

Firmware Update Procedure for PTR-10 MARK II/PTR-10T MARK II

1. Introduction

Firmware update can be performed by saving the downloaded latest firmware file into a USB flash drive and then inserting the USB flash drive into the F/W UPGRADE USB interface which is located on the rear panel of the PTR-10 MARK II/PTR-10T MARK II.

Moreover, this software update procedure applies to the following product.

Product Model	PTR-10 MARK II/PTR-10T MARK II
Product Name	Robotic Pan Tilt Head/HDBaseT Robotic Pan Tilt Head

There are two firmware files with the file name:

- **pr10mcpu.bin**
- **PR10MCTL.BIN**

This document describes how to perform a software update on a Windows computer.

Screen images from the Windows 10 operating system are used in this document as an example. Images used in this document may differ from the actual screens.

For details on Windows and computer operations, please refer to the instruction manual of your computer.

2. Preparation

2.1 System Requirements

A computer that meets the following requirements is necessary to perform the Software update procedure.

Laptop	A normal laptop is needed.
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Operation is not guaranteed on all computers that meet the above requirements

2.2 Software Update Preparation

The following items are required to perform this software update. Please prepare these items in advance before performing the update.

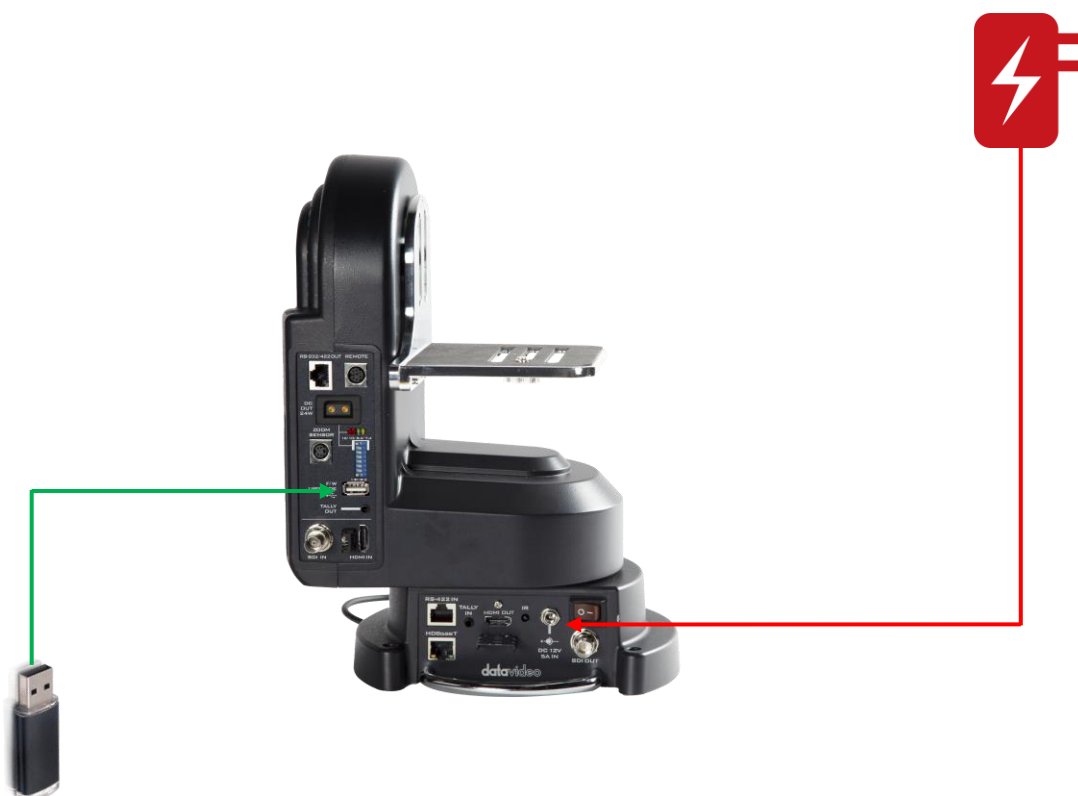
PTR-10 MARK II or PTR-10T MARK II x1	The PTR-10 MARK II or the PTR-10T MARK II is needed for updating the firmware.
Laptop or PC x 1	The laptop or the PC is used for saving and updating the firmware.
12V Power Adapter x 1	The 12V power adapter for the PTR-10 MARK II/PTR-10T MARK II.
Latest firmware files ● pr10mcpu.bin ● PR10MCTL.BIN	The latest firmware file for the PTR-10 MARK II/PTR-10T MARK II. ● pr10mcpu.bin ● PR10MCTL.BIN
USB flash drive x 1	This USB drive is used to save and update the latest firmware files.

