ED-HMI2220-101C

Application Guide

EDA Technology Co., LTD

April 2024

Contact Us

Thank you very much for purchasing and using our products, and we will serve you wholeheartedly.

As one of the global design partners of Raspberry Pi, we are committed to providing hardware solutions for IOT, industrial control, automation, green energy and artificial intelligence based on Raspberry Pi technology platform.

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Foreword

Related Manuals

All kinds of product documents contained in the product are shown in the following table, and users can choose to view the corresponding documents according to their needs.

Documents	Instruction
ED-HMI2220-101C Datasheet	This document introduces the product features, software and hardware specifications, dimensions and ordering codes of ED-HMI2220-101C series to help users understand the overall system parameters of the products.
ED-HMI2220-101C User Manual	This document introduces the appearance, installation, startup and configuration of ED-HMI2220-101C series to help users use the product better.
ED-HMI2220-101C Application Guide	This document introduces the OS downloading, flashing to eMMC/SD card and partial configuration of ED-HMI2220-101C series to help users use the product better.

Users can visit the following website for more information:

https://www.edatec.cn

Reader Scope

This manual is applicable to the following readers:

◆ Mechanical Engineer

◆ Electrical Engineer

◆ Software Engineer

◆ System Engineer

Related Agreement

Symbolic Convention

Symbolic	Instruction
	Prompt symbols, indicating important features or operations.
	Notice symbols, which may cause personal injury, system damage, or signal interruption/loss.
	May cause great harm to people.

Safety Instructions

◆ This product should be used in an environment that meets the requirements of design specifications, otherwise it may cause failure, and functional abnormality or component damage caused by non-compliance with relevant regulations are not within the product quality assurance scope.

◆ Our company will not bear any legal responsibility for personal safety accidents and property losses caused by illegal operation of products.

◆ Please do not modify the equipment without permission, which may cause equipment failure.

◆ When installing equipment, it is necessary to fix the equipment to prevent it from falling.

◆ If the equipment is equipped with an antenna, please keep a distance of at least 20cm from the equipment during use.

◆ Do not use liquid cleaning equipment and keep away from liquids and flammable materials.

◆ This product is only supported for indoor use.

Content

1 Installing OS

This chapter introduces how to download OS file and flash to eMMC/SD card.

- ✓   Downloading OS File

- ✓   Flashing to eMMC

- ✓   Flashing to SD Card

1.1 Downloading OS File

If the operating system is damaged during use, you need to re-download the latest version of OS file and flash to eMMC/SD card. The download path is: ED-HMI2220-101C/raspios.

1.2 Flashing to eMMC (optional)

When you purchase an ED-HMI2220-101C, you can select eMMC or SD card. If you select the ED-HMI2220-101C with eMMC version, you need flash to eMMC when reinstalling the operating system. It is recommended to use the Raspberry Pi official tools. The download paths are as follows:

◆ Raspberry Pi Imager: https://downloads.raspberrypi.org/imager/imager_latest.exe

◆ SD Card Formatter: https://www.sdcardformatter.com/download/

◆ Rpiboot: https://github.com/raspberrypi/usbboot/raw/master/win32/rpiboot_setup.exe

Preparation:

◆ The downloading and installation of the official tools to the computer have been completed.

◆ A Micro USB to USB-A cable has been prepared.

◆ The OS file has been obtained.

Steps:

The steps are described using Windows system as an example.

1. Connect the power cord and USB flashing cable, as shown in the figure below.

● Connecting to power cord: One end is connected to the 2Pin Phoenix terminal on the device side, and the other end is connected to the external power supply.

● Connecting to USB cable: One end is connected to the Micro USB port on the device side, and the other end is connected to the USB port on the PC.
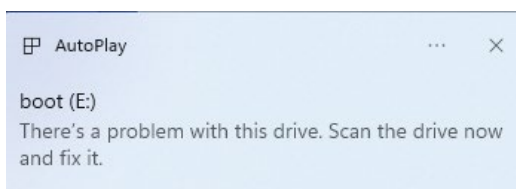
2.   Disconnect the power supply of ED-HMI2220-101C, and then power it on again.

