
Skill Tester
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Skill Tester
High Level Diagnostic

USER MANUAL

SKILL TESTER – ST05 –

Contents

1. Introduction

SAFETY MEASURES AND PRECAUTIONS

Before supplying power to, switching on or connecting the "Skill Tester ST05" diagnostic tester, read this chapter carefully. It contains useful instructions for preventing injury to operators or damage to the tester itself.

CAUTION: Repair and maintenance procedures must be carried out by qualified technical personnel only!

In order to prevent fire risks, overloads or electric shocks, breakdowns of internal circuitry or operator injury, follow the instructions given below regarding the power supply and use of the equipment.

Skill Tester ST05 Power Supply

1. Only use the power supply cables provided with the special kit, or ones with equivalent technical, functional and safety specifications.
2. Do not supply power to the tester at a voltage higher than that indicated in the User Manual and on the label attached to the AC/DC transformer. The input lines to the tester replicate the same specifications.
3. Do not use the tester without its chassis or cover (protective plastic box).

Instructions for use and environments at risk

1. Do not use the tester in wet or damp environments; avoid the tester and the electric connections coming into contact with any type of liquid.
2. Do not use the tester in environments at risk of explosion.

If for any reason you suspect that the tester is defective, switch off the device, remove all power supplies and connections with the vehicle (if present) and report the fault to the Technical Support Service.

Guarantees. The product may offer functions that are not described in this documentation. **TBD** is not obliged to maintain these functions in new versions of the product nor to guarantee support for them.
Checks have been carried out to verify that the contents of this document correspond to the product described herein. Despite this, the existence of inconsistencies cannot be completely ruled out; TBD does not therefore guarantee the complete correspondence and completeness of the information provided herein.
The information contained in this document is periodically reviewed and new editions are issued if necessary.

Editions. This document may be modified without notice. The modifications may lead to a reissue or revision of the document.
Reissuing involves the complete replacement of the document.
Revision involves replacements/additions/cancellation of pages of the document.

Note. MS-Windows® Registered trademark of the Microsoft Corporation.

General information. The information contained in this document is only applicable to the products indicated on the title page.
It is possible that not all of the functions performed by the product are described in this documentation; in such cases TBD is not obliged to guarantee these functions nor to maintain them in future versions.

Purpose. This document contains the information required for installation, use and maintenance of the product described on the title page.

Users. This document contains information relating to **TBD**.

Use of the document. The document is subdivided into chapters, each of which describes a well-defined product feature.

Notification of problems. For any problems which may arise while consulting this document, please contact **TBD**.

1.1 General Description “Skill Tester ST05”

The Skill Diagnosis Tester is an electronic device for running diagnosis programs on the electronic control units (ECU) on board modern vehicles.

The Skill Tester is a palmtop device equipped with a monochrome LCD 320x240 display and a keypad;
it is equipped with:

- 1 RS232C serial line,
- 6 ISO9141 vehicle standard serial lines,
- 1 standard SAEJ1850 line,
- 2 CAN lines for interfacing with the ECU.

An additional signal is reserved for the purpose of A/D acquisition (50khz), depending on the application software

The “Skill Tester ST05” can be connected to any Personal Computer (equipped with USB 1.0 connectivity or higher) by means of the USB cable [TCT-2] provided. The tester (target peripheral device) can interface with the PC via the specially provided “SKILL ORGANIZER” software for software updating and “downloading” of data: for further information refer to Chapter *2.6 Updating the “Skill Tester ST05” software* and *2.7 Downloading data from tester to PC.*

As well as the USB port, the “Skill Tester ST05” is equipped with an expansion slot for CF (Compact Flash) to use for connecting physical memory cards (CF) or Wireless network cards (WiFi IEEE 802.11).

1.2 Display Description

In the various menu windows you can always identify specific areas which contain menu instructions, information or selectable items.

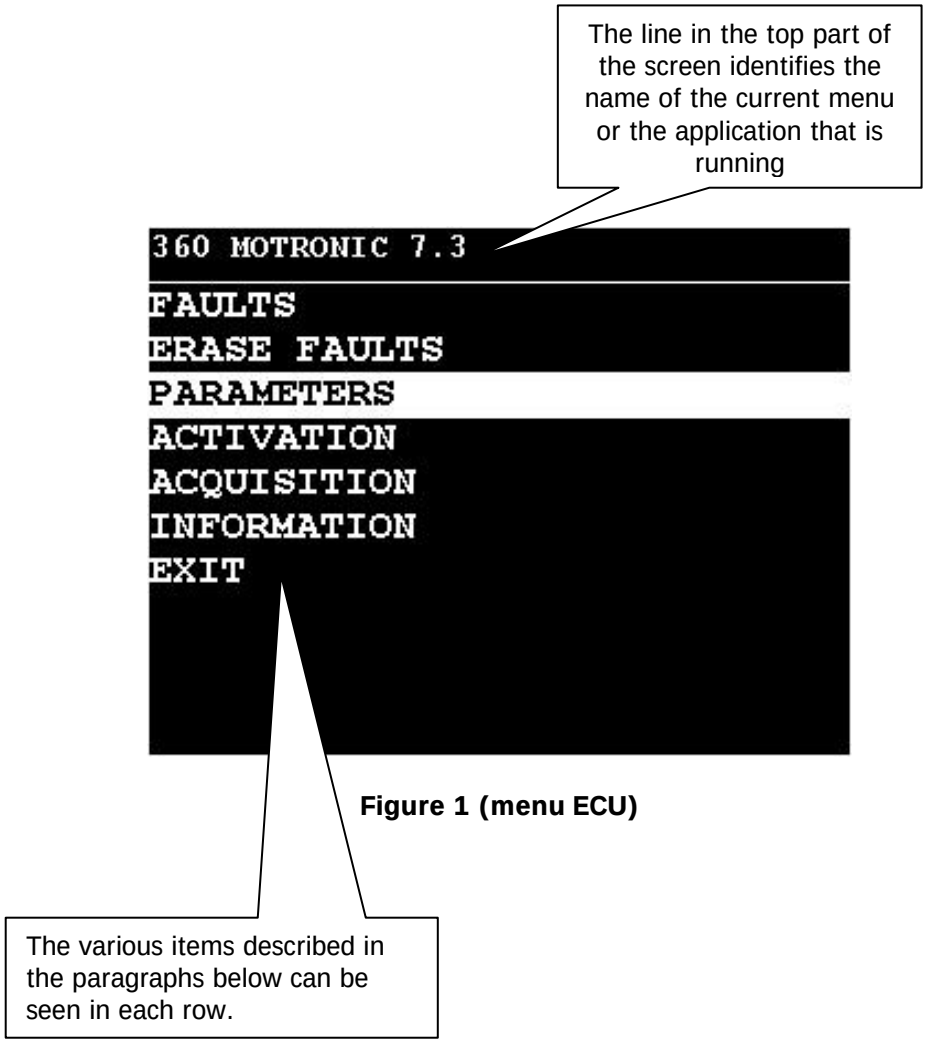


Figure 1 (menu ECU)

1.3 The “splash-proof” keypad

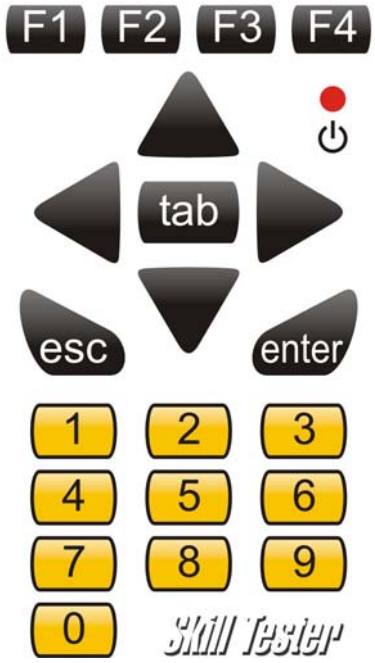


Figure 2 (keypad)

Figure 3 shows the **splash-proof** front panel of the Skill Tester (display and keypad).
Holding down the UP, DOWN and TAB keys automatically repeats the respective command.

