# **KD-BYOD4KHUB**

BYOD & BYOM 4K Wireless Presentation & Conferencing Gateway for Windows, Mac, iOS, Android, and Chrome





The Experts in Digital Video Technology and Solutions™



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# **Default IP Address: 192.168.43.1**

Quick Setup Guide

Please visit <a href="www.keydigital.com">www.keydigital.com</a> for the latest product documentation, firmware, control drivers and software downloads. Product features and specifications are subject to change without notice

Always follow the instructions provided in this Operating Manual.



# **About KD-BYOD4KHUB**

KD-BYOD4KHUB Bring-Your-Own-Device & Bring-Your-Own-Meeting wireless presentation and conferencing gateway is a wireless solution for conference and presentation spaces that enables users to bring their own device and present to a shared display while the hub receives the USB camera, mic and audio in the room for collaboration with local and remote video conference participants.

KD-BYOD4KHub includes one KD-BYODFD dual-headed (USB-A + USB-C) auto-launching USB stick for plug and play casting. Or users may cast using the KD*Play*+ application, AirPlay, Miracast, and Chromecast from Windows, Mac, iOS, Android, and Chromebook devices.

Content may be displayed at up to 4K resolution with 30fps casting for smooth content casting. Dual-monitor HDMI outputs, output preview window for video conference screenshare, annotation & whiteboarding tools, HDMI Input, and wired USB host option make KD-BYDO4KHub the ideal choice for all presentation, collaboration, and conferencing applications in corporate offices, school, universities and training facilities.

### **Key Features**

- Wireless Presentation & Conferencing Gateway: Connect via WiFi to wirelessly present and receive USB camera and audio.
- **Bring Your Own Device:** Cast from Windows and Mac computers using KDPlay<sup>™</sup> software. Cast from iOS devices with AirPlay. Cast from Chrome OS using Chrome browser tool for tab or desktop. Native Miracast support for Windows and Android device casting.
- Bring Your Own Meeting: Sends connected USB camera, microphone, and speaker devices to host computer for use in any video conferencing software. USB Video Class (UVC) and USB Audio Class (UAC) supported.
- **4K/UHD Source & Display:** Outputs at 4K for optimal clarity of spreadsheets and data content.
- Smooth Video: Glitch-free AV experience due to optimizations for video content and 30fps casting.
- Multi-Presenter Mode: Up to five presenters may share content at same time with auto adjusting screen layout. User preference layout setup for three or four presenters allows for optimal window placement based on usage.
- **Wired HDMI Input:** For wired and wireless presentation options from laptops or dedicated room computers.
- KDPlay™ Flash (KD-BYODFD) Included: Software auto-launcher with USB and USB-C connections allows. Additional KDPlay™ Flash sold separately
- **Dual Monitor Support:** Mirrored or independent viewing on two connected displays / projectors.
- Output Capture: Send HDMI output content from Main or Sub display to the connected host computer to completely immerse video conference participants with multi-presenter brainstorming sessions, etc.
- **Annotation and White Board:** Screen overlay tools for real-time collaboration. Screen captures are easily downloaded by QR code on screen or in web browser.
- **Extended Monitor:** Feature enables dual display setups such as video conference and presentation content view on side-by-side panels. Virtual Driver installation required for this feature.
- **Display Control:** CEC or RS232 command sends during unit bootup, power on, and power off.



#### ADDITIONAL FEATURES

- WiFi Direct, WiFi Client, LAN Connection Modes: May act as the Wireless Access Point or may be accessed by devices via the wired or wireless network connection.
- Content Preview: Collapsible dock on side of display provides preview thumbnail and name of devices casting via KDPlay app.
- Touch Screen / Mouse Forwarding: Connect touchscreen or mouse USB to unit to point and click on casted device
- **Customizable Home Screen:** Load customer's logo or desired image to show signage and branding when not casting.
- Digital Signage Mode: May display a desired web page on scheduled start and stop times.
- Video Resolution: Selectable 4K 3840x2160 @ 30fps or 60fps [4:2:0] 10.2Gbps, 1920x1080p @ 60fps, 1280x800p @ 60fps, 1280x720p @ 60fps output resolution options based on EDID from connected display
- **Audio De-embedding:** Audio of the casted device is de-embedded at the unit's analog L/R audio connector for ease of integrating with audio amplification and mixing system
- Easy Connection: Up to 16 simultaneous devices may connect, with access always provided to new connecting devices and automatic disconnect of oldest non-casting devices in case of maximum being reached
- Moderator Management: Administrator may start & stop device casting via web control page
- Web GUI Administration: Access unit setup, moderator, and security tools on web browser through LAN
- **Four-Level Security:** Including casting / pairing pin and Device-type permission options, AES-256 + RSA-1024 encryption.
- **Simultaneous Secure Dual Network:** Two network ports enable concurrent connection to Public and Private networks for ease of guest access without compromising security.

#### Accessories Included in the Box

- 1x KDBYODFD dual-headed auto-launch dongle
- 1x Power supply 12V/3A, 36W with US, EU, UK, and AU adapter head. Model GQ36-120300-AX
- 3x Antennae
- 2x 3-pin green color terminal block plug



#### **Features Table**

Device Type	Casting Method	Video	Audio	USB Cam, Audio, HID Forwarding	Max Simultaneous Casting Devices	Moderator Preview
Windows	KDPlay+ app	YES	YES	YES	5	YES
Windows	Chromecast (Chrome browser)	YES	YES		2	
Windows	Miracast	YES	YES	HID Only (Enable in Miracast Settings)	2	
MacOS	KDPlay+ app	YES	YES	YES	5	YES
MacOS	AirPlay	YES	YES		2	
MacOS	Chromecast (Chrome browser)	YES	YES		2	
Android	KDPlay app	YES			5	YES
Android	Miracast	YES	YES		2	
iOS	AirPlay	YES	YES		2	
Chrome OS	Chromecast (Chrome browser)	YES	YES		2	

<sup>\*</sup>Video content from streaming services such as Amazon & HBO & Netflix not supported due to copy protection.

<sup>\*\*</sup>Device types have additional notes on setup requirements or limitations. See <u>Casting</u> section for more info.



# WiFi Direct vs WiFi Client vs LAN Connection

#### Which Network Mode Is Best for Your Installation?

**WiFi Direct Mode (Default)** allows wireless devices direct access to the base unit using KD-BYOD4KHUB's built-in WiFi access point. WiFi Direct Mode is the quickest way to begin casting to your KD*Play*™ screen but only provides internet to connected devices if a LAN wire is connected from an internet enabled network.

WiFi Direct Mode with no Internet Connection



WiFi Direct Mode with Internet Connection



**WiFi Client Mode** allows connection to external WiFi Router without network cable. Wireless devices access the base unit via wireless or wired connection into the LAN. WiFi Direct mode is disabled when WiFi Client Mode is enabled.



**LAN Connect Mode** requires KD-BYOD4KHUB be wired into your local network. Wireless devices access KD-BYOD4KHUB via your existing external WiFi network therefore allowing users to stay connected to an internet enabled network(s). WiFi Direct mode is disabled when LAN Connect Mode is enabled.





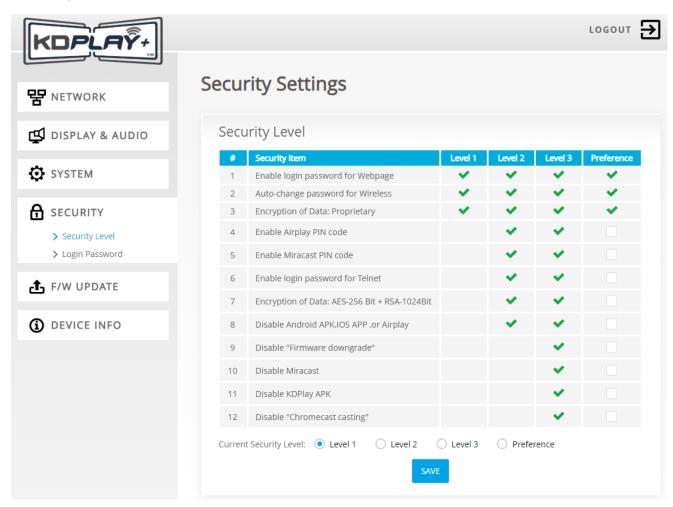
# **Network Considerations & Security**

#### **Bandwidth**

 The maximum bandwidth per casted device is 12Mbps per stream. Common usage will be 12 – 48Mbps for one to four presenters.

### Security

- KD-BYOD4KHUB's dual LAN ports enable concurrent connection to two networks. Connected networks
  are completely isolated from each other, providing ease of access without compromising security.
   Additional network security settings may be adjusted in the Admin Access page.
- Use security level 3 or the Preference setting to apply encryption to all casting data if you have any security concerns.





### **Firewall Settings**

In most installations, there are no network settings that need to be applied for common functionality.

However, if you are installing KD-BYOD4KHUB on an advanced network, please ensure that the below list of TCP and UDP port numbers remains open on your network in order for devices to cast to KD-BYOD4KHUB.