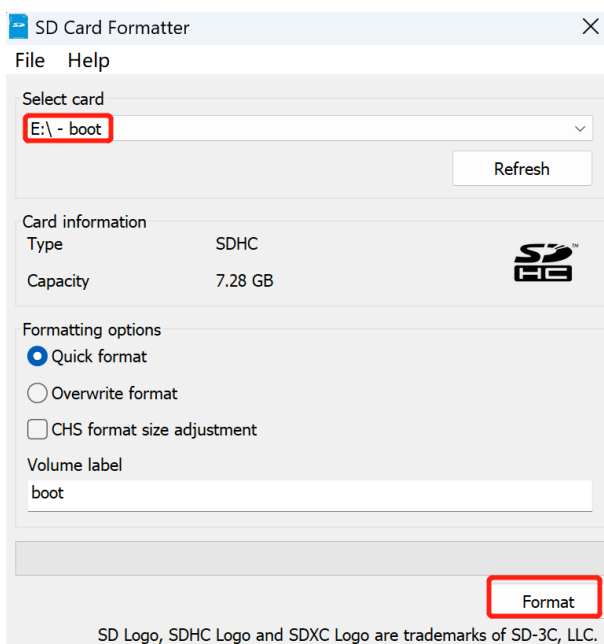3.   Open **rpiboot tool** to automatically convert the drive to a letter.

4.   After the completion of the drive letter, the drive letter will pop up in the lower right corner of the computer, as shown in the figure below E drive.
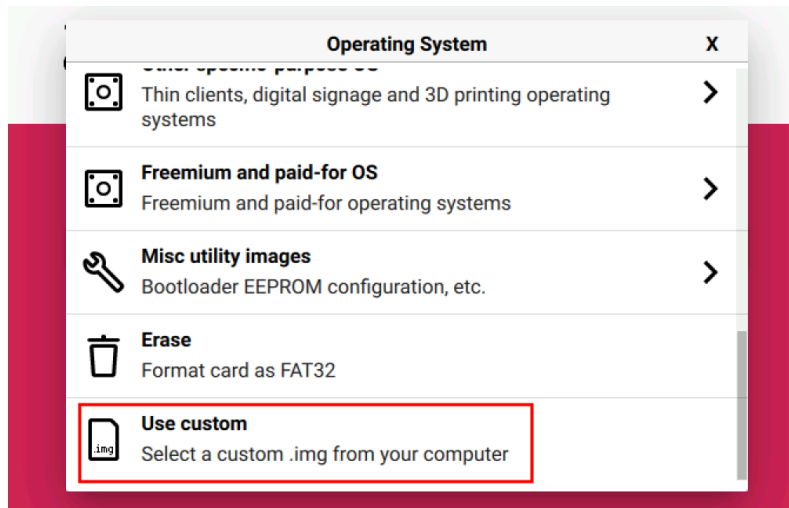

5.   Open **SD Card Formatter**, select the formatted drive letter, and click "Format" at the lower right to format.


6.   In the pop-up prompt box, select "Yes".

7. When the formatting is completed, click "OK" in the prompt box.

8. Close **SD Card Formatter**.

9. Open **Raspberry Pi Imager**, select "CHOOSE OS" and select "Use Custom " in the pop-up pane.
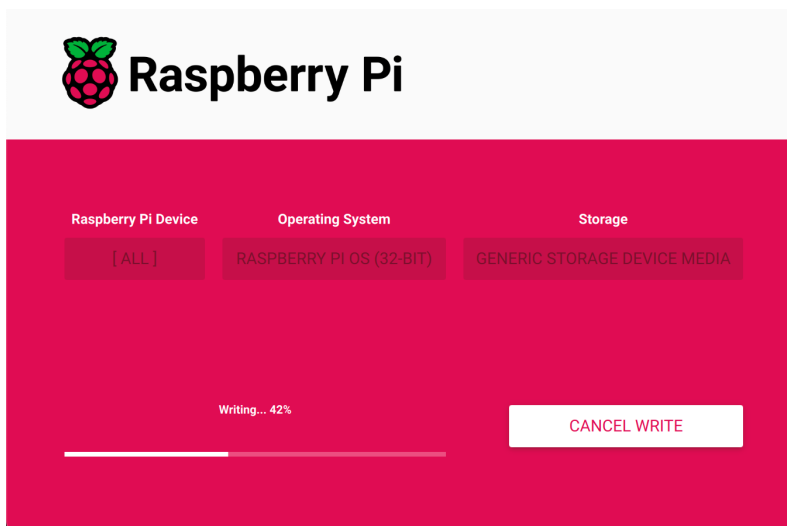

