USB Color Tester Instructions

Model: A3/A3-B

Feature:

Bluetooth: Support for A3-B/ Unsupport for A3
Model: A3-B/A3
Input voltage: 4.5-24V
Input current: 0-3A
Product weight: 18g
Capacity measurement range: 0-99999mAh
Energy measurement range: 0-99999mWh
Load impedance measurement range: 1.5Ω-9999.9Ω
Temperature Measurement Range: -10°C to 100°C/0°F to 200°F
Screen brightness setting: 0-5
Voltage curve range: 4.5V-24V
Voltage measurement resolution: 0.01V
Current measurement resolution: 0.001A
Voltage measurement accuracy: ±0.2%
Current measurement accuracy: ±0.8%
Time measurement range: 0-99 hours 59 minutes 59 seconds
Temperature measurement error: ±3°C/±6°F
Delay off screen time: 0-9 minutes
Current curve range: 0-3A
Fast charge recognition mode: QC2.0, QC3.0
Refresh rate: 2Hz
Product Size: 71.2 x 31.8 x 12.4mm
Display screen: 1.44 inch color LCD display


2
1
1
1
3
1
2
Bluetooth symbol appears after Bluetooth is connected
Type-C
IN/输入▼
Micro USB
05.22V
25
2.036A
GROUP
0
00004mAh
0002.5Ω
00023mWh
10.607W
帮助
下一页
USB
IN / 输入 ▶
USB
OUT / 输出 ▶
Type-C
OUT/输出▼
Color TFT USB Tester
6
4
5

Panel description:

1: Multi-function buttons (4 in total)
2: Type-C interface (supports PD fast charging)
3: Micro USB interface
4: USB male interface
5: USB female interface
6: 1.44 inch color LCD display
7: Bluetooth indicator (A3-B version only): waiting for pairing - fast blinking, paired connection succeeds from blinking to long bright, after connection the display shows the Bluetooth logo

Three operating modes:

Direct use with USB power supply

PC software & Mobile APP control download link:

https://drive.google.com/file/d/1qTAxxA8Wbh30XM9KkEFd6cIDKd9oOrRr/view?usp=sharing

Wireless operation

Support win7 and above systems

Currently only support Android mobile phone download and install APP (Android 5.0 and later)

Bluetooth wireless

Bluetooth indicator blue light

Mobile APP supports multiple languages
(currently supports 14 languages)
Chinese, English, Russian, German, Polish, Hindi... .
More languages are continuously updated...

Instructions:

Hide the interface: long press and hold any key and then power on will display three options(as the following picture show). The first item is to set the Chinese language, the second item is to set the English language, and the third item is the current zero calibration (when the function is performed, no load access must be guaranteed). Keep pressing and holding the key to move shadow in turn. Release the key at the selected item to execute the setting. If the button is still not released after three items are displayed, it means that no function is performed and will exit the hidden option interface.

Main interface Ⅰ: (main measurement interface)

1: Voltage measurement

2: Current measurement

3: Cumulative capacity value

4: Cumulative energy value

5: Temperature display

6: Data group number

7: Load equivalent impedance

8: Power measurement

Short press "help" button, the interface is as shown above:

Long press the "Next" button to switch the data group. The meter can provide 0-9 total 10 groups of data to save and view. When the data group is group 1-9, the current capacity is stored when the power is turned off, and will continue to accumulate when the power is turned on next time. When the data group is group 0, the current capacity is temporarily saved when the power is dropped. The next time the power is switched on, it will flash to remind the last capacity. When the accumulative capacity exceeds 1mAh, the last data will be erased automatically, and the accumulations will start again.

Under the selected condition of the data group number, long press the “Help” key to clear the accumulated capacity value and accumulated energy value in the data group of this group.

Short press "Next" button to switch to the main interface Ⅱ (fast charge identification interface):

Main interface Ⅱ(fast charge identification interface):

D+: DP, positive data signal

D-: DM, negative data signal

Mode display: The product will automatically recognize the fast charge mode, temporarily identifying only the QC2.0 and CQ3.0 modes. Other mode recognition is temporarily not supported.

Short press "Next" button to switch to the main interface Ⅲ (data record interface):

Main interface Ⅲ (data record interface):

Accumulated capacity

Cumulative energy value

Time display: cumulative time of current

load Stop current

REC: indicates the recording status, red REC means stop, and green REC means recording.

After power-on, when the current is greater than the stop current, the system begins to record capacity and energy, the time increases, and the REC changes from red to green. Press and hold the “Next Page” button

to select the stop current. Short press the button to adjust the value in turn, and the stop current can be set between 0.01 and 0.30A.

Short press the "Next" button to switch to the main interface Ⅳ (wire group measurement interface):

Main interface Ⅳ(wire group measurement interface):

1. The voltage current value of the tester directly connected to the power supply.

2. The test instrument is connected to the voltage current value when the data line is connected to the power supply.

R: DATA wire resistance

This product's interface can be used to measure the data line resistance value, the operation steps:

Step 1: the tester directly connect the power supply, adjusts the appropriate load current (Recommendation 1A), long press the “Next” button to record the data, and the right indicator icon stops flashing.

Step 2: Unplug the tester and connect the tester to the power supply

through the Micro USB data cable. The load current is adjusted to the same current as the first step. Long press the “Next Page” button to record the data, and the right indicator icon will stop blinking. After the resistance test is completed, the data line resistance value is displayed.

Note: If the tester screen turns black after inserting the data cable in the second step, it means that the pressure difference is too large, the tester enters the 4.5V power-down state, and the load current needs to be reduced, need to measurement from the first step. After the wire resistance measurement is completed, the measurement is restarted after the tester is powered on the next time.

Short press the "Next" button to switch to the main interface Ⅴ (voltage curve interface):

Main interface Ⅴ (voltage curve interface):

This interface is voltage measurement waveform diagram. It automatically changes the range within the range of 4.5-24V measurement and displays voltage fluctuations in real time.

Short press "Next" button to switch to the main interface VI (current curve interface):

Main interface VI (current curve interface):

This interface is the current measurement waveform diagram. It automatically changes the range within 0.00A-3.00A measurement range and displays current fluctuations in real time.

Short press "Next" button to switch to the main interface Ⅶ (setting interface):

Main interface Ⅶ (setting interface):

Delay off screen time

Screen brightness

Temperature unit switching

Long press the "next page" button to select the delay screen time, brightness level, temperature unit switch. Long press the "Next" button to enter the off screen time setting, select corresponding number, short press to cycle through the value changes, the value of a total of 10 values in the 0-9 cycle change, in which 0 is the long bright.

Long press "Next" button to enter the screen brightness settings, select corresponding number, short press to change the size of the number, the greater the number, the brighter the screen, a total of 6 settings.

Long press the "Next" button to enter the temperature unit switch, select corresponding number, short press to switch between 0 and 1. 0 is Celsius and 1 is Fahrenheit.

