



# UNATTENDED SOLUTION MANUAL

FOR FIRMWARE VERSION 4.3.5

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## 1. About BifrostConnect

When a system crashes, every minute waiting for IT support is expensive. And if it's a specialized system, in a remote location, or there's no network connection, traditional remote access solutions won't usually work.

BifrostConnect is a game-changing little box that opens a fast, secure connection to your IT equipment: Plug it in anywhere, any time, and bridge the gap to any device.

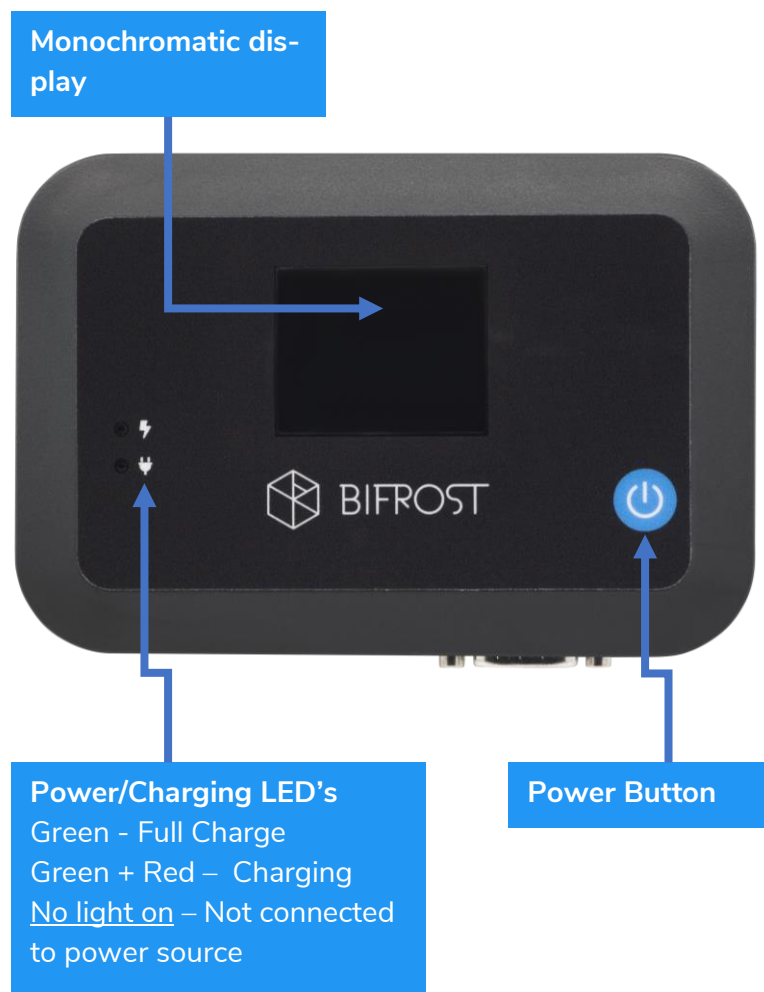


## 2. The BifrostConnect unit product layout

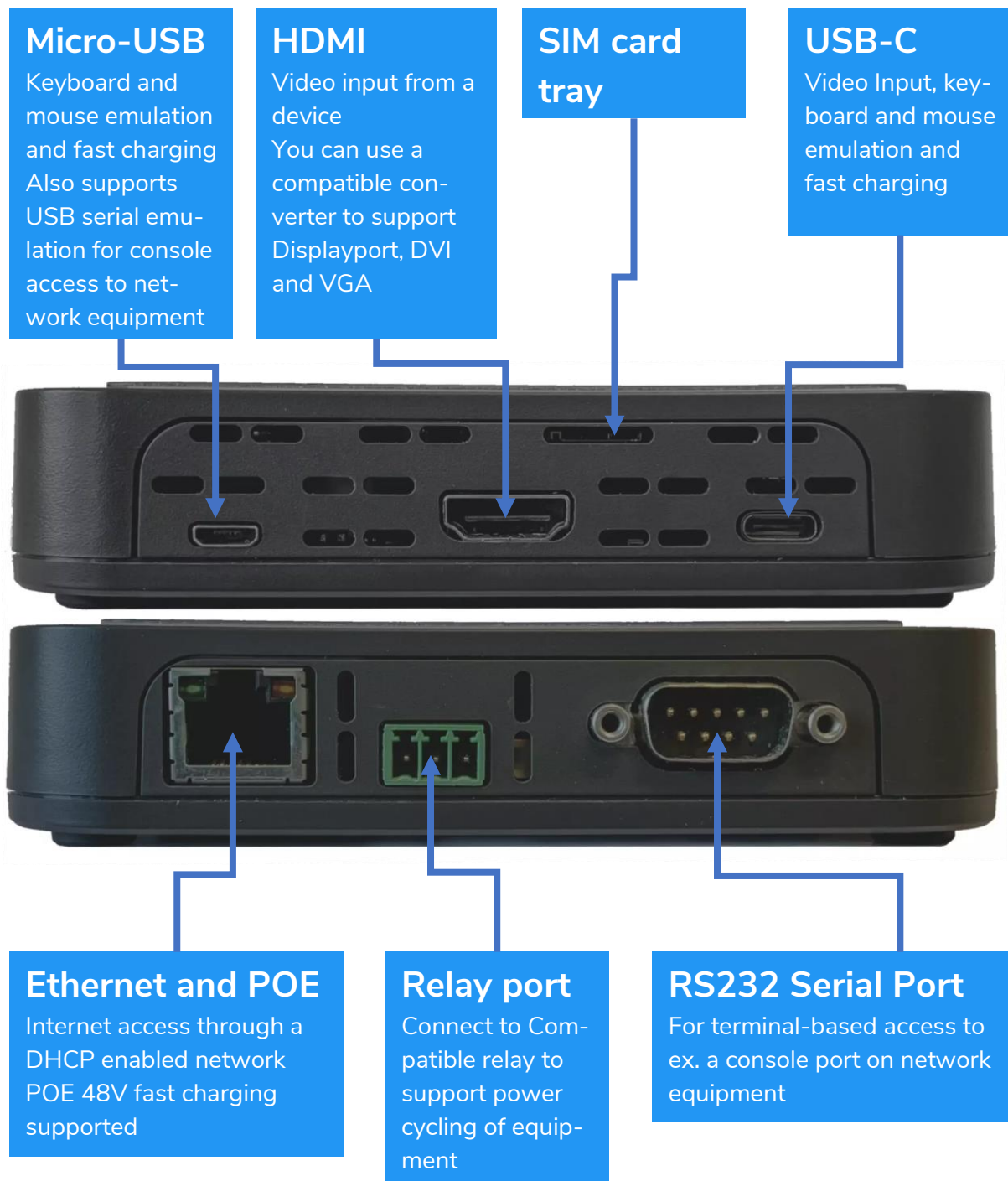
Please read the manual to operate the product safely and with ease.

### 2.1. The top of the BifrostConnect unit

The top of the BifrostConnect unit consists of a single blue push button (\*1), a monochrome display (\*2), and two LED lights, indicating power and charge state (\*3).



## 2.2. Inputs



**Note:** The BifrostConnect unit supports one video input at a time. **Either USB-C or HDMI and Micro-USB**

## 3. Starting a remote session

### 3.1. Powering “ON/OFF” the BifrostConnect unit

- To power “ON” the BifrostConnect unit, hold down the blue power button for at least 1 second and wait. You will hear a fan spinning up.
