

10.1inch HDMI LCD (B)

User Manual



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INTRODUCTIN

10.1inch Capacitive Touch Screen LCD, IPS, 1280×800, Supports Multi mini-PCs, Multi Systems, Comes with US plug power adapter.

THE LCD AND CONTROL BOARD

- IPS screen,1280×800 high resolution
- Capacitive touch control, supports up to ten-points touch
- When works with Raspberry Pi, supports Raspbian, Ubuntu, single touch, and driver free
- When work as a computer monitor, supports Windows 10/8.1/8/7, ten-points touch, and driver free
- Supports Banana Pi, Banana Pro, comes with Lubuntu, Raspbian images
- Supports BB Black, comes with Angstrom image
- HDMI interface for displaying, USB interface for touch control
- Supports 5-level backlight adjustment

HOW TO USE

HOLDER ASSEMBLY

If you require to assemble holders which are include in package, you can refer to this pages: [How to assemble holders for 10.1inch HDMI LCD \(B\)](#)

WORKING WITH PC

This LCD supports Windows 10/8.1/8/7 OS. When working with Windows 10/8.1/8 OS, the touch screen supports multi-touch up to 10 points. For some Window 7 OS, the touch screen supports single touch only.

HARDWARE CONNECTION

1. Connect the Power Only port of LCD to a 5V 2.5A power adapter with a Type A to micro USB cable
2. Connect the Touch port of the LCD to one of the USB ports on your PC
3. Connect the HDMI port of the LCD to the HDMI port on your PC with a HDMI cable

Generally, you will see the desktop displayed in LCD as below. In this interface, slightly click the screen can slightly click the screen can perform the left-key mouse action, and long press the screen can perform the right-key mouse action.

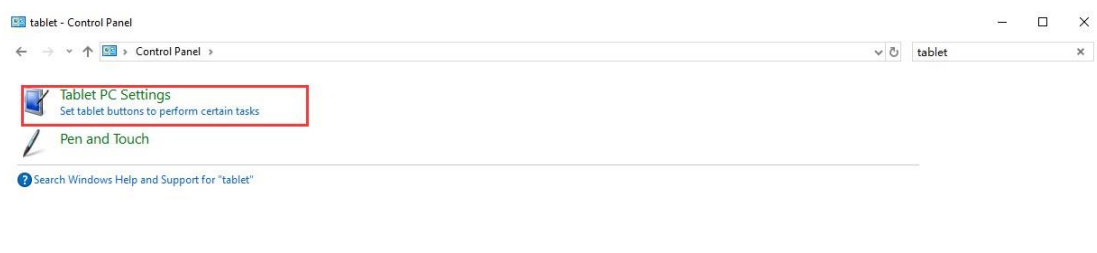


TABLET PC SETTINGS

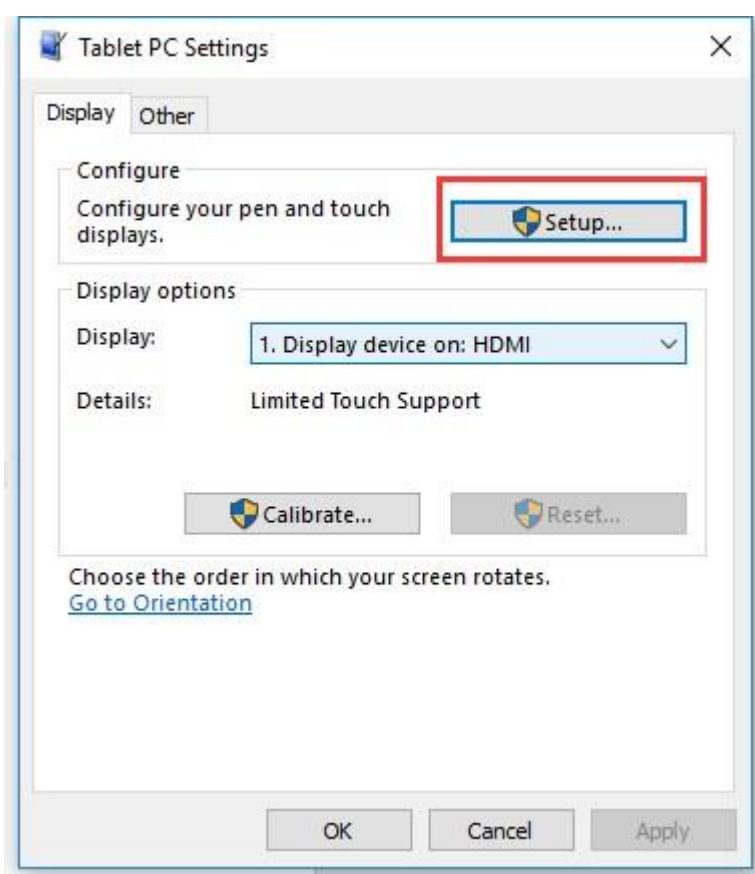
As we know, when multiple displays are detected by your PC, the LCD can only be used to control the cursor on main display. So it is proposed to set the touch LCD as the main display. In Windows 10, there is Tablet PC Settings allow you to set touchscreen to control other displays instead of main display. Here we use Waveshare 7inch HDMI LCD (C) as example to show you how to do this setting.