2.3 System Connection Diagram

PTR-10 MARK II



PTR-10T MARK II



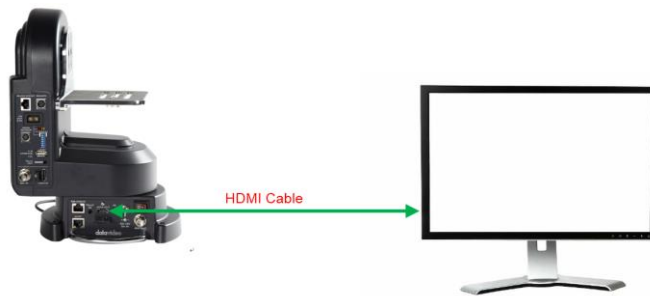
2.4 Checking the Software Version

2.4.1. Please connect a DC 12V power adapter.

Please connect a DC 12V power adapter to the PTR-10 MARK II or PTR-10T MARK II.

2.4.2 Please connect your PTR-10 MARK II or PTR-10T MARK II to an external monitor.


Please use an HDMI cable to connect from the HDMI OUT interface which is located on the rear panel of the PTR-10 MARK II or the PTR-10T MARK to the HDMI interface of your external monitor.



2.4.3 Please turn on the power of your PTR-10T MARK II or PTR-10T MARK II.

After the HDMI cable is connected, please turn on the power of your external monitor and your PTR-10 MARK II or PTR-10T MARK II.


2.4.4 Please press the “MENU” button on the remote controller of your PTR-10 MARK II or PTR-10T MARK II.


Please press the “MENU” button  from the remote controller of your PTR-10 MARK II or PTR-10T MARK II, and then the OSD menu of the PTR-10 MARKII or the PTR-10T MARK II will be shown on your external display.

A screenshot of the OSD menu displayed on a blue background. The menu is titled '[MAIN MANU]' and lists eight options, each with a right-pointing arrow. The first option, '1: SET CAMERA', is highlighted with a yellow background.

[MAIN MANU] ↗
1: SET CAMERA ↗
2: SET MOTOR ↗
3: MEMORY ↗
4: VIDEO MODE ↗
5: REMOTE CONTROL ↗
6: SYSTEM ↗
7: RESET Pan/Tilt ↗
8: ESCAPE ↗

2.4.4 Please select the “6: SYSTEM” from the PTR-10 MARK II/PTR-10T MARK II OSD Menu.

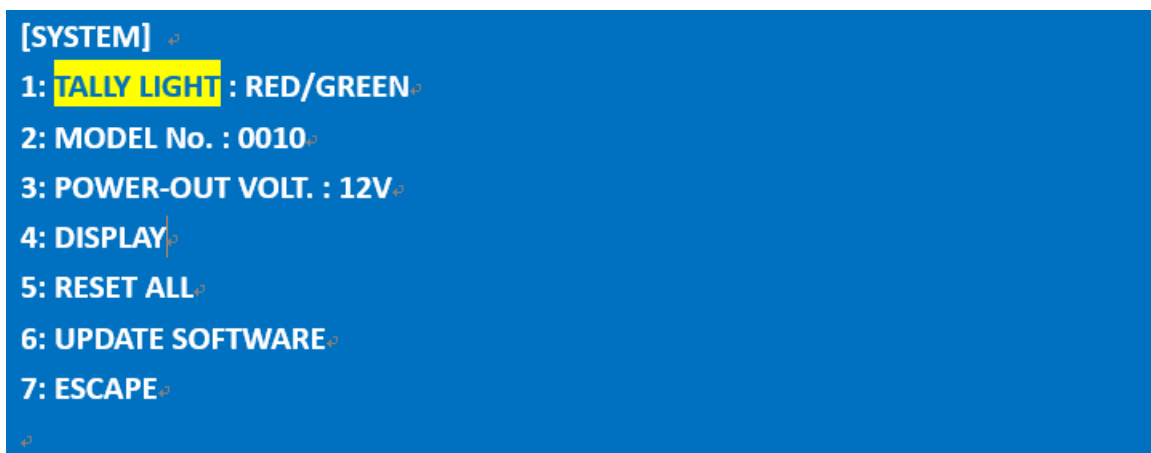
Please press the down-arrow key  of your remote controller to select the “6:SYSTEM” option.

