



# OWNER'S MANUAL

Vespa ET2

ET2

ET2

# SYMBOLS FOR THE CORRECT USE OF YOUR NEW VEHICLE

*The symbols on this page are important.*

*They highlight areas of the handbook that deserve special attention.*

*The three symbols are distinctive so that information can be located quickly.*



## **PERSONAL SAFETY WARNING**

Failure to observe these instructions will result in a serious risk of personal injury or even death.



## **ENVIRONMENTAL RESPECT**

Sections marked with this symbol indicate the correct use of the vehicle in full respect of your natural surroundings.



## **VEHICLE SAFETY CAUTION**

Failure to observe these instructions will result in the risk of serious damage to the vehicle and, in certain cases, may invalidate the warranty.

## GENERAL SAFETY RULES

### FOREWORD

This manual is an important and integral part of your vehicle. Keep it with your vehicle at all times and when vehicle is resold.

Piaggio has prepared this manual to provide the owner, with correct and current information. However, since Piaggio constantly improves the design of its vehicles, there may be slight discrepancies between your vehicle and the material given in this manual.

If you have any questions about your vehicle, contact your local Vespa Dealer, as he will have the very latest technical information available from the factory or call toll free:

1-866-4-PIAGGIO

For tests and repairs not expressly described in this manual, to purchase Piaggio genuine spare parts, accessories, and other products, or for help with specific problems, please contact your local Vespa Dealer or Authorized

Piaggio/Vespa Service Center. These professionals will be able to promptly and accurately help you. Thank you for choosing Piaggio. Have a great ride!

### CARBON MONOXIDE

If it is necessary to let the engine run in order to carry out some work, make sure that the area in which you are operating is properly ventilated. Never run the engine in enclosed spaces. If it is necessary to work indoors, use an exhaust evacuation system.



### WARNING

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



### FUEL WARNING

Gasoline is extremely flammable and in some conditions can become explosive.

Therefore, it is necessary to refuel and carry out maintenance operations involving the fuel system in a well-ventilated area with the engine off.

Do not refuel or perform any maintenance on the fuel system with the engine running.

Do not smoke while refueling or near fuel vapors.

Never allow any portion of the fuel system to come in contact with open flames, sparks and/or other heat sources.

Be careful to avoid spilling fuel when you are refueling. Spilled fuel could ignite when it contacts hot engine or exhaust system surfaces. If you accidentally spill some fuel, make sure that it is wiped up or completely evaporated before starting the vehicle.

Since gasoline expands in the fuel tank when the vehicle is sitting in the open sun, never fill the tank completely to the brim. Leave at least one inch of expansion space.

Avoid any contact of the fuel with your skin, and avoid inhalation of fuel vapors. Do not ever attempt to siphon fuel from one container to another using your mouth as suction for a siphon hose. Use a manual pump or a similar system.



### WARNING

Gasoline is poisonous and carcinogen and contains chemical substances that cause birth defects and other reproductive problems. If gasoline should be accidentally spilled on the skin or clothes, immediately wash it off with soap and water and change clothes.

Should you accidentally spill gasoline in your eyes, flush with a large quantity of water and immediately contact a health professional. Should you accidentally get gasoline into your mouth, do not induce vomiting. Drink a large quantity of milk or clear water and immediately contact a health professional.

If your vehicle overturns, it may leak gasoline which is extremely flammable. Flames or sparks may ignite the gasoline, which will not only destroy the vehicle but also could do serious property damage to surrounding property and cause serious injuries or even death.

DISPOSE OF UNWANTED GASOLINE PROPERLY, DO NOT DUMP IT INTO STORM DRAINS, SINKS OR TOILETS.

KEEP GASOLINE AWAY FROM CHILDREN.

## GENERAL SAFETY RULES

### **HOT COMPONENTS WARNING**

The engine and all parts of the exhaust system, as well as the braking system, become very hot and remain hot for some time after the motorcycle and the engine are stopped.

Before handling any component of your motorcycle after riding, ensure that it has cooled sufficiently to be safe to handle.

### **HIGH VOLTAGE CABLE WARNING**

Starting the engine, while keeping in your hands the high voltage cable disconnected from the spark plug, is extremely dangerous.

### **COOLING FAN WARNING**

Keep your fingers and other body parts, as well as any other object, well clear of the cooling fan when the engine is running. Failure to observe this warning can damage your engine, as well as cause serious injury to you.

### **REAR WHEEL WARNING**

Be very careful to keep your fingers, all your other body parts, and any object well clear of the rear wheel while the engine is running and the vehicle is resting on its stand. Failure to observe this warning can lead to serious personal injury, as well as damage to your engine.

### **SHOCK-ABSORBERS WARNING**

Do not disassemble the front and rear shock-absorber. The shock-absorbers have preloaded springs. Disassembly can cause serious injury and even death.

6

### **BRAKE FLUID CAUTION**

Brake fluid is extremely poisonous. Never allow brake fluid to be ingested or swallowed. Should brake fluid accidentally be swallowed, drink large quantities of milk or pure water and immediately seek professional medical assistance. Brake fluid is highly destructive to skin and eye tissue. Should you accidentally spill brake fluid on yourself, remove the contaminated clothing, wash your body with soap and warm water immediately and seek professional medical assistance. Should you accidentally splash brake fluid into your eyes, flush with a large quantity of cool, clear water and immediately seek professional medical assistance.

