User Manual

TRIPLETT

RWV10G
Multifunction Cable Verifier/Tester

CE

1. WARNINGS

• Before using this tester, please read and understand the safety rules and operating instructions in the manual.

• If not used in accordance with the manufacturer's instructions, the tester's testing capabilities may not meet the user's needs.

• If the low battery warning appears, do not operate the tester. Please replace the battery immediately.

• Please check the network cable type before using the tester to ensure that it meets the requirements.

• Do not use the tester if it appears damaged or is not operating properly. If in doubt, replace the detector.

• Follow all applicable safety regulations.

• Do not expose the tester to extreme temperatures or high humidity

• Before testing the PC network, first set the corresponding Ethernet card properties, turn off "Energy-saving Ethernet Circuit" and "Flow Control", and then conduct the test, otherwise the test results will be affected. Please note that this is very important! The setting method is as follows:

[Settings]—[Network & Internet]—[Ethernet]—[Change adapter options]—[Right mouse button local connection]—[Properties]—[Configuration]—[Advanced]—[Energy-saving Ethernet]—[OFF]—[Flow control]—[OFF]—[OK]

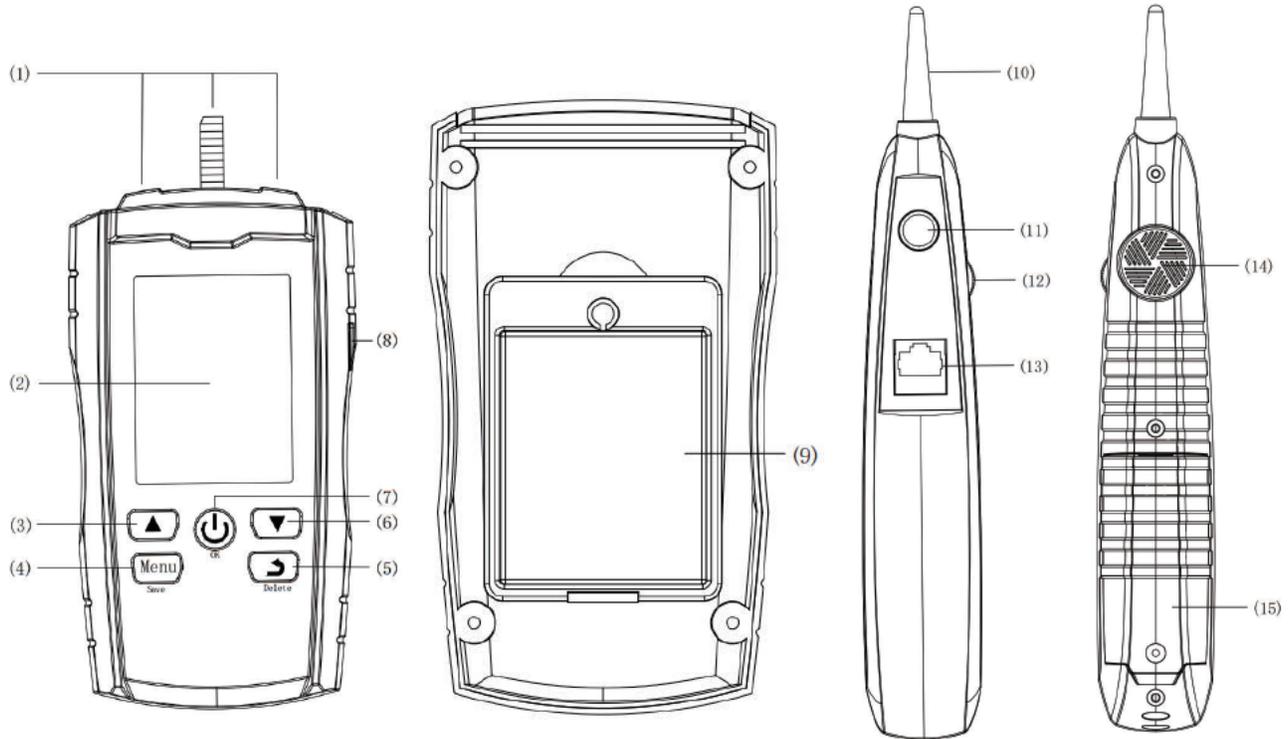# 2.International Safety Symbols

Potentially dangerous. Indicates that the user must refer to the manual for important safety information. Indicates the possible presence of hazardous voltages.
Equipment is protected by double or reinforced insulation.