	TCP Port #	UDP Port#	Casting IP Address
KDPlay App Windows, MacOS	20000, 20002, 20003, 20006, 20007, 20008, 20009, 20010	6667, 8887, 8889 20005	IP Multicast Group Address: 239.1.1.1 Broadcast IP address: 255.255.255.255
KDPlay App Android	8121, 48689 51030, 51040, 52020, 52030 Additional Port#'s Possible	8887, 8889	IP Multicast Group Address: 239.1.1.1 Broadcast IP address: 255.255.255
AirPlay iOS	5656, 51010, 51020 17011, 17012, 17100	5353	MDNS: 224.0.0.251
Chromecast	8008	1900, 5353, 8009 16660, 16661, 16662, 16663	SSDP: 239.255.255.250  MDNS: 224.0.0.251  Note: Casting device and KD-BYDO4K must be within in same subnet.
Web Browser	80		

#### **KD-BYOD4KHUB LAN Port Features**

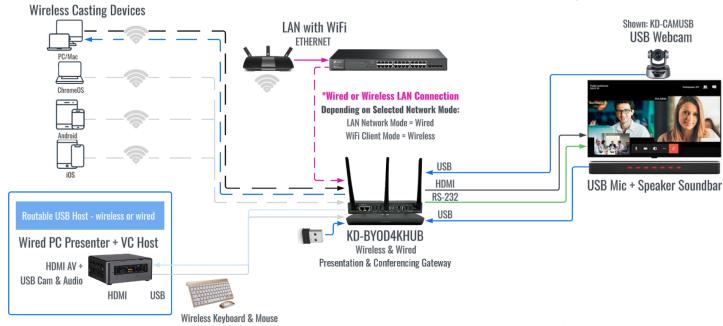
In most installations, there are no network settings that need to be applied for common functionality.

	PoE	Maximum Bandwidth
LAN Port 1	YES	1Gbps
LAN Port 2	NO	100Mbps



# **Application Examples**

### Wireless Presentation & USB Device Host for Video Conferencing



### Hybrid Collaborative Session with Full-Screen and Multi-View Monitor Layouts





# **Dual Monitor / Extended Monitor Conferencing**

**Dual Extended Monitor from 1 PC via Two Methods:** 

- » Wired + Wireless
- » Wireless (Windows): KD*Play+* & Miracast
- » Wireless (Mac): KDPlay+ & AirPlay





# **Quick Setup Guide**

Begin with KD-BYOD4KHUB, the connected display, and all USB or HDMI devices are turned off with power cables removed. Ensure that all desired functionality is achieved before installing.

# **Cabling**

The following connections are mandatory for getting your KD*Play* screen on your network and display. See the <u>Connections</u>, <u>Buttons</u>, <u>and LEDs</u> section for more information about additional connectivity options.

#### **Cabling for WiFi Direct Mode**

- Connect the Main HDMI OUT port to an HDMI display.
- 2. Connect power.



3. (Optional) If you'd like KD-BYOD4KHub's Wireless Network to have internet, connect either LAN port to an internet enabled network. If that network switch is PoE, you may omit the power connection from step 2 above.

You may now proceed to the WiFi Direct Mode Configuration instructions.

### **Cabling for WiFi Client Mode**

Connect the Main HDMI OUT port to an HDMI display.



- 2. Connect power.
- 3. (Temporary Initial Setup Only) Connect network cable from WiFi Router / Network Switch.

You may now proceed to the WiFi Client Mode Configuration instructions.



### **Cabling for LAN Connection Mode**

Connect KD-BYOD4KHUB to an HDMI display.



- 2. Connect network cable from WiFi Router / Network Switch.
  - a. (Optional) Connect to KD-BYOD4KHUB's LAN 1 port to power the unit from a PoE switch
  - b. (Optional) You may connect KD-BYOD4KHUB to two networks for concurrent access to KD-BYOD4KHUB from devices on each network.
- 3. (Optional) Connect Power to KD-BYOD4KHUB unit (if not using PoE as described in step 2a).

You may now proceed to the LAN Connection Mode Configuration instructions.



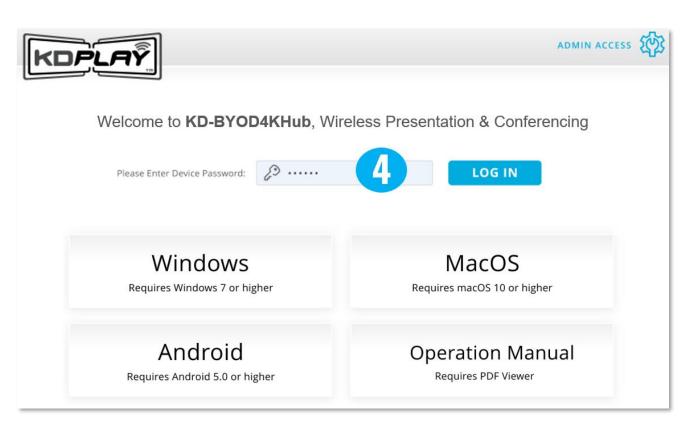
# Configure

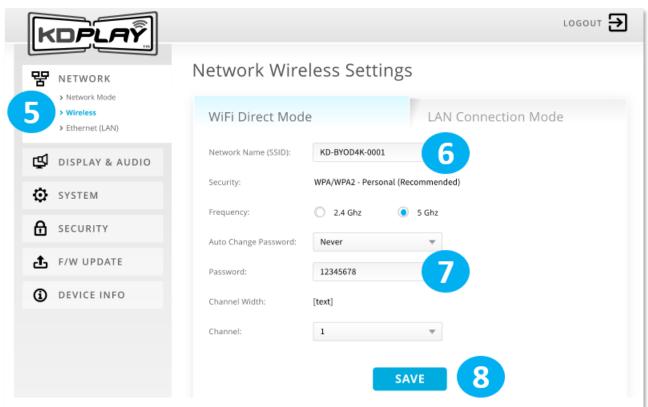
### How to Configure for WiFi Direct Mode with Web UI

- Connect to network named KD-BYOD4KHUB-XXXX. The password is displayed on the HDMI connected monitor and the default password is 12345678
- 2. Open web browser, and enter 192.168.43.1 in the address bar
- 3. Press the **ADMIN ACCESS** button at top-right of the page
- 4. Enter default password admin
- 5. Enter **NETWORK** menu and choose **Wireless** sub-menu
- 6. Enter the desired name (SSID) for KD-BYOD4KHUB's WiFi network. The default network name is KD-BYOD4KHUB-XXXX
- 7. Enter the desired password for KD-BYOD4KHUB's WiFi network. Letters and numbers are allowed. Special characters are not supported. The default password is **12345678**.
- 8. **SAVE** changes
- 9. **Note:** If you change the password but not the SSID (network name), you may have to forget and re-join the network to re-connect.









LAN2: N/C

2 Passwor

WiFi: 192.168.13.1 LAN1: 192.168.100.11

Join: KD-BYOD4K-4540



### How To Configure for WiFi Client Mode with Web UI

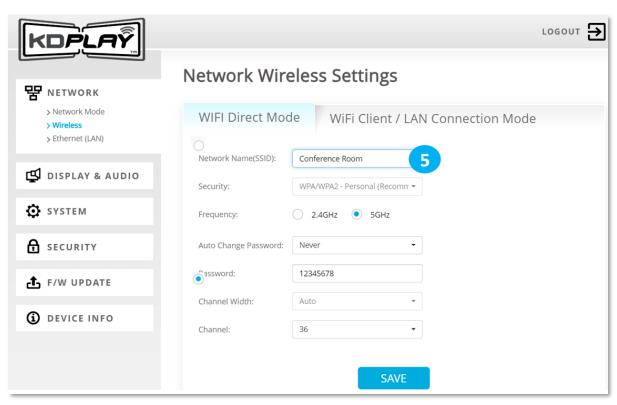
**IMPORTANT:** You must first connect a cable from your network to KD-BYOD4KHUB for the unit to collect network information. This is temporary, as WiFi client mode will not require a LAN cable connection for final installation.

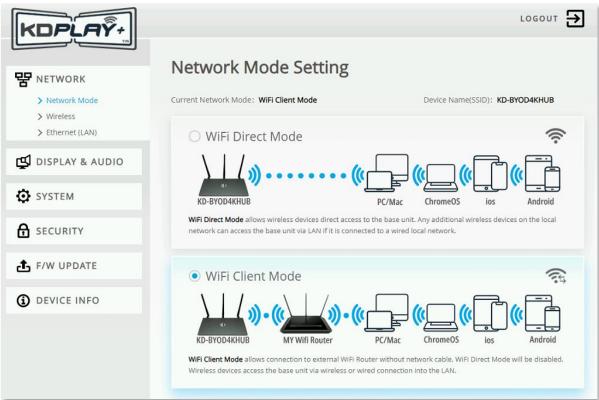
- Confirm that KD-BYOD4KHUB has been provided an IP address from your Local Area Network as shown on the topleft corner of KD-BYOD4KHUB's home screen.
- 2. Join that same Local Area Network on the laptop / setup device.
- 3. Open web browser and enter the KD-BYOD4KHUB's IP address in the address bar to access the Web UI.
- 4. Press the **ADMIN ACCESS** button at top-right of the page. Enter default password **admin** and the Admin Menu loads
- 5. With WiFi Direct Mode still chosen, enter the **WIRELESS** sub-menu and enter the desired name for the KD-BYOD4KHUB unit (example "Conference Room") in the **Network Name (SSID)** cell. Press **SAVE**. The default name is KD-BYOD4KHUB-XXXX. The password is displayed on the HDMI connected monitor and the default password is **12345678** for casting .
- 6. Re-enter the **NETWORK MODE** sub-menu.
- 7. Choose WiFi Client Mode and confirm to apply.
- 8. Enter the Wireless sub-menu and the WiFi Client / LAN Connection Mode tab
- 9. Choose **2.4 Ghz or 5 Ghz** frequency and press **WIRELESS SCANNER** to begin scanning for the WiFi Network that you have connected the KD-BYOD4KHUB unit to.
- 10. Choose your desired WiFi Network and press **SAVE**.
- 11. Enter the WiFi Password and press CONNECT.
- 12. After the connection status bar completes, press **SAVE** at the bottom-center of the page.
- 13. Ensure that the KD-BYOD4KHUB home screen displays its IP address and proper WiFi network's name.



