



# 5inch HDMI LCD (B)

## User Manual

### OVERVIEW

This is a 5inch resistive touch screen, 800x480 resolution, HDMI interface, supports various system.

### FEATURES

- 800x480 high hardware resolution
- Resistive touch control
- Supports popular mini PCs such as Raspberry Pi, BB Black, as well as general desktop computers
  - When works with Raspberry Pi, supports Raspbian/Ubuntu/Kali/Retropie/WIN10 IOT, driver free
  - When work as a computer monitor, supports Windows 10/8.1/8/7, single touch, and driver free
- Backlight can be turned off to lower power consumption

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## HOW TO USE

### WORKIGN WITH PC

To work with common desktop computer, this LCD can support Windows 7/8/8.1/10 OS.

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### CONNECTION

1. Turn on the backlight switch on the backside of LCD
2. Connect USB (Touch and power) Interface of LCD to one of USB ports of PC
3. Connect HDMI (Display) interface of LCD to HDMI port of PC

After connecting and starting, you can see that the LCD can display the desktop of OS like below (Some of PC cannot support hot-plug, in this case you need to restart your PC):

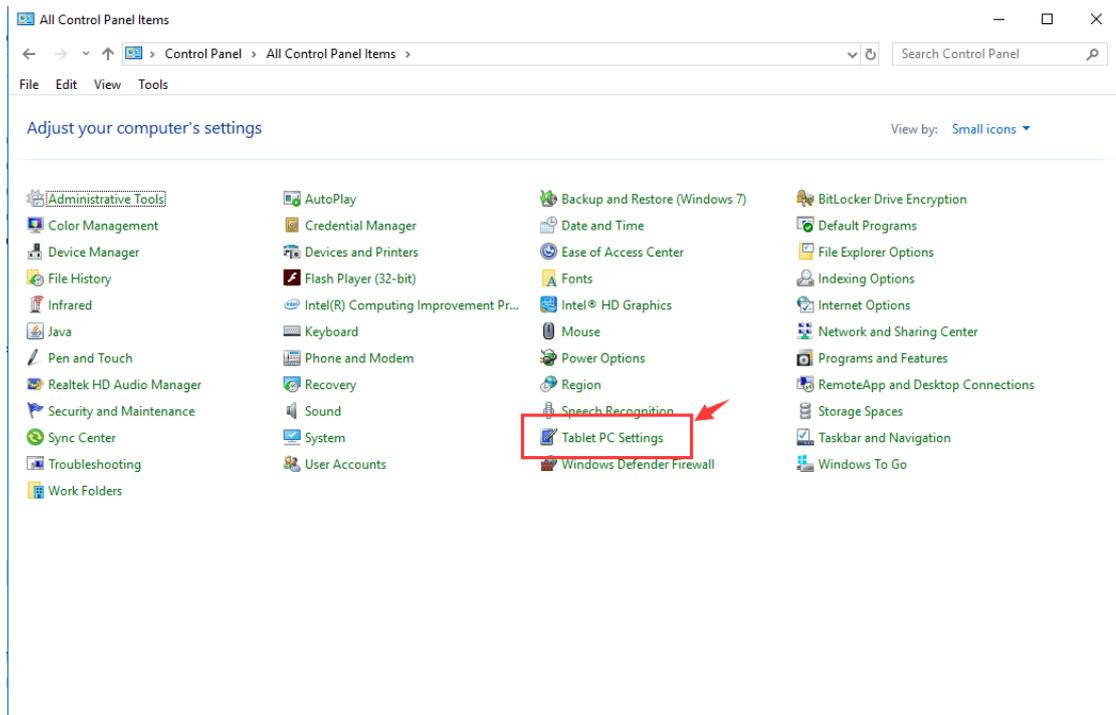


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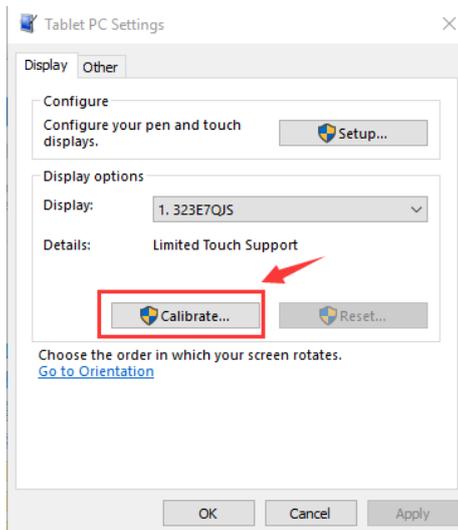
### CALIBRATING

