

Dear Customer,

Thank you for choosing a Vespa vehicle.

We have prepared this booklet for you to appreciate the qualities of the vehicle. We recommend that you read it in its entirety before you start riding for the first time, familiarize yourself with the controls and understand the behaviour of the vehicle in order to use it correctly. This document contains tips, warnings and important information for the safety, correct operation, maintenance and care of your vehicle. We advise you to keep this booklet for easy consultation and to hand it over to the new owner in the event of sale, as it constitutes an integral part of the vehicle itself. We hope you enjoy reading this manual. Have a great journey!

We strongly recommend that you download and view the full and updated version of the present document, which is available from the website:

<https://manuals.vespa.com>

Vespa Gts 310 HPE



Ed: 02-05_2025 Cod. 1Q001103 (USA)

INSTRUCTIONS

The instructions given in this manual are intended to provide a clear and simple guide for using your vehicle. Details are also given of routine maintenance procedures and regular checks which should be carried out on the vehicle by a Vespa dealer or authorised service centre.

Any operations not specifically described in this booklet require the use of special tools and/or particular technical knowledge: we recommend having these operations carried out by a Vespa dealer or authorised service centre.

Read this manual thoroughly before using your vehicle. Follow the instructions contained in this manual for your personal safety and to ensure the durability of your vehicle. Failure to observe these instructions may cause personal injury or damage to the vehicle.

WARNING

This use and maintenance manual contains descriptions of the technical data and functional characteristics of the vehicle applicable for the different variants and configurations currently in production. Only the information relative to the configuration, engine variant and version of the vehicle purchased by you must be taken into consideration.

Piaggio & C. S.p.A. reserves the right to implement modifications to the model described in this document at any time, for any technical or commercial reasons it deems fit.

CHANGE/MODIFY THE VEHICLE

Any modifications or alterations made to the vehicle may void the warranty and may also compromise the road-holding characteristics of the vehicle and cause an accident, putting the safety of the driver and occupants at serious risk.

This use and maintenance manual contains paragraphs identified by signal word DANGER, with warnings for avoiding accident or injury, and paragraphs identified by the signal words WARNING and NOTE, with information to help the user avoid improper use of the vehicle and its components. A number of paragraphs identified by the signal word WARNING are also included with information to help avoid procedures and actions which could damage your vehicle. Observe all DANGER and WARNING instructions and indications in this manual, which are identified by the symbols:



Safety of Persons

The total or partial failure to follow these instructions may lead to serious personal injury.



Integrity of the vehicle

The total or partial failure to follow these instructions may lead to serious damage to the vehicle and may even invalidate the warranty.



Safeguarding the Environment

Indicates the correct behaviour to adopt for an environmentally-friendly use of the vehicle.

Note

Indicates a note that provides important information to make the process easier and clearer.

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CHAPTER 01 General mandatory requirements

Foreword

This manual is a fundamental and integral part of the vehicle itself. It should always be kept in the vehicle and accompany the vehicle in the event of resale. Piaggio has compiled this manual to provide the owner with correct, up to date information. However, as Piaggio is constantly improving its products, there may be a some minor differences between the vehicle itself and the contents of this manual. Should you have any queries regarding the vehicle, contact your local Piaggio dealer, which receives the most recent technical information directly from the manufacturer or call the toll-free number: (800) 631-1101. For any tests or repair work not expressly described in this manual, to purchase original spare parts, accessories and other original Piaggio products, or for assistance in the case of specific problems, please contact you local Authorised Service Centre. A team of professionals will be at hand to offer prompt, appropriate assistance. Thank you for choosing Piaggio. Have a great journey!

Carbon monoxide

If it is necessary to warm up the engine before using the vehicle, make sure to be in a properly ventilated area. Never run the engine in an enclosed area. If using it in enclosed areas, use the system for the disposal of the exhaust gas.

CAUTION



EXHAUST GAS CONTAINS CARBON MONOXIDE, A POISONOUS GAS THAT CAN CAUSE LOSS OF CONSCIOUSNESS AND, IN SOME CASES, DEATH.

Fuel

ATTENTION



PETROL IS HIGHLY FLAMMABLE AND CAN IN CERTAIN CASES EXPLODE. THEREFORE IT IS NECESSARY TO REFILL AND PERFORM THE MAINTENANCE OF THE FUEL SYSTEM IN AN AREA WITH FRESH AIR AND THE ENGINE OFF. DO NOT REFILL OR PERFORM THE MAINTENANCE OF THE FUEL SYSTEM WITH THE ENGINE RUNNING. DO NOT SMOKE DURING REFUELLING OR NEAR FUEL VAPOURS. MAKE SURE THAT NO PART OF THE FUEL SYSTEM COMES IN CONTACT WITH NAKED FLAMES, SPARKS AND/OR OTHER HEAT SOURCES. DO NOT POUR FUEL WHILE PERFORMING THE REFUELLING. POURED FUEL MAY

CATCH FIRE IN CONTACT WITH THE WARM ENGINE OR SURFACES OF THE EXHAUST SYSTEM. IF YOU INADVERTENTLY SPILL FUEL ON YOURSELF, CLEAN THE AFFECTED AREA OR MAKE SURE THAT IT IS FULLY EVAPORATED BEFORE STARTING THE VEHICLE.

Since petrol tends to increase in volume inside the tank when the vehicle is exposed to sunlight, never fill the tank to the brim. Leave at least an inch of space. Avoid the skin getting in contact with the fuel and avoid inhaling its vapour. Under no circumstances try to suck fuel from one tank to another using the mouth as suction tool for adjoining vessels. Use a manual pump or a similar system.

CAUTION



GASOLINE IS POISONOUS AND CARCINOGENIC AND CONTAINS CHEMICALS THAT MAY CAUSE FOETAL MALFORMATION AND OTHER PROBLEMS RELATED TO REPRODUCTION. IF YOU ACCIDENTALLY SPILL PETROL ON THE SKIN OR CLOTHES, CLEAN IMMEDIATELY WITH WATER AND SOAP AND CHANGE CLOTHES.

CAUTION

IF PETROL ACCIDENTALLY COMES IN EYE CONTACT RINSE WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE IMMEDIATELY.

IF YOU ACCIDENTALLY SWALLOWED FUEL, DO NOT TRY TO INDUCE VOMITING. BETTER DRINK MILK OR WATER AND SEEK MEDICAL ASSISTANCE IMMEDIATELY.

IF THE VEHICLE SHOULD TIP OVER OR FALL, IT MAY LOSE PETROL, WHICH IS HIGHLY FLAMMABLE. FIRE OR SPARKS COULD INFLAME IT, CAUSING DAMAGE TO THE VEHICLE, BUT ALSO TO SURROUNDING AREAS AND CAUSING SERIOUS INJURY, AND IN SOME CASES DEATH.

DISPOSE PETROL IN EXCESS CORRECTLY, DO NOT DRAIN IT IN THE SEWER, IN BATHROOM SINKS OR TOILET.

KEEP THE PETROL OUT OF THE REACH OF CHILDREN.

Hot parts**CAUTION**

THE ENGINE AND ALL EXHAUST SYSTEM COMPONENTS, AS WELL AS THE BRAKING SYSTEM, GET VERY HOT AND REMAIN HOT FOR SOME TIME EVEN AFTER THE MOTORCYCLE AND THE ENGINE ARE STOPPED. BEFORE HANDLING ANY COMPONENTS OF THE MOTORCYCLE AFTER IT HAS BEEN USED, MAKE SURE THAT IT HAS SUFFICIENTLY COOLED DOWN TO ALLOW SAFE USE.

Voltage cable**ATTENTION**

IT IS EXTREMELY DANGEROUS TO START THE ENGINE HOLDING THE HIGH VOLTAGE CABLE NOT CONNECTED TO THE IGNITION SPARK PLUGS.

Coolant**CAUTION**

IN CERTAIN CONDITION THE ETHYLENE GLYCOL CONTAINED IN THE ENGINE COOLANT IS FLAMMABLE: FLAME IS INVISIBLE, BUT IT CAN NEVERTHELESS CAUSE BURNS. AVOID SPILLING COOLANT ONTO EXHAUST SYSTEM OR OTHER ENGINE PARTS. THESE PARTS, INDEED, COULD BE HOT ENOUGH TO IGNITE COOLANT AND LET IT BURN WITH INVISIBLE FLAME. COOLANT (ETHYLENE GLYCOL) IS A SKIN IRRITANT AND POISONOUS IF SWALLOWED. COOLANT AND COOLANT/WATER MIXTURES ARE SWEET TO THE TASTE AND BRIGHTLY COLOURED, THEREFORE ARE HIGHLY ATTRACTIVE TO PETS AND CHILDREN. TAKE ADDITIONAL PRECAUTIONARY MEASURES TO KEEP NEW AND USED COOLANTS AWAY FROM CHILDREN'S AND ANIMALS' REACH. KEEP AWAY FROM CHILDREN.

BURNS HAZARD. DO NOT REMOVE RADIATOR COVER WHEN THE ENGINE IS HOT. ALLOW ENGINE TO COOL DOWN COMPLETELY. COOLANT IS UNDER PRESSURE, AND COULD SPILL OUT AND CAUSE BURNS.

Rear wheel**CAUTION**



BE VERY CAREFUL TO KEEP THE FINGERS, ALL OTHER PARTS OF THE BODY AND ANY OTHER OBJECT OUT OF RANGE OF THE REAR WHEEL WHEN THE ENGINE IS RUNNING AND THE VEHICLE IS ON THE STAND. IF THIS WARNING IS NOT FOLLOWED, IT CAN CAUSE SERIOUS INJURIES AND DAMAGE THE ENGINE.

Shock absorbers

CAUTION



DO NOT REMOVE THE FRONT AND REAR SHOCK ABSORBER. THE SHOCK ABSORBERS HAVE PRELOADED SPRINGS. DISMANTLING THEM COULD CAUSE SERIOUS INJURY AND, IN SOME CASES, DEATH.

Used engine oil

CAUTION



USE LATEX GLOVES FOR MAINTENANCE OPERATIONS INVOLVING CONTACT WITH USED OIL.

USED MOTOR OIL CAN CAUSE SKIN CANCER WHEN IT COMES IN CONTACT FOR LONG AND REPEATED PERIODS. EVEN IF THIS IS UNLIKELY UNLESS WORKING WITH USED OIL DAILY, IT IS RECOMMENDABLE TO WASH THE HANDS WITH SOAP AND WATER AFTER HANDLING USED OIL. KEEP THE OIL OUT OF THE REACH OF CHILDREN.

Brake fluid

CAUTION



BRAKE FLUID IS EXTREMELY POISONOUS. NEVER ALLOW BRAKE FLUID TO BE INGESTED OR SWALLOWED. IF ACCIDENTALLY SWALLOWED, DRINK LARGE QUANTITIES OF MILK OR WATER AND SEEK MEDICAL ADVICE IMMEDIATELY. BRAKE FLUID IS HIGHLY DESTRUCTIVE TO SKIN AND EYE TISSUE. IF YOU ACCIDENTALLY SPILL BRAKE FLUID ON YOURSELF, TAKE OFF YOUR CLOTHES, WASH WITH HOT WATER AND SOAP AND SEEK MEDICAL ADVICE IMMEDIATELY. IF BRAKE FLUID GETS

ACCIDENTALLY IN CONTACT WITH YOUR EYES, RINSE WITH ABUNDANT FRESH WATER AND SEEK MEDICAL ADVICE IMMEDIATELY. KEEP BRAKE FLUID OUT OF THE REACH OF CHILDREN.

Battery electrolyte and hydrogen gas

CAUTION



THE BATTERIES OF THE VEHICLE EMIT HARMFUL AND EXPLOSIVE GASES; CIGARETTES, FLAMES AND SPARKS SHALL BE KEPT AWAY FROM THE BATTERY. PROVIDE ADEQUATE VENTILATION WHEN WORKING WITH A BATTERY OR DURING CHARGING. WHILE CHARGING OR USE, MAKE SURE THAT THE ROOM IS WELL VENTILATED AND DO NOT BREATHE GAS ISSUED DURING THE CHARGING. THE BATTERY CONTAINS SULPHURIC ACID (ELECTROLYTE). CONTACT WITH YOUR EYES OR SKIN MAY CAUSE BURNS. ALWAYS WEAR PROTECTIVE CLOTHING, RUBBER GLOVES AND GOOGLES OR A FACE MASK WHEN WORKING WITH THE BATTERY, ESPECIALLY WHEN FILLING THE BATTERY WITH WATER OR ELECTROLYTE. IN THE EVENT

OF CONTACT WITH THE SKIN, IMMEDIATELY RINSE WITH PLENTY OF WATER. IN THE EVENT OF CONTACT WITH THE EYES, RINSE WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK IMMEDIATE MEDICAL ATTENTION. THE ELECTROLYTE IS TOXIC. IN THE EVENT OF ACCIDENTALLY SWALLOWING, DRINK PLENTY OF WATER OR MILK, THEN MAGNESIA, BEATEN EGGS OR VEGETABLE OIL. SEEK IMMEDIATE MEDICAL ATTENTION. KEEP OUT OF THE REACH OF CHILDREN.

Notification of defects influencing safety

CAUTION



BEFORE SWITCHING ON THE ENGINE, THOROUGHLY READ THE CONTENTS OF THIS MANUAL AND, IN PARTICULAR, THE CHAPTERS "PERSONAL SAFETY – CARE FOR THE ENVIRONMENT – VEHICLE SAFETY". 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. IT SI

RECOMMENDED TO AVOID USING THE VEHICLE ON PUBLIC ROADS UNTIL HAVING RECEIVED LESSONS FROM A QUALIFIED ORGANIZATION FOR SECURITY SUCH AS THE MOTORCYCLE SAFETY FOUNDATION, AND HAVING PASSED THE EXAM.

NOTIFICATION OF DEFECTS INFLUENCING SAFETY

If you think that your vehicle has defects that can cause accidents, severe injury or death, immediately inform the National Highway Traffic Safety Administration (NHTSA) and Piaggio, by calling the toll-free number (800) 631-1101. If NHTSA receives such complaints, it could start an investigation, and if a defect in security is detected in the vehicles line, may order a recall and replacement campaign. However, NHTSA can not become involved in disputes between the buyer, the dealer or Piaggio. To contact NHTSA, call the Auto Safety Hotline toll-free number 1-800-424-9393 (or 366-0123 in the area of Washington, DC) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590 (US Market) or Piaggio Group Americas, 860 Washington Street 9th Floor New York, NY 10014 Phone number (212) 380-4400, email: customercare@us.piaggio.com (US Market).

Further information about the vehicle can be obtained through the telephone service.

Road traffic code and vehicle use

Road traffic code rules vary from country to country, or from State to State. The road traffic code rules of the country or state where vehicle will be used will have to be compulsorily understood.

CAUTION



THIS VEHICLE HAS BEEN DESIGNED AND MANUFACTURED FOR USE ON ROADS OR EVEN AND ASPHALTED SURFACES ONLY. DO NOT USE THE VEHICLE ON UN-ASPHALTED SURFACES TO PREVENT ANY FALLS OR OTHER TYPES OF ACCIDENTS.

CAUTION



PIAGGIO RECOMMENDS NOT TO USE THE VEHICLE ON STATE OR NATIONAL MOTORWAYS, HIGHWAYS OR HIGH-SPEED ROADS.

Warranty for noise emissions

Piaggio guarantees that the exhaust system at the time of sale, meets the federal standards of the US-American EPA for noise pollution. This warranty applies for the first person who buys this exhaust system for purposes other than sales, and all subsequent purchasers. Claims must be sent to: Piaggio Group Americas, 860 Washington Street 9th Floor New York, NY 10014 Phone number (212) 380-4400, email: customercare@us.piaggio.com.

Origins of emissions

The combustion process produces carbon monoxide and hydrocarbons. Controlling hydrocarbon emissions is very important as in certain cases, these compounds react with sunlight to photochemical gases. While carbon monoxide does not react in the same way as hydrocarbons, it is highly toxic. Piaggio uses an Electronic Fuel Injection system (EFI) to minimise emissions of carbon monoxide and hydrocarbons.

Exhaust gas emissions control system

The exhaust gas emissions control system must work in conjunction with an electronic fuel injection system (EFI), which requires no adjustment by the client. The idle speed and fuel air mixture can only be adjusted by an Authorised Piaggio/Vespa Service

Centre with specific electronic instruments (Diagnosis tester for Scooter). The exhaust gas emissions control system is separate from the evaporative crankcase emissions control system.

Tampering

CAUTION



IT IS FORBIDDEN TO TAMPER THE NOISE CONTROL SYSTEM. THE FEDERAL LAWS PROHIBIT THE FOLLOWING ACTIONS:

A) REMOVE OR MAKE UNUSABLE ANY EQUIPMENT OR DESIGN ELEMENT INCORPORATED IN THE NEW SCOOTER FOR OTHER PURPOSE THAN MAINTENANCE, REPAIR OR REPLACEMENT, WITH THE FUNCTION TO CHECK THE NOISE EMISSIONS BEFORE SALE OR DELIVERY TO FINAL BUYERS OR DURING USE.

B) USE THE SCOOTER AFTER SUCH EQUIPMENT OR DESIGN ELEMENTS HAVE BEEN REMOVED OR MADE UNUSABLE BY ANYONE.

INCLUDED IN THE ACTIONS THAT ARE COVERED IN THE TAMPERING CATEGORY ARE:

A) REMOVING OR DRILLING THE MUFFLER, ACOUSTIC SCREENS, MANIFOLD PIPES OR ANY OTHER COMPONENT THAT PRODUCES EXHAUST.

B) REMOVING OR DRILLING ANY PART OF THE INTAKE DUCT.

C) LACK OF PROPER MAINTENANCE.

D) REPLACING ANY REMOVABLE PART OF THE SCOOTER OR THE EXHAUST SYSTEM OR INTAKE DUCT WITH PARTS OTHER THAN THOSE INDICATED BY PIAGGIO GROUP.

WARNING



THE VEHICLE MUST BE SUBJECTED TO THE CONTROL OR REPAIR IF THE NOISE LEVEL SIGNIFICANTLY INCREASES DURING USE. FAILURE TO OBSERVE THIS PROVISION, THE OWNER MAY BE SUBJECT TO FINES ACCORDING TO THE LOCAL OR STATE LAWS.

Problems affecting scooter emissions

If any of the following problems are observed, immediately check and repair the

scooter at an Authorised Piaggio Service Centre.

Problem:

- Difficulty starting or stopping after ignition.
- Irregular idling.
- Missing starting or anticipated ignition during acceleration.
- Afterburning (flashback).
- Poor performance of the engine, decrease in handling, high fuel consumption.

Protective clothing

For your safety, it is strongly recommended, when riding a motorcycle to use an approved helmet, eye protection, boots, gloves, long pants and long-sleeved shirt or jacket.

Even a complete protection is impossible, wearing the proper equipment can reduce the possibility of injury. Consult your Piaggio

dealer for suggestions about the stylish clothing, comfortable to wear and valid for riding.

Helmet and eye protection

Your helmet is most important item of riding gear as it offers the best protection possible against head injury. The helmet must be comfortable and fitted correctly. Wearing a helmet with bright colours or with reflector strips makes you more visible in traffic. Remember that a full-face helmet offers even more protection than an open helmet. Always remember to fasten your helmet correctly. Leaving aside the style, look for the sticker DOT (Department Of Transportation) in any helmet you buy (only in the USA), and always wear a face shield or goggles to protect your eyes and improve visibility.

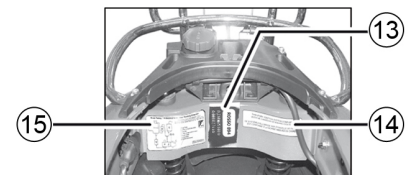
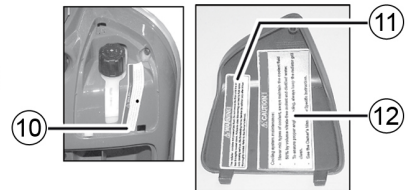
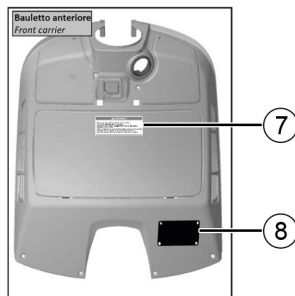
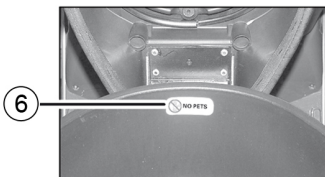
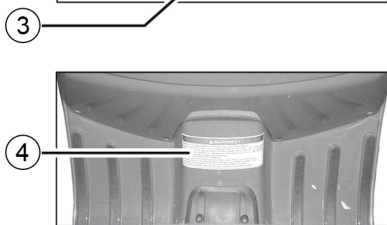
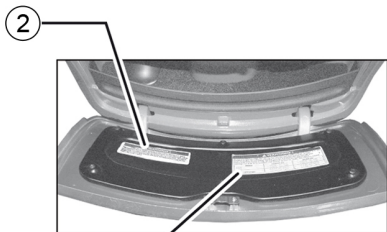
Additional travel equipment

In addition to the helmet and eye protection, are recommended:

- Robust boots with non-slip soles to protect the feet and ankles.
- Leather gloves to keep your hands warm and prevent blisters, cuts, burns and abrasions.
- A motorcycle suit or jacket for comfort and protection. The clothing with bright colours and light-reflecting makes it more visible in traffic. Make sure not to wear loose clothing that can get caught in parts of the vehicle.

The clothes must be of appropriate size and well attached to the ankles and wrists. Laces, belts and ties should not be left hanging; prevent these and other objects from interfering with the steering remaining blocked and by blocking the moving parts or driving mechanisms. Do not carry sharp objects in your pocket as they could be dangerous in case of fall. For example, snap pens or pencils, etc. Also make sure that the passenger also follows these rules.

Positioning of warning labels



Warning etichette key

LICENSE PLATE 1



LICENSE PLATE 2

⚠ WARNING !

NEVER INSTALL ACCESSORIES OR REPLACEMENTS PART NOT APPROVED BY PIAGGIO & C. Spa 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 ACCESSORIES. SEE OWNER'S MANUAL.

