle in vertical position, so that the fluid contained in the tank (1) is parallel to the plug (2).
- ◆ Make sure that the brake fluid contained in the reservoir exceeds the "MIN" mark, by checking through the appropriate slot on the right fairing".

MIN= minimum level

MAX= maximum level

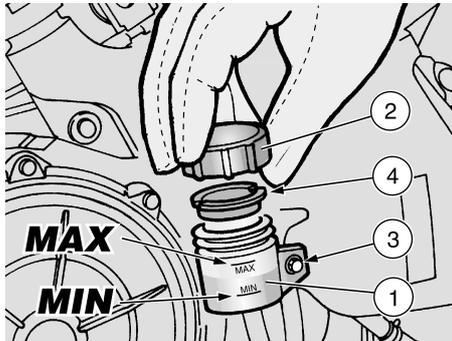
If the fluid does not reach at least the "MIN" mark:

⚠ CAUTION

When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.

- ◆ Check the brake pad wear, see p. 88 (CHECKING THE BRAKE PAD WEAR) and the disc wear.

If the pads and/or the disc do not need re-



placing, provide for topping up.

TOPPING UP

Carefully read p. 34 (BRAKE FLUID - recommendations).

- ◆ Remove the right fairing, see p. 77 (REMOVING THE SIDE FAIRINGS).

⚠ CAUTION

The brake fluid may flow out of the tank. Do not operate the rear brake lever if the brake fluid tank plug is loose or has been removed.

⚠ WARNING

Avoid any prolonged exposure of the brake fluid to the air.

The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.

Leave the brake fluid tank open ONLY for the time necessary for topping up.

- ◆ Unscrew the screw (3) completely.
- ◆ Slightly move the whole reservoir (1) outwards.
- ◆ Unscrew and remove the plug (2).

⚠ CAUTION

In order not to spill the brake fluid while topping up, keep the fluid in the tank parallel to the tank rim (in horizontal position).

Do not put additives or other substances into the fluid.

If you use a funnel or other similar items, make sure that they are perfectly clean.

- ◆ Remove the gasket (4).
- ◆ Top up the reservoir (1) by adding brake fluid, see p. 113 (LUBRICANT CHART), until reaching the correct level included between the "MIN" and "MAX" marks.

⚠ CAUTION

It is advisable to top up until reaching the "MAX" level only with new pads. Do not reach the "MAX" level with worn out pads, since this will cause a fluid outflow when the pads are changed.

Check the braking efficiency.

In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an **aprilia** Official Dealer, since it may be necessary to bleed the system.



CLUTCH FLUID - recommendations

NOTE This vehicle is provided with hydraulic clutch control.

⚠ CAUTION

Sudden resistance or clearance problems on the clutch lever may be due to troubles in the hydraulic system. For any doubt regarding the perfect functioning of the system and in case you are not able to carry out the usual checking operations, contact your **aprilia** Official Dealer.

⚠ CAUTION

Make sure that the cable is neither twisted nor worn out. Prevent water or dust from accidentally getting into the circuit.

In case maintenance operations are to be performed on the hydraulic circuit, it is advisable to use latex gloves.

If the fluid gets in contact with the skin or the eyes, it can cause serious irritations.

Carefully wash the parts of your body that get in contact with the liquid. Consult a doctor or an oculist if the liquid gets in contact with your eyes.

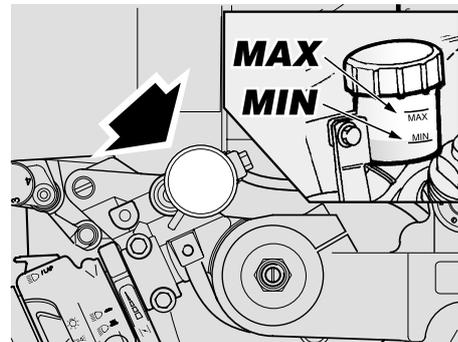
DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

When using the fluid, take care not to spill it on the plastic and painted parts, since it damages them.

The clutch control fluid must be changed every two years by an **aprilia** Official Dealer.

Use fluid of the type specified in the lubricant chart, see p. 113 (LUBRICANT CHART).



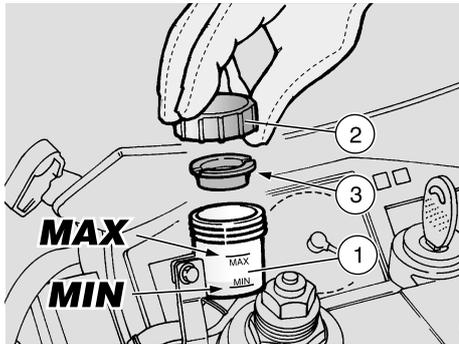
The clutch fluid reservoir (1) is positioned on the left part of the handlebar, near the clutch control lever coupling.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Before departure, check the fluid level in the tank, see p. 39 (CLUTCH); have it changed by an **aprilia** Official Dealer every two years.

⚠ WARNING

Do not use the vehicle if you notice fluid leakages from the clutch control system.



CLUTCH

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Have the clutch checked by an **aprilia** Official Dealer every 7500 km (4687 mi).

In case of use on racetracks:

have the clutch checked by an **aprilia** Official Dealer every 3750 km (2343 mi).

NOTE The engine is provided with an hydraulic control clutch, aided by the PPC (Pneumatic Power Clutch) exclusive patented system, which avoids the bouncing of the rear wheel.

CHECK

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Turn the handlebar completely right-wards.
- ◆ Make sure that the fluid level exceeds the "MIN" mark.

MIN= minimum level
MAX= maximum level

- ◆ If the fluid does not reach the "MIN" mark, provide for topping up.

TOPPING UP

Carefully read p. 38 (CLUTCH FLUID - recommendations).

⚠ CAUTION

The fluid may flow out. Do not operate the clutch control lever if the reservoir plug is loose or has been removed.

⚠ WARNING

Avoid any prolonged exposure of the clutch fluid to the air. The clutch fluid is hygroscopic and when in contact with the air it absorbs its humidity.

Leave the clutch fluid tank open **ONLY** for the time necessary for topping up.

- ◆ Unscrew and remove the plug (2).

⚠ CAUTION

Do not shake the vehicle, in order not to spill fluid while topping up.
Do not put additives or other substances into the fluid.



If you use a funnel or other similar items, make sure that they are perfectly clean.

- ◆ Remove the gasket (3).
- ◆ Top up the reservoir (1) by adding clutch fluid, see p. 113 (LUBRICANT CHART), until reaching the correct level included between the "MIN" and "MAX" marks.

⚠ CAUTION

Do not exceed the "MAX" level while topping up.

Check the clutch efficiency.

If the stroke of the clutch control lever is excessive or if the clutch system is not efficient, contact your **aprilia** Official Dealer, since it may be necessary to bleed the system.

COOLANT

⚠ CAUTION

Do not use the vehicle if the coolant is below the minimum prescribed level (LOW).

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Before departure, check the coolant level, see p. 41 (CHECKING AND TOPPING UP); have the coolant changed every two years: for this operation, contact an **aprilia** Official Dealer.

⚠ WARNING

The coolant is noxious: do not swallow it; if the coolant gets in contact with the skin or the eyes, it can cause serious irritations.

If the fluid gets in contact with your skin or eyes, rinse with plenty of water and consult a doctor. If it is swallowed, induce vomit, rinse mouth and throat with plenty of water and consult a doctor without delay.

KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF THE FLUID IN THE ENVIRONMENT.



Be careful not to spill the coolant on the red-hot parts of the engine: it may catch fire and send out invisible flames.

In case any maintenance operation should be required, it is advisable to use latex gloves.

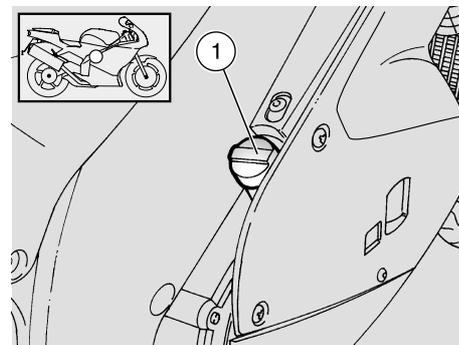
⚠ CAUTION

Have the pads changed by your **aprilia Official Dealer.**

The coolant is composed of 50% water and 50% antifreeze.

This mixture is ideal for most running temperatures and ensures good protection against corrosion.

It is advisable to keep the same mixture also in the hot season, since in this way losses due to evaporation are reduced and it is not necessary to top up very frequently.



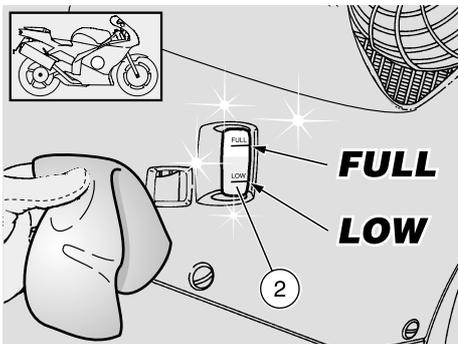
The mineral salt deposits left in the radiator by evaporated water are thus reduced and the efficiency of the cooling system remains unchanged.

If the outdoor temperature is below 0°, check the cooling circuit frequently and if necessary increase the antifreeze concentration (up to maximum 60%).

For the cooling solution use distilled water, in order not to damage the engine.

⚠ WARNING

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



CHECKING AND TOPPING UP

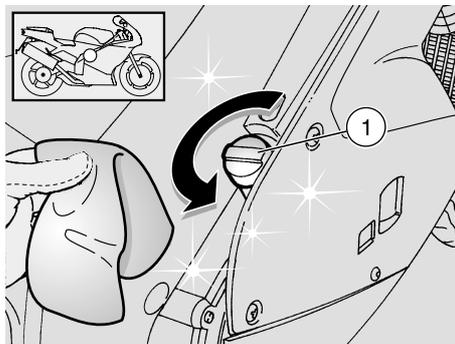
⚠ WARNING

Check the coolant level and top up the expansion tank with cold engine.

- ◆ Stop the engine and wait until it has cooled down.
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Make sure that the coolant contained in the expansion tank (2) is included between the “FULL” and “LOW” marks, by checking through the appropriate slot on the right fairing”.

FULL = maximum level

LOW = minimum level



If not, proceed as follows:

- ◆ Unscrew and remove the filling cap (1).

⚠ WARNING

The coolant is noxious: do not swallow it; if the coolant gets in contact with the skin or the eyes, it can cause serious irritations.

Do not use your fingers or any other object to check if there is enough coolant.

⚠ CAUTION

Do not put additives or other substances into the fluid.

If you use a funnel or other similar items, make sure that they are perfectly clean.



- ◆ Top up the expansion tank by adding coolant, see p. 113 (LUBRICANT CHART), until this almost reaches the “FULL” level. Do not exceed this level, otherwise the fluid will flow out while the engine is running.
- ◆ Put back the filling cap (1).

⚠ CAUTION

In case of excessive consumption of coolant and in case the tank remains empty, make sure that there are no leaks in the circuit. Have it repaired by an Aprilia Official Dealer.

TYRES

This vehicle is provided with tubeless tyres.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

⚠ WARNING

Check the inflation pressure at room temperature every two weeks.

Check the conditions of the tyres and the inflation pressure at room temperature after the first 1000 km (625 mi) and successively every 7500 km (4687 mi), see p. 109 (TECHNICAL DATA).

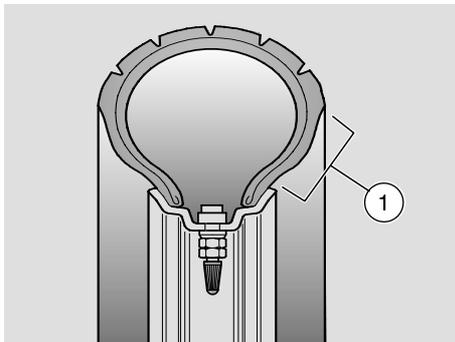
If the tyres are hot, the measurement is not correct.

Carry out the measurement especially before and after long rides.

If the inflation pressure is too high, the ground unevenness cannot be dampened and is therefore transmitted to the handlebar, thus compromising the driving comfort and reducing the road holding during turns.

If, on the contrary, the inflation pressure is too low, the tyre sides (1) are under greater stress and the tyre itself may slip on the rim or it may become loose, with consequent loss of control of the vehicle.

In case of sudden braking the tyres could even come off the rims.



Further, the vehicle could skid while turning.

⚠ WARNING

Check the surface and the wear of the tyres, since tyres in bad conditions can impair both the grip and the controllability of the vehicle.

Some types of tyres homologated for this vehicle are provided with wear indicators.

There are several kinds of wear indicators. For more information on how to check the wear, contact your Dealer. Visually check if the tyres are worn and in this case have them changed.

Change the tyre when it is worn out or in case of puncture on the tread side, if the puncture is larger than 5 mm.

After repairing a tyre, have the wheels balanced.

⚠ WARNING

The tyres must be replaced with other tyres of the type and model recommended by the manufacturer, see p. 109 (TECHNICAL DATA); the use of tyres different from those prescribed may adversely affect the manoeuvrability of the vehicle.

Do not install tyres with air tube on rims for tubeless tyres and viceversa.

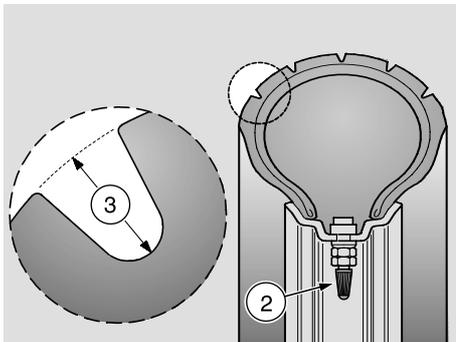
Make sure that the inflation valves (2) always have their sealing caps on, to prevent the tyres from suddenly going flat.

Change, repair, maintenance and balancing operations are very important and therefore they must be performed by qualified technicians with appropriate tools.

For this reason, it is advisable to have the above mentioned operations carried out by an **aprilia** Official Dealer or by a qualified tyre repairer.

If the tyres are new, they may still be covered with a slippery film: drive carefully for the first miles. Do not oil the tyres with unsuitable fluids. If the tyres are old, even if not completely worn out, they may become hard and may not ensure good road holding. In this case, replace them.

MINIMUM TREAD DEPTH LIMIT (3):
front and rear 2 mm (USA 3 mm) and in any



case not less than prescribed by the regulations in force in the country where the vehicle is used.

ENGINE OIL

⚠ WARNING

Engine oil may cause serious damage to the skin if handled daily and for long periods.

Wash your hands carefully after use.

KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF THE OIL IN THE ENVIRONMENT.

Put it in a sealed container and take it to the filling station where you usually buy it or to an oil salvage center.

In case any maintenance operation should be required, it is advisable to use latex gloves.

⚠ CAUTION

If the engine oil pressure warning light LED “” comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient.

In this case, check the engine oil level, see p. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP); if the level isn't correct, stop the engine immediately and contact an **aprilia** Official Dealer.



⚠ CAUTION

Proceed with care.
Do not spill the oil!

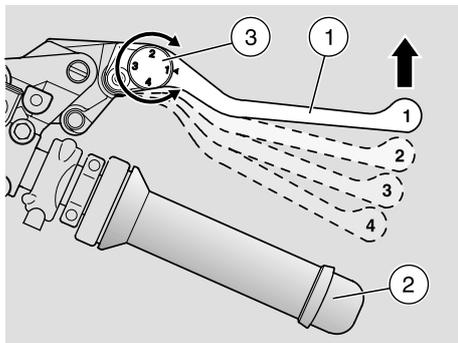
Take care not to smear any component, the area in which you are working and the surrounding area. Carefully remove any trace of oil.

In case of leakages or malfunctions, contact an **aprilia** Official Dealer.

Periodically check the engine oil level, see p. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).

For the engine oil change, see p. 60 (REGULAR SERVICE INTERVALS CHART) and p. 64 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

NOTE Use high-quality 15W – 50 oil, see p. 113 (LUBRICANT CHART).



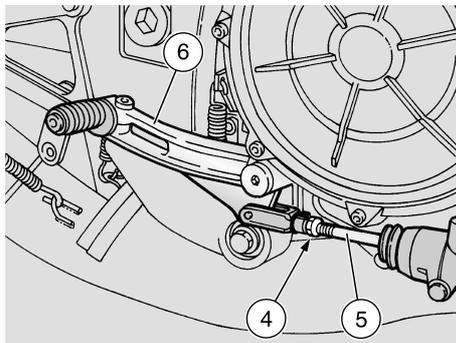
ADJUSTING THE FRONT BRAKE CONTROL LEVER AND THE CLUTCH CONTROL LEVER

It is possible to adjust the distance between the lever (1) end and the grip (2), by rotating the adjuster (3).

The positions "1" and "4" correspond to an approximate distance of 105 and 75 mm, respectively, between the lever end and the grip.

The positions "2" and "3" correspond to intermediate distances.

- ◆ ★ Push the control lever (1) forward and rotate the adjuster (3) until the desired number is positioned in correspondence with the reference arrow.

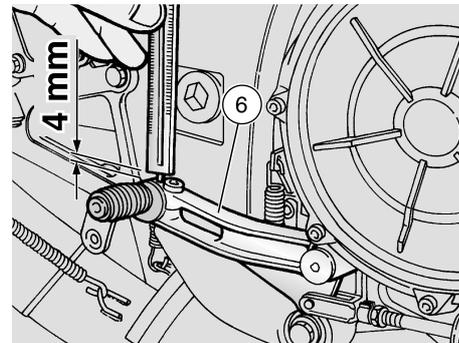


ADJUSTING THE REAR BRAKE CONTROL LEVER CLEARANCE

The brake control lever is positioned ergonomically during the assembly of the vehicle.

If necessary, it is possible to adjust the brake control lever clearance:

- ◆ Remove the lower fairing, see p. 77 (REMOVING THE LOWER FAIRING).
- ◆ Loosen the lock nut (4).
- ◆ Unscrew the pump control rod (5) to ensure a minimum clearance of **0.5 – 1 mm** between the rod and the pump piston.



⚠ CAUTION

Make sure that there is a certain idle stroke in the movement of the lever (6), to prevent the brake from remaining applied and the consequent untimely wear of the braking elements.

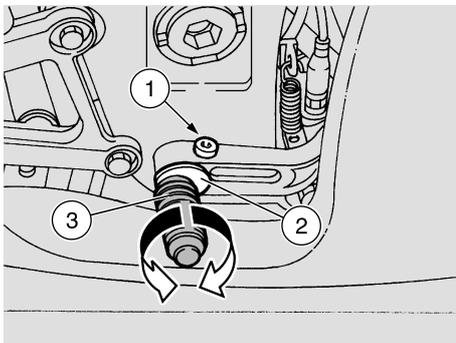
Lever (6) idle stroke: 4 mm (measured at the lever end).

- ◆ Lock the pump control rod (5) by means of the lock nut (4).

⚠ CAUTION

After the adjustment, make sure that the wheel rotates freely with released brake.

Check the braking efficiency. If necessary, contact your **aprilia** Official Dealer.



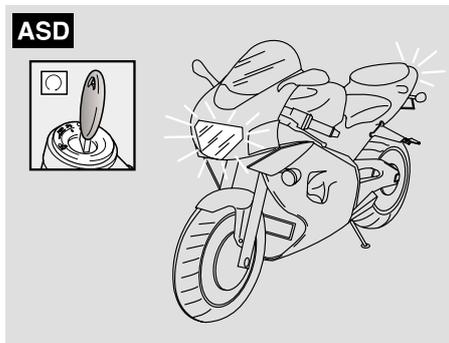
ADJUSTING THE REAR BRAKE CONTROL LEVER AND THE GEAR LEVER

The control levers are positioned ergonomically during the assembly of the vehicle. If necessary, it is possible to adjust the position of the levers.

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Partially unscrew the screw (1).
- ◆ Rotate the eccentric (2) in order to find the optimal position of the pedal (3).
- ◆ Tighten the screw (1) and make sure that the eccentric is stable in its position.

⚠ CAUTION

If it is necessary to further adjust the gear lever, contact an **aprilia** Official Dealer.



AUTOMATIC LIGHT SWITCHING VERSION ASD

The vehicles provided with this device can be immediately recognized, since the lights come automatically on as soon as the ignition switch is turned to position "O".

For this reason, no light switch is provided.

The lights can be switched off only by turning the ignition switch to position "⊗".

Before starting the vehicle, make sure that the dimmer switch is in position "■" (front low beam).

EXHAUST SILENCER/EXHAUST TERMINAL

⚠ WARNING

Tampering with the noise control system is prohibited.

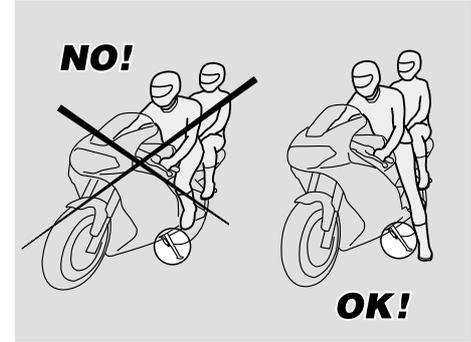
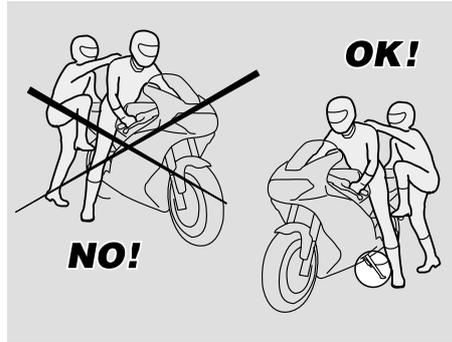
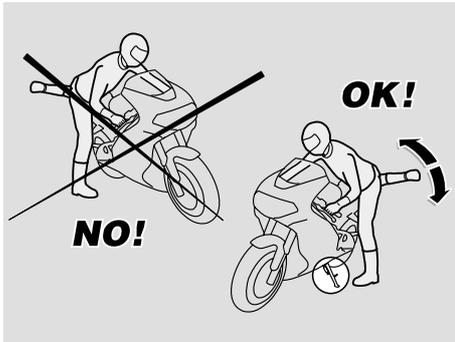
Owners are warned that the law may prohibit:

- the removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle – prior to its sale or delivery to the ultimate purchaser or while it is in use;
- the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Check the exhaust silencer and the silencer pipes, making sure that there are neither signs of rust, nor holes and that the exhaust system works effectively.

If the noise produced by the exhaust system increases, immediately contact your **aprilia** Official Dealer.

INSTRUCTIONS FOR USE



GETTING ON AND OFF THE VEHICLE

The instructions below must be followed with the maximum care in order to avoid any injury to persons and damage to property and to the vehicle, caused by the falling of the rider or the passenger from the vehicle and/or the falling or overturning of the vehicle itself.

⚠ WARNING

Risk of falling and overturning. Proceed with care.

The operations and movements required to get on and off the vehicle must be performed with complete freedom of movement and with the hands free from obstruction caused by holding objects, the helmet, gloves or glasses.

Get on and off the vehicle only from the left

side and always with extended side stand.

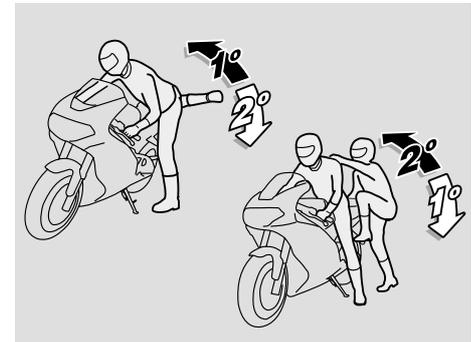
⚠ CAUTION

Do not apply the load of your weight or of the passenger's weight onto the side stand.

The stand has been designed to support the weight of the vehicle and a minimum load, without the rider and the passenger.

Getting on the vehicle into the riding position with extended side stand is permitted only for the purpose of preventing the vehicle from falling or overturning and does not envision the loading of the weight of the rider and passenger onto the side stand.

While getting on and off, the weight of the vehicle may cause an unbalance and the consequent loss of equilibrium, and the vehicle may fall or overturn.



NOTE The rider must always be the first person to get on the vehicle and the last to get off and it is the rider who controls the balance and stability of the vehicle when the passenger gets on and off.

When getting on and off the vehicle, the



passenger must make careful movements, in order to maintain the balance of the vehicle and the rider.

NOTE The rider is responsible for instructing the passenger how to safely get on and off the vehicle.

The vehicle is equipped with special passenger footrests to make it easier to get on and off the vehicle. The passenger must always use the left footrest to get on and off the vehicle.

Neither get off, nor try to get off the vehicle by jumping or stretching your leg down to the ground. In both cases this would compromise the stability and balance of the vehicle.

NOTE Bags or objects strapped to the rear of the vehicle can represent an obstacle while getting on and off.

In any case, perform a controlled movement with your right leg, which must avoid

striking and safely pass the rear part of the fairing or the luggage without creating unbalance.

GETTING ON THE VEHICLE

◆ Grasp the handlebar correctly and get on the vehicle without loading your weight onto the side stand.

