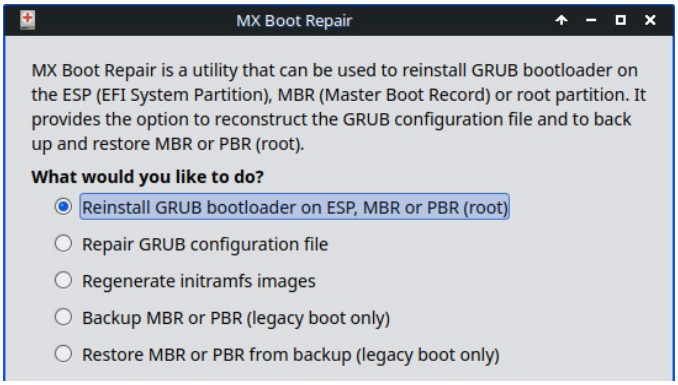
HELP: MX Boot Repair

MX Boot Repair is a GUI app that can be used to recover from boot failure.

Some definitions:

- **MBR**: Installation in the hard drive's Master Boot Record (at the hard drive level).
- **PBR**: Installation in the partition's boot sector (partition level) - useful for multi-boot.
- **ESP**: Installation on the EFI system partition (UEFI only).

Getting started



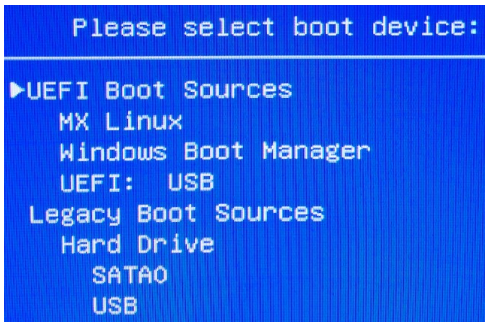
Repair GRUB configuration file – repair the bootloader by regenerating the GRUB configuration file is the most common use of this application, turned to when it is not possible to boot into any partition.

- Boot with a MX Linux 25 USB.
- Click Start Menu ➢ MX Tools ➢ MX Boot Repair.

To repair a UEFI installation with this app, you MUST be booted in UEFI mode.

To find your boot mode: run the MX app Quick System Info. The last line is your Boot Mode.

Example at right of a One Time Boot Menu ▸UEFI Boot Sources



Repair GRUB configuration file

1. Boot MX Linux USB. Run MX Boot Repair.
2. Select: ◉ Repair GRUB configuration file. Click '➔ Next'.
3. On the '**Select GRUB location**' screen in 'Select root location:' choose the MX Linux / partition.
4. Click '✔ Apply'.
5. In the '**Authenticate**' pop-up enter 'demo' for the 'Password:' prompt and click 'Authenticate'.
6. A pop-up appears: 'The GRUB configuration file (grub.cfg) is being rebuilt'.
7. When '**Success**' popup asks: 'Do you want to exit MX Boot Repair?' click '✔ Yes'.

UEFI PC boot repair

Reinstall GRUB bootloader:

1. Boot MX Linux USB. Run MX Boot Repair.
2. Select: '◉ Reinstall GRUB bootloader on ESP, MBR or PBR (root)'. Click '➔ Next'.
3. On the Select Boot Method: (The volume label 'ESP' is included as a hint.)
   - For '**Install on:**' choose '◉ ESP'.
   - Set '**Location**: ☂' to the ESP aka EFI partition.
   - Set '**Select root location**: ☂' to the partition where MX Linux is installed.
4. Click '✔ Apply'.
5. In the **Authenticate** pop-up enter 'demo' for the 'Password:' prompt and click 'Authenticate'.
6. A pop-up '**Select /boot location**: ☂' asks you to choose: If no encryption is in use, choose the ESP / EFI and then click '✔ OK'.
7. Select the ESP aka EFI partition (if encryption isn't in use) with the ☂ and then click '✔ OK'.
8. MX Boot Repair runs: 'GRUB is being installed on <device> drive'.
9. When '**Success**' asks: 'Do you want to exit MX Boot Repair?' click '✔ Yes'.

Legacy/MBR PC repairs

Note: repair the bootloader by regenerating the GRUB configuration file is the most common use of this application and should be attempted first.

Reinstall GRUB bootloader:

1. Boot MX Linux USB. Run MX Boot Repair.
2. Leave selected: '◉ Reinstall GRUB bootloader on ESP, MBR or PBR (root)'. Click '➔ Next'.
3. On **Select Boot Method**:
4. For 'Install on:' choose '◉ MBR'.
5. Set 'Location: ☂' to the drive. **Note**: the drive make and model is included as a hint.

6. Set 'Select root location: ☂' to the / drive partition – **Note**: the partition label is shown as a hint.
7. Click '✔ Apply'.
8. In the '**Authenticate**' pop-up enter 'demo' for the 'Password:' prompt and click 'Authenticate'.
9. A pop-up '**Select /boot location**: ☂' asks you to choose:

   If a **GPT** type Partition Table is in use, pick the '1 M' partion. Click '✔ OK'.

   If a **MBR** type Partition Table is in use, click 'Cancel'.
10. When '**Success**' asks: 'Do you want to exit MX Boot Repair?' click '✔ Yes'.

Legacy PCs boot ability can be restored with two additional functions:

Backup MBR or PBR (legacy boot only). And Restore MBR or PBR from backup.

Regenerate initramfs images

Use this option to repair corrupt or missing initramfs image files in /boot.

- Select 'Regenerate initramfs images' and click → Next.
- In the 'Select initramfs options' set the 'Select root location' to the device being repaired. Click ✔Apply.
- In the '**Authenticate**' pop-up enter 'demo' for the 'Password:' prompt and click 'Authenticate'.
- The files will take some time to be regenerated.

From the `man update-initramfs`:

> `The update-initramfs script manages your initramfs images on your lo-cal box. It keeps track of the existing initramfs archives in /boot. There are three modes of operation create, update or delete. You must at least specify one of those modes.`
>
> `The initramfs is a gzipped cpio archive. At boot time, the kernel unpacks that archive into RAM disk, mounts and uses it as initial root file system. All finding of the root device happens in this early userspace.`