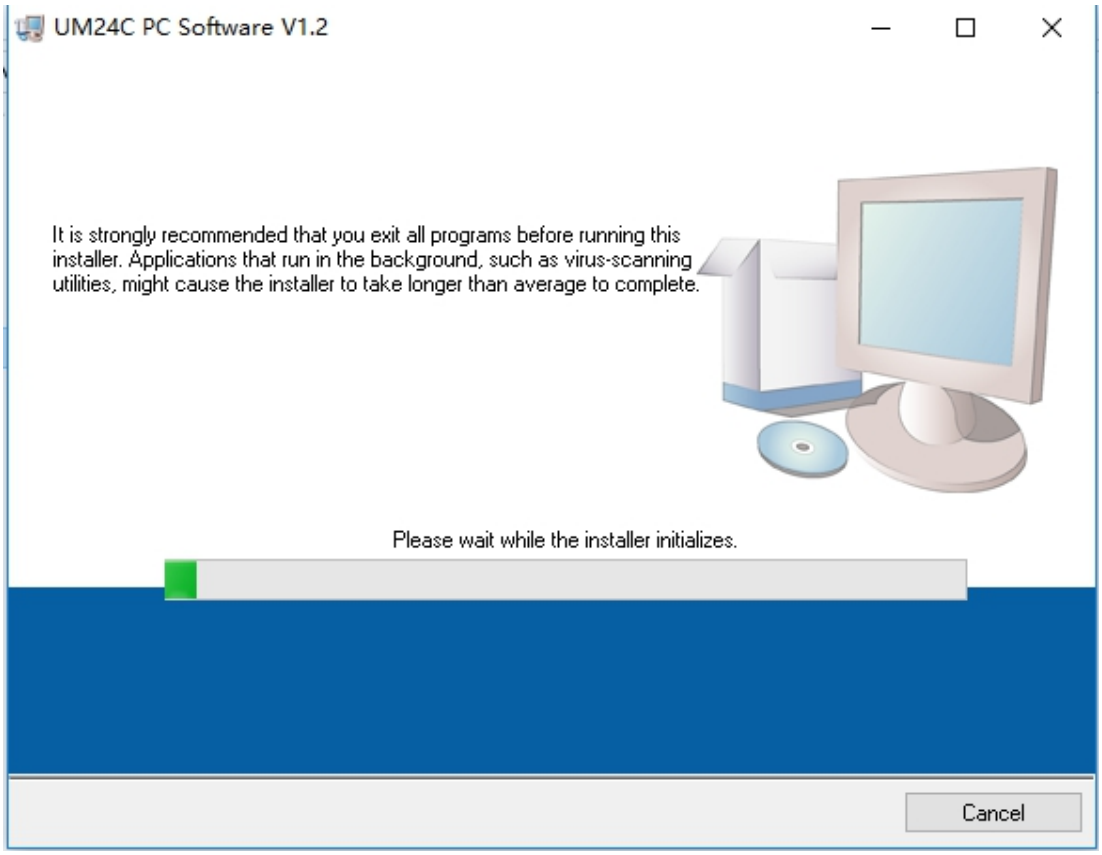
Long press the "Next" button to exit the modification settings.

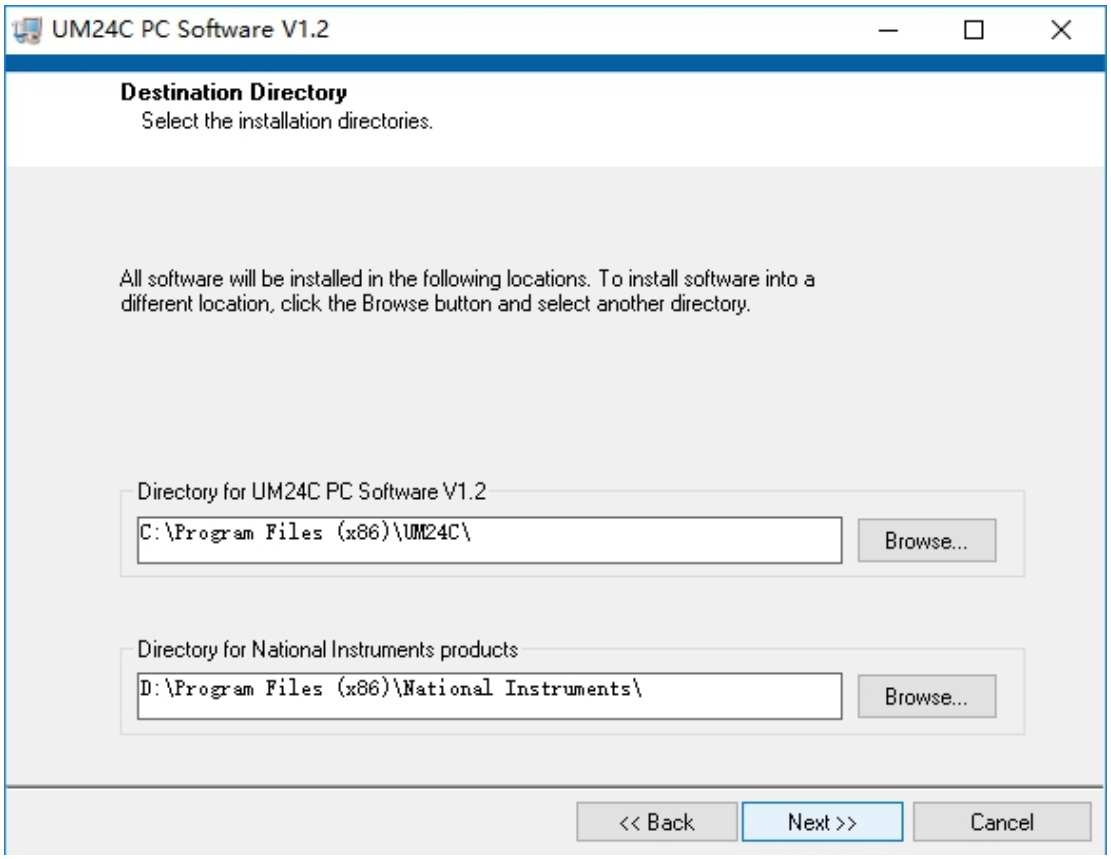
The PC Control Software Installation Instruction

