DUOX PLUS TESTER REF: 9404

FERMAX

INSTALLER'S MANUAL

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Code 970262Ic V01_24

CONTENTS

1. "DUOX PLUS TESTER" INTRODUCTION

DESCRIPTION

The DUOX TESTER is a device designed to test and check DUOX Plus installations. This device allows you to send to the desired panel a quality test order to the installation's various devices.
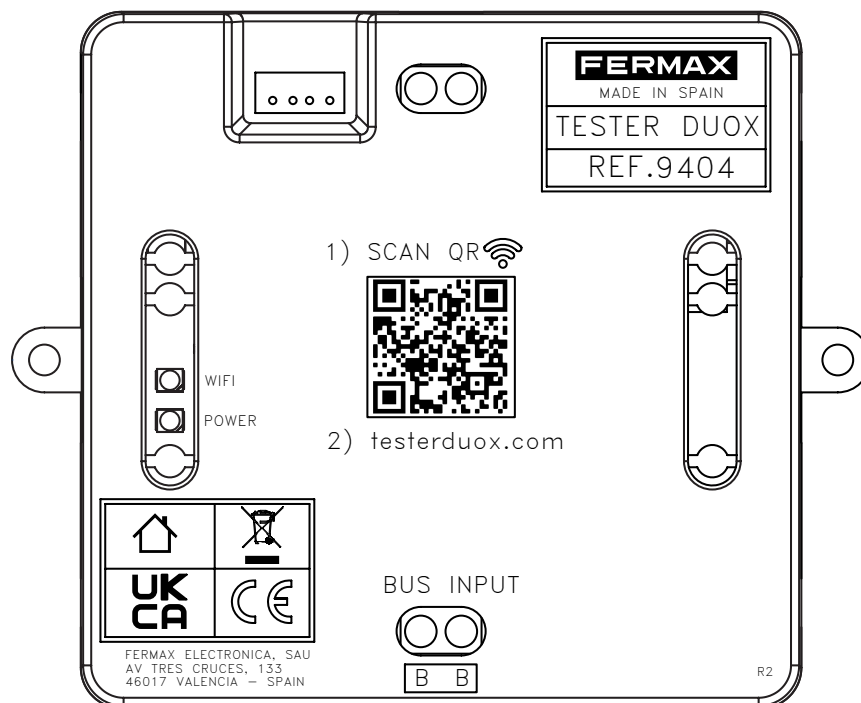
Through a web interface you can select the desired tests by checking the quality of the types of signals present in the DUOX technology:

- The quality of the commands/data.
- The quality of the audio/video.

In addition, this device lets you lock and/or enable the installer menus on the DUOX PLUS monitors, avoiding possible accidental deprogramming by the end user.

It is important to check the version compatibility between the DUOX TESTER and the terminals and panels we want to test. There is an explanatory table in section 5 of this document that shows you how to do this.

It is recommended to clear the browser cache of the device where the test is to be performed.

During the test, no calls can be made from the elements that are part of the test.

INSTALLATION

The DUOX TESTER is connected to the DUOX bus at the INPUT terminal, where it receives power and data. The set-up process can be completed using either a screw fitting or a DIN rail installation

The tests are performed using one of the panels that we will select from the test configuration. It is recommended to install the DUOX TESTER close to the panel. It can be physically connected at any point on the data bus, with the trunk junctions being the optimal point.

The use of a short cable is also recommended for connection.

TEST CONFIGURATION

Once connected to the bus, the Tester generates a WiFi access point to which you must connect (from a PC or a mobile phone) in order to access the user interface. This interface is where you can configure the relevant tests. This process is described below.

2. CONNECTION TO THE DUOX BUS

The DUOX TESTER must be connected to the DUOX bus via the INPUT terminal at the bottom.
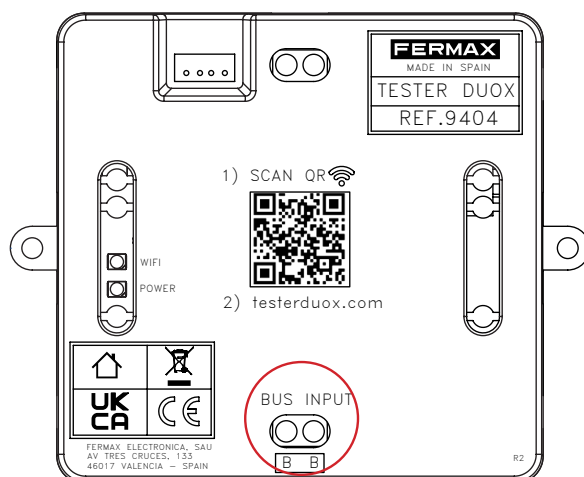
The connection to the bus must be made at a point where communication between the DUOX TESTER and the amplifier that is going to test the devices is guaranteed. Here is an example:
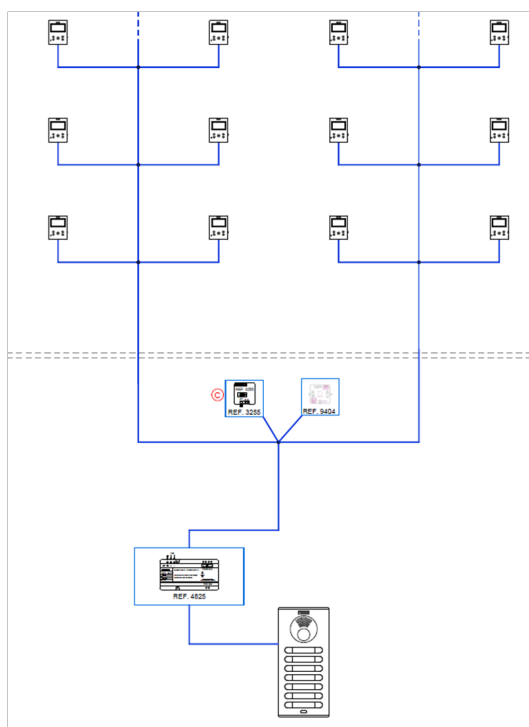
NOTE: The Tester cannot be connected to the output of a decoder.

