

ERIDEVICES

Instruction Manual

For the

MODEL ERIWIRE

Low Voltage Cable Tester & Harness

By

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Model Eriwire
USER'S MANUAL
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1.1. Introduction

The Eriwire low voltage cable tester is a stand-alone cable / harness tester for cables of up to 128 test points.

The Eriwire detects opens, shorts, and miswires within one second by comparing test results with a golden file or a baseline recording from a sample cable. Upon error detection, an error message can be displayed on the capacitive touch screen.

The tester uses a changeable universal adapter card that allows to load different connectors and variety pin numbers by connecting and soldering the appropriate mating connectors on the card.

With the adapter card, cables with multiple connectors on one end or cables with different types of connectors and pin numbers on each end can be tested without the trouble and cost of needing to change modules for each individual type of connector.

Testing and operation of the eriwire are made simple through it is user-friendly software with easy-to-follow menu prompts.

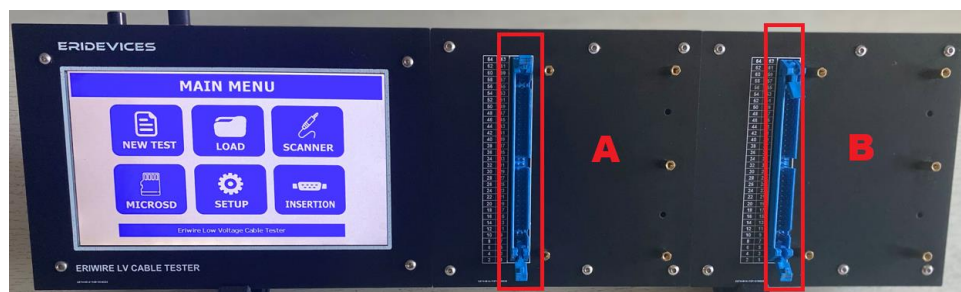
1.2. Features

- Fast open/short test for flat cable or any discrete wire harness up to 128 test points.
- The furnished adapter card fits all the commonly used adapters.
- Provides golden file for all pin to pin cable testing or learns from a known good harness assembly.
- Memory of 16 GB stores the wire list for thousands of cables.
- Multiple connections are checked with each point or other multiple connections.
- Test probe is included for wire identification or debugging.
- Guide assembly mode.
- Intermittent test capabilities.
- Test Diode (Polarity).
- Mode Test Continue.
- Test Multiple Netlist.
- Learn function.
- Import CSV Files.

Overview hardware Eriwire Low voltage Cable Tester

The equipment has two modules or scanners with 64 test points each, the module A and the module B.

Module	Test points
A	A1 - A64
B	B1 - B64



1. Capacitive display screen seven inches.
2. Scanner of 64 test points.
3. Support for adapters.
4. Power button.
5. MicroSD slot.
6. Power USB type C slot.
7. Banana Jack connector.

Unpacking and Inspection

The model Eriwire cable/harness tester was carefully tested and inspected both mechanical as well as electrically prior to shipment. Upon receiving the instrument, carefully unpack all items from the shipping cartons and inspect them for any obvious signs of physical damage that may have occurred during delivery.

Report any such damage to transit agent immediately. Save both the packing box for future use in case re-shipment. Is required. After unpacking the tester, check for the following packaged items which are included in the sale.

- One Eriwire Low Voltage Cable/Harness Tester.
- One Test Probe, 1m of length.
- One AC Adapter to 5V, 2A.
- One Usb cable type C, 2 meter of length.
- One Adapter USB type A to MicroSD slot.

Instrument Identification

Each Eriwire instrument has a serial number.

Accessories and Options

The following accessories are provided with each Eridevices, Eriwire Low voltage cable tester unit:

- One single wire test probe with standard banana jack.
- One 120 VAC to 5VDC adapter with output current 2A.
- One Cable USB Type A to USB Type C.
- MicroSD 16GB.
- One Adapter USB type A to MicroSD.

Login Screen

In the screen shown below, it is the login screen of the cable tester, for the generally testing is recommended access with the user Operator, and it doesn't need a password.