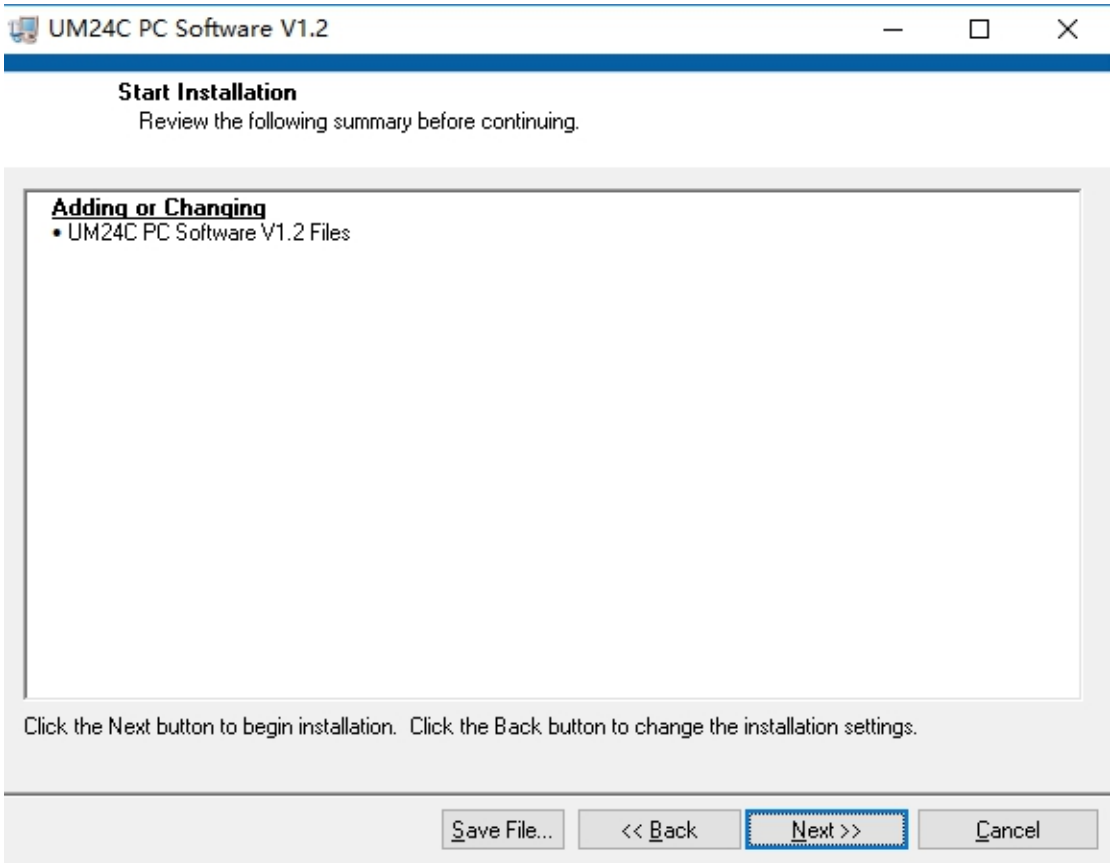
Model: A3-B

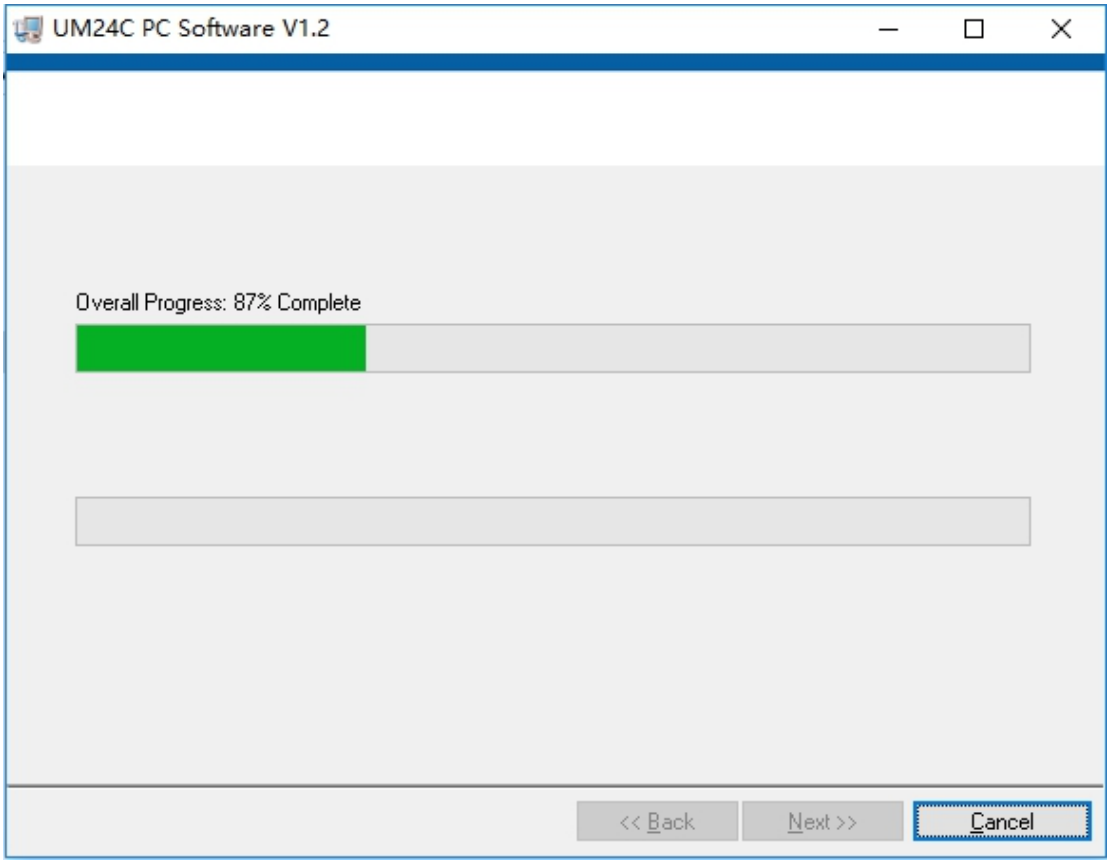
Note: This product only supports Windows 7 and above.

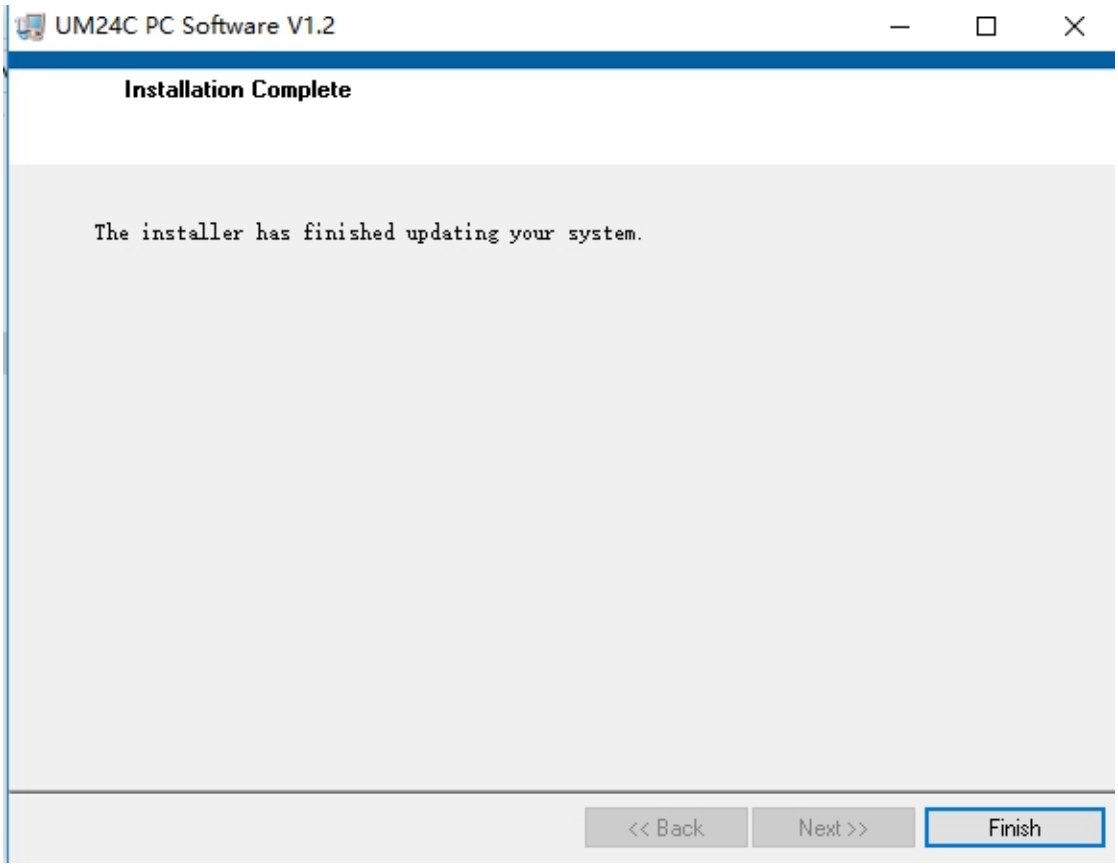
1 Unzip the installation package2 Click setup to install