**KEEP BRAKE FLUID AWAY FROM CHILDREN.**

### **BATTERY HYDROGEN GAS AND ELECTROLYTE WARNING**

Vehicle batteries give off noxious and explosive gases; keep cigarettes, flames and sparks away from the battery.

Provide adequate ventilation when operating or recharging the battery. During recharging or use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

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

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

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

**KEEP AWAY FROM CHILDREN.**

7

## GENERAL SAFETY RULES

### PRECAUTIONS GENERAL ADVICE



#### WARNING

Before starting the engine, carefully read this manual and in particular the chapters "PERSONAL SAFETY - ENVIRONMENTAL RESPECT - VEHICLE SAFETY" see p. 3.

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

### REPORTING OF DEFECTS THAT AFFECT SAFETY

If you believe that your motor scooter has a defect which could cause an accident or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Piaggio by calling toll free 1-866-4-PIAGGIO. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of motor scooters, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your Dealer, or Piaggio. To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590.

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

### ROAD REGULATIONS AND USE OF THE MOTOR SCOOTER

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



#### WARNING

This motor scooter has been designed and produced for use on even and paved roads or surfaces only. Do not use the motor scooter on unpaved surfaces, in order to avoid overturning or other accidents.

8



#### WARNING

Piaggio recommends you not to ride your motor scooter on state or national highways, freeways or expressways.

### NOISE EMISSION WARRANTY

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

Warranty claims should be directed to: Piaggio USA, Inc.  
20003 South Rancho Way,  
Rancho Dominguez, CA 90220  
USA.

### INFORMATION ON THE NOISE AND EXHAUST GAS EMISSION CONTROL SYSTEM

#### ORIGIN OF THE EMISSIONS

The combustion process produces carbon monoxide and hydrocarbons. The control of hydrocarbons is very important, because under certain conditions they react to exposure to sunlight and produce photochemical smog. Carbon monoxide does not react in the same way, but it is toxic and poisonous. Piaggio utilizes "lean" carburetor settings to reduce the production of carbon monoxide and hydrocarbons.

#### EXHAUST EMISSION CONTROL SYSTEM

The Exhaust Emission Control System requires "lean" carburetor settings and no adjustments should be made, except idle speed adjustments by means of the appropriate screw.



#### TAMPERING WARNING

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

- Removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, any device or element of design incorporated into any new motor scooter for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or
- Use of the motor scooter after such device or element of design has been removed or rendered inoperative by any person. Among those acts presumed to constitute tampering are the acts listed below:
  - Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
  - Removal or puncturing of any part of the intake system.

9

## GENERAL SAFETY RULES

- c) Lack of proper maintenance.
- d) Replacement of any moving part of the motorscooter, or parts of the exhaust or intake system, with parts other than those specified by Piaggio.

### CAUTION

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

### WARNING

Please note: Your Vespa ET-2 is legally defined as a moped. A moped is a motor vehicle with 2 horsepower or less, that cannot exceed 30 miles per hour top speed.

Because of this, in certain states, this moped is eligible for special licensing. In some states it may be used by drivers with a special moped-only license. It also may be eligible for special insurance considerations. **YOUR FRANCHISED PIAGGIO DEALER IN YOUR STATE WILL KNOW THE STATE, AND ANY LOCAL, LAWS WHICH EFFECT THE LICENSING AND USE OF YOUR VESPA ET-2. PLEASE CONSULT YOUR FRANCHISED PIAGGIO DEALER, OR YOUR STATE DEPARTMENT OF MOTOR VEHICLES, TO DETERMINE WHAT SPECIAL LICENSING YOUR ET-2 IS ELIGIBLE FOR IN YOUR STATE.**

Because your ET-2, is classified as a moped, **IT IS STRICTLY FORBIDDEN TO MODIFY ANY PART OR**

**FEATURE OF YOUR ET-2 MOTORSCOOTER TO INCREASE THE HORSEPOWER OR PERFORMANCE. ANY SUCH MODIFICATION IS STRICTLY ILLEGAL. FURTHER, SERIOUS DAMAGE MAY BE DONE TO YOUR MOTORSCOOTER. WORSE, ANY SUCH MODIFICATIONS MAY MAKE YOUR MOTORSCOOTER UNSAFE, WHICH COULD LEAD TO AN UPSET OR ACCIDENT, WITH CONSEQUENT SERIOUS INJURY OR EVEN DEATH. FURTHER, ANY SUCH MODIFICATION WILL IMMEDIATELY AND COMPLETELY VOID THE WARRANTY.** Please consult your franchised Vespa dealer to determine what accessories may be installed on your ET-2 without changing the performance or voiding the warranty.

10

### PROBLEMS THAT MAY AFFECT THE MOTORSCOOTER EMISSIONS

If any of the following symptoms are observed, immediately have your motorscooter inspected and repaired by your Vespa Dealer or Authorized Piaggio/Vespa Service Center.

