



## **Box Contents**

- Storm 8 (PN: 73909)
- Straight connect Ethernet lead (pn:79102)
- This user manual

### Features

- 8 Universe Ethernet to DMX Node
- 8 DMX (RJ45) data output ports
- Easy to update & configure through any web browser interface
- Supports following DMX over Ethernet protocols:
  - o Art-Net 1/2/3
  - Streaming ACN (sACN)
  - o ESP
- 1 RJ45 Ethercon connector (10/100 Mbps)
- Static or Dynamic (DHCP) IP configuration (DHCP by default)

- Supports DMX512/1990.
- Refresh rate is configurable for each DMX output.
- Each DMX output can be assigned up to one Ethernet Universe.
- Each DMX output can be configured to enable or disable merging HTP/LTP.

### Safety

- Do not expose the unit to rain or moisture, doing so will void the warranty
- Do not remove the cover, there are no user serviceable parts inside
- This unit is intended for indoor use only

## **Basic Setup**

Right out of the box, the Storm 8 is factory configured to be a standard Art-Net node, listening to the first 8 Art-Net Universes (0 to 7). It is also configured to DHCP node, so you can plug it into your existing router, and it's good to go straight out of the box.



To make any changes to the configuration, you will need the IP address of the unit. ENTTEC provides a free hardware sniffer called NMU (Node Management Utility) available for both Windows and Mac, which will find the Storm 8 on your network alongside all other enttec devices and display their IP address.

Using the IP address one can access the built-in web-interface inside the Storm 8 via any modern web-browser. The web-interface allows the settings of the unit to be changed.

Once setup, any Art-Net/sACN/ESP enabled software/app or a lighting control desk can be used to drive the DMX outputs on the Storm 8. For a list of recommended 3<sup>rd</sup> party apps, please check the website <u>www.enttec.com/storm8</u>

## LED Status



The Storm 8 comes with one RGB status LED and two green network LED indicators located on the right side of the front panel.

**RGB Status LED:** 

- WHITE: idle, signifies that Storm 8 is operating normally.
- GREEN: DMX Data is being output. The led will fade from white to green.
- RED: (Blinking) Error State. Requires a firmware update or needs to be rebooted. A reset might be required, if it stays in error-mode on reboot.

- PURPLE: (Blinking) IP Address Conflict. Please change the IP address manually or enable DHCP.
- CYAN (Blinking): Merge sources exceeded. Either merge is disabled or more than two sources are being received by Storm 8.

Ethernet Link Speed: is ON when there is an active Ethernet Link @ 100 mbps. It will stay OFF @ 10 mbps.

Ethernet Activity: This LED blinks when there is activity on the Ethernet network.

## NMU

NMU (Node Management Utility) is a free Windows and Mac application that is used to manage compatible ENTTEC DMX over Ethernet nodes.

NMU will help you find your unit's IP address and then open a browser window to access the web-interface.

Please follow these steps:

- 1. Download NMU from <u>www.enttec.com/nmu</u>
- 2. Ensure that Storm 8 is hooked up physically by an Ethernet cable.
- 3. And connected to the same physical network (or router) as the computer on which you will run NMU.
- 4. Open NMU. If prompted with multiple networks, select the correct network. (identified by the IP address of your computer on that network)

ENTTEC Node Management Utility [1.85]				
File Artnet Help				
Device Type	IP Address	Device Name	Mac Address	
Storm 8	10.0.0.65	STORM8 RD	0050C2089291	
Storm 24	10.0.0.69	ST_revA	00D06947127F	
E-Streamer Mk2	10.10.0.15	MTSH_Lx_Ma	00D06949C5D2	
Pixelator Mini	10.8.101.69	PixMINI 00	223344556677	
Firmware Version 1.1 Please point your web browser to http://10.0.0.65 to configure Storm 8				
Discovery Configure Clear List				
NMU Client IP: 10.10.0.122				

5. Press the Discovery button, and wait till NMU finds all supported ENTTEC devices on your network.



 Once found, select Storm 8 and use the IP address to access the web-interface via your web browser.

# Web Configuration

The Storm 8 can be configured and controlled through a web browser, running on a computer system, located on the same Local Area Network. Any modern web browser, such as Chrome, Firefox, Internet Explorer, Safari or Opera, running under any operating system, including Windows XP/7/8/10, Mac OS X or Linux can be used.

