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Introduction



WELCOME

Thank you for choosing the **ADDERLink Portal R100 series** a compact ZeroU™ device powered by the latest ARDx™ remote access technology from Adder. It provides secure, low-latency keyboard, video, mouse and audio connectivity via the Internet or a local network. Designed for image critical applications, it can also be used as a remote gateway into an ADDERLink INFINITY matrix or ADDERView KVM switch.

Hardware remote KVM

With DisplayPort™ video and USB2.0 for keyboard, mouse and other HID devices. Unlike remote access software it operates independently of the target PC, enabling BIOS control during boot and securely separating remote users from the host network.

ARDx Viewer

The ADDERLink Portal is powered by ARDx™ technology from Adder and is designed to be partnered with the ARDx™ Viewer (download from Adder.com), which provides a seamless user experience and powerful admin tools for managing connections and users.

High quality audio and video

Experience exceptional media streaming with HD 1920x1200 resolution at ultra-smooth 60Hz frame rates, 4:4:4 true color and 16-bit 44.1kHz PCM stereo audio. Fluid motion, accurate color and clear text reproduction for image critical applications.

Seamless User Experience

Inherently low latency provides precision control as though you are operating the host PC directly. On a network with suitable capacity, up to eight users can access concurrently without performance degradation.

Highly Secure

Enterprise grade security ensures your connection is safe. AES-256 encryption and RSA-2048 authentication offer the highest level of protection, trusted by security agencies and financial institutions worldwide.

Network Capability

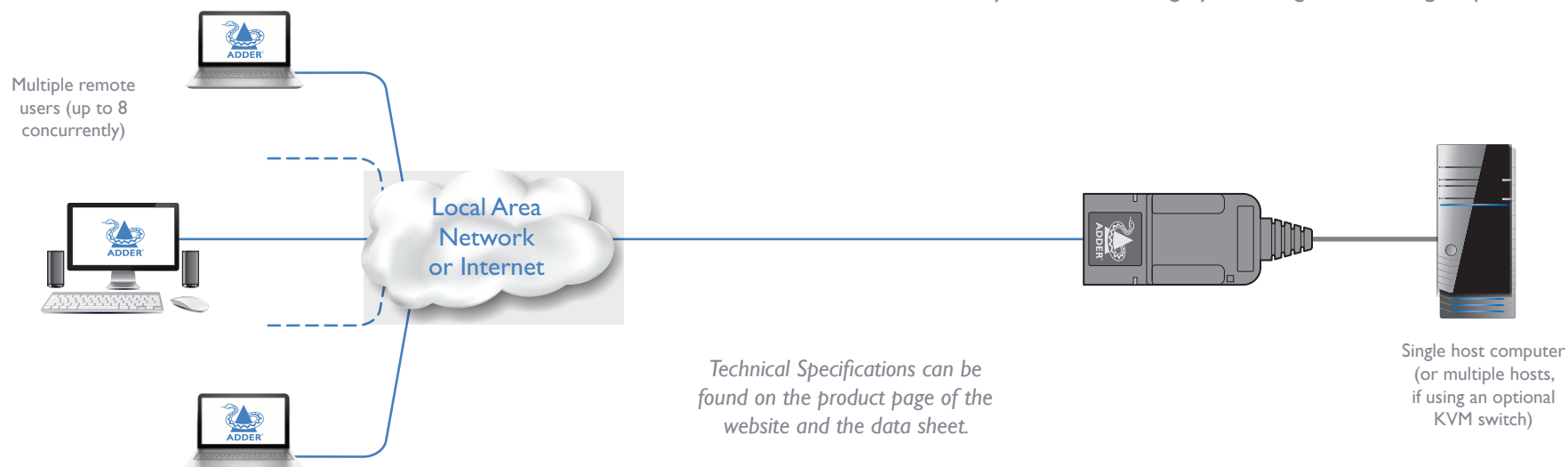
For critical performance applications, ADDERLink Portal is optimized for use over a Local Area Network (LAN). Wide Area Network (WAN) connectivity for remote internet access can be achieved through a firewall port or Virtual Private Network (VPN).

Simple Installation

The ZeroU™ dongle form factor requires no rack space. USB power from the host PC means no bulky power supply or spare wall socket is required although an external supply can be used.