This is a resistive touch screen, sometimes you may need to calibrate it for calibrated touch.

## 1. Open Tablet PC Settings from Control Panel



## 2. Click Calibrate button to begin calibrating



## 3. Following hints to finish calibrating

### hints:

*To provide calibration samples, tap the crosshair each time that is appears on the screen.*

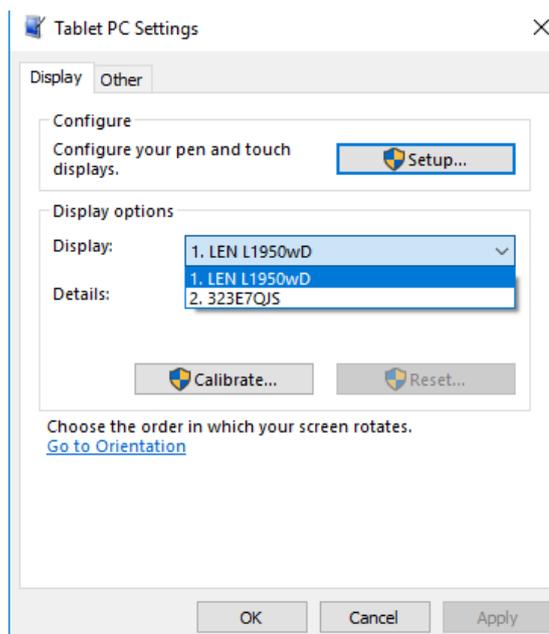
*Right-click anywhere on the screen to return to the last calibration point. Press the*

*Esc button to close the tool. Do not change your screen orientation until you have completed the calibration process*

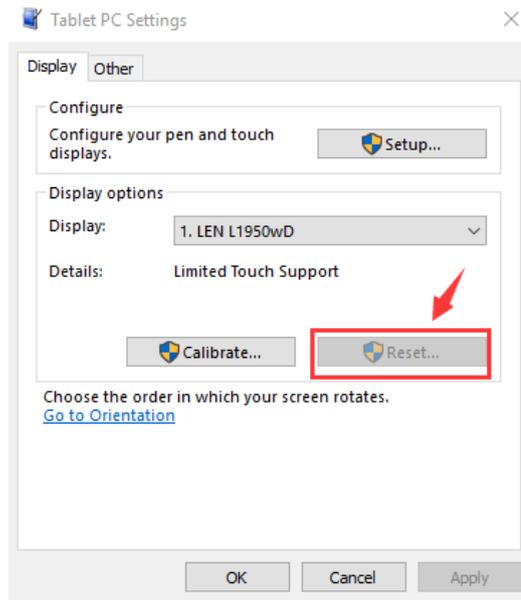


**【Note】**

(1) If you connect more than one screen at the same time, don't forget to choose the correct display for processing.



- (2) The calibration data will be saved after calibrating, so, if you need to change to other screen and find that the touch is not calibrated, please reset it and calibrate again if required.