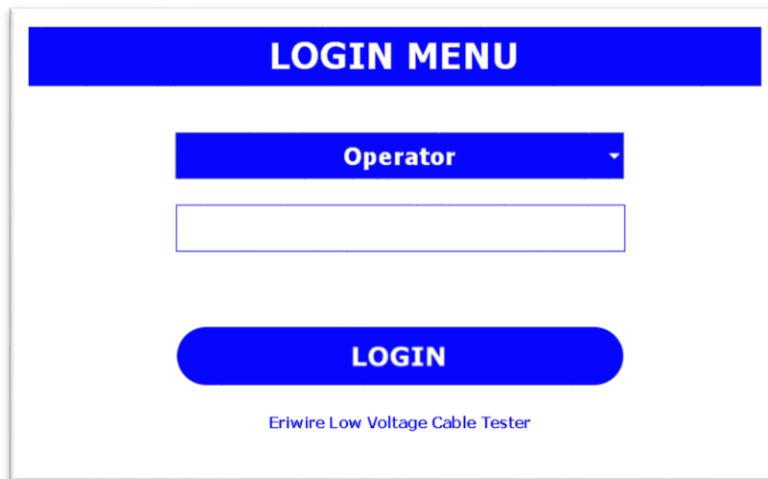


Image 1.- Login Screen.

Main menu screen

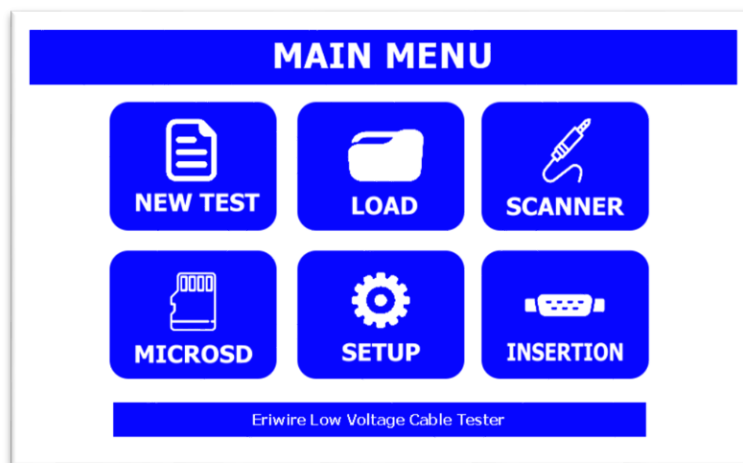


Image 2.- Main menu Screen.

- New test. - Allows create a new test program.
- Load. - Allows load the wirelist saved previous in the equipment.
- Scanner. - Allows identify the pin number or connections, troubleshooting.
- MicroSD. - transfer data from the MicroSD to the Equipment memory.
- Setup. - Allows modify the settings of the equipment.

- Insertion. - Load connector image, guide assembly mode.

New Test Screen

This screen allows learn a sample cable or harness, if the cable contains diodes, it is necessary activate the button “Diode”, after the cable was attached to the tester, press “Learn”, the equipment automatically learn all connections detected in the scanners.

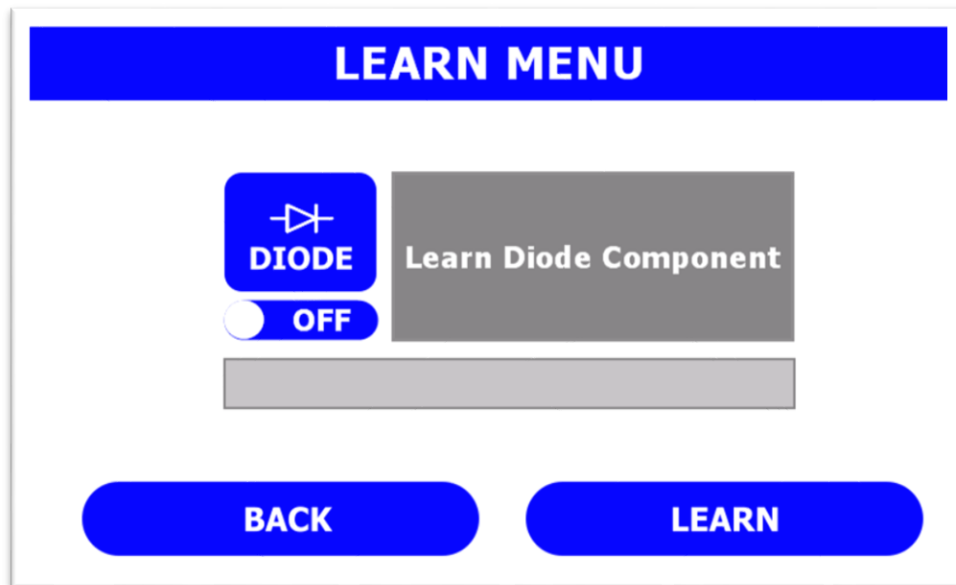


Image 3.- Learn menu Screen.

