



Quickstart Guide

NetworkHD 100 / 200 Series and Controller
HD-over-IP Solution

NHD-100-TX, NHD-100-RX, NHD-200-TX, NHD-200-RX,
NHD-210-RX, NHD-000-CTL



Before Installation

- !** NetworkHD requires a Layer 2 managed switch with support for Multicast & IGMP snooping enabled. Do not connect any transmitters to the switch until this has been configured.
- !** For recommended switches and PDF configuration guides please see the 'downloads' section of any NetworkHD device at wyrestorm.com.
- !** It is not necessary to change the IP addresses of the TX and RX units – AutoIP is used to configure correct IP addresses. DHCP or Static IP addresses are not recommended unless absolutely required. Failure to note or errors in the IP settings of a unit may result in a complicated reset procedure.
- !** Due to the way H.264 compression encodes the video, Interlaced video sources are not recommended. Please use progressive scan sources for best quality - even at lower resolutions.
- !** For installations including multiple rack-mounted transmitters, we recommend using an NHD-000-RACK enclosure to secure all NetworkHD devices within the rack.
- !** Please check wyrestorm.com for the latest firmware updates – the NetworkHD Maintain Tool can be used to easily install firmware updates to multiple devices, available from wyrestorm.com

Setup and Operation

- 1** Connect sources to HDMI or DVI of transmitters using quality HDMI cables, ensuring firm port connection – we recommend WyreStorm Express HDMI cables.

NOTE: For NHD-200-TX, please ensure DIP switches are set correctly for the cable input.
- 2** Connect HDMI (and RS232 if required) from all receivers to all displays used.
- 3** Connect good quality, well-terminated Cat5e/6 cables of no more than 100m/328ft between the switch, transmitters (TX), receivers (RX) and Controller (CTL) if used.

NHD-000-CTL Configuration:

- !** It is essential that the AV port of the CTL is connected to the same switch/VLAN as the RX & TX units whilst the control port must connect to the same switch/VLAN as the control system.
1. Connect the included 12V DC power supplies to the CTL, TX and RX units. This is not required if using POE.
 - The default IP address of the NHD-000-CTL is 192.168.11.243 for the Control port. Ensure a PC is connected to one of the switches/VLANs and in the same subnet/IP range as the CTL Control port.
- !** If you do not see the log in page you may need to change your IP on a PC:

Click Start menu, go to **Control Panel > Network and Sharing center > Change Adapter Settings > Local Area Connection**. Right click and choose **Properties**.

Highlight **Internet Protocol Version 4 (TCP/IPv4)** then click **Properties**.

Use the following IP address, for the IP address enter **192.168.11.x (if unsure use 192.168.11.105)** Enter subnet mask number 255.255.0.0 Click **OK**, then click **OK** again to close the windows and commit you changes.

Return to your browser and try entering the default IP **192.168.11.243** again.

2. The table of devices will appear with TX units across the top and the RX down the left hand side. Press the box that links each TX and RX to test switching of the video to each RX.
3. Upon entering the NHD-IP-CTL web UI, a user name and password must be entered to login, with default settings.

User: admin
Password: admin

4. In the TX/RX settings page - use the Alias box to name each RX and TX. Use the table in this guide to record all Mac addresses, device names and alias's as this will help when programming your control system.

NOTE: If using Enado templates, the TX must be named Input1, Input2... and the RX named Output1, Output2...

5. Encoding values of each TX should be set to individual requirements - for more information see the full guide at wyrestorm.com.

Recommended encoding settings for TX units to provide highest quality video and instant switching:

Rate Control:	CBR
Avg bitrate:	40960
Profile:	H.264 High Profile
GOP:	60
FPS:	60
Transport Type:	RAW

NOTE: Higher values will result in higher quality but may adversely affect switching speed and latency.

