

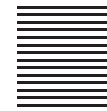
aprilia

SR 50



aprilia part# 8202439

use+maintenancebook



© 2005 **aprilia s.p.a.** - Noale (VE)

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FOREWORD

NOTE This manual is an important and integral part of your vehicle. Keep it with your vehicle at all times, even if your vehicle is resold.

aprilia has prepared this manual to supply you, the user, with correct and current information. However, since **aprilia** constantly improves the design of its vehicles, there may be slight discrepancies between your vehicle and the material given in this manual. If you have any questions about your vehicle, contact your Local **aprilia** Dealer, as he will have the very latest technical information available from the factory.

For tests and repairs not expressly described in this manual, to purchase **aprilia** genuine spare parts, accessories, and other products, and for help with specific problems, please contact your Local **aprilia** Dealer or service center. These professionals will be able to assist you promptly and accurately.

Thank you for choosing **aprilia**. Have a great ride!

This manual is copyrighted in all countries, and reproduction of any part thereof or the complete manual by any print or electronic means is strictly prohibited.

INTRODUCTION

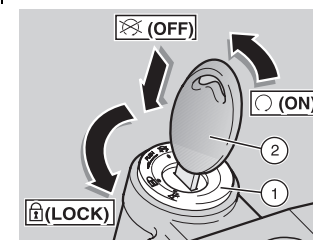
This manual is divided into sections, chapters and paragraphs, by subject. The procedures described are laid out by single operation, and each operation is indicated by a ♦.

The numbered parts shown in the figures are identified in the text by the number in parentheses or the symbol representing them.

Example (the following text is generic and does not refer to this specific vehicle):

section

MAIN INDEPENDENT CONTROLS



chapter

STEERING LOCK

safety warning

WARNING
 Never attempt to place the ignition switch in the locked "A" (LOCK) position while the vehicle is moving.

paragraph

OPERATION

operation

To lock the steering:
 ♦ Turn the handlebar completely to the left or to the right.

position (2)

♦ Turn the key (2) to position "A".

symbol "A"

♦ Press the key and turn it to position "A".
 ♦ Remove the key.

SAFETY WARNINGS

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

! Safety Warning: When you see this symbol on the vehicle or in the manual, pay particular attention to the potential risk of personal injury or death. Failure to comply with the instructions given in the warning messages preceded by this symbol may result in grave risk for your and other people's safety and for the vehicle.

! WARNING

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

! WARNING

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

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

GENERAL SAFETY RULE

CARBON MONOXIDE

If it is necessary to run the engine in order to carry out maintenance operation, make sure that the area in which you are operating is properly ventilated. Never run the engine in enclosed spaces.

If it is necessary to work indoors, use an exhaust evacuation system.

! WARNING

The exhaust fumes contain carbon monoxide, a poisonous gas that can cause loss of consciousness and even death.

! WARNING

Carbon monoxide is both colorless and odorless, and cannot be detected by smell, vision, or any other sense. Avoid breathing exhaust fumes under any circumstances.

GASOLINE

Keep gasoline away from children. Gasoline is also poisonous. Never attempt to siphon gasoline using your mouth. Never allow gasoline to contact your skin. If you should accidentally spill gasoline on yourself, change your clothes immediately and wash the area upon which the gasoline was splashed thoroughly with hot water and soap. Should you accidentally swallow gasoline, do not induce vomiting. Drink large quantities of clear water or milk and immediately seek professional medical assistance. Should you

accidentally get gasoline get your eyes, flush with large quantities of cool, clear water and immediately seek professional medical assistance.

! WARNING

Gasoline is extremely flammable and becomes explosive under certain conditions.

KEEP GASOLINE AWAY FROM CHILDREN.

HOT COMPONENTS

! WARNING

The engine and all parts of the exhaust system, as well as the braking system, become very hot and remain hot for some time after the vehicle and the engine are stopped. Before handling any component of your vehicle after riding, make sure that it has cooled sufficiently to be safe to handle.

USED ENGINE OIL

! WARNING

Use latex gloves for maintenance operations that require contact with used oil. Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water after handling used oil.

KEEP OIL AWAY FROM CHILDREN.

BRAKE FLUID

WARNING

Brake fluid is extremely poisonous. Do not ever allow brake fluid to be ingested or swallowed. Should brake fluid accidentally be swallowed, drink large quantities of milk or clear water and immediately seek professional medical assistance. Brake fluid is highly destructive of skin and eye tissue. Should you accidentally spill brake fluid on yourself, remove the contaminated clothing, wash your body with soap and warm water immediately and immediately seek professional medical assistance. Should you accidentally splash brake fluid into your eyes, flush with a large quantity of cool, clear water and immediately seek professional medical assistance.

KEEP BRAKE FLUID AWAY FROM CHILDREN.

COOLANT

In certain conditions, the ethylene glycol contained in the engine coolant is flammable: its flame is invisible, but you can be burned anyway.

WARNING

Avoid spilling the engine coolant on the exhaust system or on the engine components. They may be hot enough to cause the coolant to ignite and burn without a visible flame.

The coolant (ethylene glycol) can cause skin irritation and is poisonous if swallowed.

Coolant and coolant/water mixtures are sweet to the taste and brightly colored, therefore are highly attractive to pets and children. Take extra precautions to keep new and used coolant out of reach of children and animals.

KEEP COOLANT AWAY FROM CHILDREN.

Risk of burns.

Do not remove the radiator cap when the engine is hot. Wait until the engine has completely cooled down. The coolant is under pressure and may splash out and cause burns.

BATTERY HYDROGEN GAS AND ELECTROLYTE

WARNING

The battery gives off noxious and explosive gases; keep cigarettes, flames and sparks away from the battery. Provide adequate ventilation when operating or recharging the battery.

During recharging and use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

The battery contains sulfuric acid (electrolyte). Contact with the skin or eyes may cause serious burns. Always wear protective clothing, rubber gloves, and tight fitting goggles or a face shield when working around the battery, especially when filling the battery with either water or electrolyte.

In case of contact with the skin, flush immediately with plenty of water. In case of contact with the eyes, flush with plenty of water for at least 15 minutes. Immediately consult a health professional.

The electrolyte is poisonous.

If the electrolyte is accidentally swallowed, drink large quantities of water or milk and then milk of magnesia or vegetable oil. Immediately consult a health professional.

KEEP BATTERIES AND ELECTROLYTE AWAY FROM CHILDREN.

WARNING - PRECAUTIONS - GENERAL ADVICE

Before starting the engine, read this manual carefully, and in particular the chapters "WARNINGS - PRECAUTIONS - GENERAL ADVICE" and "SAFE DRIVE" see p. 19.

Your safety and that of those around you depends not only on your skill as a rider, but also your knowledge about your vehicle and about riding safely. Therefore it is essential that you not operate your vehicle on public streets or highways until you have received instructions from a qualified safety organization such as the Motorcycle Safety Foundation, and are properly trained and licensed.

REPORTING OF DEFECTS THAT AFFECT SAFETY

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the **National Highway Traffic Safety Administration** (NHTSA) in addition to notifying aprilia. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or **aprilia**. To contact NHTSA, you may either call the **Auto Safety Hotline** toll free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from the Hotline.

ROAD REGULATIONS AND USE OF THE VEHICLE

Rules of the road vary from country to country. It is essential that you understand in advance the rules of the road of the country in which your vehicle will be used.

⚠ WARNING

This vehicle has been designed and produced for use only on paved roads. It is not designed to be used on even smooth graded dirt roads, or trails. It is not designed for off road competition, or for cross country riding. Do not use this vehicle on rough or unimproved surfaces, or in other off road areas. Failure to heed this warning could lead to an upset with subsequent injury and even death.

NOISE EMISSION WARRANTY

aprilia s.p.a. warrants that this exhaust system, at the time of sale, meets all applicable U.S. **EPA** Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers.

Warranty claims should be directed to:

aprilia USA Inc.

109 Smoke Hill Lane, Suite 190
Woodstock, GA 30188
USA
Tel 001 770 592 2261
Fax 001 770 592 4878

INFORMATION ON THE NOISE AND EXHAUST GAS EMISSION CONTROL SYSTEM

ORIGIN OF THE EMISSIONS

The combustion process produces carbon monoxide and hydrocarbons. The control of hydrocarbons is very important, because under certain conditions they react to exposure to sunlight and produce photochemical smog.

Carbon monoxide does not react in the same way, but it is toxic and poisonous. aprilia utilizes "lean" carburetor settings and other systems to reduce the production of carbon monoxide and hydrocarbons.

TAMPERING WARNING

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or causing thereof:

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

Among those acts presumed to constitute tampering are the acts listed below:

- a) Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
- b) Removal or puncturing of any part of the intake system.
- c) Lack of proper maintenance.
- d) Replacing any moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

⚠ CAUTION

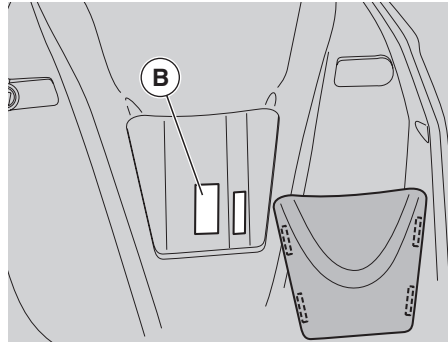
This product should be checked for repair or replacement if the vehicle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

PROBLEMS THAT MAY AFFECT THE VEHICLE EMISSIONS

If any of the following symptoms are observed, immediately have your vehicle inspected and repaired by your Local **aprilia** Dealer.

Symptoms:

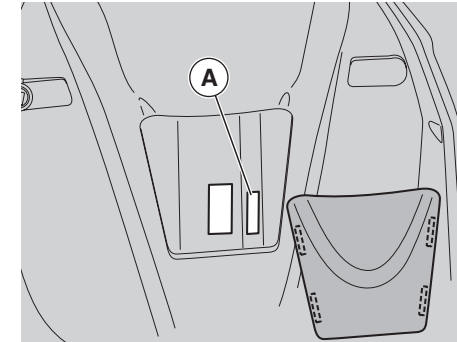
- Difficult starting or stalling after starting.
- Irregular idle.
- Misfiring or backfiring during acceleration.
- After-burning (backfiring).
- Poor engine performance, degraded handling, or poor fuel economy.



VEHICLE IDENTIFICATION NUMBER (V.I.N.) (FRAME NUMBER)

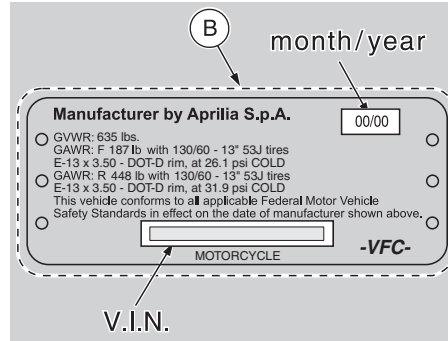
Every vehicle produced by **aprilia** receives a vehicle identification number (V.I.N.) stamped:

- on the steering head of the frame (A), as shown above;
- and also:
- on the data plate (B) placed on the steering head.



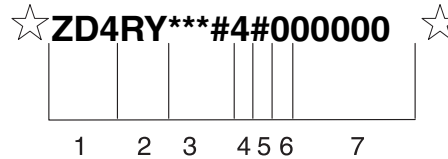
INFORMATION CONTAINED IN THE VEHICLE IDENTIFICATION NUMBER

Description of the vehicle identification number (V.I.N.), stamped on the steering head of the frame (A).

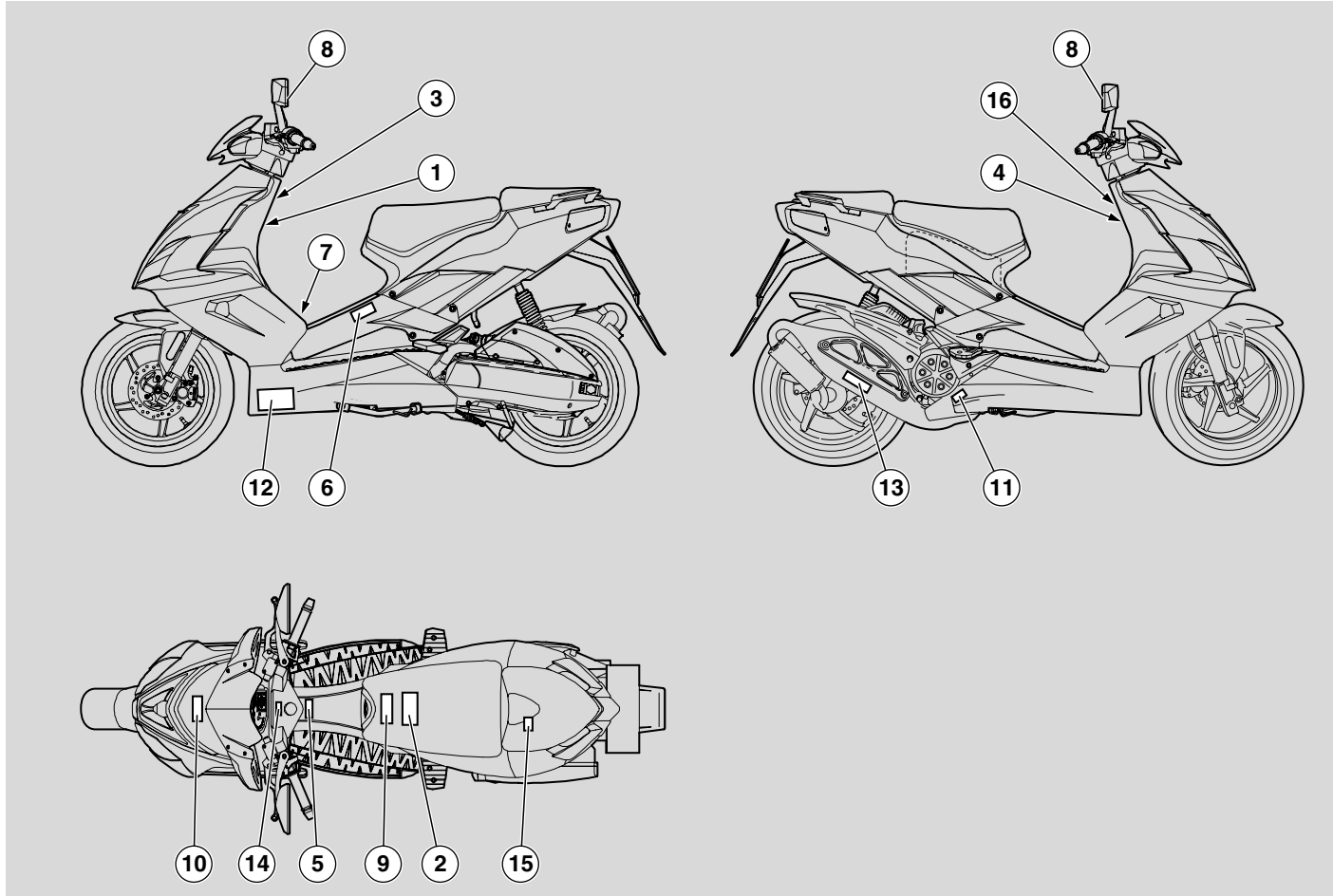


DIGIT MEANING


- 1) Manufacturer's identification alphanumeric code.
- 2) Vehicle type.
- 3) Type of cycle, line, Engine type, and Engine Net Brake Horse Power.
- 4) # = Check digit number.
- 5) Model year.
- 6) Plant location (N = NOALE-VE-, S = SCORZÉ -VE).
- 7) Sequential serial number.

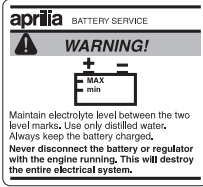
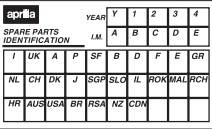


POSITION OF THE WARNING ADHESIVE LABELS






WARNING ADHESIVE LABELS CHART

Ref.	Description																														
1	<p>Manufacturer by Aprilia S.p.A. 00/00</p> <p> <input type="radio"/> GVWR: 635 lb GAWR: F 167 lb with 130/60 - 13" 53J tires E-13 x 3.50 - DOT-D rim, at 26.1 psi COLD <input type="radio"/> GAWR: R 417 lb with 130/60 - 13" 53J tires E-13 x 3.50 - DOT-D rim, at 31.9 psi COLD This vehicle conforms to all applicable U.S. Federal Motor Vehicle Safety Standards in effect on the date of manufacturer shown above. </p> <p style="text-align: center;">  -VFC- </p>																														
2	<p>WARNING! Do not use any tire other than those recommended and approved by Aprilia. Maintain proper tire inflation. Do not use any tire with less than 1/8" (3mm) tread remaining. Do not repair any tire, nor use a repaired tire. Do not ride your motorcycle overloaded or with an unbalanced load. Failure to follow these warnings can lead to an accident and serious injuries or death. See owner's manual.</p> <p style="text-align: right;">-VFC- aprilia</p> <table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">Tires pressure bar * (psi)</th> <th colspan="2">Front tire</th> </tr> <tr> <th>Front</th> <th>Rear</th> <th>Michelin</th> <th>130/60 13" 53J</th> </tr> </thead> <tbody> <tr> <td>1.8 (26.1)</td> <td>2.0 (29.0)</td> <td>Pirelli - Metzeler</td> <td rowspan="2">130/60 13" 53J</td> </tr> <tr> <td>1.8 (26.1)</td> <td>2.2 (31.9)</td> <td>Euroswatech Cheng Shin Maxxis</td> </tr> <tr> <th colspan="2">Tires pressure bar * (psi)</th> <th colspan="2">Rear tire</th> </tr> <tr> <th>Front</th> <th>Rear</th> <th>Michelin</th> <th>130/60 13" 53J</th> </tr> <tr> <td>1.8 (26.1)</td> <td>2.2 (31.9)</td> <td>Pirelli - Metzeler</td> <td rowspan="2">130/60 13" 53J</td> </tr> <tr> <td>1.8 (26.1)</td> <td>2.2 (31.9)</td> <td>Euroswatech Cheng Shin Maxxis</td> </tr> </tbody> </table>	Tires pressure bar * (psi)		Front tire		Front	Rear	Michelin	130/60 13" 53J	1.8 (26.1)	2.0 (29.0)	Pirelli - Metzeler	130/60 13" 53J	1.8 (26.1)	2.2 (31.9)	Euroswatech Cheng Shin Maxxis	Tires pressure bar * (psi)		Rear tire		Front	Rear	Michelin	130/60 13" 53J	1.8 (26.1)	2.2 (31.9)	Pirelli - Metzeler	130/60 13" 53J	1.8 (26.1)	2.2 (31.9)	Euroswatech Cheng Shin Maxxis
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3	<p>WARNING! THE CERTIFICATION LABEL IS UNDER THE PLASTIC PANEL. TO REMOVE THE PANEL SEE OWNER'S MANUAL</p>																														
4	<p>WARNING!</p> <ul style="list-style-type: none"> • Wear a helmet, eye protection, and bright protective clothing. • Don't ride after consuming alcohol or other drugs. • Slow down on slippery surface, unfamiliar terrain or when visibility is reduced. • Read owner's manual carefully • Failure to follow these warnings can lead to an accident and serious injuries or death. • USE UNLEADED FUEL MINIMUM OCTANE RATING (R + M) / 2 METHOD 9.0. • See owner's manual for the correct running in and maintenance of the vehicle. 																														

