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ENTTEC

ENTTEC OCTO MK3 8U LED Controller



Safety

Ensure you are familiarised with all key information within this guide and other relevant ENTTEC documentation before specifying, installing, or operating an ENTTEC device. If

you are in any doubt about system safety, or you plan to install an ENTTEC device in a configuration that is not covered within this guide, contact ENTTEC or your ENTTEC supplier for assistance.

ENTTEC's return to base warranty for this product does not cover damage caused by inappropriate use, application, or modification to the product.

Electrical Safety

- This product must be installed by applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Failure to comply with the following installation instructions may result in death or serious injury.
- Do not exceed the ratings and limitations defined in the product datasheet or this document. Exceeding can cause damage to the device, risk of fire and electrical faults.
- Ensure that no part of the installation is or can be connected to power until all connections and work are complete.
- Before applying power to your installation, ensure your installation follows the guidance within this document. Including checking that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices and factor in overhead as well as verifying that it is appropriately fused and voltage is compatible.
- Remove power from your installation immediately if accessories power cables or connectors are damaged or defective, show signs of overheating or are wet.
- Provide a means of locking out power to your installation for system servicing, cleaning, and maintenance. Remove power from this product when it is not in use.
- Ensure your installation is protected from short circuits and overcurrent. Loose wires around this device whilst in operation could result in short-circuiting.
- Do not over stretch cabling to the device's connectors and ensure that cabling does not exert force on the PCB.
- Do not 'hot swap' or 'hot plug' power to the device or its accessories.
- Do not connect any of this device's V- (GND) connectors to earth.
- Do not connect this device to a dimmer pack or mains electricity.

System Planning and Specification

- To contribute to an optimal operating temperature, where possible keep this device out of direct sunlight.
- Pixel data is unidirectional. Ensure that your OCTO MK3 is connected to your pixel dots or tape in a way that ensures data is flowing from the OCTO MK3 to the 'Data IN' connection of your pixels.
- The maximum recommended cable distance between the OCTO MK3's data output and the first pixel is 3m (9.84ft). ENTTEC advises against running data cabling close to sources of electromagnetic interference (EMF) i.e., mains power cabling/air conditioning units.
- This device has an IP20 rating and is not designed to be exposed to moisture or condensing humidity.
- Ensure this device is operated within the specified ranges within its product datasheet.

Protection from Injury During Installation

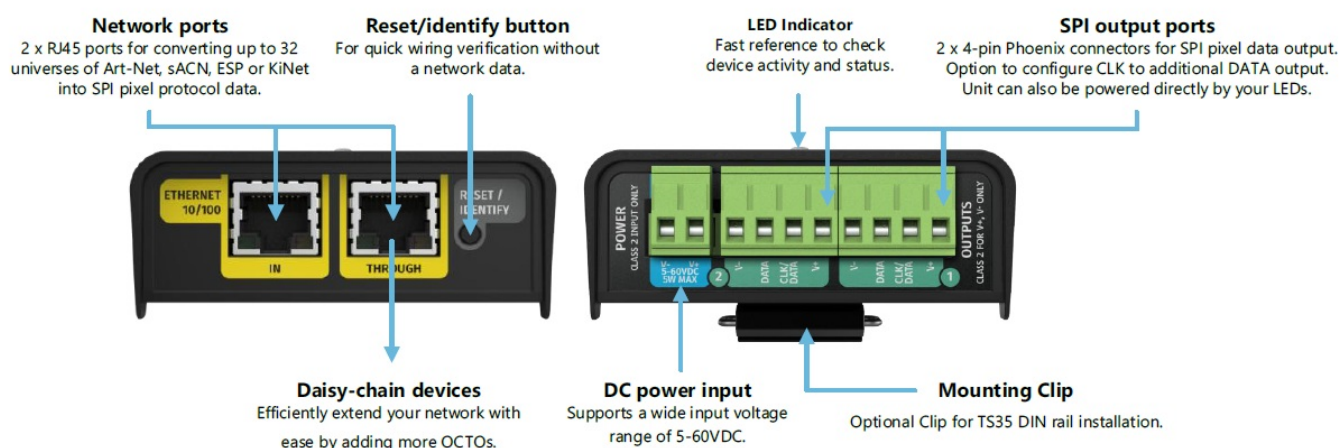
- Installation of this product must be performed by qualified personnel. If ever unsure always consult a professional.
- Always work with a plan of installation that respects all system limitations as defined within this guide and product datasheet.
- Keep the OCTO MK3 and its accessories in its protective packaging until final installation.
- Note the serial number of each OCTO MK3 and add it to your layout plan for future reference when servicing.
- All network cabling should be terminated with an RJ45 connector following the T-568B standard.
- Always use suitable personal protective equipment when installing ENTTEC products.
- Once installation is completed, check that all hardware and components are securely in place and fastened to supporting structures if applicable.

Installation Safety Guidelines

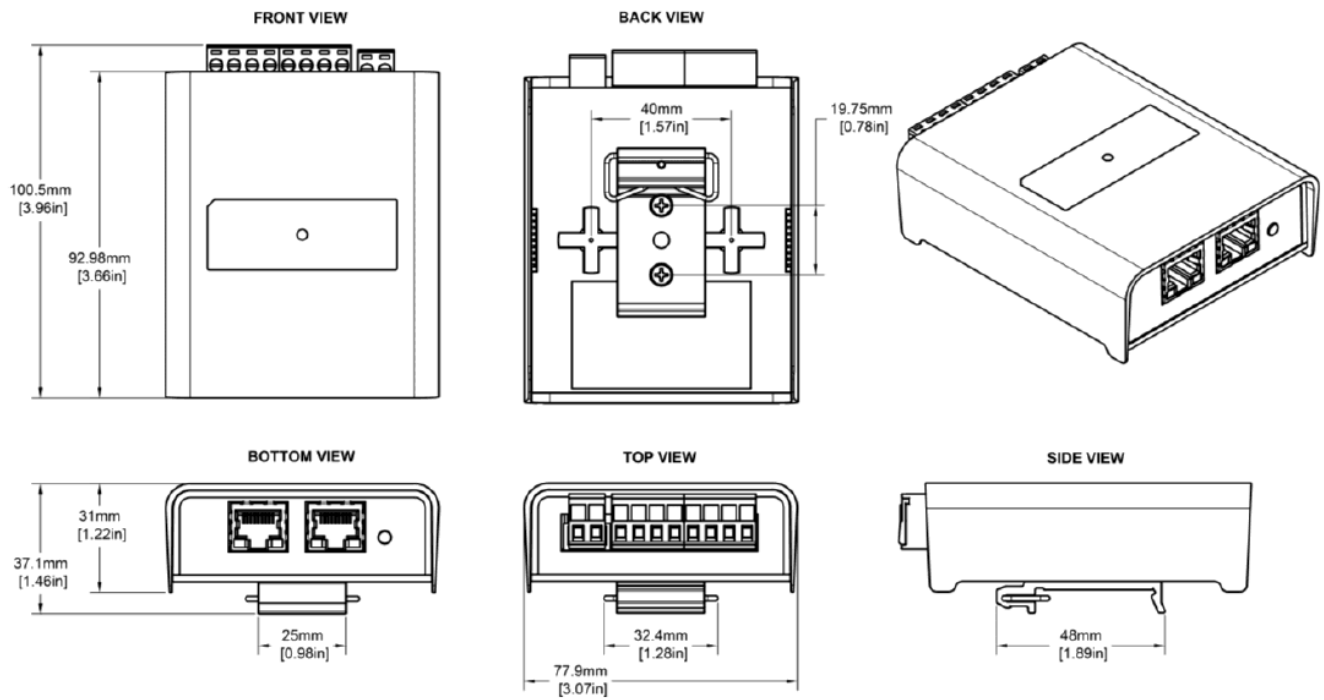
- The device is convection cooled, ensure it receives sufficient airflow so heat can be dissipated.

