

# ENTTEC



## OCTO MK2

71521

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### User Manual




eDMX to SPI pixel controller with standalone mode and an added overdrive feature capable of transmitting up to 16 universes of SPI data, all packaged in a compact 4-module DIN-rail form factor.

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## 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 MK2 is connected to your pixel dots or tape in a way that ensures data is flowing from the OCTO MK2 to the 'Data IN' connection of your pixels.
  - The maximum recommended cable distance between the OCTO MK2'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.

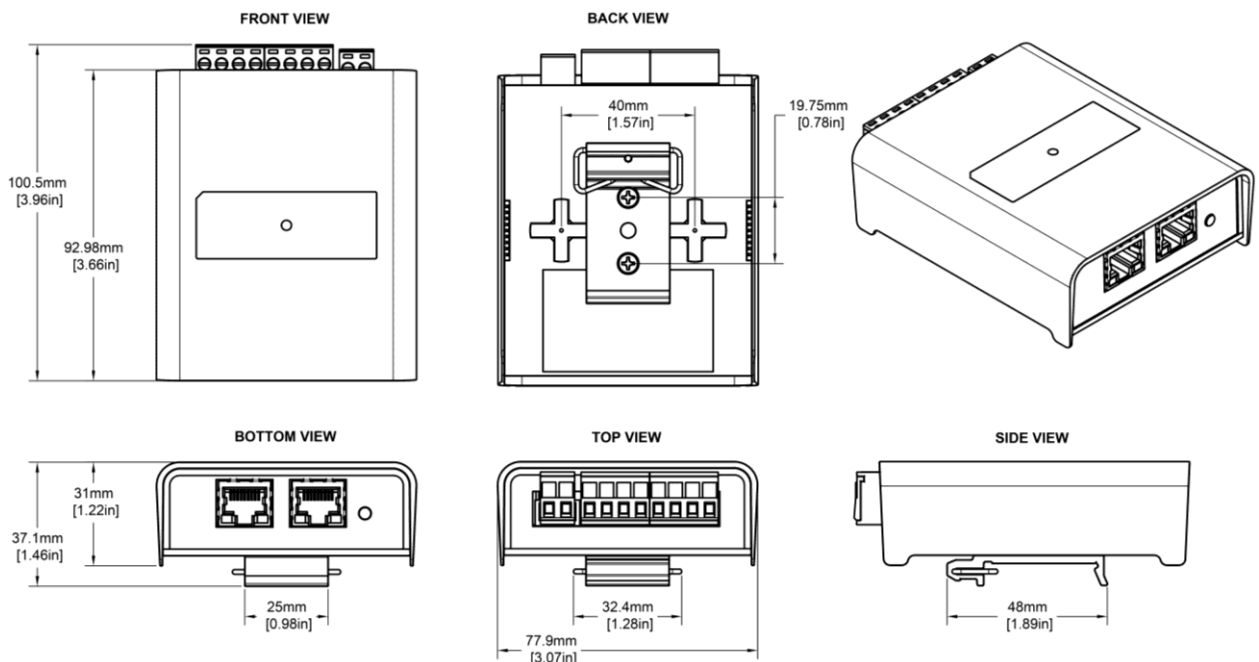
## Protection from Injury During Installation

- 
  - 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 MK2 and its accessories in its protective packaging until final installation.
  - Note the serial number of each OCTO MK2 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

