

Boot Problems – potential fixes

TIP: Before first boot disconnect all external peripherals (USB drives, docks) before booting.

Before first boot

USB can NOT boot

Pressing the PC maker's One Time Boot menu key (F12) doesn't let the PC boot.

- Verify on another PC that the USB you created boots to the desktop and shows the Welcome screen.
 - Some USB 'burning' apps make only Legacy or UEFI boot able on some PCs. Try [Rufus](#) or [Ventoy](#) app.
- PC [business grade] has a setting by USB port to not allowing booting. Change it to allow.
- Some older PCs older allow USB booting only on certain USB ports.
- Very old (>20 yrs) PCs (PC may be 32-bit – try MX 23 386 edition):
 - Can only boot from CD/DVD or expansion card USB port.
 - Rufus - click '☐ Show advanced drive properties', check 'Add fixes for old BIOSes (extra partition, align, etc.)', then click START.

Black screen no/blinking cursor

This may happen that you end up looking at an empty black screen that may have a blinking cursor in the corner. This represents a failure to start X, the windows system used by Linux, and is most often due to problems with the graphics driver being used.

Reboot. Select >>> Advanced Options <<< then Failsafe options:

This launches a "failsafe" or "safe video" mode to load one of these boot parameters:

```
failsafe, failsafe nomodeset, load=all, noxorg, xorg=modesetting, xorg=safe
```

Arrow down, select one and press enter.

This will move you back one screen with Failsafe options: <your selection> Resume booting.

If this proves to be successful a Save options: choice is also present on this screen.

More of these cheat codes for Live USB can be found in the MX Wiki. Cheat codes for booting an installed system are different, and can be found in the same location.

“EFI variables are not supported on this system” – in terminal (CTL-ALT-T), run efibootmgr. A list should be presented for UEFI PC. An error: “EFI variables are not supported on this system” for a Legacy PC is

normal. The fix is to work entirely in one mode or the other, not a mix. Usually caused by CSM/Legacy being enabled.

Secure Boot enabled/disabled. “MX Linux has been blocked by the current security policy.” (or similar)

- When enabled, Secure Boot can prevent MX Linux 21/MX Linux 23 (any edition) from booting.
- MX Linux 25 - Secure Boot enabled is supported **only** on Xfce (not AHS) and Fluxbox editions.
- Despite well intended online guides recommendations on TPM:
 - TPM aka Trusted Platform Module **must** be ENABLED. It might be called PTT (Platform Trust Technology) for Intel or fTPM (firmware TPM) for AMD.
 - Security certificates **MUST** be present – do NOT delete them. Usually 2, Microsoft & PC maker's.

Boot Path security

This is a part of Secure Boot or Security settings in PC firmware.

- Set to 'Custom' to allow non-Microsoft EFI file path.

Grub can NOT be installed – The partition that is selected for ESP partition **MUST** have a pre-existing format.

After Installation - 1st boot

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An easy potential fix - Only a login prompt. Is the / disk full?

Nvidia graphics card driver issues

With older Nvidia cards and 340/390 drivers and Plymouth (used to display a graphic on the splash screen).

Try this: If you have the Nvidia drivers loaded. Edit the Grub screen and add to the Linux run line (right after quiet and splash, add the parameter 'single' (without quotes) and see if you get a boot.

If you get up to the desktop, try the following as a test:

```
sudo apt purge plymouth plymouth-themes
sudo update-initramfs -u
sudo update-grub
```

If this turns out to be successful remove the 'single' Kernel parameter and reboot.

On the RTX, the issues were smaller; sometimes DRM would present problems during startup or when updating the drivers. I added these lines:

```
nvidia-drm.modeset=1 nvidia-drm.fbdev=1
```

It was not necessary to remove Plymouth.

The problem for the GTX config, is with "nomodeset" than it is OK for X11 but not with Wayland.

But maybe after the nvidia install, it is possible to remove "nomodeset" and instead add "nvidia-drm.modeset=1 nvidia-drm.fbdev=1" .

Above source: <https://forum.mxlinux.org/viewtopic.php?t=88621>

In MX Boot Options try nomodesetting Kernel parameters. Other codes are in the [MX Wiki](#).

'**Grub rescue>-**' or **Grub>** prompt – [detailed troubleshooting help](#)

“The 'wrong' entry that [the] Grub [menu] presented was chosen. Boot MX from USB, run UEFI Manager and remove the entries from previous installs.” Use the MX Tools app UEFI Manager to remove any invalid entries and reboot.
(src:MX Forum)

i915 onboard Intel video - Kernel boot parameters (use MX Boot Options) may be needed to overcome. Example: i915,invert_brightness=1 Symptome is brightness DOWN key RAISES screen brightness.

Low resolution - try a different/reinstall video driver. Use a xrandr workaround (use caution).

Screen tearing - In MX Tweak, Miscellaneous tab: check “Use intel driver...” The graphics driver entries vary depending on what video adapter is installed on the system. If a intel graphics board is detected, the user will be presented with the option show above, which will force the system to use the “intel” driver rather than the debian default “modesetting” driver. The “intel” configuration also includes a “tear free” option that many find helps with screen tearing.

MX Tweak, Compositor tab – try a different (more robust) Compositor.

"No boot device found" after OS install:

Happens if you install Windows 10/11 or Linux on a system (especially those with 7th Gen Intel+ CPUs) that *requires* UEFI, but it's set to Legacy mode (or vice versa), making the OS unbootable, requiring a reinstall in the correct UEFI mode. **Force UEFI:** On newer Dells (7th Gen+), the OS *must* be installed in UEFI mode; reinstall if you used Legacy.

“No OS found” –

- With a Legacy installation in the PCs BIOS, check that the Hard Disk Boot Order has the drive MX Linux was installed on as the first in the listing.
- UEFI install – see Boot Path Security in earlier 'Before first^t boot' section of this document.

Windows only – no Grub menu

- Boot with MX Linux USB, run MX Boot Options & verify MX Linux is in listing, at the top of the listing and the Timeout: is some number, that is not 0.

Windows starts, but I have to use F-12 / F-9 key to get the Grub menu – see above.

Getting more support – if you have read this far and have not found a solution, visit the [MX Linux Support Forum](#). Create a post and share the mininstall.log which is found in Quick System Info app. This has developer troubleshooting value and should be pasted into a help request at the MX Support [Forum](#). Use the 'Copy for forum' button.

Please direct ALL support requests to the MX Linux Forum -- <https://forum.mxlinux.org/>

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