#### Symptoms:

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

### PROTECTIVE CLOTHING

For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long pants, and a long-sleeved shirt or jacket whenever you ride. Although com-

plete protection is not possible, wearing proper gear can reduce the chance of injury. See your Vespa Dealer for stylish, comfortable and effective riding gear suggestions.

### HELMETS AND EYE PROTECTION

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright-colored helmet can make you more noticeable in traffic, as can reflective strips.

An open-face helmet offers some protection, but a full-face helmet offers more. Always remember to properly fasten your crash helmet. Regardless of the style, look for a DOT (Department Of Transportation) sticker in any helmet you buy (USA only), and always wear a face shield or goggles to protect your eyes and help your vision.

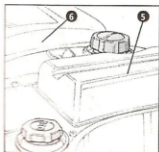
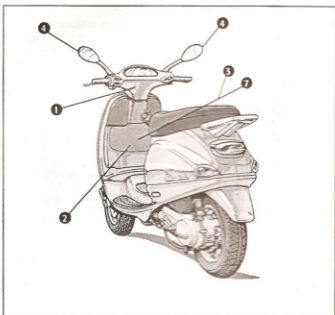
### ADDITIONAL RIDING GEAR

In addition to a helmet and eye protection, we also recommend:

- Properly fitted boots with non-slip soles to help protect your feet and ankles.
  - Leather gloves to keep your hands warm and help prevent blisters, cuts, burns and bruises.
  - A motorcycle riding suit or jacket for comfort as well as protection.
- Brightly colored and reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorscooter.

11

## POSITION OF THE WARNING ADHESIVE LABELS



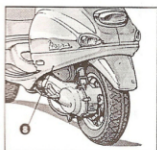
12

Ref.	Description
1	<p><b>WARNING!</b></p> <ul style="list-style-type: none"> <li>Wear a helmet, use protective gear and protective clothing.</li> <li>Don't ride after consuming alcohol or other drugs.</li> <li>Don't drive on slippery surfaces, wet/sloped terrain or when visibility is reduced.</li> <li>Read owner's manual carefully.</li> <li>Check oil before each startup and be sure oil level is correct and within tolerance on tank.</li> <li>USE UNLEADED FUEL. MINIMUM OCTANE RATING IS 91 (REGULATED IN).</li> <li>Use correct tire for the correct loading to avoid underinflation of the vehicle.</li> </ul>
2	<p><b>MOTORCYCLE NOISE EMISSION CONTROL INFORMATION</b></p> <p>THIS *VEEVA* MOTORCYCLE, 800493 MEETS EPA NOISE EMISSION REQUIREMENTS OF 70 dBA AT 4150 RPM BY THE FEDERAL TEST PROCEDURE. MODIFICATION WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW.</p> <p>SEE OWNER'S MANUAL.      Dwg. 517794</p>
3	<p><b>WARNING!</b></p> <p>Some aerial accessories or replacement parts not approved by Honda® or its agents are required equipment. Use can reduce the handling and safety of your motorcycle, and can cause an accident with subsequent personal and vehicle injury or other costs. The handling and safety of our motorcycle is adversely affected by the addition of any non-approved accessories. See owner's manual.</p>

Ref.	Description
4	<p><b>OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR</b></p>
5	<p><b>CAUTION!</b></p> <p>Engine oil. Please use two Stroke Special indicated. See owner's manual.</p>
6	<p><b>WARNING!</b></p> <p>Engine oil cap. Do not use oil with low pour point. Always contact with hot oil or cooling surfaces. Fuel with oil. <b>WARNING:</b> Check to be sure number of holes or ribs. Fuel with oil or gasoline. Underage oil may oil oil pressure prematurely. Fuel with oil with 15 minutes and get proper maintenance. <b>KEEP OUT OF REACH OF CHILDREN.</b> Read the product manual for more safety details. For more safety. Change only with approved tools. Do not use oil or other engine oil when working around fuel. Always use the correct oil type. Failure to read the warning will cause damage to the electrical system.</p>

13

## POSITION OF THE WARNING ADHESIVE LABELS



14

Ref.	Description																								
7	<p><b>WARNING!</b></p> <p>Do not use parts other than those recommended and approved by PIAGGIO &amp; C. S.p.A. Misuse may be the cause of an accident or death. See owner's manual.</p> <p>Do not use any parts other than those recommended and approved by PIAGGIO &amp; C. S.p.A. Misuse may be the cause of an accident or death. See owner's manual.</p> <table border="1"> <thead> <tr> <th colspan="4">Front tire</th> </tr> <tr> <th>Front tire</th> <th>Rear tire</th> <th>Front wheel</th> <th>Rear wheel</th> </tr> </thead> <tbody> <tr> <td>110/70-12</td> <td>110/70-12</td> <td>12" (305)</td> <td>12" (305)</td> </tr> <tr> <td>110/70-12</td> <td>110/70-12</td> <td>12" (305)</td> <td>12" (305)</td> </tr> <tr> <th colspan="4">Rear tire</th> </tr> <tr> <td>110/70-12</td> <td>110/70-12</td> <td>12" (305)</td> <td>12" (305)</td> </tr> </tbody> </table>	Front tire				Front tire	Rear tire	Front wheel	Rear wheel	110/70-12	110/70-12	12" (305)	12" (305)	110/70-12	110/70-12	12" (305)	12" (305)	Rear tire				110/70-12	110/70-12	12" (305)	12" (305)
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110/70-12	110/70-12	12" (305)	12" (305)																						
8	<p><b>WARNING!</b></p> <p>Kick-start lever.</p> <p>Improper use can cause severe injuries. See owner's manual.</p>																								
9	<p><b>DANGER!</b></p> <p>Do not modify this Vespa ES-3 in any way to improve the performance. Any such modification can lead to engine or wheel failure, with subsequent injury, accident and possible injury or even death. Such modifications to this Vespa will void the warranty completely.</p>																								