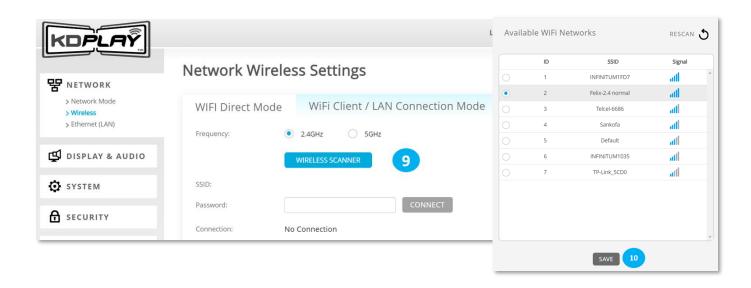
14. You may now disconnect the network cable from the LAN port and install KD-BYOD4KHUB at the desired display / projector location.

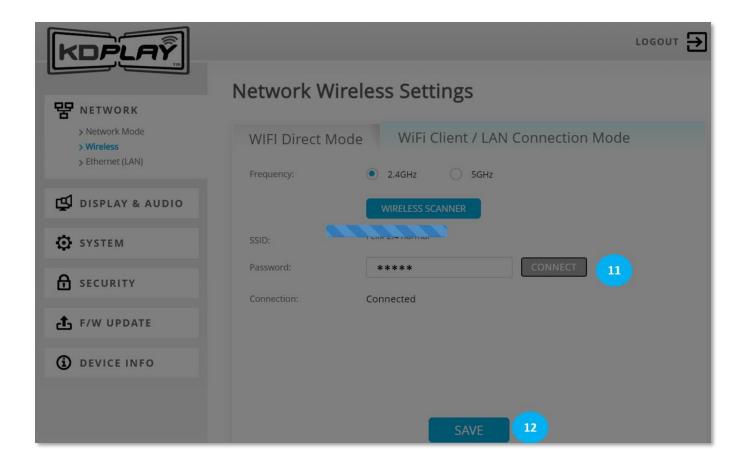










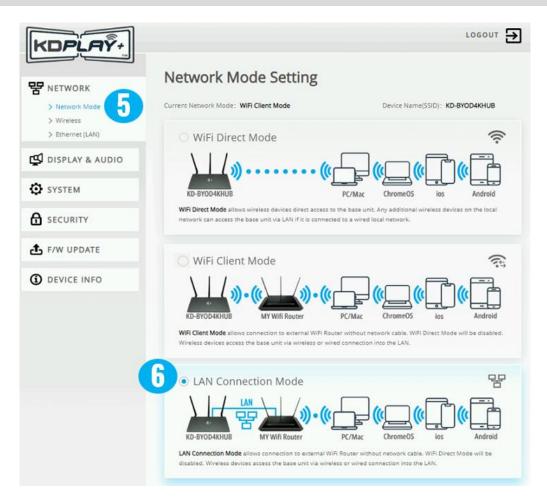


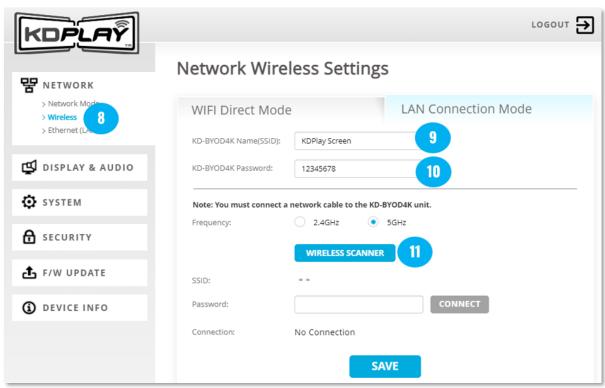


### How to Configure for LAN Connection Mode with Web UI

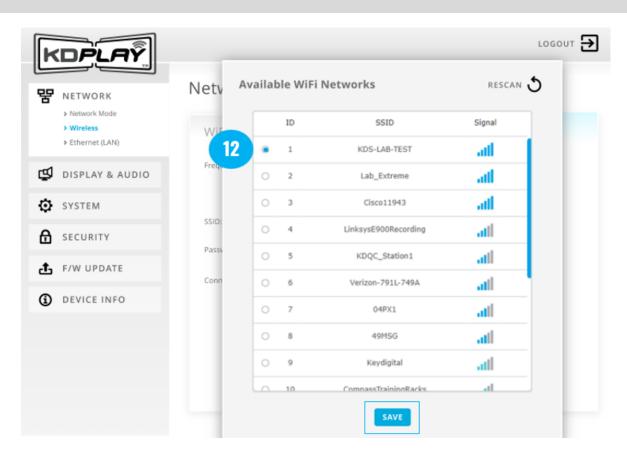
- 1. Connect to wireless network named KD-BYOD4KHUB-XXXX. The password is displayed on the HDMI connected monitor and the default password is **12345678**.
- 2. Open web browser, enter 192.168.43.1 in the address bar
- 3. Press the ADMIN ACCESS button at top-right of the page
- 4. Enter default password admin
- 5. Enter **NETWORK** menu and choose **Network Mode** sub-menu
- 6. Choose LAN Connection Mode and confirm to apply. Wait a few moments for the new setting to apply.
- 7. Reconnect to unit, by entering the IP address shown on the HDMI connected monitor it your browser address bar.
- 8. Enter the Wireless sub-menu and the LAN Connection Mode tab
- 9. Enter the desired name (SSID) for the KD-BYOD4KHub screen. The default name is KD-BYOD4KHUB-XXXX
- 10. Enter the desired password for casting to KD-BYOD4KHUB's screen. The password is displayed on the HDMI connected monitor(s) and the default password is **12345678**
- 11. Choose **2.4 Ghz or 5 Ghz** frequency and press **WIRELESS SCANNER** to begin scanning for the WiFi Network that you have connected the KD-BYOD4KHUB unit to.
- 12. Choose your desired WiFi Network and press SAVE
- Enter the WiFi Password and press CONNECT. Press SAVE and verify Connection Status
- 14. (Optional) To set a desired static IP address to KD-BYOD4KHUB, enter the Ethernet LAN sub-menu. The default IP address setting for LAN Connection Mode is DHCP / Obtain IP Address Automatically. Press SAVE to apply new settings.

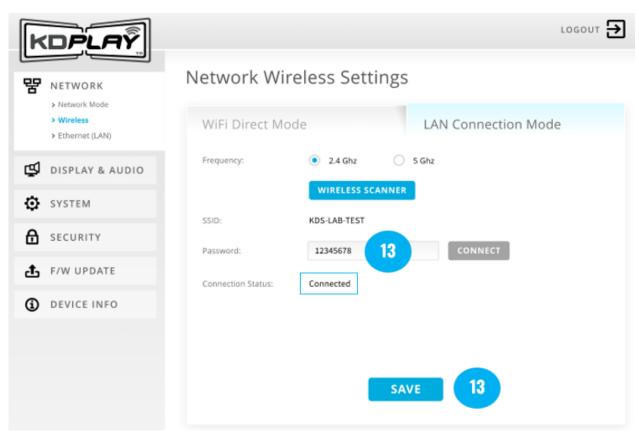




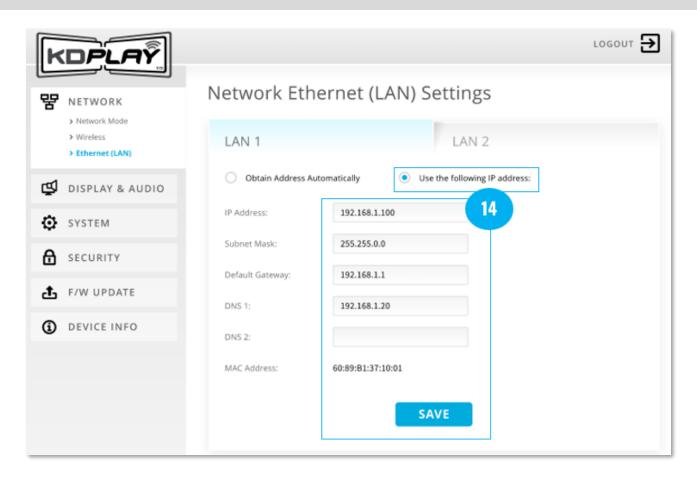












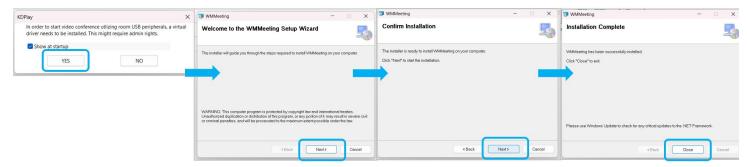


# Cast

Note: Driver installation required for Windows and Mac PCs to use wireless USB devices

- Upon initial use of KDPlay+ application, the PC user will be prompted to install WMMeeting on the PC.
- This may require Admin rights.
- You may also download the driver from the <u>KD-BYOD4KHub product page</u>

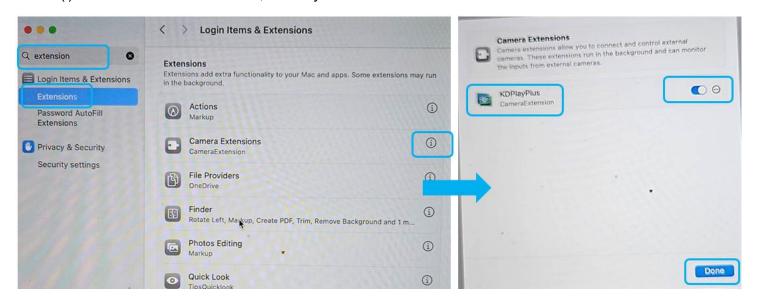
**Windows**: Follow on-screen instructions to install "WMMeeting" driver on to computer for acceptance of wireless USB Camera, Audio, Mouse, and Keyboard devices. **Note:** May require Admin rights.