Load menu

The screen of the load menu, it is possible view all wirelist of the tester.

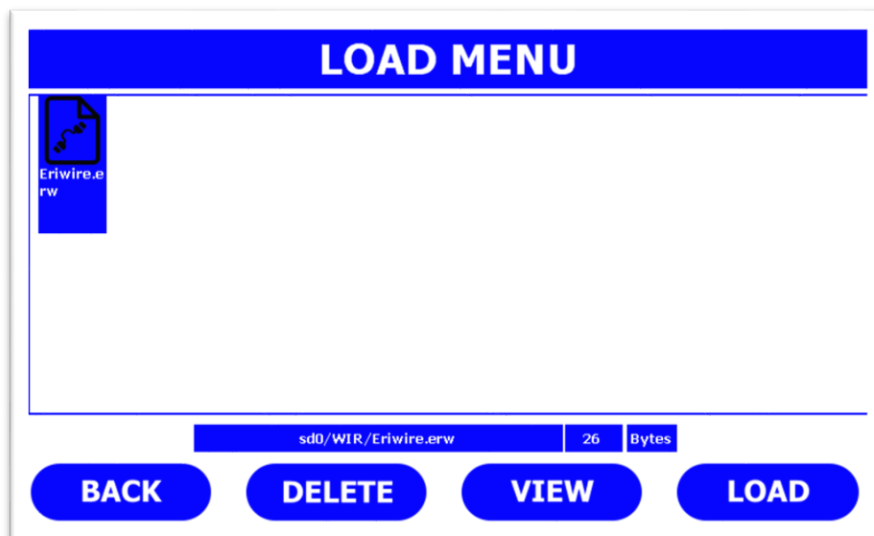


Image 4.- Load menu Screen.

Scanner menu

That menu allows verify the connections, for use this function it need to connect the red probe cable to the tester and then touch the pin or test point under test.

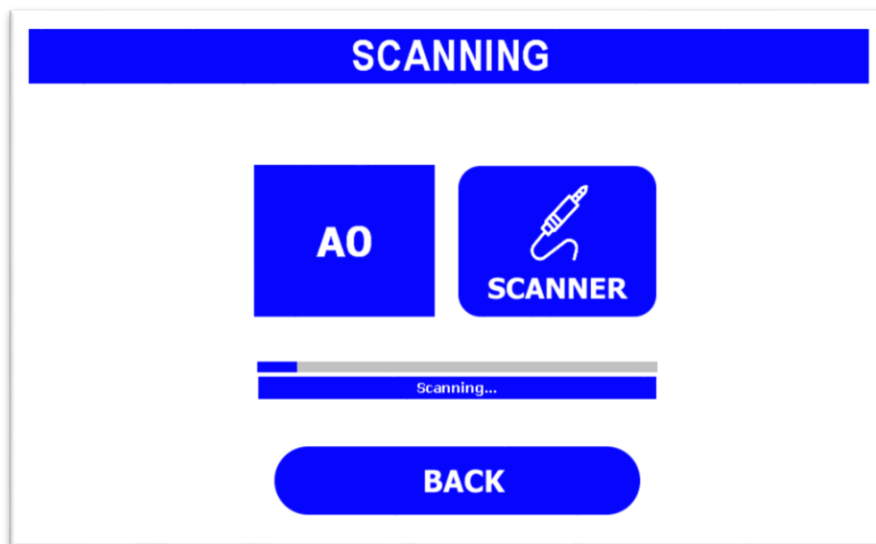


Image 5.- Scanning menu.

MicroSD / Import menu

This menu is for import data from the MicroSD card to the tester, for example transer images, it needs to press the button “.JPG”, and show all images stores in the microSD card, then select the file, and press import, the process of the transfer will be begin.

