



KD-X4x1WUTx

4x1 4K/18G 100m HDBT PoH Wall Plate Switcher with
2x HDMI, DP, USB-C, USB, LAN, ARC, IR, RS-232,
IP Control, CEC Manager[™]. Transmitter Only.

Operating Instructions





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Always follow the instructions provided in this Operating Manual.



Please visit <u>www.keydigital.com</u> for the latest product documentation and software downloads. Product features and specifications are subject to change without notice.

Default IP Address: 192.168.1.239, Port 23

Introduction

Key Digital[®] KD-4x1WUTx is an HDBaseT wall-plate transmitter + universal presentation switcher + soft-codec enabling interface with two HDMI, one Display Port, and one USB-C input, as well as one USB-A and USB-B connection. KD-X4x1WUTx is ideal for professional video installations in conference rooms, class rooms, lecture halls, auditoriums, and more. KD-X4x1WUTx is natively received by KD-X100MRx black box HDBaseT Rx or by KD-UPS52U Presentation Switcher. Both Rx options have audio de-embedding for ease of integration with audio systems. Additional Key Digital Presentation Switchers also support integration with KD-X4x1WUTx. KD-X4x1WUTx features push-button or TCP/IP switching selection of the desired source and is KD-App Ready. Key Digital CEC Manager[™] enables basic controls of the connected display for a simplistic all-in-one integration swith up to 18Gbps bandwidth. 4K/ UHD signals are extended up to 100m / 328ft and 1080p up to 150m / 492ft via single CAT5e/6 cable. In addition to AV signals, KD-X4x1WUTx extends USB 2.0, IR, RS-232 for controlling remotely located equipment. The wall-plate unit fits in a standard US three-gang box and is powered by the Rx unit or Presentation Switcher for convenient installation.

Key Features

- > Presentation Switching: 2 HDMI, 1 Display Port, and 1 USB-C source selection by push button or IP control
- > Installation: Fits in standard US 3-gang wall box or table and wall AV boxes.
- > **Rx Options**: Native integration with KD-X100MRx black box HDBaseT Rx or KD-UPS52U Presentation Switcher. Future Rx options may be available.
- Soft-Codec Enabling System: USB Host + Device ports on wall plate and chosen Rx / Presentation Switch create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- > Ultra HD/4K: Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- > Auto-Sensing: Automatic selection of newly detected source and switching from newly disconnected source when enabled
- > CEC Manager[™]: Power, volume, and muting controls of the connected displays/projectors without any additional control wiring
- > KD-App Ready: Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager[™]
- > Ease of Integration: Complete configuration using Key Digital Management Software™ Pro
- > HDCP Licensing: Fully licensed and compatible with HDCP 2.2
- > HDR10 and Dolby Vision: More life-like images through a greater range of luminance levels
- > Power Over HDBaseT: Wall-plate unit powered by Rx/Presentation Switch unit
- > Installation: Tx unit designed for installation in standard US three-gang box
- > Signal Extension: For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
- > Deep Color Support: Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- > Full Buffer System[™]: Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- > EDID Management: Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- > IR Sensor: Wall-plate collects line-of-sight IR from remote(s) without external IR wiring
- > RS-232: Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- > Lossless compressed digital audio: Support for Dolby[®] TrueHD, Dolby[®] Digital Plus, Dolby Atmos[®], and DTS-HD Master Audio[™]
- Control System Support: Fully controllable by all TCP/IP and RS-232 supported control systems via open API: Compass Control[®] Pro, AMX[®], Crestron[®], KNX[®], RTI[®], Savant, URC[®], Leviton[®] etc.

Included Accessories

- > USB-A to USB Micro Data Cable
- > Aluminum decora plate (qty 1) + Decora mounting screws with flat head (qty 6)
- > Gang-box mounting screws (qty 6)
- > 3-pin phoenix terminal (qty 1)
- > 2-pin phoenix terminal (qty 1)

Quick Setup Guide

Rx UNITS SOLD SEPARATELY. Go to <u>Presentation Solutions section</u> for compatible Rx models.

