How to set up your Bitcoin 2 Staking Raspberry Pi

Step-by-Step Guide

This guide assumes you want to use your Raspberry Pi as a 24/7 staking device instead of your computer.

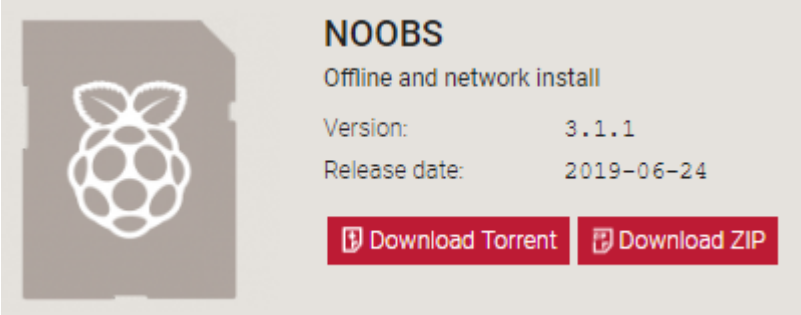
If you want to install the Bitcoin 2 Core Wallet on an existing Raspbian OS, you can jump directly to the **Chapter 2**. And if you want to reinstall the Bitcoin 2 Wallet that isn't a problem, your existing wallet.dat will be restored.

Prerequisites :

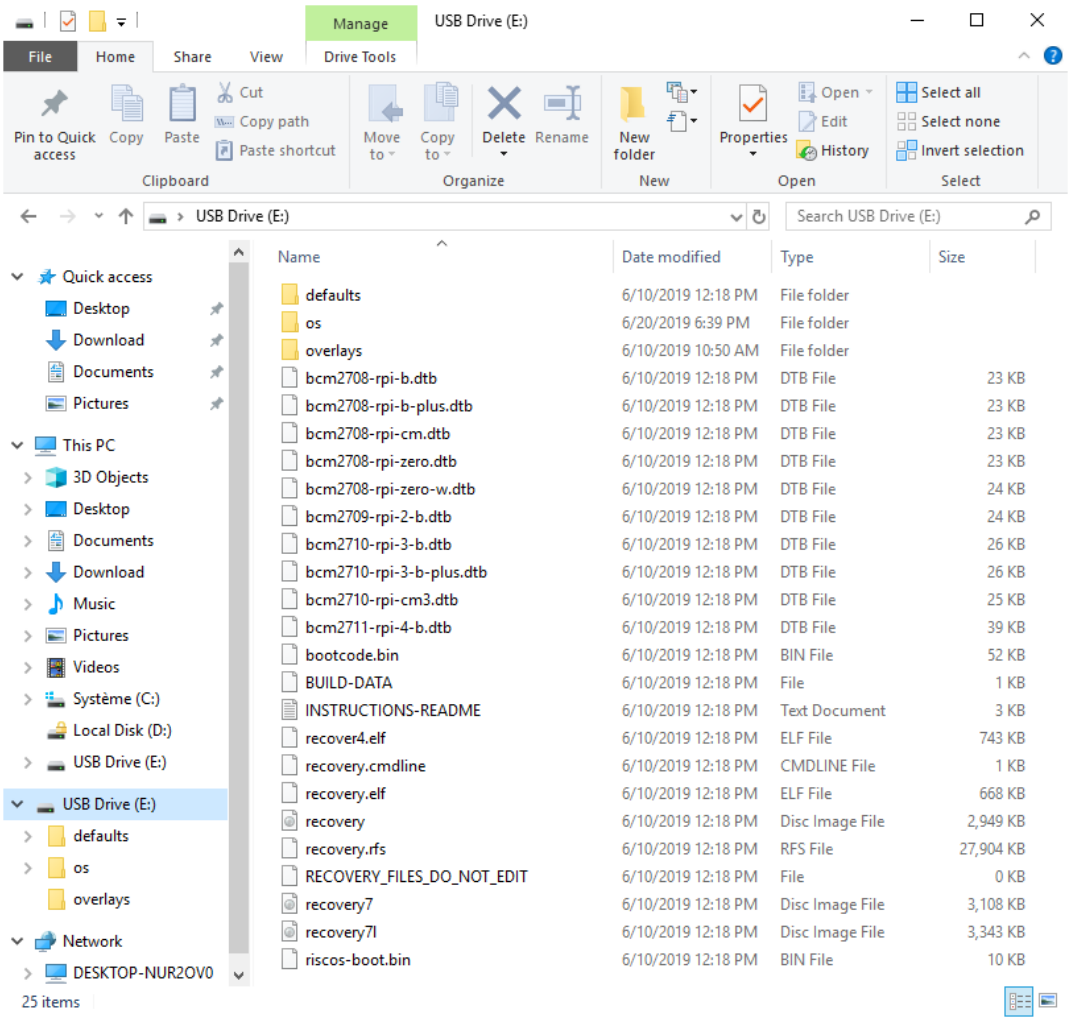
- Raspberry Pi
- 16Gb microSD Card (or higher)
- 1Gb USB flashdrive (or higher)
- MicroSD Card Reader