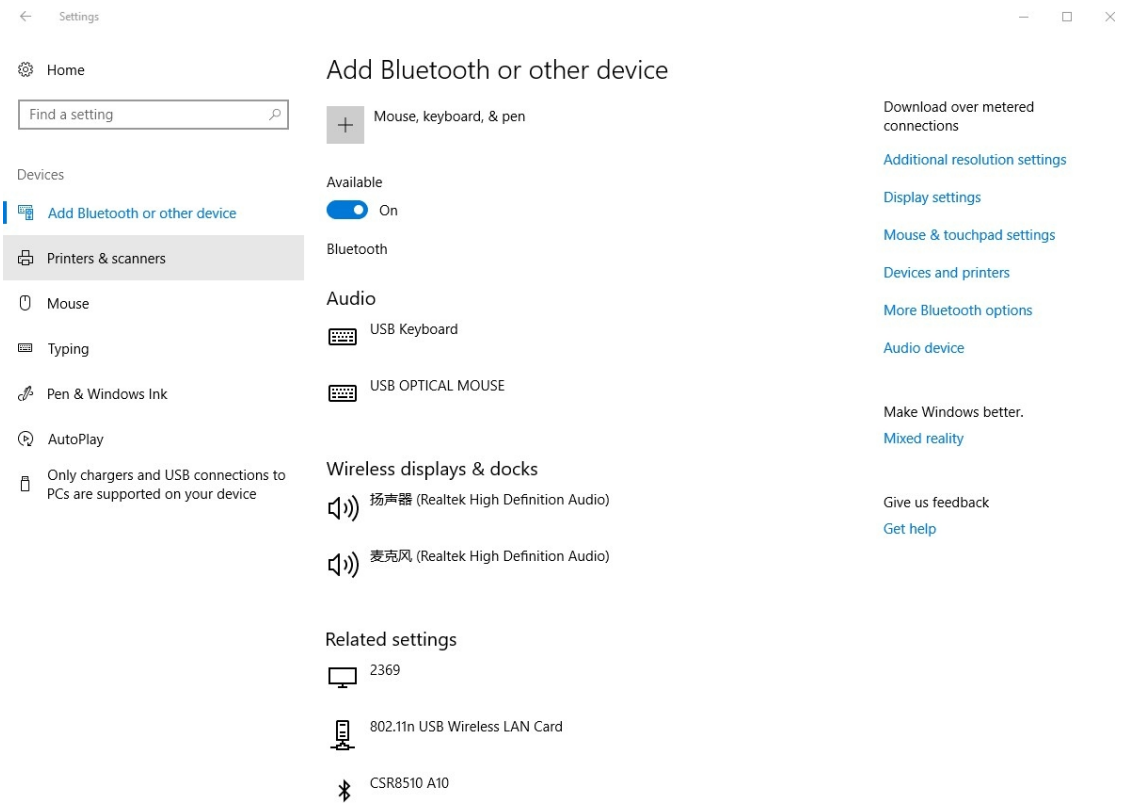

UM24C PC Software V1.2
Destination Directory
Select the installation directories.
All software will be installed in the following locations. To install software into a different location, click the Browse button and select another directory.
Directory for UM24C PC Software V1.2
C:\Program Files (x86)\UM24C\
Browse...
Directory for National Instruments products
D:\Program Files (x86)\National Instruments\
Browse...
<< Back
Next >>
Cancel

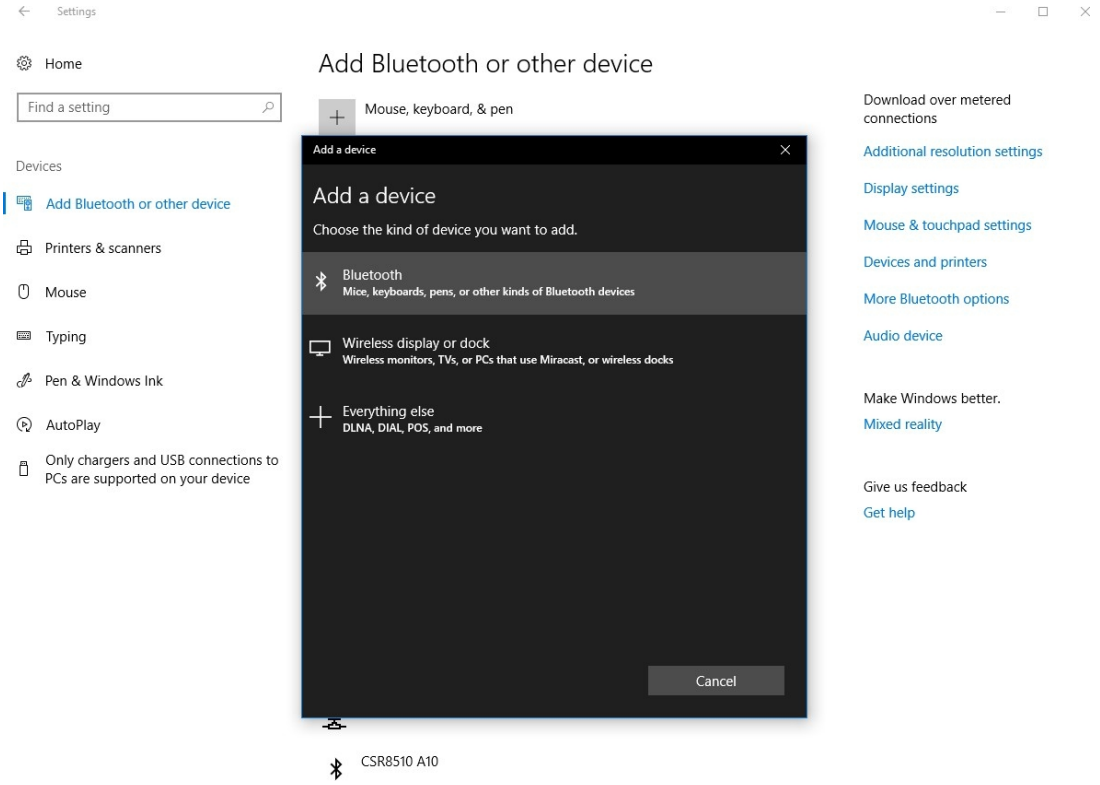

UM24C PC Software V1.2
Start Installation
Review the following summary before continuing.
Adding or Changing
• UM24C PC Software V1.2 Files
Click the Next button to begin installation. Click the Back button to change the installation settings.
Save File...
<< Back
Next >>
Cancel