Refer to the chapter concerning precautionary measures for using the tester.

1.3.1 Using the keys

ARROWS and TAB KEYS

Note that the UP, DOWN (and TAB) keys feature continuous scrolling; therefore, holding the key down scrolls through the list of options and starts again from the beginning when the end of the row or column is reached. This feature is not available on other keys in order to avoid inadvertently jumping from one menu to the next.

ENTER KEY

As a standard rule, this key confirms the option selected from among those displayed and thus accesses the next screen, while the UP and DOWN keys scroll through the options available.
In the “errors” or “parameters” environments detailed information are shown by pressing ENTER Key.

ESC KEY

By pressing this key the previous (higher level) menu (if there is one) is displayed.

NOTE: in the hierarchical tree of the menus, the MAIN MENU is “level 0”, and so there are no levels before it!

1.4 Top View

Two connectors are positioned on the top part of the tester:

Figure 3 (top view)

The first connector (female, square, with 2 green leds) is the LAN connection used for connecting the tester to the network (used during development and functional testing in the laboratory).
The 25-way female connector is the *Main Diagnostics Connector*: the diagnosis lines, the power supply line and the serial buses are gathered together here.

1.5 Bottom View

A connector and a slot are located on the bottom, protected by a cover:

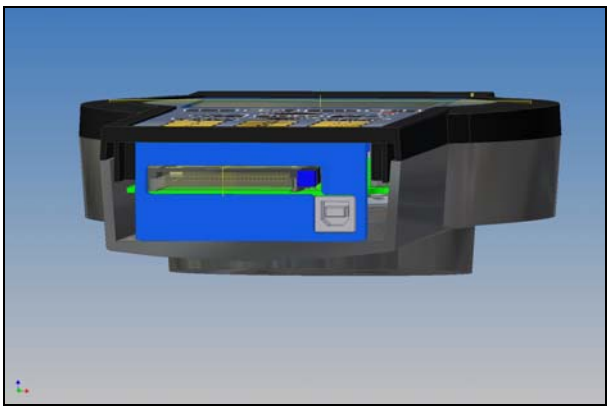


Figure 4 (bottom view)

The connector is the USB link (target) for connection to the PC, whereas the expansion slot is CF format and can be used to host physical memory expansions (CF) or Wireless network cards (WiFi IEEE 802.11).

1.6 Rear View

The start switch is positioned on the back of the tester, in a protected area.

Figure 5 (rear view)

1.7 Bundle

The "Skill Tester ST05" bundle, contained in the plastic case with separators, includes the following equipment:

- "Skill Tester ST05" Diagnostic Tester
- CD containing "SKILL ORGANIZER" suite and User Manual
- Kit of vehicle connection cables
- Kit for tester power supply (on vehicle and from electric mains)
- AC/DC transformer for electric mains power supply (the power supply cable for the transformer itself is not provided)
- Hard copy of User Manual

1.7.1 Power supply adapter

The Skill Tester runs off 8 to 16 V DC, either from the battery of the vehicle being tested or from the mains power adapter provided.
The power cable can be connected in 3 different ways.

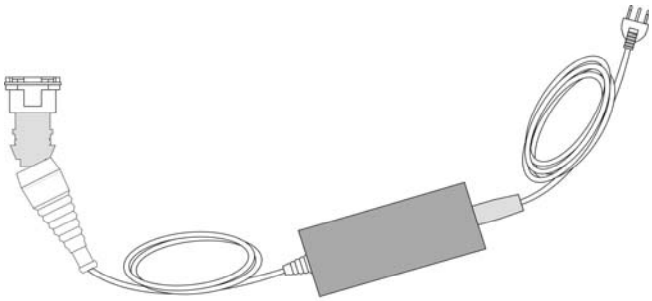


Figure 6 (AC/DC power supply)

The power supply is universal type (110V-220V 50Hz-60Hz). The cable itself can be replaced.

Follow the precautions for connecting to the tester and to the electric power mains and normal precautions for using electric equipment.

1.7.1.2 Battery adapter [TC8-6]

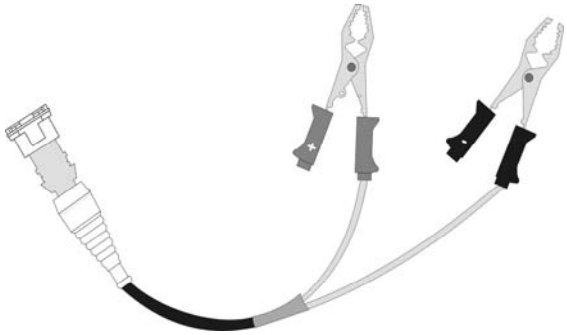


Figure 7 (battery adapter)

The adapter allows you to connect directly to the terminals (+ and -) of a 12VDC battery. Take great care to avoid short circuits on the power supply terminals and periodically check the battery charge value.

1.7.1.3 Lighter power supply adapter [TC8-5]

Figure 8 (Lighter adapter)

Connect the plug of the cable to the cigarette lighter socket in the vehicle. Check that the power supply is also present with the key in the OFF position (Power supply +30) to avoid accidentally switching off the tester.

1.7.2 “SKILL ORGANIZER” Suite for PC

The “Skill Tester ST05” is equipped with basic applications and software for interface with the ECUs of the vehicles.

A suite is provided to install on any PC which has Microsoft® Windows® operating system and USB 1.0 connectivity or higher. This suite is used to update the diagnostic software on the tester and to “download” the data acquired during diagnosis.

Figure 9 (skill organizer)

1.7.3 Diagnostic Harness Kit

The Tester is provided with a set of diagnosis connections to the cars, with OBD socket or 3-way Packard connector.

This section gives an overview of the cables supplied as standard with the Skill Tester.

1.7.3.1 EOBD standard cable [TC8-7]

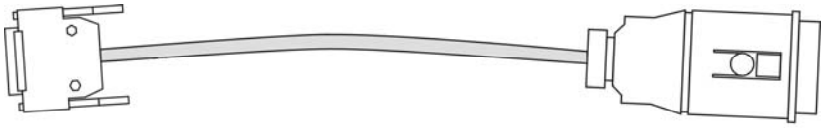


Figure 10 (EOBD standard)

Use this connection cable for any car with a standard EOBD socket.

1.7.3.2 EOBD F360 Modena/Spider cable[TC8-8/B]

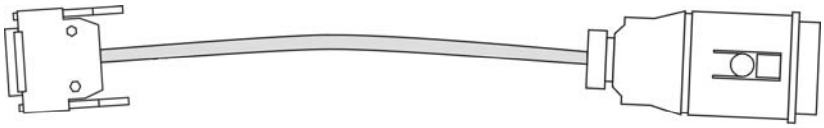


Figure 11 (EOBD Ferrari 360)

Use this connection cable for Ferrari 360 model only

CAUTION: use on standard EOBD vehicles could alter the vehicle's serial and diagnostic communication!

