



DIAGNOSIS TESTER MANAGER

PC USER MANUAL

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PRECAUTIONS AND SAFETY MEASURES

Before connecting and operating the Scooter Diagnosis Tester (Piaggio Tester) read the User Manual carefully, especially the safety instructions. This will remove all uncertainty regarding the use of the Tester and its associated risks both for the operator safety and for eventual damages to the Tester itself.

Maintenance and repair procedures should only be carried out by a qualified service technician.

Precautions against personal injury

Use an appropriate power cable. To avoid fire risk, only use the type of power cable specified for the device or supplied with it.

Avoid electrical overload. To avoid injury and fire risk, do not supply a higher voltage to any input than that specified for the device.

Do not operate the device with its housing removed. To avoid electrical shock and fire risk, do not operate the device with its housing or panels removed.

Do not operate the device if wet or damp. To avoid electrical shock, do not use the device if it is wet or in a humid location.

Do not operate the device in a potentially explosive environment. To avoid personal injury and fire risk, do not operate the device in a potentially explosive environment.

Precautions against damage to the device

Use adequate supply voltage. Do not operate the device with a supply voltage greater than that specified. Only use the battery cable or power supply provided.

Do not operate the device when it has a suspected fault. If there is reason to believe that the device is damaged, have it inspected by a qualified service technician.

1. General Information

1.0 Introduction

The Scooter Diagnosis Tester (*Piaggio Tester*) is an electronic device which allows the user to manage the ECUs installed on modern motor vehicles.

The Piaggio Tester is a palmtop device equipped with a monochrome LCD display and a five-key membrane keypad; it is also equipped with an RS232C serial line, an ISO9141 standard serial line, and a CAN serial line for interfacing with the ECU.

It connects to a PC via the RS232C standard line and features a management software for updating the ECU diagnosis software.

1.1 Supply voltage

The Piaggio Tester runs off 6 to 16 V DC, either from the tested scooter battery or from the provided mains power adapter.

1.2 Installing the Piaggio Tester

The Piaggio Tester does not require any installation; it only needs to be configured with the diagnosis software to be used. The downloaded software is stored in the Tester's non-volatile memory until a new configuration is downloaded. The Piaggio Tester is supplied with diagnostics and power cables. The special PC connection cable for downloading diagnosis programs and the mains power adapter are both available as a kit. Some systems may require special cables along with the specific diagnosis program.

1.3 General description

Two sockets are located on the base of the Tester:

- The jack socket is required to supply power to the Tester during reprogramming by PC (main power adapter);

- The 15-pin socket is for the PC link (with main power adapter in the jack socket) or connection to the ECUs to be diagnosed; in this case the power supply is not via the jack socket but directly through the diagnostics cable.

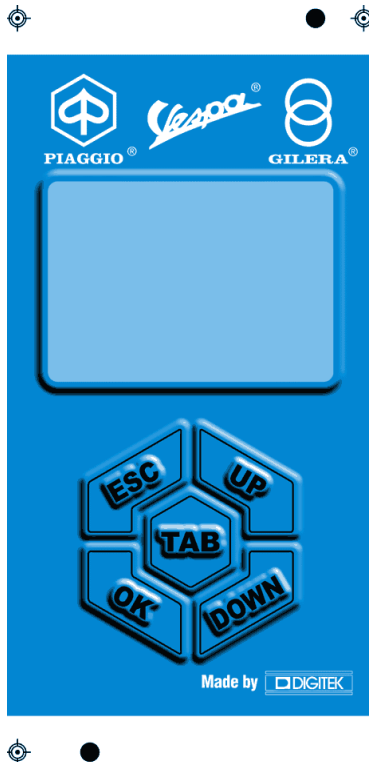


fig. 1.4.1

Figure 1.4.1 shows the front panel of the Piaggio Tester (display and keypad).

Holding down the UP, DOWN and TAB keys automatically repeats the respective command.

1.4 Operational check

To check the Tester is operating, supply power: within a few seconds the Piaggio logo or a menu appears on the display. You can now use the menus with the keypad.

