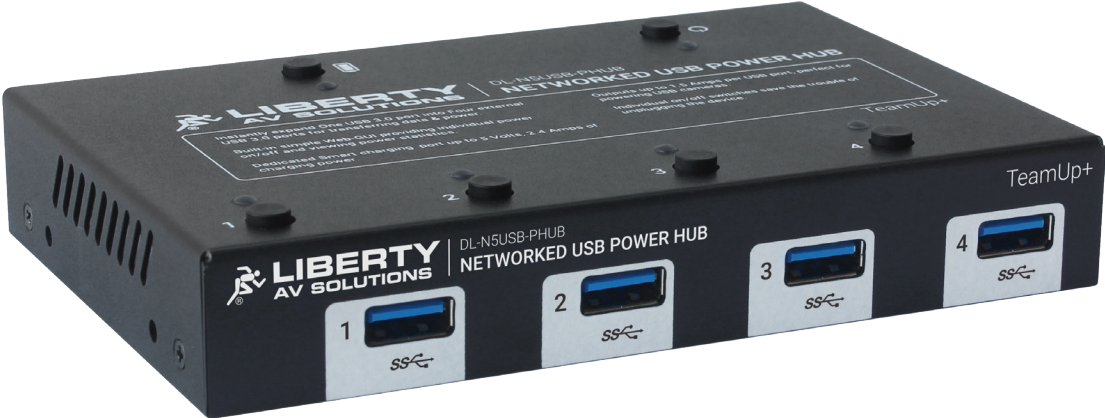


# QUICK GUIDE



## TEAMUP+ SERIES 4-PORT POWERED USB 3.0 HUB W/CONTROL

DL-N5USB-PHUB

# PRODUCT OVERVIEW

The Liberty AV DL-N5USB-PHUB is a commercial-grade, USB 3.0 SuperSpeed, 4 +1 port powered USB hub designed to expand the capability of your computer, all through a single cable. Add one dedicated power convenience USB port and interact with up to four USB devices simultaneously while providing full USB 3.0 charging power (5v 900mA per port). Transfer data and power devices like web cameras, capture cards, tablets, thumb drives, smart boards, microphones, and other USB peripherals with ease. The powered USB hub can fully support data transfer rates from SuperSpeed, Hi-Speed, and Full-Speed USB connections and is fully backward compatible to all USB 2.0 and USB 1.1 hosts. Offering simple control from individual on/off switches at each USB port, or by scheduling power cycles through the networked web GUI, each route saves the trouble of unplugging USB devices to power cycle a device, which ensures system uptime.

Featuring a low-profile design, the Liberty AV powered hub can be mounted in various locations, such as conference tables, display walls, and equipment racks (brackets included). No drivers or downloads are required for installation; although, connected USB peripherals may require a driver. All USB 3.0 ports are compatible with USB 2.0 devices—just remember the device will perform only at a USB 2.0 speed. The powered hub comes with a USB 3.0 cable, industrial-grade aluminum alloy with ventilation holes with LED indicators, mounting brackets, and an external power supply.

**Extension & Ultra-High-Speed Transmission:** Instantly grow one USB 3.0 port into four, each equipped with USB 3.0 backward-compatible technology, capable of data speeds up to 5 Gbps. Connect multiple USB peripherals to a laptop, including web/PTZ cameras, microphones, capture cards, etc.

**Beefier Power:** Provide the necessary current for high-power devices like USB HD cameras. The four ports share a current output of 4.5A, which ensures a maximum output of 1.5A per USB port! Remember, a typical laptop USB 3.0 port only provides 900mA.

**Smart-Charging Port:** In addition to four SuperSpeed USB 3.0 ports, this device includes a smart-charging port, providing up to 5V 2.4A of power. It's ideal for charging a device during installation and providing power to the room tablet to control the AV system afterwards.

**Simple Control:** Equipped with individual on/off push buttons or a full-blown web GUI for scheduling and metrics, dictating the state of each USB port couldn't be easier.

