

How to restore Master Boot Record in Windows 10

Master Boot Record (MBR) is a special type of boot sector found when starting the system partition. MBR informs about the upcoming boot process such as partition distribution, size, file system, etc. A MBR traditionally contains a small part of executable code, turning the boot process into the appropriate operating system. .

Master Boot Record (MBR) is a special type of boot sector found when starting the system partition. MBR informs about the upcoming boot process such as partition distribution, size, file system, etc. A MBR traditionally contains a small part of executable code, turning the boot process into the appropriate operating system. .

1. How is GPT and MBR different when partitioning a drive?

However, the MBR may be corrupted or disappear for a number of reasons, causing Windows 10 installations to fail. This article will show you some ways to fix the Master Boot Record error in Windows 10.

Cause Windows 10 does not boot

How do you know when the MBR occurs? This is when you cannot start Windows and receive an error message on the screen indicating ' **Missing operating system** ', ' **MBR error** ', ' **Error loading operating system** ', ' **Invalid partition table** ' or similar message.

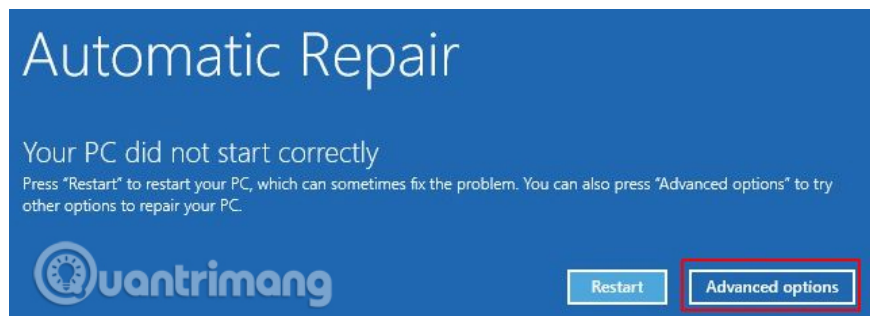
There are many reasons for this problem, in which broken drivers are the most common cause. In recent years, some ransomware versions attack Master Boot Record to force victims to pay to ensure their system safety. However, this type of ransomware is very rare, in addition to other malicious software that directly change the MBR causing more serious damage.

1. Instructions to fix Windows error does not boot

How to fix Windows Master Boot Record problem

1. Boot repair through Windows Automatic Repair

When you first boot into Windows 10, the system will detect the problem and switch to Automatic Repair mode. The screen will display **Your PC did not start correctly** . On this screen, select **Advanced options> Troubleshoot> Startup Repair** .



Windows 10 Startup Repair tool is completely automatic, although it will take time to complete, but it will fix your Windows 10 MBR problems.

1. How to use Windows Repair to fix Windows errors

2. Command Prompt through Windows Automatic Repair

If the Windows 10 Startup Repair process does not fix the MBR problem, or wants a direct and faster way to repair the system, you can use Command Prompt through Automatic Repair. When the system detects a problem and the Automatic Repair screen appears, select **Advanced Options**> **Troubleshoot**> **Command Prompt**.


You will use the **bootrec.exe** tool to fix the corrupted MBR. Bootrec has a series of commands designed to restore the boot process.

```
C:\> Administrator: X:\windows\SYSTEM32\cmd.exe
Microsoft Windows [Version 10.0.14955]

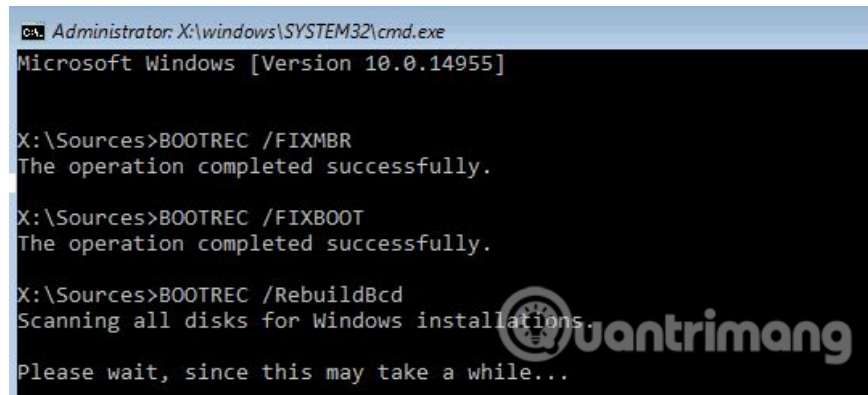
X:\Sources>BOOTREC /FIXMBR
The operation completed successfully.

X:\Sources>BOOTREC /FIXBOOT
The operation completed successfully.

X:\Sources>_
```