- To power “OFF” the BifrostConnect unit, hold down the power button for at least 3 seconds and wait.

### 3.2. Waiting for the Bifrostconnect unit to initialise

- When the screen states the name of the unit  
(Example: (“**Bifrost\_01**”)  
That means the unit has successfully connected to the BifrostConnect service.  
Shortly after it will show up on the list on the Manager when you log into the <https://manager.gotobifrost.com> interface. (See 3.3)

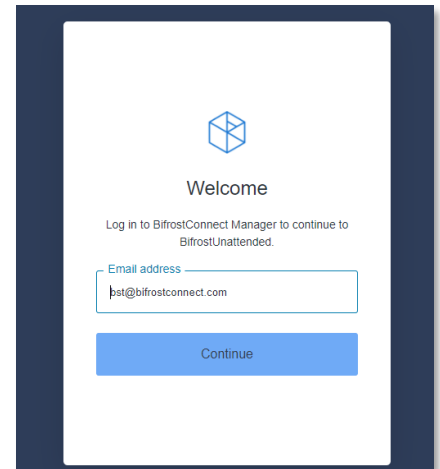
#### Tip:

- If the BifrostConnect is stuck stating “**Waiting for network**” the unit cannot connect to any network interface. Check the connection or go to “Troubleshooting” in this guide.
- If the BifrostConnect keeps saying “**Connecting to service**” the unit cannot access the BifrostConnect Service but it has network access. Check the connection or go to “Troubleshooting” in this guide.
- If the BifrostConnect is placed on a corporate network with strict network rules, make sure you allow the unit’s MAC address on the network, along with any Bifrost-Connect service domains. Contact us if you need any help.

