



4x3 HDBaseT™
Matrix Selector
Switch
with Additional HDMI®
Output

Vanco Part Number:
HDBT4X3

Technical Support

www.vanco1.com • techsupport@vanco1.com • 800-626-6445

DEAR CUSTOMER

Thank you for purchasing this product.
For optimum performance and safety, please
read these instructions carefully before
connecting, operating or adjusting this product.
Please keep this manual for future reference.

This product is 100% inspected and tested in the United States to verify HDMI performance parameters.

WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating, do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms, or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

FEATURES

HDBT4x3 is a professional HDBaseT Matrix Switcher that consist of the following inputs and outputs, 4 HDMI IN (4Kx2K@60Hz signal at max), 3 IR IN, 1 IR EYE, 4 IR OUT, 3 HDBaseT OUT, 1 HDMI OUT, 1 SPDIF OUT, 1 L&R RCA OUT, and TCP/IP, RS232 control port via phoenix connector. The HDBaseT Receiver is an HDBaseT Receiver that consists of the following inputs and outputs, 1 HDBaseT IN, 1 IR IN, 1 IR OUT and HDMI OUT. The receiver is powered directly by the Matrix Switcher. All HDMI inputs can be selected by either the front panel buttons, IR, RS 232 or GUI. The selected source is delivered to HDBaseT zoned outputs 1~3 & HDMI Output. The Matrix Switcher is capable of delivering 4K signals up to 40m, 1080p up to 70m and powering the receivers via a single CAT5e cable. It is however recommended to use good quality CAT6 cable. This Matrix Switcher also supports EDID management and is HDCP 2.2, 1.4 compliant. Audio sources can be selected via RS232 commands and TCP/IP at the Matrix Switcher or by 3rd Party control.

4x3 HDBaseT™ Matrix Selector Switch with Additional HDMI® Output

Part # HDBT4X3

- HDBaseT Matrix that features 3 HDBaseT outputs and 1 HDMI output
- Quick install kit includes 3 HDBaseT PoC receivers, 4 IR Emitter and Receiver sets and IR remote control
- Supports HDCP 2.2, and is backwards compatible with previous version of HDCP and HDMI
- Transmits 4Kx2K @ 60Hz 4:2:0 up to 26 ft (8m) via HDMI port and 131 ft (40m) via HDBaseT port
- 3 HDBaseT outputs with distances up to 230 ft (70m) at 1080p and 131 ft (40m) at 4Kx2K on a single Cat5e/6 cable
- HDBaseT Receivers are powered by the matrix using PoC technology • LED indicators show real-time switching status
- Controllable via front panel, RS232, IR and TCP/IP • Supports bi-directional IR & RS232 control
- Built-in GUI for TCP/IP control and setup
- Powerful EDID management
- Features Micro USB port for firmware upgrades
- Easy installation with rack-mounting design, mounting hardware included
- Power Supply : Matrix Unit, DC 24V; Receivers, PoC
- Matrix Dimensions: 14.2" W x 1" H x 5.9" D
- Receiver Dimensions: 2.4" W x .9" H x 4.7" D

PACKAGE CONTENTS

Please check the packaging and make sure the following items are contained in the shipping carton:

- 4K HDBaseT Matrix Switcher
- (3) HDBaseT Receivers
- (4) IR Emitters (Optional)
- (3) IR Receivers (Optional)
- IR Receiver (Inserted into IR EYE port)
- IR remote
- RS232 cable (Phoenix to 9-pin D-Sub)
- Mounting ears & Screws
- (4) Trapezoidal Plastic pads (For 4K HDBaseT Matrix Switcher)
- (12) Round Plastic pads (For HDBaseT Receivers)
- Power Adapter (DC 24V 2.71A)
- Power Cord (Optional)
- Product Manual