Once the device is connected to the bus, the equipment receives power. It's active status is shown to the user via a red POWER LED.

⚙️ 3. WIFI NETWORK CONNECTION

One the device has power, the DUOX TESTER will enable a wifi network called "Fermax_Tester". The white LED above the POWER LED will start flashing to show that the network is ready for connection.
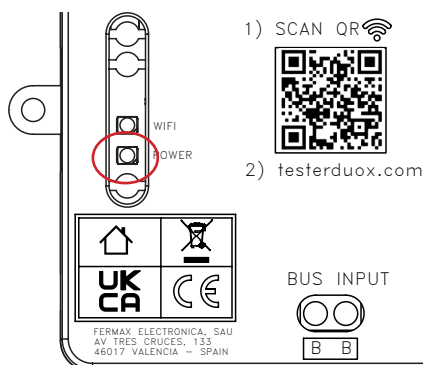
If the connection is performed using a mobile device, we must do it by selecting the "Fermax_Tester" network from the network manager or directly, if preferred, by scanning the QR code that is printed on the DUOX TESTER's casing. This will send you directly to the authentication menu of the network itself.

The password must be entered to log in: TesterDuox
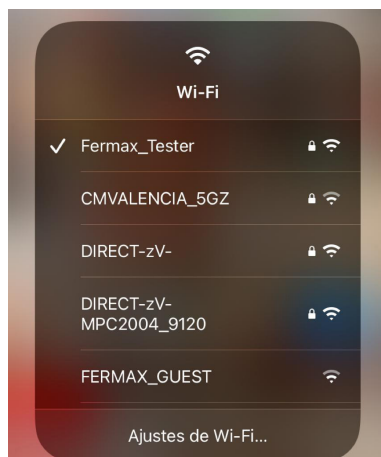
Wifi connection example
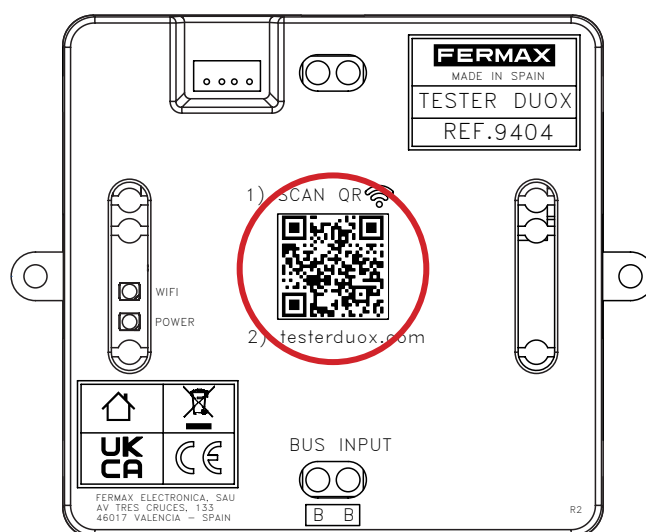
QR code for Wifi network access

Once we have connected to the network the white LED will remain on .

NOTE: the terminal used will not have Internet access while it is connected to the DUOX Tester network.

4. USER INTERFACE

Once the connection to the network enabled by the DUOX TESTER has been made:

1. Open your browser (Chrome, Microsoft Edge, Firefox, etc.).

2. Enter the URL: "testerduox.com".

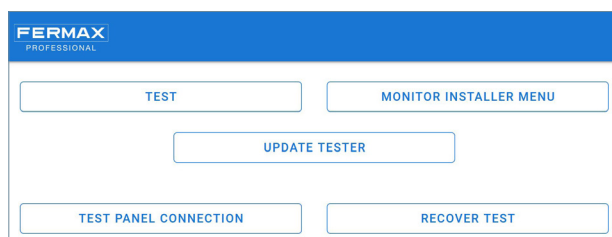3. Access the device's web interface and enter: "admin" or "Admin" and password "19025". It is possible to change the language from the drop-down menu on the right-hand side.