15



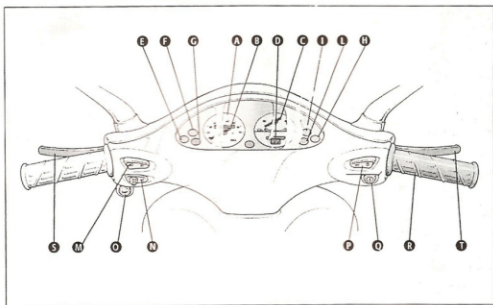
# INDEX

<b>1 VESPA</b>	
INSTRUMENT PANEL .....	1.1
CONTROLS AND DIGITAL CLOCK .....	1.2
KEYS .....	1.3
IDENTIFICATION .....	1.4
<b>2 OPERATION</b>	
CHECKS AND SUPPLIES .....	2.1
RUNNING IN .....	2.2
STARTING THE ENGINE .....	2.3
RIDER SAFETY .....	2.4
BASIC SAFETY RULES .....	2.5
<b>3 MAINTENANCE</b>	
REAR HUB OIL LEVEL .....	3.1
TIRES .....	3.2
REMOVING THE SPARK PLUG AND AIR FILTER .....	3.3
BRAKE FLUID LEVEL .....	3.4
ELECTRICS .....	3.5
BATTERY AND FUSE .....	3.6

# INDEX

<b>4 WHAT TO DO IF...</b>	
... A BULB BURNS OUT .....	4.1
... THE HEADLIGHT REQUIRES ADJUSTMENT .....	4.2
... THE REAR-VIEW MIRRORS REQUIRE ADJUSTMENT .....	4.3
... IDLE SPEED REQUIRES ADJUSTMENT .....	4.4
... FRONT BRAKE REQUIRES ADJUSTMENT .....	4.5
... REAR BRAKE REQUIRES ADJUSTMENT .....	4.6
... YOU NEED TO STORE THE VEHICLE .....	4.7
... THE VEHICLE NEEDS CLEANING .....	4.8
... YOU NEED TO PINPOINT A FAULT .....	4.9
<b>5 SPECIFICATIONS</b>	
SPECIFICATIONS AND PERFORMANCE DATA .....	5.1
<b>6 SPARE PARTS AND ACCESSORIES</b>	
SPARE PARTS .....	6.1
ACCESSORIES .....	6.2
<b>7 SCHEDULED MAINTENANCE</b>	
SERVICE CHECKSHEETS .....	7.1
RECOMMENDED PRODUCTS .....	7.2

# 1 VESPA



18

## INSTRUMENT PANEL 1.1

- A = Speedometer
- B = Odometer
- C = Fuel gauge
- D = Clock/Calendar
- E = Left turn indicator
- F = Engine two-stroke oil
- G = High beam indicator
- H = Right turn indicator
- I = Fuel warning light
- L = Light indicator
- M = Headlight high beam/dipped beam selector
- N = Turn signal selector
- O = Horn
- P = Engine Stop switch
- Q = Starter button
- R = Throttle
- S = Rear brake lever
- T = Front brake lever

# 1 VESPA



Fig. 1



Fig. 2

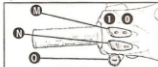


Fig. 3

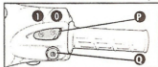


Fig. 4

## KEY SWITCH «V»

**LOCK** = Ignition OFF, key can be removed, steering locked, front glove box locked.

**OFF** = Ignition OFF, key can be removed, steering unlocked, front glove box unlocked.

**ON** = Ready to start engine, steering unlocked, key cannot be extracted, glove box unlocked.

## LOCKING THE STEERING:

turn the handlebars completely to the left and then turn the key to the "LOCK" position (see fig.1) and remove it.

## UNLOCKING THE STEERING:

insert the key and turn it to the "OFF" position.

## OPENING THE GLOVE BOX:

to open the glove box press the key when it is set to "OFF". When the key is in the "LOCK" position the glove box is locked.



## WARNING

Leave the key in the "ON" position while riding. Do not turn the key while riding to "LOCK". This will inevitably lead to an upset, with subsequent serious accident, and serious injury or even death. Do not attempt to turn it until the scooter has stopped.