10. According to the prompt, select the OS file under the user-defined path and return to the main page.

11. Click "CHOOSE STORAGE", select the default device in the "Storage" interface, and return to the main page.
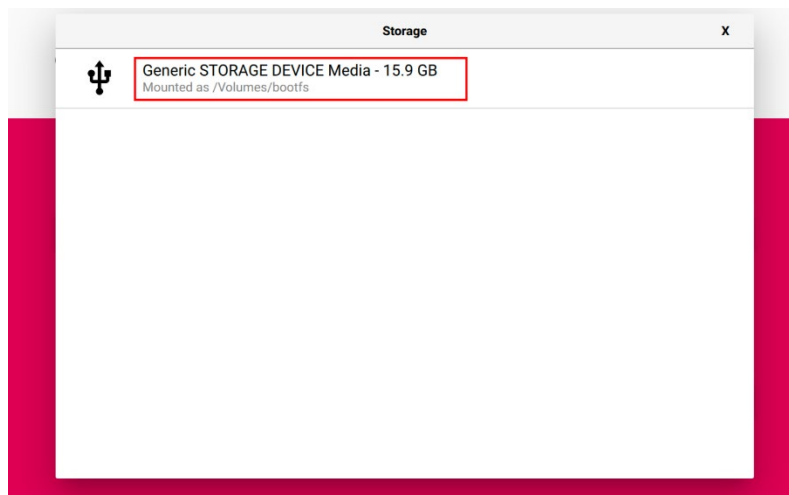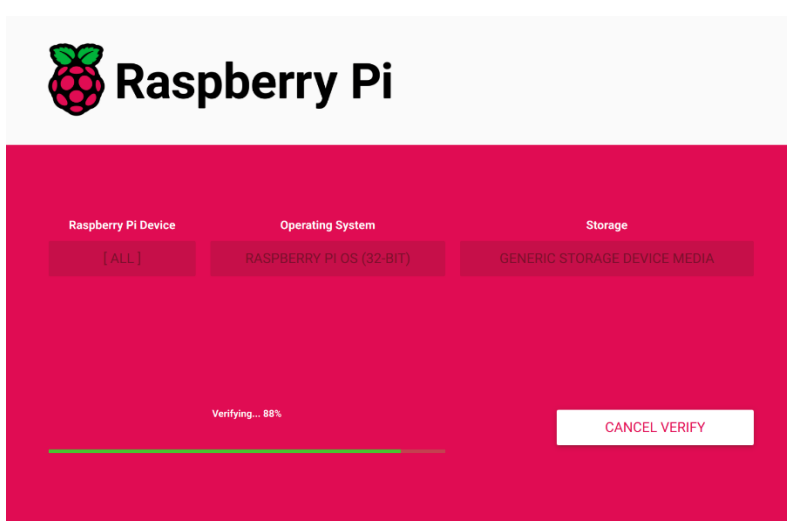

12. Click "NEXT", select "NO " in the pop-up "Use OS customization?" pane.
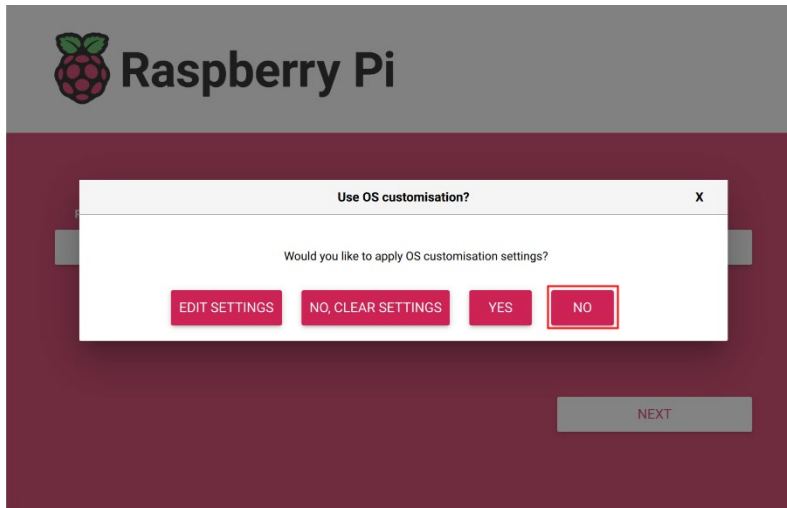
13. Select "YES" in the pop-up "Warning" pane to start writing the image.