Target any OS

Unlike remote access via software, the ADDERLink Portal can control any PC with a KVM connection, regardless of the Operating System. Advantageous for installations where the OS may be considered legacy, or configuration change is prohibited.



INSTALLATION

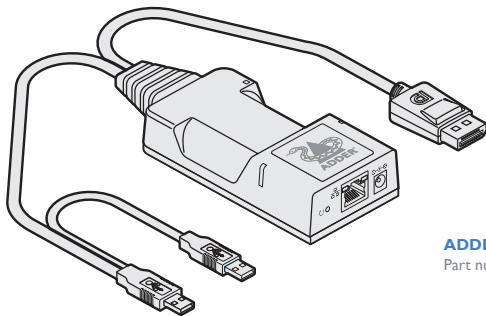
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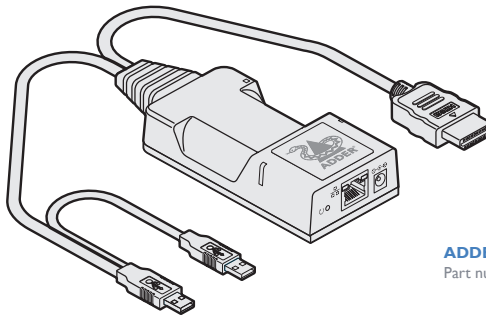
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SUPPLIED ITEMS



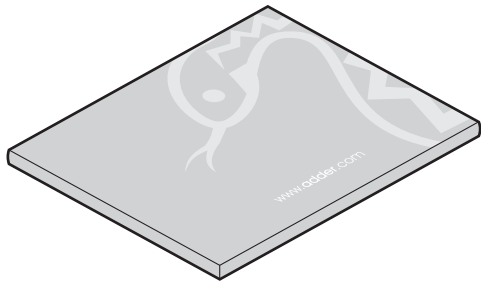
ADDERLink Portal with DisplayPort™ video
Part number: ALPR110T-DP

OR

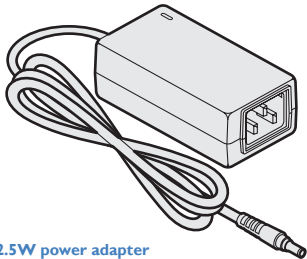


ADDERLink Portal with HDMI® video
Part number: ALPR110T-HM

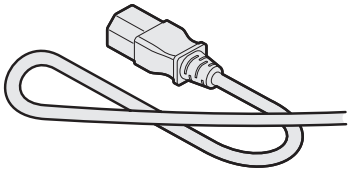
Information wallet
containing:
Four self-adhesive rubber feet
Safety document



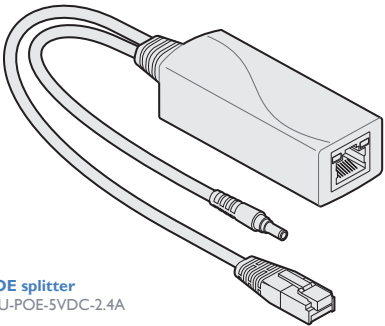
OPTIONAL EXTRAS



12.5W power adapter
Part number: PSU-IEC-5VDC-2.5A



Country-specific power cords
CAB-IEC-AUS (Australia)
CAB-IEC-EURO (Europe)
CAB-IEC-UK (United Kingdom)
CAB-IEC-USA (United States)