## TURN INDICATOR SELECTOR «N»

To activate the left hand turn indicators, press the selector to the left, for the right hand turn indicators press it to the right. The selector automatically returns to the centre position when released and the turn indicators remain activated.

To switch off the indicators press the selector.

## ENGINE STOP SWITCH «P»

- 0 = Engine run
- 1 = Engine off

## DIP/FULL BEAM SELECTOR «M»

- 0 = Dipped beam
- 1 = High beam

## HORN BUTTON «O»

## STARTER BUTTON «Q»

## CONTROLS AND DIGITAL CLOCK 1.2

## DIGITAL CLOCK

Positioned on the instrument panel (see fig. 2), displays hours and minutes from 1 to 12, A (a.m.) or P (p.m.). By pressing «X» the clock can display month, day and seconds. Use button «Y» to set the various clock functions. The digital clock runs from a small dry cell battery (which lasts about 2 years) accessible by lifting the entire instrument panel. **We recommend to contact an Authorized Piaggio/Vespa Service Center to change the clock battery.**



Used batteries are harmful for the environment. Take used batteries to your nearest collection point for disposal as prescribed by law.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

**KEYS**

The motorscooter is supplied with two keys (one spare) that serve to start the engine and unlock the saddle compartment.

The keys are accompanied by a tag marked with the identification code. It should be quoted when ordering duplicates.

**NOTE**

Keep the duplicate key and identification plate separately from the motorscooter.

### OPENING THE SADDLE TO ACCESS THE FUEL AND OIL TANKS AND THE HELMET COMPARTMENT

Insert the key in lock «A» and turn it counter-clockwise (fig. 2). Tip the saddle forwards (fig. 3). Insert the key in lock «B» (fig. 4) and turn it counter-clockwise (fig. 2). Tip the saddle forwards.

**HELMET STORAGE**

Place the helmet in the compartment as shown in figure 3.

**BAG CLIP**

To use the bag clip «B» (figure 4) extract it by pulling it towards the handlebars.

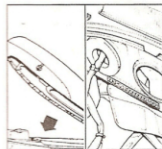


Fig. 1

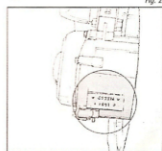


Fig. 2

The serial numbers are made up of a code stamped into the frame (fig. 1) and the engine (fig. 2). Always quote the serial numbers when ordering spare parts.

Check that the frame number on the vehicle is identical to the number shown in the owner's handbook.

Defacing factory serial numbers is a serious criminal offense and can lead to confiscation of the vehicle or other penalties.

**CAUTION**

In all states and countries, it is against the law to alter the Vehicle Identification Number (VIN) and can result in severe penalties. This will immediately invalidate your warranty.

## 2 OPERATION

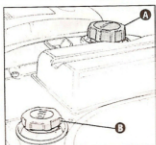


Fig. 1

### BEFORE USING YOUR MOTORSCOOTER CHECK:

1. That the fuel and oil tanks are adequately filled.
2. Rear hub oil level.
3. Tire inflation pressure.
4. Lights and turn indicators.
5. Front and rear brakes.
6. Fluid level in the brake master cylinder reservoir.

### NOTE

Check inflation pressure with tires cold.

### TIRE PRESSURE

Front: 1.3 bar (18.9 psi)

Rear: 1.8 bar (26.1 psi)

(DRIVER PLUS PASSENGER)

Front wheel: 1.6 bar (23.2 psi)

Rear wheel: 2.0 bar (29 psi)

## CHECKS AND SUPPLIES 2.1

### REFUELLING

Fill fuel tank «A» (see figure 1) with unleaded gasoline. Minimum octane rating (M-R)<sub>2</sub> method 90. The rider is informed when fuel is low by the fuel warning light on the instrument panel (see page 19).

Fill the engine oil tank «B» with Selenia HI Scooter 2 Tech.

The rider is informed when engine two-stroke oil is low by the oil warning light on the instrument panel (see page 19).

### WARNING

Before refuelling, stop the engine. Gasoline is highly flammable. Keep it away from hot engine parts. Failure to heed this warning can lead to a serious fire.

### WARNING

Fire hazard: keep open flames, lighted cigarettes etc. well clear of the fuel tank filler opening. Gasoline vapor is harmful if inhaled. Keep your face clear of the fuel tank filler opening.

When minimum oil level is reached a warning light on the instrument panel will illuminate (see page 19) to remind you to add at least 0.1 - 0.2 gal (0.5 - 0.7 l) of new engine two-stroke oil at the next refuel (do not travel more than 80 miles with the warning light on). Every time the ignition key is set to the "ON" position the engine two-stroke oil warning light must come on for a few seconds (test function). If the warning light fails to illuminate, we recommend to contact an **Authorized Piaggio/Vespa Service Center**.

### WARNING

Use only the recommended types of oil. See par. 7.2. Use of inferior oil will lead to reduced engine life, and can lead to an engine seizure, with subsequent upset, serious accident, and serious injury, or even death.

