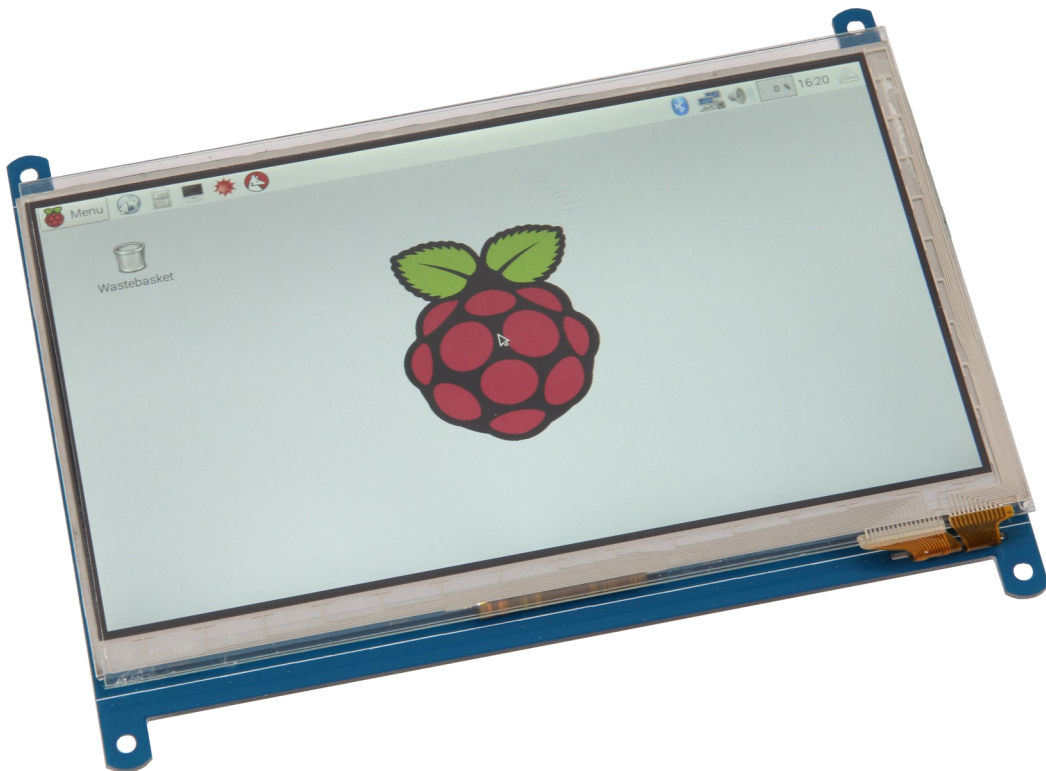


joy-it



7" Display

Manual for Raspberry Pi

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1. INTRODUCTION

Dear customer,
thank you for choosing our product. In the following we have listed what has to be considered during commissioning.

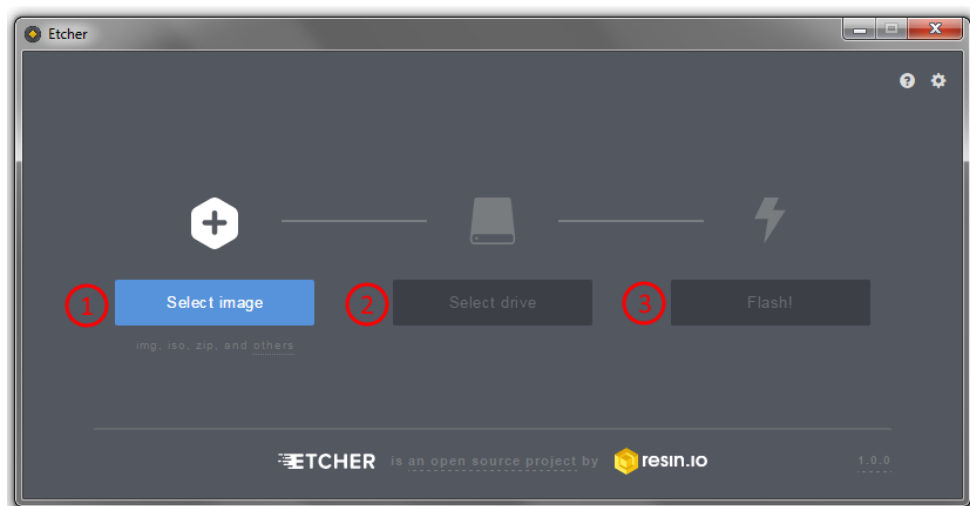
2. IMAGE-INSTALLATION

The easiest way to use the 7" display on your Raspberry Pi is to install our modified Raspbian image. Here we have already made all necessary settings and configurations for you.