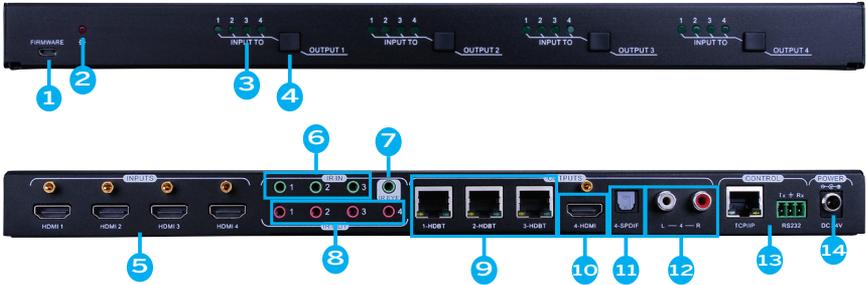
SPECIFICATIONS

| | |
|---------------------------------|---|
| Input | 4 HDMI |
| HDMI Standard..... | Support HDMI1.4 & HDCP2.2 and is backward compatible with all previous standards. |
| Output..... | 1 HDMI – 3 HDBaseT |
| Input and Output Level..... | T.M.D.S. 2.9V~3.3V |
| Input and Output Impedance..... | 100Ω (Differential) |
| HDMI Standard..... | Support HDMI1.4 & HDCP1.4 and is backward compatible with all previous standards. |
| Video Signal | HDMI (or DVI-D) |
| Transmission Distance..... | 1080P@60Hz ≤70m; 4Kx2K@60Hz ≤40m |
| Resolution Range | Up to 4Kx2K@60Hz |
| EDID Management | In-built EDID data and manual EDID management |
| Gain | 0 dB |
| Bandwidth..... | 10.2Gbit/s |
| Switching Speed | 200ns (Max.) |
| Output Signal | Stereo audio, Digital audio |
| Analog Audio Output..... | Support PCM |
| Digital Audio Output | Supports PCM, Dolby, DTS, DTS-HD |
| Frequency Response | 20Hz~20KHz |
| Output Connector | 1 L&R(RCA) 1 SPDIF |
| Control Ports | 4 IR OUT, 3 IR IN, 1 IR EYE, 1 TCP/IP (female RJ45), 1 RS232 (3-pin pluggable terminal block) |
| Panel Control..... | Front panel buttons |
| RS232 Control | 3-pin pluggable terminal block |
| IR..... | Extended IR receiver |
| TCP/IP Control..... | Web-based GUI |
| Power Supply..... | Input: 100-240V~, 50/60Hz; Output: DC 24V 2.71A |
| Power Consumption | 35W (Max) |
| Temperature..... | 0~+50 Degrees C |
| Reference Humidity..... | 10% ~ 90% |
| Net weight | 910g |

HDBaseT Receiver:

| | |
|----------------------------|--|
| Input | 1 HDBaseT; Female RJ45(with LED indicators); |
| Output..... | 1 HDMI; Female HDMI |
| Control | 1 IR IN, 1 IR OUT; 3.5mm mini jacks |
| Resolution Range..... | Up to 4Kx2K@60Hz |
| Transmission Distance..... | 1080P@60Hz ≤70m; 4Kx2K@60Hz ≤40m |
| Bandwidth..... | 10.2Gbps |
| HDMI Standard..... | Support HDMI1.4 and HDCP1.4 |
| Temperature..... | 0~ +50 Degrees C Humidity:10% ~ 90% |
| Power Supply..... | Powered by 4K HDBaseT Matrix Switcher. |
| Net Weight | 280g |