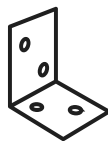
## PACKAGE CONTENTS



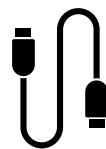
(x1) Power Adapter  
(DC 12 V 3 A)



(x1) Quick Start Guide



(x2) Mounting Brackets With Screws

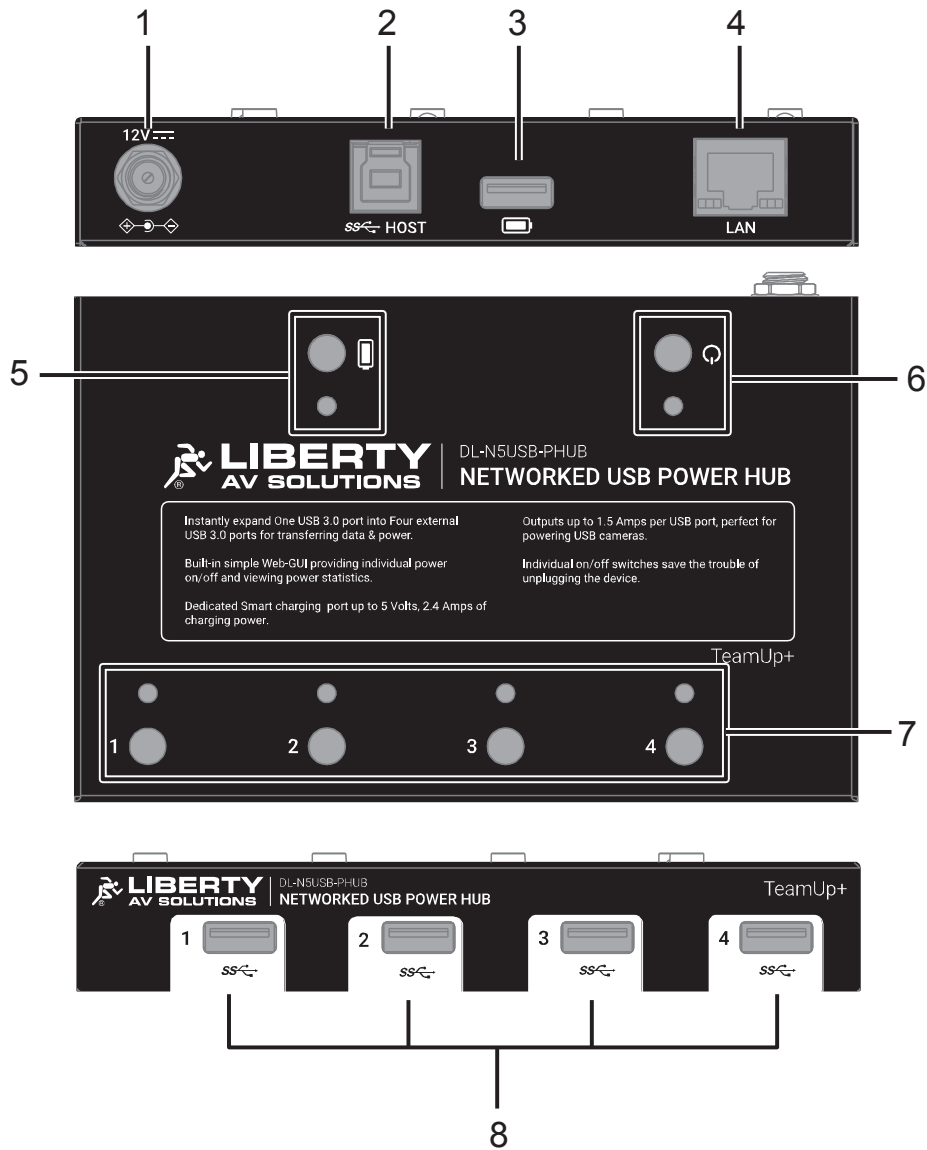


(x1) USB 3.0 Type-A to Type-B Cable (L=1.8m)



