

KD-X3x1WUTx

3x1 4K/18G 328 ft. (100m) HDBaseT Transmitter Wall Plate with Auto Switching, HDMI, Display Port and VGA Inputs, USB 2.0, LAN, CEC Control Keypad, Audio De-Embed,
IR and RS-232 Pass-Thru, IP Control, Power over HDBaseT. KD-App and KDPlug & Present[™] Ready.

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-3x1WUTx is an HDBaseT wall-plate transmitter + universal presentation switcher + soft-codec enabling interface with HDMI, Display Port, and VGA inputs, as well as USB-A and USB-B connections. KD-X3x1WUTx is ideal for professional video installations in conference rooms, class rooms, lecture halls, auditoriums, and more. KD-X3x1WUTx is natively received by KDX100MRx 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-X3x1WUTx. KD-X3x1WUTx features push-button or IP switching and is KD-App Ready. CEC Manager™ keypad enables basic controls of the connected display for a simplistic all-in-one integration system. KD-X3x1WUTx is HDCP 2.2 compliant and supports 4K/UHD 24/25/30/60 (4:4:4) resolutions with 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-X3x1WUTx 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: 1 HDMI, 1 Display Port, and 1 VGA with Analog Audio, 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[™]
- > KDPlug & Present[™] Ready: Add KD-CX800 to build a programming-free automation system
- > 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 4:2:2/12 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)
- > 6-pin phoenix terminal (qty 1)
- > 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-X3x1WUTx, USB camera (sold separately), all input/output devices, and audio system powered off.

- 1. Connect HDMI, Display Port, and VGA 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.
- 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 de-embed outputs of the Rx unit / presentation switcher, or connect to the analog audio de-embed port of the wall plate
- 7. Connect control system or PC to LAN port of the KD-X3x1WUTx 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-X3x1WUTx 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-X3x1WUTx via Key Digital Management Software[™] Pro (KDMS[™] Pro) that can be downloaded here: KDMS[™] Pro Download

- Connect to KD-X3x1WUTx 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 л x 🕞 🗄 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-X3x1WUTx 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	ά×	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 5/W Version				Video Inputs
1.14				HDMI
Read Update				HDMI 1 HDMI 2
Network Settings				Engent 1 Engent 2
MAC Address:				Wallelate
26:5F:78:24:E7:45				·· orgenate
IP Address:				
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)

	ey Digital Management Software Pro v.1.2.8
Scan System View Tools Layouts Help	
Image: Scan Imag	
Properties # x Devices # x	
	KD-UPS52U Presentatio
60:89:B1:31:00:0C ▲ 192:166.1*** IP Address: 192:166.001.239 ★ IP Address: ↓ \$\$ Switchers IP Address: ↓ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	Video Inputs HDMI
Gateway:	
192.168.001.001 Change Input/Output Name.	
Port:	Input 2 Laptop
Input/Output: Input 3	
Video/Audio Settings	
Pinputs/Outputs Settings	Wallplate
Auto Sense Mode: OFF V	
HDBT Input Control: RS232 V	HDBT 1
Audio Output Source: Video Input	Input 1
Input: HOBT1_Link-Off V>OLL=On Input2: HOM1_Link-Off Input3. HOM12_Link-Off	
Input 5: USB-C, Link+ Off	Additional Inputs
Output 1: HONI, In-5, Link- Off Output 2: HOBT, In-5, Link- Off 23	DisplayPort
	Input 4
	USB C
Status #x	Input 5
1101/06 TAX "Seen"	
11:01:48 192.168.1.239 - "KD-UPS52U" Device found	Presets
v	
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 and 3 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-X3x1WUTx 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- X3x1WUTx 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-X3x1WUTx
- » Perform a network scan in the KD-App/KDMS
- » Select and control the selected KD-X3x1WUTx

<	KD-X3x1WUTx		
Video Inputs	Audio	Displays	Cam
HDMI			
HDMI 1	Vol +	Display 1	Power ON
	Vol —		Power OFF
Wallplate	×	AV Mute	
VGA			
Additional Inputs			
DisplayPort			
🏠 Main 🔀 Switchers	Presets	Detailed	†∦ † Settings

Option 3: Control via professional control system

KD-X3x1WUTx allows control over TCP/IP interface for bi-directional communication. You may connect to the LAN port of the KD-X3x1WUTx, 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-X3x1WUTx
- For the past 10 years, most Key Digital switches have supported a standard audio+video switching command. KD-X3x1WUTx 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)
 - » **SPOSIyy** yy = input number (01-02)

Connections, Buttons, and LEDs

Front Connections and LEDs

- > HDMI Input: 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

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

> VGA Input: Using a 15pin VGA cable, connect your source.