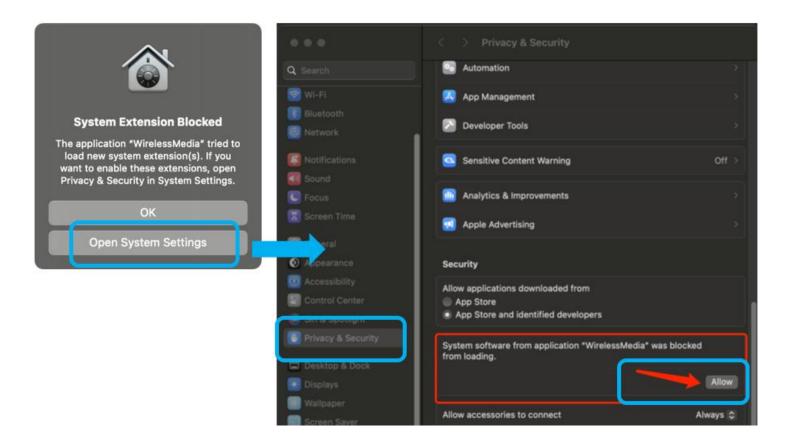


#### Mac:

**Sequoia OS:** Navigate to SETTINGS > LOGIN ITEMS & EXTENSION (or search "extension" in settings), click on the (i) for CAMERA EXTENSIONS, KDPlayPlus must be ENABLED



**Sonoma OS:** When prompted, un-block "Wireless Media" extension by pressing "Open System Settings", and choosing "Állow" for System Software from Wireless Media application.





### **Begin Casting**

1. Power on connected HDMI display(s) and select the appropriate HDMI input connection. All instructions are displayed on KD-BYOD4KHUB's Home Screen



2. (Preferred Method) Casting with KDPlay Flash Auto-Launcher from PC / Mac

**Note:** If casting for the first time after changing network settings, please pair KD*Play* Flash with KD-BYOD4KHUB as instructed below

- a) Insert KD*Play* Flash drive into computer. KD*Play* software will auto launch, the computer will automatically join the appropriate WiFi network and connect to the paired KD-BYOD4KHub unit.
- b) Press **START MIRRORING** to begin casting your content.
- c) Press the GEAR ICON to enter the Settings for Volume, Extended Display, and more.





- To Pair, plug KD*Play* Flash into a USB 2.0 port on the side of KD-BYOD4KHub and wait for the success confirmation on screen.
- When is Pairing Necessary?
  - After changing network mode or network settings
  - After factory default reset of unit
  - · After firmware update of unit



#### Notes for using MacOS with KDPlay Flash

MacOS Monterey & Sequoia users must go to SECURITY & PRIVACY → SCREEN RECORDING / SCREEN & SYSTEM AUDIO RECORDING to ensure that KDPlay is allowed to record the contents of their screen.

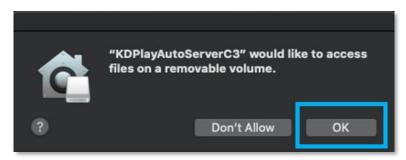
MacOS Catalina is required to support auto-launch feature of KDPlay Flash

Older OS versions like Mojave may require that you re-boot the computer after initially running the KDPlay .exe

Users may manually run KDPlay software or use AirPlay if they do not wish to upgrade to MacOS Catalina.

For Extended Monitor from MacOS, use AirPlay and select "Use as Separate Display".

When inserting KDPlay Flash into Mac computer, the following message is received. Press OK to all access



#### 3. Casting from PC / Mac computer without KDPlay Flash:

- a) Ensure that you are connected to appropriate WiFi network,
   as instructed on Home Screen.
- b) Open web browser, and enter KD-BYOD4KHUB's IP Address, as displayed on Home Screen on your display/projector.
- c) On Welcome Page, press button to download KDPlay™ software for Windows or macOS X.
- d) Run the KDPlay.exe file to open KDPlay™ software.
- e) Follow on-screen instructions
  to install WMMeeting driver on to computer for acceptance of wireless USB Camera, Audio, Mouse, and
  Keyboard devices. **Note:** May require Admin rights.
- f) Choose desired KDPlay screen you wish to cast to. Press CONNECT button.
- g) Enter the KD-BYOD4KHUB device's password, as displayed on Home Screen.
- h) Press CONNECT button. You are now paired with the KD-BYOD4KHUB device, but not yet Casting.





- i) Press **START MIRRORING** to begin casting your content.
- j) Press the GEAR ICON to enter the Settings for volume, USB host select, extended display, and more.
- k) When done casting, ensure your computer's audio is no longer output through the Virtual Meeting Audio driver by rebooting the PC or by (1) clicking the speaker icon in the taskbar, (2) pressing the **Sound**Output button, and (3) choosing computer's built-in speakers or the new desired audio output.

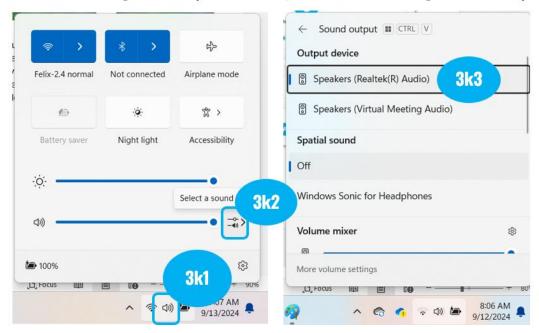








#### When finished casting, reboot computer or manually de-select Virtual Meeting Audio sound output

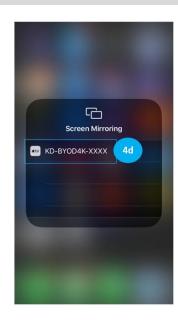




#### 4. Casting from iOS Device with AirPlay:

- Ensure that you are connected to appropriate WiFi network, as instructed on Home Screen
- b. Open **Control Center** on iOS Device by dragging finger upward from bottom-center of screen.
- c. Choose Screen Mirroring
- d. Choose your KD-BYOD4KHUB device you wish to cast to





#### **iOS Casting Notes**

AV Casting only, no wireless USB device connectivity supported. Streaming YouTube app videos not supported. Stream from web browser if needed. Two maximum iOS devices may simultaneously cast to KD-BYOD4KHUB. Moderator preview not supported for devices casting without KDPlay app. If casting for the first time after changing network settings, it may be necessary to forget the KD-BYOD4KHUB network and re-join, especially if you have updated the WiFi Direct Mode SSID password.



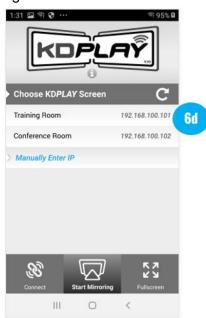
#### 5. Casting from Android device with Miracast (Recommended)

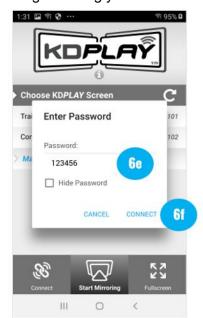
- a. On your Android device, navigate to Settings → Connected
   Devices → Smart View
- b. Allow a moment for the available devices on the network to populate,
- c. Select **KD-BYOD4KHub** from the list.

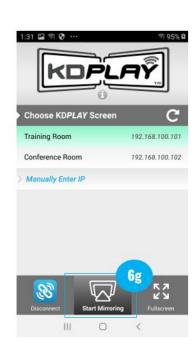
**Note:** AV Casting only, no wireless USB device connectivity supported.

#### 6. Casting from Android device with KDPlay App:

- a. Open Google Play and download KD*Play*™ app
- b. Ensure that you are connected to appropriate WiFi network, as instructed on Home Screen.
- c. Run **KD***Play*™ app
- d. Choose desired KDPlay screen you wish to cast to.
- e. Enter the KD-BYOD4KHUB device's password, as displayed on Home Screen.
- f. Press **CONNECT** button. You are now paired with the KD-BYOD4KHUB device, but not yet Casting.
- g. Press **START MIRRORING** to begin casting your content.







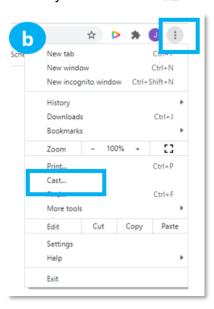
**Android KD***Play* **App Notes:** Android currently supports video streaming only, not audio. For audio support, Miracast is the recommended casting method. To reduce mobile device battery consumption, please disconnect from KD-BYOD4KHUB and completely close the app when done using.

