# How to Update BIOS from USB Drive

The instructions below guide you through the manual upgrade of your BIOS, which requires certain computer skills. Alternatively, for a simpler solution, visit the Khadas official website (khadas.com/mind/support) to download the most recent version of the Mind App, and then use the app to update the BIOS and EC firmware with several clicks.

M 🚺	ind		
	Mir 19%	nd	
	í	Device Info	~
	Ś	No Adapter Power Mode After removing power, the device enters sleep mode. When fully charged, it can stand by for 25 hours.	Sleep ~
	$\diamond$	Device Upgrade	^
		Windows Upgrade	Check for updates
		EC firmware Upgrade Current Version:1.1	Check for updates
		BIOS Upgrade Current Version:1.0	Check for updates

## Step 1:

1. Download the BIOS file (mind-bios-vx.zip) and then decompress the file.

# Step 2:

1. Prepare a USB drive with at least 8GB of space and format it to FAT32. Note: Right-click on the USB drive and select "Properties" to view the format information if you're unsure.

eneral Tools	Hardware	Sharing Customize	
-			
Type:	USB Drive		
File system:	FAT32		
Used space	:	35,782,656 bytes	34.1 MB
Free space:		31,404,703,744 bytes	29.2 GB
Capacity:		31,440,486,400 bytes	29.2 GB
		0	
		Drive D:	Details

#### Step 3:

- 1. Paste the EFI file to the root directory of the USB drive.
- 2. Paste the BIOS files and tool files to the root directory of the USB drive.

USB Drive (D:)	× +			—	$\times$
$\leftarrow$ $\rightarrow$ $\uparrow$ (	C 🖵 > USB Drive (D:) >		Search USB	Drive (D:)	Q
🕀 New 🗸 🔥	□ 🗋 @ 🖻 🔟 치 Sort	∽ ≡ View ∽ 🛆 E	ject •••		etails
A Home	Name	Date modified	Туре	Size	
🔁 Gallery	EFI	12/8/2023 10:47 AM	File folder		
> 📥 OneDrive	AfuEfix64.efi	4/18/2023 12:16 PM	EFI File	615 KB	
	🗋 fb.nsh	9/16/2023 12:25 PM	NSH File	1 KB	
🛄 Desktop 🔹 🖈	mind-bios-v1.0-230915.bin	9/15/2023 1:10 PM	BIN File	32,768 KB	
🚽 Downloads 🖈					
📑 Documents 🏾 🖈					
🔀 Pictures 🛛 🖈					
🕑 Music 🔹 🖈					
🛂 Videos 🛛 🖈					
> 💻 This PC					
> 📥 USB Drive (D:)					
> 🧤 Network					
4 items					

### Step 4:

1. Restart your computer and press F7.

2. Select the USB drive in the boot menu and press Enter key to boot the system from USB drive.



#### Step 5:

1. After entering the shell menu, input the command "fs3:" and press the Enter key.

Note: Depending on your system configuration, you may need to try different commands to locate your USB drive. You can start with "fs0:", then try "fs1:", "fs2:", and so on until you find the command that accesses your USB drive.

HardDisk - Allas hdi3d fs1 PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-: 
PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-1
T A49P19E1_PPE9_49E4_9EAE_E19666P769D9 69609666 697669966)
1, M42B13F1-BB35-46E4-5FME-E12006B762D3, 0x6C600, 0x77062600)
Removable HardDisk – <b>Alias hd17nOb fs2</b>
PciRoot(0x0)/Pci(0x14,0x0)/USB(0xD,0x0)/HD(1,MBR,0x888C4459,0x20,0>
HardDisk – <b>Alias (null)</b>
PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-:
T,9427E954-8825-4A7F-8E8A-0C7603DE6A12,0x64800,0x8000)
HardDisk — <b>Alias (null</b> )
PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-3
T,9F0527D3-D0D6-46E5-9996-F977E2B4CD6E,0x770CF000,0x2EE000)
BlockDevice – <b>Alias (null)</b>
PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-
Removable BlockDevice – Alias (null)
PciRoot(0x0)/Pci(0x14,0x0)/USB(0xD,0x0)
Removable BlockDevice – Alias (null)
PciRoot(0x0)/Pci(0x14,0x0)/USB(0xF,0x0)/USB(0x2,0x0)
Removable BlockDevice – Alias (null)
PciRoot(0x0)/Pci(0x14.0x0)/USB(0xF.0x0)/USB(0x2.0x0)/Unit(0x1)

