

7inch HDMI LCD (H) User Manual



7inch HDMI LCD (H)



7inch HDMI LCD (H) (with case)

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INTRODUCTION

7inch, 1024x600, Capacitive Touch Screen LCD, HDMI interface, Supports Multi mini-PCs, Multi Systems.

This LCD has two versions, one is 7inch HDMI LCD (H) and another is 7inch HDMI LCD (H) (with case).

FEATURES

- IPS screen, 1024x600 hardware resolution, configurable by software (up to 1920x1080)
 - 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, WIN10 IOT, single touch, and 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/contrast 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)

DIFFERENCES BETWEEN TWO VERSIONS

- 7inch HDMI LCD (H)
 - Speaker connector on the backside

- 7inch HDMI LCD (H) (with case)
 - Toughened glass capacitive touch panel, 6H hardness
 - High quality PC case, optional tilt angle: 30°/50°

【Note】 : Besides, these two versions have same specification.

HOW TO USE

WORKING WITH PC

This product supports Windows 10/8.1/8/7 OS.:

1. Connect the TOUCH interface of LCD to one of USB ports of PC . Waiting for a moment, the touch will be recognized by Windows automatically
2. Display connection:
 - If you use HDMI, you need to connect the HDMI interface of LCD to the HDMI port of PC. About 5s later, you can see that the LCD display properly. If you need the audio, you should insert a 3.5mm earphones to HP ports.
 - Use VGA, you need to connect the VGA interface of LCD to PC's VGA ports by Mini HDMI to VGA Cable

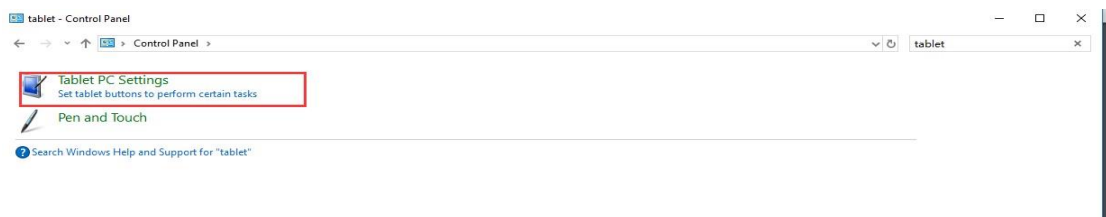
【Note】

- 1) If multiply screen are connected to one PC at the same time, you can only control the cursor by this LCD, so please set the LCD as main screen.
- 2) Some of PC cannot support HDMI screen Hot Plug. In this case, restart can solve.
- 3) Sometimes LCD will flicker because of undersupply from USB cable of PC. You need to connect an external power supply (5V/2A) to DC port.
- 4) HP audio output only works while using HDMI communication
- 5) Mini HDMI to VGA Cable is necessary and need to be purchased separately if you use VGA communication.

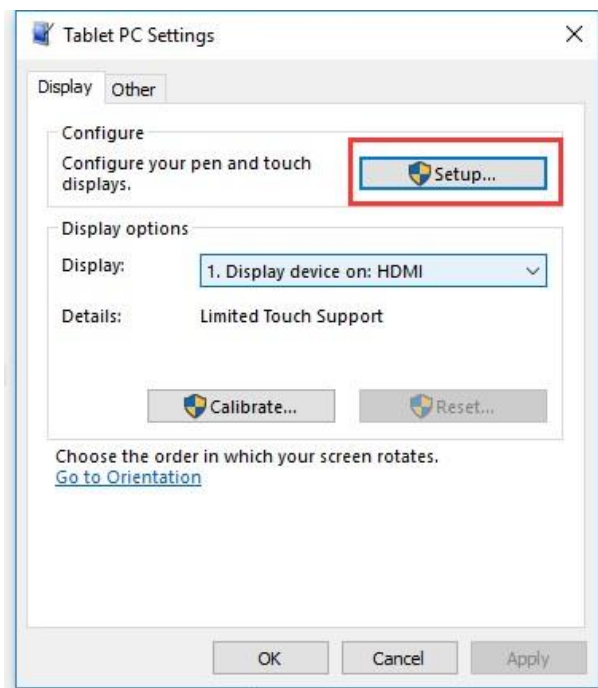
TABLET PC SETTINGS

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.

