TECHNICAL INDICATORS

P A R A M E T E R

Model:	TC66(C)	Display screen:	0.96 Inch color IPS display
Voltage measurement range:	0.005V-30.0000V	Voltage measurement resolution:	0.0001V(0.1mV)
Current measurement range:	0-5.00000A	Current measurement resolution:	0.00001A(0.01mA)
power supply voltage:	3.5-24V	Voltage measurement accuracy:	±(0.5‰+20digits under23℃)
Capacity accumulation range:	0-99999mAh	Current measurement accuracy:	±(1‰+30digits under23℃)
Energy accumulation range:	0-99999mWh-999.99Wh	Power measurement range:	0-150W
Load impedance range:	1Ω-9999.9Ω	Refresh rate:	2Hz
Temperature measurement range:	0℃~80℃/32°F~176°F	Working temperature range:	0℃~45℃/32°F~113°F
Dimensions:	49mmX22mmX8mm	Product weight:	about 8g (about package 22g)
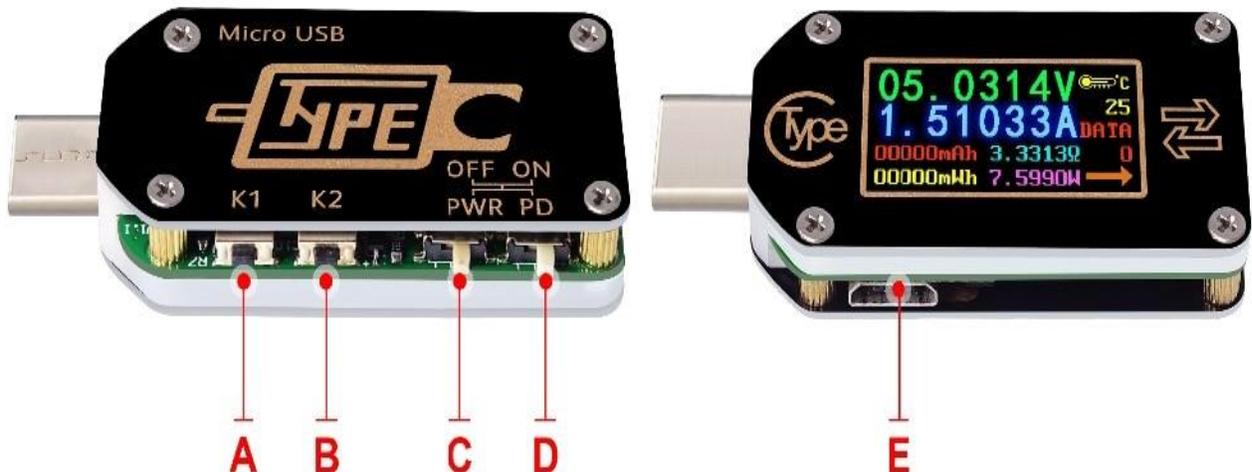
A: button K1, short press values or enter sub-menu, with long press function on some interface.

B: button K2, long press to enter or exit menu, short press to realize menu switch.

C: power supply switch button. When on, you can use system power supply; when off, you can use isolated power supply. For high precision and lower voltage measurement, you can switch to OFF and use micro port power on.

D:PD Switch, set the switch to "OFF" when measuring a device that is charging, and place the switch to "ON" when doing decoy trigger operation. Switch stroke is short so please use the switch gently to avoid damage.

E: Micro port, use for isolating power supply or connecting with PC software.

3.Operation introduction:

There are eight interfaces by default. After power on, welcome interface will be displayed first, then show the last interface before power off. Short press K1 or K2 to switch interface back or forth. Long press K2 in or exit submenu.

(Note: This instruction corresponds to the V1.10 version of firmware. See chapter 4 for firmware upgrade)

3.1 main interface as picture 3-1

(3-1)

F: Voltage measurement value

G: Current measurement value

H: Capacity accumulation measurement value

I: Energy accumulation measurement value

J: temperature measurement value

K: Data group number

L: impedance value

M: Power measurement value

N: flow direction

On this interface, hold K1 to enter the current data group value, hold K2 to switch data group, with Data Groups 1 selected, the current mAh and mWh are saved after power off. They will continue to accumulate the next time the tester is turned on. When the data group is selected 0 then the current value of mAh and mWh will be stored temporarily on power off. When the device is next powered on these values will be recalled and will start flashing. When the accumulated mAh exceeds 1 mAh, the previous data will be erased and accumulation will restart. Press K2 to enter offline recording interface

3.2 Offline recording interface as picture 3-2

(3-2)

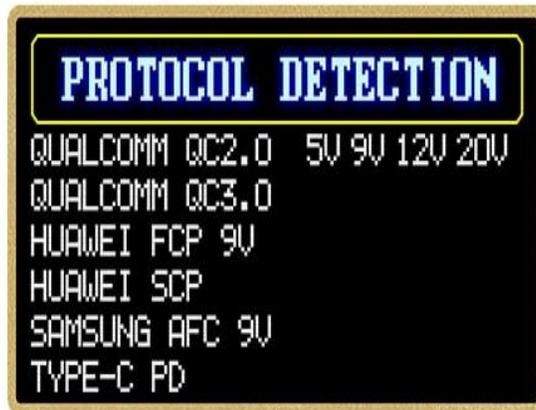T: D +: (DP) data positive signal level.