## 2 OPERATION



26

### ***RUNNING IN 2.2***



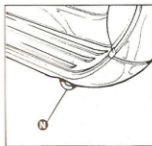
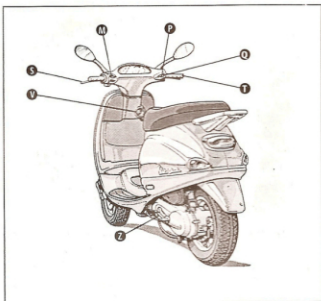
During the first  
625 miles (1,000 km) keep to within 80% of full throttle opening.

Do not undertake long journeys at constant speed.

After the first 625 miles (1,000 km) you can start increasing speed gradually up to the maximum (within the limits of the law and in accordance with road and traffic conditions).

27

## 2 OPERATION



28

Your Vespa is equipped with an automatic transmission system with centrifugal clutch. Always start the engine with the throttle rotated fully clockwise: that is, at idle position. Gradually accelerate to pull away.

With reference to the figure on page 34 carry out the operations herebelow described. Please note that this motorscooter has a fuel line tap and a choke which are automatically controlled when the starter button is pressed.

### STARTING THE ENGINE

- A:** Place the vehicle on center stand and check that the rear tire is not touching the ground.
- B:** Keep the throttle closed.
- C:** Move the engine stop switch «P» to the "O" (ON) position.
- D:** Insert the ignition key and turn it to "ON".

**E:** Pull rear brake lever «S» or front brake lever «T» and then press starter button «Q».

**F:** If the battery is discharged, or if the motorscooter electrical system is not working properly, use the kickstarter «Z».

### STOPPING THE ENGINE

When the vehicle is stopped with the engine idling turn the ignition key «V» to "OFF" (key can now be extracted). Use the center stand to support the motorscooter while parked.

Park the motorscooter on firm, level ground to prevent it from falling. Lock the steering to help prevent theft.



### ANTITHEFT

The ring «N» located on the right hand side of the motorscooter is to be used only to chain your motorscooter to a fixed object. Do not use it for any other purpose.



### WARNING

Never attempt to start your engine with the throttle in the open position. This can lead to runaway, with upset and subsequent serious injury, or even death.



### WARNING

Use the engine stop switch «P» only if the engine runs away. It is for emergency use only. Once the switch is activated, your motorscooter will slow very abruptly. Only in case of emergency the engine stop switch should be used while the motorscooter is running.



### WARNING

Never attempt to place the ignition switch in the locked "+" (LOCK) position while the motorscooter is moving. This will cause loss of control of the motorscooter with possible subsequent accident, serious injury or even death.

## 2 OPERATION



### WARNING

Do not place anything inside the front part of the fairing between the handlebar and the dashboard. Any object placed in this area could jam the forks, and also could restrict visibility of the dashboard.



### WARNING

Never take your hands off the hand grips nor your feet off the foot rests while you are riding. Failure to do this could upset the stability of the vehicle. Before riding away, make sure that the stand is completely up. Failure to follow these warnings may cause an accident with consequent risk of serious injury or even death.

To ride away:

- Allow the throttle to return to idle, apply the rear brake, then remove the vehicle from the stand.
- Get on the vehicle, keeping at least one foot on the ground in order not to lose balance.
- Before driving, be sure that the rear view mirrors are correctly adjusted.



### CAUTION

When the vehicle is new to you, practice looking in the rear view mirrors. Only experience will allow you to correctly determine the exact location of other vehicles and objects behind you.

- To begin, release the brake lever and accelerate by gently rotating the throttle grip; the vehicle will start moving.

- Ride at reduced speed for the first few miles in order to warm up the engine.



### CAUTION

Never ride away abruptly with a cold engine.

To reduce the emission of polluting substances and the consumption of fuel, warm up the engine by proceeding at low speed for the first few miles.



### WARNING

When braking, close the throttle and apply both brakes simultaneously in order to obtain the best brake performance.

By applying only the front brake or only the rear brake, you reduce the braking efficiency considerably, and run the risk of locking up one wheel. This can cause an upset and subsequent serious injury or even death.

## STARTING THE ENGINE 2.3

Do not attempt to maintain your position on a hill by running the engine.

This will very quickly destroy the transmission, and overheat the engine.

Before entering a turn, slow the motorscooter using the brakes, to a constant speed and then accelerate slightly through the turn. Avoid braking at the last moment. This can cause you to lose control of your vehicle.

If the brakes are operated continuously on downhill grades, the discs and pads will overheat, reducing the braking efficiency. Use the brakes as little as possible to maintain a safe speed. Never coast downhill with the engine off.



### WARNING

On roads that are wet or covered with snow, ice or mud, ride very slowly, avoiding braking or accelerating or maneuvering quickly. Hold the handlebar firmly.

Failure to heed these warnings can cause an upset with subsequent serious injury or death.

Pay very close attention to any obstacles or variations of the road surface. Uneven roads, rails, manhole covers, painted traffic stripes, traffic dots all become slippery when wet. Avoid particularly steel plates which are sometimes used during road maintenance. They become more slippery than ice once they are wet by rain. If you must ride on such surfaces,

decrease your speed and operate the throttle, brakes and steering very gently.

Always use the turn signals any time you intend to change lanes or change direction, and avoid sudden or abrupt turning.