After that, please press the “ENTER” button .





2.4.5 You can see the “SYSTEM” OSD Menu.

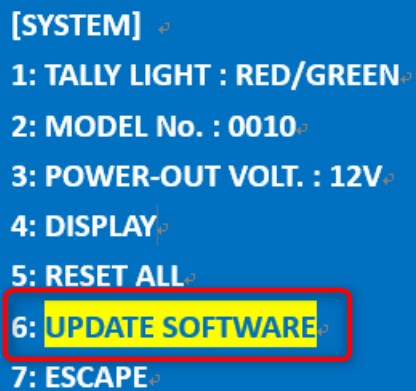
After pressing the “ENTER” button, you can see the “SYSTEM” OSD menu which is shown in the following diagram.



2.4.6 Please press the down-arrow key of the remote controller.

Please press the down-arrow key  of the remote controller to select the “6: UPDATE

SOFTWARE” option. After that, please press the “ENTER” button  from the remote controller.

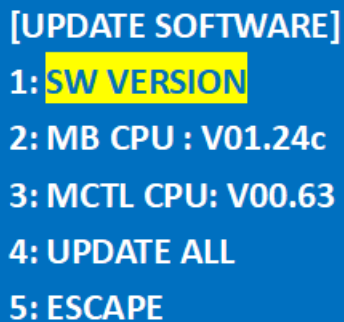


[SYSTEM]

- 1: TALLY LIGHT : RED/GREEN
- 2: MODEL No. : 0010
- 3: POWER-OUT VOLT. : 12V
- 4: DISPLAY
- 5: RESET ALL
- 6: UPDATE SOFTWARE
- 7: ESCAPE

2.4.7 After the “ENTER” button is pressed, you can see the “UPDATE SOFTWARE” OSD menu.

After the “ENTER” button is pressed, you can see the “UPDATE SOFTWARE” OSD Menu which is shown in the following diagram. You can see the current firmware version from “2: MB CPU:” and “3: MCTL CPU:”. From the example which is shown in the following diagram, you can see that the MB CPU version is “V1.24” and the MCTL CPU version is “V0.63”.



[UPDATE SOFTWARE]

- 1: SW VERSION
- 2: MB CPU : V01.24c
- 3: MCTL CPU: V00.63
- 4: UPDATE ALL
- 5: ESCAPE



2.5 Preparing the Firmware

2.5.1. Download the Firmware

PTR-10 MARK II or the PTR-10T MARK II Product Page from the Datavideo website:

- PTR-10 MARK II: <https://www.datavideo.com/product/PTR-10%20MARK%20II>
- PTR-10T MARK II: <https://www.datavideo.com/product/PTR-10T%20MARK%20II>

The file name for the downloaded firmware zip file is “**PTR-10 MARK II & PTR-10T MARK II Firmware Update v1.57**”. Please unzip it and then you can see that there are two firmware files which are shown in the following.

-  pr10mcpu.bin
-  PR10MCTL.BIN

3. Update

3.1 Updating the Software

3.1.1. Please make sure that the 12V DC power cable is connected.

Please make sure that the 12V DC power cable is connected to the PTR-10 MARK II or the PTR-10T MARK II.

3.1.2. Please make sure that the latest downloaded firmware file is unzipped and saved.

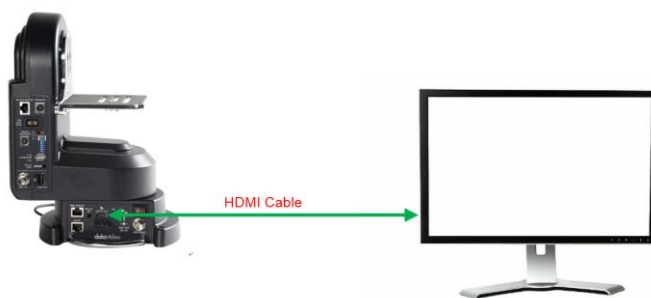
Please make sure that the latest downloaded firmware is unzipped. Moreover, please make sure the unzipped firmware files “**pr10mcpu.bin**” and “**PR10MCTL.BIN**” are saved in the root directory of your USB flash drive.