Ref.	Description
5	 <p>Maintain electrolyte level between the two level marks. Use only distilled water. Always keep the battery charged. Never disconnect the battery or regulator with the engine running. This will destroy the entire electrical system.</p>
6	
7	<p>WARNING! Contain sulfuric acid which can cause severe injuries. Avoid contact with skin, eyes or clothing. Antidote: EXTERNAL - Flush with water. INTERNAL - Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or veg. oil. Call physician immediately. Eyes: Flush with water for 15 minutes and get prompt medical attention. KEEP OUT OF REACH OF CHILDREN. Batteries produce explosive gases. Keep sparks, flames, cigarettes away. Charge only in well-ventilated space. Always wear protective goggles when working around batteries. Always connect the battery vent tube. Failure to heed this warning will cause corrosion of the electrical system.</p>
8	<p>OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR.</p>
9	<p>WARNING! Never install accessories or replacement parts not approved by Aprilia as original equipment. This can degrade the handling and safety of your motorcycle, and can cause an upset with subsequent accident and serious injury or even death. The stability and safety of any motorcycle is adversely affected by the addition of any load carrying accessory. See owner's manual.</p>

Follow ►

Ref.	Description
10	<p>⚠ WARNING! DO NOT REMOVE THE CAP UNTIL THE ENGINE IS ENTIRELY COOL. COOLANT IS HOT AND UNDER PRESSURE. FAILURE TO OBSERVE THIS WARNING MAY LEAD TO SERIOUS BURNS. USE ONLY FLUID FOR SEALED CIRCUITS. USE ONLY ANTIFREEZE AND ANTICORROSIVE WITHOUT NITRATE, ENSURING PROTECTION -35°C AT LEAST.</p>
11	<p>MOTORCYCLE NOISE EMISSION CONTROL INFORMATION THIS 2006 ASP21E0049 MOTORCYCLE, B-1110 MEETS EPA NOISE EMISSION REQUIREMENTS OF 70 dBA AT 4512 closing r.p.m. BY FEDERAL TEST PROCEDURE. MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW. SEE OWNER'S MANUAL.</p> <p style="text-align: right;">-VFC- </p>
12	<p>VEHICLE EMISSION CONTROL INFORMATION -VFC- <small>ENGINE DISPLACEMENT: 49 cc ENGINE FAMILY: SASPC01AVFC THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 2006 MODEL YEAR NEW MOTORCYCLES AND IS CERTIFIED TO 14 MG GEM ENGINE FAMILY EXHAUST EMISSION STANDARD. ENGINE EXHAUST CONTROL SYSTEM: DFI ENGINE TUNE UP SPECIFICATIONS IDLE SPEED: 1600 ± 100 RPM VALVE CLEARANCE: N/A SPARK PLUG: NGK ZMR7AP - NGK CR7E (or EKB) NGK CR6E (or EKB) CHAMPION R51C (or YCA) FUEL: MINIMUM OCTANE RATING (M-R1/2 METHOD 80 OIL-TWO STROKE OIL VISCOSITY SAE 40W (SYNTHETIC) OR 30W (SEMI-SYNTHETIC).</small></p> <p style="text-align: right;"><small>Aprilia S.p.A. Via G. Galvani 7 38063 Noale (VE) ITALY</small> </p>
13	Muffler stamping.
14	<p>ATTENTION! STARTING PROCEDURE Set on brakes and push START button. See owner's manual.</p>

Ref.	Description
15	<p> • USARE BENZINA SENZA PIOMBO N.O. min. 95</p> <p>• USE UNLEADED FUEL RON min. 95</p>
16	<p>⚠ WARNING! Do not modify or tamper with this engine control unit in any way. Modifications to this unit may reduce performance, and are prohibited by state and Federal laws. Any modification of this unit will immediately void the warranty.</p>

aprilia s.p.a. - EMISSION CONTROL SYSTEM WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and **aprilia s.p.a.** (hereinafter "**aprilia**") are pleased to explain the emission control system warranty on your 1999 and later motorcycle. In California new motor vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. **aprilia** must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle.

Your emission control system may include parts such as the carburetor or fuel injection system, the ignition system, catalytic converter and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, **aprilia** will repair your motorcycle at no cost to you, including diagnosis, parts and labor.



MANUFACTURER'S EMISSIONS SYSTEM WARRANTY COVERAGE

Class I motorcycles (50 – 169 cm.): for a period of use of five (5) years or 12,000 kilometers (7,456 miles), whichever first occurs.

Class II motorcycles (170 – 279 cm.): for a period of use of five (5) years or 18,000 kilometers (11,185 miles), whichever first occurs.

Class III motorcycles (280 cm. and larger): for a period of use of five (5) years or 30,000 kilometers (18,641 miles), whichever first occurs.

If an emission-related part on your motorcycle is defective, the part will be repaired or replaced by **aprilia**. This is your emission control system DEFECTS WARRANTY.

OWNER'S WARRANTY RESPONSIBILITIES

- As the motorcycle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. **aprilia** recommends that you retain all receipts covering maintenance on your motorcycle, but **aprilia** cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- You are responsible for presenting your motorcycle to an **aprilia** dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.
- As the motorcycle owner, you should be aware that **aprilia** may deny your warranty coverage if your motorcycle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact **aprilia USA, Inc.**, 10933 Crabapple Road, Suite 100, Roswell, GA 3007, or the **California Air Resources Board** at P.O. Box 8001, 9528 Telstar Avenue, El Monte, CA 91731.

aprilia s.p.a. - LIMITED WARRANTY ON EMISSION CONTROL SYSTEM

aprilia s.p.a., Via G. Galilei, 1, 30033 Noale (VE) Italy (hereinafter “**aprilia**”) warrants that each new 1999 and after **aprilia** motorcycle, that includes as standard equipment a headlight, taillight and stoplight, and is street legal:

- A.** is designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and
- B.** is free from defects in material and workmanship which cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use, depending on the engine displacement, of 6,000 kilometers (3,750 miles), if the motorcycle's engine displacement is less than 50 cubic centimeters; of 12,000 kilometers (7,456 miles), if the motorcycle's engine displacement is less than 170 cubic centimeters; of 18,000 kilometers (11,185 miles), if the motorcycle's engine displacement is equal to or greater than 170 cubic centimeters but less than 280 cubic centimeters; or of 30,000 kilometers (18,641 miles), if the motorcycle's engine displacement is 280 cubic centimeters or greater; or 5 (five) years

from the date of initial retail delivery, whichever first occurs.

- I. COVERAGE.** Warranty defects shall be remedied during customary business hours at any authorized **aprilia** motorcycle dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of **aprilia**.

In the State of California only, emission related warranted parts are specifically defined by the state's Emission Warranty Parts List. These warranted parts are: carburetor and internal parts; intake manifold; fuel tank; fuel injection system; spark advance mechanism; crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires; ignition points; condensers, and spark plugs if failure occurs prior to the first scheduled replacement; and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

In the State of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized **aprilia** dealer. An emergency situation occurs when an authorized **aprilia** dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. **aprilia** will reimburse the owner for the expenses, including diagnosis, not to exceed **aprilia**'s suggested retail price for all warranted parts replaced and labor charges based on **aprilia**'s recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

- II. LIMITATIONS.** This Emission Control System warranty shall not cover any of the following:

- A.** Repair or replacement required as a result of
 - (1) accident,
 - (2) misuse,
 - (3) repairs improperly performed or replacements improperly installed,
 - (4) use of replacement parts or accessories not conforming to **aprilia** specifications which adversely affect performance and/or



- (5) use in competitive racing or related events.
- B.** Inspections, replacement of parts and other services and adjustments required for required maintenance.
- C.** Any motorcycle on which the odometer mileage has been changed so that actual mileage cannot be readily determined.

III. LIMITED LIABILITY

A. The liability of **aprilia** under this Emission Control System Warranty is limited solely to the remedying of defects in material or workmanship by an authorized **aprilia** motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the **aprilia** dealer.

aprilia SHALL NOT BE LIABLE FOR ANY OTHER EXPENSES, LOSS OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE **aprilia** MOTORCYCLE FOR ANY PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

B. NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY **aprilia** EXCEPT AS SPECIFICALLY SET FORTH HEREIN. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE EXPRESS EMISSION CONTROL SYSTEM WARRANTY TERMS STATED IN THIS WARRANTY. THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

C. No dealer is authorized to modify this **aprilia** Limited Emission Control System Warranty.

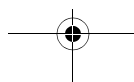
IV. LEGAL RIGHTS. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

V. THIS WARRANTY IS IN ADDITION TO THE **aprilia** LIMITED MOTORCYCLE WARRANTY.

VI. ADDITIONAL INFORMATION. Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, **aprilia** is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the motorcycle is delivered to an ultimate purchaser.

aprilia s.p.a.
Via G. Galilei, 1
30033 Noale (VE) Italy

aprilia USA, Inc.
109 Smoke Hill Lane, Suite 190
Woodstock, GA 30188



GENERAL INSTRUCTIONS

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

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

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

NOTE Soon after purchasing the vehicle, write down the identification data provided in the SPARE PARTS IDENTIFICATION LABEL in the table below. This label is positioned on the left part of the frame; to be able to read it, remove the left inspection cover, see page 69 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS).

aprilia		YEAR				I.M.					
SPARE PARTS IDENTIFICATION		Y	1	2	3	4	A	B	C	D	E
I	UK	A	P	SF	B	D	F	E	GR		
NL	CH	DK	J	SGP	SLO	IL	ROK	MAL	RCH		
HR	AUS	USA	BR	RSA	NZ	CDN					

These data indicate:

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

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

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

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

VERSION:

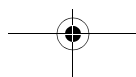
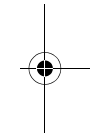
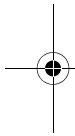
- I** Italy
- UK** United Kingdom
- A** Austria
- P** Portugal
- SF** Finland
- B** Belgium
- D** Germany
- F** France
- E** Spain
- GR** Greece
- NL** Holland
- CH** Switzerland
- DK** Denmark
- J** Japan
- SGP** Singapore
- SLO** Slovenia
- IL** Israel
- ROK** South Korea
- MAL** Malaysia
- RCH** Chile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

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aprilia



safe riding

BASIC SAFETY RULES

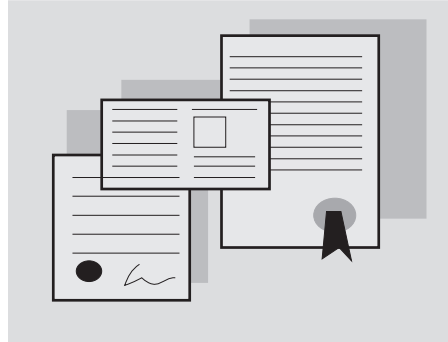
The instructions given below cover normal operation of your vehicle and must be carefully observed. By following these rules you will enhance your own safety and the safety of those around you. You will also maximize the life and utility of your vehicle.

Two wheeled vehicles obviously do not provide some of the protection provided by automobiles, therefore it is essential that you wear appropriate protective clothing. Especially, never operate your vehicle without wearing your helmet, gloves, eye protection, a heavy jacket, sturdy footwear, and sturdy full length pants.

However, do not assume that even the best clothing and helmet will protect you in the event of an upset or a crash with another vehicle. At best, this gear provides some protection from scrapes and scratches, but very little, if any, impact protection.

Be sure that you meet all the requirements prescribed by local law, including driver's license, minimum age, training, insurance, taxes, vehicle registration, license plate, etc.

When you first receive your vehicle, practice by riding in areas where there is little traffic. Do not attempt to ride in heavy traffic until you are thoroughly experienced and riding your vehicle has become second nature to you.



Although this vehicle is legal for operation on freeways and expressways, it is advisable to not ride on these high speed highways until you are thoroughly familiar with your vehicle, and have attained a high degree of skill in its operation.

A new vehicle must be carefully broken in, see p.54 (BREAKING-IN).

Before starting the engine, make sure that the brakes, clutch, transmission and throttle controls function properly and that the fuel and oil supply is adequate.

The exhaust system, brakes, and some other parts of the vehicle become very hot during operation. Do not touch any of these parts.

Some medicines or drugs, illegal or prescription, and alcohol significantly increase the risk of accidents. Do not ride while you are under the influence of alcohol or drugs, be they illicit or prescription.



Make sure you are in good physical condition and not ill before riding your vehicle. Do not ride your vehicle when you are particularly tired or fatigued. Alcohol, drugs and fatigue are leading causes of vehicle accidents.

Many accidents are caused by the rider's inexperience and lack of training. Do not ride your vehicle until you have received training from a recognized training organization such as the Motorcycle Safety Foundation. Remember that riding a two wheeled vehicle, though easy and fun, is quite different from driving a car. Do not assume that you can operate your vehicle safely just because you are a competent automobile driver.

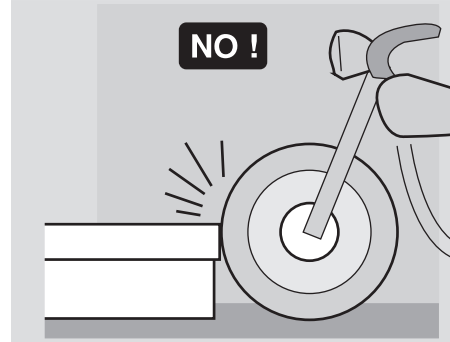
Never lend your vehicle to others unless you are sure that they are competent and properly licensed vehicle operators.



Observe all rules of the road. Particularly pay attention to all warning, regulatory and informational signs.

Avoid showing off (i.e., popping wheelies). Especially observe speed limits, remember that road conditions change with the weather and wet and icy pavements are particularly dangerous for vehicles, especially if you are riding too fast. Remember that automobile drivers have a hard time seeing two wheeled vehicles, so always give the automobile the right of way, even if it is legally yours.

Before changing lanes, look over your shoulder to make sure that the way is clear. Do not rely exclusively on the rear-view mirror: you may miscalculate the distance and speed of a vehicle, or you may even not see it at all.



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

Do not tailgate, do not attempt to increase your gas mileage by following in the slip stream of cars or trucks in front of you.

In case of accident motorcycles, scooters and mopeds do not provide the same degree of protection ensured by automobiles. The legs, in particular, are exposed the risk of being injured. However, the additional installation of leg guards may actually increase the risk of injuries and their seriousness in case of accident.

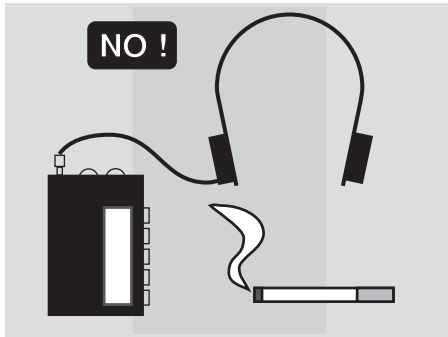
Do not install leg guards available on the market of spare parts and accessories. Non-compliance with these instructions may result in serious injuries or even death.



Always ride with both hands on the handlebars and feet on the footrests.

Never shift gear without using the clutch, if the vehicle is so equipped. Do not operate the shift lever or the other controls suddenly or abruptly. Such misuse can damage the internal components of the vehicle and consequently cause seizure, loss of control, accidents and serious injuries or even death.

Remain in the seat when you are riding. Do not stand up or attempt to stretch while you are riding your vehicle. If you need to rest, pull over to the side of the road when it can be safely done.



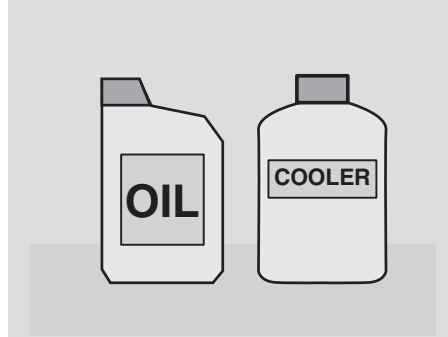
It is very important to your safety that you give full attention to the riding task. Watch what you are doing, do not allow yourself to be distracted by other cars, people or things on the roadside, etc. Never smoke, eat, drink, read, etc. while riding your vehicle. If you must consult a map, pull over when it can be done safely.

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

If the throttle sticks open, it may cause a collision with another vehicle, or an upset.

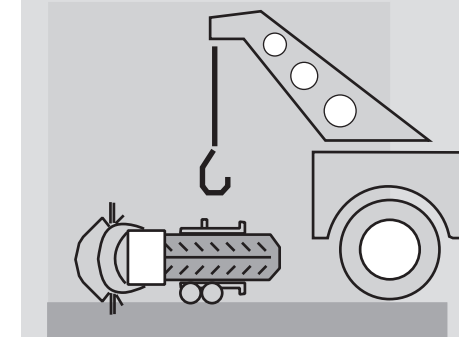
If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar.

Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death.



⚠ WARNING

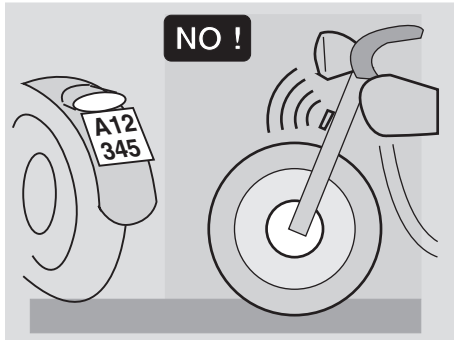
In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar. Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local aprilia Dealer for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death.



If you and your vehicle are involved in an accident, insure that there has been no damage to the control levers, tubes, wires, braking system and other vital parts. If your vehicle is involved in an accident, take it immediately to your Local **aprilia** Dealer who has the equipment and knowledge to check for accidental damage which may compromise your safety.

Your **aprilia** dealer is ready and able to help you with any safety problems that you might have, but of course it is necessary for you to report any malfunctions to your mechanic in order for him to help you.

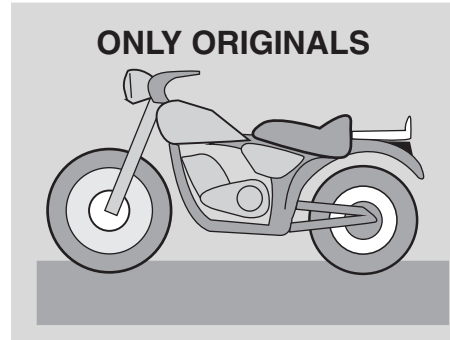
Do not use your vehicle if it is damaged. A damaged vehicle may become unstable or present other problems which can increase the risk of accident, and therefore of serious injury or even death.



Do not attempt to modify the position, angle or color of your license plate. Do not cover it with even a clear plastic covering. Do not modify any of the safety equipment of your vehicle, especially such safety related items as directional indicators, rear view mirrors, lights or horns.

Any modification to your vehicle will invalidate the warranty.

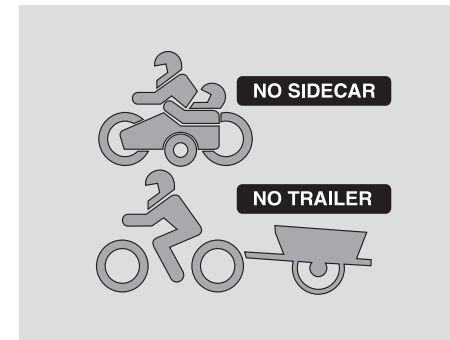
Do not modify your engine in an attempt to increase the horsepower. This can result in irreparable damage to the engine, as well as degradation of the performance and handling of the vehicle which could lead to an upset, and serious injury or even death.



Have your vehicle repaired only with original parts, and use only original **aprilia** or **aprilia** approved accessories. The use of aftermarket accessories and parts can seriously compromise the safety of your vehicle as well as its performance and serviceability. Any modification which affects performance or safety voids your warranty completely.

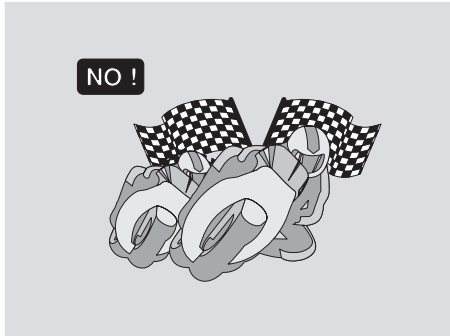
Tampering with the emissions or noise control systems on your vehicle is against the law, and can be punished by large fines.

In some jurisdictions, it can even lead to the confiscation of your vehicle.



This vehicle was not designed to be equipped with a sidecar or to be used to tow trailers or other vehicles.

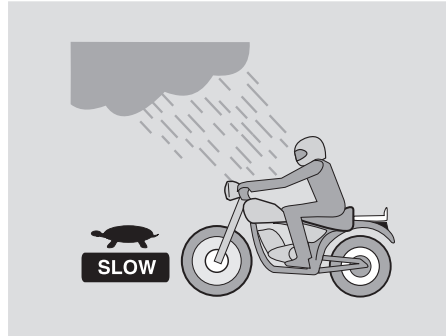
aprilia does not manufacture sidecars or trailers and therefore cannot predict the effects of such accessories on the manoeuvrability or stability of the vehicle: it can only warn that such effects may be negative and that any damage to the vehicle components caused by the use of such accessories will not be covered by the warranty.



Never race other vehicles with your vehicle.