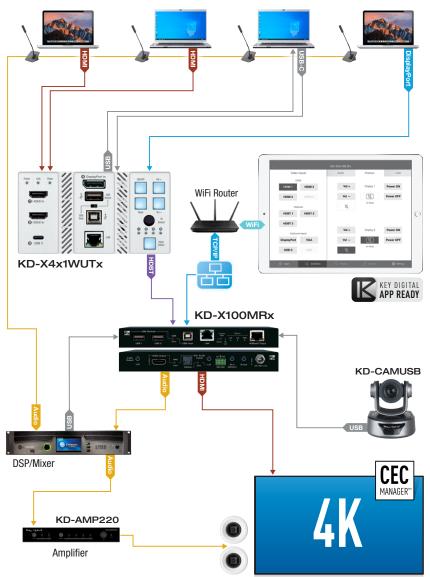
CONNECT:

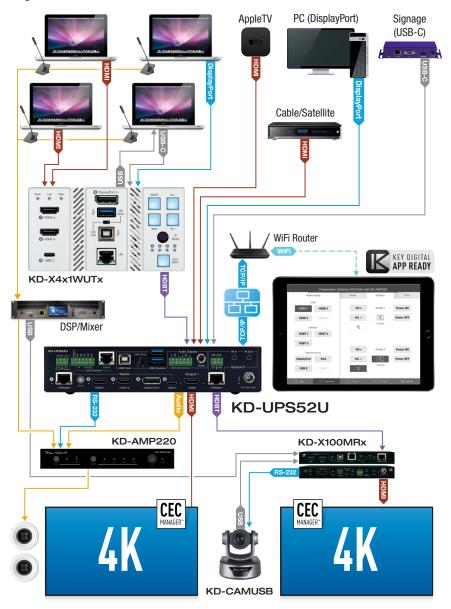
Begin with the KD-UPS52U unit, KD-X100MRx, KD-X4x1WUTx, USB camera (sold separately), all input/output devices, and audio system powered off.

- 1. Connect HDMI, Display Port, and USB-C sources to the input ports of Tx unit
- (Optional) Connect HDMI, Display Port, USB-C, VGA sources to presentation switcher (sold separately). Port connectivity varies by presentation switcher model.
- 3. Connect HDMI displays / projectors to the HDMI output port of the RX unit / presentation switcher
- **4.** Connect USB devices into desired USB A ports and USB host computer to desired USB B ports at wall plate transmitter, HDBaseT Rx, or presentation switcher.
 - » a. Note: When using KD-UPS52U presentation switcher the connection location of the USB devices and host is determined by the USB mode selection switch. Please refer to KD-UPS52U Quick Setup Guide for more information.
- **5.** Connect CAT5e/6 cabling to Tx and Rx unit / presentation switch. Use 568-B standard termination on both ends. Avoid couplers and excess CAT cable length.
- 6. To send the selected audio source into audio systems, connect from the analog or digital audio deembed outputs of the Rx unit / presentation switcher
- 7. Connect control system or PC to LAN port of the KD-X4x1WUTx or the Rx for network connectivity
- 8. Connected monitors are controlled by CEC Manager[™] on the HDMI connection. Alternatively, connect IR/RS-232 wiring from control system into pass-thru ports of KD-X4x1WUTx and IR/RS-232 ports of the Rx unit / Presentation Switch
- 9. Screw-in power supply to the KD-UPS52U or KD-X100MRx unit, and then connect power to outlets.
- 10. Power on HDMI sources and displays, audio systems, connected computers, USB devices and hosts

Integration Options

Integration with KD-X100MRx Receiver:





Integration with KD-UPS52U:

CONFIGURE:

Configure and control your KD-X4x1WUTx via Key Digital Management Software[™] Pro (KDMS[™] Pro) that can be downloaded here: <u>KDMS[™] Pro Download</u>

- 1. Connect to KD-X4x1WUTx from your PC using the USB micro port on the face of the unit
- 2. Open KDMS[™] Pro software and perform a USB Device scan (fig. 1a-1b)