VEHICLE EMISSION CONTROL INFORMATION

ENGINE DISPLACEMENT: 310 cc
ENGINE FAMILY: "PVMC 310MD3"
PERMEATION FAMILY: "PVMPT105BB1"
THIS VEHICLE CONFORMS TO US EPA AND CALIFORNIA REGULATIONS APPLICABLE TO ** MODEL YEAR NEW MOTORCYCLES AND IS CERTIFIED TO 0.8 G/KM HC+NOx AND 12 G/KM CO ENGINE FAMILY EXHAUST EMISSION STANDARDS IN CALIFORNIA. ENGINE EXHAUST CONTROL SYSTEM: TBI, TWC, HCDS (2)

ENGINE TUNEUP SPECIFICATIONS:
IGNITION TIMING: Not Adjustable
IDLE SPEED: NO ADJUSTMENT
VALVE CLEARANCE: INLET 0.004 inch (0.10 mm)
OUTLET 0.004 inch (0.10 mm)
SPARK PLUG: NGK IR7B16
SPARK PLUG GAP: 0.028 - 0.032 inch (0.7-0.8 mm)
FUEL: 90 (M+R)2 MINIMUM OCTANE
OIL: SAE 0W-50

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MFD BY PIAGGIO & C. SPA

GVWR 352 KG (775 LB)
GAWR FRONT 98 KG (215 LB) WITH 120/70-12 51S TIRE, E3.00X12 RIM, AT 180 KPA (26.1 PSI) COLD
GAWR REAR 254 KG (560 LB) WITH 130/70-12 62S TIRE, E3.00X12 RIM, AT 260 KPA (37.7 PSI) COLD

This vehicle conforms to all applicable U.S. Federal Motor Vehicle Safety Standards in effect on the date of manufacture shown above

VIN: **ZAPMD30N**

TYPE: MOTORCYCLE

LICENSE PLATE 3

⚠ WARNING !

Do not use any tire other than those recommended and approved by PIAGGIO & C. Spa. Maintain proper tire inflation. Do not use any tire with less than 1/12" (2 mm) 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.

	FRONT tire	REAR tire
Tires	120/70 - 12 51S	130/70 - 12 62S
Driver	1.8 bar (26.1 psi)	2.0 bar (29.0 psi)
Driver + Passenger	1.8 bar (26.1 psi)	2.6 bar (37.7 psi)

LICENSE PLATE 6



Canada Version

MFD BY - FABRIQUE PAR : PIAGGIO & C. Spa
GVWR - PMBV : 352 Kg
TYPE: MC
DATE:

VIN - NIV : **ZAPMD30N**

GAWR - PMBE	TIRE - PNEU	DIMENSION RIM - JANTE
F : 98 Kg	120/70 - 12 51S	E-3.00X12
R : 254 Kg	130/70 - 12 62S	E-3.00X12

COLD INFL PRESSURE PRESS DE GONFL A FROID	F : PSH-LPC 26.1 KPA 180 R : PSH-LPC 37.7 KPA 260
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THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE - CE VEHICULE EST CONFORME A TOUTES LES NORMES QUI LIUI SONT APPLICABLES EN VERTU DU REGLEMENT SUR LA SECURITE DES VEHICULES AUTOMOBILES DU CANADA EN VIGUEUR A LA DATE DE SA FABRICATION

LICENSE PLATE 4

⚠ WARNING !

Batteries contain sulphuric 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 or magnesium, beaten egg or vegetable 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 wet 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 electrical system.

LICENSE PLATE 7

⚠ WARNING !

- Wear a helmet, eyes 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 (M+R)2 METHOD 90
- See Owner's manual for the correct running in and maintenance of the vehicle.

LICENSE PLATE 9

MOTORCYCLE NOISE EMISSION CONTROL INFORMATION

THIS * _ _ VESMD30310 MOTORCYCLE, EM65 or ARW2 MEETS EPA NOISE EMISSION REQUIREMENTS OF 80 dBA AT 5500 RPM BY THE FEDERAL TEST PROCEDURE, MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW.

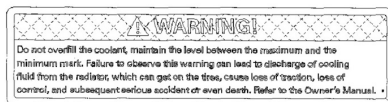
SEE OWNER'S MANUAL.

LICENSE PLATE 5

LICENSE PLATE 8

USA Version

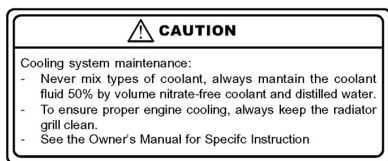
LICENSE PLATE 10



LICENSE PLATE 11



LICENSE PLATE 12



LICENSE PLATE 13

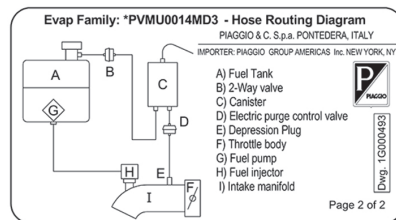


LICENSE PLATE 14

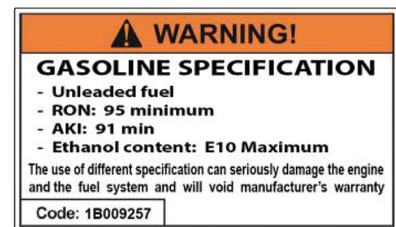
Only for Canada versions



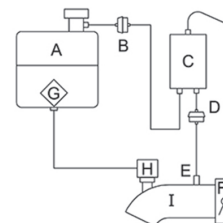
LICENSE PLATE 15



LICENSE PLATE 16



Evaporative emissions control system for California



Key:

- A. Fuel tank
- B. Two-way fuel vapour ventilation valve
- C. Canister
- D. One-way electronic fuel vapour purge control valve (controlled by ECU)
- E. Vacuum fitting
- F. Throttle body
- G. Fuel pump
- H. Injector
- I. Air induction fitting

California Emission Control System Warranty Statement - Warranty rights and obligations

Model Year 2026

The California Air Resources Board, Piaggio & C. S.p.A. (hereinafter referred to as "Piaggio & C. S.p.A."), and Piaggio Group Americas, Inc. (hereinafter referred to as "PGA"), are pleased to explain to you the warranty regarding the Motorcycle Emission Control System. In California, new motor vehicles must be designed, built, and equipped to meet the state's strict anti-smog standards.

Piaggio C. S.p.A. and Piaggio Group Americas, Inc. must guarantee the motorcycle's emission control system for the periods of time that will be listed below, provided that the motorcycle has not been damaged, neglected or improperly maintained.

The emission control system may include components such as the carburetor or fuel injection system, the ignition system, the catalytic converter, and the engine computer. Hoses, belts, connectors, and other assemblies that are related to emissions may also be part of it. If one of the conditions of the warranty is met, PGA will repair your motorcycle at no additional cost: diagnosis, spare parts, and labor are included.

Manufacturer's warranty coverage

- Class I motorcycles (50 to 169 cm³): for a period of use of five (5) years or 12,000 kilometers (7,456 miles), whichever occurs first.

- Class II motorcycles (from 170 to 279 cm³): for a period of use of five (5) years or 18,000 kilometers (11,185 miles), whichever occurs first.
- Class III motorcycles (280 cm³ and above): for a period of use of five (5) years or 30,000 kilometers (18,641 miles), whichever occurs first.

If an emission-related part of your motorcycle is found to be defective, it will be repaired or replaced by PGA. This is the emission control system DEFECT WARRANTY.

Vehicle owner's warranty responsibilities

- The motorcycle owner is responsible for carrying out the required maintenance activities listed in the owner's manual. PGA recommends keeping all receipts relating to the maintenance of the motorcycle but may not deny the enforceability of the warranty solely on the basis of the absence of such receipts, nor by invoking the failure to perform all scheduled maintenance work.
- For your part, you will need to take your motorcycle to a PGA dealer as soon as a problem arises. Warranty repairs must be completed within a reasonable time that must not exceed 30 days.
- As an Owner, you understand that PGA may deny warranty coverage

if the motorcycle or one of its components has become defective due to damage, negligent behavior, improper maintenance or unauthorized modifications.

- For any questions concerning warranty rights and responsibilities, please contact Piaggio Group Americas, Inc. at 860 Washington Street, 9th Floor, New York, NY 10014, (telephone: 212-380-4400; Toll-free 877-974-2444), or the California Air Resources Board, 4001 Iowa Ave., Riverside, CA 92507.

PIAGGIO GROUP AMERICAS, INC. - Emission Control System Limited Warranty

Piaggio & C. S.p.A. guarantees that each of its new motorcycles, which include a front light, a rear light and a brake light as standard equipment, comply with road traffic regulations:

A) are, in fact, designed, built and equipped to comply, at the time of original purchase, with all applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board; and

B) are free from defects in materials and workmanship that would otherwise cause the motorcycles to fail to comply with applicable regulations issued by the United States Environmental Protection Agency or the California Air Resources Board for a period of use of:

- 12,000 kilometers (7,456 miles), if the engine capacity of the motorcycle is 50 cubic centimeters or more, but less than 170 cubic centimeters, or 5 (five) years from the date of first delivery to the public, whichever occurs first.
- 18,000 kilometers (11,185 miles), if the engine capacity of the motorcycle is 170 cubic centimeters or more, but less than 280 cubic centimeters, or 5 (five) years from the date of first delivery to the public, whichever occurs first.
- 30,000 kilometers (18,641 miles), if the engine capacity of the motorbike is 280 cubic centimeters or more, or 5 (five) years from the date of first delivery to the public, whichever occurs first.

I - Coverage

Defects covered by this warranty must be remedied or repaired during normal business hours at any Authorized Piaggio Dealer or Service Center in 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 component or assembly of components replaced under this warranty will become the property of PGA.

Only in the State of California, emission-related covered components are explicitly defined by the State list of emissions-covered components and include: the carburetor and internal components; The

intake manifold; The fuel tank; The fuel injection system; The spark advance mechanism; The crankcase vent; The air shut-off valves; The fuel tank plug for vehicles with controlled evaporative emissions; The oil tank cap; The pressure control valve; The vapor/steam separator; The cylinder; The lighters; The switch regulators; The ignition coils; The ignition cables; The ignition points; The capacitors and spark plugs, if the fault occurs before the first scheduled replacement; and the pipes, clamps, couplings, and piping used directly within those components. Because emissions-related components vary from model to model, some may not have all of them, while others may contain components that are functionally equivalent. The vehicle manufacturer is liable for damage to other vehicle components directly caused by a malfunction of a covered part. Any modification to a properly functioning, factory-set component (e.g. an idle speed limiter) is eligible for warranty cover.

In the State of California only, emergency repairs to the emission control system, as required by the applicable State administrative code, may be performed at any available Dealer or Authorized Service Center or directly by the owner using any spare part. An emergency situation exists when a Piaggio & C. S.p.A. Dealer or Authorized Service Center is not reasonably available, a spare part is not available within 30 days, or repair has not been completed within 30 days. Any spare part can be

used to carry out an emergency repair. PGA will reimburse the owner for expenses incurred, including diagnosis, provided that they do not exceed the PGA suggested retail price for all parts replaced under warranty, the labor charges based on PGA recommended time to carry out the warranty repair, and the amount of hourly rates for the labor involved which must be considered appropriate based on the geographical location. In order to receive such compensation, the Owner may be required to keep the relevant receipts together with the defective components.

II - Limitations

The Warranty of Emissions Control System does not cover the following:

A. Repairs or replacements necessary as a result of:

1. accidents;
2. improper use;
3. repairs carried out incorrectly or replacements made improperly;
4. the use of spare parts or accessories that do not comply with PGA specifications and that affect or have adversely affected performance;
5. and/or use in competitive competitions or related events.

B. Inspections, replacement of components, and other services and adjustments required for maintenance.

C. Any motorcycle on which the odometer has been tampered with in such a way that the actual kilometers/mileage cannot be easily understood.

D. Any additional or modified component that is deemed exempt from the prohibitions of Section 27156 of the Vehicle Code by the Air Resources Board may be used on a vehicle or engine. Such use, in itself, will not constitute grounds for the rejection of a warranty application submitted in accordance with this Article. The vehicle or engine manufacturer, in accordance with this article, shall not be liable for malfunctions of the components covered by the warranty that result from the presence of additional or modified parts.

III - Limited liability

A. PGA's responsibility under this Emissions Control System warranty is limited solely to the repair of any defects in materials and manufacturing by a PGA Dealer or Authorised Service Centre at its premises during normal working hours. This warranty does not cover other types of inconvenience, loss of use of the motorcycle, or transportation of the motorcycle to or from the PGA dealer. The latter shall not be liable for the incurrence of any other expense, for the occurrence of any direct, incidental, consequential or exemplary loss or damage that may arise from the sale, use or inability to use the Piaggio motorcycle for any purpose.

Some States do not allow the exclusion or limitation of incidental or consequential damages; Therefore, these limitations may not be applicable.

B. PGA does not provide any explicit warranty on the emission control system, except as specifically indicated in this document. Any implied warranty under the law of the emission control system, including those of saleability or suitability for particular purposes, is limited to the express terms of the emission control system as specified in this warranty. The above warranty declarations are to be considered exclusive, and replace all other legal recourse. In some states, limitations on the duration of an implied warranty are not permitted; Therefore, those mentioned above may not be applicable.

C. No Dealer is authorised to modify this limited warranty on the emission control system.

IV - Legal rights

This guarantee grants you specific legal rights, but you may also benefit from other rights that vary from state to state.

V - This warranty is in addition to the Piaggio

Group Americas, Inc. limited warranty on motorcycles.

This warranty is in addition to the Piaggio Group Americas, Inc. limited warranty on motorcycles.

VI - Further information

For maintenance or repairs, any equivalent replacement part in terms of performance and durability can be used. However, PGA will not be liable in relation to these components. The Owner is responsible for carrying out all necessary and scheduled maintenance. Such maintenance activities may be performed at an Dealer or Authorised Service Centre or by any other person. The warranty period starts from the date of delivery of the motorcycle to the end purchaser.

If you have any questions concerning your warranty rights and responsibilities, you may contact Piaggio Group Americas, Inc. at the address and telephone number listed below, or U.S. Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105, or California Air Resources Board, 4001 Iowa Ave., Riverside, CA 92507.

PIAGGIO GROUP AMERICAS, INC.	PIAGGIO & C. S.p.A.
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1 General mandatory requirements

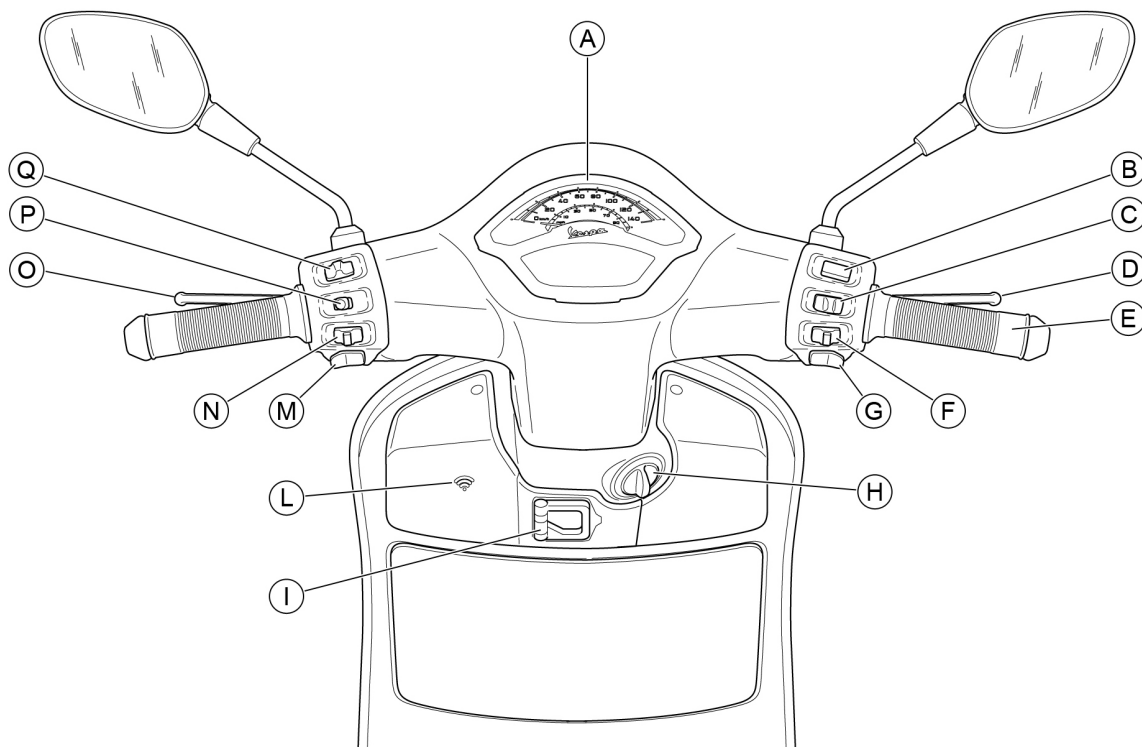
860 Washington Street, 9th Floor	Viale Rinaldo, Piaggio, 25
New York, NY 10014	56025 Pontedera (PI), Italy
Telephone: 212-380-4400	Telephone: 0039-0587-272111
Toll free number: 877-974-2444	Fax: 0039-0587-272040
Fax: 212-380-4459	

Vespa Gts 310 HPE



CHAPTER 02 Vehicle

Instrument cluster



Instrument cluster - Key

A = Instrument cluster

B = Saddle opening button

C = Emergency stop switch RUN-OFF

D = Front brake lever

E = Throttle grip

F = ASR system activation/deactivation button

G = Starter button

H = Starter switch

I = Bag hook

L = Passive recognition area (remote control, TAG with integrated transponder)

M = Horn button

N = Turn indicator switch

O = Rear brake lever

P = MODE Joystick

Q = Light switch

Instrument cluster (GTS)



Key Instrument cluster (GTS)

A = Speedometer (km/h)

B = Speedometer (mph)

C = Warning lights

D = Digital display

Instrument cluster (Super-SuperSport)



Key Instrument cluster (Super - SuperSport)

A = Speedometer (km/h)

B = Speedometer (mph)

C = Warning lights

D = Digital display

Warning light unit

The main warning lights on the instrument cluster are described below.

**Key:**

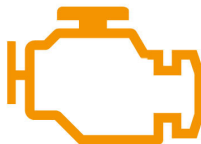
- A. Low fuel warning light, amber
- B. ABS warning light, amber
- C. Immobilizer warning light, red
- D. Insufficient engine oil pressure warning light, red
- E. Turn indicator warning light, green
- F. MIL warning light, amber
- G. High beam warning light, blue

Digital display

The digital display provides all the information necessary for safe riding and allows you to customize the vehicle parameters.

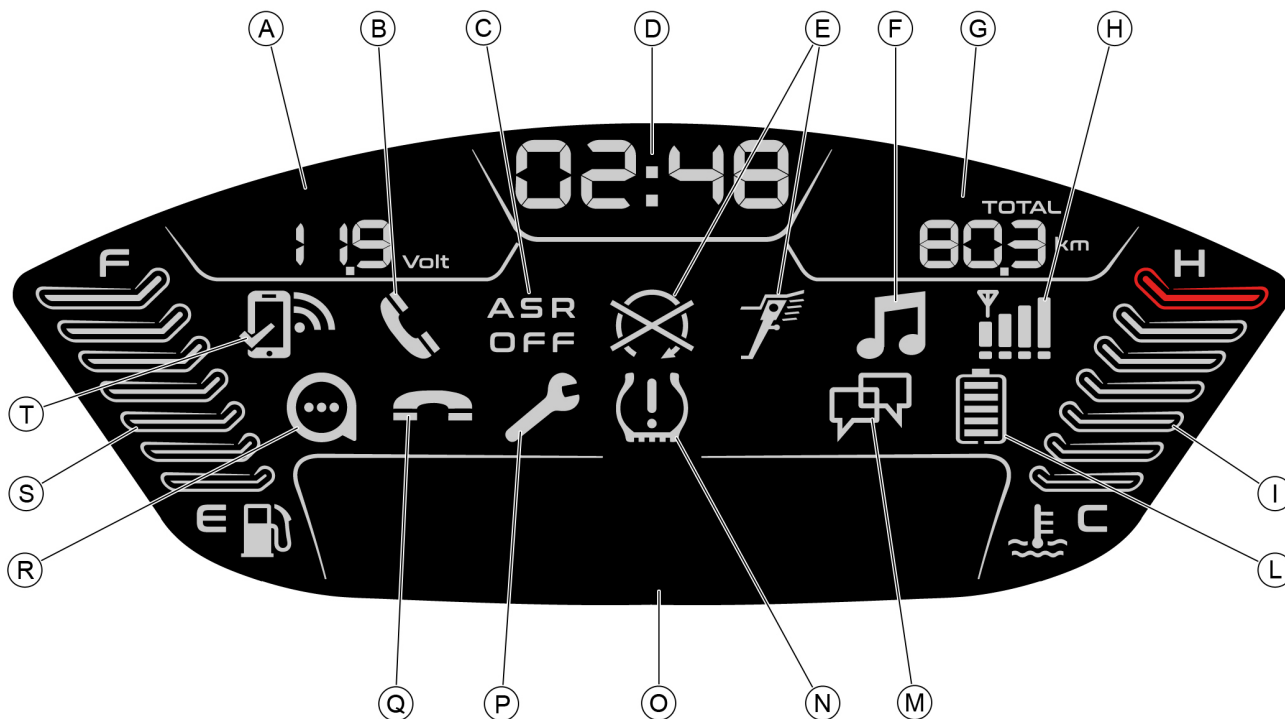
MIL - Injection system failure warning light

This warning light will light if a fault occurs in the engine electronic control system during vehicle operation.

**WARNING**

STEADY LIT MIL WARNING LIGHT: YOU CAN CONTINUE DRIVING, AVOIDING SEVERE ENGINE EFFORTS OR HIGH SPEED. CONTACT A DEALER OR AN AUTHORISED SERVICE CENTRE AS SOON AS POSSIBLE TO PERFORM THE APPROPRIATE CHECKS.

FLASHING MIL WARNING LIGHT: USING THE VEHICLE FOR A LONG TIME WITH THE MIL WARNING LIGHT FLASHING MAY DAMAGE THE CATALYST, THE ENGINE OR THE VEHICLE. CONTACT A DEALER OR AN AUTHORISED SERVICE CENTRE AS SOON AS POSSIBLE TO PERFORM THE APPROPRIATE CHECKS.



Digital display key

A = Multifunctional panel

B = Incoming call icon - Optional (*)

C = ASR warning light

D = Clock (24h format) / Trip time

E = Side stand icon - Start inhibited icon

F = Listening to music icon - Optional (*)

G = Total/partial odometer

H = GSM signal strength icon - Optional (*)

I = Coolant temperature gauge

L = Smartphone battery level icon - Optional (*)

M = SMS message on the smartphone icon - Optional (*)

N= Provision for tyres low pressure icon

O = Information panel

P = Icon for scheduled maintenance service to be carried out (Service warning light)

Q = Icon for missed call on smartphone - Optional (*)

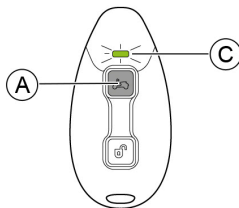
R = Icon for the connection between the PIAGGIO app on the smartphone and the VMP control unit on the vehicle - Optional (*)

S = Fuel gauge

T= Bluetooth connection with smartphone active icon - Optional (*)

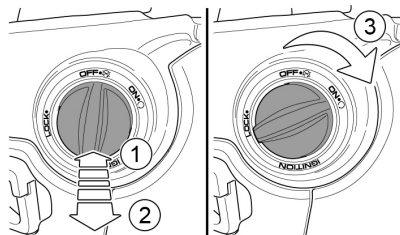
(*): **NOTE: The function with asterisk is only available with the presence of the PMP3 device (Piaggio Multimedia Platform) and may vary according to the version purchased.**

To switch on and view the digital display, enable the remote control (see paragraph "Remote control"), press button «**A**» and wait for the green LED «**C**» to flash.