1.7.3.3 Tester-ISO Cable [TC8-3]

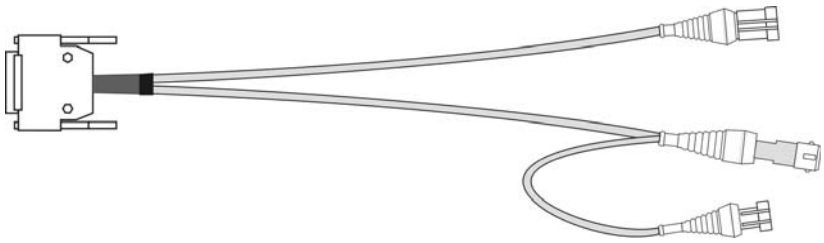


Figure 12 (tester-ISO)

This cable allows you to supply power to the tester by means of the special cables provided (ref. Ch. *1.7.1 Power supply adapter*) and to connect the ECU on which the diagnostics session is to be carried out on the 2 ISO communication lines (ISO-1 line is the default).
To make diagnosis on the car easier you can use one of the two extension cables [TC8-4] provided.

2. Procedures

2.1 Switching on and off

Switching on
Once the means of supplying power to the tester has been identified (via vehicle battery, 220V electric mains or via the cigarette lighter), using the appropriate cable in the kit provided (ref. Ch. *1.7.1 Power supply adapter*), turn the start switch positioned on the back of the tester to position "1" (see **Figure 5 (rear view)**).

The tester will verify that the display is working (horizontal lines may appear or pixels may switch on randomly).
The switching on procedure is completed when the window in **Figure 17 (MAIN MENU)**) appears.

Switching off
The tester can be switched off at any time by turning the switch to the "0" position.

In case of errors refer to Chapter *6.*

2.2 Tester operation check

While the tester is switching on (ref. Ch. *2.1 Switching on and off*), it will perform an auto-check phase, displaying the window in **Figure 13 (tester boot window)**.

Figure 13 (tester boot window)

At the end of this check the window in **Figure 17 (MAIN MENU)** will appear: from here the operator can "navigate" through the menus available using the keypad (ref. Ch. *1.3 The "splash-proof" keypad*) and perform all of the operations required for the diagnosis (ref. Sec. *2. Procedures*).

2.3 Tester – PC connection

To connect the tester to the PC you can use the USB cable provided [TCT-2].

CAUTION: the "SKILL ORGANIZER" software provided must be used to perform data management and updating operations.

Software and hardware installation procedures, updating procedures and data management procedures are described in the relevant chapters.

In case of errors refer to Chapter *6.*

2.4 Tester – vehicle connection

TC8-7

Connect the DB-25M connector (25-way male) to the tester and the EOBD socket to the vehicle: you can now switch on the tester (ref. Ch. *2.1 Switching on and off*) and perform vehicle diagnosis.

TC8-8/B
Connect the DB-25M connector (25-way male) to the tester and the EOBD socket to the vehicle: you can now switch on the tester (ref. Ch. *2.1 Switching on and off*) and perform vehicle diagnosis.

TC8-3
Connect the DB-25M connector (25-way male) to the tester, connect the 2-way male connector to the power supply socket and the ISO lines to the diagnosis connector of the ECU involved in the diagnosis.

In case of errors refer to Chapter *6.* .

2.5 Installation of “SKILL ORGANIZER” suite

1. Insert the CD provided with the “Skill Tester ST05” into the PC’s CD/DVD reader
2. Follow the steps of the guided installation through to the end (ref. **Figure 14 (end of SKILL ORGANIZER installation)**)

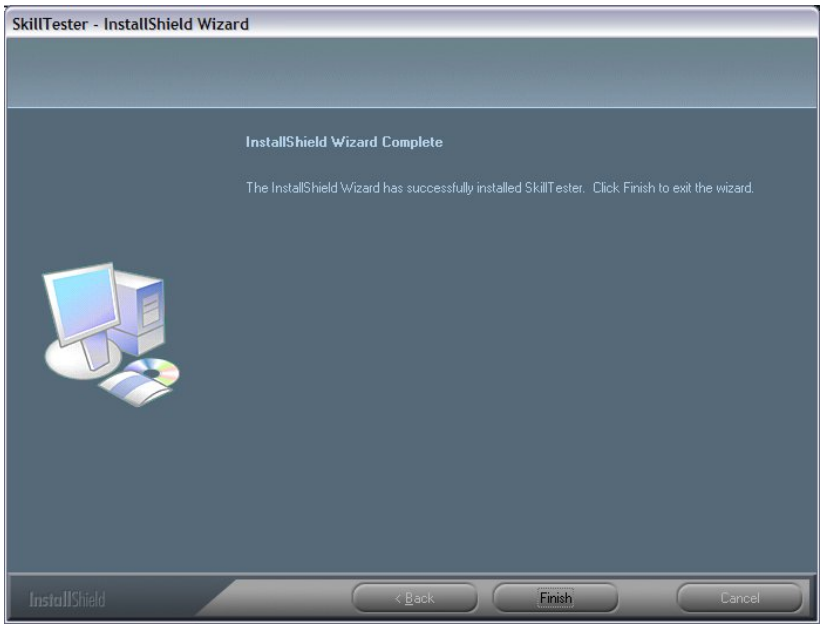


Figure 14 (end of SKILL ORGANIZER installation)

3. Switch on the "Skill Tester ST05" using the AC/DC power supply unit and connect the tester to the PC using the USB cable
4. In the task bar (on the bottom right of the PC screen, where the Windows® clock is) the "new peripheral device detected" notification will appear and the "guided hardware installation procedure" will start.

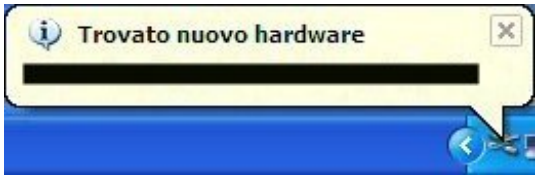
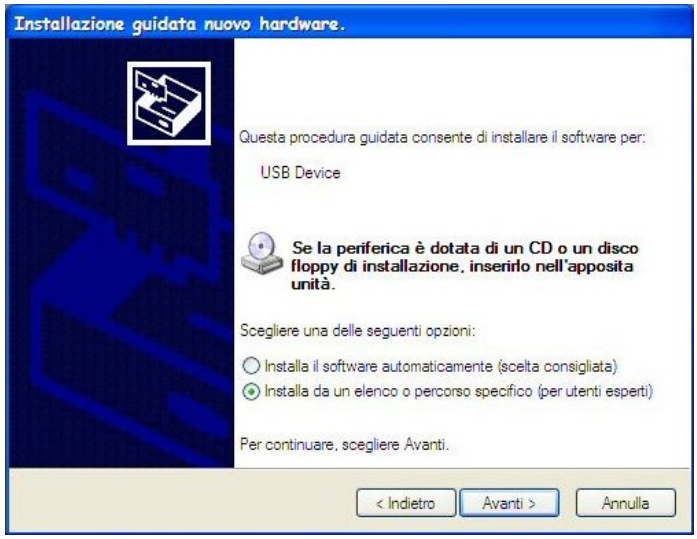
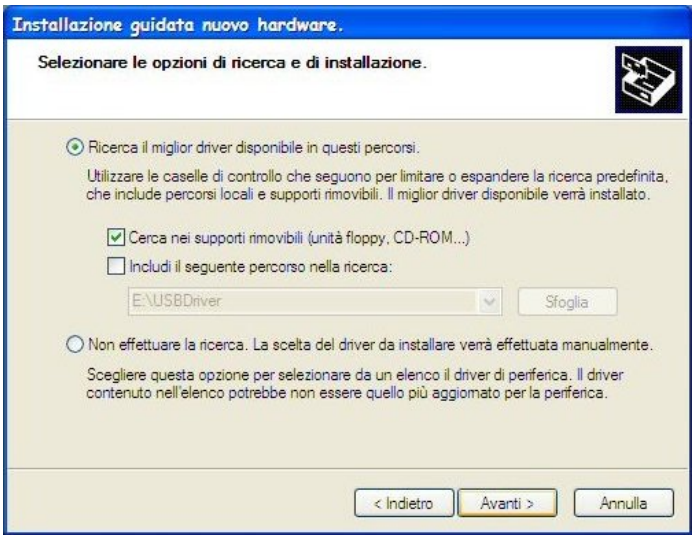