1. Installation of Raspbian

On your computer, download “NOOBS Offline and network install” available **here**.



Extract, copy and paste the content of the ZIP archive on your microSD card freshly formated in FAT32 with your OS Explorer or the application **SD Memory Card Formatter**.



When finished, eject your USB Drive properly.

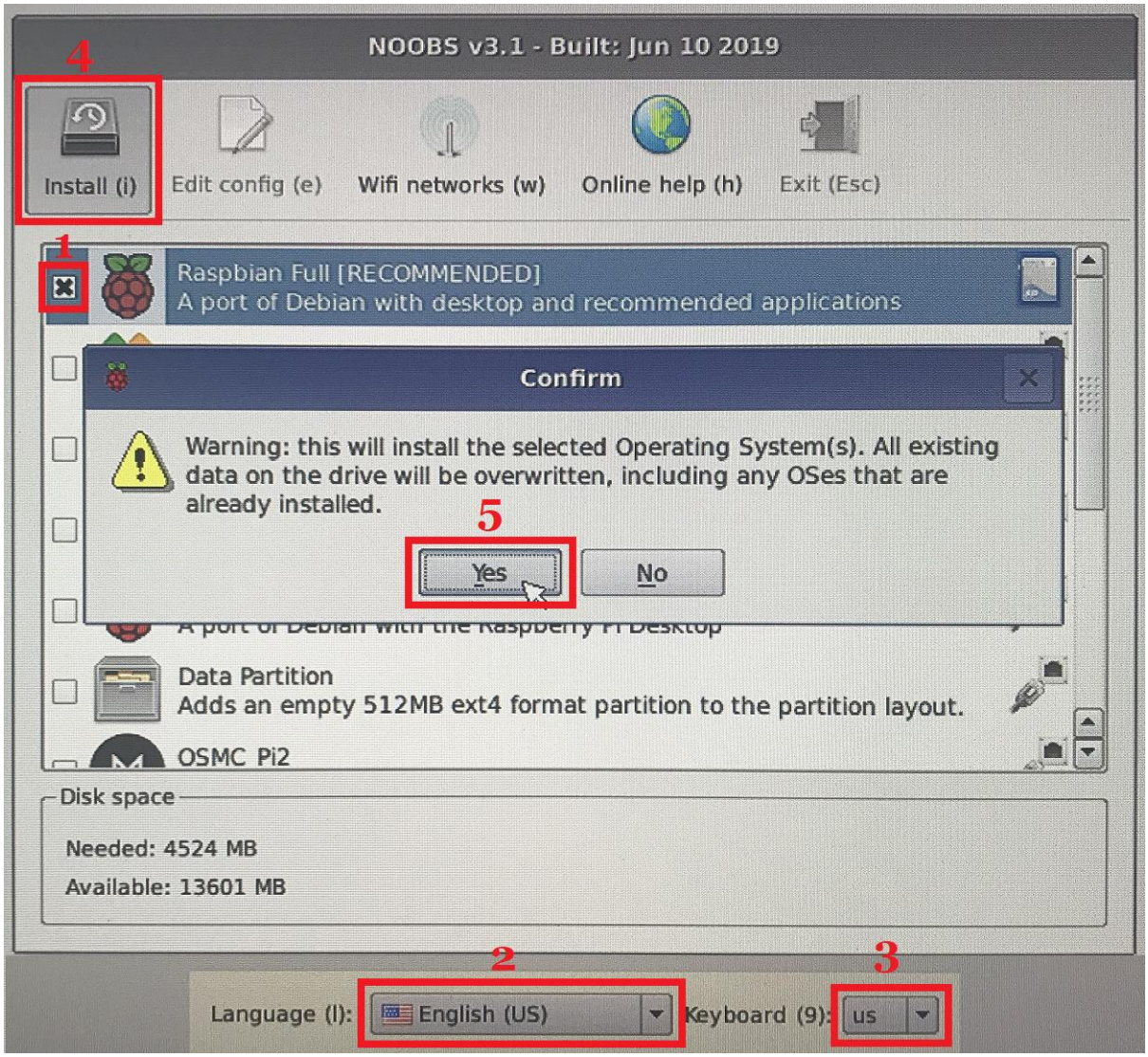
Insert the MicroSD card into the Raspberry Pi.

