APRILIA WOULD LIKE TO THANK YOU

for choosing one of its products. We have drawn up this booklet to provide a comprehensive overview of your vehicle's quality features. Please read it carefully before riding the vehicle for the first time. It contains information, tips and precautions for using your vehicle It also describes features, details and devices to assure you that you have made the right choice. We believe that if you follow our suggestions, you will soon get to know your new vehicle well and will use it for a long time at full satisfaction. This booklet is an integral part of the vehicle, and should the vehicle be sold, it must be transferred to the new owner.

RSV4

aprilia

Ed. 03_04/2013

The instructions given in this manual are intended to provide a clear, simple guide to using your vehicle; it also describes routine maintenance procedures and regular checks that should be carried out on the vehicle at an **Aprilia Dealer or Authorised Workshop**. The booklet also contains instructions for simple repairs. Any operations not specifically described in this booklet require the use of special tools and/or particular technical knowledge: for these operations, please take your vehicle to an **Aprilia Dealer or Authorised Workshop**.



Personal safety

Failure to completely observe these instructions will result in serious risk of personal injury.



Safeguarding the environment

Sections marked with this symbol indicate the correct use of the vehicle to prevent damaging the environment.



Vehicle intactness

The incomplete or non-observance of these regulations leads to the risk of serious damage to the vehicle and sometimes even the invalidity of the guarantee

The symbols illustrated above are very important. They are used to highlight parts of the booklet that should be read with particular care. The different symbols are used to make each topic in the manual simple and quick to locate. Before starting the engine, read this booklet carefully, particularly the "SAFE RIDING" section. Your safety as well as other's does not only depend on the quickness of your reflexes and agility, but also on how well you know your vehicle, the state of maintenance of the vehicle itself and your knowledge of the rules for SAFE RIDING. For your safety, get to know your vehicle well so as to safely ride and master it given any riding condition. IMPORTANT This booklet is an integral part of the vehicle, and must be handed to the new owner in the event of sale.

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Chap. 01
General rules

Foreword

NOTE

CARRY OUT THE MAINTENANCE OPERATIONS AT HALF THE INTERVALS SPECIFIED IF THE VEHICLE IS USED IN WET OR DUSTY AREAS, OFF ROAD OR FOR SPORTING APPLICATIONS.

Motorcycle care

Aprilia recommends using quality products to clean the vehicle. The use of unsuitable products can damage vehicle components. For cleaning do not use solvents such as "nitro thinner", "cold cleaning agents", fuels or similar, or cleaning products that contain alcohol.

WASHING THE MOTORCYCLE

Aprilia recommends softening with plenty of water and then carefully removing the insects and more stubborn stains before washing the vehicle.

To prevent stains, do not wash the motorcycle immediately after exposure to sunlight, and do not wash it in the sun.

If the vehicle is used during the winter months, be sure to frequently wash the motorcycle. To remove anti-icing salt sprayed on roads in the winter, wash the motorcycle with cold water immediately after use.

CAUTION

AFTER CLEANING YOUR MOTORCYCLE, THE EFFICIENCY OF THE BRAKING SYSTEM MAY BE TEMPORARILY AFFECTED DUE TO THE PRESENCE OF WATER ON THE FRICTION SURFACES. CONSIDER AN INCREASE IN BRAKING SPACE, OPERATE THE BRAKES REPEATEDLY TO RESTORE NORMAL CONDITIONS. CARRY OUT THE PRE-RIDE CHECKS BEFORE USE.



USE OF HOT WATER INTENSIFIES THE EFFECT OF THE SALT. USE ONLY PLENTY OF COLD WATER TO WASH AND REMOVE ANTI-ICING SALT



USE OF HIGH PRESSURE WASHING SYSTEMS (OR STEAM CLEANERS) CAN DAMAGE THE SEALS, OIL SEALS, BRAKING SYSTEM, ELECTRICAL SYSTEM AND THE SADDLE. DO NOT USE STEAM OR HIGH PRESSURE CLEANING SYSTEMS. DO NOT USE STEAM OR HIGH PRESSURE CLEANING SYSTEMS.

CLEANING OF SENSITIVE PARTS

BODYWORK

To keep the motorcycle bright, wash it regularly, especially if used in areas with high levels of pollution or mud. Aggressive stains from tree resins, gasoline, oil, brake fluid or bird excrement in general

must be removed immediately, otherwise permanent stains on the paint can appear. After washing it is easy to identify marks and residual stains, remove them from the body using a soft cloth and brand-name, non-abrasive polish, and protect with a protective wax for cars. Periodic care, a thorough cleaning and regular protective wax for the bodywork preserves the aesthetic quality of the motorcycle over the long term.

PLASTIC COMPONENTS



IF THE PLASTIC COMPONENTS ARE CLEANED USING AGGRESSIVE AGENTS, THE SURFACE MAY BE DAMAGED. DO NOT USE CLEANING PRODUCTS CONTAINING ALCOHOL, SOLVENTS OR THAT ARE ABRASIVE FOR THE CLEANING

OF PLASTIC PARTS. ROTARY BRUSHES OR SPONGES WITH HARD SURFACES CAN MAKE SCRATCHES

CHROME PARTS AND POLISHED METAL



TREAT THE PARTS MADE OF CHROME, ALUMINIUM OR POLISHED STEEL IN A SPECIAL MANNER. WASH THEM WITH PLENTY OF WATER AND CAR SHAMPOO, POLISH AND REGULARLY BRIGHTEN THEM WITH POLISH PASTE, PROTECT THEM WITH WAXES OR SUITABLE ACID-FREE PRODUCTS (E.G. VASELINE)

RADIATOR



IF USING THE MOTORCYCLE IN THE WINTER ON ROADS WITH DEICING SALT, REGULARLY WASH THE RADIATOR TO PREVENT AESTHETIC DAMAGE AND THE ENGINE FROM OVERHEATING. WASH USING PLENTY OF WATER. FOR EXAMPLE USE GARDEN RUBBER WITH WATER AT LOW PRESSURE.

RUBBER PARTS

Clean the rubber parts using water and mild shampoo (brand-name, suitable for car bodies)



THE USE OF SILICONE SPRAY TO CLEAN THE RUBBER SEALS MAY CAUSE DAMAGE. DO NOT USE OTHER PRODUCTS CONTAINING SILICON FOR CLEANING THE MOTORCYCLE

Carbon monoxide

If you need to keep the engine running in order to perform a procedure, please ensure that you do so in an open or very well ventilated area. Never let the engine run in an enclosed area. If you do work in an enclosed area, make sure to use a smoke-extraction system.

CAUTION



EXHAUST EMISSIONS CONTAIN CARBON MONOXIDE, A POISONOUS GAS WHICH CAN CAUSE LOSS OF CONSCIOUSNESS AND EVEN DEATH.

CAUTION



CARBON MONOXIDE IS ODOURLESS AND COLOURLESS, THEREFORE IT CANNOT BE DETECTED BY SMELL, SIGHT OR OTHER SENSES. DO NOT BREATHE IN EXHAUST FUMES UNDER ANY CIRCUMSTANCES.

Fuel

CAUTION



THE FUEL USED TO POWER INTERNAL COMBUSTION ENGINES IS HIGHLY FLAMMABLE AND MAY BE EXPLOSIVE UNDER CERTAIN CONDITIONS. IT IS THEREFORE RECOMMENDED TO CARRY OUT REFUELLING AND MAINTENANCE PROCEDURES IN A VENTILATED AREA WITH THE ENGINE SWITCHED OFF. DO NOT SMOKE DURING REFUELLING AND NEAR FUEL VAPOURS, AVOIDING ANY CONTACT WITH NAKED FLAMES, SPARKS OR OTHER SOURCES WHICH MAY CAUSE THEM TO IGNITE OR EXPLODE.

DO NOT DISPERSE FUEL IN THE ENVIRONMENT.

KEEP OUT OF THE REACH OF CHILDREN



IF THE VEHICLE FALLS OR IS ON A STEEP INCLINE FUEL CAN LEAK.

Hot components

The engine and the exhaust system components get very hot and remain in this condition for a certain time interval after the engine has been switched off. Before handling these components, make sure that you are wearing insulating gloves or wait until the engine and the exhaust system have cooled down.

Coolant

The coolant contains ethylene glycol which, under certain conditions, can become flammable. When ethylene glycol burns, it produces an invisible flame which can nevertheless cause burns.

CAUTION



TAKE CARE NOT TO POUR COOLANT ONTO HOT ENGINE OR EXHAUST SYSTEM COMPONENTS; THE FLUID MAY CATCH FIRE AND BURN WITH INVISIBLE FLAMES. WHEN CARRYING OUT MAINTENANCE OPERATIONS, IT IS ADVISABLE TO WEAR LATEX GLOVES. EVEN THOUGH IT IS TOXIC, COOLANT HAS A SWEET FLAVOUR WHICH MAKES IT VERY ATTRACTIVE TO ANIMALS. NEVER LEAVE THE COOLANT IN OPEN CONTAINERS IN AREAS ACCESSIBLE TO ANIMALS AS THEY MAY DRINK IT.

KEEP OUT OF THE REACH OF CHILDREN

DO NOT REMOVE THE RADIATOR CAP WHEN THE ENGINE IS STILL HOT. THE COOLANT IS UNDER PRESSURE AND MAY CAUSE BURNS.

Used engine oil and gearbox oil

CAUTION



IT IS ADVISABLE TO WEAR PROTECTIVE IMPERMEABLE GLOVES WHEN SERVICING THE VEHICLE.

THE ENGINE OR GEARBOX OIL MAY CAUSE SERIOUS INJURIES TO THE SKIN IF HANDLED FOR PROLONGED PERIODS OF TIME AND ON A REGULAR BASIS.

WASH YOUR HANDS CAREFULLY AFTER HANDLING OIL.

HAND THE OIL OVER TO OR HAVE IT COLLECTED BY THE NEAREST USED OIL RECYCLING COMPANY OR THE SUPPLIER.

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

KEEP OUT OF THE REACH OF CHILDREN

Brake and clutch fluid



BRAKE FLUID MAY BE HARMFUL TO PAINTWORK, PLASTIC AND RUBBER. WHEN SERVICING THE BRAKING SYSTEM PROTECT THESE COMPONENTS WITH A CLEAN CLOTH. ALWAYS WEAR PROTECTIVE GOGGLES WHEN SERVICING THESE SYSTEMS. BRAKE FLUID IS EXTREMELY HARMFUL TO THE EYES. IN THE EVENT OF ACCIDENTAL CONTACT WITH THE EYES, RINSE THEM IMMEDIATELY WITH ABUNDANT COLD, CLEAN WATER AND SEEK MEDICAL ADVICE.

KEEP OUT OF THE REACH OF CHILDREN

Battery hydrogen gas and electrolyte

CAUTION



THE BATTERY ELECTROLYTE IS TOXIC, CORROSIVE AND AS IT CONTAINS SULPHURIC ACID, IT CAN CAUSE BURNS WHEN IN CONTACT WITH THE SKIN. WHEN HANDLING BATTERY ELECTROLYTE, WEAR TIGHT-FITTING GLOVES AND PROTECTIVE APPAREL. IN THE EVENT OF SKIN CONTACT WITH THE

ELECTROLYTIC FLUID, RINSE WELL WITH PLENTY OF CLEAN WATER. IT IS PARTICULARLY IMPORTANT TO PROTECT YOUR EYES BECAUSE EVEN TINY AMOUNTS OF BATTERY ACID MAY CAUSE BLINDNESS. IF THE FLUID GETS IN CONTACT WITH YOUR EYES, WASH WITH ABUNDANT WATER FOR FIFTEEN MINUTES AND CONSULT AN EYE SPECIALIST IMMEDIATELY. THE BATTERY RELEASES EXPLOSIVE GASES; KEEP IT AWAY FROM FLAMES, SPARKS, CIGARETTES OR ANY OTHER HEAT SOURCES. ENSURE ADEQUATE VENTILATION WHEN SERVICING OR RECHARGING THE BATTERY.

KEEP OUT OF THE REACH OF CHILDREN

BATTERY LIQUID IS CORROSIVE. DO NOT POUR IT OR SPILL IT, PARTICULARLY ON PLASTIC COMPONENTS. ENSURE THAT THE ELECTROLYTIC ACID IS COMPATIBLE WITH THE BATTERY TO BE ACTIVATED.

Stand



BEFORE SETTING OFF, MAKE SURE THE STAND HAS BEEN COMPLETELY RETRACTED TO ITS POSITION.

DO NOT REST THE RIDER'S OR PASSENGER'S WEIGHT ON THE SIDE STAND.

Reporting of defects that affect safety

Unless otherwise specified in this Use and Maintenance Booklet, do not remove any mechanical or electrical component.

CAUTION

SOME OF THE VEHICLE'S CONNECTORS ARE INTERCHANGEABLE AND IF MOUNTED INCORRECTLY CAN JEOPARDISE REGULAR FUNCTIONING OF THE VEHICLE AND/OR DAMAGE PARTS OF IT IRREPARABLY.

System a-PRC (Aprilia Performance Ride Control)

WHERE CONTEMPLATED

a-PRC system (Aprilia Performance Ride Control)

The a-PRC system consists of the following control systems:

ALC (Aprilia Launch Control)

A system designed to help the rider optimise acceleration during standing starts.

ATC (Aprilia Traction Control)

A system designed to help the rider control wheelspin.

AWC (Aprilia Wheelie Control)

A system designed to help the rider control wheeling by reducing torque to gently lower the front wheel to the ground.

AQS (Aprilia Quick Shift)

This system enables upshifts without using the clutch and without changing the throttle position.

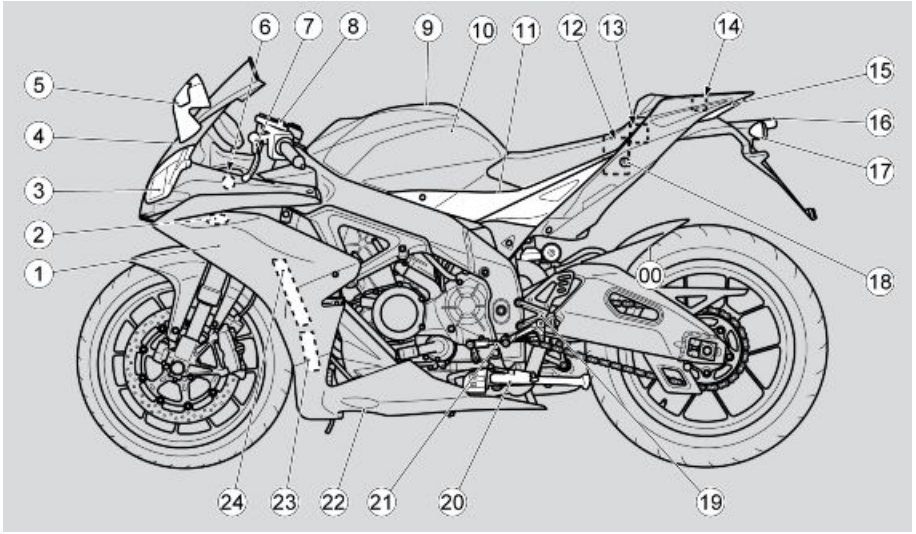
key:

a-PRC: motorcycle with a-PRC system (Aprilia Performance Ride Control).

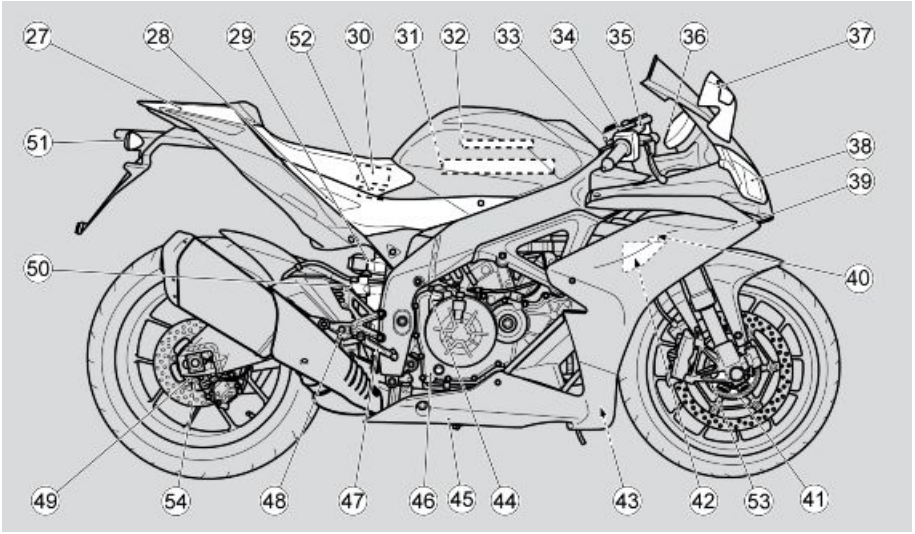
RSV4



Chap. 02
Vehicle



02_01



02_02

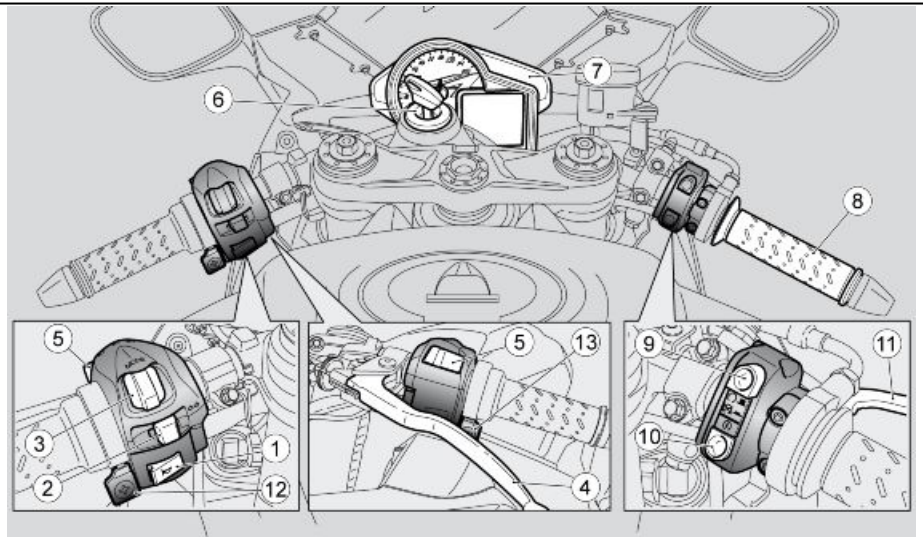
Arrangement of the main components (02_02)

key:

1. Left side fairing
2. Horn
3. Left headlamp
4. Windshield
5. Left hand rear view mirror and turn indicator
6. Steering damper
7. Clutch lever
8. Left hand switch
9. Fuel tank cap
10. Fuel tank
11. Left side fairing

12. Battery
13. Auxiliary fuses
14. Main fuses
15. Taillight
16. License plate light
17. Rear left turn indicator
18. Saddle / glovebox / toolkit compartment lock
19. Left hand rider footrest
20. Side stand
21. Gear lever
22. AQS (Aprilia Quick Shift) (if fitted)
23. Left hand fairing lug
24. Engine oil radiator
25. Coolant radiator
26. CLF ECU (Tone wheel reading control unit) (if fitted)
27. Tail fairing
28. Right side fairing
29. Rear shock absorber
30. Sensor box (inertia sensor platform) (if fitted)
31. Air filter
32. ECU
33. Starter button
34. Right hand switch
35. Front brake fluid reservoir
36. Instrument/indicator light panel
37. Right hand rear view mirror and turn indicator
38. Front right headlamp
39. Right side fairing
40. Expansion tank cap
41. Front tone wheel (if applicable)
42. Coolant expansion tank
43. Oil filter
44. Engine oil plug
45. Right hand fairing lug
46. Engine oil level
47. Rear brake lever
48. Right hand rider footrest
49. Rear tone wheel (if applicable)

50. Rear brake pump and fluid reservoir
51. Rear right turn indicator
52. ABS control unit (if fitted)
53. Front speed sensor (if fitted)
54. Rear speed sensor



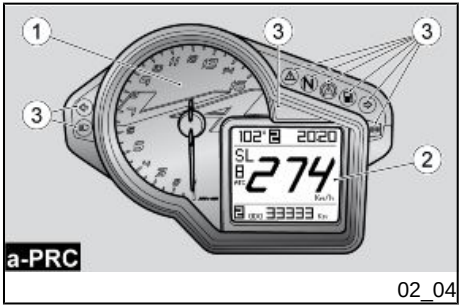
02_03

Dashboard (02_03)

key:

1. Horn button
2. Turn indicator control

3. MODE Control
4. Clutch control lever
5. High beam flashing switch
6. Ignition switch /steering lock
7. Instruments and gauges
8. Throttle grip
9. Engine stop button
10. Starter button
11. Front brake lever
12. "+" button
13. "-" button



02_04

Analog instrument panel (02_04)

key:

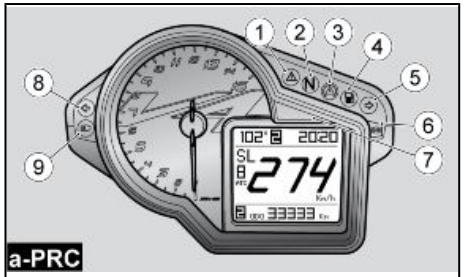
1. Rpm indicator
2. Multifunctional digital display
3. Warning lights

The instrument panel has an immobilizer system which prevents start-up in case the system does not identify a key which has been stored before.

The vehicle is supplied with two keys already programmed. The instrument panel accepts a maximum of four keys at the same time: contact an Official **Aprilia** Dealer to enable these keys or to disable a key that has been lost. When the vehicle is delivered and approximately ten seconds after the key is set to ON, the instrument panel requests a personal five-digit code to be entered. This request is no longer displayed once the personal code is entered. For code entering procedure, see the CODE MODIFICATION section

It is important to remember the personal code because:

- **the vehicle can be started if the immobilizer system is faulty**
- **the instrument panel need not be replaced should the ignition switch be changed**
- **new keys can be programmed**



02_05

Light unit (02_05)

Key (a-PRC):

1. General warning light, red
2. Gear in neutral warning light, green
3. A-PRC (Aprilia Performance Ride Control) indicator light, orange (if enabled)
4. Low fuel warning light, orange
5. Right turn indicator warning light, green
6. ABS warning light (where fitted), orange
7. Gear shift warning light, red
8. Left turn indicator warning light, green
9. High beam indicator light, blue.



02_06

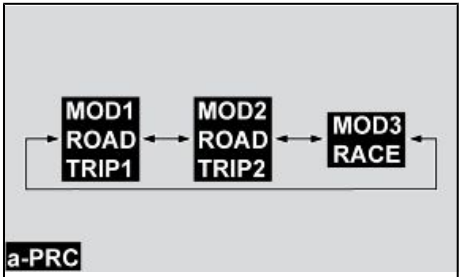
Digital lcd display (02_06, 02_07, 02_08, 02_09, 02_10, 02_11, 02_12, 02_13)

- By turning the ignition key to 'KEY ON', the following indicators on the instrument panel are lit for two seconds:

- The 'RSV4' logo

- All warning lights

- The rpm indicator pointer moves and then goes back to its original position.



02_07

NOTE

EVERY TIME THE SELECTOR IS HELD DOWN TO THE RIGHT OR LEFT, YOU CAN GO FROM ONE CONFIGURATION TO ANOTHER.



02_08

ROAD - TRIP 1/TRIP 2 MODES (a-PRC)

1) Water temperature (displayed either in °C or °F);

2) Gear selected;

3) Clock (in 24H format or in 12H format with no AM/PM indication) or chronometer (selectable from menu).

4) Map selected;

5) ALC (Aprilia Launch Control);

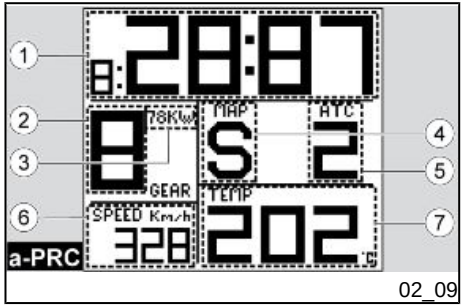
6) ATC (Aprilia Traction Control); The level is displayed in negative against a black background when AWC (Aprilia Wheelie Control) is active.

7) Speed (speedometer);

8) Information, if available, relative to maps stored in ECU;

9) Service interval spanner symbol, if applicable.

10) Trip computer log or alarms stored.



02_09

RACE MODE (a-PRC)

WHERE CONTEMPLATED

1) Chronometer or Launch control;

2) Gear selected;

3) Information, if available, relative to maps stored in ECU;

4) Map selected;

5) ATC (Aprilia Traction Control); The level is displayed in negative against a black background when AWC (Aprilia Wheelie Control) is active;

6) Speed (speedometer);

7) Water temperature (displayed either in °C or °F).



02_10

RACE MODE (std)

1) Chronometer or Launch control;

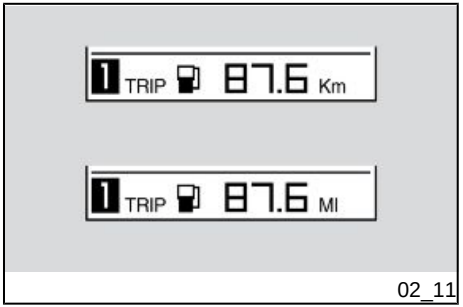
2) Gear selected;

3) Information, if available, relative to maps stored in ECU;

4) Map selected;

5) Speed (speedometer);

6) Water temperature (displayed either in °C or °F).

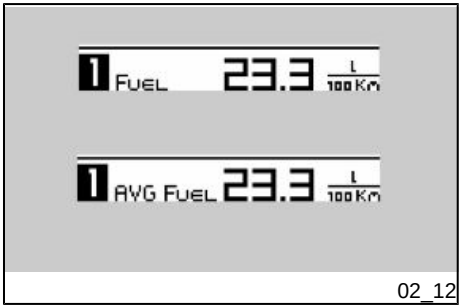


02_11

Two kilometres after the low fuel warning light turns on, the kilometres travelled with low fuel are shown on the digital display.

Pressing the centre button of the MODE control while the low fuel warning light is active temporarily deactivates the warning light for 60 seconds.

