

How to Use TOS 7 Properly on 425 Series TNAS

Applicable Models:

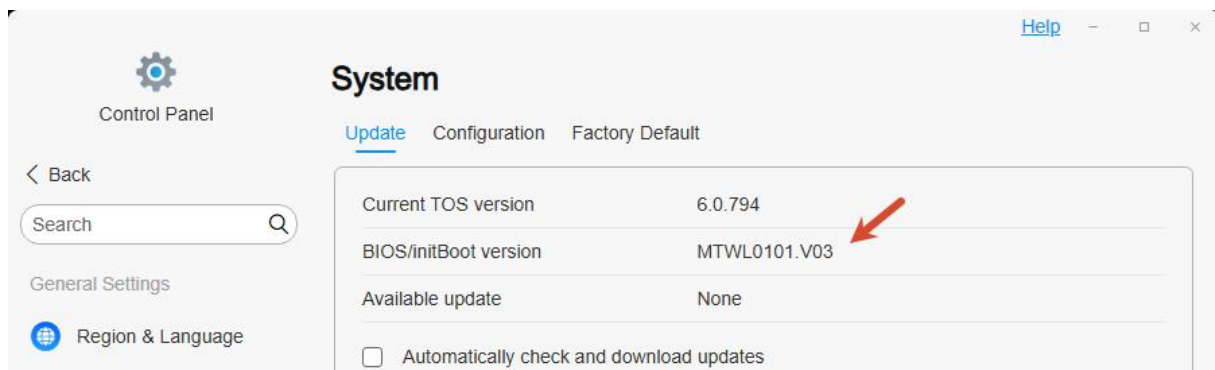
F2-425 Plus, F4-425 Plus

Description:

Prior to operation, please verify the BIOS version.

- For devices with BIOS versions MTWL0101.V03, MTWL0101.V04, MTWL0101.V05, or MTWL0101.V06, please refer to this guide and choose the appropriate method.
- The following BIOS versions require no extra adjustments to update and operate TOS 7 normally: MTWL0101.V07 and BJFX-TWLX-108.

How to check the BIOS version: Go to the Update page in the TOS Control Panel to view the BIOS version.



Issue Symptoms:

Prerequisite: A TNAS device that meets the conditions described above.

1. If the system disk is an NVMe M.2 SSD installed in Slot 3, after updating to TOS 7, the device enters the initialization page after rebooting.
2. If the NVMe M.2 SSD in Slot 3 is selected as the system disk when installing TOS 7, the device enters the initialization page after rebooting.

Cause:

On F2-425 Plus and F4-425 Plus devices with BIOS versions MTWL0101.V03, MTWL0101.V04, MTWL0101.V05, or MTWL0101.V06, the TOS boot priority function for the third NVMe slot in the BIOS has a defect.

Note:

If you want to install TOS 7 on the M.2 NVMe SSD in Slot 3 in the future, you still need to refer to Method C to update the BIOS.

If you do not need to install TOS 7 on the M.2 NVMe SSD in Slot 3, you do not need to update the BIOS or adjust the boot order. If you only want a temporary solution, you can use Method A or Method B.

Solutions:

You can choose one of the following three methods that best fits your situation:

Method A: Migrate the system disk or change the slot.

Update:

1. Before updating to TOS 7, go to Storage Manager > Disk in the TOS Control Panel. In the System Disk function, edit the system disk and migrate it from the SSD in Slot 3 to an SSD in another slot, then update to TOS 7.
2. Move the system disk to Slot 1 or Slot 2 so that it is not installed in Slot 3, then update the system.

Installation: When installing the system, select a SATA HDD or SATA SSD as the system disk. When installing TOS 7 using a TOS 7 USB drive, do not select the NVMe M.2 SSD installed in Slot 3. The TOS 7 USB drive will be released later.

Method B: Adjust the disk boot order.

