

# **SDVoE Controller**

User Manual English

No. 38364

lindy.com

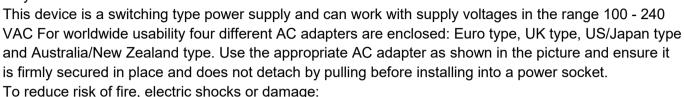
# Safety Instructions

#### ! WARNING!

Please read the following safety information carefully and always keep this document with the product.

Failure to follow these precautions can result in serious injuries or death from electric shock, fire or damage to the product.

Touching the internal components or a damaged cable may cause electric shock, which may result in death.



To reduce risk of file, electric shocks of damage.

- Do not open the product nor its power supply. There are no user serviceable parts inside.
- Only qualified servicing personnel may carry out any repairs or maintenance.
- Never use damaged cables.
- Do not expose the product to water or places of moisture.
- Do not use this product outdoors it is intended for indoor use only.
- Do not place the product near direct heat sources. Always place it in a well-ventilated place.
- Do not place heavy items on the product or the cables.
- Please ensure any adapters are firmly secured and locked in place before inserting into a wall socket

**Safety and Health Information:** LINDY products are designed for safe, effective use. Please review this guide for essential safety, health information, and details on the Limited Warranty for your product. Following these setup, usage, and care instructions enhances comfort, productivity, and safety. Failure to adhere to these guidelines may result in electric shock, fire, serious injury, or damage to the product or property. Additional support is available at lindy.com.

**Warning:** Keep out of reach of children. LINDY products and accessories are not toys and should not be handled by young children, as they may cause injury or damage

Suffocation Hazard: For products containing or supplied in plastic bags, keep bags away from babies and children to prevent suffocation.

**Power Supply Safety:** Applies to products using an AC power supply. Use only the original or compatible AC power supply specified for your product. Failure to follow this guidance may result in electric shock, fire, serious injury, or product damage.

**Proper Usage:** Keep the device away from moisture, including rain, snow, or water, and avoid placing it near heat sources, food, excessive dirt, dust, oil, chemicals, or direct sunlight. For devices with ports, avoid inserting objects, allowing dust to accumulate, or using heat sources like hair dryers or microwaves to dry it. If the device becomes wet, gently wipe the exterior with a dry cloth.

High-Risk Use: This product is not intended for applications where failure could lead to death, serious injury, or significant environmental harm ("high-risk use"). Use in such applications is solely at your own risk.

**Explosive Atmospheres:** Do not store or transport flammable or explosive materials alongside this product or its accessories. Always unplug and power off the product, and avoid charging in areas with potentially explosive atmospheres.

**Cable Connectors and Ports:** To prevent shock or fire when using connectors with a power supply, avoid contact during use. Keep connectors free from moisture, dirt, and contaminants. Discontinue use and contact support if any connector appears damaged.



**Cleaning:** To minimize risks of fire, electric shock, or product damage, unplug all cables and power off the device and accessories before cleaning. Use a dry cloth to clean the exterior only. Avoid inserting objects into ports, and do not immerse connectors in liquids; instead, wipe and dry them thoroughly. Risk in Repairs: Attempting to open or repair this product may expose you to risks of electric shock, fire, or injury. LINDY strongly recommends using professional repair services, as unauthorized repairs may void your warranty.

## **CAUTION**

**Skin Irritation:** This product contains materials commonly used in electronics that may cause skin irritation for some users. To reduce this risk, clean your device regularly, avoid applying lotions near contact areas, and discontinue use if irritation occurs. Consult your health care provider if symptoms persist.

**Cable Safety:** Exposed cables can pose a tripping hazard. Arrange cables to prevent tripping or pulling risks and protect them from crushing, sharp bends, and heat exposure. Regularly inspect cables and discontinue use if damaged. Unplug cables during lightning storms or for long-term storage.

#### NOTICE

**Heat-Related Concerns:** The product may become warm during regular use. Avoid prolonged skin contact, ensure adequate ventilation, and use in well-circulated areas to prevent overheating and discomfort.

**Personal Medical Devices:** Electronic emissions and magnetic fields from LINDY products may unintentionally interfere with medical devices, despite regulatory compliance. If you suspect interference, turn off the product immediately. For guidance on using electronic devices nearby, consult the manufacturer of your medical device or your healthcare provider.

**Handling:** Handle your LINDY product with care. The product may be damaged if dropped, punctured, or exposed to liquid. If damage is suspected, stop using the product to prevent potential hazards.

# Instructions for Use of Power Supply

To connect the adapter Slide the desired plug adapter into the power supply until it locks into place.

To remove the adapter Press the push button latch. While pressed, remove the adapter.



# Introduction

Thank you for purchasing the SDVoE Controller. This product has been designed to provide trouble free, reliable operation. It benefits from both a LINDY 2-year warranty and free lifetime technical support. To ensure correct use, please read this manual carefully and retain it for future reference.

SDVoE is a globally recognised standard for high quality distribution of AV content with other features, including control, matrix, video wall and multi view over longer distances via 10G Network with no compressions and latency.

This Controller can be used to manage the Lindy SDVoE Transceiver 38365 that features HDMI®, USB, IR, RS-232 and Audio signals to distribute all the signals through a 10G managed network switch and to set up many configurations and layouts. It supports dual network ports, one for network control and one for multicast video distribution.

It provides control via Web GUI, TCP, RS-232, IR & GPIO.

SDVoE Alliance® is a registered trademark and SDVoE™ and SDVoE API™ are trademarks of the SDVoE Alliance.

# **Package Contents**

- SDVoE Controller
- IR Emitter Cable, 1.5m
- IR Receiver Cable, 1.5m
- 2 x Mounting Ears & 4 x Screws
- 2 x 3-Pin Terminal Block
- 6-Pin Terminal Block
- 12VDC 1A Multi-country Power Supply (UK, EU, US & AUS), Screw Type DC Jack: 5.5/2.1mm
- Lindy Manual

# **Features**

- Supports video, audio, RS-232, IR, KVM control and management of the distributed system
- Maximum point-to-point Distance: 100m (328.08ft)
- PoE (Power over Ethernet) support on Video LAN port
- Built-in Web GUI control interface, supporting Drag & Drop operations and image preview
- Dual network ports to isolate Controls and Multicast networks
- Support LAN/RS-232 port control and third-party central control (API commands available on request)
- Support IR Control (20 60KHz) on IR IN 3.5mm port (12V)
- 4 channel GPIO control ports (5V/12V optional level)
- HTTPS, SSH, SFTP security compatible
- Screw Type DC Jack for a secure power connection

## Specification

Transmission distance: 100m Network Video Bandwidth: 1G

PoE Standard: 802.3at

Operating Temperature: 0°C - 40°C (32°F - 104°F) Storage Temperature: -20°C - 60°C (-4°F - 140°F)

Relative Humidity: 20 - 90% RH (Non-condensing) 

Metal Housing Colour: Black

Power Requirements: AC100-240V 50/60Hz

Power Consumption: 8.4W

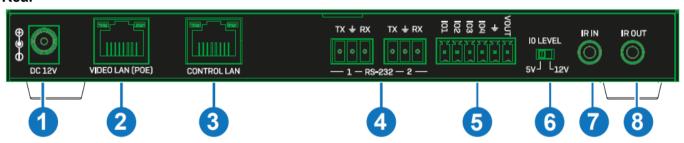
Installation

#### **Front**



- 1. RESET Button: Press and hold this button for 10 seconds when the unit is powered-on until the STATUS LED starts flashing to restore the default settings.
- 2. POWER LED: Indicates power.
- 3. STATUS LED: This will flash yellow/green every second until the unit boots up completely and control LAN is ready, then it will stay on.
- 4. UPDATE: Firmware update port (do not connect it while the unit is working).