Press and release the starter switch; the message "**Welcome**" is displayed.

Turn the switch to the «**ON**» position.



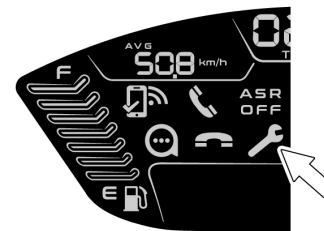
Icons

MAINTENANCE ICON (SERVICE WARNING LIGHT)

This function indicates the scheduled maintenance interventions. For each time the ignition key is turned to "ON", once the instrument panel has performed the initial check, if the value of the remaining kilometres until the next intervention is less than 300 Km (186.41 mi), the indicated icon will flash for 5 seconds.

Once the scheduled service mileage is reached, each time the key is turned to "ON", the icon remains solidly lit until the scheduled service is carried out.

To perform the maintenance operations, contact an **Authorised Service Centre**.



SIDE STAND ICON AND ENGINE START INHIBITED ICON

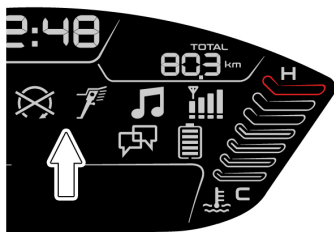
The side stand and engine start inhibited icons light when the side stand is down.

In this state, the engine start is inhibited. Opening the side stand with the engine started causes the engine to stop.

CAUTION



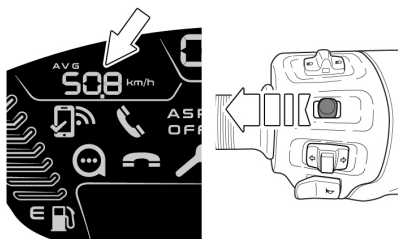
EXTENDING THE SIDE STAND WITH THE ENGINE OFF DISABLES ENGINE START, WHILE EXTENDING THE STAND WHILE THE ENGINE IS RUNNING CAUSES ENGINE SHUT-DOWN. TAMPERING WITH THIS SAFETY FUNCTION MAY CAUSE PERSONAL INJURY AND DAMAGE TO THE VEHICLE.



Multifunction panel

The multifunction panel cyclically displays the following information by **briefly pressing the MODE joystick to the left**:

1. Settings menu
2. Current consumption
3. average consumption
4. Range
5. Average speed
6. Maximum speed
7. Battery charge state



N.B.:



"PRESS BRIEFLY AND RELEASE":
PRESS THE BUTTON AND RELEASE
WITHIN 0.5 SECONDS;

"PRESS AND HOLD": PRESS AND
HOLD THE BUTTON FOR AT LEAST 2
SECONDS

CAUTION

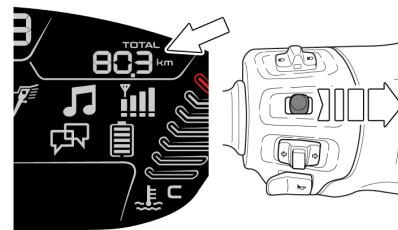


**FOR THE RIDER AND PASSENGER
SAFETY, THE "SETTINGS" FUNCTION
IS ONLY ACCESSIBLE WHEN THE
VEHICLE IS STATIONARY.**

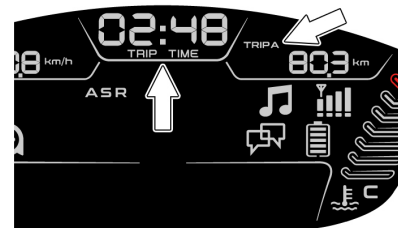
TOTAL/PARTIAL ODOMETER

By **briefly pressing the MODE joystick to the right**, the following information is displayed:

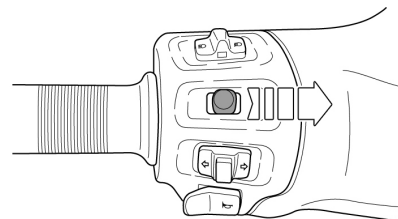
1. Trip A (partial odometer A)
2. Trip B (partial odometer B)
3. TOTAL (total odometer)



While the **"TRIP A"** or **"TRIP B"** functions are displayed, the respective trip times are displayed in the appropriate **"TRIP TIME"** box.



The **"TRIP A"** and **"TRIP B"** functions are reset by a **long press** of the **MODE joystick to the right**.



When one of the two functions is reset, the respective values are reset:

- average consumption
- Average speed
- Maximum speed

SETTINGS MENU

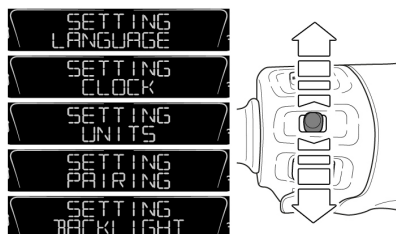
With the vehicle stationary, by **briefly pressing the joystick to the left**, display the "SETTINGS MENU" function in the information panel.



With a **long press** of the **joystick downward** it is possible to enter the menu.

Briefly press the joystick up or down to highlight the desired function, with a **short press on the central button** of the joystick, you can select:

- LANGUAGE
- CLOCK
- UNITS
- PAIRING
- BACKLIGHT

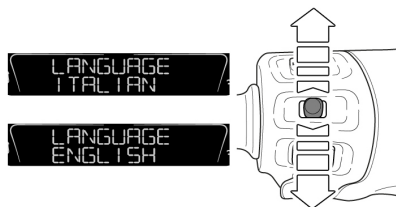


LANGUAGE SETTING

Briefly press the joystick up or down to highlight the desired function, with a **short press on the central button** of the joystick, you can select:

ITALIAN

- ENGLISH



Once the choice has been confirmed, the display will show the next CLOCK submenu.

If a selection is not made within 5 seconds, the display will switch to the selection of the LANGUAGE submenu.

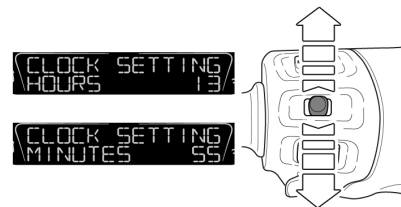
CLOCK SETTING (CLOCK)

The clock is automatically adjusted when you connect the «Vespa MIA» device.

To adjust the clock manually proceed as follows:

Briefly press the joystick up or down to adjust the desired hours and minutes; with a **long press** of the **joystick** the figures will change continuously.

Confirm by **briefly pressing the joystick** in the centre.



Once the choice has been confirmed, the display will show the next UNITS submenu.

If a selection is not made within 5 seconds, the display will switch to the selection of the CLOCK submenu.

CAUTION



FOR THE RIDER AND PASSENGER SAFETY, THE CLOCK SETTING

FUNCTION IS ONLY ACCESSIBLE WHEN THE VEHICLE IS STATIONARY.

UNITS SETTING

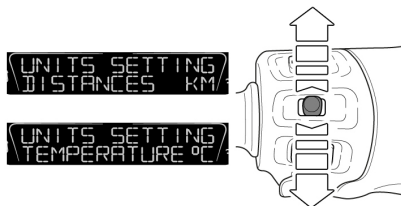
Briefly press the joystick up or down to highlight the desired function; by briefly pressing the joystick in the centre, it is possible to select:

- DISTANCES

- TEMPERATURE

In the **DISTANCES** menu, it is possible to choose the desired format between "**KM**" or "**MI**" by briefly pressing the joystick in the centre; if the "**MI**" format is selected, a sub-menu will open to choose the "**USA**" or "**UK**" standard for **GALLONS**.

In the **TEMPERATURE** menu, it is possible to choose the desired format between "**°C**" or "**°F**" by briefly pressing the joystick in the centre.



Once the choice has been confirmed, the display will show the next **PAIRING** submenu.

If a selection is not made within 5 seconds, the display will switch to the selection of the **UNITS** submenu.

VMP MULTIMEDIA SYSTEM - VESPA MIA

The "**Vespa Mia**" system is optional and can be purchased separately in the **GTS** and **SUPER** versions, while it is standard in the **SUPERSPORT** version.

Download and install on your smartphone the specific "**Vespa**" app from Play Store or Apple Store.



PAIRING CONFIG. MENU (PAIRING CONFIGURATION)

The "**Vespa Mia**" system is optional and can be purchased separately in the **GTS** and **SUPER** versions, while it is standard in the **SUPERSPORT** version.

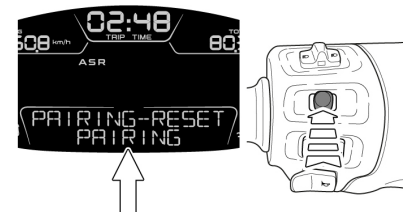
The vehicle is equipped with the "**Vespa MIA**" control unit in the **SUPERSPORT** version that communicates with the smartphone via Bluetooth. Using the specific "**Vespa**" application installed on the smartphone, it is possible to exchange data

with the vehicle and manage multimedia contents. Once a connection is established correctly between the control unit and the smartphone, the following functions can be directly managed by the digital display of the vehicle:

- call management;
- manage audio playback;
- SMS notifications management.



Enter the "**PAIRING**" menu and, by briefly pressing the joystick in the centre, select "**PAIRING**".



The message confirming that pairing with the smartphone is enabled appears on the digital display.

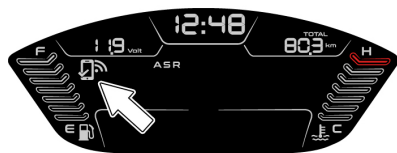
Enable the bluetooth search on your smartphone, select the «**PMP3: XXXX**» device and click on pair.

The "**PMP3-xxxx**" device will be visible in the list of associated devices on the smartphone. Wait for the digital display to automatically connect the smartphone.

Do NOT force the connection from the telephone.

The smartphone icon on the display indicates active communication.

When requested, allow phone book and notifications sharing. These authorizations are required to display the caller's name and the SMS reception notification on the display



N.B.:



UPON THE FIRST PAIRING BETWEEN THE DISPLAY AND SMARTPHONE, MORE TIME MAY BE REQUIRED

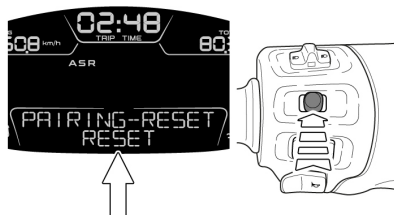
FOR THE SYNCHRONIZATION OF THE PHONE BOOK.

THE CONNECTION BETWEEN THE SMARTPHONE AND VEHICLE WILL BE SIGNALLLED BY THE LIGHTING OF THE SMARTPHONE ICON ON THE DISPLAY.

FOLLOWING THE PAIRING OF THE PHONE ONLY, THE SYSTEM WILL STILL NOT BE ABLE TO MANAGE THE MULTIMEDIA FUNCTIONS SINCE IT IS ESSENTIAL TO CONNECT THE APPLICATION IN ADVANCE AS INDICATED IN THE DEDICATED PARAGRAPH.

If the association between the smartphone and the vehicle is not successful, proceed as follows: restart the smartphone; turn the ignition switch to "**OFF**" and then to "**ON**".

If the smartphone icon on the display has not lit after about 1 minute, select the "**RESET**" function and **briefly press the central button of the joystick.**



Repeat the smartphone pairing procedure.

All stored Bluetooth devices are deleted from the "**Vespa MIA**" system.

N.B.:



PLEASE NOTE THAT TO CONNECT THE APP TO THE VEHICLE AGAIN, THE FOLLOWING WILL BE NECESSARY:

- ON iOS, DELETE THE PREVIOUSLY INSTALLED APP AND REINSTALL IT.
- ON ANDROID IT WILL NECESSARY AND SUFFICIENT TO DELETE THE APPLICATION DATA FROM THE APP MANAGEMENT MENU (THIS WILL RESET THE APPLICATION TO DEFAULT SETTINGS AND IT WILL BE NECESSARY TO PERFORM THE LOGIN AND THE FIRST CONNECTION TO THE VEHICLE AGAIN).
- IN CASE OF CONNECTION TO A NEW VEHICLE, IT IS NECESSARY TO REMOVE THE PREVIOUS PMP3-XXXX FROM THE ASSOCIATED DEVICES.

N.B.:



IT IS RECOMMENDED TO ASSOCIATE A MAXIMUM OF 2 SMARTPHONES TO THE SAME VEHICLE, TO OPTIMIZE THE SYSTEM OPERATION.

IF TWO SMARTPHONES ARE PAIRED, THE CONNECTION OF THE FIRST SMARTPHONE PAIRED WITH THE "PMP3" COULD REQUIRE MORE THAN 30 SECONDS.

ONCE THE SMARTPHONE IS CONNECTED TO THE "PMP3", THE OPERATING SYSTEM REQUIRES ACCESS TO THE PHONE BOOK AND NOTIFICATIONS; ACCEPT TO BE ABLE TO VIEW THE NAME OF THE CALLERS AND THE SMS RECEIPT NOTIFICATIONS ON THE DISPLAY.

CONNECTION BETWEEN THE APPLICATION AND THE DIGITAL DISPLAY

Search for the "Vespa" application in Play Store or App Store and install it. Register your account by following the instructions. Select **"allow"** for the location and notification requests.

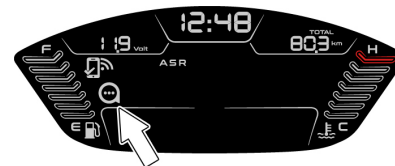


Open the "Vespa" application on the smartphone and access your account. On the application's main page select **"Connect"**. Select your vehicle model, press the connect button and wait for the device to be detected by the system.

If the device cannot be found, check that the location services are active and, on the Android devices, check in the Bluetooth settings that no **"PMP3: XXXX"** device is associated with a symbol other than that of the headset.

If there are several **PMP3** devices near the phone, a list will be presented; select the one with the same name previously connected to the phone.

The digital display will show the icon of the "Vespa" App, confirming the successful activation of the communication between the App and Vespa.



2 Vehicle

Required operation for iOS 10.0 versions or higher

On iOS devices, in order to ensure the transmission of the audio on any Bluetooth headset connected to the phone, it is necessary to:

- Enter the menu: "Settings" > "Accessibility" > "Touch" > "Call routing";
- select "Bluetooth headset".

For specific information about the pairing of the "Vespa MIA" system and for any differences in the procedure depending on the type of smartphone used, please refer to the user manual included in the "Vespa" app.

Please note that the installation and connection of the app are ESSENTIAL for using the system.

The app manual with specific information for using the system is available by visiting the site

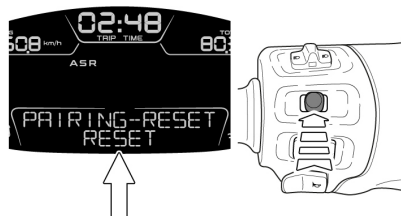
<http://app.vespa.com/>

However, please note that the connection of the application is strictly

necessary for the use of the system and that the management of multimedia functions will be enabled only through the App itself.

Following a successful connection, the App will try to connect to the vehicle again even when in background. In the event that this does not happen (always possible due to restrictions of the operating system after a period of inactivity or following the deactivation of its Bluetooth module), or in any case following each complete closure of the App, it is possible to force the connection process via pressing the dedicated button on the main page of the application.

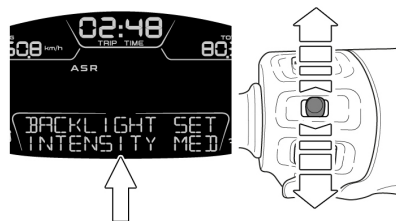
Should it be necessary to unpair the smartphone, select the "**RESET**" function and **briefly press** the **central button** of the **joystick**.



BACKLIGHT SETTING

Enter the "**BACKLIGHT**" menu and, by **briefly pressing** the **joystick up** or **down**, it is possible to select three levels:

- MIN
- MED
- MAX



Confirm the selection by **briefly pressing** the **joystick** in the centre.

If a selection is not made within 5 seconds, the display will switch to the selection of the LANGUAGE submenu.

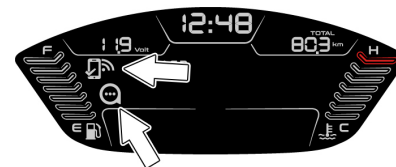
CALLS AND MUSIC MANAGEMENT

Pair the smartphone with the "**Vespa MIA**" system via bluetooth, as previously described.

Install the «Vespa» App on your smartphone and access your account.

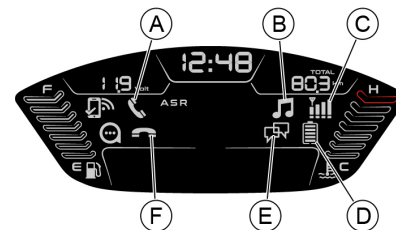
Allow sharing of contacts and notifications during bluetooth pairing of the smartphone to the system.

The corresponding two icons will appear on the digital display (**VESPA MIA - Smartphone**).



The following icons appear on the digital display:

- A** = Incoming call on smartphone
- B** = Listen to music icon
- C** = GSM signal strength icon
- D** = Smartphone battery level icon
- E** = Icon for SMS message on smartphone
- F** = Icon for missed call on smartphone

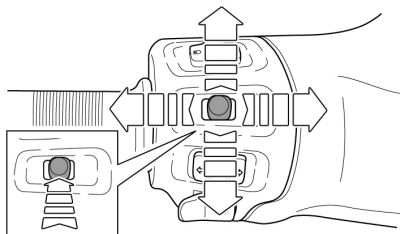


MODE button

The **MODE joystick** allows the cyclic display of the information shown on the multifunction panel and on the total/partial

odometer panel of the digital display. It also allows to browse the «**SETTINGS MENU**» and set the various parameters.

This is possible **by pressing or moving the joystick** in the various directions with **short or long presses**.



N.B.:

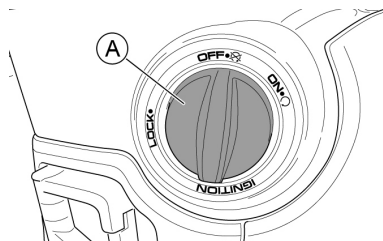


**"PRESS BRIEFLY AND RELEASE":
PRESS THE BUTTON AND RELEASE
WITHIN 0.5 SECONDS;**

**"PRESS AND HOLD": PRESS AND
HOLD THE BUTTON FOR AT LEAST 2
SECONDS**

Start-up switch

The starter switch "A" is situated on the front leg shield back plate near the bag hook.



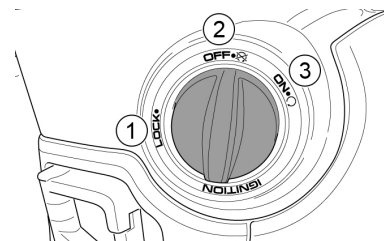
Before using it, the starter switch must be enabled following the procedure described in the section "Remote control".

SWITCH POSITIONS

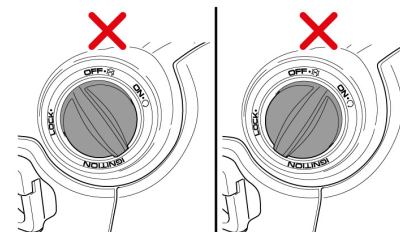
LOCK «1»: Ignition disabled, steering lock engaged. Saddle and case opening disabled. If the remote control is recognized, saddle opening is active.

OFF «2»: Ignition disabled, steering lock disengaged. Saddle and case opening disabled. If the remote control is recognized, saddle opening is active.

ON «3»: Ready to start position, steering lock disengaged. Saddle and case opening possible.



Operating the switch, make sure to turn it correctly to the "LOCK" and "OFF" positions: the knob must be released at the end of the stroke in "LOCK" position or must be perfectly aligned to the "OFF" position.



WARNING

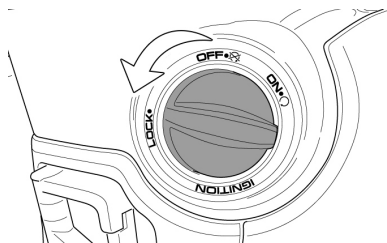


IF THE KNOB OF THE SWITCH IS RELEASED IN AN INTERMEDIATE POSITION, THE RETAINING MECHANISM THAT PREVENTS THE UNAUTHORISED ROTOR ROTATION WILL NOT WORK.

THEREFORE, AN UNAUTHORISED PERSON COULD TURN THE SWITCH AND EXIT THE ENGAGED STEERING LOCK POSITION (IF THE KNOB WAS SET TO THE "LOCK" AND "OFF" POSITION), OR TURN THE KNOB TO "ON" (IF THE KNOB WAS SET TO THE "OFF" AND "ON" POSITION), HAVING THE POSSIBILITY TO OPEN THE FRONT TOP CASE.

Engaging the steering lock

Turn the handlebar to the left up to the stop and turn the ignition switch to the "LOCK" position.



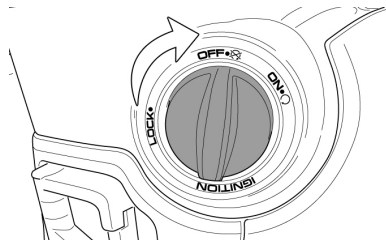
CAUTION



DO NOT TURN THE SWITCH TO THE "LOCK" OR "OFF" POSITION WHILE RUNNING.

Disengaging the steering lock

Turn the starter switch to the "OFF" position.



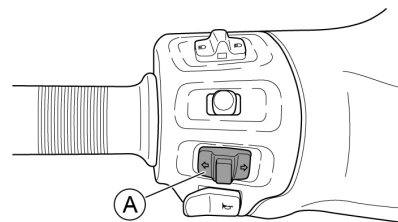
CAUTION



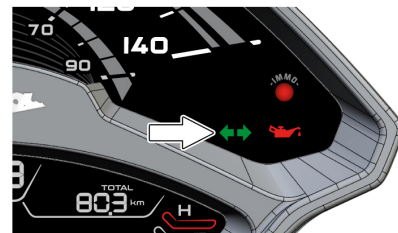
DO NOT TURN THE SWITCH TO THE "LOCK" OR "OFF" POSITION WHILE RUNNING.

Turn indicator switch

Move the switch «A» towards the left to indicate a left turn; move the switch «A» towards the right to indicate a right turn;. Push in the switch «A» in the centre to deactivate the turn signal indicators.

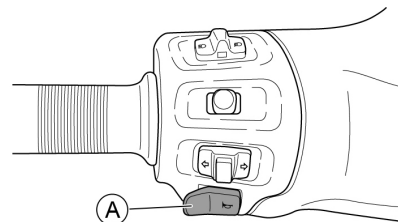


With the left or right turn indicators activated, the appropriate indicator lamp on the instrument cluster will flash.