Either click on the underlined URL displayed in NMU, or type the IP address (as detected by NMU) into your web browser to access the Web Interface. The left side menu allows all the Storm 8 web pages to be accessed.

Home page provides the following information:

ENTTEC				STORM	В - Номе				
	System Informat	System Information							
Home	Node Name:		STORM8 RD						
	Firmware Version:		ENTTEC Storr	n8 Firmware V	1.1				
Settings	Serial No:		C2089291						
Network State	Current Network	Settings							
Network Stats	DHCP:		Disabled						
	IP Address:		10.0.0.65						
Update Firmware	NetMask:		255.0.0.0						
	Mac Address:		00:50:c2:08:9	2:91					
	Link Speed:		100 Mbps						
	Input:		Art-Net						
	DMX Outputs	Out 1	Out 2	Out 3	Out 4	Out 5	Out 6	Out 7	Out 8
	Universe:		1	2	3	4	5	6	7
	Merge Status:	None	None	None	None	None	None	None	None
	Current DMX but	ller							
		Click on the uni	verse number	(under DMX	Outputs) to se	e current DM)	values beir	ng output	
				8	_				
		STO	2 M 🕹 🖁				ik Norma Cartha		
		ENTREC			8790	RNET	11		
		EC			10	100			

*System Information:* Name, Firmware Version and Serial No. of the unit. The Serial No. is unique to this unit and can be used to identify this unit.

*Current Network Settings:* Configured IP address and Link speed for the unit.

*DMX Outputs:* A DMX output data snapshot can be seen by clicking the port number. Merge status is also shown under the port for convenience. Any merge errors will be shown here.

To change any of the displayed settings, you must use the Settings page.

# Settings

Storm8 - Settings								
Network Settings	5							
Node Name:		STORM8 RD						
DHCP:		DHCP Enable This will override the IP setting below						
IP Address:		Used if DHCP is disabled or unavail					ed or unavailable	
NetMask:		255         .         0         .         0         Used if DHCP is disabled or unavaily					ed or unavailable	
DMX Protocol (Input	):	Art-Net V	Net: 0	Subnet: 0	•			
DMX Outputs Options	Out 1	Out 2	Out 3	Out 4	Out 5	Out 6	Out 7	Out 8
Enabled: (Yes/No)	Yes 🔻	Yes 🔻	Yes 🔻	Yes 🔻	Yes 🔻	Yes ▼	Yes ▼	Yes 🔻
Universe: Art-Net Universe: (0 - 15)	0	1	2 2	3 3	4 4	5 5	6 6	7
Refresh Rate: (0 - 44)	40 🔻	40 🔻	40 🔻	40 🔻	40 🔻	40 🔻	40 🔻	40 🔻
Merge Type: (HTP/LTP or None)	None <b>v</b>	None <b>v</b>	None <b>v</b>	None V	None V	None V	None <b>v</b>	None V
Updates								
Save		Save Setting	s					
Factory Default		Reset to Defaults						
Reboot/Restart		Reboot Now						

Node name is used to identify the unit on the network. Any meaningful name can be used.

DHCP is enabled by default. When enabled, the router on your network is expected to automatically provide the IP address to the unit. If no DHCP router/server is present on the network, the manual IP address will be used.

If for some reason, your unit does not get an IP address via DHCP, please restart the unit with the Ethernet cable connected. It will listen for DHCP on start-up and wait for a few seconds, before terminating the process if unsuccessful.

IP Address and Netmask are only used if DHCP is disabled or is unavailable on your network. Storm 8 web-page will warn you, if non-standard IP address or netmask is used.

If ever you manage to use an IP Address that can't be connected to later, please perform the reset procedure (as described later). The reset will re-enable DHCP on Storm 8.

DMX Protocol: allows you to pick the input DMX over Ethernet protocol that the Storm 8 will act on. Available options are Art-Net, sACN, and ESP.



Art-Net Address: Net and Subnet can be selected here, and comply with the Art-Net 3 protocol. Universe can be selected from the DMX Port Settings.

## **DMX** Outputs

The 'DMX Outputs' table allows all settings to be modified individually for each DMX Port. The options available for each Port are as follows:

#### Enabled

Select whether to enable or disable the DMX port. When enabled, the port will constantly output DMX at the selected refresh rate.

#### Universe

Allows for selection of the Ethernet universe that will drive the DMX output. For Art-net universes, please change Net/Subnet to increase the combined universe beyond 15. (Combined universe is shown under the selection).