Type **bootrec.exe / fixmbr** and press **Enter** , then type **bootrec.exe / fixboot** and press **Enter** . You will see **The completed completed operation** below each command. If you don't see the operation completion message and receive an error, enter **bootrec.exe / rebuildbcd** and press **Enter** . The '**rebuildbcd**' command will rebuild the Boot Data Data system (BCD).

A screenshot of a Windows command prompt window. The title bar reads "Administrator: X:\windows\SYSTEM32\cmd.exe". The window content shows the following text:

```
Microsoft Windows [Version 10.0.14955]

X:\Sources>BOOTREC /FIXMBR
The operation completed successfully.

X:\Sources>BOOTREC /FIXBOOT
The operation completed successfully.

X:\Sources>BOOTREC /RebuildBcd
Scanning all disks for Windows installations.
Please wait, since this may take a while...
```

A watermark for "Juantrimang" is visible in the bottom right corner of the screenshot.

However, this method does not always work right on the first try. In this case, Microsoft suggests that you export the BCD repository (where the boot data is stored) and rebuild from scratch. Thankfully this process only takes a few minutes.

Enter the following order in order:

```
bcdedit /export c:\bcdbackup c: cd boot attrib bcd -s -h -r ren c:\bootbcd bcd.old
```

The export and rebuild process will completely fix MBR issues. Windows 7 and earlier users can also use the **bootrec.exe / scanos** command to scan and repair an old BCD installation.

If you cannot access Command Prompt through Automatic Repair

In case of not seeing Windows 10 Automatic Repair screen, you need to use Windows installation media to boot into repair mode. If no boot media is available, you need to find another Windows system to create a boot media.

However, there is another solution you can try if there is no Windows USB drive installed. You can trick the system into thinking that there is a boot error by turning on the power, then turn off the power when the Windows logo appears. After repeating this process three times in a row, Automatic Repair will be activated. Note, this way may not work for everyone, depending on your system.

3. Troubleshoot MBR problems in Windows using GParted Live

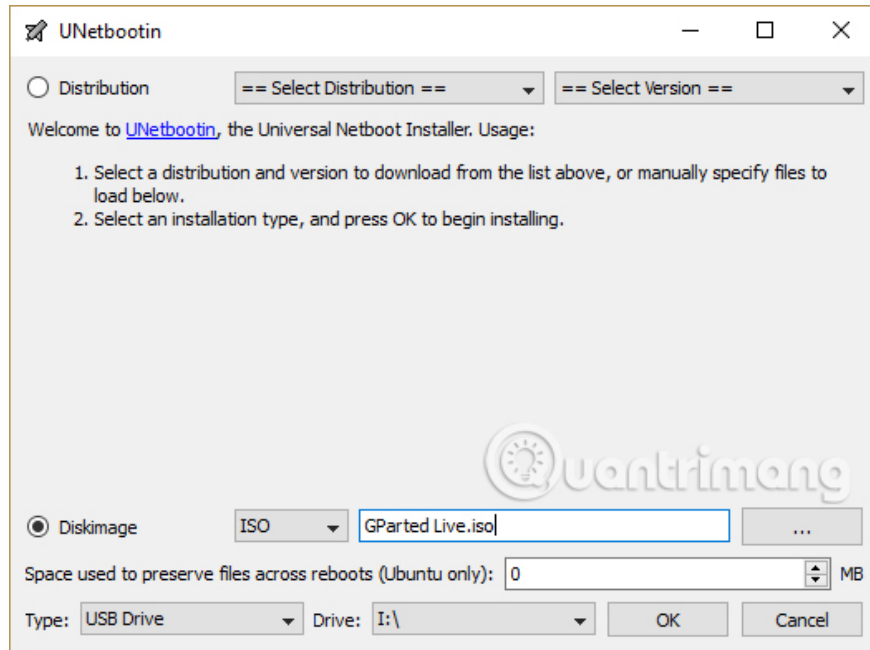
GParted Live is a bootable Linux distribution with a focus on partition management. However, it also allows you to work on Windows partitions outside of the operating system, which means you can repair and restore MBR problems. To do this, you need an alternative system.