At "KEY-ON" the indication of reserve can have a delay of 60 seconds.

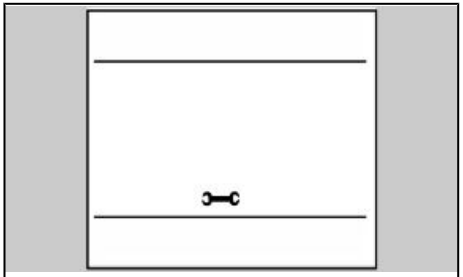


02_12

The instrument panel can display instantaneous fuel consumption.

The instrument panel can display average fuel consumption since the last journey log reset.

Upon entering reserve, the distance in Km (or mi) travelled since entering reserve state is displayed instead of the trip counter.

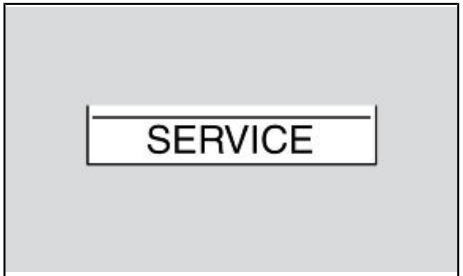


02_13

When a maintenance interval threshold is exceeded, an icon with a spanner is shown. This indicator may be reset once the scheduled service has been completed by an **authorised Aprilia Dealer or service centre**.

The "spanner" icon flashes for five seconds when the key is turned to "KEY ON" when there is less than 300 Km (186 mi) remaining before the next scheduled maintenance interval.

With the key set to "KEY OFF" the general alarm warning light flashes to indicate activation of the locking system. To minimise battery consumption the light stops flashing after 48 hours.



02_14

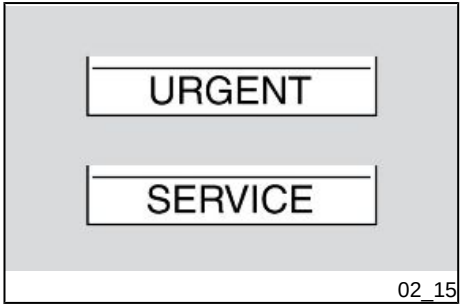
Alarms (02_14, 02_15, 02_16, 02_17, 02_18)

In case of failure, a different icon is displayed according to the cause at the bottom of the display.

Take your vehicle as soon as possible to an Official **Aprilia** Dealer.

SERVICE ALARM

In case of failure found in the instrument panel or in the electronic control unit, the instrument panel signals the failure by displaying the SERVICE icon and the red general warning light comes on.



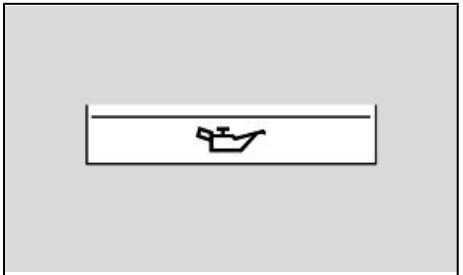
02_15

If there is an immobilizer failure at ignition, the instrument panel requests you to enter a user code. If the code is entered correctly, the instrument panel signals the failure by displaying the SERVICE icon and the red general warning light comes on.

URGENT SERVICE ALARM

A serious failure is signalled by a fast flashing (two flashes per second) of the general warning light and by the URGENT and SERVICE words alternately being shown on the digital display. Take your vehicle as soon as possible to an Official **Aprilia** Dealer. In these cases, the control unit activates a safety procedure that limits the vehicle performance so that the rider is able to reach an Official **Aprilia** Dealer at low speed. According to the type of failure, performance can be limited in two ways: a) by reducing

the maximum torque produced; b) by keeping the engine at idle speed but slightly accelerated (during this operation, the throttle control is disabled).

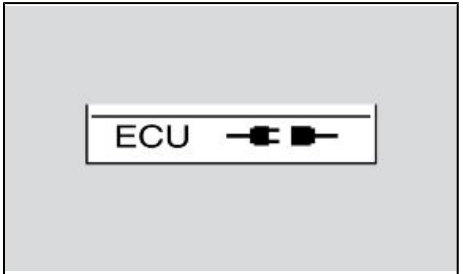

02_16

Oil failure

In case of failing oil pressure or oil pressure sensor failure, the bulb and the red general warning light turn on the instrument panel.

Engine overheating alarm

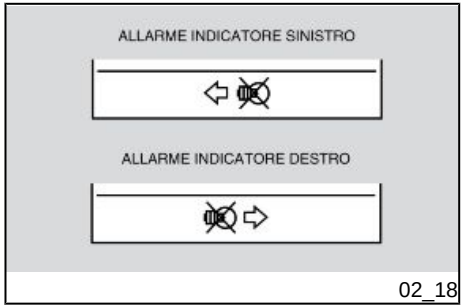
The engine overheating alarm is activated when the temperature reaches 115 °C (239 °F). It is signalled when the general red warning light turns on.



02_17

Electronic control unit disconnected alarm

In case no connection is detected, the disconnection icon is displayed on the instrument panel and the red general warning light turns on to signal this condition.



02_18

Turn indicator malfunction

When the instrument panel detects a failing turn indicator, the turn indicator warning light flashes twice as fast and the problem is signalled on the digital display.



02_19

Mapping selection (02_19, 02_20)

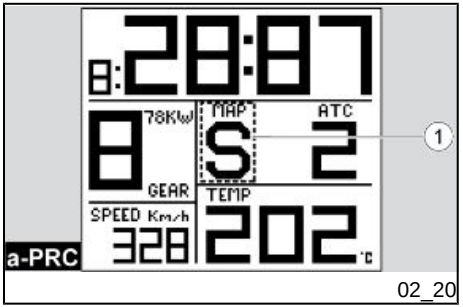
The engine control unit has three different user-selectable electronic throttle management maps, which are indicated as follows at the top left of the instrument panel digital display (1) :

- **T** is the **TRACK** mapping
- **S** is the **SPORT** mapping
- **R** is the **ROAD** mapping

The **"T"** engine management map is the most responsive of all and is conceived for track use.

CAUTION

ONLY EXPERT RIDERS, RIDING ON ROADS WITH GOOD GRIP ARE ADVISED TO USE THIS MODE. IT IS NOT RECOMMENDED FOR WET SURFACES AND/OR ROADS WITH LOW GRIP.



The **"S"** engine management map is tailored for performance-oriented use. In this mode the vehicle's performance in first and second gear is reduced.

The **"R"** engine management map is designed for normal road use. The system reduces the maximum torque supplied by the engine and smoothly delivers it so as to prevent loss of grip. In this mode, the vehicle performance is limited, and therefore, the maximum speed cannot be reached.

CAUTION

EVEN IN THIS MODE, ALWAYS USE PARTICULAR CAUTION WHEN RIDING IN POOR GRIP CONDITIONS.

The rider may cycle through the different engine maps by pressing the starter button, which may be used to select maps once 5 seconds have elapsed after engine start.

CAUTION

MAP SELECTION IS ONLY PERMITTED WITH THE ENGINE RUNNING AND THE THROTTLE RELEASED. MAP SELECTION IS ALSO POSSIBLE WITH THE MOTORCYCLE IN MOTION, PROVIDED THAT THE THROTTLE GRIP IS RELEASED.

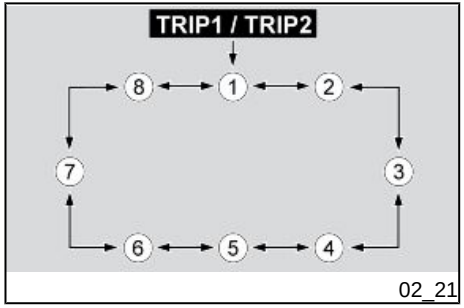
To change engine maps, proceed as follows.

- Press the starter button once. The symbol of engine map currently in use is displayed in negative against a black background.

- Press the button twice within 1.5 seconds; the next engine map is displayed in negative against a black background. To select this engine map, press the starter button within 1.5 seconds. Otherwise, the next engine map in the sequence will be displayed in negative against a black background. When the desired map is shown, press the starter button and the desired map will be displayed normally. In any case, do not "open" the throttle during this operation. If the throttle is opened, the activation process for the new engine map by the ECU is interrupted (the map symbol is displayed normally and flashing) until the throttle is closed again, allowing the ECU to complete the procedure.

CAUTION

IF THE THROTTLE IS OPENED WHILE A NEW MAP IS DISPLAYED IN NEGATIVE AGAINST A BLACK BACKGROUND (INDICATING THAT IT IS STILL BEING ACTIVATED BY THE ECU), THE NEW MAP SELECTED WILL START TO FLASH (DISPLAYED NORMALLY) BUT WILL NOT BE EFFECTIVELY APPLIED UNTIL THE THROTTLE IS RELEASED AGAIN.



02_21

Control buttons (02_21)

Trip journal 1 and 2

There are two trip journals available.

Press and hold down the MODE control to the left to select the TRIP JOURNAL 1; icon "1" on the DIGITAL DISPLAY turns on.

Press and hold down the MODE control to the right to select the TRIP JOURNAL 2; icon "2" on the DIGITAL DISPLAY turns on.

In each journal, each time the MODE control is briefly pressed to the right or left, the following information is displayed in sequence:

1) ODOMETER;

2) TRIP ODOMETER;

3) JOURNEY TIME;

4) MAXIMUM SPEED;

5) AVERAGE SPEED;

6) AVERAGE FUEL CONSUMPTION;

7) INSTANTANEOUS FUEL CONSUMPTION;

8) MENU (only with vehicle at a standstill)

With the following options: TRIP ODOMETER, TRAVELLING TIME, MAXIMUM SPEED, MEAN SPEED, AVERAGE FUEL CONSUMPTION, press and hold down the central key to reset all the indications stored in the active TRIP JOURNAL.

CHRONOMETER

To use the chronometer, select the CHRONOMETER function from the MENU of the instrument panel advanced functions.

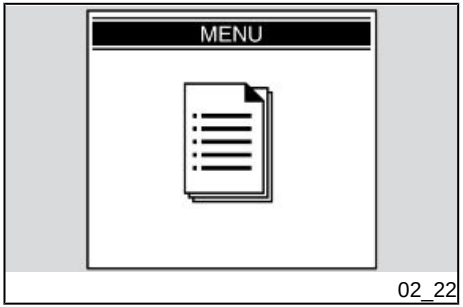
The chronometer appears at the top of the digital display, replacing the clock.

With the vehicle in motion the chronometer functioning is controlled by means of the MODE control central button.

Press the central button briefly to start the chronometer. Timekeeping starts when the button is pressed. If the button is pressed again within 15 seconds after starting timekeeping, the chronometer is reset. After that time, and if the button is pressed again, the data is stored and the next timekeeping begins.

Timekeeping is cancelled by pressing and holding down the central button, or when speed goes back to zero; the display shows the last timekeeping. Timekeeping starts again following the steps described above.

Once 40 timekeeping sessions have been acquired, acquisition stops and the message "FULL" is shown on the digital display. A new series of timekeeping can be started again only after deleting previous times stored by means of the MENU of the instrument panel advanced functions.



02_22



02_23



02_24

Advanced functions (02_22, 02_23, 02_24, 02_25, 02_26, 02_27, 02_28, 02_29, 02_30, 02_31)

MENU (a-PRC)

The configuration menu is accessible with the vehicle at a standstill by pressing and holding the MODE button, directly via the menu screen page, and contains the following functions:

- EXIT
- SETTINGS
- A-PRC SETTINGS (WHERE FITTED)
- CHRONOMETER
- CALIBRATION
- DIAGNOSIS
- LANGUAGE

MENU (std)

- EXIT
- SETTINGS
- CHRONOMETER
- DIAGNOSIS
- LANGUAGES.

SETTINGS

The SETTINGS menu consists of the following options:

- EXIT
- TIME ADJUSTMENT
- GEAR SHIFT
- BACKLIGHTING
- CHANGE THE CODE
- CODE RESET
- °C / °F
- 12/24 h

The functions of the settings menu are indicated in the following sections.

Once the operation is finished, the instrument panel goes back to the main menu.

TIME ADJUSTMENT

The clock can be set as follows. The main screen shows the "Hour Adjustment" control.

In this mode, the minute indicator is no longer displayed leaving only the hour indicator. Each time the MODE command is pressed to the right, the hour value increases; likewise, each time the MODE command is pressed to the left, the hour value decreases. Press the MODE command central part to store the set value and to shift to minute adjustment.

The hour indicator is no longer displayed when this function is activated; only the minute indicator is shown. Each time the MODE command is pressed to the right, the minute value increases; likewise, each time the MODE command is pressed to the left the minute value decreases.

Press the MODE command central part to store the set value and to exit the clock adjustment function.



02_25

GEAR SHIFT THRESHOLD

The gear shift threshold can be set in this mode. The main screen page shows the message "GEAR SHIFT THRESHOLD".

Each time the MODE command is pressed to the right, the threshold value increases by 100 RPM; vice versa, each time the MODE command is pressed to the left, the threshold value decreases by 100 RPM.

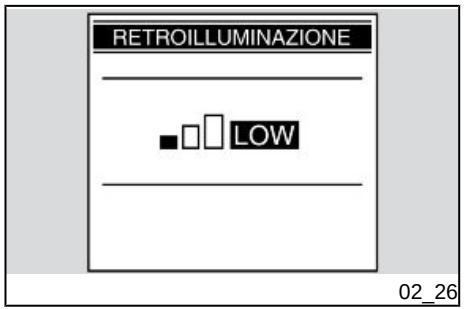
After reaching either the highest or lowest limit, the next time the command is pressed will produce no effect.

The procedure ends when the MODE command is pressed at the central position, which stores the set value, the pointer goes back to zero and the instrument panel goes back to the configuration menu.

When the battery is first activated, the instrument panel is set to the run-in rev value. Afterwards, the last set value is displayed:

- RUN-IN REVOLUTIONS: 8500 rpm
- MAXIMUM REVOLUTIONS: 15000 rpm

If the set threshold value is exceeded, the gear change warning light on the instrument panel starts to flash. It turns off when the value goes back below the threshold limit.



02_26

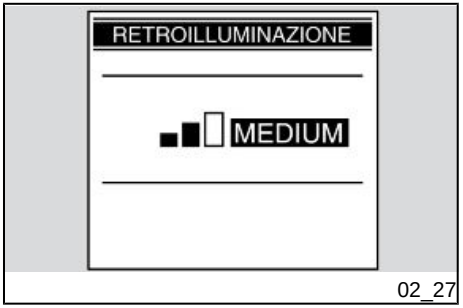
BACKLIGHTING BRIGHTNESS

This function adjusts the backlighting brightness to three levels. Each time the MODE command is pressed to the right or left, the following icons are shown:

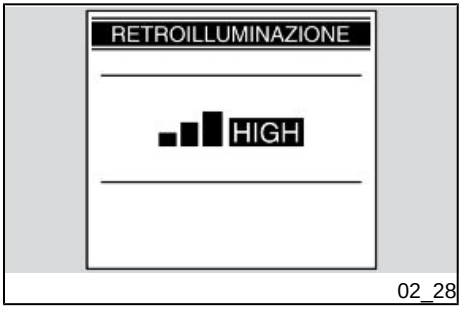
- LOW
- MEAN
- HIGH

Once the operation is finished, when the MODE command is pressed at central position, the instrument panel shows the SETTINGS menu.

When the battery is detached, the display is configured with the maximum level of brightness.



02_27



02_28

CODE CHANGE

This function is used to modify an old code. Once you have entered this function, the following message is displayed:

"ENTER OLD CODE"

After recognising the old code, the new code is requested and the display shows the following message:

"ENTER NEW CODE"

Once the operation is finished, the display shows the DIAGNOSIS menu. If the code has been used, this operation is not allowed.

Once the operation is finished, the instrument panel shows the SETTINGS menu.

If it is the first time a code is stored, only the new code is requested.

CODE RESET

This function is used to set a new code when the old one is not available; in this case, at least two keys will have to be inserted in the ignition lock. After the first key has been inserted, the second one is requested with the following message:

"INSERT KEY II"

In between keys, the instrument panel remains lit; if the key is not inserted within 20 seconds, the operation finishes. After recognising the second key, the insertion of the new code is required with the message:

"ENTER NEW CODE"

Once the operation is finished, the display shows the DIAGNOSIS menu. If the code has been used, this operation is not allowed.

Once the operation is finished, the instrument panel shows the SETTINGS menu.

°C/°F

Select the °C / °F option from the SETTINGS menu for this function.

This function selects the unit of measurement for the coolant temperature: °C or °F.

12H / 24H

Select the 12H / 24H option from the SETTINGS menu for this function.

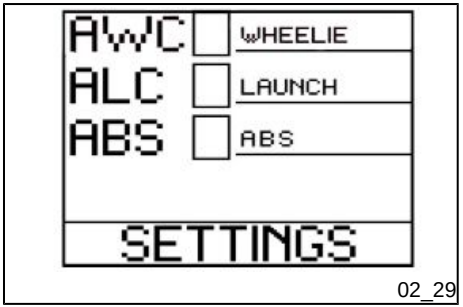
This menu selects the clock display mode as 12h or 24h.

a-PRC SETTINGS

WHERE CONTEMPLATED

NOTE

THIS MODE CAN ONLY BE ACCESSED IF THE ATC (Aprilia Traction Control) OR ABS SYSTEM IS ACTIVE.



This mode allows the rider to set/activate AWC (Aprilia Wheelie Control) level, ALC (Aprilia Launch Control) and ABS (Antilock Braking System) levels, with the vehicle at a standstill.

Once SETTINGS a-PRC has been selected, from the menu or directly from the RACE mode page, you can select AWC, ALC or ABS by quickly pressing the MODE selector right or left.

NOTE

THE ENTRIES AWC AND ALC CAN BE SELECTED ONLY IF ATC IS ACTIVE.

When the AWC is selected (shown in negative) its level can be changed by short presses of the buttons "+" and "-" from the value 1 (minimal intervention) to the value 3 (maximum intervention).

The AWC function can be deactivated from level 1 with a long press of the button "-".

The AWC function is reactivated with a quick press of the button "+".

When the ALC is selected (shown in negative) its level can be changed by short presses of the buttons "+" and "-" from the value 1 (minimal intervention) to the value 3 (maximum intervention).

CAUTION

TO GAIN FAMILIARITY WITH THE AWC AND ALC SYSTEMS, PREFERABLY USE LEVEL "3" TO START WITH. AND THEN, ONCE YOU FEEL COMFORTABLE WITH THE SYSTEMS, TRY THE OTHER LEVELS TO IDENTIFY WHICH ARE THE

BEST SUITED TO YOUR RIDING STYLE AND FOR DIFFERENT ROAD AND WEATHER CONDITIONS.

LEVEL "1" IS RECOMMENDED FOR USE BY EXPERT RIDERS IN IDEAL ROAD SURFACE CONDITIONS.

LEVEL "2" IS AN INTERMEDIATE SETTING BETWEEN LEVEL "1" AND LEVEL "3".

NOTE

WHEN A FUNCTION IS DISABLED, IT IS INDICATED WITH THE SYMBOL "-".

When the ABS is selected (shown in negative) its level can be changed by short presses of the buttons "+" and "-" from the value 1 (minimal intervention) to the value 3 (maximum intervention). The ABS function can be deactivated from level 1 with a long press of the button "-".

The ABS function is reactivated with a quick press of the button "+".

NOTE

THE DISABLING OF THE ABS REMAINS EVEN AFTER A "KEY OFF".

CAUTION



TO GAIN FAMILIARITY WITH THE ABS SYSTEM, PREFERABLY USE LEVEL "3" TO START WITH. AND THEN, ONCE YOU FEEL COMFORTABLE WITH THE SYSTEMS, TRY THE OTHER LEVELS TO IDENTIFY WHICH ARE THE BEST SUITED TO YOUR RIDING STYLE AND FOR DIFFERENT ROAD AND WEATHER CONDITIONS.

Level "1" is suitable for track use, for advanced users and is not recommended for use on the road. At this level the lifting control of the rear wheel is not active.

Level "2" is suitable for on-road use in good grip conditions. In this case the lifting control of the rear wheel is active for speeds below 80 km/h (49.71 mi).

Level "3" is suitable for use in any road conditions. It does not allow, in most cases, for the lifting of the rear wheel.

CAUTION



BEFORE RIDING OFF, CHECK THE ABS LEVEL OF INTERVENTION SELECTED. TURNING OFF THE ENGINE DOES NOT RESET SETTING MADE PREVIOUSLY.

NOTE

WHEN A FUNCTION IS DISABLED, IT IS INDICATED WITH THE SYMBOL "-".

NOTE

THE a-PRC SETTING FUNCTION MAY ALSO BE ACCESSED FROM THE RACE DISPLAY MODE BY PRESSING THE MODE SELECTOR BRIEFLY.

CHRONOMETER

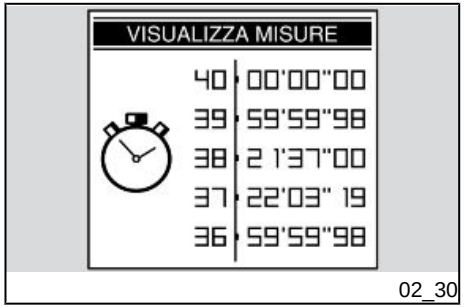
Select the CHRONOMETER option from the configuration menu to access the chronometer function. When the CHRONOMETER function is selected the screen page shows the following options:

- EXIT

- CLOCK/CHRONOMETER

- DELETE TIMES

CLOCK/CHRONOMETER
This function allows you to select which function to have at the top of the display: clock or chronometer.



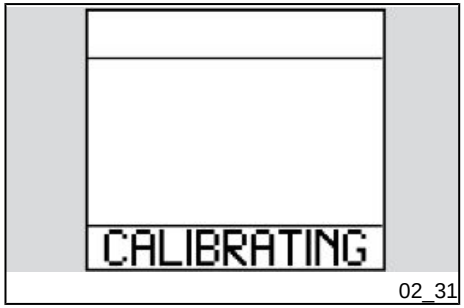
02_30

View times

This option shows the stored chronometer times. Press the MODE selector for a couple of seconds to the right or left to scroll the time screens; hold it down to display the CHRONOMETER menu. If the battery is removed, the stored times are lost.

Delete times

This option deletes the stored chronometer times. A deletion confirmation is requested. Once the operation is finished, the display goes back to the chronometer menu.



02_31

CALIBRATION

Select the CALIBRATION function from the configuration menu to access the CALIBRATION function.

When the CALIBRATION function is selected (with vehicle at a standstill), a screen is shown with the following message at the bottom of the display:

CALIBRATING

To calibrate the a-PRC (Aprilia Performance Ride Control) system, ride for approximately 10 seconds in a straight line on a flat section of road in second gear and at a speed of 40 +/- 2 Km/h (24.85 +/- 1.24 mph), until the message CALIBRATING is no longer shown on the display.

NOTE

ONCE THE MESSAGE 'CALIBRATING' CEASES TO BE DISPLAYED, STOP THE VEHICLE, TURN THE IGNITION SWITCH OFF AND LEAVE OFF FOR AT LEAST 30 SECONDS TO COMPLETE THE CALIBRATION PROCEDURE.

THIS ALLOWS THE CALIBRATION TO BE STORED IN THE MEMORY.

NOTE

THE CALIBRATION PROCEDURE IS USED TO OPTIMISE a-PRC FUNCTIONALITY IN THE EVENT OF CHANGING TYRE TYPE OR FINAL DRIVE RATIO (PINION-SPROCKET COMBINATION).

IF THE VEHICLE IS FITTED WITH TYRES OTHER THAN THOSE INDICATED IN THIS USE AND MAINTENANCE MANUAL, THE LEVEL SETTINGS OF THE SYSTEM MAY NEED TO BE MODIFIED IN ORDER TO OBTAIN THE SAME BEHAVIOUR AS BEFORE.

NOTE

TURN THE IGNITION SWITCH OFF TO ABORT THE CALIBRATION PROCEDURE.

DURING CALIBRATION, ATC IS AUTOMATICALLY DEACTIVATED (IF PREVIOUSLY ACTIVATED).

CAUTION

WHEN THE MOTORCYCLE IS IN RESERVE, IT IS NOT POSSIBLE TO CARRY OUT THE CALIBRATION PROCEDURE BECAUSE, DURING THIS PHASE, ON THE INSTRUMENT PANEL, THE MESSAGE CALIBRATING IS REPLACED BY THE INDICATION OF THE KILOMETRES TRAVELLED SINCE ENTERING RESERVE STATE

DIAGNOSIS

Open the configuration menu to display the DIAGNOSIS option.

This menu interfaces with the systems present on the vehicle and diagnoses them. To enable this menu, enter an access code available only from official Aprilia dealers.

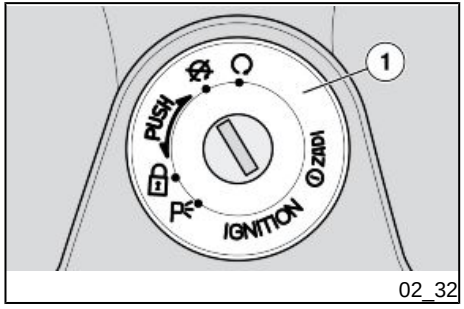
LANGUAGES

Open the configuration menu to access the LANGUAGES function. Select the LANGUAGES option to choose the interface language.

The options are:

- ITALIANO
- ENGLISH
- FRANÇAIS
- DEUTSCH
- ESPAÑOL

Once the operation is finished, the display goes back to the LANGUAGES menu.



02_32

Ignition switch (02_32)

The ignition switch (1) is located on the headstock upper plate.

The vehicle is supplied with two keys (one is the spare key).

The lights go off when the ignition switch is set to «**OFF**».

NOTE

THE KEY ACTIVATES THE IGNITION SWITCH AND OPERATES THE STEERING LOCK.

NOTE

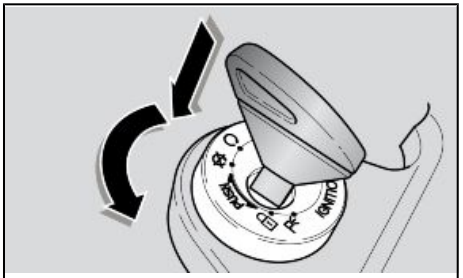
THE HIGH AND LOW BEAM LIGHTS TURN ON AUTOMATICALLY UPON ENGINE START-UP.