3.General Specifications

Detect LAN Speed Range	10,100,1000 and 10000 MB/s
Detect The Duplex Type of LAN	Full duplex and Half duplex
Network Device Type	HUB/PC
POE Voltage Detection Range	48V
Minimum Length	15ft
Maximum Length	1000ft
Accuracy	±[2%+1.6ft]
VOP Set	1% to 99.9%
Battery	3*1.5V AA Battery
Operating Temperature	0 to 50°C (32 to 122°F)
Storage Temperature	-10 to 60°C (14 to 140°F)
Humidity	80% max
Altitude	2000 meters
Pollution Degree	2

1. WARNINGS

(1)Cable Test Port
(2) Led Screen
(3)Up Key
(4)Menu Key
(5)Return Key

(6)Down Key
(7)On/Off Key(OK Key)
(8)USB Socket
(9)Battery Cover
(10)Tester probe

(11)Tester button
(12)Speaker volume knob
(13)Cable Test Port
(14)Buzzing
(15)Battery Cover

5. Operation
5-1. Turn Tester On/Off

Press and hold the on/off button of the tester, the tester will light up and display the power-on interface (Figure 1). It will then jump to the menu interface (Figure 2) where the user can select the desired function to test. Press and hold the on/off button again, the tester will turn off and no test can be performed (Figure 3).

RWV10G

Multifunction Cable Verifier

| Net Test |
| Port Test |
| Tone Test |
| Cable Test |
| Settings |
| Data export |
| ▲ | OK | ▼ |

POWER OFF
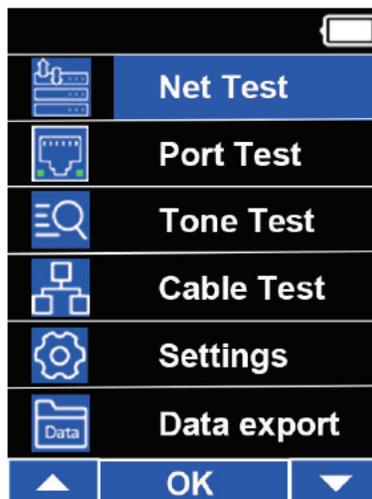
Figure 1   Figure 2   Figure 3

5-2. LAN Speed And POE Verification

The right port of the tester is used to test network speed levels. After selecting the "Net Test" function in the main menu interface (Figure 4), plug the cable under test into the right port. If the corresponding network speed level is detected, the background of the corresponding level will be lit (Figure 5). At the same time, it will also detect whether the network cable under test has POE. If yes, the corresponding POE type will be displayed, if not, "null" will be displayed.
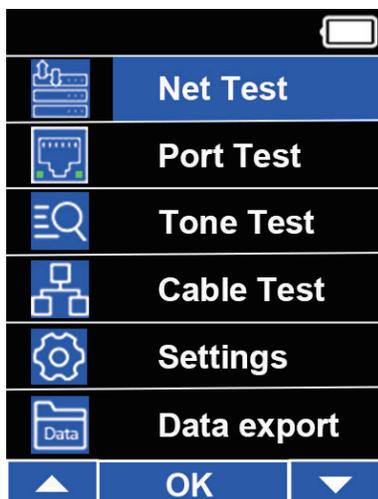
Figure 4
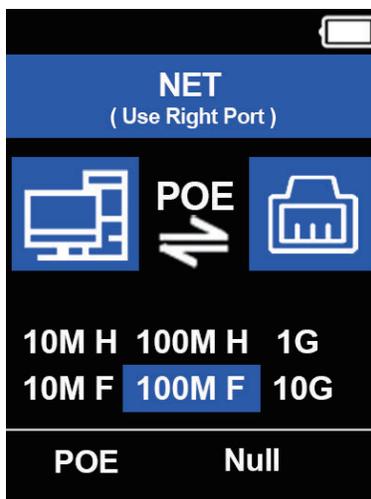
Figure 5