1. Connect your touchscreen as [Hardware Connection](#).

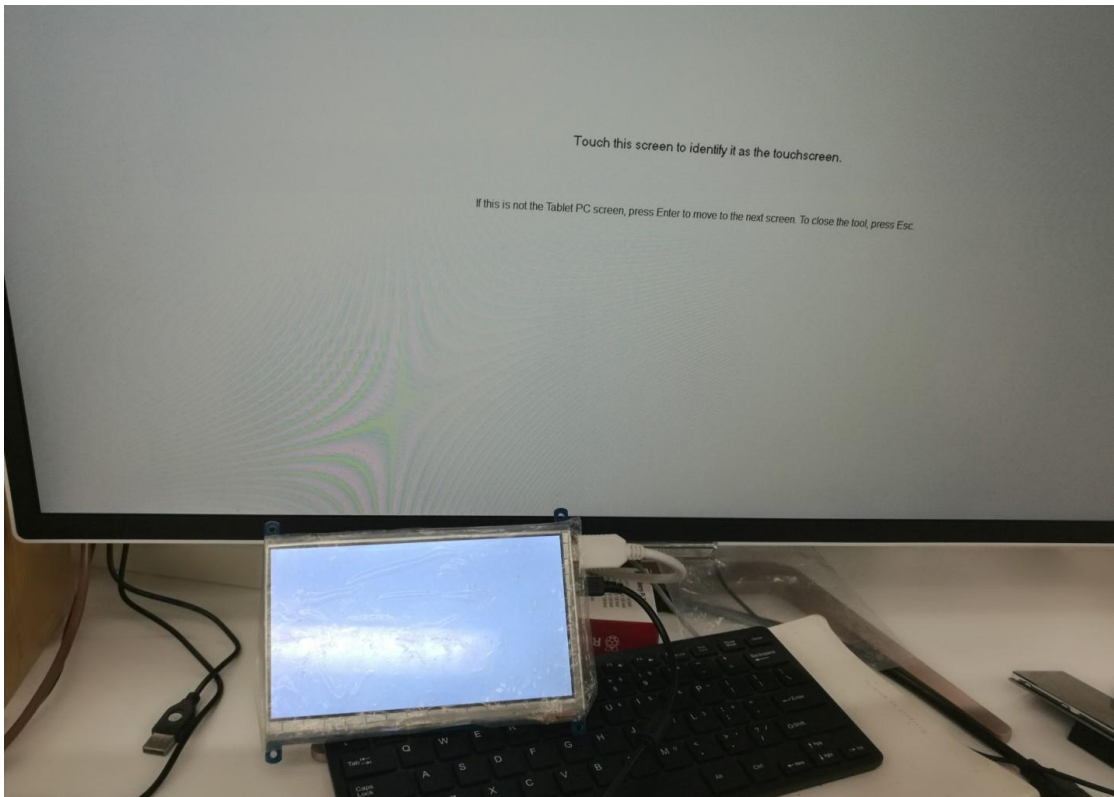
- Open Control Panel and search Tablet PC Setting, then open this tool. Note that if you didn't connect touchscreen first, this tool couldn't be searched.