2. Diagnosis Tester Manager

2.1 INTRODUCTION

The Piaggio Diagnosis Tester Manager is the basic PC system which allows management of the Piaggio tester. The main functions of the programme are:

- managing the download of ECU software from PC to Tester
- general management of the software present on the Tester.

The minimum performances and settings required by the PC on which the Diagnosis Tester Manager is installed are:

- Pentium 90MHz processor;
- 16Mbyte RAM memory;
- 100Mbyte of free space on the hard disk;
- 16 colour superVGA 640x480 screen card;
- 14 inch monitor;
- keyboard;
- mouse;
- 1 free serial port;
- 1 parallel port;
- Microsoft Windows® 95/98/ME/NT/2000/XP operating system;

2.2 DIAGNOSIS MENU

This menu allows the user to manage the updating of the software present on the Piaggio Tester, to install new ECUs and to set-up the printer installed on the PC.

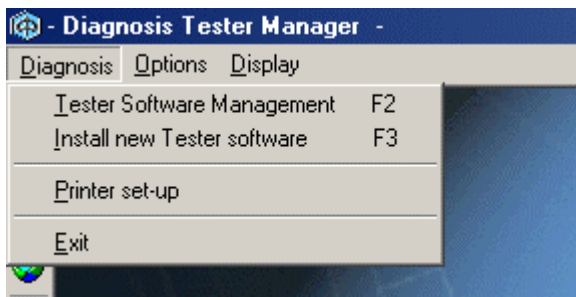



fig. 2.2.1

2.2.1 Tester Software Management

-  This option can be recalled using the button on the tool bar, or by pressing the F2 function key.

This environment allows the software present on the Tester to be updated, adding or removing the software for a specified ECU.

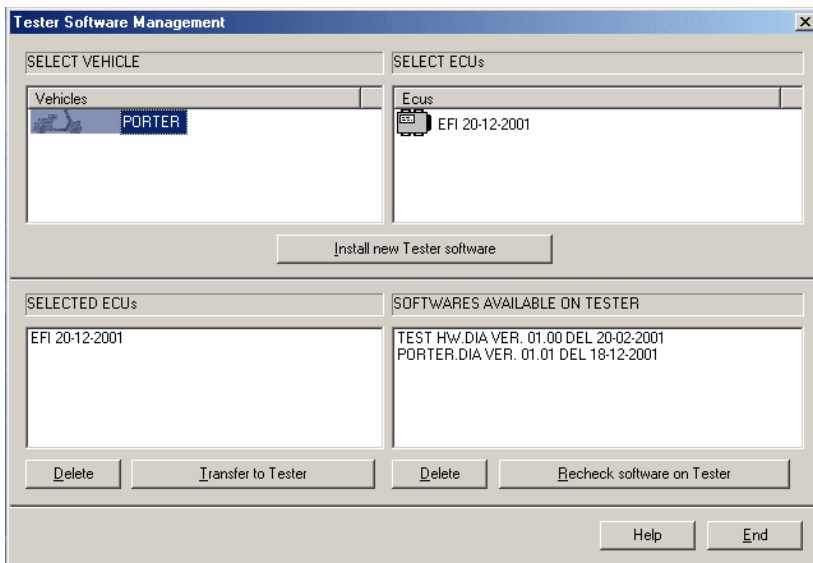


fig. 2.2.2

In the VEHICLE SELECTION list the type of vehicle on which the diagnosis test is to be carried out can be chosen using the mouse; the software available for that vehicle will appear in the SELECT ECU list on the right.

It is now possible to choose which software to download onto the Tester, selecting it by clicking with the mouse.

Keeping the left mouse button pressed, drag the ECUs required in the ECUs SELECTED list.

This operation can also be carried out by double-clicking on the ECU in the SELECT ECU list.

When there is at least one ECU in the ECUs SELECTED list, the "Delete" and "Transfer to Tester" keys underneath the list are activated.