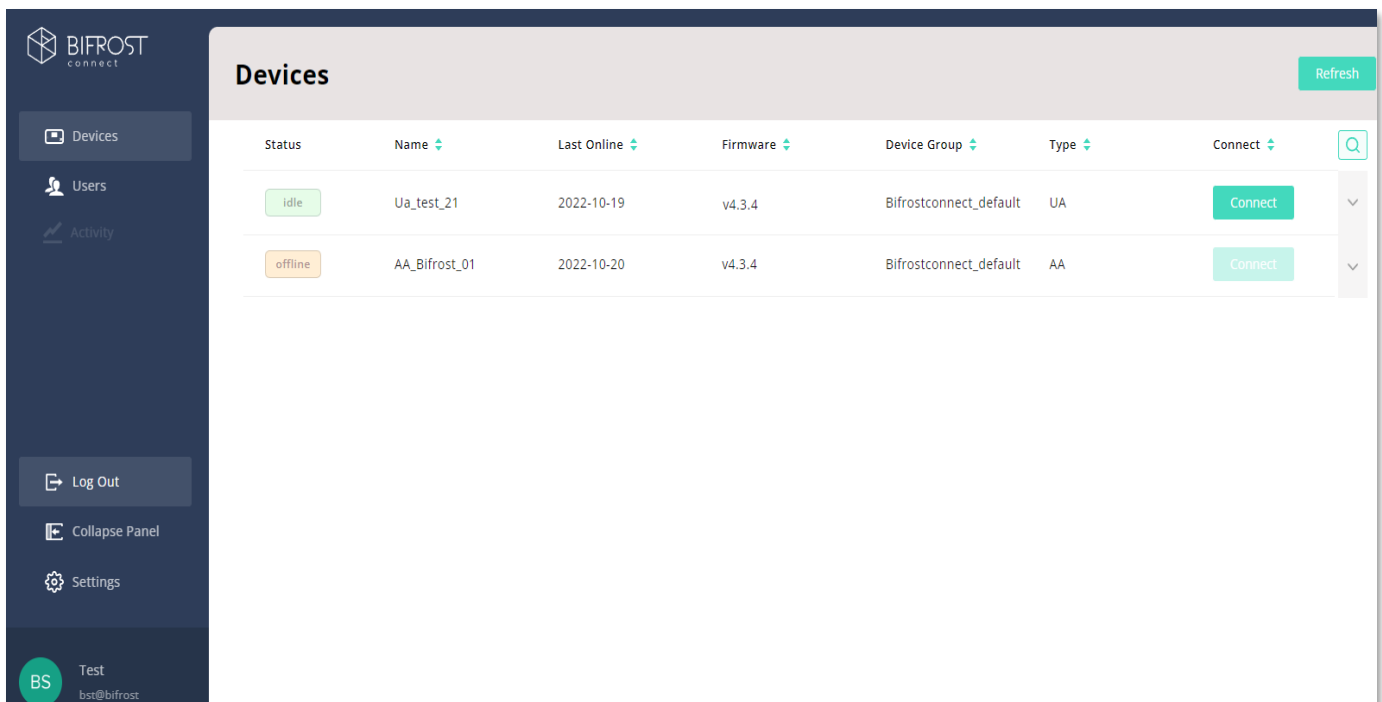
### 3.3. Accessing the BifrostConnect unit and the BifrostConnect Manager

Log into the Manager for the Unattended Access here:  
["https://manager.gotobifrost.com"](https://manager.gotobifrost.com).

- Enter your login credentials –  
“**Username**” and “**Password**”.  
(And 2 factor authentication)



When a Bifrost Unit is online you can connect to it by clicking on the “Connect” button to the right.



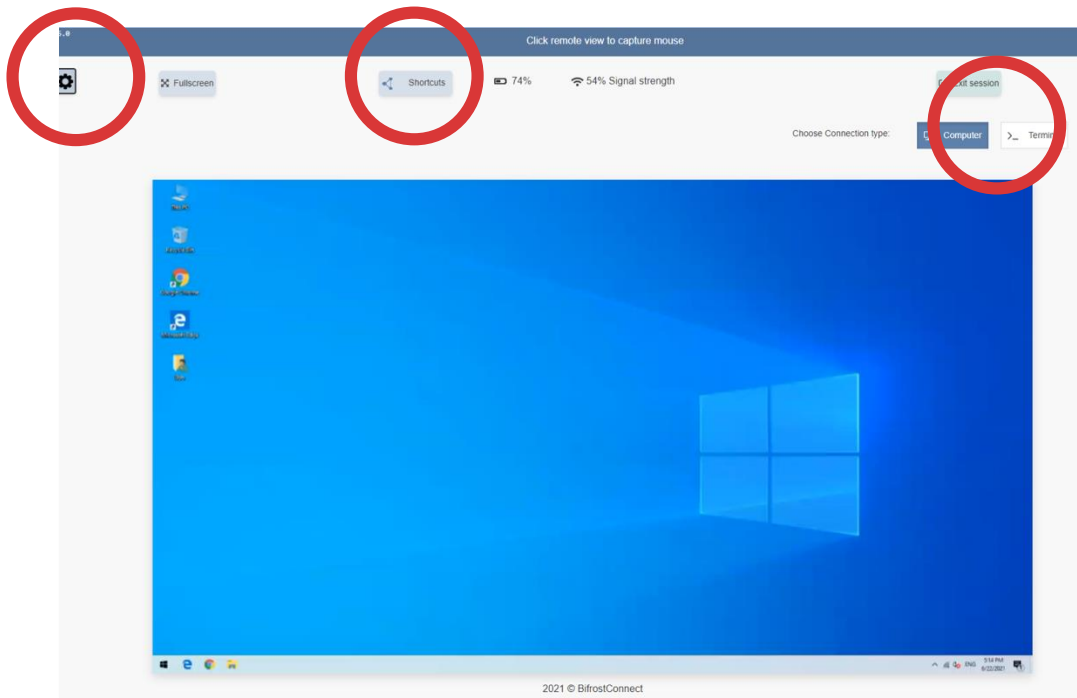
Status	Name	Last Online	Firmware	Device Group	Type	Connect
idle	Ua_test_21	2022-10-19	v4.3.4	Bifrostconnect_default	UA	Connect
offline	AA_Bifrost_01	2022-10-20	v4.3.4	Bifrostconnect_default	AA	Connect