5-3. Port Flashing Test

The left port of the tester is used for port flash testing. After selecting the "Prot Test" function in the main menu interface (Figure 6), insert the cable to be tested into the left port, and short press the up/down button to switch between fast/slow frequencies (Figure 7). In fast mode, the flashing interval of the network port indicator will be very short, and different instruments under test may even be on all the time, while in slow mode, the flashing interval of the network port indicator will be longer. Users can also use this feature to find the cables connected to their PC or switch.
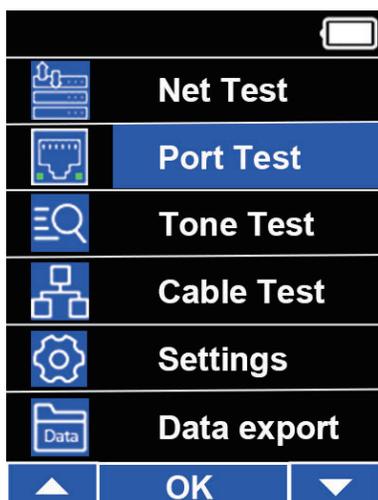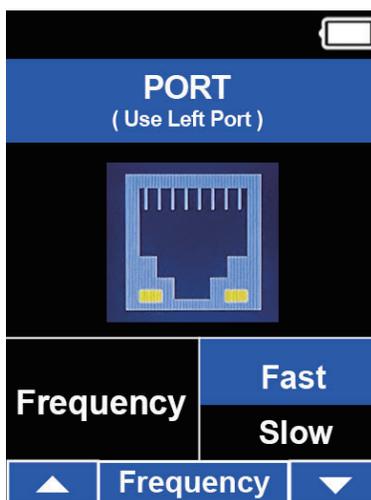

Figure 6

Figure 7

5-4. Tone Tracing Test

Both the left port and the middle port of the tester can be used for the line finding function of the cable under test. After selecting the "Tone Test" function in the main menu interface (Figure 8), insert the cable to be tested into the left or middle port, and short press the up/down button to switch between fast/slow frequencies (Figure 9). In fast mode, the tones emitted when using the remote probe to detect the cable under test are faster, while in slow mode, the tones emitted when using the remote probe to detect the cable under test are slower.
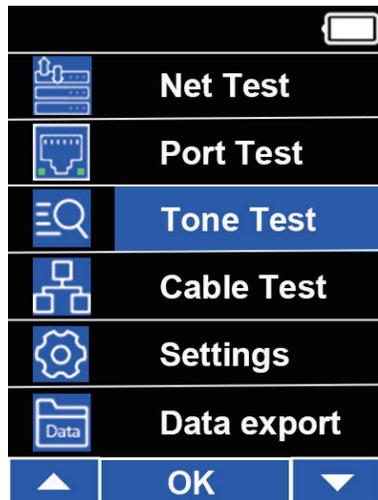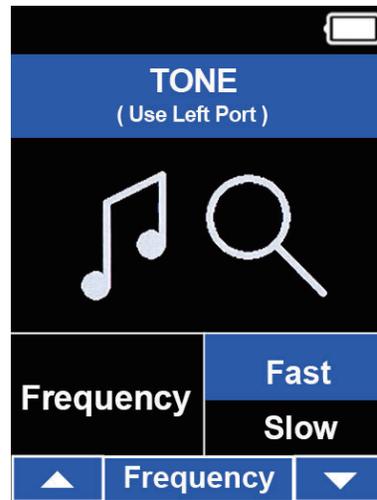

Figure 8

Figure 9

5-5. Cable test

Select the "Cable Test" function in the main menu interface (Figure 10). Cable testing includes line sequence testing, SKEW testing, DELAY testing and TDR testing. Line sequence testing requires connecting the other end of the test cable to the RJ45 socket of the remote probe for auxiliary testing. If only SKEW test, DELAY test and TDR test are performed, the test cable can be directly connected to the left port of the main tester, and the other end can be hung.