#### Rear



- 1. DC 12V: Connect the 12VDC 1A PSU to an AC wall outlet and securely connector to the unit.
- 2. VIDEO LAN (PoE): Connect to the same Network Switch where all SDVoE Transceivers are connected using a single RJ-45 Cat.6A or above cable. The unit can be powered via PoE if the connected Switch has this feature.
- 3. CONTROL LAN: TCP/IP control network port.
- 4. RS-232: Connect one or two PC, Serial Controller or Serial device via two phoenix block 3-way connection for the pass-through transmission of RS-232 commands.
- 5. 6-Pin Phoenix Connector: 4 channel I/O level outputs, 1 channel ground, 1 channel power output (up to 12V 0.5A)
- 6. IO LEVEL: DIP Switch to control I/O level output and Voltage out; switch to left for 5V I/O level out, switch to right for 12V I/O level out.
- 7. IR IN: Connect the supplied IR Receiver cable for 12V IR signal reception.
- 8. IR OUT: IR signal output port (reserved for future use).

#### Please Note:

- As default the IP mode of the CONTROL LAN port is DHCP, the PC connected needs to be set to "Obtain an IP address automatically" mode and an optional DHCP server (for example a network router) is recommended in the system.
- If there is no DHCP server in the system, 192.168.6.100 will be used as the IP address of the CONTROL LAN port. Set the IP address of the PC in the same network segment (for example 192.168.6.88).

# Operation

#### Web GUI

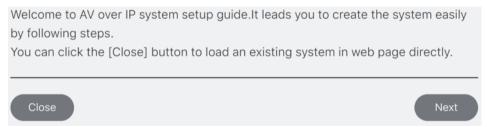
This Controller can be managed via the built-in Web GUI. Please follow the below steps.

Input the Controller's default IP address (Control LAN: 192.168.6.100, Video LAN: 169.254.8.100) or the URL (http://controller.local) into the Web browser address bar on the PC to enter the Web GUI login interface:



Select the default username (admin) and password (admin) on the above login interface. Then, click on **Log In** to enter the password modification page; please set a six-digit password and then use the new password to login the web GUI.

For the first time, you need to setup the project, as shown in the following picture:



Click on **Close** button to load an existing project in the web page directly or click on **Next** button to go to the next step.

To setup AV over IP system, you need to set the IP management mode of the Video LAN domain. The IP management modes are:

• Automatically managed by Controller Box.

This is the mode as factory default. The IP address assignments to Controller Box Video LAN, Encoders and Decoders will be managed by Controller Box firmware automatically. In this mode, there is no need to add router in the system on Video LAN domain.

DHCP mode.

This is the mode for system in which there is a DHCP router on Video LAN domain to assign IP addresses for Controller Box Video LAN, Encoders and Decoders. The router acts as a DHCP server. It's recommended to set the net mask of router to 255.255.0.0.

Static IP mode by manual settings.

This is the mode for system in case IP address resources can be assigned manually for Controller Box Video LAN, Encoders and Decoders. Reminders as below:

a. The network settings of Controller Box Video LAN, Encoders and Decoders must be on the same subnet.

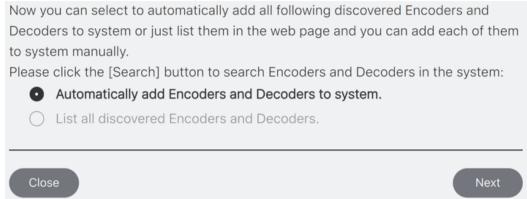
b. It's recommended to set the net mask of Controller Box Video LAN, Encoders and Decoders to 255.255.0.0.

On this interface, you need to set the IP mode of Video LAN.

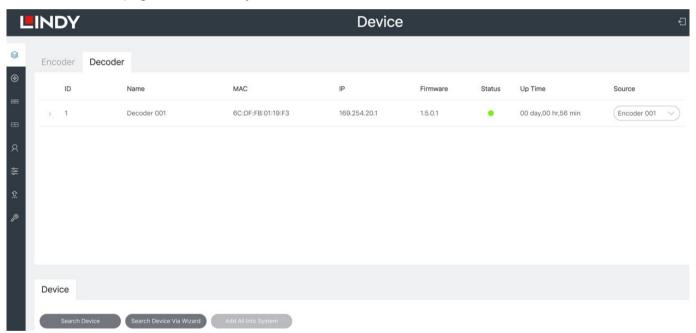
## Mode 1: Automatically managed by Controller Box

The IP addresses of the Video LAN port, Encoders and Decoders are assigned by the Controller automatically.

Click on **Next** button and wait for the completion to enter the interface as shown below:



Select **Automatically add Encoders and Decoders to project** and click on **Next** button to enter the Device page, the system starts to search for devices. All the connected devices will be listed under Encoder/Decoder pages automatically.



If it's selected **List all discovered Encoders and Decoders** in the previous step, all the connected devices will be searched and listed in the Device list. Then an inquiry box will pop up, if selecting **Yes**, all searched devices will be added into the system directly; If selecting **No**, the user has to manually add them into the system by clicking the **Add** button behind each device one by one or all together clicking **Add All Into System**.

To change the IP mode of Video LAN, click on **Search Device Via Wizard** on the Device interface, and switch back to the IP mode select interface.

## Mode 2: DHCP mode

Please follow the same steps shown in **Mode 1** operation.

Mode 3: Static IP mode by manual settings

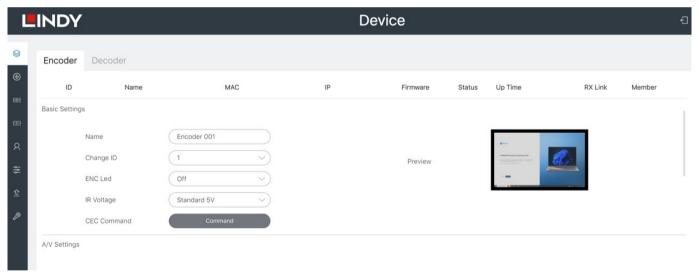
Controller Box Vide	o LAN port Network Settings:
IP Address	169 · 254 · 8 · 100
Subnet Mask	255 · 255 · 0 · 0
Gateway	169 · 254 · 8 · 1
Reminder:	
	network is set, the IP addresses of following discovered Encoders and Decoders will be assigned to the same domain with se click the [Next] button to set the IP address range of Encoders and Decoders.
Close	Next

Manually set the IP Address, Subnet Mask and Gateway of the Video LAN port. It's recommended to use different IP network domain from Control LAN port.

