




# WAVESHARE B-B+-2B-3B-3B+ 3.5 Inch RPI LCD User Manual

[Home](#) » [WAVESHARE](#) » WAVESHARE B-B+-2B-3B-3B+ 3.5 Inch RPI LCD User Manual 

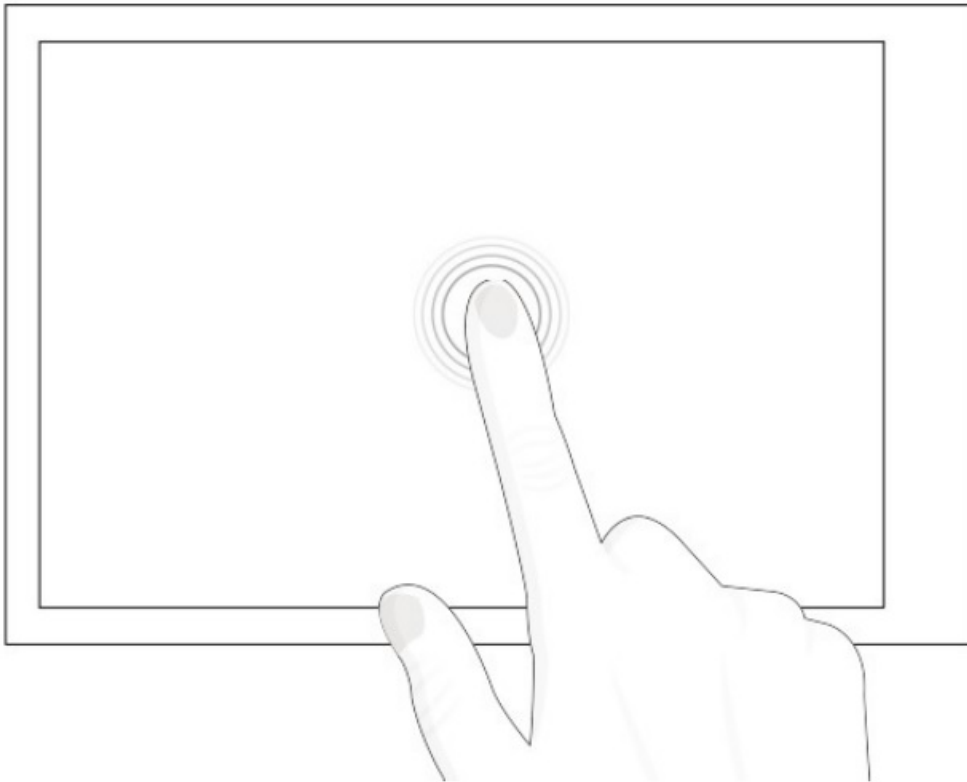
## Contents

- [1 WAVESHARE B-B+-2B-3B-3B+ 3.5 Inch RPI LCD User Manual](#)
- [2 Documents / Resources](#)
  - [2.1 References](#)

**WAVESHARE B-B+-2B-3B-3B+ 3.5  
Inch RPI LCD User Manual**

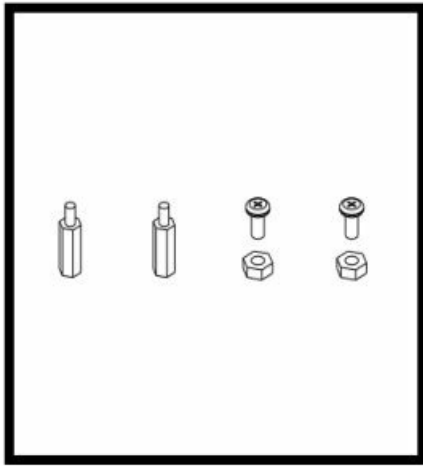
# 3.5INCH RPI LCD (A)