If you prefer a manual installation on your already installed Raspbian system, you can skip this step and continue with the next chapter.

Download the current preinstalled image from our website [here](#).

You can transfer the unpacked system image to your SD card with a suitable program (e.g. Etcher).



After successful transmission, the SD card can be inserted into the Raspberry Pi and the system can be started. The display and system are now ready for use.

3. MANUAL INSTALLATION

If you want to use the display on an already installed Raspbian system, you can install the display using the following steps. Please note that you must set the resolution of the display yourself in the system. Otherwise, the display may not function correctly.

3.1 SYSTEM CONFIGURATION

Only a few adjustments are necessary for the use of the display. These adjustments are necessary to ensure optimal operation of the display. Use the following command to open the **config.txt** file to make the adjustments.

```
sudo nano /boot/config.txt
```

Add the following lines here:

```
dtoverlay=audio=on
max_usb_current=1
hdmi_force_hotplug=1
config_hdmi_boost=7
hdmi_group=2
hdmi_mode=1
hdmi_mode=87
hdmi_drive=1
display_rotate=0
hdmi_cvt 1024 600 60 6 0 0 0
```



Attention! Please make sure that there are no spaces on either side of the equal sign.

Save the file with the key combination **CTRL+O**, confirm with Enter and exit with the combination **CTRL+X**. After rebooting the system, the display is ready for use.

4. DISPLAY ROTATION

For many applications a change of the display orientation is helpful.
Of course, you can also configure the display orientation here.

Simply open the **config.txt** file with the following command:

```
sudo nano /boot/config.txt
```

Search here for the parameter **display_rotate**. If this is not already available, you can enter it manually (example: `display_rotate=0`). The available parameters can be seen in the following table:

PARAMETER	ADJUSTMENT
0	Default configuration
1	Rotation by 90 degrees
2	Rotation by 180 degrees
3	Rotation by 270 degrees
0x10000	Horizontal flip
0x20000	Vertical flip

Save your changes with the key combination **CTRL+O**, confirm with Enter and exit the editor with the combination **CTRL+X**.

After changing the display orientation, an additional adjustment of the touch parameters is required.
Open the file **99-calibration.conf** with the following command:

```
sudo nano /etc/X11/xorg.conf.d/99-calibration.conf
```

Add the necessary values according to your settings.

Settings for a 0 degree rotation (default configuration):

```
Section "InputClass"
    Identifier "calibration"
MatchProduct      "ADS7846 Touchscreen"
Option "Calibration" "140 3951261 3998"
Option "SwapAxes"   "0"
EndSection
```

Settings for a 90 degree rotation:

```
Section "InputClass"
    Identifier "calibration"
MatchProduct      "ADS7846 Touchscreen"
Option "Calibration" "2613998 3951 140"
Option "SwapAxes"   "1"
EndSection
```

Settings for a 180 degree rotation:

```
Section "InputClass"
    Identifier "calibration"
MatchProduct      "ADS7846 Touchscreen"
Option "Calibration" "3951140 3998261"
Option "SwapAxes"   "0"
EndSection
```

Settings for a 270 degree rotation:

```
Section "InputClass"
    Identifier "calibration"
MatchProduct      "ADS7846 Touchscreen"
Option "Calibration" "3998261 1403951"
Option "SwapAxes"   "1"
EndSection
```

Save your changes with the key combination **CTRL+O**, confirm with Enter and exit the editor with the combination **CTRL+X**. Reboot your system after saving.

5. OTHER INFORMATIONS

Our information and take-back obligations under the Electrical and Electronic Equipment Act (ElektroG)

symbol on electrical and electronic equipment:



This crossed-out dustbin means that electrical and electronic equipment does not belong in household waste. You must return the old devices to a collection point.

Before disposal, you must separate old batteries and accumulators which are not enclosed in the old device from it.

Return options:

As an end user, you can dispose of your old device (which essentially fulfils the same function as the new one purchased from us) free of charge when purchasing a new device.

Small appliances where no external dimensions are larger than 25 cm can be delivered in normal household quantities, irrespective of the purchase of a new appliance.

Possibility of return at our company during opening hours:

Simac Ltd, Pascalstr. 8, 47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:

We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by e-mail at Service@joy-it.net or by phone.

Information about packaging:

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.



6. SUPPORT

We also support you after your purchase. If there are any question left or if you encounter any problems please feel free to contact us by mail, phone or by our ticket-support-system on our website.

E-Mail: service@joy-it.net

Ticket-System: <http://support.joy-it.net>

Phone: +49 (0)2845 98469 – 66 (11- 18 o'clock)

Please visit our website for more informations:

www.joy-it.net