View Layouts Scan System Tools Help **1**a 2 Ľ 🥖 IP USB Network Add to WAN/L Quick Stop Save Scan Devic munications Scan Setup Scan Network Scan nunications 🗟 Report 🗟 Setup 🗟 Multi-Device 🗟 Properties ųΧ Devices Ф× 1 🕞 🗄 I 💩 💩 I 📅 🔛 I Single Direct Connection Device Information. IP Address: USB Device Scan × Specify Device Type Is this a master controller? NO Models KD-MC1000/CX800/Pro8x8D/IP822/922/1022 1h USB Port Start Scan \sim AUTO Cancel

- 3. Choose the device from the Devices window (fig. 2a)
- 4. Set the desired Device Name in the KD-X4x1WUTx Information window (fig. 2b)
- 5. In the Network Settings section of the Properties window, enter the desired IP settings (fig. 2c)
 - » a. IP Address (default is 192.168.1.239)
 - » b. Subnet Mask (default is 255.255.255.0)
 - » c. Gateway (default is 192.168.1.1)
 - » d. Port (default is 23)
 - » i. Note: If using KD-App, please do not change the port number.
- 6. Save (fig. 2d)

| Propert 2d | 4 × | Devices | 4 × | |
|-------------------------------------|-----|---|-----|---------------------------------|
| | | 🔁 🗄 💩 💩 📓 📓 🖬 🖬 🖬 🖬 📾 🚳 🚳 🚳 | | |
| KI Update Changed Device properties | ^ | Single Direct Connection | | |
| Device Name: X4x1WUTx_0001 | | 192.168.001.239 (KD-X4x1WUTx "X4x1WUTx_0001") | | KD-X4x1WUTx Presentation Switch |
| Main EOW Version | | | | Video Inputs |
| 1.14 | | | | HDMI |
| Read Update | | | | HDMI 1 HDMI 2 |
| Network Settings | | | | Engent 1 Engent 2 |
| MAC Address: | | | | Wallplate |
| 26:5F:78:24:E7:45 | | | | |
| IF Products. | | | | |
| 192.168.001.222 | | | | |
| IP Mask: | | | | |

(USB)

 If using KD-App or KDMS for control, set the desired Input/Output names by entering the Input/ Output Settings section of the properties window, and selecting the Change Input/Output Name button (fig. 3a), selecting the desired input/output and entering the name (fig. 3b)

| ĸ | ey Digital Management Software Pro v.1.2.8 |
|---|--|
| Scan System View Tools Layouts Help | |
| Image: Scan Image: Scan | |
| Properties # x Devices # x | |
| | KD-UPS52U Presentatio |
| 60:89:B1:31:00:0C ↑ ≩ 192.166.1*** IP Address: 192.166.001.239 ↓ 3€ Switchers IP Address: ↓ 3€ Switchers ↓ 3€ Switchers IP Address: ↓ 3€ 192.168.001.239 (KD-UP552U) ↓ 3€ 192.168.001.239 (KD-UP552U) | Video Inputs HDMI |
| 255.255.255.000 Gateway: | |
| 192.168.001.001 Change Input/Output Name. | HDMI 1 HDMI 2 |
| Port: | A Input 2 Laptop |
| Input/Output: Input 3 | |
| Video/Audio Settings | |
| Name: Laptop | Wallplate |
| Auto Sense Mode: OFF Change Cancel | |
| HDBT Input Control: RS232 V | HDBT 1 |
| Audio Output Source: Video Input Input 1: HDBT 1. Link* Off. V= Off. L= On | Input 1 |
| Input 2: HDMI 1, Link= Off | |
| Input 3. HDMI 2, Link= Off Input 4: Display Port, Link= Off | |
| Input 5: USB-C, Link= Off | Additional Inputs |
| Output 1: HDMI, In= 5, Link= Off | |
| Output 2: HDBT, In= 5, Link= Off | DisplayPort |
| 3a [₽] | Input 4 |
| Change Input/Output Name | USB C |
| Status # x | Input 5 |
| 🕄 🗙 | |
| 11:01:26 T >> "Scan" ^ | |
| 11:01:48 192.168.1.239 - "KD-UPS52U" Device found | 🗏 Presets |
| Ready | |