NOTE If it is impossible for you to place both feet on the ground, place the right foot on the ground (in case of unbalance, the left side of the vehicle is prevented from falling over by the side stand) and keep the left foot ready to rest on the ground.

◆ Place both feet on the ground and straighten the vehicle into riding position while keeping it in balance.

NOTE The rider must not extract or attempt to extract the passenger footrest while seated astride the vehicle, because this might compromise the stability and balance of the vehicle.

- ◆ Have the passenger extract the two passenger footrests.
- ◆ Instruct the passenger how to safely get on the vehicle.
- ◆ Kick the side stand completely back using your left foot.

GETTING OFF THE VEHICLE

- ◆ Choose the parking area, see p. 57 (PARKING).
- ◆ Stop the vehicle, see p. 57 (STOPPING).

⚠ WARNING

Make sure that the parking surface is free from obstacles, firm and flat.

◆ With the left shoe heel, extend the side stand completely by acting on the appropriate lever.

NOTE If it is impossible for you to place both feet on the ground, place the right foot on the ground (in case of unbalance, the left side of the vehicle is prevented from falling over by the side stand) and keep the left foot ready to rest on the ground.

- ◆ Place both feet on the ground, keeping the vehicle in balance in riding position.
- ◆ Instruct the passenger how to safely get off the vehicle.

⚠ CAUTION

Risk of falling and overturning. Make sure that the passenger has got off the vehicle. Do not load your weight onto the side stand.

- ◆ Incline the vehicle until the stand rests on the ground.
- ◆ Grasp the handlebar correctly and get off the vehicle.
- ◆ Rotate the handlebar completely leftwards.
- ◆ Lift the passenger footrests.

⚠ CAUTION

Make sure that the vehicle is stable.



PRELIMINARY CHECKING OPERATIONS

⚠ WARNING

Before departure, always carry out a preliminary checking of the vehicle to make sure that it functions correctly and safely, see the following table (PRELIMINARY CHECKING OPERATIONS). The non-performance of these checking operations can cause severe personal injuries or damages to the vehicle.

Do not hesitate to consult your **aprilia** Official Dealer in case there is something you do not understand about the functioning of some controls or in case you suspect or discover some irregularities.

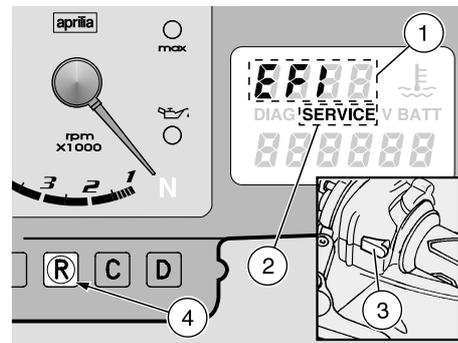
It does not take long to carry out a check-up and this operation ensures you much more safety.

NOTE This vehicle is set so that any anomaly can be detected in real time and stored by the electronic unit.

Whenever the ignition switch is brought to position "O", the writing "EF!" (1) appears on the right side of the multifunction display for approximately three seconds.

⚠ CAUTION

If the writing "EF!" (1) is displayed during the normal operation of the engine, this means that the electronic unit has detected an anomaly. In many cases, the engine keeps running with reduced performance levels; immediately contact an **aprilia** Official Dealer.



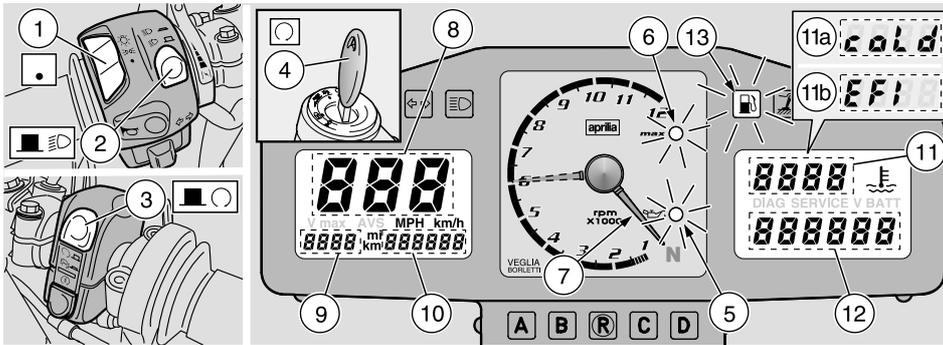
⚠ CAUTION

After the first 1000 km (625 mi) and successively every 7500 km (4687 mi), the word "SERVICE" (2) appears on the right display.

In this case contact an **aprilia** Official Dealer, who will carry out the operations indicated in the regular service intervals chart, see p. 60 (REGULAR SERVICE INTERVALS CHART). To make the writing "SERVICE" disappear, press the "LAP" push button (3) and then the push button **R** (4) and keep them pressed for about five seconds.

PRELIMINARY CHECKING OPERATIONS

Component	Check	Page
Front and rear disc brakes	Check the functioning, the idle stroke of the control levers, the fluid level and make sure there are no leaks. Check the wear of the pads. If necessary, top up the fluid tank.	34, 35, 36, 37, 88
Accelerator	Make sure that it works smoothly and that it is possible to open and close it completely, in all steering positions. If necessary, adjust and/or lubricate it.	89, 89
Engine oil	Check and/or top up if necessary.	43, 62
Wheel/tyres	Check the tyre surface, the inflation pressure, wear and tear and any damage. Remove any foreign matter that may be stuck in the tread grooves.	42
Brake levers	Make sure that they work smoothly. Lubricate the articulations and adjust the stroke if necessary.	44
Clutch	Check the operation of the clutch, the idle stroke of the control lever, the fluid level and any leaks. If necessary, top up the fluid; the clutch must operate without jerking and/or slipping.	38, 39
Steering	Make sure that the steering rotates smoothly, without any clearance or slackening.	–
Side stand	Make sure that it operates correctly. Make sure that when the stand is let up or down there is no friction and that the spring tension brings it back to its normal position. If necessary, lubricate joints and hinges. Make sure that the safety switch operates correctly.	92, 97
Fastening elements	Make sure that the fastening elements are not loose. If necessary, adjust or tighten them.	–
Drive chain	Check the slack.	74, 75
Fuel tank	Check the fuel level and top up, if necessary. Check the circuit for leaks. Make sure that the fuel cap is correctly closed.	33, 76
Coolant	The coolant level in the expansion tank must be included between the “ FULL ” and “ LOW ” marks.	40, 41
Engine stop switch ()	Make sure that it operates correctly.	27
Lights, warning lights, horn and electric devices	Check the proper functioning of the acoustic and visual devices. Change the bulbs or intervene in case of failure.	93 – 105



STARTING

▲ WARNING

This vehicle is considerably powerful and must be used gradually and with the greatest care.

Do not position any object inside the front part of the fairing (between the handlebar and the dashboard), in order not to hinder the rotation of the handlebar and visibility toward the dashboard.

NOTE Before starting the engine, carefully read chapter "safe drive", see p. 5 (SAFE DRIVE).

▲ WARNING

Exhaust gases contain carbon monoxide, which is extremely noxious if inhaled.

Avoid starting the engine in closed or badly-ventilated rooms.

The non-observance of this warning

may cause loss of consciousness or even lead to death by asphyxia.

NOTE With the side stand down, the engine can be started only if the gears are in neutral; in this case, if you try to engage the gears, the engine stops.

With the side stand up, it is possible to start the engine either in neutral gear or with engaged gears and pulled in clutch lever.

- ◆ Get on the vehicle in riding position, see p. 46 (GETTING ON AND OFF THE VEHICLE).
- ◆ Make sure that the stand is completely up.
- ◆ **Not provided for ASD.** Make sure that the light switch (1) is in position "•".
- ◆ Make sure that the dimmer switch (2) is in position "■ ☞".
- ◆ Move the engine stop switch (3) to position "■ ○".
- ◆ Rotate the key (4) and move the ignition switch to position "○".

At this point:

- The engine oil pressure LED warning light (red) "☞" (5) comes on on the dashboard and remains on until the engine has been started;
- the red line warning light LED "max" (red) (6) comes on on the dashboard for approximately three seconds and the revolution counter pointer (7) shifts to the preset red line threshold;
- the left display shows the instantaneous speed (8), the trip (9) and total (10) kilometers/miles odometer;
- the coolant temperature (11) and the digital clock (12) appear on the right display (multifunction).

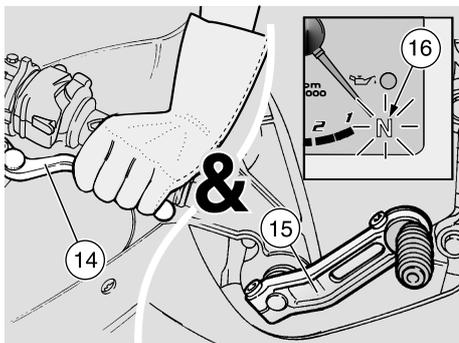
NOTE When the engine is cold, the writing "cold" (11a) blinks.

Whenever the ignition switch is turned to position "○", the writing "EFI" (11b) is displayed for about three seconds.

- the fuel pump will pressurize the fuel supply circuit, sending out a hum for about three seconds.

▲ CAUTION

If the low fuel warning light "☞" (13) comes on on the dashboard, provide for topping up as soon as possible, see p. 33 (FUEL).



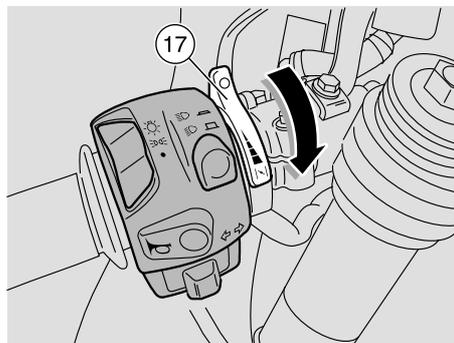
NOTE It is possible to set the unit of measurement of the speedometer (km or mi) and of the coolant temperature (°C or °F), the red line threshold, the clock functions and if necessary the chronometer, see p. 20 (MULTIFUNCTION COMPUTER).

⚠ WARNING

The red line threshold is set at 6000 rpm by **aprilia**. Increase the threshold gradually as you get acquainted with the vehicle.

During running-in, never exceed the recommended rpm, see p. 56 (RUNNING-IN).

- ◆ Lock at least one wheel, by pulling a brake lever.
- ◆ Pull the clutch lever (14) completely and shift the gearbox lever (15) into neutral [green warning light "N" (16) on].
- ◆ If the vehicle is started with cold engine,



rotate the cold start lever "↴" (17) downwards.

⚠ CAUTION

To avoid excessive consumption of the battery, do not keep the start push button "Ⓢ" pressed for more than fifteen seconds.

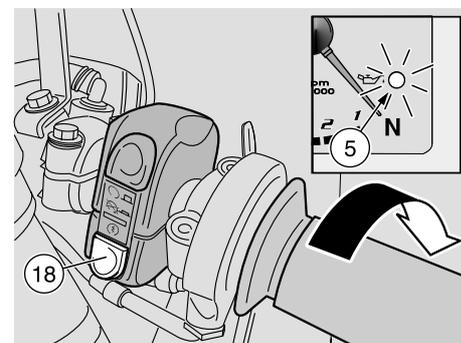
If the engine does not start in this lapse of time, wait ten seconds and press the start push button "Ⓢ" again.

- ◆ Press the start push button "Ⓢ" (18) without accelerating and release it as soon as the engine starts.

⚠ CAUTION

Avoid pressing the start push button "Ⓢ" (18) when the engine is running, since you may damage the starter.

If the engine oil pressure warning light "Ⓢ" (5) remains on, or if it comes on



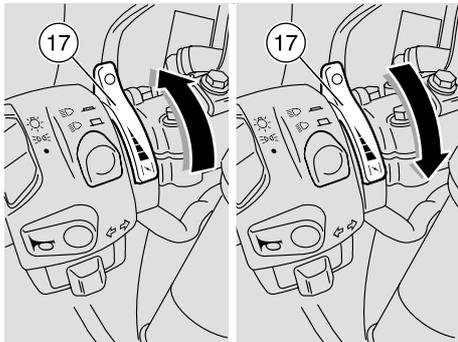
during the normal operation of the engine, this means that the oil pressure in the circuit is insufficient.

In this case, stop the engine immediately and contact an **aprilia** Official Dealer.

- ◆ Keep at least one brake lever pulled and do not accelerate until you start.

⚠ CAUTION

Never leave abruptly with cold engine. To reduce the emission of polluting substances and the consumption of fuel, warm the engine up by proceeding at low speed for the first miles.

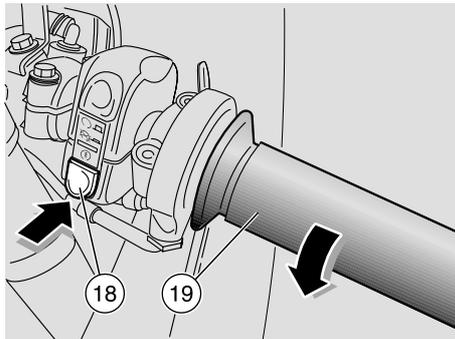


- ◆ Rotate the cold start lever “↖” (17) upwards after the engine has warmed up.

⚠ CAUTION

If the writing “EF!” appears, on the left display (multifunction) during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact an **aprilia** Official Dealer.



STARTING WITH COLD ENGINE

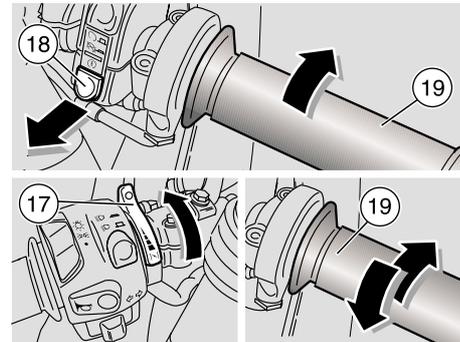
If the room temperature is low (near to or lower than 0°C/32°F), it may be difficult to start the vehicle at the first attempt.

In this case:

- ◆ Rotate the cold start lever “↖” (17) downwards.
- ◆ Insist for at least ten seconds with the start push button “Ⓢ” (18) pressed and at the same time moderately rotate the throttle grip (19).

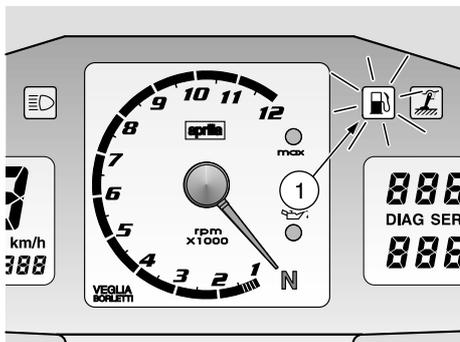
If the engine starts:

- ◆ Release the start push button “Ⓢ” (18) and the throttle grip (19).
- ◆ Rotate the cold start lever “↖” (17) upwards.
- ◆ If the idling is unstable, twist the throttle grip (19) slightly and frequently.



If the engine does not start:

Wait a few seconds and repeat the cold START PROCEDURE.



DEPARTURE AND DRIVE

⚠ WARNING

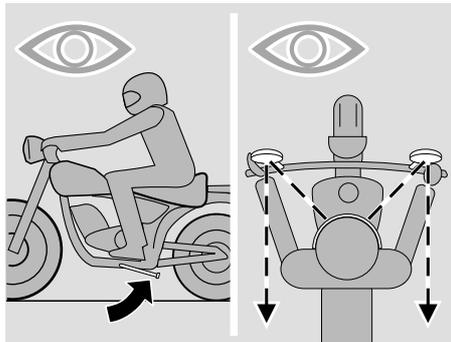
This vehicle is considerably powerful and must be used gradually and with the greatest care.

Do not position any object inside the front part of the fairing (between the handlebar and the dashboard), in order not to hinder the rotation of the handlebar and visibility toward the dashboard.

NOTE Before departure, carefully read the “safe drive” chapter, see p. 5 (SAFE DRIVE).

⚠ CAUTION

If the low fuel warning light “” (1) positioned on the dashboard comes on while the vehicle is running, this means that 4.5±1% of fuel are still available in the tank.



Provide for topping up as soon as possible, see p. 33 (FUEL).

⚠ WARNING

If you drive without passenger, make sure that the passenger footrests are folded.

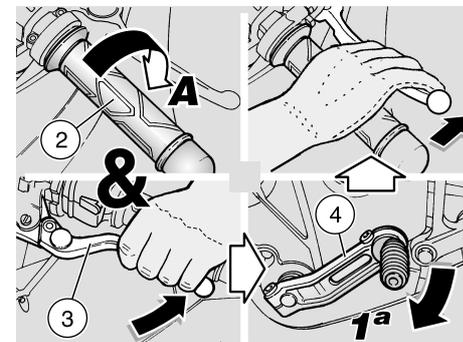
While riding, keep your hands on the grips and your feet on the footrests.

NEVER RIDE IN ANY POSITION OTHER THAN THOSE INDICATED.

⚠ WARNING

If you drive with a passenger, instruct him/her so that he/she does not create problems during manouvres.

Before leaving, make sure that the stand is completely up.



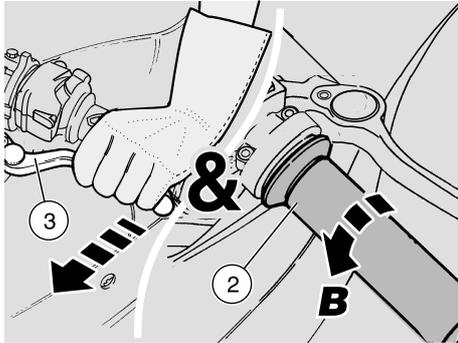
To leave:

- ◆ Start the engine, see p. 50 (STARTING).
- ◆ Adjust the inclination of the rear-view mirrors correctly.

⚠ CAUTION

With the vehicle at rest, try to get acquainted with the use of the rear-view mirrors. The reflecting surface is convex, therefore the objects seem to be farther away than they actually are. These mirrors offer a “wide-angle” view and only experience will allow you to evaluate the distance of the following vehicles correctly.

- ◆ With released throttle grip (2) (Pos.A) and engine idling, pull the clutch lever (3) completely.
- ◆ Engage the first gear, by pushing the gear lever (4) downwards.
- ◆ Release the brake lever (pulled on the starting).



⚠ WARNING

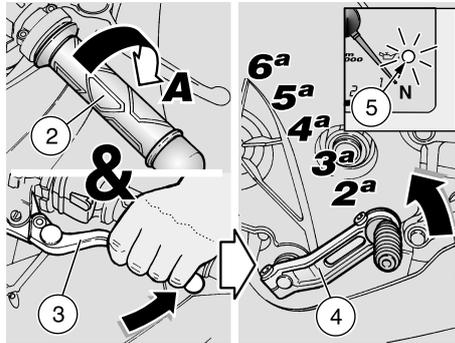
On departure, the abrupt release of the clutch lever may cause the engine to stall or the vehicle to jerk forwards.

Never accelerate abruptly or excessively when releasing the clutch lever, in order to prevent the clutch from “slipping” (slow release) or the front wheel from raising “rearing up” (quick release).

- ◆ Slowly release the clutch lever (3) and at the same time accelerate by rotating the throttle grip moderately (2) (**Pos.B**). The vehicle will start moving.
- ◆ Ride at reduced speed for the first miles, in order to warm the engine up.

⚠ CAUTION

Never exceed the recommended rpm, see p. 56 (**RUNNING-IN**).



- ◆ Increase the speed by gradually rotating the throttle grip (2) (**Pos.B**), without exceeding the recommended rpm, see p. 56 (**RUNNING-IN**).

To engage the second gear:

⚠ CAUTION

Proceed quickly.
Never ride the vehicle at too low rpm.

- ◆ Release the throttle grip (2) (**Pos.A**), pull the clutch lever (3) and lift the shifting lever (4). Release the clutch lever (3) and accelerate.
- ◆ Repeat the last two operations and shift up.

⚠ CAUTION

If the engine oil pressure warning light LED “” (5) comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient.

In this case, stop the engine immediately and contact an **aprilia** Official Dealer.

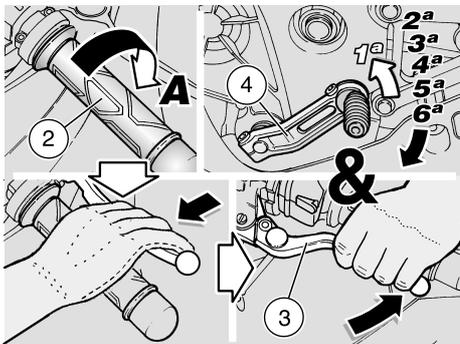
The downshifting should be carried out in the following situations:

- ◆ When riding downhill or when braking, in order to increase the braking action by using the compression of the engine.
- ◆ When riding uphill, if the gear engaged is not suitable to the speed (high gear, moderate speed) and the engine rpm decreases.

⚠ CAUTION

Shift the gears one by one; the simultaneous downshifting of more than one gear may make you exceed the maximum rpm (red line).

Before and during the downshifting, release the throttle grip and decelerate, in order to avoid the “red line”.



To shift down, proceed as follows:

- ◆ Release the throttle grip (2) (Pos.A).
- ◆ If necessary, pull the brake levers moderately and decrease the speed of the vehicle.
- ◆ Pull the clutch lever (3) and lower the shifting lever (4) to shift down.
- ◆ If the brake levers are pulled, release them.
- ◆ Release the clutch lever and accelerate moderately.

⚠ CAUTION

If the writing " L L L " appears on the right side of the multifunction display, stop the vehicle and let the engine run at 3000 rpm for approximately two minutes, thus allowing the coolant to circulate regularly in the system; then press the engine stop switch to position "■⊗" and check the coolant level, see p. 40 (COOLANT).

If the writing " L L L " is still displayed after the coolant level has been checked, contact an **aprilia** Official Dealer.

Do not turn the ignition switch to position "⊗", since the cooling fans would stop independently of the coolant temperature and in this case the temperature would increase further.

If the writing " E F ! " appears, on the left display (multifunction) during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact an **aprilia** Official Dealer.

To avoid the overheating of the clutch, keep the engine running with vehicle at rest, engaged gears and pulled clutch lever for the shortest possible time.

⚠ WARNING

Avoid opening and closing the throttle grip repeatedly and continuously, so that you do not accidentally lose control of the vehicle. If you have to brake, close the throttle and put on both brakes in order to obtain uniform deceleration, properly exerting pressure on the braking parts.

By putting on the front brake only or the rear brake only, you reduce the braking force considerably, thus running the

risk of locking one wheel and consequently losing grip.

If you stop uphill, decelerate completely and use the brakes only to keep the vehicle steady.

The use of the engine to keep the vehicle steady may cause the overheating of the clutch.

Before beginning to turn, slow down or brake driving at moderate and constant speed or accelerating slightly; avoid braking at the last moment: it would be very easy to skid.

If the brakes are operated continuously on downhill stretches, the friction surfaces may overheat, thus reducing the braking efficiency. Exploit the engine compression and shift down by putting on both brakes intermittently. Never drive downhill with the engine off!

When visibility is insufficient, switch on the low beam even during the day, in order to make your vehicle more visible. In case of wet ground or scarce wheel grip (snow, ice, mud, etc.), drive slowly, avoiding sudden brakings or manoeuvres that could make you lose grip and fall down.

▲ WARNING

Pay the utmost attention to any obstacle or variation of the ground.

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 leaning the vehicle as little as possible.

Always use the turn indicators in time when you intend to change lane or direction, avoiding sharp and dangerous movements.

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

Be extremely careful when you overtake other vehicles or are overtaken.

In case of rain, the water cloud created by big vehicles reduces visibility; the air shift may make you lose control of the vehicle.

RUNNING-IN

The running-in of the engine is essential to ensure its duration and correct functioning. If possible, drive on hilly roads and/or roads with many bends, so that the engine, the suspensions and the brakes undergo a more effective running-in.

During running-in, change speed.

In this way the components are first “loaded” and then “relieved” and the engine parts can thus cool down.

Even if it is important to stress the engine components during running-in, take care not to exceed.

NOTE Only after the first 1500 km (937 mi) of running-in you can expect the best performance levels from the vehicle.

Keep to the following indications:

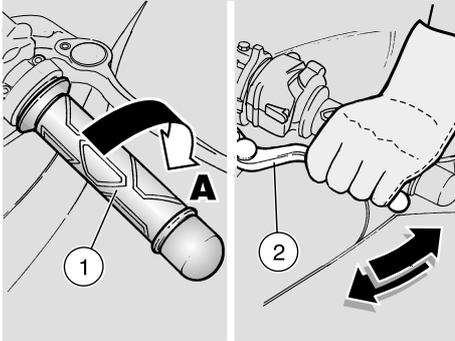
- ◆ Do not open the throttle completely if the speed is low, both during and after the running-in.
- ◆ During the first 100 km (62 mi) put on the brakes with caution, avoiding sharp and prolonged brakings. This ensures a correct bedding-in of the pads on the brake disc.
- ◆ During the first 1000 km (625 mi) never exceed 6000 rpm.