Horn button

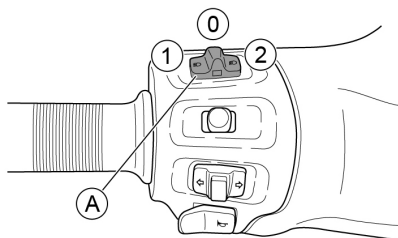
Press button «A» to operate the horn.



Light switch

If the light switch «A» is set to «0», the low beam light is automatically activated based on the ambient brightness.

If the light switch «A» is set to «1», the high beam light is activated; moving it in position «2» the flashing of the high beam is activated.



WARNING



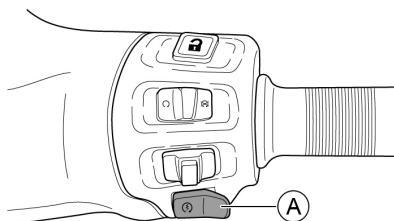
DO NOT PLACE, TRANSPORT OBJECTS AND/OR CLOTHING ON THE LIGHT CLUSTERS OR TURN INDICATORS SO AS NOT TO COVER THE LIGHT BEAM OR TO AVOID DAMAGE TO THE VEHICLE.

With the high beam lights on, the corresponding indicator lamp will light up on the instrument cluster.



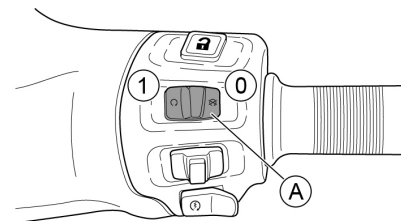
Starter button

Starter button «A». To start the vehicle see the "starting the engine" section.

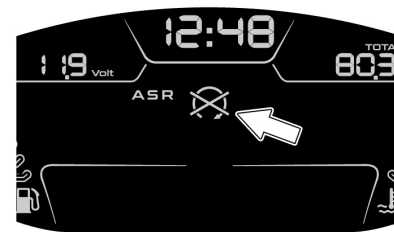


Engine stop switch

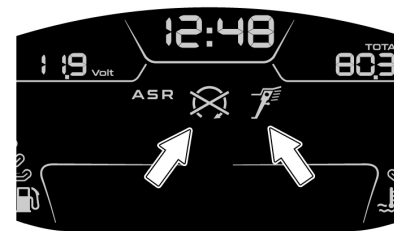
With the emergency stop switch «A» in position «1» RUN it is possible to start the engine; if the emergency stop switch «A» is in position «0» OFF it is not possible to start the engine, and if it is running, it will stop.



If starting is inhibited, the relative indicator light will also light up on the instrument panel.

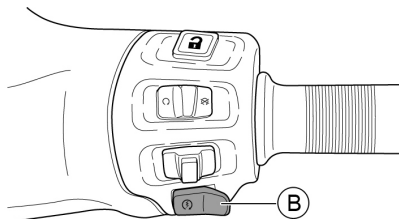


Opening the side stand or setting the emergency stop switch to the OFF position causes the engine to stop and the engine start inhibited warning light to come on.



To start the vehicle again and switch off the warning light, the emergency stop switch must be returned to the RUN position or the side stand must be raised **within 10 seconds**.

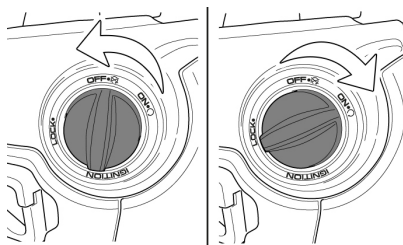
Press the starter switch "B" to start the engine.



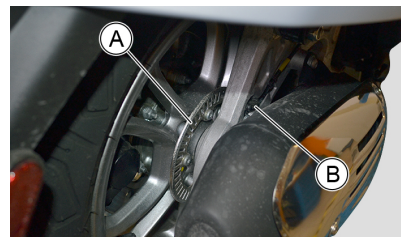
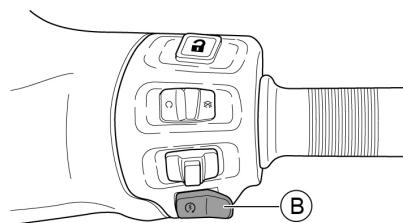
If the emergency stop switch is returned to the RUN position or the side stand is raised **AFTER 10 seconds**, the engine start inhibited warning light starts flashing, indicating that the engine cannot be started.



To enable the vehicle start again, turn the start switch to the OFF position and then to the ON position.



Press the starter switch "B" to start the engine.



- **ABS:** It is a hydraulic - electronic device that limits the pressure within the braking circuit when a sensor, located on the wheel, detects its tendency to lock. This system prevents the wheels from locking to avoid the risk of falling.

In case of failure of the ABS system, immediately reported to the rider with ABS warning light on the instrument cluster, the vehicle retains the characteristics of a conventional braking system. In case of ABS warning light, reduce speed and go to an Authorised Service Centre for the appropriate checks. The safety provided by the ABS does not, in any case, justify risky manoeuvres. The stopping distance may be greater, compared to a conventional

ABS system

The vehicle is equipped with a locking ABS system on the wheels.

A: Tone wheel

B: Speed sensor

vehicle equipped with traditional braking in the following conditions:

- Riding on rough roads, with gravel or snow
- Riding on roads with holes or bumps

It is therefore recommended to reduce speed in these conditions.

CAUTION



AT VERY LOW SPEEDS (LESS THAN 5 km/h) THE ABS SYSTEM IS DISABLED.

IT IS THEREFORE RECOMMENDED TO PAY ATTENTION IN CASES OF BRAKING IN LOW GRIP CONDITIONS AT LOW SPEED (FOR EXAMPLE BRAKING ON GARAGE FLOOR TILES AFTER HAVING RIDDEN ON WET ROADS OR SIMILAR SITUATIONS).

WARNING



IF THE WARNING LIGHT IS FLASHING, THE ABS SYSTEM IS NOT ACTIVE.

Each time the starter switch is turned to the "ON" position, the ABS control unit checks the system, which is indicated by the

flashing ABS warning light. This phase ends when exceeding 5 Km/h of speed with the switching off of the warning light.

In case of error of the system, the ABS warning light remains fixed. The braking system keeps the characteristics of a traditional system.



In this case, reduce speed and go to an **Authorised Service Centre** for the appropriate checks.

WARNING



IF THE WARNING LIGHT IS FLASHING, THE ABS SYSTEM IS NOT ACTIVE.

ASR System

The ASR system is a driving aid that assists the driver in acceleration manoeuvres, particularly on low-grip surfaces or under conditions that can cause sudden back-

wheel slippage. The ASR in these situations automatically intervenes by reducing engine output within the limit imposed by the grip conditions, contributing significantly to the maintenance of stability the vehicle.

WARNING



THE ASR SYSTEM IS BASED ON THE RECOGNITION OF SPEED DIFFERENCES BETWEEN FRONT AND REAR WHEEL. IN ORDER FOR THE SYSTEM TO MAINTAIN MAXIMUM EFFICIENCY IN ALL CONDITIONS, THE CALIBRATION PROCEDURE MUST BE PERFORMED EVERY TIME, EVEN IN CASE OF REPLACEMENT OF JUST ONE TYRE.

FOR THE CALIBRATION OF THE ASR SYSTEM PERFORM THE PROCEDURE BELOW.

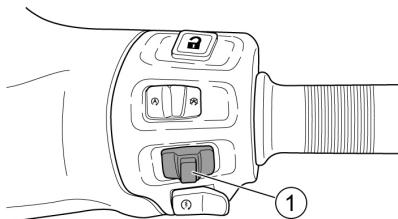
WARNING



THE ASR SYSTEM PREVENTS THE APPLICATION OF HIGH SPEED ROTATION ON THE REAR WHEEL WITH THE VEHICLE ON THE CENTRE STAND.

IT IS RECOMMENDED TO NOT INSIST WITH THE THROTTLE GRIP IN THIS SPECIFIC SITUATION, BECAUSE THIS MAY CAUSE ABNORMAL STOPS AND/OR DAMAGE TO THE CATALYSTS.

ASR BUTTON 1: activation / deactivation.



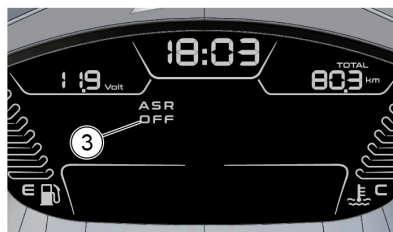
ASR "2" system activation icon

System active and calibrated: icon flashes with each rotation of the ignition switch to the «ON» position, then goes off with the engine running.



ASR "3" system deactivation icon

Icon "ASR OFF": on steady with engine started, ASR system not working or not calibrated or voluntarily deactivated.



ASR ICON FLASHING MODE:

- Frequency of 5 flashes per second (5Hz), with vehicle running: The system is functioning correctly and is active (poor grip conditions, engine power limiting in effect); ride with extreme care, as the grip limit has been exceeded; restore the vehicle safety conditions by gently reducing the throttle opening.

- Frequency of 1 flash per second (1 Hz), with the ignition switch in the "ON" position and the vehicle at a standstill: The system is active and the calibration is performed. The corresponding icon will switch off as soon as the ABS system becomes operational.

- Frequency of 1 flash every 2 seconds (0.5 Hz), with the ignition switch in the "ON" position and the vehicle at a standstill: the system calibration is in progress.

- Switched on steady can have three meanings:

1. calibration procedure performed incorrectly. Perform a new calibration;
 2. the ASR system is not operating and will not intervene in case of loss of grip;
 3. the ASR system has been willingly disabled.
- If deactivation was voluntary (pressing the appropriate button «1» for 1 second with the engine running) it is recommended to activate the system as soon as possible.
 - If the system was NOT deactivated voluntarily, this indicates a failure of the ASR system: in this case you must contact a **Dealership** or an **Authorised Service Centre** for the diagnosis and the reactivation of the system.

To ensure maximum safety of the vehicle it is advisable to keep the system active. Deactivation may be necessary only in case of starting with very low grip surfaces (mud, snow) on which the operation of the ASR could actually prevent the movement of the vehicle.

N.B.:



WITH THE ROTATION OF THE IGNITION SWITCH TO POSITION "ON", THE ASR ICON FLASHES AT THE SAME FREQUENCY AS THE ABS INDICATOR LIGHT TO INDICATE THAT SYSTEM DIAGNOSIS IS IN

PROGRESS. IF NO ERRORS ARE FOUND, THE ASR ICON AND THE ABS INDICATOR LAMP EXTINGUISH SIMULTANEOUSLY ONCE VEHICLE SPEED EXCEEDS 5 km/h.

IF THERE IS NO FLASHING UPON START-UP, THE SYSTEM MAY NOT BE OPERATIONAL. PLEASE CONTACT A DEALER OR AN AUTHORISED SERVICE CENTRE.

WARNING



THE ASR SYSTEM IS ACTIVATED EVERY TIME, THE STARTER SWITCH IS TURNED TO THE "ON" POSITION.

IF DISABLED BY THE USER, THE ASR SYSTEM KEEPS THE STATE OF INACTIVITY ONLY IF THE VEHICLE IS OFF, BY USING THE ENGINE STOP SWITCH; THE ASR SYSTEM IS AUTOMATICALLY ENABLED THE NEXT TIME THE IGNITION SWITCH IS TURNED TO THE "ON" POSITION.

CAUTION



IT IS EMPHASISED THAT THE RIDING AUXILIARY SYSTEM CANNOT CHANGE THE PHYSICAL LIMITS OF GRIP AND IS NOT A SUBSTITUTE FOR PROPER MANAGEMENT OF POWER, BOTH ON STRAIGHT STRETCHES AND IN TURNS. THEREFORE, IT IS RECOMMENDED TO ALWAYS USE THE VEHICLE WITH THE UTMOST CARE AND IN ACCORDANCE WITH THE REGULATIONS IN FORCE.

CAUTION



AT LOW SPEED (LESS THAN 5 km/h), THE ASR SYSTEM DOES NOT WORK.

IT IS RECOMMENDED TO PAY PARTICULAR ATTENTION IN THE EVENT OF ACCELERATION FROM STANDSTILL IN CONDITIONS OF LOW GRIP, ESPECIALLY IN THE FIRST METRES.

N.B.:



IN CASE OF ROADS FULL OF HOLES BRIEF ACTIVATION OF THE ASR SYSTEM MAY OCCUR. SUCH EVENT APPEARS UNDER NORMAL

OPERATION CONDITIONS OF THE VEHICLE.

WARNING



THE ASR SYSTEM PREVENTS THE APPLICATION OF HIGH SPEED ROTATION ON THE REAR WHEEL WITH THE VEHICLE ON THE CENTRE STAND.

IT IS RECOMMENDED TO NOT INSIST WITH THE THROTTLE GRIP IN THIS SPECIFIC SITUATION, BECAUSE THIS MAY CAUSE ABNORMAL STOPS AND/OR DAMAGE TO THE CATALYSTS.

WARNING



A POOR STATE OF MAINTENANCE OF THE TYRES CAN RESULT IN ABNORMAL OPERATION OF THE ASR SYSTEM.

IF THE ASR SYSTEM IS TRIGGERED REPEATEDLY EVEN IN ADEQUATE GRIP CONDITIONS AND AT SMALL THROTTLE APERTURES, CHECK THE STATE OF WEAR AND INFLATION PRESSURE OF THE TYRES. IF THE

PROBLEM PERSISTS, CONTACT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

CAUTION



IN THE EVENT OF MALFUNCTION OF THE BATTERY, THE ABS - ASR SYSTEM TURNS OFF.

ASR SYSTEM CALIBRATION PROCEDURE

In order to maintain the efficiency of the ASR system when one or both tires are replaced, a calibration procedure of the system must be performed as follows on a straight flat stretch of road.

After turning the ignition switch to the 'ON' position, the ABS indicator light and the ASR icon "2" flash at the same frequency (fast flashing).

1. Start the vehicle and ride a short distance of more than 5 km/h and wait for the flashing of the ASR warning light and of the ABS icon to stop.
2. Stop the vehicle and leave the engine running at idle speed for at least 3 seconds.
3. Turn the ASR system off by pressing the button "1" on the handlebar and check that the ASR disabling icon "2" stays on steady.
4. Press at the same time the engine starter button and the ASR on/off button "1" for at least 4 seconds (**pulling the LH brake lever has no effect**).
5. - The activation process will be confirmed by the ASR icon "2" switching

on with slow flashing (1 flash every 2 seconds).

6. Accelerate to a constant speed of 30 km/h and maintain it for at least 10 seconds.
7. The end of the procedure will be indicated by the turning off of the ASR icon "2".
8. Once the procedure is completed, turn the ignition switch to "OFF" wait at least 30 seconds before turning it to "ON" again.
9. If the procedure is not completed within 2 minutes, the ASR icon "2" will remain on continuously and the ASR will remain off until the next time the ignition switch is turned to the "OFF" position.
10. To reactivate the ASR it will be necessary to rotate the ignition switch to the "ON" position, and repeat the procedure until successful.

ASR INDICATOR LIGHT OPERATING MODE

ASR SYSTEM STATUS	ASR INDICATOR LIGHT WITH ENGINE OFF OR IGNITION SWITCH IN THE "ON" POSITION	ASR INDICATOR LIGHT WITH THE ENGINE SWITCHED ON AND THE VEHICLE RUNNING	ASR RUNNING WHILE DRIVING (LOW GRIP CONDITIONS)
ASR ACTIVE and calibrated	"ASR" icon: 1 Hz slow flashing	"ASR" icon: Off	"ASR" icon: 10 Hz fast flashing
ASR ACTIVE not calibrated	-	"ASR" icon: on steady	"ASR" icon: 10 Hz fast flashing
ASR voluntarily deactivated	"ASR" icon: on steady	"ASR" icon: on steady	-
ASR system not working (fault)	"ASR" icon: on steady	"ASR" icon: on steady	-

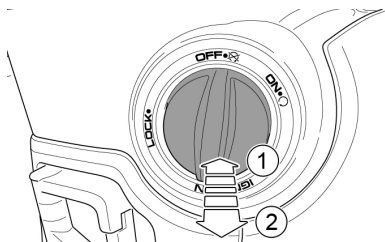
ASR SYSTEM STATUS	ASR INDICATOR LIGHT WITH ENGINE OFF OR IGNITION SWITCH IN THE "ON" POSITION	ASR INDICATOR LIGHT WITH THE ENGINE SWITCHED ON AND THE VEHICLE RUNNING	ASR RUNNING WHILE DRIVING (LOW GRIP CONDITIONS)
ASR programming phase (successful)	-	"ASR" icon: 1 Hz slow flashing; at the next engine start, the icon is off if the programming failed.	-
ASR programming phase (failed)	-	"ASR" icon: switched on steady at the next engine start if the programming has failed.	-

The Immobilizer system

In order to enhance theft protection, the vehicle is equipped with a **"PIAGGIO IMMOBILIZER"** electronic engine locking device.

By pressing and releasing the starter switch, the **"PIAGGIO IMMOBILIZER"** system will check the remote control.

Only if the protection system recognizes the remote control will it be possible to turn the starter switch to **"ON"** to start the engine.



Immobilizer system insertion LED signal

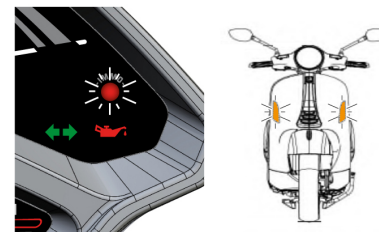
The operation of the **"PIAGGIO IMMOBILIZER"** system is indicated by the flashing of the specific indicator light.

After authentication and engine start-up, after about 50 meters running, the presence of the remote control is checked; if the user no longer carries the remote control, this will be indicated by flashing of the IMMOBILIZER light on the instrument cluster.



However, this does not affect the operation of the vehicle.

Then, once the vehicle is stopped, by turning the starter switch to **"OFF"** position, the IMMOBILIZER indicator light and the turn indicators will flash for 20 seconds indicating that the remote control is lost.



CAUTION

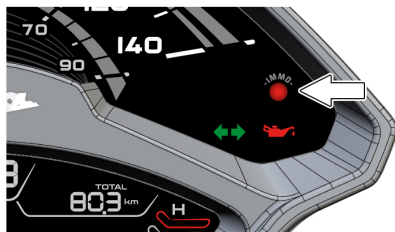


WHEN THE IMMOBILIZER INDICATOR LIGHT AND THE TURN INDICATORS FLASH, IT WILL BE POSSIBLE TO TURN THE STARTER SWITCH AGAIN TO "ON" FOR THE LAST TIME.

FOR FURTHER START-UPS, IT WILL BE NECESSARY TO RETRIEVE THE REMOTE CONTROL.

To avoid battery discharge, the signalling led turns off automatically after approximately 9 days of continuous operation.

If there is a fault in the system, the indication led tells the **Dealership** or the **Authorised Service Centre** what the type of fault is through the type of flashing emitted.



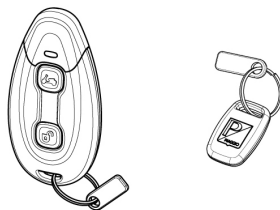
Remote control

The vehicle is equipped with a remote control for using the "Piaggio Keyless" system, which allows to enable the starter switch without having to insert a mechanical key into the appropriate key cylinder.

The system performs an authentication between the vehicle and the remote control to verify that it is a correctly registered electronic key.

The remote control is supplied together with a TAG with integrated transponder.

The «TAG» is supplied in a single copy and is used for memorizing other remote controls.



To duplicate another remote control, contact a **Dealership** or an **Authorised Service Centre**, bringing the "TAG" and all remote controls owned by you.

The following functions are available from the remote control:

- vehicle recognition by flashing the turn indicators (Bike Finder);
- saddle opening.

WARNING



CAREFULLY STORE THE TAG WITH INTEGRATED TRANSPONDER.

LOSING IT MEANS HAVING TO REPLACE ALL COMPONENTS OF THE "PIAGGIO KEYLESS" SYSTEM.

WARNING



THE "PIAGGIO KEYLESS" SYSTEM USES RADIO WAVES. THEREFORE THE RANGE OF OPERATION MAY VARY OR IT MAY NOT FUNCTION PROPERLY UNDER THE FOLLOWING CONDITIONS:

- **WHEN THE REMOTE CONTROL BATTERY IS LOW;**
- **NEAR STRUCTURES THAT GENERATE NOISE OR INTENSE RADIO WAVES SUCH AS TV ANTENNAS, POWER PLANTS, RADIO STATIONS OR AIRPORTS;**
- **WHEN THE REMOTE CONTROL IS NEAR A NOTEBOOK/PC OR OTHER WIRELESS COMMUNICATION DEVICES, SUCH AS A RADIO OR MOBILE PHONE;**
- **WHEN THE REMOTE CONTROL COMES IN CONTACT OR IS COVERED BY METALLIC OBJECTS.**
- **WHEN THE REMOTE CONTROL IS NEAR THE ENGINE, DUE TO**

THE ELECTROMAGNETIC WAVES GENERATED BY THE IGNITION SYSTEM.

- WHEN ELECTRICAL/ELECTRONIC ACCESSORIES NOT AUTHORISED/SUPPLIED BY PIAGGIO ARE USED ON THE VEHICLE (E.G.: HEATED GLOVES).

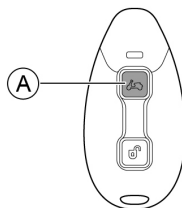
N.B.:



THE TWO FUNCTIONS OF THE REMOTE CONTROL ARE DEACTIVATED AFTER 9 DAYS OF VEHICLE INACTIVITY. TO RESUME THESE FUNCTIONS, THE REMOTE CONTROL MUST BE AUTHENTICATED AGAIN.

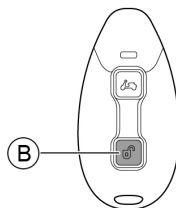
VEHICLE RECOGNITION - BIKE FINDER

Pressing the button "A", will enable the remote vehicle recognition function (Bike Finder): the turn indicators flash twice.



SADDLE OPENING

Pressing the button "B" for more than 2 seconds with the ignition switch in "OFF" or "LOCK" position, the saddle will open.



N.B.:

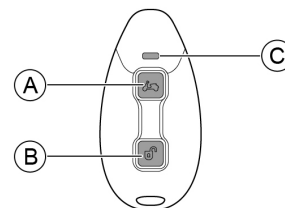


THE REMOTE CONTROL CAN BE USED AT A DISTANCE LESS THAN 50 METERS FROM THE VEHICLE.

REMOTE CONTROL ACTIVATION

To activate / deactivate the remote control, press the Bike Finder button "A" and, within 5 seconds, also press the saddle opening button "B" until the colour of the LED on the remote control changes.

When the LED on the remote control turns green, it will be possible to authenticate the "Piaggio Keyless" system. Authentication cannot be performed when the red LED is on.