Figure 15 (detection of new hardware)

5. Follow the instructions in the “guided hardware installation procedure”, selecting the items shown by the “green dots” in the figures and pressing the “NEXT” (“AVANTI”) key.




Installazione guidata nuovo hardware.
Selezionare le opzioni di ricerca e di installazione.
Ricerca il miglior driver disponibile in questi percorsi.
Utilizzare le caselle di controllo che seguono per limitare o espandere la ricerca predefinita, che include percorsi locali e supporti rimovibili. Il miglior driver disponibile verrà installato.
Cerca nei supporti rimovibili (unità floppy, CD-ROM...)
Includi il seguente percorso nella ricerca:
E:\USBDriver
Sfoglia
Non effettuare la ricerca. La scelta del driver da installare verrà effettuata manualmente.
Scegliere questa opzione per selezionare da un elenco il driver di periferica. Il driver contenuto nell'elenco potrebbe non essere quello più aggiornato per la periferica.
< Indietro
Avanti >
Annulla

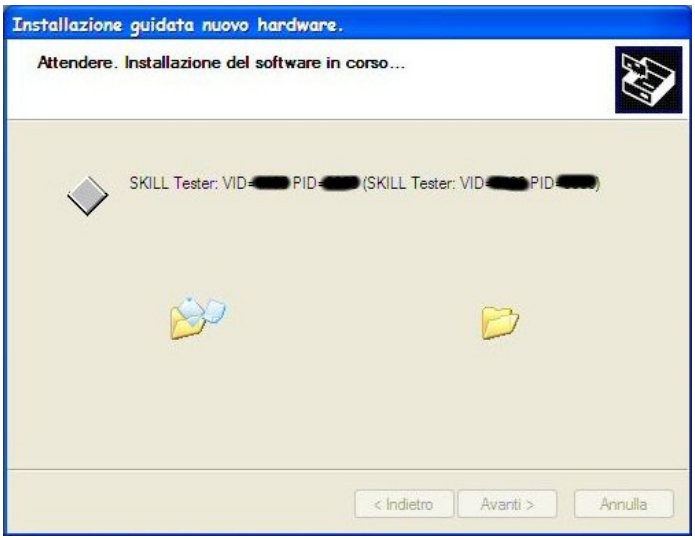

Installazione guidata nuovo hardware.
Attendere. Installazione del software in corso...
SKILL Tester: VID[redacted] PID[redacted] (SKILL Tester: VID[redacted] PID[redacted])
< Indietro
Avanti >
Annulla

Figure 16 (hardware installation steps)

At the end (software correctly installed and tester configured) you can proceed with the subsequent steps for updating and "downloading" data.

In case of errors refer to Chapter *6.* .

2.6 Updating the "Skill Tester ST05" software

To update the diagnosis software on the tester two operational procedures can be followed: via the specially configured CF or via USB (using the "SKILL ORGANIZER" suite).

Follow the procedure described below to set the tester to update mode:

Switch on the “Skill Tester ST05” using the AC/DC power supply unit.
From the MAIN MENU select the item “UPDATE TESTER/COMMUNICATION”.

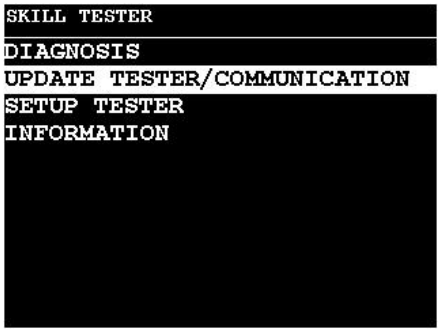


Figure 17 (MAIN MENU)

At this stage follow the instructions according to the type of update (using the SUITE on the PC or the CF memory card).

In case of errors refer to Chapter *6.* .

2.6.1 Tester software updating: “SKILL ORGANIZER”

TESTER
1. Select the item “UPDATE TESTER/COMMUNICATION”

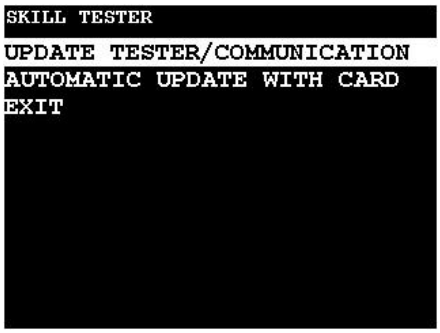


Figure 18 (UPDATE TESTER/COMMUNICATION menu)

The following window will appear:

Figure 19 (WAITING FOR PC)

2. Connect the tester to the PC using the USB cable.

PC

1. Run the “SKILL ORGANIZER” application

2. Press the “Update Skill Tester” key
3. Select the file with the extension .UPDATE that you want to install
4. Press the “OPEN” (“APRI”) key and wait until the end of the automatic procedure. At the end the correct installation information message will appear and the tester will automatically restart.

In case of errors refer to Chapter *6.* .

2.6.2 Tester software updating: CF memory card

From the MAIN MENU select the item “AUTOMATIC UPDATE WITH CARD” and follow the instructions.

Refer to Ch. *3.2.2 Updating with COMPACT FLASH*.

In case of errors refer to Chapter *6.* .

2.7 Downloading data from tester to PC

Having saved the data on the tester (ref. Ch. *4.5 “ACQUISITION” ENVIRONMENT*) you can download the saved data to the PC using the “SKILL ORGANIZER” suite.

Run the “SKILL ORGANIZER” application using the special icon.