▲ WARNING

After the first 1000 km (625 mi), have an **aprilia Official Dealer** carry out the checks indicated in the column “After running-in” of the regular service intervals chart, see p. 60 (REGULAR SERVICE INTERVALS CHART), in order to avoid hurting yourself or other people and/or damaging the vehicle.

- ◆ Between the first 1000 (625 mi) and 1500 km (937 mi) drive more briskly, change speed and use the maximum acceleration only for a few seconds, in order to ensure better coupling of the components; never exceed 7500 rpm (see table).
- ◆ After the first 1500 km (937 mi) you can expect better performance from the engine, however, without exceeding the maximum allowed (10500 rpm).

Engine maximum rpm recommended	
Mileage km (mi)	rpm
0 – 1000 (0 – 625)	6000
1000 – 1500 (625 – 937)	7500
over 1500 (937)	10500



STOPPING

⚠ WARNING

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

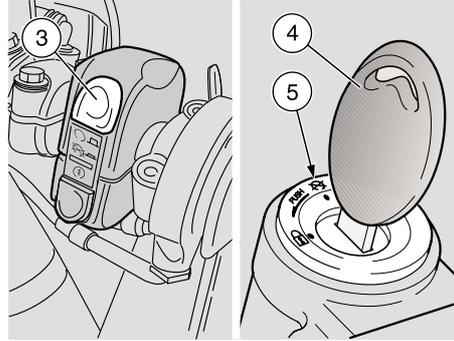
- ◆ Release the throttle grip (1) (Pos.A), gradually put on the brakes and at the same time shift down in order to decrease the speed, see p. 53 (DEPARTURE AND DRIVE).

Once the speed has decreased, before stopping the vehicle:

- ◆ Pull the clutch lever (2) in order to prevent the stopping of the engine.

When the vehicle has come to rest:

- ◆ Position the gear lever in neutral (green warning light "N" on).
- ◆ Release the clutch lever (2).
- ◆ In case of a brief stop, keep at least one brake on.



PARKING

It is very important to choose a suitable parking area, respecting the road signs and the indications given below.

⚠ WARNING

Park the vehicle on firm and flat ground, to prevent it from falling down. Neither lean the vehicle against walls, nor lay it on the ground. Make sure that the vehicle and especially its red-hot parts do not represent a danger for persons and children. Do not leave the vehicle unattended when the engine is on or the key is inserted into the ignition switch.

Do not get too near the cooling fans even if they are still, since they may start moving and suck clothes edges, hair, etc.

⚠ WARNING

The fall or excessive inclination of the vehicle may cause the fuel to flow out of the tank.

The fuel used for internal combustion engines is extremely inflammable and in particular conditions it can become explosive.

⚠ CAUTION

Do not apply the load of your weight or of the passenger's weight onto the side stand.

To park the vehicle:

- ◆ Choose a suitable parking area.
- ◆ Stop the vehicle, see p. 57 (STOPPING).
- ◆ Move the engine stop switch (3) to position "OFF".
- ◆ Rotate the key (4) and move the ignition switch (5) to position "LOCK".

⚠ WARNING

When getting on or off the vehicle, keep to the instructions given, see p. 46 (GETTING ON AND OFF THE VEHICLE).

- ◆ Following the indications, wait until the passenger has got off the vehicle before dismounting.
- ◆ Lock the steering, see p. 28 (STEERING LOCK) and extract the key (4).

⚠ WARNING

Make sure that the vehicle is stable.



POSITIONING THE VEHICLE ON THE STAND

SIDE STAND

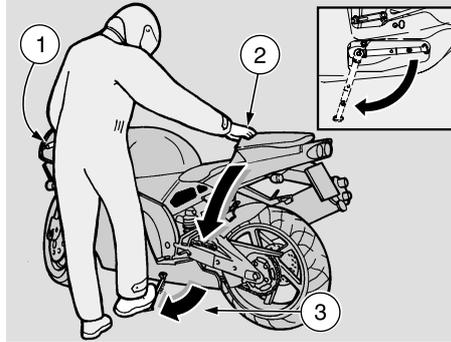
To place the vehicle on the side stand while seated astride the vehicle, see p. 46 (GETTING ON AND OFF THE VEHICLE).

If any manoeuvre (for example, moving the vehicle) required the lifting of the stand, to place the vehicle on the stand again, proceed as follows:

▲ WARNING

Make sure that the parking surface is free from obstacles, firm and flat.

- ◆ Choose a suitable parking area, see p. 57 (PARKING).
- ◆ Grasp the left grip (1) and rest your right hand on the rear upper part of the vehicle (2).



- ◆ Press the side stand with your right foot and extend it completely (3).
- ◆ Incline the vehicle until the stand rests on the ground.
- ◆ Steer the handlebar completely leftwards.

▲ WARNING

Make sure that the vehicle is stable.

SUGGESTIONS TO PREVENT THEFT

NEVER leave the ignition key inserted and always use the steering lock.

Park the vehicle in a safe place, possibly in a garage or a protected place.

When possible, use an additional anti-theft device.

Make sure that all documents are in order and the road tax has been paid.

Write down your personal data and telephone number in this page, to facilitate the identification of the owner in case of finding after theft.

SURNAME:

NAME:

ADDRESS:

.....

TELEPHONE NO.:

NOTE Very often stolen vehicles are identified thanks to the data written in the use/maintenance manual.

MAINTENANCE

⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from the electrical components.

Before beginning any service operations or inspection of the vehicle, switch off the engine and remove the key, wait until the engine and the exhaust system have cooled down and, if possible, lift the vehicles with the proper equipment onto 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 hold any mechanical piece or other parts of the vehicle with your mouth: the components are not edible and some of them are noxious or even toxic.

⚠ CAUTION

If not expressly indicated otherwise, for the reassembly of the units repeat the disassembly operations in reverse order.

In case any maintenance operation should be required, it is advisable to use latex gloves.

Routine maintenance operations can usually be carried out by the user, but sometimes specific tools and specific technical skills may be required.

In case periodic maintenance operations, assistance or technical advice are needed, contact an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

Ask your **aprilia** Official Dealer to test the vehicle on the road after a repair or periodic maintenance operation.

In any case, personally carry out the "Preliminary checking operations" after any maintenance operation, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

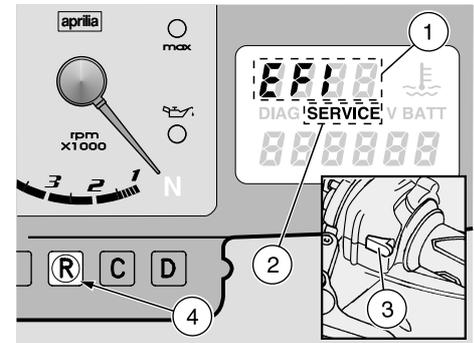
NOTE This vehicle is set so that any anomaly can be detected in real time and stored by the electronic unit.

Whenever the ignition switch is brought to position "O", the writing "E F I" (1) appears on the right side of the multifunction display for approximately three seconds.

⚠ CAUTION

If the writing "E F I" (1) is displayed during the normal operation of the engine, this means that the electronic unit has detected an anomaly.

In many cases, the engine keeps running with reduced performance levels; immediately contact an **aprilia** Official Dealer.



⚠ CAUTION

After the first 1000 km (625 mi) and successively every 7500 km (4687 mi), the word "SERVICE" (2) appears on the right display.

In this case contact an **aprilia** Official Dealer, who will carry out the operations indicated in the regular service intervals chart, see p. 60 (REGULAR SERVICE INTERVALS CHART). To make the writing "SERVICE" disappear, press the "LAP" push button (3) and then the push button **R** (4) and keep them pressed for about five seconds.

REGULAR SERVICE INTERVALS CHART

OPERATIONS TO BE CARRIED OUT BY THE **aprilia** Official Dealer (WHICH CAN BE CARRIED OUT EVEN BY THE USER).

Key

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

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

(*) = In case of use on racetracks, change every 3750 km (2343 mi).

(**) = Check every two weeks or according to the intervals indicated.

Component	After run-ning-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
Spark plugs (*)		①	③
Air cleaner		①	③
Engine oil filter (*)	③	③	
Engine oil filter (on oil tank)	②		②
Fork	①		①
Light operation/direction		①	
Light system	①	①	
Safety switches			
Clutch fluid		①	
Brake fluid		①	
Coolant			①
Engine oil	③	③ (*)	
Tyres	①	①	
Tyre pressure (**)	④	④	
Engine idling rpm	④	④	
Engine oil pressure warning light LED	at every start: ①		
Drive chain tension and lubrication	every 1000 km (625 mi): ①		
Brake pad wear	①	before every trip and every 2000 km (1250 mi): ①	

OPERATIONS TO BE CARRIED OUT BY THE *aprilia* Official Dealer.

Key

① = check and clean, adjust, lubricate or change, if necessary;

② = clean;

③ = change;

④ = adjust.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

(*) = In case of use on race tracks, check every 3750 km (2343 mi).

(**) = With "R" fork **RSV R (RSV OPT)**, change every 10000 km (6250 mi).

(***) = **Only in case of:**

- **intense use on racetracks;**
- **participation in competitions.**

Component	After running-in [1000 km (625 mi)]	Every 7500 km (4687 mi) or 12 months	Every 15000 km (9375 mi) or 24 months
Rear shock absorber			①
Transmission cables and controls	①	①	
Rear suspension linkage bearings			①
Steering bearings and steering clearance	①	①	
Wheel bearings		①	
Brake discs		①	
General running of the vehicle	①	①	
Adjusting the valve clearance	④		④
Braking systems	①	①	
Cooling system		①	
Throttle body pin greasing	①	①	
Clutch fluid	every 2 years: ③		
Brake fluid			
Coolant			
Fork oil (**)	after the first 7500 km (4687 mi) and successively every 22500 km (14000 mi): ③		
Fork oil seals	after the first 30000 km (18750 mi) and successively every 22500 km (14000 mi): ③		
Brake pads	if worn: ③		
Wheel/Tyres	①	①	
Nut, bolt, screw tightening			
Cylinder synchronization	①	①	
Suspensions and attitude	①		①
Final transmission (chain, crown and pinion)		①	
Fuel pipes		①	every 4 years: ③
Clutch wear (*)		①	
Pistons (***)	every 5000 km (3125 mi): ①		

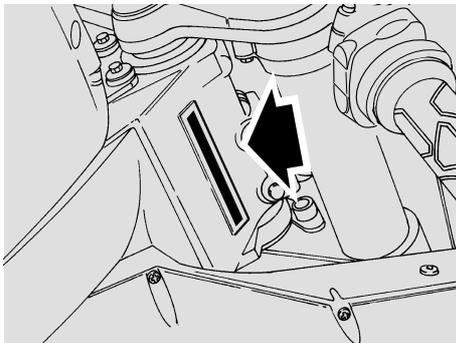


IDENTIFICATION DATA

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

The frame number can be used for the purchase of spare parts.

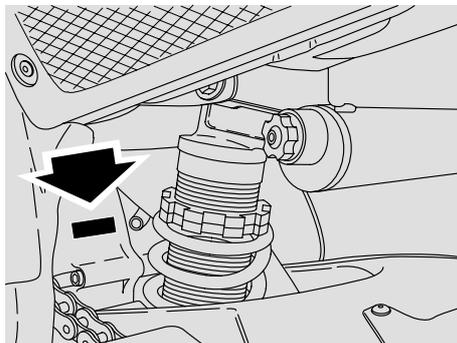
NOTE Do not alter the identification numbers if you do not want to incur severe penal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the guarantee.



FRAME NUMBER

The frame number is stamped on the right side of the steering column.

Frame no. _____



ENGINE NUMBER

The engine number is stamped on the rear part of the engine, near the pinion.

Engine no. _____



CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Carefully read p. 43 (ENGINE OIL) and p. 59 (MAINTENANCE).

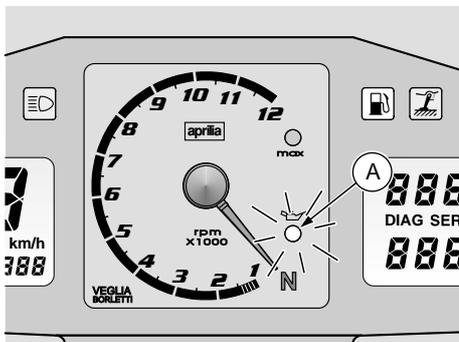
NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Periodically check the engine oil level, change the oil after the first 1000 km (625 mi) and successively every 7500 km (4687 mi), see p. 64 (CHANGING THE ENGINE OIL AND THE OIL FILTER).

CAUTION

In case of use on racetracks, change the engine oil every 3750 km (2343 mi).

If the vehicle is used in dusty areas, change the oil more frequently.



For the check, proceed as follows:

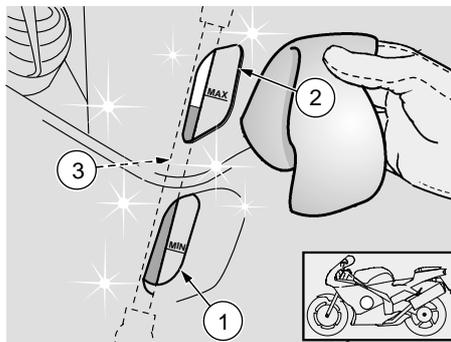
⚠ CAUTION

The engine oil level must be checked with warm engine.

If the check is carried out with cold engine, the oil level may temporarily lower below the “MIN” mark.

This is not a problem, provided that the engine oil pressure warning light LED “A” (A) does not come on, see p. 18 (INSTRUMENTS AND INDICATORS TABLE).

NOTE To warm the engine and have the engine oil reach the operating temperature, do not let the engine idle with the vehicle at rest. According to the correct procedure, it is advisable to carry out the check after a trip of after covering approximately 15 km (10 mi) on a road outside town (this is sufficient for the engine oil to reach the operating temperature).



- ◆ Stop the engine, see p. 57 (STOPPING).
- ◆ Keep the vehicle in vertical position, with the two wheels resting on the ground.
- ◆ Check the oil level on the transparent pipe (3) through the apposite slots (1) (2) on the left part of the fairing.

MAX = maximum level

MIN = minimum level.

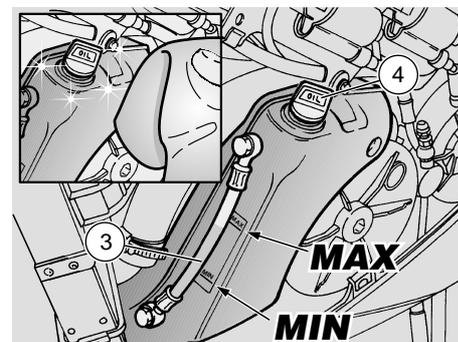
The difference between “MAX” and “MIN” amounts to approximately 500 cm³.

- ◆ The level is correct when the oil almost reaches the “MAX” mark.

⚠ CAUTION

Never exceed the “MAX” mark, nor leave the oil below the “MIN” mark, in order to avoid serious damage to the engine.

If necessary, top up the engine oil by proceeding as follows:



- ◆ Remove the left fairing, see p. 77 (REMOVING THE SIDE FAIRINGS).
- ◆ Unscrew and remove the filling cap (4).

⚠ CAUTION

Do not put additives or other substances into the oil.

If you use a funnel or other similar items, make sure that they are perfectly clean.

NOTE Use high-quality 15W – 50 oil, see p. 113 (LUBRICANT CHART).

- ◆ Top up the tank and restore the correct level, see p. 113 (LUBRICANT CHART).

CHANGING THE ENGINE OIL AND THE OIL FILTER

⚠ CAUTION

The engine oil and the oil filter change operations may be difficult for unskilled operators.

If necessary, contact your **aprilia** Official Dealer.

If you want to perform these operations personally, keep to the following instructions.

Carefully read p. 43 (ENGINE OIL) and p. 59 (MAINTENANCE).

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Periodically check the engine oil level, see p. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP) change the oil after the first 1000 km (625 mi) and successively every 7500 km (4687 mi).

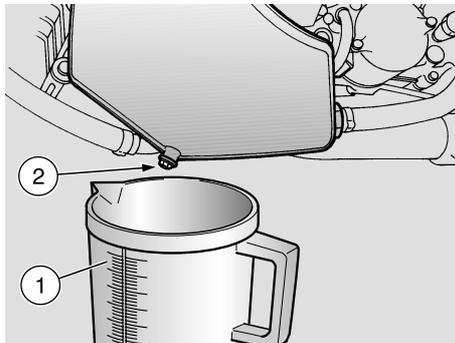
⚠ CAUTION

In case of use on racetracks, change the engine oil every 3750 km (2343 mi).

If the vehicle is used in dusty areas, change the oil more frequently.

To change, proceed as follows:

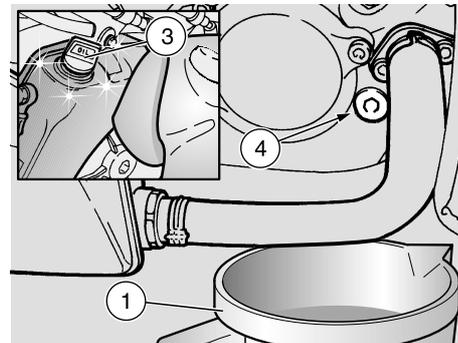
NOTE The oil flows out completely and without problems when it is warm and therefore more fluid: to achieve this condition, the engine should run for approximately twenty minutes.



⚠ CAUTION

When warmed up, the engine contains hot oil; therefore, while carrying out the operations described here below be particularly careful, in order to avoid burns.

- ◆ Remove the lower fairing, see p. 77 (REMOVING THE LOWER FAIRING).
- ◆ Position a container (1) with more than 4000 cm³ capacity in correspondence with the drain plug (2) positioned on the tank.
- ◆ Unscrew and remove the drain plug (2) positioned on the tank.
- ◆ Unscrew and remove the filling cap (3).
- ◆ Drain the oil and let it drip into the container (1) for a few minutes.
- ◆ Check and if necessary replace the sealing washer of the drain plug (2) positioned on the tank.
- ◆ Screw and tighten the drain plug (2) on the tank.



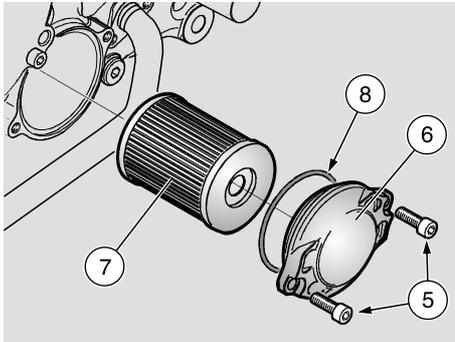
Drain plug (2) driving torque: 15 Nm (1.5 kgm).

- ◆ Move the container (1) and position it under the engine base, in correspondence with the drain plug positioned on the engine (4).
- ◆ Unscrew and remove the drain plug positioned on the engine (4).
- ◆ Drain the oil and let it drip into the container (1) for a few minutes.

⚠ CAUTION

Do not dispose of oil in the environment. Put it in a sealed container and take it to the filling station where you usually buy it or to an oil salvage center.

- ◆ Remove the metal residues from the drain plug (4) magnet.



- ◆ Screw and tighten the drain plug (4).

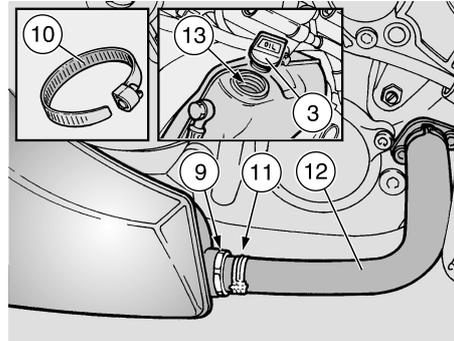
Driving torque of the drain plug (4) positioned on the engine: 12 Nm (1.2 kgm).

CHANGING THE ENGINE OIL FILTER

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Change the engine oil filter after the first 1000 km (625 mi) and successively every 7500 km (4687 mi) (or every time you change the oil).

- ◆ Unscrew the two screws (5) and remove the cover (6).
- ◆ Remove the engine oil filter (7).



⚠ CAUTION

Do not use filters that have already been used.

- ◆ Spread an oil film on the sealing ring (8) of the new engine oil filter.
- ◆ Fit the new engine oil filter.
- ◆ Put back the cover (6), screw and tighten the two screws (5).

CLEANING THE ENGINE OIL FILTER ON THE TANK

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Clean the engine oil filter (9) on the tank after the first 1000 km (625 mi) and successively every 15000 km (9375 mi) (or every two engine oil changes).

NOTE Prepare a screwdriver-type pipe clamp (10) to replace the original one (special type).

- ◆ Loosen the clamp (11) and disconnect the pipe (12).
- ◆ Unscrew and remove the engine oil filter (9) positioned on the tank and clean it with a jet of compressed air.
- ◆ Check the seal of the engine oil filter (9) positioned on the tank; screw and tighten it.

Engine oil filter (9) driving torque: 30 Nm (3 kgm).

- ◆ Connect the pipe (12) and tighten the new clamp (10).

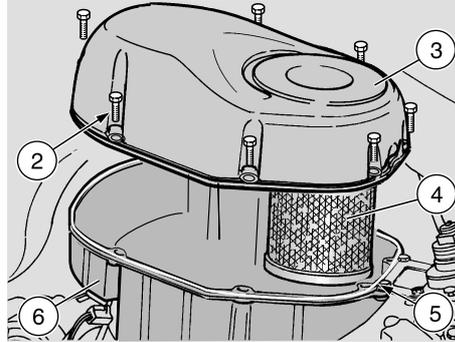
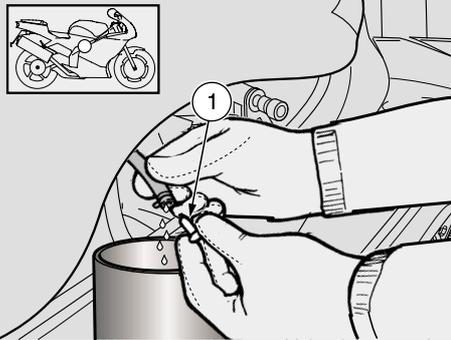
⚠ CAUTION

Do not put additives or other substances into the oil.

If you use a funnel or other similar items, make sure that they are perfectly clean.

NOTE Use high-quality 15W – 50 oil, see p. 113 (LUBRICANT CHART).

- ◆ Pour about 3500 cm³ of engine oil through the filling opening (13), see p. 113 (LUBRICANT CHART).
- ◆ Tighten the filling cap (3).
- ◆ Start the engine, see p. 50 (STARTING) and let it idle for about one minute, in order to ensure the filling up of the engine oil circuit.
- ◆ Check the oil level and top up if necessary, see p. 62 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).



AIR CLEANER

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Check the air cleaner every 7500 km (4687 mi) or 12 months, change it every 15000 km (9375 mi) or more frequently if the vehicle is used on dusty or wet roads.

It is possible to clean the air cleaner partially after using the vehicle on this kind of roads.

⚠ CAUTION

The partial cleaning of the filter does not exclude or postpone the replacement of the filter itself. Do not start the engine if the air cleaner has been removed. Do not clean the filtering element with petrol or solvents, since they may cause a fire in the fuel supply system, with serious danger for the persons in the vicinity and for the vehicle.

DO NOT DISPOSE OF POLLUTING SUBSTANCES OR COMPONENTS IN THE ENVIRONMENT.

- ◆ Every 7500 km (4687 mi), remove the plug (1), empty its content into a container and deliver it to a salvage centre.

REMOVAL

- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)
- ◆ Unscrew and remove the seven screws (2) that fasten the filter case cover (3).
- ◆ Remove the filter case cover (3).
- ◆ Extract the air cleaner (4).
- ◆ Check the conditions of the gasket (5) and change it if it is damaged.

⚠ CAUTION

Plug the opening with a clean cloth, in order to prevent any foreign matter to get into the suction ducts.

Upon reassembly, before positioning the filter case cover (3), make sure that you have not left the cloth or other objects inside the filter case (6).

Make sure that the filtering element is positioned correctly, in such a way as to prevent non-filtered air from entering.

Remember that the untimely wear of the piston segments and the cylinder may be caused by a faulty or incorrectly positioned filtering element.

PARTIAL CLEANING

⚠ CAUTION

Do not press or strike the metal net of the air cleaner (4).

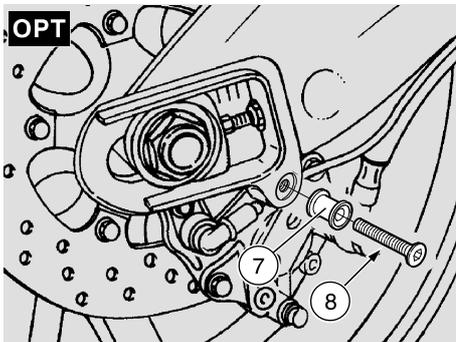
Do not use screwdrivers or alike.

- ◆ Seize the air cleaner (4) vertically and strike it more than once on a clean surface.
- ◆ If necessary, clean the air cleaner (4) with a compressed air jet (directing it from the inside towards the outside of the filter).