NetworkHD Console:

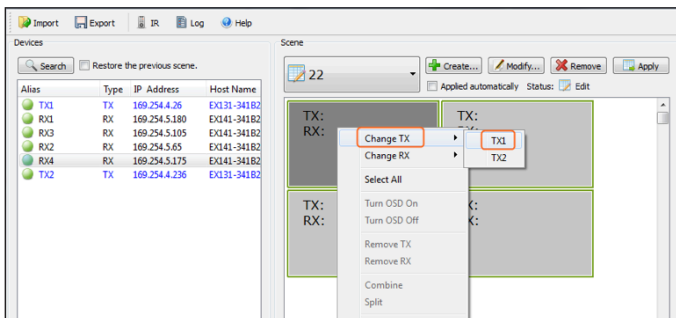
For a full guide to configuring the system using the NetworkHD Console software, please see the PDF included with the software download. NetworkHD Console is available from the 'download' section of any NetworkHD component at wyrestorm.com.

! The TX and RX are configured by default to IP addresses in the range of 169.254.xxx.xxx, commonly referred to as Auto IP addresses. Change your PC IP address to this range to use the NetworkHD Console software.

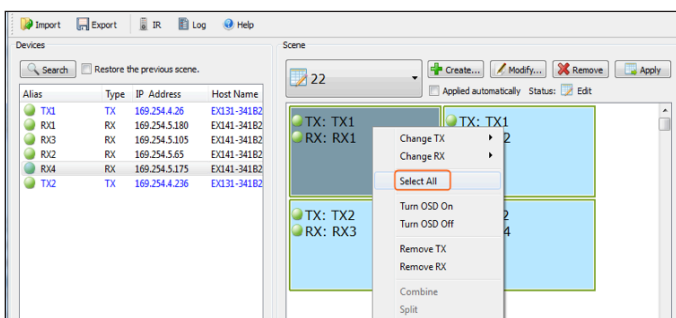
! The Bonjour SDK installation included with NetworkHD Console is essential for discovery of the TX and RX units – please ensure it is correctly installed prior to using the software.

Video Wall Configuration

- 1. Create the video wall:** Use the + Create button to make the size of video wall required and give it a name.
- 2. Link the Devices:** To link TX and RX devices, highlight the first cell and right click > select **Change TX** and select **TX1**. Then select **Change RX** and select **RX1**.

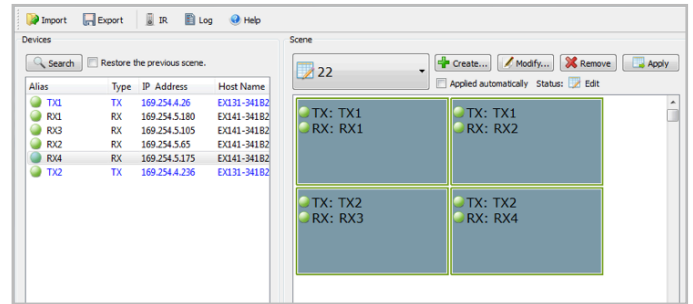


Repeat for the remaining Receivers.

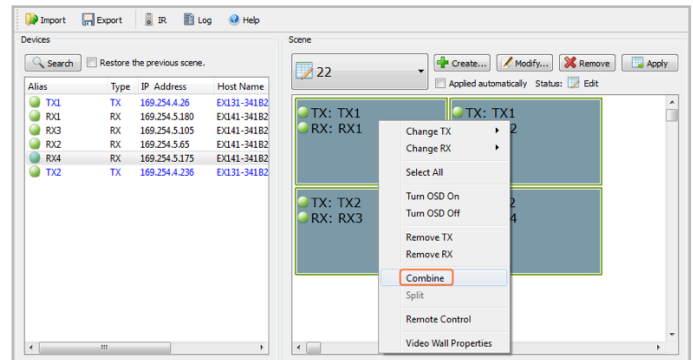


- 3. Combine:** Right click any cell > choose **Select All**.