PANEL DESCRIPTIONS

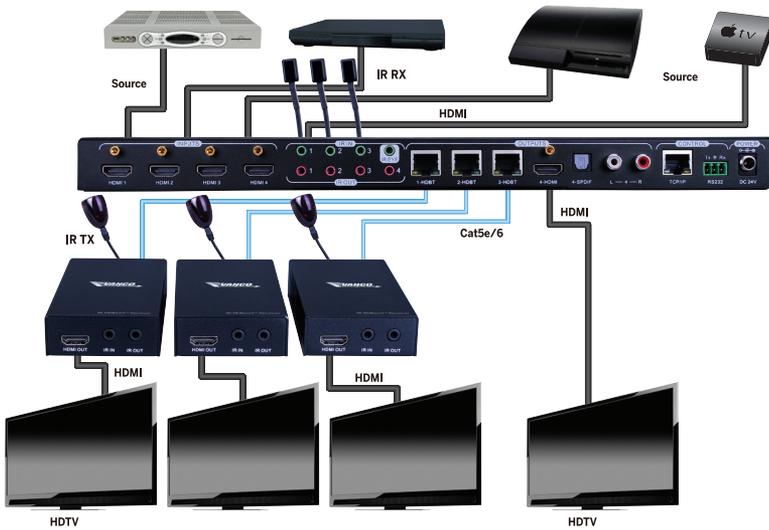


1. Firmware: Micro USB port for updating firmware
2. Power Indicator: OFF: No power; RED: DC power present or Standby Mode
3. Input Selector Indicators: Total 4 groups, and each group is set up including 4 green indicators for 4 input sources, numbered from "1" to "4"
4. Output selector button: Total 4 output selector buttons, press the buttons to switch input cycle for the output.
5. HDMI Inputs: 4 x HDMI input ports, type A female HDMI connector; connect the Source with an HDMI cable to any of the HDMI inputs.
6. IR In: 3 x IR IN: Connect with IR receiver, fixed IR input for the output, cannot be switched separately. It makes up an IR bi-directional transmission with the IR Out on the corresponding HDBaseT receiver.
7. IR Eye: Connect with extended IR receiver, use the IR remote to control the Matrix Switcher.
8. IR Out: (1-4) Plug in the IR Emitter and attach to the front of the Source. This then emits the IR signal received from the HDBaseT Receiver. There are 4 IR Outputs sockets marked on IR matrix.
9. HDBaseT Output: The HDBT RJ45 outputs deliver HD video, Audio and PoC to the HDBaseT Receiver up to 70m.
10. HDMI Output: Connect an HDMI cable from the Matrix Switcher to the displayer.
11. SPDIF Output: Digital audio output connects directly via an optic fibre cable to the Toslink input on a sound bar.
12. RCA (L&R) Output: PCM Analogue audio output sockets connect the de-embedded audio additional speakers.
13. Control: TCP/IP: RJ45 port. Connect with PC for Web-based GUI control. RS232: Serial port for unit control, 3-pin pluggable terminal block, connects with control device (e.g. PC).
14. DC 24V: Connect with DC24V 2.71A power adaptor



1. HDMI Out: Connect to HDMI display.
2. IR In: Plug in the IR receiver, this will receive the IR signals from the RCU and send through to the Matrix Switcher and then control the desired source.
3. IR Out: Plug in the IR emitter and attached to the front of the display, this will send the IR signals from the Matrix Switcher to control the display which is connected to the HDMI OUT port.
4. Power Indicator: OFF: No power; RED: DC power present (PoC).
5. TP In: The RJ45 socket has two LED status indicators. Plug in the Pre-installed CAT cable in to the HDBT RJ45 socket. HDCP LED indicator: OFF: No HDMI traffic (no picture) GREEN: Signals with HDCP, Blinking GREEN: Signal without HDCP. LINK/HDBT Link status indicator: OFF: No Link, YELLOW: Link Successful, Blinking YELLOW: Link Error

CONNECT AND OPERATE



1. Connect HDMI sources (e.g. DVD) to HDMI input ports of the Matrix Switcher via good quality HDMI cables.
2. Connect the Pre-Installed CAT5e/CAT 6 cable infrastructure to Matrix Switcher and HDBaseT receivers via good quality patch leads.
3. Connect HDTV to HDMI output port via HDMI cable.
4. Plug in an HDMI cable in to each of HDBaseT Receiver and connect to the local display (HDTV).
5. Connect AVR amplifier to SPDIF output port or via the Toslink optic fibre cable.
6. Connect speaker to L&R (RCA) output port via audio cable.
7. Plug the IR Receivers 3.5mm jack into the IR IN sockets on HDBaseT Receivers and plug in the IR Emitters to the IR OUT sockets (1~4) on Matrix Switcher to make up as IR Matrix.
8. Plug the phoenix connector in to the RS232 socket on the matrix, this will enable the Matrix Switcher to be controlled via a PC.
9. Plug in a Patch lead from the router in to the Ethernet port on Matrix Switcher to control Matrix Switcher by TCP/IP protocol.
10. Plug in the Power supply adapter 24V DC and tighten to secure. Once all components have been connected and the installation is completed, switch on the mains supply at the socket.