(x1) Networked USB Hub

# PRODUCT BREAKDOWN

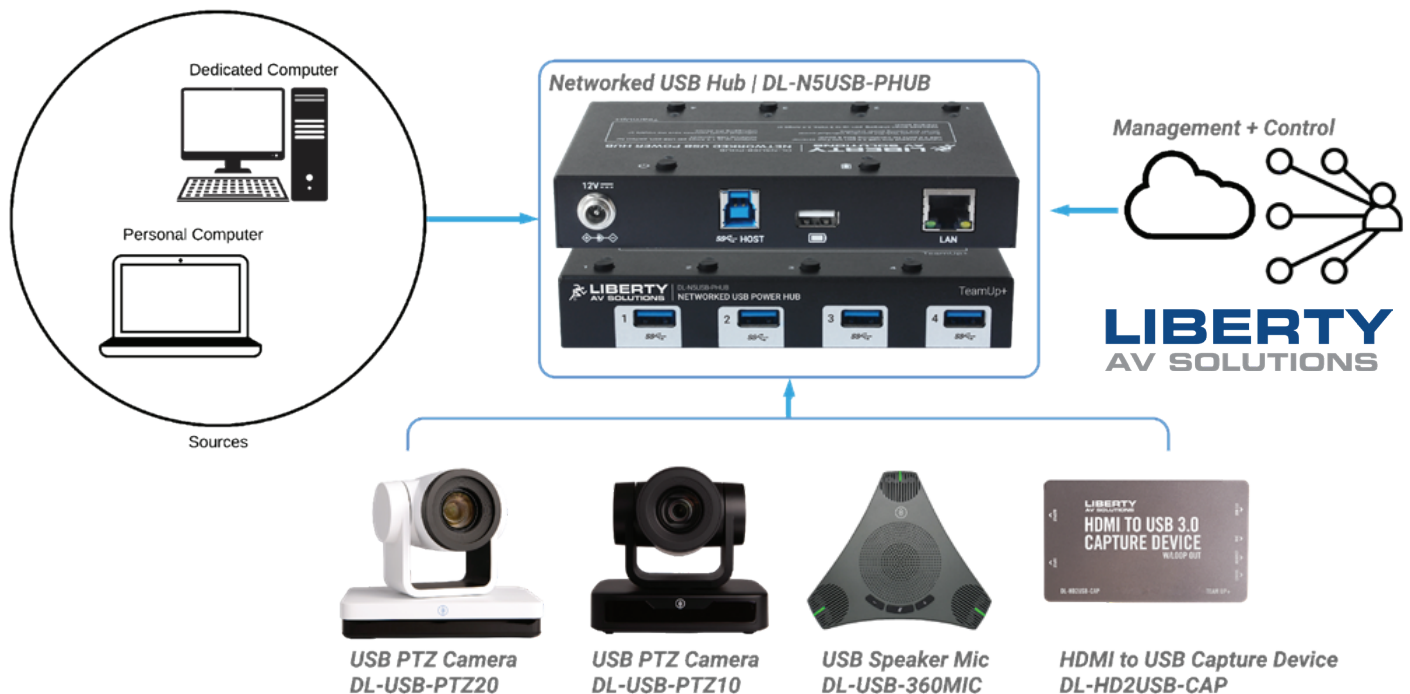


- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Female 12V DC Power Port</li> <li>2. Female USB 3.0 Type B Port: Host PC</li> <li>3. Female USB Type A: Charging Port</li> <li>4. Female RJ45 Port: Control</li> </ul> | <ul style="list-style-type: none"> <li>5. Power Button and LED: Host Port</li> <li>6. Power Button and LED: Charging Port</li> <li>7. Power Button and LED: Client Ports</li> <li>8. Female USB 3.0 Type A port: Client connectivity</li> </ul> |
|--|---|

# INSTALLATION

1. Plug the included AC power adapter into the power jack at the rear of the USB hub and an electrical outlet.
2. Plug the provided USB cable into the Host port of the device.
3. Plug the other end of the cable into your computer's port.
4. Connect USB devices or hubs to the USB hub's downstream 1 ~ 4 Client ports.
5. Make sure the power buttons are in the ON position for devices that you want to be accessed.
6. Use the optional mounting brackets where necessary.