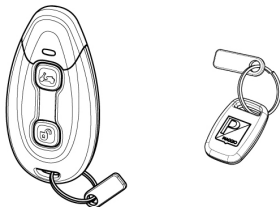


If the remote control is not recognised, it is advisable to repeat the activation and authentication procedure; if the locking persists, try again with passive recognition.

If, after performing the activation and authentication procedure, it is not possible to start the engine, a **Dealership** or an **Authorised Service Centre** must be contacted, which has the electronic equipment required to identify and repair the system.

When requesting additional remote controls, remember that the registration must be performed for all the controls, including the new ones and those already

in your possession. Take the **TAG with integrated transponder** and all remote controls directly to a **Dealership** or an **Authorised Service Centre**. The codes of the remote controls not submitted for the new programming procedure are deleted from the memory. Any lost remote controls will therefore not be enabled to start the engine.



N.B.:



EACH REMOTE CONTROL HAS ITS OWN AND UNIQUE CODE, WHICH MUST BE STORED IN THE SYSTEM CONTROL UNIT MEMORY. SHOULD THE VEHICLE CHANGE OWNER, IT IS ABSOLUTELY NECESSARY THAT THE NEW OWNER GET POSSESSION OF THE TAG WITH INTEGRATED TRANSPONDER (AS WELL AS ALL OTHER REMOTE CONTROLS).

WARNING

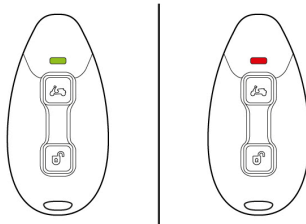


VIOLENT SHOCKS MAY DAMAGE THE ELECTRONIC COMPONENTS OF THE REMOTE CONTROL. TO ENSURE THE PERFECT EFFICIENCY OF SUCH INTERNAL ELECTRONIC DEVICES, DO NOT LEAVE THE REMOTE CONTROL EXPOSED TO DIRECT SUNLIGHT. AVOID DROPPING THE REMOTE CONTROL OR THE CONTACT WITH WATER OR OTHER LIQUIDS.

Then, to check the state of the **"Piaggio Keyless"** system, slightly press on one of the two keys of the remote control.

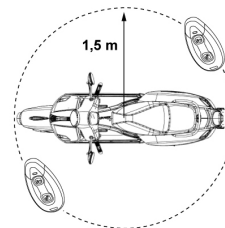
The LED will show the state with a colour:

- **Green** (activated): the authentication can be performed;
- **Red** (deactivated): the authentication cannot be performed. Activate the remote control again.



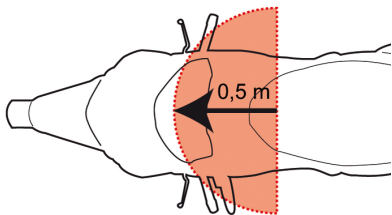
AUTHENTICATION BETWEEN REMOTE CONTROL AND THE "Piaggio Keyless" SYSTEM

For the authentication procedure, the remote control must be within an area of about 1.5 meters from the receiving control unit.



The performance and characteristics described above are in consideration of ideal conditions, with no external interference at the operating frequency (434 MHz) of the remote control which may interfere with the radio communication functions of the Piaggio Keyless System.

Note that during normal usage of the vehicle, the range of the remote control may be significantly less (as low as 0.5 m).

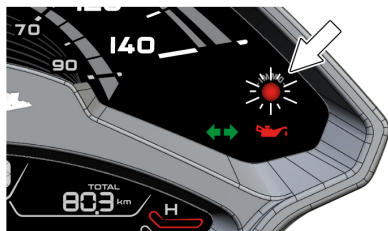


Once the vehicle is started, the system periodically verifies that the remote control is in range. If the remote control is not detected, the vehicle will continue to operate normally, but the IMMOBILIZER warning lamp will flash to notify the rider of the situation.

This function warns the user if they leave the key behind after starting the vehicle.

The IMMOBILIZER warning lamp on the dashboard flashes to warn the user that the Keyless system is not working correctly. This may be due to the following:

- **Remote control not in range;**
- **Remote control shielded by metal object;**
- **Remote control battery drained;**
- **Radio interference reducing the range of the remote control or impeding transmission.**



For the reasons described above, **preferably keep the remote control in the front pocket of your jacket or trousers, away from other electronic devices (e.g: smartphone, tablet, remote control for garage door etc.) as close as possible to the system electronic control unit located on the left side of the vehicle.**



WARNING

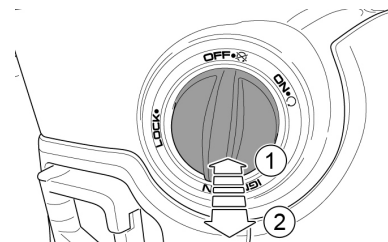


DO NOT LEAVE THE REMOTE CONTROL IN THE STORAGE COMPARTMENT OR UNDER THE

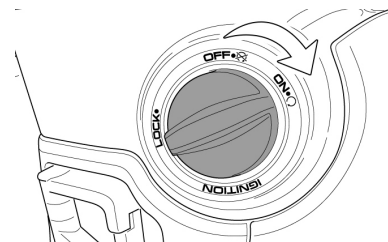
VEHICLE SADDLE WHILE USING THE VEHICLE.

For the authentication procedure, proceed as follows:

- **press and release** the starter switch in order to start communication between the control unit and the remote control.
- The successful recognition of the remote control is signalled by the message "Welcome".



Once recognition has been performed, the starter switch is unlocked and can be turned to the "ON" position.



N.B.:

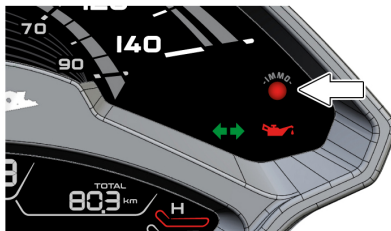


THE STARTER SWITCH MUST BE TURNED TO "ON" WITHIN 20 SECONDS AFTER THE MESSAGE IS SHOWN ON THE DISPLAY, OTHERWISE THE BACK-LIGHTING ON THE DISPLAY TURNS OFF AND THE SWITCH IS LOCKED. THE SWITCH MUST BE PRESSED AGAIN, ALWAYS WITHIN 1.5 M FROM THE VEHICLE.

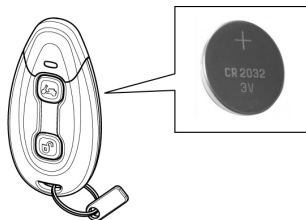
N.B.:



AFTER APPROXIMATELY 50 METERS OF VEHICLE RUNNING, AND FOR THE FOLLOWING 1000 METRES, THE SYSTEM CHECKS THE PRESENCE OF THE REMOTE CONTROL; IF THE REMOTE CONTROL IS NO LONGER WITH THE USER, THIS WILL BE INDICATED BY THE BLINKING OF THE IMMOBILIZER LIGHT ON THE INSTRUMENT CLUSTER.



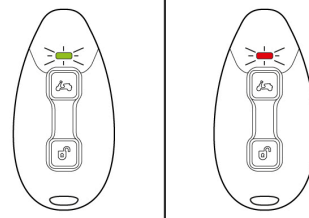
The remote control is powered by internal batteries that get discharged after extended used.



If the remote control battery is partially charged, the user is warned in the following ways:

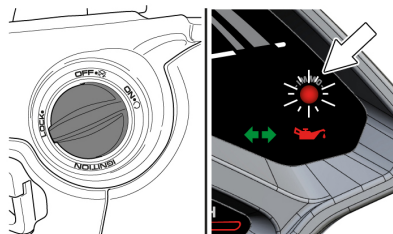
Remote control Led flashing mode

When the remote control battery is partially charged (but still able to operate), when a button is pressed, the remote control LED will light up (green or red) in a flashing mode instead of a steady one.



IMMOBILIZER Led flashing mode

Furthermore, with the switch set to «ON», after authentication, the **IMMOBILIZER** light will start flashing (5 flashes every 30 seconds until the switch is turned to «OFF») to indicate that the remote control battery must be replaced as soon as possible.



PASSIVE RECOGNITION OF THE REMOTE CONTROL

If the remote control battery is completely flat or if there are external radio interferences, recognition in standard remote keyless mode, cannot take place.

The system is equipped with passive recognition used to start the vehicle; proceed as follows:

- **Put the remote control in contact** in the indicated area, above the front case;



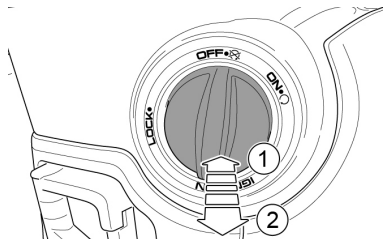
N.B.:



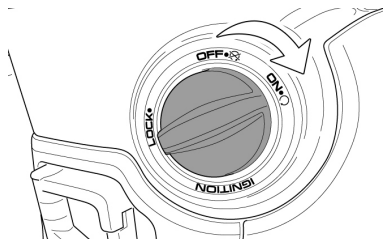
PASSIVE RECOGNITION FOR STARTING THE VEHICLE IS ALSO POSSIBLE BY PLACING THE TAG WITH INTEGRATED TRANSPONDER IN THE SAME POSITION.

- With the remote control (or, if necessary with the TAG with integrated transponder) kept in position for a few seconds, **press and release** the starter switch to activate the communication between the control unit and the remote control;

- The successful recognition of the remote control is signalled by the message **"Welcome"**.



- Now you can remove the remote control (or the TAG) from above the top case and turn the starter switch to the **"ON"** position.



Replacing remote control batteries

When the remote control LED flashes in green or red, the remote control battery level is low. The battery must be replaced as soon as possible.



The battery is a 3 Volt **CR2032** button type battery.

Proceed as follows:

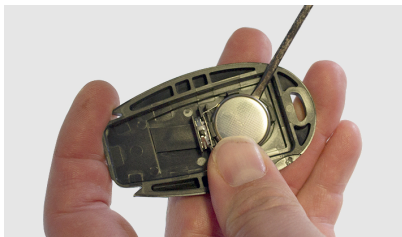
- Open the top of the remote control taking care not to damage the locking tabs.



- Insert a lever in the appropriate slot and uncouple the two half-shells of the remote control; be careful not to scratch the surface.



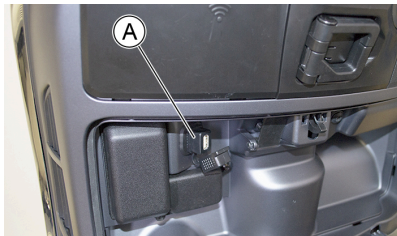
- Remove the battery from the lower half-shell and replace it with a new one.
- Re-couple the two snap-on half-shells, exerting light pressure with your fingers.
- Refit the upper part of the remote control.



USB port

Inside the front case on the left side is a USB plug "A".

To use it, remove the protective cap. Refit the cap on the USB port to prevent damage caused by water or moisture.

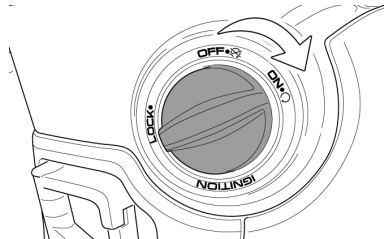


N.B.



THE SUPPLIED USB PORT IS SUITABLE FOR RECHARGING AND/OR POWERING MOST DEVICES CURRENTLY AVAILABLE ON THE MARKET.

The USB socket is active when the starter switch is turned to the "ON" position.



WARNING

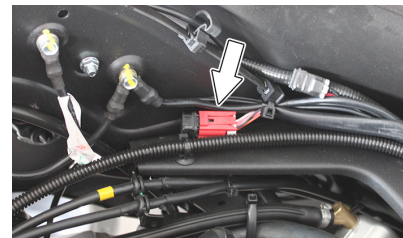


PROLONGED USE OF THE USB PORT MAY PARTIALLY DRAIN THE BATTERY.

Output voltage	5.00 ±0.25 Vdc
Charge current	500mA max

OBD socket

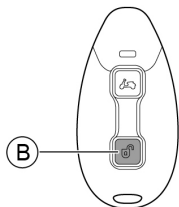
The vehicle is equipped with an OBD (On-Board Diagnostics) port to monitor its correct operation at a **Dealership** or an **Authorised Service Centre**.



The saddle

Opening saddle with remote control to access helmet compartment

Pressing the button "B" for more than 2 seconds with the ignition switch in "OFF" or "LOCK" position, it is possible to open the saddle with the remote control.



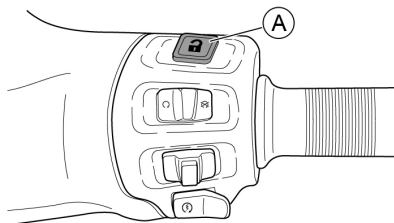
N.B.:



THE REMOTE CONTROL CAN BE USED AT A DISTANCE LESS THAN 50 METERS FROM THE VEHICLE.

Saddle opening

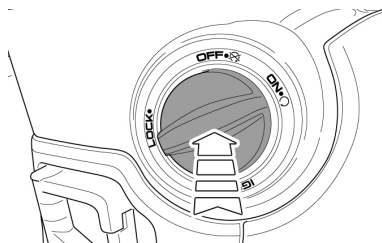
Press button «A» located on the handlebar to open the saddle.



Lift the saddle and tip it forwards.

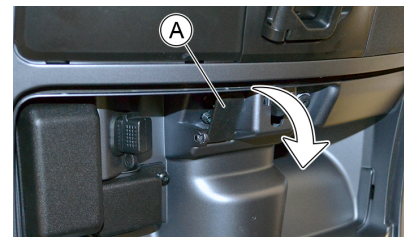
Front glove-box opening

With the ignition switch in the «ON» position, press to open the front case hatch.



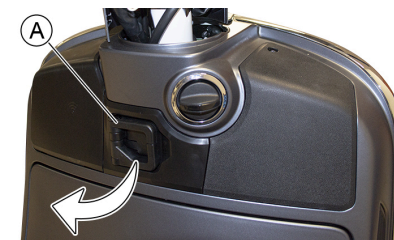
Saddle opening for emergency access

Open the front case and pull the lever «A» located inside downwards.



Bag hook

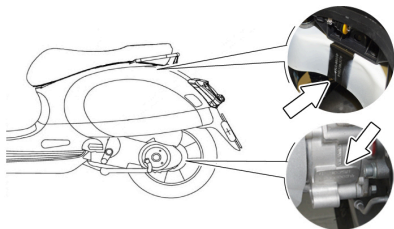
To use the bag hook «A» located on the leg shield back plate, it is necessary to turn it towards the rear of the vehicle.



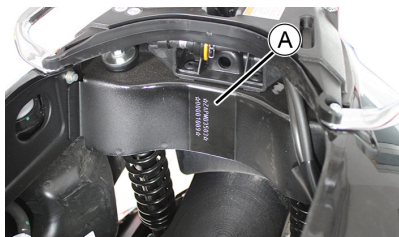
The identification

The identification registration number consists of a prefix followed by a number stamped on both the chassis and the engine. These numbers must always be quoted in the spare parts requests. We recommend checking that the frame registration number stamped on the vehicle

corresponds with that on the vehicle documentation.



The chassis number "A" is stamped near the fuel tank.



ATTENTION



NOTE THAT ALTERING SERIAL NUMBERS MAY BE PUNISHABLE WITH SEVERE LEGAL PENALTIES (IMPOUNDING OF VEHICLE, ETC.).

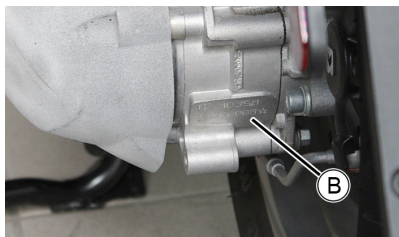
Frame number

Lift the saddle and remove the helmet compartment.



Engine number

The engine number «B» is stamped near the rear left shock absorber lower support.



Vespa Gts 310 HPE

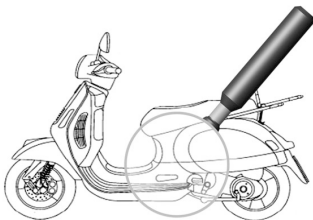


CHAPTER 03 Use

Controls

To ensure the safety of the occupants of the vehicle and that the vehicle itself works correctly, the customer is responsible for carrying out the following checks and tests before each use of the vehicle:

1. The operation of the front and rear brakes;
2. The correct sliding of the accelerator lever during opening and release;
3. The fuel level in the tank; if necessary, refuel;
4. The brake fluid level;
5. The transmission oil level;
6. The engine oil level;
7. The coolant level (if available);
8. The pressure and wear of the tyres;
9. The operation of the electrical system (horn, position lights, headlamp light, turn indicators, brake light, licence plate lighting);
10. The operation of the central and side stand (if available).



N.B.

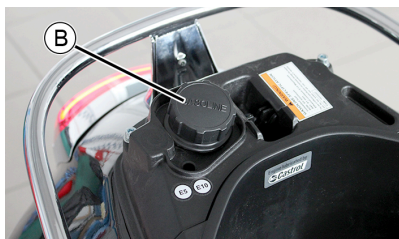


BEFORE USING THE VEHICLE, ENSURE THAT IT IS EQUIPPED WITH THE LICENSE PLATE HOLDER WITH LATERAL REFLECTORS PROVIDED.

Refuelling

The fuel tank cap "B" is under the saddle. To reach it, tip the saddle forwards.

Fill fuel tank with unleaded petrol (minimum octane rating = 95).



CAUTION



SHUT OFF THE ENGINE BEFORE REFUELLING WITH PETROL. PETROL IS HIGHLY INFLAMMABLE. DO NOT

LET PETROL SPILL FROM THE TANK OR WHILE REFUELLING.

CAUTION



KEEP NAKED FLAMES OR LIT CIGARETTES AWAY FROM THE TANK FILLER NECK: FIRE HAZARD. ALSO AVOID INHALING HARMFUL VAPOURS.

CAUTION



KEEP THE NOZZLE FULLY INSERTED IN THE FUEL FILLER NECK WHEN REFUELLING. DO NOT ATTEMPT TO ADD MORE FUEL AFTER THE FUEL PUMP NOZZLE AUTOMATICALLY SHUTS OFF FOR THE FIRST TIME. ADDING MORE FUEL MAY CAUSE FUEL TO OVERFLOW WHILE REFUELLING OR TO SPILL SUBSEQUENTLY WHEN THE VEHICLE IS DRIVEN.

ATTENTION



WHILE REFUELLING, DO NOT USE ELECTRONIC DEVICES AND/OR CELLULAR PHONES THAT COULD CAUSE DAMAGE TO THINGS AND/OR PEOPLE DUE TO GASOLINE VAPOURS.

CAUTION



DURING REFUELLING AVOID FUEL LEAKAGES, WHICH MAY CAUSE DAMAGE TO THINGS OR PERSONS AND FIRE HAZARD.

The European standard **EN 16942** prescribes the identification of the vehicle compatibility with the fuel type, by means of a graphic symbol for consumer information. The symbols shown on the side make facilitate the recognition of the correct fuel type to be used on your vehicle. Before refuelling, check the symbols located near the filler neck and compare them with the symbol shown on the filling pump.

E5: unleaded gasoline with 5% maximum Ethanol percent.

E10 : unleaded gasoline with 10% maximum Ethanol percent.

The label on each pump dispenser shows only one value; if for example it shows E5 it means that the petrol supplied is unleaded, with 5% ethanol.

However, the label on the vehicle may show several values. If, for example, it shows both E5 and E10 values, it means that the vehicle is compatible with petrol containing up to a maximum 10% ethanol, and thus it is possible to refuel the vehicle either from a E5 dispenser or from a E10 dispenser (but not from one showing E85).



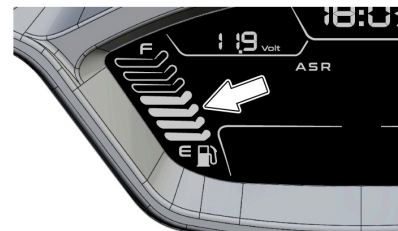
WARNING



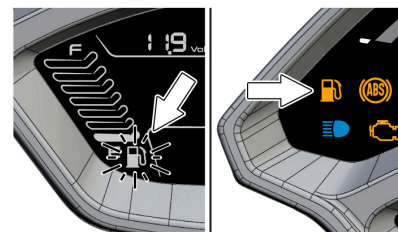
ALWAYS USE PETROL WITH A MAXIMUM OF 10% BIOETHANOL CONTENT (E10).

DO NOT USE PETROL WITH AN ETHANOL CONTENT HIGHER THAN 10%; THIS USE COULD DAMAGE THE FUEL SYSTEM COMPONENTS AND/OR COMPROMISE ENGINE PERFORMANCE.

The fuel level in the tank is indicated on the left of the digital display.



The low fuel is indicated by the icon flashing on the digital display and by the lighting of the appropriate warning light on the instrument cluster.



refuel as soon as possible.

Shock absorber adjustment

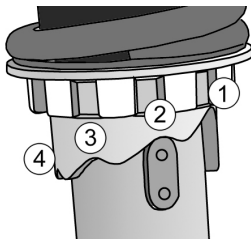
Spring pre-loading can be regulated on four positions using a special shock absorber wrench, turning the ring nut at the bottom of the shock absorbers.

Position 1: minimum pre-load: rider only

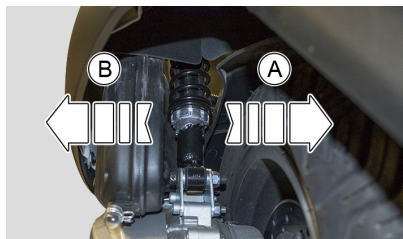
Position 2 medium pre-loading: rider only

Position 3 medium pre-loading: rider and passenger

Position 4: maximum pre-loading: rider, passenger and luggage.



Spring pre-loading increases by turning the ring nut towards "A", but decreases if the ring nut is turned towards "B".



CAUTION



RIDING THE VEHICLE WHEN THE SPRING PRE-LOAD HAS NOT BEEN SET-UP CORRECTLY FOR THE RIDER,

AND THE POTENTIAL LOAD, COULD REDUCE THE COMFORT OF THE RIDE AND THE PRECISION OF THE STEERING.

CAUTION



WE RECOMMEND WEARING GLOVES WHILE CARRYING OUT THIS OPERATION IN ORDER TO AVOID INJURIES.

CAUTION



IT IS ABSOLUTELY FORBIDDEN TO ADJUST THE PRE-LOAD DIFFERENTLY ON THE TWO SHOCK ABSORBERS.