3.1.3. Please insert your USB flash drive with the firmware files into the F/W UPGRADE interface

Please insert your USB flash drive with the latest firmware files into the F/W UPGRADE interface which is located on the rear panel of the PTR-10 MARK II or the PTR-10T MARK II.

3.1.4. Please connect an HDMI cable from your PTR-10 MARK II or PTR-10T MARK II to your external monitor.


Please connect an HDMI cable from the HDMI OUT interface of your PTR-10 MARK II or PTR-10T MARK II to the HDMI interface of your external monitor.



3.1.5. Please turn on the power.


Please turn on the power of your PTR-10 MARK II or PTR-10T MARK II and your external monitor.


3.1.6. Please press the “MENU” button from your PTR-10 MARK II/PTR-10T MARK II remote controller.

Please press the “MENU” button  from your PTR-10 MARK II/PTR-10T MARK II remote controller to open the PTR-10 MARK II/PTR-10T MARK II OSD menu.

- [MAIN MANU] ◁
- 1: SET CAMERA ◁
- 2: SET MOTOR ◁
- 3: MEMORY ◁
- 4: VIDEO MODE ◁
- 5: REMOTE CONTROL ◁
- 6: SYSTEM ◁
- 7: RESET Pan/Tilt ◁
- 8: ESCAPE ◁


3.1.7. Please select the “6: SYSTEM” from the PTR-10 MARK II/PTR-10T MARK II OSD Menu.

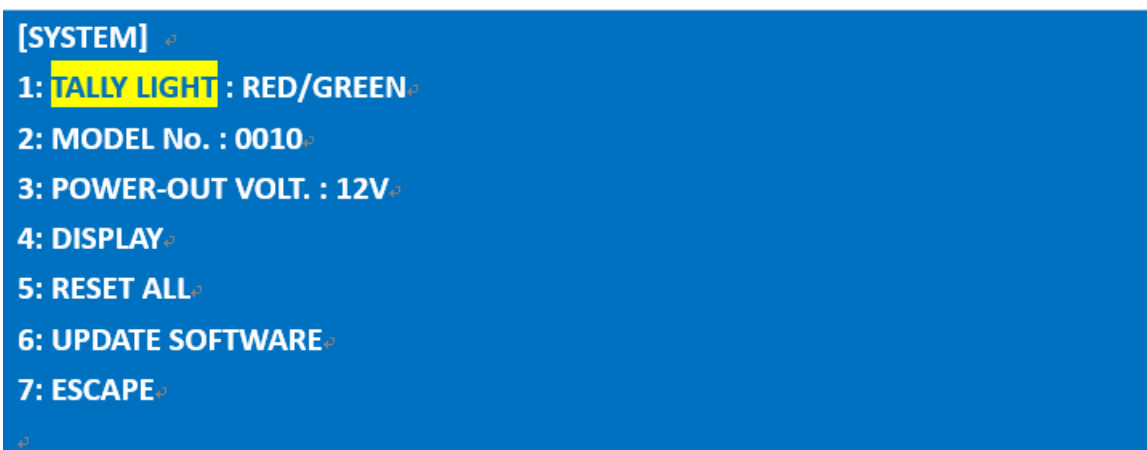
Please press the down-arrow key  of your remote controller to select the “6:SYSTEM” option.

After that, please press the “ENTER” button .