⚠ CAUTION

When cleaning the filtering element, make sure that there are no tears. Otherwise, change the filtering element.

- ◆ Clean the outer part of the air cleaner (4) with a clean cloth.



CHANGING

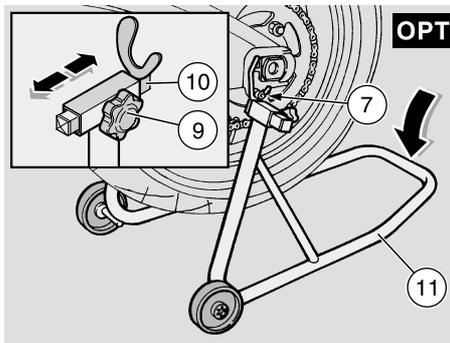
⚠ CAUTION

Do not use filters that have already been used.

- ◆ Replace the air cleaner (4) with a new one of the same type.

ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND OPT

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ ★ Position the pin (7) on the appropriate seat on the rear fork.
- ◆ ★ Screw and tighten the screw (8) in the appropriate threaded hole in the rear fork.

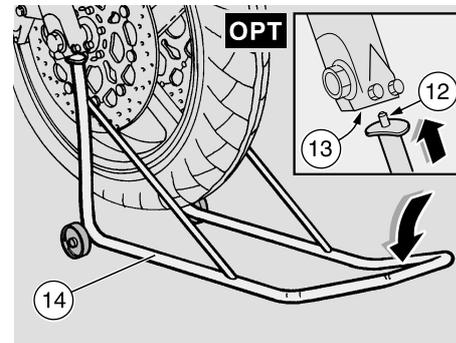


POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND OPT

- ◆ Assemble the two pins (7), see p. 67 (ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND m).

NOTE Have someone help you keep the vehicle in vertical position with the two wheels on the ground.

- ◆ ★ Loosen the knob (9).
- ◆ ★ Move the fork support (10), positioning it so that the width corresponds to the distance between the two pins (7) on the rear fork.
- ◆ ★ Tighten the knob (9).
- ◆ At the same time introduce the two fork-shaped seats (10) of the stand (11) under the two pins (7) provided on the vehicle.
- ◆ Rest one foot on the rear part of the stand (11).
- ◆ Push the stand (11) downwards until it reaches the end of its stroke.



⚠ CAUTION

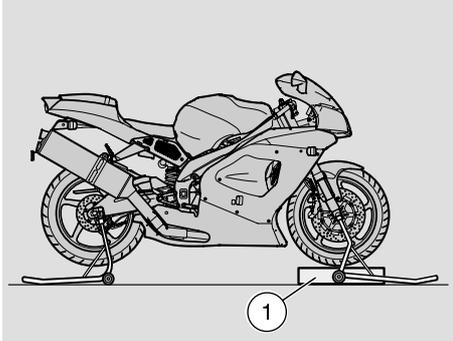
Make sure that the vehicle is stable.

POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND OPT

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND m).
- ◆ Insert the two ends of the stand (12) in the two holes (13) positioned on the lower ends of the front fork.
- ◆ Rest one foot on the front part of the stand (14).
- ◆ Push the stand (14) downwards until it reaches the end of its stroke.

⚠ CAUTION

Make sure that the vehicle is stable.



FRONT WHEEL

⚠ CAUTION

The disassembly and reassembly of the front wheel may be difficult for unskilled operators.

If necessary, contact your **aprilia** Official Dealer.

If you want to perform these operations personally, keep to the following instructions.

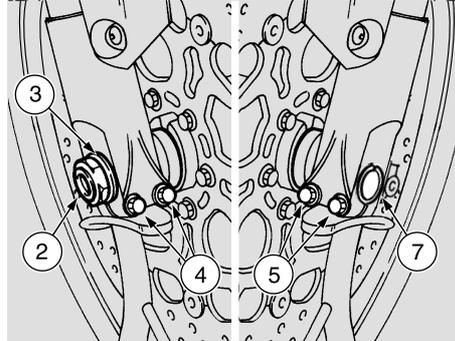
Carefully read p. 59 (MAINTENANCE).

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

⚠ WARNING

Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

Check the conditions of the wheel rim and change it if it is damaged.



DISASSEMBLY

- ◆ Remove the front brake calipers, see p. 70 (FRONT BRAKE CALIPERS).
- ◆ Put a support (1) under the tyre, in such a way as to keep the wheel in its position after loosening it.

⚠ CAUTION

Make sure that the vehicle is stable.

- ◆ Have someone keep the handlebar steady in running position, so that the steering is locked.

Wheel nut (2) driving torque: 80 Nm (8 kgm).

- ◆ Loosen and remove the wheel nut (2), taking the washer (3).

Wheel pin clamp screw driving torque: 22 Nm (2.2 kgm).

- ◆ Partially unscrew the two wheel pin clamp screws (4) (right side).

- ◆ Partially unscrew the two wheel pin clamp screws (5) (left side).

NOTE Check the position of the spacer ring (6) (right side), in order to be able to reinstall it correctly.

NOTE To facilitate the extraction of the wheel pin, slightly raise the wheel.

- ◆ Push the wheel pin (7), by carefully acting on the threaded end and using a rubber hammer if necessary.
- ◆ Support the front wheel and manually withdraw the wheel pin (7).
- ◆ Remove the wheel by withdrawing it from the front.

⚠ CAUTION

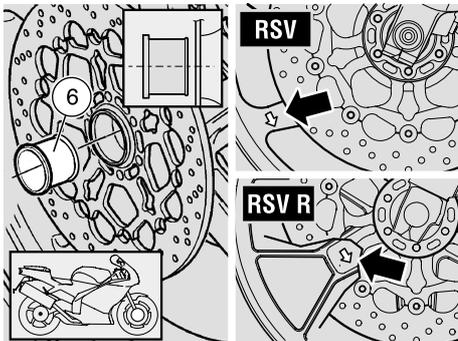
The spacer ring (6) remains in its seat on the wheel; if it comes off, reposition it correctly (see REASSEMBLY).

REASSEMBLY

- ◆ Spread a film of lubricating grease on the whole length of the wheel pin (7), see p. 113 (LUBRICANT CHART).

⚠ CAUTION

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



NOTE Eseguire l'operazione che segue, solo se il distanziale (6) è fuoriuscito dalla sede.

- ◆ Insert the spacer ring (6) with its longer diameter towards the outside of the vehicle.

⚠ CAUTION

The arrow on the wheel side indicates the rotation direction.

Upon reassembly, make sure that the wheel is positioned correctly: the arrow must be visible on the left side of the vehicle.

- ◆ Position the wheel between the fork rods on the support (1).

⚠ WARNING

Danger of injury. Do not introduce your fingers to align the holes.

- ◆ Move the wheel until its central hole and

the holes on the fork are aligned.

- ◆ Introduce the wheel pin (7) completely from the left side.

NOTE Make sure that the wheel pin (7) is completely inserted.

- ◆ Position the washer (3) and tighten the wheel nut (2) manually.

NOTE In this phase, for the temporary tightening of the two wheel pin clamp screws (5) (left side), the driving torque value need not be respected.

- ◆ Screw the two wheel pin clamp screws (5) (left side) and tighten them as much as necessary to lock the rotation of the wheel pin (7).
- ◆ Tighten the wheel nut (2) completely.

Wheel nut (2) driving torque: 80 Nm (8 kgm).

- ◆ Tighten the two wheel pin clamp screws (4) (right side).

Wheel pin clamp screw driving torque: 22 Nm (2.2 kgm).

- ◆ Loosen the two wheel pin clamp screws (5) (left side).
- ◆ Put back the front brake calipers, see p. 70 (FRONT BRAKE CALIPERS).
- ◆ With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. In this way the fork rods will settle properly.

- ◆ Position the vehicle on the side stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

- ◆ Tighten the two screws (5) of the wheel pin clamp (left side).

Wheel pin clamp screw driving torque (5): 22 Nm (2.2 kgm)

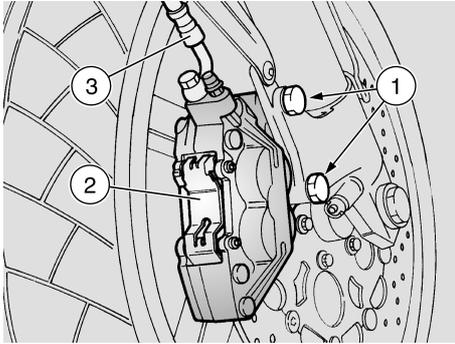
- ◆ Make sure that the following components are not dirty:
 - tyre;
 - wheel;
 - brake discs.

⚠ WARNING

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

Check the wheel centering.

Have the driving torques, centering and balancing of the wheel checked by your **aprilia Official Dealer, in order to avoid accidents that may be harmful for you and/or other people.**



FRONT BRAKE CALIPERS

Carefully read p. 59 (MAINTENANCE).

⚠ WARNING

A dirty disc soils the pads, with consequent reduction of the braking efficiency. Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.

⚠ CAUTION

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

NOTE To remove the front brake calipers, it is necessary to use the appropriate front **OPT** and rear support stands **OPT**.

DISASSEMBLY

◆ Position the vehicle on the appropriate front support stand, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

⚠ CAUTION

Make sure that the vehicle is stable.

- ◆ Manually rotate the wheel, so that the space between two spokes of the rim is in correspondence with the brake caliper.
- ◆ Have someone keep the handlebar steady in running position, so that the steering is locked.

Brake caliper screw driving torque (1): 50 Nm (5 kgm).

- ◆ ✱ Unscrew and remove the two brake caliper screws (1).

⚠ CAUTION

Never pull the brake lever after removing the caliper, otherwise the pistons may go out of their seats, thus causing the outflow of the brake fluid.

In this case consult your **aprilia** Official Dealer, who will carry out the proper maintenance operation.

- ◆ ✱ Withdraw the brake caliper (2) from the disc, leaving it attached to the pipe (3).

Work on the second brake caliper:

- ◆ Repeat the operations marked with ✱.

REASSEMBLY

⚠ CAUTION

Proceed with care, in order not to damage the brake pads.

- ◆ ✕ Insert the brake caliper (2) on the disc and position it so that its fastening holes and the holes on the support are aligned.

⚠ WARNING

Upon reassembly of the brake caliper, replace the caliper fastening screws (1) with two new screws of the same type.

- ◆ ✕ Screw and tighten the two screws (1) that fasten the brake caliper.

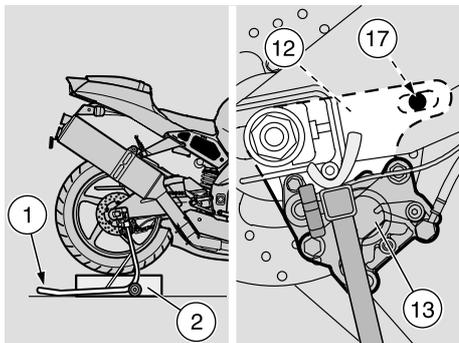
Brake caliper screw driving torque: 50 Nm (5 kgm).

Work on the second brake caliper:

- ◆ Repeat the operations marked with ✕.
- ◆ Remove the front support stand **OPT**, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

⚠ CAUTION

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



REAR WHEEL

⚠ CAUTION

The disassembly and reassembly of the rear wheel may be difficult for unskilled operators.

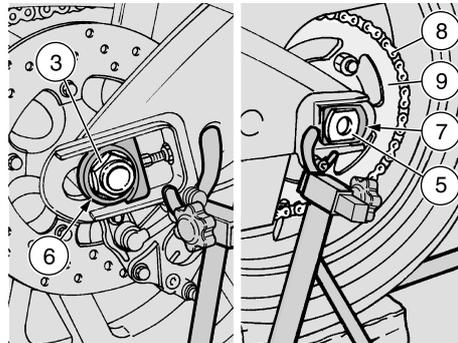
If necessary, contact your **aprilia** Official Dealer.

If you want to perform these operations personally, keep to the following instructions.

Carefully read p. 59 (MAINTENANCE).

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

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



⚠ WARNING

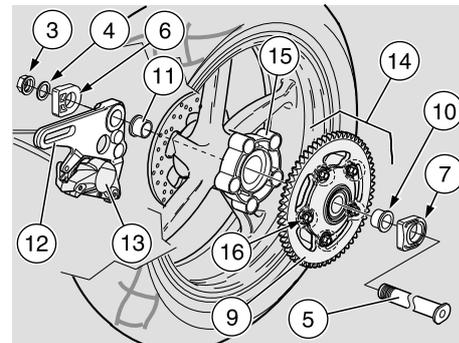
Riding with damaged rims may be dangerous for the rider, other persons and the vehicle.

Check the conditions of the wheel rim and change it if it is damaged.

NOTE To remove the rear wheel it is necessary to use the appropriate rear support stand **OPT.**

DISASSEMBLY

- ◆ Position the vehicle on the appropriate rear support stand (1), see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Put a support (2) under the tyre, in such a way as to keep the wheel in its position after loosening it.



Wheel nut (3) driving torque: 120 Nm (12 kgm).

- ◆ Loosen and remove the wheel nut (3), taking the washer (4).

NOTE To facilitate the extraction of the wheel, slightly raise the wheel.

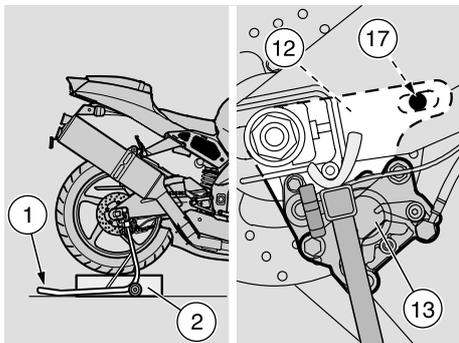
- ◆ Withdraw the wheel pin (5) from the left side.

NOTE Check the arrangement of the right (6) and left (7) chain tighteners, in order to be able to reassemble them correctly.

- ◆ Take the right (6) and left (7) chain tighteners.

NOTE Lower the drive chain (8) outside the crown gear (9).

- ◆ Make the wheel advance and release the drive chain (8) from the crown gear (9).
- ◆ Withdraw the wheel from the rear fork



from behind, carefully withdrawing the disc from the brake caliper.

CAUTION

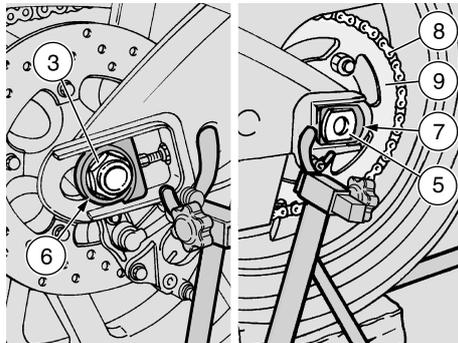
Do not operate the rear brake lever after removing the wheel, since the pins may go out of their seats and cause brake fluid leakages. In this case consult your **aprilia Official Dealer, who will carry out the proper maintenance operation.**

CAUTION

The left (10) and right spacer rings (11) remain positioned in the respective seats on the wheel; if they should come off, reposition them correctly (see RE-ASSEMBLY).

NOTE The support plate (12) of the brake caliper (13) remains positioned on the right side of the rear fork.

Proceed with care. If the final drive unit (14) is installed on the flexible coupling

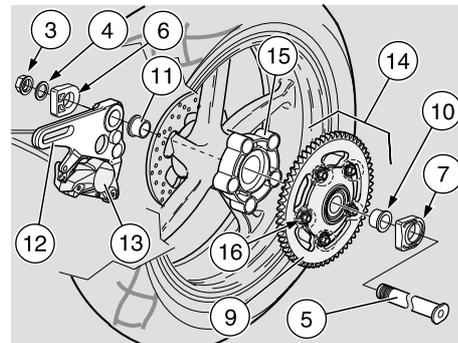


holder (15), do not overturn or rotate the rear wheel in horizontal position on the rear sprocket side (A), since the final drive unit would come off and fall down, with the risk of damaging the rear sprocket (9).

NOTE The removal of the final drive unit isn't necessary if the wheel is in the normal running position (vertical) or in horizontal position with the rear sprocket facing upwards and in both cases secured against overturning.

NOTE Do not unscrew the five nuts (16). The whole final drive unit must be withdrawn from the flexible coupling holder.

- ◆ Working (B) with both hands on the outer diameter of the sprocket (9), withdraw the final drive unit parallel to the wheel axis.



REASSEMBLY

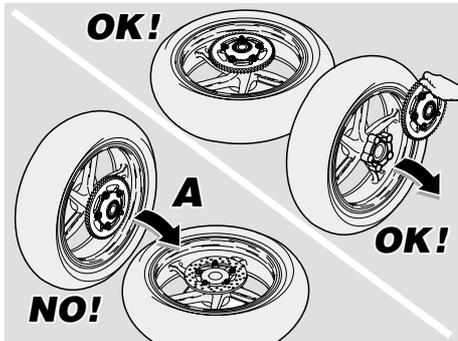
If the final drive unit (14) has been removed:

NOTE Introduce the final drive unit, parallel to the wheel axis, inserting the flexible coupling rubber elements in the corresponding seats on the flexible coupling holder (15).

- ◆ Working (C) with both hands on the outer diameter of the sprocket (9), insert the final drive unit in the flexible coupling holder (15).

NOTE Perform the operation described below only if the left (10) and/or the right spacer ring (11) have come off their seats.

- ◆ Insert the left (10) and/or the right spacer ring (11) in the respective seats, with the longer diameter towards the outside of the vehicle.



⚠ CAUTION

Before proceeding with the reassembly, make sure that support plate (12) of the brake caliper (13) is positioned correctly; the plate slot must be inserted in the appropriate stop pin (17) in the inner part of the rear fork right rod.

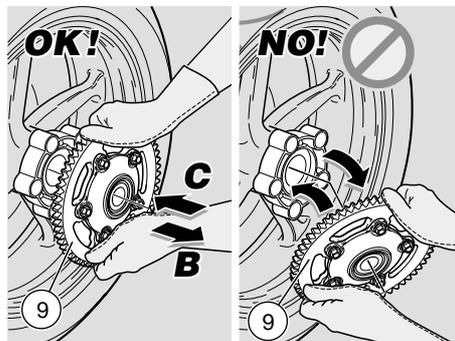
Insert the disc in the brake caliper carefully.

- ◆ Position the wheel between the rear fork rods on the support (2).

⚠ WARNING

Do not introduce your fingers between the chain and the crown gear.

- ◆ Make the wheel advance and position the drive chain (8) on the crown gear (9).
- ◆ Correctly insert the right (6) and left (7) chain tighteners in their seats on the fork.
- ◆ Uniformly apply a moderate quantity of



grease on the wheel pin (5), see p. 113 (LUBRICANT CHART).

⚠ WARNING

Danger of injury.

Do not introduce your fingers to align the holes.

- ◆ Move the wheel backwards, until its central hole and the holes on the rear fork are aligned.
- ◆ Rotate the support plate (12), complete with brake caliper (13) and with fulcrum on the stop pin (17), until it is aligned with the holes.
- ◆ Introduce the wheel pin (5) completely from the left side.

NOTE Make sure that the wheel pin (5) is completely inserted, with the head in the relevant seat on the left chain tightener (7).

- ◆ Position the washer and tighten the wheel nut (3) manually.

- ◆ Check the chain tension, see p. 74 (DRIVE CHAIN).

- ◆ Tighten the wheel nut (3).

Wheel nut (3) driving torque: 120 Nm (12 kgm).

- ◆ Make sure that the following components are not dirty:

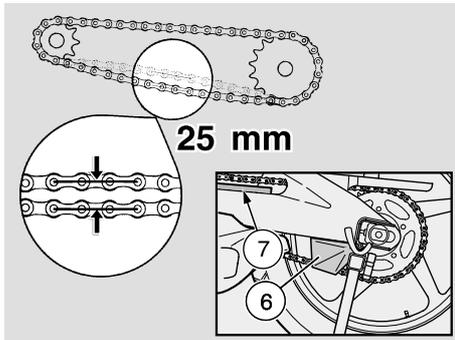
- tyre;
- wheel;
- brake discs.

⚠ CAUTION

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

Check the wheel centering.

Have the driving torques, centering and balancing of the wheel checked by your **aprilia** Official Dealer, in order to avoid accidents that may be harmful for you and/or other people.



DRIVE CHAIN

Carefully read p. 59 (MAINTENANCE).

The vehicle is equipped with an endless chain, in which a ring link joint is not used.

⚠ CAUTION

An excessive slackening of the chain may cause noise or make the chain rattle, with consequent wear of the shoe and of the chain guide plate.

Periodically check the slack and adjust it if necessary, see p. 74 (ADJUSTMENT). To change the chain, contact an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

Incorrect maintenance may cause the untimely wear of the chain and/or damages to the pinion and/or the crown.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

CHECKING THE SLACK

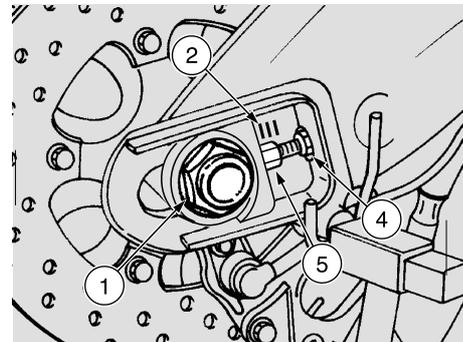
To check the slack, proceed as follows:

- ◆ Stop the engine.
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Position the shifting lever in neutral.
- ◆ Make sure that the vertical oscillation, in an intermediate point between pinion and crown in the lower part of the chain, is about **25 mm**.
- ◆ Move the vehicle forwards, or turn the wheel, in order to be able to check the vertical oscillation of the chain even when the wheel turns; the slack must be constant in all the rotation phases of the wheel.

⚠ CAUTION

If in some positions the slack is higher than in others, this means that there are crushed or seized links; in this case, contact an **aprilia** Official Dealer. To prevent the risk of seizures, lubricate the chain frequently, see p. 75 (CLEANING AND LUBRICATION).

If the slack is uniform, but higher or lower than **25 mm**, adjust it, see p. 74 (ADJUSTMENT).



ADJUSTMENT

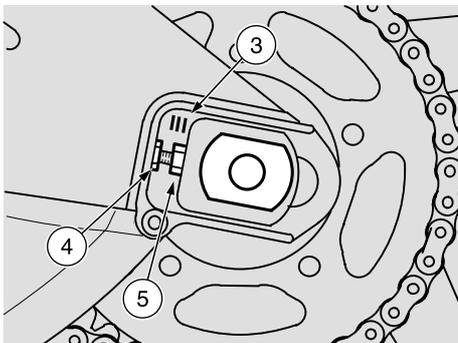
NOTE To adjust the chain it is necessary to use the appropriate rear support stand **OPT.**

If after the check it is necessary to adjust the chain tension, proceed as follows:

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Loosen the nut (1) completely.

NOTE For the wheel centering fixed reference marks (2-3) are provided, which can be seen inside the chain tightener seats on the rear fork arms, before the wheel pin.

- ◆ Loosen the two lock nuts (4).
- ◆ Act on the adjusters (5) and adjust the chain slack, making sure that the reference marks (2-3) are correctly positioned on both sides of the vehicle.



- ◆ Tighten the two lock nuts (4).
- ◆ Tighten the nut (1).

Wheel nut (1) driving torque: 120 Nm (12 kgm).

- ◆ Check the chain slack, see p. 74 (CHECKING THE SLACK).

CHECKING THE DRIVING CHAIN, PINION AND SPROCKET WEAR

Further, check the following parts every 7500 km (4687 mi) and make sure that chain, pinion and crown do not present:

- damaged rollers;
- loose pins;
- dry, rusty, crushed or seized links;
- excessive wear;
- lacking O rings;
- sprocket or teeth excessively worn or damaged.

⚠ CAUTION

If the chain rollers are damaged, the pins are loose and/or the O rings are damaged or lacking, it is necessary to change the whole chain unit (both sprockets and chain).

Lubricate the chain frequently, especially if there are dry or rusty parts.

The crushed or seized links must be lubricated and made work again.

If this is not possible, contact an Aprilia Official Dealer, who will provide for changing the chain.

- ◆ Check the wear of the chain plastic guide (6).
- ◆ Finally, check the wear of the rear fork protection shoe (7).

CLEANING AND LUBRICATION

⚠ CAUTION

The drive chain is provided with O rings among the links, in order to keep the grease inside them.

Carry out the adjustment, lubrication, cleaning and change of the chain with great care.

Never wash the chain with water jets, steam jets, high-pressure water jets and highly inflammable solvents.

- ◆ Wash the chain with naphtha or kerosene. If it tends to rust quickly, intensify the maintenance intervals.

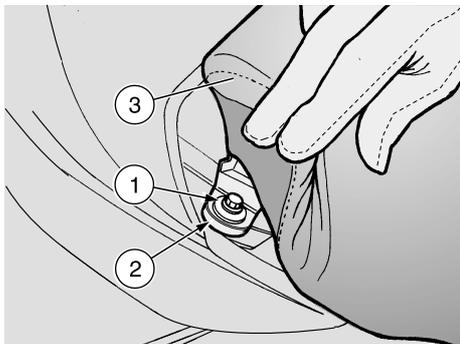
Lubricate the chain every 1000 km (625 mi) or whenever necessary.