Plug in a HDMI monitor, a keyboard, a mouse and your network ethernet cable (Internet is mandatory to start the installation)

Power on the Raspberry Pi.

On the NOOBS assistant screen, check **“Raspbian Full (RECOMMENDED)”** 1

Choose your “**Language**” 2 and **“Keyboard”** 3, then click on “**Install**” 4 and **Yes** 5.



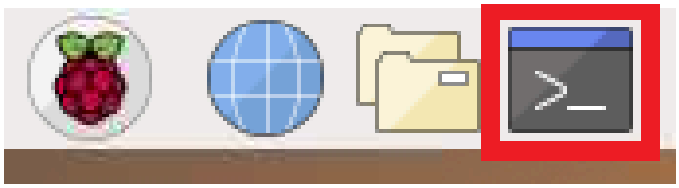
When the Operating System is installed, click **“OK”** to reboot.

After the start-up, **follow the assistant** and set up a few things, press **“Next”** to get started :

- **Set Country :** choose Country, Language, etc…
- **Change Password :** enter new password, it’s a very important step
- **Set Up Screen :** check the option if you plan to use a monitor and if you see black border
- **Select WiFi Network** : if you prefer WLAN support you can activate it and unplugged your ethernet cable
- **Update Software :** press **“Skip”** to avoid, it will be done later in the script with better options.
- **Setup Complete : Restart**

2. Installation of the Bitcoin 2 Core

Launch the **console** with the 3rd shortcut on the top.



Enter this three commands, or copy and paste them one by one if you opened the PDF guide on your Raspberry Pi :