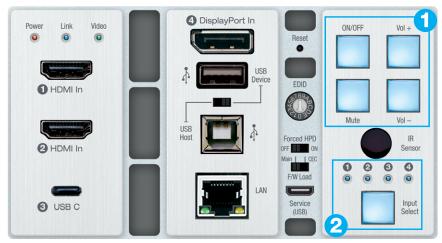
- Set the EDID rotary to position "A" for 4K video with 2ch audio. Choose setting "4" for 1080p video with 2ch audio. Refer to the <u>Connections, Buttons, and LEDs</u> section for more options and information.
- **9.** Set the Forced HPD to the ON position to fix a high HPD state to connected displays.
- **10.** Additional settings may be adjusted in the KDMS software. Full access to all settings/commands is achieved via terminal session using Tera Term or PuTTy software.
- Ensure that CEC is enabled on your displays/projectors. Depending on the manufacturer, HDMI-CEC may be given a different name. View <u>THIS</u> article for a list of CEC names and how to enable CEC on popular displays.
- **12.** Your unit is now ready to control from the KDMS Control Panel, KD-App, or by professional control system.



CONTROL:

Option 1: Control via Push Button

- 1. Display Control via CEC Manager[™]
 - » a. Requires CEC supported display with CEC enabled
- 2. Input Select
 - » a. Advances through inputs 1, 2, 3 and 4 respectively
 - » b. Press and hold for 5 seconds to active Auto switching. Solid illumination of the button's backlighting indicates mode has been set



Option 2: Control via KD-App, Key Digital Management Software™

> KD-X4x1WUTx is controllable by:

- » Key Digital's user-friendly iOS App (downloadable in the App Store)
- » Key Digital Management Software (downloadable here).

> Configuration Steps:

- » Connect and configure KD- X4x1WUTx as described in this Quick Setup Guide.
- » Download and open KD-App and/or KDMS
- » Ensure the iOS device and/or PC computer are on the same network with KD-X4x1WUTx
- » Perform a network scan in the KD-App/KDMS
- » Select and control the selected KD-X4x1WUTx

| ined © < Der | 7.29 PM no Wallplate Switcher 4x1 (KI | D-X4x1WUT) | * 53% ■⊃ |
|----------------------------|--|---------------|-----------------|
| Video Inputs | Displays | | |
| HDMI | | | |
| HDMI 1 HDMI 2 | Vol + | Display 1 | Power ON |
| Input 1 Input 2 | Vol - | | Power OFF |
| Wallplate | ×. | AV Mute | |
| Additional lanute | | | |
| Additional Inputs | | | |
| DisplayPort | | | |
| USB C | | | |
| Input 3 | | | |
| Main → Switc | chers 📃 Presets | ↔ Default Pos | R Cam Select |

Option 3: Control via professional control system

KD-X4x1WUTx allows control over TCP/IP interface for bi-directional communication. You may connect to the LAN port of the KD-X4x1WUTx, KD-X100MRx, or KD-UPS52U to deliver network connectivity to the Key Digital devices.

Default IP Address: 192.168.1.239, Port 23

> For TCP/IP control, the default static IP address is 192.168.1.239, with port 23

- RS-232 connection is used for control pass-thru to connected devices, not for unit control of the KD-X4x1WUTx
- For the past 10 years, most Key Digital switches have supported a standard audio+video switching command. KD-X4x1WUTx is also controllable by this command, so if you have previously integrated Key Digital switches by third-party control systems you may have success using the same driver/ module.
 - » Switching Video + Audio together (two commands supported)
 - » SP001Slyy yy = input number (01-02)
 - » **SPOSlyy** yy = input number (01-02)