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

Overtake and pass with care, especially in rainy weather. A water cloud created by larger vehicles will reduce visibility and the slip stream could cause you to lose control of your vehicle.



## 2 OPERATION

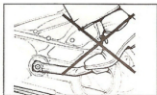


Fig. 1

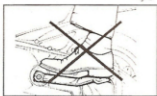


Fig. 2



Fig. 3



### WARNING

Exhaust fumes are noxious; do not start the engine in an enclosed place.

Possible causes for engine starting difficulties and suggested action:

#### 1. **Carburetor flooded.**

Go through the steps described below. Open the throttle fully and press starter button «Q» five or six times. Do not keep the button pressed for more than 5 seconds at a time.

#### 2. **Battery flat (except vehicles provided with the immobilizer system) or starter motor faulty.**

Put the motorscooter on its stand and make sure the rear tire is not touching the ground. Bring the ignition key «V» to the "ON" position and use kick-starter «Z».



### WARNING

If using the kick-starter is necessary please read the following instructions in order to avoid injuries:

- Use the kick-starter only with sturdy footwear (i.e. low heel, rubber sole).
  - Place the vehicle on the center stand.
  - Move to the left side of the vehicle.
  - Move the engine stop switch «P» to the "O" (ON) position.
  - Make sure the dimmer switch «M» is in the low beam "D" position.
  - Rotate the ignition key «V» to the "O" (ON) position.
- To avoid losing control of your vehicle while you start it:
- firmly hold the rear rackpack with your right hand.

## STARTING THE ENGINE 2.3

- place your right foot on the kick-starter (see fig. 3) and push down slowly until you feel that the kick-starter is properly engaged. The kick-starter is properly engaged when the lever is in the highest position and offers the strongest resistance.
- when the kick-starter is properly engaged, push the lever down swiftly to start the vehicle.
- if necessary, repeat operation until the engine starts.



### CAUTION

Do not depress the kick-starter while the engine is running.

- 3. **Fuel tank empty.**  
Refuel. Start the engine, pressing the starter button «Q» while keeping the throttle closed to generate maximum suction on the fuel line.
- 4. **Engine too hot.**  
Follow the standard engine start procedure above, but keep the throttle slightly open.

If you are still unable to start the engine, we recommend to contact an **Authorized Piaggio/Vespa Service Center**.



### WARNING

Always put the vehicle on its stand before kick-starting.

Failure to observe this warning can lead to serious personal injury, as well as damage to your motorscooter.

## 2 OPERATION



Fig. 1



Fig. 2

### AUTOMATIC TRANSMISSION

For easy and comfortable riding, your new vehicle has automatic transmission with a centrifugal clutch. This system is designed to provide optimal fuel consumption and acceleration by adjusting the transmission ratio in relation to torque demands and engine speed. If you need to stop on a hill gradient (traffic lights, tailbacks etc.) restrain the vehicle with the brakes alone (engine should be idling). Using the engine to hold the vehicle can cause the clutch to overheat. Overheating is caused by prolonged slipping of the centrifugal clutch. Apart from the example above, the clutch will tend to slip when tackling very steep gradients with a heavily laden vehicle. When carrying a passenger (in countries where this is permitted by law) the maximum gradient the scooter can handle is 15%.

1. Limit the duration of extreme conditions such as the above
2. Allow the engine to idle for a few minutes to give the clutch time to cool.

### **WARNING**

Failure to follow these simple recommendations can damage your motorscooter, and lead to an accident, with subsequent serious injury, or even death. The life of your motorscooter, and your enjoyment of it, will be greatly enhanced if you avoid situations in which the motorscooter will be abused by attempting to carry too heavy a load, or starting on too steep a hill.

34

Your riding skill and a thorough knowledge of your vehicle are the basic ingredients of road safety. Practice riding in a traffic-free area until you are fully in control under various different conditions.



### **WARNING**

Never ride under the influence of alcohol or drugs as this is dangerous for yourself and others.

**BE SURE TO RIDE SAFELY, DEFENSIVELY AND WITHIN THE LIMITS OF THE LAW AND YOUR ABILITIES.**

- Before starting, put on an approved helmet and secure the straps correctly.
- Reduce speed on unsurfaced roads or uneven ground and exercise the maximum caution.

- Riding in the rain or on wet roads can cause the brakes of your motorscooter to become wet. When this happens, their effectiveness will be greatly reduced. In these conditions, gently activate the brakes regularly, to dry the brakes, and so that you may check the braking action.
- Use extreme caution when braking on wet roads, unsurfaced roads or any other slippery surfaced.
- Always use both brakes simultaneously to distribute braking force over both wheels.
- Do not start off by mounting the motorscooter when it is on the stand. Before taking the vehicle off the stand make sure the rear wheel is not spinning.

## RIDER SAFETY 2.4

- When your motorscooter is used on sandy, muddy, salty, or snow-covered roads, periodically clean the brake disc with a gentle cleaning agent. This will avoid the build-up of abrasive materials in the slots in the disc, which will cause early and uneven brake pad wear.
- Do not modify your motorscooter in any way. This motorscooter is carefully engineered to provide optimum performance and safety. You will only reduce its utility and your enjoyment of the motorscooter by modifying it.