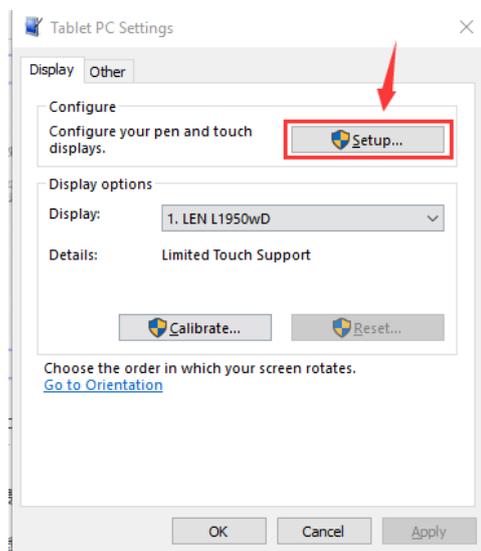


- (3) It seems that Tablet PC Setting is only available in Windows 10.

## CONFIGURE THE TOUCH DISPLAY

As we know, the touch screen connected is set to control the main display by default, sometimes we need to make the touch to control other display than the main display if we set the touch screen as second display. Herein we show you how to configure it.

1. Open the Tablet PC Settings as well, and click Setup...:



2. Following the hint to finish setting:

hints:

***Tap this screen with a single finger to identify it as the touchscreen. If this is not the Tablet PC screen, press Enter to move to the next screen. To close the toll, press Esc.***

Tap this screen with a single finger to identify it as the touchscreen.

If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.

**For example:**

I connect a big size display and one touch screen to my PC (Windows 10), the big display is recognized as display 1 (the main display), the touch screen is recognized as display 2 (the second display). Before tablet setting, the touch screen controls the main display if I touch it. Now I want to make the touch screen to control itself-the second display.

So, I click Setup..., the hint appears on display 1 and display 2 is white. I press Enter, the hint turns to display 2 and display 1 is white. I tap the center of the touch screen (display 2). The setting is finish, and now if I tap the touch screen, I can control the display 2 with the touch screen instead of main display.

## WORKING WITH RASPBERRY PI

This LCD supports Raspbian, Ubuntu Mate, Kali, Retropie and WIN 10 IOT<sup>1</sup>. To work with Raspberry Pi, you need to configure resolution of OS manually for properly displaying, herein we take Raspbian as example.

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### SETTING AND CONNECTION

1. Download the latest Raspbian image from [Raspberry Pi website](#).
2. Writing the image to SD card
3. After writing, open and modify the config.txt file, which located at root directory

(BOOT) of SD card, append/modify these lines to config.txt file

```
1. max_usb_current=1
2. hdmi_group=2
3. hdmi_mode=87
4. hdmi_cvt 800 480 60 6 0 0 0
5. hdmi_drive=1
```

**【Note】** There should not be spaces in both sides of equal-sign. Sometimes you may need to change **hdmi\_cvt 800 480 60 6 0 0 0** to **hdmi\_cvt=800 480 60 6 0 0 0** if LCD cannot work with the configuration above.

4. Save and exit. Insert the SD card to Raspberry Pi
5. Turn on the backlight switch on the backside of LCD
6. Connect Touch interface of LCD to USB port of Raspberry Pi
7. Connect HDMI interface of LCD to HDMI port of Raspberry Pi

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<sup>1</sup> There aren't calibration tools for WIN 10 IOT, we recommend you capacitive screen if you want to use WIN 10 IOT.

## 8. Power on Raspberry Pi

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### CALIBRATION

#### 1. Install related tools

```
1. sudo apt-get install xinput-calibrator
2. sudo apt-get install xserver-xorg-input-evdev
3. sudo cp -rf /usr/share/X11/xorg.conf.d/10-evdev.conf
   /usr/share/X11/xorg.conf.d/45-evdev.conf
4. sudo reboot
```

#### 2. Open calibration tool from Menu->Preferences->Calibrate Touchscreen

#### 3. Following hints to finish calibrating. (try with several times if required)

#### 4. Save the calibration data to 99-calibration.conf file if required.

```
1. sudo mkdir /etc/X11/xorg.conf.d
2. sudo nano /etc/X11/xorg.conf.d/99-calibration.conf
```

```
Section "InputClass"
    Identifier      "calibration"
    MatchProduct   "ADS7846 Touchscreen"
    Option "Calibration" "208 3905 288 3910"
    Option "SwapAxes" "0"
EndSection
```