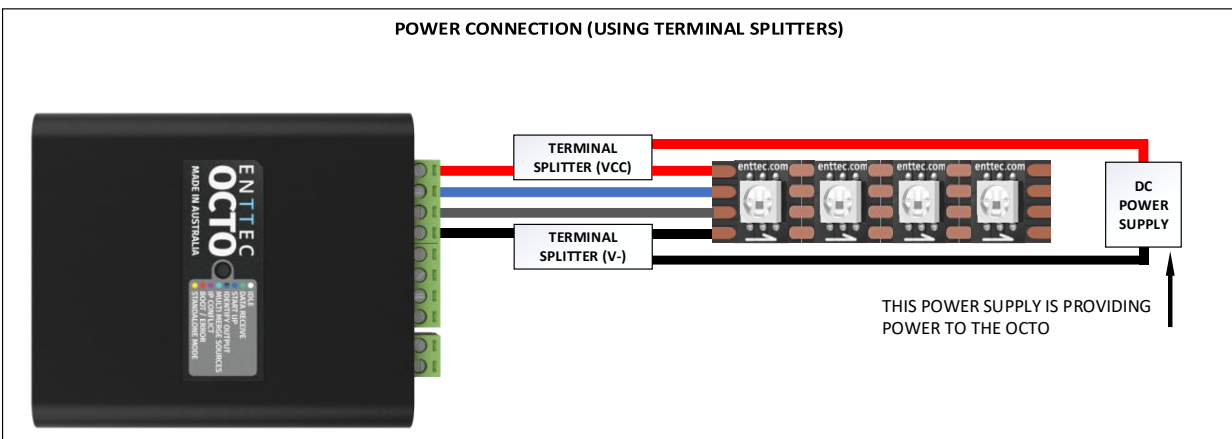
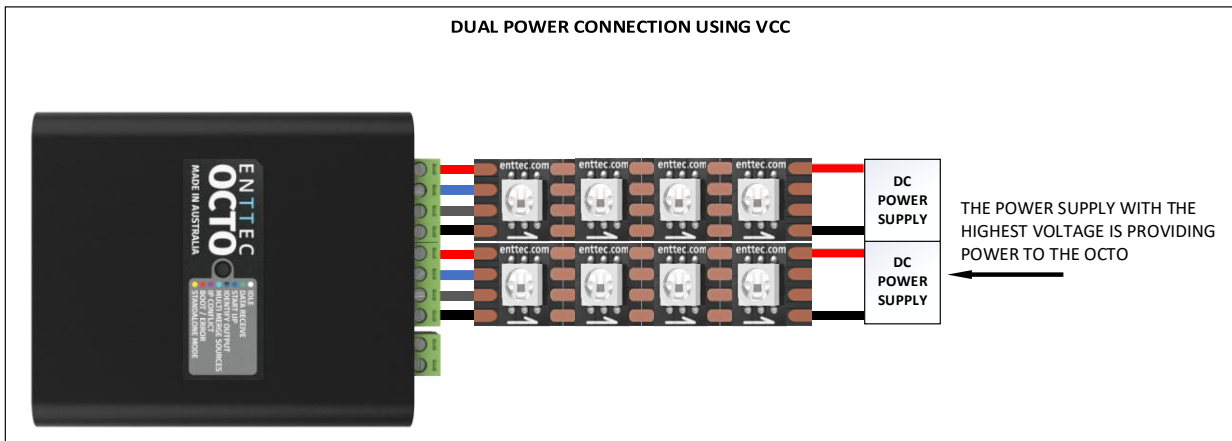
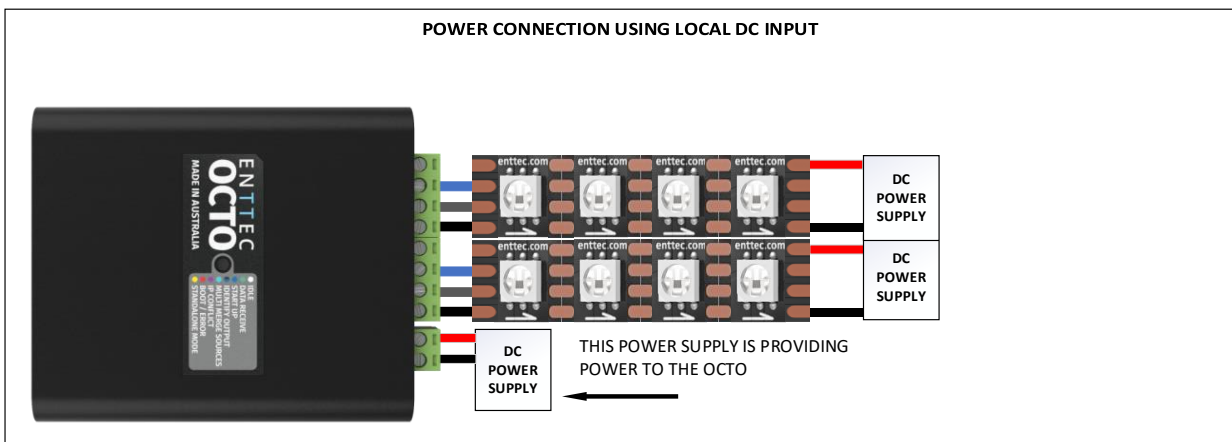
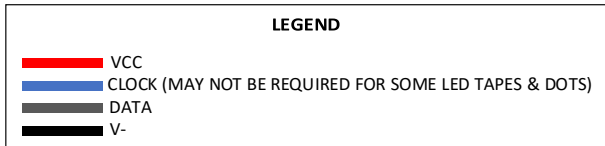
- 
  - The device is convection cooled, ensure it receives sufficient airflow so heat can be dissipated.
  - Do not cover the device with insulating material of any kind.
  - Do not operate the device if the ambient temperature exceeds that stated in the device specifications.
  - Do not cover or enclose 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 energized 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.