# Step 6:

1. Input the command "dir" and press the Enter key. The BIOS file and the execution tool will be displayed on the screen.

b1k5	:BlockDevi	ice – Alias	(nu11)		
	PciRoot(C	0x0)/Pci(0x8	6,0x2)/Pci	(0×0,0×0)/NVMe(0×1,80-C4-	98-4E-8B-44-1B
00)					
b1k6	:Removable	e BlockDevi	ce – Alias	(null)	
	PciRoot(C	0x0)/Pci(0x:	14,0x0)/US	B(0×D,0×0)	
b1k7	:Removable	e BlockDevi	ce – Alias	(null)	
	PciRoot(C	0x0)/Pci(0x:	14,0x0)/US	B(0xF,0x0)/USB(0x2,0x0)	
b1k8	:Removable	e BlockDevi	ce – Alias	(null)	
	PciRoot(C	)x0)/Pci(0x:	14,0×0)/US	B(0xF,0x0)/USB(0x2,0x0)/U	nit(0x1)
Press ESC Shell> fs: fs2:\> di	in 5 secor	nds to skip	startup.n	<b>sh</b> , any other key to cont	inue.
Press ESC Shell> fs: fs2:\> di Directory	in 5 secor 2: of: fs2:\	nds to skip	startup.n	<mark>sh</mark> , any other key to cont	inue.
Press ESC Shell> fs: fs2:\> did Directory 12/08/2	in 5 secor 2: of: <b>fs2:\</b> 3 10:47a <	nds to skip <dir></dir>	startup.n 16,384	sh, any other key to cont EFI	inue.
Press ESC Shell> fs: fs2:\> di Directory 12/08/2 04/18/2	in 5 secor 2: of: <b>fs2:\</b> 3 10:47a < 3 11:16a	nds to skip <dir></dir>	startup.n 16,384 629,680	sh, any other key to cont EFI AfuEfix64.efi	inue.
Press ESC Shell> fs: fs2:\> din Directory 12/08/2: 04/18/2 09/16/23	in 5 secor 2: of: fs2:\ 3 10:47a < 3 11:16a 3 11:25a	nds to skip <dir></dir>	startup.n 16,384 629,680 54	sh, any other key to cont EFI AfuEfix64.efi fb.nsh	inue.
Press ESC Shell> fs: fs2:\> din Directory 12/08/2 04/18/2 09/16/2 09/15/2	in 5 secor : of: fs2: 3 10:47a 3 11:16a 3 11:25a 3 12:10p	nds to skip <dir> 33</dir>	startup.n 16,384 629,680 54 3,554,432	sh, any other key to cont EFI AfuEfix64.efi fb.nsh mind-bios-v1.0-230915.bi	inue. n
Press ESC Shell> fs fs2:\> di Directory 12/08/2 04/18/2 09/16/2 09/15/2	in 5 secor cof: fs2:\ 3 10:47a < 3 11:16a 3 11:25a 3 12:10p 3 File(s)	nds to skip «DIR> 34,184,166	startup.n 16,384 629,680 54 3,554,432 6 bytes	sh, any other key to cont EFI AfuEfix64.efi fb.nsh mind-bios-v1.0–230915.bi	inue. n
Press ESC Shell> fs: fs2:\> din Directory 12/08/2 04/18/2 09/16/2 09/15/2	in 5 secor cof: fs2: 3 10:47a < 3 11:16a 3 11:25a 3 12:10p 3 File(s) 1 Dir(s)	nds to skip <dir> 34,184,166</dir>	startup.n 16,384 629,680 54 3,554,432 6 bytes	sh, any other key to cont EFI AfuEfix64.efi fb.nsh mind-bios-v1.0–230915.bi	inue. n
Press ESC Shell> fs: fs2:\> din Directory 12/08/2: 04/18/2: 09/16/2: 09/15/2:	in 5 secor of: fs2:\ 10:47a < 11:16a 11:25a 12:10p 3 File(s) 1 Dir(s)	nds to skip <dir> 34,184,160</dir>	startup.n 16,384 629,680 54 3,554,432 6 bytes	sh, any other key to cont EFI AfuEfix64.efi fb.nsh mind-bios-v1.0–230915.bi	inue. n
Press ESC Shell> fs: fs2:\> di Directory 12/08/2: 09/16/2: 09/16/2:	in 5 secor : of: fs2: 10:47a < 11:16a 3 11:25a 3 12:10p 3 File(s) 1 Dir(s)	nds to skip <dir> 34,184,166</dir>	startup.n 16,384 629,680 3,554,432 6 bytes	sh, any other key to cont EFI AfuEfix64.efi fb.nsh mind-bios-v1.0–230915.bi	inue. n