Download GParted Live

First, you need to download GParted Live, there are two versions available. If using a 32-bit system, select i686.iso version. This version works on both 32 and 64 bit systems, although there are some limitations. If using a 64-bit system (and you're sure it's a 64-bit system) download the amd64.iso version.

Record GParted Live on boot media

Next, you need to write the disc image to the type of bootable media. You must also download UNetbootin to be able to implement this method. Open UNetbootin, select **Diskimage** at the bottom of the control panel, then click on the three dots icon to browse to the **GParted Live ISO** file .



Select **ISO** and click **Open** , then select the USB flash drive you want to burn GParted Live and click **OK** . Once completed, delete the device that can start and shut down the system.

Boot into GParted Live

Plugging in the GParted Live media can boot into a system with an MBR error. Power on the system, press the shortcut to the boot process to bring up the boot device selection menu. You will see the GParted Live media is the boot source here, select it and wait for the media download. You will have to make a few small choices, such as language and mode of operation.

Use GParted Live and TestDisk to fix MBR

When the GParted Live environment loads, open a Terminal window, type **sudo fdisk -l** and press **Enter** . This command will list all available drives and partitions on your system. Now, open a new Terminal window, type **testdisk** , then select **No Log** .

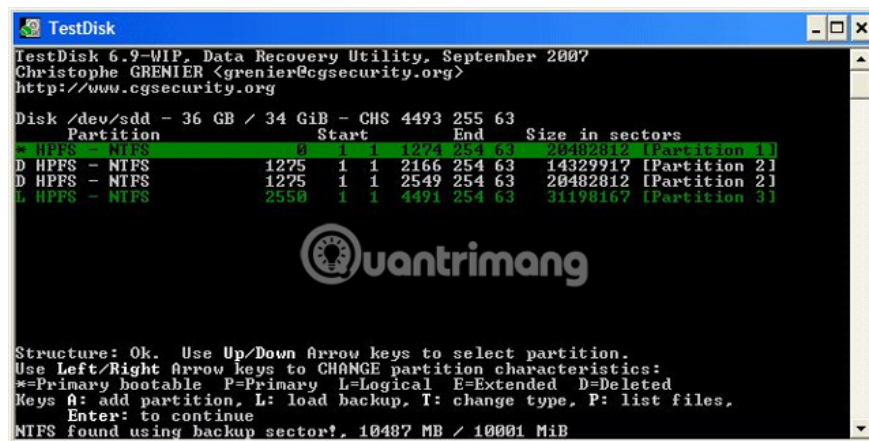
Next, it will ask you which drive you want to repair, select your drive, then press **Proceed** . Now, select the partition table type. In this case, select **Intel / PC partition** and press **Enter** .



Select **Analyze** , then select **Quick Search** .

TestDisk will scan your drive to find any existing and deleted partitions. Scanning may take several minutes depending on the size of the drive. Finally, it will identify your main system partition. If the scan does not display all partitions, select **Deeper Search** . In addition, GParted will give you a short list of errors.

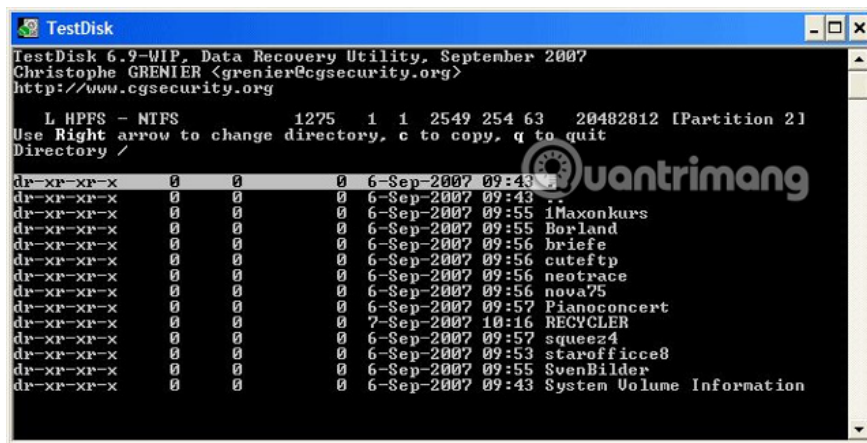
If all partitions appear with correct flags (such as booting, scaling, and rational), **Write** (write) to the partition table. If the flag is incorrect, convert them with the arrow keys. For example, in the screenshot below, the first image shows a drive with a duplicate second partition ([Partition 2]). Move through the partition and press **P** to see the file appear on that partition.