NOTE:

- Connect HDBT ports of Matrix Switcher and far-end HDBaseT Receiver with straight-through cable.
- IR receivers connected to IR IN should be with carrier. If not, send command %0900. or %0901. to activate native carrier mode or force carrier mode in the IR matrix launched between Matrix Switcher and far-end HDBaseT Receiver.

IR CONTROL

Connect an IR receiver to the IR EYE port of the Matrix Switcher, users can control it through the included IR remote. Here is a brief introduction to the IR remote.

1. Standby button, press it to enter/ exit standby mode.
2. Input channels, range from 1~4, corresponding IR signal switched synchronously when switching input channels.
3. Outputs: In normal mode: output channel selection buttons.
4. Menu buttons: ALL, EDID, CLEAR and ENTER. ALL: Select all outputs. EDID management button: Enable input port to manually capture and learn the EDID data of output devices. CLEAR: Withdraw an operation like switching output channel, learning EDID data before it comes into effect. Meanwhile, the matrix will return to the previous status. ENTER: Confirm operation.

Note: With this IR remote, the Matrix Switcher can be controlled by the built-in IR, the extended IR receiver connected to the IR EYE and the IR receiver on the far-end receiver. By using IR & HDBaseT transmission technology, the 4K Home Distribution Hub Kit has some functions as follows:

- 1) Control far-end output device from local
- 2) Control local input/output device remotely.
- 3) Control the Matrix Switcher locally/remotely.



Switching I/O connection

- 1.To convert one input to an output:

Example: Input 1 to Output 3: Press INPUTS 1 + OUTPUTS 3 + ENTER

NOTE: Default status, on first boot up this matrix assigns the IR outputs to the corresponding HDMI input, meaning, IR out 1 is directly associated to HDMI input 1 and so on. When you switch an HDMI input to a different output, the corresponding IR OUT will be switched synchronously to allow the IR commands to be sent from the select zone back through the Matrix Switcher to the source.

2. To convert an input to several outputs:

Example: Convert Input 2 to Output 3 and 4: Press INPUTS 2 + OUTPUTS 3 + OUTPUTS 4 + ENTER

- 3.To convert an input to all outputs:

Example: Input 1 to all Outputs: Press INPUTS 1 + ALL + ENTER

EDID Management

The HDBT4X3 features EDID management that enables the Matrix Switcher to learn the EDID of all sink devices. The Matrix Switcher can learn the EDID from any device or be programmed to assign an EDID to the mirror port through EDID Invoking.

- 1.EDID Learning (from output):

One input port learns the EDID data of one output port:

Example: Input 2 learns EDID data from output 4: Press EDID + INPUTS 2 + OUTPUTS 4 + ENTER

All input ports learn EDID data from one output port:

Example: all input ports learn EDID data from output 4: Press: EDID + ALL + OUTPUTS 4 + ENTER

EDID Management Continued

2. EDID invoking: There are five types of embedded EDID data. The chart below illustrated the detailed information of the embedded EDID data:

| Number | EDID Data |
|--------|-----------------------|
| 1 | 1080P LPCM |
| 2 | 720P LPCM |
| 3 | 3840 x 2160 LPCM |
| 4 | 1080P Dolby/DTS |
| 5 | 4096 x 2160 Dolby/DTS |

Clear Operation

When you switch output channel, learn EDID data, or set EDID data, press "Clear" button to EXIT the operation before you press "ENTER" to carry it on. When you press it, the Matrix Switcher will return to the previous status.

Force Carrier

- Only if the IR receiver connected to HDBaseT receiver is with IR carrier, can the received IR signal be transferred to IR OUT port of the Matrix Switcher.
- Only if the IR receiver connected to the Matrix Switcher is with IR carrier, can the received IR signal be transferred to IR OUT port of the Matrix Switcher.

If the IR receiver connected to HDBaseT receiver or the Matrix Switcher is without an IR carrier signal, send the command "%0901." to enter infrared carrier enforcing mode, and then IR signal can be transferred to IR OUT port.