LOCK: The steering is locked. It is not possible to start the engine or switch on the lights. The key can be extracted

OFF: The engine and lights cannot be set to work. The key can be extracted.

ON: The engine can be started. The key cannot be removed

PARKING: The steering is blocked. The engine cannot be started. The lights of the front and rear headlamps are activated. The ignition key can be extracted. Once the key has been extracted, the immobilizer system is active (if present).



02_33

Locking the steering wheel (02_33)

To lock the steering:

• Turn the handlebar completely to the left.

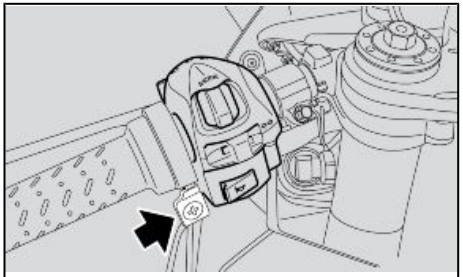
• Turn the key to «**OFF**».

• Push in the key and turn it anticlockwise (to the left), steer the handlebar slowly until the key is set to «**LOCK**».

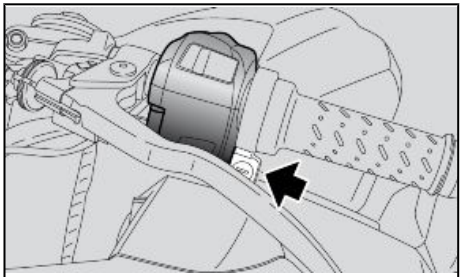
• Remove the key.

CAUTION

TO AVOID LOSING CONTROL OF THE VEHICLE, NEVER TURN THE KEY TO "LOCK" WHILE RIDING.



02_34

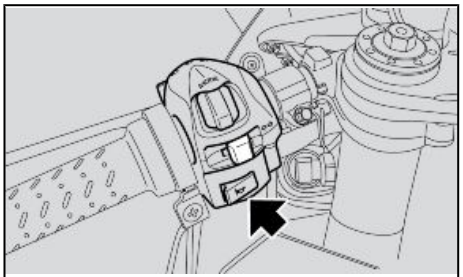


02_35

a-PRC setting buttons (02_34, 02_35)

WHERE CONTEMPLATED

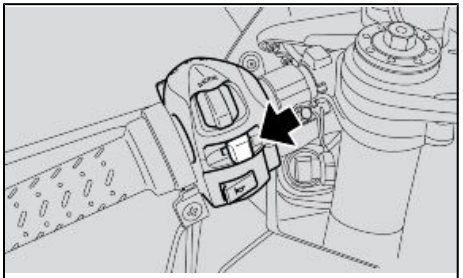
These allow the rider to adjust the settings of the different functions of the a-PRC system.



02_36

Horn button (02_36)

Press it to activate the horn.



02_37

Switch direction indicators (02_37)

Move the switch to the left, to indicate a left turn; move the switch to the right to indicate a right turn. Pressing the switch deactivates the turn indicator.

CAUTION

IF THE WARNING LIGHT WITH ARROWS FLASHES QUICKLY, IT MEANS THAT ONE OR BOTH TURN SIGNALS LIGHT BULBS ARE BURNT OUT.

The turn indicators have a self-cancelling function that implements the following logic.

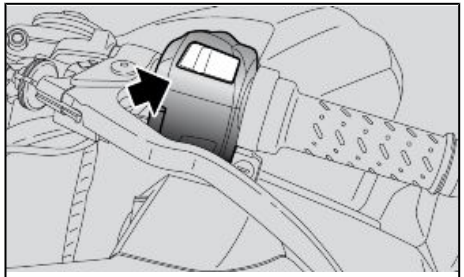
With the vehicle at a standstill (speed = zero), the turn indicators continue flashing indefinitely.

With the vehicle in motion, the turn signals self-cancel when one the two following conditions is met:

- After a time (t) = 40 sec.
- After riding 500 m (0.31 mi).

If the vehicle speed reaches zero during this period, the time and distance counts are reset and start again from zero when the vehicle starts moving once again.

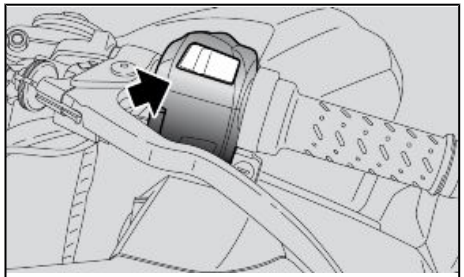
Switching on the opposite side turn indicators without pressing the switch in the intermediate reset position causes both the time and distance counters to reset and recommence from zero.



02_38

High/low beam selector (02_38)

Press the light switch to turn on the low beam light; press it again to turn on the high beam light.

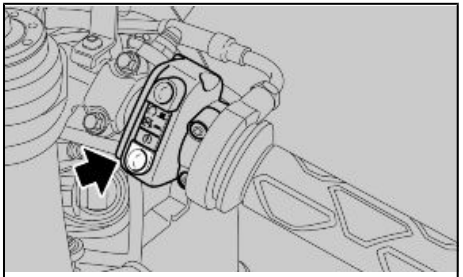


02_39

Passing button (02_39)

Uses the high beam flash in case of danger or emergency.

Releasing the switch deactivates the high beam flash.

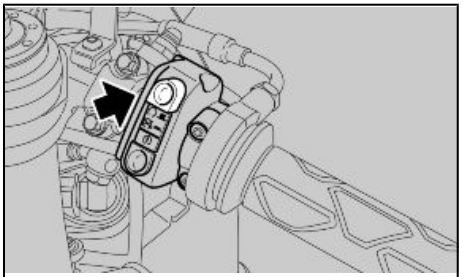


02_40

Start-up button (02_40)

With the key inserted in the ignition and turned to ON, when the button is pushed the starter motor will start the engine

AFTER A FEW SECONDS FROM THE ENGINE START-UP, THE START-UP BUTTON ASSUMES THE MAPPING CHANGE FUNCTION.



02_41

Engine stop switch (02_41)

It acts as an engine cut-off or emergency stop switch.

Press this switch to stop the engine.

System ABS

WHERE CONTEMPLATED

The ABS system is a device that prevents wheel locking in case of an emergency braking, thus increasing vehicle stability when braking, compared with a conventional braking system.

The ABS system enhances control over the vehicle, taking into consideration never to exceed the physical limits of vehicle grip on the road. The rider is fully responsible for riding at a suitable speed based on weather and road conditions, always leaving an appropriate safety margin.

Under no circumstances can the ABS system compensate for the rider's misjudgement or improper use of brakes.

NOTE

WHEN THE ABS SYSTEM STARTS WORKING, A VIBRATION IS FELT ON THE BRAKE LEVER.



THE ANTILOCK BRAKING SYSTEM OF THE WHEEL DOES NOT PREVENT FALLS WHILE CORNERING.

AN EMERGENCY BRAKING WITH THE VEHICLE INCLINED, HANDLEBAR TURNED, ON UNEVEN OR SLIPPERY ROADS, OR WITH POOR GRIP, CREATES A LACK OF STABILITY DIFFICULT TO HANDLE. RIDE CAREFULLY AND SENSIBLY AND ALWAYS BRAKE GRADUALLY.

DO NOT SPEED RECKLESSLY. THE VEHICLE GRIP ON THE ROAD IS SUBJECT TO LAWS OF PHYSICS WHICH NOT EVEN THE ABS SYSTEM CAN ELIMINATE.

During the vehicle start-up, after the instrument panel initial check, the ABS warning light will stop flashing when the speed is under 5 km/h (3.1 mph).

The ABS system may be disabled using the setting buttons of the A-PRC, the "a-PRC settings" screen. In this case, the ABS warning light stays on permanently.

If with the ABS activated (level 3, 2, 1) the ABS warning light turns on permanently, or continues to flash even when exceeding 5km/h (3.1 mph), a failure has been detected and the ABS has been deactivated.

In this case carry out the following operations:

- stop the vehicle;

- key OFF-ON;

- ride over 5 km/h (3.1 mph): the ABS warning light must be turned off;

- the ABS system is working.

If the ABS disabled indication remains:

NOTE

SHOULD THIS OCCUR, CONTACT AN aprilia Official Dealer.



THE ABS SYSTEM ACTS ON BOTH THE FRONT AND REAR WHEELS BY OBTAINING INFORMATION FROM THE ROTATION/ LOCKING TONE WHEELS. ALWAYS CHECK THAT THE TONE WHEEL IS CLEAN, AND REGULARLY CHECK THAT THE DISTANCE FROM THE SENSOR IS CONSTANT ON ALL 360 GRADES. SHOULD THE WHEELS BE REMOVED AND REFITTED, IT IS VERY IMPORTANT TO CHECK THAT THE DISTANCE BETWEEN TONE WHEEL AND SENSOR IS THE ONE SPECIFIED. FOR CHECKING AND ADJUSTMENT, CONTACT AN Authorised APRILIA Workshop.



IN THE CASE OF A MOTORCYCLE WITH THE ABS SYSTEM, BRAKE PADS WITH FRICTION MATERIALS THAT ARE NOT TYPE APPROVED WILL JEOPARDISE BRAKING, DRASTICALLY REDUCING RIDING SAFETY.

NOTE

THE SYSTEM SENSORS WITH A SIGNIFICANT ACCURACY IN READING THE TONE WHEELS CAN GENERATE, WITH THE MOTORCYCLE AT A STANDSTILL AND ENGINE ON, A SPEED INDICATION OF A FEW km / h (mi) IN THE DIGITAL DISPLAY.

SUCH BEHAVIOUR IS TO BE CONSIDERED NORMAL AND DOES NOT CREATE MALFUNCTIONS IN THE SYSTEM.



IF THE GAP FOR ONE OR BOTH SENSORS IS NOT WITHIN THE TOLERANCE INDICATED BELOW, TAKE THE MOTORCYCLE TO AN official Aprilia DEALERSHIP

Characteristic

Distance between tone wheel and front sensor

0.3 - 2.00 mm (0.012 - 0.079 in)

Distance between tone wheel and rear sensor

0.3 - 2.00 mm (0.012 - 0.079 in)

NOTE



PROLONGED ROTATION OF THE REAR WHEEL WHILE THE FRONT WHEEL IS STATIONARY (BURNOUT, MOTORCYCLE ON CENTRE STAND ETC.) MAY CAUSE THE SYSTEM TO AUTOMATICALLY DEACTIVATE AND THE ABS AND a-PRC INDICATOR LIGHT TO LIGHT CONSTANTLY.

TO REACTIVATE, TURN THE IGNITION SWITCH OFF AND THEN ON AGAIN AND SELECT THE REQUIRED SETTING.

NOTE



THE VEHICLE IS WORKING PERFECTLY EVEN WITH ABS DISABLED BUT IT IS NOT RECOMMENDED TO DISABLE IT UNLESS ABSOLUTELY NECESSARY.

WITH ABS NOT ENABLED PAY THE UTMOST CAUTION WHILE DRIVING.

NOTE



THE SAFETY PROVIDED BY THE ABS DOES NOT, IN ANY CASE, JUSTIFY RISKY MANOEUVRES. DESPITE THE GREATER CONTROL OF THE VEHICLE IN CASES OF EMERGENCY BRAKING, IT IS RECOMMENDED TO RESPECT THE SAFETY DISTANCE FROM OTHER VEHICLES.

System a-PRC (Aprilia Performance Ride Control)

a-PRC system (Aprilia Performance Ride Control)

WHERE CONTEMPLATED

Aprilia Performance Ride Control is an engine torque control system that helps improve performance and enhance safety for the rider.

a-PRC consists of four systems:

ATC: Aprilia Traction Control;

AWC: Aprilia Wheelie Control;

ALC: Aprilia Launch Control;

AQS: Aprilia Quick Shift.

WARNING AND INDICATOR LIGHTS, KEY

- Indicator light off: with system activated with vehicle in motion or system activated after exceeding 5 Km/h (3.1 mph) after key-on;

- Indicator light continuously lit: with system intentionally deactivated by rider or in the event of a malfunction causing deactivation;

- Indicator light flashing slowly: with system active after key-on before exceeding 5 Km/h (3.1 mph) or in the case of certain malfunctions causing ATC level to be locked ("+" and "-" buttons disabled);

- Indicator light flashing quickly: when one of the a-PRC functions (ATC, AWC and ALC) is actively invoking traction control.

Aprilia Traction Control

Traction control: a system designed to help the rider control wheelspin.

ATC is a system that monitors and, if necessary, limits rear wheelspin under acceleration to increase vehicle stability.

While ATC improves vehicle control, it does not allow the physical handling limits of the vehicle to be exceeded. The rider is fully responsible for riding at a suitable speed based on weather and road conditions, always leaving an appropriate safety margin.

Under no circumstances can ATC compensate for any rider error or improper use of the throttle.



THE TRACTION CONTROL SYSTEM CANNOT PREVENT FALLS WHILE CORNERING.

ACCELERATING SUDDENLY WHILE THE VEHICLE IS INCLINED OR WITH THE HANDLEBARS TURNED WILL PUT THE VEHICLE IN AN UNSTABLE STATE THAT IS EXTREMELY DIFFICULT TO RECTIFY.

DO NOT SPEED RECKLESSLY. LIMITS OF GRIP ARE DETERMINED BY LAWS OF PHYSICS WHICH EVEN THE ATC SYSTEM CANNOT OVERCOME.

The ATC system also responds optimally and limits wheelspin during cornering.

This is made possible by the inertia sensor platform, which provides the ECU with precise information concerning the inclination of the motorcycle.

ATC SYSTEM DEACTIVATED MANUALLY

At key-on and after the initial instrument panel check cycle, if the system is deactivated, the a-PRC indicator light remains lit constantly until the rider activates the system again.

ATC SYSTEM ACTIVE

At key-on and after the initial instrument panel check cycle, if the system was active at the last key-off, the a-PRC indicator light flashes until the vehicle exceeds 5 Km/h (3.1 mph), after which it extinguishes.

If the a-PRC indicator light remains constantly lit, this means that a fault has been detected and the ATC system has been automatically deactivated.

In this case carry out the following operations:

- stop the vehicle;
- key OFF-ON;
- reactivate the system manually
- ride over 5 km/h (3.1 mph): the a-PRC indicator light should extinguish;
- ATC system working correctly.

If the 'ATC system deactivated' indication persists:

NOTE

SHOULD THIS OCCUR, CONTACT AN aprilia Official Dealer.



THE ATC SYSTEM ACTS ON THE REAR WHEEL ON THE BASIS OF INFORMATION RECEIVED FROM TONE WHEELS INSTALLED ON BOTH WHEELS. ALWAYS CHECK THAT THE TONE WHEELS ARE CLEAN, AND REGULARLY CHECK THAT THE GAP BETWEEN THE TONE WHEEL AND THE SENSOR IS CONSTANT AROUND THE ENTIRE CIRCUMFERENCE OF THE TONE WHEEL ITSELF. SHOULD THE WHEELS BE REMOVED AND REFITTED, IT IS VERY IMPORTANT TO CHECK THAT THE DISTANCE BETWEEN TONE WHEEL AND SENSOR IS THE ONE SPECIFIED. FOR CHECKING AND ADJUSTMENT, CONTACT AN Authorised APRILIA Workshop

NOTE

PROLONGED ROTATION OF THE REAR WHEEL WHILE THE FRONT WHEEL IS STATIONARY (BURNOUT, MOTORCYCLE ON CENTRE STAND ETC.) MAY CAUSE THE SYSTEM TO AUTOMATICALLY DEACTIVATE AND THE a-PRC INDICATOR LIGHT TO LIGHT CONSTANTLY.

TO REACTIVATE, TURN THE IGNITION SWITCH OFF AND THEN ON AGAIN AND SELECT THE REQUIRED SETTING.

NOTE

a-PRC SYSTEM SENSORS, WITH HIGH PRECISION OF READING THE TONE WHEELS, CAN GENERATE, WITH MOTORCYCLE AT STANDSTILL AND RUNNING ENGINE, A km/h (mi) SPEED INDICATION IN THE DIGITAL DISPLAY.

SUCH PERFORMANCE IS NORMAL AND DOES NOT CAUSE MALFUNCTIONING OF THE a-PRC SYSTEM.

Characteristic

Distance between tone wheel and front sensor

0.3 - 2.00 mm (0.012 - 0.079 in)

Distance between tone wheel and rear sensor

0.3 - 2.00 mm (0.012 - 0.079 in)

To activate the system, press and hold the "+" setting button, the value "1" is shown on the display.

When the ATC system is activated with the vehicle at a standstill, the a-PRC indicator light flashes until the vehicle reaches a speed of 5 Km/h (3.1 mph).

Press the "+" and "-" buttons briefly to increase or decrease the ATC level setting from "1" (minimum system intervention) to "8" (maximum system intervention).

NOTE

THIS IS ALSO POSSIBLE WITH THE MOTORCYCLE IN MOTION.

NOTE

EACH TIME THE SET VALUE IS MODIFIED, THE NUMERICAL SYMBOL FLASHES FOR APPROXIMATELY 2 SECONDS BEFORE THE NEW SETTING IS CONFIRMED.

CAUTION

TO GAIN FAMILIARITY WITH THE ATC SYSTEM, PREFERABLY USE LEVEL "8" TO START WITH, THEN TRY THE OTHER LEVELS TO IDENTIFY WHICH ARE THE BEST SUITED TO YOUR RIDING STYLE AND FOR DIFFERENT ROAD AND WEATHER CONDITIONS.

LEVEL "1" IS RECOMMENDED FOR USE BY EXPERT RIDERS IN IDEAL ROAD SURFACE CONDITIONS.

ALL OTHER LEVELS ARE INTERMEDIATE SETTINGS BETWEEN LEVEL "1" AND LEVEL "8".

To deactivate the system, select the minimum level "1" then press and hold the "-" setting button.

The a-PRC indicator light is constantly lit.

NOTE

THIS IS ALSO POSSIBLE WITH THE MOTORCYCLE IN MOTION.

NOTE

WHEN THE BATTERY IS CONNECTED FOR THE FIRST TIME, THE a-PRC INDICATOR LIGHT IS CONSTANTLY LIT (SYSTEM NOT ACTIVE)

NOTE

IF THE IGNITION SWITCH IS TURNED OFF AND LEFT OFF FOR OVER 30 SECONDS, AT THE NEXT KEY-ON, THE ATC SYSTEM MAINTAINS THE PREVIOUSLY SELECTED SETTINGS.

Aprilia Wheelie Control

Wheelie control: a system designed to help the rider control wheeling by reducing torque to gently lower the front wheel to the ground.

CAUTION

WITH AWC DEACTIVATED AND ATC ACTIVATED:

- WHEELING IS LIMITED TO A MAXIMUM DURATION OF 10 SECONDS. AFTER THIS PERIOD, THE SYSTEM BRINGS THE FRONT WHEEL BACK TO THE GROUND;

- WHEELING IS NOT PERMITTED IF THE MOTORCYCLE IS BANKED BY +/- 25° RELATIVE TO THE VERTICAL. IF THIS ANGLE IS EXCEEDED, THE SYSTEM RETURNS THE FRONT WHEEL TO THE GROUND.

TABLE OF RECOMMENDED SETTINGS

Engine map	ATC	AWC	ABS	Road surface
Road	8	3	3	Wet road or poor grip conditions
Sport	6 / 7	2	2	Dry road, medium grip conditions
Track	1 / 5	- / 1	1	Dry road or track, excellent grip conditions

NOTE

THE TABLE IS ONLY INTENDED AS A GUIDELINE FOR SETTING THE LEVELS OF EACH CONTROL SYSTEM. EACH RIDER MAY PERSONALISE THE LEVELS TO THEIR OWN PREFERENCE IN ACCORDANCE WITH ABILITY, RIDING STYLE AND ROAD CONDITIONS. FOR MORE INFORMATION ON LEVEL SETTINGS, SEE THE RELATIVE PARAGRAPHS FOR EACH INDIVIDUAL FUNCTION.

Aprilia Launch Control

Launch control: a system designed to help the rider optimise acceleration during standing starts.

CAUTION

ALC MUST BE USED WITH EXTREME PRUDENCE AS THERE IS NO FUNCTION TO PREVENT THE MOTORCYCLE FROM FLIPPING IN ANY OF THE THREE POSSIBLE LEVELS.

THE SYSTEM IS FOR EXPERT RIDERS AND EXCLUSIVELY FOR TRACK USE.

RELEASE THE CLUTCH PROGRESSIVELY TO PREVENT EXCESS SLIPPAGE, WHICH COULD DAMAGE THE MECHANICALS OF THE VEHICLE.

ALC launch control is a specific functioning scenario for the traction control system which takes into consideration the fact that initial speed is zero. Once the LAUNCH control function is activated and the throttle is opened completely, the engine speed increases to and is maintained at approximately 10,000 rpm, irrespective of the level set. The LAUNCH function is automatically deactivated in the event of any of the three following situations:

- A gear higher than second is selected;
- Vehicle speed exceeds 160 Km/h (99.42 mph).

To activate ALC in the level selected previously from the menu, with the vehicle stationary, simultaneously press and hold "+" and "-" for at least 3 seconds, until the message "LAUNCH" (in ROAD display mode) or "L" (in RACE display mode) is shown on the digital display.

When ALC is activated, the ATC and AWC systems are automatically deactivated and remain so until the ALC function is exited ALC (message cleared from digital display). Once the ALC function is exited, the ATC and AWC systems resume operation with the settings selected previously.

CAUTION

DURING THE INITIAL STAGE OF ALC FUNCTION (DURING CLUTCH RELEASE), THE SYSTEM HELPS THE RIDER KEEP THE FRONT WHEEL AS CLOSE TO THE GROUND AS POSSIBLE.

DURING THE SECOND STAGE OF ALC FUNCTION (WITH THE CLUTCH LEVER COMPLETELY RELEASED), THE OBJECTIVE OF THE SYSTEM IS TO HELP THE RIDER MAXIMISE VEHICLE ACCELERATION IN RELATION TO THE ALC LEVEL SELECTED. DURING THE SECOND STAGE OF OPERATION, THE SYSTEM ALLOWS THE FRONT WHEEL TO LIFT FROM THE GROUND TO MAXIMISE ACCELERATION.

AWC and/or **ALC** can only be activated if the **ATC** system is on. This means that neither the wheelie control function nor launch control can be selected unless the traction control is on. The three systems can therefore be set independently of one another and can function simultaneously.

Aprilia Quick Shift

WHERE CONTEMPLATED

A system that enables upshifts without using the clutch and without changing the throttle position.

This system uses the gear shift signal from the gear lever to perform quicker gear changes with a smaller drop in engine speed than with a conventional gear shift.

The system is only active above an engine speed of approximately 4000 rpm.

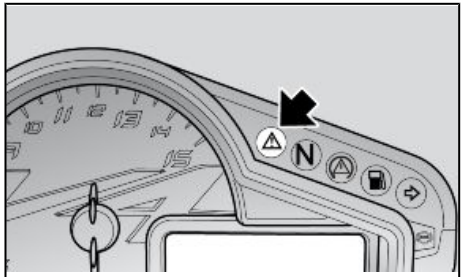
CAUTION

THE CLUTCH MUST BE USED FOR UPSHIFTS AT ENGINE SPEEDS BELOW 4000 RPM.

CAUTION

THE SYSTEM IS ACTIVE ONLY DURING UPSHIFTS, WITH THE THROTTLE OPEN.

THE SYSTEM IS NOT ACTIVE DURING DOWNSHIFTS.



02_42

Immobilizer system operation (02_42)

For enhanced theft protection, the vehicle is equipped with an electronic immobilizer system that is activated automatically when the ignition key is removed.

Keep the second key in a safe place since it is not possible to make a copy if it gets lost.

This would imply replacing numerous parts of the vehicle (besides the locks).

Each key in the grip has an electronic device - transponder - which modulates the radio frequency signal emitted by a special aerial inside the switch when the vehicle is started.

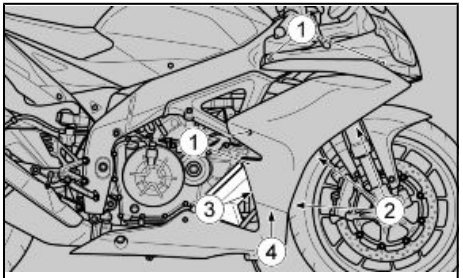
The modulated signal is the "password" by which the appropriate central unit recognises the key and only after this occurs, it allows the engine start-up.

CAUTION

THE IMMOBILIZER SYSTEM CAN MEMORISE UP TO FOUR KEYS.

DATA STORAGE OPERATION CAN ONLY BE PERFORMED AT AN Aprilia official DEALER.

DATA STORAGE PROCEDURE CANCELS THE EXISTING CODES. THEREFORE, IF A CUSTOMER WANTS TO PROGRAM SOME NEW KEYS, S/HE SHOULD GO TO THE DEALER TAKING ALL THE KEYS S/HE WANTS TO ENABLE.



02_43

Fairings (02_43)

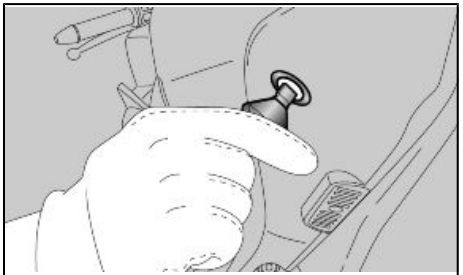
SIDE FAIRINGS

The operations to be carried out are described for the right fairing but are applicable for both fairings.

- Undo and remove the four screws (1).
- Detach the three inserts on the inner side of the fairing (2).
- Ease off the lateral fairing very carefully, taking particular care with the fixing point (3) with the air duct and with the tabs (4) fastening the fairing to the lug.
- To reassemble, repeat the above procedure in reverse order, taking particular care not to damage the components involved.