Then please follow the same steps shown in **Mode 1** operation.

#### **Device Page**

On this page is possible to to check the information of the Encoders and Decoders in the system, such as ID, name, MAC address, IP address, Firmware version, Online/Offline Status, Up Time, RX Link, Member/Source, and configure each Encoder/Decoder after clicking the drop-down icon on the left side of the ID.



## **Encoder**

## **Basic settings**

**Name:** change the name of the Encoder (maximum length is 16 characters, special characters are not supported).

**Change ID:** set the ID of the Encoder (ID range: 1-762). Both ID and name cannot be duplicated.

**ENC Led:** "Show me" function of the Encoder, used to quickly find the corresponding device. Click the drop-down menu to select the ENC Led status:

Off: The front panel ENC Led is steady on after flash status is turned off.

Flashing: The front panel ENC Led is flashing.

Flashing 90s then off: The front panel ENC Led is steady on after flashing for 90s.

IR Voltage: Click the drop-down menu to select the IR voltage.

**CEC Command:** Click the **Command** button to pop up the CEC command window. The user can control the operation of each signal source device connected to the Encoder by pressing the corresponding buttons or icons. You can simultaneously control multiple signal source devices after checking **Select All**.

**Preview:** See the preview of the Encoder.

A/V Settings

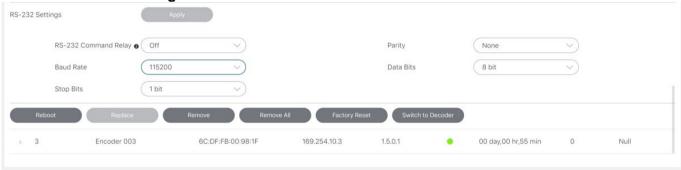


**EDID:** Click the drop-down menu to select the EDID for the Encoder.

Copy EDID: Click the drop-down menu to select a Decoder for EDID copy.

**Audio:** Click the drop-down menu to select the audio source (HDMI®/L/R IN). When HDMI® is selected, Encoder HDMI® input is the audio source for Encoder HDMI® output and Decoder audio output. When L/R IN is selected, Encoder/Decoder L/R IN audio is the audio source for Encoder HDMI® output and Decoder audio output.

RS-232 and other Settings



RS-232 Command Relay: Click the drop-down menu to select On/Off to turn on/off the

RS-232 command relay function. When the RS-232 command relay function is turned on, the Decoder's locked signal routing function is disabled.

Parity: Click the drop-down menu to set the parity.

Baud Rate: Click the drop-down menu to set the baud rate.

**Data Bits:** Click the drop-down menu to set the data bits.

**Stop Bits:** Click the drop-down menu to set the stop bits.

After all settings are done, click on Apply.

Reboot: Click to reboot the Encoder.

**Replace:** Click to replace the offline Encoder (which is already in the system) with an online Encoder (which is not in the system).

For example, follow steps below to replace Encoder 001 with a new Encoder.

- 1. Unplug the network cable of Encoder 001 to make it offline.
- 2. Connect a new Encoder to the system.
- 3. Click the Replace button, which is clickable after Encoder 001 is set to be offline.

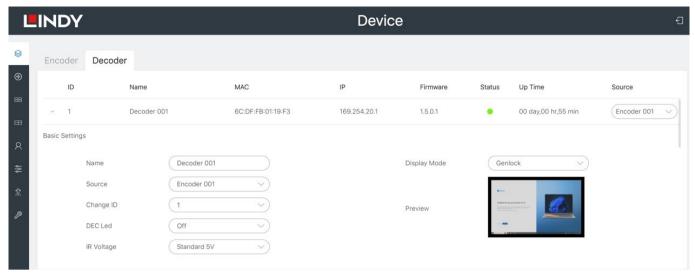
Then a window will pop up, click **Scan for Devices**. After the new Encoder is searched, select it and click **Replace**.

**Remove:** Click to remove the Encoder from the system.

Remove All: Click to remove all Encoders from the system.

**Factory Reset:** Click to restore the Encoder to factory settings.

**Switch to Decoder:** Click to switch the current Encoder to Decoder mode, then click on **Yes** button on the following pop up window to scan and add it into the system again.



#### Decoder

# **Basic Settings**

**Name:** change the name of the Decoder (maximum length is 16 characters, special characters are not supported).

Source: Click the drop-down menu to select signal source for the Decoder.

Change ID: set the ID of the Decoder (ID range: 1-762). Both ID and name cannot be duplicated.

**DEC Led:** "Show me" function of the Decoder, used to quickly find the corresponding device. Click the drop-down menu to select the DEC Led status:

Off: The front panel ENC Led is steady on after flash status is turned off.

Flashing: The front panel ENC Led is flashing.

Flashing 90s then off: The front panel ENC Led is steady on after flashing for 90s.

**IR Voltage:** Click the drop-down menu to select the IR voltage.

**Stretch:** Click the drop-down menu to turn on/off the stretch function.

**CEC Command:** Click the **Command** button to pop up the CEC Command window. The user can control the operation of each display device connected to the Decoder by pressing the corresponding buttons or icons. You can simultaneously control multiple display devices after checking **Select AII**.

Display Mode: Click the drop-down menu to select the display mode (Fast Switch/Genlock).

**Preview:** See the preview of the Decoder.

#### A/V Settings

A/V Settings			
Video Output	On V	Video Mute	Off
Output Mode	Matrix	Video Auto On	On
Scaling	RES_BYPASS V	Show ID OSD	Off

Video Output: Click the drop-down menu to select On/Off to turn on/off the video output.

Video Mute: Click the drop-down menu to select On/Off to mute/unmute the video output.

Output Mode: Click the drop-down menu to select the output mode (Matrix/Video Wall/Multiview).

Video Auto On: Click the drop-down menu to select On/Off to turn on/off the video auto on function.

**Scaling:** Click the drop-down menu to set the video output scaling resolution.

Show ID OSD: Click the drop-down menu to select On/Off to turn on/off the ID OSD display.

# **Locked Signal Routing**

Locked Signal Routing			
Video	Follow	Audio	Follow
IR	N/A V	RS-232	N/A ~
USB	N/A V		

Different signals can be independently routed between Encoders and Decoders, including Video, Audio, IR, RS-232 and USB; click the drop-down menus and select **Follow** to assign the corresponding signal from the current Encoder.

# RS-232 and other Settings



**RS-232 Command Relay:** Click the drop-down menu to select On/Off to turn on/off the RS-232 command relay function. When the RS-232 command relay function is turned on, the Decoder's locked signal routing function is disabled.

Parity: Click the drop-down menu to set the parity.