From the “Recorded/Freeze Management” menu you will enter the environment shown in **Figure 20 (Recorded/Freeze Management)**

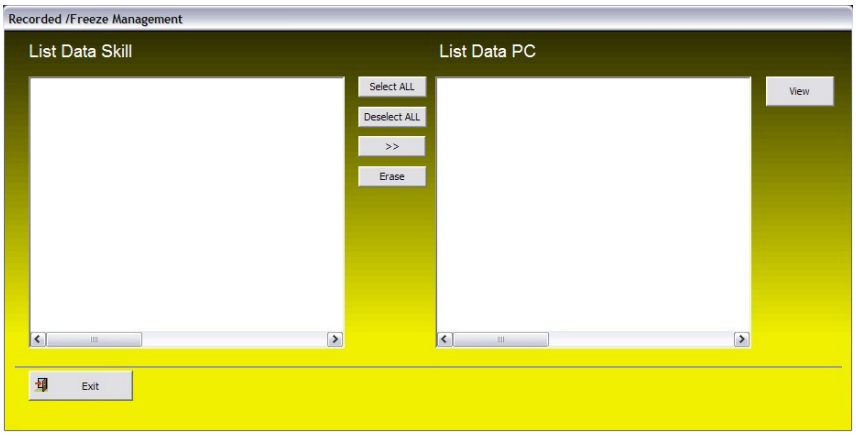


Figure 20 (Recorded/Freeze Management)

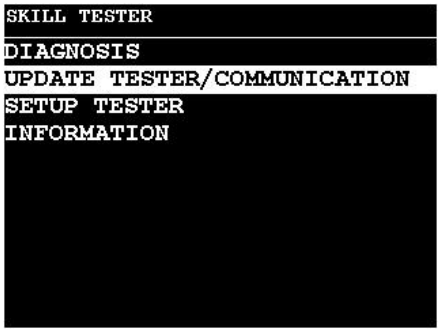
- The list on the left "List Data Skill" contains the acquisitions present on the tester
- The list on the right "List Data PC" contains the acquisitions previously downloaded (therefore present on the PC)
- Press the "Select ALL" key to select all of the acquisitions on the tester
- Press the "Deselect ALL" key to deselect all of the acquisitions on the tester
- Press the ">>" key to copy the acquisitions selected from the tester to the PC
- Press the "Erase" key to erase the selected acquisitions
- Press the "View" key to view the selected acquisition
- Press the "Exit" key to exit the environment

In case of errors refer to Chapter *6.* .

3. Operation

MAIN MENU

The software developed for the "Skill Tester ST05" contains all of the vehicle diagnosis functions, the USB serial communication protocols for connection with the PC and the updating functions (ref. Ch. *2.6 Updating the "Skill Tester ST05" software*).
When switched on (ref. Ch. *2.1 Switching on and off*), the "Base Software" is loaded, which carries out an internal self-diagnosis and checks the vehicle configuration files contained in the tester. At the end of this check it will be possible to interact with the tester using the items in the menu shown in **Figure 17 (MAIN MENU)**.



You can restart the tester at any time using the start button (ref. Ch. *2.1 Switching on and off*).

3.1 “DIAGNOSIS” MENU

Select "DIAGNOSIS" and press ENTER to enter the menu which enables the user to select which car or program to run, for diagnosis execution.
Depending on how many and which programs have been downloaded, the screen is as shown in fig. 22

NOTE: the number of MANUFACTURERS, MODELS AND SYSTEMS depend on the level of tester updating (ref. Ch 2.6 Updating the “Skill Tester ST05” software).

(**Figure 21 (DIAGNOSIS, step 1)**).

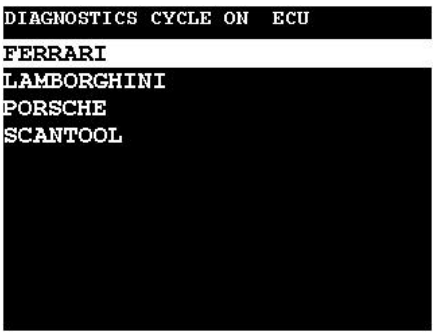


Figure 21 (DIAGNOSIS, step 1)

NOTE: The “SCANTOOL” environment does not contain any car to test but it is a general purpose environment for diagnosis on powertrain OBD ECU’s.

To load a program into the memory and run it, select it (UP and DOWN keys) and press ENTER.
The screen shown in fig. 23 appears and the selected software is run.

.

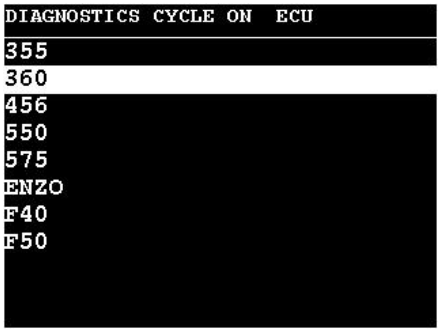


Figure 22 (DIAGNOSIS, step 2)

This list shows the car models present on the tester: select the car required and press the ENTER key to confirm.
The menu in fig. 24 will appear.

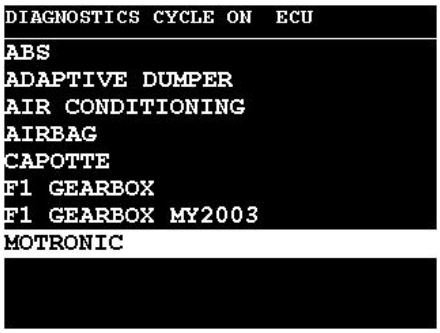


Figure 23 (DIAGNOSIS, step 3)

The car specific executable systems will be displayed: select the ECU and press the ENTER key to confirm, then follow the instructions on the tester.

3.2 "UPDATE TESTER/COMMUNICATION" MENU

Select the "UPDATE TESTER/COMMUNICATION" item from the MAIN MENU and press the ENTER key to access the items for updating the software on the tester.

NOTE: as well as the basic application (internal management) the software also contains all the "packages" for the individual ECUs.

3.2.1 USB communication update

Select "USB COMMUNICATION" to enter the Update menu. (Fig.25)
The Skill Tester will automatically be set up for USB-computer communication

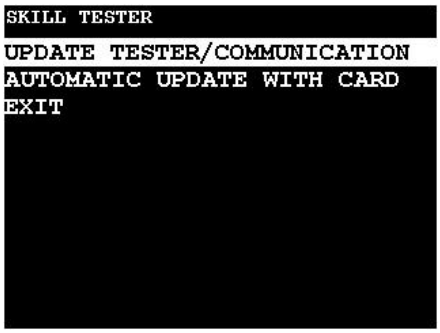


Figure 24 (UPDATE)

Select "UPDATE TESTER " to enter the data management mode which requires the PC diagnosis suite (Skill Organizer) (fig. 2.2.1).
At any time, press ESC to return to the main menu.
Once on the PC Link menu, you can run the “Update” option;

For all updating operations refer to Ch. *2.6 Updating the “Skill Tester ST05” software.*

NOTE: in this case the software deletes any previously downloaded diagnosis program to avoid problems with the previously downloaded program release (correct execution is confirmed by a long BEEP).

In case of errors refer to chapter 6. “Error display**”**

3.2.2 Updating with COMPACT FLASH

CAUTION: before selecting the relevant item in the menu, make sure that the memory card (CF) containing the updates is correctly inserted in the special slot (ref. Ch. 1.5 Bottom view).

Select the "AUTOMATIC UPDATE WITH CARD" item from the menu (**Figure 25 (AUTOMATIC UPDATE WITH CARD menu)**): the tester will automatically start the update. At the end of installation the tester restarts automatically and it will be possible to use the new functions installed.

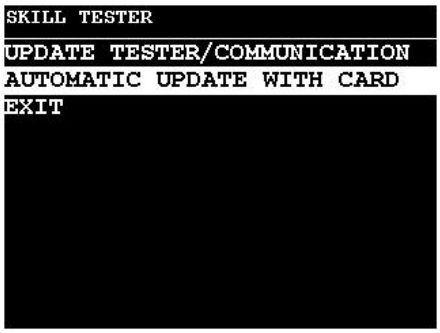


Figure 25 (AUTOMATIC UPDATE WITH CARD menu)

Figure 26 (UPDATING SYSTEM...)