To create more Users you simply go to “Users” and add more users, giving them “Admin” or “User” rights.

Right after you create a User they will be sent an e-mail so they can reset their password and login to the Manager.

### 3.4. Computer session

When using the computer session, you will be presented with a window such as the one below. Note the 3 feature areas. Settings, Shortcuts and Computer/Terminal session.



#### 3.4.1. Using the “Computer” session interface

Click inside the video feed to capture mouse and keyboard input.

- If you are in Fullscreen mode, use **Ctrl + Backspace** if you need to send” ESC” to the remote computer.



## Features:

1. Use “**Options**” to change settings like Wi-Fi, Bluetooth, Video quality etc.
  - Worth noting is that you can change the Mouse mode
    - **Mouse** (Normal mouse operation)
    - **Mouse Compatible** (for all devices not supported by normal mouse mode like iPads, Tablets and some old devices.
    - **Touch screen emulation** (Moves the mouse only when you click on something)
2. Use “**Shortcuts**” to send commands like “CTRL+ALT+DEL”
3. Use **PC session** or **Terminal session** to change session type on the fly.

### 3.5. Interface notes

The BifrostConnect unit acts as a secondary screen. If you already have a monitor connected to the computer (or a laptop), you must clone the screen to see the primary desktop through the BifrostConnect unit.

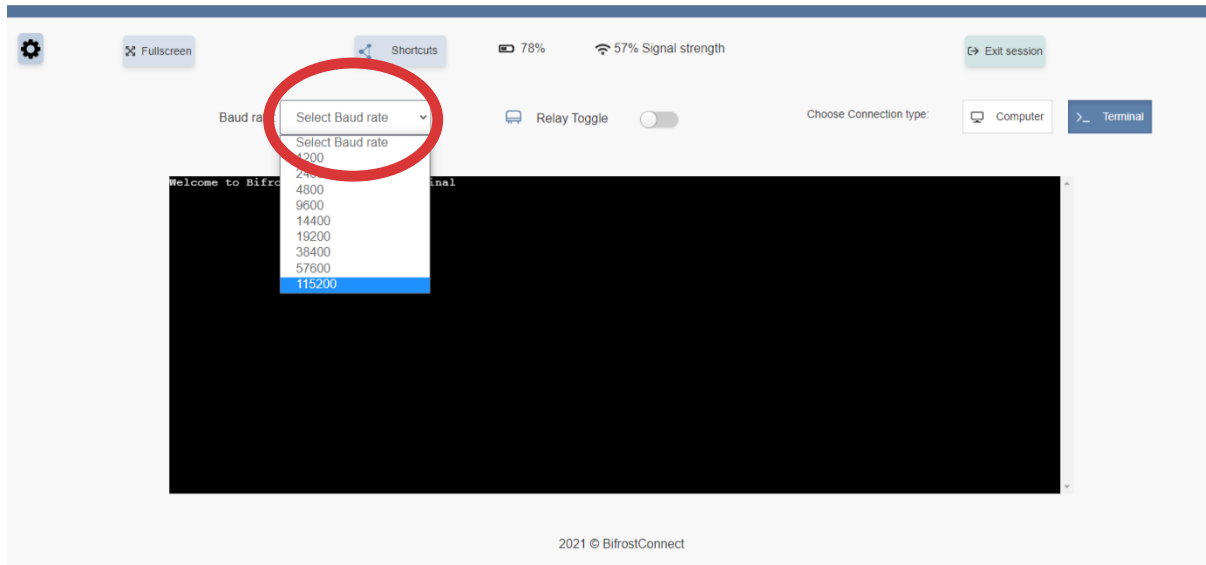
- On **Windows** use **WIN key + P** and select “Clone screen” **WIN key + P** is also located in the Shortcuts menu.
  - On a laptop, this can also be achieved by closing the lid (remember to disable “stand-by on lid-close” or connect a power source).
  - Closing the lid is also required for most laptops to output video when outside of the OS, (Ex. in the BIOS/UEFI).
- On **Mac OS** go into System Preferences > Displays > arrangement and Clone the screen.