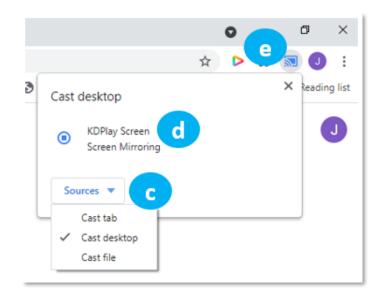




#### 7. Casting from Chrome OS / Chrome Browser:

- a. Open Chrome browser.
- b. In top-right corner, press the vertical ellipsis ":" button and choose Cast...
- c. Select the desired **Share Source** (browser tab, desktop, or file) in the dropdown menu.
  - i. **Note:** Choose desktop if you wish to cast from YouTube.
- d. Click the KD-BYOD4KHUB device you wish to cast to.
- e. You may now use the 🔝 casting icon to enter the Casting menu and toggle casting state.

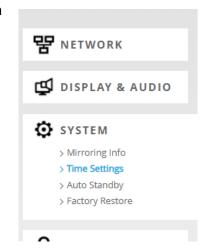




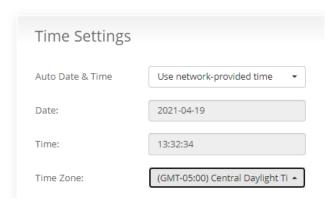
#### **Chrome OS Casting Notes**

Two maximum Chrome OS devices may simultaneously cast to KD-BYOD4KHUB. For Chrome OS support, KD-BYOD4KHUB must be on an internet-enabled network and the KD-BYOD4KHUB time setting **Use**Network-Provided Time applied with correct time zone selected. The casting device must be in same subnet for chromecast casting. Power cycle KD-BYOD4KHUB after updating time and/or network settings. If the updated device name is not shown after applying, close all existing Chrome browser sessions, power cycle KD-

BYOD4KHUB, and open a new browser window. Moderator preview not supported for devices casting without KDPlay app.



# **System Settings**



Low Latency Mouse Control:

USB Host: Wireless Device

Stream Mode: Video Optimized

Video Format Info: 1920 X 1080

Aspect Ratio Lock:

Volume: 100%



### Conference

Use the KD*Play*+ application on a Windows or Mac computer to wirelessly receive your USB camera and audio devices connected to KD-BYOD4KHub.

**Note:** if you wish to receive the connected USB Camera, Audio, or HID devices to a hardwired computer Host, KD*Play*+ is not needed.

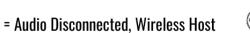
- 1. In the KDPlay+ app, press the **Settings** button and ensure **Wireless Device** is the selected USB Host.
- 2. Connected camera and audio device are indicated by dark-grey buttons in the KD*Play*+ app.
  - a. This is also indicated on the Home Screen:



= Cam Connected, Wireless Host

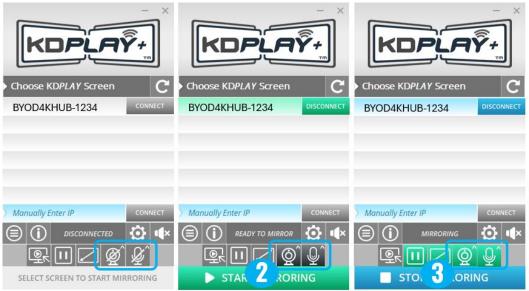


= Cam Disconnected, Wired Host





- 3. Open your desired Video Conference or camera software and choose the "Virtual Meeting Camera" and / or "Virtual Meeting Audio" and the buttons turn green indicating the camera / audio device is now in use by the PC.
- 4. If multiple USB camera / audio devices are connected, press the Camera / Audio button to open a drop-down selection menu.



No Cam / Audio connected

Cam / Audio connected

Cam / Audio In Use at KD*Play* + PC



Camera / Audio device selection (in Compact viewing mode)



- 6. Press the **Preview Monitor** button to open a window in the PC which mirrors the content on your selected display (main or sub) and can be used in your video conference software screenshare for remote conference participants to see the casted content.
  - i. Note: Two maximum contents supported in Preview Monitor screen.
- b. When done casting and conferencing, disconnect from Virtual audio driver as instructed in step <u>3K</u> above.



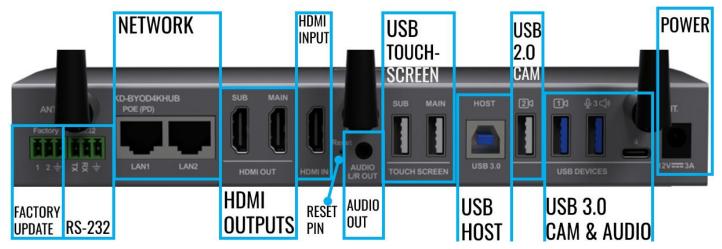
#### **Chrome OS Casting Notes**

Two maximum Chrome OS devices



# Connections, Buttons, and LEDs

#### **Rear Panel**



#### Factory:

Used by Key Digital Engineering for in-factory updates only.

#### RS-232:

Executes RS-232 commands to control connected monitor(s).

#### Network:

- Connect to the networks you wish to cast via.
- LAN 1: 1Gbps bandwidth. PoE (PD) for powering KD-BYOD4KHub from PoE network switch.
- LAN 2: 100Mbps bandwidth.

#### **HDMI Outputs:**

- Connect up to 2 displays, referred to as Main & Sub.
- Supports following layout options:
  - Mirrored (default) = Up to 4 presenters with Main and Sub display showing identical content.
  - Full-Screen + Multi-View = Primary presenter on Main + up to 4 presenters on Sub display.
  - Multi-View + Full-Screen = Up to 4 presenters on Main + 1 presenter on Sub display.
- To achieved Extended/Dual Monitor from 1 PC, utilize 2 sharing methods at same time:
  - Wired HDMI + Wireless
  - Wireless (Windows): KDPlay+ & Miracast
  - Wireless (Mac): KDPlay+ & AirPlay
- Supports up to 4K @ 30/50/60 fps [4:4:4], 18Gbps
- Supports 2h PCM audio maximum.
- Non-HDCP Compliant



#### **HDMI Input:**

- Connect a wired computer for presentations or video conference host
- When connected with active signal, acts as a casting device.
- Supports up to 1080p @ 50/60 fps.
- Supports 2h PCM audio maximum.
- Non-HDCP compliant.
- Recommended for PCs and Cameras only. Other HDMI devices not recommended.

#### **Reset Pin:**

- Press & hold inner pin for approx. 5 seconds until HDMI output(s) go to bootup screen and LED on top
  of unit changes to red color.
- All settings will reset to factory default

#### Audio Out:

• 3.5mm stereo jack with de-embedded audio of the presented content(s).

#### **USB Touch Screen (2):**

- Connect if Main or Sub displays are touchscreen.
- Connect in accordance with "Main" and "Sub" HDMI output connectivity.
- Also supports mouse and keyboard.
- Do not use with USB hubs or other USB device types.
- Provides 5V 500mA power.
- Supports USB 2.0 and previous.

#### **USB Host:**

- Used for connecting wired USB host (ie computer, conferencing appliance) so the Host may receive connected USB devices (ie camera, audio, mouse, etc).
- When connected, USB Host connectivity defaults to USB Host port.
- Use KDPlay+ app or USB Switch button to toggle between wired or wireless USB Host .
- Supports USB 3.0 and previous.

#### USB 2.0 Cam:

- The connected camera will be routed to the host PC (wireless or wired).
- If more than one cameras are connected, use KD*Play*+ app or USB Switch button to toggle between cameras.
- Provides 5V 500mA power.
- Supports USB 2.0 and previous. USB Video Class (UVC) and USB Audio Class (UAC) supported.

#### USB 3.0 Cam & Audio (3):

- The connected devices will be routed to the host PC (wireless or wired).
- Follow port labelling for USB camera and/or audio connectivity.
- For All-In-One devices (ie conferencing soundbar with integrated camera), use the Cam 1 port.



- If more than one cameras are connected, use KD*Play*+ app or USB Switch button to toggle between cameras.
- Provides 5V 900mA power.
- Supports USB 3.0 and previous. USB Video Class (UVC) and USB Audio Class (UAC) supported.

#### Power:

• Connect if not utilizing PoE power.

#### Side Panel



#### **Power Button:**

Used to toggle the unit out of / into standby mode

#### **USB Switch Button:**

- Has two modes of functionality, as set in the Admin menu:
  - Camera Toggle (Default): Routes between Camera 1 (USB 3.0) and Camera 2 (USB 2.0).
  - USB Host Toggle: Choose USB Host wired and wireless.

#### USB 2.0 KD-BYODFD (AKA KDPlay Flash) Pairing Ports:

- Connect KD-BYODFD flash into either port to pair.
- Synchronizes network information into KDPlay Flash Drive (KDBYODFD), to enable automatic joining of WiFi network and connection to base unit.

Re-Scan network for KD-BYOD4KHub

devices

Connect to KD-

BYOD4K device

BYOD4K unit IP

connect button

**Audio Connect** 

& Select

Address entry cell &

Manual KD-BYOD4KHub / KD-

BYOD4KHub / KD-

BYOD4KHUB-1234



# KDPlay+ App Walkthrough

Note that KDPlay+ is also compatible with KD-BYOD4K

Firs gen wireless presentation device, but only KD-BYOD4KHub supports conferencing widgets.