NOTE

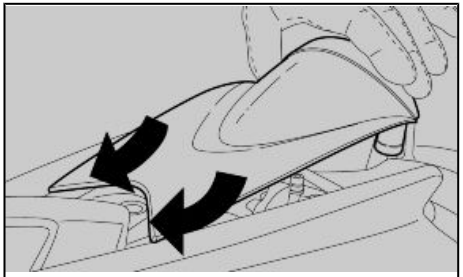
HANDLE PAINTED AND PLASTIC COMPONENTS WITH CARE; BE CAREFUL NOT TO SCRATCH OR DAMAGE THEM.


02_44

Opening the saddle (02_44, 02_45, 02_46, 02_47, 02_48)

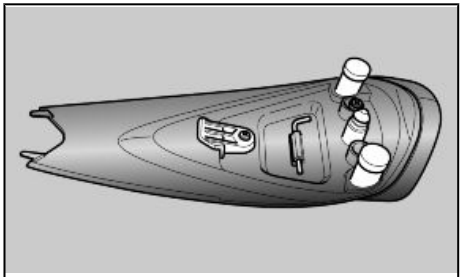
REMOVING THE TAIL FAIRING / PASSENGER SADDLE

- Turn the key clockwise.



02_45

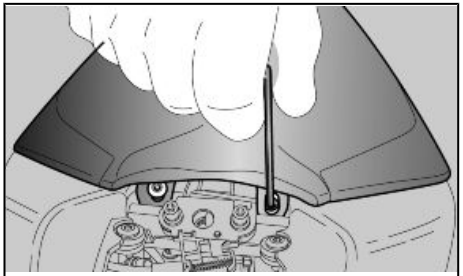
- Lift and remove the tail fairing / passenger saddle.



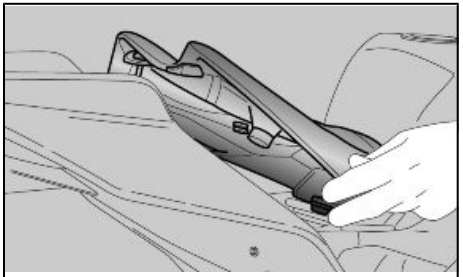
02_46

RIDER SADDLE REMOVAL

- Using the Allen key located under the tail fairing / passenger saddle, unscrew and remove the two screws fastening the saddle and remove the saddle from the vehicle.



02_47



02_48

Refitting

- Carry out the procedure described above in reverse order.
- After refitting and fastening the saddle, place the Allen key in the relative seat under the tail fairing / passenger saddle.
- Take particular care when refitting the tail fairing / passenger saddle; insert the rear tabs under the tail fairing and press down at the front until the lock audibly clicks closed.

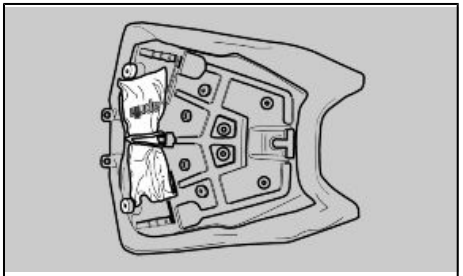
CAUTION

BEFORE LOWERING AND LOCKING THE SADDLE, CHECK THAT THE IGNITION KEY HAS NOT BEEN LEFT THE IGNITION KEY IN THE GLOVEBOX /TOOL KIT.

CAUTION

BEFORE RIDING, MAKE SURE THAT THE SADDLE IS CORRECTLY FASTENED. IF THE PASSENGER SADDLE IS FIT ON THE VEHICLE, MAKE SURE THAT IS CORRECTLY FITTED BEFORE ALLOWING THE PASSENGER TO GET ON.

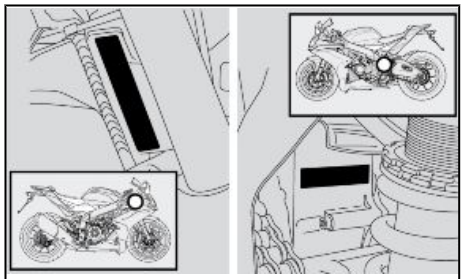
THE TAIL FAIRING MAY BE INSTALLED IN PLACE OF THE PASSENGER SADDLE; BEAR IN MIND THAT THE VEHICLE MAY NOT CARRY A PASSENGER IF THE TAIL FAIRING IS INSTALLED. CARRYING A PASSENGER ON THE TAIL FAIRING IS ILLEGAL AND DOING SO WILL RESULT IN AN EXTREMELY HIGH PROBABILITY OF THE PASSENGER FALLING OFF THE VEHICLE.



02_49

Glove/tool kit compartment (02_49)

- The saddle must be removed in order to access the glovebox / toolkit.
- The tool kit is hooked to the bottom of the saddle.



02_50

Identification (02_50)

Write down the chassis and engine number in the specific space in this booklet. The chassis number is handy when purchasing spare parts.

CAUTION

CHANGING THE IDENTIFICATION CODE IS A CRIME THAT MAY BE PUNISHED WITH SERIOUS CRIMINAL CHARGES. FURTHERMORE, THE LIMITED WARRANTY FOR NEW VEHICLES WILL BE CANCELLED IF THE VEHICLE IDENTIFICATION NUMBER (VIN) HAS BEEN MODIFIED OR CANNOT BE QUICKLY DETERMINED.

CHASSIS NUMBER

The chassis number is stamped on the right side of the headstock.

Chassis No. .....

ENGINE NUMBER

The engine number is printed on the base of the engine crankcase, left hand side.

Engine No. .....

RSV4

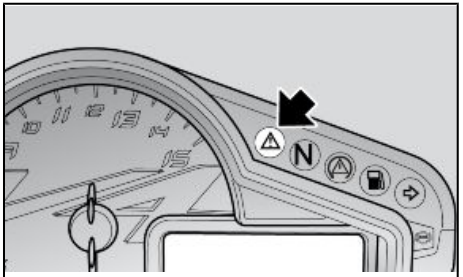


Chap. 03
Use

Checks (03_01)

CAUTION

BEFORE RIDING, ALWAYS PERFORM A PRELIMINARY CHECK OF THE VEHICLE TO ENSURE CORRECT AND SAFE OPERATION. FAILURE TO DO SO MAY LEAD TO SERIOUS PERSONAL INJURY OR DAMAGE TO THE VEHICLE. DO NOT HESITATE TO CONTACT AN OFFICIAL Aprilia DEALER IF YOU DO NOT UNDERSTAND HOW SOME CONTROLS WORK OR IF A MALFUNCTION IS DETECTED OR SUSPECTED. CHECKING TAKES VERY LITTLE TIME BUT CONSIDERABLY INCREASES SAFETY.



03_01

This vehicle has been programmed to indicate in real time any operation failure stored in the electronic control unit memory.

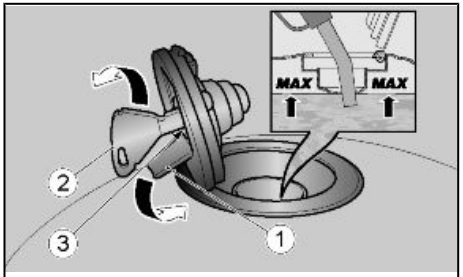
Every time the ignition switch is turned to "KEY ON", the alarm LED warning light turns on for about three seconds on the instrument panel.

PRE-RIDE CHECKS

Front and rear disc brake	Check for proper operation. Check brake lever empty travel and brake fluid level. Check for leaks. Check

	brake pads for wear. If necessary top-up with brake fluid.
Throttle grip	Check that the throttle functions smoothly and can be fully opened and closed in all steering positions. Adjust and/or lubricate if necessary.
Engine oil	Check and/or top-up as required.
Wheels/ tyres	Check that tyres are in good conditions. Check inflation pressure, tyre wear and potential damage. Remove any possible strange body that might be stuck in the tread design.
Brake levers	Check they function smoothly. Lubricate the joints and adjust the travel if necessary.
Clutch lever	Check correct operation and empty travel. Check the condition of the cable on the handlebar and on the engine. The cable must be replaced if it shows any signs of fraying. Lubricate the joints if necessary.
Steering	Check that rotation is free and smooth to the end of the stroke on both sides, with no clearance or slack.

Side stand	Check that it slides smoothly and that it snaps back to its rest position upon spring tension. Lubricate couplings and joints if necessary. Check that the side stand safety switch operates correctly.
Clamping elements	Check that the clamping elements are not loose. Adjust or tighten them as required.
Fuel tank	Check the coolant level and refill if necessary. Check the circuit for leaks or obstructions. Check that the tank cap closes correctly.
Engine stop switch (ON - OFF)	Check function.
Lights, warning lights, horn, rear stop light switch and electrical devices	Check function of horn and lights. Replace bulbs or repair any faults noted.
Tone wheels	Check that the tone wheels are perfectly clean and in good conditions.



03_02

Refuelling (03_02)

To refuel:

- Lift the cover (1).
- Introduce the key (2) in the fuel tank cap lock (3).
- Turn the key clockwise, pull and open the fuel tank lid.

Characteristic

Fuel tank (reserve included)

18.5 l (4.07 UK gal; 4.88 US gal)

Fuel tank reserve

4 l (0.88 UKgal; 1.06 US gal)

- Refuel.

CAUTION

DO NOT ADD ADDITIVES OR ANY OTHER SUBSTANCES TO THE FUEL.

WHEN USING A FUNNEL, ENSURE THAT IT IS PERFECTLY CLEAN.

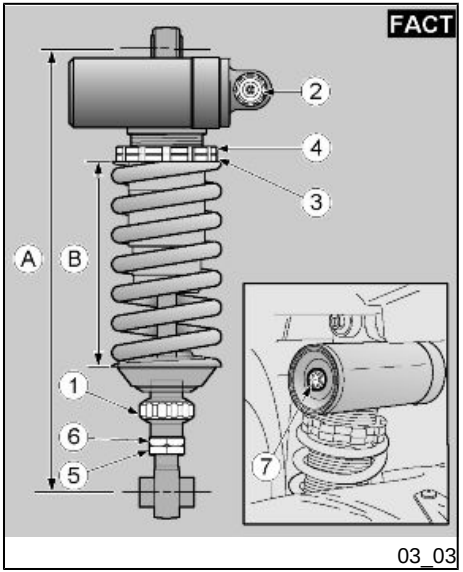
WHEN FILLING THE TANK COMPLETELY, DO NOT FILL BEYOND THE LOWER EDGE OF THE RECESS (SEE FIGURE).

FILLING BEYOND THIS LEVEL MAY CAUSE FUEL SPILLAGE INTO THE ENVIRONMENT AND POSE A FIRE RISK

after refuelling:

- The fuel cap may only be refitted with the key (2) inserted.
- Once the key (2) is inserted, press the cap to close it again.
- Remove the key (2).
- Close the cover (1).

MAKE SURE THE CAP IS TIGHTLY CLOSED.



03_03

Rear shock absorbers adjustment (03_03, 03_04)

The rear suspension consists of a spring-shock absorber unit linked to the frame via uniball joints and to the swingarm via a linkage system.

To adjust the rear shock absorbers, the following adjustments can be performed: Rebound damping, adjusting with the knurled hand grip (1); compression damping by adjusting the thumbscrew with the knob (2); Spring preload by adjusting the ring nut (3) blocked in its seat by the lock ring nut (4).

NOTE

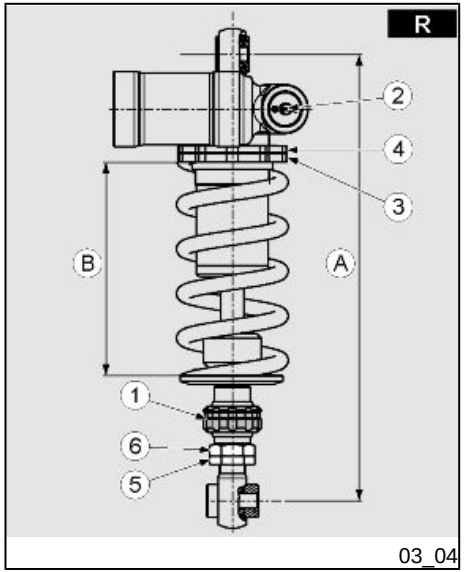
THE VEHICLE HAS A HEIGHT ADJUSTABLE SUSPENSION. FOR USE ON THE TRACK PLEASE OBSERVE THE VALUES RECOMMENDED FOR USE ON THE ROAD.

CAUTION

CARRY OUT MAINTENANCE OPERATIONS AT HALF THE INTERVALS SPECIFIED IF THE VEHICLE IS USED IN PARTICULAR RAINY OR DUSTY CONDITIONS, OFF ROAD OR FOR TRACK USE.

REAR SHOCK ABSORBER STANDARD SETTING IS ADJUSTED TO MEET SPORTING RIDING.

HOWEVER, THIS SET CAN BE ADJUSTED TO SPECIFIC NEEDS ACCORDING TO VEHICLE USE.



03_04

RACING TRACK SETTINGS MUST BE DONE ONLY FOR OFFICIAL COMPETITIONS OR SPORTS EVENTS WHICH ARE, IN ALL CASES, AWAY FROM NORMAL ROAD TRAFFIC AND WITH THE AUTHORISATION OF THE RELEVANT AUTHORITIES.

IT IS STRICTLY FORBIDDEN TO RIDE A VEHICLE SET FOR RACING ON ROADS AND MOTORWAYS.

TO COUNT THE NUMBER OF RELEASES AND/OR REVOLUTIONS OF ADJUSTMENT SETTINGS (1 - 2) ALWAYS START FROM THE MOST RIGID SETTING (WHOLE CLOCKWISE ROTATION OF THE SETTING).

DO NOT FORCE THE SET SCREWS (1 - 2) TO TURN BEYOND THE END OF THE STROKE ON BOTH SIDES SO AS NOT DAMAGE THEM.

- Using the specific spanner, unscrew the locking ring nut (4).
- Operate on the adjusting ring nut (3) to adjust the spring preloading (B).
- Once the adjustment is done, screw the ring nut (4).
- Turn the (1) screw to adjust the shock absorber hydraulic rebound damping.
- Turn the knob (2) to adjust the shock absorber hydraulic compression damping.

To change the vehicle setting:

- Loosen the lock nut (5) slightly.
- Turn the adjuster screw (6) to adjust the shock absorber centre to centre distance (A).
- After adjusting, tighten the lock nut (5).



FOR THE RSV4 R VERSION ONLY:

DO NOT LOOSEN THE LOCK NUT (5) AND THE ADJUSTER SCREW (6) BEYOND THE GROOVE ON THE SHOCK ABSORBER NEAR THE LOWER CONNECTION.



SET SPRING PRELOADING AND SHOCK ABSORBER REBOUND DAMPING ACCORDING TO THE VEHICLE USE CONDITIONS.

IF THE SPRING PRELOADING IS INCREASED, IT IS NECESSARY TO INCREASE THE REBOUND DAMPING ACCORDINGLY TO AVOID SUDDEN JERKS WHEN RIDING.

CAUTION

ALWAYS OBSERVE THE RECOMMENDED ADJUSTMENT RANGE.



FOR THE RSV4 FACTORY VERSION ONLY:

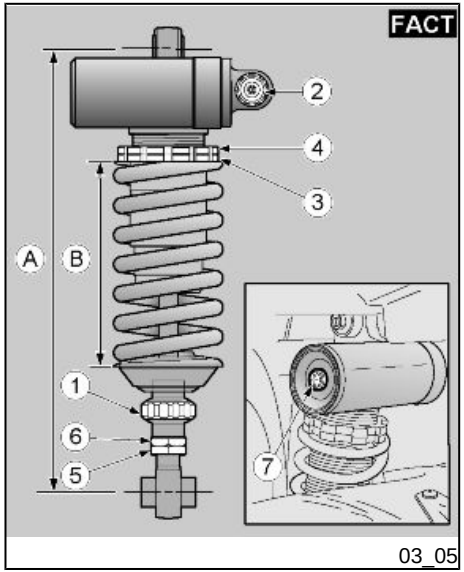
TO AVOID COMPROMISING SHOCK ABSORBER OPERATION, DO NOT LOOSEN THE SCREW (7) AND DO NOT TAMPER WITH THE SEAL UNDERNEATH, AS NITROGEN MAY COME OUT RESULTING IN RISK OF ACCIDENTS.

CAUTION

FOR THE CORRECT SETTING PARAMETERS, READ THE PARAGRAPH "SETTING THE REAR SHOCK ABSORBER" CAREFULLY.

Take your vehicle to an official Aprilia dealer, if necessary.

TRY RIDING THE VEHICLE ON THE STREET UNTIL THE OPTIMUM ADJUSTMENT IS OBTAINED.



03_05

Rear shock absorbers setting (03_05)

RSV4 FACTORY

SPORT SETTINGS MAY BE USED ONLY FOR OFFICIAL COMPETITIONS TO BE CARRIED OUT ON TRACKS, AWAY FROM NORMAL ROAD TRAFFIC AND WITH THE AUTHORISATION OF THE RELEVANT AUTHORITIES.

REAR SHOCK ABSORBER - RSV4 FACTORY - STANDARD ADJUSTMENT (FOR ROAD USE ONLY)

Shock absorber centre-to-centre distance (A)	310 +/- 1.5 mm (12.20 +/- 0.059 in)
(preloaded) Spring (B) length	148.5 +/- 1.5 mm (5.85 +/- 0.059 in)
Rebound adjustment, ring nut (1)	open (**) 20 +/- 2 clicks from fully closed (*)

Compression adjustment, knob (2)	open (**) 15 +/- 2 clicks from fully closed (*)

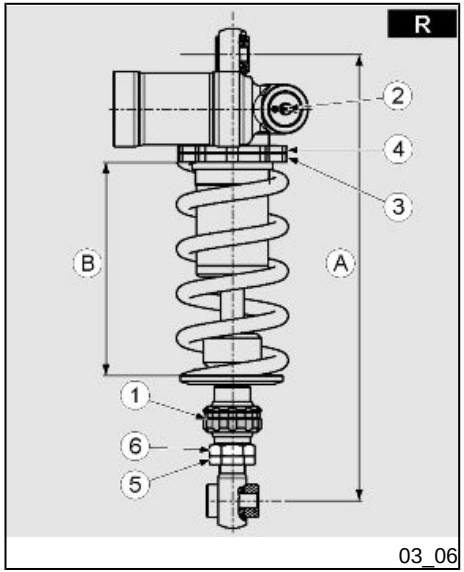
REAR SHOCK ABSORBER - RSV4 FACTORY - RACING

ADJUSTMENT RANGE (TRACK USE ONLY)

Shock absorber centre-to-centre distance (A)	311 +/- 1 mm (12.24 +/- 0.039 in)
(preloaded) Spring (B) length	145.5 mm +/- 1.5 mm (5.73 +/- 0.059 in)
Rebound adjustment, ring nut (1)	open (**) 16 - 18 clicks from fully closed (*)
Compression adjustment, knob (2)	open (**) 8 - 10 clicks from fully closed (*)

(*) = clockwise

(**) = anticlockwise



03_06

Rear shock absorbers setting (03_05, 03_06)

RSV4 R

SPORT SETTINGS MAY BE USED ONLY FOR OFFICIAL COMPETITIONS TO BE CARRIED OUT ON TRACKS, AWAY FROM NORMAL ROAD TRAFFIC AND WITH THE AUTHORISATION OF THE RELEVANT AUTHORITIES.

REAR SHOCK ABSORBER - RSV4 R - STANDARD

ADJUSTMENT (FOR ROAD USE ONLY)

Shock absorber centre-to-centre distance (A)	310 ± 1.5 mm (12.20 ± 0.059 in)
(preloaded) Spring (B) length	148 ± 1.5 mm (5.83 ± 0.059 in)
Rebound adjustment, ring nut (1)	open (**) 20 ± 1 clicks from fully closed (*)

Compression adjustment, knob (2)	open (**) 1.5 click from fully closed (*)

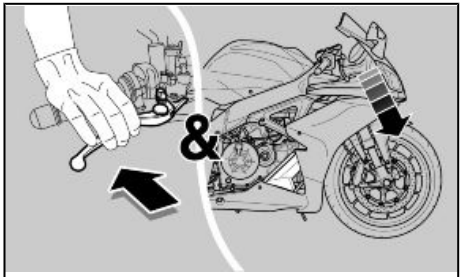
REAR SHOCK ABSORBER - RSV4 R - RACING

ADJUSTMENT RANGE (TRACK USE ONLY)

Shock absorber centre-to-centre distance (A)	311.5 +/- 1.5 mm (12.26 +/- 0.059 in)
(preloaded) Spring (B) length	144 mm + 3 turns (5.67 in)
Rebound adjustment, ring nut (1)	open (**) 8 +/- 1 clicks from fully closed (*)
Compression adjustment, knob (2)	open (**) 0.5 click from fully closed (*)

(*) = clockwise

(**) = anticlockwise



03_07

Front fork adjustment (03_07)

- Operating the front brake lever, press the handlebar repeatedly to send the fork fully down. The shock absorber should compress and extend smoothly with no signs of oil leakage on the stanchions.
- Check the tightening of all the elements and the correct operation of the front and rear suspension joints.

CAUTION

PLEASE CONTACT AN Official Aprilia Dealer TO HAVE THE FRONT FORK OIL CHANGED AND ITS OIL SEALS REPLACED.

The front suspension consists of a hydraulic fork connected to the headstock by means of two plates.

To adjust the settings for this vehicle, each fork is equipped with an upper adjustment screw (1) to set the rebound damping; an upper nut (3) to adjust the spring preloading and a lower adjustment screw (2) to modify the compression damping.

TO PREVENT DAMAGE, DO NOT FORCE THE ADJUSTER (1-2) ROTATION BEYOND THE RESPECTIVE END OF TRAVEL IN EITHER DIRECTION. SET THE SAME SPRING PRELOAD AND HYDRAULIC DAMPING SETTING FOR BOTH STANCHIONS: RIDING THE VEHICLE WITH DIFFERENT SETTINGS FOR THE TWO STANCHIONS REDUCES STABILITY. WHEN SPRING PRELOAD IS INCREASED, REBOUND DAMPING MUST ALSO BE INCREASED TO PREVENT EXCESSIVE SUSPENSION KICKBACK WHEN RIDING.

Standard front fork setting is adjusted to suit most high and low speed riding conditions, whether the vehicle is partially or fully loaded.

However, the setting can be modified for specific needs according to vehicle use.

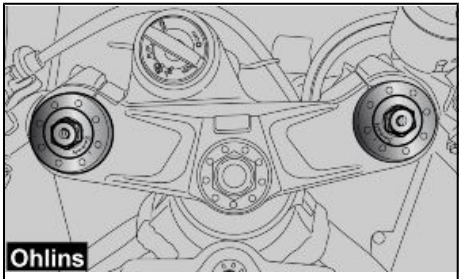
RACING TRACK SETTINGS MUST BE DONE ONLY FOR OFFICIAL COMPETITIONS OR SPORTS EVENTS WHICH ARE, IN ALL CASES, AWAY FROM NORMAL ROAD TRAFFIC AND WITH THE AUTHORISATION OF THE RELEVANT AUTHORITIES.

IT IS STRICTLY FORBIDDEN TO RIDE A VEHICLE SET FOR RACING ON ROADS AND MOTORWAYS.

CAUTION

FOR THE CORRECT SETTING PARAMETERS, READ THE PARAGRAPH "SETTING THE FRONT FORK" CAREFULLY.

Take your vehicle to an official Aprilia dealer, if necessary.

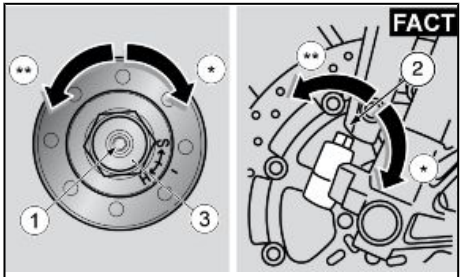


03_08

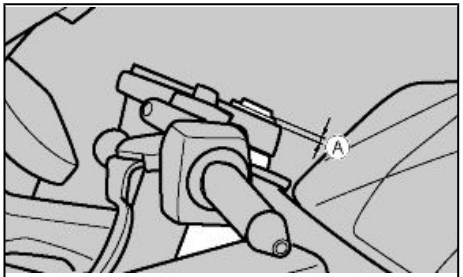
Front fork setting (03_08, 03_09, 03_10)

RSV4 FACTORY (Ohlins fork)

TO COUNT THE CLICKS AND/OR TURNS OF SET SCREWS (1 - 2 - 3) ALWAYS START FROM THE MOST RIGID SETTING (SET SCREW FULLY CLOCKWISE).



03_09



03_10

FRONT FORK - RSV4 FACTORY - STANDARD

ADJUSTMENT (FOR ROAD USE ONLY)

Rebound damping adjustment, screw (1)	Unscrew (**) 12 clicks from fully closed (*)
Compression damping adjustment, screw (2)	Unscrew (**) 14 clicks from fully closed (*)
Spring preloading, nut (3)	screw (*) 8 turns from fully open (**)

Stems (A) (***) protrusion from top plate (excluding cover)	2 notches / 8 mm (2 notches / 0.31 in)

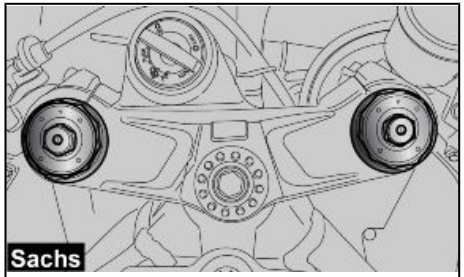
FRONT FORK - RSV4 FACTORY - RACING ADJUSTMENT RANGE (TRACK USE ONLY)

Rebound damping adjustment, screw (1)	Unscrew (**) 8 - 10 clicks from fully closed (*)
Compression damping adjustment, screw (2)	Unscrew (**) 6 - 8 clicks from fully closed (*)
Spring preloading, nut (3)	Screw (*) 7 - 8 turns from fully open (**)
Stems (A) (***) protrusion from top plate (excluding cover)	2 notches / 8 mm (2 notches / 0.31 in) - 3 notches / 12 mm (3 notches / 0.47 in)

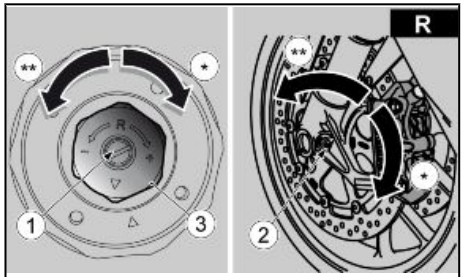
(*) - Clockwise

(**) - Anticlockwise

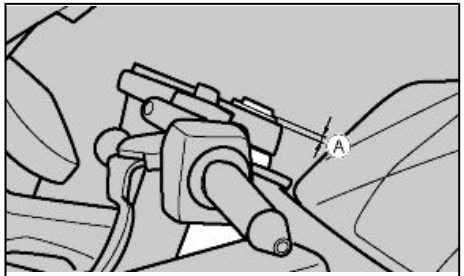
(***) - this type of adjustment may only be made by an **aprilia Official Dealer**.