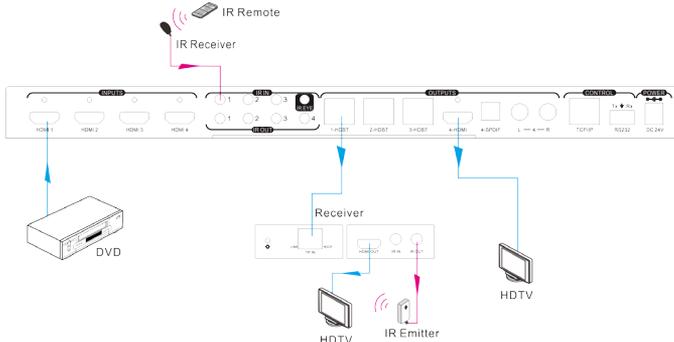
Control Far-end Device Locally

Connect an IR receiver to IR IN on the Matrix Switcher, and use the IR Remote of far-end device to control the device locally.

Connect an IR receiver with IR carrier to the IR IN port of the Matrix Switcher; users can control far-end output displayer via its IR remote from local. In that case, the IR signal is transferred via twisted pair. Only the corresponding IR OUT port can emit control signals to the remote displayer.

See the figure below:

Note: The IR receiver connected to IR IN must be with IR carrier

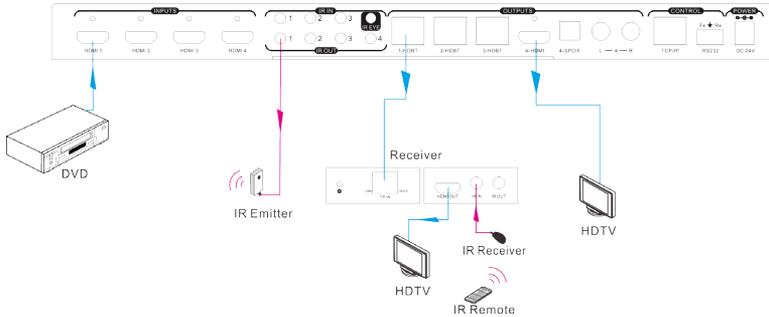


Control Local Device Remotely

Connect IR receiver(s) to IR IN on far-end HDBT receiver(s), and IR Emitter(s) to IR OUT port of the switcher, and use the IR Remote of local source to control the device remotely.

1 to 1: Connect an IR receiver to IR IN on far-end HDBT receiver, and an IR Emitter to IR OUT port of the switcher. Use the IR Remote of local source to control the device remotely. See below:

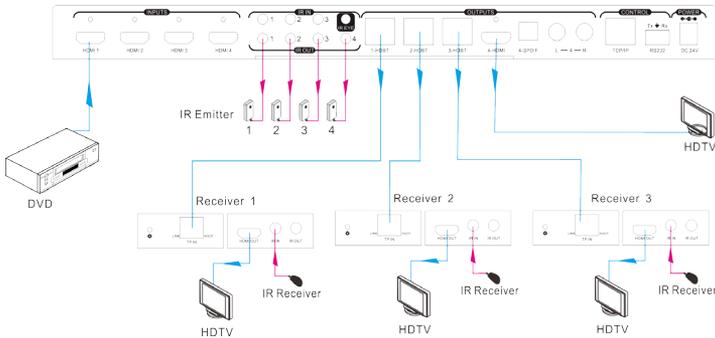
Note: Send command "%0901." to enter infrared carrier enforcing mode if the IR Receiver connected to IR IN of the receiver is not with carrier.



Multiple to Multiple: (IR Matrix)

The 4 "IR OUT" ports and the 3 "IR IN" ports on the far-end receivers make up a 4x3 IR matrix.

See as below:



The IR signal is sent by IR remote, then it is transferred to HDBaseT receiver, then to corresponding zone of the matrix through the twisted pair, finally it is transferred to IR OUT port and received by controlled device.

Switching Operation:

Sending command (reference to RS232 Control): [x1]R[x2].

x1: Corresponding to the 4 IR OUT ports of the Matrix Switcher, the IR transmitter connected to this port can be placed at IR receiving area of output device or the Matrix Switcher itself.