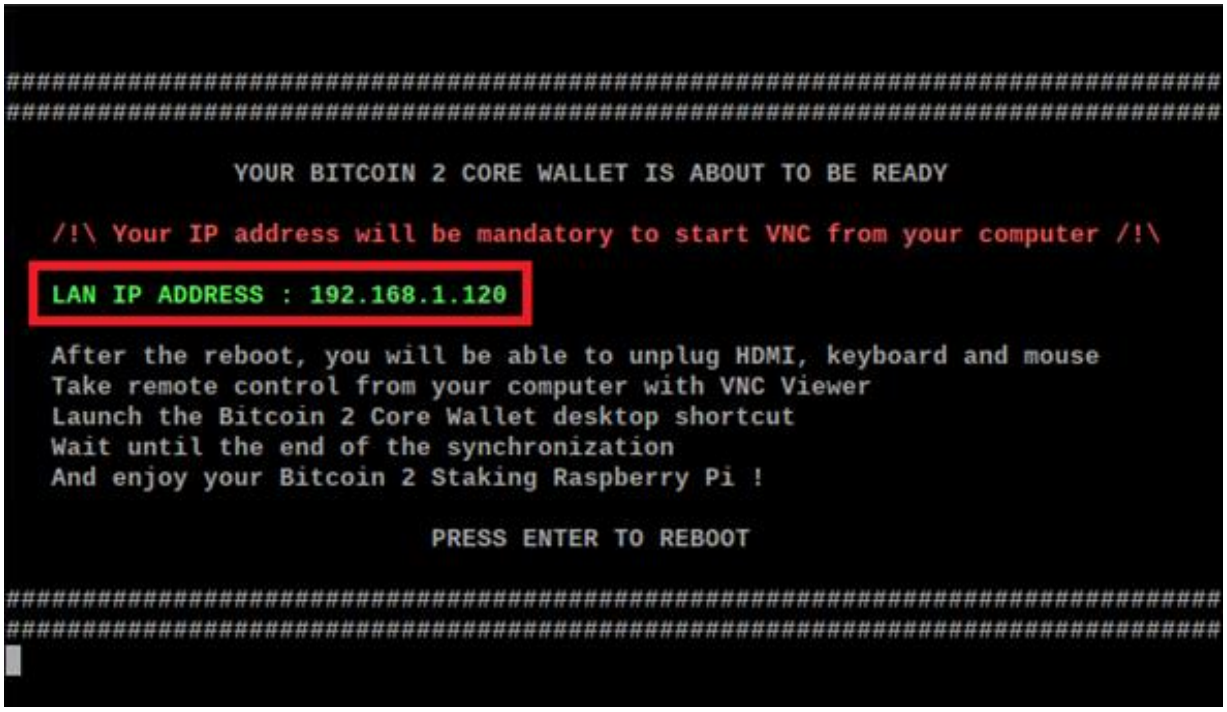
```
wget https://bitc2.org/raspi_install
chmod +x raspi_install
./raspi_install
```

When the script will be launched, it will take a few times to download updates, programs and snapshot of the Blockchain, depending on your internet connection, be prepared for that.

The script will execute these tasks :

- Update and upgrade the Raspbian Operating System
- Install UFW and configure the firewall (rules for SSH opened if needed but service not started)
- Download, install and configure Bitcoin 2 Core Wallet (recovering wallet.dat file if it exists)
- Download a Blockchain snapshot to accelerate the synchronization of the Bitcoin 2 Core Wallet
- Create Bitcoin 2 Core desktop shortcut
- Start VNC service
- Increase SWAP size to 2Gb
- Force 1080p HD resolution (to disconnect HDMI monitor)
- Disable splash screens, screen saver and auto login

Note your IP address displayed **on the last screen of the script** before the prompt to reboot. It will be necessary for the VNC connection from your computer.



Or if you forget it, you can look it up with the command : `hostname -I`

```
pi@raspberrypi:~ $ hostname -I
192.168.1.120
```

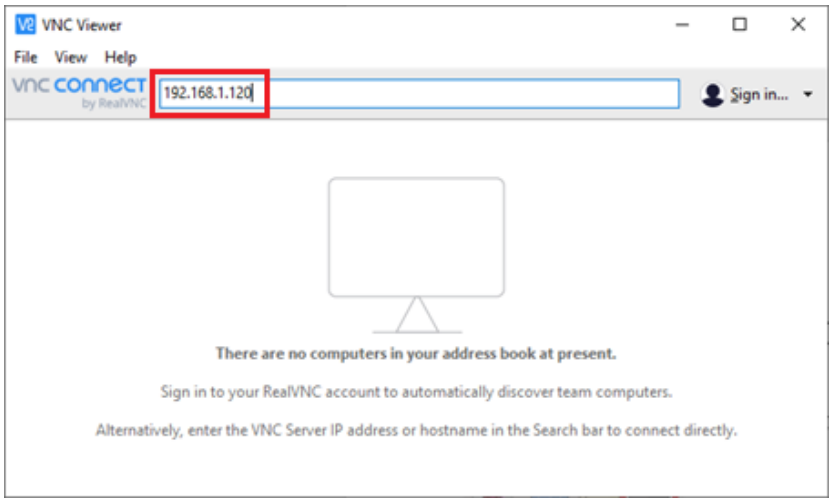
N.B : If you have an old installation with a .bitcoin2 directory, just answer **yes** when it will be asked to overwrite the folder and back up your wallet.dat. If you say **no**, the script will be stopped and you will have to manually remove the .bitcoin2 folder and back up your wallet.dat if needed.