The "Delete" key removes the selected ECUs from the ECUs SELECTED list, while the "Transfer to Tester" key downloads the selected ECUs onto the Tester.

In the SOFTWARE PRESENT ON TESTER list a summary is shown of everything already memorised on the Tester (before modifying the software present on the Tester it is recommended to always select the "Recheck software on Tester" button in order to display the current situation).

In this window it is also possible to select one or more of the existing software programs and to proceed with their elimination, pressing the "Delete" key underneath the SOFTWARE PRESENT ON TESTER list.

During the software download onto the Tester, a window appears on the PC monitor with a progress bar which shows the current state of the download (fig. 2.2.3).

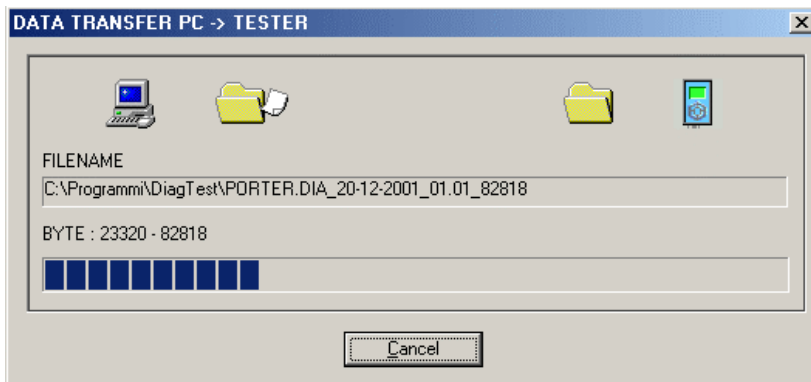


fig. 2.2.3

Once the download has been carried out the SOFTWARE PRESENT ON TESTER list is automatically updated, displaying all the software currently present on the Tester.

The "Install new Tester software" key installs new ECU software from a CD-Rom or from a selected path within the computer's hard disk.

Key functions:

"Install new tester software": allows the user to install new ECU software or tools provided by the Technical Assistance Service.

ECUs SELECTED list

"Delete": allows the user to undo the selection of the diagnosis software to be updated.

"Transfer to Tester": allows the user to activate the transfer of the diagnosis software in the ECUs selected list.

SOFTWARE PRESENT ON TESTER list


"Delete": allows the user to cancel the ECU software present on the Tester.

"Recheck software on Tester": allows the user to reread the ECU software present on the Tester.

"Help": allows the user to activate a help window.

"End": allows the user to return to the main screen.

2.2.2 Install new Tester software

 This option can be recalled using the button on the tool bar, or by pressing the F3 function key.

This environment allows the user to install new ECU software or tools provided by the Technical Assistance Service.

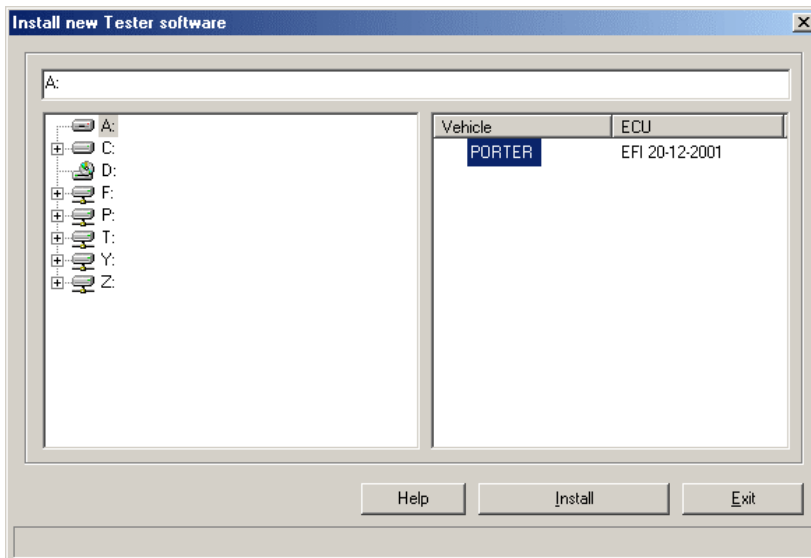


fig. 2.2.4

The left-hand part of the window lists the physical devices of one's own PC (hard disks, floppy drive, CD-Rom etc.) where the data for the installation can be contained, while the right-hand side displays the valid installations present in the selected directory.