## User Manual

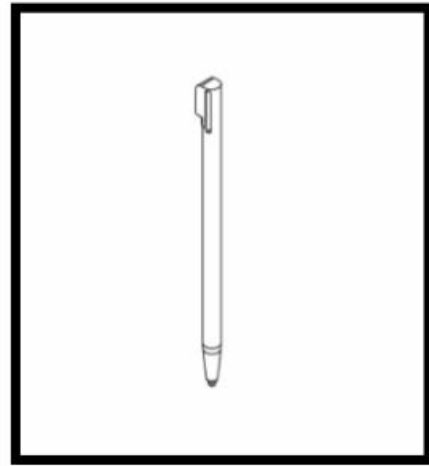


### ACCESSORIES

Before using the product, please check if all the accessories are packaged properly and in perfect condition



**RPi screws pack**  
For fixing



**Pen**  
For touch

## **WARNING**

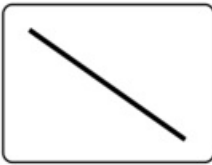
Please read this user manual carefully before you use the display. Incorrect use may cause irreparable damage or even cause electric shock and fire.

To avoid damaging the display, please observe the following rules during the installation and using.

1. To prevent from fire disaster or electronic shock, please do not put the display in humidity or even in a worse condition;
2. To avoid dust, moisture and extreme temperatures, please DO NOT place the display in any damp area. Please place the device on a stable surface when in use;
3. DO NOT put any object or splash any liquid into the ports or openings of the display;
4. Before using the display, please make sure all the cables are connected properly and all the cables included the power cord are proper to use. If any cables or accessories are missed or broken, please contact Waveshare immediately;
5. DO NOT attempt to take apart the PCBA and the raw display panel, which may damage the display panel. If you face any problem about the display, please contact our Support Team by ticket;
6. The display glass may break when it is dropped or bumped on a hard surface, please handle with care.

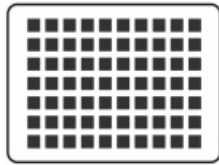
## **SPECIFICATION**

### Size



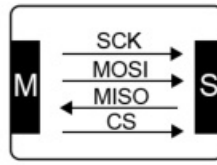
3.5"

### Resolution



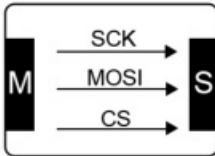
480×320

### Touch Port



SPI

### Display Port



SPI

### Certificate1



CE

### Certificate2



RoHS

### Touch Type



Resistive

### Consumption



Lower Power

### PCB

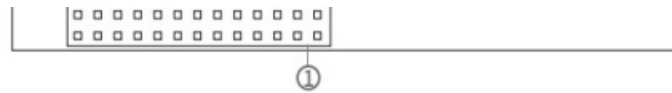


Immersion Gold

- The hardware resolution is 480 × 320.
- Resistive touch control.
- It is compatible and can be directly inserted into any version of Raspberry Pi.
- Provide drivers (works with your own Raspbian/Ubuntu/Kali and Retropie system directly).
- Support FBCP software driver, which can set the software resolution and dual-screen display.
- As big as your Raspberry pi.

## INTERFACES





PIN NO.	SYMBOL	DESCRIPTION
1, 17	3.3V	Power positive (3.3V power input)
2, 4	5V	Power positive (5V power input)
3, 5, 7, 8, 10, 12, 13, 15, 16	NC	NC
6, 9, 14, 20, 25	GND	Ground
11	TP_IRQ	Touch Panel interrupt, low level while the Touch Panel detects touching
18	LCD_RS	Instruction/Data Register selection
19	LCD_SI / TP_SI	SPI data input of LCD/Touch Panel
21	TP_SO	SPI data output of Touch Panel
22	RST	Reset
23	LCD_SCK / TP_SCK	SPI clock of LCD/Touch Panel
24	LCD_CS	LCD chip selection, low active
26	TP_CS	Touch Panel chip selection, low active

## DISPLAY SETTING

To use with the Raspberry Pi, you need to install the driver

1. Write Raspberry Pi OS image to the TF card by Raspberry Pi Imager which can be downloaded from Raspberry Pi official web- site.

