

# 4.3inch HDMI LCD (B)

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## Introduction

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4.3inch Capacitive Touch Screen LCD, HDMI interface, with a resolution of 800×480 and a capacitive touch panel, which supports Raspberry Pi and can also be used as a computer monitor.

## Features

- IPS screen, 800x480 hardware resolution, configurable by software (up to 1920 x 1080)
- 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
- Multi languages OSD menu, for power management, brightness/contrast adjustment, etc.
- 3.5mm audio jack, speaker connector, supports HDMI audio output

## How to use

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### Working with Windows PC

This LCD can support Windows 7/8 / 8.1 / 10 system.

- 1) Turn on the backlight switch on the backside of LCD.
- 2) Connect the Touch interface of LCD to the USB port of PC. Wait for a while, the windows will automatically recognize the touch function.
- 3) Connect the HDMI (Display) interface of LCD to the HDMI port of PC. About 10s later, you can see the LCD display properly.
- 4) Connect earphone to HP interface or **8Ω 5W Speaker** to Speaker interface of LCD if audio output is required.

Note:

- When the computer is connected to several different displays at the same time, only this LCD can be used to control the cursor on the main display, so we recommended to set this LCD as the main display.
- Hot-Plug isn't supported by some PC, you can try to restart if LCD doesn't display after connecting

### Working with Raspberry Pi

This LCD can support Raspbian / Ubuntu / Kali / RetroPie and WIN10 IoT systems. When the LCD works on systems such as Raspberry Pi, the resolution must be set manually, otherwise, it will cause abnormal display. There is no such problem when the LCD works on the PC version of Windows.

Please download the latest version of the image on the [Raspberry Pi official website](#).

- 1) Download the compressed file to the PC, and unzip it to get the .img file.
- 2) Connect the TF card to the PC, use SDFormatter.exe software to format the TF card.
- 3) Open the Win32DiskImager.exe software, select the system image downloaded in step 1, and click 'Write' to write the system image. (refer to [RPi Image Install](#) about how to write image)
- 4) After the image has finished writing, open the config.txt file in the root directory of the TF card, add the following code at the end of config.txt, then save and quit the TF card safely.

```
max_usb_current=1
hdmi_group=2
hdmi_mode=87
hdmi_cvt 800 480 60 6 0 0 0
```

**【Note】** There should not be spaces in both sides of equal-sign.

If the LCD cannot work with statements above when working with Pi 4, you can comment/remove statement `dtoverlay=vc4-fkms-V3D` on `config.txt` file and try again.

5) Insert the TF card into the Raspberry Pi

6) Connect the Touch interface of the LCD to the USB interface of the Raspberry Pi.

7) Connect the HDMI interface of the LCD to the HDMI interface of the Raspberry Pi, power on the Raspberry Pi, and wait for a few seconds until the LCD displays normally.

## Configure orientation (Working with Raspberry Pi)

### Display Rotating

Add this statement in the `config.txt` file (the `config` file is located in the root directory of the TF card, which is named `/boot`):

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

**Note:** For Raspberry Pi 4, you need to comment out `dtoverlay=vc4-fkms-V3D`.

```
#dtoverlay=vc4-fkms-V3D.
```

And then restart the Raspberry Pi after saving.

```
sudo reboot
```

### Touch Rotating

After the display is rotated, the position of touch is incorrect because the touch doesn't change with the display angle. So the touch also needs to be modified.

1. Install `libinput`.

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

If the system you installed is Ubuntu or Jetson Nano. The installation code is:

```
sudo apt install xserver-xorg-input-synaptics
```