3. Take remote control with VNC

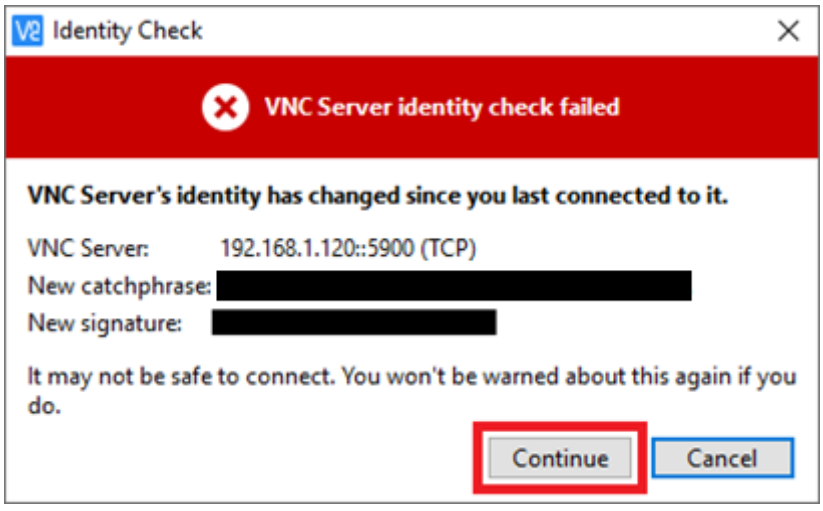
Download and install **VNC Viewer**

Download VNC Viewer

When the installation is finished, start VNC Viewer, enter your IP address known previously, then press Enter.

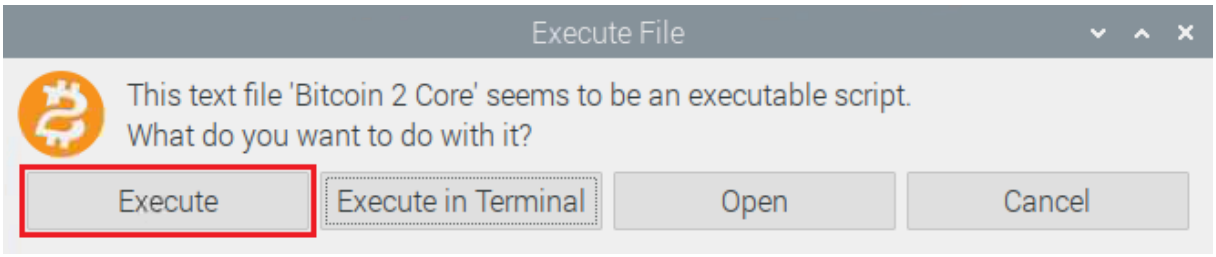


On the first connection, you will have a window like this one. Just click **"Continue"** and authenticate yourself entering your username **pi** and your password.