To install an ECU software the user must go into the directory, floppy drive or CD-Rom containing the ECU installation file, select the ECU to be installed in the right-hand side of the window and click on the "Install" key.

The "Install" key is only activated when an ECU has been selected in the right-hand side of the window.

Key functions:

"Install": allows the user to install new ECU software and tools provided by the Technical Assistance Service.

"Help": allows the user to activate a help window.

"Exit": allows the user to return to the main screen

2.2.3 Printer set-up



This option can be recalled using the button on the tool bar.

This menu allows the user to set up the printer, choosing format, dimensions etc. For further information on the printer's parameters refer to the Windows on-line guide.

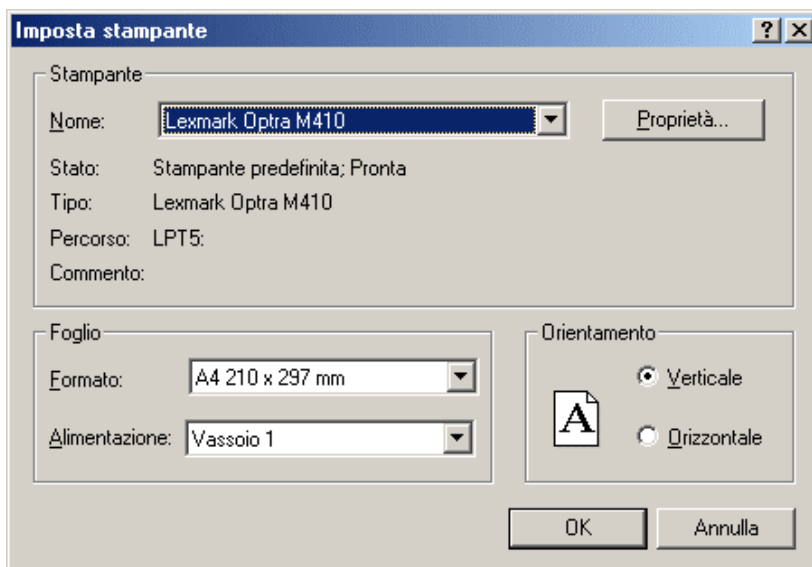


fig. 2.2.5

2.2.4 Exit.

Allows the user to exit the Diagnosis Tester Manager programme.

2.3 OPTIONS MENU

This menu allows the user to configure the Diagnosis Tester Manager software.

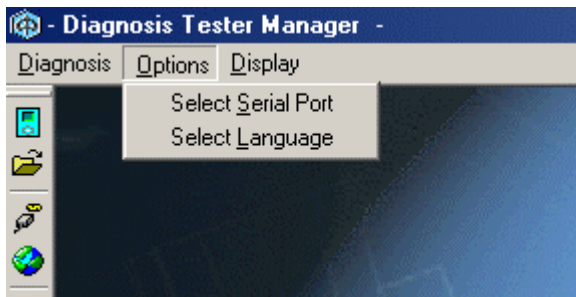



fig. 2.3.1

2.3.1 Select serial port

 This option can be recalled using the button on the tool bar.

The serial port on the PC which is used to communicate with the Piaggio Tester is selected in this screen.