**Baud Rate:** Click the drop-down menu to set the baud rate. **Data Bits:** Click the drop-down menu to set the data bits. **Stop Bits:** Click the drop-down menu to set the stop bits.

After all settings are done, click on Apply.

Reboot: Click to reboot the Decoder.

**Replace:** Click to replace the offline Decoder (which is already in the system) with an online Decoder (which is not in the system). The method to replace Decoders is the same as shown in the Encoder section above.

**Remove:** Click to remove the Decoder from the system.

Remove All: Click to remove all Decoders from the system.

**Factory Reset:** Click restore the Decoder to factory settings.

**Switch to Encoder:** Click to switch the current Decoder to Encoder mode, then click on **Yes** button on the following pop up window to scan and add it into the system again.

#### **Device**

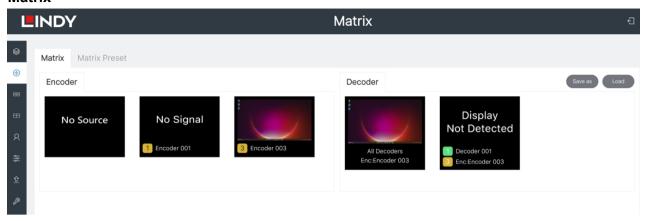


**Search Device:** Click to search devices which are not in the system.

**Search Device Via Wizard:** Click to switch back to the IP mode select interface and follow the Wizard to set up the system.

**Add All Into System:** Click to add all searched devices into the system, then the devices will be listed on the Encoder/Decoder pages.

#### **Matrix**



Shows all the Encoders and Decoders with previews if available, it's possible to switch in the following ways:

- One-to-one and one-to-many switching: Left-click the Encoder preview and drag it to one or multiple Decoder, then release the mouse.
- One-to-all switching: Left-click the Encoder preview and drag it to All Decoders, then release the mouse
- No-Source switching: Left-click the No Source preview and drag it to All Decoders or multiple decoders, then the corresponding decoders will display No Source.

To check the Signal Routing Query, just double click on a Decoder's preview to open a pop-up window showing the Video/Audio/IR/RS-232/USB signal routing between the Encoder and Decoder.



## **Matrix Preset**

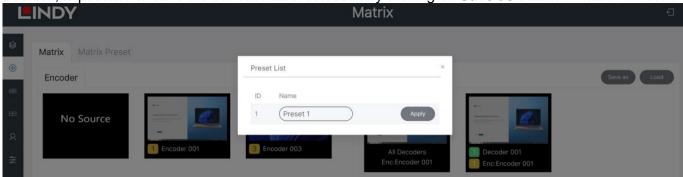


In this page is possible to create matrix presets as required following the following steps: Click on **Create** button, set matrix ID number and Name, then click **Create** button on the pop-up window.



Click on **+** button to add the decoders and assign the corresponding encoders, then click **Create** button on the pop-up window to complete the setting. Click on **Remove** button to delete the preset.

Besides, is possible to save the current matrix selection by clicking on Save as button in Matrix window.



To recall saved matrix presets, just click on Load button, select the preset and click Apply.

# Video Wall

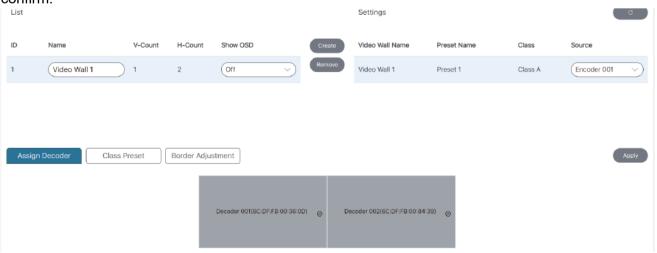


On this page is possible to create and configure video wall applications. Click on **Create**, the following pop-up window will be shown:

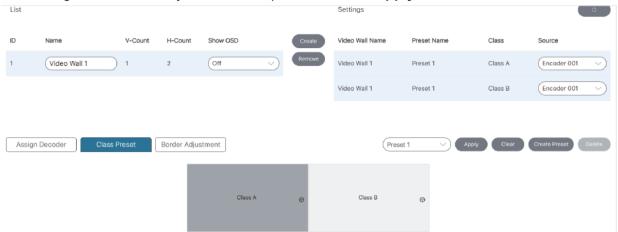


Set the **Video Wall ID**, **Name**, **Row Number** and **Column Number**. Then click on **Go**. Note: Up to 9 video walls can be created.

Select the video wall that you want to configure, then click on **Assign Decoder** to enter the Decoder assignment page. Click on each screen to select the corresponding Decoder, then click on **Apply** to confirm.

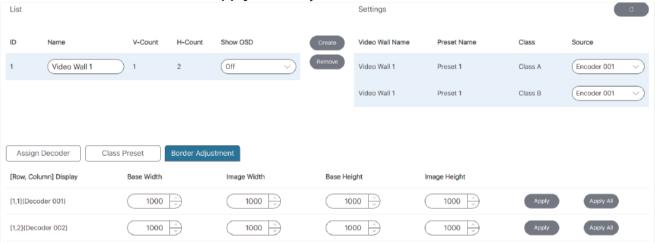


Click on **Class Preset** to enter the class configuration page, then click each screen to select the corresponding Class as required (the same class name will form a video wall, it's possible to create a regular or irregular video wall by Class Preset). Then click on **Apply**.



Besides, click the drop-down menu icon behind the preset name to switch different presets (the selected preset will be high-lighted in Settings), click on **Create Preset** to create up to 9 configurations for different application scenarios, click on **Clear** to clear and reset video wall class settings, or click on **Delete** to delete the current class preset from the system. After any setting, click on **Apply**.

Click on **Border Adjustment** to enter the Border Adjustment interface, then click the drop-down menu to set the Base Width, Image Width, Base Height and Image Height. Finally, click on **Apply** to adjust the border of each Decoder, or click on **Apply All** to adjust the borders of all Decoders.



#### **Video Wall Source**

After the video wall is created and configured, here is possible check the preview, video wall class and the corresponding singnal source from the Video Wall Source tab. Click the "VW" icon on the preview of a video wall to switch different video walls, or click the "Pre" icon to switch different presets.

In addition is possible to directly drag Encoders to the video wall to change signal sources, or drag "No Source" to let the window display "No Source".

Note: If the Encoder is offline, it can't be dragged to the matrix of video wall.

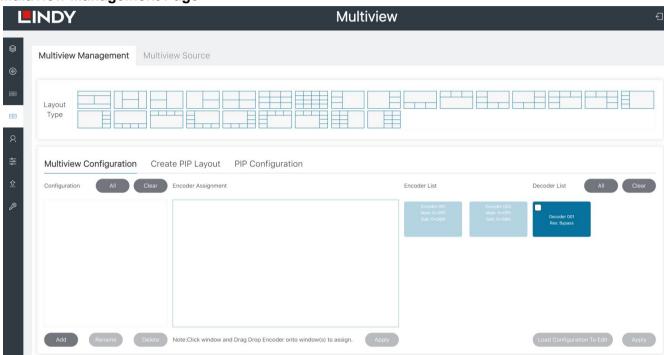


To delete a video wall, just select the video wall on the "Video Wall List", then click "Remove". A prompt window will pop up and you can delete it after clicking "Yes".