Authentication screen

If logged in successfully, the user will access a menu screen where he/she can choose which functions he/she wants to perform:

- **Test** ➡ Submenu where the test process described below is performed.
- **Monitor Installer Menu** ➡ Submenu where you can access the locking and unlocking options of installer menus version 42.18 and after.
- **Update Tester** ➡ Submenu where the DUOX TESTER update file is loaded if there are more recent versions.
- **Test Panel Connection** ➡ Allows to evaluate the quality of the connection from the panel to the "Tester", at that point of the installation.
- **Recover Test** ➡ Allows you to recover tests carried out by the selected panel of the installation or continue with the test that was being carried out at that moment if any type of problem has occurred with the "Tester", the device or the connection between both.
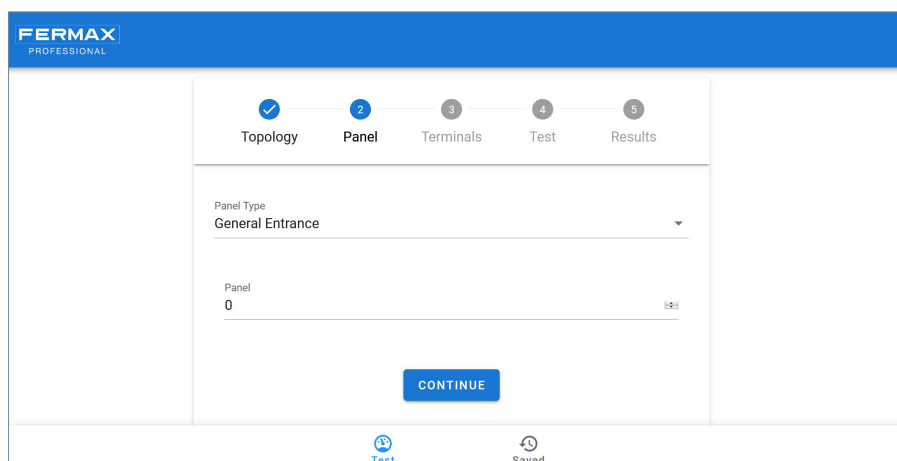
4.1. TEST PROCEDURE

If you select the Test option, you can choose between creating a new topology, loading a topology that has been previously tested or repeat the las saved topology.
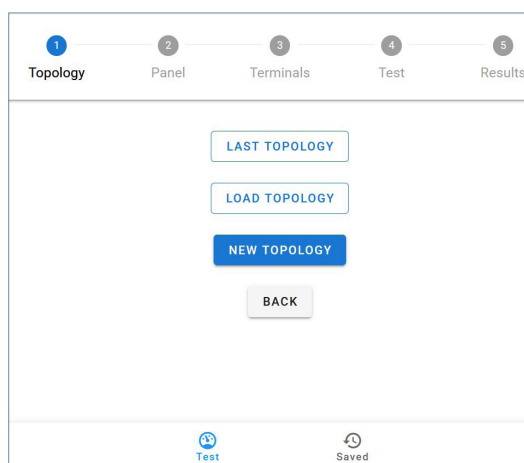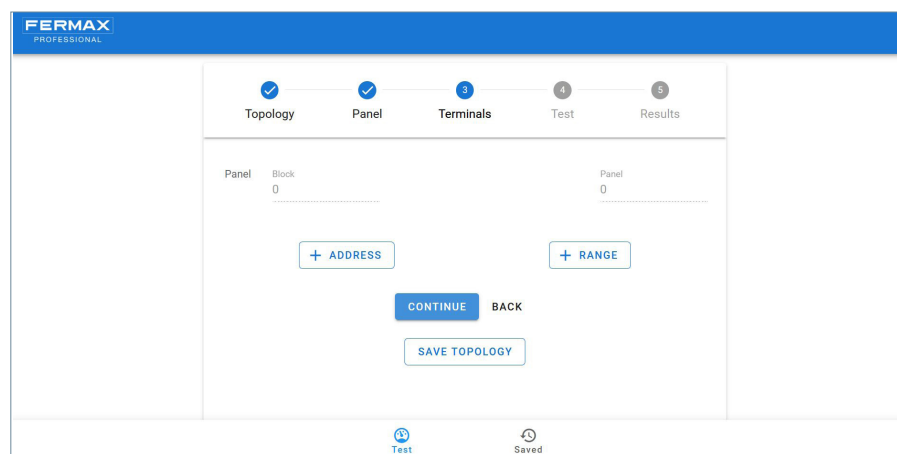
4.1.1. NEW TOPOLOGY

Panel selection:

You must select the configuration of the panel we want to test, type and number.

Terminal selection:

We must select the terminals of our configuration to be tested. To do so there are 2 options what we can combine

- By address
- By range

Once the test has been configured you have the option to save the topology if you wish to use it in the future. The topology can be loaded in future tests from the "Test" menu by clicking on "load topology" *(Section 4.1.3. Types of saved files)*.

Terminal configuration by address

We must add the addresses of the installation's terminals that are to be checked. We can add more than one terminal to be checked.

Approximate test time depending on the type of test selected

Approximate maximum test time: 30 seg
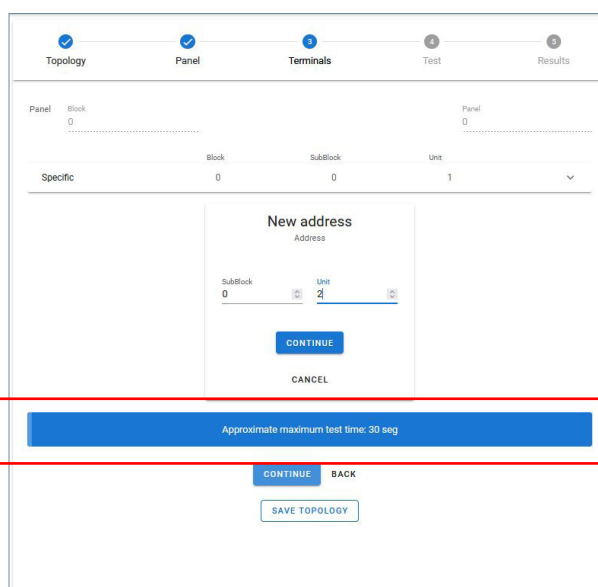
Terminal configuration by range

We can add more than one range.