The first duplicate partition is corrupted, because the message **Cannot open filesystem. Apparently damaged file system** .



The second duplicate partition contains the list of file directories and therefore is the correct partition.



The flag for the repeater partition is first set to **D** for **Delete**, while the second repeater partition is set to **L** for **Logical**, restoring its partition and data to the drive. When returning to the TestDisk menu, select **MBR Code** to write the standard MBR for your drive and confirm.

That's it, you can close the Terminal window, log out of GParted Live and turn off the system, delete the GParted Live boot media and boot the system.

4. Troubleshoot MBR problems in Windows by using Boot Repair Disk

Boot Repair Disk is another extremely handy Linux distribution you can use to fix Windows 10 MBR problems. The actual Boot Repair Disk has a GParted copy, but it simplifies the recovery process. MBR into a program with easy conversion boxes.

First, download a 64-bit or 32-bit version of Boot Repair Disk, depending on your system. As with the GParted Live image, the 32-bit version only works for 32-bit systems and 64-bit versions that work on both systems.

Write Boot Repair Disk to boot media

Next, you need to write the discs image to the boot media and download UNetbootin. Open UNetbootin, select **Diskimage** at the bottom of the control panel, then click the three dots icon to browse to the ISO Boot Repair Disk file.

Select **ISO** and click **Open** , then select the USB flash drive you want to burn Boot Repair Disk and click **OK** . Once completed, delete the device that can start and shut down the system.

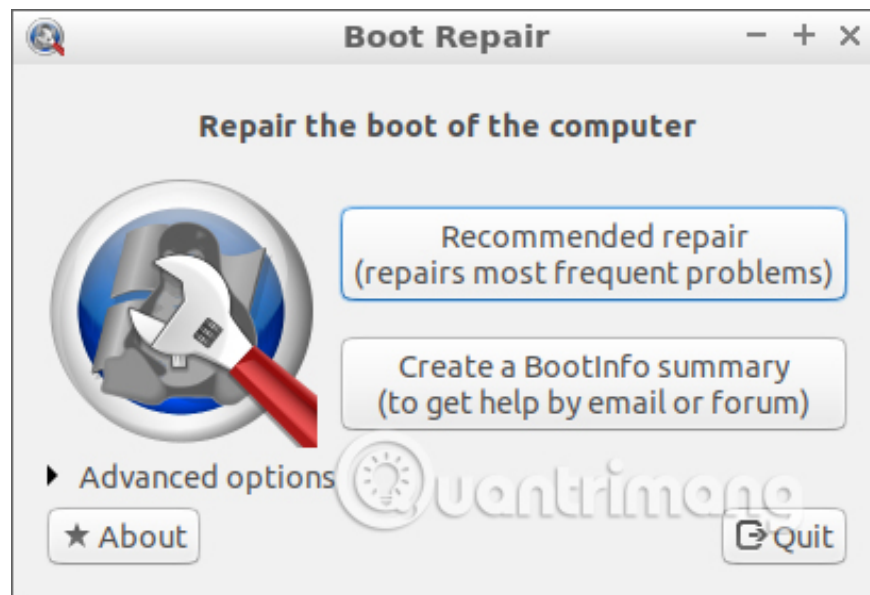
Boot into Boot Repair Disk

Plug the Boot Repair Disk into the system where the MBR is broken. Turn on the power, press the boot process shortcut to display the boot device selection menu. You will see a USB flash drive or a Boot Repair Disk disc as the boot source, select it and wait for the media to load.