- Do not cover the device with insulating material of any kind.
- Do not operate the device if the ambient temperature exceeds that stated in the device specifications.
- Do not cover or enclose the device without a suitable and proven method of dissipating heat.
- Do not install the device in damp environments.
- Do not modify the device hardware in any way.
- Do not use the device if you see any signs of damage.
- Do not handle the device in an energised state.
- Do not crush or clamp the device during installation.
- Do not sign off a system without ensuring all cabling to the device and accessories has been appropriately restrained, secured and is not under tension.

Connectivity



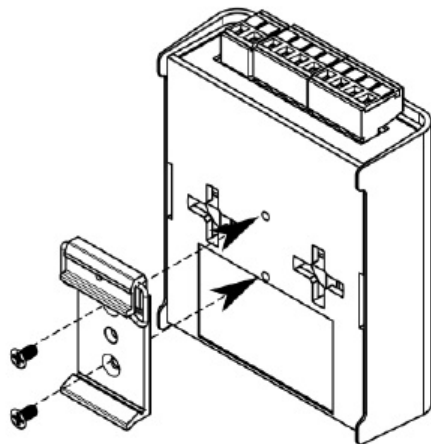
Physical Dimensions



Mounting Options

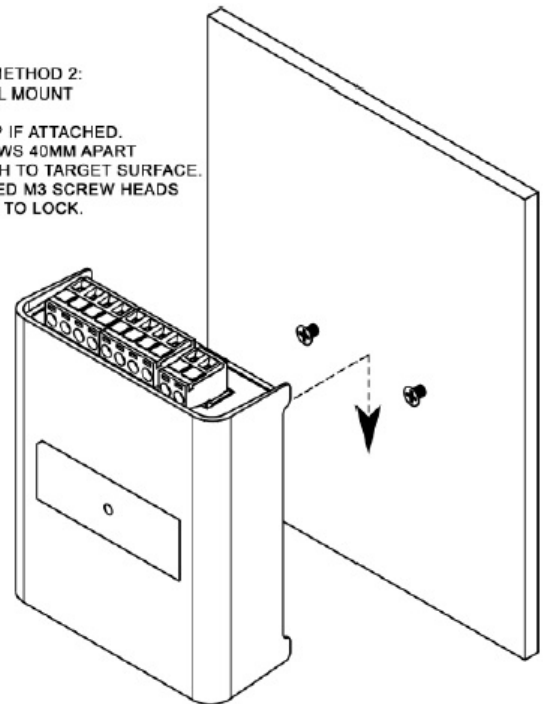
**MOUNTING METHOD 1:
DIN RAIL MOUNT**

ATTACH DIN RAIL CLIP WITH
TWO M3X8 COUNTERSUNK
PH2 PHILLIPS DRIVE SCREWS
ATTACH UNIT TO A SUITABLE TS35 DIN RAIL.



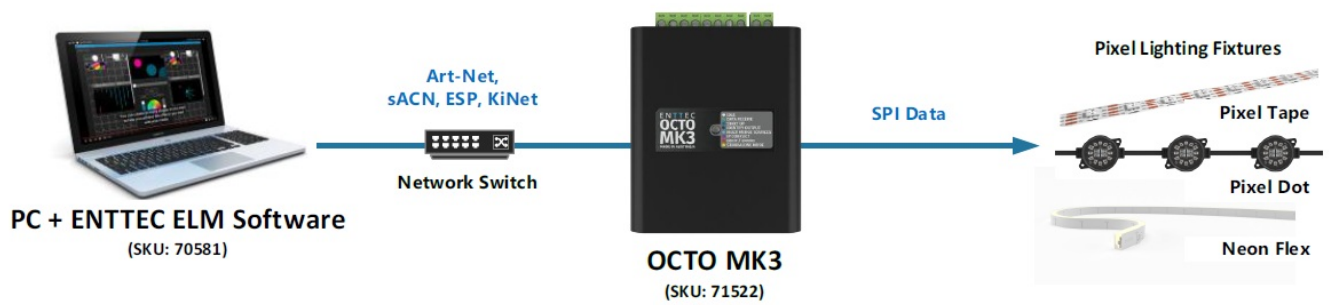
**MOUNTING METHOD 2:
WALL/PANEL MOUNT**

REMOVE DIN CLIP IF ATTACHED.
SPACE 2X M3 SCREWS 40MM APART
HORIZONTALLY AND ATTACH TO TARGET SURFACE.
MOUNT UNIT TO EXPOSED M3 SCREW HEADS
SLIDE DOWN TO LOCK.



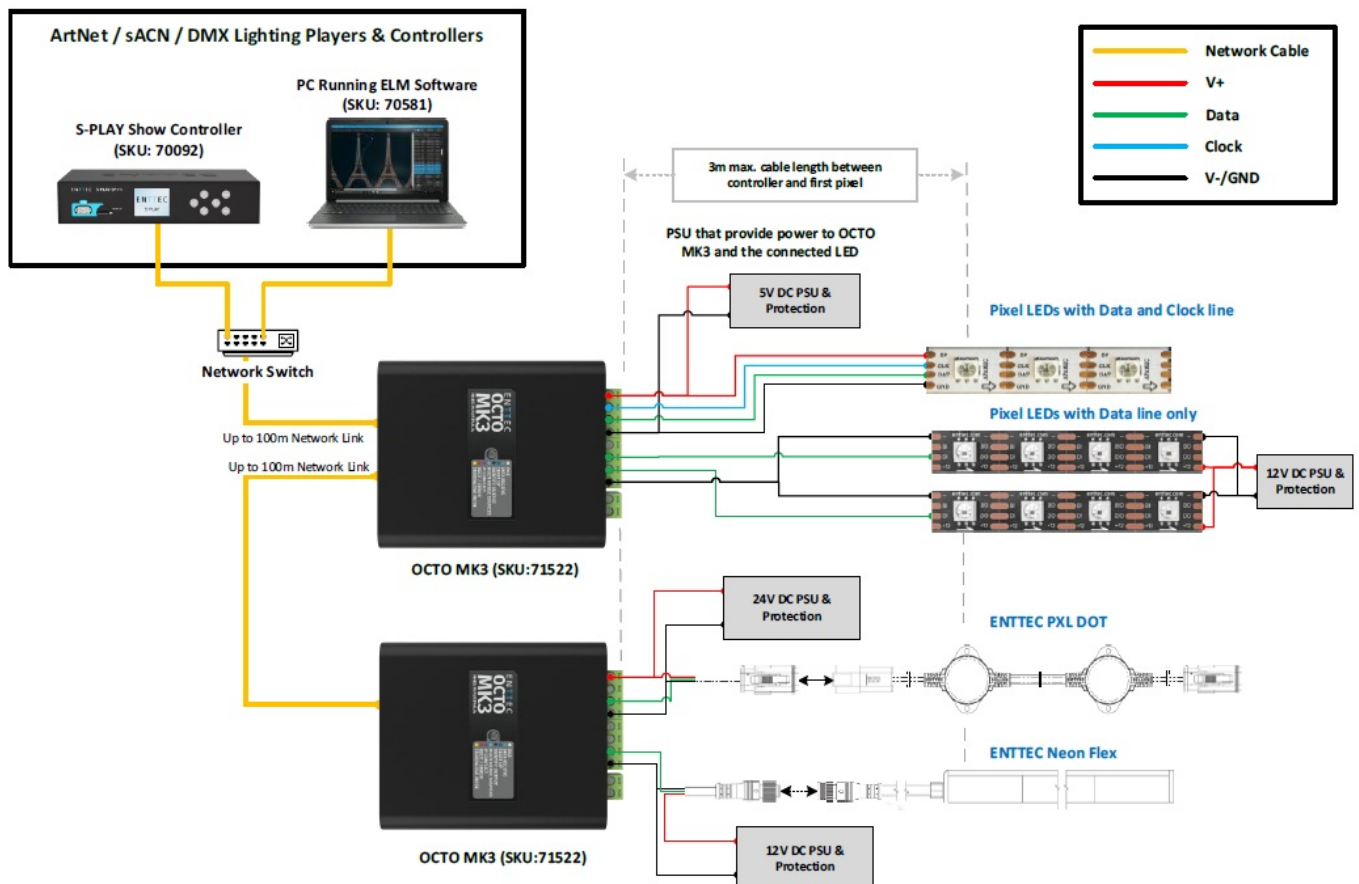
Note: The surface mount tabs have been designed to hold the weight of the OCTO MK3 only, excess force by cable strain can cause damage.