POE splitter
PSU-POE-5VDC-2.4A



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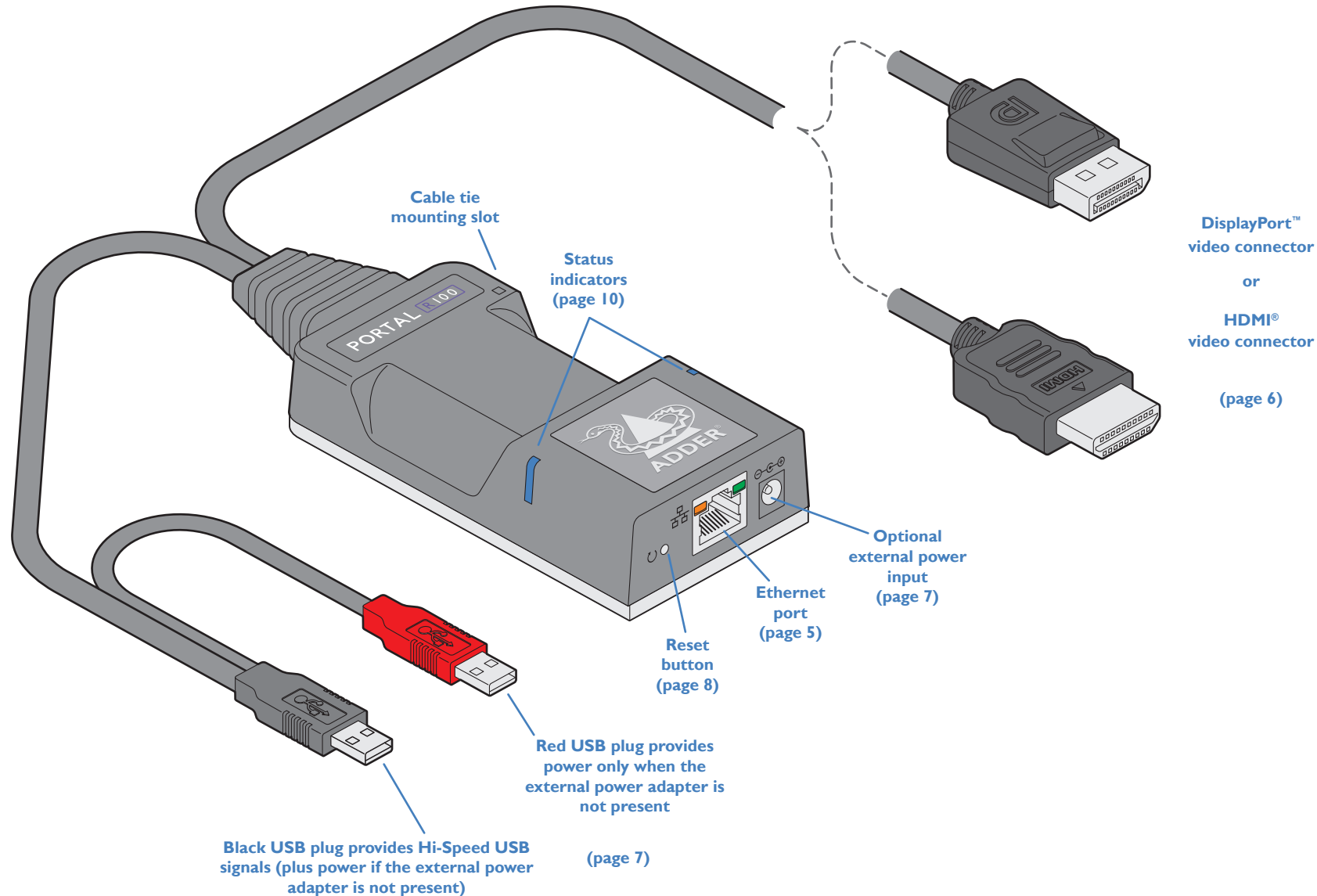


CONNECTIONS

Installation involves linking the ADDERLink Portal to various ports on the host computer:

‘Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.

Peut être installé dans des salles de matériel de traitement de l'information conformément à l'article 645 du National Electrical Code et à la NFPA 75.’

