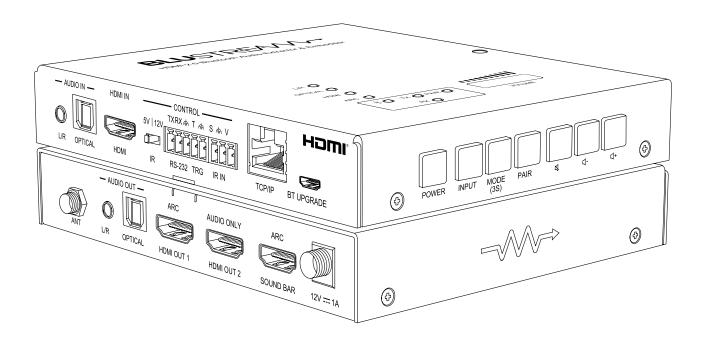
BLUARC

Firmware Update Guide



Introduction

The following instructions are for updating the MCU, web GUI and Bluetooth chipset featured in the BLUARC. Please follow the process step by step. Should any issues arrise, please contact Blustream technical support in your region for assistance.



MCU Firmware Update

1) The MCU firmware update is carried out via the web GUI of the BLUARC. You will need to connect to the IP address or domain name of the BLUARC in your web browser. By default the BLUARC is set to DHCP in which case your network router will assign it an IP address, however if a DHCP server (eg: network router) is not installed, the units IP address will revert to the below details:

Default **Username** is: blustream

Default **Password** is: 1234

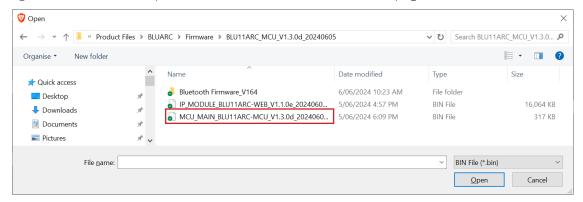
Default **IP Address** is: 192.168.0.200

You can also access the BLUARC via its default domain name: http://bluarc.local/

2) Once logged in as the admin, navigate to the system page by pressing the System icon in the top menu bar.



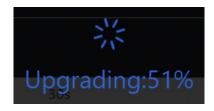
3) Navigate to the Firmware Update section toward the bottom of the page and select the Browser... button:



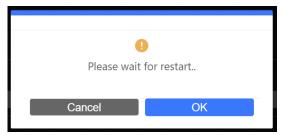
- 4) Browse your PC and locate the corret BLUARC MCU firmware file and select Open.
- 5) Select the corresponding Update button to begin the firmware update process.



6) The web GUI will show an upgrading progress percentage. Please do not navigate away from your browser or carry out any other tasks on the BLUARC at this time. Also ensure power is not disconnected during the firmware update process. The MCU firmware takes about 1 minute to update.



7) Once complete, the web GUI will pop up with a restart message. The pop up message will disappear after a moment and the device should restart automatically. Once restarted, the web GUI will take you back to the login screen.



Reset via Telnet or RS-232

If you are unable to log back into the BLUARC, you will need to carry out a reset procedure via Telnet or RS-232. The following steps take you through this via Telnet. RS-232 is carried out in the same way however using an RS-232 cable to the 3-pin Phoenix port on the BLLUARC.

8) Connect to the IP address of BLUARC via Telnet. Any Telnet software should be appropriate (eg: SSCOM, UART Assist, Hercules, etc...). Once connected, you should receive a welcome message as follows:

```
Welcome to BLU11ARC Terminal Control System
FW Version: V1.3.0d
Type "HELP" For More Information
```

9) Send the **RESET ALL** command via Telnet. Note that you may need to include a carriage return and linefeed at the end of the RESET ALL command. Depending on Telnet software, this may be \r\n, <CR><LF>, or other special control characters. Please note the RESET ALL command will default the network settings so these may need to be reconfigured after the reset is complete.

```
RESET ALL
Sure to reset system and network settings to default? Type "yes" after next prompt to confirm...
BLU11ARC>
```

10) You will see the API feedback "Sure to reset system and network settings to default? Type "yes" after next prompt to confirm...". Send the **YES** command and the BLUARC will factory reset. Note this will take approximately 2 minutes to factory reset.

```
BLU11ARC> YES
[SUCCESS]Doing reset, Please wait a moment...
```