Approximate test time depending on the type of test selected

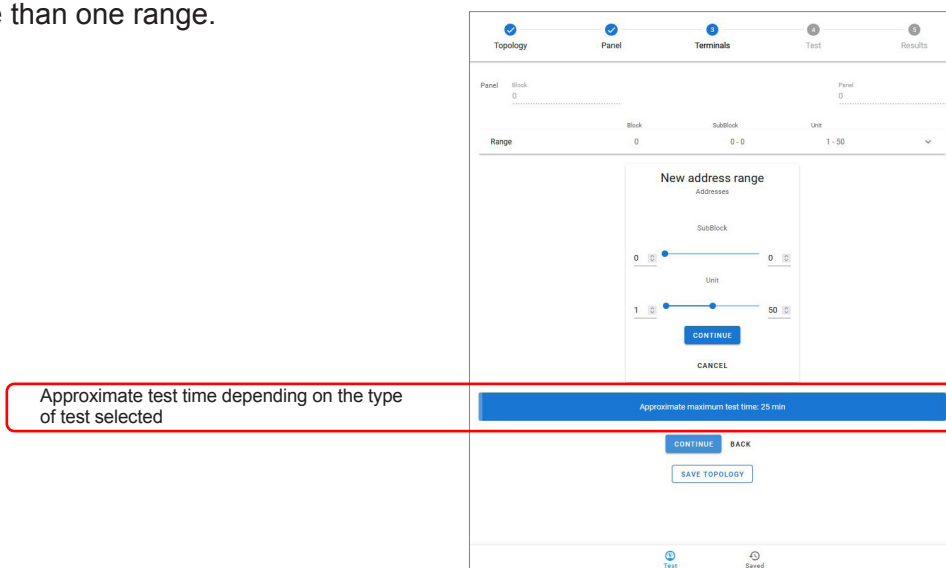*Note : The six-digit Duox Plus addressing corresponds as follows; the first two digits to the block, the next two digits to the sub-block and the last two digits to the apartment.*

To save the topology, once the terminals have been configured, click on the save topology button and a dialogue box will appear where you can enter a name for the topology. This name can only be composed of alphanumeric characters and a blank space. At no time can question marks, exclamation marks, dots, etc. be used.
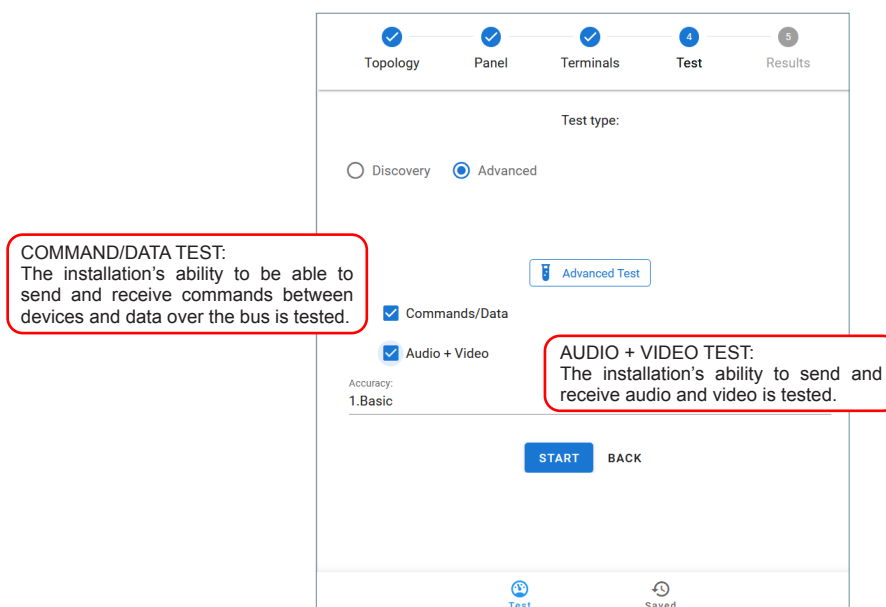
Test configuration

For standard use of the Tester we recommend the Advanced Audio + Video Test with intermediate accuracy leaving the Discovery test for specific troubleshooting.

Once the addresses to be tested have been set, you will access the menu to choose the test to be performed. Among these, the following can be found:

ADVANCED (Recommended)

The advanced test allow us to know the quality of data communication in the bus:

COMMAND/DATA TEST:
The installation's ability to be able to send and receive commands between devices and data over the bus is tested.

AUDIO + VIDEO TEST:
The installation's ability to send and receive audio and video is tested.