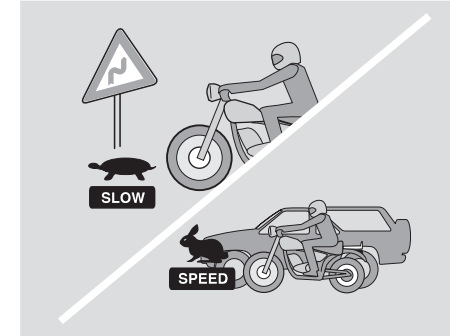
Brake with both the front and rear brakes. The use of one brake only for sudden braking may cause the vehicle to skid or make the rider lose control of the vehicle itself.

When riding down a steep hill, use the engine as a brake by selecting the same gear, or a lower gear, than you would use to climb the hill. Use front and rear brakes sparingly.



Always ride at the appropriate speed and avoid unnecessary hard acceleration. This not only is safer, but also reduces fuel consumption and increases the life of the vehicle.

If you must ride your vehicle in rainy weather, or on loose surfaces, remember that traction is greatly reduced. Under these conditions, all handling of the vehicle must be done gradually and smoothly. Sudden acceleration, braking or turning may make you lose control of your vehicle. When traction is reduced, accelerate and slow using your vehicle's engine braking insofar as possible. Avoid rapid, harsh application of the brakes.



Gradually open and close the throttle, to avoid spinning or skidding the rear wheel. On rough road surfaces, slow down and ride with particular care.

Try to avoid wide open throttle accelerations, unless they are necessary for such things as passing.

Don't allow your engine to "lug," that is, run at too low an rpm. Shift down to a lower gear. Also, don't over-rev the engine. Observe the redline on the tachometer.

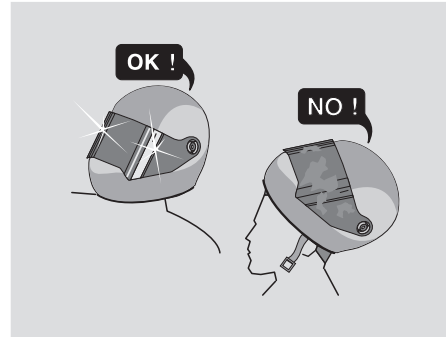
Remember that excessively aggressive cornering can cause your vehicle's tires to lose sideways traction, which can result in an upset and serious injury or even death.



Always observe posted and statutory speed limits, but do not assume that you can ride as fast as the speed limit under all road conditions. Slowing down a little can greatly increase your safety under all road conditions.

Do not ride your vehicle off road.

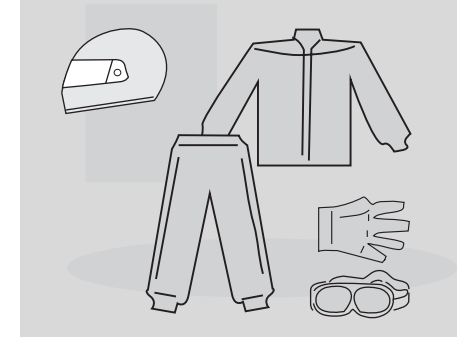
Do not tamper with the muffler system or the emissions control system of your vehicle. This is not only bad for the environment, it can subject you to serious penalties.



CLOTHING

Before riding your vehicle, ensure that your riding gear is in good condition. To be effective, your helmet must fit properly, and the visor or other eye protection must be clean.

Both research and experience have shown that drivers of other vehicles often do not see vehicles or riders. In order to make yourself more conspicuous to these drivers, wear bright reflective clothing, such as a reflective vest, or clothing with reflective sections sewn into the jacket, pants and gloves. Be particular aware of approaching automobiles and trucks that might be trying to turn left in front of you. Many vehicle accidents are caused by an opposing automobile driver making a left turn without warning in front of the vehicle.

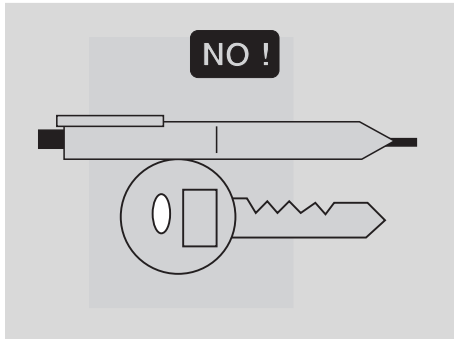


Inevitably, the driver will look right at you, and yet swear that they did not see you before they turned directly into your path. Ride alert!

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

Always wear your crash helmet. Many accidents are fatal because of injuries to the head.

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

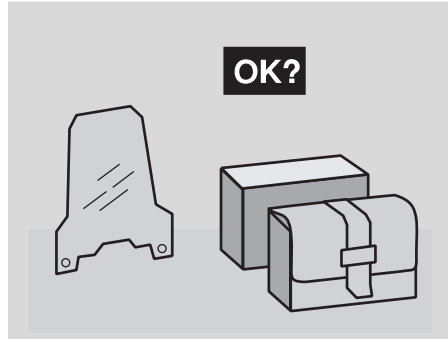


Do not carry sharp objects in your pockets that could be dangerous in case of an upset, for example, pens or mechanical pencils, etc. Also, make sure that your passengers follow this recommendation.

ACCESSORIES

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

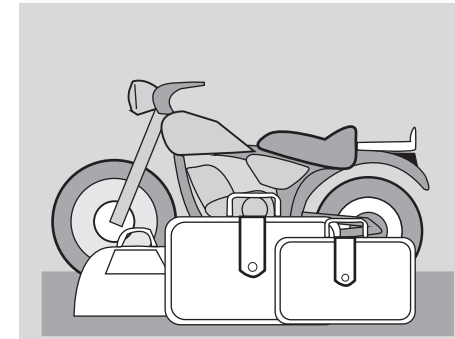
The installation of inappropriate accessories or the overloading of the vehicle may result in the instability of the vehicle itself and cause accidents with consequent risk of serious injuries or even death. Windshields could be particularly dangerous, as they can break and injure or cut the rider in case of accident. In case of doubts with regard to any accessory you would like to install or any load you would like to carry, previously consult your Local **aprilia** Dealer.



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

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

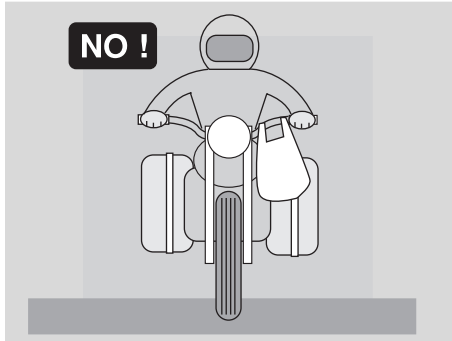
Fairings and windshields installed on the vehicle may produce aerodynamic forces that will affect the stability of the vehicle during use, especially at high speeds.



Make sure that anything you carry on your vehicle is securely attached, and cannot come loose and jam the wheels, forks, etc. Do not install any electrical accessories, and do not modify the electrical system of your vehicle. Anything that could cause an electrical overload or other fault could cause the vehicle to suddenly stop, the lights to dim or quit, or the horn and other safety accessories not to work. Use only genuine **aprilia** accessories.

LOAD

Do not overload your vehicle. Attach luggage or packages as close as possible to the center of your vehicle and distribute the load from side to side as evenly as possible, to keep imbalance to a minimum. Remember that loads tend to loosen with riding, so frequently check the security of your load.

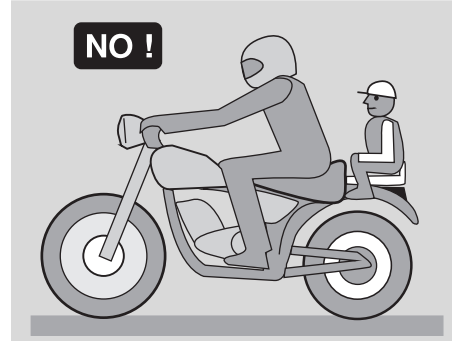


Do not hang anything from your vehicle handlebars, fenders, or forks, because this will upset the handling of your vehicle, and could prevent you from avoiding an accident. Failure to heed this warning can lead to an upset with subsequent serious injury or even death.

Do not ride with your crash helmet hung from the strap because it could easily foul the wheels, fenders, or forks, causing an upset and subsequent serious injury or even death.

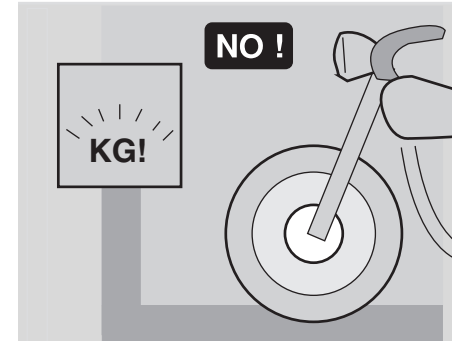
Carry a passenger only if your vehicle is equipped with passenger footpegs, handgrips for the passenger to hold on to, and a passenger saddle.

When carrying a passenger, remember that your vehicle's handling is degraded, that the brakes are less efficient, and the center of gravity is higher and further to the rear.



This makes it more likely that the front wheel will come up off the ground, especially on acceleration. Therefore, you should avoid hard acceleration and hard braking. Many accidents are caused by inexperienced riders carrying passengers. Remember that allowance must be made for the extra weight of the passenger for all driving maneuvers.

Avoid abrupt and excessive acceleration. Always slow down in time and calculate longer stopping and maneuvering distances. Non-compliance with these instructions may lead to the overturning of the vehicle or to other accidents with consequent serious injuries or even death.



Never carry loosely packaged items, make sure that everything that you carry on your vehicle is carefully secured.

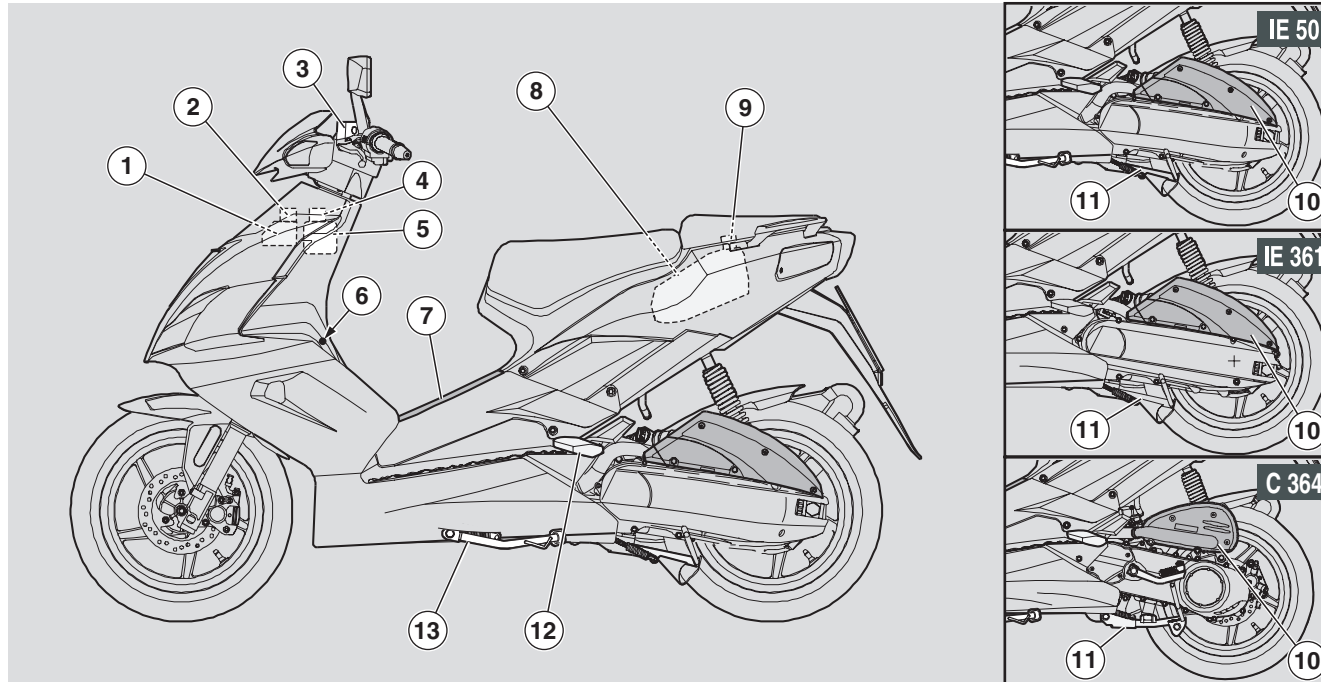
Do not carry packages which protrude from the luggage rack or which cover any of the signal lights, the headlight, or the horn.

Never carry animals or children on the glove compartment or on the luggage rack.

Never exceed the labeled maximum load for each saddlebag.

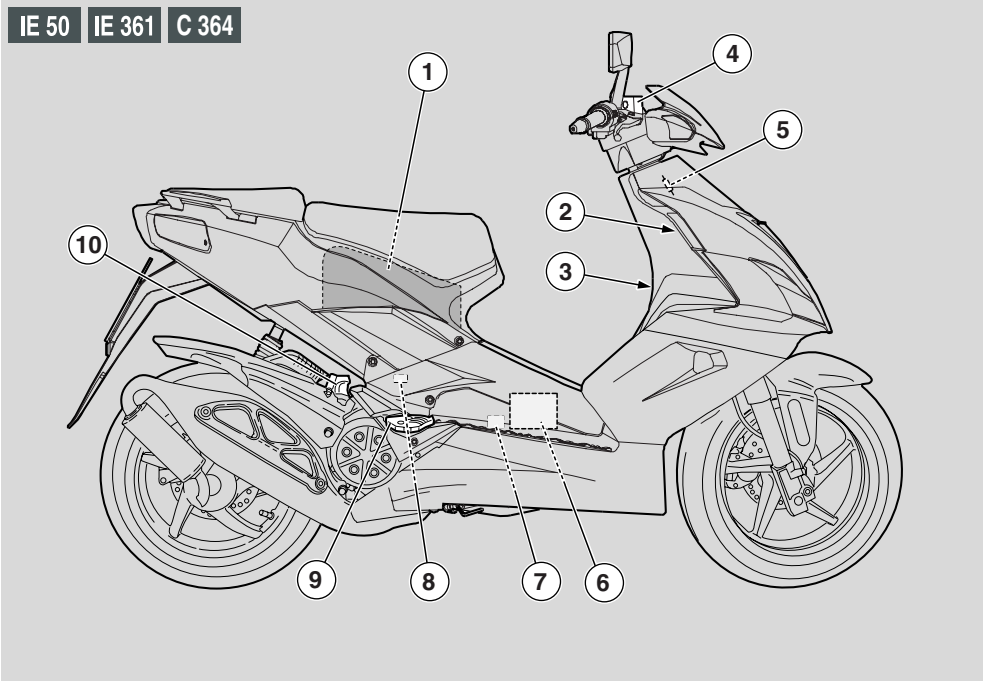
Overloading your vehicle seriously reduces its stability and maneuverability and can lead to an upset with subsequent serious injury or death.

ARRANGEMENT OF THE MAIN ELEMENTS



KEY

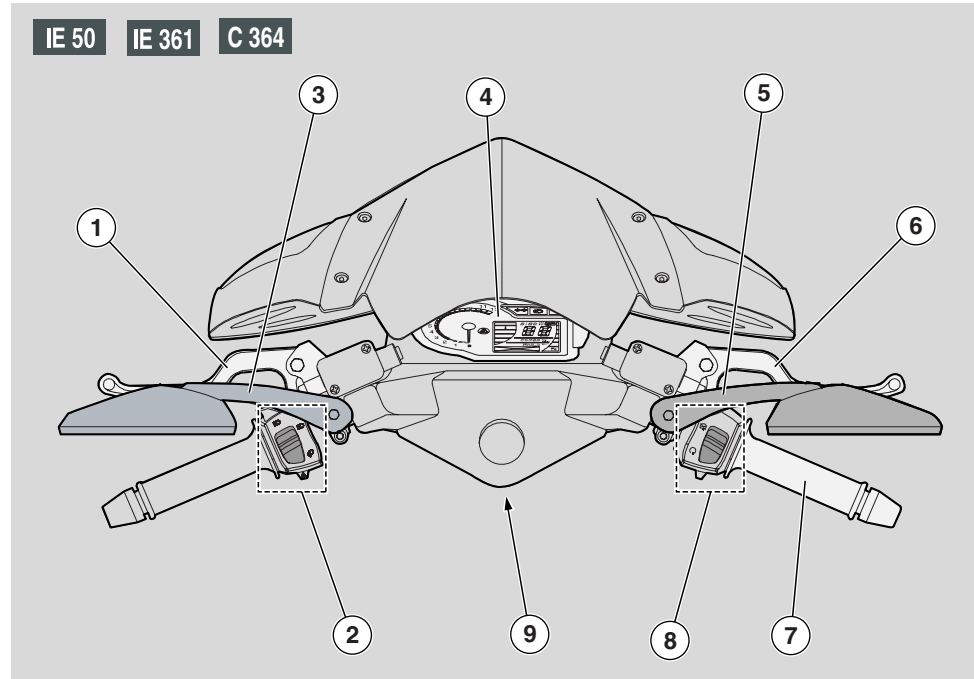
- | | | |
|--------------------------------|---|----------------------------|
| 1) Coolant tank | 5) Mixer oil reservoir | 10) Air filter |
| 2) Coolant expansion tank plug | 6) Seat lock | 11) Center stand |
| 3) Rear brake fluid reservoir | 7) Battery compartment / tool kit cover | 12) Left passenger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




KEY

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

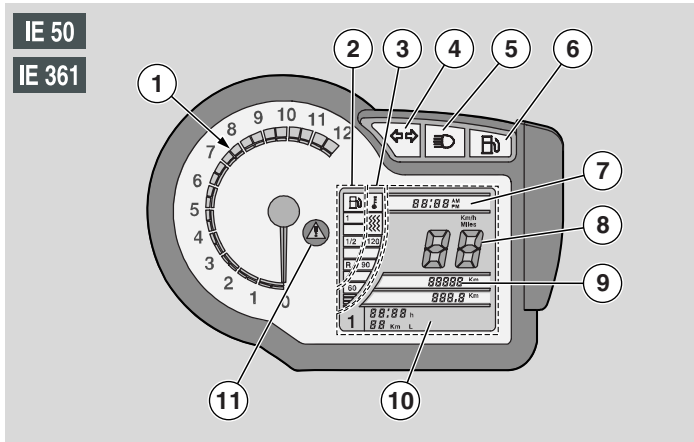
LOCATION OF INSTRUMENTS/CONTROLS



KEY

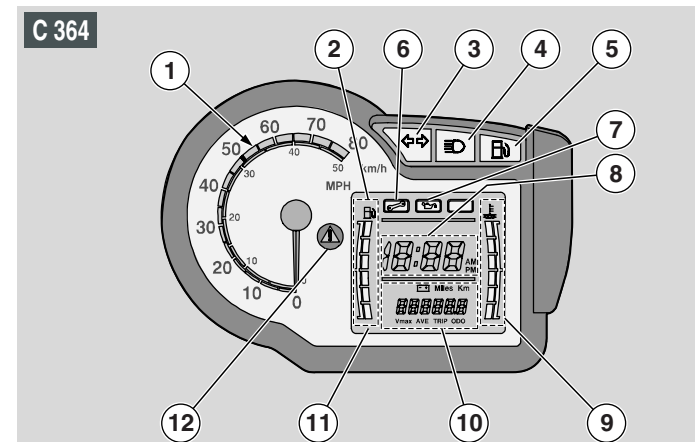
- | | | |
|--|---|--|
| 1) Rear brake lever | 5) Right rear-view mirror | 9) Ignition switch/steering lock () |
| 2) Electrical controls on the left side of the handlebar | 6) Front brake lever | |
| 3) Left rear-view mirror | 7) Throttle grip | |
| 4) Instruments and indicators | 8) Electrical controls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

INSTRUMENTS AND INDICATORS



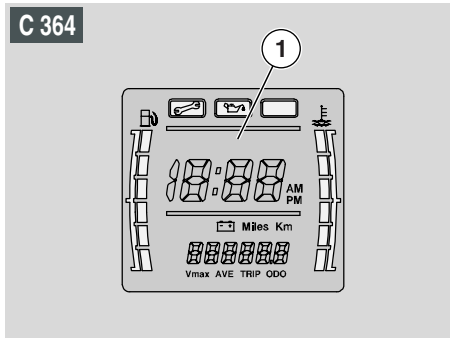
KEY

- 1) Rev counter
- 2) Fuel level indicator (☰)
- 3) Coolant temperature indicator (⊖)
- 4) Green turn indicator warning light (↔)
- 5) Blue high beam warning light (≡)
- 6) Amber low fuel light (⊗)
- 7) Clock
- 8) Speedometer
- 9) Odometer
- 10) Multifunction indicator: trip time / fuel consumption meter / partial, average, maximum speed / chronometer / battery voltage / miles to go to next service
- 11) Red general warning light (⚠)



KEY

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



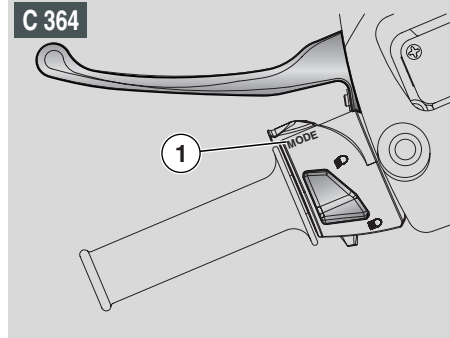
MULTIFUNCTION DIGITAL COMPUTER C 364

Multifunction indicator functions

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

Odometer (ODO)

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



TRIP function (TRIP)

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

Battery voltage

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

Conversion of unit of measurement - Km/Mi

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

Setting the clock

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

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

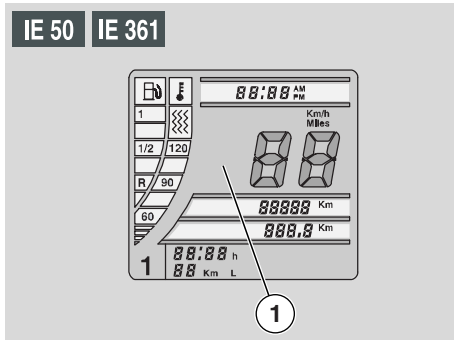
The column dividing hours and minutes will start flashing.