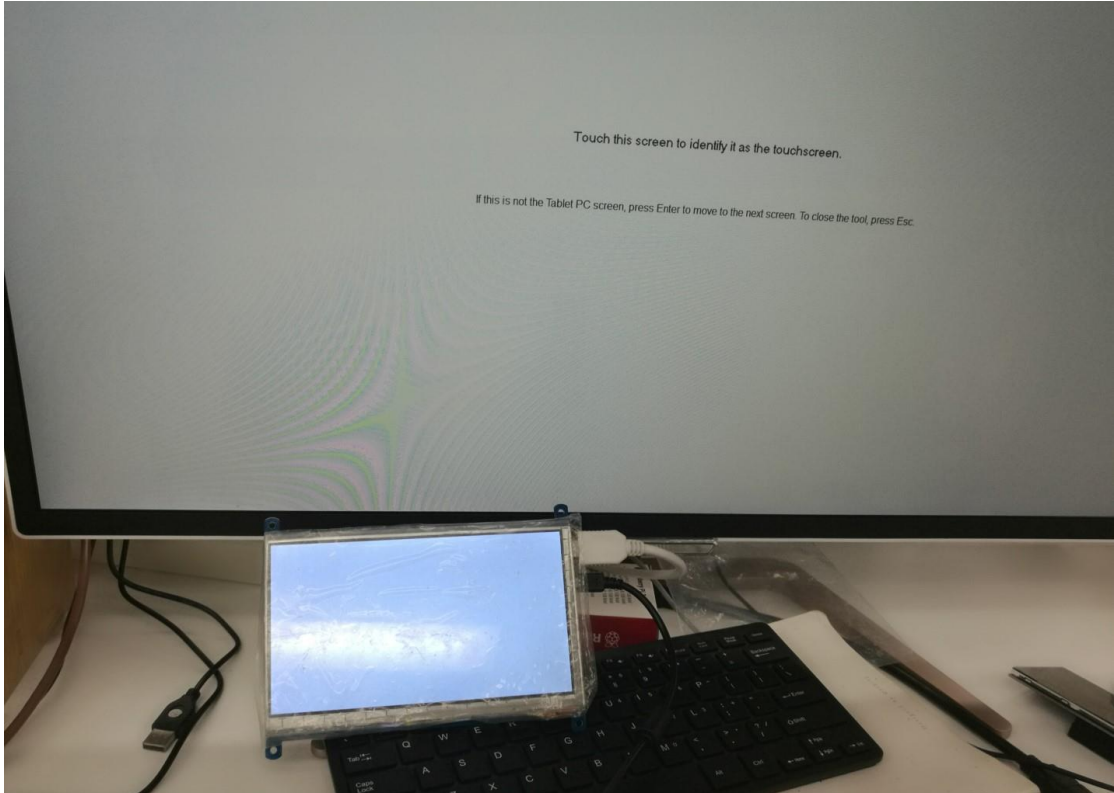
1. Connect your touchscreen as [Hardware Connection](#).
2. Open Control Panel and search Tablet PC Setting, then open this tool. Note that if you didn't connect touchscreen first, this tool couldn't be searched.



3. 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

Supports Raspbian/Ubuntu mate/Windows 10 iot Core

When working with Raspberry Pi, you should set the resolution of the LCD by yourself, or else the LCD screen will not work.

1. Download the Raspbian image from Raspberry Pi web site.
2. Write the image to a TF card
3. Append the following lines to the config.txt file which is located in the root of your TF card:

```
max_usb_current=1
hdmi_force_hotplug=1
config_hdmi_boost=10
hdmi_group=2
hdmi_mode=87
hdmi_cvt 1024 600 60 6 0 0 0
```

You must make sure that there are no spaces on either side of the equal sign.

4. Connect the Touch interface of LCD to USB port of Raspberry Pi
5. Connect HDMI interface of LCD to HDMI port of Raspberry Pi

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

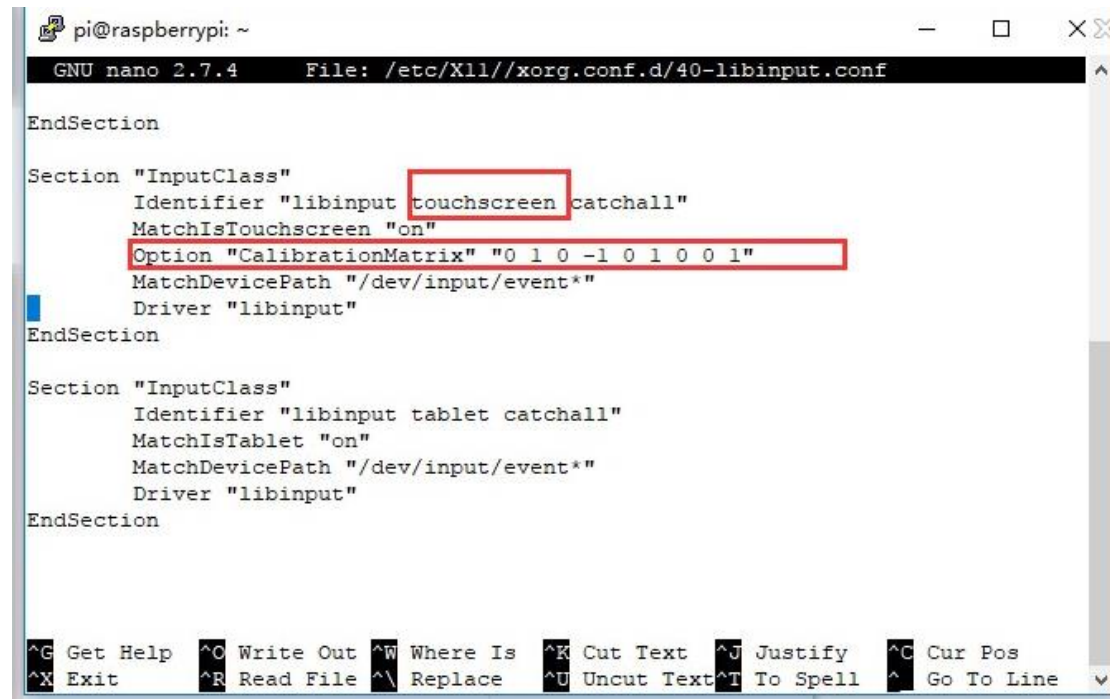
```
sudo mkdir /etc/X11/xorg.conf.d
```

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"

KEYS

- Power: Open or Close LCD display
- Menu: Open OSD menu (It can also work as OK after entering the menu)
- Up/Left: Direction button
- Down/Right: Direction button
- Exit: it can also work as Return after entering the menu

【Note】 You can use "Power" button to close LCD display for reducing consumption if it will be idle for a long time.