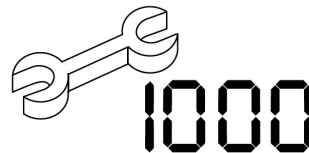
Running-in

WARNING



DURING THE FIRST 1000 km DO NOT USE THE VEHICLE AT

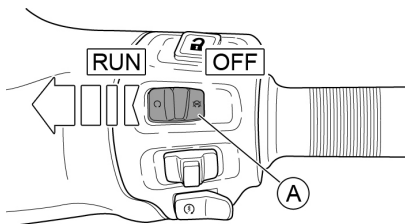
MAXIMUM POWER FOR LONG RUNS OR IN THE FIRST FEW MINUTES AFTER STARTING. AVOID OPENING THE ACCELERATOR FULLY AND MAINTAINING A CONSTANT SPEED FOR LONG STRETCHES OF ROAD. AFTER THE FIRST 1000 km PROGRESSIVELY INCREASE SPEED WHERE PERMITTED UNTIL MAXIMUM PERFORMANCE IS REACHED.



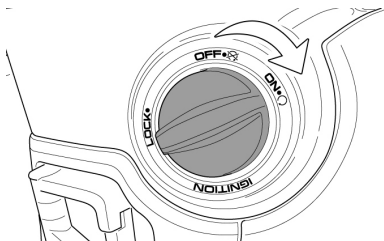
Engine starter

To start it up, it is necessary to:

- Rest the vehicle on its centre stand, ensuring the rear wheel is not touching the ground.
- Keep the throttle grip to idle speed.
- Make sure the emergency stop switch "A" is in the "RUN" position and the side stand is up and not engaged.



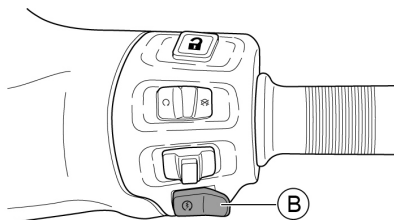
- Perform remote control recognition.
- Turn the starter switch to the "ON" position.



- The MIL - Injection System Failure light will light up on the instrument cluster.



- To start the engine, pull either one of the two brake levers and press the starter button «B».



With the engine started, the MIL - Injection system failure warning lamp will switch off. If the MIL - Injection system failure warning lamp remains steadily lit even when the engine is running, the vehicle must be taken to a **Dealership** or an **Authorised Service Centre** to have the fault diagnosed.

CAUTION



DO NOT CARRY OUT THESE OPERATIONS IN CLOSED AREAS SINCE EXHAUST GASES ARE POISONOUS.

ATTENTION



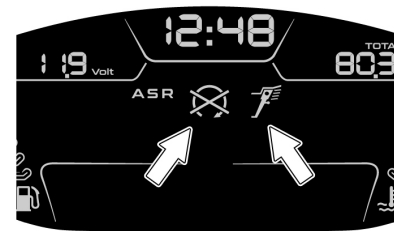
DUE TO THE HIGH TEMPERATURES THE SILENCER CAN REACH, ALWAYS TAKE CARE, WHEN PARKING THE VEHICLE, THAT THE SILENCER DOES NOT COME INTO CONTACT WITH FLAMMABLE MATERIALS, TO AVOID SERIOUS BURNS.

WARNING



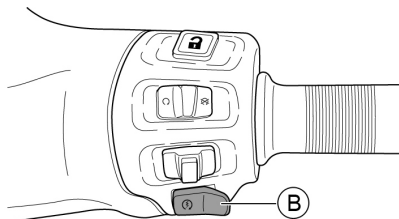
THE AUTOMATIC TRANSMISSION MAKES THE REAR WHEEL TURN EVEN WHEN THE THROTTLE IS SLIGHTLY TWISTED. RELEASE THE BRAKE CAREFULLY AFTER STARTING, AND THEN ACCELERATE GRADUALLY.

Opening the side stand or setting the emergency stop switch to the OFF position causes the engine to stop and the engine start inhibited warning light to come on.



To start the vehicle again and switch off the warning light, the emergency stop switch must be returned to the RUN position or the side stand must be raised **within 10 seconds**.

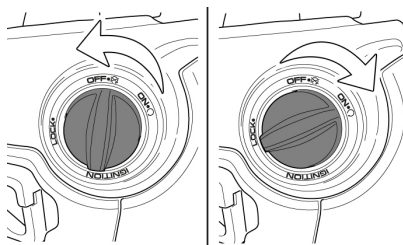
Press the starter switch "B" to start the engine.



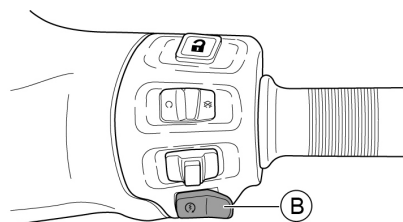
If the emergency stop switch is returned to the RUN position or the side stand is raised **AFTER 10 seconds**, the engine start inhibited warning light starts flashing, indicating that the engine cannot be started.



To enable the vehicle start again, turn the start switch to the OFF position and then to the ON position.



Press the starter switch "B" to start the engine.



Precautions

WARNING



AFTER A LONG DISTANCE COVERED AT THE MAXIMUM SPEED, DO NOT STOP THE ENGINE IMMEDIATELY, BUT LET IT RUN AT IDLE FOR A FEW SECONDS.

Starter problems

Strictly observe the procedure described in section «Engine starter».

WARNING



THE THROTTLE GRIP MUST REMAIN IN THE MINIMUM POSITION BECAUSE ANY OTHER POSITION INHIBITS THE VEHICLE STARTER.

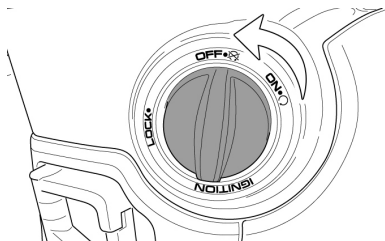
CAUTION



IF NECESSARY, CONTACT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

Engine stop

Fully untwist the throttle grip and rotate the starter switch to "OFF".

**WARNING**

DO NOT SHUT OFF THE ENGINE WHILE THE VEHICLE IS MOVING.

Catalytic converter**WARNING**

TAMPERING WITH THE CATALYTIC SILENCER MAY CAUSE SEVERE DAMAGE TO THE ENGINE.

ATTENTION

DUE TO THE HIGH TEMPERATURES THE SILENCER CAN REACH, ALWAYS TAKE CARE, WHEN PARKING THE VEHICLE, THAT THE SILENCER DOES NOT COME INTO CONTACT WITH FLAMMABLE MATERIALS, TO AVOID SERIOUS BURNS.

Stand**Centre stand**

To place the vehicle on the central stand, press the stand's protrusion with your foot and lift the vehicle backward at the same time, operating the rear handlebar.

**Side stand**

Push with your foot on the fork of the side stand to bring it into the open position, leaning the vehicle on it at the same time.

**CAUTION**

FOR SAFETY REASONS, ENGINE STARTING IS INHIBITED IF THE SIDE STAND IS EXTENDED.

WARNING

THE SIDE STAND CAUSES THE ENGINE TO TURN ITSELF OFF WHENEVER IT IS LOWERED.

TAMPERING MAY CAUSE SERIOUS VEHICLE MALFUNCTION.

Automatic transmission

To ensure simple, pleasurable riding, the vehicle is equipped with automatic

transmission with regulator and centrifugal clutch. The system has been designed to provide the best performance possible (acceleration and fuel consumption) whether on the flat or travelling uphill.

If you stop on while travelling uphill (traffic lights, traffic tailback etc.), **only use the brake to keep the vehicle still and let the engine idle. Using the engine to keep the vehicle still can cause the clutch to overheat, due to the friction of the clutch mechanism itself against the capstan.**

It is therefore recommended to avoid conditions of prolonged clutch slippage (other than those previously indicated) such as driving uphill fully laden on steep slopes, or starting off with driver and passenger at slopes greater than 25%.

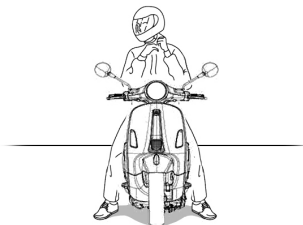
Take the following precautions if the clutch overheats:

1. Stop using this way.
2. If necessary, let the clutch cool down with the motor at idling speed for a few minutes.

Safe driving

Some simple tips are provided below that will enable you to use your vehicle on a daily basis in greater safety and peace of mind. Your mechanical knowledge and ability are the foundation for safe riding. We recommend trying out the vehicle in traffic-free zones to familiarise with it.

1. Before riding off, remember to put the helmet on and fasten it correctly.



2. Reduce speed and drive carefully when on rough roads.

3. After riding over a long stretch of wet road without using the brakes, braking will not be as efficient the first time/s you use them again. When riding under conditions like this, you should brake periodically.

4. Do not brake hard on a wet, unsurfaced or slippery road.

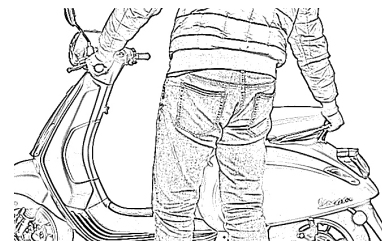
5. Do not start off by getting on the vehicle while it is standing on its stand. In any case, the rear wheel should not be turning when it comes into contact with the ground, in order to avoid abrupt departures.

6. If the vehicle is used on roads covered with sand, mud, snow mixed with salt, etc., clean the brake disc frequently with a mild detergent in order to prevent abrasive particles from building up inside the holes, which can result in early brake pads wear. We also recommend to replace and/or clean the filter element of the purifier box more frequently.

7. If there is a passenger, to guarantee the safety and comfort for the rider as well, it is recommended for the passenger to hold the specific rear handlebar with his/her hands during the ride.



8. Move the vehicle with the engine not started, supporting it with one hand on the handlebar and the other on the rear handlebar.



9. To place the vehicle on the central stand, press the stand's protrusion with your foot and lift the vehicle backward at the same time, operating the rear handlebar.

**CAUTION**

DO NOT ADJUST THE MIRRORS WHILE RIDING. THIS COULD CAUSE YOU TO LOSE CONTROL OF THE VEHICLE.

LONG, STEEP DESCENTS, TO AVOID OVERHEATING THE BRAKE SYSTEM, REPEATED BUT NOT PROLONGED BRAKE APPLICATION IS RECOMMENDED TO REDUCE SPEED. IN THE EVENT OF OVERHEATING, THE VEHICLE MUST BE STOPPED AND THE BRAKE SYSTEM COOLED.

CAUTION

ALWAYS RIDE WITHIN YOUR LIMITS. RIDING UNDER THE INFLUENCE OF ALCOHOL OR OTHER DRUGS AND CERTAIN MEDICINES IS EXTREMELY DANGEROUS.

CAUTION

IN ORDER TO PREVENT ANY ACCIDENTS RIDE VERY CAREFULLY AFTER ADDING ACCESSORIES AND WHILE CARRYING LUGGAGE. ADDING ACCESSORIES AND LUGGAGE CAN REDUCE THE VEHICLE'S STABILITY, PERFORMANCE AND SAFETY DURING USE. (SEE THE "SPARE PARTS AND ACCESSORIES" SECTION).

CAUTION

ANY ELABORATION THAT MODIFIES THE VEHICLE'S PERFORMANCES, SUCH AS TAMPERING WITH ORIGINAL STRUCTURAL PARTS IS STRICTLY FORBIDDEN BY LAW, AND RENDERS THE VEHICLE NO LONGER CONFORMING TO THE APPROVED TYPE AND DANGEROUS FOR RIDING.

CAUTION

PROLONGED AND REPEATED USE OF THE BRAKES CAN CAUSE THEM TO OVERHEAT, RESULTING IN REDUCED BRAKING EFFECTIVENESS. ON

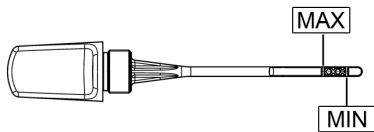
Vespa Gts 310 HPE



CHAPTER 04 Maintenance

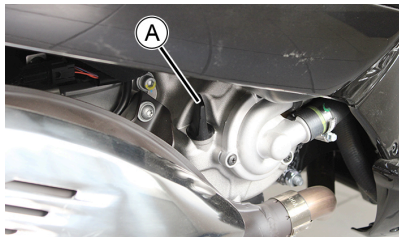
Engine oil level

Four stroke engine oil is used in the engines in order to lubricate the timing bodies, the bench bearings and the head-engine block-piston assembly. **An insufficient quantity of oil can seriously damage the engine.** In all four-stroke engines, a loss of efficiency in oil performance and certain consumption should be considered normal. Consumption can particularly reflect the conditions of use (i.e: when driving at 'full acceleration' all the time, oil consumption increases). The replacement intervals provided for by the maintenance programme are defined depending on the total content of oil in the engine and the average consumption measured following standardised methods. **In order to prevent any problems, we recommend checking oil level more frequently than indicated in the Scheduled Maintenance table or before setting off on long journeys. The vehicle is, however, equipped with an oil pressure warning light on the instrument cluster.**



Checking the engine oil level

Every time the vehicle is used, visually inspect the level of the engine oil when the engine is cold (after **completely unscrewing** the oil cap/dipstick). The oil level should be somewhere between the MAX and MIN index marks on the level rod; «A»; while the oil is being checked, the vehicle must be resting on its centre stand on an even, horizontal surface.

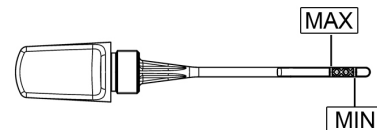


If the check is carried out after the vehicle has been used, and therefore with a hot engine, the level will be lower; in order to carry out a correct check, wait at least 10 minutes after the engine has been stopped so as to get the correct level.

Engine oil top-up

The oil should be topped up after having checked the level and should **never exceed the MAX. level.** Check and top up engine oil, if needed, according to the scheduled

maintenance table at a **Dealership** or an **Authorised Service Centre.**



Warning light (insufficient oil pressure)

The vehicle is equipped with a warning light which turns on when the starter switch is turned to the "ON" position. However, this light should come off once the engine has been started.



If the light comes on while braking, at idle speed or while turning a corner, it is necessary to check the oil level and top it up if required. If after having topped-up the oil, the warning light still comes

on while braking, at idle speed or while turning a corner, it will be necessary to take your vehicle to a Dealership or an Authorised Service Centre.

Engine oil change

To replace the engine oil and filter oil in accordance with the scheduled maintenance table, contact a **Dealership** or an **Authorised Service Centre**.



WARNING



RUNNING THE ENGINE WITH INSUFFICIENT LUBRICATION OR WITH INADEQUATE LUBRICANTS ACCELERATES THE WEAR AND TEAR OF THE MOVING PARTS AND CAN CAUSE IRREPARABLE DAMAGE.

TOPPING UP THE ENGINE WITH AN EXCESSIVE AMOUNT OF OIL MAY CAUSE MALFUNCTION AND/OR A

DROP IN PERFORMANCE OF THE VEHICLE.

USING OILS OTHER THAN THOSE RECOMMENDED CAN SHORTEN THE LIFE OF THE ENGINE.

WARNING



USED OIL CONTAINS SUBSTANCES WHICH CAN BE HARMFUL TO THE ENVIRONMENT. FOR OIL CHANGES, WE RECOMMEND THAT YOU CONTACT AN AUTHORIZED DEALER OR SERVICE CENTRE THAT IS EQUIPPED TO DISPOSE OF USED OILS WITHOUT DAMAGING THE ENVIRONMENT AND IN COMPLIANCE WITH LEGAL REGULATIONS.

Hub oil level

Check that the oil level in the hub is correct at the intervals specified in the scheduled maintenance table.

WARNING



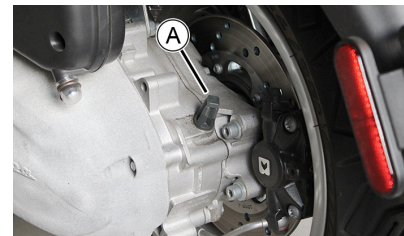
THE PERIODIC HUB OIL LEVEL INSPECTIONS SPECIFIED IN THE SCHEDULED MAINTENANCE TABLE MUST BE CARRIED OUT BY A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

FOR THE CONTROLS OF THE HUB OIL LEVEL THAT ARE NOT PREDETERMINED BY THE SCHEDULED MAINTENANCE TABLE, OPERATE AS DESCRIBED.

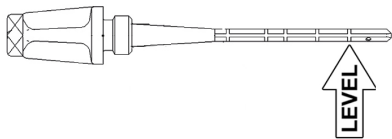
LEVEL CHECK

To check the hub oil level, proceed as follows:

- rest the vehicle on its centre stand on level ground;
- unscrew and remove the oil dipstick **A**, wipe it clean with a clean cloth and then fit it back into place, **tightening fully**;



- unscrew and remove the dipstick again and check that the oil level reaches the **1st notch on the dipstick from the bottom end**;



- refit the dipstick in its seat and tighten fully.

WARNING



THE FUNCTION OF THE HUB WITH INSUFFICIENT HUB LUBRICATION OR WITH CONTAMINATED OR IMPROPER LUBRICANTS ACCELERATES THE WEAR AND TEAR OF THE MOVING PARTS AND CAN CAUSE SERIOUS DAMAGE.

N.B.:



THE OTHER NOTCHES ON THE HUB OIL DIPSTICK ARE APPLICABLE FOR OTHER MODELS AND HAVE NO FUNCTION ON THIS VEHICLE.

TOP-UP

If necessary carry out the top-up, **DO NOT use the vehicle** and contact a **Dealership** or an **Authorised Service Centre**.

WARNING



USED OIL CONTAINS SUBSTANCES WHICH CAN BE HARMFUL TO THE ENVIRONMENT. FOR OIL CHANGES, WE RECOMMEND THAT YOU CONTACT AN AUTHORIZED DEALER OR SERVICE CENTRE THAT IS EQUIPPED TO DISPOSE OF USED OILS WITHOUT DAMAGING THE ENVIRONMENT AND IN COMPLIANCE WITH LEGAL REGULATIONS.

WARNING



AN EXCESSIVE QUANTITY OF OIL CAN LEAD TO SPILL OVER, WHICH MAY CAUSE THE ENGINE AND THE WHEEL TO GET DIRTY.

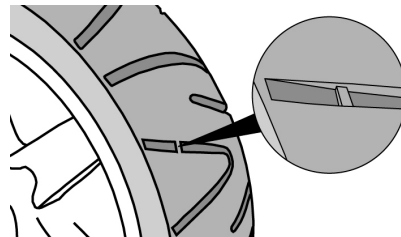
CAUTION



WHEN REPLACING THE HUB OIL DO NOT LET THE OIL COME INTO CONTACT WITH THE REAR BRAKE DISC.

Tyres

Check tyre pressure and wear periodically as indicated in the scheduled maintenance table. Tyres feature wear indicators; replace tyres as soon as these indicators become visible on the tyre tread. Also check that tyres do not show signs of splitting at the sides or irregular tread wear; In this case contact a **Dealership** or an **Authorised service centre**.



CAUTION



THE TYRE PRESSURE MUST BE CHECKED WHEN THE TYRES ARE COLD. AN INCORRECT PRESSURE CAUSES ABNORMAL

TYRE WEAR AND REDUCES DRIVING DANGEROUS.

TYRES MUST BE REPLACED WHEN THE TREAD REACHES THE WEAR LIMITS ESTABLISHED BY THE LAW.

CAUTION



AS THE WHEELS ARE FITTED WITH ABS TONE WHEELS, TYRES MUST ONLY BE REPLACED BY A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

WARNING



TO KEEP THE EFFICIENCY OF THE ASR SYSTEM AFTER REPLACING ONE OR BOTH TIRES, THE CALIBRATION OF THE SYSTEM MUST BE PERFORMED ACCORDING TO THE METHODS DESCRIBED IN THE APPROPRIATE CHAPTER.

TYRES

Front tyre 120/70-12 M/C 51S

TYRES

Rear tyre 130/70-12 M/C 62S

TYRE INFLATING PRESSURE

Front tyre pressure 26.1 psi (1.8 bar)
(with passenger) (26.1 psi (1.8 bar))

Rear tyre pressure 29.0 psi (2 bar)
(with passenger) (37.7 psi (2.6 bar))

Spark plug removal

To have the spark plug replaced in accordance with the scheduled maintenance table, contact a **Dealership** or an **Authorised Service Centre**.



Air filter removal

To remove and clean the air filter, observe the instructions in the scheduled

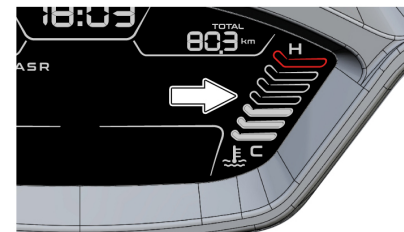
maintenance table, contact a **Dealership** or an **Authorised Service Centre**.



Coolant level

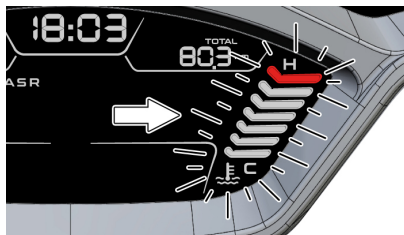
Engine cooling is forced liquid circulation. The coolant is composed of a mix of 50% de-mineralised water and an ethylene glycol-based antifreeze with corrosion prevention components. The coolant included with the scooter is already mixed and ready for use.

The engine coolant temperature is displayed on the appropriate gauge located on the right side of the digital display.



For proper functioning of the engine, ensure that the temperature of the coolant is maintained at about 90°C.

When all the bars and the icon on the coolant level indicator start flashing, stop the engine immediately, let it cool down and check the liquid level; if it is as it contact a **dealership** or an **authorised service centre**.



Check coolant when the engine is **cold** and as indicated in the scheduled maintenance tables, following the steps below.

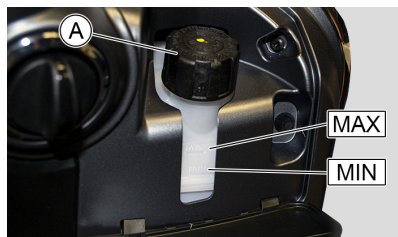


Place the vehicle on the stand, and remove the fixing screw of the expansion tank cover.



Check the fluid level that should always be between the «**MIN**» and «**MAX**» level on the tank.

If the fluid level is close to minimum, with the engine cold, unscrew the cap «**A**» and top up.



If the coolant needs to be topped up frequently or the expansion chamber is completely dry, check the cooling system to find the cause of the problem. It is essential to have the cooling system checked at a **Dealership** or an **Authorised Service Centre**. Replace coolant as indicated in the scheduled maintenance table. For this operation, contact a **dealership** or an **authorised service centre**.

ATTENTION



TO AVOID THE RISK OF SCALDING, DO NOT UNSCREW THE EXPANSION TANK COVER WHILE THE ENGINE IS STILL HOT.

WARNING

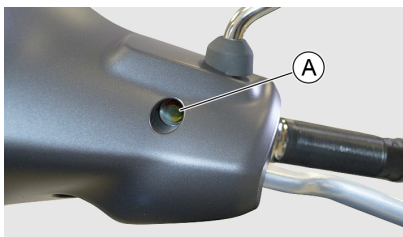


YOU MUST MAKE SURE THE FLUID NEVER EXCEEDS THE MAXIMUM LEVEL INDICATED SO AS TO AVOID IT OVERFLOWING AND CAUSING DAMAGE WHILE THE SCOOTER IS MOVING.