#### Notes:

- Each Decoder can be set into a part of a video wall array. Each system can contain multiple video walls with different sizes. Each video wall can be assigned to different screens and different layouts with a range from 1x2 up to 9x9.
- The controller creates and manages the video wall configurations and provides a simplified control interface and API commands to a third party control system.

# **Multiview Management Page**

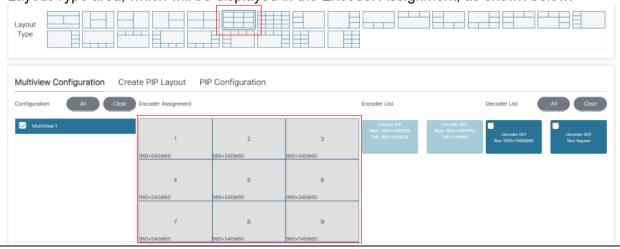


On this page is possible to create and configure Multiview and PiP options as required. Please follow the below steps under **Multiview Configuration**:

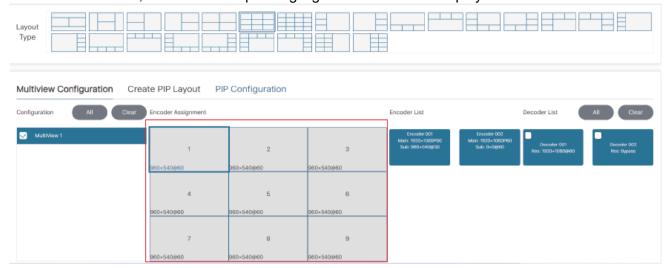
1. Click the "Add" button to create a multiview preset, set the Multiview Preset ID and Name then click "Create" from a pop-up window.



2. Select the new created multiview preset, then click to select the desired Multiview Layout in the Layout Type area, which will be displayed in the Encoder Assignment, as shown below:



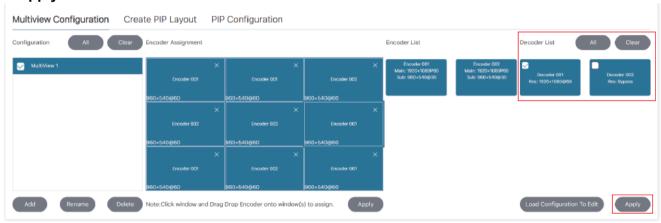
3. Click to select a window in the **Encoder Assignment**, click and drag an Encoder from the **Encoder List** to the window, then the corresponding signal source will be displayed on the window.



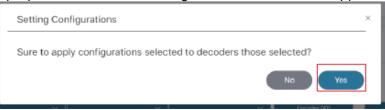
Select a signal source for each window in the same way. Finally, click on **Apply** to take effect.



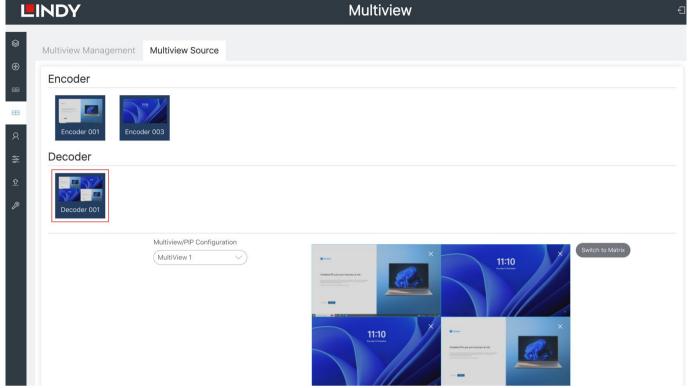
4. Click to select a Decoder in the **Decoder List** or click **All** to select all the Decoders, then click the **Apply** button.



Click **Yes** on the pop-up window then the configured multiview will be applied on the selected Decoders.



5. Now is possible to see the Multiview preview in Multiview Source page.



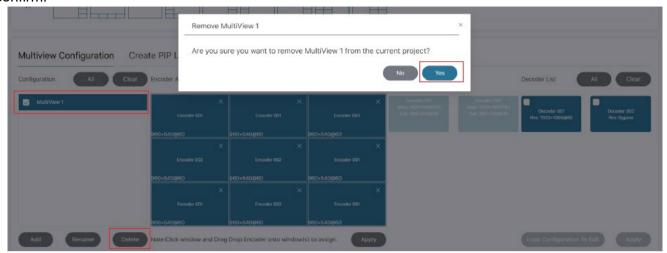
Under the drop-down menu of **Multiview/PIP Configuration** there are all the different Multiview or PIP configurations previously setted up. Besides, directly drag Encoders to the multiview to change signal sources. Click on a Decoder preview to view the multiview display of the corresponding Decoder. Click the **Switch to Matrix** button to switch the current Decoder to the Matrix mode, then the multiview display will be switched to only displaying the first signal source in the Encoder List.



To rename a Multiview preset, just select the Multiview from the Multiview Configuration page and click the **Rename** button. A prompt window will pop up, enter a new name and click on **Update** to take effect.

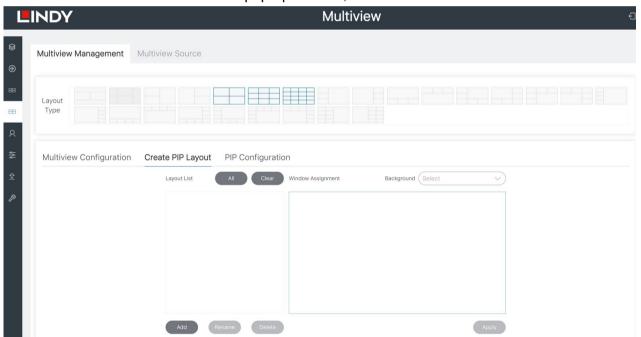


To delete the multiview configurations you set before, just check to select the multiview or click **All** to select all the multiview presets, then click the **Delete** button. Click **Yes** button from the pop-up window to confirm.

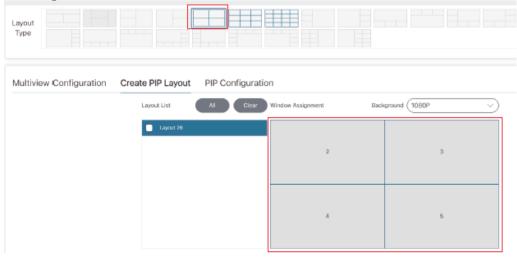


# **PIP Configuration**

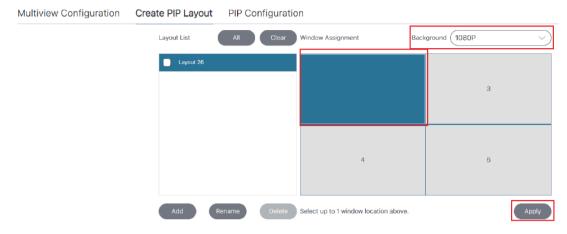
To create a PIP configuration, enter in the **Create PIP Layout** tab, click **Add** button and set the Multiview PIP ID and Name from the pop-up window, then click on **Create**.