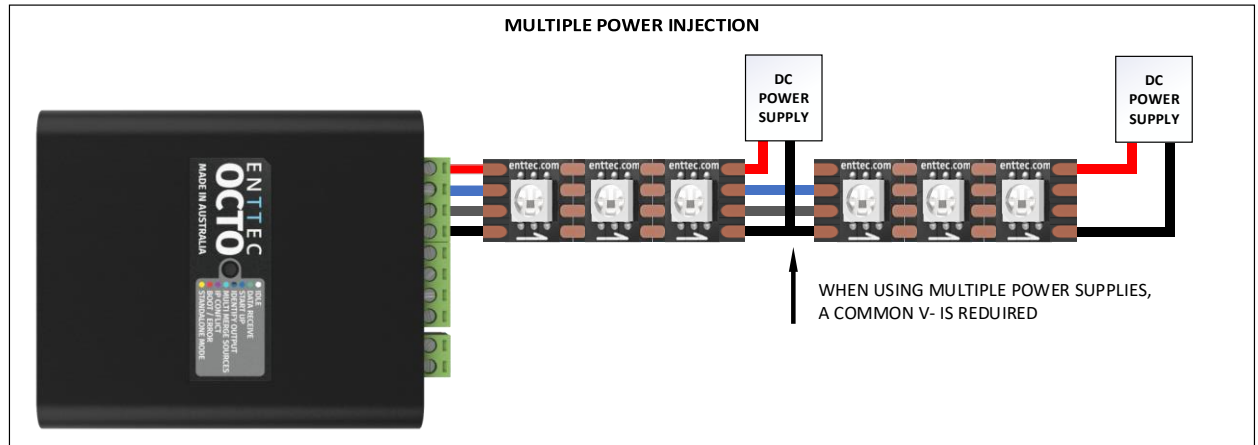
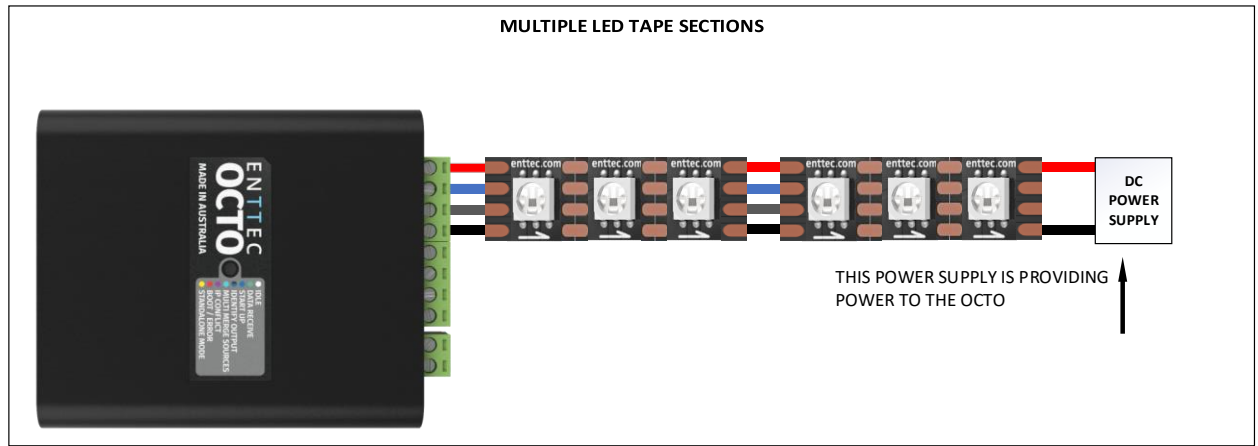
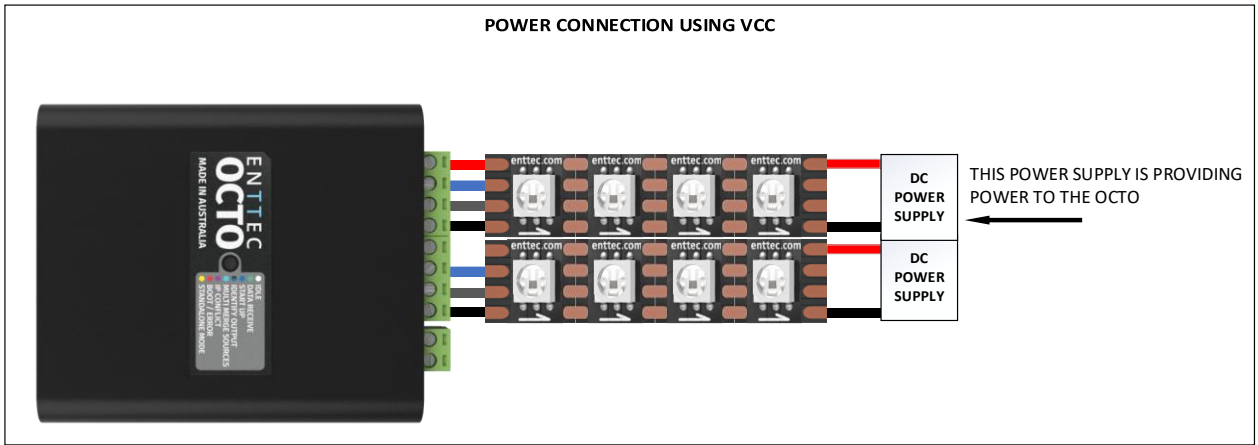
## Physical Dimensions