### **WARNING**

Over-braking on a slippery surface will lead to upset, an accident, and subsequent injury or possibly even death.

## 2 OPERATION

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

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

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

Be sure that you meet all the requirements prescribed by local law, includ-



ing driver's license, minimum age, training, insurance, taxes, motorcycle registration, license plate, etc.

When you first receive your motorscooter, practice by riding in areas where there is no traffic. Do not attempt to ride in heavy traffic until you are thoroughly experienced and riding your motorscooter has become second nature to you.

Most states prohibit the operation of this size motorscooter on freeways or expressways. Be sure that it is legal to use your motorscooter before you take any particular road.



A new motorscooter must be carefully broken in, see p. 27 (RUNNING-IN).

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

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

Some medicines or drugs, illegal or prescription, and alcohol significantly increase the risk of accidents.

## BASIC SAFETY RULES 2.5



Do not ride while you are under the influence of alcohol or drugs, whether they are illegal or prescription. Make sure you are in good physical condition and not ill before riding your motorscooter. Do not ride your motorscooter when you are particularly tired. Alcohol, drugs and fatigue are leading causes of motorscooter accidents.

Many accidents are caused by the rider's inexperience and lack of training. Do not ride your motorscooter until you have received training from a recognized training organization such as the Motorcycle Safety Foundation.

Remember that riding a motorscooter, though easy and fun, is quite different from driving a car. Do not assume that you can operate your motorscooter safely just because you are a competent automobile driver. Never lend your motorscooter to others unless you are sure that they are competent and properly licensed motorcycle operators.

If the throttle sticks open, it may cause a collision with another vehicle or an upset. If the throttle sticks, turn off the engine with the engine stop switch located on the right hand side of the handlebar. Do not attempt to restart



the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a run away with serious injuries or even death.

### **WARNING**

In case of emergency always use the engine stop switch located on the right hand side of the handlebar. Do not ride the motorscooter if the throttle does not automatically return to idle. Contact your Local Vespa Dealer or Authorized Piaggio/Vespa Service Center who will provide for the necessary repairs.

## 2 OPERATION

It is very important to your safety that you give full attention to the riding task. Watch what you are doing, do not allow yourself to be distracted by other cars, people or things on the roadside, etc. Never smoke, eat, drink, read, etc. while riding your motorscooter.

If you must consult a map, pull over when it can be done safely.

Use only your motorscooter's specific fuels and lubricants indicated in the "LUBRICANT CHART" see p. 78; check the oil, fuel and coolant levels regularly.

If you and your motorscooter are involved in an accident, ensure that there has been no damage to the con-

trol levers, tubes, wires, braking system and other vital parts. If your motorscooter is involved in an accident, take it immediately to your local Vespa Dealer or Authorized Piaggio/Vespa Service Center who has the equipment and knowledge to check for damage which may compromise your safety.

Your Vespa Dealer is qualified to help you with any safety problems that you might have, but of course it is necessary for you to report any malfunctions to your mechanic in order for him to help you.

Do not use your motorscooter if it is damaged.

A damaged motorscooter may become unstable or present other problems which can increase the risk of accident, and therefore serious injury or even death.

Do not attempt to modify the position, angle or color of your license plate. Do not cover it with even a clear plastic covering.

Do not modify any of the safety equipment of your motorscooter, especially such safety related items as directional indicators, rear view mirrors, lights or horn.

Any modification to your motorscooter will invalidate the warranty.

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

Have your motorscooter repaired only with original parts, and use only original Piaggio accessories.

## BASIC SAFETY RULES 2.5

The use of aftermarket accessories and parts can seriously compromise the safety of your motorscooter as well as affect its performance, stability and serviceability. Any modification which affects performance or safety voids your warranty completely.

For the reasons stated above, tampering with the exhaust emission or noise control systems of your motorscooter can lead to large fines. Also, in some jurisdictions, helmets are required by law, and in all jurisdictions, you must maintain your motorcycle in current registration (license plate up-to-date). Also, many jurisdictions require a special motorcycle license, and you must not ride your motorscooter without having first obtained this license.

This motorscooter was not designed to be equipped with a sidecar or to be used to tow trailers, motorcycles, motorscooters or bicycles.

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

Never race other motorscooters or motorcycles with your motorscooter. Brake with both the front and rear brakes.

The use of one brake only for sudden braking may cause the motorscooter to skid or make the rider lose control of the motorscooter itself.

Always ride at a safe speed and avoid unnecessary hard acceleration.

This also reduces fuel consumption and

increases the life of the motorscooter.

If you must ride your motorscooter in rainy weather, or on loose surfaces, remember that traction is greatly reduced. Under these conditions, all handling of the motorscooter must be done gradually and smoothly. Sudden acceleration, braking or turning may cause you to lose control of your motorscooter. When traction is reduced, accelerate gradually and when slowing down release throttle and use your motorscooter engine braking in so far as possible, instead of braking abruptly.

Avoid rapid, harsh application of the brakes.