Application Diagram



Wiring Diagrams

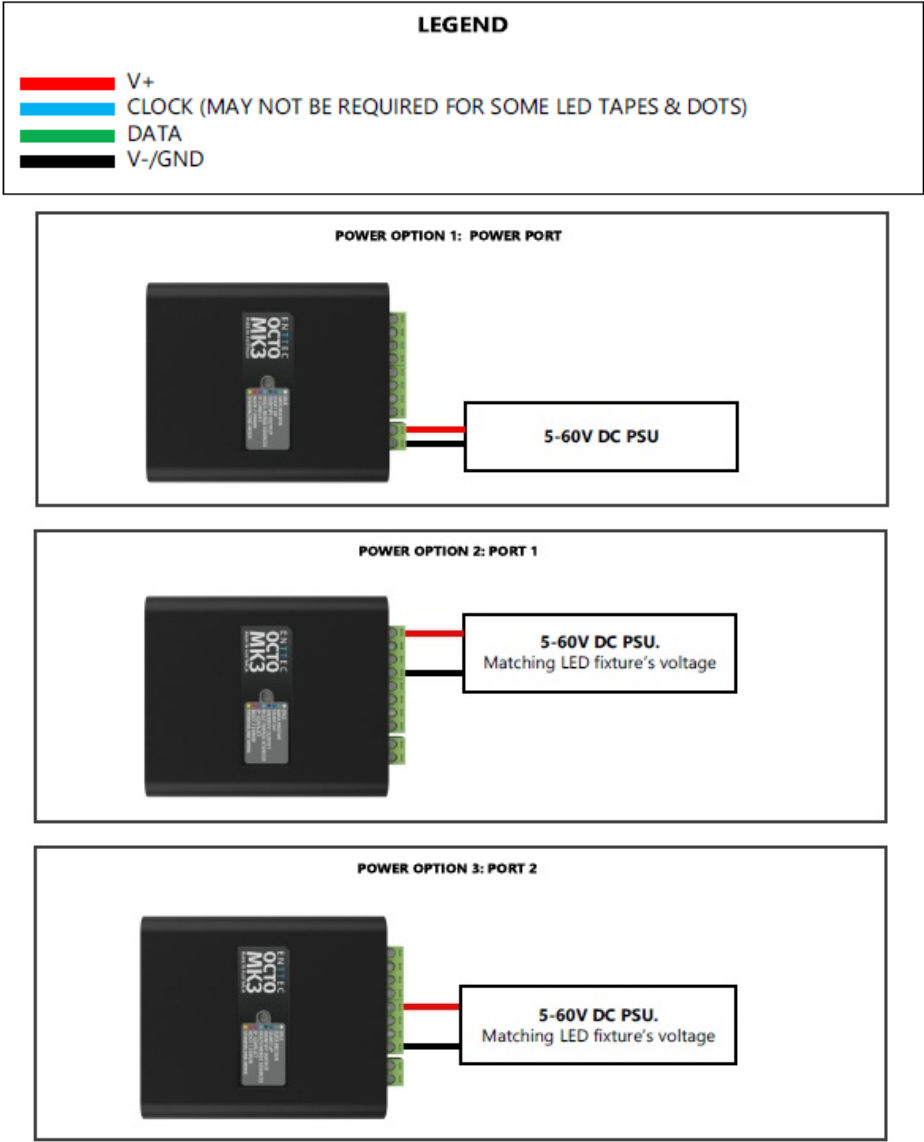
- Locate the OCTO MK3 and PSU as close as possible to the first pixel in your chain to reduce the impact of voltage drop.
- To reduce the likelihood of voltage or Electro Magnetic Interference (EMI) being induced on the control signal lines, where possible, run control cabling away from mains electricity or devices that produce high EMI, (i.e., air conditioning units). ENTTEC recommends a maximum data cable distance of 3 meters. The lower the cable distance, the lower the impact of voltage drop.
- To ensure a reliable connection, ENTTEC recommends the use of cable ferrules for all stranded cables connected to the OCTO MK3's screw terminals.



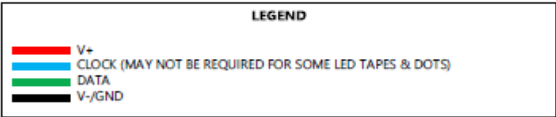
Power Input

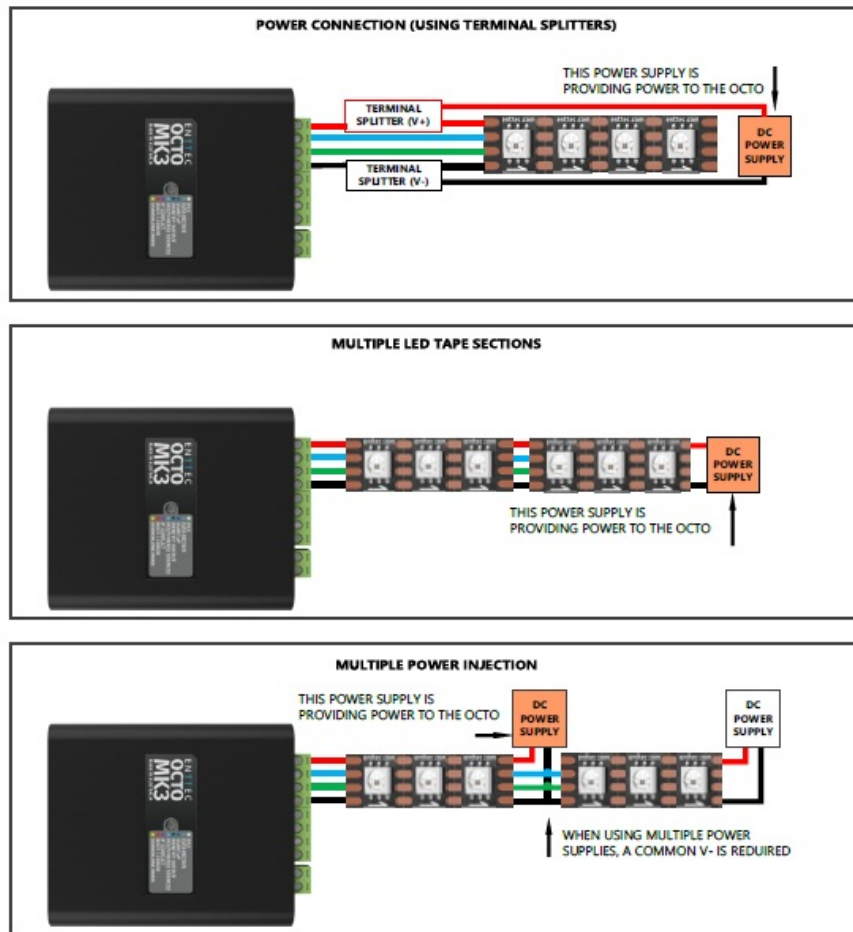
The OCTO MK3 is designed for flexibility and compatibility with various LED strip configurations. It supports power backfeed from the LED tape, simplifying wiring and enhancing installation efficiency.