3.1.8. You can see the “SYSTEM” OSD Menu.

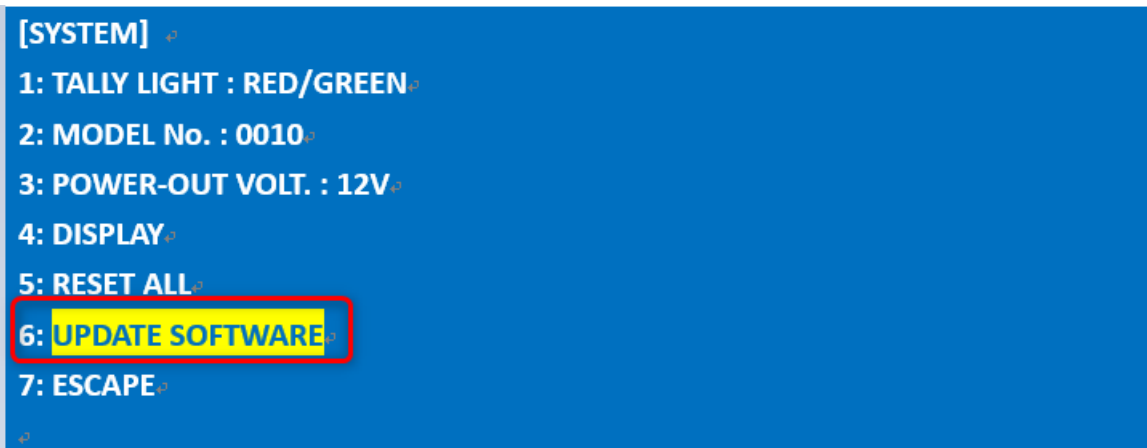
After pressing the “ENTER” button , you can see the “SYSTEM” OSD menu which is shown in the following diagram.




3.1.9 Please press the down-arrow key of the remote controller.

Please press the down-arrow key  of the remote controller to select the “6: UPDATE

SOFTWARE” option. After that, please press the “ENTER” button  from the remote controller.




3.1.10 After the “ENTER” button is pressed, you can see the “UPDATE SOFTWARE” OSD menu.

After the “ENTER” button  is pressed, you can see the “UPDATE SOFTWARE” OSD Menu which is shown in the following diagram.




3.1.11 Please press the down-arrow key from the remote controller.

Please press the down-arrow key  from the remote controller to select the “4: UPDATE ALL” option.




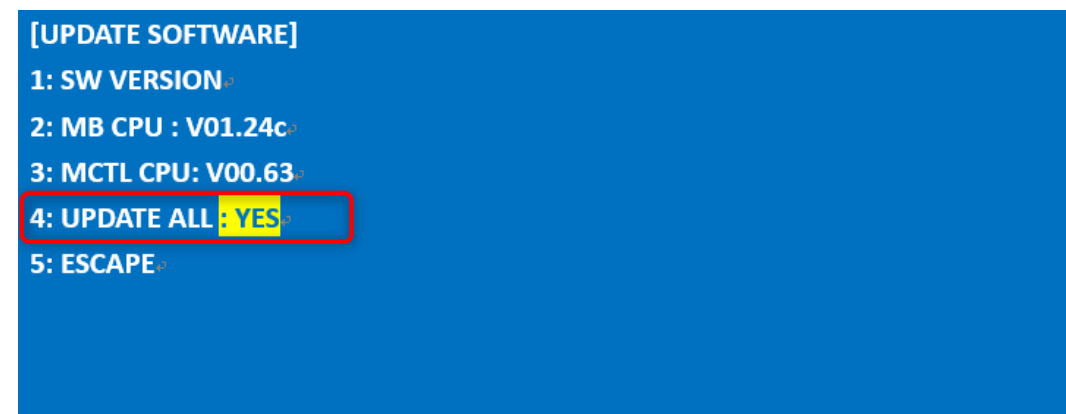
3.1.12 Please press the “ENTER” button.

After the “UPDATE ALL” option is selected, please press the “ENTER” button  from the remote controller and then you will see the screen which is shown in the following diagram.




3.1.13 Please press the up-arrow button from the remote controller.

Please press the up-arrow button  from the remote controller and then the “4: UPDATE ALL: NO” will become “4: UPDATE ALL: YES” which is shown in the following diagram.