- Click button "Setup..." to begin setting

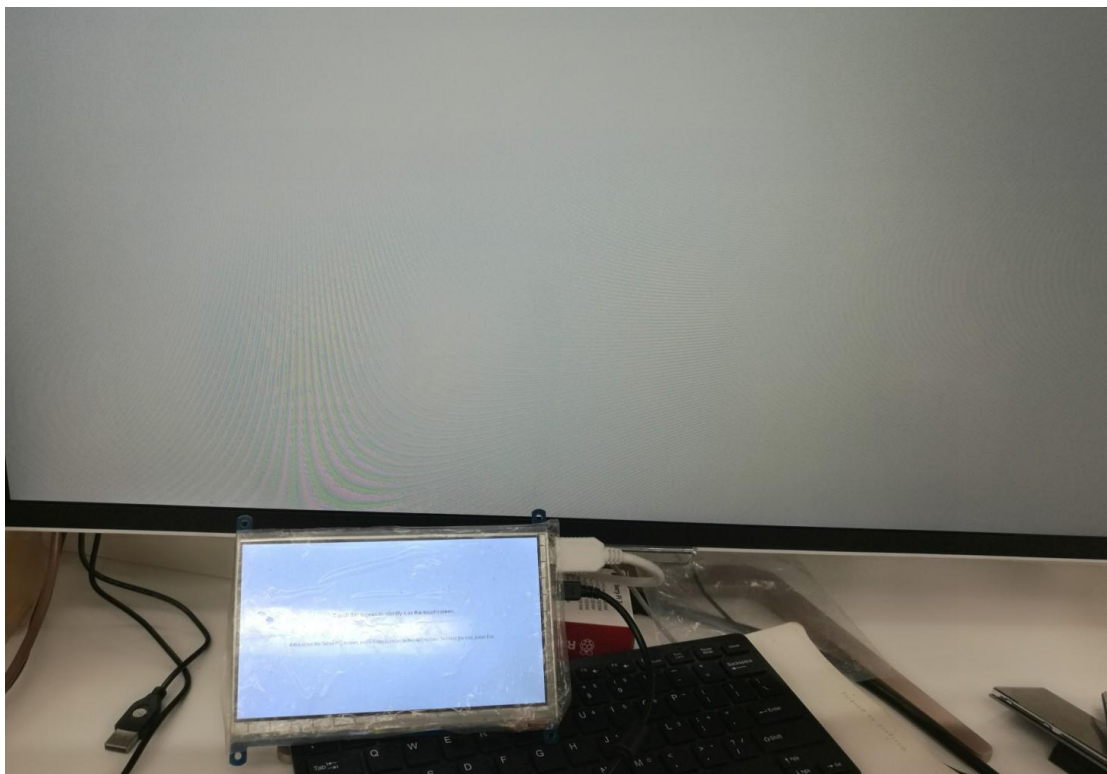


4. To this step, you can find there is prompt on your first screen with white background color.



5. Press "Enter" on keyboard, this operation work as tell the PC this screen is not the touchscreen I want to control. Then, you can find that the prompt has turn to

the second display (the one we want the touch controls)



6. Touch the center of touchscreen, to set this display as touchscreen. If there are only two displays, after touch, the setting will finish, and you can find that touchscreen controls itself now.

【Note】 This method can be used to make touchscreens control different displays if there are multiple touchscreen connected.

WORKING WITH RASPBERRY PI

OS PREPARATION

For the Windows OS on PC, the resolution of the LCD is automatically identified. Hence, you do not need to make the relative settings. When working with Raspberry

Pi, you should set the resolution of the LCD by yourself, or else the LCD screen will not work. For more detail information, please read the following section.

At the beginning, you should download the latest image file, RASPBIAN or UBUNTU MATE, from the website: <http://www.raspberrypi.org/downloads/>.