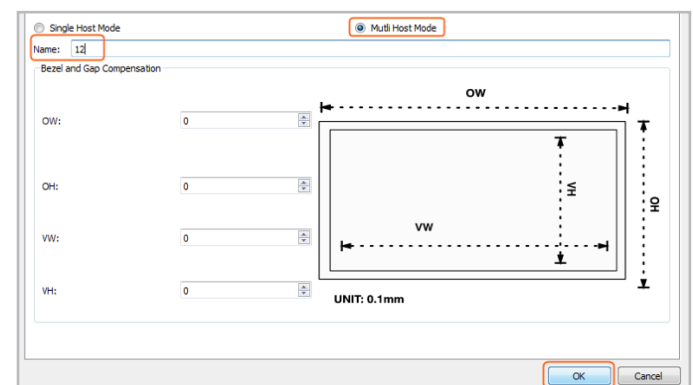
The highlight color will change to indicate all cells have been selected



- 4.** Now right click the cells again and select **Combine**.



- 5. Confirm Wall Properties:** Clicking **Combine** brings up the Video Wall Properties screen.



- 6.** Click **Apply**.

Third Party Control:

Drivers for major control systems are available in the download section at wyrestorm.com. Enado video wall templates and control codes are available in the online libraries built into the Enado configuration interface.

Troubleshooting:

! Before performing any troubleshooting steps, ensure the most recent software version has been installed onto all NetworkHD components and the most recent version of Web Browser and the NetworkHD Console software is being used.

1. The most common cause of problems when configuring NetworkHD is a broadcast loop caused by an improperly configured switch. Should your network be slow or unresponsive - disconnect all transmitters and reboot the switch. Then login to your switch admin UI and ensure the switch is properly configured according to the Switch Configuration Guides at wyrestorm.com
2. Should the NetworkHD Console software and NHD-000-CTL fail to locate any TX/RX devices and following the network settings steps outlined above does not yield any devices, check the following:
 - Windows Firewall settings - Create an exception for the software or disable it completely.
 - IP settings: Ensure you PC is in the same subnet as the NHD component you are trying to communicate with
 - Ensure Bonjour SDK is properly installed
 - If using VLAN's check that connected switches share the same configuration
 - Ensure devices are powered up and connected to the same network
 - Refresh the browser, if this fails empty the cache and update to the latest version
 - Reboot all system components including the NHD-000-CTL and your PC/Mac
3. If you are unable to connect to the CTL web UI, perform a reset on the NHD-000-CTL by holding down the reset button on the front of the device.

After the reset the CTL will have returned to the default IP of 192.168.11.243.

! Resetting the CTL will remove all alias settings from the TX & RXs.

4. If you do not see an image on the display or screen is completely blank:
 - Check the screen is on and the correct input is selected
 - Ensure that the source is on and displaying an image by connecting it directly to the TV.
 - Ensure the RX is powered and the lights are stable on the front
 - Reroute the video using the CTL matrix or NetworkHD Console software.
5. If a device Alias cannot be set, another device may have been previously connected with the same Alias - ensure that the old device is offline and use the **X** in the CTL matrix to remove its record from the CTL.

6. If the RX continuously reboots, the RX may be set to DHCP but cannot find a DHCP server. Connect to a DHCP server so that it can finish initializing – IP settings can then be changed

Safety Recommendations:

- Do not expose this apparatus to any form of moisture, including the placement of anything containing liquids on the unit.
- To prevent risk of electric shock or fire hazard, ensure apparatus is installed in an unobstructed, well ventilated area away from any external heat sources - including other electrical devices which may produce heat.
- Only use attachments / accessories specified by the manufacturer and refer all servicing to qualified service personnel.
- Failure to adhere to these recommendations may invalidate your warranty.

Warranty Information



This product is covered by a 3 year limited parts and labour warranty. During this period there will be no charge for unit repair, component replacement or complete product replacement in the event of malfunction. The decision to repair or replace will be made by the manufacturer.

This limited warranty only covers defects in materials or workmanship and excludes normal wear and tear or cosmetic damage.

Visit our website for full details on this product and to download the user guide including further details on technical specification, settings, troubleshooting and warranty information.

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