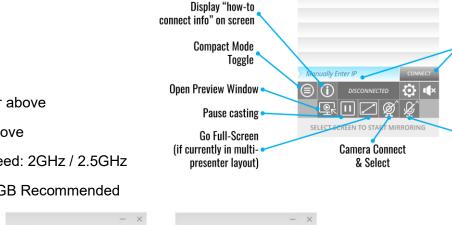
#### PC Requirements:

Windows: Windows 10 or above

Mac: MacOS 10.15 or above

Minimum Processing Speed: 2GHz / 2.5GHz

RAM: Minimum 4GB / 8 GB Recommended



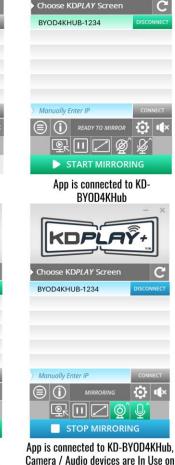
List of KD-BYOD4KHub

devices on network





BYOD4KHub and Camera / Audio devices are available



Wireless Host PC



KD-BYOD4KHub

START MIRRORING

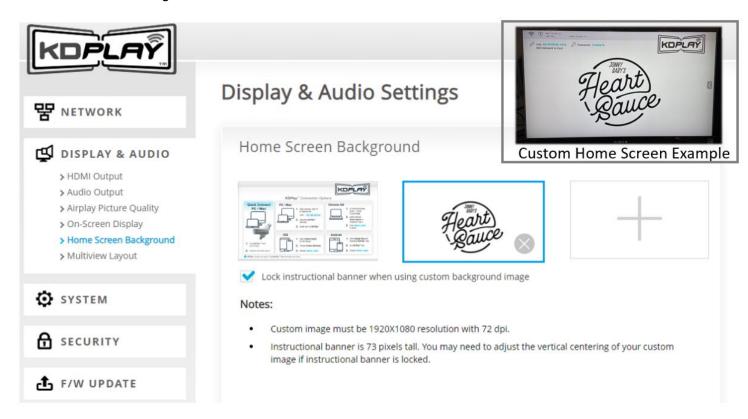
App is in Compact Mode



# **Custom Home Screen Image**

A custom home screen background image may be loaded and selected

- Enter the Admin Menu, choose Display & Audio, and Home Screen background.
  - Press the "+" thumbnail to browse and choose your image.
  - The custom image must be 1920x1080 resolution with 72 dpi.
- Lock Instructional Banner setting is applied by default so KD-BYOD4KHUB's connection information always appears at the top of the home screen.
- The Instructional Banner is 73 pixels tall. It may be necessary to adjust the vertical centering of your custom image to ensure the top part of the image is not covered by the instructional banner.
- White background colors will look cleanest.





# **Digital Signage Mode**

When enabled, KD-BYOD4KHub will automatically display the entered URL web page on its HDMI outputs when the auto standby timer completes.

- Use the Admin menu to enter desired start / stop schedule and URL to display.
- Enter entire URL, including http:// or https:// at beginning of web address.
- Video and audio from the web page are supported.
- Video auto-play functions on sites such as YouTube are not supported. Page loads, and play must be pressed.

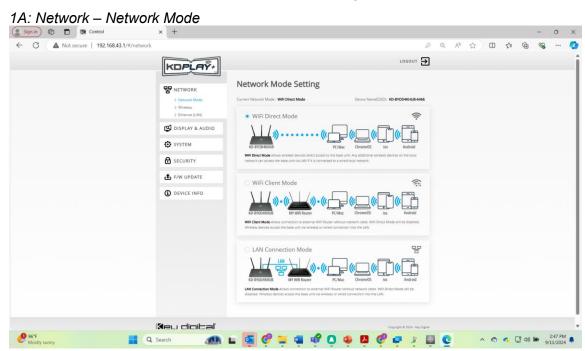


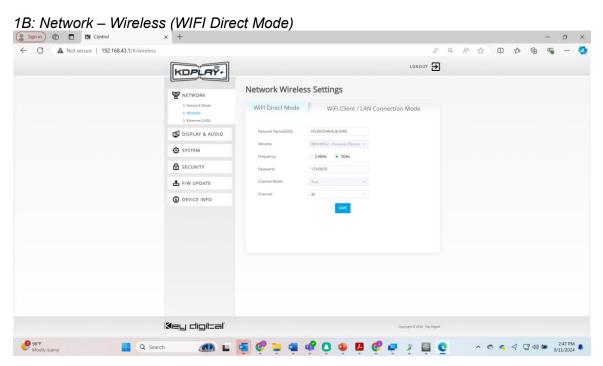




# **Admin Menu Walkthrough**

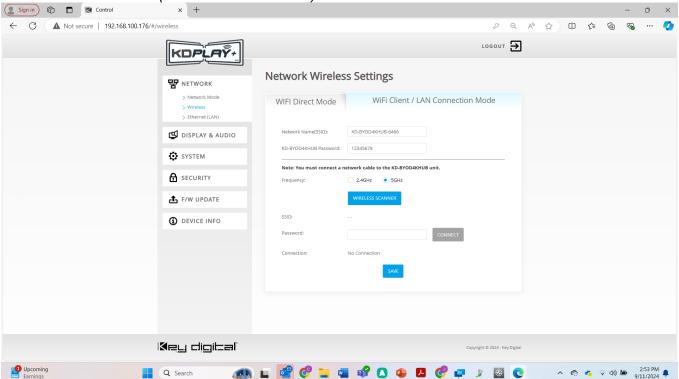
Log into the web UI by entering the unit's IP address as shown on the HDMI connected monitor into your web browser and selected **ADMIN ACCESS**, then entering the admin password.



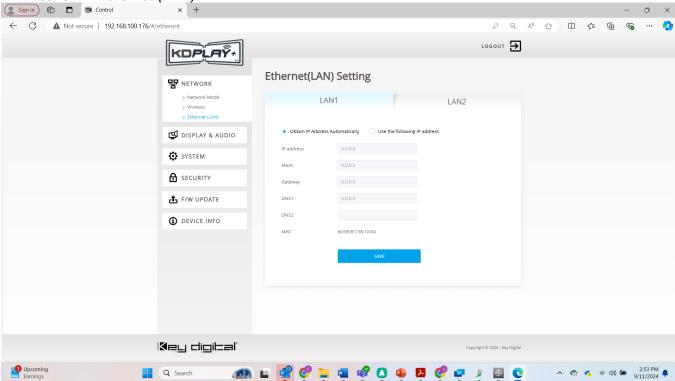




1C: Network – Wireless (LAN Connection Mode)

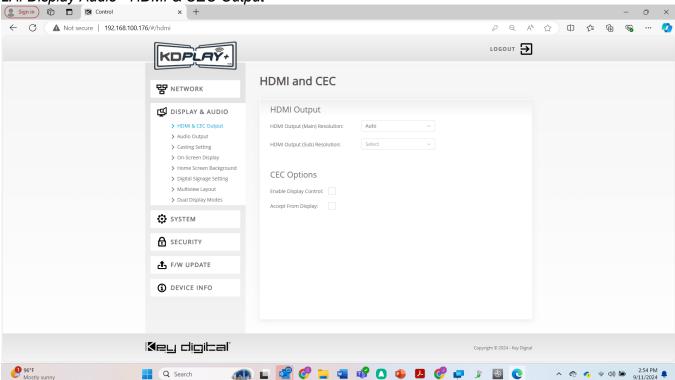


1D: Network – Ethernet (LAN)

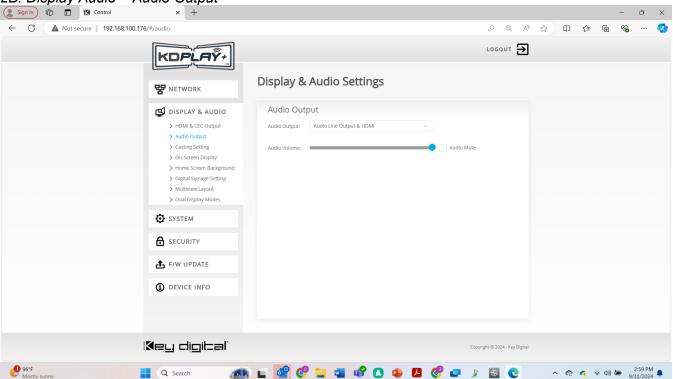




2A: Display Audio - HDMI & CEC Output

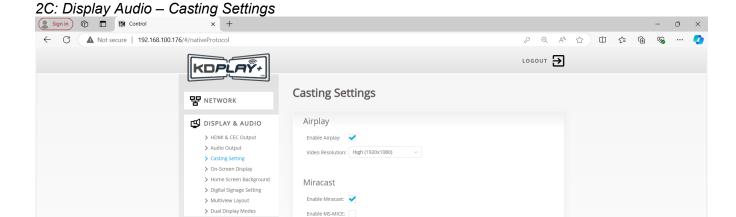


2B: Display Audio – Audio Output



^ ♠ ♠ ♠ ♠ ♠ D) 🍅 2:59 PM 💂





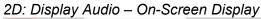
Note 1: For Chrome OS support. KD-BYOD4KHUB must be on an internet-enabled network and the KDBYOD4KHUB time settings must set to Use Network-Provided Time with the appropriate time zone selected. Power cycle KD-BYOD4KHUB If time settings and/or network connection are updated.

Note 2: Security level automatically set to Preference if Airplay, Miracast, or Chromecast are disabled.