TO ENSURE CORRECT ENGINE OPERATION, KEEP THE RADIATOR GRILLE CLEAN.

Brake fluid level check

Both front and rear brake fluid tanks are equipped with a transparent visual indicator «**A**»; the quantity of fluid contained indicates the fluid level in the relative tank.



To control the brake fluid level, do the following:

- Place the bike on the centre stand with the handlebar pointing straight;

-check the liquid level through the related inspection windows «A»:

- if the window is **full**, the brake fluid is correct.
- If the brake fluid level approaches the «**MIN**» reference, contact a **Dealership** or an **Authorised Service Centre** for the corresponding checks.
- If the brake fluid level is below the «**MIN**» reference, do not use the vehicle and contact a **Dealership** or an **Authorised Service Centre**.

WARNING



IT IS MANDATORY TO REPLACE THE BRAKE FLUID EVERY 2 YEARS. FOR THIS OPERATION PLEASE CONTACT

A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

WARNING

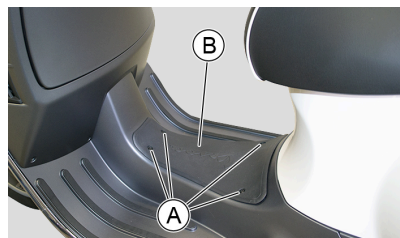


ONLY USE DOT 4-CLASSIFIED BRAKE FLUID. BRAKE CIRCUIT FLUID IS HIGHLY CORROSIVE: DO NOT LET IT COME INTO CONTACT WITH PAINTED PARTS.

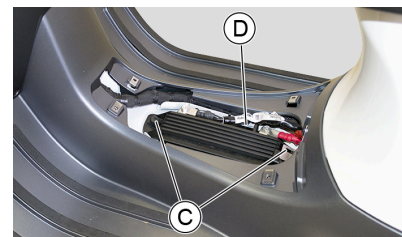
Battery

To reach the battery «D », proceed as follows:

1. rest the scooter on its centre stand;
2. unscrew the 4 screws «A», remove the footrest «B».



3. remove the two battery fixing screws «C».



WARNING



IN ORDER TO AVOID DAMAGING THE ELECTRICAL SYSTEM, NEVER DISCONNECT THE WIRING WHILE THE ENGINE IS RUNNING.

CAUTION



UPON CONNECTING THE BATTERY TERMINALS, AVOID CONTACT WITH THE METAL BODY.

CAUTION



DO NOT TRY TO REMOVE THE BATTERY SEAL. THE ELECTROLYTE

IN THE BATTERY CONTAINS SULPHURIC ACID: AVOID CONTACT WITH EYES, SKIN AND CLOTHES. IN CASE OF ACCIDENTAL CONTACT, RINSE WITH ABUNDANT WATER AND CONSULT A DOCTOR.

WARNING



USED BATTERIES ARE HARMFUL TO THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.

Installing a new battery

To install a new battery, go to a **Dealership** or an **Authorised Service Centre**.



Prolonged inactivity

If the vehicle is not used for a long time, the performance of the battery will deteriorate. This is caused by the natural discharging of the battery itself and by possible residual current consumption attributable to continuously powered components. The deterioration of the battery's performance is also the result of environmental conditions and how clean the terminals are. To avoid any starting difficulties and/or irreparable damage to the battery, you should do the following:

- **At least once a month** start up the engine and turn it over at a speed slightly above idling, for 10-15 minutes. This will enable you to keep all the parts of the engine in working order as well as the battery.

- Take your vehicle to a garage (as indicated in the "Vehicle not used for extended periods" section) to have the battery removed. The battery must be cleaned, fully charged and kept in a dry, well ventilated place. Charge the battery **again at least every two months**.



N.B.



THE ANCILLARY BATTERY MUST BE CHARGED WITH A CURRENT EQUAL TO 1/10 OF THE RATED CAPACITY OF THE BATTERY AND FOR NOT LONGER THAN 10 HOURS. IN ANY CASE, IT IS PREFERABLE TO PERFORM THIS SERVICE AT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE. WHEN REFITTING THE BATTERY MAKE SURE THE LEADS ARE CORRECTLY CONNECTED TO THE TERMINALS.

WARNING



NEVER DISCONNECT THE BATTERY LEADS WHILE THE ENGINE IS RUNNING; THIS CAN CAUSE IRREPARABLE DAMAGE TO THE VEHICLE'S ELECTRONIC CONTROL UNIT.

WARNING

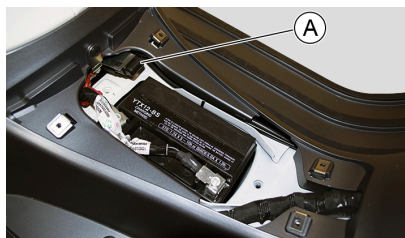


USED BATTERIES ARE HARMFUL TO THE ENVIRONMENT. COLLECTION AND DISPOSAL SHOULD BE CARRIED OUT IN COMPLIANCE WITH REGULATIONS IN FORCE.

Fuses

The electrical system is equipped with:

1. one fuse «A», located in the battery compartment;



2. eight safety fuses «B» and two safety fuses «C» located inside the case on the left;



3. one fuse «D», located in the battery compartment.



The tables show the position and characteristics of the fuses on the vehicle.

WARNING



BEFORE REPLACING THE BLOWN FUSE, SEARCH AND SOLVE THE PROBLEM THAT CAUSED IT TO BLOW.

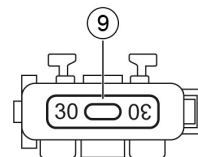
NEVER TRY TO REPLACE A BLOWN FUSE WITH A FUSE OF A DIFFERENT RATING THAN THAT SPECIFIED OR USING OTHER MATERIAL (FOR EXAMPLE, A PIECE OF ELECTRICAL WIRE).

CAUTION



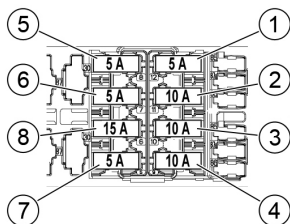
MODIFICATIONS OR REPAIRS TO THE ELECTRICAL SYSTEM, PERFORMED INCORRECTLY OR WITHOUT STRICT ATTENTION TO THE TECHNICAL SPECIFICATIONS OF THE SYSTEM CAN CAUSE MALFUNCTIONING AND RISK OF FIRE.

Fuse box «A».



CHARACTERISTIC	DESCRIPTION / VALUE
	Capacity: 30 A
Fuse no. 1	Power feed: from battery
	Protected circuits: System general.

Fuse box «B».



CHARACTERISTIC	DESCRIPTION / VALUE
----------------	---------------------

Fuse no. 1	Capacity: 5 A Power feed: from battery Protected circuits: light relay, light switch, instrument cluster, VMP (Vespa Multimedia Platform) control unit.
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Fuse no. 2	Capacity: 10 A Power feed: from battery Protected circuits: diagnostics socket, electric fan relay, electric fan.
------------	--

Fuse no. 3	Capacity: 10 A
------------	-----------------------

CHARACTERISTIC	DESCRIPTION / VALUE
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	Power feed: from battery Protected circuits: injection load relay, engine control unit.
--	--

Fuse no. 4	Capacity: 10 A Power feed: from battery Protected circuits: Accessories pre-installation.
------------	--

Fuse no. 5	Capacity: 5 A Power feed: from starter switch Protected circuits: light contactor relay (coil), keyless control unit, ABS control unit, engine management unit, lean angle sensor.
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Fuse no. 6	Capacity: 5 A Power feed: from starter switch Protected circuits: horn button, horn, instrument cluster, left and right stop
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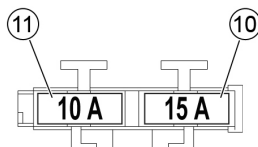
CHARACTERISTIC	DESCRIPTION / VALUE
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	button, left and right front side light, starter button, hazard warning lights switch, tail light, licence plate light.
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Fuse no. 7	Capacity: 5 A Power feed: from starter switch Protected circuits: light switch, USB socket, diagnosis socket, accessory provision, VMP (Vespa Multimedia Platform) control unit.
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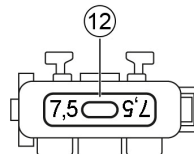
Fuse no. 8	Capacity: 15 A Power feed: from battery Protected circuits (under starter switch): fuses No. 5, 6 and 7.
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Fuse box «C».



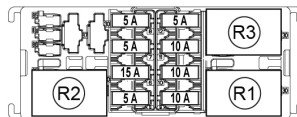
CHARACTERISTIC	DESCRIPTION / VALUE
Fuse no. 10	Capacity: 15 A Power feed: from battery Protected circuits: ABS control unit.
Fuse no. 11	Capacity: 10 A Power feed: from battery Protected circuits: ABS control unit.

Fuse box «D».



CHARACTERISTIC	DESCRIPTION / VALUE
Fuse no. 12	Capacity: 7.5 A Power feed: from battery Protected circuits: Keyless ECU.

The relays are located inside the case on the left.



CHARACTERISTIC	DESCRIPTION / VALUE
Relay no. 1	Circuits: Injection loads.
Relay no. 2	Circuits: electric fan.
Relay no. 3	Circuits: Lights.

Bulbs

This section lists the bulb types required for the vehicle's equipment.

CHARACTERISTIC	DESCRIPTION / VALUE
High beam / low beam bulb	Type: LED Quantity: 2
Front daylight running lights	Type: LED Quantity: 2
Front indicator light bulb	Type: LED Quantity: 2
Rear indicator light bulb	Type: LED Quantity: 2

CHARACTERISTIC	DESCRIPTION / VALUE
Rear tail light bulb	Type: LED Quantity: 1
Stop light bulb	Type: LED Quantity: 1
Licence plate light bulb	Type: All glass lamp W5W Power: 12V - 5W Quantity: 1

Front light cluster

The light assembly has "LED" lights. In the event of malfunction, we recommend contacting a **Dealership** or an **Authorised Service Centre** for replacement.



N.B.



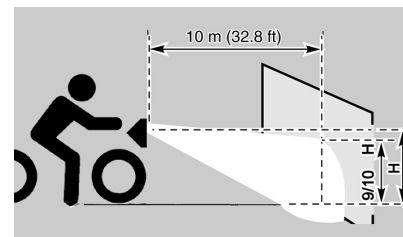
IF MISTING IS NOTICED ON THE INSIDE OF THE TAIL LIGHT, CHECK THAT IT DISAPPEARS AFTER SOME MINUTES OF IGNITION OF THE TAIL LIGHT. IT IS A COMMON PHENOMENON AND IS ATTRIBUTABLE TO HUMIDITY AND/OR TO LOW TEMPERATURES; AND IS NOT A DEFECT.

THE PRESENCE OF DROPS OF WATER, ON THE OTHER HAND, COULD INDICATE THAT WATER IS INFILTRATING. CONTACT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

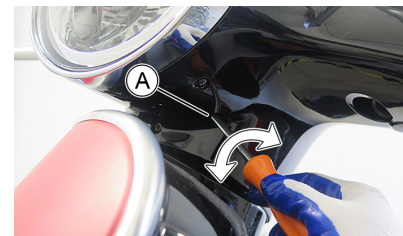
Headlight adjustment

For a quick check of the correct direction of the front light beam, proceed as follows:

1. Place the vehicle in running order and with the tyres inflated to the prescribed pressure, on a flat surface 10 m (32.8 ft) away from a white wall situated in a shaded area, making sure that the longitudinal axis of the vehicle is perpendicular to the wall;
2. switch on the low beam and check that the light beam projected on the wall does not exceed 9/10 of the height of the centre of the headlamp from the ground;



3. Otherwise, adjust the right headlight with screw «A».



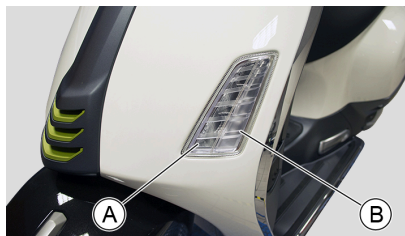
N.B.:



IN COMPLIANCE WITH LOCAL LEGAL REQUIREMENTS, SPECIFIC PROCEDURES MUST BE FOLLOWED WHEN CHECKING LIGHT BEAM ADJUSTMENT.

Front turn indicators

Both the bulbs of the front turn indicators "A" and those of the front daytime running lights "B" are of "LED" type.



In the event of malfunction, we recommend contacting a **Dealership** or an **Authorised Service Centre** for replacement.

The front daytime running lights remain on when the engine is running.

Rear light assembly

Both the parking light bulbs «A» and the brake lights «B» are «LED» type.



In the event of malfunction, we recommend contacting a **Dealership** or an **Authorised Service Centre** for replacement.

N.B.



WHENEVER ON INTERNAL SURFACE OF THE HEADLIGHT MISTING IS OBSERVED, THIS DOES NOT INDICATE AN ANOMALY AND IT IS RELATED TO THE HUMIDITY LEVEL AND/OR TO LOW TEMPERATURE. THE PHENOMENON WILL DISAPPEAR AFTER SWITCHING ON THE HEADLIGHT.

HOWEVER, IF THERE ARE DROPS, THIS COULD INDICATE INFILTRATION; CONTACT THE SERVICE NETWORK.

Rear turn indicators

The rear turn indicator bulbs "C" are "LED" type.



In the event of malfunction, we recommend contacting a **Dealership** or an **Authorised Service Centre** for replacement.

Number plate light

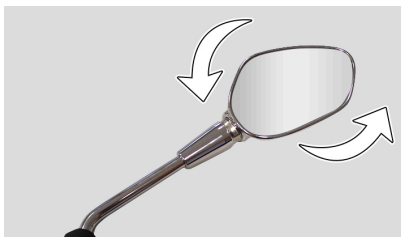
The license plate lights are bulb type.



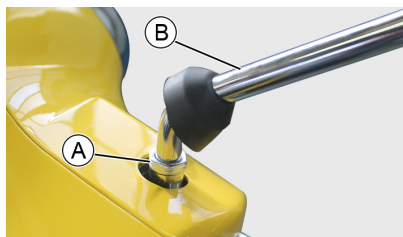
In the event of malfunction, we recommend contacting a **Dealership** or an **Authorised Service Centre** for replacement.

Rear-view mirrors

The mirrors can be set to the desired position by adjusting the mirror frame.



To remove the rear view mirror, lift the rubber protection, unscrew the lock nut "A" slightly to unlock the stem. unscrew the stem "b" to remove it.



CAUTION



DO NOT ADJUST THE MIRRORS WHILE RIDING. THIS COULD CAUSE YOU TO LOSE CONTROL OF THE VEHICLE.

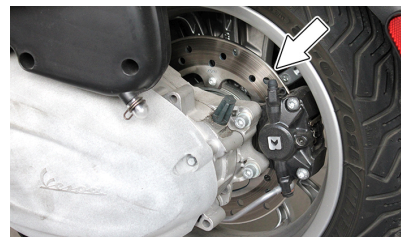
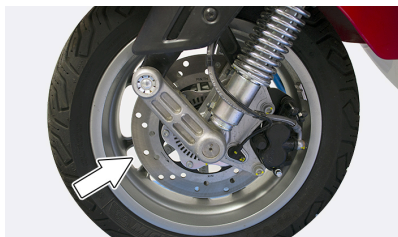
WARNING



PAY ATTENTION TO THE THREAD TYPE OF THE MIRRORS: THE RIGHT MIRROR HAS A CLOCKWISE THREAD, WHILE THE LEFT MIRROR HAS AN ANTI-CLOCKWISE THREAD.

Front and rear disc brake

The brake disc and pad wear is automatically compensated, therefore it does not have any effect on brake functioning. Adjusting the brakes is therefore unnecessary. An excessively elastic brake lever stroke may indicate the presence of air in the braking circuit or a failure in the braking system. In this case, especially considering the fundamental role brakes play in your driving safety, it is necessary to take the vehicle to a **Dealership** or an **Authorised Service Centre**.



WARNING



BRAKING SHOULD BEGIN AFTER ABOUT 1/3 OF THE BRAKE LEVER STROKE.

CAUTION



THE THICKNESS OF THE BRAKE PADS MUST BE CHECKED BY YOUR DEALER OR AUTHORIZED SERVICE CENTRE ACCORDING TO THE CHECKS IN THE SCHEDULED MAINTENANCE TABLE. HOWEVER, IN THE EVENT OF NOISES COMING FROM THE FRONT AND/OR REAR BRAKING SYSTEM DURING OPERATION, IT IS ADVISABLE TO HAVE THE BRAKING SYSTEM CHECKED BY A DEALERSHIP OR

AN AUTHORISED SERVICE CENTRE. AFTER REPLACING THE BRAKE PADS, DO NOT USE THE VEHICLE UNTIL YOU HAVE OPERATED THE BRAKE LEVER SEVERAL TIMES IN ORDER TO ALLOW THE PLUNGERS TO SETTLE AND THE LEVER STROKE TO BE SET TO THE CORRECT POSITION.

WARNING



THE PRESENCE OF SAND, MUD, SNOW MIXED WITH SALT, ETC. ON THE ROAD, CAN DRASTICALLY REDUCE THE LIFE OF THE BRAKE PADS. IF THE VEHICLE IS USED ON ROADS IN THE CONDITIONS DESCRIBED ABOVE, CLEANING OF THE BRAKE DISC FREQUENTLY WITH A NON-AGGRESSIVE DETERGENT IS RECOMMENDED IN ORDER TO PREVENT THE FORMATION OF AGGLOMERATES INSIDE THE SLOTS WITH CONSEQUENT PREMATURE WEAR OF THE BRAKE PADS.

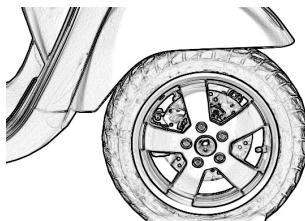
Puncture

The vehicle is equipped with Tubeless tyres (without inner tubes). In the event of a puncture, Tubeless tyres - unlike tyres with

inner tubes - go flat very slowly, resulting in a greater steering safety. In the event of a puncture, you can make an emergency repair using an "inflate and repair" spray can.

For permanent repairs contact a **dealership** or an **authorised service centre**.

Replacing a tyre means removing the wheel. For such operations contact a **dealership** or an **authorised service centre**.



WARNING



TO USE THE "INFLATE AND REPAIR" SPRAY CAN PROPERLY, FOLLOW THE INSTRUCTIONS ON THE PACKAGING.

CAUTION



THE WHEELS, COMPLETE WITH TYRES MUST ALWAYS BE BALANCED. RIDING THE VEHICLE WITH VERY LOW TYRE PRESSURE OR WITH INCORRECTLY BALANCED TYRES CAN LEAD TO DANGEROUS STEERING VIBRATIONS.

vehicle inactivity

The following operations are recommended:

1. Clean the vehicle thoroughly and then cover it with a canvas;
2. With the engine off, remove the spark plug and pour 1 - 2 cm³ of oil through its hole. Operate the starter button 1-2 times for roughly 1 second to turn the engine over slowly, then insert the spark plug again;
3. Make sure **you have at least half a tank of gasoline (in such a way to assure total immersion of the gasoline pump)**; spread anti-rust grease on the uncoated metal parts; keep the wheels off the ground resting the frame on two wooden blocks;
4. As far as regards the battery, follow the instructions in paragraph «Battery».

Helmet positioning

The vehicle is equipped with a special compartment under the seat for the placement of only one helmet of type JET..

Lift the saddle and insert the helmet inside the compartment.



N.B.



THE ACTUAL FIT OF THE HELMETS, SUCH AS TYPE, SIZE AND FITTING OF ACCESSORY COMPONENTS (E.G: INTERCOM, LARGER VISORS) DEPENDS ON THE SPECIFIC DIMENSIONS OF THE HELMET, WHICH MAY VARY FROM MANUFACTURER TO MANUFACTURER.

PIAGGIO GROUP ALSO SELLS HELMETS OF DIFFERENT DESIGNS, SIZES AND ACCESSORY COMPONENTS IN ITS LINE OF ACCESSORIES.

WARNING



DO NOT FORCE THE SADDLE TO CLOSE IF THE HELMET IS INCORRECTLY POSITIONED, IN ORDER TO AVOID DAMAGE TO THE HELMET.

If it is necessary to place an additional helmet, proceed as described below:

lift the saddle and locate the pins on either side of the vehicle.



Insert the loop of the helmet lace on the hook.



WARNING



CARE SHOULD BE TAKEN NOT TO DAMAGE THE BODY OF THE VEHICLE.

Close the saddle again;.



WARNING



ONCE THE HELMET IS POSITIONED ON THE PIN, TAKE CARE THAT THE SADDLE IS NOT FORCE WHEN CLOSING IN ORDER TO AVOID DAMAGE TO THE SADDLE OR POSSIBLY THE PIN.

Vehicle cleaning

Use a low pressure jet of water to soften the caked dirt and mud deposited on the painted surfaces. Once softened, sponge off mud and dirt using a car body sponge soaked

in a car body shampoo and water solution (2-4% of car shampoo in water). Then rinse with abundant water, and dry with a chamois cloth.



WARNING



IN ORDER TO AVOID RISE OF OXIDATION, WASH THE VEHICLE EVERY TIME IT IS USED IN AREAS OR SPECIAL CONDITIONS OF:

- ENVIRONMENTAL / SEASONAL CONDITIONS: USE OF SALT, ANTI-ICE CHEMICALS ON ROADS DURING WINTER.
- AIR POLLUTION: CITIES AND/OR INDUSTRIAL AREAS.
- SALINITY AND HUMIDITY: SEASHORE AREAS, HOT AND HUMID CLIMATE.

WARNING



- PREVENT DEPOSITS FROM REMAINING ON THE BODYWORK, INDUSTRIAL AND POLLUTANT RESIDUAL DUST, TAR SPOTS, DEAD INSECTS, BIRD DROPPINGS, ETC.
- AVOID PARKING THE VEHICLE UNDER TREES. IN SOME SEASONS, IN FACT, RESIDUES, RESINS, FRUITS OR LEAVES MAY FALL FROM THE TREES, CONTAINING CHEMICALS THAT ARE HARMFUL TO THE PAINTWORK.

WARNING



DETERGENTS CAN POLLUTE WATER. THE VEHICLE MUST BE WASHED AT A WASH STATION EQUIPPED WITH A SPECIAL WATER PURIFICATION SYSTEM.