Choose the desired layout from the **Layout Type** area on the top of the page which will be displayed in the Window Assignment below.



Click the drop-down menu to select the resolution of background, then click to select a window in the Window Assignment to be the foreground, finally click **Apply** to take effect.



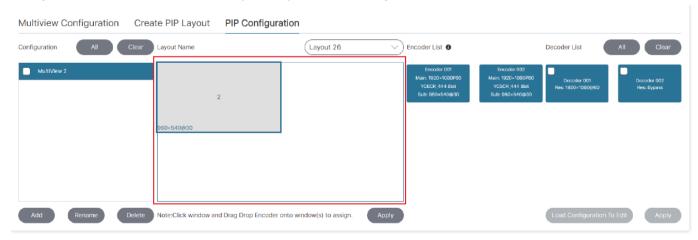
Click on the **PIP Configuration** tab, then click on **Add** button to create a PIP multiview preset.



You can set the Multiview Preset ID and Name from the pop-up window, then click on **Create**.



To select the foreground, click and drag an Encoder from the Encoder List to the foreground window, then the corresponding signal source will be displayed on the window. Select a signal source for the background window in the same way, finally click on **Apply** to take effect.

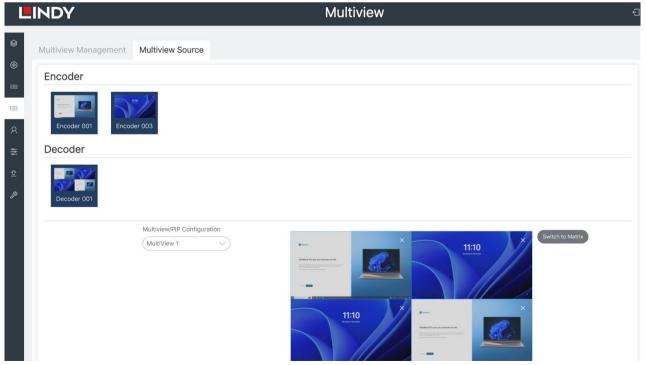




Select a Decoder in the Decoder List, or click **All** to select all the Decoders, then click on the **Apply** button on the right.

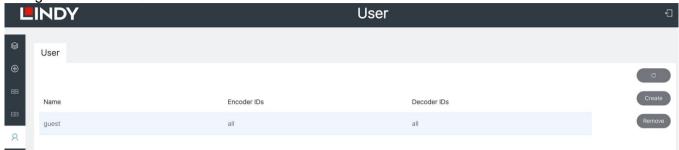


The configured PIP Multiview will be applied on the selected Decoders, now is possible to switch between different Multiview/PIP Configuration from the main Multiview page in the drop-down menu or drag directly Encoders to the PIP Multiview to change the signal source of the foreground/background. Click on a Decoder preview to view the Multiview display of the corresponding Decoder.

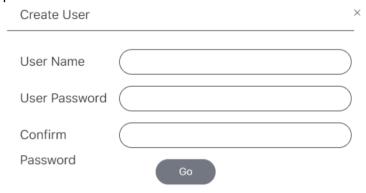


# **User Page**

Here is possible to add new user accounts with different permissions. Click on **Create** button to start the configuration of one User.



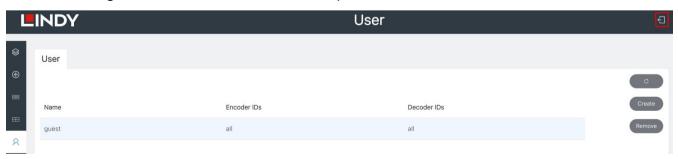
Add User Name and Password from the following pop-up window, then click on Go to create the User. Please note that the Password requires from a minimum of 6 to a maximum of 12 characters, special characters are not supported.



Now is possible to assign different permissions from **Access** sub menu below by selecting the Encoders and Decoders, Multiview, Video Wall and Matrix presets (if any).



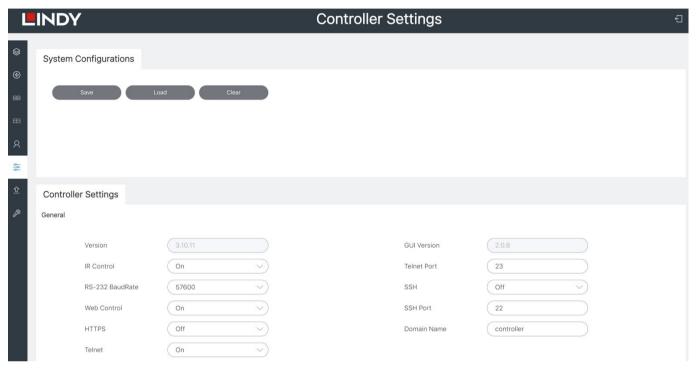
To login with the new User just click the logout icon at the upper right corner of this page to log out, and then login with the new user name and password.



# Controller Settings Page System Configuration

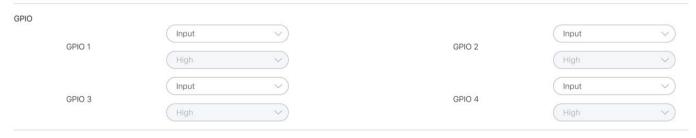
Click **Save** to save the current configuration; click **Load** to load the system configuration JSON file and replace the current system configurations (it's strongly recommended to save the current configurations before loading); click **Clear** to clear system configurations already created and configured in the controller to set up the system again.

**General Settings:** Shows the basic settings of the Controller so Controller Version, GUI Version, Telnet Port, SSH Port and Domain Name. In addition, you can click the drop-down menus to set the IR Control, RS-232 BaudRate, Web Control, HTTPS, Telnet and SSH.



## **GPIO**

Click the drop-down menu to set GPIO 1/2/3/4 respectively.



### **Control Network**

Shows the network port configuration of the Controller connected to the PC, Router or Switch where there is the control PC. If **DHCP** is set to **Off**, is possible to set up manually the IP Address, Subnet Mask and Gateway as required, then click on **Apply** to take effect. If **DHCP** is set to **On**, the system will search and fill the IP Address with the one assigned by the router automatically.

Note: when DHCP is set to Off in Static IP mode, the network settings of Control LAN and PC should stay in same network segment otherwise the controller Web GUI can not be accessed from that PC.