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Chromecast

Enable Chromecast: 🗸



SYSTEM

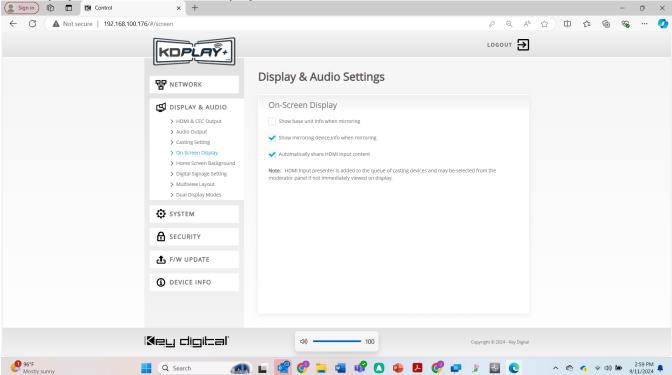
♠ SECURITY

f/W UPDATE

(i) DEVICE INFO

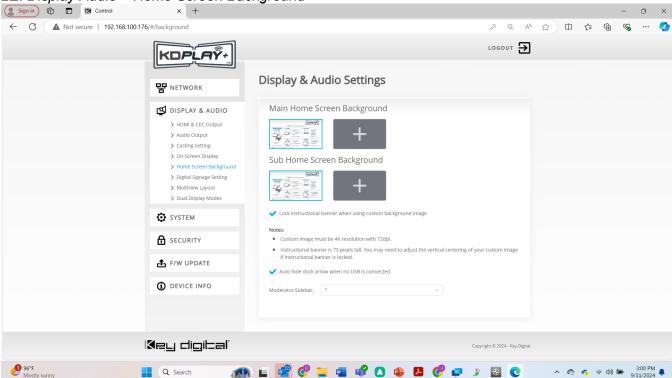
Rey digital

Q Search

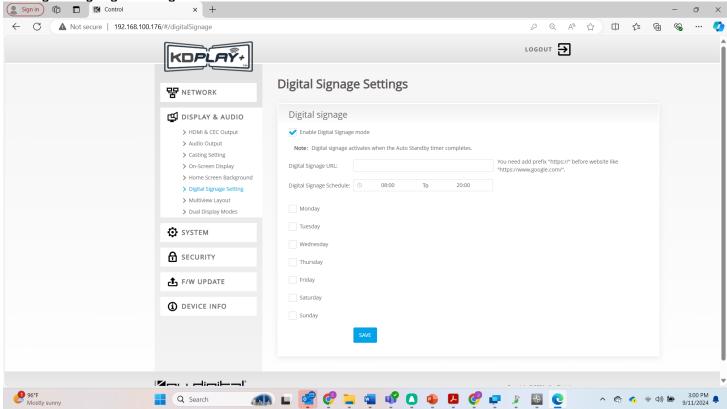




2E: Display Audio – Home Screen Background

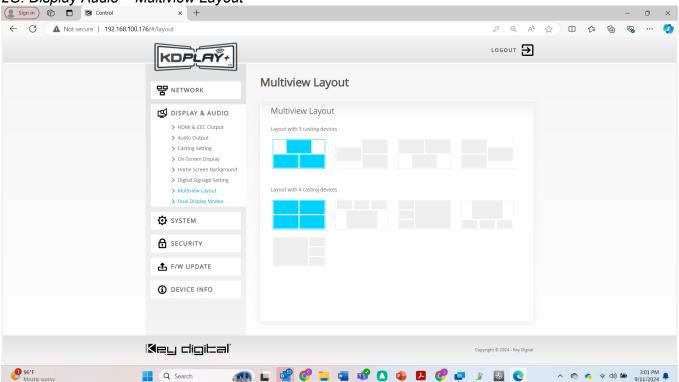


2F: Digital Signage Setting

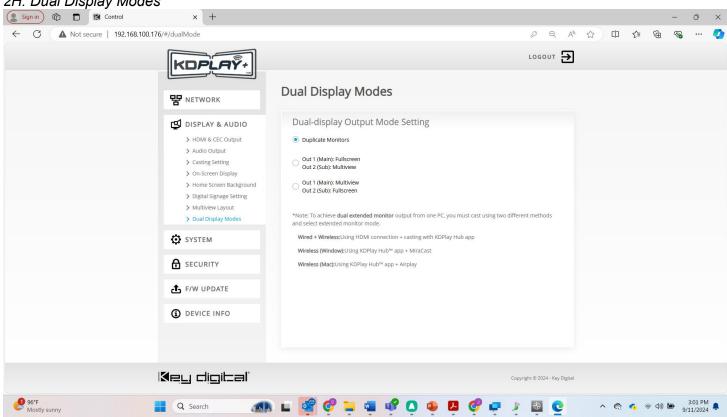




2G: Display Audio – Multiview Layout

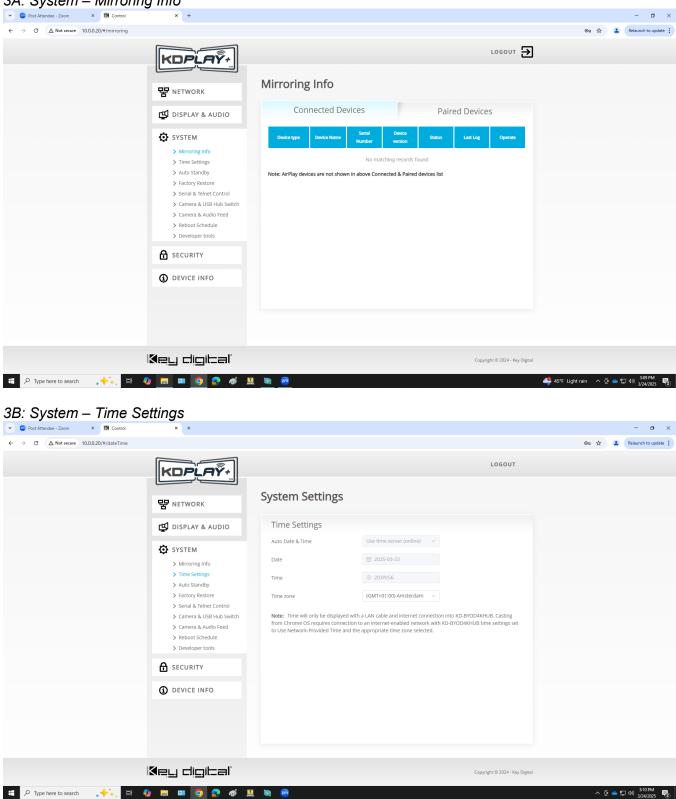








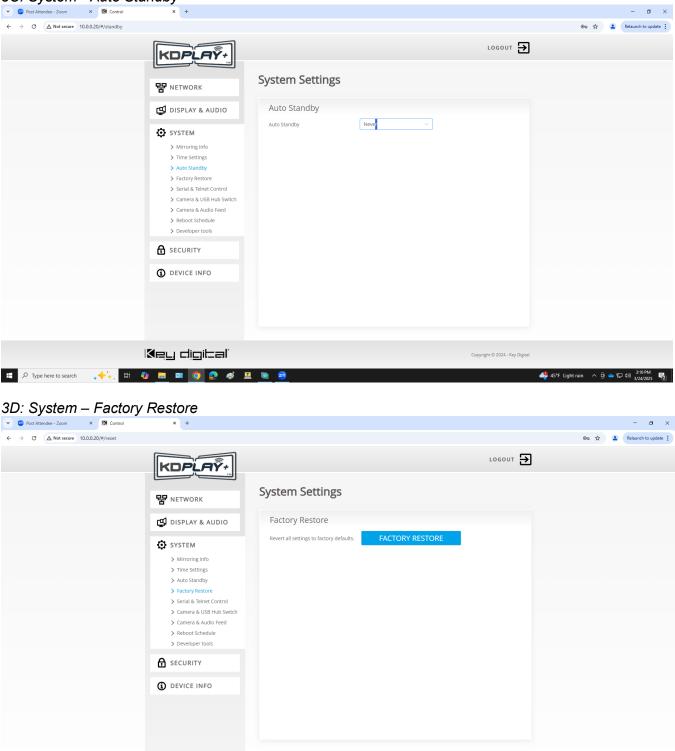
### 3A: System - Mirroring Info



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### 3C: System - Auto Standby