If the picture is compacted, check the resolution on the computer itself. Some computers cannot output to resolutions like 1920x1080p with 2 monitors connected. (ie. Thin clients, POS systems).

- Tip: You can use an external DisplayLink® USB to HDMI dongle that acts as an extra graphics card on the PC (this requires a driver to be installed). This is handy if the computer does not have any video outputs.

### 3.6. Using the “Terminal” session interface

When using the Terminal session, you will be presented with a window such as the one below.



#### 3.6.1. Using the Terminal session

When using the “Terminal” session, please follow the steps below:

1. Select “**Baud rate**” (You can select Baud rate on the fly without the session restarting).
2. Click inside the window and press “**Enter**” to start receiving data from the remotely connected device.

## 4. Enabling a cellular connection

To use the built-in cellular connection (4G), you need to use a data SIM card. The SIM card must be a “Nano SIM card” without a PIN code.

### 4.1. Prior to installing the SIM card

Make sure the unit is turned off and not connected to a power supply.

### 4.2. Installing the SIM card

Turn the backside of the SIM card (golden surface) upwards (see picture to the right). Push it in gently until it “clicks” and stay put.

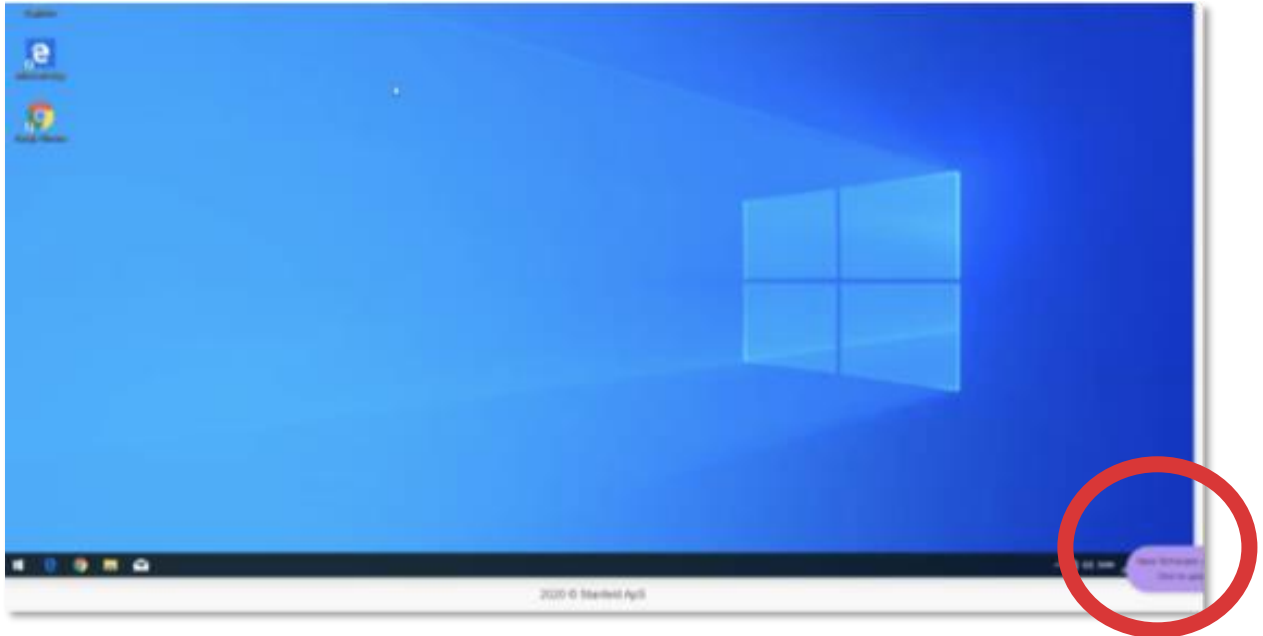
Power on the unit, by pushing the blue power button down. First-time initialization will normally take a minute or two.



### 4.3. Re-installing a SIM card

When switching SIM card to another provider, we recommend that you perform a factory reset of the BifrostConnect unit to clear any APN settings. See factory reset.

## 5. Firmware updates



1. Start a session. When a new firmware update is available, a pop-up will appear in the right corner of the browser.
2. Click on the pop-up and you will be prompted to update the BifrostConnect unit. This will make the BifrostConnect unit download the update.
3. The BifrostConnect unit will automatically update when the current session ends, and the download is finished.
4. If the Firmware update is not showing up, or you want to update manually from the BifrostConnect unit itself, follow the next steps in Troubleshooting to enter a “Menu “on the unit and update firmware. (See the last picture).

**Note:** You do not need to update firmware for the BifrostConnect to operate, but we strongly recommend that you do update the BifrostConnect unit when a new firmware is released, since we regularly improve or secure the firmware with patches.