03_11



03_12



03_13

Front fork setting (03_10, 03_11, 03_12, 03_13)

RSV4 R (Sachs fork)

TO COUNT THE CLICKS AND/OR TURNS OF SET SCREWS (1 - 2 - 3) ALWAYS START FROM THE MOST RIGID SETTING (SET SCREW FULLY CLOCKWISE).

FRONT FORK - RSV4 R - STANDARD SETTING (SACHS - FOR ROAD USE ONLY)

Rebound damping adjustment, screw (1)	Unscrew (**) 10 clicks from fully closed (*)
Compression damping adjustment, screw (2)	Unscrew (**) 6 clicks from fully closed (*)
Spring preloading, nut (3)	screw (*) 5 turns from fully open (**)
Stems (A) (***) protrusion from top plate (excluding cover)	1 notches/ 4 mm (1 notches/0.16 in)

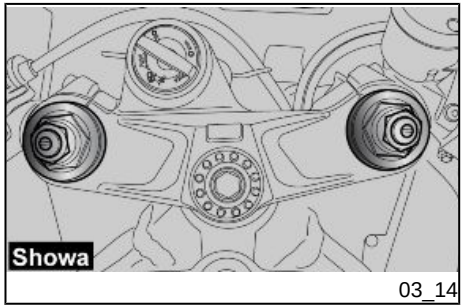
FRONT FORK - RSV4 R - RACING ADJUSTMENT RANGE (SACHS - TRACK USE ONLY)

Rebound damping adjustment, screw (1)	Unscrew (**) 7-8 clicks (*) from fully closed
Compression damping adjustment, screw (2)	Unscrew (**) 5-4 clicks (*) from fully closed
Spring preloading, nut (3)	screw (*) 5 turns from fully open (**)
Stems (A) (***) protrusion from top plate (excluding cover)	1 notches/ 4 mm (1 notches/0.16 in)

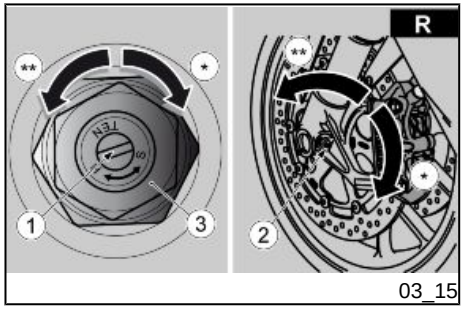
(*) - Clockwise

(**) - Anticlockwise

(***) - this type of adjustment may only be made by an **aprilia Official Dealer**.



03_14

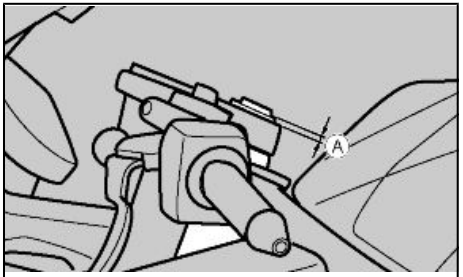


03_15

Front fork setting (03_13, 03_14, 03_15, 03_16)

RSV4 R (Showa fork)

TO COUNT THE CLICKS AND/OR TURNS OF SET SCREWS (1 - 2 - 3) ALWAYS START FROM THE MOST RIGID SETTING (SET SCREW FULLY CLOCKWISE).



03_16

FRONT FORK - RSV4 R - STANDARD SETTING (SHOWA - FOR ROAD USE ONLY)

Rebound damping adjustment, screw (1)	Unscrew (**) 1.5 turns from fully closed (*)
Compression damping adjustment, screw (2)	Unscrew (**) 1 turn from fully closed (*)
Spring preloading, nut (3)	Unscrew (**) 5 notches from fully closed (*)
Stems (A) (***) protrusion from top plate (excluding cover)	3 notches/ 12 mm (3 notches/0.47 in)

FRONT FORK - RSV4 R - RACING ADJUSTMENT RANGE (SHOWA - TRACK USE ONLY)

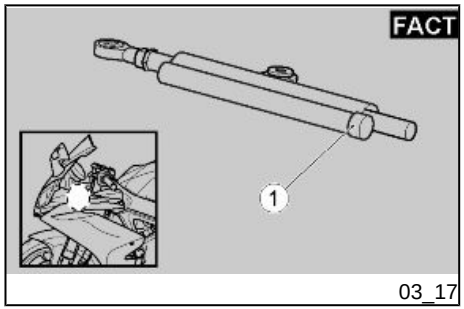
Rebound damping adjustment, screw (1)	Unscrew (**) 3/4 - 1 turn (*) from fully closed

Compression damping adjustment, screw (2)	Unscrew (**) 0.5 turn from fully closed (*)
Spring preloading, nut (3)	Unscrew (**) 4 - 5 notches from fully closed (*)
Stems (A) (***) protrusion from top plate (excluding cover)	3 notches/ 12 mm (3 notches/0.47 in)

(*) - Clockwise

(**) - Anticlockwise

(***) - this type of adjustment may only be made by an **aprilia Official Dealer**.



03_17

Steering shock absorber adjustment (03_17, 03_18)

FOR THE RSV4 FACTORY VERSION ONLY:

the steering damper may be adjusted by turning the knob (1).

- Turn the knob (1) clockwise to stiffen the steering.
- Turn the knob anticlockwise to loosen the steering.

SPORT SETTINGS MAY BE USED ONLY FOR OFFICIAL COMPETITIONS TO BE CARRIED OUT ON TRACKS, AWAY FROM NORMAL ROAD TRAFFIC AND WITH THE AUTHORISATION OF THE RELEVANT AUTHORITIES.

ADJUSTMENTS MAY ONLY BE MADE WITH THE VEHICLE STATIONARY. AFTER ALTERING THE SETTINGS, ALWAYS CHECK THAT THE HANDLEBAR TURNS FREELY IN BOTH DIRECTIONS.

STEERING DAMPER - STANDARD SETTING (FOR ROAD USE)

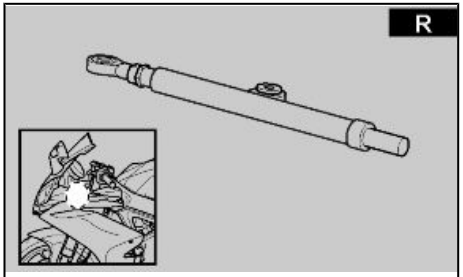
Hydraulic setting	From all open (**) tighten (*) 5 - 8 clicks

STEERING DAMPER- RACING SETTING RANGE (FOR TRACK ONLY)

Hydraulic setting	From all open (**) tighten (*) 10 - 13 clicks

(*) = clockwise

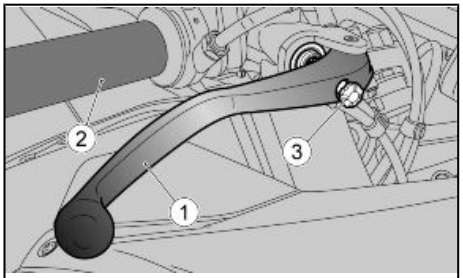
(**) = anticlockwise



03_18

FOR THE RSV4 R VERSION ONLY:

The **RSV4 R** version is equipped with a non-adjustable steering damper. No adjustment can be made.

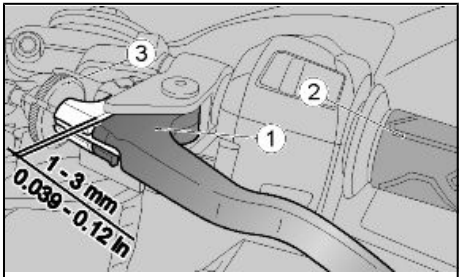


03_19

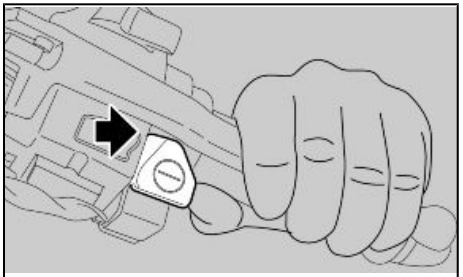
Justering af greb til forbremse (03_19)

The distance between the end of the lever (1) and the hand grip (2) may be adjusted with the set screw (3).

- Push the control lever (1) forward and turn the set screw (3) until the lever (1) is at the desired distance.
- Turn the adjuster screw anticlockwise to bring the lever (1) closer to the hand grip (2).



03_20


03_21

Clutch lever adjustment (03_20, 03_21)

The clutch lever clearance (1) may be adjusted with the adjuster screw (3).

- Turn the adjuster screw (3) forward to increase clutch lever clearance (1) and check lever function while using the hand grip (2) as you would when riding the vehicle.
- Check that clearance is between 1 and 3 mm (0.039 e 0.12 in).

CAUTION

WHENEVER MODIFYING THE CLUTCH LEVER ANGLE, ALWAYS ENSURE THAT THERE IS NO INTERFERENCE AT ALL BETWEEN THE LEVER AND THE "-" BUTTON WHEN THE LEVER IS PULLED COMPLETELY. FAILURE TO DO SO MAY RESULT IN a-PRC MALFUNCTIONS.

Running in

Running the engine in correctly is essential for ensuring engine longevity and functionality. Twisty roads and gradients are ideal for running in the engine, brakes and suspension effectively. Vary your riding speed during the running in period. This ensures that components operate in "loaded" conditions and then "unloaded" conditions, allowing the engine components to cool.

CAUTION

THE FULL PERFORMANCE OF THE VEHICLE IS ONLY AVAILABLE AFTER THE SERVICE AT THE END OF THE RUNNING IN PERIOD.

Follow the guidelines detailed below:

- Do not twist the throttle grip abruptly and completely when the engine is working at a low revs, either during or after run-in.
- During the first 100 Km (62 miles) use the brakes gently, avoiding sudden or prolonged braking. That is to permit the adequate adjustment of the pad friction material to the brake discs.
- It is recommended, during the first 1000 km (621 mi), not to exceed 7500 rpm and 9500 rpm up 2000 km (1243 mi).



AFTER THE SPECIFIED MILEAGE, TAKE YOUR VEHICLE TO AN Official Aprilia Dealer FOR THE CHECKS INDICATED IN THE "PERIODICAL MAINTENANCE" TABLE IN THE SCHEDULED MAINTENANCE SECTION TO AVOID INJURING YOURSELF, OTHERS AND /OR DAMAGING THE VEHICLE.

Starting up the engine (03_22, 03_23, 03_24, 03_25, 03_26)

This vehicle is extremely powerful and must be used carefully and driven with caution and respect for its power and potential.

Do not carry objects in the top fairing (between the handlebar and the instrument panel) so that the handlebar can turn freely and the instrument panel is visible at all times.

EXHAUST FUMES CONTAIN CARBON MONOXIDE, AN EXTREMELY HARMFUL SUBSTANCE IF INHALED.

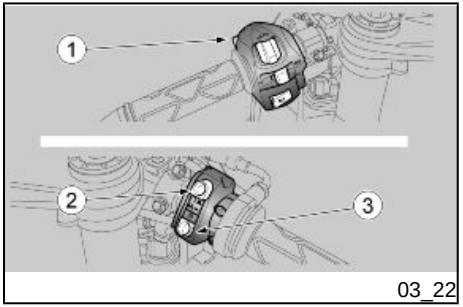
NEVER START THE ENGINE IN A CLOSED OR INSUFFICIENTLY VENTILATED SPACE.

FAILURE TO OBSERVE THIS WARNING COULD LEAD TO UNCONSCIOUSNESS AND EVEN DEATH DUE TO SUFFOCATION.

CAUTION

WITH THE SIDE STAND LOWERED, THE ENGINE MAY ONLY BE STARTED WITH THE GEARBOX IN NEUTRAL. IF YOU ATTEMPT TO ENGAGE A GEAR IN THIS CONDITION THE ENGINE WILL STOP.

WITH THE SIDE STAND RETRACTED, THE ENGINE MAY BE STARTED WITH THE GEARBOX IN NEUTRAL OR WITH GEAR ENGAGED AND THE CLUTCH LEVER PRESSED.

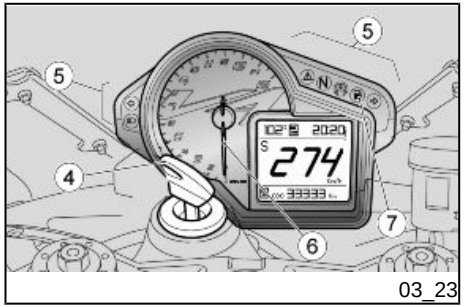


03_22

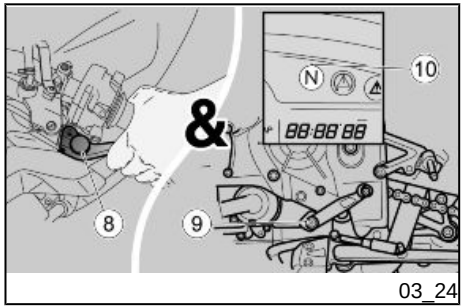
- Get on the motorcycle, assuming the correct driving posture.
- Make sure that the side stand has been fully retracted.
- Operate the front or rear brake (or both).
- Operate the clutch lever (8) and make sure that the transmission (9) is in neutral. If the transmission is in neutral, the green coloured light "N" (10) will turn on.
- Turn the engine stop switch (2) to "RUN". Turn the ignition key (4) to "ON".
- Press the starter button (3) once only.

At this stage:

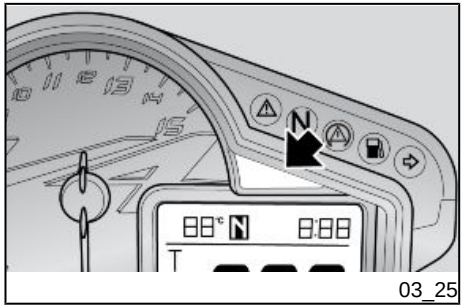
- The starting screen page will be shown on the multifunction display for 2 seconds.
- All warning lights (5) and the backlighting will turn on for 2 seconds on the instrument panel.



03_23



03_24



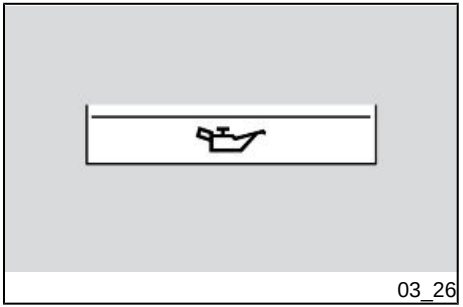
03_25

- The rpm indicator (6) will go to the end of the scale for 3 seconds, then it will return to the minimum value.
- With the engine operating normally, the number of rpms at which the engine is operating will be displayed instantaneously.

IF THE LOW FUEL WARNING LIGHT (7) ON THE INSTRUMENT PANEL TURNS ON, REFUEL THE VEHICLE AT ONCE.

INTENSE USE/ON THE TRACK IN RESERVE CAN DAMAGE THE ENGINE.

THE OVERREVVING THRESHOLD IN NEW VEHICLES IS SET TO 6000 RPM. RAISE THE THRESHOLD GRADUALLY AS YOU BECOME FAMILIAR WITH THE VEHICLE AND RUNNING IN HAS BEEN COMPLETED.



03_26

AFTER A FEW SECONDS FROM THE ENGINE START-UP, THE START-UP BUTTON ASSUMES THE MAPPING CHANGE FUNCTION.

IF THE ENGINE OIL PRESSURE ICON IS DISPLAYED AND THE GENERAL WARNING LIGHT IS ON, THE OIL PRESSURE IN THE CIRCUIT IS TOO LOW.

DO NOT SET OFF SUDDENLY WHEN THE ENGINE IS COLD. RIDE AT LOW SPEED FOR SEVERAL KILOMETRES. THIS WILL ALLOW THE ENGINE TO WARM UP AND REDUCE POLLUTING EMISSIONS AND FUEL CONSUMPTION.

IF THE WORD "SERVICE" OR "URGENT SERVICE" IS SHOWN ON THE (MULTIFUNCTION) DISPLAY DURING REGULAR ENGINE OPERATION, IT MEANS THERE IS A MALFUNCTION.

Moving off / riding (03_27, 03_28, 03_29, 03_30)

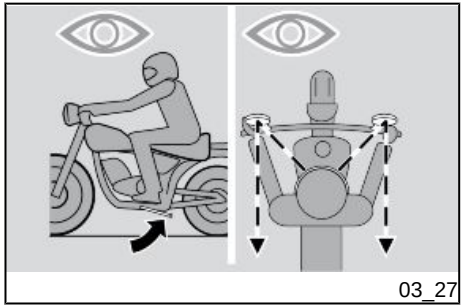
CAUTION

WHEN TRAVELLING WITHOUT PASSENGERS, MAKE SURE THE PASSENGER FOOTRESTS ARE FOLDED UP.

CAUTION

PASSENGERS MUST BE SUITABLY INSTRUCTED ON HOW TO BEHAVE TO PREVENT DANGEROUS SITUATIONS WHEN RIDING.

BEFORE SETTING OFF, MAKE SURE THE STAND HAS BEEN COMPLETELY RETRACTED TO ITS POSITION.



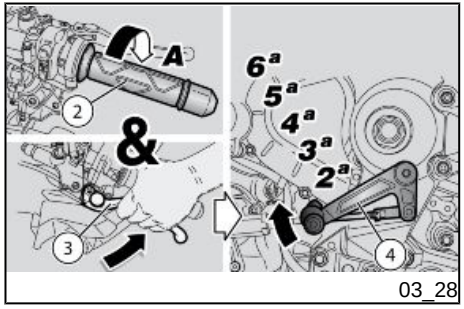
03_27

To start:

- Turn on the engine.
- Adjust the inclination of the rear-view mirrors to ensure proper visibility.

CAUTION

WITH THE VEHICLE AT A STANDSTILL, PRACTICE USING THE REAR-VIEW MIRRORS. THE MIRRORS ARE CONVEX, SO OBJECTS MAY SEEM FARTHER AWAY THAN THEY REALLY ARE. THESE MIRRORS OFFER A WIDE-ANGLE VIEW AND ONLY EXPERIENCE HELPS YOU JUDGE THE DISTANCE SEPARATING YOU AND THE VEHICLE BEHIND.

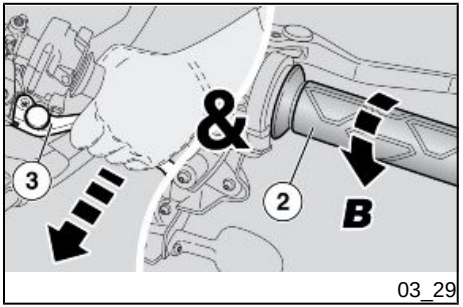


03_28

- With throttle grip (2) closed (**Pos. A**) and engine at idle, operate the clutch lever (3).
- Push the gearbox lever (4) downward to select the first gear.
- Release the clutch lever (activated during start-up).

CAUTION

WHEN TURNING OFF THE VEHICLE, DO NOT RELEASE THE CLUTCH TOO QUICKLY OR SUDDENLY, AS THIS COULD CAUSE THE ENGINE TO STOP OR THE VEHICLE TO REAR UP ON THE BACK WHEEL. DO NOT ACCELERATE SUDDENLY WHEN RELEASING THE CLUTCH FOR THE SAME REASON.



03_29

- Slowly release the clutch lever (3) and at the same time accelerate by slightly twisting the throttle grip (2) (**Pos. B**).

The vehicle starts moving forward.

- For the first kilometres travelled, limit the speed in order to warm up the engine.

NOTE

THE VEHICLE IS EQUIPPED WITH AN RPM LIMITER THAT IS PART OF THE "RIDE-BY-WIRE" INJECTION SYSTEM.

- Accelerate gradually by twisting the throttle grip (2) (**Pos. B**) without exceeding the recommended rpm.

RIDE IN THE CORRECT GEAR AND SPEED FOR THE CONDITIONS.

DO NOT OPERATE THE ENGINE AT A TOO LOW RPM LEVEL.

- Release the throttle grip (2) (**Pos. A**), operate the clutch lever (3), lift the gearshift lever (4), release the clutch lever (3) and accelerate.
- Repeat the last two operations and engage a higher gear.

IF THE ENGINE OIL PRESSURE ICON IS DISPLAYED DURING REGULAR ENGINE OPERATION, IT MEANS THAT THE ENGINE OIL PRESSURE IN THE CIRCUIT IS TOO LOW.

IF THIS OCCURS, STOP THE ENGINE AND CONTACT AN APRILIA Official Dealer.

IT IS SUGGESTED TO DOWNSHIFT FROM A HIGHER GEAR TO A LOWER GEAR:

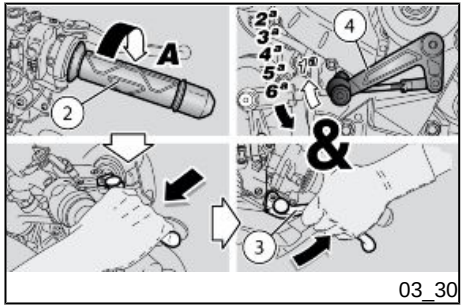
- When riding downhill and when braking, in order to increase the braking power by using engine compression.
- When going uphill, when the engaged gear does not suit the speed (high gear, moderate speed) and the number of engine revs falls.

CAUTION

DOWNSHIFT ONE GEAR AT A TIME; WHEN SHIFTING TO A LOWER GEAR, DOWNSHIFTING MORE THAN ONE GEAR AT A TIME COULD OVERREV THE ENGINE; THAT IS, THE MAXIMUM RPM VALUE PERMITTED FOR THE ENGINE COULD BE EXCEEDED.

NOTE

THE VEHICLE HAS AN ANTI-SLIPPER CLUTCH THAT IS ABLE TO PREVENT THE WHEEL LOCKING WHEN DOWNSHIFTING, ANY POSSIBLE PULSINGS ON THE LEVER ARE A SIGN THAT THE SYSTEM IS WORKING PROPERLY.



03_30

- Release the hand grip (2) (**Pos.A**).
- If necessary, pull the brake levers gently and reduce speed.
- Operate the clutch lever (3) and lower the gearshift lever (4) to engage a lower gear.
- Release the brake levers when it is operated.
- Release the clutch lever (3) and accelerate moderately.

CAUTION

STOP THE VEHICLE MAINLY USING THE FRONT BRAKE. USE THE REAR BRAKE TO BALANCE THE BRAKING ONLY AND IN ANY CASE TOGETHER WITH THE FRONT BRAKE.

IF THE COOLANT TEMPERATURE SHOWN ON THE MULTIFUNCTIONAL DIGITAL DISPLAY IS HIGHER THAN 115°C (239°F), STOP THE VEHICLE AND LET THE ENGINE RUN AT 3000 rpm FOR ABOUT TWO MINUTES SO THAT THE

COOLANT FLOWS REGULARLY IN THE SYSTEM; THEN SET THE ENGINE STOP SWITCH TO "OFF" AND CHECK THE COOLANT LEVEL.

IF THE TEMPERATURE INDICATOR CONTINUES FLASHING AFTER CHECKING THE COOLANT LEVEL, CONTACT AN OFFICIAL APRILIA DEALER.

DO TURN THE IGNITION KEY TO "KEY OFF", BECAUSE THE COOLING FANS WOULD STOP REGARDLESS OF THE COOLANT TEMPERATURE, WHICH WOULD CAUSE A FURTHER TEMPERATURE RISE.

IN MANY CASES THE ENGINE WILL CONTINUE TO OPERATE WITH LIMITED PERFORMANCE; IMMEDIATELY CONTACT AN Official APRILIA Dealer.

IN ORDER TO AVOID CLUTCH OVERHEATING, SHUT THE ENGINE OFF AS SOON AS POSSIBLE ONCE THE VEHICLE HAS STOPPED AND AT THE SAME TIME THE GEAR IS ENGAGED AND THE CLUTCH LEVER OPERATED.



ACTIVATING ONLY THE FRONT BRAKE OR THE REAR BRAKE SIGNIFICANTLY REDUCES THE BRAKING FORCE OF THE VEHICLE AND A WHEEL COULD BECOME LOCKED WITH A RESULTING LOSS OF GRIP.

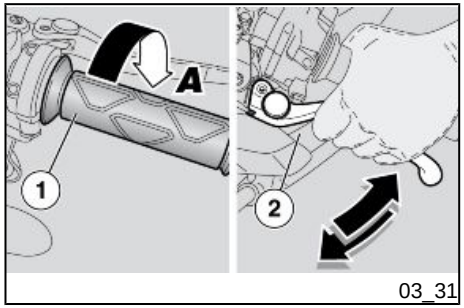
WHEN STOPPING UPHILL, DECELERATE COMPLETELY AND ONLY USE THE BRAKES TO MAINTAIN THE VEHICLE IN THE STOPPED POSITION.

USING THE ENGINE TO KEEP THE MOTORCYCLE STOPPED COULD CAUSE THE CLUTCH TO OVERHEAT. BRAKING CONTINUOUSLY WHEN DRIVING DOWNHILL COULD CAUSE THE BRAKE PADS TO OVERHEAT, WHICH REDUCES BRAKING AND LIMITS BRAKING POWER.

IT IS RECOMMENDED TO USE THE ENGINE COMPRESSION, DOWNSHIFTING AND USING BOTH BRAKES INTERMITTENTLY.

WHEN DRIVING DOWNHILL, NEVER RIDE WITH THE ENGINE TURNED OFF.

WHEN RIDING ON WET SURFACES OR SURFACES WITH POOR GRIP (SNOW, ICE, MUD, ETC.) USE MODERATE SPEED, AVOID SUDDEN BRAKING OR MANOEUVRES THAT MAY CAUSE TO A LOSS OF TRACTION AND POSSIBLY TO A FALL OR CRASH.