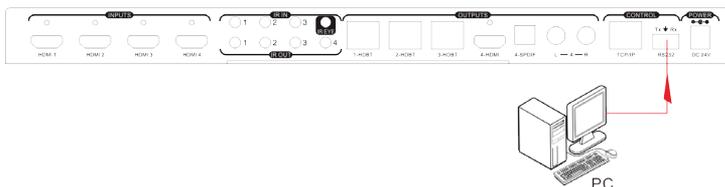
x2: Corresponding to the zone (receive IR signal from HDBaseT receiver with IR IN port connects with IR receiver) number of the Matrix Switcher.

Example: Send command "3R2." to transfer IR signal received from zone 2 to IR OUT port 3.

RS232 CONTROL

RS232 connection

Except the front control panel, the Matrix Switcher can be controlled by far-end control system through the RS232 communication port. This RS232 communication port is a 3-pin phoenix connector. User can use the RS232 cable (Phoenix to 9-pin D-Sub) to connect the RS232 port to PC, see as below:



Installation/Uninstallation of RS232 Control Software

Installation: Copy the control software file to the computer connected with the Matrix Switcher.

Uninstallation: Delete all the control software files in corresponding file path.

Basic Settings

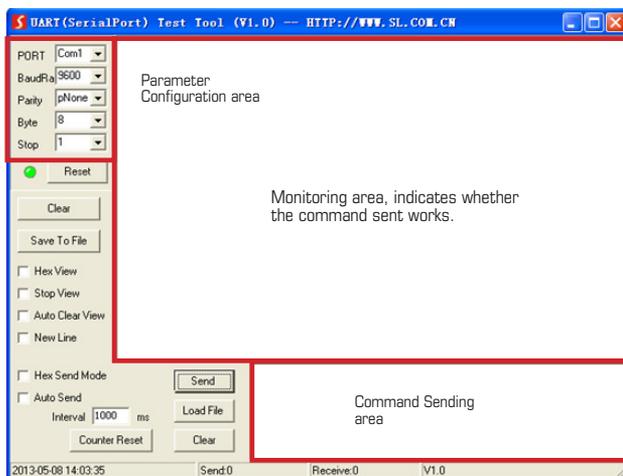
First, connect the Matrix Switcher with an input device and an output device. Then, connect it with a computer which is installed with RS232 control software. Double-click the software icon to run this software.

Here we take the software CommWatch.exe as example. The icon is showed as below:



The interface of the control software is showed as below:

Please set the parameters of COM number, baud rate, data bit, stop bit and the parity bit correctly, only then will you be able to send command in Command Sending Area.



Visit Vanco1.com for RS232 Commands

TCP/IP Control

Besides IR control, RS232 control, the Matrix Switcher boasts option TCP/IP port for IP control.

Default settings: IP: 192.168.0.178; Subnet Mast: 255.255.255.0; Gateway: 192.168.0.1; Serial Port: 4001.

IP& gateway can be changed as you need, Serial Port cannot be changed.

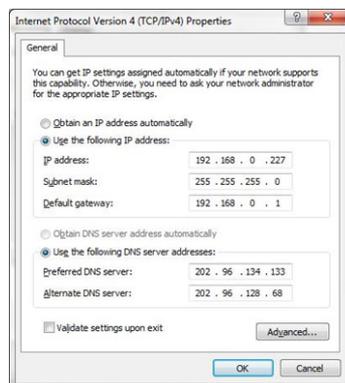
Connect the Ethernet port of control device and TCP/IP port of the Matrix Switcher, and set same network segment for the 2 devices, users are able to control the device via web-based GUI or designed TCP/IP communication software.

The Matrix Switcher can be controlled by PC without Ethernet access or PC(s) within a LAN.