## 6. Configuration and troubleshooting

The BifrostConnect Unit has an extra menu that can be accessed by pressing the power button **3 times** quickly (Press **3 times** again to exit it).

### 6.1. Menu



### 6.2. How to operate the menu

- To go inside a menu option or to change a setting, press the power button **2 times**.
- To move down the list, press the power button **1 time** slowly for each time you want to move down
- To exit the menu press the power button **3 times**.

## 7. Menu settings

List of options:

- **Network**
  - IP address: Shows the current LAN or 4G/WAN address
  - Network list
    - Shows a list of connected networks on all interfaces (4G, WIFI, LAN)
  - Ethernet
    - IP Address: Shows current IP
    - MAC Address: Shows the Ethernet MAC Address
    - **Enabled: True or False** (If you select False it will deactivate the Ethernet interface, but POE charging will still be enabled)
    - **Clear config** (Clears any saved Ethernet settings)
  - WIFI
    - IP Address: Shows current IP
    - MAC Address: Displays the WIFI's MAC Address
    - SSID (Shows the connected WIFI name)
    - **Scan** (Enter to scan and show a list of WIFI that the Bifrost can connect to)
    - **Enabled: True or False** (If you select False it will deactivate the WIFI)
    - **Clear config** (Clears any saved WIFI settings or SSID)
  - Cellular
    - IP Address: Shows current IP
    - Status: Shows the current 4G connection and network in realtime
    - APN: Shows the current APN setting
    - **Enabled: True or False** (If you select False it will deactivate the Cellular interface)
    - **Reset SIM** (Restarts the Sim-card initialization)
    - **Set APN to "internet"** (Change the APN to use "internet" as many Cellular operators use)
  - Use Proxy: **True or False** (Reserved for future use of proxy servers)
  - **Back** (Go back to previous menu)

- **Session**

- Mode: **Turn, Stun** or **Host** (Use either a TURN server to reach a BifrostConnect unit behind a Firewall or use the HOST setting will route traffic to a LAN only using MDNS. Stun is reserved for future use.)
- Server: **Turn03**(Netherlands), **Holland2**, **US1**, **Singapore1**  
(Change between the closest server from the BifrostConnect unit and the technician for lowest latency)
- Video Quality: **Low / Med / High** (Select the quality of the video encoding)
- SSH Enable: **True / False** (If true SSH sessions will be enabled)
- **Back** (Go back to previous menu)

- **System**

- Ver: ex. 4.3.2 (See the firmware version of the BifrostConnect unit)
- SN: (Shows the serial number of the Bifrost Unit)
- Update Firmware: (Search and install the newest Firmware manually. It will show a progress bar when the BifrostConnect unit is connected to the internet. It will automatically resume download or installation if a download error occurs, or if you restart the BifrostConnect unit)
- Idle turnoff: **True** or **False** (True will set the BifrostConnect unit to turn off after idling for 15 minutes with no session running or in a charging state.)
- Fast Charge: **True** or **False** (If true the BifrostConnect unit will try to charge with **1.5 A** from the source.  
False can result in the battery being discharged during a session as it will only charge with **0.5 A**.)

**Tip:** Some Android devices (e.g., Samsung Galaxy), requires this setting to be set to false to reduce power draw and unexpected behavior.

- **Back** (Go back to previous menu)

- **USB**

- Apply ETH cfg (Copy and apply the configured LAN settings from a USB stick)
- Apply WIFI cfg (Copy and apply the configured WIFI SSID settings from a USB stick)

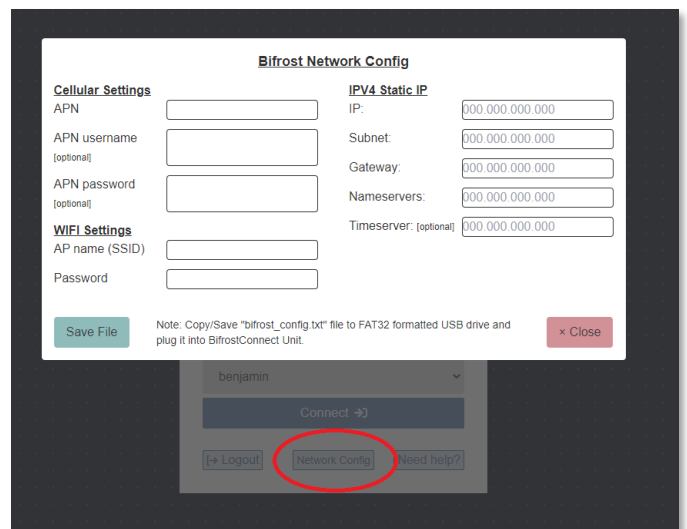
- Apply Cell cfg (Copy and apply the configured APN settings from a USB stick)

See section 7.1 on how to change network settings manually on a BifrostConnect unit.