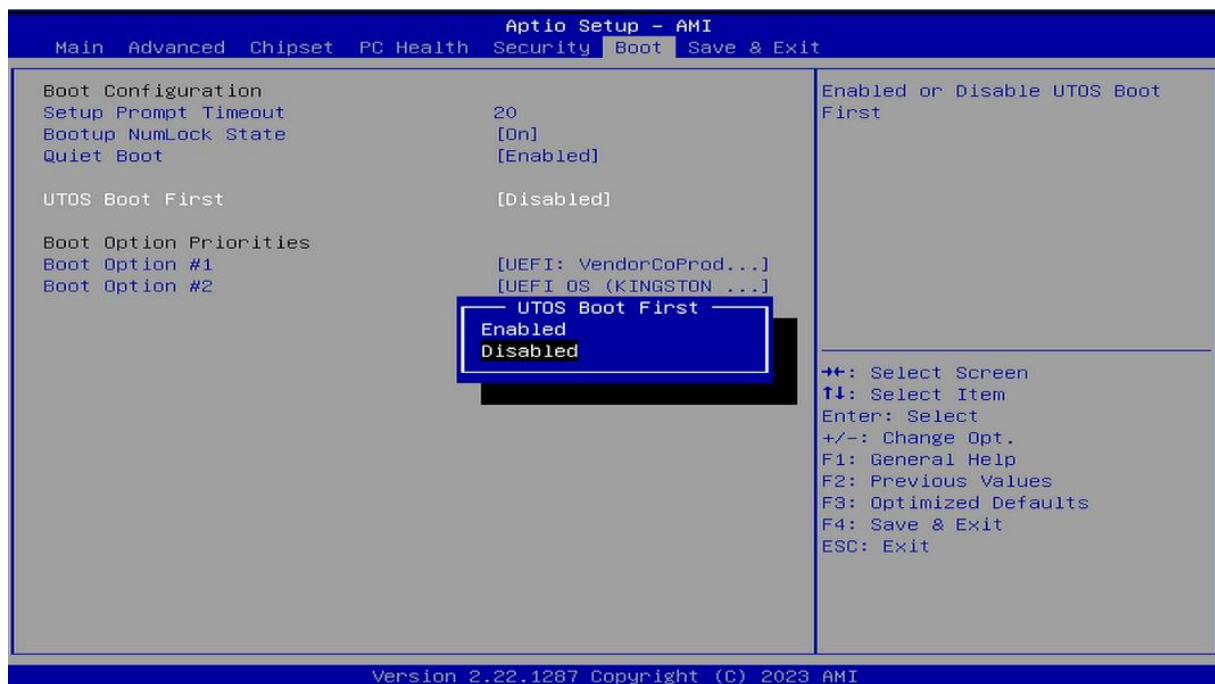
Adjusting the BIOS boot order is only a temporary solution. If you replace disks or reinstall the system, you will need to modify it again.

1. Enter the BIOS page.

Install all disks you use. With the device powered off, connect the TNAS to a monitor using an HDMI cable and connect a keyboard. Press the power button, then immediately press Del or Esc repeatedly in short taps until the BIOS interface appears. Do not hold the key down; tap it 1-2 times per second.

2. Disable UTOS Boot First.

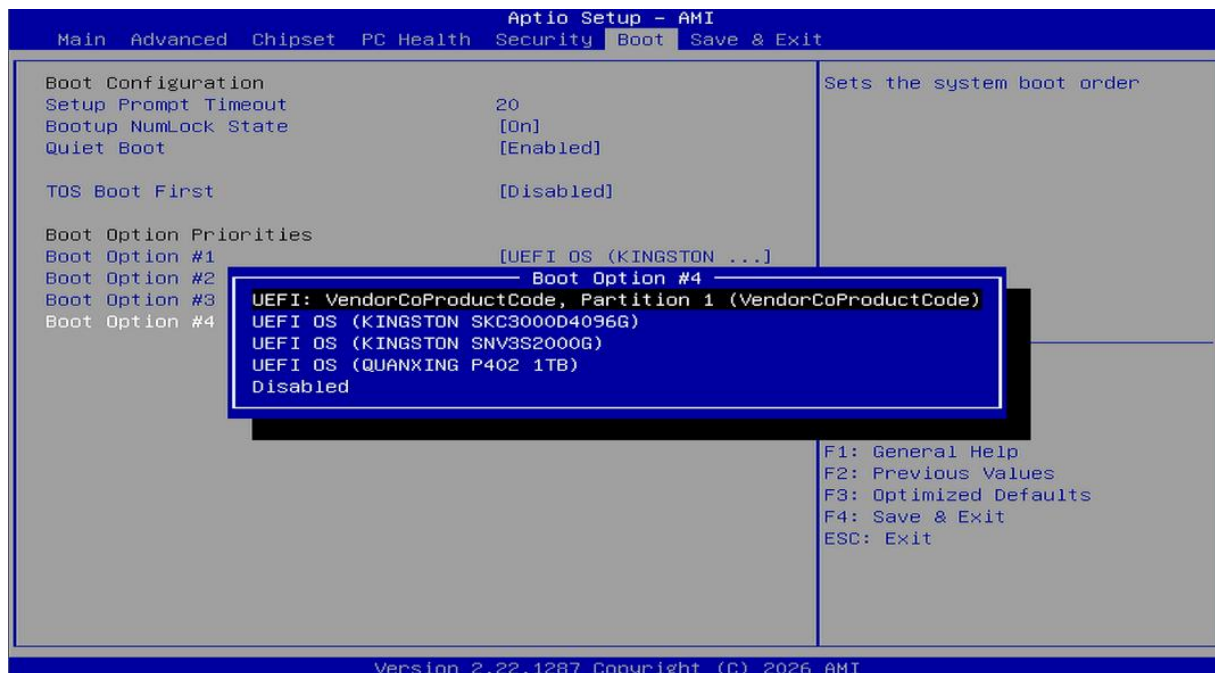
In the BIOS, press the Right Arrow key to go to the Boot page. Press the Down Arrow key to select UTOS Boot First, press Enter, then press the Down Arrow key to select Disabled, and press Enter to confirm.