Connections, Buttons, and LEDs

Front Connections and LEDs

- > HDMI Inputs: Using an HDMI cable, connect your HDMI sources.
 - » Supports up to UHD/4K @ 50/60 fps [4:4:4], 18Gbps
 - » See Supported Standard 4K Video Formats table below
 - » Supports HDR10 and Dolby Vision
 - » Compliant with HDCP 2.2 and previous
 - » Supports lossless compressed audio formats including Dolby[®] TrueHD, Dolby[®] Digital Plus, DTS-HD Master Audio[™], and Dolby[®] Atmos
 - » Does not support CEC pass through from display connected to Rx unit / presentation switch
- > Display Port Input: Using a Display Port cable, connect your source.
 - » Supports up to UHD/4K @ 50/60 fps [4:4:4], 18Gbps
 - » Supports HDR
 - » Supports Display Port version 1.3 and previous
 - » Compliant with HDCP 2.2 and previous
- > USB-C Input: Using a USB-C cable, connect your source.
 - » Supports up to UHD/4K @ 50/60 fps [4:4:4], 18Gbps
 - » Supports HDR
 - » Cable must be USB-C 3.2 Gen 2 to support AV at the needed bandwidth
 - » Utilizes Display Port over USB-C alt mode
 - » Supports Display Port version 1.3 and previous
 - » Compliant with HDCP 2.2 and previous

Supported standard 4K Video Formats:

| | Resolution | Bandwidth |
|---|--------------------------------|------------|
| 1 | 4K@24/25/30 [4:4:4] 8bit | < 10.2Gbps |
| 2 | 4K@24/25/30 [4:2:2] 8/10/12bit | < 10.2Gbps |
| 3 | 4K@50/60 [4:2:0] 8bit | < 10.2Gbps |
| 4 | 4K@24/25/30 [4:4:4] 10/12bit | < 18Gbps |
| 5 | 4K@50/60 [4:2:2] 8/10/12bit | < 18Gbps |
| 6 | 4K@50/60 [4:2:0] 10/12bit | < 18Gbps |
| 7 | 4K@50/60 [4:4:4] 8bit | < 18Gbps |







- > Power, Link, Video LEDs: Indicate system connectivity status
 - » Power (red) illuminates solid with proper powering from local connection / presentation switch
 - » Link (blue) illuminates solid from healthy HDBaseT connectivity with Rx unit / presentation switch
 - » Video (green) illuminates solid with active HDMI signal

> USB Device Port

- » Supports USB2.0 and previous
- » Used for connecting USB endpoints (ie KD-CAMUSB, keyboard, mouse)
- » Not used for connecting USB hosts (ie computer)
- » Supports connectivity to USB hubs but may not exceed 15 endpoint devices
- » Provides 5V 500mA power
- » Use USB toggle switch to determine if KD-X4x1WUTx will be used to connect a USB host (USB-B port) or USB device (USB-A port). Both host and device are not simultaneously possible.

> USB Host Port

- » Supports USB2.0 and previous
- » Used for connecting USB host (ie computer)
- » Not used for connecting USB hosts (ie KD-CAMUSB, keyboard, mouse)
- » Use USB toggle switch to determine if KD-X4x1WUTx will be used to connect a USB host (USB-B port) or USB device (USB-A port).
 Both host and device are not simultaneously possible.

> LAN Port

- » Default static IP address is 192.168.1.239, port 23
- » Used to connect with Network Switch and peripheral devices needing network connectivity and/or TCP/IP control
- » Unit configuration, control, and firmware updates are most commonly achieved with Key Digital Management Software[™] Pro, download at KDMS[™] Pro Download

> Reset Pin

- » Push and hold for approximately 10 seconds to restore all settings to default
- » Front LEDs will turn off and restore during bootup process to indicate the reset has completed.





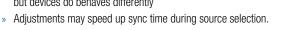






> EDID Rotary

- » EDID authentication is provided from the unit to the connected inputs/sources.
- » The EDID file (AKA "handshake") is selected using the EDID rotary on the unit and provides a list of compatible video and audio formats as well as digital data, informing the source device what it should output.
- » Most sources will comply with a new EDID file without a power-cycle, but devices do behaves differently