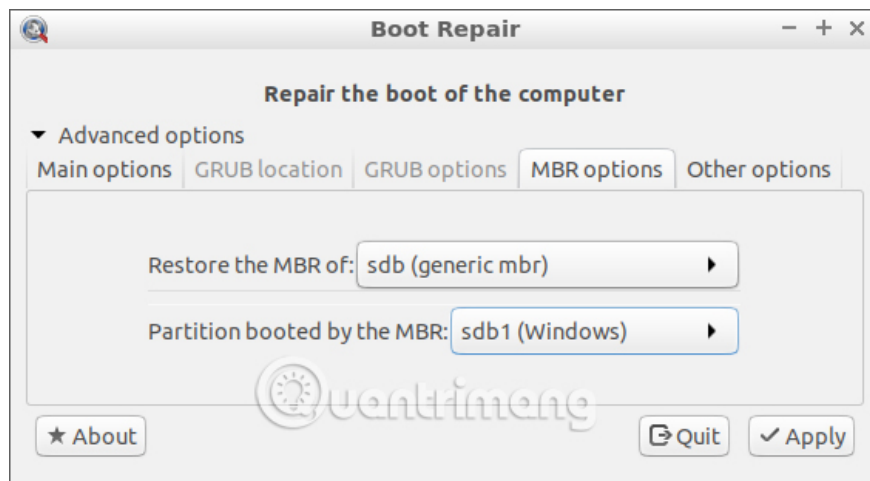
Use Boot Repair Disc to fix MBR

When Boot Repair Disk environment loads (Boot Repair Disk uses light Ubuntu environment), select **LXTerminal** from the task bar. Type **fdisk -l** and press **Enter** to list the current drives and partitions.

Next, select the **B** icon in the bottom right corner (where the Windows Start menu is active), and go to System Tools> Boot Repair. The program will scan the system, then you can choose an **Automatic** repair session or see **Advanced Options** . First, try the Automatic repair option. Automatic repair can fix most startup errors immediately.

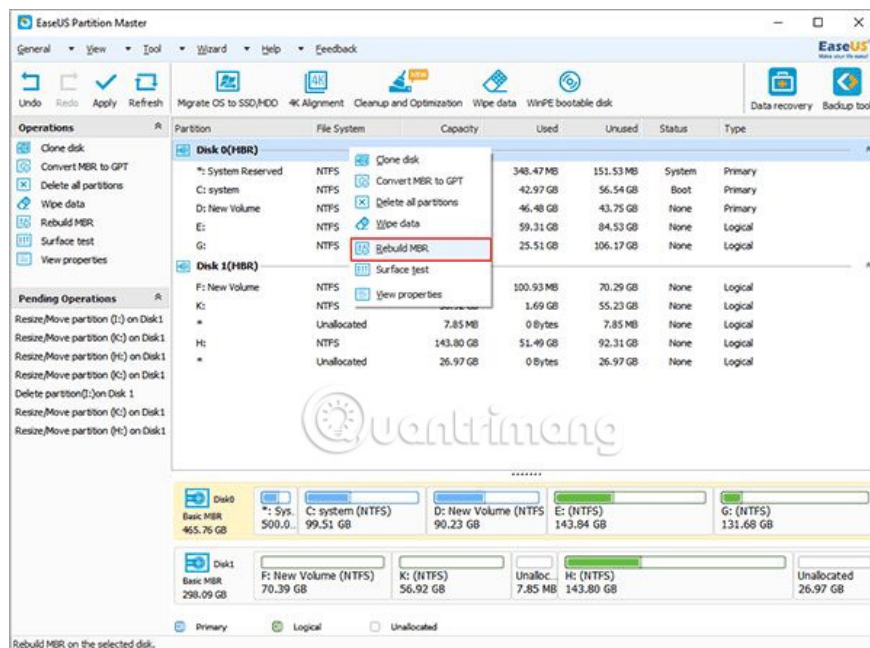


If this option does not work, open **Advanced options** and access the **MBR options** tab. View the list of drives, pre-created partitions in the LXTerminal section and find your Windows boot partition. Boot Repair Disk marks them a bit more clearly than the basic GParted Live command. After making sure, click **Apply** then reboot the system.



5. Fix MBR problems by using EaseUS Partition Master

The final fix requires you to remove the physical drive from the system. When deleting the drive, you can connect it to another system using EaseUS Partition Master to fix the MBR problem.



Download and install EaseUS Partition Master, then connect the drive. Select the external drive (labeled **MBR**), right-click it and then select **Rebuild MBR** and click **Apply** in the top right corner and wait for the process to complete. Delete the drive and then reinstall it on the original system and reboot.

These five options are the best and fastest method to fix corrupted Windows 10 MBR and many of the methods here work on older Windows versions (especially methods 2 and 3).

I wish you all success!

See more:

1. 5 free software to help restore the MBR system

2. How to check the standard hard drive of GPT or MBR
3. How to fix "The disk selected has an MBR partition table" when installing Windows

You finished reading the article "**How to restore Master Boot Record in Windows 10**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.