## APPLICATION DIAGRAM



# MAINTENANCE AND TROUBLESHOOTING

## **No power**

- Check if the power adapter is normal, and ensure the provided power adapter is used.
- Press the power button to see if the device can be powered on.

## **LED corresponding to USB port is off**

Check to see if the port is closed, and press the corresponding button to open it.

## **LED 4 (and other LEDs) are off when it is connected to a USB device**

It exceeds the power supply capability of the device after this USB device is connected. Please reduce the quantity of USB devices or remove the high-power USB device.

## **The inserted USB device can't be recognized**

Please hold the corresponding ON/OFF Power button down for about 3 seconds to close the port and then press it to open the port again.

## **USB 2.0 port can't be connected to U disk or other USB devices**

The USB 2.0 port is a charging-only port and does not support data transmission. It can charge devices such as an tablet or phone.

# API COMMANDS

## First Steps

Establish a connection with USB hub through a TELENT session.

IP: The unit's assigned IP address. Default is 192.168.1.254

\*Port number: If required, port number is 23 by default.

## Establishing Commands

[SET USB PORT] denotes command key words, case

[prm prm1] denotes parameters and is case insensitive

<CR><LF> denotes a carriage return or a line feed; all commands must be ended with a carriage return or a line feed.

Description	Command	Example
Power ON/OFF USB Port	<p>Command: SET USB PORT prm prm1 &lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT prm prm1 &lt;CR&gt;&lt;LF&gt;</p> <p>Parameter: prm = {1, 2, 3, 4, 5, all}; 1~4: USB3.0 ports 5: USB2.0 charging port prm1 = {on, off} default: on</p>	<p>Command: SET USB PORT 1 ON &lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT 1 ON &lt;CR&gt;&lt;LF&gt;</p> <p>Description: Set USB port 1 TO ON</p>
Request USB Status	<p>Command: GET USB PORT prm &lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT prm prm1 &lt;CR&gt;&lt;LF&gt;</p> <p>Parameter: prm = {1, 2, 3, 4, 5, all}; 1~4: USB3.0 port 5: USB2.0 charging port prm1 = {on, off}</p>	<p>Command: GET USB PORT 1&lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT 1 ON &lt;CR&gt;&lt;LF&gt;</p>
Request USB port's Power Status	<p>Command: GET USB PORT prm prm1 &lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT prm prm1 value &lt;CR&gt;&lt;LF&gt;</p> <p>Parameter: prm = {1, 2, 3, 4, 5}; 1~4: USB3.0 port 5: USB2.0 charging port prm1 = {U, I, W, ALL} Voltage, current, power, all prm2 = {xxxx} The corresponding value, retain 2 significant digits</p>	<p>Command: GET USB PORT 1 U&lt;CR&gt;&lt;LF&gt;</p> <p>Return: USB PORT 1 U 2.4V&lt;CR&gt;&lt;LF&gt;</p>

# API COMMANDS CONTINUED

Description	Command	Example
Reboot any USB port	<p>Command: REBOOT USB prm &lt;CR&gt;&lt;LF&gt;</p> <p>Return: REBOOT USB prm&lt;CR&gt;&lt;LF&gt; prm = {1, 2, 3, 4, 5}; 1~4: USB3.0 Port 5: USB2.0 charging port</p>	<p>Command: REBOOT USB 2&lt;CR&gt;&lt;LF&gt;</p> <p>Return: REBOOT USB 2 &lt;CR&gt;&lt;LF&gt;</p>
System reboot	<p>Command: REBOOT&lt;CR&gt;&lt;LF&gt;</p> <p>Return: REBOOT&lt;CR&gt;&lt;LF&gt;</p>	<p>Command: REBOOT&lt;CR&gt;&lt;LF&gt;</p> <p>Return: REBOOT&lt;CR&gt;&lt;LF&gt;</p>
System reset	<p>Command: RESET&lt;CR&gt;&lt;LF&gt;</p> <p>Return: RESET&lt;CR&gt;&lt;LF&gt; Description: System reset</p>	<p>Command: RESET&lt;CR&gt;&lt;LF&gt;</p> <p>Return: RESET&lt;CR&gt;&lt;LF&gt;</p>