The OCTO MK3 offers three power input options, supporting a wide DC voltage range of 5-60V. Users can choose the most suitable method based on their power supply configuration and LED strip requirements.



There are also multiple ways to connect and power LED strips and the OCTO MK3 depending on the setup and requirements. Users can choose the most suitable method based on their power supply configuration and LED strip specifications. Proper power distribution ensures stable performance and prevents voltage drops across the LED installation.

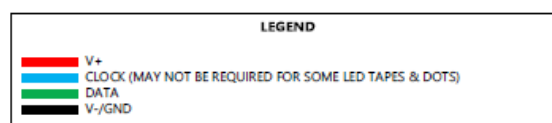


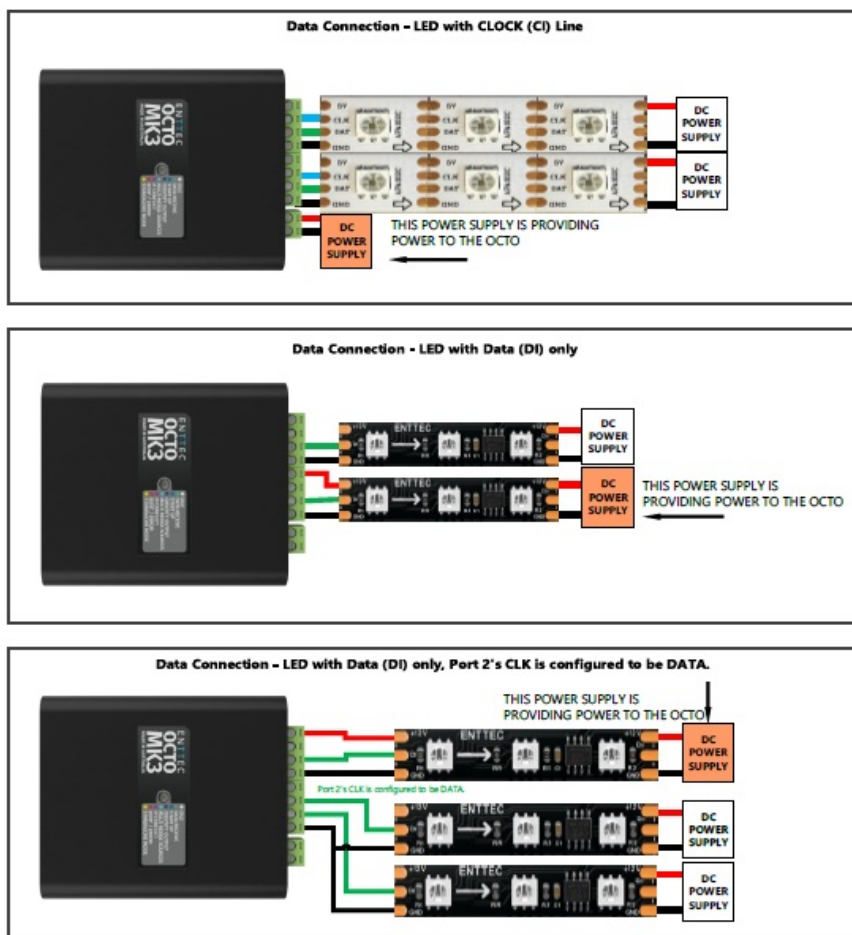


Data Output

OCTO MK3 is compatible with LED strips requiring a clock signal, such as those using the APA102 protocol.

For fixtures that only require a data input and do not need a clock line, the OCTO MK3 allows users to reconfigure the CLK port as an additional data output. This enables data transmission across up to 4 ports, each supporting up to 8 universes.





Functional Features

- Efficiently converts up to 8 Universes per port of e-DMX to pixel control protocols.
- Supports up to 32 Universe total output (8U per port), including overdrive mode.
- Up to 2 outputs when using Clock and up to 4 outputs when repurposing Clock as additional outputs.
- Compatible with input protocols: Art-Net, Streaming ACN (sACN), ESP, and KiNet.
- Works with multiple synchronous and asynchronous pixel output protocols with custom voltage timing.
- Enables creation of custom pixel protocols (Refer to the 'Custom Protocol Creation Guide').
- Supports both DHCP and Static IP addressing.
- Includes grouping functionality to reduce input channel count.
- Provides colour order options for RGB, RGBW, and White Pixel.
- Features an inbuilt FX engine for gradient effects in standalone mode without a DMX source.

Hardware Features

- Electrically insulated ABS plastic housing.
- Forward-facing LED status indicator.
- Identify/Reset button.
- Pluggable terminal blocks.
- Link & Activity LED indicator built into both RJ45 ports.
- Easily extendable daisy chain network – up to 8 units for optimum performance between outputs.
- Surface mount or TS35 DIN mount (using provided DIN Clip accessory).
- Flexible wiring configuration.
- 35mm DIN rail accessory (included in packaging).

LED Status Indicator

The LED status indicator is used to determine the OCTO MK3's current state which indicates the following device states:

LED Colour	OCTO MK3 Status
White	Idle
Green	Data receiving
Blue	Device starting up
Blue (flashing)	Identifying output
Cyan	Multiple Merge sources
Purple	IP Conflict
Red (flashing)	Device in Boot/Error
Yellow	Standalone Mode



Identify/Reset Button

The Identify/Reset button on the OCTO MK3 can be used to either:

- Identify pixels connection without the need to provide control data.
When the button is pressed in standard operation, all 8 output universes are set to output the highest value (255) for 10 seconds before resuming their previous state. This is a convenient test to ensure all outputs are connected and working as intended. This function can also be achieved from our intuitive web interface under Home Tab.
- Reset the OCTO MK3. (Refer to the 'Reset to Factory Defaults' section of this document).

Out of the Box

Factory default settings out of the box:

- Device name: OCTO MK3
- DHCP: Enabled. If the DHCP server is slow to respond, or your network does not have a DHCP server, OCTO will fall back to 192.168.0.10.
- Static IP Address: 192.168.0.10.
- Gateway IP address: 192.168.0.254
- Netmask: 255.255.255.0
- Input protocol: Art-Net
- Output pixel protocol: WS2812B
- Pixel colour: RGB
- Both ports are set to output 6 universes
- Mapped pixels value: 1020 pixels

- DMX start address: 1
- Global intensity set to maximum for eligible protocols: APA-102, TM1814, SJ1221
- Standalone: Disabled

Networking

The OCTO MK3 can either be configured to use a DHCP or Static IP address.

DHCP: On power up and with DHCP enabled, if the OCTO MK3 is on a network with a device/router with a DHCP server, the OCTO MK3 will request an IP address from the server. If the DHCP server is slow to respond, or your network does not have a DHCP server, the OCTO MK3 will fall back to the IP address 192.168.0.10 and netmask 255.255.255.0. If a DHCP address is provided, this can be used to communicate with the OCTO MK3.