2. Create the `xorg.conf.d` directory under `/etc/X11/` (if the directory already exists, proceed directly to step 3).

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

3. Copy the `40-libinput-conf` file to the directory you created just now.

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

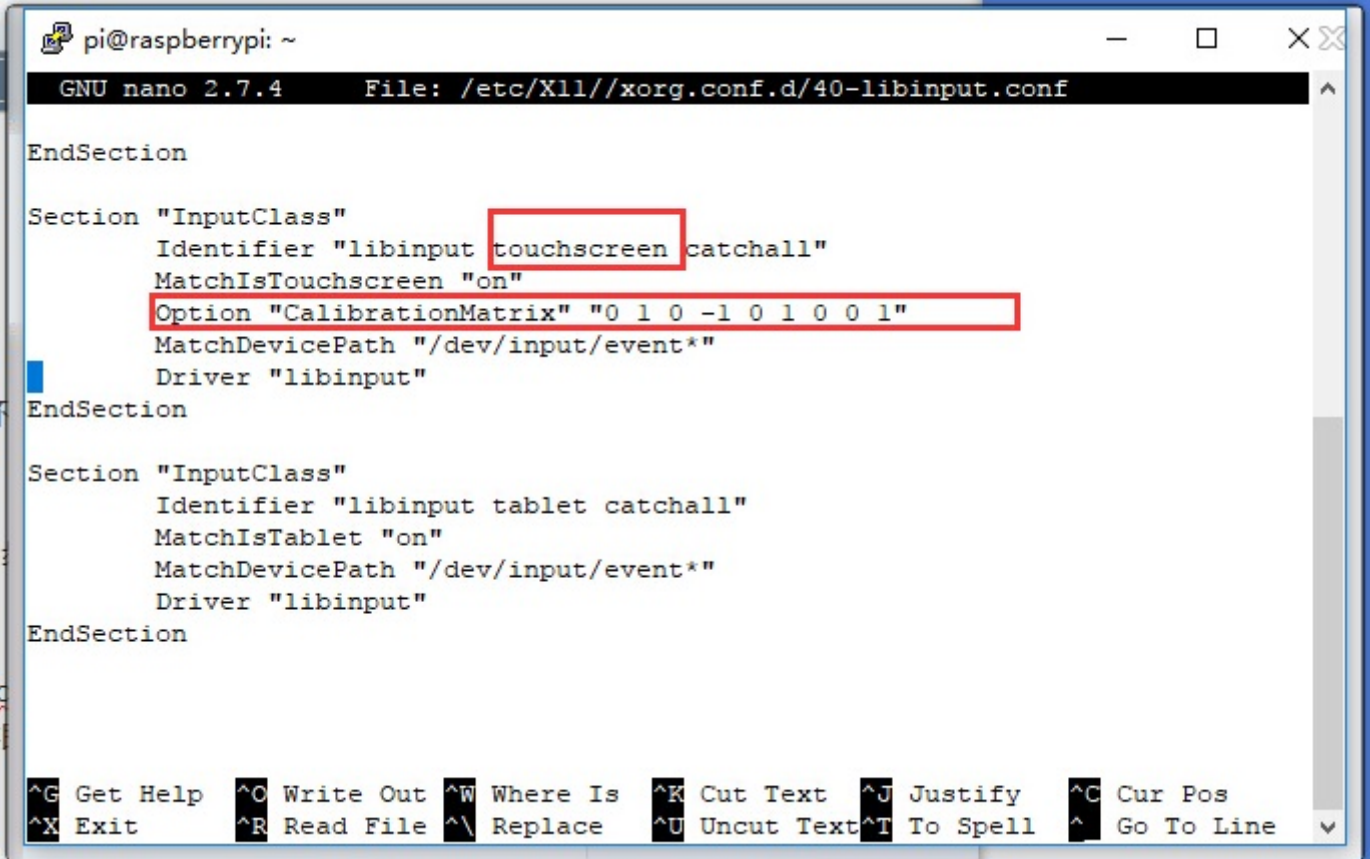
4. Edit this file.

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

Find the part of the touchscreen, add the following statement inside, and then save the file.

```
Option "CalibrationMatrix" "0 1 0 -1 0 1 0 0 1"
```

Similar to the picture below:



```
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*"
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^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. Restart the Raspberry Pi.

```
sudo reboot
```

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

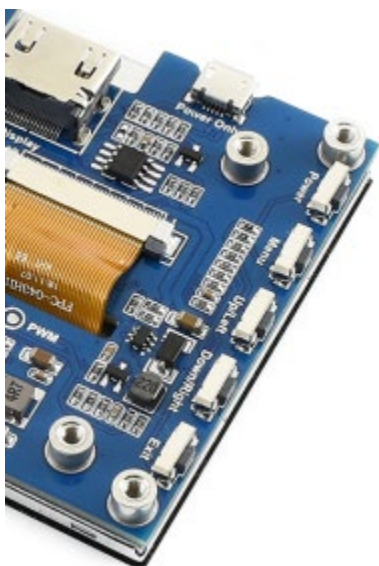
**Note:**

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

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

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

**Keys Introduction**



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

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

Open the OSD menu by press the "Menu" button, then use the "OK button" and "Direction button" to change the configuration, and finally use "Return button" to exit.

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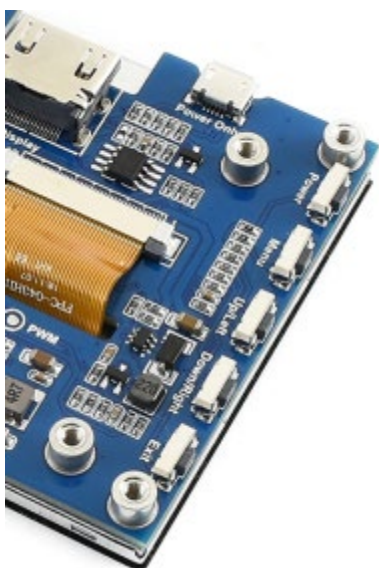
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