

How To Install Ubuntu From Usb

Introduction: Why Ubuntu and the USB Installation Method

Ubuntu, one of the most popular and user-friendly Linux distributions in the world, offers a powerful, secure, and versatile alternative to Windows or macOS. Whether you are a developer looking for a robust environment, a privacy-conscious user, or someone simply wanting to breathe new life into an aging computer, Ubuntu presents a compelling choice. The most common and efficient pathway to experiencing Ubuntu is through a bootable USB drive. Learning **how to install Ubuntu from USB** is a fundamental skill that opens the door to the vast ecosystem of open-source software. This guide will take you through every step of the process, from preparation to the final reboot, ensuring a smooth and successful installation.

What You Need Before You Begin

To ensure a trouble-free installation, you need to gather a few essential items. Preparing these in advance will save you time and frustration.

Essential Hardware and Software

- **A USB Flash Drive:** You will need a USB drive with at least 8 GB of storage capacity. 16 GB or larger is recommended if you plan to create a persistent storage drive for trying Ubuntu before installing. Note that all data on this drive will be erased during the process.
- **A Computer to Install On:** Any desktop or laptop that meets Ubuntu's minimum system requirements will work. Most computers from the last decade are compatible.
- **A Separate Computer to Create the USB:** You will need a working computer with internet access to download the Ubuntu ISO file and create the bootable USB drive.
- **Ubuntu ISO File:** Download the latest Long Term Support (LTS) version of Ubuntu from the official website. The LTS version is recommended for its stability and extended support. Look for the file ending in **.iso**.
- **USB Creation Software:** You will need a tool to write the ISO file to your USB drive. Popular free options include **Rufus** (Windows), **Balena Etcher** (Windows, macOS, Linux), and **Startup Disk Creator** (Linux).

Back Up Your Data

This cannot be overstated: **back up any important data on your target computer**. Installing a new operating system typically involves partitioning the hard drive, which carries a risk of data loss. Also, remember that all data on the USB drive you are using will be destroyed. Ensure you have copies of your personal files, documents, and photos stored on an external drive or cloud service before proceeding.

Step 1: Downloading the Ubuntu ISO File

Visit the official Ubuntu website and navigate to the download section. You will be presented with several options. Choose **Ubuntu Desktop** and select the latest LTS version. The ISO file is typically around 4.5 GB, so ensure you have a stable internet connection. While the download is in progress, you can proceed to prepare your USB creation tool. Always verify the SHA256 checksum of your downloaded file if you want an extra layer of security, though this is optional for most users.

Step 2: Creating a Bootable USB Drive

Creating the bootable drive is the most critical step in learning **how to install Ubuntu from USB**. The method varies slightly depending on your operating system.

Using Balena Etcher (Works on Windows, macOS, and Linux)

1. Download and install Balena Etcher from its official website.
2. Insert your USB drive into the computer.
3. Open Balena Etcher. Click on **Flash from file** and select your downloaded Ubuntu ISO file.
4. Click on **Select target** and choose your USB drive from the list. Double-check that you have selected the correct drive to avoid wiping another disk.
5. Click the **Flash!** button. The tool will first format the drive and then write the ISO contents to it. This process may take several minutes. Once complete, Etcher will automatically verify the data integrity. You can safely close the program when it says "Flash Complete!"

Using Rufus (Windows Only)

1. Download Rufus from its official website (it is a portable application, no installation required).
2. Insert your USB drive and launch Rufus. It will automatically detect your USB drive.
3. Under **Device**, confirm the correct USB drive is selected.
4. Under **Boot selection**, click **SELECT** and locate your Ubuntu ISO file.
5. Keep the default partition scheme (MBR for BIOS or UEFI-CSM) and target system (UEFI or BIOS) unless you have specific requirements. For most modern computers, GPT partition scheme with UEFI target is recommended.
6. Click **START**. You may be prompted to choose between writing in ISO Image mode or DD Image mode. Select **Write in ISO Image mode** (recommended).
7. Rufus will warn you that all data on the drive will be destroyed. Click **OK** to proceed. The process will take a few minutes.

Step 3: Booting from the USB Drive

With your bootable USB drive ready, the next step is to tell your computer to start from it.

Accessing the Boot Menu or BIOS/UEFI

Restart your computer. As the screen lights up, you will need to press a specific key repeatedly to access the boot menu. This key varies by manufacturer but is commonly **F12**, **F9**, **Esc**, or **F8**. Alternatively, you can enter the BIOS/UEFI setup (often with **F2**, **Del**, or **F10**) and change the boot order so the USB drive is first.

Once you see the boot menu, a list of drives will appear. Use the arrow keys to highlight your USB drive (it may be listed by its brand name or as "USB HDD") and press **Enter**. The computer will then load the Ubuntu environment directly from the USB.