Static IP: By default (out of the box) the Static IP address will be 192.168.0.10. If the OCTO MK3 has DHCP disabled, the Static IP address given to the device will become the IP address to communicate with the OCTO MK3. The Static IP address will change from the default once it's modified in the web interface. Please note down the Static IP address after setting.

Note: When configuring multiple OCTO MK3s on a Static network; to avoid IP conflicts, ENTTEC recommends connecting one device at a time to the network and configuring an IP.

- If using DHCP as your IP addressing method, ENTTEC recommends the use of the sACN Multicast, or Art-Net Broadcast. This will ensure that your OCTO MK3 continues to receive data if the DHCP server changes its IP address.
- ENTTEC does not recommend unicasting data to a device with its IP address set through the DHCP server on long-term installations.

Web Interface

The OCTO MK3 is configured through a user-friendly web interface accessible from any modern web browser. For the best experience, it is recommended to use a Chromium-based browser, such as Google Chrome.

Identified IP address: If you already know the OCTO MK3's IP address (whether assigned via DHCP or set as Static), simply enter it directly into the URL field of a web

browser to access the device's interface.

Unidentified IP address: If the IP address is unknown, the following discovery methods can be used on a local network to locate the device:

- ENTTEC EMU Software (Windows & macOS 10.13 or later) – This software detects ENTTEC devices on the local network, displays their IP addresses, and allows direct access to the web interface for configuration.
- IP Scanning Software – Applications like Angry IP Scanner can scan the local network and return a list of active devices.
- Art Poll Discovery – If using Art-Net, software like DMX Workshop can detect devices through Art Poll.
- Default IP Address – The OCTO MK3's default IP address (192.168.0.10) is printed on the physical product.

Note

- Since the OCTO MK3 hosts a web server on the local network without an SSL certificate (which secures online content), most web browsers will display a “Not secure” warning. This is expected and does not affect functionality.
- To ensure proper communication, the eDMX protocols, the controller, and the device used to configure the OCTO MK3 must be on the same Local Area Network (LAN) and within the same IP address range as the OCTO MK3.
 - For example, if the OCTO MK3 is set to its default Static IP address (192.168.0.10), your computer should be assigned an IP such as 192.168.0.20.
 - It is also recommended that all devices on the network share the same Subnet Mask for seamless connectivity.

Top Menu

The top menu grants easy access to all OCTO MK3 web pages, with the active page highlighted in

ENTTEC

Home

Settings

Standalone

Network Stats

Update Firmware

Light ☐

Identify

The top right corner of the window features 2 installer-friendly buttons:

Dark Mode

User interface view option that presents content on a dark background.

Identify

An Identify button is available to quickly verify the correct wiring. This is identical to the physical Identify/Reset button on the device. This button on the webpage identifies pixels connected to a specific OCTO MK3 without the need to provide control data.

Note: The timer will not restart when pressed consecutively.

Home

This is the landing page for the OCTO MK3 web interface.

The Home page displays the current configuration for the followings:

System Information:

- Node Name
- Firmware version on device
- System uptime

Network Information:

- DHCP status
- IP address
- Netmask
- Gateway
- Mac Address
- Link Speed

Pixel Mapping Information:

- Input protocol
- Output Pixel protocol
- Universe
- Colour Order
- Mapped Pixels

- ENTTEC

Update Firmware

Light 

Identify

System Information ⓘ

Node Name:	OCTO MK3
Firmware Version:	ENTTEC Octo Mk3 Firmware V1.0 B5
System Uptime:	20 Days, 3 hours, 45 mins, 21 secs
System Last Uptime:	6 Days, 20 hours, 26 mins, 31 secs

DHCP:	Enabled
IP Address:	10.10.3.90
NetMask:	255.255.255.0
Gateway:	10.10.3.254
Mac Address:	00:30:a7:55:66:a2
sACN CID:	165878B5-51A1-A068-F4ED-314789F00DB7
Link Speed:	100 Mbps

Outputs	Input Protocol	Pixel Protocol	Universe	Color Order	Mapped Pixels	Group Pixels	DMX Start Address
Output1	Arl-Net	WS2812B	0 1 2 3 4 5	RGB	1020	1	1
Output3	Arl-Net	WS2812B	6 7 8 9 10 11	RGB	1020	1	1

Pixel Mapping Information

[illegible]

The OCTO MK3 settings can be configured within the Settings tab. Changes will only

take effect after being saved; any unsaved changes will be discarded.

Network Information:

The screenshot shows the 'Network Information' configuration page. It includes a 'Node Name' field set to 'OCTO MK3'. The 'DHCP' section has a checked 'Use DHCP' box. Below this are three rows of IP address configuration: 'Static IP Address' (192, 168, 0, 10), 'Static NetMask' (255, 255, 255, 0), and 'Gateway IP' (192, 168, 0, 254).

Field	Value 1	Value 2	Value 3	Value 4
Node Name	OCTO MK3			
DHCP	<input checked="" type="checkbox"/> Use DHCP			
Static IP Address	192	168	0	10
Static NetMask	255	255	255	0
Gateway IP	192	168	0	254

Node Name: Change Node Name for identification.

DHCP: Enabled by default. When enabled, the DHCP server on the network is expected to automatically provide the IP address to the OCTO MK3. When DHCP is enabled but there is no DHCP server or slow to respond, the OCTO MK3 will fall back to 192.168.0.10.

Static IP Address / Netmask / Gateway: These are used to set when DHCP is disabled. These options set the Static IP address, Netmask and Gateway IP settings which should be compatible with other devices on the network.

The screenshot shows the 'Output Settings' configuration page. It features a 'Port-Sync' checkbox (unchecked) and an 'Autofit: Disabled' toggle. Below is a table with columns: Outputs, Pixel Protocol, Color Order, Mapped Pixels, and Global Brightness. There are three output rows. The third row, 'Output3', has a checked 'Split Port' option and expanded timing settings: Bit 0 High time (300 ns), Bit 1 High time (750 ns), Overall Bit time (1350 ns), and Reset time (100000 ns).

Outputs	Pixel Protocol	Color Order	Mapped Pixels	Global Brightness
Output1 <input checked="" type="checkbox"/> Split Port	WS2812B	RGB	1020	Max
Output2	WS2812B	RGB	1020	Max
Output3 <input type="checkbox"/> Split Port	WS2812B	RGB	1350	Max

Timing settings for Output3 (Custom):

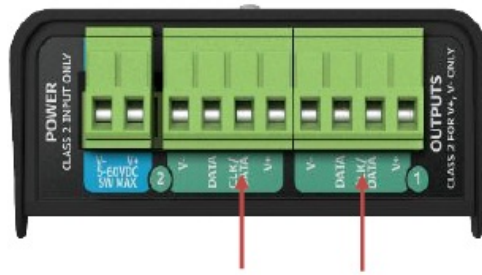
Bit 0 High time (ns)	300
Bit 1 High time (ns)	750
Overall Bit time (ns)	1350
Reset time (ns)	100000

Output Settings:

Port Sync: When using multiple ports with different protocols or DMX universes, timing mismatches can occur, such as Port 1 running 1U LED while Port 2 runs 8U LED.

Enabling 'Port Sync' ensures all ports stay synchronised, preventing inconsistencies and ensuring smooth operation.

Output: Enable the 'Split Port' option to configure the Clock Port as an additional Data Port. This allows the OCTO MK3 to output data across up to four ports, maximising flexibility and expanding output capacity.