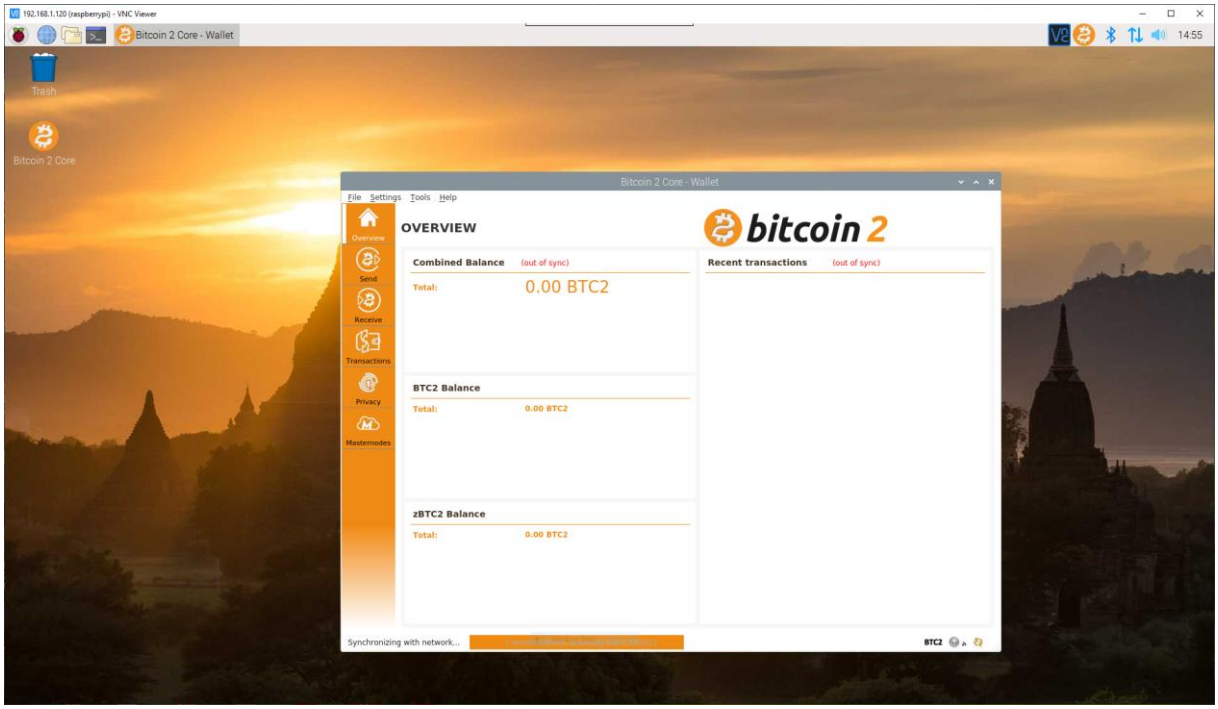
4. Start the Bitcoin 2 Core Wallet

Once you are on the Raspberry Pi the desktop, launch the **"Bitcoin 2 Core"** shortcut, and choose **“Execute”**



You can avoid this window in the file manager preferences : **“Edition” ► “Preferences”** ► Check **“Don't ask options on launch executable” ► “Close”**

The loading can take a few minutes until you see the Wallet **Overview,** then you will have to wait until the end of the synchronization : blue icon on the bottom right BTC2

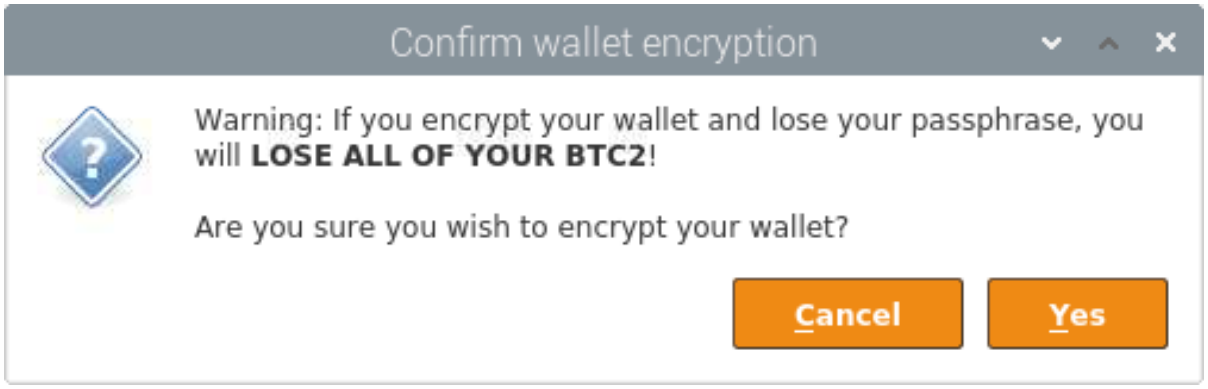


5. Secure your Bitcoin 2 Core Wallet

When synchronization will be finished, to avoid an unknown access to your Raspberry Pi and a transfer of your BTC2, you will need to encrypt your wallet.