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

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

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

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



MULTIFUNCTION DIGITAL COMPUTER IE 50 IE 361

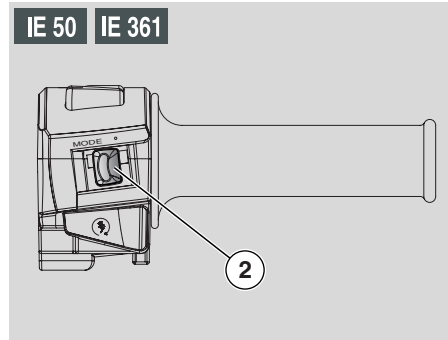
Using the MODE joystick (2)

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

Multifunction indicator functions

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

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



TRIP1 - TRIP2 functions

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

Battery Voltage function

Battery voltage is displayed

Chronometer function

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

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

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

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

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

Menu function

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

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

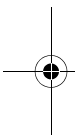
- Time setting: (from the SETTINGS menu) briefly press on MODE joystick (2) to enter the setting function. Set the time using the UP/DOWN joystick (2), confirm it with the MODE joystick (2). Using UP/DOWN joystick (2) shift to minutes, confirm the set value with the MODE joystick (2).
- Code change: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



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

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

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



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

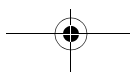
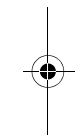
CHRONOMETER - this menu allows you to display and delete the stored values:

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

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






⚠ WARNING





Always select the desired function with vehicle stopped.



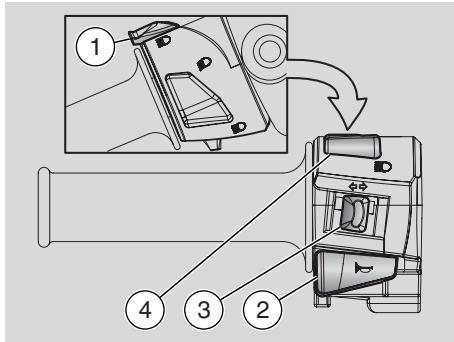
INSTRUMENTS AND INDICATORS TABLE

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

Description	Function
Direction indicator warning light	Blinks when the right or left direction indicator is on.
Mixer oil reserve indicator 	CAUTION It shows together with the alarm light to indicate that the mixer oil level is in reserve; top up mixer oil, see page 41 (MIXER OIL).
Speedometer	Indicates road speed.
High beam warning light 	Comes on when the headlight high beam is on or when you flash the high beam (PASSING↕).
Low fuel warning light 	Comes on when the quantity of fuel left in the tank is 2.18 pt (1.2 ℓ). When the light comes on, refuel as soon as possible, see page 40 (FUEL).
Fuel level indicator 	Indicates the approximate fuel level in the tank.
Digital clock	Displays current hour and minutes.
Coolant temperature indicator 	Indicates the approximate temperature of the coolant in the engine. When the first section comes on, the temperature allows you to ride the vehicle. The normal running temperature range is indicated by the central area of the scale. In case of excessive temperature, the alarm light comes on. In this case, stop the engine and check coolant level, see page 44 (COOLANT). CAUTION Exceeding the maximum coolant temperature allowed may lead to severe engine damage.

Description	Function
<p>Alarm light </p>	<p>Comes on to warn about a general failure, also the relevant icon will show on the digital display. Check the failure and fix it.</p> <p>Comes on in case of: mixer oil reserve, coolant high temperature, temperature sensor signal interrupt, fuel sensor signal interrupt, problems with the injection system  .</p> <p>Turns on for a few seconds when ignition switch is turned to "O" position.</p> <p>CAUTION</p> <ul style="list-style-type: none"> - If the light goes off, it is possible to start the engine. - If the light stays on for more than 10 sec. the engine can be started but it is necessary to contact an aprilia Authorized Dealer. - If the light flashes, DO NOT start the engine and contact an aprilia Authorized Dealer. - If the light stays on, the vehicle is faulty, contact an aprilia Authorized Dealer.
<p>Service icon </p>	<p>Comes on to warn that the vehicle is due for service.</p> <p>The icon will come on and flash 186 mi (300 km) before the next scheduled service and will stay on when mileage set for service is reached.</p>
<p>Multifunction indicator</p>	<p>Displays the auxiliary functions, see page 30 - 31 (MULTIFUNCTION DIGITAL COMPUTER)</p>

MAIN INDEPENDENT CONTROLS



CONTROLS ON LEFT HANDLEBAR

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

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

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

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

right. Press the switch to cancel the signal.

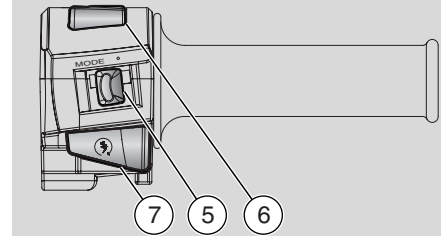
- 4) **LIGHT DIMMER SWITCH** (☞ - ☜)
If the dimmer switch is in position “☜”, the high beam comes on; while if it is in position “☞”, the low beam comes on.

CONTROLS ON RIGHT HANDLEBAR

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

- 5) **MODE BUTTON** **IE 50** **IE 361**
Move the MODE joystick (5) to the left/right or press it to scroll and select the multifunction display pages UP/DOWN .
- 6) **ENGINE STOP SWITCH** (○ - ☒)
7) **STARTER BUTTON** (⊕)
Press the button “⊕” to have the starter motor crank the engine. For the starting procedure, see page 49 (STARTING)

IE 50 **IE 361**



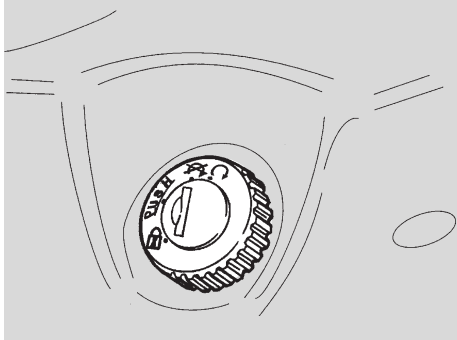
⚠ WARNING

Do not operate the engine stop switch “○ - ☒” while riding.

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

⚠ CAUTION

With the engine stopped and the ignition switch in position “○”, the battery may run flat. When the vehicle has come to a standstill and you have stopped the engine, set the ignition switch to position “☒”.



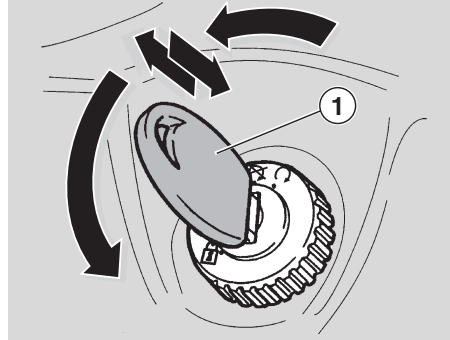
IGNITION SWITCH

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

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

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

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



STEERING LOCK

⚠ WARNING

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




OPERATION

To lock the steering:

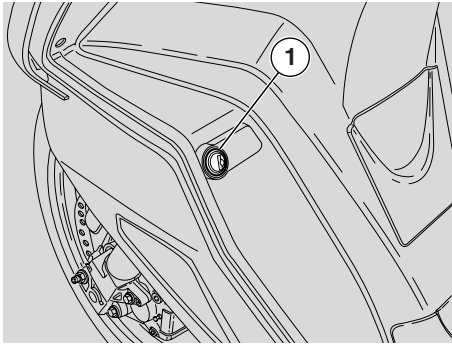
- ◆ Turn the handlebar fully to the left.
- ◆ Turn the key (1) to position "Ⓔ", and press it.

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

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

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

AUXILIARY EQUIPMENT



UNLOCKING/LOCKING THE SEAT

To unlock and lift the seat:

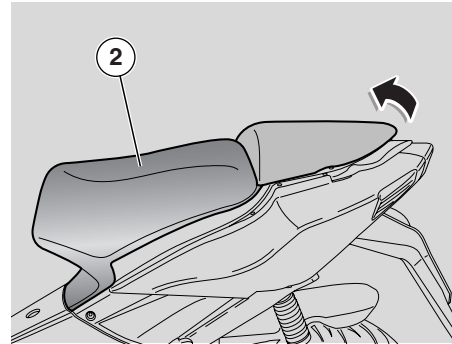
- ◆ Place the vehicle on the stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Insert the key in the lock on the inner front shield (1).
- ◆ Turn the key clockwise and raise the seat (2).

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

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

⚠ WARNING

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



HELMET COMPARTMENT / GLOVE COMPARTMENT

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

To reach this compartment, proceed as follows:

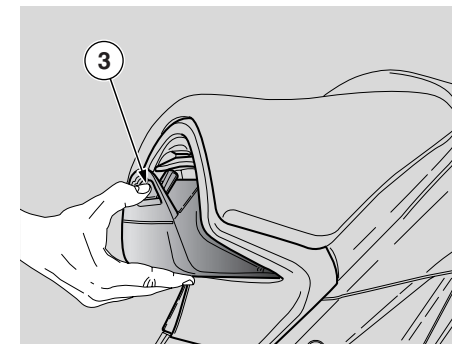
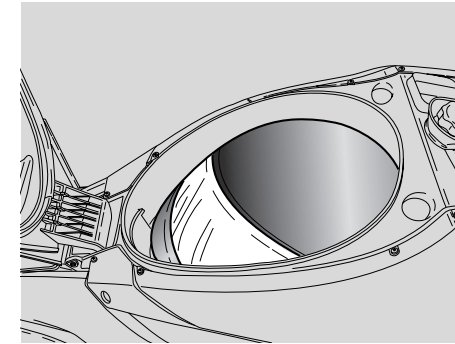
- ◆ Raise the seat (2), see on the side (UNLOCKING/LOCKING THE SEAT).

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

⚠ WARNING

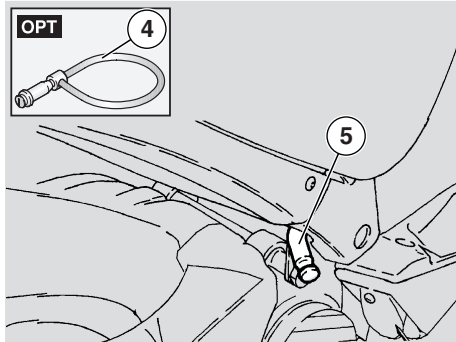
Do not load the crash helmet / glove compartment too much.

Maximum allowed weight: 5.5 lb (2.5 kg).



GLOVE COMPARTMENT

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



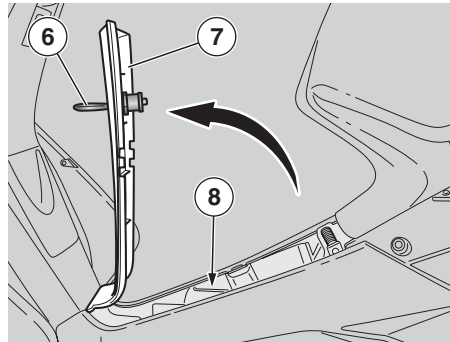
ANTITHEFT HOOK

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

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

⚠ WARNING

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



BATTERY COMPARTMENT / TOOL KIT

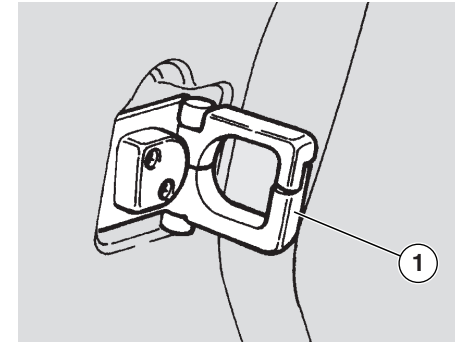
This compartment is positioned in the lower part of the vehicle, between the footboards.

To reach this compartment, proceed as follows:

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

The tool kit (8) includes:

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



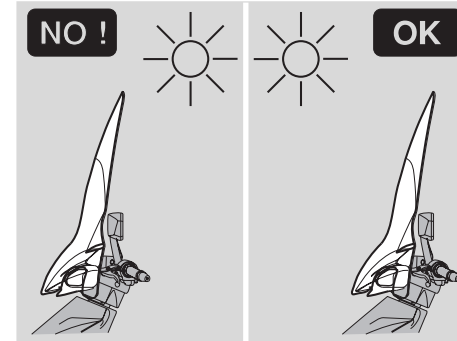
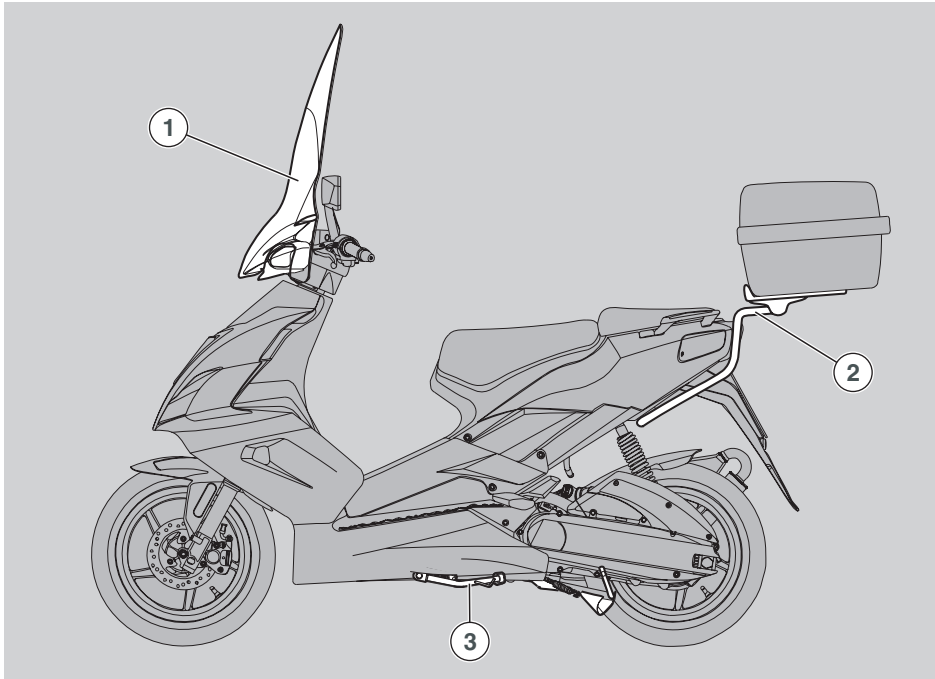
BAG HOOK

⚠ WARNING

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

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

Maximum allowed weight: 3.3 lb (1.5 kg)



⚠ CAUTION

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

ACCESSORIES OPT

The following accessories are available:

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

MAIN COMPONENTS

FUEL

⚠ WARNING

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

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

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

Avoid spilling fuel, as it may ignite when in contact with hot engine parts. In the event of accidental spillage, make sure that the area has completely dried before starting the engine.

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



Tighten the filler plug securely after refuelling.

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

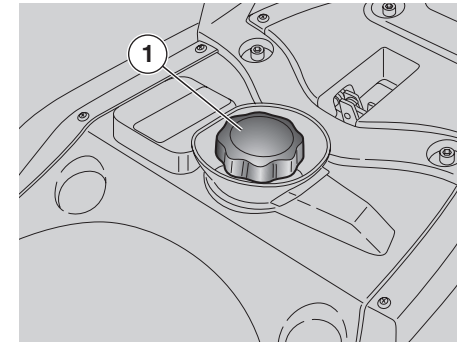
DO NOT RELEASE FUEL INTO THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

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

To refuel, proceed as follows:

- ◆ Raise the seat, see page 37 (UNLOCKING/LOCKING THE SEAT).



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

FUEL TANK CAPACITY

(reserve included): 12.7 pt (7.0 ℓ)

TANK RESERVE: 2.2 pt (1.2 ℓ)

Do not put additives or other substances into the fuel.

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

- ◆ Refuel.
- ◆ Refit the plug (1).

⚠ CAUTION

Make sure that the plug is well tightened.

LUBRICANTS

WARNING

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

Wear latex gloves during servicing.

KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

CAUTION

**Proceed with care.
Do not spill the oil!
Take care not to smear any component, the area in which you are working and the surrounding area.
Carefully remove any trace of oil.**

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



TRANSMISSION FLUID

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


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



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

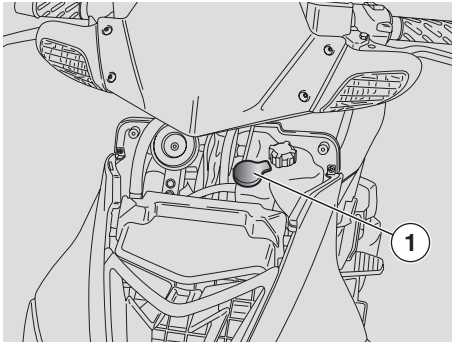
MIXER OIL

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

This vehicle is equipped with separate mixer mixing fuel with oil necessary for engine lubrication; see page 81 (LUBRICANT CHART).

 The vehicle features a control unit that manages an electronic pump ensuring correct oil quantity for engine lubrication; see page 81 (LUBRICANT CHART).

The reserve is indicated by the general alarm light () that comes on and by the mixer oil reserve icon "" that is displayed on the instrument panel, see page 29 (INSTRUMENTS AND INDICATORS).



⚠ CAUTION

Using the vehicle with no mixer oil left seriously damages the engine.

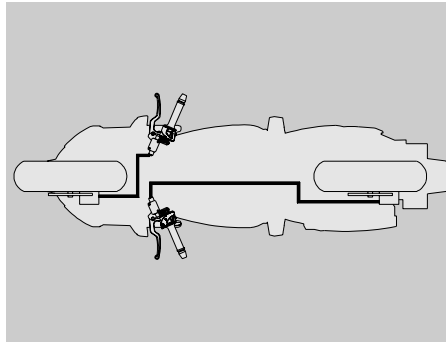
In the event you run out of mixer oil or the mixer oil hose is removed, contact an **aprilia** Authorized Dealer that will bleed the system. This operation is necessary because engine might be damaged if running with air in the mixer oil system.

To top up mixer oil proceed as follows:

- ◆ Remove the front cover upper panel; see page 64 (REMOVING THE FRONT COVER)
- ◆ Remove the cap (1).

TANK CAPACITY: 2.2 pt (1.2 ℓ)

TANK RESERVE: 0.4 pt (0.2 ℓ)



⚠ CAUTION

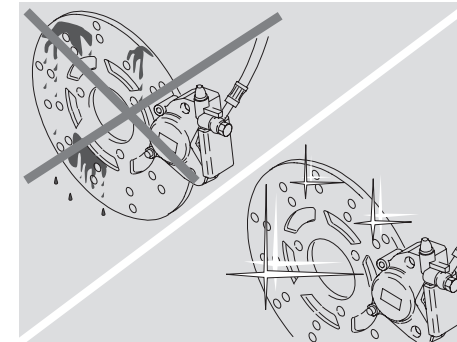
Do not put additives or other substances into the oil.