03_31

Stopping the engine (03_31)

- Release the throttle grip (1) (**Pos. A**), brake gradually and at the same time "downshift" gears to slow down.

Once the speed is reduced, before stopping the vehicle:

- Operate the clutch lever (2) so that engine does not shut off.

When the vehicle is at a standstill:

- Set the gearshift lever in neutral (green "**N**" indicator light lit).
- Release the clutch lever.
- While at a temporary halt, keep at least one of the vehicle brakes held.

CAUTION



WHENEVER POSSIBLE, AVOID ROUGH BRAKING, SUDDEN DECELERATION AND BRAKING IN EXCESS.

Parking

It is very important to select an adequate parking spot, in compliance with road signals and the guidelines described below.

CAUTION

PARK ON SAFE AND LEVEL GROUND TO PREVENT THE VEHICLE FROM FALLING.

DO NOT LEAN THE VEHICLE AGAINST A WALL OR LAY IT ON THE GROUND.

ENSURE THAT THE VEHICLE AND, IN PARTICULAR, PARTS OF THE VEHICLE WHICH MAY BECOME HOT (ENGINE, OIL RADIATOR AND LINES, EXHAUST SYSTEM, BRAKE DISCS) ARE NOT A HAZARD TO PERSONS OR CHILDREN.

DO NOT LEAVE YOUR VEHICLE UNATTENDED WITH THE ENGINE ON OR THE KEY IN THE IGNITION SWITCH.

CAUTION

IF THE VEHICLE FALLS OR IS ON A STEEP INCLINE FUEL CAN LEAK.

FUEL USED TO DRIVE INTERNAL COMBUSTION ENGINES IS HIGHLY FLAMMABLE AND CAN BECOME EXPLOSIVE UNDER CERTAIN CONDITIONS.



DO NOT REST THE RIDER OR PASSENGER WEIGHT ON THE SIDE STAND.

Catalytic silencer

The vehicle has a silencer with a "platinum - palladium - rhodium three-way" metal catalytic converter.

This device oxidises the CO (carbon monoxide) producing carbon dioxide, and the UHC (unburned hydrocarbons) producing water vapour and reduces NOx (nitrogen oxide) producing oxygen and nitrogen present in the exhaust fumes.



DO NOT PARK THE VEHICLE NEAR DRY BRUSHWOOD OR IN PLACES EASILY ACCESSIBLE BY CHILDREN BECAUSE THE CATALYTIC CONVERTER REACHES HIGH TEMPERATURES DURING VEHICLE OPERATION; FOR THIS REASON, PAY UTMOST ATTENTION AND DO NOT TOUCH IT UNTIL IT HAS COMPLETELY COOLED DOWN.



DO NOT USE LEADED PETROL AS IT CAUSES IRREPARABLE DAMAGE TO THE CATALYTIC CONVERTER.

Vehicle owners are warned that the law may prohibit the following:

- the removal of any device or element belonging to a new vehicle or any other action by anyone leading to render it non-operating, if not for maintenance, repair or replacement reasons, in order to control noise emission before the sale or delivery of the vehicle to the ultimate buyer or while it is used;
- using the vehicle after that device or element has been removed or rendered non-operating.

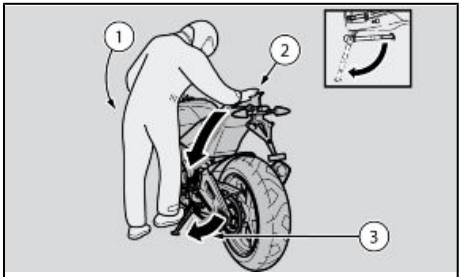
Check the muffler/exhaust silencer and the silencer pipes, make sure there are no signs of rust or holes and that the exhaust system works properly.

If you not an increase in exhaust noise, take your vehicle to an Official **Aprilia** Dealer at once.



THIS MOTORCYCLE HAS A VALVE IN THE EXHAUST SYSTEM THAT IS CONTROLLED BY THE ELECTRONIC CONTROL UNIT. WHEN THE MOTORCYCLE IS STOPPED AND IS IN NEUTRAL, THIS VALVE CLOSES TO LIMIT THE NOISE PRODUCED BY THE EXHAUST SILENCER.

IT IS STRICTLY FORBIDDEN TO TAMPER WITH THE EXHAUST SYSTEM AND/ OR THIS VALVE.



03_32

Stand (03_32)

If the side stand must be lowered for any reason (for example after moving the vehicle), proceed as described below:

- Select an appropriate parking area.
- Grasp the left handgrip (1) and place your right hand on the rear upper part of the vehicle (2).
- Lower the side stand with your right foot, and extend it completely (3).
- Tilt the motorcycle until the stand touch the ground.
- Turn the handlebar fully leftwards.

MAKE SURE THAT THE GROUND ON WHICH THE MOTORCYCLE IS PARKED IS STABLE, EVEN AND FREE OF OBSTACLES.

Suggestion to prevent theft

CAUTION

WHEN USING A DISC LOCKING DEVICE, PAY UTMOST ATTENTION TO REMOVE IT BEFORE RIDING. FAILURE TO OBSERVE THIS WARNING MAY CAUSE SERIOUS DAMAGE TO THE BRAKING SYSTEM AND ACCIDENTS WITH CONSEQUENT PHYSICAL INJURIES OR EVEN DEATH.

NEVER leave the ignition key in the lock and always use the steering lock. Park the vehicle in a safe place such as a garage or a place with guards. Whenever possible, use an additional anti-theft device. Make sure all vehicle documents are in order and the road tax paid. Write down your personal details and telephone number on this page to help identifying the owner in case of vehicle retrieval after a theft.

LAST NAME: .....

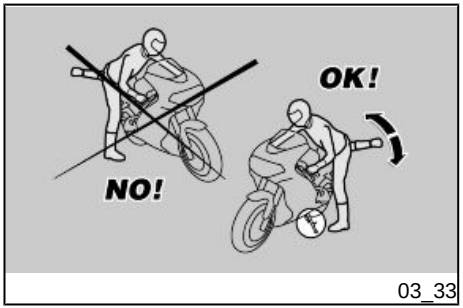
NAME: .....

ADDRESS: .....

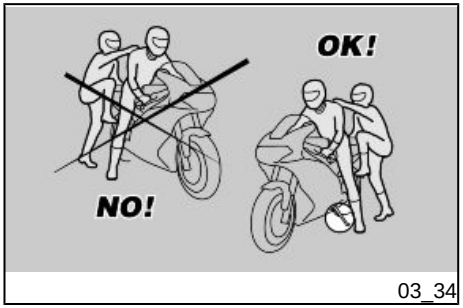
TELEPHONE NO.: .....

WARNING

IN MANY CASES, STOLEN VEHICLES CAN BE IDENTIFIED BY DATA IN THE USE / MAINTENANCE BOOKLET



03_33



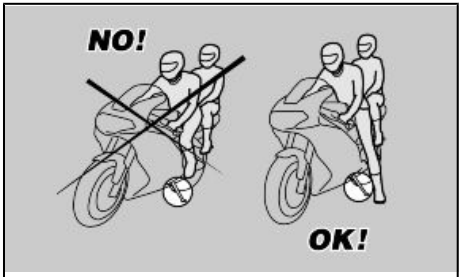
03_34

Basic safety rules (03_33, 03_34, 03_35, 03_36, 03_37)

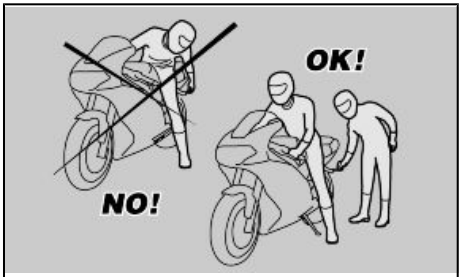
Follow the instructions given below attentively to avoid injuring persons, damaging property or the vehicle in the event of the rider or the passenger falling off the vehicle and/or the vehicle falling or overturning.

When getting on and off the vehicle, make sure nothing is restricting your movements; do not hold any objects in your hands (helmet, gloves or goggles not put on).

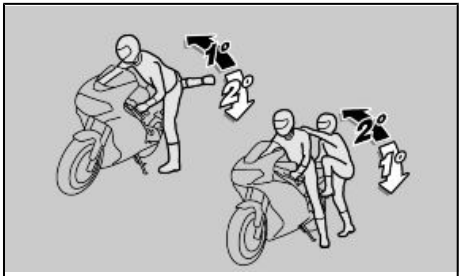
Always get on and off the vehicle on the left side and with the side stand lowered.



03_35



03_36



03_37

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

The purpose of the side stand is to prevent the vehicle from falling or overturning while rider and passenger get on the vehicle and get ready to ride; the stand should not be used to support the weight of rider and passenger.

While getting on and off, the vehicle may become unstable due to its weight and it may fall or overturn.

CAUTION

THE RIDER MUST GET ON THE VEHICLE FIRST AND GET OFF LAST TO BE ABLE TO CONTROL AND BALANCE THE VEHICLE WHILE THE PASSENGER IS GETTING ON OR OFF THE VEHICLE.

When getting on and off the vehicle, the passenger must move carefully so as not to cause a loss of stability for vehicle and rider.

CAUTION

THE RIDER MUST INSTRUCT THE PASSENGER ON HOW TO GET ON AND OFF THE VEHICLE SAFELY.

THE VEHICLE IS EQUIPPED WITH PASSENGER FOOTRESTS TO FACILITATE GETTING ON OR OFF THE VEHICLE. THE PASSENGER MUST ALWAYS USE THE LEFT FOOTREST TO GET ON AND OFF THE VEHICLE.

NEVER ATTEMPT TO GET OFF THE VEHICLE BY JUMPING OR STRETCHING YOUR LEG TO REACH THE GROUND. THESE ARE INCORRECT PROCEDURES THAT COMPROMISE VEHICLE STABILITY AND BALANCE.

CAUTION

ANY BAGS OR OBJECTS STRAPPED TO THE REAR OF THE VEHICLE CAN REPRESENT AN OBSTACLE WHILE GETTING ON AND OFF.

SWING YOUR RIGHT LEG OVER THE SEAT IN A CONTROLLED MOVEMENT SO AS NOT TO HIT THE REAR PART OF THE VEHICLE (TAIL FAIRING OR LUGGAGE) AND COMPROMISE STABILITY.

GETTING ON THE VEHICLE

- Grip the handlebar correctly and get on the vehicle without resting your weight on the side stand

CAUTION

IF YOU CAN NOT REACH THE GROUND WITH BOTH FEET WHEN SEATED, PLACE YOUR RIGHT FOOT ON THE GROUND (IF YOU LOSE BALANCE, THE SIDE STAND WILL PREVENT A FALL ON THE LEFT SIDE) AND BE READY TO PUT YOUR LEFT FOOT ON THE GROUND.

- Place both feet on the ground, straighten and balance the vehicle keeping it upright in riding position.

CAUTION

THE RIDER MUST NOT EXTRACT OR ATTEMPT TO EXTRACT THE PASSENGER FOOTRESTS WHILE SEATED, BECAUSE THIS MIGHT COMPROMISE VEHICLE STABILITY AND BALANCE.

- Have the passenger fold out the two passenger footrests.
- Give instructions as necessary to help the passenger mount the vehicle.
- Lift and retract the side stand completely with the left foot.

GETTING OFF THE VEHICLE

- Select an appropriate parking spot.
- Stop the vehicle.
- Stop the engine.



MAKE SURE THAT THE GROUND ON WHICH THE MOTORCYCLE IS PARKED IS STABLE, EVEN AND FREE OF OBSTACLES.

- With the left shoe heel, lower and extend the side stand completely.

CAUTION

IF YOU CAN NOT REACH THE GROUND WITH BOTH FEET WHEN SEATED, PLACE YOUR RIGHT FOOT ON THE GROUND (IF YOU LOSE BALANCE, THE SIDE STAND WILL PREVENT A FALL ON THE LEFT SIDE) AND BE READY TO PUT YOUR LEFT FOOT ON THE GROUND.

- Place both feet on the ground and keep the vehicle balanced in the upright position.

- Give instructions as necessary to help the passenger dismount the vehicle.



RISK OF FALLING AND OVERTURNING.
MAKE SURE THE PASSENGER HAS GOT OFF THE VEHICLE.
DO NOT REST YOUR WEIGHT ON THE SIDE STAND.

- Tilt the motorcycle until the stand touch the ground.
- Grasp the handlebar firmly and get off the vehicle.
- Turn the handlebar fully leftwards.
- Return the passenger footrests to position.

CAUTION



MAKE SURE THE VEHICLE IS STABLE.

RSV4

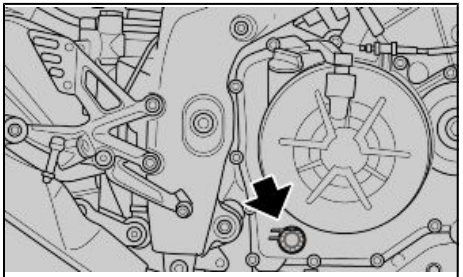


Chap. 04
Maintenance

Foreword

WARNING

THIS VEHICLE IS DESIGNED TO DETECT IN REAL TIME ANY MALFUNCTIONS, STORED BY THE ECU AND WHICH CAN BE READ BY MEANS OF THE DIAGNOSIS SYSTEM SUPPLIED TO THE Aprilia Official Dealer.



04_01

Engine oil level check (04_01)

Check the engine oil level frequently.

NOTE

CARRY OUT MAINTENANCE OPERATIONS AT HALF THE INTERVALS SPECIFIED IF THE VEHICLE IS USED IN PARTICULAR RAINY OR DUSTY CONDITIONS, OFF ROAD OR FOR TRACK USE.

ENGINE OIL LEVEL MUST BE CHECKED WHEN THE ENGINE IS WARM.

CAUTION

DO NOT LET THE ENGINE IDLE WITH THE VEHICLE AT STANDSTILL TO WARM UP THE ENGINE AND OBTAIN THE OPERATING TEMPERATURE OF ENGINE OIL.

PREFERABLY CHECK THE OIL AFTER A JOURNEY OF AFTER TRAVELLING APPROXIMATELY 15 Km (10 miles) IN EXTRAURBAN CONDITIONS (ENOUGH TO WARM UP THE ENGINE OIL TO OPERATING TEMPERATURE).

- Shut off the engine and wait for a few seconds.
- Keep the vehicle upright with both wheels on the ground.

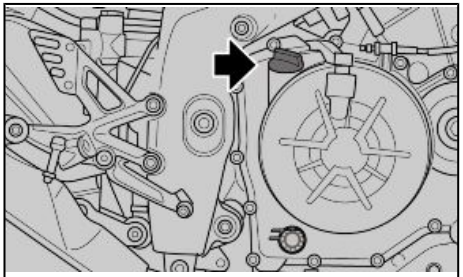
- Ensure that the vehicle is on a level surface.
- Check via the inspection glass in the crankcase, on the right-hand side of the vehicle, that the oil level is near the upper marking.

- Upper marking = Max. level

- Lower marking = Min. level

CAUTION

NEVER ALLOW THE OIL LEVEL TO DROP BELOW THE MINIMUM LEVEL OR FILL ABOVE THE MAXIMUM LEVEL; IF YOU DO NOT COMPLY WITH THE MINIMUM AND MAXIMUM OIL LEVELS THE ENGINE COULD BE SERIOUSLY DAMAGED



04_02

Engine oil top-up (04_02)

If necessary, top up the engine oil level as follows:

- Unscrew and remove the cap.

CAUTION

USE RECOMMENDED OIL ONLY. REFER TO THE RECOMMENDED PRODUCTS TABLE.

- Add the quantity of oil necessary to reach the correct level.

CAUTION

DO NOT ADD ADDITIVES OR ANY OTHER SUBSTANCES TO THE OIL. WHEN USING A FUNNEL OR ANY OTHER ELEMENT, MAKE SURE IT IS PERFECTLY CLEAN.

Tyres

This vehicle is fitted with tyres without inner tubes (Tubeless).



CHECK TYRE INFLATION PRESSURE REGULARLY AT AMBIENT TEMPERATURE.

MEASUREMENTS MAY BE INCORRECT IF TYRES ARE WARM.

CHECK PRESSURE MAINLY BEFORE AND AFTER LONG TRIPS.

IF THE TYRE PRESSURE IS TOO HIGH, UNEVENNESS IN THE ROAD SURFACE WILL NOT BE CUSHIONED AND WILL BE TRANSMITTED TO THE HANDLEBAR, RESULTING IN AN UNPLEASANTLY HARSH RIDE AND POOR ROAD HOLDING, ESPECIALLY WHEN CORNERING.

AN UNDERINFLATED TYRE, ON THE OTHER HAND, WILL EXTEND THE CONTACT PATCH TO INCLUDE A LARGER PORTION OF THE TYRE SIDEWALLS. WHEN THIS IS THE CASE, THE TYRE MIGHT SLIP ON OR BECOME DETACHED FROM THE WHEEL RIM, LEADING TO LOSS OF CONTROL OVER THE VEHICLE.

TYRES MAY EVEN DETACH FROM THE WHEEL RIMS UNDER VERY HARD BRAKING.

THE VEHICLE MAY EVEN SKID IN A BEND.

INSPECT TREAD SURFACE AND CHECK IT FOR WEAR. BADLY WORN TYRES MAY COMPROMISE TRACTION AND HANDLING.

REPLACE TYRES WHEN WORN OR IF THERE IS A PUNCTURE IN THE TREAD AREA BIGGER THAN 5 mm (0.197 in).

BALANCE WHEELS AFTER A TYRE IS MENDED. USE ONLY TYRE SIZES INDICATED BY THE MANUFACTURER.

CHECK THAT THE INFLATION VALVES HAVE THEIR CAPS FITTED TO AVOID UNEXPECTED FLAT TYRES. REPLACEMENT, REPAIR, MAINTENANCE AND BALANCING OPERATIONS ARE HIGHLY IMPORTANT AND SO THEY SHOULD

BE CARRIED OUT USING THE SPECIFIC TOOLS AND WITH THE ADEQUATE KNOWLEDGE.

IT IS THEREFORE ESSENTIAL TO TAKE YOUR VEHICLE TO AN Official Aprilia Dealer OR SPECIALISED TYRE WORKSHOP TO CARRY OUT THE OPERATIONS ABOVE. NEW TYRES MAY BE COATED WITH A SLIPPERY COATING: RIDE WITH CAUTION DURING THE FIRST KILOMETRES. DO NOT APPLY UNSUITABLE LIQUIDS ON TYRES. WHEN TYRES ARE OLD, THE MATERIAL MAY HARDEN AND NOT PROVIDE ADEQUATE ROAD HOLDING, EVEN IF TYRES ARE STILL WITHIN THE WEAR LIMIT.

SHOULD THIS OCCUR, REPLACE THE TYRES.

WARNING

ONLY USE TYRES RECOMMENDED BY Aprilia. THE USE OF DIFFERENT TYRES, EVEN IF THEY ARE OF THE SAME SIZE, CANNOT GUARANTEE BIKE RIDING PERFORMANCE.

Minimum tread depth:

front and rear 2 mm (0.079 in) (USA 3 mm - 0.118 in) or more if so required by applicable legislation in the country where the vehicle is used.

Spark plug dismantlement

CAUTION

TO REMOVE, CHECK, CLEAN AND REPLACE SPARK PLUGS, PLEASE CONTACT AN Official Aprilia Dealer. IF YOU HAVE SUFFICIENT EXPERIENCE, FOLLOW THE INSTRUCTIONS IN THIS WORKSHOP BOOKLET, WHICH IS AVAILABLE AT ANY DEALER.

Cooling fluid level

Do not use the vehicle if the coolant is below the minimum level.

CAUTION



COOLANT IS TOXIC IF INGESTED; CONTACT WITH YOUR EYES OR SKIN MAY CAUSE IRRITATION. IF THE FLUID GETS IN CONTACT WITH THE EYES OR SKIN, RINSE REPEATEDLY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. IF SWALLOWED, INDUCE VOMITING, RINSE MOUTH AND THROAT WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE IMMEDIATELY.

Coolant solution is 50% water and 50% antifreeze fluid.

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

It is advisable to use the same mixture even in hot weather as this minimises loss due to evaporation and the need of frequent top-ups.

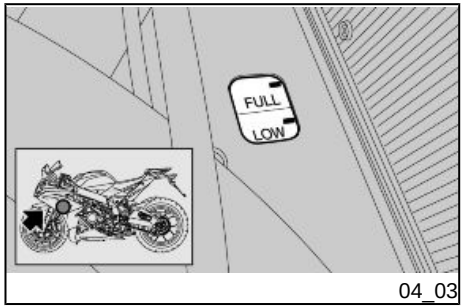
Less water evaporation means fewer mineral salts depositing in the radiators, which helps preserve the efficiency of the cooling system.

If the external temperature drops below 0 °C (32 °F), check the cooling system frequently and add more antifreeze fluid if needed (up to 60% max.).

Use distilled water in the coolant mixture to avoid damaging the engine.

CAUTION

DO NOT UNSCREW THE RADIATOR CAP WHEN THE ENGINE IS HOT, SINCE COOLANT IS UNDER PRESSURE AND VERY HOT. CONTACT WITH SKIN OR CLOTHES MAY CAUSE SEVERE BURNS AND/OR INJURIES.



04_03

Coolant check (04_03)

- Shut off the engine and wait until it cools off.
- Keep the vehicle upright on a level surface with both wheels on the ground.
- Looking through the relative slit on the inner right hand fairing, check that the liquid level in the expansion tank is between the "**FULL**" and "**LOW**" markings.

WARNING

STOP THE ENGINE AND WAIT FOR IT TO COOL DOWN BEFORE CHECKING OR TOPPING UP COOLANT LEVEL.

Coolant top-up

- Remove the right side fairing.
- Remove the expansion tank cap.
- Top-up with recommended liquid to the "FULL" marking on the expansion tank, visible from the left hand side through the slit in the inner right hand fairing.

Checking the brake oil level

Brake fluid check

- Rest the vehicle on its stand.
- For the front brake, turn the handlebar fully to the right.
- For the rear brake, keep the vehicle upright so that the fluid in the reservoir is at the same level with the plug.
- Make sure that the fluid level in the reservoir is above the "**MIN**" reference mark:

MIN = minimum level

MAX = maximum level

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

- Check brake pads and disc for wear.
- If the pads and/or the disc do not need replacing, top-up the fluid.

Braking system fluid top up (04_04, 04_05)



RISK OF BRAKE FLUID SPILLS. DO NOT OPERATE THE BRAKE LEVER WITH BRAKE FLUID RESERVOIR CAP LOOSENED OR REMOVED.

CAUTION



AVOID PROLONGED AIR EXPOSURE OF THE BRAKE FLUID. BRAKE FLUID IS HYGROSCOPIC AND ABSORBS MOISTURE WHEN IN CONTACT WITH AIR. LEAVE THE BRAKE FLUID RESERVOIR OPEN ONLY FOR THE TIME NEEDED TO COMPLETE THE TOPPING UP PROCEDURE.

TO AVOID SPILLING BRAKE FLUID WHILE TOPPING-UP, KEEP THE FLUID LEVEL IN THE RESERVOIR PARALLEL TO THE RESERVOIR EDGE (IN HORIZONTAL POSITION). DO NOT ADD ADDITIVES OR OTHER SUBSTANCES TO THE FLUID. IF A FUNNEL OR ANY OTHER ELEMENT IS USED, MAKE SURE THAT IT IS PERFECTLY CLEAN.

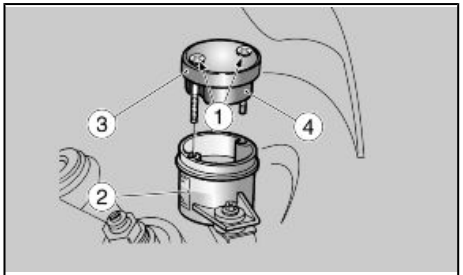
BRAKE FLUID IS HIGHLY CORROSIVE - AVOID CONTACT WITH THE SKIN, EYES AND BIKE PARTS.

WHEN TOPPING UP, PROTECT THE AREAS NEAR THE TANK WITH ABSORBENT MATERIAL.

Recommended products

AGIP BRAKE 4

Brake fluid
As an alternative to the recommended fluid, other fluids that meet or exceed the required specifications may be used. SAE J1703, NHTSA 116 DOT 4, ISO 4925 Synthetic fluid



04_04

Front braking system

- Use a short crosshead screwdriver to undo the screws (1) of the front braking system (2) fluid reservoir.
- Lift and remove the cover (3) together with the screws (1) and the gasket (4).
- Top up the reservoir (2) with recommended brake fluid to above the "**MIN**" level marking.

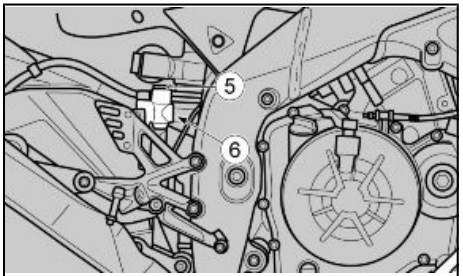
CAUTION

TOP-UP TO MAXIMUM LEVEL MARK ONLY WHEN BRAKE PADS ARE NEW. FILLING UP TO THE MAXIMUM LEVEL WITH WORN PADS IS NOT ADVISED, AS THIS WILL CAUSE FLUID SPILLAGE WHEN REPLACING THE BRAKE PADS.

CHECK BRAKING EFFICIENCY.

IF THE FREE STROKE OF THE BRAKE PEDAL OR THE BRAKE LEVER IS TOO LONG, OR IN THE CASE OF LEAKS, IT MAY BE NECESSARY TO BLEED AIR FROM THE SYSTEM.

SHOULD THIS OCCUR, CONTACT AN Official Aprilia Dealer.



04_05

Rear braking system

- Unscrew and remove the upper nut (5) from the rear brake pump.
- Top up the reservoir with the recommended brake fluid to reach the correct level on the sight glass (6).