#### **Refresh Rate**

Select appropriate refresh rate to control how often the output is refreshed.

0 = Follows source (no repeats)

Max = Send as fast as possible

#### Merge Type

Merge Type decides how to act when multiple sources are sending the same universe to the port. Maximum of 2 sources are permitted to be merged to create a new output. Select between the following options:

None: Merging is disabled. Supports 1 source only

HTTP: Highest Takes Precedence (2 sources)

LTP: Latest Takes Precedence (2 sources)

## Update Firmware

From this page you can update Storm 8 to the latest firmware. Latest firmware file is always available on the ENTTEC website: <u>www.enttec.com/storm8</u>

Choose or browse the firmware file (as per your browser) and click on Update firmware to start the process. The update progress is shown in real-time, and will take a few seconds for the update to be completed.

	STORM8 - UPDATE FIRMWARE
Current System Informa	tion
Boot Version:	ENTTEC Storm8 Boot V1.1
Firmware Version:	ENTTEC Storm8 Firmware V1.1
Mac Address:	00:50:c2:08:92:91
Serial No:	c2089291
Link Speed:	100 Mbps
Link Speed: Current Network Setting	S (display d
Link Speed: Current Network Setting DHCP: IP Address:	100 Mbps
Link Speed: Current Network Setting DHCP: IP Address:	100 Mbps
Link Speed: Current Network Setting DHC:P: IP Address: Update Firmware	100 Mbps
Link Speed: Current Network Setting DHCP: IP Address: Update Firmware Select firmware file:	100 Mbps

Update Firmware		
Select firmware file:	Choose File firmware.bin	Update Firmware
Update progress:	33%	

When the update is complete, the page will refresh and you will be taken to the home page – where you can verify the firmware version. If the update fails for any reason, please try the same process again.

Storm 8 will reboot after a firmware update, please allow a few

Update Firmware		
Select firmware file:	Choose File firmware.bin	Update Firmware
Update progress:		82%

seconds for it to be refreshed in the browser. Please wait until the update process is complete.

### Reset button

The reset button restores the network configuration of the Storm 8 to factory defaults:

- DHCP is set to enabled
- Static IP address is mapped to the Serial number of the unit (used if DHCP is unavailable).
- Netmask is set to 255.0.0.0

To successfully reset to factory defaults the Storm 8, the following procedure must be performed:

- Power off the unit
- Press and hold the Reset button.
- While holding the Reset button, power up the unit, and keep holding the button for 3 seconds.



- Release the Reset button once the status led starts blinking red.
- Wait 3 seconds and cycle power

# Art-Net Send Test

NMU can also be used to troubleshoot the DMX output on the Storm 8. Art-Net Test can be accessed from the top menu: Art-net  $\rightarrow$  Art-net **Test** 

When first opened, the Art-Net is set to Disabled, please set it to Enabled, and then you can use either the DMX faders to test one or more DMX channels, or use the test-patterns from the options available.

Please set the Storm 8 to use Art-Net and on the same universe as being used to send Art-Net from NMU.



# Connector pin out

## DMX pinout (RJ-45):

- Pin 1: Data +
- Pin 2: Data -
- Pin 7: Ground

## Specifications

Due to continuous improvements and innovations of all ENTTEC products, specifications and features are subject to change without notice.

Item	Value
PSU Input Voltage	90 – 260V AC
PSU Input Frequency	50/60 Hz
Weight	1.65 lbs. / 0.75 Kg
Shipped weight	3.19 lbs. / 1.45 Kg
Length	7.53″ / 191mm
Width	4.14″ / 105mm
Height	1.75″ / 44.5mm
Output Protocol	DMX-512
Input Protocol	Art-Net, sACN or ESP
Op Environment	0°-50°C in non-condensing environment
Connectors	8x RJ45 DMX output 1x IEC power connector 1x RJ45 Ethercon connector

## Ordering Information

The ENTTEC Storm 8 and compatible products can be ordered from our website or through your ENTTEC dealer.

PN	Description
70055	STORM 8
70053	DMX XLR-5 (FEMALE) TO RJ45(MALE) 1M CABLE
70050	STORM 24

Email: sales@enttec.com Website: www.enttec.com

## Registration

Please register your ENTTEC product to get latest software updates and to validate your warranty. To register, please visit <u>enttec.com/register</u>