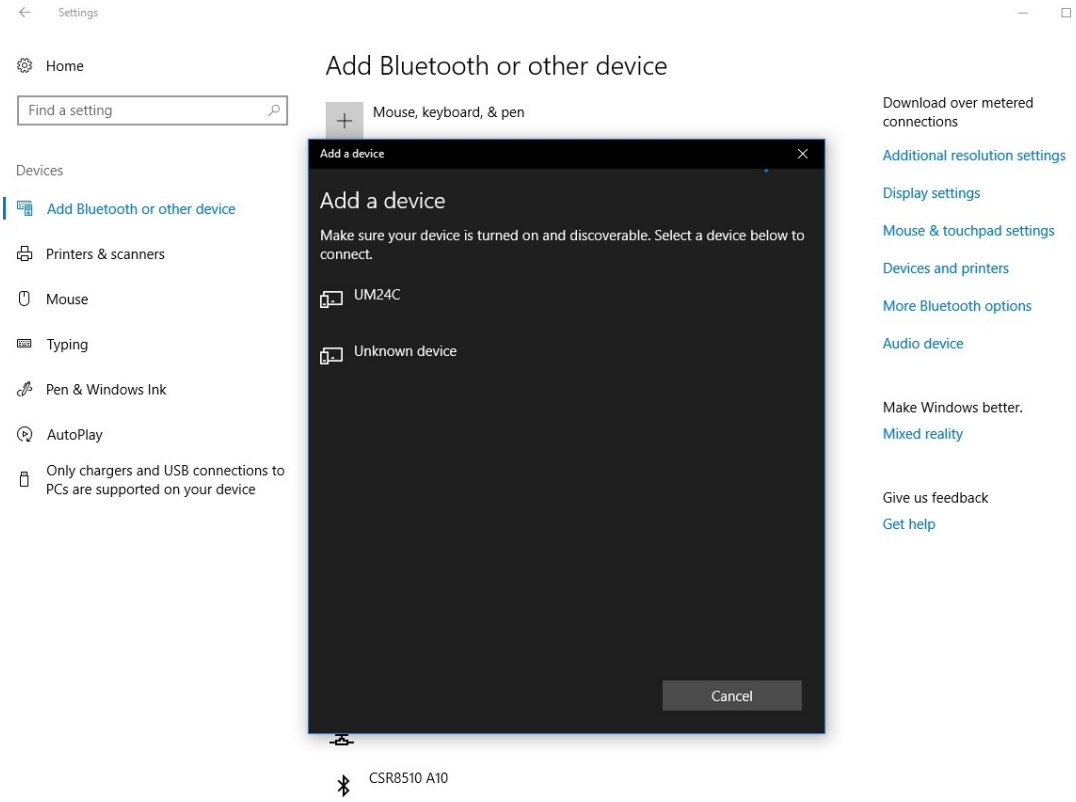


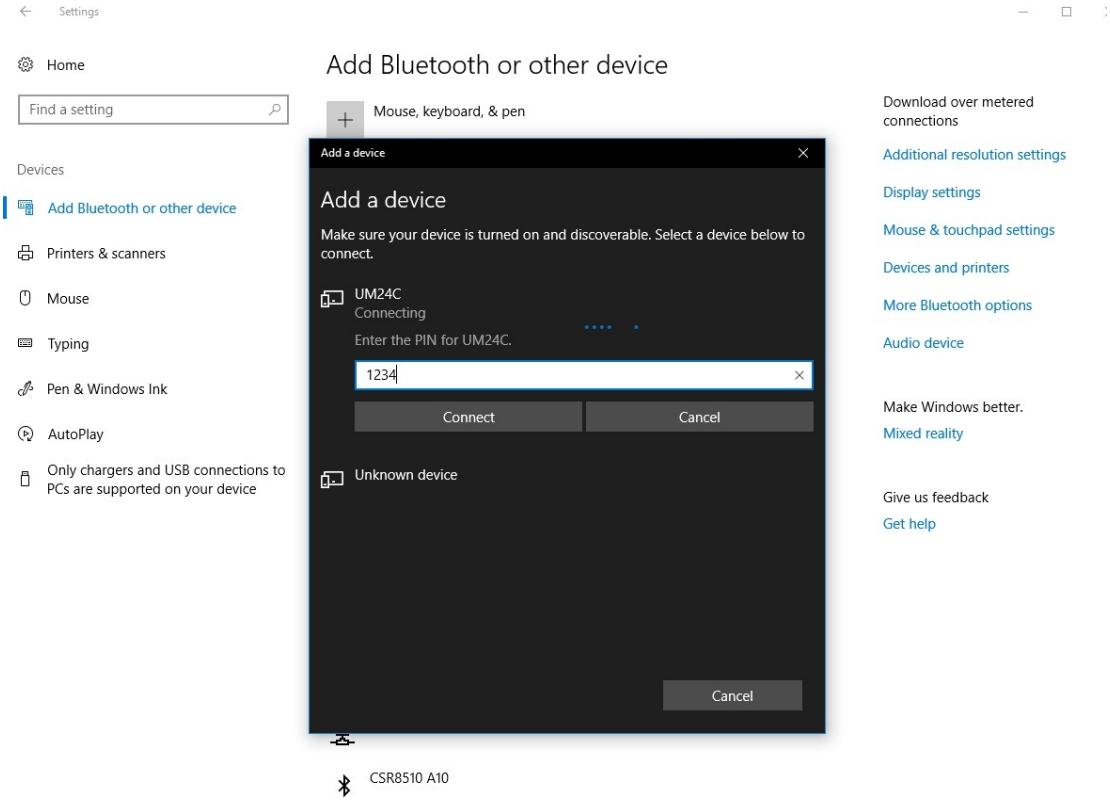


3 Bluetooth connection

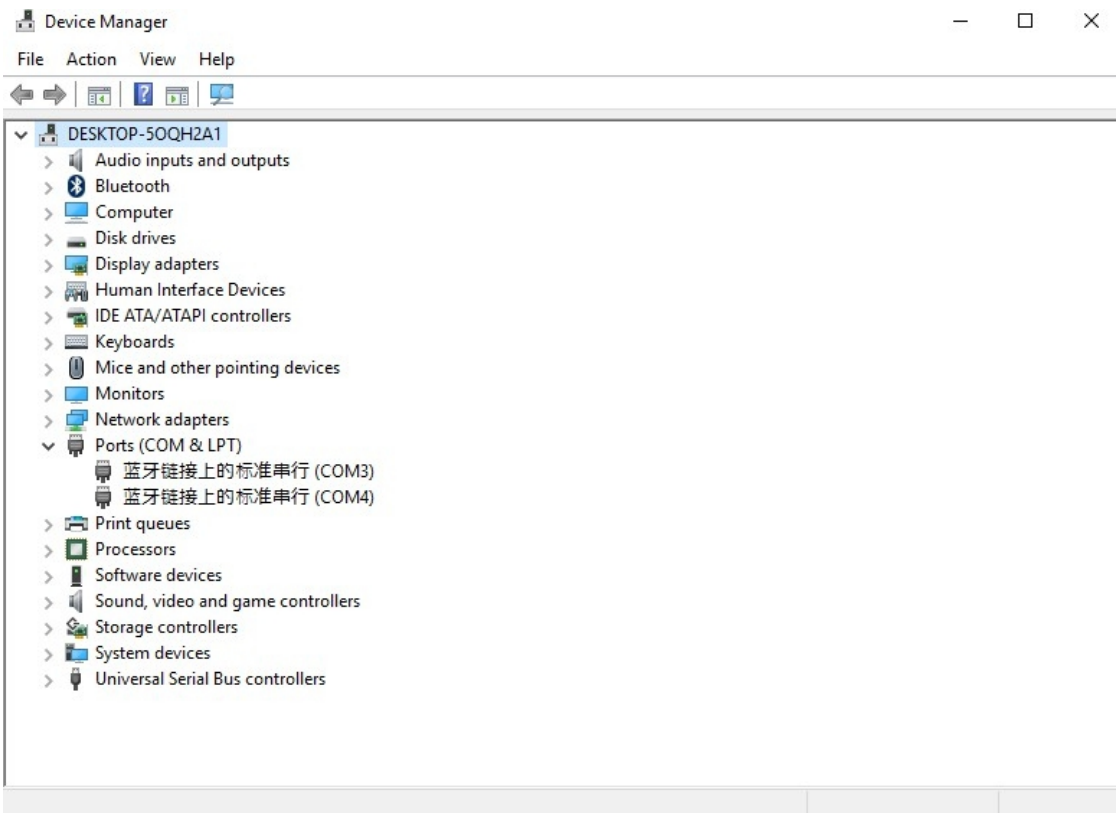

Settings
Home
Find a setting
Devices
Add Bluetooth or other device
Printers & scanners
Mouse
Typing
Pen & Windows Ink
AutoPlay
Only chargers and USB connections to PCs are supported on your device
Add Bluetooth or other device
Mouse, keyboard, & pen
Available
On
Bluetooth
Audio
USB Keyboard
USB OPTICAL MOUSE
Wireless displays & docks
扬声器 (Realtek High Definition Audio)
麦克风 (Realtek High Definition Audio)
Related settings
2369
802.11n USB Wireless LAN Card
CSR8510 A10
Download over metered connections
Additional resolution settings
Display settings
Mouse & touchpad settings
Devices and printers
More Bluetooth options
Audio device
Make Windows better.
Mixed reality
Give us feedback
Get help


Settings
Home
Find a setting
Devices
Add Bluetooth or other device
Printers & scanners
Mouse
Typing
Pen & Windows Ink
AutoPlay
Only chargers and USB connections to PCs are supported on your device
Add Bluetooth or other device
Mouse, keyboard, & pen
Add a device
Add a device
Choose the kind of device you want to add.
Bluetooth
Mice, keyboards, pens, or other kinds of Bluetooth devices
Wireless display or dock
Wireless monitors, TVs, or PCs that use Miracast, or wireless docks
Everything else
DLNA, DIAL, POS, and more
Cancel
CSR8510 A10
Download over metered connections
Additional resolution settings
Display settings
Mouse & touchpad settings
Devices and printers
More Bluetooth options
Audio device
Make Windows better.
Mixed reality
Give us feedback
Get help