In case of errors refer to chapter 6. "Error display"

3.3 “SETUP TESTER” MENU

This Section allows the tester configuration to be changed.
Any choice is only validated by pressing the ENTER key

NOTE: the change will be set until a new set-up request by the user.

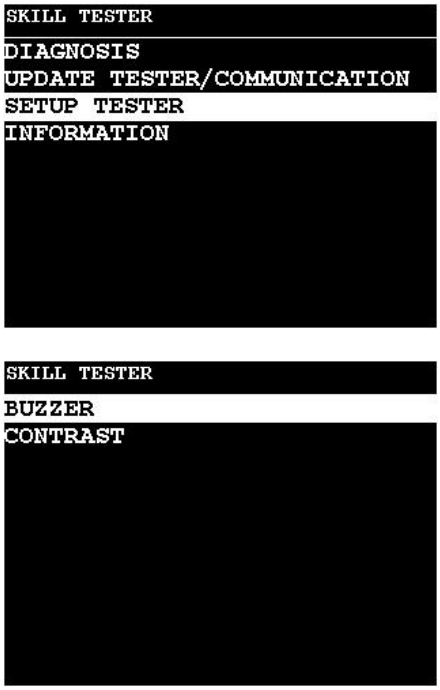


Figure 27 (TESTER SET-UP menu)

3.3.1 “BUZZER” MENU

Select the "BUZZER" option and press OK to enter the menu which sets the buzzer options (beep/no beep when the keys are pressed). The screen is as shown in fig. 28.

Figure 28 (BUZZER menu)

To activate/deactivate beeping when the keys are pressed, select the option you require (with UP and DOWN keys) and press OK.
The setting is stored and retained even when the Tester is switched off and on again.

3.3.2 “CONTRAST” MENU

Highlight the " CONTRAST" option and press OK to enter the contrast management menu display.
The screen is as shown in fig. 29

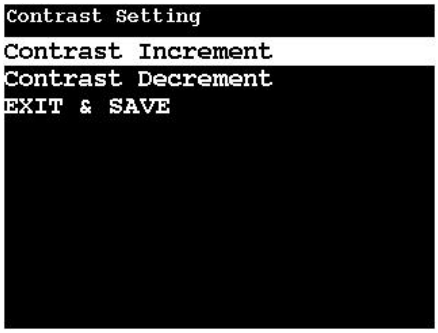


Figure 29 (CONTRAST menu)

Set the contrast level by selecting “Contrast Increase” or “Contrast Decrease” and pressing OK. The change takes effect immediately and you can confirm the setting by selecting “Contrast Store” and pressing OK; to exit without saving and return to the previous setting, just press ESC.
Stored settings will be retained even when the Tester is switched off and on again.

3.3.3 “SET LANGUAGE” MENU

Under development

Select "SET LANGUAGE" and press OK to enter the menu which sets the language in which the screens are displayed.

To set the display language, select the language required and press ENTER. The setting is stored and retained even when the Tester is switched off and on again.

3.4 "INFORMATION" MENU

This section shows the information regarding the tester Software and hardware release.
It is strongly recommended to use this information when reporting any HW or SW problem.

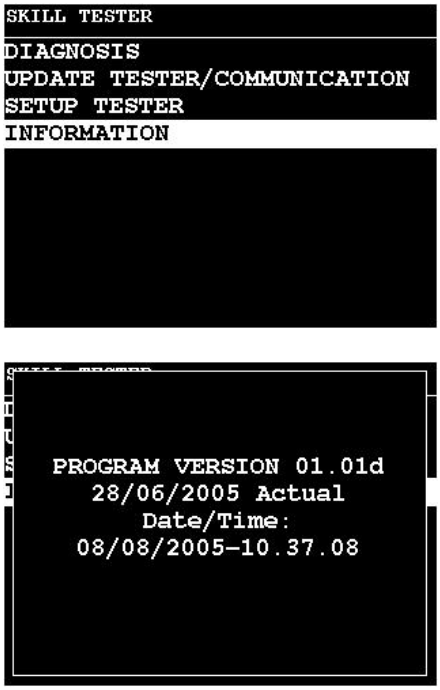
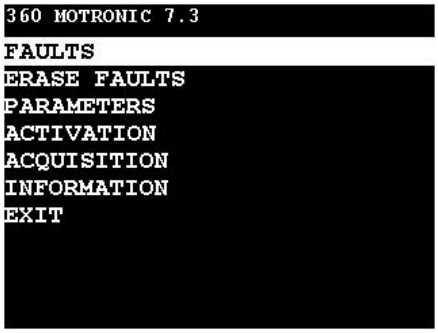


Figure 30 (INFORMATION menu)

4. "DIAGNOSIS" Environment

4.1 "FAULTS" Environment

The **Faults environment** downloads and displays the operating errors stored on the ECU.



All possible errors are divided into pages. A circle to the right of an error in the column at the bottom indicates a current error.
If many errors are present, use UP and DOWN or TAB to select pages and ESC to return to the main menu.

(ref. Ch. *1.3 The "splash-proof" keypad*).

If no errors are displayed then no error has occurred or is present at the present time.

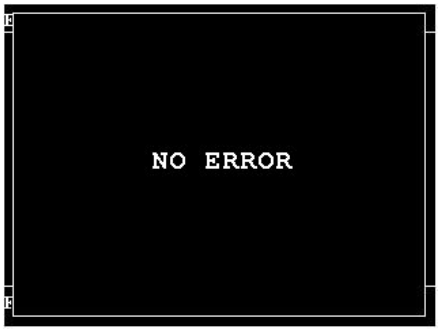


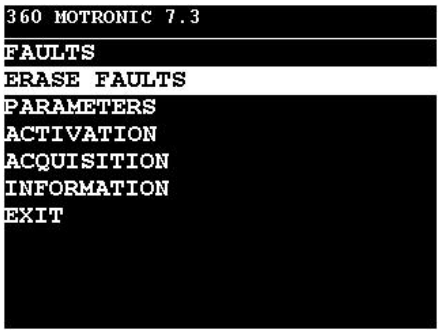
Figure 31 (NO ERROR)

When errors are present you can select the highlighted fault using ENTER key. It displays the selected error with detailed information available. (error type, environment conditions, etc.)
Note: The information depend on the car system

NOTE: refer to the technical documentation related to the vehicle model for test and repair procedures!

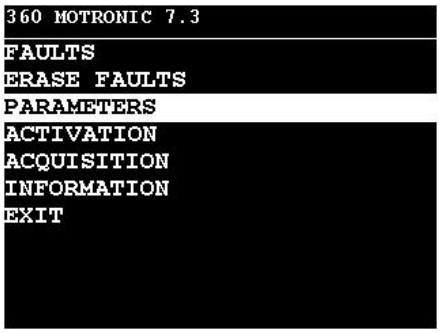
4.2 "ERASE FAULTS" ENVIRONMENT

Following confirmation the selection of this environment, the tester will proceed with erasing the errors on the ECU selected: follow the guided instructions to complete the procedure.



4.3 “PARAMETERS” ENVIRONMENT

The “PARAMETERS” environment allows you to dynamically display (in real time) the parameters that the ECU uses to manage its system.



Each parameter is associated with its own Unit of Measurement (in brackets “(...)”) and, on the right-hand side of the screen, the value sent back by the ECU.

As an indication, in the top part of the screen, we have the name of the menu “ECU PARAMETER LIST”, the progressive number of the selected parameter and the total number of parameters.