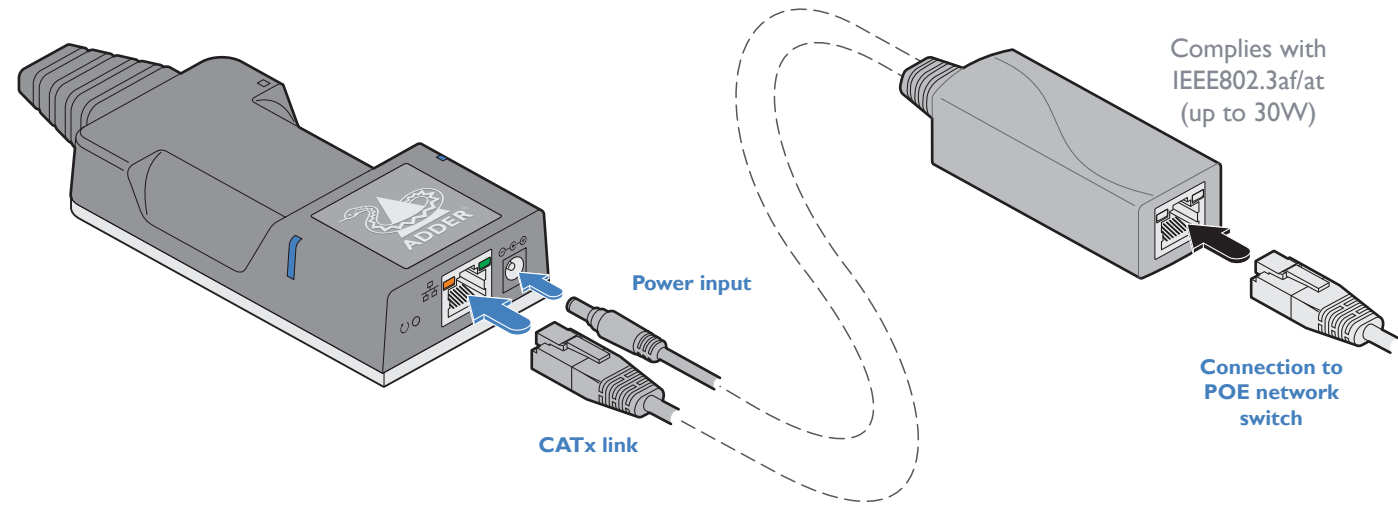


Connecting to POE installations

In situations where the ADDERLink Portal needs to be connected into (and powered from) a POE-equipped network, optional POE splitter devices are available.

To connect the Portal to an optional POE splitter

- 1 Situate the POE splitter (*part no: PSU-POE-5VDC-2.4A*) next to the ADDERLink Portal.
- 2 Attach the power plug of the POE splitter to the input socket on the front panel.
- 3 Attach the CATx link from the POE splitter to the RJ45 port on the front panel.
- 4 Link the RJ45 port of the POE splitter to the appropriate network switch.

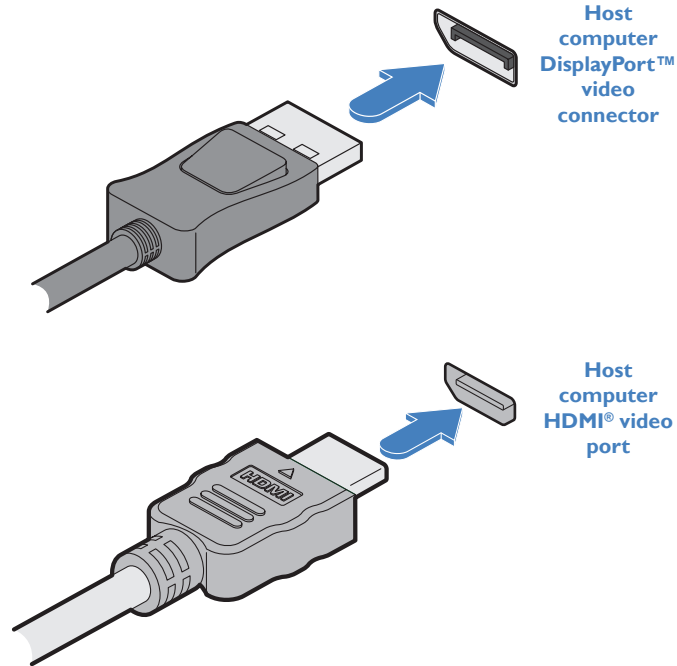


Video link

The ADDERLink Portal is supplied with a single video connector; either DisplayPort™ or HDMI® depending on the chosen variant.