2. Insert the TF card into the Raspberry Pi board. The LCD will display after booting up, and then log in to the Raspberry Pi terminal, (You may need to connect a keyboard and HDMI LCD to Pi for driver installing, or log in remotely with SSH)
3. Then open the terminal of Raspberry Pi to install the driver.

```
git clone https://github.com/waveshare/LCD-show.git  
cd LCD-show/  
./LCD35-show
```

**The Raspberry Pi must be connected to the network throughout the process**

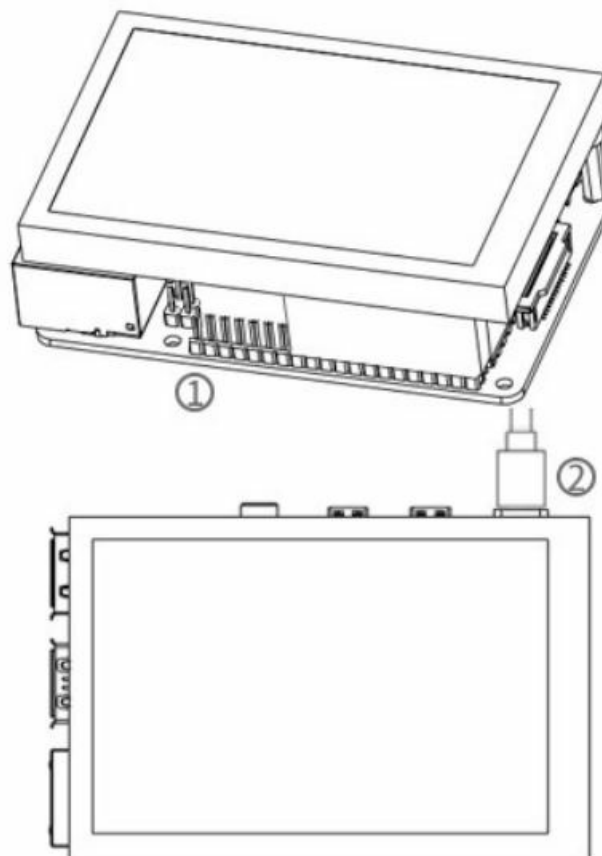
The screen will work after restart

**Notes:**

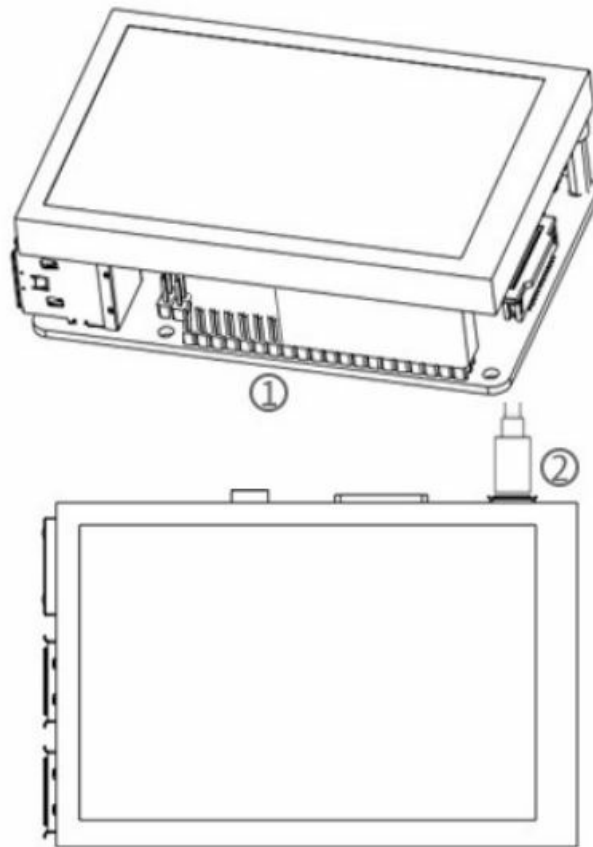
- Executing apt-get upgrade will cause the LCD to fail to work properly. In this case, you need to edit the config.txt file in the SD card and delete this sentence: dtoverlay=ads7846.
- Using with Raspbian-lite, the command of the driver installation should be:  
./LCD35-show lite