Go to **“Settings” ► “Encrypt Wallet…”**

Choose a password you know well because if you lose it, you won’t be able to recover it. When you are ready, click “Ok” then “Yes”.

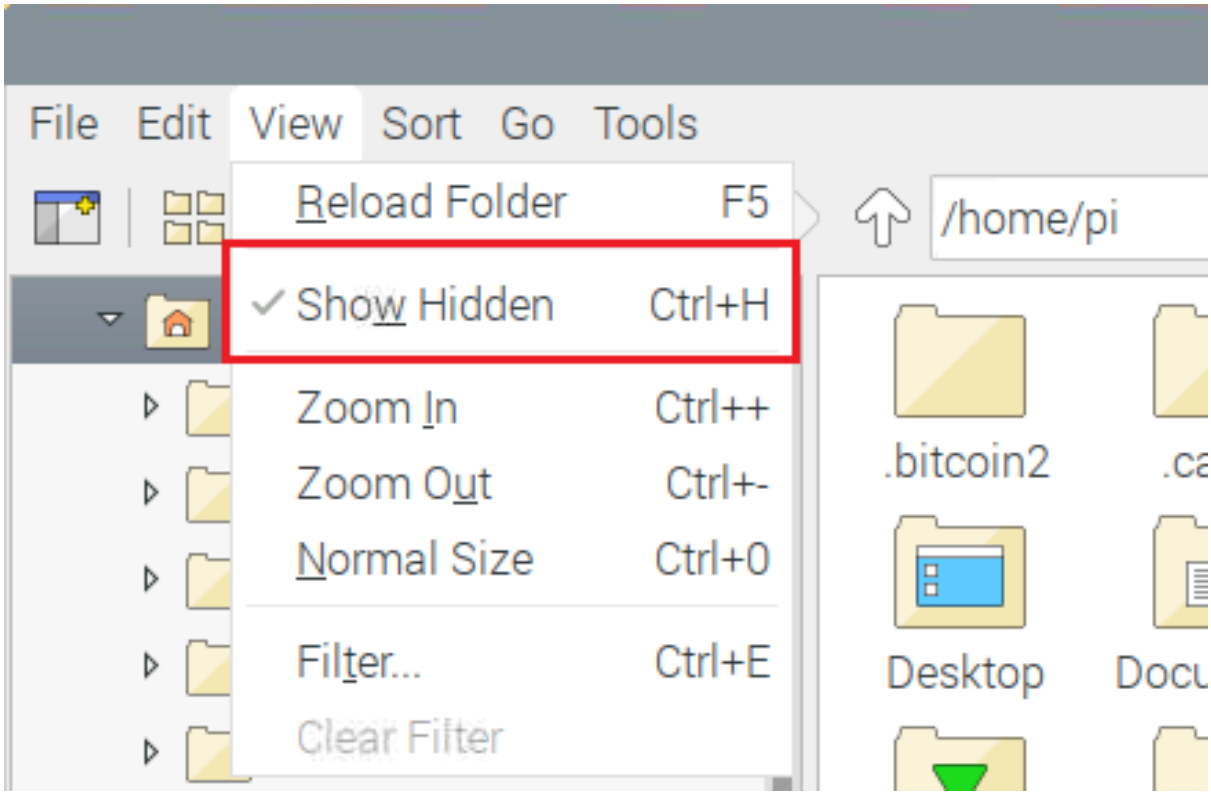


Encryption can take a few minutes, please wait, then click **“OK”** to finish the process and stop the Bitcoin 2 Core Wallet.

Once the shutting down is complete, you should make a backup of your new encrypted wallet.

Plug in your USB flashdrive. At the **"Removable medium is inserted"** popup, click **"OK"** to open it with the File Manager.