Controlled by PC

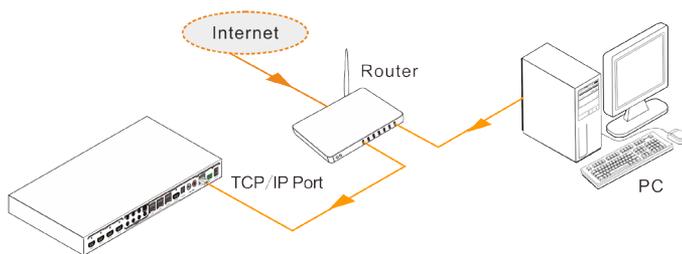
Connect a computer to the TCP/IP port of the Matrix Switcher, and set its network segment to the same as the Matrix Switcher's.

See right:



Controlled by PC(s) in LAN

Connect the Matrix Switcher, a router and several PCs to setup a LAN (as shown in the following figure). Set the network segment of the Matrix Switcher to the same as the router's, then PCs within the LAN are able to control the Matrix Switcher.



Follow these steps to connect the devices:

- Step1. Connect the TCP/IP port of the Matrix Switcher to Ethernet port of PC with twisted pair.
- Step2. Set the PC's network segment to the same as the Matrix Switcher's. Do please remember the PC's original network segment.
- Step3. Set the Matrix Switcher's network segment to the same as the router.
- Step4. Set the PC's network segment to the original ones.
- Step5. Connect the Matrix Switcher and PC(s) to the router. PC(s) within the LAN is able to control the Matrix Switcher asynchronously.

Then it's able to control the device via GUI.

GUI for TCP/IP control

The HDBT4X3 features built-in GUI for convenience. TCP/IP control. GUI allows users to interact with this Kit through graphical icons and visual indicators.

Type 192.168.0.178 in your browser, it will enter the log-in interface shown as below:



There are 2 selectable usernames – admin (default password: admin) and user (default password: user). Log in as admin can access more configuration interfaces than user. Enter username and the right password. Here is a brief introduction to the interfaces.

Main: Interface shown after logging in, provide intuitive I/O connection switching. See the screenshot below:



The button matrix displays every possible connection between every input and output, users can carry on the connections by clicking corresponding button.

Buttons 1~9 at the right-bottom corner provides quick saving and recall for overall connection status.

Users: Display or modify credential settings, front panel lock, and GUI version.



If there is any modification, press Save to restore the settings, or press Cancel to withdraw.
Interface: Set title bar label and button labels, press Save to save the settings



Configuration: Set HDCP Compliance status for every input, and manage EDID. See the screenshot below:



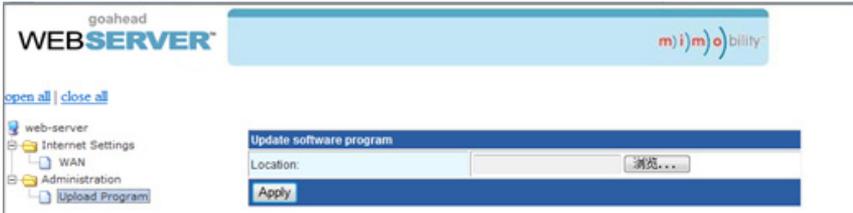
Network: Inquire and configure network settings including MAC address, IP address, subnet mask, and Gateway



Note: Log in as user access main interface only.

GUI Update

GUI for 4K Home Distribution Hub Kit supports online update in <http://192.168.0.178:100>. Type the username and password (the same as the GUI log-in settings, modified password will be available only after rebooting) to log in the configuration interface. After that, click Administration at the source menu to get to Upload Program as shown below:



Select the desired update file and press Apply, it will start upgrading.

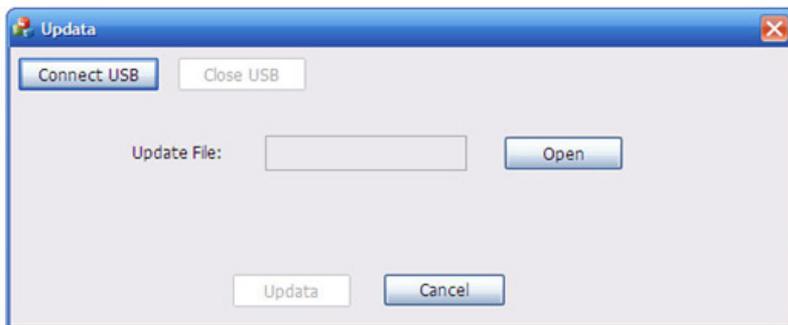
FIRMWARE UPDATE

the Matrix Switcher boasts a USB port for online firmware upgrade on the front panel. Follow these steps to upgrade firmware:

- Step1. Copy the upgrade software and the latest upgrade file (.bin) to PC.
- Step2. Connect the USB ports of the Matrix Switcher and the PC via USB cable.
- Step3. Double-click the update software icon (see as below).