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

- ◆ Top up.
- ◆ Refit the plug (1).

⚠ CAUTION

Make sure that the plug is well tightened.



BRAKE FLUID - recommendations

⚠ WARNING

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

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

Make sure the brake hose is not twisted or worn.

KEEP AWAY FROM CHILDREN.

DO NOT RELEASE INTO THE ENVIRONMENT.

DISK BRAKES

⚠ WARNING

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

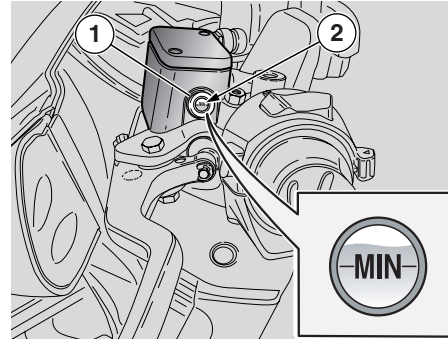
A dirty disk will soil the pads, leading to loss of braking efficiency. Dirty pads must be replaced, while dirty disks must be cleaned with a high-quality degreaser.

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

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

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

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



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

Periodically check brake fluid level, see (CHECK) and pads for wear, see page 63 (CHECKING THE BRAKE PADS FOR WEAR).

⚠ WARNING

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

CHECK

To check the brake fluid level, proceed as follows:

MIN = minimum level.

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND)

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

⚠ WARNING

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

⚠ CAUTION

Brake fluid level decreases as the brake pads wear down.

If the fluid is below the "MIN" mark:

- ◆ Check the brake pads for wear, see page 63 (CHECKING THE BRAKE PADS FOR WEAR).

If the pads and/or the disk do not need replacing:

- ◆ Contact an **aprilia** Authorized Dealer that will top up the fluid.

⚠ CAUTION

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

COOLANT

⚠ CAUTION

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

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

⚠ WARNING

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

DO NOT RELEASE INTO THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

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

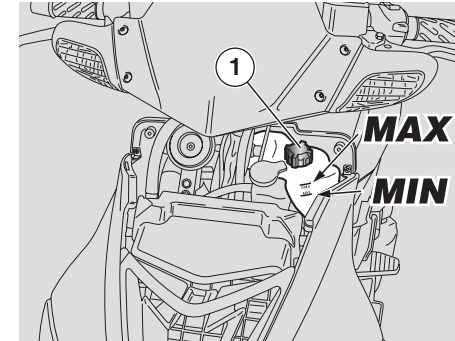


Coolant mixture is a 50% solution of water and antifreeze.

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

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

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

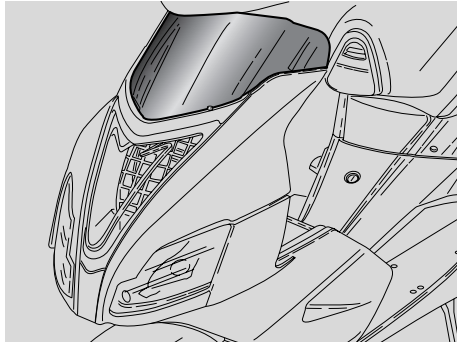


When temperature drops below zero degrees centigrade, check the cooling system frequently and add more antifreeze (up to 60% maximum) to the solution.

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

⚠ WARNING

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



CHECKING AND TOPPING UP

⚠ WARNING

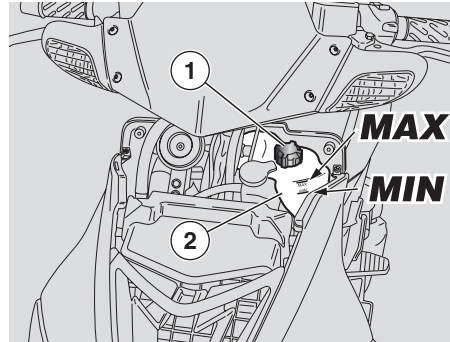
Wait for the engine to cool down before checking or topping up coolant level.

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

NOTE Position the vehicle on firm and flat ground.

- ◆ Remove the front cover, see page 64 (REMOVING THE FRONT COVER).
- ◆ Make sure that the level of the fluid contained in the expansion tank (2) is included between the "MIN" and "MAX" marks.

MIN = minimum level
MAX = maximum level



If not so:

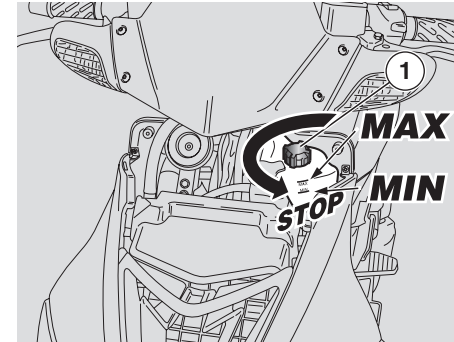
- ◆ Loosen the filler plug (1) (by turning it counter-clockwise), without removing it.
- ◆ Wait a few seconds in order to release any residual pressure.
- ◆ Unscrew and remove the plug (1).

⚠ WARNING

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

⚠ CAUTION

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



⚠ CAUTION

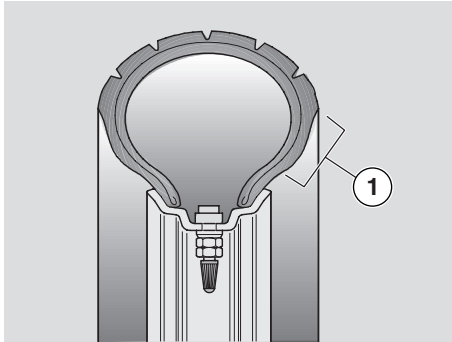
Never top up beyond the "MAX" level mark or coolant will leak out when the engine is running.

- ◆ Top up with coolant, see page 81 (LUBRICANT CHART) up to just below the "MAX" mark.
- ◆ Refit the filler plug (1).

⚠ CAUTION

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

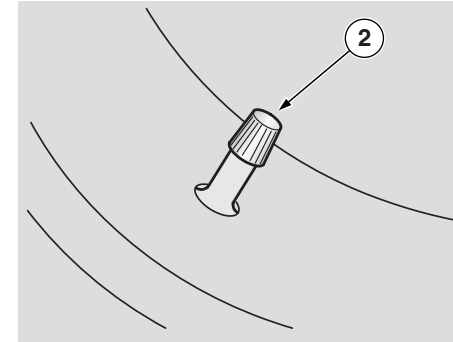
- ◆ Refit the inspection cover, ensure it is correctly secured.



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

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

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



TIRES

This vehicle is equipped with tubeless tires.

⚠ WARNING

Periodically check the tire inflation pressure at room temperature, see page 78 (TECHNICAL DATA).

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

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

Have a tire changed when worn or punctured, if the puncture in the tread is larger than 0.2 in (5 mm).

Have the wheels balanced after each tire repair.

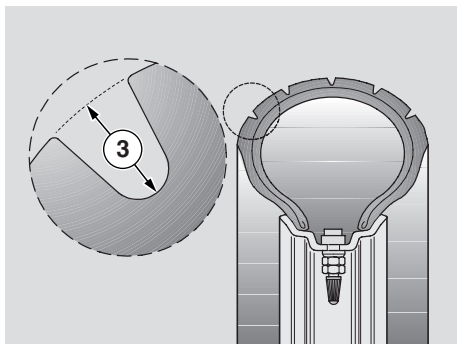
Tires should be changed with tires of different type and model as specified by the manufacturer, see page 78 (TECHNICAL DATA); using different tires than the specified ones will adversely affect vehicle handling.

Do not install tube tires on tubeless tire rims or vice versa.

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

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

Have your tires and wheels serviced at an **aprilia** Authorized Dealer or a tire specialist.



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

MINIMUM TREAD DEPTH LIMIT (3)

front: 0.12 in (3 mm)
 rear: 0.12 in (3 mm)

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

CATALYTIC MUFFLER

⚠ WARNING

Do not park the vehicle (catalytic version) close to dried brushwood or in places where children are likely to come in contact with it, because the catalytic muffler heats to very high operating temperature. Be very careful and avoid any contact until it has cooled down.

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

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

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

To ensure long trouble-free operation of the catalytic converter and to reduce problems relating to the fouling of the thermal unit and of the exhaust, avoid covering long distances with the engine running constantly at a low rpm.

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

The recommendations above are especially important when cold starting the engine. In this case, the rpm suitable for "triggering" the catalytic reaction are easily reached, but it is important to ensure that the cylinder temperature is at least 122 °F (50 °C); this takes place a few seconds after starting.

⚠ CAUTION

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

EXHAUST MUFFLER

⚠ WARNING

Tampering with the noise control system is prohibited.

Owners are warned that the law may prohibit:

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

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

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

INSTRUCTIONS FOR USE**⚠ WARNING**

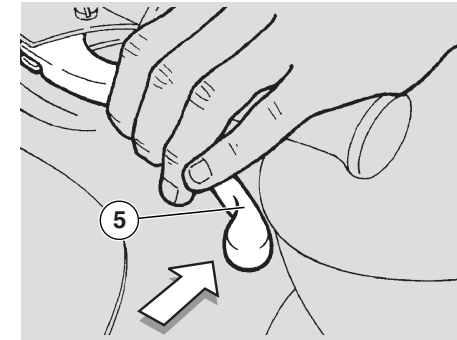
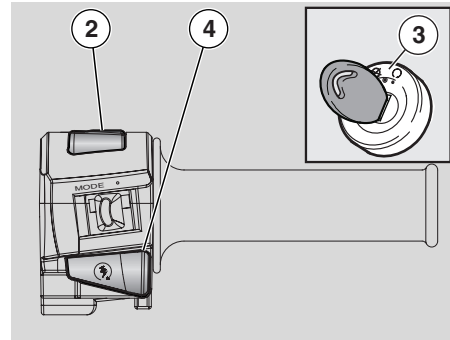
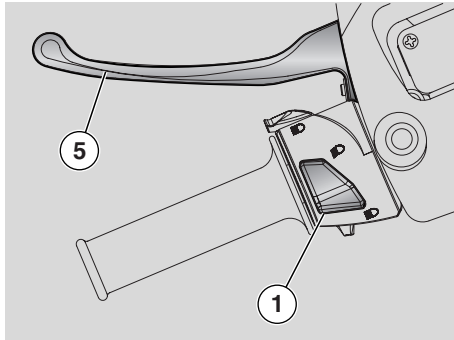
Check the vehicle before each ride to ensure safe riding. (See the PRE-RIDE CHECKS CHART on the side). Failure to perform these checks may lead to severe personal injury or vehicle damage.

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

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

PRE-RIDE CHECKS CHART

Part	Check	page
Disk brakes	Check operation and fluid level, and make sure there are no leaks. Check pads for wear. Top up, if necessary.	43 63
Throttle	Check for smooth operation; throttle should snap fully open and closed at all positions of the steering. If necessary, adjust and/or lubricate it.	51
Mixer oil	Check and/or top up, if necessary.	41
Wheels / tires	Check tire surface, inflation pressure. Check for wear or damage. Remove any foreign matter that may be stuck in the tread grooves.	46
Brake levers	Make sure that they work smoothly. If necessary, lubricate the joints.	
Steering	Steering should rotate smoothly and evenly. There should be no play or looseness.	
Center stand and side stand <small>OPT</small>	Make sure that they work smoothly and that the spring tension brings them back to their normal position. Lubricate joints and connections, if necessary.	55
Fastening elements	Make sure that the fastening elements are not loose. Adjust or tighten as required.	-
Fuel tank	Check the fuel level and top up, if necessary. Make sure there are no leaks or obstacles in the circuit.	40 75
Coolant	Coolant level in the expansion tank must be between the "MIN" and "MAX" marks. Top up, if necessary.	44 45
Engine stop switch (○ - ✕)	Make sure that it operates correctly.	35
Lights, warning lights, general alarm light, horn and electrical devices	Check the proper functioning of all the devices. Change the bulbs or fix the fault in case of failure.	71 74
Injection pump <small>IE</small>	Make sure that it operates correctly.	



STARTING

⚠ WARNING

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

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


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

ELECTRIC STARTING

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND)
- ◆ Make sure that the dimmer switch (1) is in position "D".
- ◆ Set the engine kill switch (2) to position "O".

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

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

- ◆ Check that the "general alarm" light goes off (see page 29) .

- ◆ Lock at least one wheel, by pulling a brake lever (5).

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

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

⚠ CAUTION

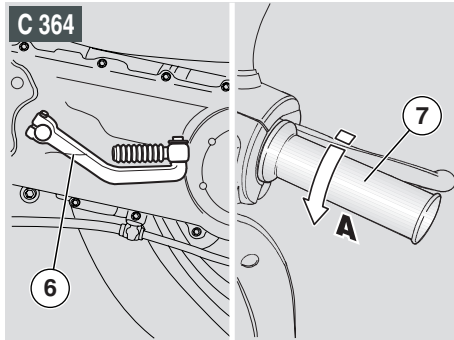
Press the starter button "S" (5) without accelerating and release it as soon as the engine starts.

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

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

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

- ◆ Do not accelerate and at the same time operate the brake levers until moving off. To start, see page 51 (STARTING OFF AND RIDING).



KICK START C 364

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND) Move to the left side of the vehicle.
- ◆ Make sure that the dimmer switch (1) is in position "D".
- ◆ Turn the key (3) and set the ignition switch to position "O".
- ◆ Set the engine kill switch (2) to position "O".
- ◆ Operate the brake levers (5) to lock both wheels and avoid losing control of the vehicle when starting.
- ◆ Use your right foot to operate the kick start (6), and release immediately.
- ◆ Repeat this operation, if necessary, until engine starts.

STARTING WITH FLOODED ENGINE

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

To clean a flooded engine:

CAUTION

Do not operate the kick starter with engine running.

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

STARTING WITH COLD ENGINE

When the room temperature is low (near or below 32 °F - 0 °C), it may be difficult to start the engine at the first attempt.

If so:

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

If the engine starts:

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

To start, see page 51 (STARTING OFF AND RIDING).

If the engine fails to start

Wait a few seconds and repeat the COLD START PROCEDURE.

- ◆ If necessary, remove the spark plug, see page 67 (SPARK PLUG) and make sure that it is not wet.
- ◆ If the spark plug is wet, clean and dry it.

Before reinstalling it:

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

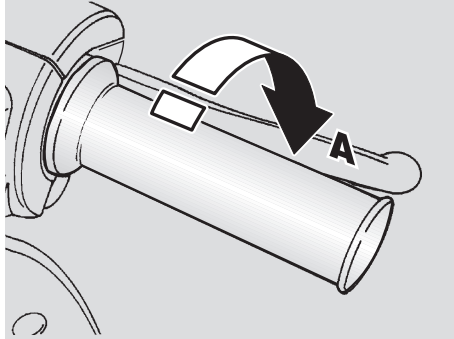
- ◆ Press the start push-button "Ⓢ" (4) and let the starter run for about five seconds without accelerating.

STARTING AFTER A PROLONGED PERIOD OF INACTIVITY

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

If so:

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



STARTING OFF AND RIDING

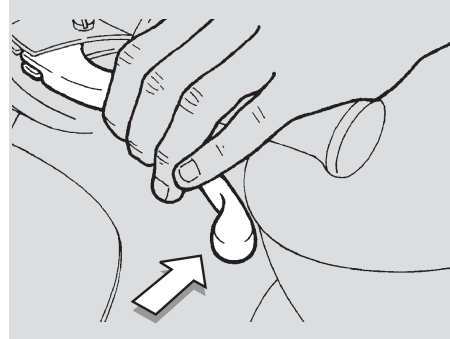
NOTE Before starting off, read the section "Safe Riding", see page 5 (SAFE RIDING).

⚠ CAUTION

If, while riding, the fuel reserve light "F" on the instrument panel comes on, it means that the fuel reserve is being used. Refuel as soon as possible, see page 40 (FUEL).

⚠ WARNING

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



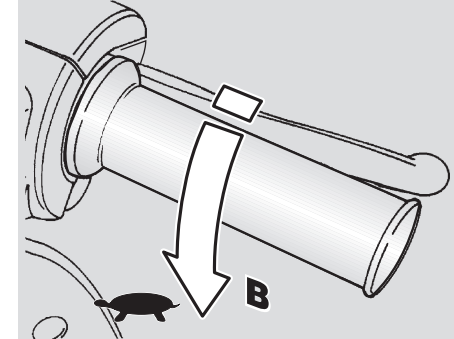
While riding, keep your hands on the handlebar and your feet on the footpegs.

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

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

To start off:

- ◆ Release the throttle grip (Pos. A), engage the rear brake, then move the vehicle down the stand.
- ◆ Get on the vehicle, keeping at least one foot on the ground in order to keep balance.
- ◆ Adjust the rear-view mirrors.



⚠ WARNING

With the vehicle stopped, try to become familiar with the mirrors.

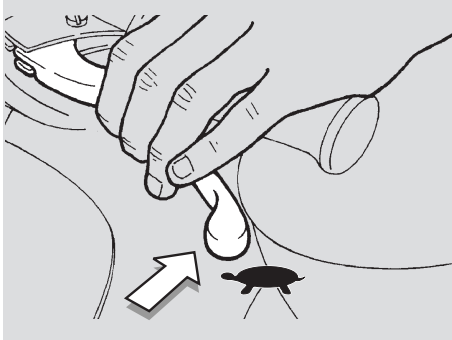
- ◆ Release the brake lever and accelerate by rotating the throttle grip moderately (Pos. B); the vehicle will start moving.

⚠ CAUTION

Do not start off abruptly when the engine is cold. To reduce emissions and fuel consumption, ride slowly until covering several miles to warm the engine up to operating temperature.

⚠ WARNING

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



⚠ WARNING

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

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

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

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

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

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

Never ride downhill with the engine off!

⚠ WARNING

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

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

Uneven roads, rails, manhole covers, signs painted on the road surface and building site metal plates become rather slippery in the rain. Avoid these obstacles as much as possible, drive smoothly and bend the vehicle as little as possible.

⚠ WARNING

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

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

Be extremely careful when passing or being passed.

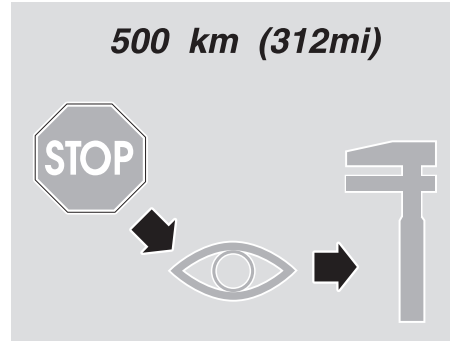
When riding in the rain, the spray thrown up by the tires of large vehicles will reduce your vision; the air wave created by a large vehicle may make you lose control of the vehicle.

⚠ WARNING

If the general alarm light (⚠) and the mixer oil reserve icon "⚠" come on during normal engine operation, it means that mixer oil reserve is being used; in this case, top up mixer oil, see page 41 (MIXER OIL).

⚠ CAUTION

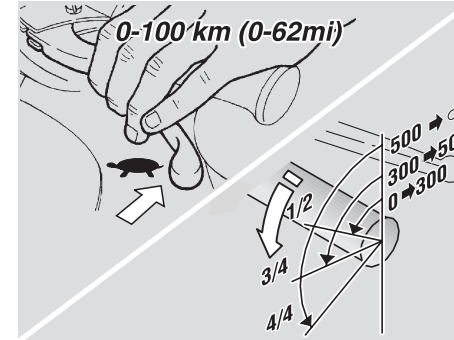
If the general alarm light (⚠) and the coolant temperature indicator "⚠" reach maximum temperature, stop the engine and check coolant level, see page 44 (COOLANT).



RUNNING-IN

⚠ WARNING

After the first 312 mi (500 km), carry out the checking operations indicated in the column "After running-in", see page 57 (SCHEDULED MAINTENANCE CHART), in order to avoid hurting yourself or other people and/or damaging the vehicle.