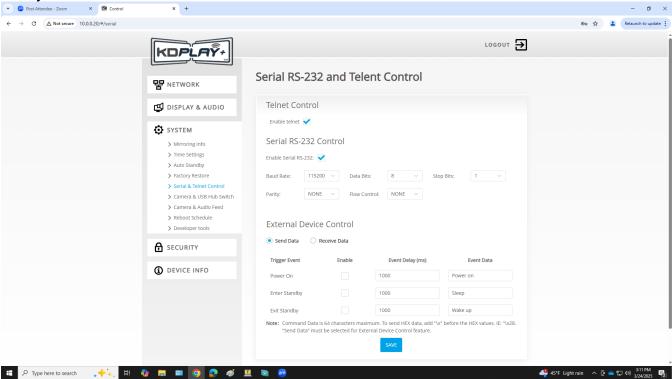


Key digital

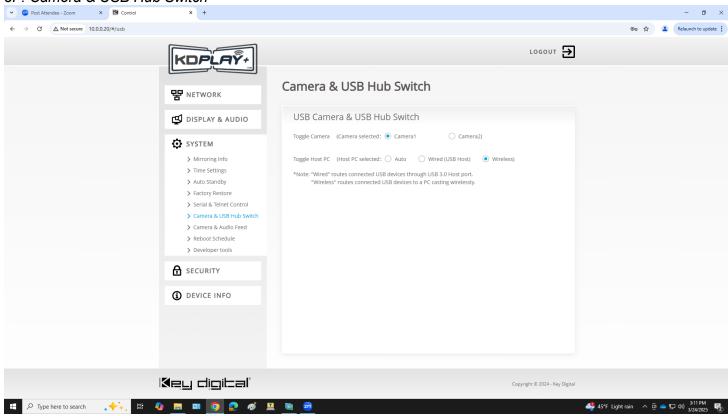
へ @ **ヘ** 智 切) 3/24/2025



### 3E: System - Serial & Telnet Control

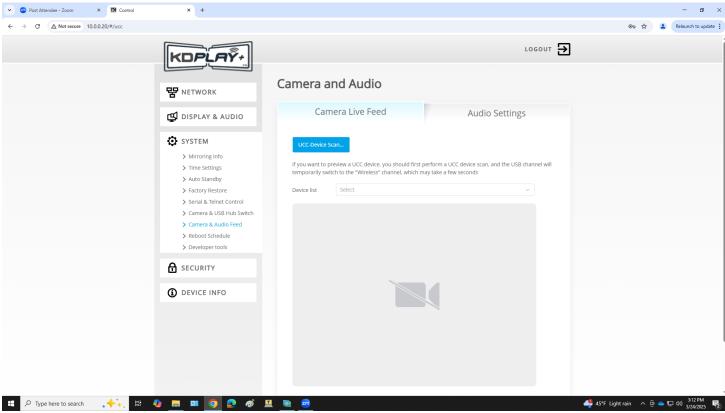


### 3F: Camera & USB Hub Switch

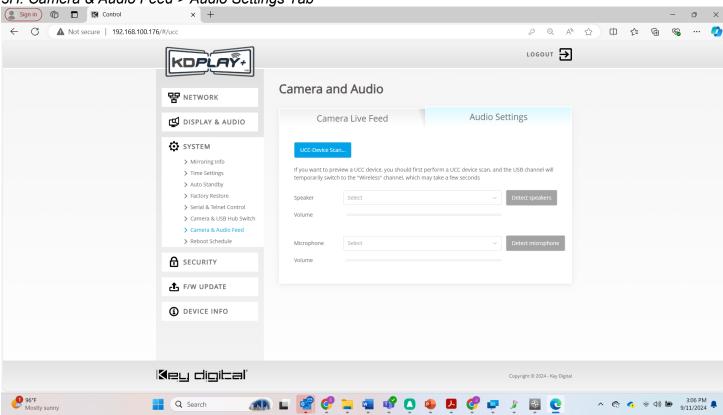




#### 3G: Camera & Audio Feed > Camera Tab

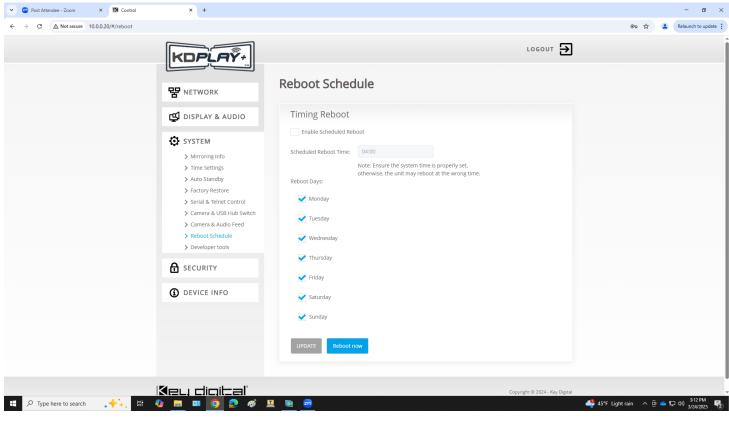


#### 3H: Camera & Audio Feed > Audio Settings Tab

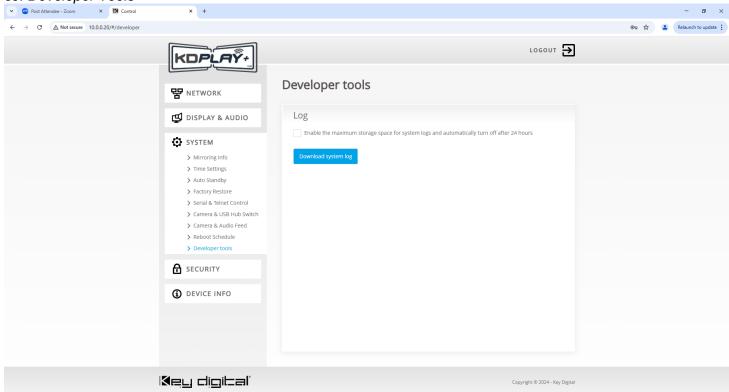




#### 31: Reboot Schedule

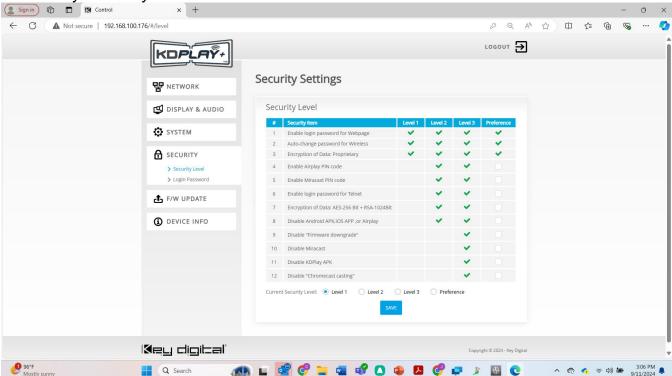


### 3J: Developer Tools

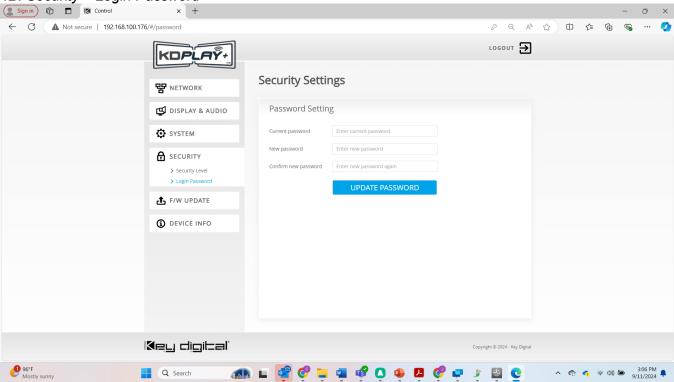




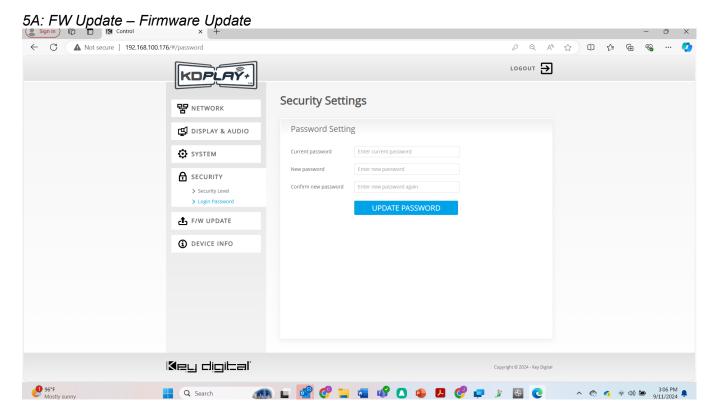
### 4A: Security – Security Level



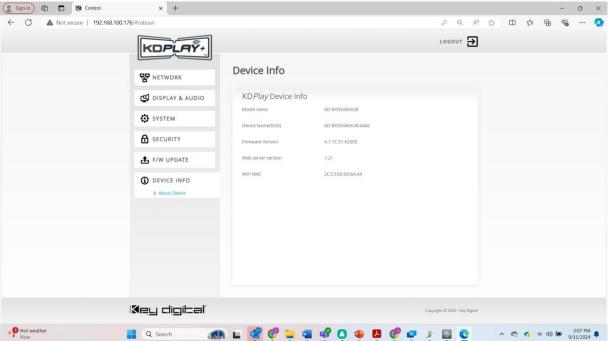
#### 4B: Security - Login Password







#### 6A: Device Info





# **Warranty Information**

All Key Digital® products are built to high manufacturing standards and should provide years of trouble-free operation. They are backed by a Key Digital Limited 3 Year Product Warranty Policy.

http://www.keydigital.com/warranty.htm

## **Product Warnings & Safety Instructions**



## **Important Product Warnings:**

- 1. Connect all cables before providing power to the unit.
- 2. Test for proper operation before securing unit behind walls or in hard to access spaces.
- 3. If installing the unit into wall or mounting bracket into sheet-rock, provide proper screw support with bolts or sheet-rock anchors.



### **Safety Instructions:**

#### Please be sure to follow these instructions for safe operation of your unit.

- 1. Read and follow all instructions.
- 2. Heed all warnings.
- 3. Do not use this device near water.
- 4. Clean only with dry cloth.
- 5. Install in accordance with the manufacturer's instructions.
- 6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 7. Only use attachments/accessories specified by the manufacturer.
- 8. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way including:
  - Damage to the power supply or power plug
  - o Exposure to rain or moisture



# Power Supply Use:

You MUST use the Power Supply provided with your unit or you VOID the Key Digital® Warranty and risk damage to your unit and associated equipment.