Secure Boot Considerations

Some modern computers, especially those with Windows 10 or 11, have a feature called **Secure Boot**. Ubuntu supports Secure Boot, so you should not need to disable it. However, if you encounter a blank screen or an error, you may need to enter your BIOS/UEFI and temporarily disable Secure Boot. After installation, Ubuntu will work with Secure Boot enabled in most cases.

Step 4: Trying Ubuntu Before Installing

When the USB boots successfully, you will see a welcome screen with two options: **Try Ubuntu** and **Install Ubuntu**. For a first-time user, selecting **Try Ubuntu** is a great way to test the system. This loads a fully functional Ubuntu desktop directly from the USB drive, allowing you to browse the web, check hardware compatibility, and get a feel for the interface. None of your changes will be saved unless you choose to install. When you are ready, you can launch the installation by double-clicking the **Install Ubuntu** icon on the desktop.

Step 5: The Installation Process

The Ubuntu installer is intuitive and guides you through the process step by step. Here is what to expect.

Language and Keyboard Layout

Select your preferred language and keyboard layout. English (US) is the default, but you can choose your regional variant. This can be changed later, so do not worry if you are uncertain.

Normal or Minimal Installation

The installer offers two options. **Normal installation** includes a full set of software, such as office tools, games, and media players. **Minimal installation** only includes a web browser and basic utilities, saving space and allowing you to install only what you need later. Choose based on your preferences.

Installation Type and Disk Partitioning

This step is crucial for learning **how to install Ubuntu from USB** correctly. You have several choices:

- **Erase disk and install Ubuntu:** This will wipe your entire hard drive and install Ubuntu as the only operating system. This is the simplest option if you no longer need Windows or other OS.
- **Install Ubuntu alongside Windows (or another OS):** This creates a dual-boot system. The installer will automatically resize your existing partitions and create space for Ubuntu. You will be able to choose which OS to boot into at startup.
- **Something else:** This gives you full manual control over partitioning. It is intended for advanced users who want to create dedicated partitions for / (root), **/home**, and **swap**. If you are new to Linux, stick with one of the automatic options.

Select the option that best suits your needs and click **Install Now**. A confirmation box will appear showing the changes that will be made to your disk. Verify the information carefully, then click **Continue**.

Time Zone, User Account, and Password

Select your location on the map or type your city to set your time zone. Then, create your user account. Enter your name, a username for the computer, and a strong password. You can choose whether to require a password to log in or to log in automatically. Automatic login is convenient for a personal laptop but less secure for shared or public computers.

Once you confirm your details, the installation will begin. A progress bar will show you the status. Depending on your computer's speed and the options you selected, this can take between 10 and 30 minutes.

Completing the Installation

When the installation finishes, a prompt will appear asking you to **Restart Now**. Click it, and the computer will reboot. You may be asked to remove the USB drive when the screen goes black or when you see a message saying "Please remove the installation medium." Remove the USB drive and press **Enter**.

Post-Installation: First Steps in Ubuntu

Congratulations! You have successfully learned **how to install Ubuntu from USB**. After the reboot, you will be greeted by the login screen. Enter the password you created earlier.

Updating Your System

The first action you should take is to update your system. This ensures you have the latest security patches and software improvements. Open the **Software & Updates** application or run the following commands in a terminal (press **Ctrl+Alt+T** to open the terminal):

```
sudo apt update
sudo apt upgrade
```

Enter your password when prompted. This may take a few minutes as it downloads and installs new packages.

Installing Additional Drivers

Ubuntu will likely work out of the box with most hardware. However, for optimal performance, especially with graphics cards and Wi-Fi adapters, you may want to check for proprietary drivers. Go to **Software & Updates** and click the **Additional Drivers** tab. If any drivers are listed, select the recommended option and click **Apply Changes**.

Troubleshooting Common USB Installation Issues

Even with careful preparation, you might encounter a few hiccups. Here are some common problems and solutions.

The Computer Does Not Boot from USB

If your computer ignores the USB drive and boots into your existing OS, the boot order may not be correctly set. Restart, access your BIOS/UEFI, and ensure the USB drive is at the top of the boot priority list. Also, make sure Secure Boot is enabled (Ubuntu supports it) or try disabling it temporarily. If you are using a USB 3.0 port, try a USB 2.0 port, as some older computers have issues booting from USB 3.0.

The USB Drive Is Not Recognized

If the USB drive does not appear in the boot menu, it may not have been created correctly. Try remaking the drive using a different tool, such as switching from Rufus to Balena Etcher or vice versa. Ensure the ISO file was not corrupted during download by verifying its checksum.

Black Screen or Freeze During Boot

This is often related to graphics drivers. When you see the GRUB boot menu