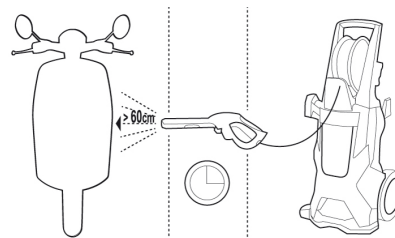
WARNING



DO NOT USE A HIGH-PRESSURE WATER JET MACHINE TO CLEAN

THE ENGINE AND/OR VEHICLE; HOWEVER, IF NO OTHER MEANS ARE AVAILABLE, IT IS THEN NECESSARY TO:

- ONLY USE A FAN-LIKE SPRAY JET.
- DO NOT PLACE THE NOZZLE CLOSER THAN 60 cm.
- DO NOT USE WATER AT TEMPERATURES OVER 40°C.
- DO NOT USE HIGH-PRESSURE WATER JETS.
- DO NOT STEAM WASH.
- DO NOT AIM THE JET AT: THE ENGINE, THE ELECTRIC WIRING HARNESS, THE COOLING SLITS ON THE TRANSMISSION COVER.



WARNING



NEVER WASH THE VEHICLE IN DIRECT SUNLIGHT, ESPECIALLY IN SUMMER WHEN THE BODYWORK

IS STILL HOT AS THE SHAMPOO COULD DAMAGE THE PAINTWORK IF IT DRIES BEFORE BEING RINSED OFF. NEVER USE CLOTHS SOAKED IN ALCOHOL, PETROL, DIESEL OIL OR KEROSENE FOR CLEANING THE PAINTED OR PLASTIC SURFACES, IN ORDER NOT TO DAMAGE THE LUSTRE FINISH OR ALTER THEIR MECHANICAL PROPERTIES. USING SILICONE-BASED WAX CAN DAMAGE THE PAINTED SURFACES, DEPENDING ON THE VEHICLE COLOUR (SATIN COLOURS). FOR FURTHER INFORMATION ON THIS MATTER, CONTACT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE.

WARNING



CLEAN YOUR VEHICLE FREQUENTLY SO AS TO AVOID POSSIBLE DIRT OR MUD DEPOSITS THAT COULD CAUSE MALFUNCTIONING IN THE THROTTLE GRIP TRANSMISSION AND/OR OTHER COMPONENTS.

WARNING



DURING VEHICLE CLEANING, WITH WATER JET UNDER PRESSURE, KEEP THE SADDLE CLOSED, AVOIDING TO DIRECT THE JET IN THE HELMET COMPARTMENT.

In order to maintain the **satín-finish** characteristics, please follow these precautions:

WARNING



AVOID ROLLS FROM CAR WASH AND PRESSURE WASHERS;

DO NOT USE GRINDING PASTE FOR THE REMOVAL OF SCRATCHES;

AVOID THE USE OF DRY CLOTHS FOR THE REMOVAL OF DUST OR FOR MANUAL DRYING AFTER CLEANING;

DO NOT USE SILICON WAX OR POLISHING AGENTS;

DO NOT USE ALCOHOL FOR CLEANING;

IT IS STRONGLY RECOMMENDED TO MANUALLY WASH WITH SPONGE AND NEUTRAL SHAMPOO, AVOIDING EXCESSIVE RUBBING THAT COULD AFFECT THE HAZE DEGREE OF THE PAINTING;

DO NOT USE ABRASIVE CLEANERS;

FAILURE TO FOLLOW THE ABOVE GIVEN ADVICE, COMPROMISES THE HAZE OF THE PAINTING;

DO NOT APPLY ADHESIVE ELEMENTS TO THE BODYWORK;

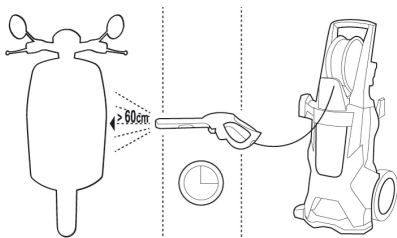
DO NOT POLISH OTHER VEHICLES CLOSE TO THE ONE WITH SATIN-FINISHING;

AVOID CONTACT AND/OR RUBBING OF CLOTHING WITH BUTTONS, BUCKLES, RINGS AND/OR NECKLACES ON SATIN-FINISHED SURFACES SINCE THIS MAY INDUCE DAMAGE AND/OR CHANGES IN HAZE OF SATIN-FINISHED PAINT.

WARNING



WHEN CLEANING THE VEHICLE WITH A PRESSURE CLEANER, DO NOT DIRECT THE WATER JET ON ANY PART OF THE ENGINE OR BODYWORK FOR PROLONGED PERIODS.



Troubleshooting

FAILED ENGINE START

Emergency switch in «OFF» Set the switch back to «ON»

Fuse blown Replace the damaged fuse and have the vehicle checked at a **Dealership** or an **Authorised Service Centre**.

IGNITION PROBLEMS

Faulty spark plug Contact a **dealership** or an **Authorised Service Centre**.

Ignition/ injection control unit defective. Due to Contact a **dealership** or

IGNITION PROBLEMS

the presence of high voltage, this check should only be carried out by an expert an **Authorised Service Centre**.

Faulty coil. Due to the presence of high voltage, this check should only be carried out by an expert Contact a **dealership** or an **Authorised Service Centre**.

LACK OF COMPRESSION

Loose spark plug Screw in the spark plug tightly

Cylinder head loose, piston gas rings worn Contact a **dealership** or an **Authorised Service Centre**.

Valve stuck Contact a **dealership** or an **Authorised Service Centre**.

HIGH FUEL CONSUMPTION AND BAD PERFORMANCE

Air filter blocked or dirty Contact a **dealership** or

HIGH FUEL CONSUMPTION AND BAD PERFORMANCE

an **Authorised Service Centre**.

INSUFFICIENT BRAKING

Disc greasiness. Worn brake pads. Faulty braking system. Presence of air in the front and rear brake circuit Contact a **dealership** or an **Authorised Service Centre**.

INEFFICIENT SUSPENSION

Shock absorber fault, oil leak, end buffers damaged; shock absorbers badly regulated in the pre-loading stage Contact a **dealership** or an **Authorised Service Centre**.

AUTOMATIC TRANSMISSION PROBLEMS

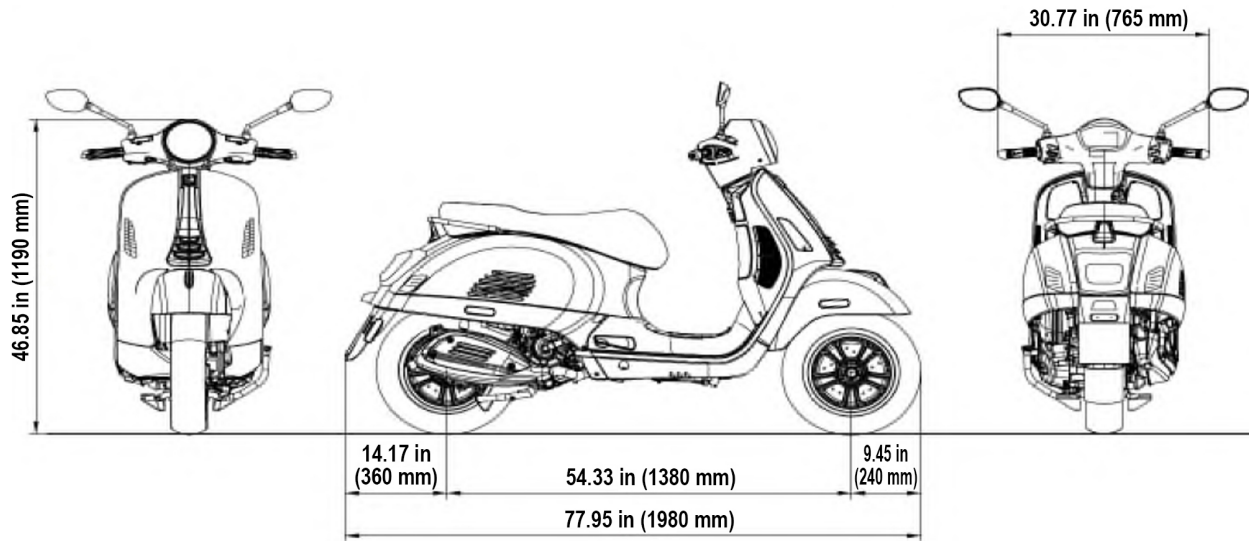
CVT rollers and/or drive belt damaged Contact a **dealership** or an **Authorised Service Centre**.

Vespa Gts 310 HPE



CHAPTER 05 Technical specifications

Data



VEHICLE INFORMATION

Chassis

Stamped plate supporting body.

Front suspension	Single arm suspension, steering column tube with cantilever wheel, dual-chamber hydraulic shock absorber and coaxial coil spring; front suspension equipped with Anti-Dive system which guarantees greater stability when braking.
Rear suspension	Two double-acting shock absorbers, adjustable to four positions at pre-loading.
Front brake	Ø 220 mm hydraulically operated disc brake controlled from RH handlebar lever; braking assisted by ABS system.
Rear brake	Ø 220 mm hydraulically operated disc brake controlled from LH handlebar lever; braking assisted by ABS system.
Wheel type	Light alloy.
Front rim	12" x 3.00
Rear rim	12" x 3.00
Front tire	120/70-12 M/C 51S
Rear tyre	130/70-12 M/C 62S
Front tire pressure (with passenger)	26.1 psi (1.8 bar) (26.1 psi (1.8 bar))
Rear tire pressure (with passenger)	29.0 psi (2 bar) (37.7 psi (2.6 bar))
Kerb mass	358.6 lb (163 Kg)
Maximum technically permissible weight at full load	774.4 lb (352 Kg)
Battery	12V -12 A

ENGINE DATA

Engine 310 cm³

Type	Single cylinder 4-stroke
Engine capacity	18.92 cu.in (310 cm ³)
Bore x Stroke	2.95 x 2.76 in (75.0 x 70.1 mm)
Compression ratio	11 ± 0,5
Idle engine speed	1,700 ± 100 rpm
Timing	4 valves, single overhead camshaft, chain-driven.
Valve clearance (cold)	Intake: 0.10 ± 0.02 mm Exhaust: 0.10 ± 0.02 mm
Maximum power	24.76 hp (18.4 kW) at 6500 rpm
Maximum torque	21.34 lb-ft (28.9 Nm) at 5250 rpm
Transmission	CVT expandable pulley continuously variable transmission with torque server, V-belt, self-ventilating dry automatic centrifugal clutch and transmission housing with forced-circulation air cooling.
Final drive reduction gear	Gear reduction unit in oil bath.
Lubrication	Engine lubrication with lobe pump (inside crankcase), chain-driven, with double filter: mesh and paper.
Cooling	Forced coolant circulation system.
Ignition	Electric

Ignition	Electronic inductive discharge ignition, high efficiency, with separate HV coil.
Spark plug	NGK MR7BI-8
Power feed	Electronic injection with Ø 32-mm throttle body and electric fuel pump.
Fuel	Unleaded gasoline E10 (95 R.O.N.)
Evaporative Emission Control System	Consisting of Canister and Solenoid valve managed by the injection control unit.
Emissions compliance	40 CFR Part 86 Subpart E

CAPACITY

Engine oil	0.34 gal (1.3 l)
Transmission oil	15.2 cu.in (250 cm³)
Cooling system fluid	0.37 gal (1.42 l)
Fuel tank	~ 2.2 ± 0.13 gal (~ 8.5 ± 0.5 l)

UNIT CONVERSION - from Imperial System to International System of Units (S.I.)

1 Inch (in)	25.4 Millimetres (mm)
1 Foot (ft)	0.305 Metres (m)
1 Mile (mi)	1.609 Kilometres (km)
1 US gallon (gal US)	3.785 Litres (l)

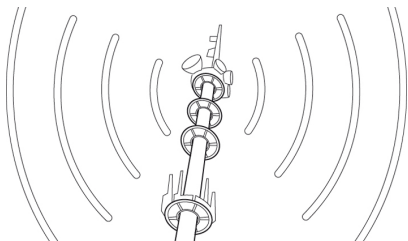
1 Pound (lb)	0.454 Kilograms (Kg)
1 Cubic inch (in³)	16.4 Cubic centimetres (cm³)
1 Pound per foot (lb ft)	1.356 Newton metres (N m)
1 Mile per hour (mi/h)	1.602 Kilometres per hour (km/h)
1 Pound per square foot (PSI)	0.069 (bar)
1 Fahrenheit (°F)	32+(9/5) Celsius (°C)

RED directive 2014/53/EU

All radio equipment installed by the manufacturer on this vehicle complies with Directive 2014/53/EU (RED directive).

The relative homologation documents are available at the following web address:

redhomologation.piaggiogroup.com



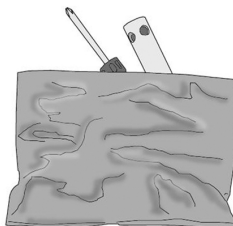
Toolkit

The toolkit includes:

- one 16 box wrench

- one twin screwdriver
- an extractor for fuses
- one torx wrench
- a shock absorber pre-load adjusting wrench;
- a rubber ring.

The tools are arranged in the front case.



Vespa Gts 310 HPE



CHAPTER 06 Spare parts and accessories

Caution



CAUTION



TO PREVENT ACCIDENTS AND TO GUARANTEE PROPER STABILITY, PERFORMANCE AND SAFETY, RIDE THE VEHICLE VERY CAREFULLY WHEN IT IS FITTED WITH ACCESSORIES OR WITH UNUSUAL LOADS.

WARNING



IT IS ALSO RECOMMENDED THAT ORIGINAL PIAGGIO GROUP SPARE PARTS BE USED, AS THESE ARE THE ONLY ONES OFFERING YOU THE SAME QUALITY GUARANTEE AS THOSE INITIALLY FITTED ON THE VEHICLE.

NOTE THAT USING NON-ORIGINAL SPARE PARTS WILL VOID THE WARRANTY.

CAUTION



PIAGGIO GROUP SELLS ITS OWN LINE OF ACCESSORIES, WHICH ARE APPROVED FOR USE WITH PIAGGIO VEHICLES AND COVERED BY A PIAGGIO WARRANTY. IT IS THEREFORE ESSENTIAL TO CONTACT A DEALERSHIP OR AN AUTHORISED SERVICE CENTRE IN ORDER TO CHOOSE AND FIT ACCESSORIES CORRECTLY.

USING NON-ORIGINAL ACCESSORIES MAY AFFECT THE STABILITY AND FUNCTIONS OF YOUR VEHICLE, COMPROMISING THE SAFETY OF THE

VEHICLE AND EXPOSING THE RIDER TO DANGER.

CAUTION



NEVER OPERATE THE VEHICLE WITH ACCESSORIES (BAGS, TOP BOX AND/OR WINDSHIELD) AT A SPEED HIGHER THAN 100 kph.

THE VEHICLE CAN BE RIDDEN AT A HIGHER SPEED WITHOUT THE ACCESSORIES MENTIONED BEFORE WITHIN THE LIMITS ESTABLISHED BY LAW.

IF THERE ARE ANY NON-PIAGGIO ACCESSORIES INSTALLED, OR AN ABNORMAL LOAD, OR IF THE SCOOTER IS NOT IN A GENERALLY GOOD CONDITION, OR WHENEVER WEATHER CONDITIONS DEMAND IT, SPEED SHOULD BE FURTHER REDUCED.

WARNING



BE EXTREMELY CAREFUL WHEN INSTALLING AND REMOVING THE MECHANICAL ANTI-THEFT DEVICE

ON THE VEHICLE (U-SHAPED
PADLOCK, DISC BLOCK, ETC.).

MAINLY NEAR THE BRAKE
PIPES, TRANSMISSIONS AND/OR
ELECTRIC CABLES, AN INCORRECT
INSTALLATION OR REMOVAL OF
THE ANTI-THEFT DEVICE AS
WELL AS LEAVING IT ON
BEFORE STARTING THE VEHICLE
CAN SERIOUSLY DAMAGE ITS
COMPONENTS, COMPROMISE THE
CORRECT FUNCTIONING OF THE
VEHICLE AND USERS' SAFETY.

Vespa Gts 310 HPE



CHAPTER 07 Scheduled maintenance

The value of service

Due to continuous updates and technical training programmes specific to Vespa products, only **Vespa** Official Network mechanics know this vehicle fully and have the specific tools necessary to carry out maintenance and repair operations correctly.

The reliability of the vehicle also depends on its mechanical conditions. Checking the vehicle before riding it, performing maintenance correctly and using only **original Vespa spare parts** are essential factors for the reliability of your vehicle!

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

www.vespa.com

Scheduled maintenance

Proper maintenance is a crucial factor in prolonging the durability of the vehicle and keeping it in perfect working order.

To ensure that maintenance is carried out correctly, the constructor has defined the schedule of checks and services (performed at the owner's expense) summarised in the table given in the following page. Any minor faults should be reported without delay to a **Dealership or an Authorised Service Centre** without waiting until the next scheduled service.

It is necessary to have your vehicle serviced to the prescribed intervals of time, even if you have not reached the predicted mileage. Carrying out scheduled services on time is necessary to ensure your warranty remains valid. See the "Warranty Conditions" for all other information concerning the applicability of the Warranty and on performing "Scheduled Maintenance" correctly.



Scheduled maintenance table

Km x 1.000 (mi x 1.000)	1 (0.6)	10 (6.2)	20 (12.4)	30 (18.6)	40 (24.8)	50 (31)	60 (37.2)	AT 12 MONTHS	AT 24 MONTHS	AT 36 MONTHS	AT 48 MONTHS
Safety fasteners	I	I		I		I	I				
Spark plug			R		R		R				
Centre stand		L	L	L	L	L	L	L	L	L	L
Drive belt		R	R	R	R	R	R				
Throttle control	I	I	I	I	I	I	I	I	I	I	I
Complete roller housing		I	I	I	I	I	I				
Diagnosis by tool	I	I	I	I	I	I	I	I	I	I	I

Km x 1.000 (mi x 1.000)	1 (0.6)	10 (6.2)	20 (12.4)	30 (18.6)	40 (24.8)	50 (31)	60 (37.2)	AT 12 MONTHS	AT 24 MONTHS	AT 36 MONTHS	AT 48 MONTHS
Air filter		R	R	R	R	R	R				
Engine oil filter	R	R	R	R	R	R	R	R	R	R	R
Valve clearance		A	A	A	A	A	A				
Electrical system and battery	I	I	I	I	I	I	I				
Brake system	I	I	I	I	I	I	I	I	I	I	I
Coolant	I	I	I	I	I	I	I	I	R	I	R
Brake fluid (1)	I	I	I	I	I	I	I	R	I	R	I
Engine oil	R	R	R	R	R	R	R	R	R	R	R
Hub oil	R	I	R	I	R	I	R	I	I	I	I
Headlight direction adjustment		I	I	I	I	I	I				
Brake pads		I	I	I	I	I	I	I	I	I	I
Sliding shoes / CVT rollers		R	R	R	R	R	R				
Tire pressure and wear	I	I	I	I	I	I	I	I	I	I	I
Test drive of vehicle on road	I	I	I	I	I	I	I	I	I	I	I
Suspension		I	I	I	I	I	I	I	I	I	I
Steering	A	A	A	A	A	A	A	I	I	I	I

- (I): CHECK AND CLEAN, ADJUST, LUBRICATE OR REPLACE, IF NECESSARY

- (C): CLEAN
- (R): REPLACE
- (A): ADJUST
- (L): LUBRICATE
- (1) **CAUTION:** failure to do so may result in a complete loss of the brake system functionality

N.B.:



AT EACH SCHEDULED SERVICE, USE THE DIAGNOSTIC TOOL TO CHECK FOR ERRORS AND CHECK THAT ALL PARAMETERS ARE CORRECT.

ENSURE THAT THE VEHICLE CALIBRATION IS UP TO DATE AFTER UPDATING THE DIAGNOSTIC TOOL.

Recommended Products

Piaggio Group recommends the use of products from its Castrol official partner for the scheduled maintenance of its vehicles.

Only use lubricants and fluids which meet or exceed the performance characteristics specified. This also applies when topping up only.



Recommended Products Table

PRODUCT	DESCRIPTION	SPECIFICATIONS
Engine oil 0W-30	Synthetic-based lubricant for four-stroke engines ($-15^{\circ}\text{C} < T < 40^{\circ}\text{C}$).	SAE 0W-30 ACEA A5/B5-04 - JASO MB; API SL
80W-90 transmission oil	Lubricant for gearboxes and transmissions.	SAE 80W-90; API GL-4
DOT 4 brake fluid	Synthetic brake fluid.	SAE J 1703; FMVSS 116; ISO 4925; CUNA NC 956 DOT4

PRODUCT	DESCRIPTION	SPECIFICATIONS
Anti-freeze liquid, ready to use, colour red	Glycol ethylene based antifreeze liquid with organic additive technology corrosion inhibitor. Colour red, ready to use.	ASTM D 3306 - ASTM D 4656 - ASTM D 4985 - CUNA NC 956-16
Lubricating grease	Yellow-brown lithium-based, medium-fibre grease suitable for a variety of uses.	ISO L-X-BCHA 3 - DIN 51 825 K3K -20
Water-repellent spray grease	Water repellent stringy calcium spray grease.	White spray grease based on NLGI 2 calcium complex soap; ISO-L-XBCIB2

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CHAPTER 08 Special fittings

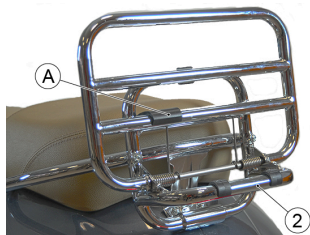
Luggage rack

The vehicle is equipped (if available) with the rear handle "1" indicated in the image.



The vehicle is equipped (if available) with the rear luggage rack "2" indicated in the image.

During use of the vehicle without a load on the rear luggage carriers, it is recommended to position the retainer hook «A» as shown in photo.

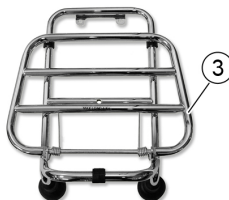


CAUTION



**REAR LUGGAGE CARRIER MAXIMUM
ADMISSIBLE LOAD: 6 KG.**

The vehicle is also equipped (if available) with the front luggage rack "3", apart from the previously mentioned rear luggage rack "2".



CAUTION



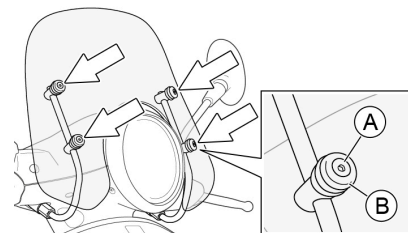
**FRONT LUGGAGE CARRIER
MAXIMUM ADMISSIBLE LOAD: 4 KG.**

Windscreen

The vehicle is equipped (if available) with a windshield; to remove it, proceed as follows:



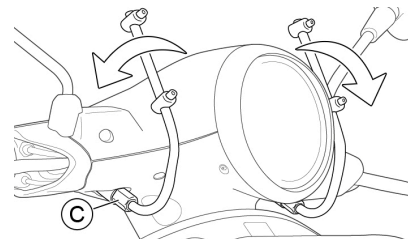
- Undo the four screws "A" and remove them together with their bushings "B".



- Remove the windshield plate.

- Loosen the nut "C" on both sides.

- Turn the windshield brackets 90° as indicated in the figure, then remove them.



To refit, proceed in the reverse order.



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