## 7.1. Manual configuration of network

The BifrostConnect unit can be manually configured, if you need specific network settings for Wi-Fi, LAN and cellular APN settings. (Note: *Wi-Fi can also be changed in the interface when logged in*)

1. To get started, login to <https://login.gotobifrost.com> and click on “Network Config”. To generate a config file, enter the required settings and click save. You can later choose which settings you want to import to the BifrostConnect Unit.



2. Put the config file on a USB thumb drive which is formatted to FAT32 and use an OTG<sup>1</sup> adapter to insert it into the BifrostConnect unit like in the picture.

3. The BifrostConnect unit will show a “USB stick detected” if it recognizes the config file, and you will be greeted with the following options from the **USB menu**.



<sup>1</sup> OTG = On The Go

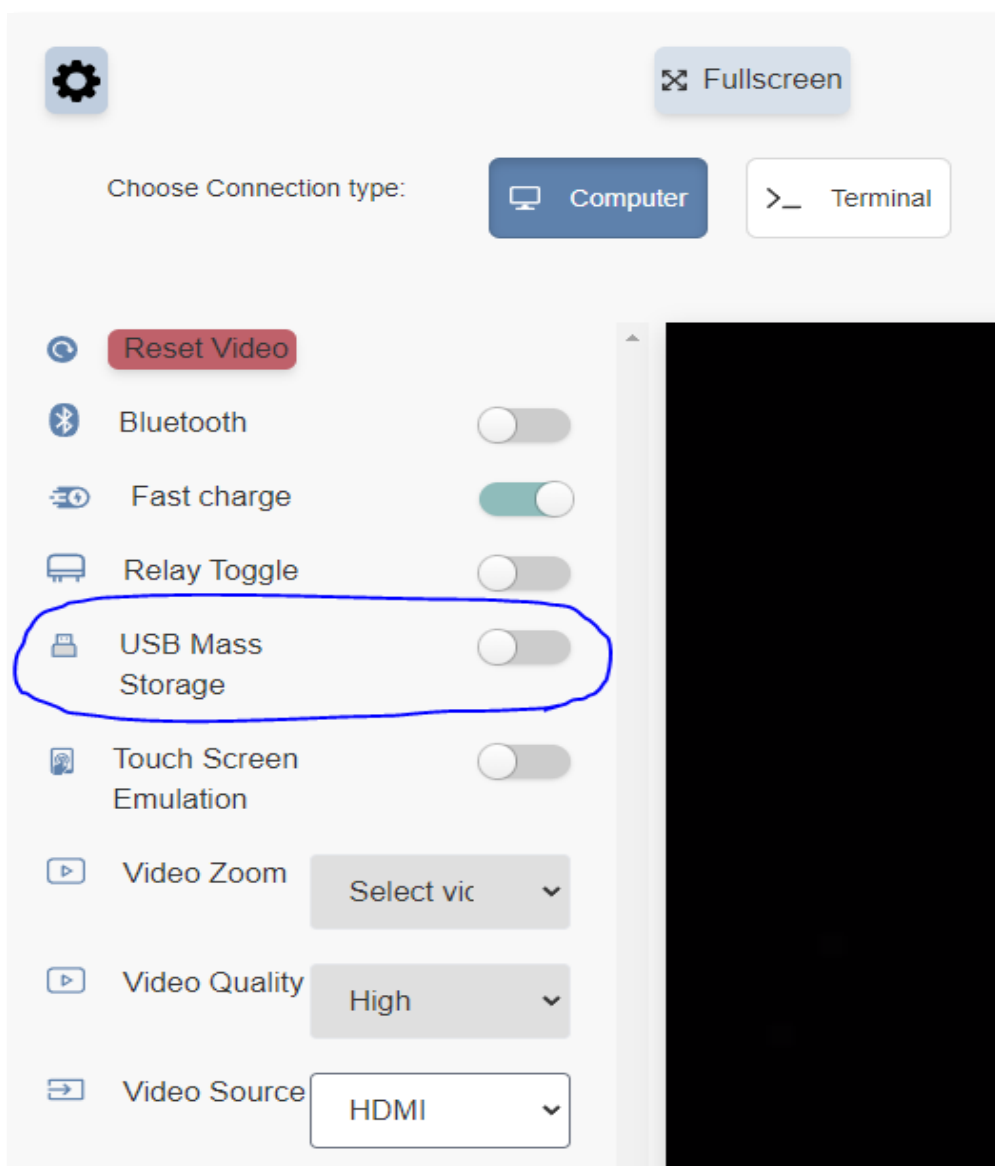


## 8. USB disk Emulation

The Bifrost unit contains about 6GB of available space that you can use as a virtual USB disk.

On the Web interface, go to “Settings” and then click on “USB Mass Storage”  
It will mount on the interface that you have connected. Either USB-Micro or USB-C.  
You can always override the automatic switching by going to “Video Source” and selecting either HDMI (micro-USB) or USB-C.