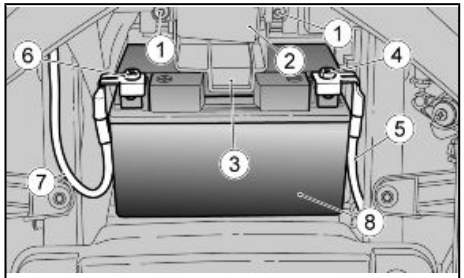
CAUTION

TOP-UP TO MAXIMUM LEVEL MARK ONLY WHEN BRAKE PADS ARE NEW. FILLING UP TO THE MAXIMUM LEVEL WITH WORN PADS IS NOT ADVISED, AS THIS WILL CAUSE FLUID SPILLAGE WHEN REPLACING THE BRAKE PADS.

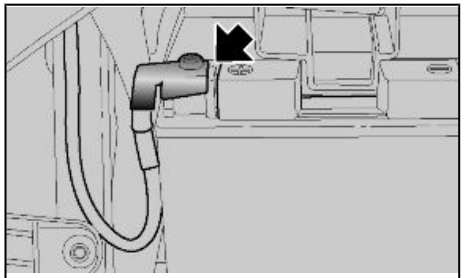
CHECK BRAKING EFFICIENCY.

IF THE FREE STROKE OF THE BRAKE PEDAL OR THE BRAKE LEVER IS TOO LONG, OR IN THE CASE OF LEAKS, IT MAY BE NECESSARY TO BLEED AIR FROM THE SYSTEM.

SHOULD THIS OCCUR, CONTACT AN Official Aprilia Dealer.



04_06


04_07

Battery removal (04_06, 04_07)

- Make sure that the ignition switch is set to "OFF".
- Remove the rider saddle.
- Unscrew and remove the two screws (1) using the spanner supplied in the tool kit.
- Remove the secondary fuse box (2).
- Remove the battery retainer (3).
- Undo and remove the screw (4) of the negative terminal (-).
- Move the negative lead (5) aside.
- Move the rubber cap that protects the positive clamp (+).
- Undo and remove the screw (6) of the positive terminal (+).
- Move the positive lead (7) aside.

PAY MAXIMUM ATTENTION AND PREVENT ALL CONTACT BETWEEN THE BATTERY POLES AND ANY METAL OBJECT TO PREVENT THE RISK OF SHORT-CIRCUITS.

- Hold the battery (8) firmly and lift it out of its compartment.
- Put the battery away on a level surface, in a cool and dry place.
- Refit the rider saddle.

Use of a new battery (04_08, 04_09)

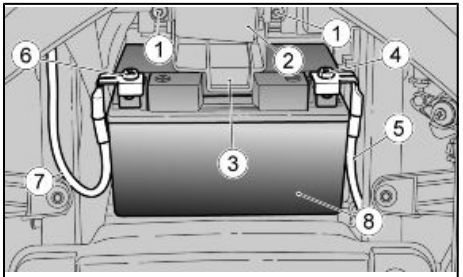
CHECK THAT THE BATTERY LEADS AND TERMINALS ARE:

- IN GOOD CONDITION (NOT CORRODED OR COVERED BY DEPOSITS);

- COVERED BY NEUTRAL GREASE OR PETROLEUM JELLY.

CAUTION

UPON REFITTING, CONNECT THE LEAD TO THE POSITIVE TERMINAL (+) FIRST AND AFTERWARDS THE LEAD TO THE NEGATIVE TERMINAL (-).



04_08

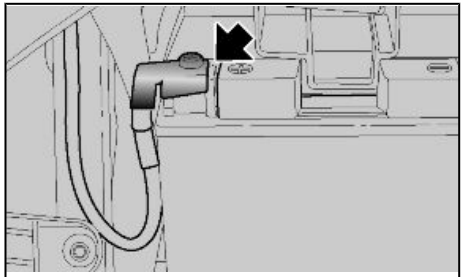
- Remove the saddle if refitted.
- Place the battery (8) in its housing.
- Fasten the positive cable (7) to the positive terminal (+), tightening the screw (6).

The positive cable (7) must be positioned to the side of the battery (8).

- Place the protective rubber cap on the positive clamp (+).
- Fasten the negative cable (5) to the negative terminal (+), tightening the screw (4).

The negative cable (5) must be positioned to the side of the battery (8).

- Fit the battery retainer (3).
- Fit the secondary fuse box (2).
- Tighten the two screws (1) using the spanner supplied in the tool kit.
- Fit and fasten the rider's saddle as described in the paragraph "opening the saddle".



04_09

Checking the electrolyte level

WARNING

THE MOTORCYCLE IS SUPPLIED WITH A BATTERY THAT DOES NOT REQUIRE MAINTENANCE OTHER THAN OCCASIONALLY CHECKING THE CHARGING LEVEL.

Charging the battery

- Remove the battery.
- Get an adequate battery charger.
- Set the battery charger for the recharge type indicated.
- Connect the battery to the battery charger.

CAUTION



WHEN RECHARGING OR USING THE BATTERY, BE CAREFUL TO HAVE THE ROOM ADEQUATELY AIRED. DO NOT BREATH GASES RELEASED WHEN THE BATTERY IS RECHARGING.

Switch on the battery charger.

Characteristic

RECHARGE MODES:

Recharge - Ordinary

Electric Current - 1.0 A

Time - 8-10 hours

Recharge - Fast

Electric Current - 10 A

Time - 1 hour

Long periods of inactivity



IF THE VEHICLE IS INACTIVE LONGER THAN FIFTEEN DAYS, DISCONNECT THE 30A FUSE TO AVOID BATTERY DETERIORATION DUE TO CURRENT CONSUMPTION BY THE MULTIFUNCTION COMPUTER.

CAUTION

REMOVING THE 30A FUSE RESETS THESE FUNCTIONS: DIGITAL CLOCK, TRIP INFORMATION AND CHRONOMETER TIMES.

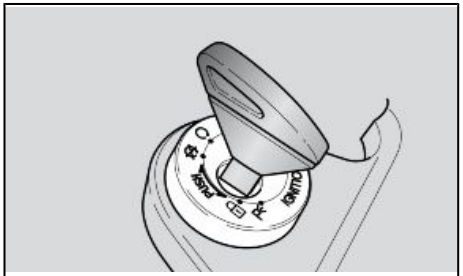
If the vehicle is inactive longer than fifteen days, it is necessary to recharge the battery to avoid sulphation.

- Remove the battery.

In winter or when the vehicle is out of use for prolonged periods, check charge level frequently (about once a month) to prevent deterioration.

- Recharge it fully with an ordinary charge.

If the battery is still on the vehicle, disconnect the cables from the terminals.



04_10

Fuses (04_10, 04_11, 04_12, 04_13)

Check fuses in case of failure or irregular functioning of an electrical component or engine starting failure.

Check the auxiliary 15A fuses first, then the main 30A fuse.

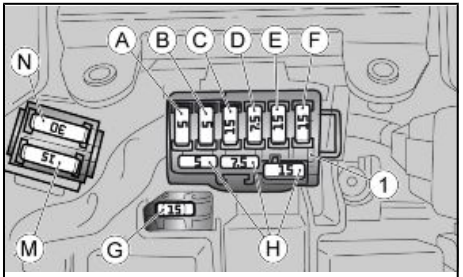
CAUTION

DO NOT REPAIR FAULTY FUSES.

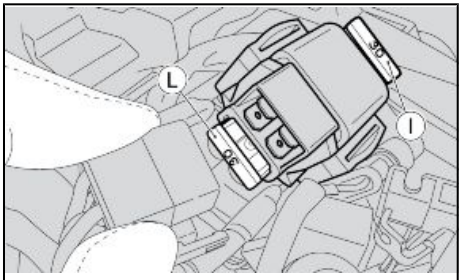
NEVER USE A FUSE THAT IS DIFFERENT THAN WHAT IS SPECIFIED TO PREVENT DAMAGES TO THE ELECTRICAL SYSTEM OR SHORT CIRCUITS, WITH THE RISK OF FIRE.

CAUTION

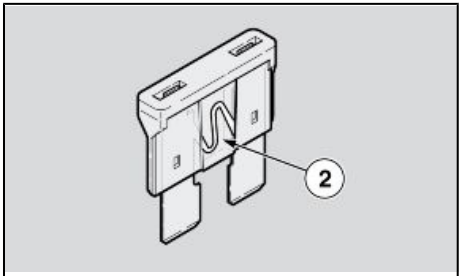
A FUSE THAT BLOWS FREQUENTLY MAY INDICATE A SHORT CIRCUIT OR OVERLOAD. IF THIS OCCURS, CONSULT AN APRILIA Official Dealer.



04_11



04_12



04_13

To check:

- Set the ignition switch to "OFF" to avoid an accidental short circuit.
- Remove the rider saddle.
- Open the cover of the auxiliary fuse box (1).
- Take out one fuse at a time and check whether the filament (2) is broken.
- Before replacing the fuse, find and solve, whenever possible, the problem that caused it to blow.
- If the fuse is damaged, replace it with one of the same current rating.
- Remove the rider saddle.
- To check the main fuses, carry out the same operations described above for auxiliary fuses.

NOTE

IF THE SPARE FUSE IS USED, REPLACE IT WITH ONE OF THE SAME TYPE IN THE CORRESPONDING FITTING.

CAUTION

REMOVING THE 30A FUSE RESETS THESE FUNCTIONS: DIGITAL CLOCK, TRIP INFORMATION AND CHRONOMETER TIMES.

AUXILIARY FUSES DISTRIBUTION

A) 5A fuse	Lights relay, stop light, daylight running lights, variable geometry intake ducts (factory)
A) fuse of 5A (ABS version)	Stop and running lights relay
B) 5A fuse	Instrument panel, turn indicators, speed, instrument panel diagnosis, tone wheel ECU (a-PRC)
B) fuse of 5A (ABS version)	Instrument panel, turn indicators
C) 15A fuse	Control unit
D) 7.5A fuse	Control unit
E) 15A fuse	High beam/low beam, horn.
F) 15A fuse	Coils, injectors, fuel pump, oxygen sensor and secondary air valve
G) 15A fuse	Fans.

Auxiliary fuses are placed in the central part of the motorcycle, under the rider saddle.

CAUTION

THREE OF THE FUSES ARE SPARES (H).

MAIN FUSES DISTRIBUTION

L) 30A fuse	Battery recharge and vehicle current consumers, injection current consumers (red and red/ white cables), fan relay.
L) fuse of 30A (ABS version)	Battery recharge, positive switched live, permanent positive under instrument panel, sensor box positive switched live, fan relay

Main fuses are placed in the rear part of the motorcycle, under the passenger seat.

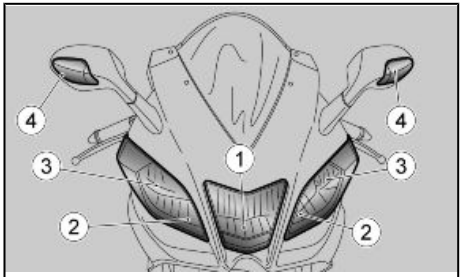
CAUTION

THERE IS ONE SPARE FUSE (I).

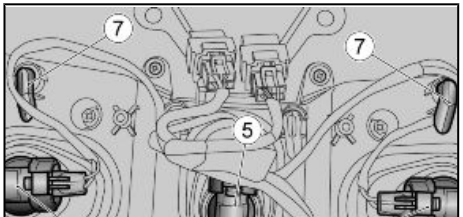
ABS FUSE DISTRIBUTION

M) fuse of 15A	ABS solenoid valves.
N) fuse of 30A	ABS pump motor.

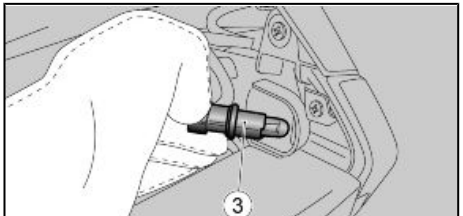
WHERE CONTEMPLATED



04_14



04_15



04_16

Lamps (04_14, 04_15, 04_16)

For a clearer explanation, the picture shows the windshield detached from the vehicle. It is not necessary to remove the windshield to replace the high- and low-beam light bulbs.

In the headlamp there are:

- one high-beam light bulb (1)
- two low-beam light bulbs (2);
- two tail light bulbs (3).

Two turn indicator light bulbs (4) are housed within the rear view mirrors.

The high-beam and low-beam light bulbs are the same.

For replacement:

- Rest the vehicle on its stand.

HIGH- AND LOW-BEAM LIGHT BULBS

Should high- and low-beam light bulbs need to be replaced at the same time, mark the connectors and upon refitting check that they are correctly positioned.

- Disconnect the connector (5 or 6).
- Turn the bulb retainer ring nut anticlockwise and remove the bulb.
- Replace the damaged bulb with a new bulb of the same type.
- Reinstall the bulb in its fitting and turn it clockwise until it is tight.
- Connect the connector (6 or 5) correctly.

POSITION LIGHT BULB

- Pull out the position light bulb holder (7) from its seat.
- Slide off and replace the bulb with another of the same type.

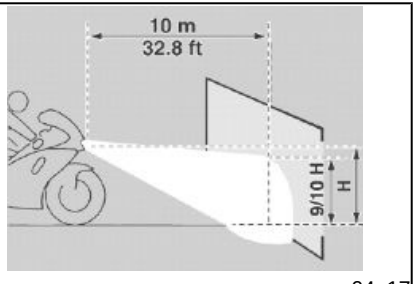
CAUTION

BEFORE REPLACING A BULB, TURN THE IGNITION SWITCH TO «KEY OFF» AND WAIT A FEW MINUTES FOR THE BULB TO COOL OFF.

WEAR CLEAN GLOVES OR USE A CLEAN DRY CLOTH TO REPLACE THE BULB.

DO NOT LEAVE PRINTS ON THE BULB AS THIS MAY CAUSE IT TO OVERHEAT OR EVEN BLOW OUT. IF YOU TOUCH THE BULB WITHOUT WEARING GLOVES, CLEAN OFF PRINTS WITH ALCOHOL TO AVOID DAMAGING THE BULB.

DO NOT FORCE ELECTRICAL CABLES.

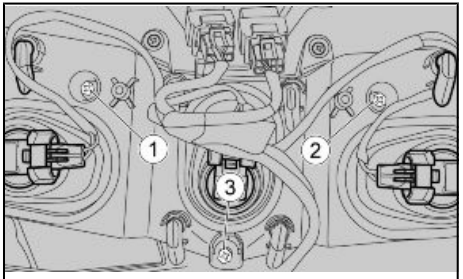


04_17

Headlight adjustment (04_17, 04_18)

NOTE

IN COMPLIANCE WITH LOCAL LEGISLATION, SPECIFIC PROCEDURES MUST BE FOLLOWED WHEN ALIGNING THE LIGHTS.



04_18

To quickly and easily check the alignment of the front light, place the vehicle on a level surface 10 m (32.8 ft) away from a vertical wall. Turn on the dipped beam light, sit on the vehicle and check that the light beam projected onto the wall is a little below the level of the headlight (about 9/10 of the total height).

To carry out vertical adjustment of the light beam:

- Rest the vehicle on its stand.
- Working from the rear side of the windshield, use a crosshead screwdriver to operate on the specific central screws (1). SCREW it (clockwise) to raise the light beams; UNDO the screw (anticlockwise) to lower the light beam.
- With these screws, it is possible to adjust the inclination of the front headlight assembly.

NOTE

CHECK THAT THE LIGHT BEAM VERTICAL DIRECTION IS CORRECT.

In order to carry out horizontal adjustment of the light beam:

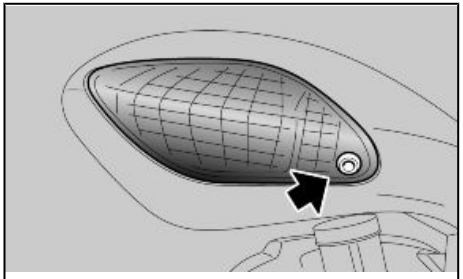
- Rest the vehicle on its stand.
- Working from the rear left hand side of the top fairing, adjust both screws simultaneously with a short cross headed screwdriver:

- tightening the right hand screw while simultaneously loosening the left hand screw moves the light beam to the left.

- tightening the left hand screw while simultaneously loosening the right hand screw moves the light beam to the right.

NOTE

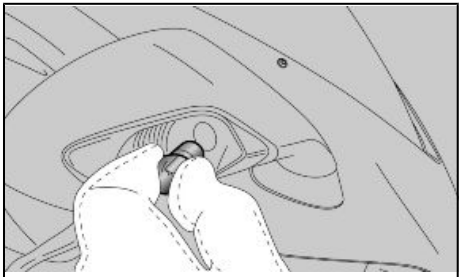
CHECK THAT THE LIGHT BEAM HORIZONTAL DIRECTION IS CORRECT.



04_19

Front direction indicators (04_19, 04_20)

- Unscrew and remove the screw.

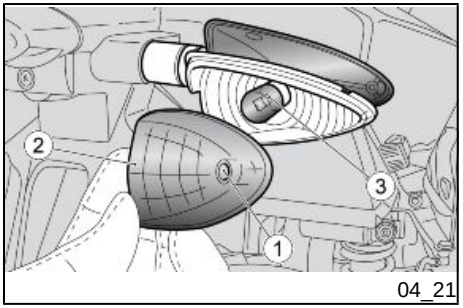

04_20

- Turn the bulb anticlockwise and remove.
- Replace with a new bulb of the same type.

Rear optical unit

CAUTION

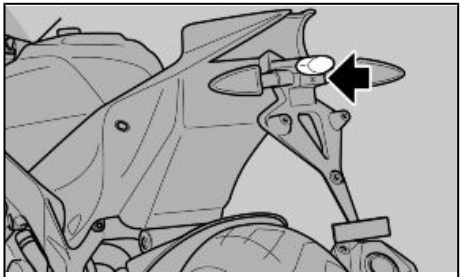
TO REMOVE, CHECK AND REPLACE THE REAR TAILLIGHT ASSEMBLY, PLEASE CONTACT AN Official Aprilia Dealer OR IF YOU ARE ADEQUATELY TRAINED AND EXPERIENCED, REFER TO THE INSTRUCTIONS IN THIS WORKSHOP BOOKLET AVAILABLE ALSO AT ANY Official Aprilia Dealer.



04_21

Rear turn indicators (04_21)

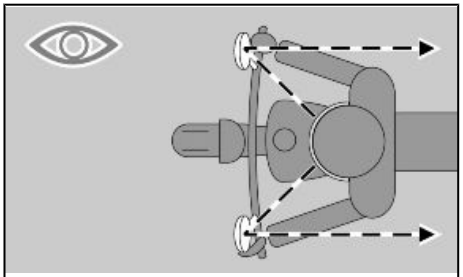
- Rest the vehicle on its stand.
- Loosen and remove screw (1).
- Remove glass (2).
- Press bulb (3) slightly and turn it anticlockwise.
- Pull the bulb (3) out of its fitting.
- Insert a bulb of the same type adequately.



04_22

Number plate light (04_22)

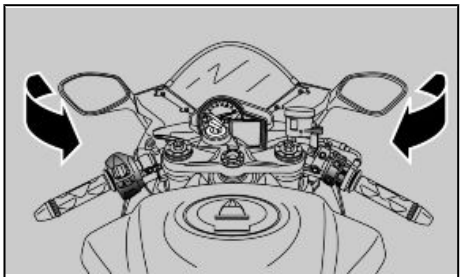
- Rest the vehicle on its stand.
- Unscrew and remove the screw.
- Take out the license plate light bulb holder.
- Slide off and replace the bulb with another of the same type.



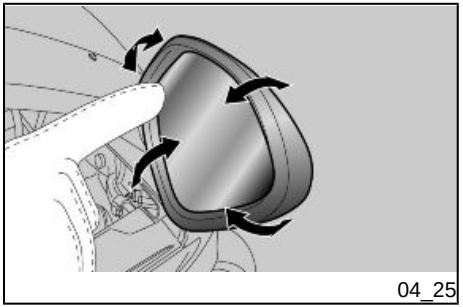
04_23

Rear-view mirrors (04_23, 04_24, 04_25)

- The rear view mirrors may be folded inward on their respective mountings.



04_24



04_25

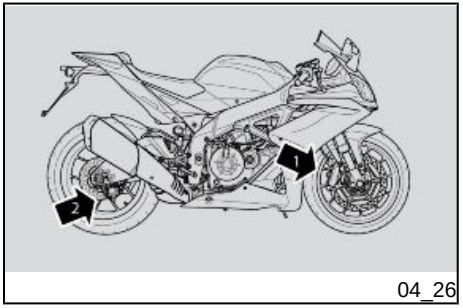
- If necessary, adjust the inclination of the rear view mirrors correctly as shown in the figure.

CAUTION

IT IS FORBIDDEN TO REMOVE THE REAR-VIEW MIRRORS FOR RIDING ON THE ROAD.

CAUTION

THE REAR-VIEW MIRRORS ARE FIXING ELEMENTS OF THE WINDSHIELD. IF THE REAR-VIEW MIRRORS ARE REMOVED (ONLY FOR USING ON TRACKS) IT IS NECESSARY TO REPLACE THEM WITH A SUITABLE SCREW.



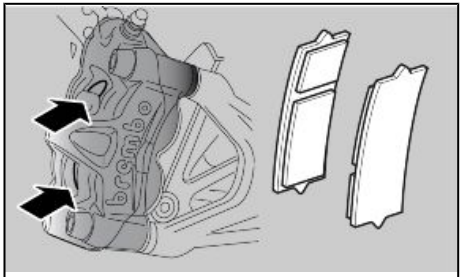
04_26

Front and rear disc brake (04_26, 04_27, 04_28)

CAUTION



CHECK BRAKE PADS FOR WEAR MAINLY BEFORE EACH RIDE.



04_27

To perform a quick pad wear check:

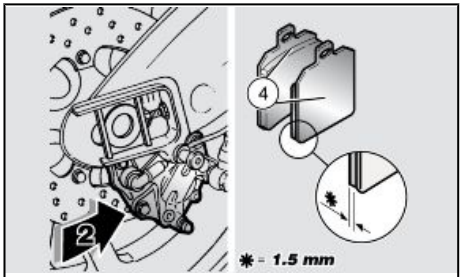
- Rest the vehicle on its stand.
- Carry out a visual inspection of brake disc and pads as follows:

- inspect the front brake callipers from above and behind (1);

- inspect the rear brake calliper (2) from below and behind;

CAUTION

EXCESSIVE WEAR OF THE FRICTION MATERIAL MAKES THE PAD METAL SUPPORT GET INTO CONTACT WITH THE DISC, WHICH RESULTS IN A METALLIC NOISE AND SPARKS IN THE CALLIPER; THEREFORE, BRAKING EFFICIENCY AND DISC SAFETY AND INTEGRITY ARE AT RISK.

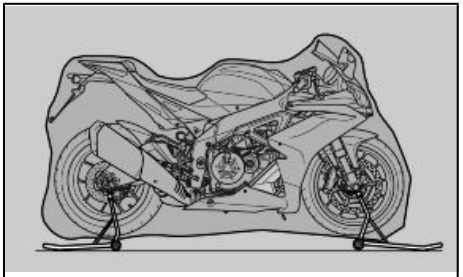


04_28

If the friction material thickness (even of one front (3) or rear (4) pad) is reduced to a value of about **1.5 mm (0.06 in)** (or even if one of the wear indicators is not very visible), contact an Official **Aprilia** Dealer to have the calliper pads replaced.

USE ORIGINAL PADS ONLY.

IF NON ORIGINAL PADS ARE USED THE PERFORMANCE OF THE BRAKING SYSTEM COULD BE COMPROMISED AND/OR DAMAGED.



04_29

Periods of inactivity (04_29)

Take some measures to avoid the side effects of not using the scooter. Besides, it is necessary to carry out general repairs and checks before garaging the motorcycle as one can forget to do so afterwards.

Proceed as follows:

- Remove the battery.
- Wash and dry the vehicle.
- Polish the painted surfaces.
- Inflate the tyres.
- Set the vehicle in a room with no heating or humidity, with minimum temperature variations and not exposed to sun rays.
- Wrap and tie a plastic bag around the exhaust pipe opening to keep moisture out.

NOTE

PLACE A SUITABLE SUPPORT UNDER THE VEHICLE TO KEEP BOTH WHEELS OFF THE GROUND.

- Put the vehicle on the front stand (optional) and on the back stand (optional).
- Cover the vehicle (do not use plastic or waterproof materials).

AFTER STORAGE

NOTE

TAKE THE PLASTIC BAGS OFF THE EXHAUST PIPE OPENING.

- Uncover and clean the vehicle.
- Check the battery for correct charge and install it.
- Refill the fuel tank.
- Carry out the pre-ride checks.

CAUTION



AS A TEST, RIDE THE MOTORCYCLE FOR A FEW KILOMETRES AT A MODERATE SPEED AND AWAY FROM TRAFFIC AREAS.

Cleaning the vehicle (04_30, 04_31, 04_32)

Clean the motorcycle frequently if exposed to adverse conditions, such as:

- Air pollution (cities and industrial areas).
- Salinity and humidity in the atmosphere (seashore areas, hot and wet weather).
- Special environmental/seasonal conditions (use of salt, anti-icing chemical products on the roads in winter).
- Always clean off any smog and pollution residue, tar stains, insects, bird droppings, etc. from the bodywork.
- Avoid parking the vehicle under trees. During some seasons, resins, fruits or leaves containing aggressive chemical substances that may damage the paintwork may fall from trees.
- Clean the instrument panel with a soft, damp cloth.

CAUTION



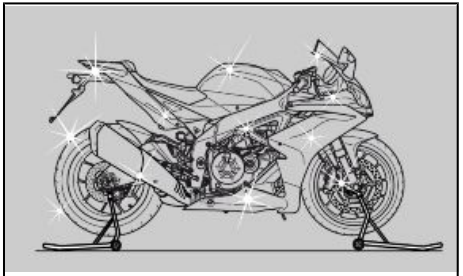
BEFORE WASHING THE VEHICLE, COVER THE ENGINE AIR INTAKES AND THE EXHAUST PIPES.