To make a video link

1 Connect the video connector of the ADDERLink Portal to the video socket of the host computer:

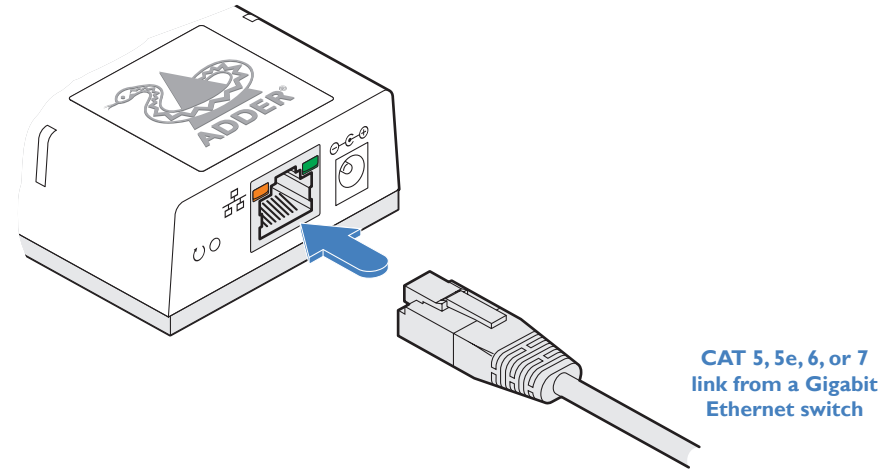


Link connection

Use the network port to join the ADDERLink Portal to a suitable network switch. It is also possible to connect a computer (using a cross-over cable or adapter) directly to the network port for configuration purposes.

To make a link connection

1 Insert a standard network cable into the socket on the front panel of the ADDERLink Portal.



2 Connect the other end of the cable either directly to a computer or suitable network switch.

USB and power connections

The ADDERLink Portal is designed to be as flexible as possible. It can either operate using an optional external power adapter (see page 3) or derive all of its power from its two USB plugs. The main advantage offered by using an external power adapter is that it allows the ADDERLink Portal to be active before the host computer; thus allowing a remote user to access the host's initial boot up and access the BIOS menu, when required.

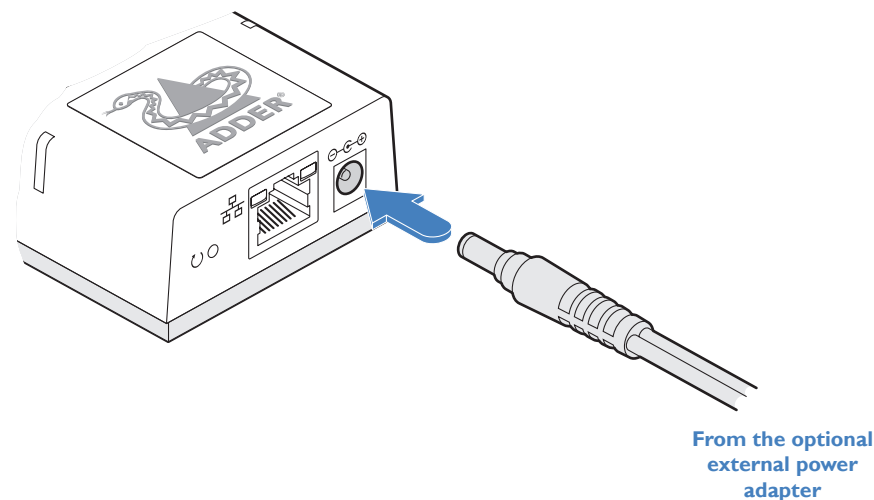
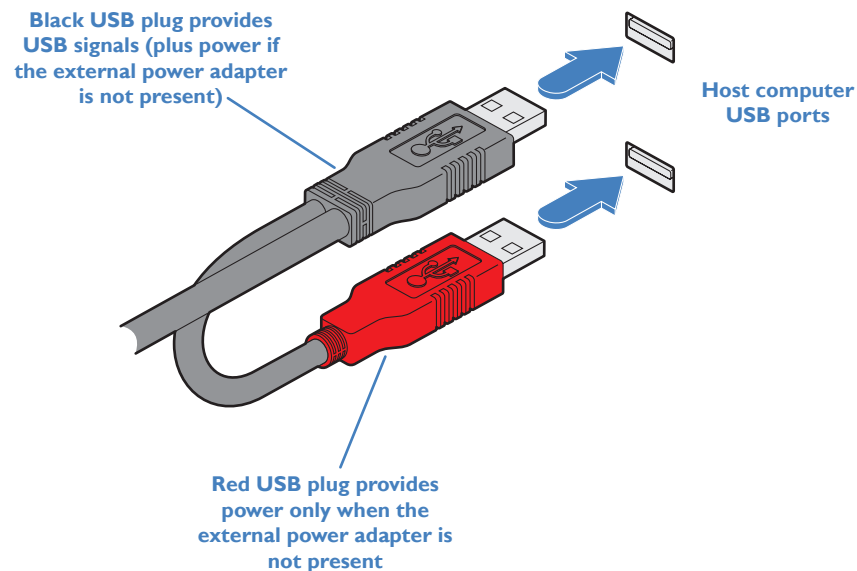
If powered by USB only, then both the black and red USB plugs need to be connected.

