



# 5inch HDMI LCD (H) User Manual

## OVERVIEW

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

## FEATURES

- 800x480 hardware resolution, configurable by software (up to 1920x1080)
- Capacitive touch control
- Supports popular mini PCs such as Raspberry Pi, BB Black, Banana Pi, 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, five-points touch, and driver free
- Supports popular game consoles like Microsoft XBOX360, Sony PS4, and Nintendo Switch, etc.
- Multi languages OSD menu, for power management, brightness adjustment, etc.
- 3.5mm audio jack, speaker connector, supports HDMI audio output
- Also supports VGA input (specific cable is required and should be purchased separately)

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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

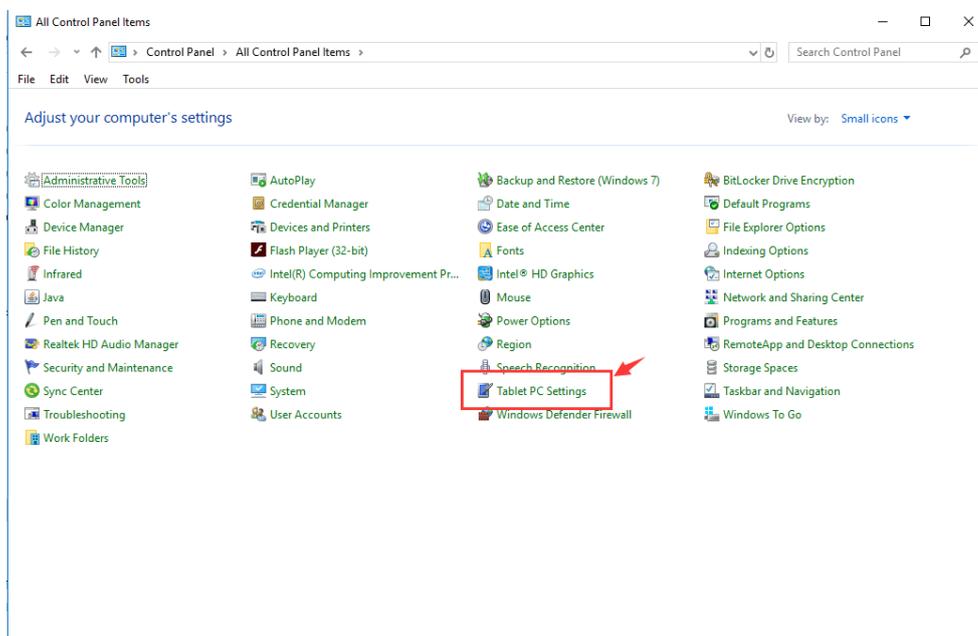
1. Turn on the backlight switch on the backside of LCD
2. Connect Touch Interface of LCD to one of USB ports of PC
3. Connect HDMI (Display) interface of LCD to HDMI port of PC
4. Connect earphone to HP interface or [speaker](#) to speaker interface of LCD if require audio output.

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)

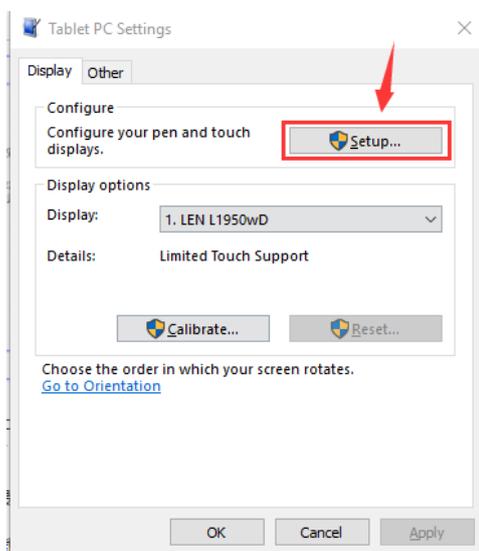
## CONFIGURE THE TOUCH DISPLAY

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 Tablet PC Settings from Control Panel