Web GUI Firmware Update

11) The Web GUI firmware update is carried out via the web GUI of the BLUARC. You will need to connect to the IP address or domain name of the BLUARC in your web browser. By default the BLUARC is set to DHCP in which case your network router will assign it an IP address, however if a DHCP server (eg: network router) is not installed, the units IP address will revert to the below details:

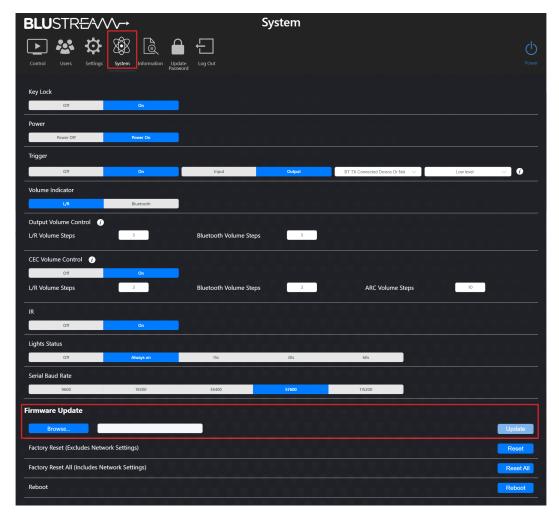
Default **Username** is: blustream

Default Password is: 1234

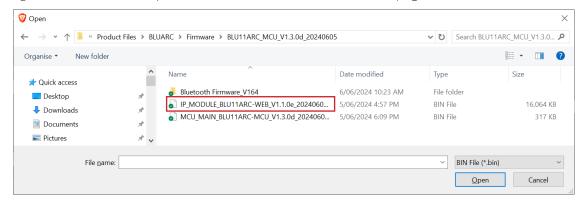
Default **IP Address** is: 192.168.0.200

You can also access the BLUARC via its default domain name: http://bluarc.local/

12) Once logged in as the admin, navigate to the system page by pressing the System icon in the top menu bar.



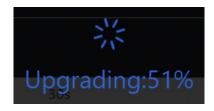
13) Navigate to the Firmware Update section toward the bottom of the page and select the Browse... button:



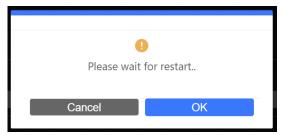
- 14) Browse your PC and locate the corret BLUARC Web GUI firmware file and select Open.
- 15) Select the corresponding Update button to begin the firmware update process.



16) The web GUI will show an upgrading progress percentage. Please do not navigate away from your browser or carry out any other tasks on the BLUARC at this time. Also ensure power is not disconnected during the firmware update process. The web GUI firmware takes about 6 minutes to update.

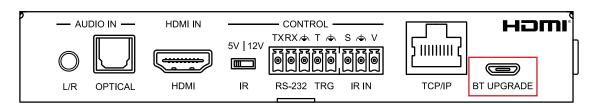


17) Once complete, the web GUI will pop up with a restart message. The pop up message will disappear after a moment and the device should restart automatically. Once restarted, the web GUI will take you back to the login screen.



Bluetooth Firmware Update

To update the Bluetooth firmware of the BLUARC you will need a Micro USB to USB-A cable. Connect your PC to the micro BT UPGRADE port of the BLUARC with the micro USB cable.



- 19) After connecting the USB cable, power on the BLUARC.
- 20) Connect to the IP address of BLUARC via Telnet or RS-232. Once connected, you should receive a welcome message as follows:

```
Welcome to BLU11ARC Terminal Control System
FW Version: V1.3.0d
Type "HELP" For More Information
```

21) Send the following API command via Telnet. Note that you may need to include a carriage return and linefeed at the end of the RESET command. Depending on Telnet software, this may be \r\n, <CR><LF>, or other special control characters.

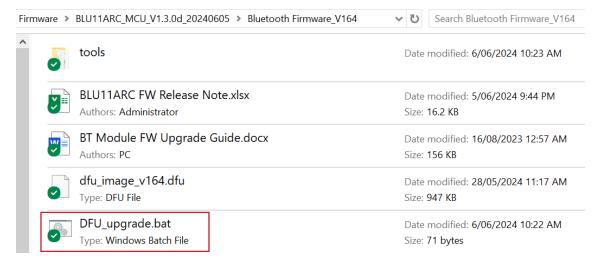
DG 8 AT+DU

You will see the API feedback "Waiting for Bluetooth module upgrade."