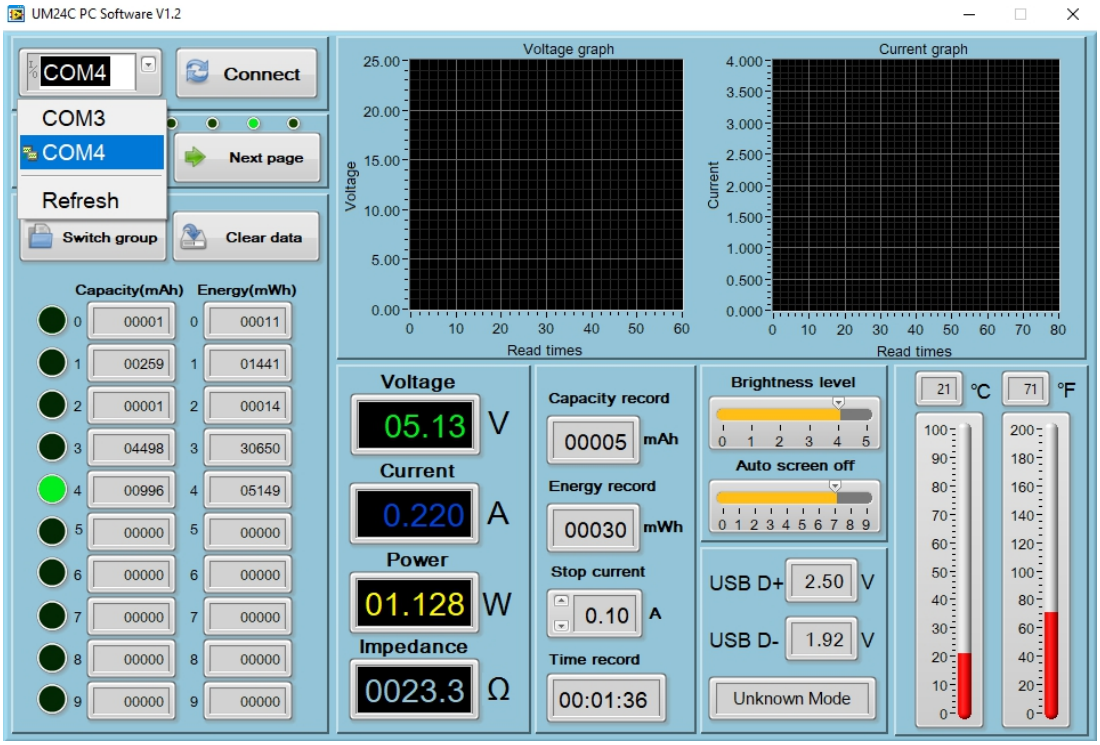


3.1 View device Manager

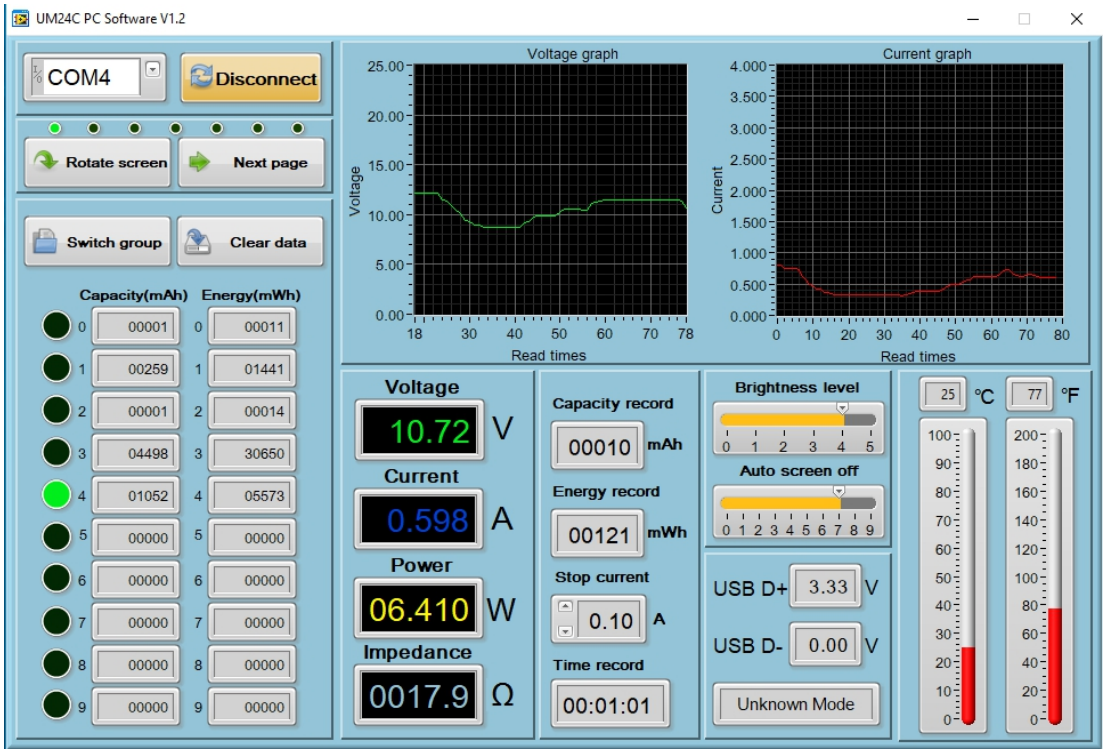


3.2 Connect bluetooth:

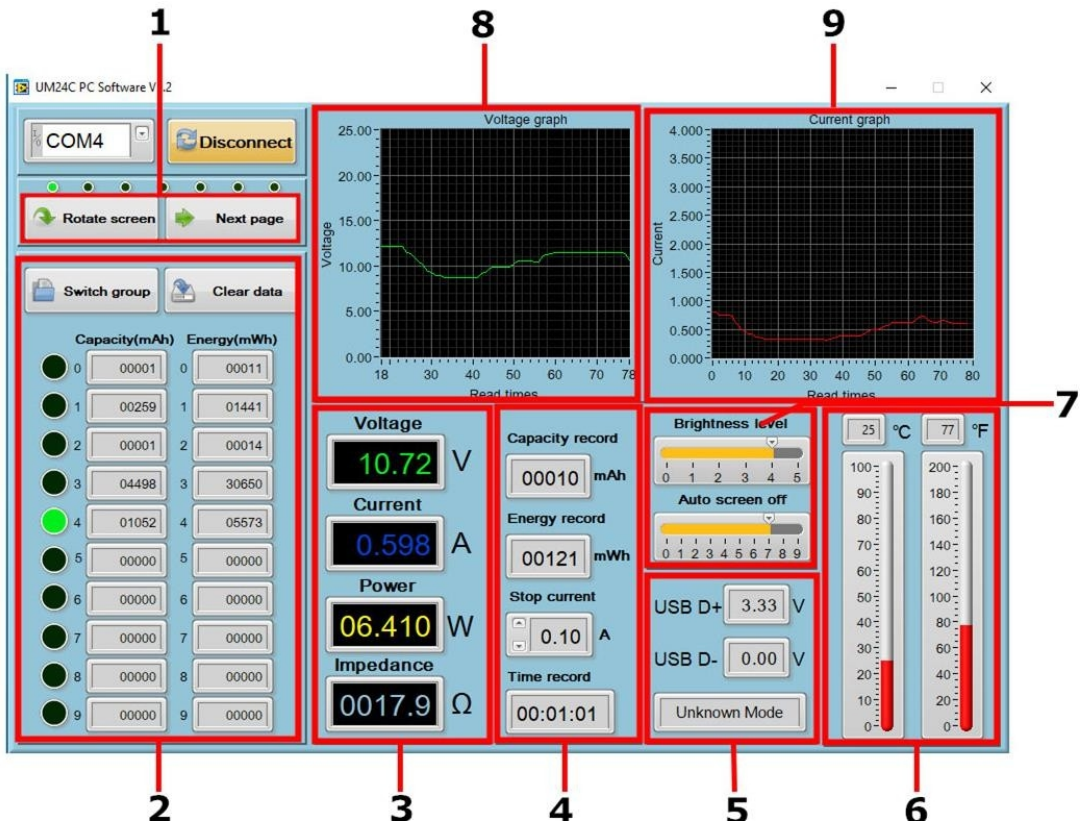
3.2.1 Bluetooth connection is successful; there will be two serial ports. Select the lower value port. Example, if the ports configured for Bluetooth are COM3 and COM4, then