If powered by external power adapter, only the black Hi-Speed USB plug needs to be connected, for signal purposes. Whenever, the external power adapter is attached and operating, then power will be taken from it rather than the USB plugs. There is no problem if the red USB plug remains connected while the power adapter is used.

This is summarized as follows:

Power adapter	Black USB	Red USB	Power sourcing behavior
✗	✓	✓	Power taken from both USB plugs.
✓	✓	✗	Power taken from power adapter only.
✓	✓	✓	Power taken from power adapter only, unless it becomes unavailable, in which case power will be taken from both USB plugs after a short interruption.

Note: The USB plugs do not operate as a seamless failover for the external power adapter; there will be a short interruption as operation switches from one power source to the other.



PERFORMING A FLASH UPGRADE

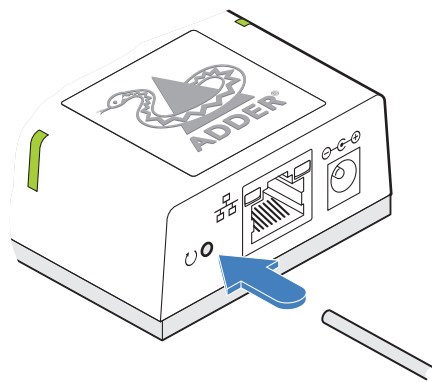
Flash upgrades are performed fully under control of the Adder ARDx™ Viewer. For details about how to perform a flash upgrade, please refer to the Adder ARDx™ Viewer guide.

RESTORING A BACKUP FIRMWARE IMAGE

The ADDERLink Portal retains a backup image of the previous firmware version in order to provide a fallback in case of any issues with the primary image. The backup image has no video or USB functionality; once invoked, you will need to load an upgrade file using the web interface to load a new primary image.

To restore the backup firmware image

- 1 Power on the ADDERLink Portal.
- 2 Use a narrow implement (e.g. a straightened-out paper clip) to press-and-hold the recessed reset button for roughly ten seconds until the indicators flash **green/red**.



Use a straightened-out paper clip to press the reset button for roughly 10 seconds

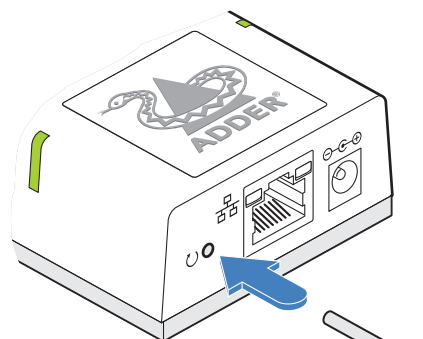
- 3 Release the reset switch.
- 4 The dongle will switch to the backup firmware image. Once complete, the dongle will then continually flash **green/red**.
- 5 Perform an upgrade to reinstate a fresh primary firmware image.

RESETTING

The recessed reset button provides a way to take control of the ADDERLink Portal if normal operation is affected.

To reset the ADDERLink Portal

- 1 Power on the dongle.
- 2 Use a narrow implement (e.g. a straightened-out paper clip) to press-and-hold the recessed reset button for more than 15 seconds until the status indicators turn **blue**:



Use a straightened-out paper clip to press the reset button for more than 15 seconds

- 3 Release the reset switch.

NOTE: Allow the dongle to fully complete the reset process by waiting for at least 30 seconds after you have released the reset button.

DEFAULT SETTINGS

Factory configured units are supplied with the following default settings:

- Default IP address: 192.168.1.42
- Default username: admin
- Default password: Admin00!