•TDR、DELAY、SKEW testing method

The left port of the tester can be used for the network cable length test function. Plug the cable under test into the left port and press the OK button once. In the testing state, "Testing" will be displayed at the bottom of the screen (Figure 11). After the test is completed, the measurement results will be displayed and "OK" will be displayed at the bottom of the screen (Figure 12), indicating that the test is completed. After the test is completed, if you want to save the data set, you need to press and hold the "Menu" button. In the saved state, "Wait" will be displayed in the upper left corner (Figure 13), and the symbol "√" will flash once after saving (Figure 14). If you need to delete data, please press and hold the "Delete" button, and the screen will display "Wait Clring..." (Figure 15), indicating that deletion is in progress. After the deletion is completed, it will automatically jump to the main interface.
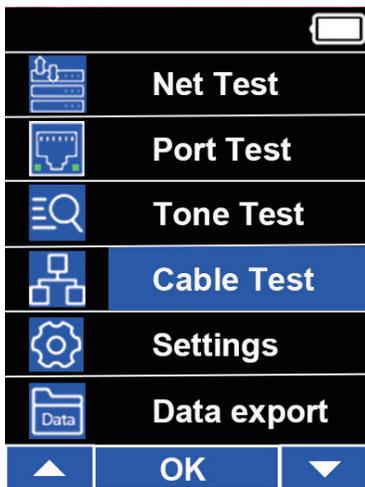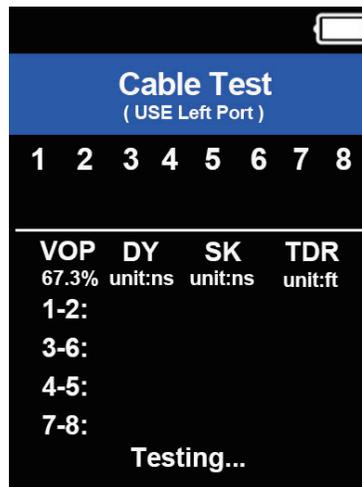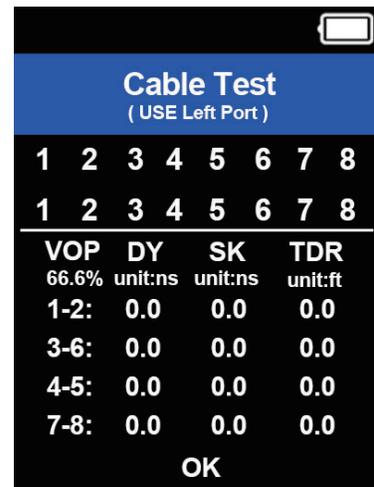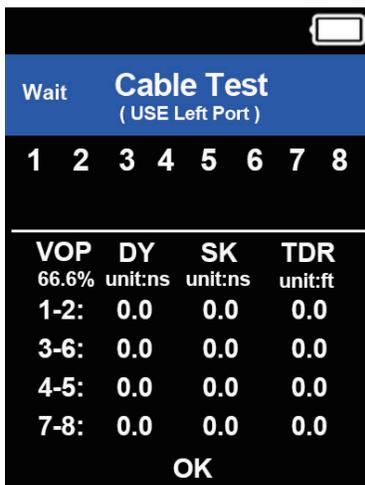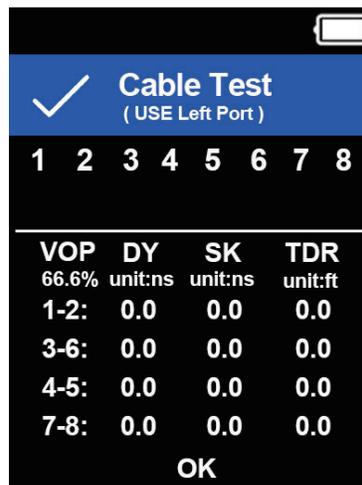
Figure 10