LED Protocol: Select the SPI protocol from the drop-down list or set a custom value that matches the Pixels which the OCTO MK3 will control.

The OCTO MK3 provides more than 20 output pixel protocols listed below.

- APA 102, APA 104
- GS8208B
- SJ1221 (16bit & 8bit)
- SK6812, SK6805, SK6813
- SM16704
- SPXL (16bit & 8bit)
- TLC5973 (16bit & 8bit)
- TM1804, TM1812, TM1814
- UCS1903, UCS2903, UCS2904, UCS8903 (16bit & 8bit),
- UCS8904 (16bit & 8bit), UCS7604 (16bit)
- WS2811, WS2812, WS2812B, WS2813, WS2815, WS2818
- 9PDOT (16bit & 8bit)

Each port can support a different pixel output protocol, allowing you to directly output the selected protocols to your pixel fixtures.

Custom LED Protocol: Tick 'Custom' to enable the LED protocols customisation through voltage timing adjustments on each port setting. By referring to the datasheet of your chosen pixel protocol, you can configure the voltage timing to meet specific requirements and specifications.

Note

- For creating a custom LED protocol, detailed instructions can be found in the 'Custom Protocol Creation

- Guide ‘ document available on the ENTTEC website. Certain criteria apply, the eligibility requirements are outlined in the guide.
- Colour Order: Configure how RGBW colours are mapped to pixels.
- Mapped Pixels: Define the number of mapped pixels.
- Global Brightness: This is a function of protocols TM1814 and APA-102 that sets their maximum brightness for the tape without hindering the DMX range available.

Pixel Mapping Options:

Pixel Mapping Options ⓘ Autofill: Disabled ☐

Outputs	Input Protocol	Universes	1st Uni.	2nd Uni.	3rd Uni.	4th Uni.	5th Uni.	6th Uni.	7th Uni.	8th Uni.	Group Pixels	DMX Start Address	Maximum Pixels ⓘ
Output1	Art-Net ▼	6 ▼	0	1	2	3	4	5			1	1	1020
Output2	Art-Net ▼	6 ▼	3	4	5	6	7	8			1	1	1020
Output3 <small>overdrive ⓘ</small>	Art-Net ▼	8 ▼	6	7	8	9	10	11	12	13	1	1	1360
Output4 <small>overdrive ⓘ</small>	Art-Net ▼	8 ▼	9	10	11	12	13	14	15	16	1	1	1360

- Input Protocol: Choose between Art-Net, sACN, ESP and KiNet as the input eDMX protocol.
- Universes: Max 32U (8U per port). Overdrive mode activated automatically when configured to output more than 6U per port.
- It allows the option of using the same universes for both outputs, such as universes 1, 2, 3, and 4.
- Alternatively, each output can be configured to use its own set of universes. For example, output 1 can use universes 100, 101, 102, and 103, while output 2 uses universes 1, 2, 3, and 4.
- Please note that only the first universe needs to be specified, as the remaining universes (2nd, 3rd ... up to 8th) are automatically assigned subsequent universes based on the first one.
- Example: If the first universe is assigned 9, the 2nd, 3rd and 4th universe will be automatically assigned 10, 11 and 12.
- Art-Net: Supports Art-NET 1/2/3/4. Each output port can be assigned a universe number in the range of 0 to 32767.
- sACN: Each output can be assigned a universe number in the range of 1-63999. Please note the OCTO MK3 supports a maximum of 1 multicast universe with sACN

sync. (i.e., all universes set to the same value)

- ESP: Each output can be assigned a universe number in the range 0-255. More details of the ESP protocol can be found at www.enttec.com
- KiNet: Outputs can be assigned a universe number in the range 0-65535. Further KiNet configuration can be achieved through ENTTEC ELM Software.

Note

In overdrive mode, take note of Max FPS with each additional universe output, up to 8U max. ENTTEC recommend performance trial before implementation.

Group Pixels: This setting allows multiple pixels to be controlled as one 'virtual pixel'. This reduces the overall amount of input channels required to control pixel strips or dots. Example: When Group Pixels is set to 10 on an OCTO MK3 connected to a length of RGB pixel strip, by patching a single RGB pixel within your control software and sending the values to the OCTO MK3, the first 10 LED pixels would respond to it.

Note

The maximum number of physical LED pixels that can be connected to each port is 1,360 (RGB) or 1024 (RGBW). When grouping pixels, the number of control channels required is reduced, this function does not increase the number of physical LED pixels each OCTO MK3 can control.

DMX Start Address (DSA): Assigns the first DMX channel, this is where the OCTO MK3 will start listening for DMX values within the universe. When the universes/output is more than one, the DMX start address only applies to the first universe.

However, where it applies, a start address offset may result in the split of a pixel. e.g., R channel in the first universe and GB channels in the second universe for an RGB LED. For ease of pixel mapping, ENTTEC recommends offsetting the DMX start address to a number divisible by the number of channels per pixel. i.e.:

- Increments of 3 for RGB (i.e., 1, 4, 7, 10)
- Increments of 4 for RGBW (i.e., 1, 5, 9, 13)
- Increments of 6 for RGB-16 bit (i.e., 1, 7, 13, 19)
- Increments of 8 for RGBW-16 bits (i.e., 1, 9, 17, 25)

Save & Update

Save & Update

Save: ⓘ

Save Settings

Factory Default: ⓘ

Reset to Defaults

Device Reboot:

Reboot

Save Settings: All changes must be saved to take effect. The OCTO MK3 takes up to 10 seconds to save.

Reset to Defaults: This button allows the OCTO MK3 reset back to factory default via the web interface. Please refer to the ‘Reset to Factory Defaults’ section of this document.

Reboot: Please allow up to 10 seconds for the device to reboot. When the web interface page refreshes the OCTO MK3 is ready.

Standalone

Standalone in OCTO MK3 allows users to create a looping gradient effect that can be set to playback from power on without the requirement of sending DMX data. This feature is also useful for testing the output of OCTO MK3.

To activate outputting in Standalone mode, simply toggle the ‘Use Standalone mode’ button on the top left corner:

Octo - Standalone

Use Standalone mode

Show Options ⓘ

Output1

Rainbow ▾

Output2

Rainbow ▾

Save Settings

Edit Effect ⓘ

Preview Output

1

2

Enabled

☐

☐

Select Effect:

Rainbow ▾

Name:

Rainbow

×

×

×

×

×

Speed

67

Invert on LED

0

Save Effect

Show Options

The Show Options section of the OCTO MK3 enables individual control of standalone effects on each output. This feature allows for separate and customised effect control, ensuring flexibility and tailored lighting effects across multiple outputs.

Show Options ⓘ

Output1 test ▾

Output2 Rainbow ▾

Save Settings

Edit Effect

This allows user to create, edit and preview the standalone effects. It is allowed to configure a maximum of 10 standalone effects that can be applied to both outputs for Show Options.

Preview Output

This feature enables real-time previewing while editing, ensuring that the effect aligns with your desired outcome before final implementation. Simply enable port numbers to preview and verify the expected result before implementing the effect.