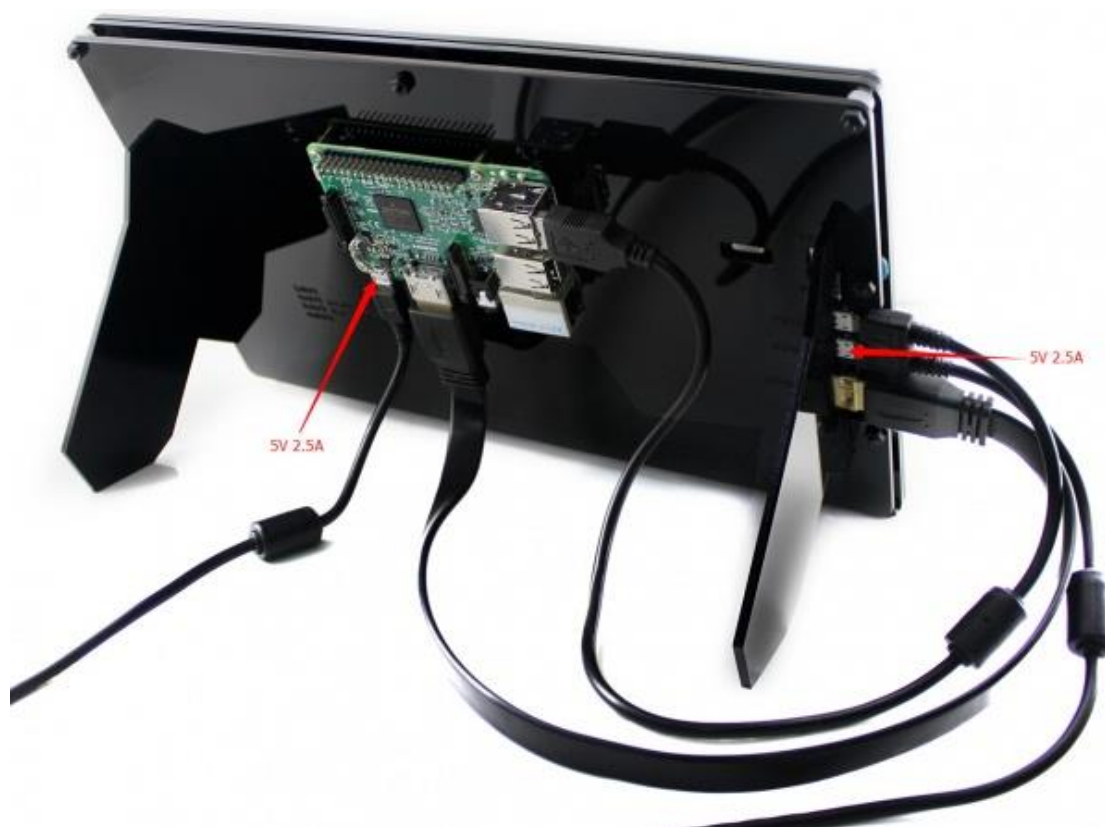
1. Download the image file (zipped) into your PC, and extract it, then you will get a file with the expansion name .img
2. Connect a TF card to your PC and format your TF card with the software SD Formatter. Notices: The capability of TF card in used here should be more than 4GB. In this operation, a TF card reader is also required, which should be purchased separately.
3. Start the software Win32DiskImager, and select image file downloaded in the first step, then, click the button Write to program the system image file.
4. When the programming finished, open the config.txt file under the root directory in the TF card, and add the following lines at the end of the file. Then, save the modification and pop-out the TF card.

```
max_usb_current=1
hdmi_group=2
hdmi_mode=87
hdmi_cvt 1280 800 60 6 0 0 0
hdmi_drive=1
```

5. If the statements above do not work properly, replace them with the following lines:

```
max_usb_current=1  
hdmi_group=2  
hdmi_mode=27  
hdmi_drive=1
```

HARDWARE CONNECTION



1. Connect the Power Only interface of the LCD to a 5V 2.5A power adapter with a Type A to micro USB cable (Normally, the LCD will perform screen-clear and self-checking. If there is nothing displayed on the screen, please check whether the LCD screen has been turned on. In case that the screen is ON, please check if the FFC cable is connected properly and in a good contact).
2. Connect the HDMI interface of the LCD to the HDMI interface on your Raspberry Pi with a HDMI cable

3. Connect the Touch interface of the LCD to one of the USB interfaces on your Pi.
4. Insert a TF card into the TF card socket on the Raspberry Pi, and then power up the Pi. Waiting for a while, you may see the following interface. (Now, you can control the back light of the LCD with the back light adjustment button; see the mark 1 shows in the following figure.)

ROTATION

Display Rotating

1. To rotating the display, you can append this statement to the config file

```
display_rotate=1 #1: 90; 2: 180; 3: 270
```

2. Reboot the Raspberry Pi

```
sudo reboot
```

Touch Rotating

Note: To rotate the touch, you can re-compile the kernel as well. There is an example for reference (use 7inch HDMI LCD (C).)

- [Re-Compilation Method](#)

Another way, you can set the libinput.