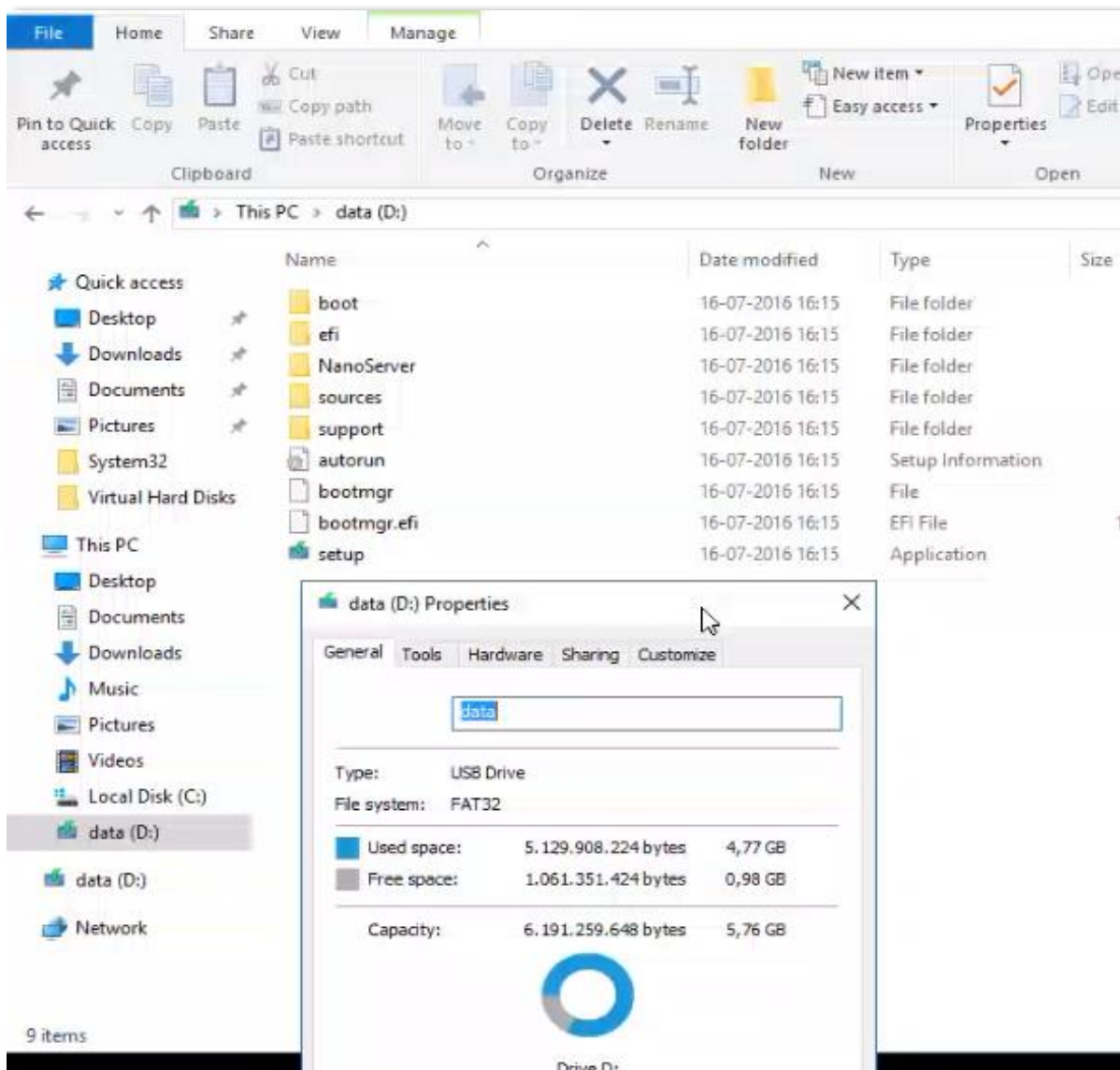
If you manually set the video source, the selection will be saved. Put back to “Auto” to have the Bifrost auto-select the video source again.



In this example we now have direct access to the Bifrost USB disk, and we have directly copied the contents 1:1 of a Windows image. This means that you can now boot from the Bifrost USB if you have a UEFI bios and are able to reinstall your operating system.

**Note:** If you need to use MBR (Master Boot Record) for older equipment, please use a Disk partitioning tool (like **diskpart**) to completely destroy the current partition (which is GPT by default), then create a new one with MBR and format to FAT32 or NTFS.

Afterwards use an image tool to make a bootable USB drive with the contents of the .img or .iso file of your choosing.



## 9. Factory reset

You should only use the factory reset button if the BifrostConnect unit fails to connect to the network (any type).

### 9.1. Manual factory reset

- Turn the BifrostConnect unit and face the back.
- Use a pencil or paperclip, to push the button in the upper left corner.
- Hold down the RESET button for 2-3 seconds to reset to factory settings.

The BifrostConnect unit will restart and any settings changed will be back to default.