Edit Effect ⓘ

Preview Output	1	2
Enabled	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Create/Edit a Standalone Effect

1. Select any empty/existing standalone effect in the 'Select Effect' drop-down list and add a name for identification.

Edit Effect ⓘ

Preview Output	1	2
Enabled	<input type="checkbox"/>	<input type="checkbox"/>

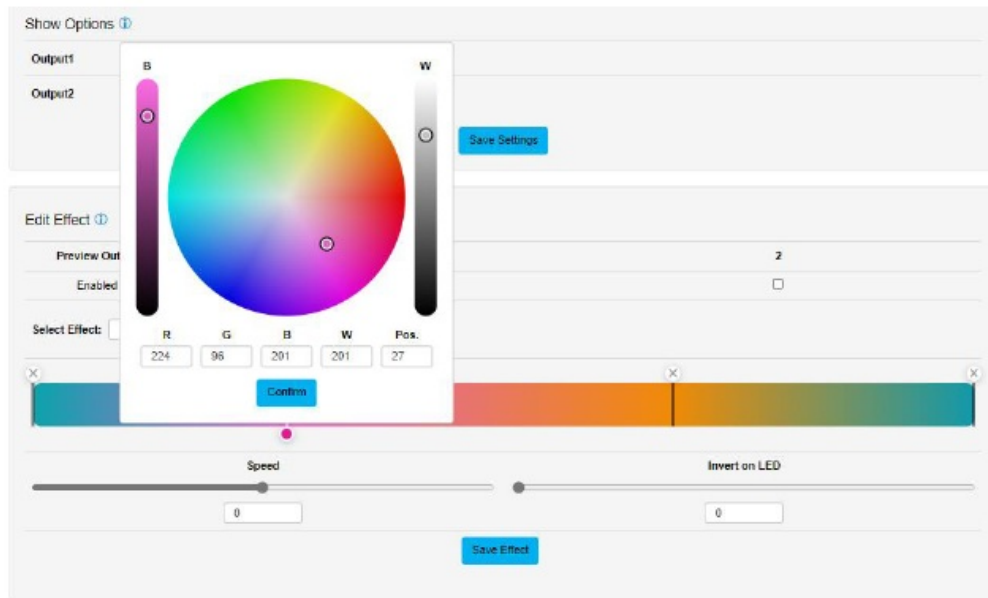
Select Effect: test ▾ Name:

X X

Speed Invert on LED

Save Effect

2. By clicking on the gradient graphic, the user can modify and define the gradient colour at any point. Each colour point can be dragged to a position to create preferable effect. To create smooth loops, ensure the beginning and end colour of the effect are the same.



3. Using the slider to adjust the speed of the effect or inverting the gradient direction on LEDs allows dynamic pixel effect creation in a non-linear fashion.
4. Save the effect for Show Options.
5. To edit the existing effect, simply revisit the effect and make edits whenever needed.

Network Stats

The Network Stats page shows statistics for the input DMX protocol selected. The information provided is:

Art-Net

- Total Packets Received
- Poll Packets Received
- Data Packets Received
- Sync Packets Received
- Last IP where Art-Net packets were received
- Last Port data received from

sACN

- Total Packets Received
- Data Packets Received
- Sync Packets Received
- Last IP where sACN packets were received
- Last Port data received from

ENTTEC

HomeSettingsStandaloneNetwork StatsUpdate Firmware

LightIdentify

Octo - Network

Art-Net StatisticssACN StatisticsESP StatisticsKINET Statistics

Summary

Total Packets Received	4705175
Poll Packets Received	69832
Data Packets Received	4612166
Sync Packets Received	23077
Last IP	10.10.3.95
Last Port	6454

ENTTEC

HomeSettingsStandaloneNetwork StatsUpdate Firmware

LightIdentify

Octo - Network

Art-Net StatisticssACN StatisticsESP StatisticsKINET Statistics

Summary

Total Packets Received	0
Data Packets Received	0
Sync Packets Received	0
Last IP	0.0.0.0
Last Port	0

ESP

- Total Packets Received
- Poll Packets Received
- Data Packets Received
- Last IP where ESP packets were received
- Last Port data received from

ENTTEC Home Settings Standalone **Network Stats** Update Firmware Light ☐ Identify

Octo - Network

Art-Net Statistics sACN Statistics **ESP Statistics** KiNET Statistics

Summary

Total Packets Received	318
Poll Packets Received	318
Data Packets Received	0
Last IP	10.10.3.95
Last Port	3333

ENTTEC Home Settings Standalone **Network Stats** Update Firmware Light ☐ Identify

Octo - Network

Art-Net Statistics sACN Statistics ESP Statistics **KiNET Statistics**

Summary

Total Packets Received	0
Discovery Supply Packets Received	0
Discovery Ports Packets Received	0
DMXOUT Packets Received	0
KTYPE_GET Packets Received	0
KTYPE_SET Packets Received	0
PORTOUT Packets Received	0
PORTOUT Sync Packets Received	0
Set ID Packets Received	0
Set IP Address Packets Received	0
Set Universe Packets Received	0
Last IP	0.0.0.0
Last Port	0

KiNet

- Total packets received
- Discovery supply packets received
- Discovery ports packets received
- DMXOUT packets received
- KTYPE_GET packets received
- KTYPE_SET packets received
- PORTOUT packets received
- PORTOUT Sync packets received
- Set ID packets received
- Set IP Address packets received
- Set Universe packets received
- Last IP received from
- Last port data received from

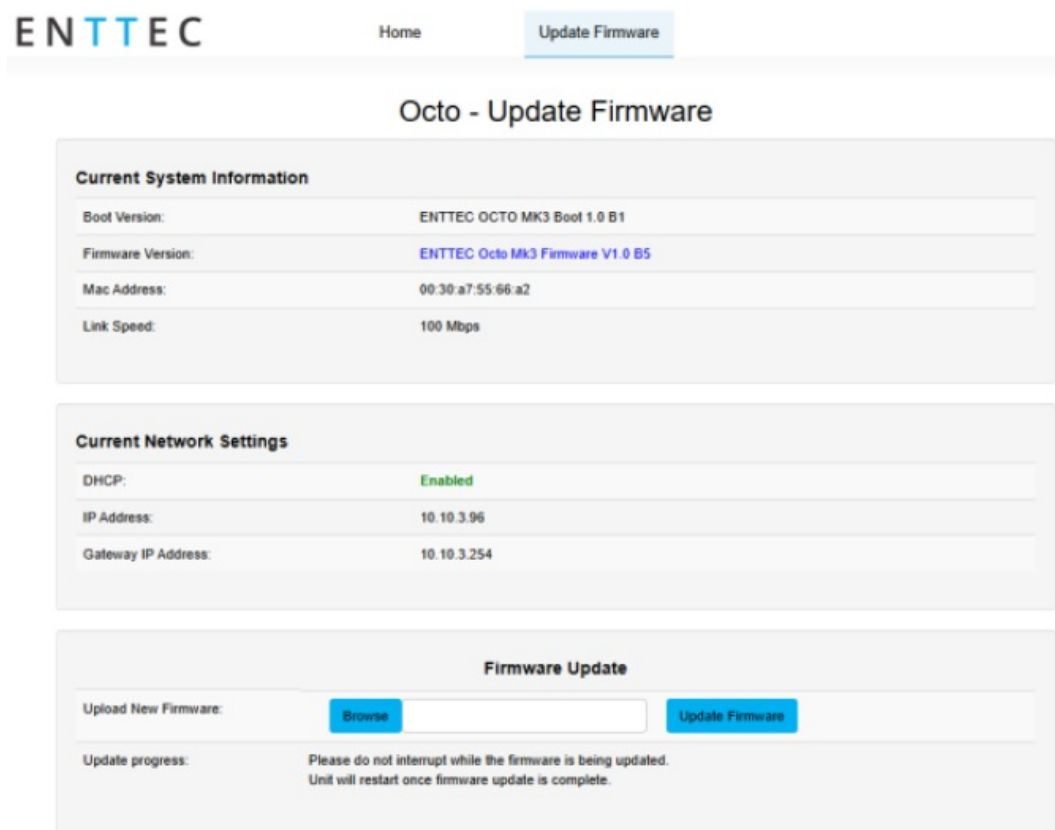
Updating Firmware

When selecting the Update Firmware tab, the OCTO MK3 will stop outputting, and the web interface boots into the Update Firmware mode. It may take a while depending on the network setting.