select COM3 for the connection. Or you right click bluetooth device to see the the attribute, there show the corresponding port number. You can select it.



3.2.2 When the Bluetooth indicator changes from blinking to static, click “Connect”.



4. Function Introduction



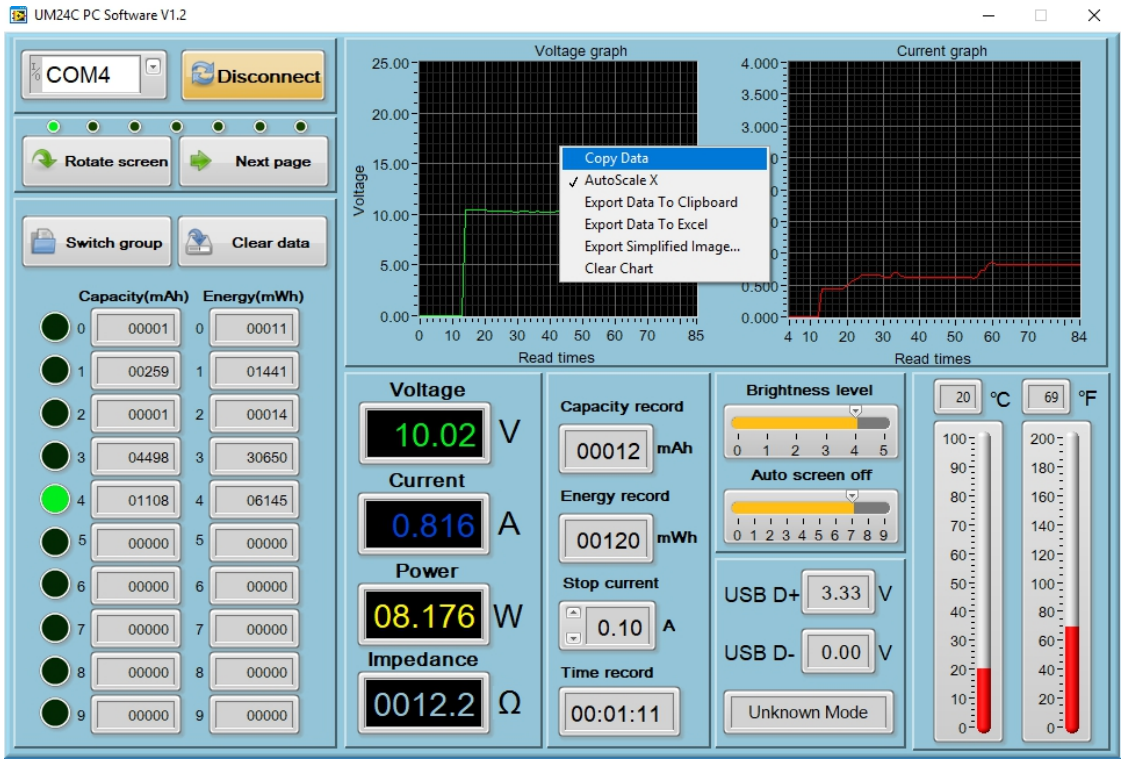
4.1 Program interface overview:

1: Basic functions: Rotate screen, Next pages

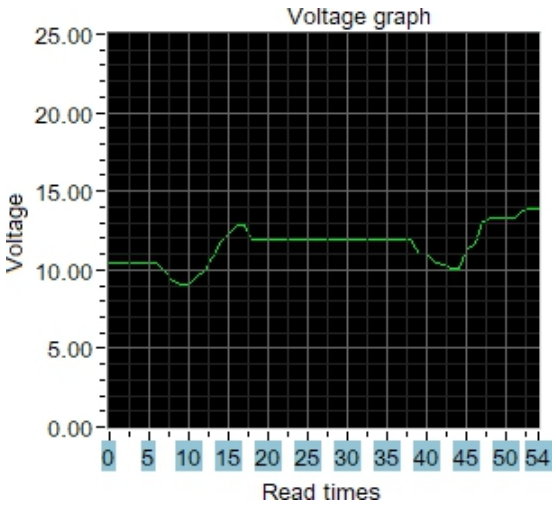
2: Corresponding data group: data group switch, data group data clear
3: Corresponding the main display interface 1: main measurement interface4: Corresponding the main display interface 3: Data recording interface
5: Corresponding the main display interface 2: Quick Charge Recognition interface
6: Corresponding the main display interface 7: Settings interface, dual format temperaturedisplay
7: Corresponding the main display interface 7: Settings interface, screen brightness, autoscreen off time.
8: Corresponding the main display interface 6: Current Graphing Interface.
9: Corresponding the main display interface 5: Voltage Graphing Interface.

4.2 Graphing and Data Export:

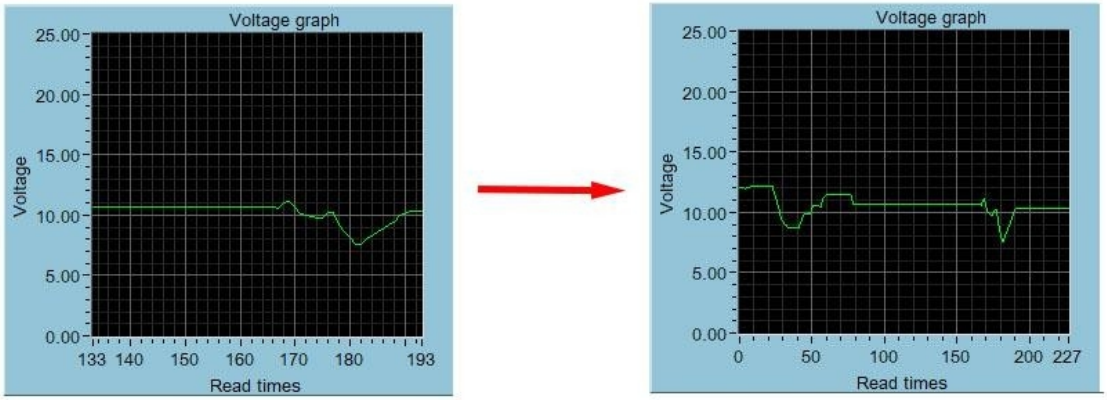
Move mouse over the Voltage / Time measurement graph then right-click and select thefollowing options:



4.2.1: Copy data to the clipboard:



4.2.2: Automatically adjust the X axis:



4.2.3: Export data to the clipboard:

Format : Reference point number on X Axis, Voltage value at that reference point.

Read times - Voltage graph Voltage(V) - Voltage graph 0 12.03
1 12.02
2 12.03
3 12.03
4 11.97
5 12.00
6 12.00
7 12.08
8 12.10
9 12.13
…

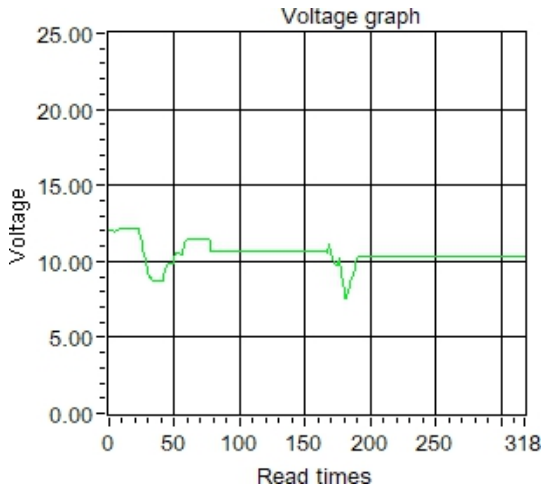
4.2.4: Export data to Excel:

Export data to Excel. If you want export all data, remember to click auto scale X. otherwise only the current record data group is exported. Please note, the exported data is only for Microsoft Office Excel.

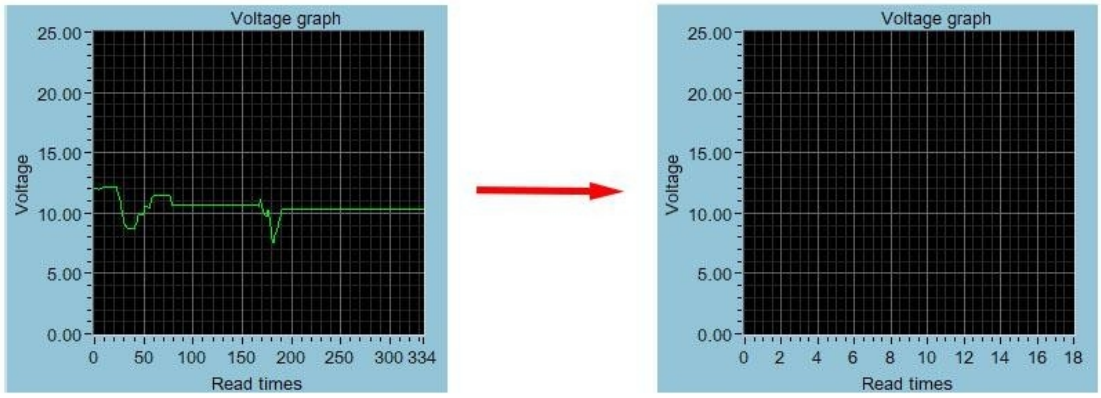
A1 Read times - Voltage graph

	A	B	C	D	E	F	G	H	I
1	Read times - Voltage graph	Voltage(V) - Voltage graph							
2	0	12.03							
3	1	12.02							
4	2	12.03							
5	3	12.03							
6	4	11.97							
7	5	12							
8	6	12							
9	7	12.08							
10	8	12.1							
11	9	12.13							
12	10	12.15							
13	11	12.15							
14	12	12.16							
15	13	12.17							
16	14	12.17							
17	15	12.18							
18	16	12.18							
19	17	12.18							

4.2.5: Export simplified images:



4.2.6: Clear chart:



Note:

1. for desktop, when you use the bluetooth adapter to make bluetooth connection, Please don't use the adapter own driver, and use the windows system bluetooth driver, otherwise the module can't make SSP series port communication. If you have installed the adaptor driver, you can uninstall it and unplug the adaptor, then plug in again, the system will install it automatically.

2. after power off, when power on again, you need to select the COM port again. When the bluetooth indicator is lighting, you can connect the PC with module
3, please use windows official version, simple version may lose some part.
4, when communicating, don’t press the button on tester, otherwise there will be some error data