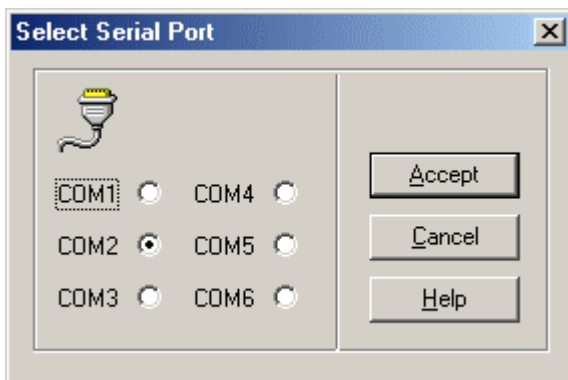


fig. 2.3.2


Key functions:

"Accept": allows the user to confirm the communication line selection.

"Cancel": allows the user to exit from the environment without making any changes.

"Help": allows the user to activate a help window.

2.3.2 Select language

 This option can be recalled using the button on the tool bar.

In this environment the language used by the Diagnosis Tester Manager software can be selected.



fig. 2.3.3

Key functions:

"Italian": sets the language to Italian and exits.

"English": sets the language to English and exits.

"German": sets the language to German and exits.

"French": sets the language to French and exits.

"Spanish": sets the language to Spanish and exits.

"Help": allows the user to activate a help window.

"Cancel": allows the user to exit from the environment without making any changes.

2.4 DISPLAY MENU

The options available in this menu refer to the tool bars on the main screen.



fig. 2.4.1

2.4.1 Tool bar

By selecting this option the tool bar is displayed or hidden. The tool bar provides access to the various environments directly from the main screen without having to activate the menus. It is initially situated on the left-hand side of the screen. Its position can be changed by clicking and holding the left mouse button at the edge of the tool bar and dragging it to the position desired.

2.4.2 Status bar

By selecting this option the status bar is displayed or hidden at the bottom edge of the screen. The status bar gives a detailed description of the menu command functions.

2.5 INFORMATION MENU

The options available in this menu provide information about the programme and its use.

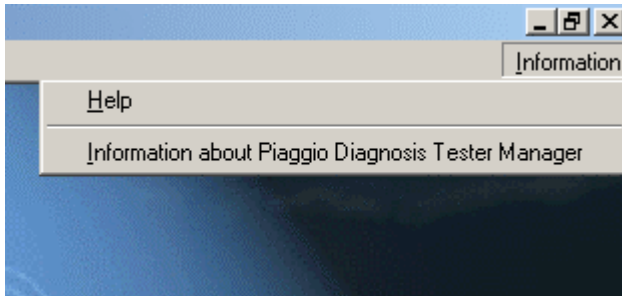



fig. 2.5.1

2.5.1 Help

In this environment the subject index of the Diagnosis Tester Manager programme is displayed.

By selecting an item from the list, an explanation window for that item is activated.

2.5.2 Information about Piaggio Diagnosis Tester Manager

 This option can be recalled using the button on the tool bar.

In this environment the Diagnosis Tester Manager release and the driver release relative to the selected serial port are displayed.

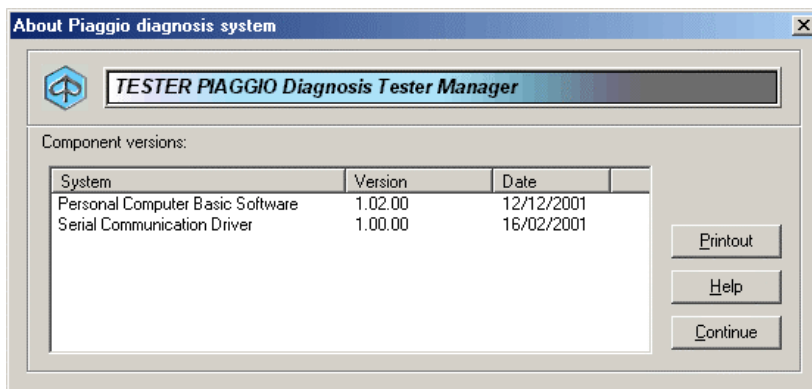


fig. 2.5.2

Key functions:

"Printout": allows the user to print the releases identified.

"Help": allows the user to activate a help window.

"Continue": this function allows the user to exit the environment