DG 8 AT+DU
Waiting for Bluetooth module upgrade
BLUARC>



22) Browse your PC to the Bluetooth firmware folder and open the file DFU_upgrade.bat.



The Bluetooth update program will open. Ensure that the last line displays "Found 1 devices. Do you want to upgrae all? (y/n):

```
C:\Windows\system32\cmd.exe — X

C:\Users\kevin\Downloads\BLU11ARC\Firmware\MCU\BLU11ARC_MCU_V1.3.0d_20240605\Bluetooth Firmware_V164>tools\HidDfuCmd.exe
upgrade 0x0a12 0xfffe 0 0 dfu_image_v164.dfu
tools\HidDfuCmd.exe, version 2.6.3.832 Release
Copyright 2012-2016 Qualcomm Technologies International, Ltd.

Found 1 devices. Do you want to upgrade all? (y/n)
```

24) Type "Y" and press enter. The Bluetooth module firmware upgrade will start. The console will show the Bluetooth firmware update progress. This will take around 1 minute.

```
C:\Windows\system32\cmd.exe — X

C:\Users\kevin\Downloads\BLU11ARC\Firmware\MCU\BLU11ARC_MCU_V1.3.0d_20240605\Bluetooth Firmware_V164>tools\HidDfuCmd.exe
upgrade 0x0a12 0xfffe 0 0 dfu_image_v164.dfu
tools\HidDfuCmd.exe, version 2.6.3.832 Release
Copyright 2012-2016 Qualcomm Technologies International, Ltd.

Found 1 devices. Do you want to upgrade all? (y/n) y

62% completed
```

25) After the firmware update finishes, the program will show "upgrade succeeded".

```
C:\Users\kevin\Downloads\BLU11ARC\Firmware\MCU\BLU11ARC_MCU_V1.3.0d_20240605\Bluetooth Firmware_V164>tools\HidDfuCmd.exe upgrade 0x0a12 0xfffe 0 0 dfu_image_v164.dfu tools\HidDfuCmd.exe, version 2.6.3.832 Release Copyright 2012-2016 Qualcomm Technologies International, Ltd.

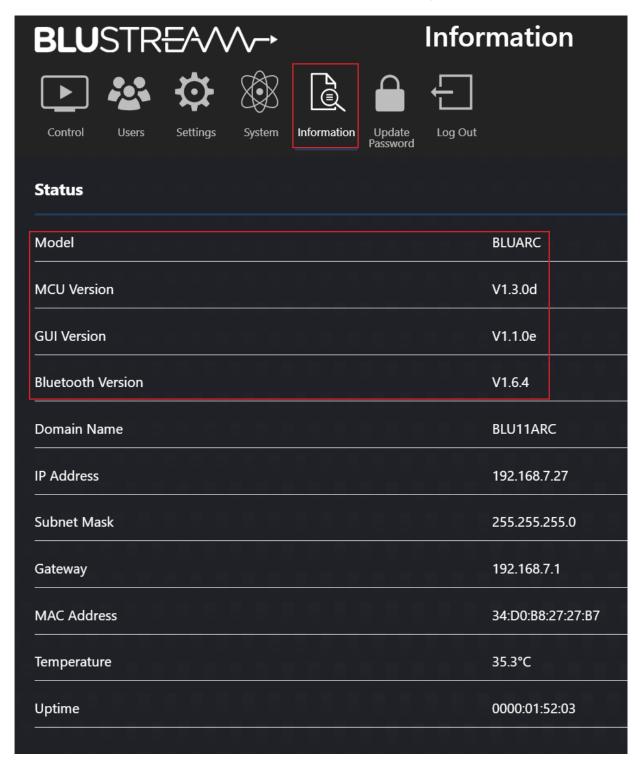
Found 1 devices. Do you want to upgrade all? (y/n) y upgrade succeeded Device reset succeeded

C:\Users\kevin\Downloads\BLU11ARC\Firmware\MCU\BLU11ARC_MCU_V1.3.0d_20240605\Bluetooth Firmware_V164>pause

Press any key to continue . . .
```

Checking Firmware Version

You can check the current firmware version by accessing the Information page within the web GUI. The firmware versions listed should match the firmware versions that were updated onto the BLUARC.



27) The firmware update process is complete.