Control Network	Apply			
DHCP	On	<u> </u>	Subnet Mask	255.255.255.0
IP Address	192.168.6.100		Gateway	192.168.6.1

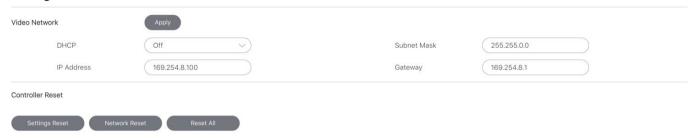
#### Video Network

Shows the network port configuration of the Controller connected to the same network of the Encoders and Decoders. If **DHCP** is set to **Off**, is possible to set up manually the IP Address, Subnet Mask and Gateway as required, then click on **Apply** to take effect. If **DHCP** is set to **On**, the system will search and fill the IP Address with the one assigned by the router automatically.

Note: when DHCP is set to Off in Static IP mode, the network settings of Video LAN and Encoders/Decoders should stay in same network segment. Otherwise, Encoders/Decoders would be showed as offline.

#### **Controller Reset**

Click on **Settings Reset** to reset all the settings except network settings; click on **Network Reset** to reset controller network settings; click on **Reset All** to reset controller all settings including network settings.



# Firmware Update and EDID Upload Page

**Upload User EDID 1/2: c**lick this button to open an EDID binary file and upload it as User EDID 1 or 2.

**Upload Decoder Logo Picture:** click this button to upload a decoder logo picture, then click on **Update All** to apply the picture to all the Decoders or click just on **Update** to apply the picture to a single Decoder.

Note: the jpg picture must be bigger than 4kB, less than or equal to 512kB, and the resolution of the picture must be less than or equal to 1920x1080.

**Upload Controller Firmware:** click this button to upload the Controller's firmware update.

**Upload Encoder or Decoder Firmware:** click this button to upload the Encoder/Decoder's firmware update. After loading, click on **Update All** to update the firmware to all Encoders/Decoders, or click on **Update** to update the firmware on a single Encoder/Decoder.

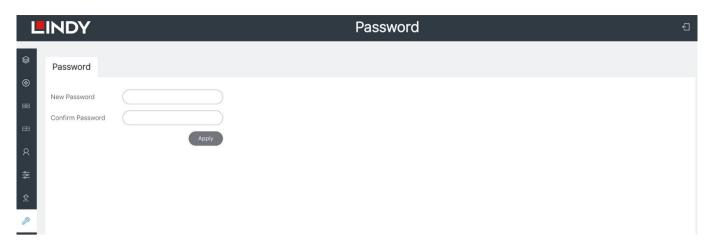


# **Password Update Page**

Here is possible to change the password by typing the new password in both **New Password** and **Confirm Password** fields, when done click on Apply button to take effect.

Note: the password requires a minimum length of 6 characters and a maximum of 8 characters. Special characters are not supported.

After changing the password, the system will skip to the Web GUI login interface automatically, then please log in again with the new password.



### **Network Switch**

The network Switch used to set up the system must support the below features:

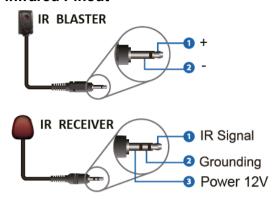
- Layer 3/managed
- Bandwidth 10 Gigabit
- Support IGMP version 2, snooping enabled
- Filter/Drop unregistered multicast traffic
- Disable unregistered multicast flooding
- Enable fast leave support

Lindy tested this SDVOE Extender with a Netgear XSM4316S Switch, the following Netgear Switches are recommended and optimized for SDVOE AV over IP applications:

XSM4216F-100NAS	M4250-16XF MANAGED SWITCH
XSM4316PA-100NES	M4300-16X POE+ APS299W
XSM4316PB-100NES	M4300-16X POE+ APS600W
XSM4316S-100NES	M4300-8X8F MANAGED SWITCH
XSM4324CS-100NES	M4300-24X MANAGED SWITCH
XSM4324FS-100NES	M4300-24XF MANAGED SWITCH
XSM4324S-100NES	M4300-12X12F MANAGED SWITCH
XSM4348CS-100NES	M4300-48X MANAGED SWITCH
XSM4348FS-100NES	M4300-48XF MANAGED SWITCH
XSM4348S-100NES	M4300-24X24F MANAGED SWITCH
XSM4396K0-10000S	M4300-96X NO PORT CARD / NO PSU
XSM4396K1-100NES	M4300-96X 48XSFP+ APS600W BNDL



#### **Infrared Pinout**



# Troubleshooting

The Controller has two LAN ports, Video LAN and Control LAN; the purpose of this design is to isolate audio/video (AV) network from control network to avoid direct access to the units from control network directly, it's for bringing network security and avoiding AV network traffic flowing into the network in which the controls and managements are established.

As previously shown, the strongly recommended system setup is connecting Video LAN and Encoders/Decoders to a 10G managed network Switch and connecting Control LAN and PC to another network Switch. The controls from Control LAN can be achieved by Web GUI/Telnet or SSH login/API commands through external control systems, all these controls can be bridged by the Controller and applied onto Video LAN.

For simple usage, you can only connect all Encoders/Decoders and Video LAN and PC RJ-45 port into a single network, and let the Control LAN port not-connected (floating), as Video LAN also supports Web GUI/Telnet or SSH login/API commands controls, this seems "convenient" for general use scenarios, but this is only suggested for system in which there is no network isolation requirement or non-sensitive network traffic. Connecting only Control LAN port with floating Video LAN is not allowed.

The default IP mode of Control LAN port is DHCP, the PC also needs to be set to "Obtain an IP address automatically" mode, and an optional DHCP server (e.g. network router) is recommended in the system. If there is no DHCP server in the system, 192.168.6.100 will be used as the default IP address of Control LAN port. In this case the IP address of the PC has to be set up in the same network segment (for example, set PC's IP address as 192.168.6.88).

Is it possible to access the Web GUI with the URL "http://controller.local" or with the Control LAN port default IP address 192.168.6.100 (in case of no optional router) in the computer's browser.

There's no need to care about Video LAN port settings as they are automatically managed by the Controller (Default).

If the Network Switch does not support POE, the Encoders, Decoders and Controller must be powered by the included DC power adapter.

The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

# **Recycling Information**

# WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

## **Europe, United Kingdom**

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process. Each individual EU member state, as well as the UK, has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

# Germany / Deutschland Elektro- und Elektronikgeräte

Informationen für private Haushalte sowie gewerbliche Endverbraucher

Hersteller-Informationen gemäß § 18 Abs. 4 ElektroG (Deutschland)

Das Elektro- und Elektronikgerätegesetz (ElektroG) enthält eine Vielzahl von Anforderungen an den Umgang mit Elektro- und Elektronikgeräten. Die wichtigsten sind hier zusammengestellt.

# 1. Bedeutung des Symbols "durchgestrichene Mülltonne"

Das auf Elektro- und Elektronikgeräten regelmäßig abgebildete Symbol einer durchgestrichenen Mülltonne weist darauf hin, dass das jeweilige Gerät am Ende seiner Lebensdauer getrennt vom unsortierten Siedlungsabfall zu erfassen ist.