Open the file manager to show the hidden folders and files :
"**View" ► check "Show Hidden"**



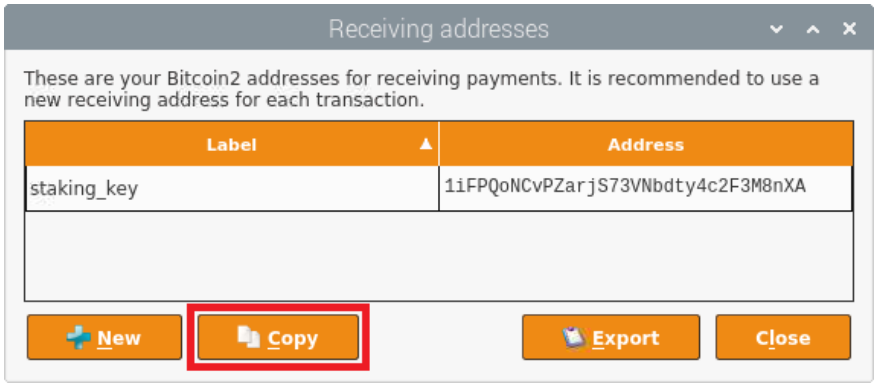
Go to the the **/home/pi/.bitcoin2/** folder, then copy and paste the **wallet.dat** file on your USB flashdrive.

There is an important last step to secure your wallet but you have to be sure the staking will be working first.

You will find this step at the end of this guide.

6. Start Staking

Start the Bitcoin 2 Core Wallet and check your public address : **“File” ► “Receiving addresses…” ► Click on the address then “Copy”**

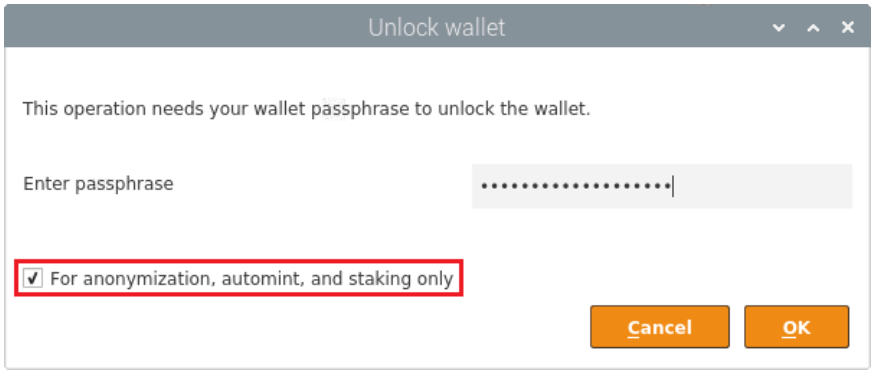


Send BTC2 to your new address from a computer, or an exchange, etc… You can paste the address through VNC.

Wait at least 1 hour and 42 minutes to get all the 101 confirmations required to get mature BTC2 and start staking.

When it’s ok, close properly your Bitcoin 2 Core Wallet : **“File” ► “Exit”** then restart it.

Unlock your Wallet **to start staking in secure mode** :
Go to **“Settings” ► “Unlock Wallet…”** enter your password and check the secure option for staking only, then nobody can transfer BTC2 in this mode.



After a few seconds, the wallet should start staking, and the up arrow on the bottom right will become green : 

Try to often verify the staking status by connecting to your Raspberry Pi. In case of a power outage, you could have to relaunch the Bitcoin 2 Core Wallet and reenter your password to enable staking.

NB : If you have mint coins from rewards waiting for the 101 confirmations, it is normal for staking to deactivate because the coins are immature to stake with. So if you have only one stake-able input, and that input creates a block, then until it matures, you're not staking.

The last important step is to delete the old backups

Do it only when you are sure that everything is working, and you know your password for sure.

To avoid having an old unencrypted wallet.dat used :
Go to the **/home/pi/.bitcoin2/backups** folder and delete all the files inside that folder.

If you have any questions or issues let us know in the **#🖥support** channel on Discord.