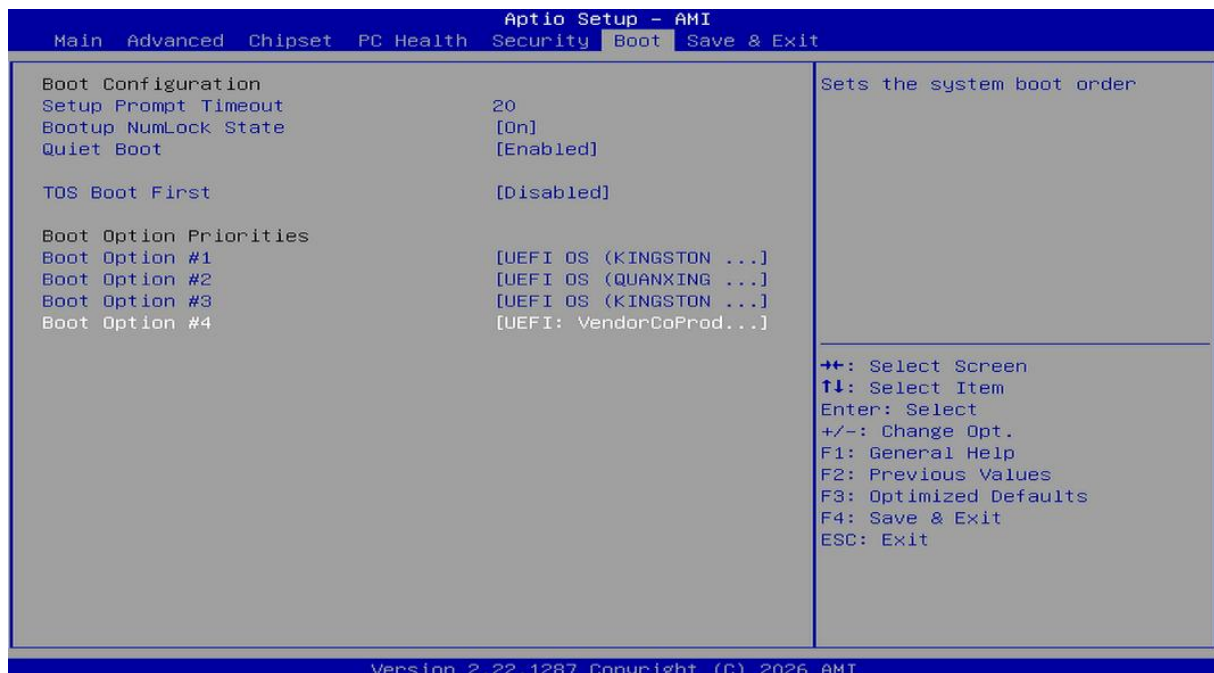


3、 Adjust the boot order.

After disabling UTOS Boot First, press the Down Arrow key to select the last Boot Option, then press Enter to adjust it.