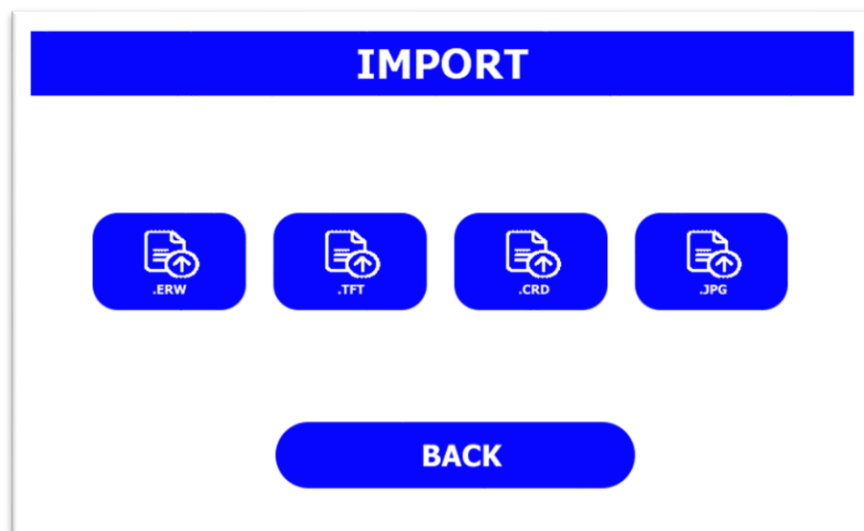
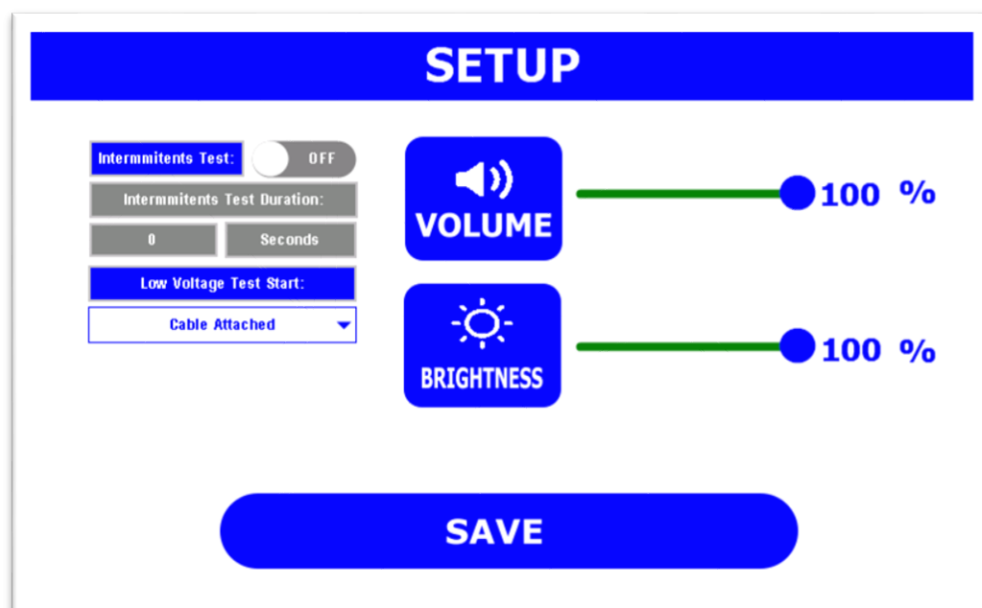


Image 5.- Scanning menu.

Setup menu

This menu allows change the volume or the brightness of the tester, it is possible change the mode of testing for example, the tester is has two modes of testing (Cable attached or Test button), if the cable attached is activated, the testing will begin immediately when it is detected a cable attached to the scanners boards.

*Image 6.- Setup menu.*

Intermittent test. - if that option is enabling the tester to perform an intermittent test, during the period the time previous added for the user.

Intermittent test Duration. - The user can entry the time in seconds of duration of the test.

Low Voltage Test Start. - The user can select two modes for initial the test, "Cable Attached" or "Test Button".

Volume. - The user can adjust the volume of the tester.

Brightness. - The user can adjust the brightness of the display.

Save. - Press "SAVE" button to exit and all settings will be saved.

Insertion (Guide Assembly)

This screen allows the user to select the connector image and load all settings, the Eriwire capabilities help the user to assemble or insert a pin correctly, "Guide assembly". The tester doesn't need an external computer to perform the guide assembly, the only accessories required are the electrical fixture and the red probe.