U: D-: (DM), data negative signal level.

Q: Current charging mode display

D+ and D value are just reference, not very accuracy. The product will automatically identify a device with a supported fast charging mode. At present, the device supports the QC2.0 QC3.0 APPLE 2.4A/2.1A/1A/0.5A Android DCP 、 SAMSUNG. (Note: This quick charge agreement recognition model is not complete and for reference only, we add other protocol in the future) Press K2 to enter fast charging protocol detection Interface

3.4 Quick Charge Protocol Detection Interface as picture 3-4

```
PROTOCOL DETECTION
QUALCOMM QC2.0   5V 9V 12V 20V
QUALCOMM QC3.0
HUAWEI FCP 9V
HUAWEI SCP
SAMSUNG AFC 9V
TYPE-C PD
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(3-4)

On this interface, press and hold K2 button, it will show "DANGEROUS", then press K1, detection will start. After detection, the protocol supported show green, the protocol not supported show red. The Current protocols supporting automatic detection include QC2.0, QC3.0, Huawei FCP, Huawei SCP, Samsung AFC and PD2.0. (Look forward to more protocol detection. This operation will make the type-c port output high voltage, please unplug the load when using this this function)

Press K2 to trigger interface

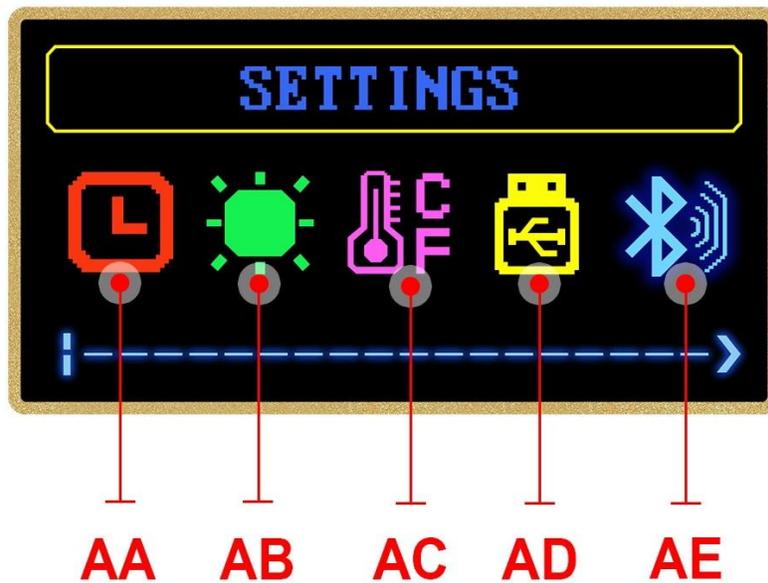**3.5 Trigger Interface as picture 3-5-1**

3.5.1 Trigger Control:

On this interface, hold K2 button to trigger menu, then Press K2 to page down to choose, after chosen, press K1 to enter sub-menu. On sub-menu, press K1 or K2 to start trigger or adjust voltage. Press K2 back to last menu. Except for Huawei SCP and PPS, when other protocol exit trigger mode, they will keep the quick charging state, and re-plug the tester to be restored to the state of 5V. The current protocols supporting for trigger are QC2.0, QC3.0, HUWEI FCP, Huawei SCP PD2.0, PPS and SUMSUNG AFC. (This operation will make the type-c port output high voltage, please unplug the load when using this this function)
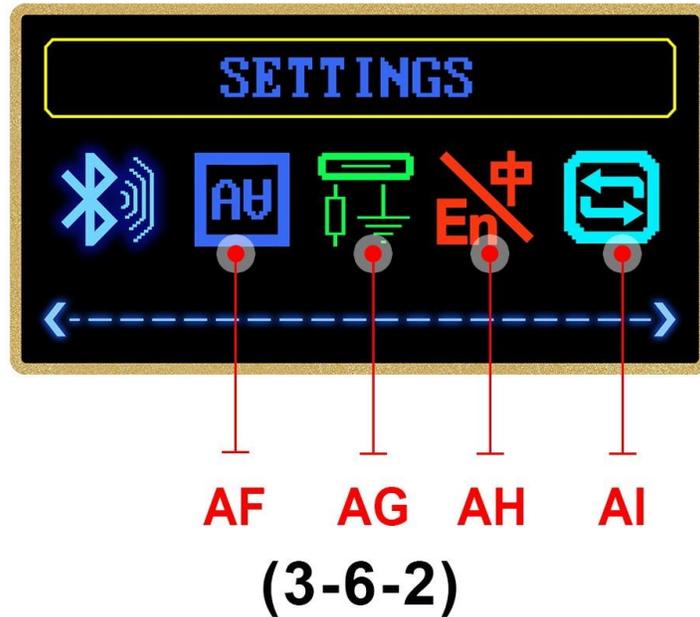
3.5.2 PD trigger Control

W — PD3.0 PPS

X — 05.1216V

Y — GEAR
- 1V
- 100mV
- 20mV

PS RDY

05.00V 3.00A
09.00V 2.00A
12.00V 1.50A
Z — 03.30V-05.90V 3.00A
03.30V-11.00V 2.00A

(3-5-2)

SETTINGS

AA   **AB**   **AC**   **AD**   **AE**

(3-6-1)

AF AG AH AI

(3-6-2)

AA: Delay off screen setting
AB: Set screen brightness
AC: Temperature unit switch
AD: PC communication switch
AE: Bluetooth switch
AF: Screen Rotation
AG:PD software switch
AH: Language Selection
AI: Restore Factory Settings