- ◆ After washing the chain and letting it dry, lubricate it with spray grease for chains provided with sealing rings, see p. 113 (LUBRICANT CHART).

⚠ CAUTION

The lubricants for chains available on the market may contain substances that are dangerous for the rubber sealing rings of the chain.

NOTE Do not use the vehicle soon after lubricating the chain, since due to the centrifugal force the lubricant would be sprayed outwards and dirty the surrounding areas.



REMOVING THE RIDER SADDLE

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ ★ Partially raise the rear side edge of the saddle.
- ◆ ★ Unscrew and remove the screw (1) and take the bushing (2).

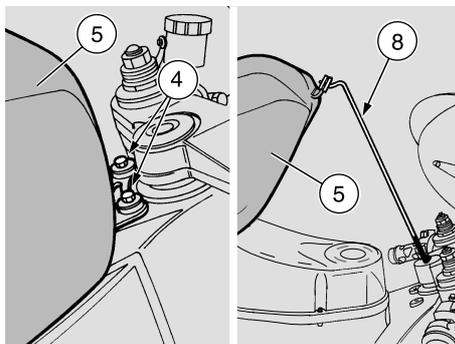
Screw (1) driving torque: 12 Nm (1.2 kgm).

- ◆ Raise and remove the saddle (3).

NOTE Upon reassembly, insert the front tang of the saddle in the appropriate seat.

⚠ CAUTION

Before leaving, make sure that the saddle (3) is properly positioned and locked.



LIFTING THE FUEL TANK

Carefully read p. 33 (FUEL) and p. 59 (MAINTENANCE).

⚠ WARNING

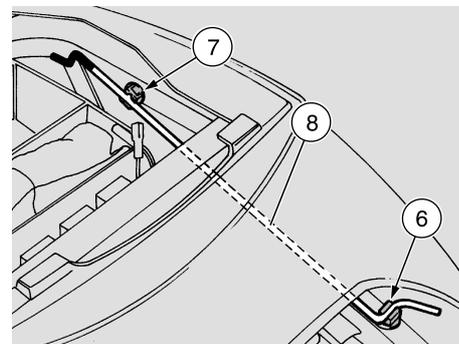
Risk of fire.
Wait until the engine and the exhaust silencer have completely cooled down.

Fuel vapours are noxious for your health.

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

Do not inhale fuel vapours.
Do not smoke and do not use naked flames.

DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.



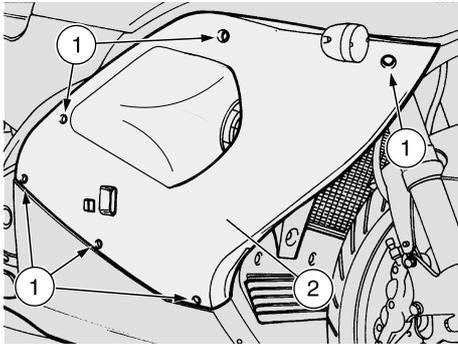
- ◆ **RSV** Remove the passenger seat (or the glove/tool kit compartment cover **OPT**), see p. 29 (UNLOCKING/LOCKING THE PASSENGER SEAT W).

- ◆ **RSV R** Remove the glove/tool kit compartment cover, see p. 30 (UNLOCKING/LOCKING THE GLOVE/TOOL KIT COMPARTMENT COVER w).

- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Unscrew and remove the two screws (4) that fasten the front part of the fuel tank (5).
- ◆ Remove the fuel tank support rod (8) from the relevant anchorage seats (6-7).

NOTE The rubber-covered end of the rod (8) must be introduced in the central hole of the steering pin.

- ◆ Lift the front part of the fuel tank (5) and introduce the rod (8) as indicated in the figure.



REMOVING THE SIDE FAIRINGS

Carefully read p. 59 (MAINTENANCE).

⚠ WARNING

Wait until the engine and the exhaust silencer have completely cooled down.

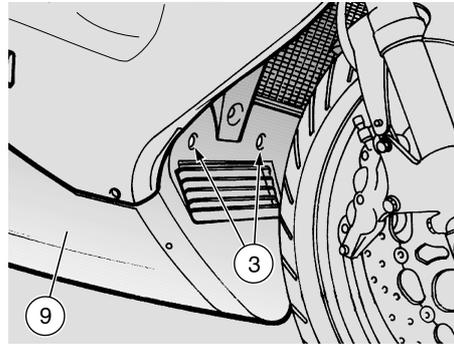
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Rotate the six rapid fastening screws (1) by giving them 1/4 turn anticlockwise.

⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the side fairing (2).

NOTE Repeat these operations to remove the other side fairing.

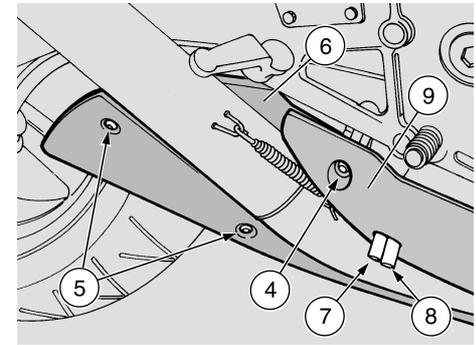


REMOVING THE LOWER FAIRING

Carefully read p. 59 (MAINTENANCE).

NOTE To remove the lower fairing, it is necessary to use the appropriate rear support stand **OPT**.

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Remove the two side fairings, see p. 77 (REMOVING THE SIDE FAIRINGS).
- ◆ Unscrew and remove the two front screws (3).
- ◆ ★ Unscrew and remove the rear screw (4).
- ◆ Unscrew and remove the two screws (5) of the rear right profile (6) (inside the exhaust silencer).



⚠ CAUTION

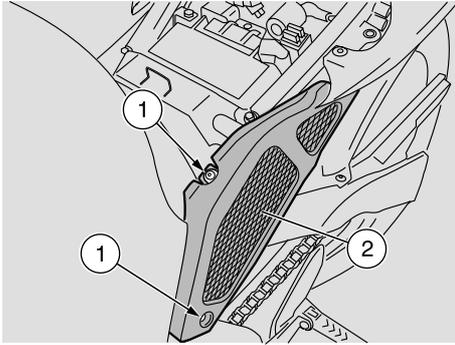
Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Let the side stand down.
- ◆ Withdraw the two pipes (7-8) from the hole provided on the fairing.
- ◆ Remove the entire lower fairing (9) by lowering it and with small movements try to find the best position to withdraw it from the side stand.

NOTE Upon reassembly, introduce the two pipes (7-8) in the hole provided on the fairing.

- ◆ Take the rear right profile (6).

NOTE Upon reassembly, the upper part of the profile (6) must be fitted between the lower fairing (9) and the support plate.



REMOVING THE SIDE COVERS

- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Unscrew and remove the two screws (1).

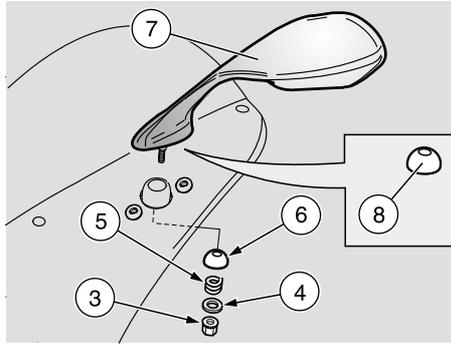
⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the side cover (2).

NOTE Upon reassembly, make sure that the rear coupling is positioned correctly.

Repeat these operations to remove the other side cover.



REMOVING THE REAR-VIEW MIRRORS

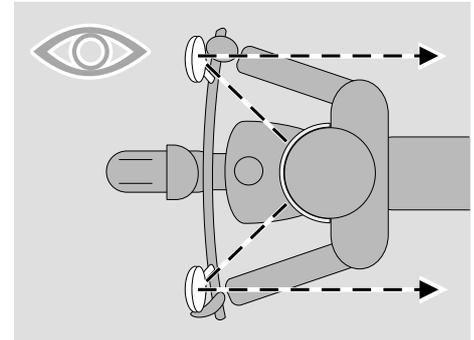
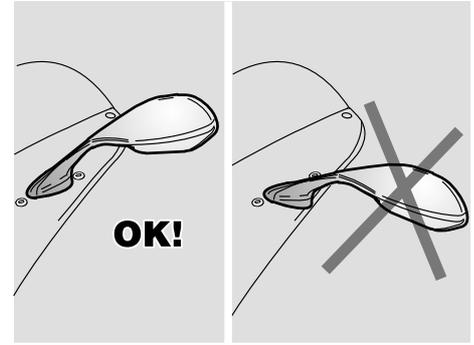
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the nut (3), take the washer (4), the spring (5) and the half sphere (6).

⚠ CAUTION

Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the rear-view mirror (7).
- ◆ If it has gone out of its seat, take the cup (8).

NOTE Repeat these operations to remove the other rear-view mirror.

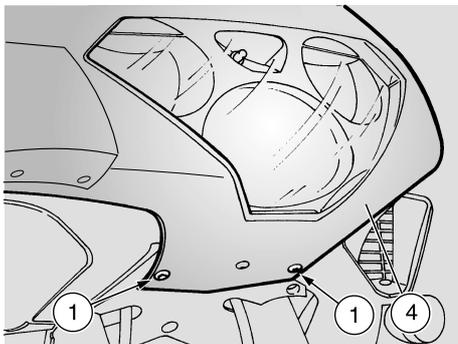


⚠ CAUTION

After reassembly, correctly adjust the rear-view mirrors and tighten the nuts in such a way as to ensure their stability.

After reassembly:

- ◆ Adjust the inclination of the rear-view mirrors correctly.



REMOVING THE FRONT PART OF THE FAIRING

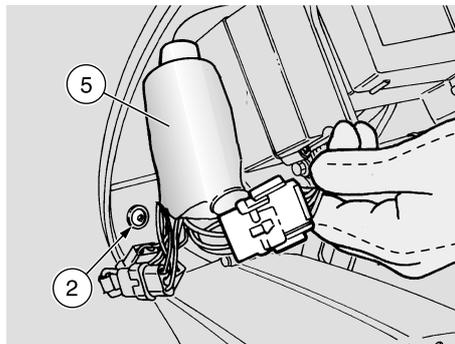
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Turn the ignition switch to position "⊘".
- ◆ Unscrew and remove the two lower screws (1).
- ◆ ★ Unscrew and remove the side screw (2).

⚠ CAUTION

Upon reassembly, tighten the screw (2) moderately, since it is fixed on plastic.

- ◆ ★ Unscrew and remove the two upper screws (3).

NOTE Upon reassembly, rotate the rear-view mirror support so that the fastening holes coincide with those provided on the front part of the fairing.



The whole unit must be correctly positioned on the support.

- ◆ Move the front part of the fairing (4) slightly forward.
- ◆ Raise the protection element (5).
- ◆ Disconnect the electric connector (6) of the headlight.

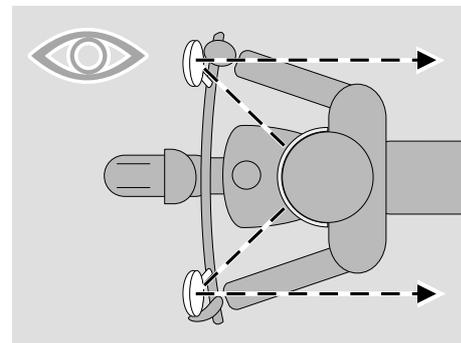
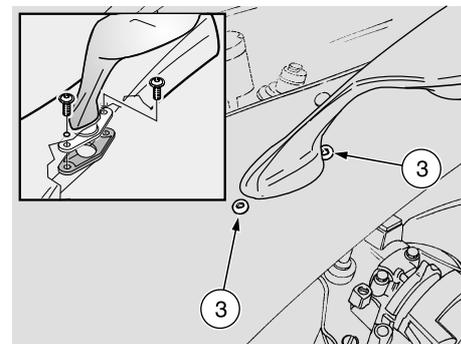
⚠ CAUTION

Upon reassembly, make sure that the electric connector (6) is correctly coupled.

⚠ CAUTION

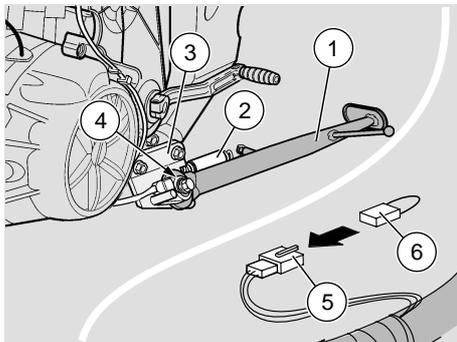
Handle the plastic and painted components with care to avoid scraping or damaging them.

- ◆ Remove the front part of the fairing (4) completely, together with the headlight and the rear-view mirrors.



After reassembly:

- ◆ Adjust the inclination of the rear-view mirrors correctly.



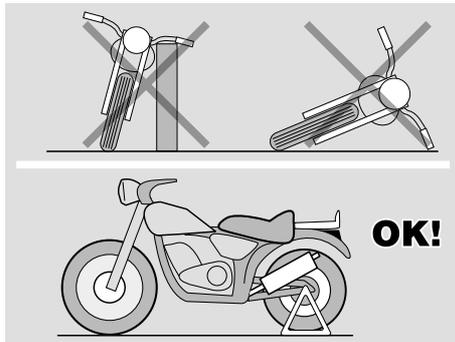
REMOVING THE SIDE STAND

Carefully read p. 59 (MAINTENANCE).

Only when the vehicle must be used on racetracks, it is advisable to remove the stand (1) complete with:

- springs (2);
- support (3);
- safety switch (4).

NOTE The removal of the safety switch (4) disconnects the electric circuit; to restore it, connect the wiring (6) (aprilia part # 8124943), which is available at any aprilia Official Dealer, to the connector (5).



⚠ CAUTION

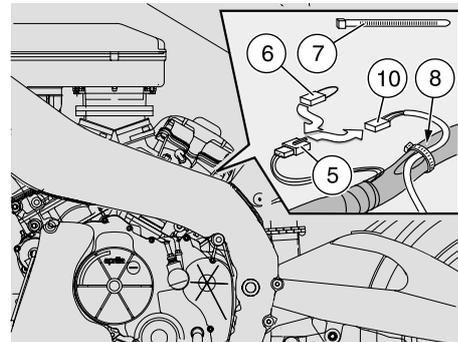
Neither lean the vehicle against walls, nor lay it on the ground.

To park the vehicle without stand (the removal of the stand is allowed only for the use of the vehicle on racetracks), always and exclusively use the rear support stand **OPT**.

⚠ WARNING

It is forbidden to disconnect or remove the safety switch (4) separately from the stand.

The disconnection or removal of the safety switch (4) alone makes it possible to start the vehicle and leave with the stand down, which may result in a fall and in serious injuries to the rider and other people and damage to the vehicle itself.



For the removal, proceed as follows:

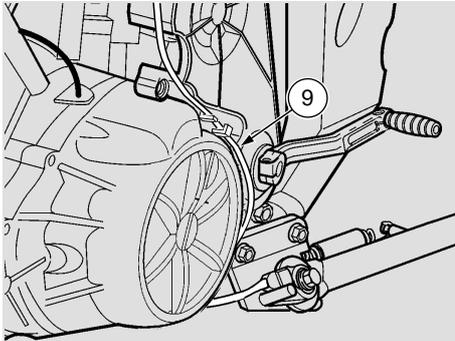
- ◆ Remove the left side cover, see p. 78 (REMOVING THE SIDE COVERS).
- ◆ Remove the lower fairing, see p. 77 (REMOVING THE LOWER FAIRING).
- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)

NOTE Prepare a clamp (7) to be used for the reassembly.

⚠ CAUTION

Do not force cables, pipes, connectors and wires.

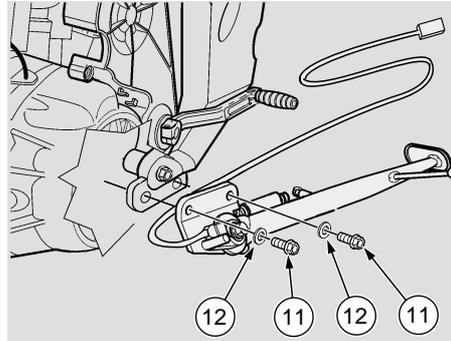
- ◆ Cut the clamp (8) and release the cable (9).
- ◆ Disconnect the electric connector (10) from the connector (5).
- ◆ Connect the wiring (6) (aprilia part # 8124943) [replacing the electric connector (10)].



- ◆ Withdraw the cable (9) completely.
- ◆ Put back the fuel tank, see p. 76 (LIFTING THE FUEL TANK).
- ◆ Put back the left side cover, see p. 78 (REMOVING THE SIDE COVERS).

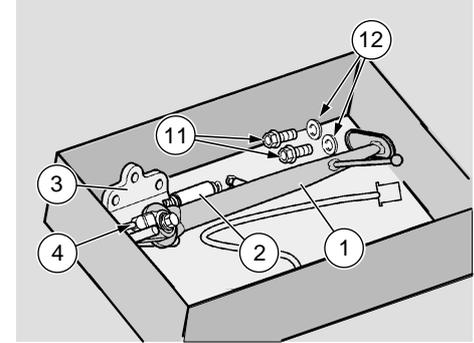
NOTE Support the stand, in order to prevent it from accidentally falling down.

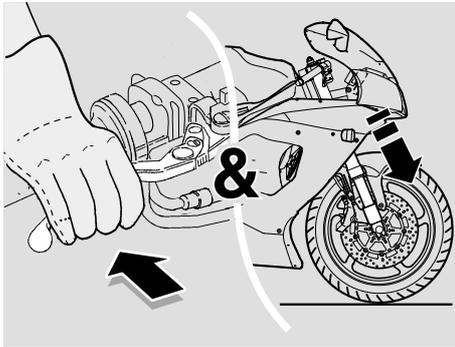
- ◆ Unscrew and remove the screws (11) and take the washers (12).
- ◆ Remove the stand (1) complete with:
 - springs (2);
 - support (3);
 - safety switch (4).



NOTE Store the following components together: complete stand, screws (11) and washers (12), in order to be able to install them correctly when the vehicle must be used on roads.

- ◆ Put back the lower fairing (and the two side fairings), see p.77 (REMOVING THE LOWER FAIRING).





INSPECTING THE FRONT AND REAR SUSPENSIONS

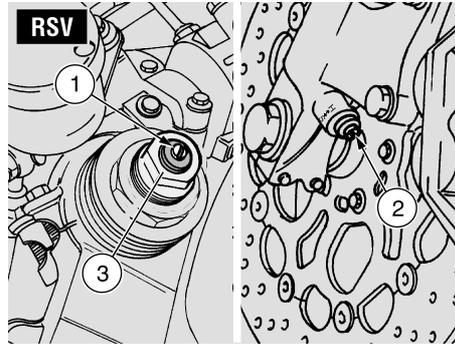
Carefully read p. 59 (MAINTENANCE).

NOTE Have the front fork oil changed by an **aprilia** Official Dealer, who will ensure you prompt and accurate servicing.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Have the front fork oil changed after the first 7500 km (4687 mi) and successively every 22500 km (14000 mi).

With "R" front fork **RSV R** (**RSV OPT**), have the oil changed every 10000 km (6250 mi).

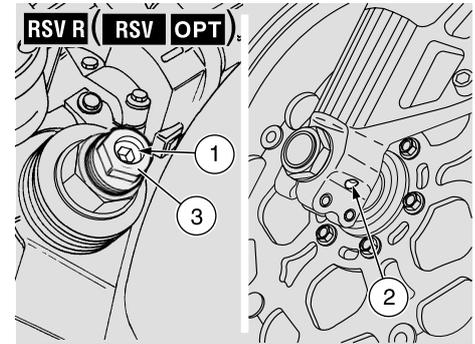


Carry out the following checks after the first 1000 km (625 mi) and successively every 15000 km (9375 mi):

- ◆ With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards. The stroke must be gentle and there must be no trace of oil on the rods.
- ◆ Check the fastening of all the components and the functionality of the front and rear suspension joints.

⚠ CAUTION

If you notice irregularities in the operation or if the help of a qualified technician is necessary, contact your **aprilia Official Dealer.**



FRONT SUSPENSION

Have the fork oil seals changed by a **aprilia** Official Dealer after the first 30000 km (18750 mi) and successively every 22500 km (14000 mi).

The front suspension consists of an hydraulic fork connected to the steering column by means of two plates.

For the setting of the vehicle attitude, each rod of the fork is provided with an upper screw (1) for the adjustment of the hydraulic braking with extended shock absorber, a lower screw (2) for the adjustment of the hydraulic braking with compressed shock absorber and an upper nut (3) for the adjustment of the spring preload.

ADJUSTING THE FRONT FORK

⚠ CAUTION

Do not force the rotation of the adjusters (1-2) beyond the end of stroke in both directions, in order to avoid any

damage. Set the same spring preload and hydraulic braking for both rods: a different setting of the rods decreases the stability of the vehicle while riding. When the spring preload is increased, it is necessary to increase also the hydraulic braking, in order to avoid sudden jerks while riding.

For the adjustment of the fork:

- **RSV** see p. 83 (FORK W);
- **RSV R (RSV OPT)** see p. 84 ["R" FORK w (W m)].

FORK **RSV**

The standard setting of the front fork is such as to satisfy most driving conditions at low and high speed, either with reduced load and full load.

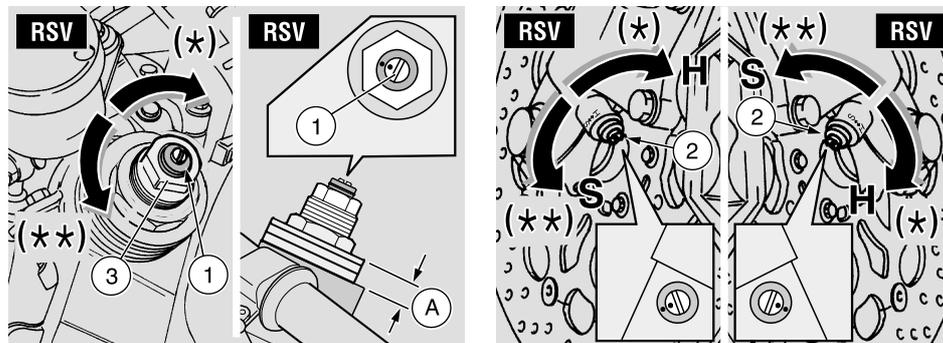
However, it is also possible to adjust the setting according to the intended use of the vehicle.

CAUTION

For the adjustment, always start from the most rigid setting [complete clockwise rotation of the adjusters (1-2)]. Use the notches (1-2) provided on the adjusters as reference marks for the adjustment of the hydraulic braking with compressed and extended shock absorber.

Gradually rotate the adjusters (1-2) giving 1/8 turn per time.

Test the vehicle repeatedly on the road, until obtaining the optimal adjustment.



Front suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Hydraulic adjustment with extended shock absorber, screw (1)	from completely closed (*) open (**) 1.25 turns	from completely closed (*) open (**) 0.5 – 1 turn	from completely closed (*) open (**) 0.5 – 1.5 turns
Hydraulic adjustment with compressed shock absorber, screw (2)	from completely closed (*) (H) open (**) (S) 1 turns	from completely closed (*) (H) open (**) (S) 0.5 – 1 turn	from completely closed (*) open (**) 0.5 – 2 turns
Spring preload, nut (3)	from completely closed (*) open (**) 4 – 5 reference notches		from completely closed (*) open (**) 3 – 5 reference notches
Protrusion of the rods (A) (***) from the upper plate (plug excluded)		3 reference notches	2 – 4 reference notches

(*) = clockwise

(**) = anticlockwise

(***) = Have this type of adjustment carried out exclusively by an **aprilia** Official Dealer

“R” FORK **RSV R** (**RSV** **OPT**)

The standard setting of the front fork is adjusted in such a way as to be suitable for racetrack riding.

However, it is possible to adjust the setting according to how the vehicle is going to be used.

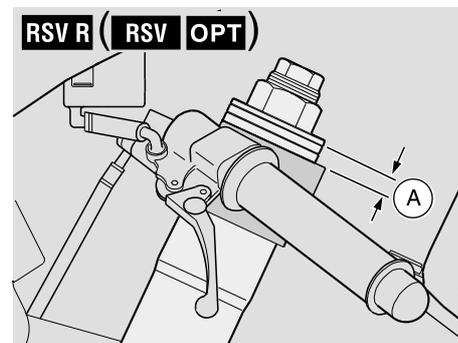
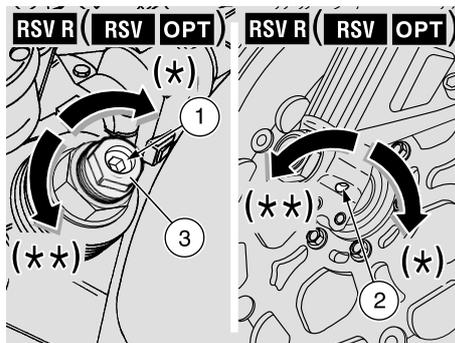
⚠ CAUTION

To calculate the number of clicks of the adjusters (1-2), always start from the most rigid setting (complete clockwise rotation of the adjuster).