| Position | EDID Handshake Description | EDID Rotary | | |
|----------|-------------------------------------|--|--|--|
| 0 | Copy EDID from HDMI Output 1 | EDID | | |
| 1 | 1080i, 2CH AUDIO | 61891 | | |
| 2 | 1080i, DOLBY/DTS 5.1 | 0B | | |
| 3 | 1080i, HD AUDIO | 62030 | | |
| 4 | 1080p, 2CH AUDIO | | | |
| 5 | 1080p, DOLBY/DTS 5.1 | Note: Default position | | |
| 6 | 1080p, HD AUDIO | | | |
| 7 | 4Kx2K@60, 10.2G, HDR, 2CH AUDIO | | | |
| 8 | 4Kx2K@60, 10.2G, HDR, DOLBY/DTS 5.1 | | | |
| 9 | 4Kx2K@60, 10.2G, HDR, HD AUDIO | | | |
| Α | 4Kx2K@60, 18G, HDR, 2CH AUDIO | | | |
| В | 4Kx2K@60, 18G, HDR, DOLBY/DTS 5.1 | | | |
| C | 4Kx2K@60, 18G, HDR, HD AUDIO | IMPORTANT: Please | | |
| D | 1280x720p@60 DVI (no audio) | apply light pressure | | |
| Е | 1920x1080p@60 DVI (no audio) | to the EDID rotary when making your | | |
| F | 4Kx2K@30, 10.2G, HDR, 2CH AUDIO | selection. | | |

> Forced HPD Switch: Troubleshooting tool

- » When ON, Hot Plug Detection voltage is fixed on to the connected sources
- » Standard HPD passthrough from display to source when set to OFF position



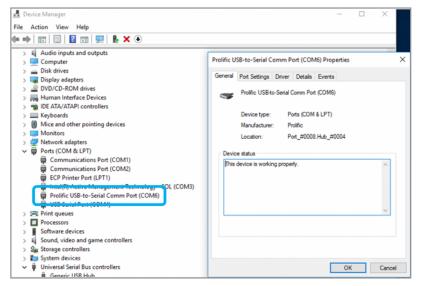


> Firmware Load Switch:

- » Used to select the firmware load location
- » IMPORTANT: Consult with Key Digital tech support <u>before</u> updating firmware

> Service USB Port:

- » Used for configuration and control from PC via KDMS Pro, KDMS, or third-party control terminal
- » Used for firmware updates (consult with Key Digital tech support before updating firmware)
- » Supports USB driver for Windows 10, 7, XP, Mac, Linux
- » Will register as "Prolific USB-to-Serial Comm Port in Device Manager
- » Can be used as RS-232 control port. Baud rate is 57,600



> Display Control Buttons

- » Sends CEC Power Toggle, Volume Up, Volume Down, and Mute Toggle commands to Display connected to RX unit / Presentation Switcher
 - » Requires CEC supported display with CEC enabled
 - » Future updates may enable additional control options without programming needed







> Input Select Button

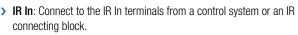
- » Advances through inputs 1, 2, 3 and 4 respectively
- » LED display indicates selected source
- » Press and hold for 5 seconds to active Auto switching. Solid illumination of the button's backlighting indicates mode has been set
 - » <u>Note:</u> Auto switching is disabled when a manual push button switching is executed. A fixed auto switching mode may be set via command string or through KDMS Pro software.

> IR Sensor

- » Used to collect line-of-sight IR from remote control
- » Receives signals from a 90° angle at up to 30ft away
- » Signal is output on Rx unit / presentation switch's IR Out port
- » KD-X4x1WUTx is NOT controllable via IR
- » IR and RS-232 supported simultaneously

Rear Connections

- > HDBaseT Output: Connect a CAT5e/6 cable to the Rx unit / presentation switch at the port labeled "HDBaseT In"
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
 - » Must connect with KD-UPS52U, KD-X100MRx, or KD-PS42
 - » Power received over HDBaseT from Rx

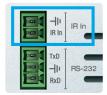


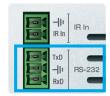
- » Signal is output on Rx unit / presentation switch's IR Out port simultaneously as any IR input collected by the IR Sensor
- » KD-X4x1WUTx is not controllable via IR
- RS-232 Terminal: Connect with control system for pass-thru of bi-directional RS-232 signals to/from controlled device.
 - » Supports baud rate up to 115,200bps
 - » KD-X4x1WUTx is not controllable via RS-232











TCP/IP Commands

KD-X4x1WUTx allows bi-directional control over TCP/IP connection made at KD-X4x1WUTx, KD-UPS52U, or KD-X100MRx.