## 2. Getrennte Erfassung von Altgeräten

Elektro- und Elektronikgeräte, die zu Abfall geworden sind, werden als Altgeräte bezeichnet. Besitzer von Altgeräten haben diese einer vom unsortierten Siedlungsabfall getrennten Erfassung zuzuführen. Altgeräte gehören insbesondere nicht in den Hausmüll, sondern in spezielle Sammel- und Rückgabesysteme.

# 3. Batterien und Akkus sowie Lampen

Besitzer von Altgeräten haben Altbatterien und Altakkumulatoren, die nicht vom Altgerät umschlossen sind, sowie Lampen, die zerstörungsfrei aus dem Altgerät entnommen werden können, im Regelfall vor der Abgabe an einer Erfassungsstelle vom Altgerät zu trennen. Dies gilt nicht, soweit Altgeräte einer Vorbereitung zur Wiederverwendung unter Beteiligung eines öffentlich-rechtlichen Entsorgungsträgers zugeführt werden.

# 4. Möglichkeiten der Rückgabe von Altgeräten

Besitzer von Altgeräten aus privaten Haushalten können diese bei den Sammelstellen der öffentlichrechtlichen Entsorgungsträger oder bei den von Herstellern oder Vertreibern im Sinne des ElektroG eingerichteten Rücknahmestellen unentgeltlich abgeben.

Rücknahmepflichtig sind Geschäfte mit einer Verkaufsfläche von mindestens 400 m² für Elektro- und Elektronikgeräte sowie diejenigen Lebensmittelgeschäfte mit einer Gesamtverkaufsfläche von mindestens 800 m², die mehrmals pro Jahr oder dauerhaft Elektro- und Elektronikgeräte anbieten und auf dem Markt bereitstellen. Dies gilt auch bei Vertrieb unter Verwendung von Fernkommunikationsmitteln, wenn die Lager- und Versandflächen für Elektro- und Elektronikgeräte mindestens 400 m² betragen oder die gesamten Lager- und Versandflächen mindestens 800m² betragen. Vertreiber haben die Rücknahme grundsätzlich durch geeignete Rückgabemöglichkeiten in zumutbarer Entfernung zum jeweiligen Endnutzer zu gewährleisten.

Die Möglichkeit der unentgeltlichen Rückgabe eines Altgerätes besteht bei rücknahmepflichtigen Vertreibern unter anderem dann, wenn ein neues gleichartiges Gerät, das im Wesentlichen die gleichen Funktionen erfüllt, an einen Endnutzer abgegeben wird. Wenn ein neues Gerät an einen privaten Haushalt ausgeliefert wird, kann das gleichartige Altgerät auch dort zur unentgeltlichen Abholung übergeben werden; dies gilt bei einem Vertrieb unter Verwendung von Fernkommunikationsmitteln für Geräte der Kategorien 1, 2 oder 4 gemäß § 2 Abs. 1 ElektroG, nämlich "Wärmeüberträger", "Bildschirmgeräte" oder "Großgeräte" (letztere mit mindestens einer äußeren Abmessung über 50 Zentimeter). Zu einer entsprechenden Rückgabe-Absicht werden Endnutzer beim Abschluss eines Kaufvertrages befragt. Außerdem besteht die Möglichkeit der unentgeltlichen Rückgabe bei Sammelstellen der Vertreiber unabhängig vom Kauf eines neuen Gerätes für solche Altgeräte, die in keiner äußeren Abmessung größer als 25 Zentimeter sind, und zwar beschränkt auf drei Altgeräte pro Geräteart.

# **Recycling Information**

#### 5. Datenschutz-Hinweis

Altgeräte enthalten häufig sensible personenbezogene Daten. Dies gilt insbesondere für Geräte der Informations- und Telekommunikationstechnik wie Computer und Smartphones. Bitte beachten Sie in Ihrem eigenen Interesse, dass für die Löschung der Daten auf den zu entsorgenden Altgeräten jeder Endnutzer selbst verantwortlich ist.

#### **France**

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique. Chaque Etat membre de l'Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

## Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell'EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico. Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

## **España**

En 2006, la Unión Europea introdujo regulaciones (WEEE) para la recolección y reciclaje de todos los residuos de aparatos eléctricos y electrónicos. Ya no está permitido simplemente tirar los equipos eléctricos y electrónicos. En cambio, estos productos deben entrar en el proceso de reciclaje. Cada estado miembro de la UE ha implementado las regulaciones de WEEE en la legislación nacional de manera ligeramente diferente. Por favor, siga su legislación nacional cuando desee deshacerse de cualquier producto eléctrico o electrónico. Se pueden obtener más detalles en su agencia nacional de reciclaje de WEEE.

#### Polska

W 2006 roku Unia Europejska wprowadziła przepisy (WEEE) dotyczące zbierania i recyklingu wszystkich zużytych urządzeń elektrycznych i elektronicznych. Nie można już po prostu wyrzucać sprzętu elektrycznego i elektronicznego. Zamiast tego produkty te muszą zostać wprowadzone do procesu recyklingu. Każde państwo członkowskie UE, a także Wielka Brytania, wdrożyły przepisy DOTYCZĄCE WEEE do prawa krajowego w nieco inny sposób. Przestrzegaj prawa krajowego, gdy chcesz pozbyć się jakichkolwiek produktów elektrycznych lub elektronicznych. Więcej szczegółów można uzyskać w krajowej agencji recyklingu WEEE.

# **CE/FCC Statement**

#### CE Certification

LINDY declares that this equipment complies with relevant European CE requirements.

#### CE Konformitätserklärung

LINDY erklärt, dass dieses Equipment den europäischen CE-Anforderungen entspricht

#### **UKCA Certification**

LINDY declares that this equipment complies with relevant UKCA requirements.

#### FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation.

The enclosed power supply has passed Safety test requirements, conforming to the US American versions of the international Standard IEC 62368-1.

#### LINDY Herstellergarantie - Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

# Statement of PSTI Compliance

This product has been designed in conformance with the applicable security requirements of the following UK Legislation: Product Security and Telecommunications Infrastructure Act 2022 and Schedule 1 of The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023.

The product is in conformity with the following Security requirements:

- 1. Password is unique per device or defined by the user of the device, and the password which is unique per device is generated by using as security mechanism that reduces the risk of automated attacks against a class or type of device.
- 2. Users can report vulnerabilities to LINDY via <u>productsecurity@lindy.co.uk</u>, furthermore, users will receive acknowledgment of the receipt of a security issues report and status updates until the resolution of the reported security issues.

We will provide security updates and patches to address any security vulnerabilities that may be identified in the product during the support period. The defined support period will end on January 2035 after the product's last end-of-life date.

## Hersteller / Manufacturer (EU):

LINDY-Elektronik GmbH Markircher Str. 20 68229 Mannheim Germany

Email: info@lindy.com, T: +49 (0)621 470050

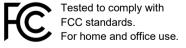
#### Manufacturer (UK):

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