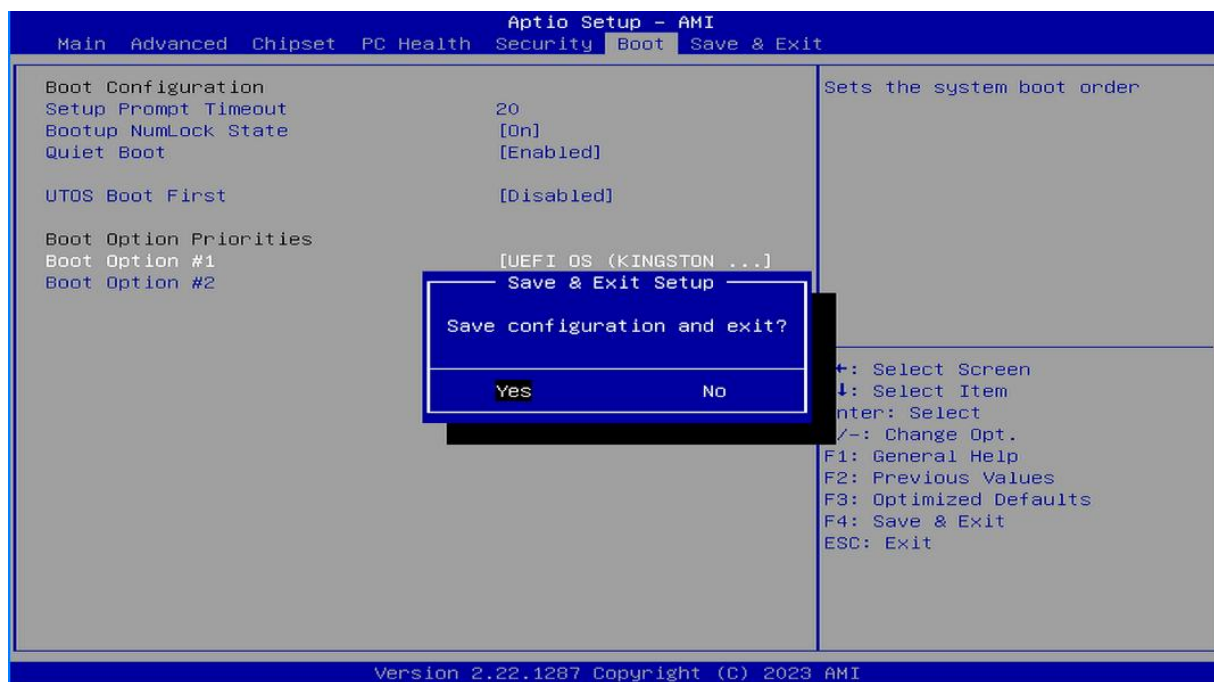
Use the arrow keys to select the onboard USB boot device, then press Enter to confirm the selection.





4. Save and exit.

After setting the USB boot device as the last boot option, press F4. When prompted to save and exit, press Enter again to save and exit. You can then update to TOS 7 normally.



Method C: Update the BIOS.

After updating the BIOS, the third NVMe slot can be used normally, and you can install, update, and use TOS 7 normally.

- 1、 Confirm whether the current BIOS version of your F2-425 Plus or F4-425 Plus is one of the

V03-V06 versions mentioned above. If it is one of these four versions, follow the steps below to update the BIOS.

2. Download the latest BIOS file for your model:

F2-425 Plus: F2-425_Plus_BJFX-TWLX-108.zip

https://download3.terra-master.com/Apps/forum/BIOS/F2-425_Plus__BJFX-TWLX-108.zip

F4-425 Plus: F4-425_Plus_BJFX-TWLX-108.zip

https://download3.terra-master.com/Apps/forum/BIOS/F4-425_Plus__BJFX-TWLX-108.zip