In this case, we must select between three types of "Accuracy" depending on the desired degree of reliability of the test result. Apart from the number of terminals installed, the duration of the test will also depend on the selected Accuracy:
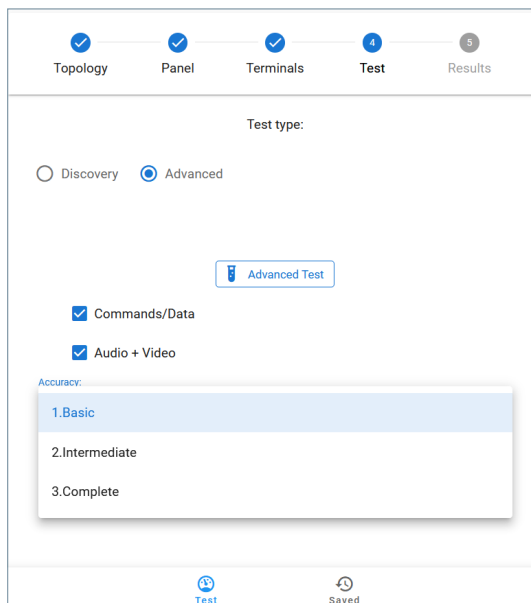
BASIC: 5s test duration for each monitor, with a lower reliability

INTERMEDIATE: 15S test duration per device, thus providing higher reliability.

COMPLETE: 30S test duration per device. This type of test shows highly reliable results, comparable to a phone call.

However, it should be borne in mind that the test is carried out in a temporarily isolated situation, so it is not possible to be absolutely certain that the system will function correctly over time or if conditions change. In addition, the maximum test duration on a terminal is 30s. Therefore, in certain situations it is possible to miss errors caused by temporal degradation of the signal.

After to select the desired options, click on "start". Before starting we will be asked to give a name to the test, this name can only be composed of alphanumeric characters and the blank space. At no time may question marks, exclamation marks, dots, etc. be used. This name will identify the test if we need to retrieve the probe from the option "Retrieve test" *(Section 4.4 Retrieve test).*
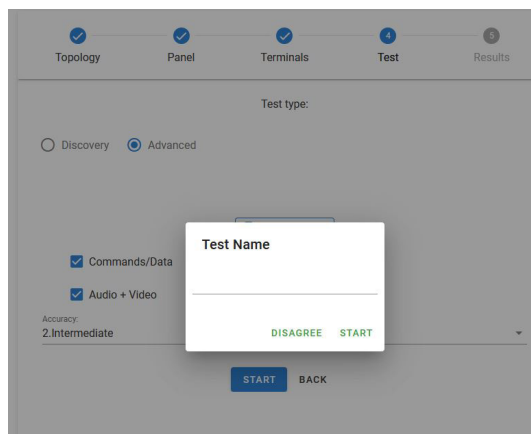
Once the test has started, a progress wheel and its percentage will appear indicating that the test is active. In addition, the execution can be stopped at any time if necessary via an on-screen button.
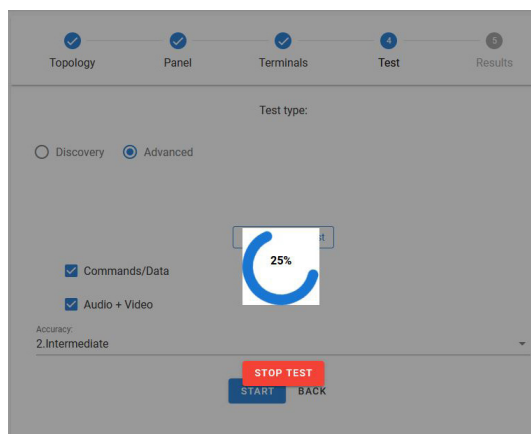

NOTE: The monitor cannot be manipulated while the test is being performed, if the menu key is pressed the test result may be "offline".

The results will be displayed next to each address with a label and a colour identifying the test result:

- OK (green): indicates correct functioning of the address, the test has been performed and the percentages are acceptable.
- Error (red): indicates data frame loss.
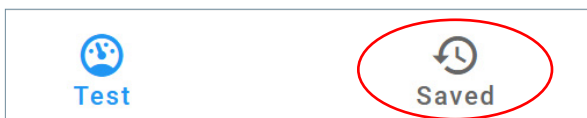- No Connection (black): indicates no communication with the device.

Once the advanced test is finished, the installed terminals will appear. You can change the view and display order using the filters in the web interface.
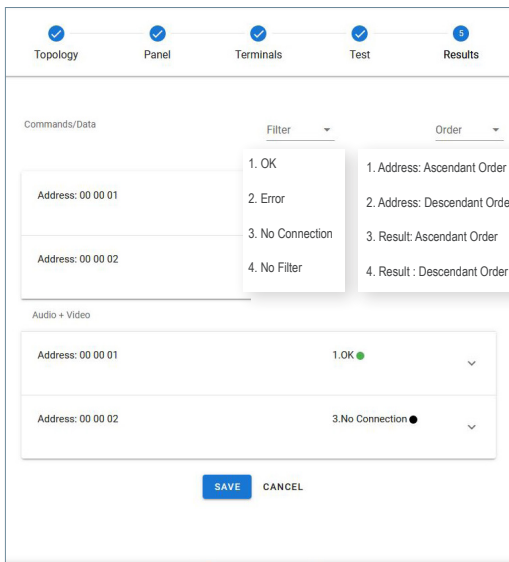
After naming the test, the result is saved as a PDF file.
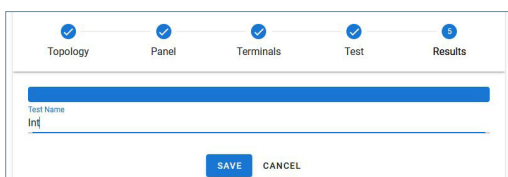

Saved files can be accessed via the shortcut at the bottom of the web interface.