# Step 7:

1. Input the command "fb.nsh" and press the Enter key. This will initiate the BIOS update process.

Note: The update process will take approximately 5 minutes. Do not turn off the computer during the update.

b1k5	:BlockDevice - Alias (null) PciRoot(0x0)/Pci(0x6,0x2)/Pci(0x0,0x0)/NVMe(0x1,80-C4-98-4E-8B-44-1B-
00)	
b1k6	:Removable BlockDevice – <b>Alias (null)</b> PciRoot(0x0)/Pci(0x14,0x0)/USB(0xD,0x0)
b1K7	:Removable BlockDevice – <b>Alias (null)</b> PciRoot(0x0)/Pci(0x14,0x0)/USB(0xF,0x0)/USB(0x2,0x0)
b1k8	:Removable BlockDevice – <b>Alias (null)</b> PciRoot(0x0)/Pci(0x14,0x0)/USB(0xF,0x0)/USB(0x2,0x0)/Unit(0x1)

```
dir
           of: fs2:\
                :16a
               1:25a
                                                fb.nsh
mind-bios-v1.0-230915.bin
                        34,184,166
fs2:\>
```

## Step 8:

1. Once the update is completed, a "Process Completed" message will be displayed on the screen.

Reading flash       Done         - KE Data Size Checking       Pass         - FFS Checksums       Pass         - Check RomLayout       Pass         Erasing Boot Block       Done         Updating Boot Block       Done         Verifying Boot Block       Done         Updating Boot Block       Done         Verifying Boot Block       Done         Updating Main Block       Done         Verifying Main Block       Done         Verifying Main Block       Done         Updating NVRAM Block       Done         Verifying NVRAM Block       Done         Updating NVRAM Block       Done         Verifying NVRAM Block       Done         Verifying NVRAM Block       Done         Verifying NCB Block       Done         Updating NCB Block       Done         Verifying NCB Block       Done         Verifying NCB Block       Done         Verifying NCB Block       Done         Verifying NCB Block       Done         Process completed       Done	AMI Firmware Update Utility v5.16.01.0109 Copyright (c) 1985–2023, American Megatrends International LLC. All rights reserved. Subject to AMI licensing agreement.
Process completed.	Reading flash       Done         - ME Data Size Checking       Pass         - FFS Checksums       Pass         - Check RomLayout       Pass         Erasing Boot Block       Done         Updating Boot Block       Done         Verifying Boot Block       Done         Updating Main Block       Done         Verifying NVRAM Block       Done         Verifying NVRAM Block       Done         Verifying NVRAM Block       Done         Verifying NVRAM Block       Done         Verifying NCB Block       Done
	Process completed.

## Step 9:

1. After completing the update, power off the computer.

2. The BIOS update is now successfully completed. You can turn on your computer again.