It will enter the upgrade interface shown as below:



- Step4. Click Connect USB.
- Step5. Click Open to load the upgrade file, then click Updata to start firmware upgrading.

Note: To ensure available control, the COM number of the PC should be 1~9.

TROUBLE-SHOOTING

1. PROBLEM: Color loss or no video signal output. CAUSE: The connecting cables may not be connected correctly or it may be broken. SOLUTION: Check whether the cables are connected correctly and in working condition.
2. PROBLEM: No output image when switching. CAUSE: No signal at the input / output end. Solution: Check with oscilloscope or multi-meter if there is any signal at the input/ output end.
3. PROBLEM: No output image when switching. CAUSE: Input source is with HDCP while the HDCP compliance is switched off SOLUTION: Send command /%{Y1/IX1:1 or change HDCP compliance status in GUI.
4. PROBLEM: No output image when switching. CAUSE: The display doesn't support the input resolution. SOLUTION: Switch for another input source or enable the display to learn the EDID data of the input.
5. PROBLEM: Cannot control the device via front panel buttons. CAUSE: Front panel buttons are locked. SOLUTION: Send command /%Unlock; or select unlock in GUI interface to unlock
6. PROBLEM: Cannot control the device via IR remote. CAUSE: The battery has run off. SOLUTION: Change for new battery.
7. PROBLEM: Cannot control the device via IR remote CAUSE: The IR remote is broken. SOLUTION: Send it to authorized distributor for replacement.
8. PROBLEM: Cannot control the device via IR remote. CAUSE: Beyond the effective range of the IR signal or not pointing at the IR receiver. SOLUTION: Adjust the distance and angle and point right at the IR receiver.
9. PROBLEM: Cannot control the device via IR remote. CAUSE: The IR receiver connected to IR IN port is not with carrier. SOLUTION: Change for an IR receiver with carrier.
10. PROBLEM: Power Indicator remains off when powered on. CAUSE: Failure in power connection. SOLUTION: Check whether the cables are connected correctly
11. PROBLEM: EDID management does not work normally. CAUSE: The HDMI cable is broken at the output end. SOLUTION: Change for another HDMI cable which is in good working condition.
12. PROBLEM: There is a blank screen on the display when switching CAUSE: The display does not support the resolution of the video source. SOLUTION: Try Switching again, or Manage the EDID data manually to make the resolution of the video source automatically compliant with the output resolution.
13. PROBLEM: Cannot control the device by control device (e.g. a PC) through RS232 port. CAUSE: Wrong connection. SOLUTION: Check to ensure the connection between the control device and the unit
14. PROBLEM: Cannot control the device by control device (e.g. a PC) through RS232 port. CAUSE: Wrong RS232 communication parameters. SOLUTION: Type in correct RS232 communication parameters: Baud rate:9600; Data bit: 8; Stop bit: 1; Parity bit: none
15. PROBLEM: Cannot control the device by control device (e.g. a PC) through RS232 port. CAUSE: Broken RS232 port. SOLUTION: Send it to authorized distributor for replacement
16. PROBLEM: Static becomes stronger when connecting the video connectors. CAUSE: Bad grounding SOLUTION: Check the grounding and make sure it is connected well.
17. PROBLEM: Cannot control the device by RS232 / IR remote / front panel buttons. CAUSE: The device is not operating properly. SOLUTION: Send it to authorized distributor for replacement.

SAFETY AND NOTICE

HDBT4X3 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the HDBT4X3 should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit.
- Always unplug the power to the device before cleaning.

LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to techsupport@vanco1.com.

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, glossary of terms, etc. please visit vanco1.com

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