Use the adjusters (1-2) as reference point for the adjustment of the hydraulic braking with compressed and extended shock absorber (1-2).

Give the adjusters (1-2) one notch at a time.

Test the vehicle repeatedly on the road, until obtaining the optimal adjustment.

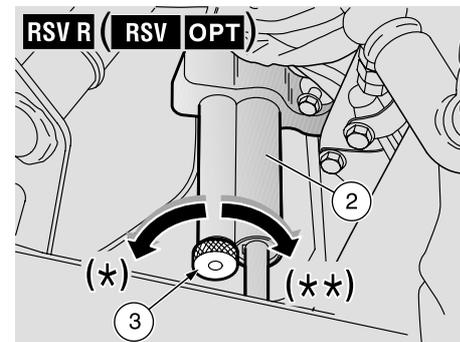
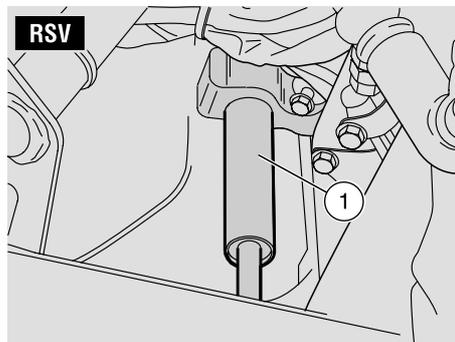
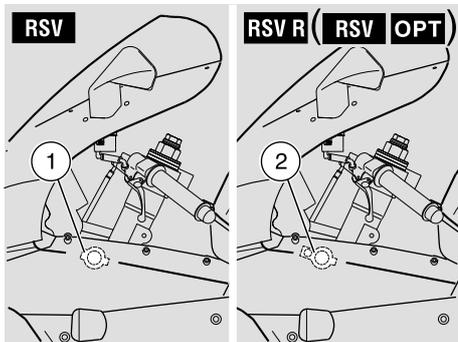


Front suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Hydraulic adjustment with extended shock absorber, screw (1)	from completely closed (*) unscrew (**)	from completely closed (*) unscrew (**)	from completely closed (*) unscrew (**) 6 – 15 clicks
Hydraulic adjustment with compressed shock absorber, screw (2)	12 clicks	8 – 10 clicks	from completely closed (*) unscrew (**) 5 – 16 clicks
Spring preload, nut (3)	from completely open (**) screw (*) 8 turns	from completely open (**) screw (*) 6 – 9 turns	from completely open (**) screw (*) 5 – 10 turns
Protrusion of the rods (A) (***) from the upper plate (plug excluded)	4 reference notches		2 – 5 reference notches

(*) = clockwise

(**) = anticlockwise

(***) = Have this type of adjustment carried out exclusively by an **aprilia** Official Dealer



STEERING DAMPER

RSV non-adjustable shock absorber (1).

RSV R (RSV OPT) adjustable shock absorber (2).

RSV R (RSV OPT)

The steering damper (2) is provided with a knob (3) for the adjustment of the hydraulic braking (see table).

For the adjustment, proceed as follows:

- ◆ Rotate the handlebar completely left-wards.

⚠ CAUTION

For the adjustment, always start from the most rigid setting (complete anticlockwise rotation of the knob).

- ◆ Act on the knob (3) to adjust the hydraulic braking (see table).

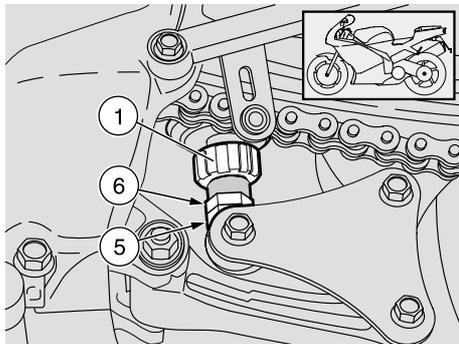
Adjustable steering damper RSV R (RSV OPT)	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Adjustment	from completely closed (**) open (*) 15 clicks		from completely closed (**) open (*) 2 – 17 clicks

(*) = anticlockwise

(**) = clockwise

⚠ CAUTION

Test the vehicle repeatedly on the road, until obtaining the optimal adjustment.

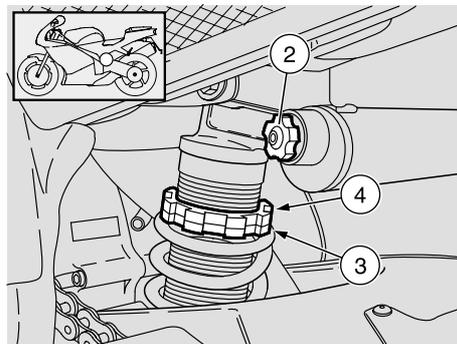


REAR SUSPENSION

The rear suspension consists of a spring-shock absorber unit, fixed to the frame by means of a uni-ball and to the rear fork by means of lever systems.

For the adjustment of the setting, the shock absorber is provided with a ring nut adjuster (1) for the hydraulic braking with extended shock absorber, with a knob adjuster (2) for the hydraulic braking with compressed shock absorber, with a ring nut for the spring preload (3) and with a locking ring nut (4).

NOTE It is possible to adjust the height of the rear part of the vehicle, to personalize the attitude of the vehicle itself.



ADJUSTING THE REAR SHOCK ABSORBER

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Check and if necessary adjust the rear shock absorber every 15000 km (9375 mi).

The standard setting of the rear shock absorber is adjusted in such a way as to be suitable for racetrack riding.

However, it is possible to adjust the setting according to how the vehicle is going to be used.

⚠ CAUTION

To calculate the number of clicks of the adjusters (1-2), always start from the most rigid setting (complete clockwise rotation of the adjuster).

Do not force the rotation of the adjusters (1-2) beyond the end of stroke in both directions, in order to avoid any damage.

- ◆ Unscrew the lock metal ring (4) by means of the appropriate spanner.
- ◆ Adjust the preload of the spring (B) through the adjusting ring nut (3) (see table).
- ◆ After the adjustment, tighten the metal ring (4).
- ◆ Adjust the metal ring (1) to adjust the hydraulic braking with extended shock absorber (see table).
- ◆ Adjust the knob (2) to adjust the hydraulic braking with compressed shock absorber (see table).

To vary the attitude of the vehicle, proceed as follows:

- ◆ Moderately loosen the lock nut (5).
- ◆ Adjust the shock absorber length (distance between centres) (6) through the adjuster (A) (see table).

⚠ CAUTION

The lock nut (5) must be tightened with the indicated driving torque.

- ◆ After the adjustment, tighten the lock nut (5).

Driving torque lock nut (5): 40 Nm (4 kgm).

⚠ CAUTION

Adjust the spring preload and the hydraulic braking with extended shock absorber according to the conditions of use of the vehicle.

When the spring preload is increased, it is necessary to increase also the hydraulic braking with extended shock absorber, in order to avoid sudden jerks while riding.

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

Test the vehicle repeatedly on the road, until obtaining the optimal adjustment.

⚠ CAUTION

RSV To avoid affecting the operation of the shock absorber, neither remove the plug (7), nor adjust the underlying valve, since this may cause nitrogen to flow out, with consequent risk of accidents.

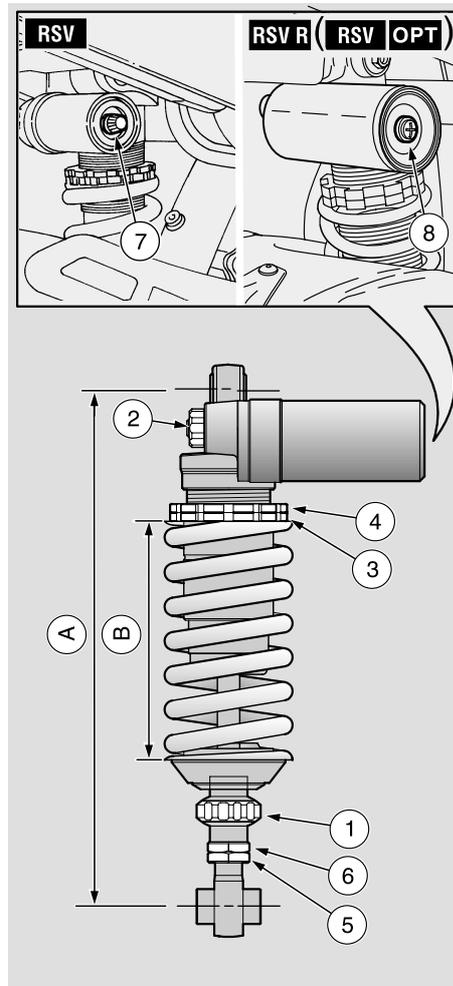
⚠ CAUTION

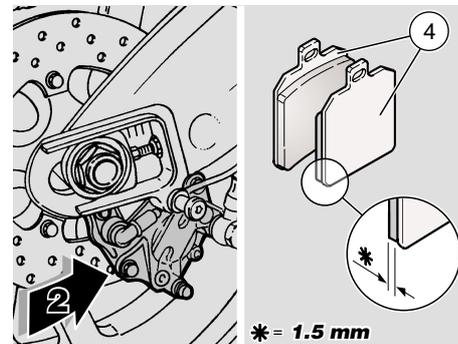
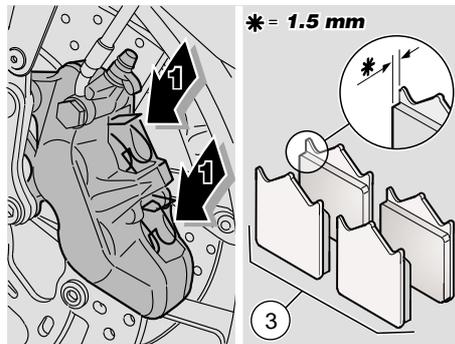
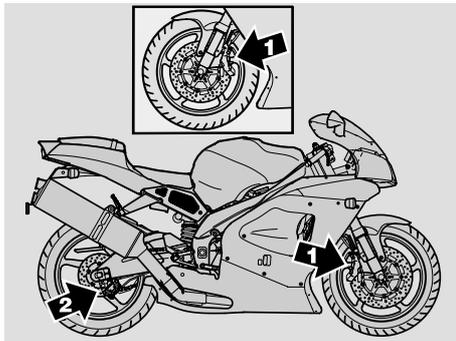
RSV R (RSV OPT) In order to avoid compromising the operation of the shock absorber, neither loosen the screw (8), nor work on the underlying membrane, since this may cause an emission of nitrogen; risk of accident.

Rear suspension	Standard adjustment	Adjustment for racetrack use	Possible adjustments
Shock absorber distance between centers (A)	321 ±1.5 mm	from 321 to 323 mm	from 319 to 323 mm
Spring length (preloaded) (B)	147 mm	145 mm	from 143 to 149 mm
Adjustment with extended shock absorber, metal ring (1)	from completely closed (*) open (**) 20 clicks	from completely closed (*) open (**): - RSV 12 – 16 clicks - RSV R 13 – 16 clicks	from completely closed (*) open (**) 10 – 20 clicks
Adjustment with compressed shock absorber, knob (2)	from completely closed (*) open (**) 12 clicks	from completely closed (*) open (**) 8 – 14 clicks	from completely closed (*) open (**) 5 – 15 clicks

(*) = clockwise

(**) = anticlockwise





CHECKING THE BRAKE PAD WEAR

Carefully read p. 34 (BRAKE FLUID - recommendations), p. 35 (DISC BRAKES) and p. 59 (MAINTENANCE).

NOTE The following information refer to a single braking system, but are valid for both.

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Check the brake pad wear after the first 1000 km (625 mi) and successively every 2000 km (1250 mi) and before every trip.

The wear of the disc brake pads depends on the use, on the kind of drive and on the road.

⚠ WARNING

Check the wear of the brake pads, especially before every trip.

To carry out a rapid checking of the wear of the pads, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

NOTE Both front brake calipers (right and left) are provided with four brake pads. The rear brake caliper is provided with two brake pads.

- ◆ Carry out a visual check between the disc and the pads, proceeding:
 - from above, on the rear part, for the front brake calipers (1);
 - from below, on the rear part, for the rear brake caliper (2).

⚠ WARNING

The excessive wear of the friction mate-

rial would cause the contact of the pad metal support with the disc, with consequent metallic noise and production of sparks from the caliper; braking efficiency, safety and soundness of the disc would thus be negatively affected.

If the thickness of the friction material [even of one front (3) or rear pad (4) only] has reduced to about **1 mm** (or even if only one of the wear indicators is not visible any longer):

- **for the front brake calipers** (right and left), have all pads of both calipers changed.
- **for the rear brake caliper**, have both pads of the caliper changed.

⚠ WARNING

Have the pads changed by your **aprilia** Official Dealer.

ADJUSTING THE COLD START CONTROL (N)

⚠ CAUTION

The operations necessary to adjust the cold start control “N” require specific skills and therefore should be carried out by an **aprilia** Official Dealer.

IDLING ADJUSTMENT

Carefully read p. 59 (MAINTENANCE).

Adjust the idling every time it is irregular.

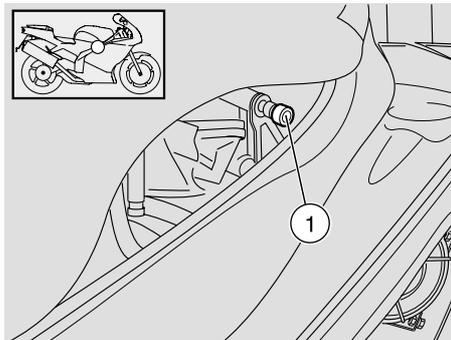
To carry out this operation, proceed as follows:

- ◆ Ride for a few miles until reaching the normal running temperature, see p. 19 (Coolant temperature “ \overline{E} ”).
- ◆ Position the gear lever in neutral (green warning light “N” on).
- ◆ Check the engine idling rpm on the revolution counter.

The engine idling speed must be about 1250 ± 100 rpm.

If necessary, proceed as follows:

- ◆ Turn the adjusting knob (1).
 - BY SCREWING IT (clockwise), you increase the rpm;
 - BY UNSCREWING IT (anticlockwise), you decrease the rpm;
- ◆ Twist the throttle grip, accelerating and decelerating a few times to make sure that it functions correctly and to check if the idling speed is constant.



NOTE If necessary, contact your **aprilia** Official Dealer.

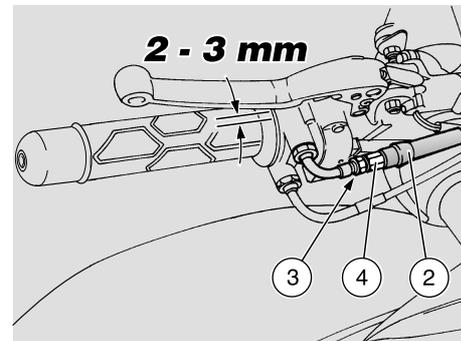
ADJUSTING THE ACCELERATOR CONTROL

Carefully read p. 59 (MAINTENANCE).

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

Have the accelerator control cables checked by an **aprilia** Official Dealer after the first 1000 km (625 mi) and successively every 7500 km (4687 mi).

The idle stroke of the throttle grip must be **2–3 mm**, measured on the edge of the grip itself.

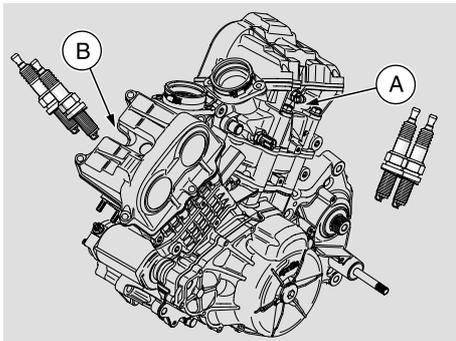


If not, proceed as follows:

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection element (2).
- ◆ Loosen the lock nut (3).
- ◆ Rotate the adjuster (4) in such a way as to restore the prescribed value.
- ◆ After the adjustment, tighten the lock nut (3) and check the idle stroke again.
- ◆ Put back the protection element (2).

⚠ CAUTION

After the adjustment, make sure that the rotation of the handlebar does not modify the engine idling rpm and that the throttle grip returns smoothly and automatically to its original position after being released.



SPARK PLUGS

Carefully read p. 59 (MAINTENANCE).

NOTE Perform the maintenance operations with doubled frequency if the vehicle is used in rainy or dusty areas, on uneven surfaces or on racetracks.

⚠ CAUTION

Check, clean or change all the spark plugs, one by one.

Check the spark plugs every 7500 km (4687 mi), change them every 15000 km (9375 mi).

In case of use on racetracks, change the spark plugs every 3750 km (2343 mi).

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



⚠ CAUTION

Even if only one spark plug needs changing, always replace all of them.

To reach the spark plugs:

⚠ WARNING

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

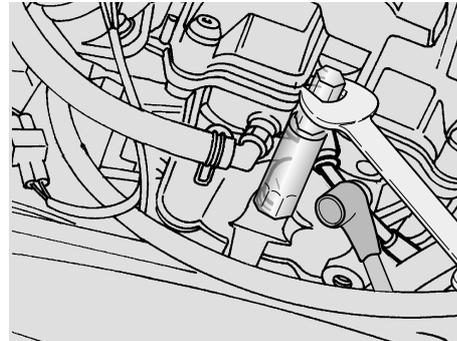
- ◆ Lift the fuel tank, see p. 76 (LIFTING THE FUEL TANK)

NOTE The vehicle is equipped with two spark plugs per cylinder (A) and (B).

The following operations refer to the two spark plugs of one cylinder, but are valid for both cylinders.

⚠ CAUTION

Carry out all the operations indicated on



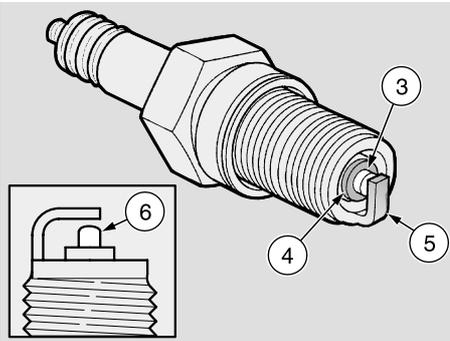
the first spark plug and then repeat them on the second spark plug of the same cylinder.

For the removal, proceed as follows:

⚠ CAUTION

Do not invert the position of the two spark plug caps. Do not remove the two spark plug caps at the same time.

- ◆ Remove the cap (1) of the spark plug (2).
- ◆ Remove any trace of dirt from the spark plug base.
- ◆ Introduce the special spanner provided in the tool kit on the spark plug.
- ◆ Insert the 13 mm fork spanner provided in the tool kit in the hexagonal seat of the spark plug spanner.
- ◆ Unscrew the spark plug and extract it from its seat, taking care to prevent dust or other substances from getting inside the cylinder.



For the check and cleaning:

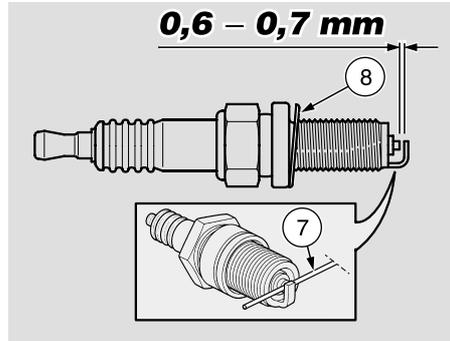
⚠ CAUTION

This vehicle is fitted with spark plugs featuring platinum-type electrodes. To clean the spark plugs, do not use wire brushes and/or abrasive products, but only a pressurized air jet.

Key:

- centre electrode (3);
 - insulating (4);
 - side electrode (5).
- ◆ Make sure that there are neither carbon deposits, nor corrosion marks on the electrodes and on the insulating material; if necessary, clean them with a pressurized air jet.

If the spark plug has crackings on the insulating material, corroded electrodes, excessive deposits or the tip (6) of the central electrode (3) is rounded, it must be changed.



⚠ CAUTION

When changing the spark plug, check the thread pitch and length.

If the threaded part is too short, the carbon deposits will accumulate on the thread seat, and therefore the engine may be damaged during the installation of the right spark plug.

Use the recommended type of spark plugs only, see p. 109 (TECHNICAL DATA), in order not to compromise the life and performance of the engine.

To check the spark plug gap, use a wire thickness gauge (7) to avoid damaging the platinum covering.

- ◆ Check the spark plug gap with a wire thickness gauge (7).

⚠ CAUTION

Do not try to recover the spark plug gap in any way.

The gap must be **0.6 – 0.7 mm**, otherwise it is necessary to change the spark plug.

- ◆ Make sure that the washer (8) is in good conditions.

For the installation:

- ◆ With the washer on, screw the spark plug by hand in order not to damage the thread.
- ◆ Tighten the spark plug by means of the spanner you will find in the tool kit, giving it half a turn to compress the washer.

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

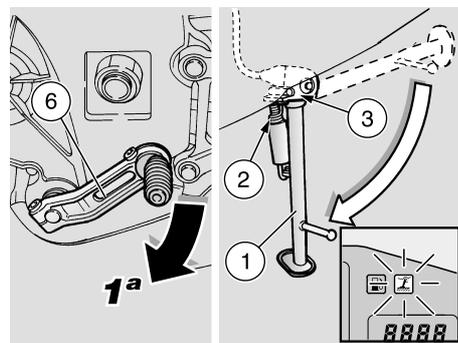
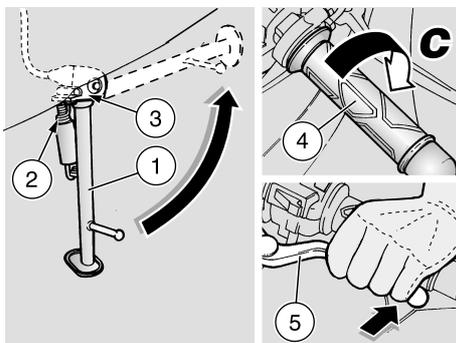
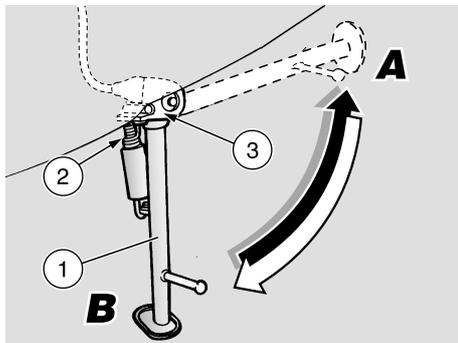
⚠ CAUTION

The spark plug must be well tightened, otherwise the engine may overheat and be seriously damaged.

- ◆ Position the spark plug cap (1) properly, so that it does not come off due to the vibrations of the engine.

NOTE Repeat the operations described on the second spark plug of the same cylinder and successively on both spark plugs of the other cylinder.

- ◆ Put back the fuel tank, see p. 76 (LIFTING THE FUEL TANK).



CHECKING THE SIDE STAND

Carefully read p. 59 (MAINTENANCE) and p. 97 (CHECKING THE SWITCHES).

The side stand (1) has two positions:

- normal or lifted (**Pos.A**);
- extended (**Pos.B**).

It is the rider who must provide for extending and lifting the stand.

The side stand (1) must rotate without hindrances.

The springs (2), provide for keeping the stand in the desired position (extended or lifted).

Carry out the following checks:

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ The springs (2) must not be damaged, worn, rusty or weakened.
- ◆ Make sure that the stand presents no

slack in either position (extended and lifted).

- ◆ Lower the stand, making sure that the springs provide for extending it completely.
- ◆ Move the stand to let it up and release it halfway to make sure that the springs provide for lifting it completely.
- ◆ The side stand must rotate freely, if necessary grease the joint, see p. 113 (LUBRICANT CHART).

The side stand (1) is provided with a safety switch (3) that has the function to prevent or interrupt the operation of the engine with the gears on and the side stand (1) down.

To check the proper functioning of the safety switch (3), proceed as follows:

- ◆ Remove the rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Seat on the vehicle in driving position.
- ◆ Fold the side stand (1).

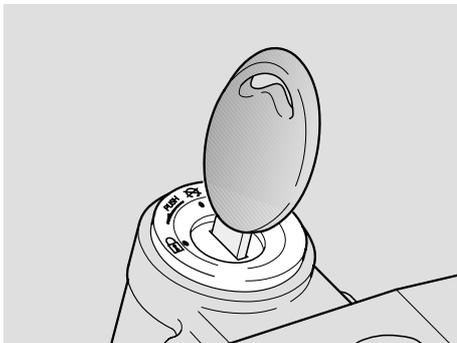
- ◆ Start the engine, see p. 50 (STARTING).
- ◆ With released throttle grip (4) (**Pos.C**) and engine idling, pull the clutch lever (5) completely.
- ◆ Engage the first gear, by pushing the gear lever (6) downwards.
- ◆ Lower the side stand (1), thus operating the safety switch (3).