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

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

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

◆ **0- 62 mi (0- 100 km)**

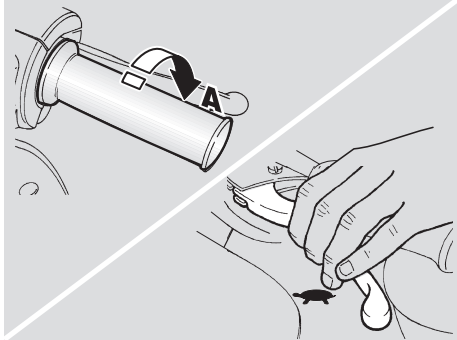
Until you have covered the first 62 mi (100 km), use the brakes gently and avoid harsh, prolonged braking. This will help the brake pads bed in properly against the brake disks.

◆ **0- 187 mi (0- 300 km)**

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

◆ **187- 312 mi (300- 500 km)**

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

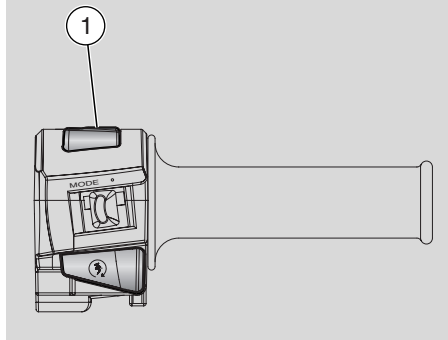


STOPPING

⚠ WARNING

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

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



PARKING

⚠ WARNING

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

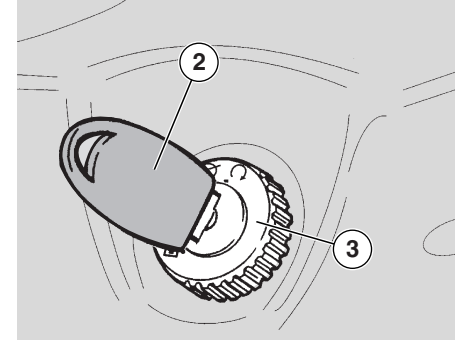
Do not lean the vehicle against a wall, or lay it on the ground.

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

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

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

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



⚠ CAUTION

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

- ◆ Rotate the key (2) and set the ignition switch (3) to position "⊗".
- ◆ Place the vehicle on the stand, see page 55 (PLACING THE VEHICLE ON THE STAND).

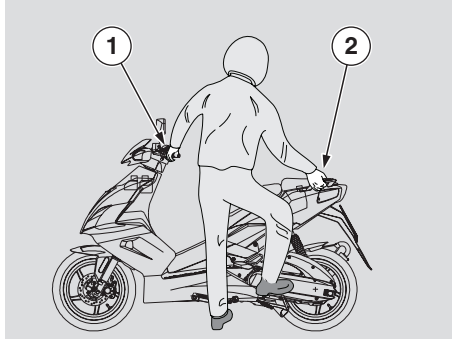
⚠ CAUTION

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

⚠ CAUTION

Never leave the key in the ignition switch.

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

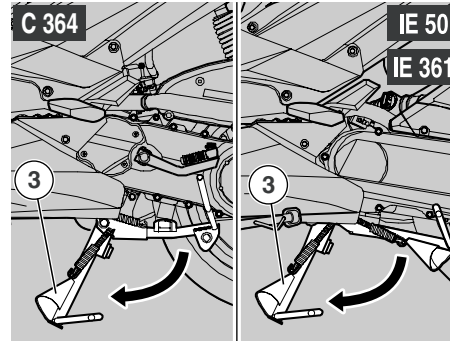


PLACING THE VEHICLE ON THE STAND

Carefully read page 54 (STOPPING).

CENTER STAND

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



SIDE STAND OPT

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

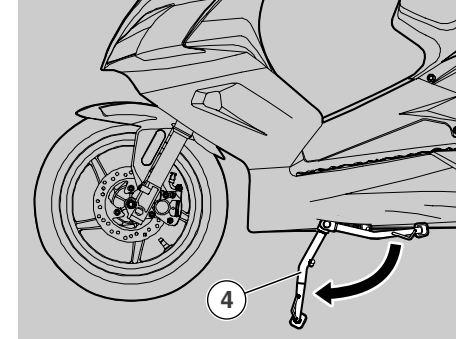
⚠ WARNING

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

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

⚠ WARNING

Make sure that the vehicle is stable.



SUGGESTIONS TO PREVENT THEFT

⚠ CAUTION

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

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

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

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

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

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

LAST NAME:

NAME:

ADDRESS:

.....

TELEPHONE NO.:

NOTE Recovered vehicles are often traced back to the owner through information noted in the Owner's Manual.

MAINTENANCE

⚠ WARNING

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



Before beginning any maintenance operation or inspection of the vehicle, stop the engine, take out the key from the ignition, wait until the engine and the exhaust system have cooled down and, if possible, lift the vehicle using proper equipment, and set it on firm and flat ground.

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

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

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

⚠ CAUTION

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

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

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

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

In addition, perform the "Pre-ride checks" after each maintenance operation, see page 48 (PRE-RIDE CHECKS CHART).

SCHEDULED MAINTENANCE CHART

OPERATIONS TO BE CARRIED OUT BY THE **aprilia** Authorized Dealer (USER MAY PERFORM THESE AS WELL).

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

OPERATIONS TO BE CARRIED OUT BY THE aprilia Authorized Dealer

Component	After running-in [312 mi (500 km)]	Every 2500 mi (4000 km) or 12 months	Every 5000 mi (8000 km) or 24 months
Rear shock absorber			①
Bowden cables and controls	①	①	
Drive belt			③
Steering tube bearings and steering play	①	①	
Wheel bearings		①	
Brake disks		①	
Clamps	every 7440 mi (12000 km): ①		
Air filter	①		②
Fuel filter	every 7440 mi (12000 km): ①		
Vehicle operation	①	①	
Braking systems / brake disks	①	①	
Brake fluid	every 2 years: ③		
Coolant	every 1240 mi (2000 km): ① / every 2 years: ③		
Exhaust muffler		①	
Mixer / throttle operation	①	①	
Fork fluid and oil seal	every 7440 mi (12000 km): ①		
Transmission fluid	③	①	every 7440 mi (12000 km) or 2 years: ③
Front pulley	every 7440 mi (12000 km): ①		
Injector cleaning IE	every 9920 mi (16000 km): ②		
Front converter rollers and guides	every 7440 mi (12000 km): ③		
Wheels / tires and inflating pressure	①	①	
Nut, bolt, screw tightening	①	①	
Fuel hose	every 2500 mi (4000 km): ② / every 2 years: ③		
Braking system lines	every 2500 mi (4000 km): ① / every 2 years: ③		
Mixer oil hoses	①	①	every 2 years: ③
Clutch wear		①	
① = check and clean, adjust, lubricate or change, if necessary; ② = clean; ③ = change; ④ = adjust. Perform the maintenance operations more frequently if you use the vehicle in rainy and dusty areas or on uneven ground.			

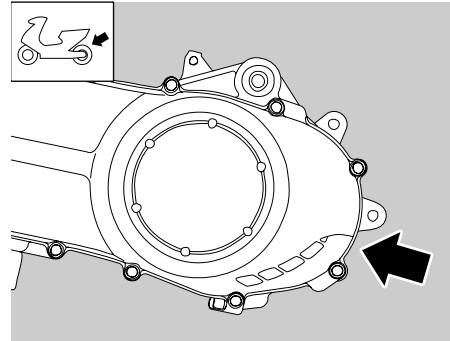


IDENTIFICATION DATA

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

The frame number must be quoted when purchasing spare parts.

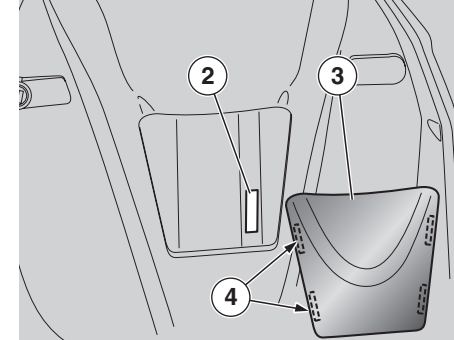
NOTE Altering a vehicle identification numbers is illegal and punished by law with fines and imprisonment. In addition, altering the frame number invalidates the warranty.



ENGINE NUMBER

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

Engine no. _____

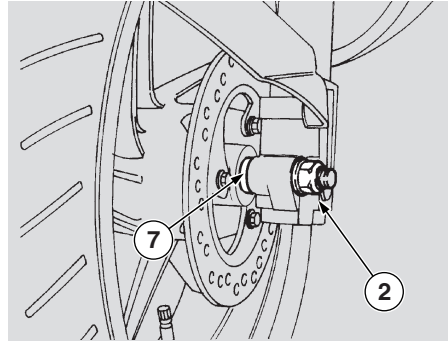
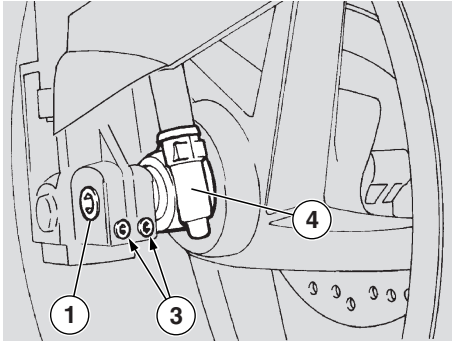


FRAME NUMBER

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

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

Frame no. _____



FRONT WHEEL DISASSEMBLY

Read page 56 (MAINTENANCE).

NOTE Prepare a support 8.3 in (210 mm) high and a support base 7.9 x 7.9 in (200 x 200 mm).

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

WARNING

Make sure that the vehicle is stable.

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

Wheel shaft nut driving torque:
36.9 ftlb (50 Nm).

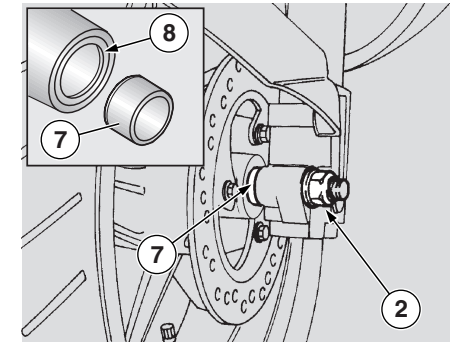
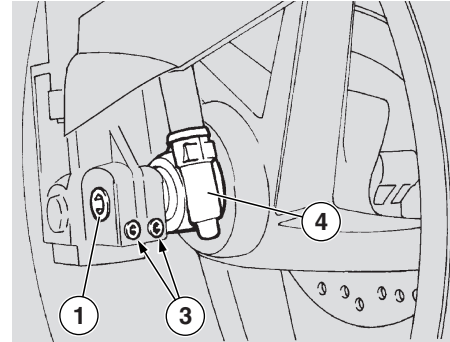
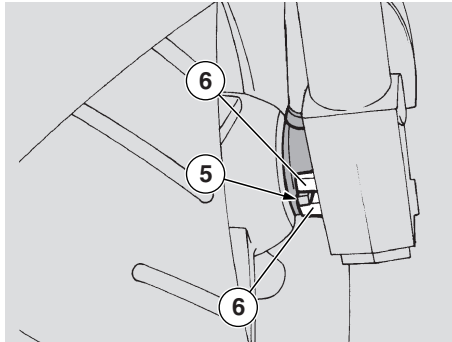
- ◆ Loosen the two screws (3) on wheel shaft clamp.

Torque wrench setting for wheel shaft pinch bolts: 7.4 ftlb (10 Nm).

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

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

- ◆ Support the front wheel and manually slide out the wheel shaft.
- ◆ Remove the wheel carefully while sliding out the brake disk from the caliper.
- ◆ Disengage the odometer fitment (4).



REFITTING THE WHEEL

Carefully read page 56 (MAINTENANCE).

⚠ CAUTION

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

To refit the front wheel, do as follows:

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

⚠ CAUTION

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

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

Wheel shaft nut driving torque: 36.9 ftlb (50 Nm).

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

Torque wrench setting for wheel shaft pinch bolts: 7.4 ftlb (10 Nm).

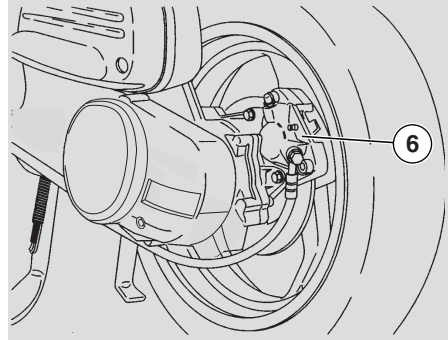
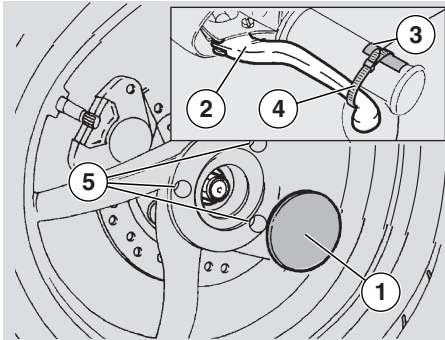
- ◆ Make sure the following components have not become contaminated with lubricants:
 - tire;
 - wheel;
 - brake disk.

⚠ WARNING

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

Check the wheel truing.

We advise having the tightening torques, the wheel truing and balancing checked by an **aprilia** Authorized Dealer to avoid any failure that might seriously injure the rider and/or other people.



REAR WHEEL DISASSEMBLY

Read page 56 (MAINTENANCE).

- ◆ Remove the exhaust muffler. See page 65 (REMOVING THE EXHAUST MUFFLER).
- ◆ Remove the cover (1).
- ◆ Operate the rear brake lever (2), then use a piece of cardboard (3) and fit a plastic tie (4) so to keep the rear brake lever on.
- ◆ Release and remove the three screws (5), collect the washers.

Screws (5) driving torque:
36.9 ftlb (50 Nm).

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

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

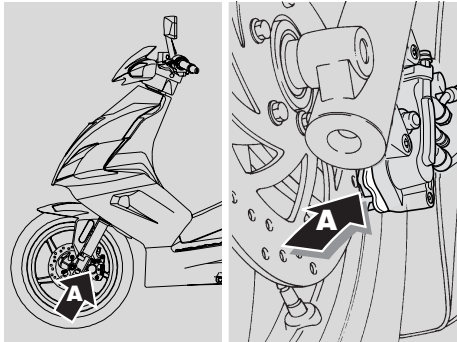
- ◆ Reassemble and then check that the following parts are not dirty:
 - tire;
 - wheel;
 - brake disk.



⚠ WARNING

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

We advise having the tightening torques, the wheel truing and balancing checked by an **aprilia Authorized Dealer to avoid any failure that might seriously injure the rider and/or other people.**



CHECKING THE BRAKE PADS FOR WEAR

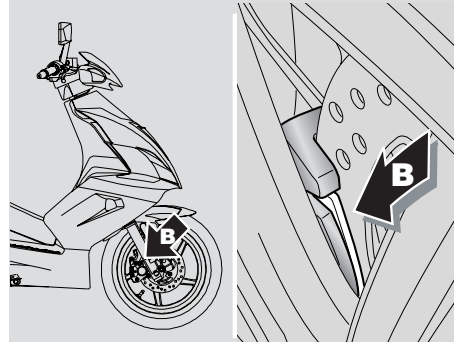
Read page 42 (BRAKE FLUID - recommendations), (DISK BRAKES) and page 56 (MAINTENANCE).

NOTE The following instructions apply to both braking systems.

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

⚠ WARNING

Inspect the brake pads before each ride.



Outlined below is a quick brake pad inspection procedure:

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

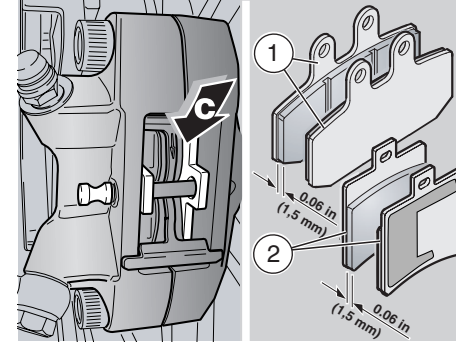
Use a flashlight and a mirror, proceed as follows:

FRONT BRAKE CALIPERS

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

REAR BRAKE CALIPER

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



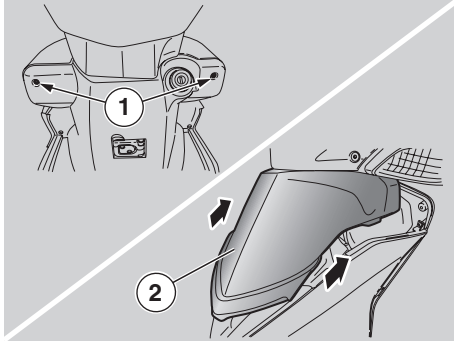
⚠ WARNING

If brake pads were allowed to wear down to the metal substrate, metal-to-metal contact with the brake disk would lead to rattling and the brake caliper sparking; this would result in loss of braking and brake disk damage, making riding conditions hazardous.

- ◆ Have the brake pads changed when the lining material of even just one pad is worn down to nearly **0.06 in (1.5 mm)**, or when any one of the wear indicators is no longer visible.
 - Front brake pads (1);
 - rear brake pads (2).

⚠ WARNING

Contact an aprilia Authorized Dealer for the replacement.

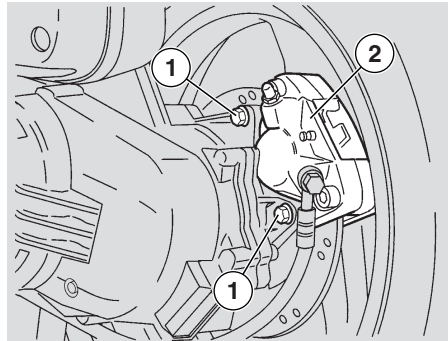


REMOVING THE FRONT COVER

Read page 56 (MAINTENANCE).

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the two screws (1).
- ◆ Pull up to release the front cover front panel.
- ◆ Remove the cover support panel (2).

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



REMOVING THE REAR BRAKE CALIPER

Read page 56 (MAINTENANCE).

⚠ WARNING

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

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

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

⚠ CAUTION

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

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Manually turn the wheel so that the gap between two spokes corresponds to the brake caliper (2).
- ◆ Unscrew and remove the two screws (1).
- ◆ Remove the oil plug and remove the rear wheel, if necessary, see page 62 (REAR WHEEL).

Brake caliper screws (1) driving torque: 20.0 ftlb (27 Nm).

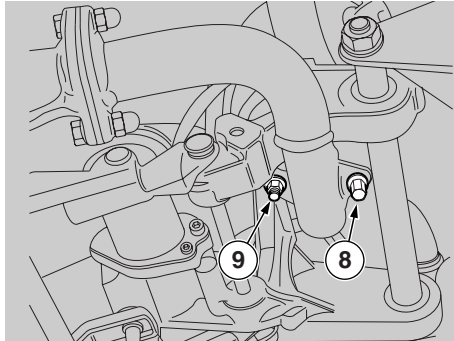
- ◆ On reassembly, use Loctite 243 on the screws (1).

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

⚠ CAUTION

Do not operate the brake lever when the calipers are not in place. This may lead to the pistons falling out and spillage of brake fluid.

If it occurs, please contact an aprilia Authorized Dealer for servicing.



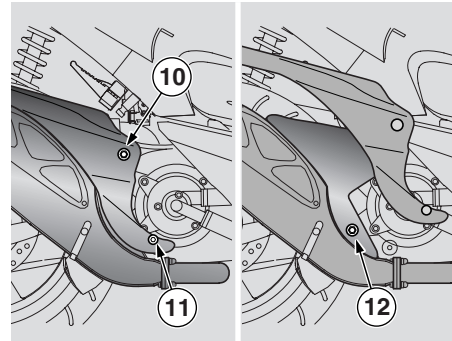
- ◆ Slide out caliper (2) from the disk carefully and remove it.

⚠ CAUTION

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

⚠ CAUTION

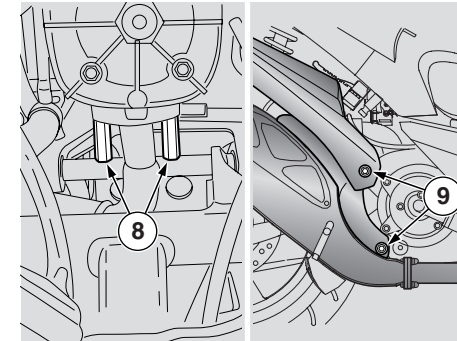
When reassembling, make sure that brake caliper line is properly secured with relevant hose guides.