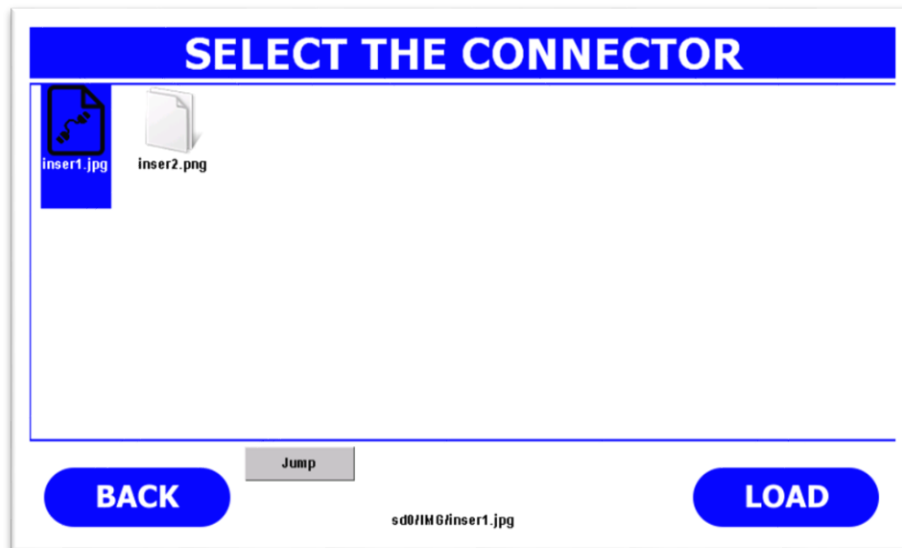


Image 6.- Connector menu.

Loading a connector

This menu is useful for inserting correctly at the first time the terminal to the connector, the user needs to touch the red probe to the one side of the cable and the Eriwire shows the pin, where should be connected, this process it needs to do with the rest of the cables, when the insertions are done, it is recommended to perform a low voltage test.



Image 7.- Insertion mode.

Learn & Save

The ***Eriwire Low Voltage Cable Tester*** was designed for perform test easy, quickly and confidence, therefore the user can do test fast, with the equipment.

Before to continue, verify the cable:

- Number of connections of the wirelist.
- It has Components (diodes for example)
- Netlists.

Attach the cable to the tester, then press button “New Test”,

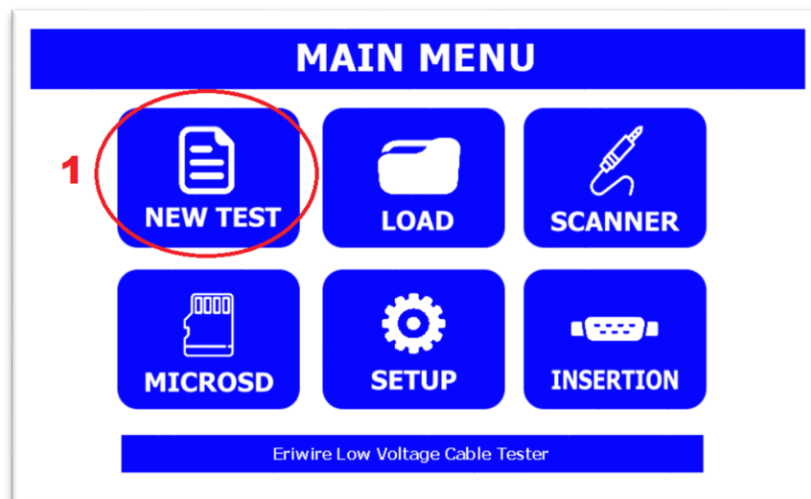


Image 8. -Main menu.

Assure the cable it is attached to the equipment, and then press “Learn” button. If the cable contains diodes, enable diode to ON.