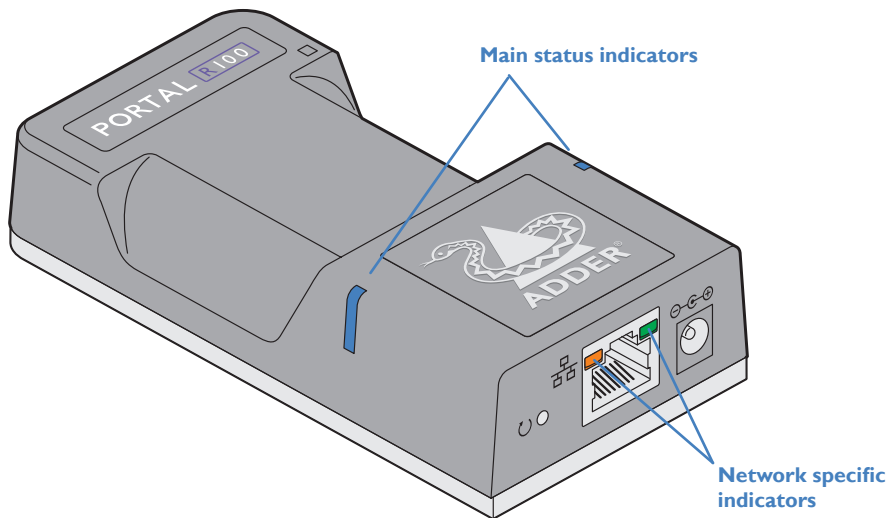
Note: You will be prompted to change the password the first time that you log in.

INDICATORS

The ADDERLink Portal contains various indicators to provide you with status information.

Status indicators

The two top panel indicators on the unit provide a useful guide to operation:



Main status indicators

- Off No power
- Green Operating - Video, USB and network link all present
- Orange Operating - But video, USB and/or network link missing.
- Green or orange flashing A user is connected
- Red (momentarily) Unit is booting up, or (consistently) Unit has failed, try rebooting.
- Red/green flashing Unit is in backup mode.
- Blue Factory reset has been activated.
- Red/blue flashing Unit is in upgrade mode.

Network specific indicators

- | | | | |
|----------|--------------|----------------------------|----------------------|
| • Orange | Off: No link | Flashing: Network activity | On: Link established |
| • Green | Off: No link | Flashing: Network activity | On: Quiescent link |

Further information



GETTING ASSISTANCE

If you are still experiencing problems after checking the information contained within this guide, then please refer to the Support section of our website:

www.adder.com



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APPENDIX A - Support for USB and digital audio

The ADDERLink Portal benefits from dual digital audio signal streams:

- **Uni-directional digital audio** - via the video connection,
- **Bi-directional digital audio** - via the USB connection.

Even though the digital outputs from a particular host PC might be carrying signals that originated from the same audio source, they can never be mixed.

For digital audio derived from the video connection, the host PC needs to know details of the required signal to send out, eg 16-bit, 32, 44.1 or 48kHz sample rate, etc, so a valid definition of the requirement must be sent to the host PC. This is done as an audio sub-set of the EDID definition that is used to declare the video display capabilities/requirements.

In the diagram below the ADDERink Portal has a fixed Video and Audio EDID (Extended Display Identification Data) definition that is presented directly to the host PC:



In response, the host PC begins sending video and audio signals that are appropriate for the receiving peripherals:



Note: ADDERLink Portal units support only two channel stereo audio and the transmitters will not encode digital audio from a PC with more than 2 channels.

Digital audio specifications

- **Digital audio** (DisplayPort™ or HDMI®):

Up to 2 audio channels,

Three choices of sampling frequencies: 32, 44.1 or 48kHz,

Linear Pulse Code Modulation: 16bit.

OPEN SOURCE LICENSES

This product includes binaries that are derived from the open source community by Adder under the GNU General Public License v2. Please follow the link below to view the full list of open source licenses used:

<https://support.adder.com/tiki/tiki-index.php?page=ALPR100:-OpenSource-Licence>

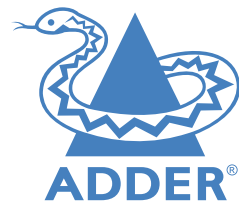
The software included in this product contains copyrighted software that is licensed under the GNU General Public License (GPL). You may obtain the complete Corresponding Source Code from Adder for a period of three years after the last shipment of this product, which will be no earlier than 2028, by contacting support@adder.com or writing to:

Attn: ACD/Open Source Request,
Adder Technology Ltd,
Saxon Way, Bar Hill,
Cambridge, CB23 8SL,
United Kingdom

Please write "Source for product XXXXXXXX" in the subject line,
where XXXXXXXX is the model and version number.

This offer is valid to anyone in receipt of this information.





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