**CONNECTION**

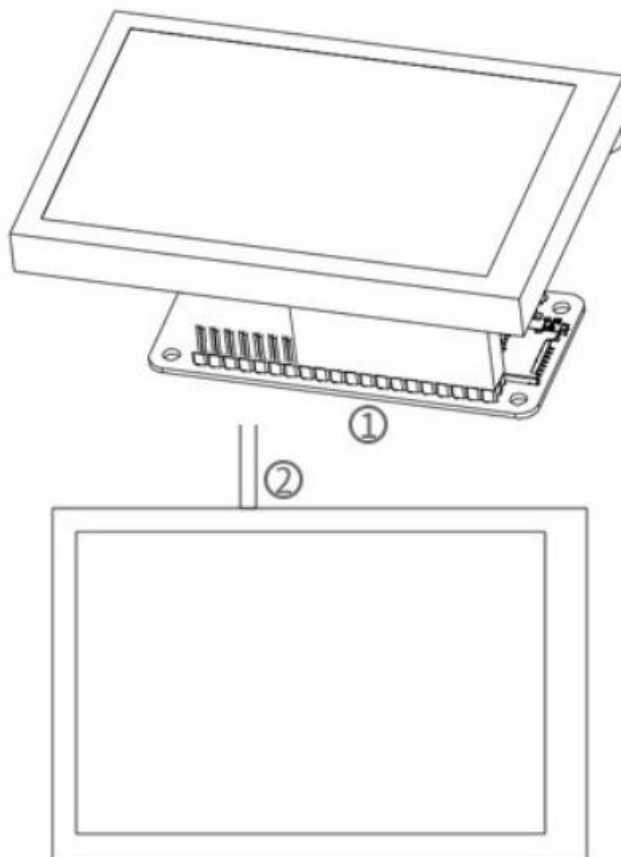
**Connect to Raspberry 4B**



**Connect to Raspberry 3B+**



**Connect to Raspberry Pi Zero W**



Note: Connect the GPIO interface, the Raspberry Pi leads to 40 GPIO pins, and the screen leads to 26 pins, pay

attention to the corresponding screen pins and Raspberry Pi pins when connecting.

1. Connect the female header of the screen to the pin header of the Raspberry Pi
2. Connect a power adapter to the Raspberry Pi to power on.

## FAQ

**Q: Why can not the LCD be used normally when using the official image provided by the Raspberry Pi?**

A: The LCD must have a driver installed for normal use. For details, please refer to the relevant introduction in the user manual.

**Q: What is the operating temperature of the 3.5inch RPi LCD (A)?**

A: Commercial grade (0~70 degrees Celsius).

**Q: What are the power requirements?**

A: When working with 5V input, the current is about 150mA.

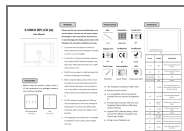
**Q: Why can not the LCD be used normally when using the Raspberry Pi image provided by waveshare?**

A: Since the Raspberry Pi image and version are frequently updated, if you encounter a situation where the LCD cannot be used normally, please download the latest version of the image provided by us or from the official website of Raspberry Pi and install the latest driver provided by us.

- Make sure the hardware connection is correct and the contact is good.
- Make sure that TF card programming is normal.
- When the Raspberry Pi starts normally, the PWR light is always on, and the ACT light is flashing. If it is found that both lights are always on, it may be that the TF card is not successfully programmed to the image or the TF card is in poor contact with the Raspberry Pi.
- It is recommended to use a 5V 2.5A power adapter for the Raspberry Pi. If the Raspberry Pi is powered by the USB port of the PC, the Raspberry Pi may not be able to start normally due to an insufficient power supply.


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## Documents / Resources



[WAVESHARE B-B+-2B-3B-3B+ 3.5 Inch RPI LCD](#) [pdf] User Manual  
B-B -2B-3B-3B 3.5 Inch RPI LCD, B-B -2B-3B-3B, 3.5 Inch RPI LCD, RPI LCD, LCD

## References

-  [waveshare \(waveshare\) · GitHub](#)
- [User Manual](#)