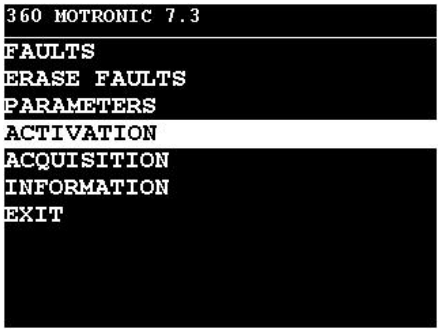
Use the UP and DOWN keys to scroll through one parameter at a time, the TAB key to scroll through the pages, the ENTER key to display the details of the selected parameter and the ESC key to exit the menu.

In case of loss of diagnostics communication refer to Chapter *6.* .

By default the tester periodically tries to re-establish the connection: if the connection is restored the menu for the selected ECU will be shown.

4.4 "ACTIVATION" ENVIRONMENT

The **Activation environment** allows the user to actuate the transducers controlled by the ECU.
Within the Activation environment is a submenu with the various available actuations.
Select the option required in the usual way (UP/DOWN to select, ENTER to confirm, ESC to return to the previous menu).

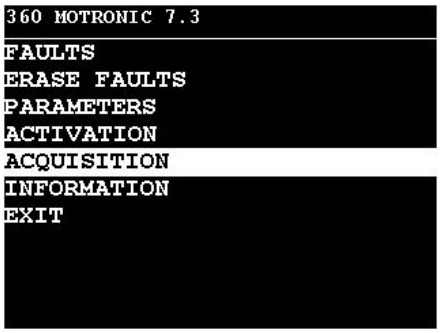


After selecting a given actuation, the user is guided through the available procedures by a series of menus (example: Start Engine), and is asked to confirm commands sent to the ECU (example: Delete Errors).
Finally, the user sends the diagnostics command to the ECU and the message "RUNNING DIAGNOSIS" is displayed.
The user can interrupt the diagnosis by pressing ESC, or continue until the ECU terminates the procedure, either correctly or because an

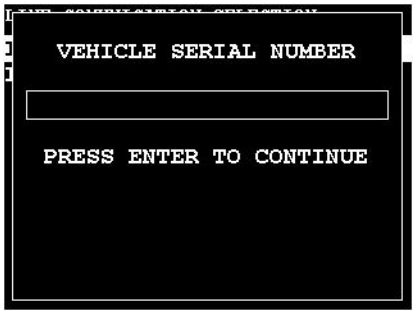
actuation error occurs (a message appears to indicate which of these is the case).
All diagnostic programs have similar interfaces to the one described above.

4.5 "ACQUISITION" ENVIRONMENT

The **Acquisition environment** allows the user to select any parameter controlled by the ECU and record data on files.
These data files are stored on the disk tester memory to be used later in off-line mode.
Using the "SKILL ORGANIZER", they will be downloaded onto the PC for analysis and printing.
Within the Acquisition environment there is a submenu with various parameters available.



Select the option required in the usual way (UP/DOWN to select, ENTER to confirm, ESC to return to the previous menu).



In order to save the files on the tester a vehicle serial number is required, and it will be used to name files connected to other information (timestamp).

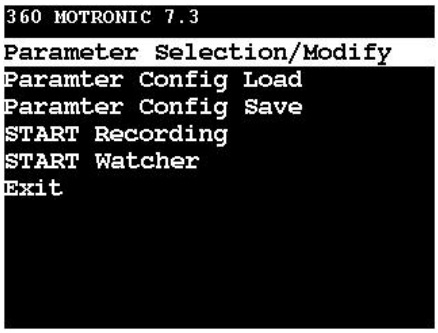


Figure 32 (ACQUISITION)

4.5.1 Parameter Selection / Modify

This allows you to select the parameters that you want to store from the list available: highlight a parameter using the UP and DOWN keys and press the ENTER key to mark it (an asterisk "*" will appear to the left of the parameter).

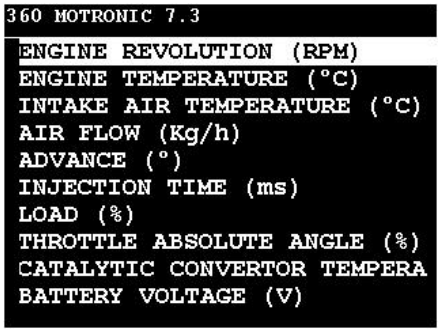


Figure 33 (No parameters Selected)

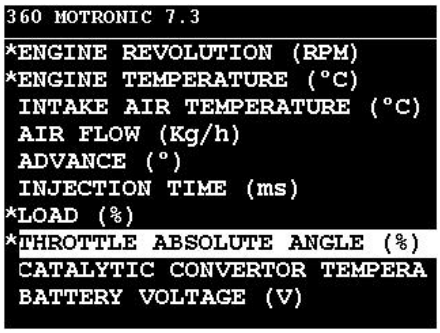


Figure 34 (Parameters selected)

To remove the flag press the ENTER key again (the asterisk "*" to the left of the parameter will disappear).

4.5.2 Parameter Config Load

This allows you to load a configuration (list of selected parameters) that has been saved previously.
The configurations present on the tester will be listed: highlight the configuration required and press the ENTER key to confirm it.

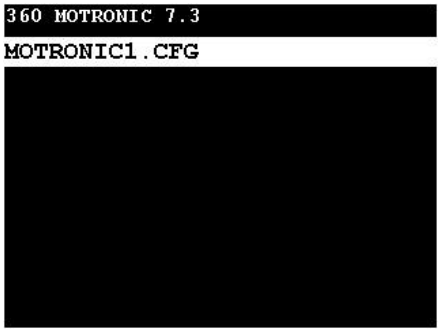
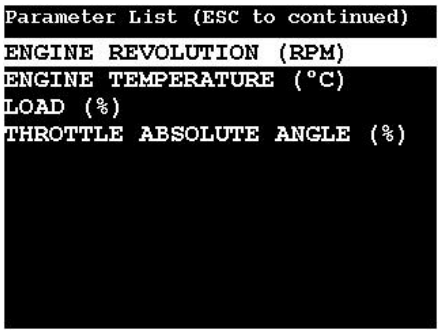


Figure 35 (saved configuration list)



Figurea 36 (Parameters configuration list)

4.5.3 Parameter Config Save

It allows you to save a selected parameter list configuration.

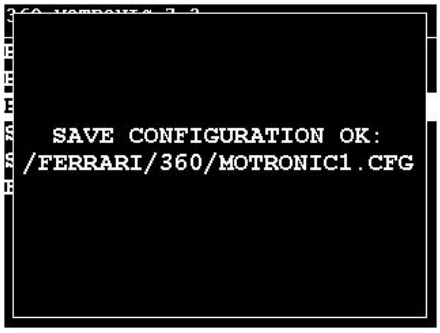


Figure 37 (storage confirmation)

If no parameter has been selected this error message will be displayed

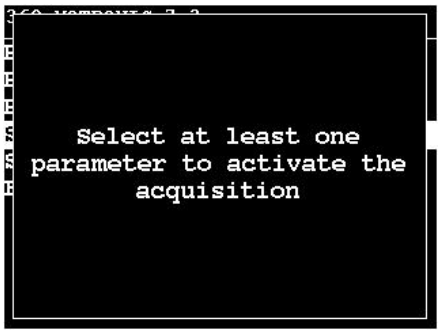


Figure 38 (Storage error)

4.5.4 START Recording

By selecting this menu item the tester will start the “log” (saving data to physical memory) of the selected parameters.