DISCOVERY (Only by Fermax technicians)

The test that allows you to find out which devices are connected to the installation. We will have to choose between using the information stored on the panel or updating the information of the devices

INFORMATION SAVED ON THE PANEL: You receive the configuration information stored on the panel
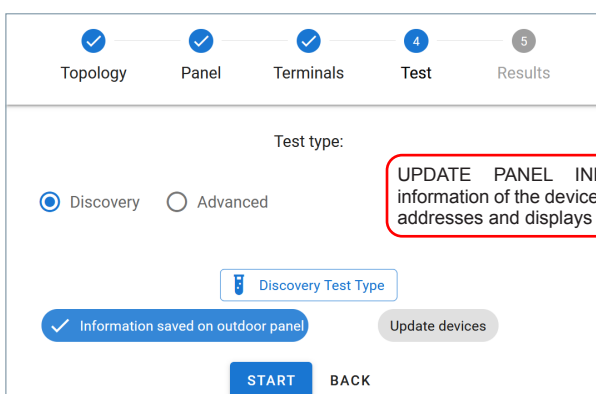
UPDATE PANEL INFORMATION: Updates the information of the devices that have been set in the test addresses and displays it

If you selected the option "information saved on the panel", the discovery test will return all the terminals that the panel has registered in its memory. If at one address at any time there was any other device, the discovery test with "information saved on the panel" would return information from all the devices that were at that address.

If we have selected the option "Update information on the panel", the panel makes a new discovery.

Once all the options have been selected, the test will be launched using the START button.

During the test, a progress wheel and its percentage will appear indicating that the test is running. In addition, the execution can be stopped at any time if necessary via an on-screen button.
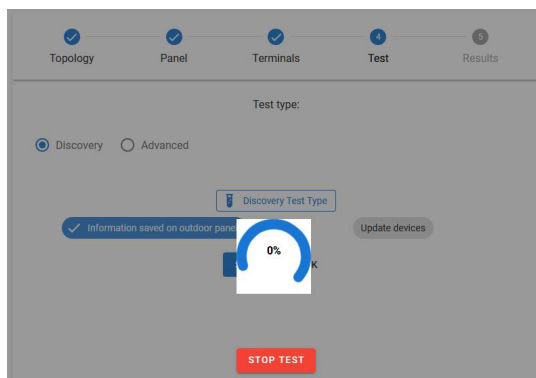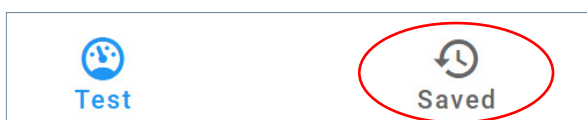

Once the discovery test is finished, we will see the addresses with information about the model and version of the terminal.
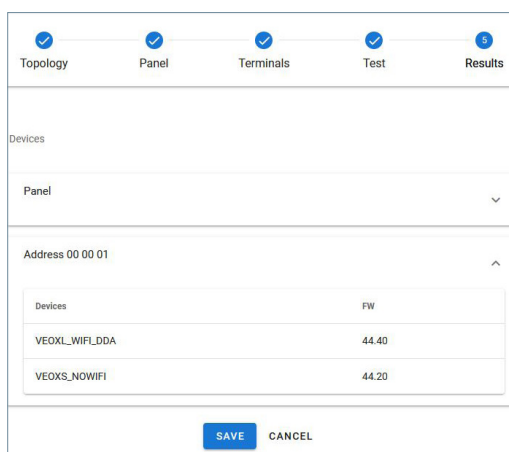
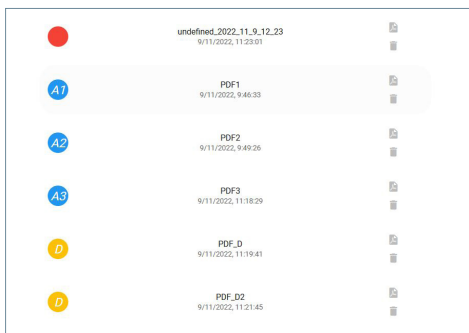After naming the test, the result is saved as a PDF file.

Saved files can be accessed via the shortcut at the bottom of the web interface.

4.1.2. TYPES OF SAVED FILES

There are three types of files depending on the selected options that will be easily identifiable by an identifying letter and a colour, as well as the date and time in which they were made.
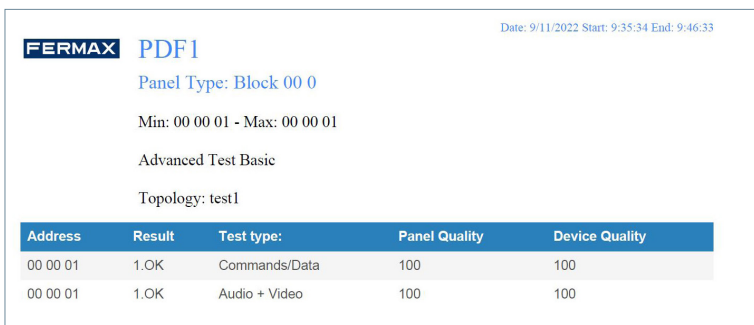

types of saved files

UNDEFINED: In case of loss of connection

ADVANCED: In case you have selected the options
- A1. Base
- A2. Intermediate
- A3. Full