3. Prepare an empty USB drive smaller than 32 GB and format it as FAT. Extract the downloaded

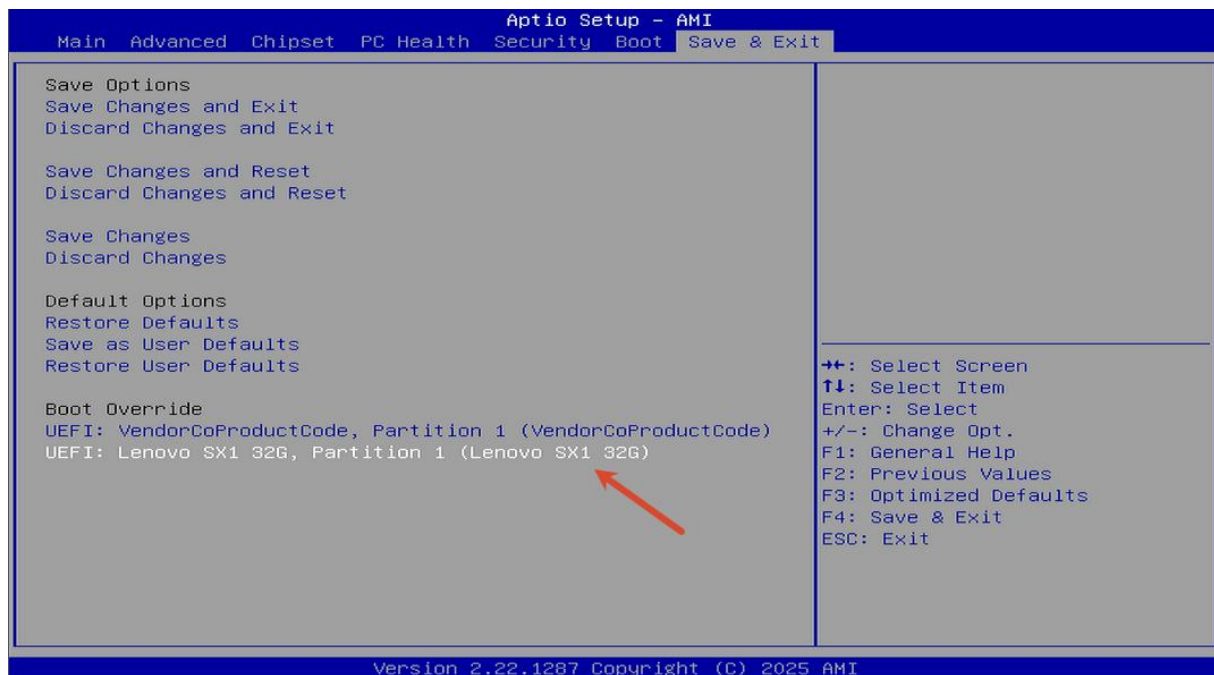
BJFX-TWLX-108.zip file and copy all extracted files to the root directory of the USB drive.

Name	Type	Size
DmiEditEfi64	File folder	
EFI	File folder	
BJFX-TWLX-108	File	16,384 KB
Fpta.efi	EFI File	1,724 KB
startup.nsh	NSH File	1 KB

4. Remove all disks from the TNAS, insert the prepared BIOS update USB drive into the TNAS, connect the TNAS to a monitor with an HDMI cable, and connect a USB keyboard. Press the power button, then immediately press Del or Esc repeatedly in short taps until the BIOS interface appears. Do not hold the key down; tap it 1-2 times per second. You can also check whether the BIOS Version on the home page is one of the versions mentioned above.

Aptio Setup - AMI		
Main	Advanced	Chipset
BIOS Information		
BIOS Vendor	American Megatrends	
Product Name	M-TWLN01	
BIOS Version	MTWL0101.V03	
Build Date and Time	06/12/2025 17:21:15	
Serial Number	Default string	
Access Level	Administrator	
		Set the Date. Use Tab to switch between Date elements.
		Default Ranges:
		Year: 1998-9999
		Months: 1-12
		Days: Dependent on month
		Range of Years may vary.

5. On the BIOS page, press the Right Arrow key to go to the Save & Exit page. Press the Down Arrow key to select the USB drive for updating the BIOS, then press Enter to confirm. If you select the onboard USB boot device, the system installation page will open; restart the device and select again.