At this point:

- the engine must stop;
- the “side stand down” warning light “” must come on.

CAUTION

If the engine does not stop, contact an **aprilia** Official Dealer.



BATTERY

Carefully read p. 59 (MAINTENANCE).

WARNING

Risk of fire.

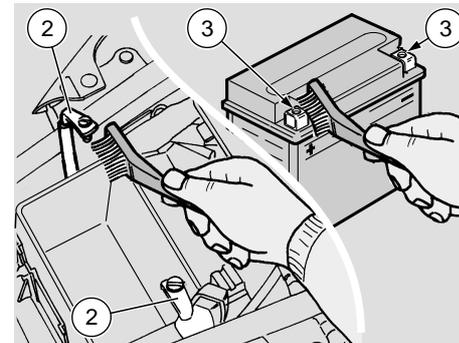
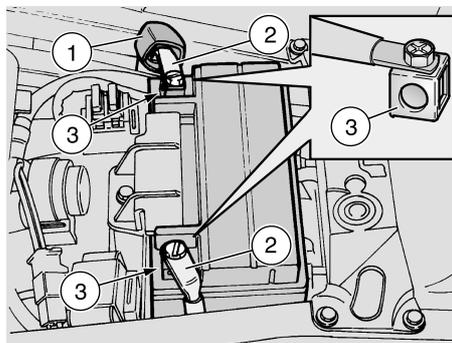
Keep fuel and other flammable substances away from the electrical components.

Never invert the connection of the battery cables.

Connect and disconnect the battery with the ignition switch in position "0", otherwise some components may be damaged.

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

Disconnect following the reverse order.



NOTE This vehicle is provided with a maintenance-free battery and no operation is necessary, excepting occasional checks and the recharge when required.

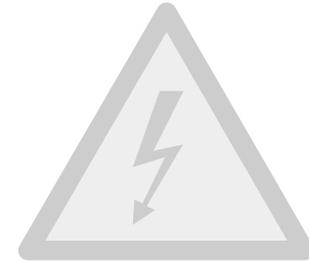
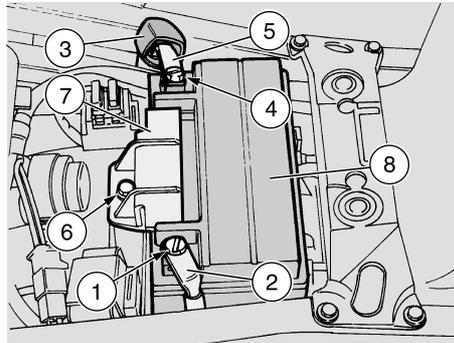
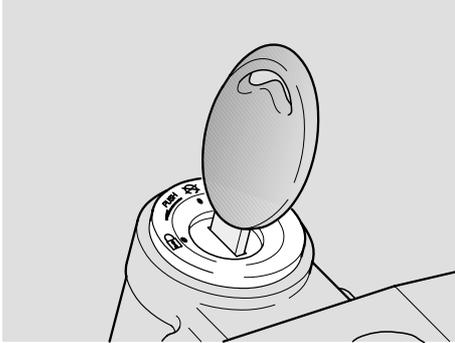
CHECKING AND CLEANING THE TERMINALS

Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "0".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Remove the red protection element (1).
- ◆ Make sure that the cable terminals (2) and the battery terminals (3) are:
 - in good conditions (and not corroded or covered with deposits);
 - covered with neutral grease or vase-line.

If necessary, proceed as follows:

- ◆ Remove the battery, see p. 94 (REMOVING THE BATTERY).
- ◆ Brush the cable terminals (2) and the battery terminals (3) with a wire brush, in order to eliminate any trace of corrosion.
- ◆ Install the battery, see p. 96 (INSTALLING THE BATTERY).



REMOVING THE BATTERY

⚠ CAUTION

To remove the battery it is necessary to set to zero the digital clock and the red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⊗".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Unscrew and remove the screw (1) on the negative terminal (-).
- ◆ Move the negative cable (2) sideways.
- ◆ Remove the red protection element (3).

- ◆ Unscrew and remove the screw (4) on the positive terminal (+).
- ◆ Move the positive cable (5) sideways.
- ◆ Unscrew and remove the screw (6).
- ◆ Remove the bracket (7) that locks the battery.
- ◆ Grasp the battery (8) firmly and remove it from its compartment by lifting it.

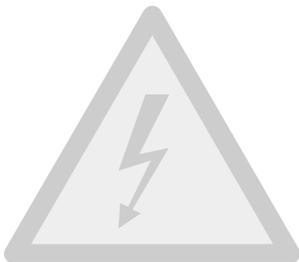
⚠ WARNING

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

- ◆ Position the battery on a flat surface, in a cool and dry place.

- ◆ Put back the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

NOTE For the installation of the battery, see p. 96 (INSTALLING THE BATTERY).



CHECKING THE ELECTROLYTE LEVEL

Carefully read p. 93 (BATTERY).

The vehicle is equipped with a maintenance-free battery, which does not require any check of the electrolyte level.

RECHARGING THE BATTERY

Carefully read p. 93 (BATTERY).

⚠ CAUTION

Do not remove the battery plugs: without plugs the battery may be damaged.

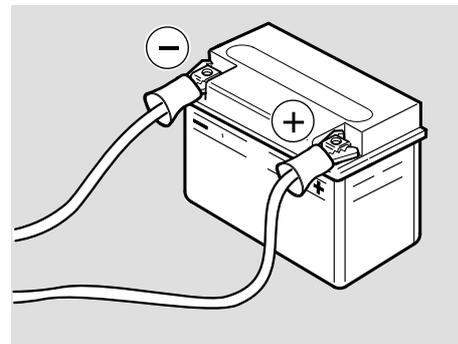
- ◆ Remove the battery, see p. 94 (REMOVING THE BATTERY).
- ◆ Prepare an appropriate battery charger.
- ◆ Set the charger for the desired type of recharge (see table).
- ◆ Connect the battery with a battery charger.

⚠ WARNING

During the recharging or the use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

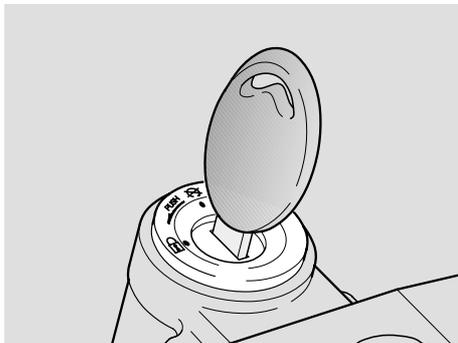
- ◆ Switch on the battery charger.

Type of recharge	Voltage (V)	Voltage (A)	Time (hours)
Normal RSV	12	1.2	8 – 10
Quick RSV	12	12	0.5
Normal RSV R	12	1.0	8 – 10
Quick RSV R	12	1.0	0.5



⚠ WARNING

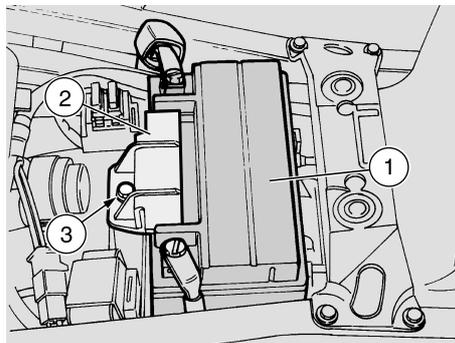
Reassemble the battery only 5/10 minutes after disconnecting the recharge apparatus, since the battery continues to produce gas for a short lapse of time.



INSTALLING THE BATTERY

Carefully read p. 93 (BATTERY).

- ◆ Make sure that the ignition switch is in position "⊗".
- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

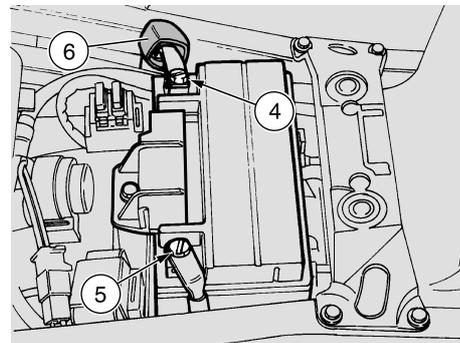


NOTE The battery (1) must be positioned in its compartment with the terminals directed towards the rear part of the vehicle.

- ◆ Put the battery (1) in its compartment.
- ◆ Put back the bracket (2) that locks the battery.
- ◆ Screw and tighten the screw (3).

⚠ WARNING

Upon reassembly, connect first the positive cable (+) and then the negative cable (-).



- ◆ Connect the positive terminal (+) by means of the screw (4).
- ◆ Connect the negative terminal (-) by means of the screw (5).
- ◆ Cover the terminals of the cables and of the battery with neutral grease or vaseline.
- ◆ Put back the red protection element (6).
- ◆ Put back the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).

⚠ CAUTION

To remove the battery it is necessary to set to zero the digital clock and the red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

LONG INACTIVITY OF THE BATTERY

⚠ CAUTION

If the vehicle remains unused for more than twenty days, disconnect the 30A fuses, in order to avoid the deterioration of the battery caused by the current consumption due to the multifunction computer.

NOTE The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

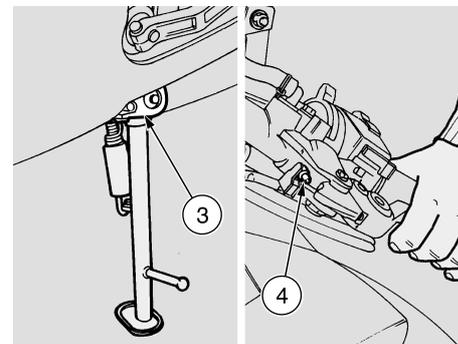
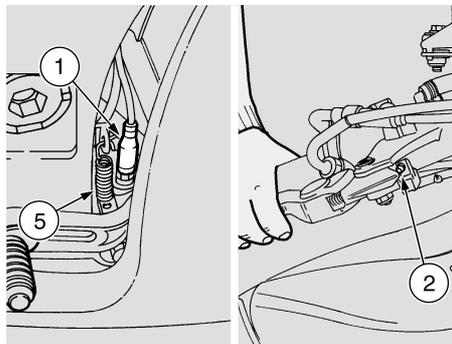
If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery, in order to prevent its sulphation, see p. 95 (RECHARGING THE BATTERY).

◆ Remove the battery, see p. 94 (REMOVING THE BATTERY) and put it in a cool and dry place.

It is important to check the charge periodically (about once a month), during the winter or when the vehicle remains unused, in order to prevent the deterioration of the battery.

◆ Recharge it completely with a normal charge, see p. 95 (RECHARGING THE BATTERY).

If the battery remains on the vehicle, disconnect the cables from the terminals.



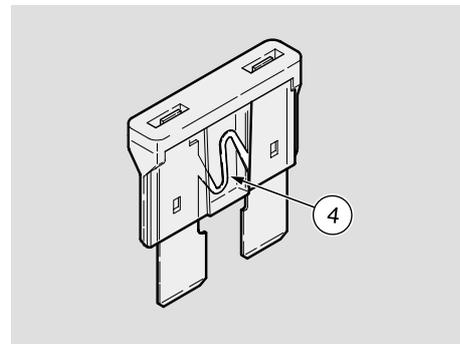
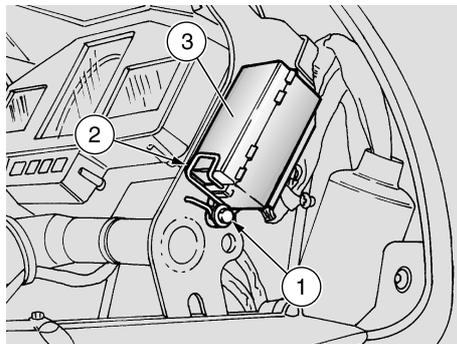
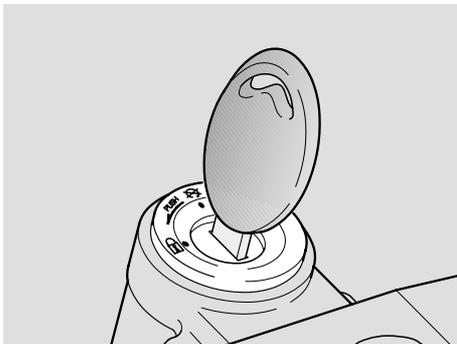
CHECKING THE SWITCHES

Carefully read p. 59 (MAINTENANCE).

The vehicle is provided with four switches:

- 1) Stoplight switch on the rear brake control lever;
- 2) Stoplight switch on the front brake control lever;
- 3) Safety switch on the side stand;
- 4) Switch on the clutch control lever.

- ◆ Make sure that there are no dirt or mud deposits on the switch; the pin must be able to move without interferences, returning automatically to its initial position.
- ◆ Make sure that the cables are connected correctly.
- ◆ Check the spring (5): it must not be damaged, worn or weakened.



CHANGING THE FUSES

Carefully read p. 59 (MAINTENANCE).

⚠ CAUTION

Do not repair faulty fuses.

Never use fuses different from the recommended ones.

The use of unsuitable fuses may cause damages to the electric system or, in case of short circuit, even a fire.

NOTE If a fuse blows frequently, there probably is a short circuit or an overload in the electric system.

In this case it is advisable to consult an **aprilia** Official Dealer.

If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.

Check first the 15A secondary fuses and then the 30A primary fuses.

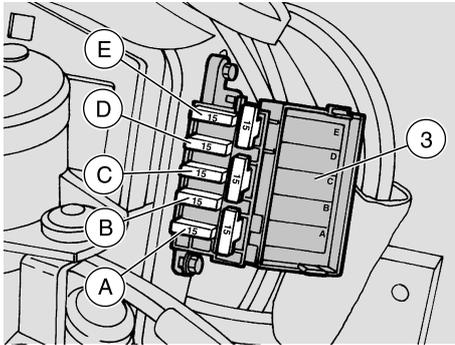
For the check, proceed as follows:

- ◆ Turn the ignition switch to position “

NOTE If you use one of the spare fuses, put a new fuse in the proper seat.

- ◆ Remove the rider saddle, see p. 76 (REMOVING THE RIDER SADDLE).
- ◆ Carry out the operations previously described for the secondary fuses also for the main fuses.

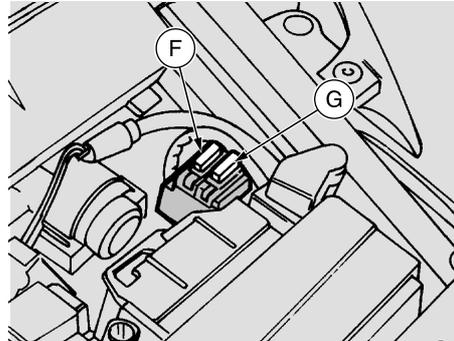
NOTE The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).



ARRANGEMENT OF THE 15A SECONDARY FUSES

- A) From voltage regulator to:
high beam relay, low beam relay.
- B) From voltage regulator to:
coils, engine stop relay, fuel pump.
- C) From ignition switch to:
electric fans, clock.
- D) From ignition switch to:
parking lights, rear stoplights, horn,
dashboard lights, direction indicators.
- E) From ignition switch to:
electronic unit, fuel pump relay, engine
stop relay.

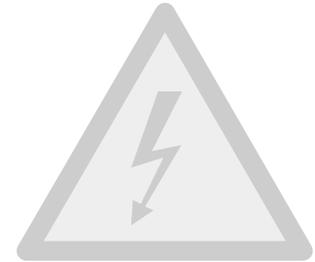
NOTE Three fuses are spare fuses.

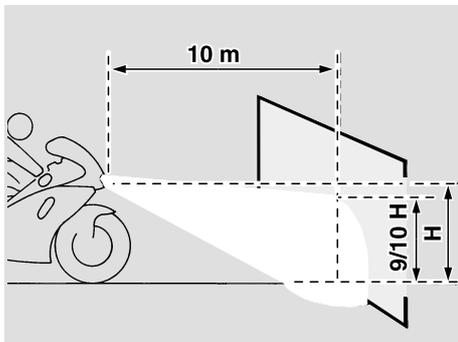


ARRANGEMENT OF THE 30A MAIN FUSES

- F) From battery to: ignition.
- G) From battery to: ignition.

NOTE One fuse is a spare fuse.





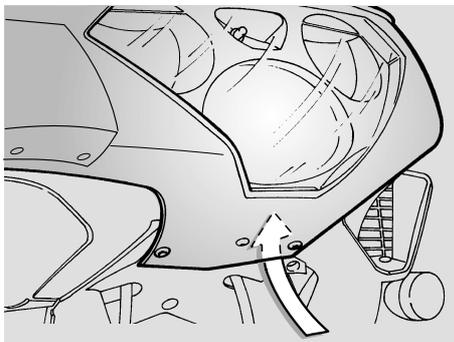
ADJUSTING THE VERTICAL HEADLIGHT BEAM

NOTE To check the direction of the headlight beam, specific procedures must be adopted, in accordance with the regulations in force in the country where the vehicle is used.



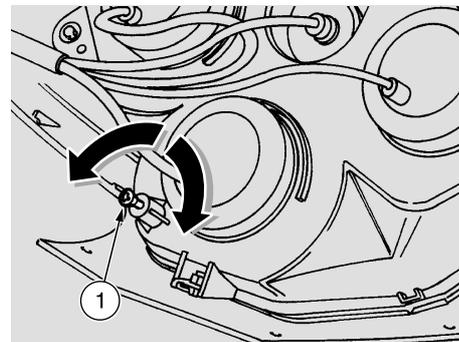
To rapidly check the correct direction of the beam, place the vehicle on flat ground, 10 m away from a wall.

Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly under the horizontal line of the headlight (about 9/10th of the total height).



To adjust the headlight beam:

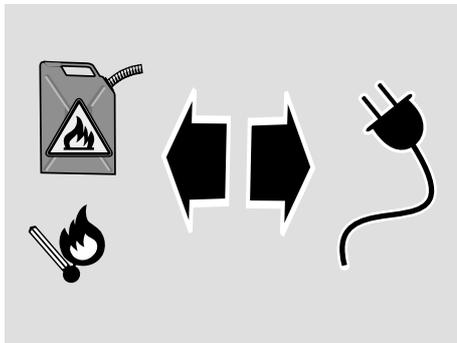
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Working on the rear left side of the front part of the fairing, adjust the appropriate screw (1) by means of a short cross-tip screwdriver.
 - By **SCREWING IT** (clockwise), you set the beam upwards;
 - By **UNSCREWING IT** (anticlockwise), you set the beam downwards.



After the adjustment:

⚠ WARNING

Make sure that the vertical adjustment of the headlight beam is correct.



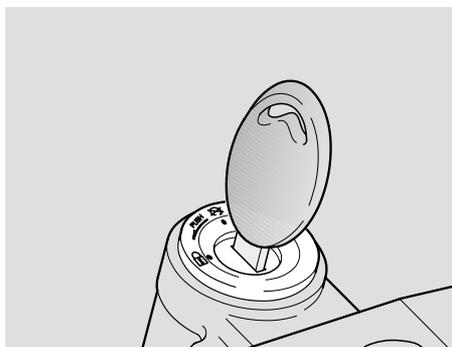
BULBS

Carefully read p. 59 (MAINTENANCE).

⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from the electrical components.



⚠ CAUTION

Before changing a bulb, move the ignition switch to position "⊗" and wait a few minutes, so that the bulb cools down.

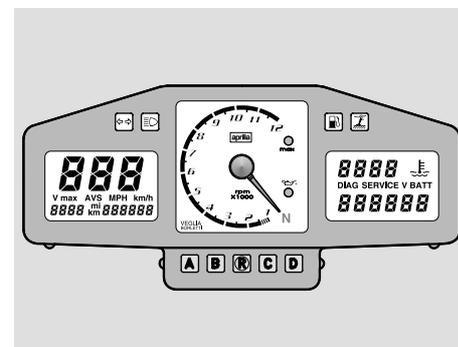
Change the bulb wearing clean gloves or using a clean and dry cloth.

Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage.

If you touch the bulb with bare hands, remove any fingerprint with alcohol, in order to avoid any damage.

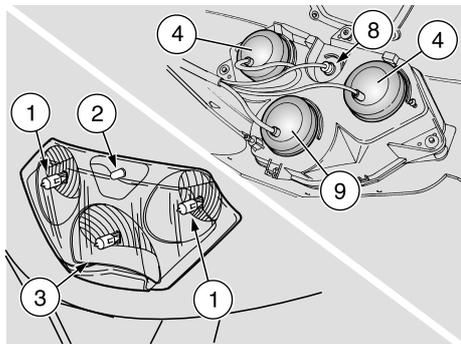
DO NOT FORCE THE ELECTRIC CABLES.

NOTE Before changing a bulb, check the fuses, see p. 98 (CHANGING THE FUSES).



CHANGING THE DASHBOARD BULBS

If you need assistance or technical advice, consult your **aprilia** Official Dealer, who can ensure you prompt and accurate servicing.



CHANGING THE HEADLIGHT BULBS

Carefully read p. 101 (BULBS).

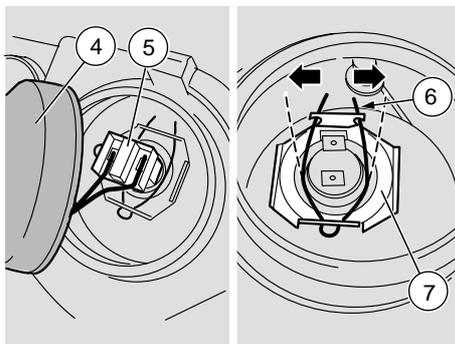
The headlight contains:

- two high beam bulbs (1) (side);
- one parking light bulb (2) (upper);
- one low beam bulb (3) (lower).

The high beam and the low beam bulbs are equal to each other.

If either of them is damaged and no spare bulb is available, it is possible to invert them.

This operation is intended only to make it easier for the rider to go back home or to reach a shop where he can buy a new bulb, but the replacement of the damaged bulb remains indispensable.



To change the bulbs, proceed as follows:

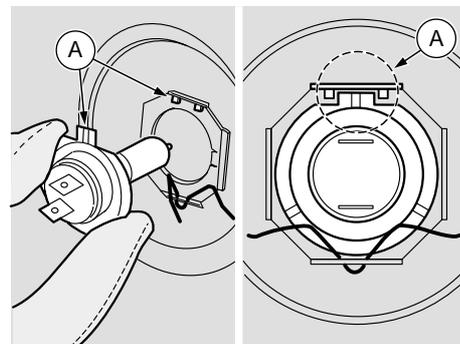
- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

HIGH BEAM BULBS

NOTE Extract the connectors one by one, in such a way as to avoid positioning them wrongly upon reassembly.

If it is necessary to remove all the connectors at the same time, mark them and make sure that you position them correctly upon reassembly.

- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).
- ◆ Move the protection element (4) of the bulb to be changed with your hands.



⚠ CAUTION

To extract the bulb electric connector, do not pull its wires.

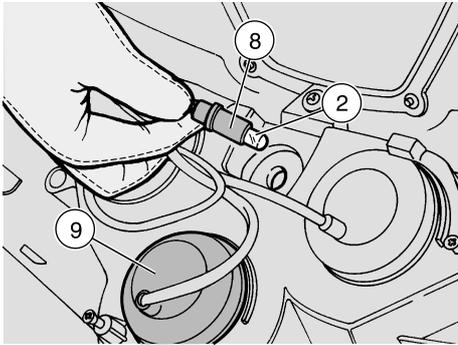
- ◆ Grasp the bulb electric connector (5), pull it and disconnect it from the bulb.
- ◆ Release the two ends of the check spring (6) positioned on the bulb socket (7).
- ◆ Extract the bulb from its seat.

NOTE Insert the bulb in the bulb socket, making the respective positioning seats (A) coincide.

- ◆ Correctly install a new bulb of the same type.

Upon reassembly:

NOTE Put back the protection element (4) with the cable passage facing downwards.



PARKING LIGHT BULB

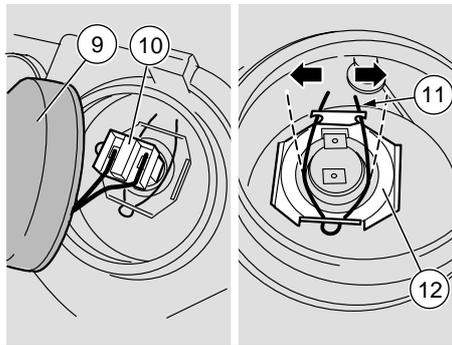
- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).

⚠ CAUTION

To extract the bulb socket, do not pull the electric wires.

- ◆ Grasp the parking light bulb socket (8), pull it and remove it from its seat.
- ◆ Withdraw the bulb (2) and replace it with one of the same type.

NOTE Make sure that the bulb is correctly inserted in the bulb socket.



LOW BEAM BULB

NOTE Extract the connectors one by one, in such a way as to avoid positioning them wrongly upon reassembly.

