

How to flash the BIOS using AfuEfix64.efi Utility

Requirements:

- Advantech Motherboard
- Keyboard
- Display connected to board
- AfuEfix64.efi Utility
- BIOS File (.bin)
- EFI Shell
- USB Flash Drive

1. Download AfuEfix64.efi Utility and BIOS file

- A. Download the zip file provided by Advantech.
- B. Put all of the contents of the zip file in the Root Directory of the USB Drive.
- C. The EFI folder, AFU utility, and BIOS file should now be listed in the Root Directory. EFI folder contains the EFI shell.

Name

- EFI
- AfuEfix64.efi
- XXXXXXXXX.BIN

2. Launching EFI Shell.

- A. Go to the Boot tab and change the Boot Option #1 to the USB Flash drive.
- B. Confirm that the UEFI label is ahead of the USB Flash drive name.
 - a. i.e. [UEFI: PNY USB 3.0 ...]

3. Update the BIOS

- A. If no additional HDD/SDD is installed, type **fs0:** to select the USB Flash drive.

```
EFI Shell version 2.60 [5.12]
Current running mode 1.1.2
Device mapping table
fs0 :Removable HardDisk - Alias hd6b0b blk0
    PciRoot(0x0)/Pci(0x14,0x0)/USB(0x1,0x0)/HD(1,MBR,0x1467FBB8,0x1
7C1)
blk0 :Removable HardDisk - Alias hd6b0b fs0
    PciRoot(0x0)/Pci(0x14,0x0)/USB(0x1,0x0)/HD(1,MBR,0x1467FBB8,0x1
7C1)
blk1 :Removable BlockDevice - Alias (null)
    PciRoot(0x0)/Pci(0x14,0x0)/USB(0x1,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:_
```

- B. Type **dir** to list contents and confirm that the USB Flash drive is being accessed.
- C. To run AFU utility, type **AfuEfix64.efi XXXXXXXX.BIN /p /b /n /x /l** and hit enter.
 - a. **XXXXXXXX.BIN** is the example of the BIOS file name.

```
fs0:\> dir
Directory of: fs0:\

01/28/19  02:52p <DIR>          4,096  EFI
06/22/18  01:58p             524,400  AfuEfix64.efi
10/17/18  09:22a        16,777,216  XXXXXXXX.BIN
          2 File(s)  17,301,616 bytes
          1 Dir(s)
```

```
fs0:\> AfuEfix64.efi XXXXXXXX.BIN /p /b /n /x /l
```

- D. The utility will flash the new BIOS on to the BIOS chip.
- E. When flash is complete, press **Ctrl + Alt + Delete** to restart the system.

```
Updating RomHole Block ..... done
Verifying RomHole Block ..... done

Process completed.

fs0:\> _
```

- F. Press **Delete** to enter BIOS.
- G. Go to: **Save & Exit -> Restore Defaults -> Yes**
- H. Go to: **Save & Exit -> Save Changes and Exit -> Yes**

```
Apio Setup Utility - Copyright (C) 2018 American
Main Advanced Chipset Security Boot Save & Exit

Save Options
Save Changes and Exit
Discard Changes and Exit
Save Changes and Reset
Discard Changes and Reset

Save Changes
Discard Changes

Default Options
Restore Defaults
Save as User Defaults
Restore User Defaults
```

- I. The BIOS is now updated.