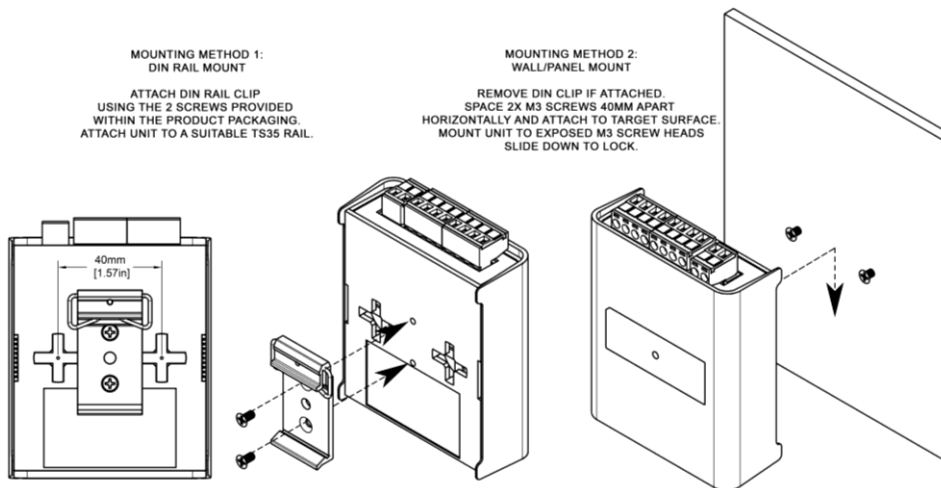
## Wiring Diagrams

- 
 ■ Locate the OCTO MK2 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 MK2's screw terminals.





## Mounting Options



**Note:** The surface mount tabs have been designed to hold the weight of the OCTO MK2 only, excess force by cable strain can cause damage.

## Functional Features

- Efficiently converts 8 Universes (4U per port) e-DMX to pixel control protocols.
- Supports input protocols: Art-Net, Streaming ACN (sACN), ESP, KiNet.
- Up to 16 Universe total output (8U per port) in Overdrive mode.
- Compatible with multiple synchronous and asynchronous pixel output protocols with custom voltage timing.
- Allows creation of custom pixel protocols. (Criteria apply, see '[Custom Protocol Creation Guide](#)'.)
- DHCP or Static IP address supported.
- Grouping functionality to reduce input channel count.
- Supports colour order options for RGB, RGBW and White Pixel.
- Inbuilt Fx engine allowing gradient effect in standalone operation 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 MK2's current state which indicates the following device states:

LED Colour	OCTO MK2 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 MK2 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 MK2.** (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
- 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 4 universes
- Mapped pixels value: 680 pixels
- DMX start address: 1
- Global intensity set to maximum for eligible protocols: APA-102, TM1814, SJ1221
- Standalone: Disabled



## Networking

The OCTO MK2 can either be configured to use a DHCP or Static IP address.