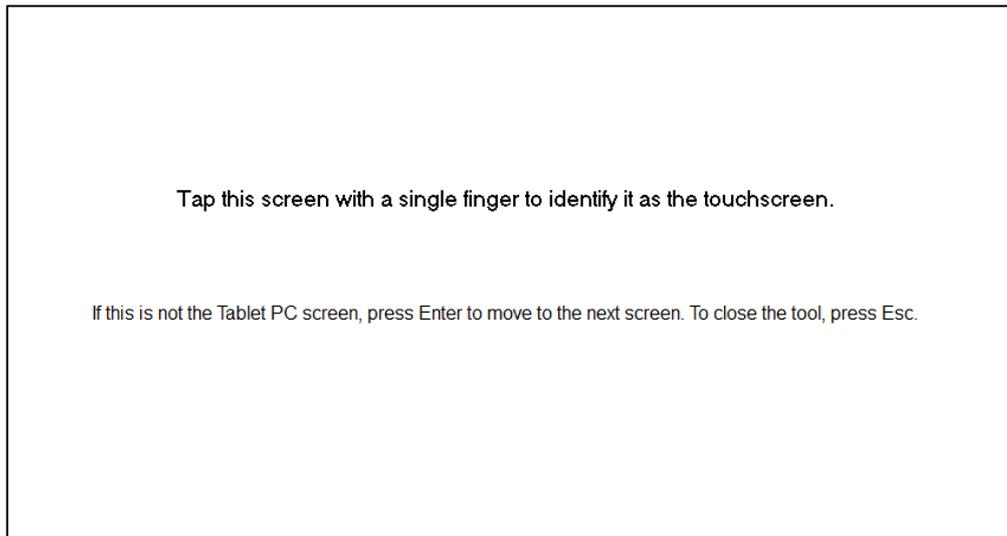
### 2. Open the Tablet PC Settings, and click Setup...:



3. 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.*



**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
```

**【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
8. Power on 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.

## ORIENTATION

### 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

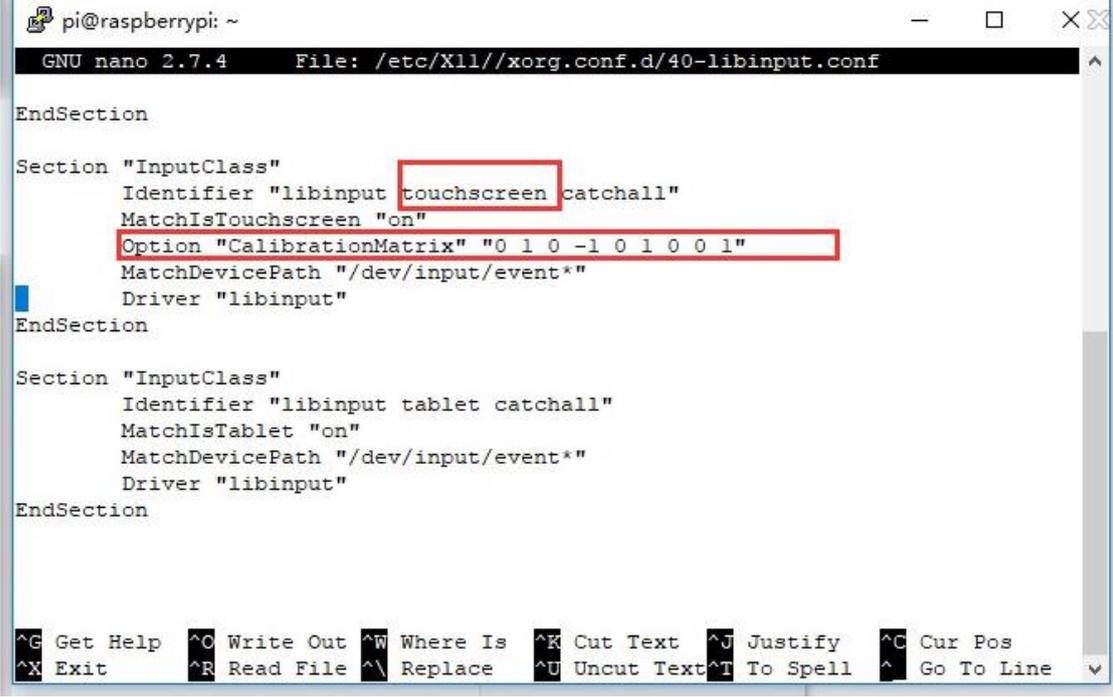
```
sudo mkdir /etc/X11/xorg.conf.d
```

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  ^O 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.

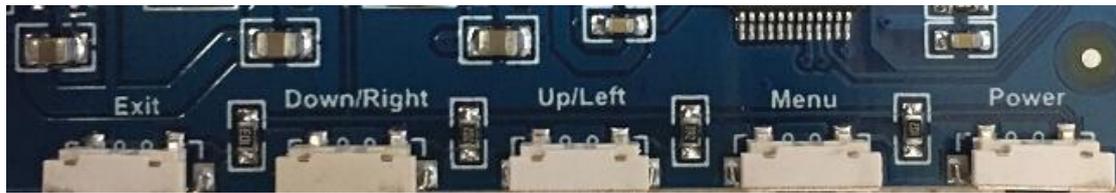
##### 【Note】

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"

## KEYS



**Power:** Open/Close LCD display (backlight)

**Menu:** Open menu/OK

**Up/Left:** Direction

**Down/Right:** Direction

**Exit:** Return/Exit

**【Note】** You can close display by button power to reduce consumption.