14. After the OS writing is completed, the file will be verified.

15. After the verification is completed, click "CONTINUE" in the pop-up "Write Successful" box.

16. Close **Raspberry Pi Imager**, remove USB cable and power on the device again.

1.3 Flashing to SD Card (optional)

When you purchase an ED-HMI2220-101C, you can select eMMC or SD card. If you select the ED-HMI2220-101C with SD card version, you need flash to SD card when reinstalling the operating system. It is recommended to use the Raspberry Pi official tool. The download path is as follows:

Raspberry Pi Imager: https://downloads.raspberrypi.org/imager/imager_latest.exe

Preparation:

◆ The downloading and installation of Raspberry Pi Imager tool to the computer have been completed.

◆ A card reader has been prepared.

◆ The OS file has been obtained.

◆ The SD card of ED-HMI2220-101C has been obtained.

   a) Find the location of SD card, as shown in the red mark of figure below.

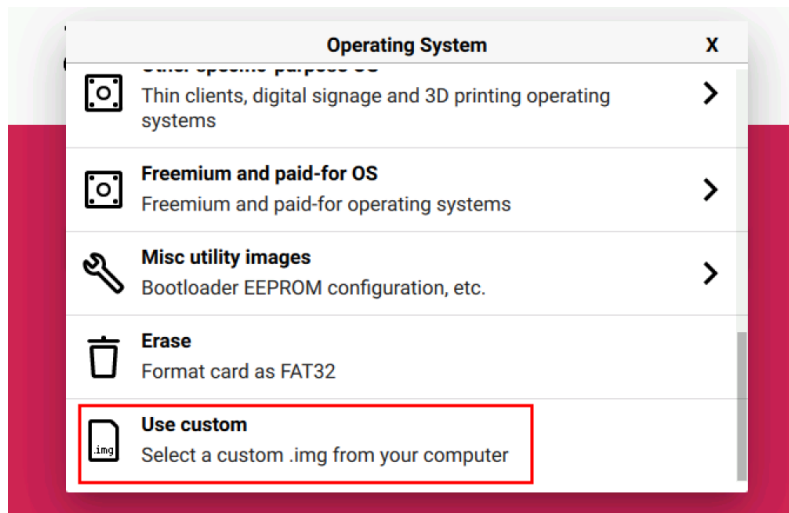   b) Press the SD card into the card slot with your hand to pop it out, and then pull out the SD card.


Steps:

The steps are described using Windows system as an example.

1. Insert the SD card into the card reader, and then insert the card reader into the USB port of PC.

2. Open **Raspberry Pi Imager**, select "CHOOSE OS" and select "Use Custom " in the pop-up pane.
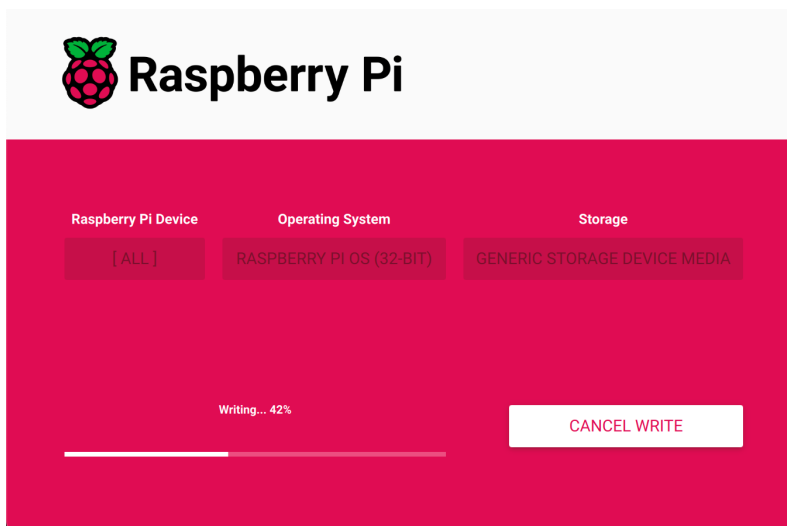