This will display basic information regarding the device including current Firmware Version, Mac Address and IP address information.

The latest firmware can be downloaded from www.enttec.com. Use the Browse button to select an OCTO MK3 firmware from your computer. OCTO MK3 firmware files have a .bin extension.

Next, click on the Update Firmware button to begin updating.



The screenshot shows the ENTTEC web interface with the 'Update Firmware' tab selected. The page title is 'Octo - Update Firmware'. It contains three main sections:

- Current System Information:**

Boot Version:	ENTTEC OCTO MK3 Boot 1.0 B1
Firmware Version:	ENTTEC Octo Mk3 Firmware V1.0 B5
Mac Address:	00:30:a7:55:66:a2
Link Speed:	100 Mbps
- Current Network Settings:**

DHCP:	Enabled
IP Address:	10.10.3.96
Gateway IP Address:	10.10.3.254
- Firmware Update:**

Upload New Firmware:

Update progress: Please do not interrupt while the firmware is being updated. Unit will restart once firmware update is complete.

After the update has been completed, the web interface will load the Home tab, where you can check the update was successful under Firmware Version. Once the Home tab has loaded, the OCTO MK3 will resume operation.

Reset to Factory Defaults

The OCTO MK3 can be reset by either the web interface or the reset button on the device. It resumes the device's settings back to factory default, see

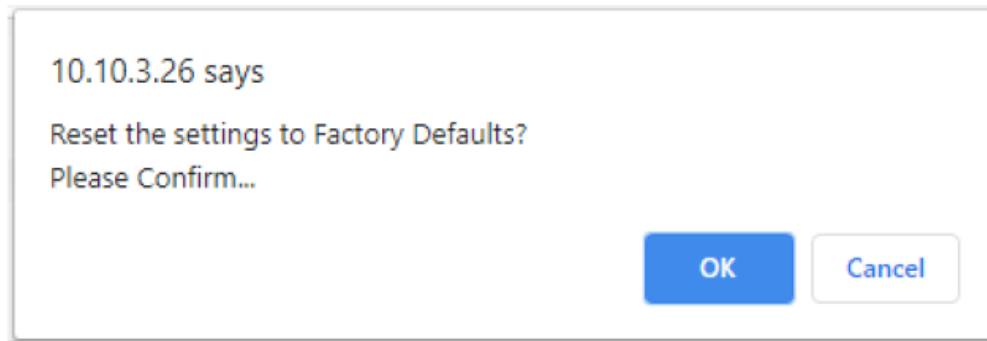
Resetting via Web Interface

The 'Reset to Defaults' command can be found under the Settings tab of the OCTO

MK3's locally hosted web interface.



Once the command is pressed, a pop-up would appear as shown in the image below:



Resetting by Reset Button

The reset button on the device restores the network configuration of the OCTO MK3 to factory defaults. To reset to factory defaults, the following procedure must be performed:

1. Power off the unit.
2. Press and hold the Reset button.
3. While holding the Reset button, power up the unit.
4. Keep holding the button until the LED turns yellow.
5. Power cycle the unit.

Frequently Asked Questions

I'm unable to connect to the OCTO MK3 web interface.

Ensure that the OCTO MK3 and your computer are on the same subnet.

To troubleshoot:

1. Connect the OCTO MK3 directly to your computer using a Cat5 cable and power it on.
2. Give your computer a Static IP address (e.g.: 192.168.0.20).
3. Change computer Netmask to (255.255.255.0).
4. Open ENTTEC EMU software.
5. Once EMU finds the OCTO, you will be able to open the device webpage and

configure it.

Factory Reset the device using the reset button if the above steps do not resolve the issue.

The OCTO MK3's factory default resets the OCTO MK3 to static IP address 192.168.0.10 and Netmask 255.255.255.0 with DHCP enabled.

When the OCTO MK3 has DHCP enabled but the DHCP server is unavailable (e.g. the device is connected to a computer without a DHCP server), the IP address will fall back to 192.168.0.10 with netmask 255.255.255.0.

What if my LED strip protocol is not on the drop-down list? How to add a new LED strip protocol to OCTO MK3?

The OCTO MK3 allows the user to choose a pixel output protocol even if it is not found in the drop-down list.

Visit the ENTTEC Website to view the 'OCTO MK3 Custom Protocol Creation Guide' document for more information about the key criteria and the step-by-step custom protocol creation guide.

What is the minimum DC voltage for powering the OCTO MK3?

The minimum DC voltage the OCTO MK3 requires to run is 5V.

Servicing, Inspection & Maintenance

- The device has no user serviceable parts. If your installation has become damaged, the device should be replaced.
- Power down the device and ensure a method is in place to stop the system from becoming energised during servicing, inspection & maintenance.

Key areas to examine during inspection:

- Ensure all connectors are mated securely and show no sign of damage or corrosion.
- Ensure all cabling has not obtained physical damage or been crushed.
- Check for dust or dirt build up on the device and schedule cleaning if necessary.
- Dirt or dust build-up can limit the ability of a device to dissipate heat and can lead to damage.
- The replacement device should be installed in accordance with all steps within the installation guide.

- To order replacement devices or accessories contact your reseller or message ENTTEC directly.

Cleaning

- Dust and dirt buildup can limit the ability of the device to dissipate heat resulting in damage. The device must be cleaned in a schedule fit for the environment it is installed within to ensure maximum product longevity.
- Cleaning schedules will vary greatly depending on the operating environment. Generally, the more extreme the environment, the shorter the interval between cleanings.
- Before cleaning, power down your system and ensure a method is in place to stop the system from becoming energised until cleaning is complete.
- Do not use abrasive, corrosive, or solvent-based cleaning products on a device.
- Do not spray devices or accessories. The device is an IP20 product.
- To clean an ENTTEC device, use low-pressure compressed air to remove dust, dirt and loose particles. If deemed necessary, wipe the device with a damp microfiber cloth.
- A selection of environmental factors that may increase the need for frequent cleaning include:
 - Use of stage fog, smoke or atmospheric devices.
 - High airflow rates (i.e., in close proximity to air conditioning vents).
 - High pollution levels or cigarette smoke.
 - Airborne dust (from building work, the natural environment or pyrotechnic effects).
- If any of these factors are present, inspect all elements of the system soon after installation to see whether cleaning is necessary, then check again at frequent intervals. This procedure will allow you to determine a reliable cleaning schedule for your installation.

Package Content

- OCTO MK3
- 2* WAGO connectors
- 1 * Din mounting clip & screws

Ordering Information


For further support and to browse ENTTEC's range of products visit the ENTTEC website.

Item	SKU
OCTO MK3	71522

Due to constant innovation, information within this document is subject to change.

ID: 5928937 Document Updated: Feb 2025

Documents / Resources

	ENTTEC OCTO MK3 8U LED Controller [pdf] User Manual 71522, OCTO MK3 8U LED Controller, OCTO MK3, 8U LED Controller, LED Controller, Controller
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References

- [User Manual](#)

71522, 8U LED Controller, controller, ENTTEC, LED Controller, OCTO MK3, OCTO MK3 8U LED Controller

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