1. Install libinput

```
sudo apt-get install xserver-xorg-input-libinput
```

2. create an xorg.conf.d folder

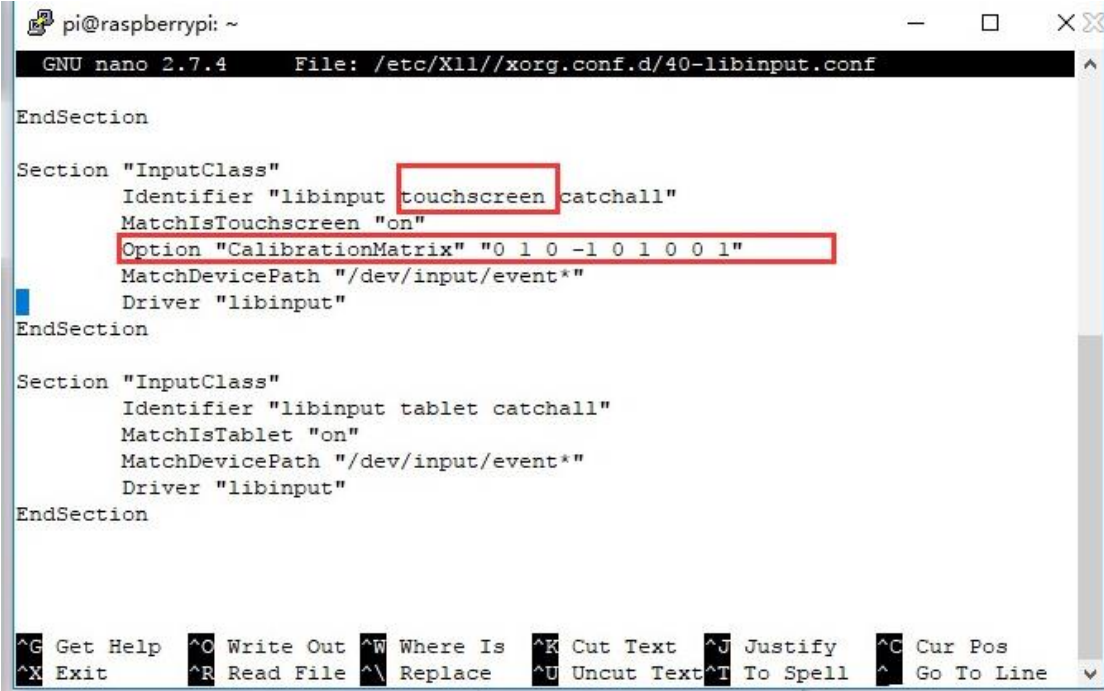
```
sudo mkdir /etc/X11/xorg.conf.d
```

3. copy file 40-libinput-conf to the folder which we created

```
sudo cp /usr/share/X11/xorg.conf.d/40-libinput.conf /etc/X11/xorg.conf.d/
```

4. Append a statement to touchscreen part of the file as below:

```
sudo nano /etc/X11/xorg.conf.d/40-libinput.conf
```



```
pi@raspberrypi: ~
GNU nano 2.7.4 File: /etc/X11/xorg.conf.d/40-libinput.conf
EndSection

Section "InputClass"
    Identifier "libinput touchscreen catchall"
    MatchIsTouchscreen "on"
    Option "CalibrationMatrix" "0 1 0 -1 0 1 0 0 1"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

Section "InputClass"
    Identifier "libinput tablet catchall"
    MatchIsTablet "on"
    MatchDevicePath "/dev/input/event*"
    Driver "libinput"
EndSection

^G Get Help ^C Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

5. save and reboot your Pi

```
sudo reboot
```

After completing these steps. The LCD could rotate 90 degree both display and touch.

【Note】

90 degree: Option "CalibrationMatrix" "0 1 0 -1 0 1 0 0 1"

180 degree: Option "CalibrationMatrix" "-1 0 1 0 -1 1 0 0 1"

270 degree: Option "CalibrationMatrix" "0 -1 1 1 0 0 0 0 1"

WORKIGN WITH BB BALCK

We provide and Angstrom image for BB Black, you can download and have a try. Note that you should boot your BB Black from SD card which has been written with test image, and image won' t be updated anymore.

- [Angstrom image for BB Black](#)

WORKIGN WITH BANANAPI/BANANAPI PRO

We provide Raspbain and Lubuntu images for BananaPi Pro and BananaPi. Note that they could only support for BananaPi Pro and BananaPi. For ther types of Banana Pi it is unavailable. and image won' t be updated anymore.

- [Raspbian image for BananaPi Pro/BananaPi](#)
- [Lubuntu image for BananaPi Pro/Banana Pi](#)

ABOUT BRIGHTNESS OF BACKLIGHT

This LCD support Supports 5-level backlight adjustment. You can adjust the brightness manually.



After enter desktop, you can touch the virtual button to adjust the brightness.