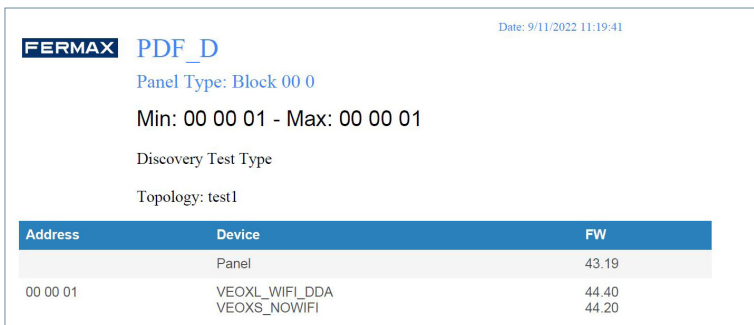DISCOVER

ADVANCED:

Date and time of start and end
Name of the test

Type of panel

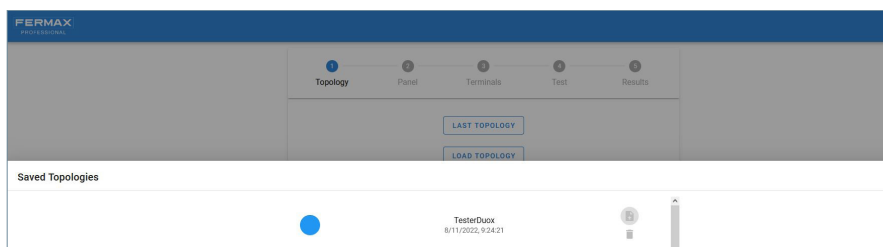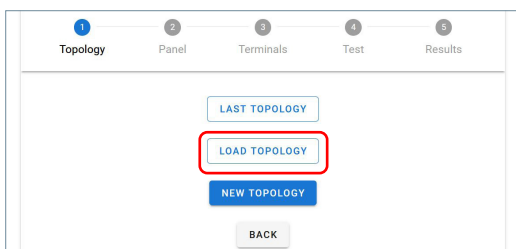Minimum and maximum address where the test was performed

Type of test performed

DISCOVERY :

Date and time of start and end
Name of the test

Type of panel

Minimum and maximum address where the test was performed

Type of test performed

4.1.3. LOAD A TOPOLOGY

If we select the option "load topology" we will have to choose from those previously stored in our device.
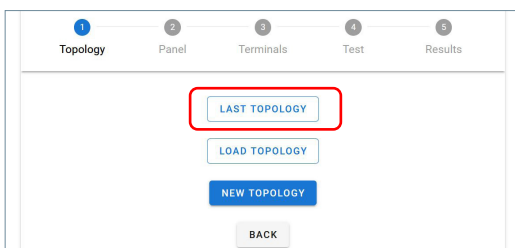
If the topology has been saved without all the parameters and we try to carry out a test, it will show us an error message "no test parameters". This topology will not be valid, we can delete it or save a new one correctly configured.
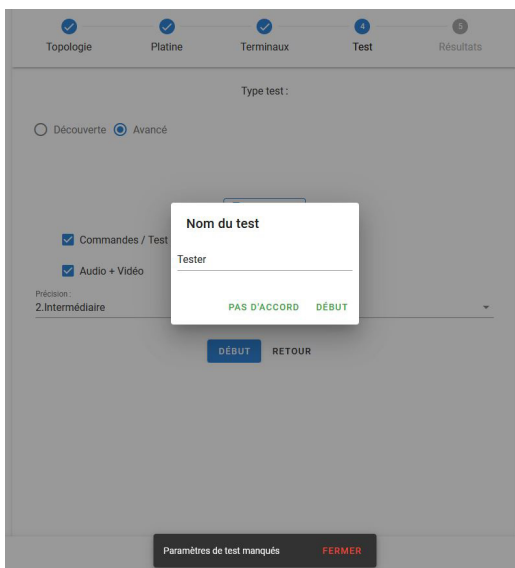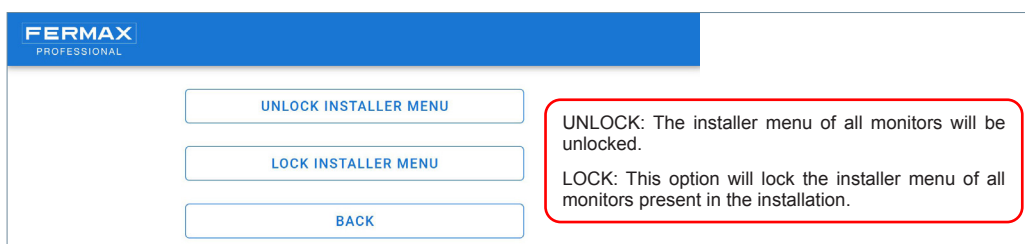

4.1.4. LAST TOPOLOGY

From this option we will automatically load the last topology previously saved.

4. 2. LOCKING THE INSTALLER MENU

Another feature provided by the DUOX TESTER is the ability to enable and disable the installer menu of Duox monitors with a FW version higher than 42.18.