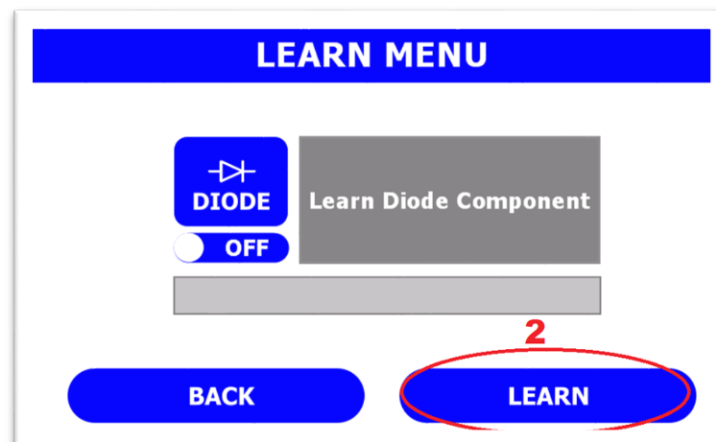
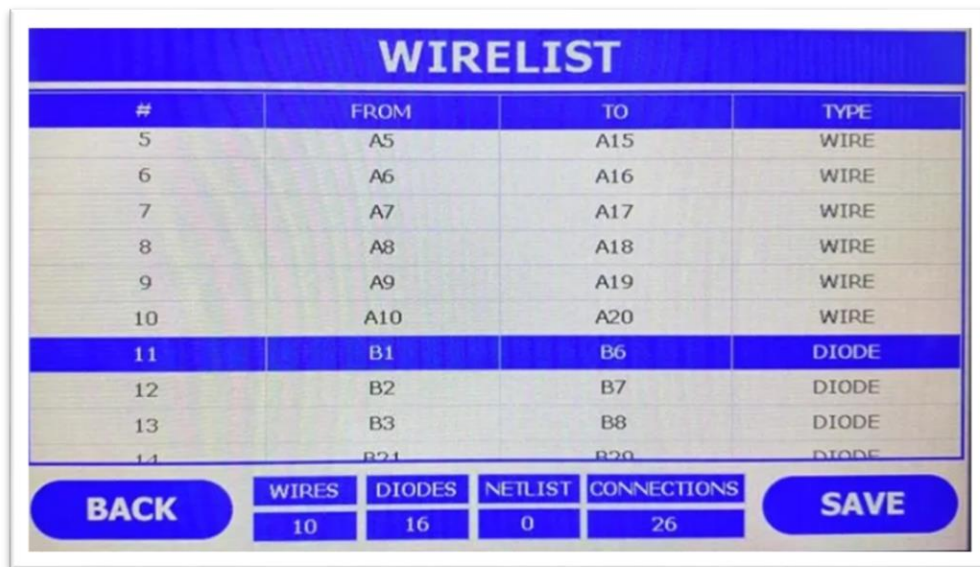


Image 9. - Learn menu

Wirelist

After of the cable tester learn a cable or harness shown the wirelist of that cable, for example in the image shown below, we can see four columns, the first column is the number of connection, the second is the first pin of the connection in the scanner, the third column "To" the final of the connection, the last column is the type of connection (WIRE, DIODE or NETLIST).



WIRELIST			
#	FROM	TO	TYPE
5	A5	A15	WIRE
6	A6	A16	WIRE
7	A7	A17	WIRE
8	A8	A18	WIRE
9	A9	A19	WIRE
10	A10	A20	WIRE
11	B1	B6	DIODE
12	B2	B7	DIODE
13	B3	B8	DIODE
14	B21	B20	DIODE

BACK	WIRES	DIODES	NETLIST	CONNECTIONS	SAVE
	10	16	0	26	

Image 10. - Wirelist menu

At the bottom of this screen, we can see the number of WIRES, DIODES, NETLIST and CONNECTIONS.

Then, press "Save" button.

Entry the name of the cable previous learned, and then press save button. Note: The name of cable it has maximum of characters is eight.



A dialog box with a blue header bar containing the word "SAVE" and a close button with an "X". Below the header is a white text input field. At the bottom are two blue buttons: "CANCEL" on the left and "SAVE" on the right.

The wirelist of the cable was saved successfully.

Load & Test

For loading a cable previously learned, we need to go to the main menu, then press the “Load” button.