Figure 11

Figure 12

Figure 13

Figure 14

Figure 15

5-6. Setting
•TDR library selection

The tester itself is equipped with 20 sets of standard databases. Select "Settings" in the menu interface (Figure 16), and then select "Library Data" to jump to the database selection interface (Figure 17). Users can select according to their needs through the up and down keys. If you need to view detailed information, you can briefly press the menu button once to view it (Figure 18). After confirming the selection, press OK key briefly.
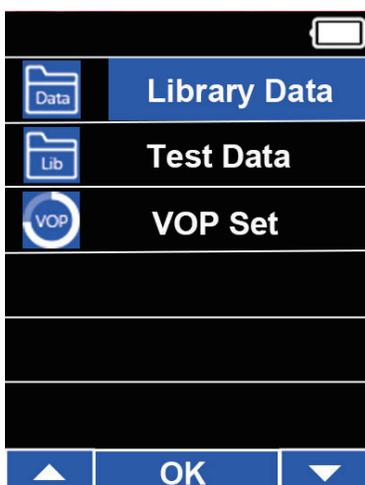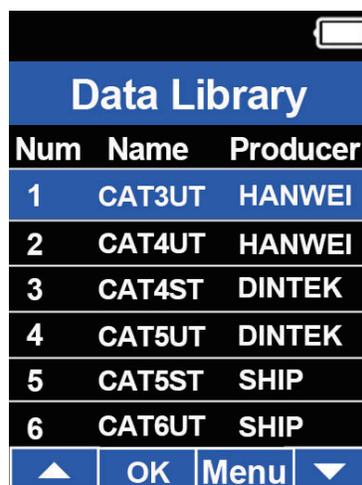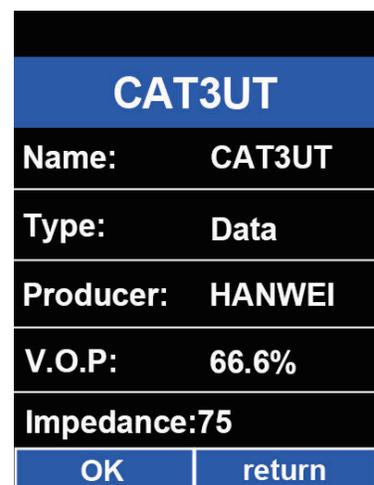

Figure 16

Figure 17

Figure 18

•Vop Settings

Select "Settings" in the menu interface (Figure 19), then select "VOP set" to jump to the "TDR" interface (Figure 20). The user can increase or decrease the current VOP value by short pressing the up and down keys. After the adjustment is completed, short press the OK button once to complete the setting. Restarting the tester will automatically save the user-set VOP value to the database.
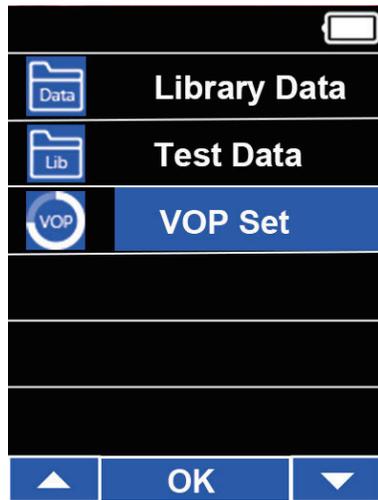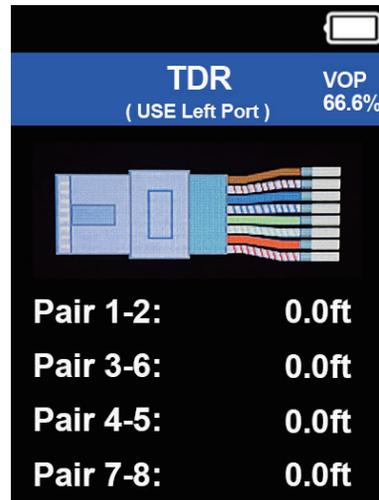