This allows the installer to easily leave an installation locked so that it is not possible to access its configuration menu. This prevents an end-user from being able to unconfigure their monitor.

Once you have pressed either of the two options (enable/disable the monitors menu), a message will appear indicating that the option has been selected successfully.
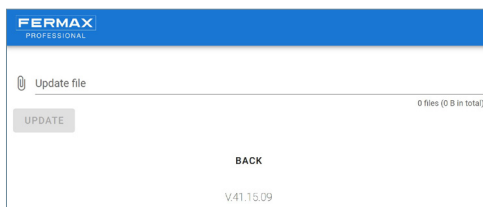
4.3. UPDATE TESTER

It is simple to update the Tester version. You can do so by uploading a file that the After Sales department will make available if necessary.

To do this, access the third option on the menu called 'UPDATE TESTER'.
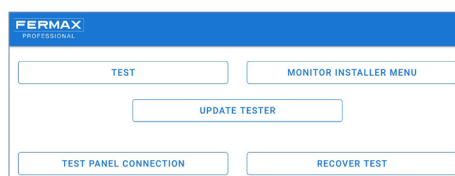
The file upload option will allow valid update files to be uploaded with the name **"fermaxUpgrade.tar.bz2".**


Once the update is complete, you will be notified with a message.

The red LED on the device will start flashing indicating that it is updating. On the screen you can see if the update has been carried out correctly.

Once finished, the device restarts and the red LED stops flashing and stays on.

4.4. RECOVER TEST

This option allows us to recover the board test or reconnect to a test that was being carried out on the bus at that moment that for whatever reason has worked incorrectly. This option is compatible depending on the Amplifier version *(Section 5. Compatibility table).*

If there is a test in progress, this option will retrieve the test. Otherwise, the device will request the database of tests stored in the amplifier selected in order to retrieve the one desired by the user.

We will be able to identify the test to be retrieved with the name we have given at the beginning of the desired test at the time.
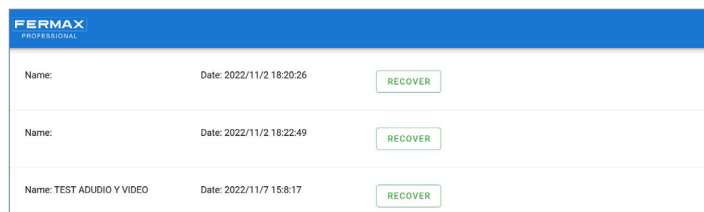
Saved files can be accessed via the shortcut at the bottom of the web interface.
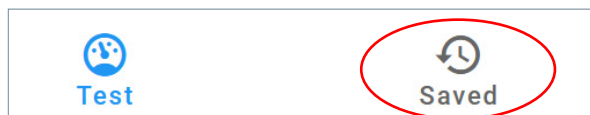
4.5. TEST PANEL CONNECTION

In this option we will perform a connection test with the desired panel, in order to check if the Tester is able to receive the frames from the board correctly in the position in which it is located.

If you select this option, you will be redirected to the following screen, where you must choose the panel you wish to test.

Once the test is finished, a dialogue will be displayed with the test results.
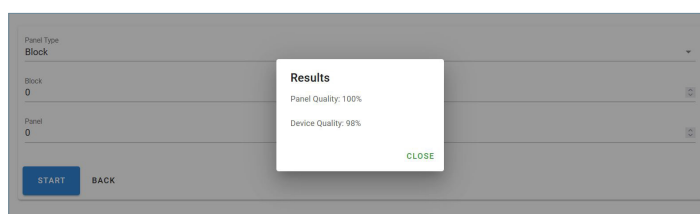
5. PRODUCT COMPATIBILITY

Versions compatible with Tester version 40.14 y ≥ 40.15 (Recover Test)

	Test avanzado Advanced Test	Test descubrimiento (actualizar info placa) Discovery test (Update devices)	Test descubrimiento (info guardada placa) Discovery test (info saved on outdoor panel)	Bloqueo menu instalador Installer menu blocking	Recuperar test Tester ≥4x.15 Recover test Tester ≥4x.15
WIFI Monitor (VEO,XS,XL)	≥40.14	≥42.20	≥40.14	≥42.18	≥4x.15
Monitor (VEO,XS,XL)	≥40.14	≥42.20	≥40.14	≥42.18	≥4x.15
VEO Telephone	FW≥44.47 / Amplifier FW≥47.21 / Tester FW≥42.17	FW≥44.47	FW≥44.47	NA	NA
iLoft Telephone	FW≥44.15 / Amplifier FW≥47.21 / Tester FW≥42.17	FW≥44.15	FW≥44.15	NA	NA
Loft Extra Telephone	NA	≥31.42	≥31.42	NA	NA
Audio DUOX PLUS Amplifier	≥4x.16	≥4x.16	≥4x.16	≥42.16	≥4x.20
Vídeo DUOX PLUS Amplifier	≥4x.16	z≥4x.16	≥4x.16	≥42.16	≥4x.19
Tester	≥40.14	≥40.14	≥40.14	≥42.14	≥4x.15

6. TECHNICAL SPECIFICATIONS AND CAPACITIES

Power supply	24 Vdc
Energy consumption	
Standby	1,37 W
Performing TEST (max)	1,97 W
Working temperature	-5 ºC, +40 ºC
Relative humidity	5%, 95%,

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