3. According to the prompt, select the downloaded OS file under the user-defined path and return to the main page.

4. Click "CHOOSE STORAGE", select the default device in the "Storage" interface, and return to the main page.
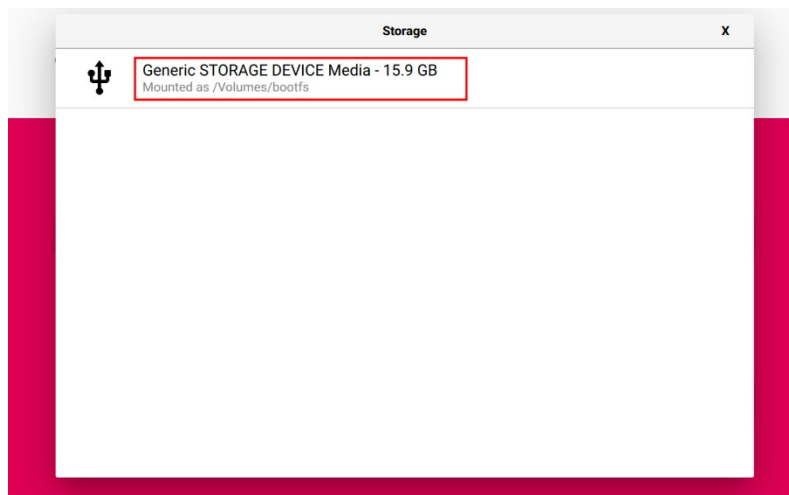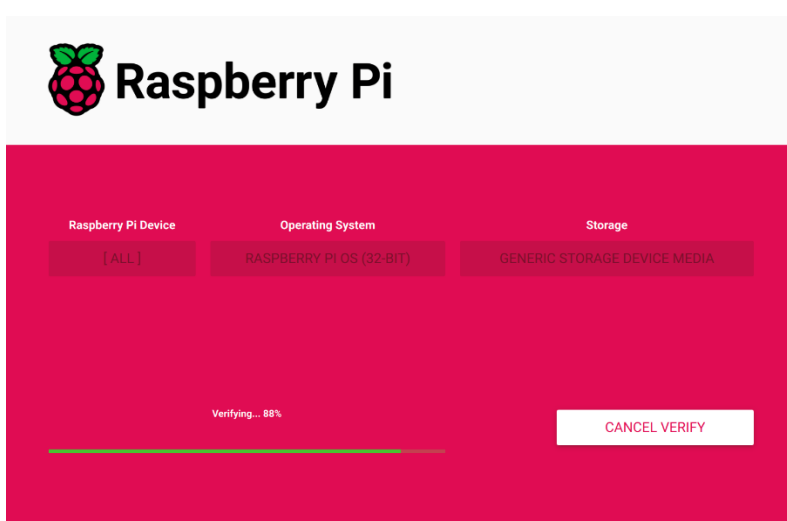

5. Click "NEXT", select "NO " in the pop-up "Use OS customization?" pane.
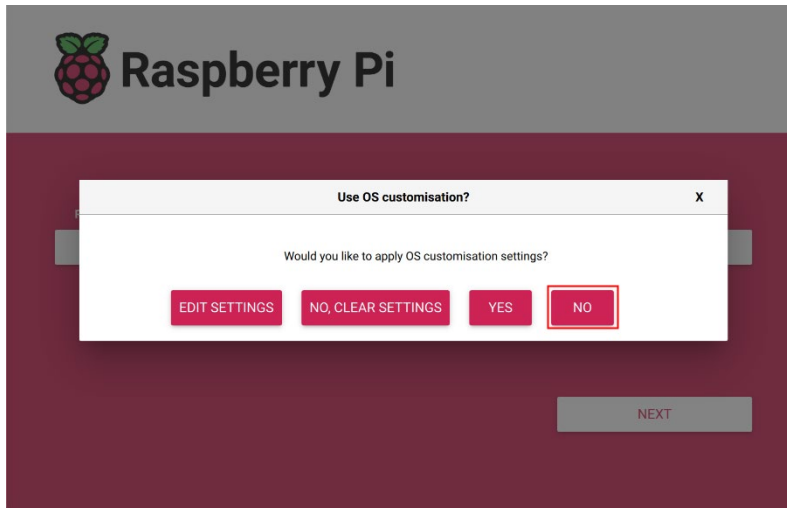
6. Select "YES" in the pop-up "Warning" pane to start writing the image.

7. After the OS writing is completed, the file will be verified.

8. After the verification is completed, click "CONTINUE" in the pop-up "Write Successful" box.

9. Close **Raspberry Pi Imager**, remove the card reader.

10. Insert the SD card into ED-HMI2220-101C, and then power on again.

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2   Firmware Update

After the system starting normally, you can execute the following commands in the command pane to upgrade the firmware and optimize the software functions.

sudo apt update

sudo apt upgrade