REMOVING THE EXHAUST MUFFLER IE 50

Read page 56 (MAINTENANCE).

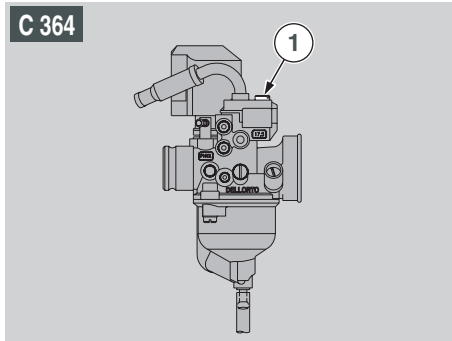
- ◆ Unscrew and remove the screw (8).
- Screw (8) driving torque:**
10 Nm (1.0 kgm).
- ◆ Unscrew and remove the screw (9).
- Screw (9) driving torque:**
10 Nm (1.0 kgm).
- ◆ Loosen and remove the screw (10) securing the muffler to the engine.
- Screw (10) driving torque:**
27 Nm (2.7 kgm).
- ◆ Loosen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



REMOVING THE EXHAUST MUFFLER IE 361 C 364

Read page 56 (MAINTENANCE).

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



IDLING ADJUSTMENT C 364

Read page 56 (MAINTENANCE).

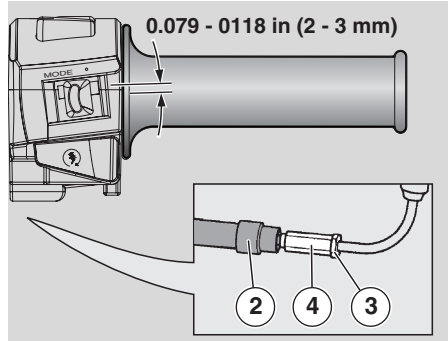
Adjust the idling after the first 312 mi (500 km) and every time it is erratic.

To carry out this operation, proceed as follows:

- ◆ Ride for a few miles until reaching the operating temperature, then stop the engine.
- ◆ Remove the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Connect an electronic rev counter to the spark plug cable.

⚠ WARNING

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



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

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

If necessary:

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

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

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

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

By UNSCREWING IT (counter-clockwise), you decrease the engine rpm.

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

NOTE If necessary, contact an aprilia Authorized Dealer.

ADJUSTING THE THROTTLE CONTROL

Read page 56 (MAINTENANCE).

The ideal slack of the throttle control should be about 0.79-0.118 in (2-3 mm).

To adjust the slack, proceed as follows:

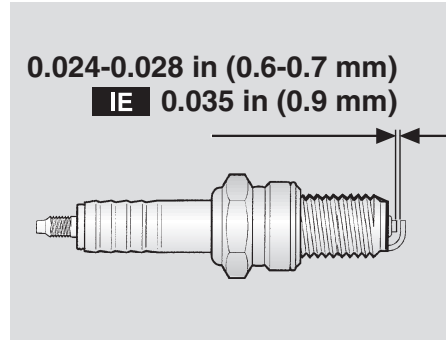
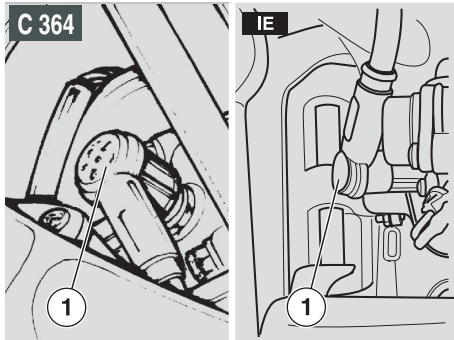
- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Withdraw the protection (2).
- ◆ Loosen the nut (3).
- ◆ Turn adjuster (4), located at the throttle cable end.

When finished:

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

⚠ WARNING

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



SPARK PLUG

Read page 56 (MAINTENANCE).

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

Periodically remove the spark plug and clean it carefully. Remove carbon deposits and change it if necessary.

To remove and clean the spark plug:

⚠ WARNING

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

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

- ◆ The gap must be **0.024-0.028 in (0.6-0.7 mm)**; **IE 0.035 in (0.9 mm)** if necessary, adjust it, carefully bending the earth electrode.
- ◆ Make sure that the washer is in good condition. With the washer on, screw the spark plug by hand in order not to damage the thread.
- ◆ Tighten using the wrench supplied in the tool kit. Screw in each spark plug by one half turn to compress the washer.

Spark plug driving torque:
14.7 ftlb (20 Nm).

⚠ CAUTION

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

Use recommended spark plugs only, see page 78 (TECHNICAL DATA). A spark plug of the wrong rating may shorten engine life and cause loss of performance.

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

BATTERY

Read page 56 (MAINTENANCE).

WARNING

Risk of fire.

Keep fuel and other flammable substances away from electric components.

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

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

In case of contact with eyes, rinse with plenty of water for fifteen minutes and immediately contact an eye specialist.

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

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

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

KEEP AWAY FROM CHILDREN.

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

CAUTION

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

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

Disconnect in the reverse order.

Battery fluid is corrosive.

Do not spill it, especially on plastic parts.

PROLONGED INACTIVITY OF THE BATTERY

If the vehicle remains unused for more than fifteen days, it is necessary to recharge the battery to prevent sulfation, see page 69 (CHARGING THE BATTERY)

- ◆ Remove the battery, see page 68 (REMOVING THE BATTERY) and store it in a cool, dry place.

To avoid the battery from wearing down in winter or while the vehicle is stored away,

check battery charge at regular intervals (monthly).

- ◆ Recharge the battery fully at a normal charge rate, see page 69 (CHARGING THE BATTERY)

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

REMOVING THE BATTERY

Read page 68 (BATTERY).

- ◆ Remove the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Make sure that the ignition switch is in position "⊗".
- ◆ Disconnect first the negative (-) and then the positive cable (red, +).
- ◆ Remove the battery breather pipe.
- ◆ Remove the battery, and put it on a flat surface in a cool, dry place.

WARNING

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

- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT)

INSTALLING THE BATTERY

Read page 68 (BATTERY).

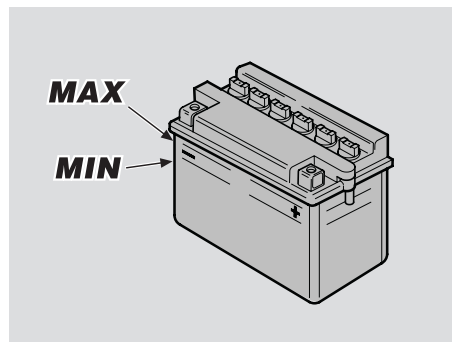
- ◆ Remove the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT).
- ◆ Remove the tool kit compartment.
- ◆ Refit the battery into its mount.
- ◆ Connect the battery breather pipe.

⚠ CAUTION

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

The breather pipe must be connected so it is not crushed, otherwise it may cause a pressure increase inside the battery and damage as a result.

- ◆ Connect first the red positive cable (+) and then the negative (-).
- ◆ Coat the terminals of cables and battery with special grease or Vaseline.
- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT).



CHECKING BATTERY FLUID LEVEL

Read page 68 (BATTERY).

- ◆ Remove the battery from its compartment, see page 68 (REMOVING THE BATTERY).
- ◆ Make sure that battery fluid level is between the "MIN" and "MAX" marks on the battery.

If not so:

- ◆ Release and remove the caps.

⚠ CAUTION

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

- ◆ Add distilled water to the correct level.

⚠ CAUTION

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

- ◆ Refit the caps.

CHARGING THE BATTERY

Read page 68 (BATTERY).

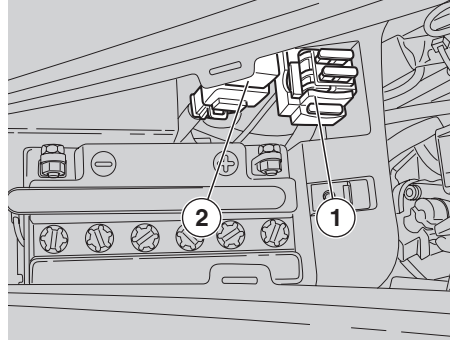
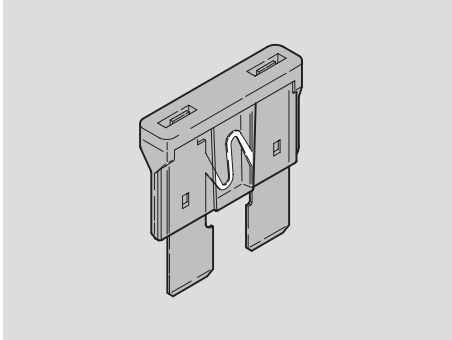
- ◆ Remove the battery from its compartment, see page 68 (REMOVING THE BATTERY).
- ◆ Release and remove the caps.
- ◆ Check electrolyte level, see page 69 (CHECKING BATTERY FLUID LEVEL).
- ◆ Connect the battery to a battery charger.
- ◆ Recommended charge rate is 1/10th of battery capacity.
- ◆ After charging the battery, check battery fluid level again and top up with distilled water if needed.
- ◆ Tighten the caps.

⚠ CAUTION

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

⚠ WARNING

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



CHANGING THE FUSES

Read page 56 (MAINTENANCE).

⚠ CAUTION

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

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

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

Check as follows:

- ◆ Set the ignition switch to "0" to avoid any short-circuit.

- ◆ Remove the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT)
- ◆ Remove the tool kit compartment.
- ◆ Extract all fuses one by one and check for blown fuses. A blown fuse is identified by the filament in the center being broken.
- ◆ Before replacing a fuse, identify the cause of the failure, if possible.
- ◆ Replace the blown fuse with a new one with equal current rating.

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

- ◆ Refit the tool kit compartment.
- ◆ Refit the tool kit-battery compartment cover, see page 38 (BATTERY COMPARTMENT / TOOL KIT)

ARRANGEMENT OF THE FUSES: C 364

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

2. Mixer oil reserve sensor
 3. Fuel sensor
 4. Coolant temperature sensor
- Turn indicators circuit;
 - Warning horn;
 - Diagnostics circuit.

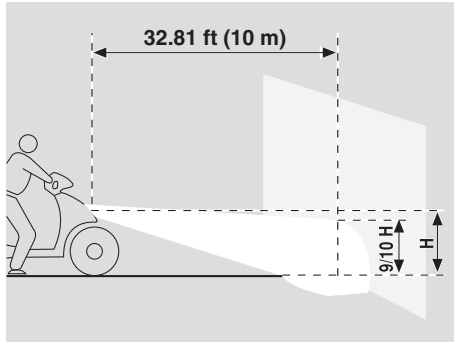
- 15A fuse (2) - From battery to:
- Rectification/charge circuit;
 - Ignition switch;
 - Positive permanent on instrmt panel.

ARRANGEMENT OF THE FUSES IE 361

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

ARRANGEMENT OF THE FUSES IE 50 :

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



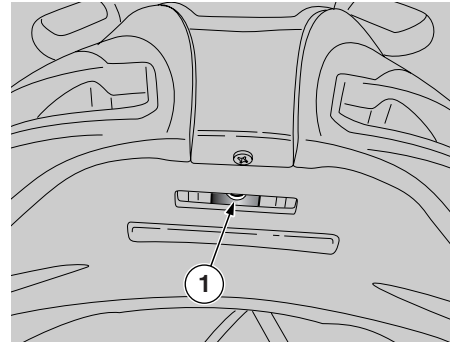
VERTICAL ADJUSTMENT OF THE HEADLIGHT BEAM

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

Italian provisions:

For a quick beam inspection, place the vehicle on level ground, 32.81 ft (10 m) away from a vertical wall. Switch on the low beam, sit astride the vehicle and make sure that the light spot on the wall is just below the horizontal line of the headlight (about nine-tenths of overall height).

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



BULBS

Read page 56 (MAINTENANCE).

⚠ WARNING

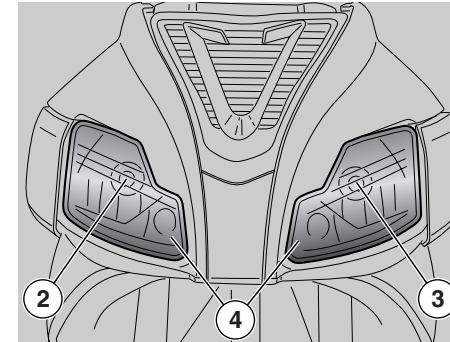
Risk of fire. Keep fuel and other flammable substances away from electric components.

⚠ CAUTION

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

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

DO NOT PULL ON THE WIRES.



CHANGING THE HEADLIGHT BULBS (low/high beam)

Read page 71 (BULBS).

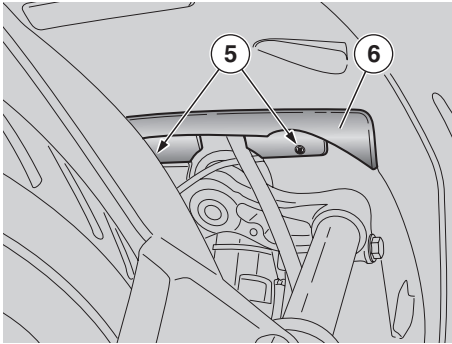
The headlight fits:

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

LOW / HIGH BEAM BULB

To change the bulbs:

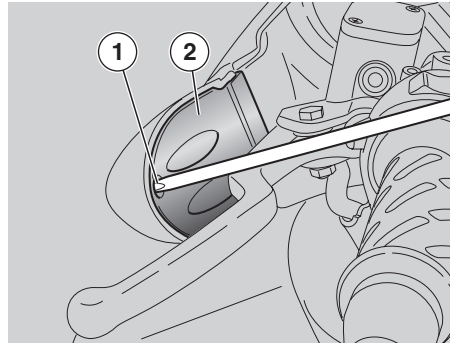
- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Loosen the two screws (5).
- ◆ Remove the cover (6), (when refitting, pay attention to the reference teeth).
- ◆ Remove the bulb, with its wiring, turn it clockwise by 1/4th of a turn.



⚠ CAUTION

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

- ◆ Fit a new bulb of equal rating.



CHANGING THE FRONT TURN INDICATOR BULBS

Read page 71 (BULBS).

To change the bulbs:

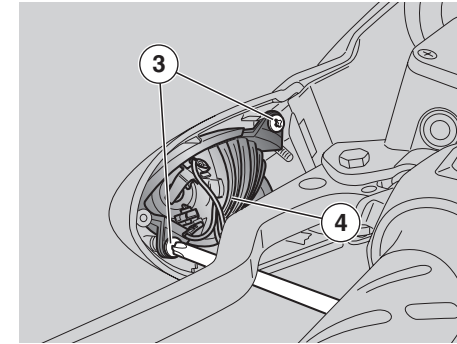
NOTE The following information applies to both turn indicators.

- ◆ Unscrew and remove the screw (1).

⚠ CAUTION

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

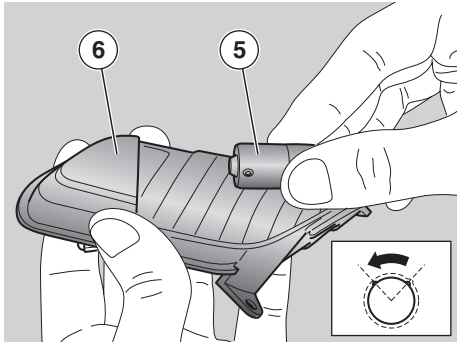
- ◆ Remove the cover (2).
- ◆ Unscrew and remove the two screws (3).



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

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

- ◆ Fit a new bulb of equal rating.

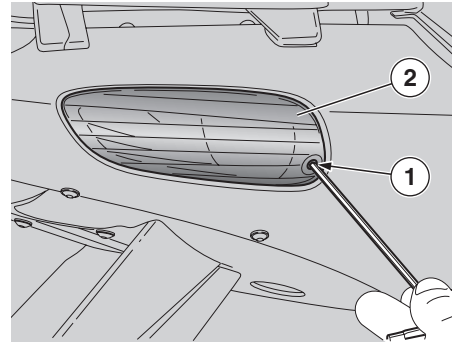


Upon reassembly:

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

CAUTION

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



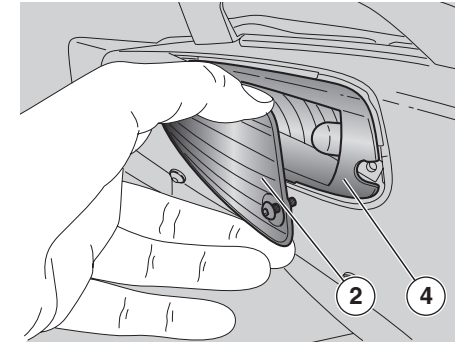
CHANGING THE REAR TURN INDICATOR BULBS

Read page 71 (BULBS).

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).

NOTE Before changing a bulb, check the fuses, see page 70 (CHANGING THE FUSES).

- ◆ Unscrew and remove the screw (1).

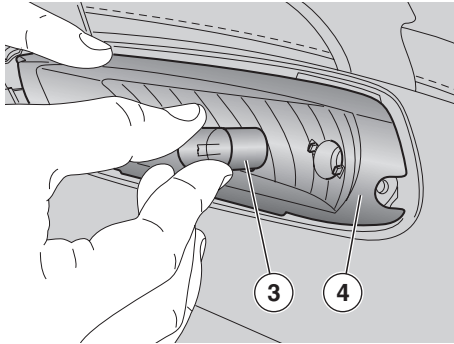


NOTE While removing the screen, pay attention to avoid damaging the clutch dog.

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

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

- ◆ Fit a new bulb of equal rating.

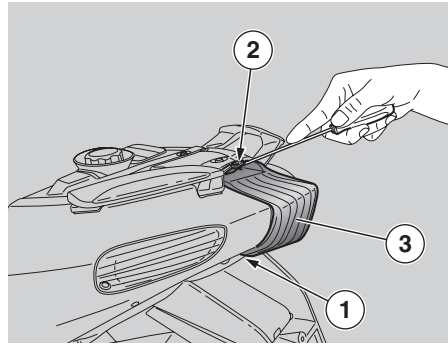


NOTE If the bulb holder (4) comes off, refit it into its seat so that the slotted opening of the holder matches the hole for the screw.

Upon reassembly:

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

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



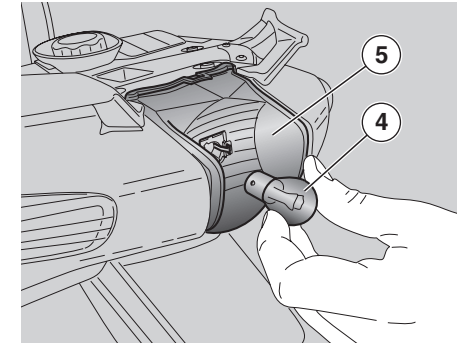
CHANGING THE TAIL LIGHT / STOP BULBS

Read page 71 (BULBS).

NOTE Before replacing the bulb, check the fuses, see page 70 (CHANGING THE FUSES) and the STOP light switches.

To change the bulbs:

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (1).
- ◆ Using a screwdriver, lever onto locking tab (2).



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

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

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

- ◆ Fit a new bulb of equal rating.

TRANSPORT

⚠ WARNING

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

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

⚠ WARNING

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

DRAINING THE FUEL TANK

(carburetor version only)

Carefully read page 40 (FUEL).

⚠ WARNING

Risk of fire.
Allow for the engine and exhaust muffler to cool down completely before proceeding.
Fuel vapors are noxious to human health. Before proceeding, make sure that the room in which you are working is properly ventilated.

Do not inhale fuel vapors.
Do not smoke or use naked flames.

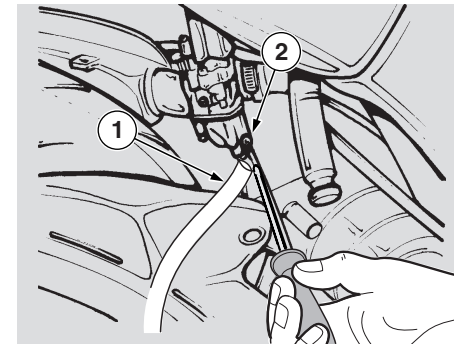
DO NOT RELEASE FUEL INTO THE ENVIRONMENT.