CAUTION



AFTER CLEANING YOUR MOTORCYCLE, BRAKING EFFICIENCY MAY BE TEMPORARILY AFFECTED DUE TO THE PRESENCE OF WATER ON THE FRICTION

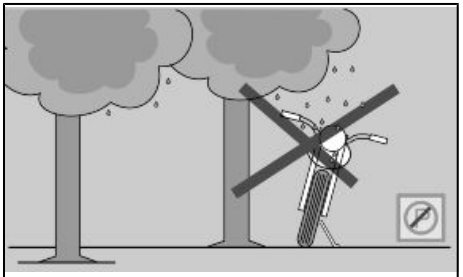
SURFACES OF THE BRAKING CIRCUIT. ALLOW LONGER BRAKING DISTANCES TO PREVENT ACCIDENTS. BRAKE REPEATEDLY TO RESTORE NORMAL OPERATION. CARRY OUT THE PRE-RIDE CHECKS.



04_30

To remove dirt and mud accumulated on painted surfaces, wet the soiled areas thoroughly with a low-pressure water jet, then remove dirt and mud with a soft car body sponge soaked abundantly in a solution of car body shampoo in water (2 - 4% shampoo dissolved in water). Then rinse with plenty of water, and dry with a chamois leather. To clean the engine outer parts, use degreasing detergent, brushes and old cloths. Wash anodised or painted aluminium parts with neutral soap and water. Using aggressive detergents may damage the surface treatment of these components.

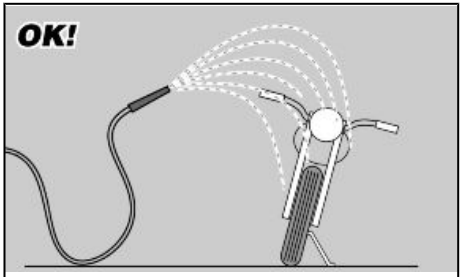
TO CLEAN THE HEADLIGHTS USE A SPONGE SOAKED IN WATER AND MILD DETERGENT, RUBBING THE SURFACE GENTLY AND RINSING FREQUENTLY WITH PLENTY OF WATER. REMEMBER TO CLEAN THE VEHICLE CAREFULLY BEFORE APPLYING SILICON WAX POLISH. DO NOT POLISH MATT-PAINTED SURFACES WITH POLISHING PASTE. THE VEHICLE SHOULD NEVER BE WASHED IN DIRECT SUNLIGHT, ESPECIALLY DURING SUMMER, OR WITH THE BODYWORK STILL HOT AS THE CAR SHAMPOO CAN DAMAGE THE PAINTWORK IF IT DRIES BEFORE BEING RINSED OFF.



04_31

CAUTION

DO NOT USE WATER (OR LIQUIDS) AT TEMPERATURES OVER 40°C (104°F) WHEN CLEANING THE VEHICLE PLASTIC PARTS. DO NOT AIM HIGH PRESSURE AIR/WATER JETS OR STEAM JETS DIRECTLY ON THESE COMPONENTS. DO NOT USE ALCOHOL OR SOLVENTS TO CLEAN ANY RUBBER OR PLASTIC SADDLE COMPONENTS: USE WATER AND MILD SOAP.



04_32

CAUTION

DO NOT USE SOLVENTS OR PETROL BY-PRODUCTS (ACETONE, TRICHLOROETHYLENE, TURPENTINE, PETROL, THINNERS) TO CLEAN THE SADDLE. USE INSTEAD DETERGENTS WITH SURFACE ACTIVE AGENTS NOT EXCEEDING 5% (NEUTRAL SOAP, DEGREASING DETERGENTS OR ALCOHOL).

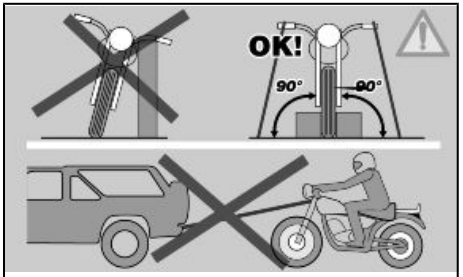
DRY THE SADDLE WELL AFTER CLEANING.

CAUTION

DO NOT APPLY PROTECTIVE WAX ON THE SADDLE AS IT MAY BECOME SLIPPERY.

After washing lubricate the following components:

- drive chain;
- lever controls;
- pedal controls;
- clutch cable;
- start-up block.



04_33

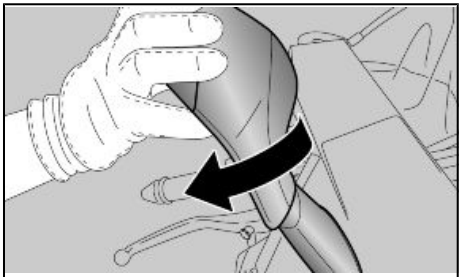
Transport (04_33, 04_34)

NOTE

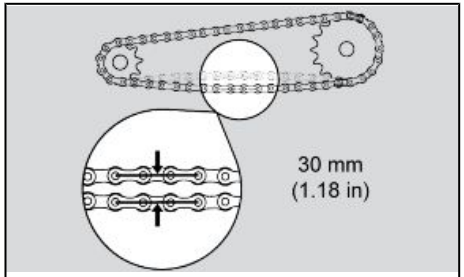
BEFORE TRANSPORTING THE VEHICLE, IT IS NECESSARY TO EMPTY THE FUEL TANK AND THE CARBURETTOR ADEQUATELY, CHECKING THAT THEY ARE DRY.

DURING TRANSPORT, THE VEHICLE SHOULD BE UPRIGHT AND SECURELY ANCHORED AND SHOULD HAVE THE FIRST GEAR ENGAGED SO AS TO AVOID POSSIBLE FUEL, OIL OR COOLANT LEAKS.

IN CASE OF FAILURE, DO NOT TOW THE VEHICLE BUT CONTACT A ROAD ASSISTANCE SERVICE INSTEAD TO HAVE THE INFLAMMABLE FLUIDS DRAINED .


04_34

- Fold the rear view mirrors inward so that they are less exposed to external damage.



04_35

Chain backlash check (04_35)

To check the clearance:

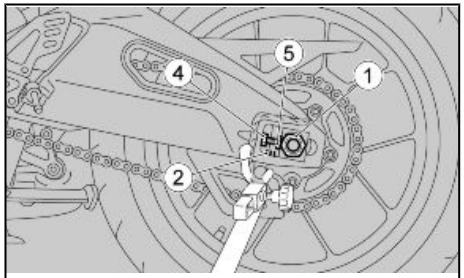
- Shut off the engine.
- Rest the vehicle on its stand.
- Engage neutral gear.
- Check that vertical oscillation at a point between the pinion and the sprocket on the lower branch of the chain is around **30 mm (1.18 in).**
- Move the vehicle forward so as to check the chain vertical oscillation in other positions too. clearance should remain constant at all wheel rotation phases.

Adjust clearance if it is uniform but higher or lower than **30 mm (1.18 in)**.

CAUTION

IF CLEARANCE IS GREATER IN SOME POSITIONS, THIS MEANS THAT SOME ELEMENTS OF THE CHAIN ARE CRUSHED OR SEIZED. IN THIS CASE, THE TRANSMISSION CHAIN MUST BE REPLACED.

TO AVOID RISK OF SEIZURE, LUBRICATE THE CHAIN ON A REGULAR BASIS.



04_36

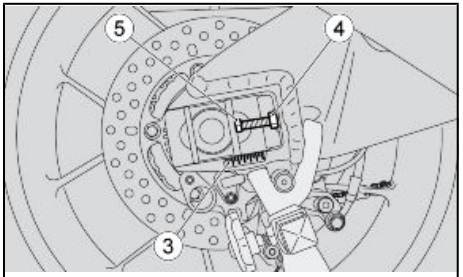
Chain backlash adjustment (04_36, 04_37)

If you need to adjust chain tension after the check:

- Place the vehicle on its rear service stand (optional).
- Loosen the nut (1) completely.
- Loosen both lock nuts (4).
- Use the adjuster screws (5) to set the chain clearance, ensuring that the references (2-3) match on both sides of the vehicle.
- Tighten both lock nuts (4).
- Tighten the nut (1).
- Check chain clearance.

NOTE

WHEEL CENTRING IS CARRIED OUT USING THE IDENTIFIABLE FIXED REFERENCES (2-3) INSIDE THE CHAIN TENSIONER PAD MOUNTS ON THE SWINGARM ARMS, IN FRONT OF THE WHEEL AXLE.



04_37

Locking torques (N*m)

Rear wheel nut

120 Nm (88.5 lbf ft)

Checking wear of chain, front and rear sprockets

Also check the following parts and make sure that the chain, pinion and sprocket do not have:

- Damaged rollers.
- Loosened pins.
- Dry, rusty, flattened or jammed chain links.
- Excessive wear.
- Missing sealing rings.
- Excessively worn or damaged pinion or sprocket teeth.

CAUTION

IF THE CHAIN ROLLERS ARE DAMAGED, THE PINS ARE LOOSENED AND/OR THE SEAL RINGS ARE MISSING OR DAMAGED, THE WHOLE CHAIN APPARATUS (PINION, SPROCKET AND CHAIN) SHOULD BE REPLACED.

CAUTION

LUBRICATE THE CHAIN ON A REGULAR BASIS, PARTICULARLY IF YOU FIND DRY OR RUSTY PARTS. FLATTENED OR JAMMED CHAIN LINKS SHOULD BE LUBRICATED AND GOOD OPERATING CONDITIONS RESTORED. IF REPAIR IS NOT POSSIBLE, CONTACT AN Official Aprilia Dealer TO HAVE IT REPLACED.

Chain lubrication and cleaning

Never wash the chain with high pressure air/water jets or steam jets or highly flammable solvents.

- Wash the chain with fuel oil or kerosene. Maintenance operations should be more frequent if there are signs of quick rust.

Lubricate the chain whenever necessary.

- After washing and drying the chain, lubricate it with spray grease for sealed chains.



THE TRANSMISSION CHAIN HAS RUBBER O-RINGS BETWEEN THE SIDE PLATES OF THE CHAIN ITSELF THAT ARE USED TO HOLD THE GREASE. UTMOST ATTENTION IS REQUIRED WHEN ADJUSTING, LUBRICATING, WASHING OR REPLACING THE CHAIN.

CHAIN LUBRICANTS AVAILABLE ON THE MARKET CAN CONTAIN SUBSTANCES THAT DAMAGE THE CHAIN'S RUBBER O-RINGS.

NEVER USE THE VEHICLE JUST AFTER LUBRICATING THE CHAIN, AS THE LUBRICANT WOULD BE SPRAYED OUTWARD AND SPREAD OUT IN THE SURROUNDING AREA.

RSV4



Chap. 05
Technical data

DIMENSIONS

Max. length	2040 mm (80.31 in)
Max. width (at handlebar)	735 mm (28.94 in)
Max. height (to windshield)	1120 mm (44.09 in)
Saddle height	847 mm (33.35 in)
Wheelbase	1420 mm (55.90 in)
Minimum ground clearance	130 mm (5.12 in)
Dry weight - RSV4 Factory ABS a-PRC	191 kg (421 lb)
Dry weight - RSV4 R ABS a-PRC	196 kg (432 lb)
Dry weight - RSV4 Factory a-PRC	189 kg (417 lb)
Dry weight - RSV4 R a-PRC	194 kg (427 lb)
Dry weight - RSV4 R	194 kg (427 lb)
Kerb weight - RSV4 Factory ABS a-PRC	202 kg (445 lb)
Kerb weight - RSV4 R ABS a-PRC	207 kg (456 lb)
Kerb weight - RSV4 Factory a-PRC	200 kg (441 lb)
Kerb weight - RSV4 R a-PRC	205 kg (451 lb)
Kerb weight - RSV4 R	205 kg (452 lb)
Full loaded weight (rider only) - RSV4 Factory ABS a-PRC	277 kg (610 lb)

Full loaded weight (rider only) - RSV4 R ABS a-PRC	282 kg (621 lb)
Full loaded weight (rider only) - RSV4 Factory a-PRC	275 kg (606 lb)
Full loaded weight (rider only) - RSV4 R a-PRC	280 kg (617 lb)
Full loaded weight (rider only) - RSV4 R	280 kg (617 lb)

ENGINE

Model	V4
Type	65° longitudinal V-4, 4-stroke, 4 valves per cylinder, double overhead camshafts.
Engine capacity	999 cm^3 (60.96 cu.in)
Bore / stroke	78 mm / 52.26 mm (3.07 in / 2.06 in)
Compression ratio	13 : 1
Engine idle speed	1400 ± 100 rpm
Engine revs at maximum speed	14000 ± 100 rpm
Clutch	Multiplate wet clutch with mechanical control lever on left

	side of the handlebar Anti-juddering and slipper clutch systems
Electric	Electric starter
Timing system	Morse chain on intake camshaft, cam to cam gear, bucket tappets and valve clearance adjustments with calibrated pads
Acceptable values with control clearance between cam and valve	Intake: 0.10 - 0.15 mm (0.0039 - 0.0059 in) exhaust: 0.20 - 0.25 mm (0.0079 - 0.0098 in)
Lubrication	Wet sump with oil radiator
Oil pump	Dual trochoidal pump (lubrication + cooling)
Oil filter	With external cartridge filter
Cooling	Fluid
Cooling system	3-way thermostatic valve, cooling radiator with electric fan and expansion tank
Coolant pump	Centrifugal bearingless aspirating pump with integrated ceramic gasket
Air filter	In cotton

Alternatively:	
Air filter	Paper

CAPACITY

Fuel tank (reserve included)	18.5 l (4.07 UK gal; 4.88 US gal)
Fuel tank reserve	4 l (0.88 UKgal; 1.06 US gal)
Engine oil	oil and filter change 4 l (0.88 UK gal)
Coolant	2.7 l (0.59 UK gal)
Seats	1 + 1 Two seat configuration: if vehicle is fitted with footrests and saddle for passenger
Maximum weight capacity	201 kg (443 lb)

GEAR RATIOS

Primary drive ratio	44 / 73 (with gears)
1st gear ratio	16 / 38 (secondary)

2nd gear ratio	18 / 35 (secondary)
3rd gear ratio	17 / 28 (secondary)
4th gear ratio	22 /32 (secondary)
5th gear ratio	26 /34 (secondary)
6th gear ratio	27 /33 (secondary)
Final drive gear ratio	16 / 42

DRIVE CHAIN

Type	525 With sealed master link
Model	Regina 110 links

TRACTION CONTROL

a-PRC system	(Aprilia Performance Ride Control), which includes traction control, wheelie control, launch control and clutchless gear shift functions.

FUEL SYSTEM

Fuel	Premium unleaded petrol, minimum octane rating 95 (NORM) and 85 (NOMM)

FUEL SYSTEM

Throttle body diameter	48 mm (1.89 in)
Type - RSV4 Factory	Electronic injection with 2 injectors per cylinder, 4 throttle bodies motorised (Ride by wire). Intake cones at variable height. 2 dynamic air intakes. Selectable multimap.
Type - RSV4 R	Electronic injection with 2 injectors per cylinder, 4 throttle bodies motorised (Ride by wire). 2 dynamic air intakes. Selectable multimap.

CHASSIS

Type - RSV4 Factory	Adjustable aluminium, dual beam chassis with pressed and cast sheet elements.
Type - RSV4 R	Aluminium, dual beam chassis with pressed and cast sheet elements.
Steering rake	26.5° (measurements with reference to bare frame). For the Factory versions the adjustments allow for variations of "+" or "-" 1°
Trail - RSV4 Factory	110 mm (4.33 in) (with adjustable inserts, headstock as a standard feature)
Trail - RSV4 R	107 mm (4.21 in)

SUSPENSION

Front fork - RSV4 Factory	Öhlins upside down units with adjustable hydraulic damping and 43 mm (1.69 in) diam. stanchions with Tin surface coating)
Front fork - RSV4 R	Adjustable upside down hydraulic fork with 43 mm (1.69 in) stanchions.

Front wheel travel	120 mm (4.72 in)
Rear shock absorber - RSV4 Factory	With progressive linkage with APS system. Öhlins shock absorber with adjustable spring preload piggy-back, wheelbase,compression damping and rebound damping.
Rear shock absorber - RSV4 R	With progressive linkage with APS system. Sachs shock absorber with adjustable spring preload piggy-back, wheelbase,compression damping and rebound damping.
Rear wheel travel	130 mm (5.12 in)

BRAKES

Front	Dual 320 mm (12.59 inches) diam. floating disc, single block calipers with radial fixing and four pistons 34 mm diam. (1.34 inches) and 2 pads - radial pump and brake pipe in metal braid.
Front ABS	Dual 320 mm (12.59 inches) diam. floating disc, forged radial-mounted single block calipers and four pistons 30 mm diam. (1.18

	inches) and 2 pads - radial pump and brake pipe in metal braid.
Rear	disc type -220 mm diam. (8.66 inches), 2-piston callipers - 32 mm diam. (1.25 inches) - pump with built-in tank and metal braid pipe.

WHEEL RIMS

Front wheel rim	3.50 x 17" RSV4 R - forged for the RSV4 Factory version
Rear wheel rim	6.00 x 17" RSV4 R - forged for the RSV4 Factory version

TYRES

Tyre model	Pirelli DIABLO Supercorsa SP V2
	Pirelli DIABLO Supercorsa SP
	Metzeler RACETEC K3
	Michelin Power One
	Dunlop SPORTMAX GP Racer (Mixture "M" Front)
	Dunlop SPORTMAX GP Racer (Mixture "E" Rear)

Front tyre	120/70 ZR17 (58W)
Inflation pressure	1 passenger: 2.3 bar (230 kPa) (33.36 PSI) 2 passengers: 2.5 bar (250 kPa) (36.26 PSI)
Rear tyre	200/55 ZR17 (78W) (*) 190/55 ZR17 (75W) 190/50 ZR17 (73W) **(*) With these dimensions use only Pirelli Diablo Supercorsa SP and Diablo Supercorsa SP V2 tyres.**
Inflation pressure	1 passenger: 2.5 bar (250 kPa) (36.26 PSI) 2 passengers: 2.8 bar (280 kPa) (40.61 PSI)

ELECTRICAL SYSTEM

Spark plugs	NGK-R CR9EKB Alternatively: NGK-R CR9EB NGK-R CR10E (for competition use)

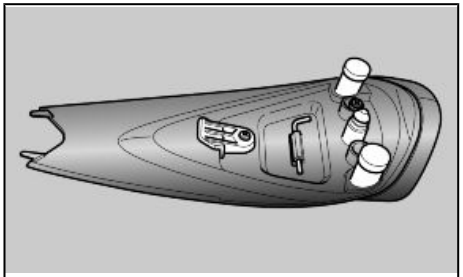
Electrode gap	0.7 - 0.8 mm (0.027 - 0.031 in)
Battery	YUASA YT12A-BS, 12 V 9.5 Ah or YUASA YTZ10S, 12 V 8.6 Ah
Coils	Stick coil
Recharging system	Flywheel with rare earth magnets
Generator	450 W
Main fuses	30 A
Auxiliary fuses	5A - 7.5A - 15A
ABS fuses	15 A - 30 A

BULBS

Low/high beam headlight	12V - 55W H11
Front daylight running light	12V - 5W
Turn indicators	12V - 10W (White light)
Rear daylight running light / stop light	LED
Licence plate light	12V - 5W

WARNING LIGHTS

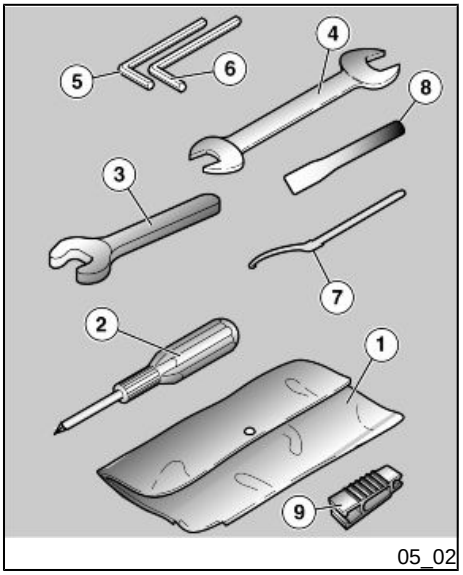
High beam light	LED
Right turn indicator	LED
Left turn indicator	LED
General warning	LED
Gear in neutral	LED
Side stand down	LED
Fuel reserve	LED
ABS	LED



05_01

Kit equipment (05_01, 05_02)

- An Allen key is located under the passenger saddle / tail fairing, used to remove the saddle fastener screws in order to remove the saddle and allow access to the toolkit compartment.
- To remove the passenger saddle / tail fairing, see the section **Vehicle / Saddle opening**



05_02

The tools supplied are:

1. A toolkit pouch
2. Cross headed screwdriver with non reversible handle
3. 17 mm (0.67 in) open ended spanner
4. 8 - 10 mm (0.31 - 0.39 in) open ended spanner
5. Bent 3 mm (0.12 in) Allen key
6. Bent 5 mm (0.67 in) Allen key
7. Wrench for preload adjustment ring nut
8. Wrench extension
9. Fuse removal pincers

RSV4



Chap. 06
Programmed maintenance

Scheduled maintenance table

Correct maintenance is fundamental for ensuring the longevity of your vehicle and maintaining optimum function and performance.

To this end, Aprilia offers a set of checks and maintenance services (at the owner's expense), that are summarised in the table shown on the following page. Any minor faults must be reported without delay to an **Authorised Aprilia Dealer or Sub-Dealer** without waiting until the next scheduled service to solve it.

All scheduled services must be carried out at the specified intervals and mileage, as soon as the predetermined mileage is reached. Carrying out scheduled services on time is essential for the validity of your warranty. For further information regarding Warranty procedures and "Scheduled Maintenance", please refer to the "Warranty Booklet".

NOTE

CARRY OUT MAINTENANCE OPERATIONS AT HALF THE INTERVALS SPECIFIED IF THE VEHICLE IS USED IN PARTICULAR RAINY OR DUSTY CONDITIONS, OFF ROAD OR FOR TRACK USE.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN, R: REPLACE, A: ADJUST, L: LUBRICATE

(1) Check at each engine start

(2) Check and clean and adjust or replace, if necessary, before every journey.

(3) Check and clean and adjust or replace, if necessary, every 1000 Km (621 mi)

(4) Replace every 2 years

(5) Replace every 4 years

(6) Every 5000 Km (3107 mi) if the vehicle is used for racing

(7) Every 10000 Km (6213 mi) if the vehicle is used for racing

(8) Check and clean every 10000 Km (6213 mi) if the vehicle is used for racing

(9) Replace when reaching the first of the following two options: 40000 km (24854 mi) or 48 months

ROUTINE MAINTENANCE TABLE

km x 1000	1	10	20	30	40
Rear shock absorber (6)			I		I
Set up (6)	I	I	I	I	I
Cylinder equalisation			I		I
Spark plug (6) (8)			R		R
Drive chain (3)	I - L	I - L	I - L	I - L	I - L
Clutch cable	L	L	L	L	L
Control cables and controls (6)	I	I	I	I	I
Sprocket - pinion (6)		I	I	I	I
Rear suspension bearings - linkages			I		I
Steering bearings and steering clearance (6)		I	I	I	I
Wheel bearings (6)		I	I	I	I
Control unit diagnosis		I	I	I	I
Brake discs (6)	I	I	I	I	I
Air filter (6)		I	R	I	R
Engine oil filter (6)	R	R	R	R	R
Fork			I		I
General vehicle operation (6)	I	I	I	I	I

km x 1000	1	10	20	30	40
Valve clearance (7)			A		A
Cooling system (6)		I	I	I	I
Brake systems (6)	I	I	I	I	I
Light circuit	I	I	I	I	I
Stand switch		I	I	I	I
Safety switches	I	I	I	I	I
Stop switches		I	I	I	I
Brake fluid (4)	I	I	I	I	I
Coolant (4)	I	I	I	I	I
Fork oil (7)(9)					R
Engine oil (6)	R	R	R	R	R
Light aiming		I	I	I	I
Fork oil seals (6)		I		I	
Flexible coupling			I		I
Tyres - pressure/wear (2)	I	I	I	I	I
Wheels (6)	I	I	I	I	I
Tightening torques (6)	I	I	I	I	I
Tightening of clutch cover, flywheel and oil sump screws	I	I	I	I	I
Fault warning light on instrument panel (1)					
Fuel lines (5)		I	I	I	I
Clutch wear (7)			I		I

km x 1000	1	10	20	30	40
Brake pad wear (2)	I	I	I	I	I

RECOMMENDED PRODUCTS TABLE

Product	Description	Specifications
ENI i-RIDE APRILIA RACING 5W-40	Engine oil	Use branded oils with performance equivalent to or exceeding ACEA A3 - API SL - JASO MA - JASO MA2 specifications
AGIP MP GREASE	Black smooth textured lithium-calcium soap based grease containing EP (extreme pressure) additives with optimal water-repellent properties	ISO L-X-BCHB 2 - DIN 51 825 KP2K-20
AGIP PERMANENT SPEZIAL	Ethylene glycol-based antifreeze fluid with organic inhibition additives. Red, ready for use	ASTM D 3306 - ASTM D 4656 - ASTM D 4985 - CUNA NC 956-16
AGIP BRAKE 4	Brake fluid	As an alternative to the recommended fluid, other fluids that meet or exceed the required specifications may be used. SAE J1703, NHTSA 116 DOT 4, ISO 4925 Synthetic fluid
OHLINS 5W	Fork oil (Factory)	-
AGIP FORK 7.5W	(Showa) Fork oil (R)	SAE 7.5W
AGIP ARNICA SA 32	(Sachs) Fork oil (R)	SAE 0W - ISO VG 32

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THE VALUE OF SERVICE

As a result of continuous updates and specific technical training programmes for Aprilia products, only **Aprilia** Official Network mechanics know this vehicle fully and have the specific tools necessary to carry out maintenance and repair operations correctly.

The reliability of the vehicle also depends on its mechanical conditions. Checking the vehicle before riding it, its regular maintenance and the use of **original Aprilia spare parts** only are essential factors!

For information on the nearest **Official Dealer and/or Service Centre** consult our website:

www.aprilia.com

Only by requesting aprilia original spare parts can you be sure of purchasing products that were developed and tested during the actual vehicle design stage. All aprilia original spare parts undergo quality control procedures to guarantee reliability and durability.

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