# MAINTENANCE AND TROUBLESHOOTING

## Maintenance

- If the USB hub has been powered on for a long period of time, please reseal the power adapter.
- When cleaning the USB hub, disconnect all connections, including power. Please use a dry, soft cloth to wipe down. If the dirt is substantial, gently clean using a neutral cleanser. Do not use a strong or corrosive detergent.

## Avoid

- Low-cost, uncertified USB cables.
- Spilling liquid on the USB hub.

## Troubleshooting

- Computer software doesn't detect the connected USB peripherals when connected to the hub:
  - Step 1: Make sure that any other applications that are using said peripheral(s) are fully closed.
  - Step 2: Within the software of your choice, make sure you have selected the device under "audio & video settings".
  - Step 3: Make sure the USB drivers on your computer are up to date.
- Computer hardware doesn't detect the USB hub:
  - Step 1: Make sure the on/off switch of the power port is turned on.
  - Step 2: Reconnect the hub's USB cable to your computer and try a different USB port if available.
  - Step 2: Restart your computer.

## Additional Information

The actual power provided to each USB device and port is based on typical USB standards. Otherwise, the power sent to the connected devices may become intermittent or disconnected.

For typical power reference, the below devices are often rated as follows:

Mouse: 100mA

Keyboard: Max. 500mA

USB 2.0 Web Camera: 480mA

USB 2.0 Microphone: 480mA

Portable Hard Disk: Max. 500mA

USB 3.0 Portable Hard Disk: Max. 900mA

\*Please double-check the specific rating of your devices before connecting into the Liberty networked hub.



# TECHNICAL SPECIFICATIONS

<b>USB Hub</b>	
Case Material	Industrial-grade metal chassis with metal brackets
Supported Transfer Rates	Transfer rate of 5Gbps/1.5/12/480 Mbps
Power Protection	Over current, over voltage, short circuit protection
USB Specifications	Fully compatible with USB 2.0/3.0/1.0 specification. Fully backwards compatible with USB 2.0/1.1 specification.
LED Indicator	6x Blue LED: Status for USB peripheral or power
<b>Features</b>	
Operating System	Windows®7 (1080p and under only), Windows 8.1, Windows 10 or higher MacOS™ 10.10 or higher Google™ Chromebook™ Version 29.0.1547.70 or higher Linux
USB Charging Protocol	Supports USB-IF Rev1.2 and BC 1.2
USB Communication Protocol	UVC 1.1
Control Methods	Front panel buttons, web UI, Telnet API
<b>Input/Output Interface</b>	
USB Interface	1x USB-B 3.0 upstream port, 4 x USB-A 3.0 downstream ports, 1 x USB-A 2.0 charging port
Support on Upstream Port	SuperSpeed (SS), HighSpeed (HS) and FullSpeed (FS) traffic. Note: Transfer rates are device and USB host controller dependent
Support on Downstream Ports	SuperSpeed (SS), HighSpeed (HS), FullSpeed (FS) and LowSpeed (LS) traffic
Control	1x RJ45 LAN Port
<b>Physical Parameter</b>	
Power Input	DC 12V/3A, 36W
Power	110-240V
USB 3.0 Port Max Power Output	5V/1.5A per USB port, up to 15' from device
USB 2.0 Port Max Power Output	5V/2.4A intended for charging only
Dimension (WxHxD)	140mm x 23mm x 90.2 (5.51" x 0.91" x 3.55")
Net Weight	0.31kg (0.68lb)
Certification	CE, FCC, RoHS

**Thank you for your purchase.**

For technical support please call our  
toll-free number at 800-530-8998  
or email us at [supportlibav@libav.com](mailto:supportlibav@libav.com)

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