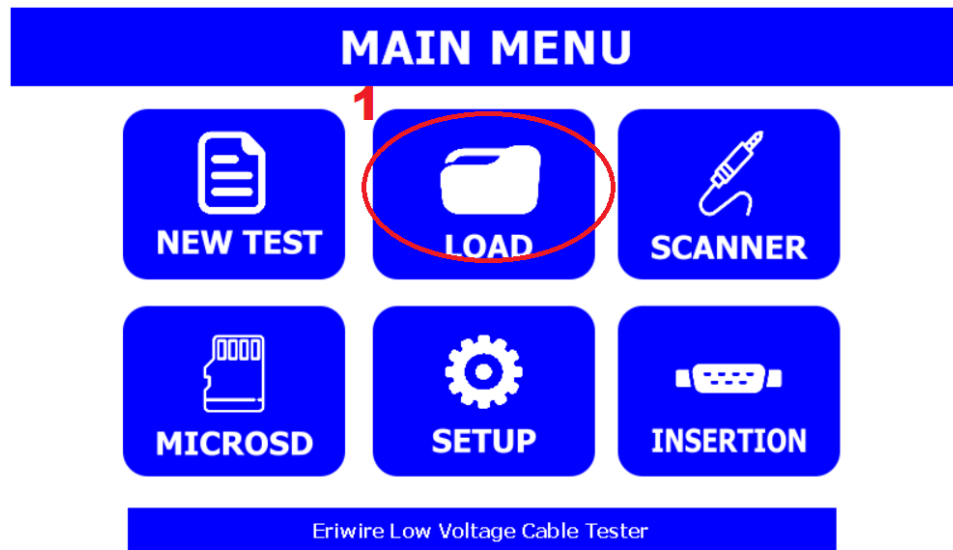


Image 11.- Main menu / Load

Step 2. - Select the wirelist (2) and then press load button (3). The loading screen will appear.

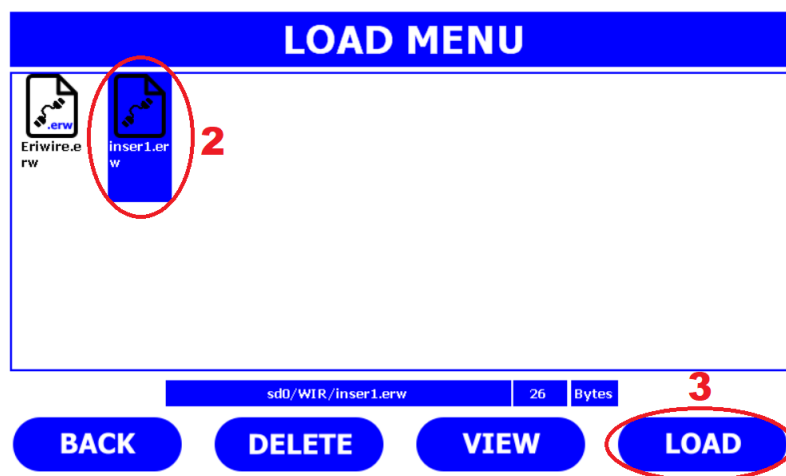


Image 12. - Load menu

Ready to Test

The screen shown below is for testing, in this case the user doesn't attach the cable to the cable tester, after the user attach the cable to the equipment, the ready button will enable.

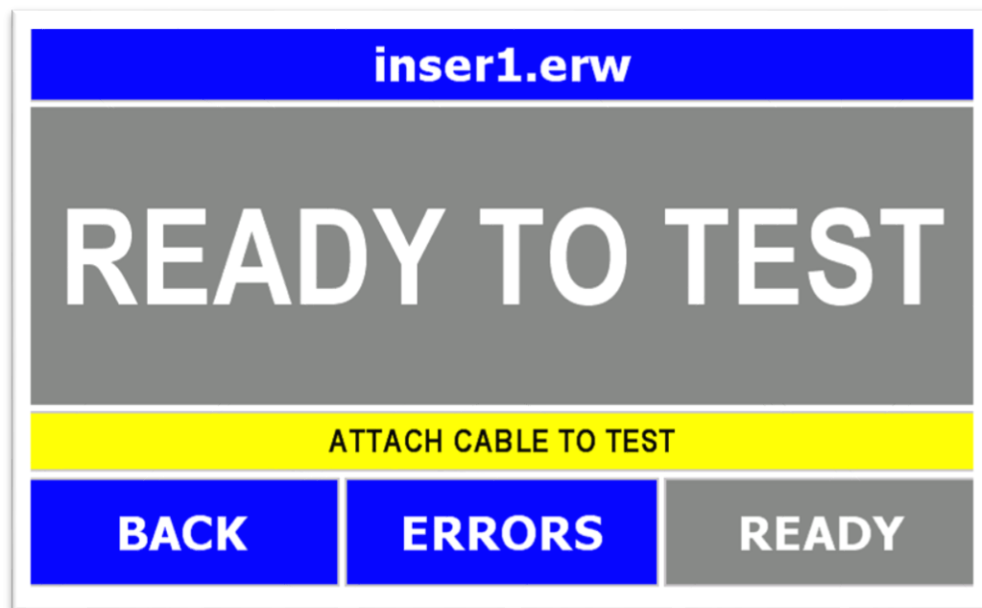


Image 13.- Test menu

For testing the user will need to press the button "TEST", the equipment begins the testing low voltages.