> Default static IP address is 192.168.1.239, port 23

Notes:

- » Commands are not case-sensitive
- » Commands require a carriage return following each string
- » Spaces are shown for clarity; commands should NOT have any spaces
- » After a new command is received, a prompt should be sent back

Help Command (H). Returns entire API in readable format:

```
_____
--
                     Key Digital Systems HELP
                                                                     ---
_____
    KD-X4x1WUTx
                                                F/W Version : 1.14
---
                                                                     ---
_ _
                                                                     ---
-- H
            : Help
                                                                     _ _
-- STA : Show Global System Status
_ _
                                                                     ---
-- Video Output Setup Commands: xx = [01,A=All], yy = [01-04,U,D]
                                                                     ---
-- ( yy : 01=HDMI1, 02=HDMI2, 03=USB C, 04=DisplayPort[DP] )
                                                                     ---
-- SPO SI yy : Set Output to Video Input yy
-- SPO xx SI yy : Set Output to Video Input yy
                                                                     ---
                                                                     ---
-- SPO xx ON/OFF : Set Output xx ON/OFF
-- SPO xx VM E/D : Set Output xx Video Mute Enable/Disable
                                                                     ---
-- SPO xx DBG ON/OFF : Set Output xx Debug Mode ON/OFF
                                                                     ---
-- SPO xx LRM ON/OFF : Set HDBT Output xx Long Range Mode ON/OFF
                                                                     ---
_ _
                                                                     _ _
-- Display Control Commands: xx = [01, A=All]
                                                                     ---
-- SPO xx TV ON/OFF : Set Display xx ON/OFF (Turn TV On/OFF)
                                                                     ---
-- SPO xx AV U/D : Set Display xx Volume Up/Down
                                                                     ---
-- SPO xx AM E/D/T : Set Display xx Audio Mute Enabled/Disabled/Toggle--
--
                                                                     ---
-- Input/Output/Device Naming Commands [xx=01-04] (c=Max. 16 Chars)
                                                                     ---
-- SPI xx WN cccccccccccccc : Write Input xx Name
                                                                     ---
-- SPI xx RN
              : Read Input xx Name
-- SPO xx WN cccccccccccccc : Write Output xx Name
                                                                     ---
-- SPO xx RN
                            : Read Output xx Name
                                                                     _ _
-- SPC WN ccccccccccccc : Write Device Name
                                                                     ---
-- SPC RN
                            : Read Device Name
_ _
                                                                     ---
-- Network Setup, ( xxx=[000-255], zzzz=[0001~9999] )
                                                                     ---
-- SPCETIPA xxx.xxx.xxx.xxx : Set Host IP Address to xxx.xxx.xxx.xxx
                                                                     ---
-- SPCETIPM xxx.xxx.xxx : Set Net Mask to xxx.xxx.xxx
                                                                     ---
-- SPCETIPR xxx.xxx.xxx.xxx : Set Route IP Address to xxx.xxx.xxx.xxx --
-- SPCETIPP zzzz
                           : Set TCP/IP Port to zzzz
                                                                     ---
-- SPCETIPB
                           : Apply New Network Config
                                                                    --
--
                                                                     ---
```

```
-- System Control Setup Commands: --

-- SPC AS x : Set Auto Sense Mode x = [0=OFF,1=AUTO,2=FORCED ON] --

-- SPC FB E/D : Enable/Disable Front Panel Buttons --

-- SPC RSB z : Set USB RS232 Baud Rate to z bps, z=[0-5] --

[0:115200, 1:57600, 2:38400, 3:19200, 4:9600, 5:4800] --

-- SPC DF : Reset to Factory Defaults --

-- SPC DF00 : Reset to Factory Defaults without Network Reset --
```