- » Supported resolutions: 640x480@60/75, 800x600@56/60/75, 1024x768@60/75, 1280x720@60, 1280x768@60/75, 1366x768@60/75, 1280x1024@60/75, 1440x900@60/75, 1600x900@60, 1600x1200@60, 1920x1080@60, 1920x1200@60s
- » Video Scaler built-in for up-scale & down-scale to desired output resolution



Power

0

Link

0

Video

0

R In



» Default video output is 1920x1080p / 60fps

- > Analog Audio Input: Using a 3.5mm stereo cable, connect your audio source to be associated with the VGA video input.
 - » Embedded with VGA Input
 - » 2 VRMS line audio
 - » Sampling Frequency: 48kHz, Data Length: 24Bits
 - » If sending audio only, VGA must be the selected source. The video will display a "No Signal" message, but audio will work.
- > 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-X3x1WUTx 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-X3x1WUTx 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





4		USB Device
⊥ USB Host	D	\$





> 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



» Adjustments may speed up sync time during source 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-X3x1WUTx 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
- > Analog L/R Audio Output: Connect to audio system.
 - » 6-pin terminal block with de-embedded audio from the selected source
 - » Drives audio signals up to 2 VRMS with a sampling rate of 192KHz
 - » Automatically mutes if audio formatting is not PCM 2ch
 - » The Pin assignment is as follows:
 - » Left + is Pin 1; Left is Pin 3; Left Ground is Pin 2.
 - » Right + is Pin 4; Right is Pin 6; Right Ground is Pin 5.
 - » There are no pre-amp or format conversion feature
- IR In: Connect to the IR In terminals from a control system or an IR connecting block.
 - » Signal is output on Rx unit / presentation switch's IR Out port simultaneously as any IR input collected by the IR Sensor
 - » KD-X3x1WUTx 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-X3x1WUTx is not controllable via RS-232

TCP/IP Commands

KD-X3x1WUTx allows bi-directional control over TCP/IP connection made at KD-X3x1WUTx, 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-X3x1WUTx
                                                 F/W Version : 1.02
--
-- H
            : Help
-- STA
            : Show Global System Status
--
-- VGA Input Setup Commands:
                                                                      - -
-- SPV EDID x : Set VGA EDID to x,
        [0=1920x1080@60, 1=1920x1200@60, 2=1360x768@60, 3=1280x720@60]--
-- SPV RES x : Set Output Resolution (Video Scale) x
        [0=Auto, 1=1080p@50, 2=1080p@60, 3=720p@50, 4=720p@60,]
--
        [5=1280x1024@60, 6=1024x768@60, 7=1360x768@60, 8=1920x1200@60]--
--
-- SPV AR x : Set Aspect Ratio x, [0=Auto, 1=16:9, 2=4:3]
-- SPV PM x
            : Set Picture Mode x,
--
              [0=Standard, 1=Natural, 2=Dynamic, 3=Movie]
                                                                      _ _
-- SPV CT x : Set Color Tone x, [0=Standard, 1=Cool, 2=Warm, 3=User] --
-- SPV CTR xxx : Set Red Color Tone xxx = [1-255]
                                                                      _ _
-- SPV CTG xxx : Set Green Color Tone xxx = [1-255]
-- SPV CTB xxx : Set Blue Color Tone xxx = [1-255]
-- SPV PB xxx : Set Picture Brightness xxx = [0-100]
-- SPV PC xxx : Set Picture Contrast xxx = [0-100]
                                                                      - -
-- SPV MIH xxx : Move Output Horizontal Image xxx = [0-100]
-- SPV MIV xxx : Move Output Vertical Image xxx = [0-100]
                                                                      _ _
-- SPV AHS xxx : Adjust Output Horizontal (Width) Size to xxx = [0-100] --
-- SPV AP xxx : Adjust Output Phase to xxx = [0-100]
--
-- Video Output Setup Commands: xx = [01,A=All], yy = [01-03,U,D]
                                                                      - -
```



```
-- ( yy : 01=HDMI1, 02=VGA, 03=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 cccccccccccccc : Write Device Name
-- SPC RN
                            : Read Device Name
--
-- Network Setup, ( xxx=[000-255], zzzz=[0001~9999] )
-- SPCETIPA xxx.xxx.xxx : Set Host IP Address to xxx.xxx.xxx
-- SPCETIPM xxx.xxx.xxx.xxx : Set Net Mask to xxx.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
                                                         ---
_____
                                  Device Name: X3x1WUTx 0001 --
-- Model: KD-X3x1WUTx,
-- Main F/W Ver: 1.02, CEC Ver: 1.05
                                                         ---
--
                                                         --
-- USB(RS232): Baud Rate=115200bps, Data=8bit, Parity=None, Stop=1bit
                                                         ---
-- Front Panel Button : Enabled
                                                         --
--
                                                         --
-- Network Setting (Web Server/TCP Control) Status
-- MAC Address = 60:89:B1:34:00:01
                                                         ----
-- 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 = ON , AUTO SENSE = OFF

-- 01 : HDMI, LINK = ON

-- 02 : VGA , EDID = DEFAULT 0, LINK = OFF

-- RES=2, AR=1, PM=0, CT=1, CTR=128, CTG=128, CTB=128, PB=50, PC=50, --

-- 03 : DP , LINK = ON

-- 03 : DP , LINK = ON

-- Video Output Status (D=Disable, E=Enable)

-- HDBT Output : IN = 01, OUT = ON , V/MUTE = D, LINK = ON , DEG = OFF

-- LRM = OFF

-- Display Output Status (CEC Control)

-- HDBT Output : TV = ON , A/V MUTE = DISABLE, A/MUTE = DISABLE
```

Specifications

Technical:

- » Inputs: 1 HDMI, 1 Display Port, 1 VGA with 3.5mm Stereo Audio, 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
- » VGA 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)
 - » 6-pin phoenix terminal (qty 1), 3-pin phoenix terminal (qty 1), 2-pin phoenix terminal (qty 1)

A 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.



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.

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

CE ROHS WEEE COMPLIANT

Technical Support

For technical questions about using Key Digital® products:

- > 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



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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