- ◆ Place the vehicle on the center stand, see page 55 (PLACING THE VEHICLE ON THE STAND)
- ◆ Stop the engine and wait until it has cooled down.
- ◆ Remove the rear mudguard.
- ◆ Prepare a container large enough to hold the fuel in the tank and place it on the floor on the left side of the vehicle.
- ◆ Remove the fuel filler plug.
- ◆ Drain fuel using a manual pump or similar system.

⚠ WARNING

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

- ◆ Refit the fuel filler plug.



To drain the carburetor completely, proceed as follows:

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

⚠ WARNING

Tighten the drain screw (2) with care, to avoid fuel leakages from the carburetor during refuelling.
If necessary, contact an **aprilia** Authorized Dealer.

CLEANING

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

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

⚠ WARNING

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

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

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

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

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

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

⚠ CAUTION

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

Wash the vehicle thoroughly before applying silicone wax.

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

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

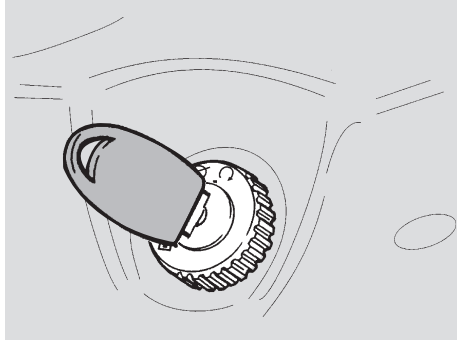


Do not aim high-pressure water/air jets or steam jets at the following parts: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, muffler, glove/tool kit compartment, ignition switch/steering lock, cooler or radiator fins, fuel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

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

⚠ WARNING

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



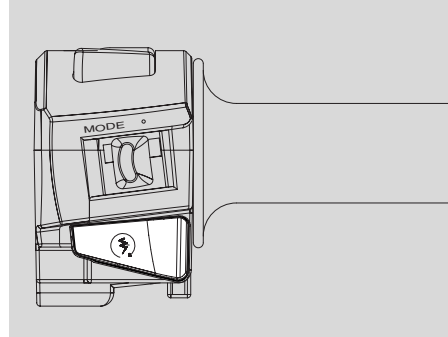
PROLONGED PERIODS OF INACTIVITY

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

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

Proceed as follows:

- ◆ Remove the battery, see page 68 (REMOVING THE BATTERY) and page 68 (PROLONGED INACTIVITY OF THE BATTERY).
- ◆ Wash and dry the vehicle, see page 61 (CLEANING).
- ◆ Polish painted surfaces with wax.
- ◆ Inflate the tires, see page 46 (TIRES).



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



AFTER STORAGE

- ◆ Remove the cover and clean the vehicle, see page 76 (CLEANING).
- ◆ Check battery charge, see page 69 (CHARGING THE BATTERY) and fit it, see page 69 (INSTALLING THE BATTERY).
- ◆ Fill the fuel tank, see page 40 (FUEL).
- ◆ Carry out the preliminary checking operations, see page 48 (PRE-RIDE CHECKS CHART).

⚠ WARNING

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

TECHNICAL DATA

Dimensions	Max. length (with rear mudguard extension)	73.23 in (1,860 mm)
	Max. Width	27.76 in (705 mm)
	Max. height (headlight fairing included)	44.09 in (1,120 mm)
	Seat height	31.30 in (795 mm)
	Wheelbase	50.79 in (1,290 mm)
	Minimum ground clearance	3.94 in (100 mm)
	Loadless weight (in running order)	238 lb (108 kg)
Engine	Type	2 strokes
	Model C 364	C364M
	Model IE 361	C361M
	Model IE 50	Aprilia engine ditech
	Number of cylinders	horizontal single-cylinder
	Total displacement	3 cu. in (49.38 cu. cm)
	Bore / stroke C 364 IE 361	1.57 in / 1.55 in (40 mm / 39.3 mm)
	Bore / stroke IE 50	1.61 in / 1.47 in (41.0 mm / 37.4 mm)
	Compression ratio C 364	12.1 ± 0.5 : 1
	Compression ratio IE 361	12.4 ± 0.5 : 1
	Compression ratio IE 50	12.3 ± 0.5 : 1
	Starting C 364	electric + kick starter
	Starting IE	electric
	Engine idling rpm C 364	1700 ± 100 rpm
	Engine idling rpm IE	2000 ± 50 rpm
Clutch	automatic, dry centrifugal clutch	
Gearbox	automatic converter, stepless	
Cooling	Liquid	
Capacities	Fuel (reserve included)	12.7 pt (7.0 l)
	Fuel reserve	2.18 pt (1.2 l)
	Transmission fluid IE 50	7.93 cu. in (130 cu. cm)
	Transmission fluid IE 361 C 364	4.58 cu. in (75 cu. cm)
	Mixer oil (reserve included)	2.18 pt (1.2 l)
	Mixer oil reserve	0.36 pt (0.2 l)

Capacities	Coolant	2.18 pt (1.2 l) (50% antifreeze with ethylene glycol + 50% water)
	Seats	no. 1 (2 in the countries where passenger is allowed)
	Max. carrying load (rider + luggage)	231 lb (105 kg)
	Max. carrying load (rider + passenger + luggage)	397 lb (180 Kg) (in the countries where passenger is allowed)
Transmission	Converter	automatic, stepless
	Primary	V-belt
	Ratios	
	– minimum for stepless gearbox	C 364 3.07 / IE 361 3.07 / IE 50 2.90
	– maximum for stepless gearbox	C 364 1.37 / IE 361 1.24 / IE 50 0.75
Carburetor	Final	gears
	Model	
	– Standard	Dell'Orto PHVA 17.5
	Throttle	Ø 0.69 in (17.5 mm)
Electronic fuel injection IE	Model	
	– Standard	BING 71
	Throttle	Ø 0.71 in (18 mm)
Fuel supply	Fuel	unleaded fuel, in conformity with the DIN 51607 standard, min. O.N. 95 (R.O.N.) and 85 (M.O.N.).
Frame	Type	Split single beam
Suspensions	Front	Telescopic fork
	Stroke	3.54 in (90 mm)
	Rear	hydraulic monoshock
	Stroke	2.72 in (69 mm)
Brakes	Front	disk brake - Ø 7.5 in (190 mm) - with hydraulic transmission
	Rear	disk brake - Ø 7.5 in (190 mm) - with hydraulic transmission
Wheel rims	Type	alloy
	Front	3.50 x 13"
	Rear	3.50 x 13"
Tires	Type	tubeless
	Front	130 /60 -13" 53J
	Rear	130 /60 -13" 53J



Tires

STANDARD INFLATION PRESSURE

Front 180 kPa (1.8 bar)
Rear 200 kPa (2.0 bar)

INFLATION PRESSURE WITH PASSENGER
(in the countries where this is allowed)

Front 180 kPa (1.8 bar)
Rear 220 kPa (2.2 bar)

Ignition

Type **C 364** C.D.I. control unit
Type **IE** T.D.I.
Spark advance **C 364** 20° ± 3° before TDC
Spark advance **IE** mapped to rpm/a (a = throttle opening).

Spark plug

Standard **C 364** CHAMPION RN1C
Standard **IE 361** CHAMPION RG6YCA / RG6YC
Standard **IE 50** NGK-R CPR8E
As an alternative **IE** NGK-R ZMR7AP (recommended) / CR8EKB / CR7EKB
Spark plug gap **C 364** 0.024 – 0.028 in (0.6 – 0.7 mm)
Spark plug gap **IE** 0.035 in (0.9 mm)

Electric system

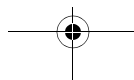
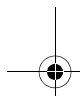
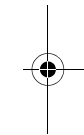
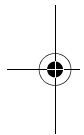
Battery with maintenance 12 V - 9 Ah
Fuses 7.5 A - 15 A
Fuses **IE** 10 A - 15 A
Generator (with permanent magnet) **C 364** 12 V - 70 W
Generator (with permanent magnet) **IE 361** 12 V - 165 W
Generator (with permanent magnet) **IE 50** 12 V - 140 W

Bulbs



Low beam 12 V - 35 W
Low/high beam 12 V - 35 W
Turn indicator light 12 V - 10 W
Rear brake light / stop 12 V - 5/21 W
Instrument panel lighting 12 V - LED




Warning lights









High beam 12 V - LED
Turn indicators 12 V - LED
Fuel reserve 12 V - LED
Injection Check **IE** 12 V - LED



LUBRICANT CHART



(Recommended) transmission fluid:  F.C., SAE 75W - 90 or  Agip. GEAR SYNTH, SAE 75W - 90
As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. GL-4 specifications can be used.

(Recommended) mixer oil:  PRO GPX2 or  GREEN HIT or  Agip 2 CITY 2T.
As an alternative to recommended fluids, top brand oils meeting or exceeding A.P.I. SJ specifications can be used.

(Recommended) fork oil:  F.A. 5W or  F.A. 20W; as an alternative  Agip FORK 5W or  Agip FORK 20W fork oil.
When you wish to obtain an intermediate response between those offered by  F.A. 5W and  F.A. 20W oils or  Agip FORK 5W and  Agip FORK 20W, you may mix the different products as follows:

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

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

Bearings and other lubrication points (recommended):  AUTOGREASE MP or  Agip GREASE 30.
As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C +140°C, with dripping point 150°C - 230°C, high corrosion protection, good resistance to water and oxidisation.
Battery lead protection: Neutral grease or Vaseline.

WARNING

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

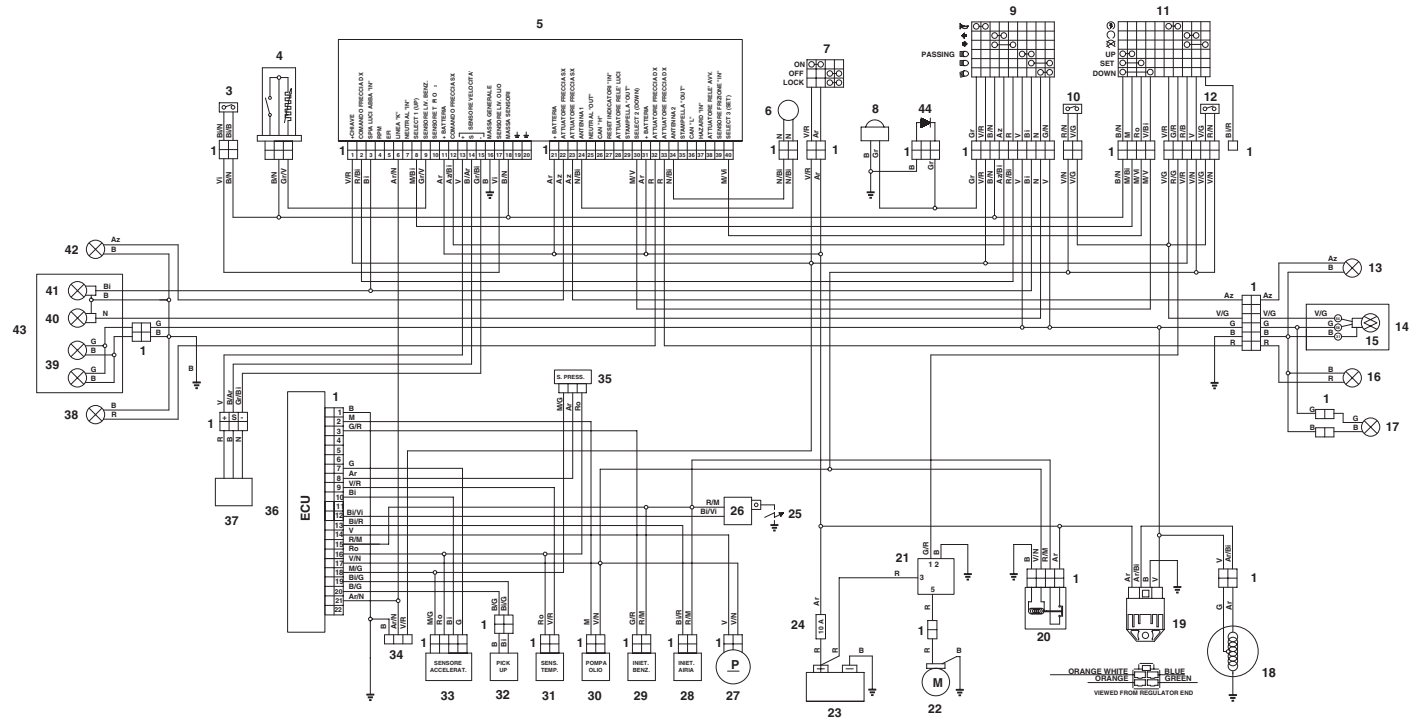
(Recommended) brake fluid: The system is filled with DOT 4 BRAKE FLUID (Compatible DOT 5)
As an alternative to the recommended product, top brand brake fluid meeting or exceeding SAE J1703, NHTSA 116 DOT 4, ISO 4925 specifications for synthetic brake fluid can be used.

WARNING

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

(Recommended) engine coolant:  ECOBLU -40 °C or  Agip COOL.

WIRING DIAGRAM - SR 50 DITECH IE 50



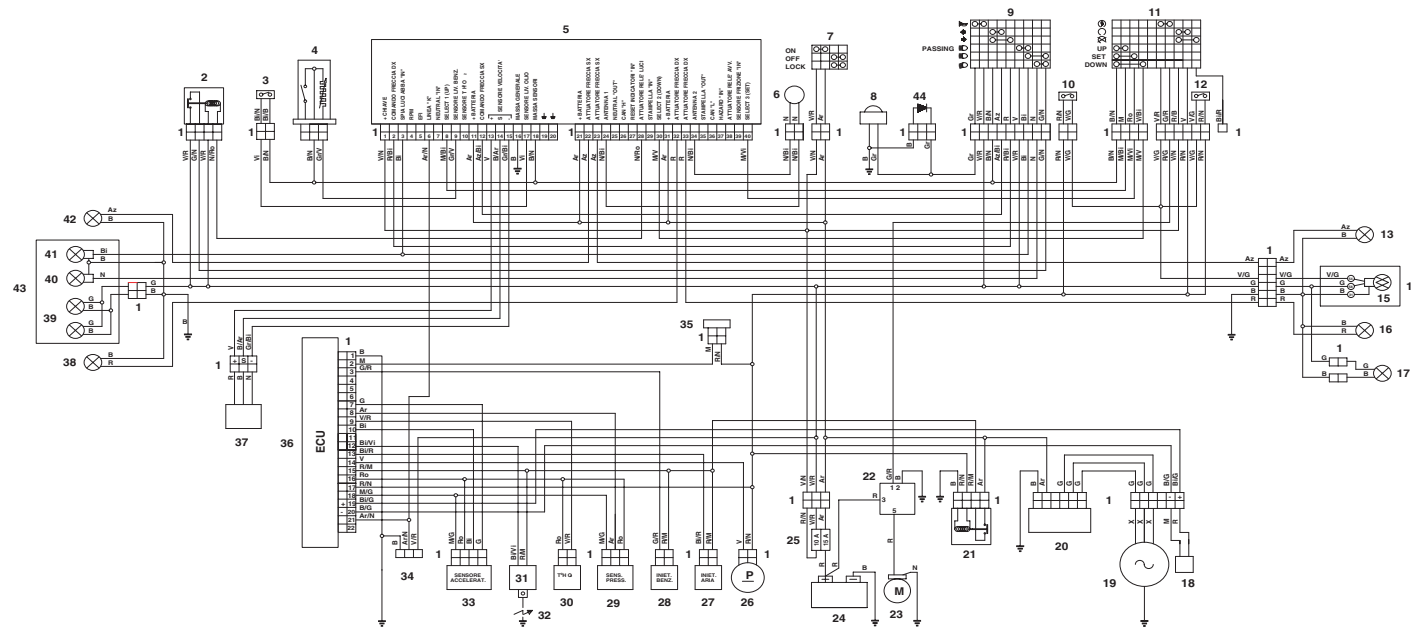
WIRING DIAGRAM KEY - SR 50 DITECH IE 50

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

CABLE COLOUR

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

SCOOTER WIRING DIAGRAM - SR 50 PUREJET IE 361



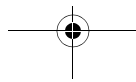
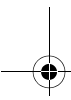
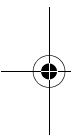


WIRING DIAGRAM KEY - SR 50 PUREJET IE 361

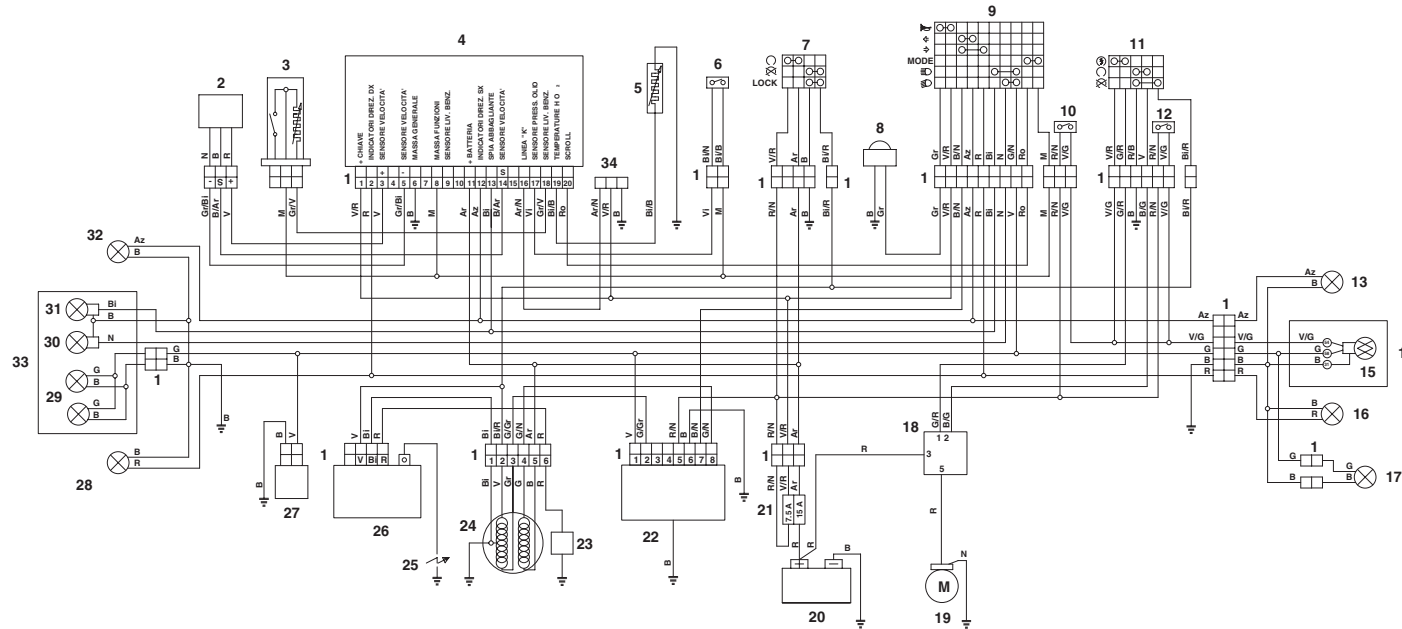
- | | |
|---|---|
| 1) Multiple connectors | 32) Spark plug |
| 2) Low-high beam relay | 33) Throttle sensor |
| 3) Oil level switch | 34) Serial connector (diag.) |
| 4) Fuel level sensor | 35) Oil pump |
| 5) Instrument panel (matrix) | 36) ECU |
| 6) Immobilizer antenna | 37) Speed sensor |
| 7) Key-operated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

CABLE COLOUR

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



SCOOTER WIRING DIAGRAM - SR 50 IE 50



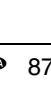
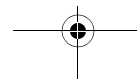
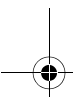
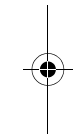
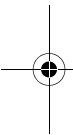


SCOOTER WIRING DIAGRAM KEY - SR 50 IE 50

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

CABLE COLOUR

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





AUTHORIZED DEALERS AND SERVICE CENTERS



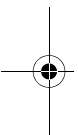
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Thanks to ongoing technical updates and product-specific technical training, **aprilia** Authorized Network engineers are familiar with every detail of this vehicle and have the special equipment required for correct maintenance and repair.

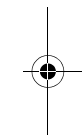
A vehicle kept in sleek running order is a reliable vehicle. Pre-ride checks, proper maintenance at the recommended intervals and using **aprilia** Original Parts only are key factors!

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aprilia s.p.a. wishes to thank its customers for the purchase of this vehicle:

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