On this interface, press and hold K2 button to enter setting menu, press K2 to page down, after selected. Press K1 to enter the current data setting. Press and hold K2 button to return to previous menu. Delay off screen time can be set 1-9 minutes or lighting, 0 mean lighting. There are 10 levels of screen brightness; Temperature unit can adjust between ℃ and ℉; there is 180-degree rotation for screen; When the CC pull-down is enabled, the screen will light up by default. If you need to measure PD charging, please turn off the CC drop down; restore factory settings only restore setting, not clear data group data and offline data.

For CC pull-down:PD determine that type-c interface has no output by default. When there is a drop down on the CC line (pin in the Type-c interface), PD charger thinks the load is connected and then starts the 5V output. Therefore, it is normal for the tester to plug directly into the PD charger and not light. If CC drop down is enabled in the setting of TC66, when you plug TC66, it will automatically brighten the screen after it is set as enabled, but it may affect the normal charging process. If protocol detection and trigger are performed, CC drop down must be enabled, and the back will not be connected with any load. When it is set to finish, the charging of PD charger will not brighten the screen, and the charging process will not be affected. Please first plug the tester into the charger and then plug in the load.

Press K2 to enter the system information interface.

3.7 System Information Interface as picture 3-7

(3-7)
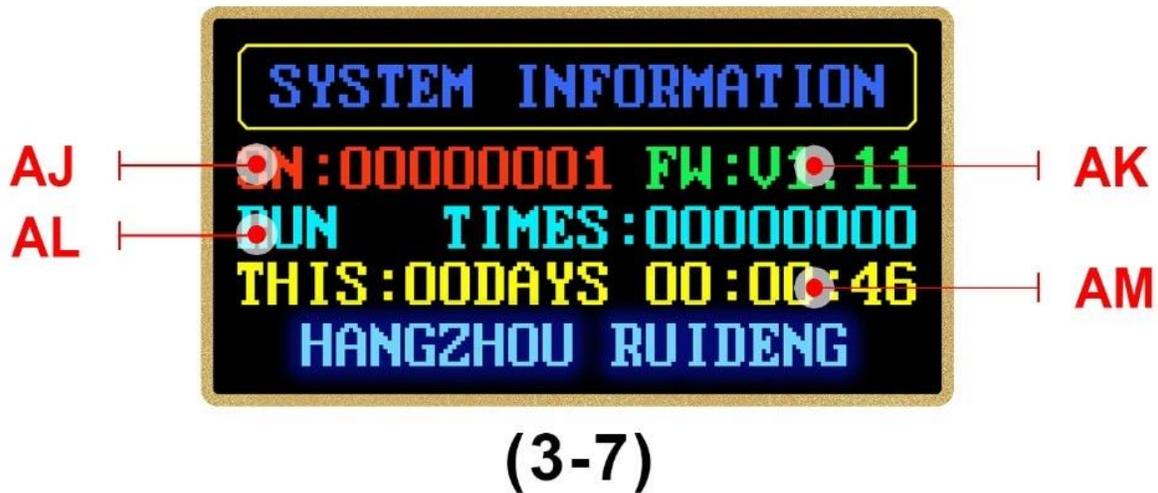
AJ: Products serial number
AK: Firmware revision number
AL: Boat times
AM: This time running time
Press K2 button to enter simple measurement interface.
3.8 Simple Measurement Interface as 3-9his interface only show voltage, current, power and current direction

3.9 Abnormal Status Solution
You can hold K2 button and power on TC66 under abnormal status to restore factory settings, or you can hold K1 and power on TC66 to enter the boot mode, and use PC software to update the firmware.

4. PC software installation instruction

Software installation environment requirements: WIN7 and above system, computer with networks.

This software is developed by hangzhou ruideng technology co., LTD., without virus. If the anti-virus software remind you, please enable all functions, otherwise it will affect the normal operation of the software.

Download link: http://www.mediafire.com/folder/pqn0ybytqpy7n/TC66