Remember is possible to change the start mode, the cable tester begins the test when the user press test button or the other mode if the user attached the cable to the tester. For more information review the setup screen.

The equipment performs the test in sequence, for example always test continuity first, then isolation and finally verify any extra connection in the scanners.

Guide assembly mode / Settings

The guide assembly mode help to the user with the insertion on a side of connector, this option it is helpful when a cable it has multiple connections with the same colors, for example multiples red cables. It is easy connect the side A of the cable, but the other side of the cable in some cases, the operator uses a DMM or buzzer to verify the correct insertion that increase the time of the insertion and multiple issues or quality problems.

Before to continue, transfer all relevant data to the tester, for example import insertion file and image file to the equipment.

To performs guide assembly mode, it is necessary:

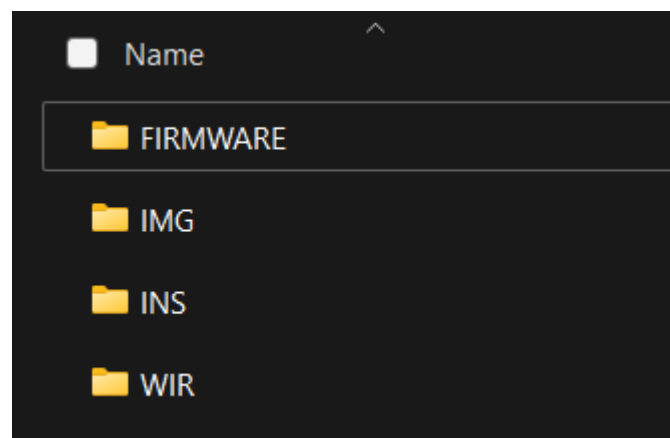
- Image file format JPG (dimensions 800x480).
- Insertion file format (.ins)

Import data to the tester.

Step 1. - The tester has a microSD ready to use, but sanity check is verify the microSD has the correct folders in the root of the USB.

Folder's structure:

- FIRMWARE. - This folder contains all data necessary to upgrade the firmware of the tester.
- IMG. - This folder contains the image of the connectors, for example conn.jpg.
- INS. - The folder contains the insertion file extension.ins.
- WIR. - The folder contains the .wir extensions.



Specifications

Model	Eriwire
Testing	Continuity, isolation, Netlist, Polarity diode
# of Test Points	128
# Maximum Test points per Netlist	32
Adapters	Yes
Expandable	No
Maximum current for test	1mA
Maximum Voltage for test	5VDC
Current	340mA
HIPOT	No
4 wire	No
Diode	Polarity Only
Memory	16 GB (FAT32)
Display type	Capacitive
Dimensions Display	Seven inches
Resolution Display	800x480
Maximum input voltage	5VDC
Dimension Equipment (Width, height, length) cm	16x5.6x50
Weight (kg)	1.60

Maintenance & Calibration

The maintenance of the equipment is minor, but is recommended clean the frames, verify the correct functionality to the power button, review both scanners boards A & B, any pin of the connectors damaged visually.

Calibration / verification

Perform a verification each year with IDC cable of the 64 connections or the verification board, connect from the scanner board A to the board B, and learn the cable verify the equipment learned 64 connections.

Limited One Year Warranty

Eridevices warrants to the original purchaser that it is product and the component parts thereof, will be free from defects in workmanship and materials for a period of one year from the date of purchase.

Eridevices will, without charge, repair or replace, at it is option, defective product or component parts.

Returned product must be accompanied by proof of the purchase date in the form a sales receipt.

Exclusions: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alternations or repairs. It is void if the serial number is alternanted, defaced or removed.

Eridevices shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Model of the Equipment: _____

Serial Number of the Equipment: _____

Date Purchased: _____