Status Command (STA). Returns unit status and settings in readable format:

```
_____
___
                 Key Digital Systems STATUS
_____
-- Model: KD-X4x1WUTx,
                                    Device Name: X4x1WUTx 0001
                                                            ---
-- Main F/W Ver: 1.14, CEC Ver: 1.02
                                                            ---
--
                                                             _ _
-- USB(RS232): Baud Rate=115200bps, Data=8bit, Parity=None, Stop=1bit --
-- Front Panel Button : Enabled
                                                            ---
--
                                                            ---
-- Network Setting (Web Server/TCP Control) Status
-- MAC Address = 26:5F:78:24:E7:45
                                                            ---
-- Host IP Address = 192.168.001.239
-- Net Mask = 255.255.255.000
                                                             _ _
-- Router IP Address = 192.168.001.001
-- TCP Port = 0023
--
-- Video Input Status
-- EDID = DEFAULT 10, FORCED HPD = OFF, AUTO SENSE = OFF
-- 01 : HDMI1, LINK = OFF
                                                            ---
-- 02 : HDMI2, LINK = OFF
-- 03 : USB C, LINK = OFF
                                                             _ _
-- 04 : DP , LINK = OFF
---
                                                            ---
-- Video Output Status (D=Disable, E=Enable)
-- HDBT Output : IN = 01, OUT = ON , V/MUTE = D, LINK = OFF, DBG = OFF --
--
              LRM = OFF
                                                            --
--
                                                            ---
-- Display Output Status (CEC Control)
                                                            --
-- HDBT Output : TV = ON , A/V MUTE = Disable, A/MUTE = Disable
                                                            ---
_____
```

Specifications

Technical:

- » Inputs: 2 HDMI, 1 Display Port, 1 USB-C, 1 IR Sensor, 1 Serial IR, 1 Bi-Directional RS-232
- » Outputs: 1 HDBaseT RJ45, 1 Bi-Directional RS-232
- » DDC Signal (Data): Input DDC Signal: 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal: 1.2 Volts p-p
- » Display Port Video/Audio Signal: Input Video Signal: 1.2 Volts p-p
- » USB-C Video/Audio Signal: Input Video Signal: 1.2 Volts p-p
- » RJ45 Connector: Shielded Link Connector, HDBaseT
- » IR Connectors: 1 IR Sensor, 1 2-pin phoenix terminal
- » RS-232 Connector: 3-pin phoenix terminal

General:

- » Regulation: CE, RoHS, WEEE, EAC
- » Wallplate: Standard 3-gang Wallplate
- » Enclosure: Faceplate Silver Brushed Metal, Body Texturized Silver Metal
- » Product Dimensions: 5.5 x 4.1 x 1.43" (141 x 105 x 36.4mm)
- » Product Weight: Weight: 1.3 lbs
- » Packaging Dimensions: 11" x 7.9" x 2.1" (280 x 200 x 55 mm)
- » Packaging Weight; Weight: 2.1 lbs
- » Accessories:
 - » USB-A to USB Micro Data Cable
 - » Aluminum decora plate (qty 1) / Decora mounting screws with flat head (qty 6)
 - » Gang-box mounting screws, (qty 6)
 - » 3-pin phoenix terminal (qty 1)
 - » 2-pin phoenix terminal (qty 1)

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.

A 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
 - » Exposure to rain or moisture

A 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.

Contacting Key Digital®

Technical Support

For technical questions about using Key Digital® products, please contact us at:

- > Phone: 914-667-9700
- > E-mail: tech@keydigital.com

Repairs and Warranty Service

Should your product require warranty service or repair, please obtain a Key Digital® Return Material Authorization (RMA) number by contacting us at:

- > Phone: 914-667-9700
- > E-mail: rma@keydigital.com

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.

CE ROHS WEEE C [H]



Key Digital[®], led by digital video pioneer Mike Tsinberg, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high-end video and control are important. Key Digital[®] is at the forefront of the video industry for Home Theater Retailers, Custom Installers, System Integrators, Broadcasters, Manufacturers, and Consumers.

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