- 6、 When this page appears, wait for the countdown to finish. After the countdown, the BIOS update will start automatically and is expected to take 1-3 minutes. Wait until FPT Operation Successful appears. Do not press any keys before the success message appears.

```

EFI Shell version 2.80 [5.26]
Current running mode 1.1.2
Device mapping table
  fs0 :Removable HardDisk - Alias hd10d0b0b0b0b blk0
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
1,0x0)/HD(1,GPT,434DB4B5-CD75-4E9B-8179-DDE1BABB CAB1,0x22,0x47847)
  fs1 :Removable HardDisk - Alias hd10m0b0b0d0b blk1
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0xC,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
3,0x0)/HD(1,GPT,C5706A24-07D1-42CA-BC99-3336B177E0BA,0x800,0x3B5F7DF)
  blk0 :Removable HardDisk - Alias hd10d0b0b0b0b fs0
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
1,0x0)/HD(1,GPT,434DB4B5-CD75-4E9B-8179-DDE1BABB CAB1,0x22,0x47847)
  blk1 :Removable HardDisk - Alias hd10m0b0b0d0b fs1
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0xC,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
3,0x0)/HD(1,GPT,C5706A24-07D1-42CA-BC99-3336B177E0BA,0x800,0x3B5F7DF)
  blk2 :Removable BlockDevice - Alias (null)
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0x3,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
1,0x0)
  blk3 :Removable BlockDevice - Alias (null)
        PciRoot(0x0)/Pci(0x14,0x0)/USB(0xC,0x0)/USB(0x1,0x0)/USB(0x1,0x0)/USB(0x
3,0x0)

Press ESC in 2 seconds to skip startup.nsh, any other key to continue. _

```

```

- Erasing Flash Block [0xD9D000] - 100 percent complete.
- Programming Flash [0x0D9D000] 36KB of 36KB - 100 percent complete.
Processing Flash memory block 3975 from 4095.
- Erasing Flash Block [0xF88000] - 100 percent complete.
- Programming Flash [0x0F88000] 8KB of 8KB - 100 percent complete.
Processing Flash memory block 3997 from 4095.
- Erasing Flash Block [0xF9E000] - 100 percent complete.
- Programming Flash [0x0F9E000] 80KB of 80KB - 100 percent complete.
Processing Flash memory block 4039 from 4095.
- Erasing Flash Block [0xFC8000] - 100 percent complete.
- Programming Flash [0x0FC8000] 8KB of 8KB - 100 percent complete.
Processing Flash memory block 4061 from 4095.
- Erasing Flash Block [0xFDE000] - 100 percent complete.
- Programming Flash [0x0FDE000] 80KB of 80KB - 100 percent complete.
- Processed memory blocks 4095 from 4095.
- Verifying Flash [0x1000000] 16384KB of 16384KB - 100 percent complete.
RESULT: The data is identical.

```

Flash device was programmed. It is recommended to perform G3 power cycle to complete the flashing process.

FPT Operation Successful.

```

startup.nsh> pause
Enter 'q' to quit, any other key to continue: _

```

- 7、 After the success message appears, press Enter. The TNAS will reboot automatically. After a few seconds, the TNAS will beep once, indicating that the hardware self-test has passed. When you hear the beep, immediately press Del or Esc repeatedly in short taps until the BIOS interface appears. Then follow Step 5 to select the BIOS update USB device again and press Enter to confirm.
- 8、 After selecting the BIOS update USB drive for the second time, wait for the operation to complete automatically. When finished, the page shown below will appear, indicating that all operations have been completed. You can then remove the BIOS update USB device and update or install TOS 7 normally.

```

PciRoot(0x0)/Pci(0x14,0x0)/USB(0xC,0x0)/USB(0x2,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
startup.nsh> echo -on
startup.nsh> for i in 0 1 2 3 4 5 6 7 8 9 a b c d e f g h
startup.nsh> if exist FS0:\Fpta.efi then
startup.nsh> FS0:
startup.nsh> if exist flag.txt then
startup.nsh> cd DmiEditEfi64
startup.nsh> F2-425_Plus.nsh
+F2-425_Plus.nsh> AMIDEEFIx64.EFI /sk 0A450A46JF02TWLK /sp 001-002-[F2-425_Plus]

+-----+
|          AMI Desktop Management Interface Edit Utility v5.27.02.0006          |
|          Copyright (c) 1985-2021, American Megatrends International LLC.      |
|          All rights reserved. Subject to AMI licensing agreement.              |
+-----+

Initializing the SMBIOS interface. Please wait a moment.....
Name                R/W  Status  Information
-----
(/SK)System SKU number      W    Done   "0A450A46JF02TWLK"
(/SP)System product        W    Done   "001-002-[F2-425_Plus]"
startup.nsh> pause
Enter 'q' to quit, any other key to continue: _

```