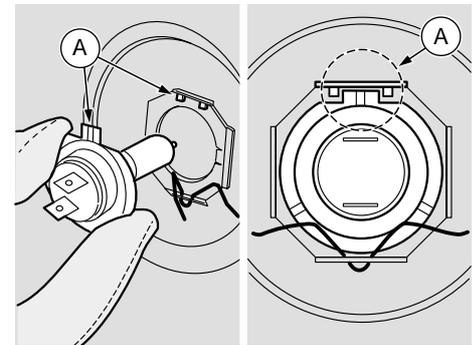
If it is necessary to remove all the connectors at the same time, mark them and make sure that you position them correctly upon reassembly.

- ◆ Remove the front part of the fairing, see p. 79 (REMOVING THE FRONT PART OF THE FAIRING).
- ◆ Move the protection element (9) with your hands.

⚠ CAUTION

To extract the bulb electric connector, do not pull its wires.

- ◆ Grasp the bulb electric connector (10), pull it and disconnect it from the bulb.



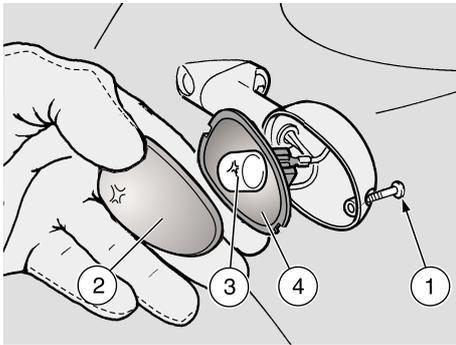
- ◆ Release the two ends of the check spring (11) positioned on the bulb socket (12).
- ◆ Extract the bulb from its seat.

NOTE Insert the bulb in the bulb socket, making the respective positioning seats (A) coincide.

- ◆ Correctly install a new bulb of the same type.

Upon reassembly:

NOTE Put back the protection element (9) with the cable passage facing downwards.



CHANGING THE FRONT AND REAR DIRECTION INDICATOR BULBS

Carefully read p. 101 (BULBS).

- ◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).

⚠ CAUTION

While removing the protection screen, proceed carefully in order not to break the cog.

- ◆ Remove the protection screen (2).

⚠ CAUTION

Upon reassembly, correctly position the protection screen in its seat. Tighten the screw (1) moderately and carefully, to avoid damaging the protection screen.

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

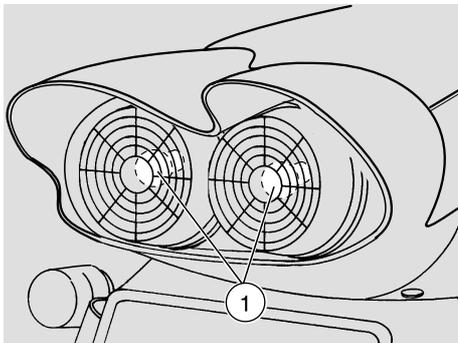
⚠ CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

- ◆ Correctly install a new bulb of the same type.

⚠ CAUTION

If the bulb socket (4) goes out of its seat, insert it correctly, making the bulb socket opening coincide with the screw seat.



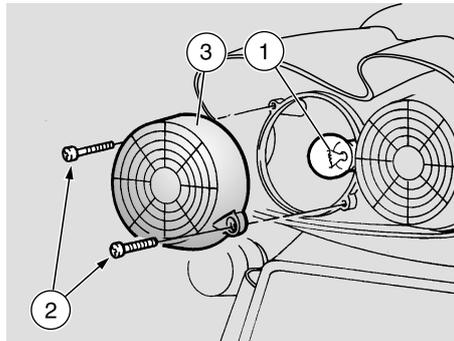
CHANGING THE REAR LIGHT BULB

Carefully read p. 101 (BULBS).

NOTE The rear light houses two parking light/stoptight bulbs (1).

The following operations refer to a single bulb, but are valid for both.

Before changing a bulb, check the efficiency of the stoplight switches, see p. 97 (CHECKING THE SWITCHES).



◆ Position the vehicle on the stand, see p. 58 (POSITIONING THE VEHICLE ON THE STAND).

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

NOTE Upon reassembly, correctly position the protection screen in its seat.

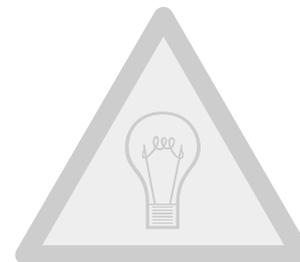
Tighten the screw (2) carefully, without exerting too much pressure, in order to avoid damaging the protection screen.

- ◆ Press the bulb (1) slightly and rotate it anticlockwise.
- ◆ Extract the bulb (1) from its seat.

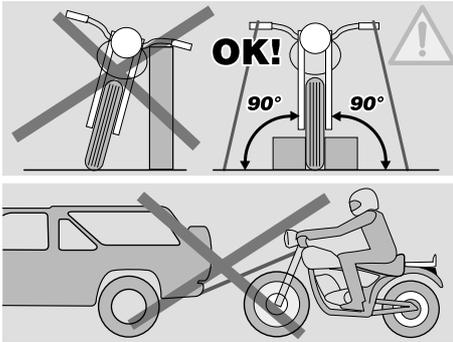
⚠ CAUTION

Insert the bulb in the bulb socket, making the two bulb pins coincide with the relevant guides on the socket.

- ◆ Correctly install a new bulb of the same type.



TRANSPORT

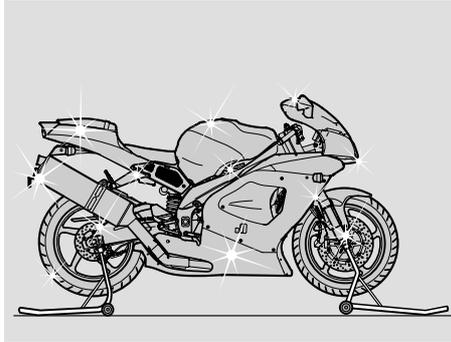


NOTE During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the 1st gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

⚠ CAUTION

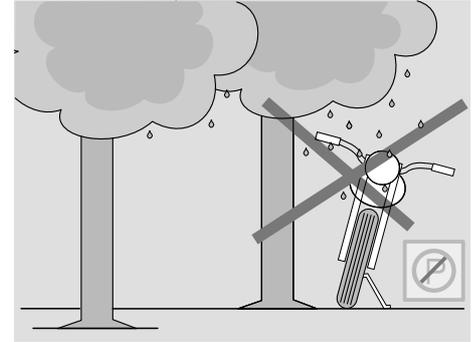
In case of failure, do not tow the vehicle, but ask for assistance.

CLEANING



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

- Polluted areas (cities and industrial areas).
- Areas characterized by a high percentage of salinity and humidity (sea areas, hot and humid climates).
- Particular conditions (use of salt and anti-ice chemical products on the roads during the winter).
- Avoid leaving deposits of industrial and polluting powders, tar spots, dead insects, bird droppings, etc. on the body.
- Avoid parking the vehicle under trees, since in some seasons residues, resins, fruits or leaves fall down, which contain substances that may damage the paint.



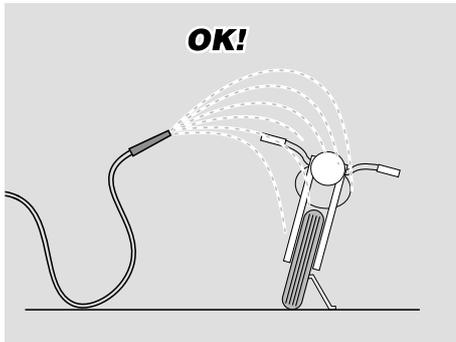
⚠ WARNING

After the vehicle has been washed, its braking functions could be temporarily impaired because of the presence of water on the grip surfaces.

Calculate long braking distances to avoid accidents.

Brake repeatedly to restore normal conditions.

Carry out the preliminary checking operations, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

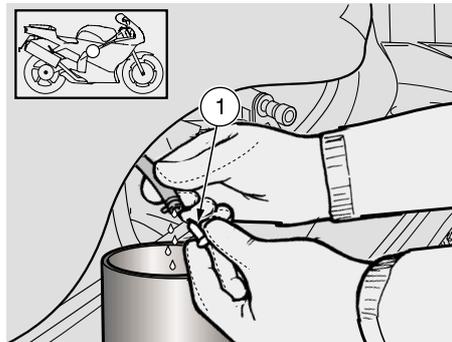


To remove dirt and mud from the painted surfaces use a low- pressure water jet, carefully wet the dirty parts, remove mud and filth with a soft car sponge impregnated with a lot of water and shampoo (2 – 4% parts of shampoo in water). Then rinse with plenty of water and dry with chamois leather.

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

After washing the vehicle, always:

- ◆ Remove the cap (1).
- ◆ Empty its content into a container and deliver it to a salvage centre.



⚠ CAUTION

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

Polish with silicone wax only after having carefully washed the vehicle.

Do not use polishing pastes on matt paints.

Do not wash the vehicle under the sun, especially during the summer, when the body is still warm, since if the shampoo dries before being rinsed away, it can damage the paint.

Do not use liquids at a temperature exceeding 40°C to clean the plastic components of the vehicle.



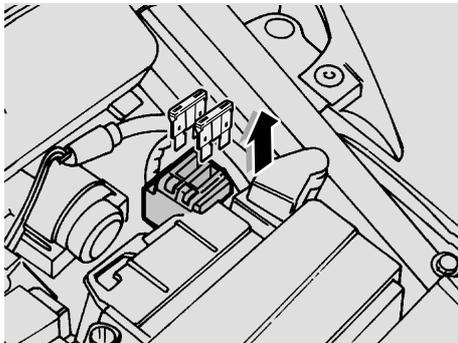
⚠ CAUTION

Do not direct high-pressure water or air jets or steam jets on to the following components: wheel hubs, controls on the right and left side of the handlebar, bearings, brake pumps, instruments and indicators, exhaust pipes, glove/tool kit compartment, ignition switch/steering lock, radiator wings, fuel cap, lights and electric connections.

Do not use alcohol, petrol or solvents to clean the rubber and plastic parts and the saddle: use only water and mild soap.

⚠ WARNING

Do not apply protection waxes onto the saddle, in order not to make it too slippery.



LONG PERIODS OF INACTIVITY

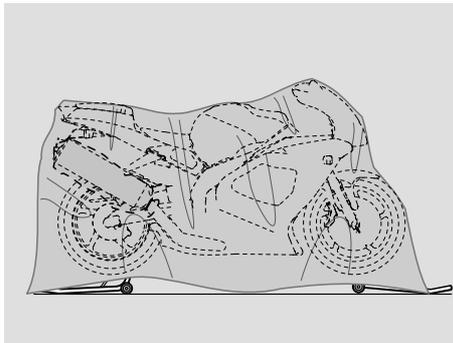
⚠ CAUTION

If the vehicle remains unused for more than twenty days, disconnect the 30A fuses, in order to avoid the deterioration of the battery caused by the current consumption due to the multifunction computer.

NOTE The removal of the 30A fuses requires the setting to zero of the following functions: digital clock and red line setting. To reset these functions, see p. 20 (MULTIFUNCTION COMPUTER).

After a long period of inactivity of the vehicle some precautions are necessary to avoid any problem.

Further, it is important to carry out the necessary repairs and a general check up before the period of inactivity, since you could forget to carry them out later.



Proceed as follows:

- ◆ Remove the battery, see p. 94 (REMOVING THE BATTERY) and p. 97 (LONG INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see p. 106 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tyres, see p. 42 (TYRES).
- ◆ Place the vehicle in an unheated, not-humid room, away from sunlight, with minimum temperature variations.
- ◆ Position and tie a plastic bag on the final pipe of the exhaust silencer, in order to prevent moisture from getting into it.

NOTE Position the vehicle on the front **OPT** and rear **OPT** support stands, so that both tyre are raised from the ground.

- ◆ Position the vehicle on the appropriate front support stand, see p. 67 (POSITIONING THE VEHICLE ON THE FRONT SUPPORT STAND m).

- ◆ Position the vehicle on the appropriate rear support stand, see p. 67 (POSITIONING THE VEHICLE ON THE REAR SUPPORT STAND m).
- ◆ Cover the vehicle avoiding the use of plastic or waterproof materials.

AFTER A PERIOD OF INACTIVITY

NOTE Withdraw the plastic bag from the exhaust silencer tailpipe.

- ◆ Uncover and clean the vehicle, see p. 106 (CLEANING).
- ◆ Check the charge of the battery, see p. 95 (RECHARGING THE BATTERY) and install it, see p. 96 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 33 (FUEL).
- ◆ Carry out the preliminary checking operations, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

⚠ WARNING

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

TECHNICAL DATA

DIMENSIONS	Max. length	2070 mm
	Max. length (with number plate-holder extension) OPT	2140 mm
	Max. width.....	725 mm
	Max. height (front part of the fairing included)	1170 mm
	Seat height.....	820 mm
	Distance between centres.....	1415 mm
	Min. ground clearance	130 mm
	Weight ready for starting.....	RSV 221 kg – RSV R 211 kg
ENGINE	Model	V990
	Type	60° longitudinal V-type, two-cylinder, 4-stroke, with 4 valves per cylinder, DOHC.
	Number of cylinders	2
	Total displacement.....	998 cm ³
	Bore/stroke.....	97 mm/67.5 mm
	Compression ratio.....	11.4 ± 0.5: 1
	Starting.....	electric
	Engine idling rpm	1250 ± 100 rpm
	Clutch.....	multidisc in oil bath, with hydraulic control on the left side of the handlebar and PPC device
	Lubrication system	dry pan with separate oil tank and cooling radiator
Air cleaner	with dry filter cartridge	
Cooling.....	liquid-cooled	
TRANSMISSION	Type	mechanical, 6 gears with foot control on the left side of the engine
CAPACITY	Fuel (reserve included)	18 ℓ
	Fuel reserve	4.5 ± 1 ℓ
	Engine oil	oil change 3700 cm ³ – oil and oil filter change 3900 cm ³
	Fork oil RSV	520 ± 2.5 cm ³ (per rod)
	“R” RSV R (RSV OPT) fork oil.....	500 ± 2.5 cm ³ (per rod)
	Coolant.....	2.5 ℓ (50% water + 50% antifreeze with ethylene glycol)
	Seats.....	RSV 2 – RSV R 1
Vehicle max. load	RSV 182 kg (driver + passenger + luggage) – RSV R 107 kg	

GEAR RATIOS	Ratio	Primary	Secondary	Final ratio	Total ratio
	1 ^a	31/60 = 1: 1.935	14/35 = 1: 2.50	17/42 = 1: 2.470	11.948
	2 ^a		16/28 = 1: 1.750		8.368
	3 ^a		19/26 = 1: 1.368		6.543
	4 ^a		22/24 = 1: 1.090		5.216
	5 ^a		23/22 = 1: 0.956		4.573
	6 ^a		27/23 = 1: 0.851		4.073
DRIVE CHAIN	Type	endless (with no connection link) with sealed links			
	Model	525			
FUEL SUPPLY SYSTEM	Type	electronic injection (Multipoint)			
	Choke	Ø 51 mm			
FUEL SUPPLY	Fuel	premium grade unleaded petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).			
FRAME	Type	two-beam frame with light alloy cast elements and extruded elements			
	Steering inclination angle	25°			
	Fore stroke	99 mm (with front tyre 120/70)			
SUSPENSIONS	Front	upside-down telescopic adjustable fork with hydraulic operation, rod Ø 43 mm			
	Stroke	RSV 127 mm – RSV R (RSV OPT) 120 mm			
	Rear	oscillating rear fork in light alloy with differentiated profile arms and hydropneumatic adjustable mono-shock absorber			
	Wheel stroke	135 mm			
BRAKES	Front	with double floating disc – Ø 320 mm, calipers with four pins – Ø 34 mm			
	Rear	disc brake – Ø 220 mm, caliper with double pin – Ø 32 mm			
WHEEL RIMS	Type	in light alloy with withdrawable pin			
	Front	3.50 x 17"			
	Rear	6.00 x 17"			

TYRES

* = series **RSV R**; ** = series **RSV**

▲ = Normal use; ❖ = Use on recetracks

Wheel	Make	Model	Type	Size	Recommended		Alternative	Pressure kPa (bar)		
								▲		❖
								Solo rider	Rider and passenger (only RSV)	Solo rider
Front	PIRELLI	DRAGON EVO	MTR 21 CORSA	120/65–ZR 17"	▲	–	▲	220 (2.2)	240 (2.4)	220–230 (2.2–2.3)
Rear	PIRELLI	DRAGON EVO	MTR 22 CORSA	180/55–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–
Rear	PIRELLI	DRAGON EVO	MTR 22 CORSA	190/50–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–
Front	PIRELLI	DRAGON CORSA	MTR 21	120/70–ZR 17"	▲	❖	▲	–	–	210 (2.1)
Rear	PIRELLI	DRAGON CORSA	MTR 22 "B"	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
* Front	PIRELLI	DRAGON S. C. CORSA	–	120/70–ZR 17"	▲	❖	▲	–	–	210 (2.1)
* Rear	PIRELLI	DRAGON S. C. CORSA	–	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
Front	METZELER	STELL RADIAL	MEZ3–RACING	120/70 – 17"	▲	–	▲	–	–	–
Rear	METZELER	STELL RADIAL	MEZ3–RACING	190/50 – 17"	▲	–	▲	–	–	–
Front	METZELER	STELL RADIAL	MEZ3–RACING	120/65 – 17"	▲	❖	▲	–	–	220 (2.2)
Rear	METZELER	STELL RADIAL	MEZ3–RACING	180/55 – 17"	▲	❖	▲	–	–	200 (2.0)
Front	MICHELIN	PILOT SPORT	–	120/65–ZR17" TL	▲	–	▲	220 (2.2)	240 (2.4)	–
** Front	MICHELIN	PILOT SPORT	–	120/70–ZR17" TL	▲	–	▲	–	–	–
** Rear	MICHELIN	PILOT SPORT	–	190/50–ZR17" TL	▲	–	▲	250 (2.5)	270 (2.7)	–
Front	MICHELIN	PILOT RACE	–	120/70 – 17"	–	❖	▲	220 (2.2)	240 (2.4)	200 (2.0)
Rear	MICHELIN	PILOT RACE	–	180/55 – 17"	–	❖	▲	250 (2.5)	270 (2.7)	190 (1.9)
Front	DUNLOP	SPORTMAX	D 207F RR	120/65–ZR 17"	▲	–	▲	–	–	–
Rear	DUNLOP	SPORTMAX	D 207 RR	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
** Front	DUNLOP	SPORTMAX	D 207F RR	120/70–ZR 17"	▲	❖	▲	220 (2.2)	240 (2.4)	210 (2.1)
** Rear	DUNLOP	SPORTMAX	D 207 RR	190/50–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–

SPARK PLUGS	Standard	NGK R DCPR9E
	- Alternative	NGK R DCPR8E
	Spark plug gap	0.6 – 0.7 mm
	Resistance	5 kΩ
ELECTRIC SYSTEM	Battery RSV	12 V – 12 Ah
	Battery RSV R	12 V – 10 Ah
	Main fuses.....	30 A
	Secondary fuses	15 A
	Generator (with permanent magnet)	12 V – 400 W
BULBS	Low beam (halogen)	12 V – 55 W H7U
	High beam (halogen)	12 V – 55 W H7U
	Front parking light	12 V – 5 W
	Direction indicators	12 V – 10 W
	Rear parking lights/Number plate light/ Stoplight ..	12 V – 5/21 W
	Revolution counter	12 V – 2 W
	Left multifunction display.....	12 V – 2 W
Right multifunction display	12 V – 2 W	
WARNING LIGHTS	Neutral	12 V – 3 W
	Direction indicators	12 V – 3 W
	Fuel reserve	12 V – 3 W
	High beam.....	12 V – 3 W
	Stand down	12 V – 3 W
	Engine oil pressure	LED
	Red line.....	LED

LUBRICANT CHART

Engine oil (recommended):  EXTRA RAID 4, SAE 15W - 50 or  TEC 4T, SAE 15 W - 50.

As an alternative to the recommended oil, it is possible to use high-quality oils with characteristics in compliance with or superior to the CCMC G-4, A.P.I. SG. specifications.

RSV Fork oil (recommended):  F.A. 5W or  F.A. 20W; as an alternative  FORK 5W or  FORK 20W.

If you need an oil with intermediate characteristics in comparison with the  F.A. 5W and  F.A. 20W or  FORK 5W and  FORK 20W, these can be mixed as indicated below:

SAE 10W =  F.A. 5W 67% of the volume, +  F.A. 20W 33% of the volume or
 FORK 5W 67% of the volume +  FORK 20W 33% of the volume.

SAE 15W =  F.A. 5W 33% of the volume, +  F.A. 20W 67% of the volume or
 FORK 5W 33% of the volume +  FORK 20W 67% of the volume.

“R”  () fork oil: OHLINS 10W.

Bearings and other lubrication points (recommended):  AUTOGREASE MP or  GREASE 30.

As an alternative to the recommended product, use high-quality grease for rolling bearings, working temperature range -30°C... +140°C, dripping point 150°C... 230°C, high protection against corrosion, good resistance to water and oxidation.

Protection of the battery poles: neutral grease or vaseline.

Spray grease for chains (recommended):  CHAIN SPRAY or  CHAIN LUBE.

WARNING

Use new brake fluid only.

Brake fluid (recommended):  F.F., DOT 5 (DOT 4 compatible) or  BRAKE 5.1, DOT 5 (DOT 4 compatible).

WARNING

Use new clutch fluid only.

Clutch fluid (recommended):  F.F., DOT 5 (DOT 4 compatible) or  BRAKE 5.1, DOT 5 (DOT 4 compatible).

WARNING

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

Engine coolant (recommended):  ECOBLU -40°C or  COOL.

NOTE

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ASK FOR GENUINE SPARE PARTS ONLY

NOTE

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ASK FOR GENUINE SPARE PARTS ONLY



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WIRING DIAGRAM KEY - RSV mille - RSV mille R

- | | | |
|---|---|---|
| 1) Electronic unit | D - Parking lights, stoplights, horn, dashboard lights, direction indicators. | 58) Side stand down warning light |
| 2) Cam position sensor | E - Electronic unit, fuel pump relay, engine stop relay. | 59) Neutral warning light |
| 3) Throttle valve position sensor | | 60) Direction indicator warning light |
| 4) Intake pressure sensor | | 61) Engine oil pressure warning light LED |
| 5) Coolant thermistor | | 62) High beam warning light |
| 6) Air thermistor | 30) Ignition switch | 63) Dashboard bulbs |
| 7) Fall sensor | 31) Low beam relay | 64) Revolution counter |
| 8) Diode module | 32) High beam relay | 65) Multifunction display (right side) |
| 9) Clutch control lever switch | 33) Cooling fan relay | 66) Multifunction display (left side) |
| 10) Neutral gear switch | 34) Front parking light bulb | 67) Lights diode/LAP |
| 11) Arrangement for the installation of the anti-theft device | 35) High beam bulbs | 68) TEST connectors |
| 12) Right dimmer switch | 36) Low beam bulb | 69) Headlight |
| 13) Left dimmer switch | 37) Front right direction indicator | 70) Side stand switch |
| 14) Engine stop relay | 38) Front left direction indicator | 71) Red line warning light LED |
| 15) Fuel pump relay | 39) Thermal switch | 72) Rear parking light/stoplight bulbs |
| 16) Start relay | 40) Cooling fans | |
| 17) Starter | 41) Rear light | X) Dashboard connector (20-way) |
| 18) Battery | 42) Dashboard | Y) Electronic unit connector (26-way) |
| 19) Main fuses (30A) (ignition) | 43) Rear left direction indicator | Z) Electronic unit connector (16-way) |
| 20) Generator | 44) Front cylinder injector | |
| 21) Pick up | 45) Rear cylinder injector | |
| 22) Voltage regulator | 46) Front stoplight switch | |
| 23) Rear cylinder coil | 47) Rear stoplight switch | |
| 24) Rear cylinder coil | 48) Rear right direction indicator | |
| 25) Front cylinder coil | 49) Horn | |
| 26) Front cylinder coil | 50) Multiple connectors | |
| 27) Spark plugs | 51) Blinking | |
| 28) - | 52) Fuel pump | |
| 29) Secondary fuses (15A) | 53) Low fuel sensor | |
| A - High beam, low beam | 54) Engine oil pressure switch | |
| B - ISC, coils, fuel pump | 55) Coolant temperature thermistor | |
| C - Electric fans, clock | 56) Speed sensor | |
| | 57) Low fuel warning light | |

CABLE COLOURS

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

WIRING DIAGRAM KEY - RSV mille **ASD** - RSV mille R **ASD**

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Az	Light blue	N	Black
B	Blue	R	Red
Bi	White	V	Green
G	Yellow	Vi	Violet
Gr	Grey	Ro	Pink

aprilia s.p.a. wishes to thank its customers for the purchase of this vehicle:

- Do not dispose of oil, fuel, polluting substances and components in the environment.
- Do not keep the engine running if it isn't necessary.
- Avoid disturbing noises.
- Respect nature.