4.5.5 START Watcher

By selecting this menu item the tester will start the “trace” (screen display) of the selected parameters.

4.6 "INFORMATION" ENVIRONMENT

This allows you to display information regarding the selected ECU (manufacturers identifiers).

...immagine...

Figure 39

5. Diagnostic example

This chapter describes the operation of a generic diagnosis program, since all diagnosis programs follow the broad outline of the procedure described below.
When it starts running, the diagnosis program displays the Skill Tester logo.
Following the “DIAGNOSIS” MENU instructions, we can identify the car model and the system to test.
Press any key to display a screen which gives the name of the program and a set of data downloaded to check the ECU (assuming it to be connected, switched on and operating). This screen is displayed for a few seconds, unless the user presses a key.
On our example we select a “FERRARI 360 MODENA – MOTRONIC”. Once selected follow the tester’s instructions.

1. Select the diagnostic ISO line required.

*NOTE: The **ISO-1** line is considered as the default line (ref. Ch. 1.7.3.3 Tester-ISO Cable [TC8-3])*

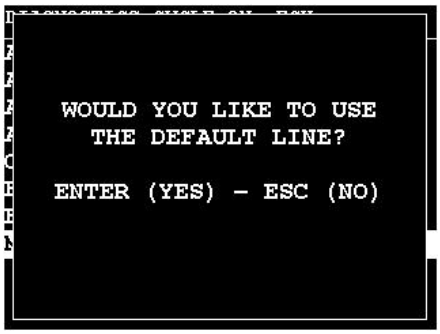


Figure 40 (ISO identification)

To use the 2 ISO line press ESC key and the following menu will appear:

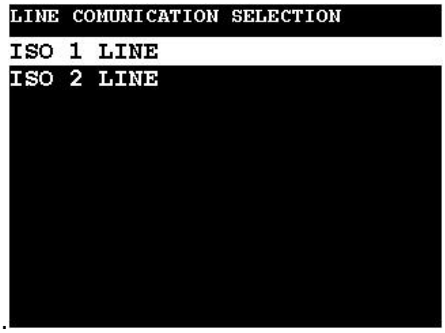


Figure 41 (ISO 1 / 2)

Having selected the ISO line, proceed with the following steps.

2. Insert the **VSN** (Vehicle Serial Number: Chassis Number or V.I.N.).

Inserting this number is useful for the diagnostics session but not indispensable (press the ENTER key to avoid inserting any data): ***inserting of this data is necessary to perform parameter acquisition*** (the name of the acquisition file is given by this information).

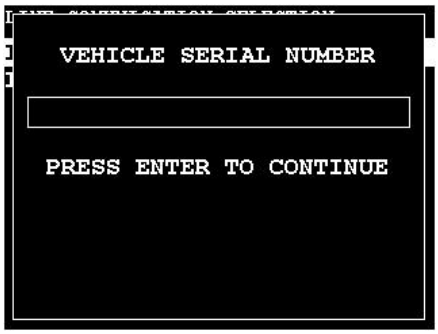


Figure 42 (VEHICLE SERIAL NUMBER)

3. ECU identification and initialisation

In this step the tester will identify the ECU selected (in our case MOTRONIC): in the case of double ECU the menu below will appear. Select the ECU required and press the ENTER key.

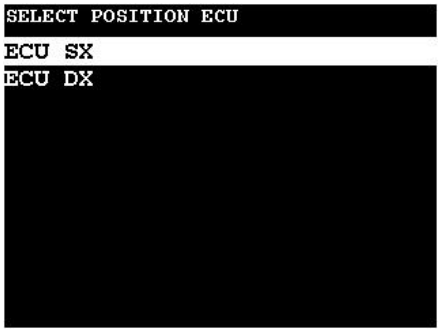


Figure 43 (ECU LH / RH)

The tester will now start the diagnostics initialisation procedure.

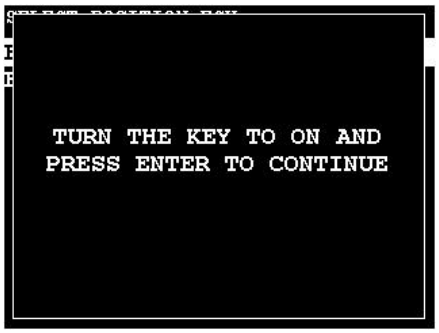


Figure 44 (TURN KEY ON)

Figure 45 (INIT ECU)

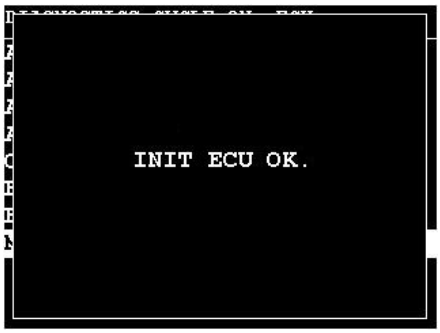


Figure 46 (INIT OK)

Once the ECU has correctly initialised the window in **Figure 47 (LOADING...)** will appear.

Figure 47 (LOADING...)

In case of errors refer to Chapter *6.* .

Once the module for the selected ECU has been loaded you can proceed with the diagnostic analysis by selecting the appropriate item from the menu.

6. Error display

6.1 Compact Flash

In case of errors (Compact Flash card not correctly inserted or does not contain the updating software) the following error window will appear:

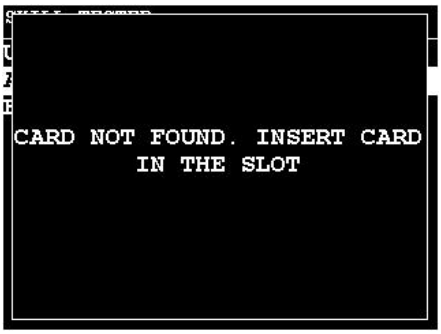


Figure 48 (CARD NOT FOUND)

- Insert the memory card in the correct slot and check that its contents are reliable and correctly configured.

6.2 No ECU initialisation or loss of diagnostics connection

Any attempt to connect the tester to an ECU on the vehicle is always indicated by the following message window.

If there is no communication from the ECU or it is lost during a connection one of the following possible error windows will appear.

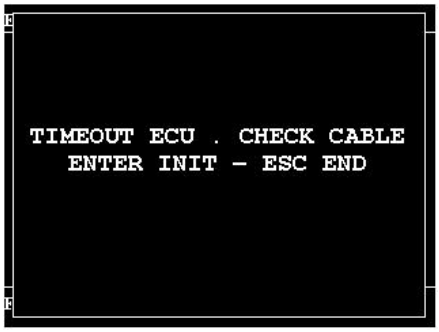


Figure 49 (ECU TIMEOUT)

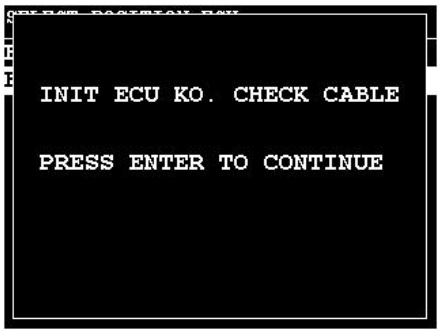


Figure 50 (INIT KO)

- Check that the connectors are correctly engaged
- Check that the vehicle conditions are correct (key in ON position, battery voltage OK, etc...)
- Check for any malfunctions of the vehicle's electric system (circuit open on diagnostic line, ECU not powered, etc...)
- Try to reactivate the communication by pressing the ENTER key

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