3.1.14 Please press the “ENTER” button from the remote controller.

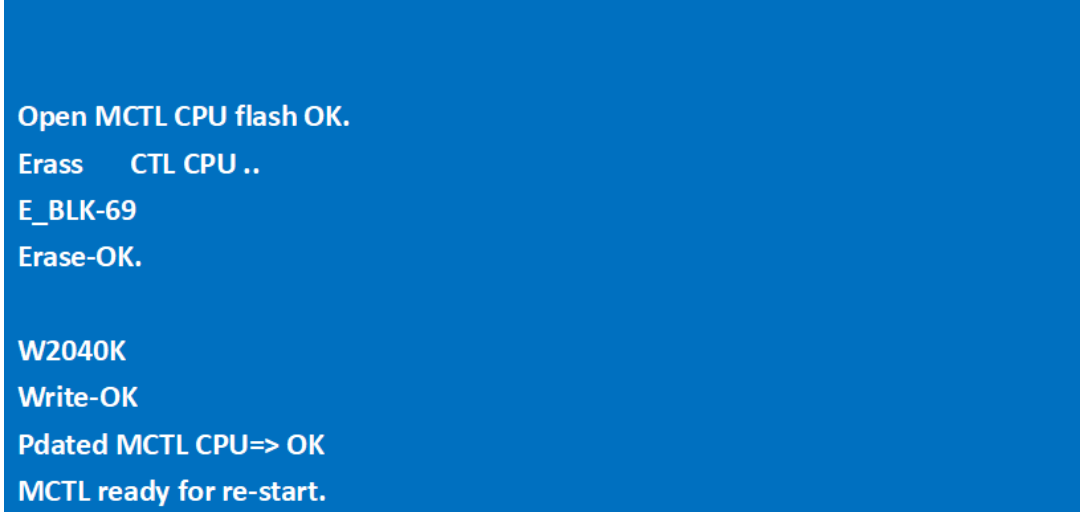
Please press the “ENTER” button  from the remote controller and then the firmware update procedure for the PTR-10 MARK II or PTR-10T MARK II will be started automatically.

3.1.15. Please wait for about 5 minutes.

After the firmware update procedure is started automatically, please wait for about 5 minutes.

3.1.16. Please wait until the messages “Updated MCTL CPU=>OK” and “MCTL ready for re-start” are displayed.

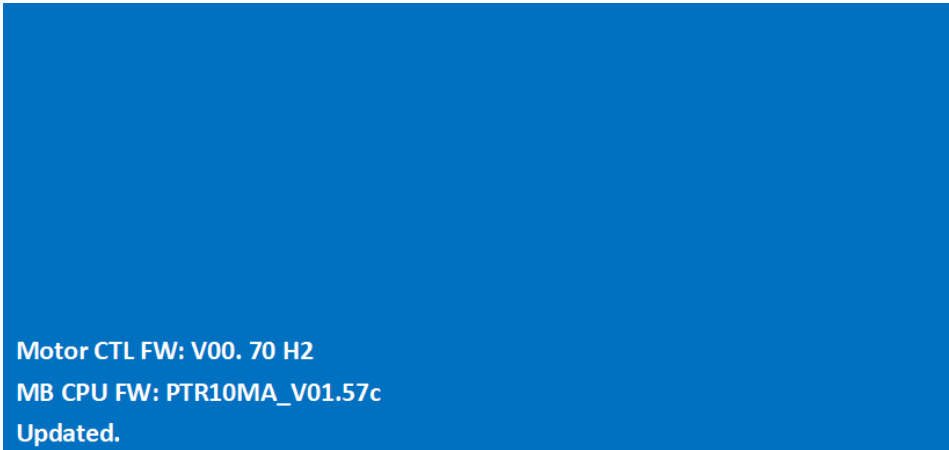
Please wait until the messages “Updated MCTL CPU=>OK” and “MCTL ready for re-start” are displayed which is shown in the following diagram.



```
Open MCTL CPU flash OK.  
Erass   CTL CPU ..  
E_BLK-69  
Erase-OK.  
  
W2040K  
Write-OK  
Pdated MCTL CPU=> OK  
MCTL ready for re-start.
```

3.1.17. Please wait until the message “Motor CTL FW: V 00.70 H2” & “MB CPU FW: PTR10MA_V01.57c Updated” are shown on the screen.

Please wait until the message “Motor CTL FW: V 00.70 H2” & “MB CPU FW: PTR10MA_V01.57c Updated” are shown on the screen. After that, please turn **OFF** and then turn **ON** the power of your PTR-10 MARK II or PTR-10T MARK II. After the PTR-10 MARK II or PTR-10T MARK II is rebooted successfully, the latest firmware is updated successfully.



```
Motor CTL FW: V00. 70 H2  
MB CPU FW: PTR10MA_V01.57c  
Updated.
```

3.2 Check the Updated firmware version

3.2.1. After the firmware update is done, you can check the latest firmware version.

After the firmware update is done, you can check the latest firmware version according to the steps in **"2.4 Checking the Software Version"**.