Figure 19

Figure 20

• Cable test results

Select "Settings" in the menu interface (Figure 21), then select "Test Data" to jump to the "Test Result" interface (Figure 22). The user can select the desired data group by pressing the up and down keys, and view the detailed data of the group by short pressing the OK key (Figure 23).
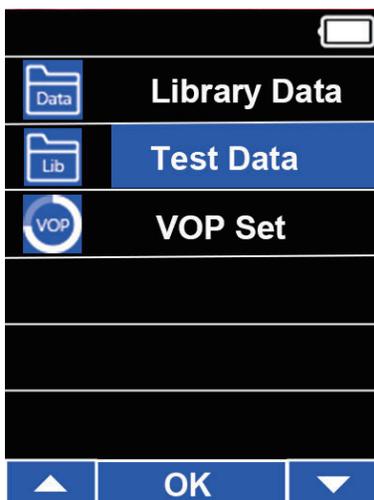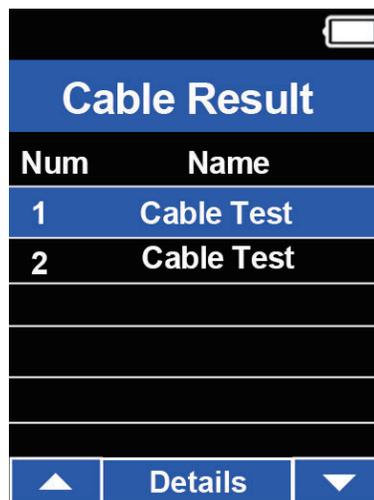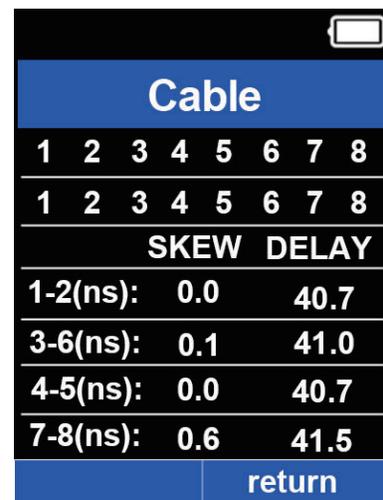

Figure 21

Figure 22

Figure 23

5-7.Data export

If the user needs to export the data saved in the tester, the dashboard needs to be connected to the computer using a USB cable. Then, select "Data export" on the main menu interface and short press the OK key. "Exporting" will be displayed (Figure 24), indicating that the data is being exported. After exporting, the selection bar jumps to "Net Test" and "Exporting" will change back to "Data export" (Figure 25). After the data export is completed, the corresponding instrument disk on the computer will display an Excel spreadsheet named "date test". Open the spreadsheet to view the test data.

If you want to delete the table content, you need to connect to the computer, long press "Delete", the dashboard will display "Waiting...". After the deletion is completed, it will automatically jump to the main menu interface. At this time, the data saved in the Excel table and dashboard will be cleared.
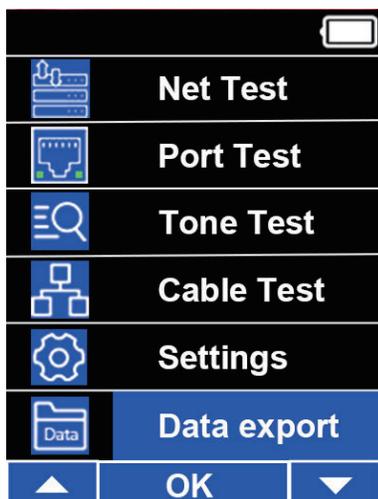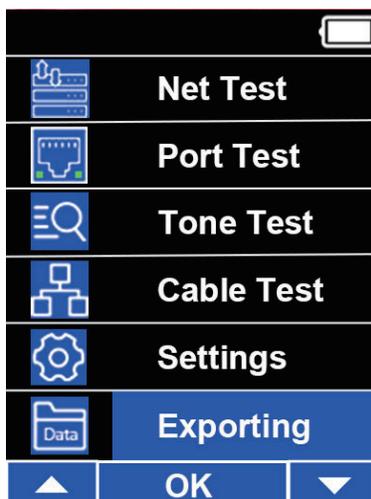

| Figure 24 | Figure 25 |

5-8. Remote Upgrade
• Update Program

If the user needs to update the program, please strictly follow the steps below:

①The tester is turned off. While holding down the Menu key, briefly press the Power button once. The tester starts and displays the startup interface (Figure 26), and then the user selects (Figure 27). If it is confirmed that an upgrade is required, please press the "Up Button" briefly to proceed to the next upgrade step. If you cancel the upgrade, short press the "Return Button" to enter the upgrade interface.
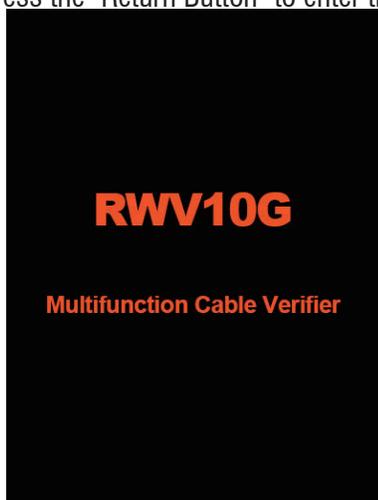

| Figure 26 | Figure 27 |

②In the previous step, if you choose to continue the upgrade, an upgrade interface (Figure 28) will be displayed, prompting the user to follow the steps and precautions. At this time, the user needs to use a USB cable to connect the instrument to the computer, and then open the corresponding disk of the instrument on the computer (Figure 29). If there is no folder named "BIN" in the root directory, you need to create it yourself (Figure 30), and then place the ".bin" file that needs to be upgraded in this folder. It should be noted that there can only be one ".bin" file in this folder for a successful upgrade. If there are multiple files, delete other unnecessary files. (For security and stability reasons, the upgraded folder name must be "BIN", and the remaining folders will not be recognized.)

The following preparations must be made:
1.Connect the computer to the tester using a USB cable.
2.Check if the disk contains a folder with the name BIN. If not, create one.
3.Place the required <.bin> files into the BIN folder.
4.Make sure there is only one file in the BIN folder.
5.Press the up button to enter the upgrade.
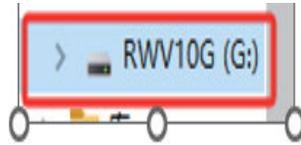
| Figure 28 | Figure 29 | Figure 30 |

③After completing step 2, press the Up button briefly to upgrade the program. The tester interface will show the progress of the upgrade (Figure 31), during which a stable connection between the tester and the computer needs to be maintained. After the progress reaches 100%, the upgrade is completed. The tester will automatically jump to the user's main interface, the user can now disconnect for testing.

Figure 31

④ If the upgrade fails, please strictly follow the above steps and try again.

5-9. Low battery indicator

The battery level is displayed in the upper right corner of the tester interface and is checked every 10 seconds. The battery level display has three levels. When the voltage is 4.05V~4.5V, it is fully charged. At this point, you can use the tester with confidence. When the voltage is 3.75V~4.05V, half of the power is displayed in the upper right corner, indicating that the tester has consumed part of the battery. When the voltage is 3.6V~3.75V, it is the low battery voltage range. At this point, you should replace the battery as soon as possible, otherwise the tester may not work properly due to low battery power. When the battery power is lower than 3.6V, the tester will not be able to turn on and use normally.

5-10. Auto Power Off

To extend battery life, the tester will automatically shut down after 15 minutes of inactivity. When the power is turned off, the screen will turn off, the tester function will also turn off, and testing cannot be performed. If testing is required, restart the tester.

6.Changing Battery

1. Unscrew the battery cover screw on the back of the tester and open the battery cover.
2. Replace the battery with 3*1.5V AA batteries.
3. Carefully close the battery cover.
4.Tighten the screw on the battery cover until it feels tight. Don't use excessive force.
5.If the battery of the tester is too low, please replace the battery as soon as possible, otherwise the accuracy of the measurement results may be affected.

Note: When installing the battery for the first time, please remove the white rectangular safety lever in advance.