**DHCP:** On power up and with DHCP enabled, if the OCTO MK2 is on a network with a device/router with a DHCP server, the OCTO MK2 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 MK2 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 MK2.

**Static IP:** By default (out of the box) the Static IP address will be 192.168.0.10. If the OCTO MK2 has DHCP disabled, the Static IP address given to the device will become the IP address to communicate with the OCTO MK2. 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 MK2s 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 MK2 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

Configuring the OCTO MK2 is done through a web interface that can be brought up on any modern web browser. A Chromium-based browser (i.e. Google Chrome) is recommended for accessing the OCTO MK2's web interface.

**Identified IP address:** If you are aware of the OCTO MK2's IP address (either DHCP or Static), then the address can be typed directly into the web browser's URL field.

**Unidentified IP address:** If you are not aware of the OCTO MK2's IP address (either DHCP or Static) the following discovery methods can be used on a local network to discover devices:

- ENTTEC EMU software for Windows and MacOS (support Mac OSX 10.13 or later), which will Discover ENTTEC devices on the Local Area Network, displaying their IP addresses before opting to Configure the device, opening the Web Interface.
- An IP scanning software application (i.e. Angry IP Scanner) can be run on the local network to return a list of active devices on a local network.
- Devices can be discovered using Art Poll (i.e. DMX Workshop if set to use Art-Net).
- The device's default IP address 192.168.0.10 will be printed on the physical label on the rear of the product.



### Note

- As the OCTO MK2 is hosting a web server on the local network and does not feature an SSL Certificate (used to secure online content), the web browser will display the 'Not secure' warning, this is to be expected.
- The eDMX protocols, the controller and the device used to configure the OCTO MK2 must be on the same Local Area Network (LAN) and be within the same IP address range as the OCTO MK2. For example, if your OCTO MK2 is on Static IP address 192.168.0.10 (Default), then your computer should be set to something such as 192.168.0.20. It is also recommended that all devices' Subnet Mask are the same across your network.

## Top Menu

The top menu grants easy access to all OCTO MK2 web pages, with the active page highlighted in blue.

# 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

Additionally, 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 MK2 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 MK2 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
- Group Pixels
- DMX Start Address
- Universe buffer

Octo - Main							
System Information ⓘ							
Node Name:	OCTO						
Firmware Version:	ENTTEC Octo Firmware V4.2						
System uptime:	2 hours, 30 mins, 50 secs						
Network Information ⓘ							
DHCP:	Enabled						
IP Address:	10.10.10.58						
NetMask:	255.255.255.0						
Gateway:	10.10.10.254						
Mac Address:	d0:9f:d9:90:14:28						
Link Speed:	100 Mbps						
Pixel Mapping Information							
Outputs	Input Protocol	Pixel Protocol	Universe	Color Order	Mapped Pixels	Group Pixels	DMX Start Address
Output1 <small>override</small>	Art-Net	UCS8904-8bit	⇒ 0 1 2 3 4 5 6 7	WBGR	512	1	1
Output2 <small>override</small>	Art-Net	UCS8904-8bit	⇒ 4 5 6 7 8 9 10 11	WBGR	512	1	1



**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**

- APA102 and 9PDOT are not compatible with Custom Timing due to protocol data and timing structure.
- 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.

**Input Protocol:** Choose between Art-Net, sACN, ESP and KiNet as the input eDMX protocol.

**Universes:** Max 16U (8U per port). Overdrive mode activated automatically when configured to output more than 4U per port.

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 <small>overdrive</small>	Art-Net ▾	8 ▾	0	1	2	3	4	5	6	7	1	1	1024
Output2 <small>overdrive</small>	Art-Net ▾	8 ▾	8	9	10	11	12	13	14	15	1	1	1024

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 (2<sup>nd</sup>, 3<sup>rd</sup> ... up to 8<sup>th</sup>) are automatically assigned subsequent universes based on the first one.

**Example:** If the first universe is assigned 9, the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> 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 MK2 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](http://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 MK2 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 MK2, 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 MK2 can control.

#### DMX Start Address (DSA)

Assigns the first DMX channel, this is where the OCTO MK2 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 Settings:** All changes must be saved to take effect. The OCTO MK2 takes up to 10 seconds to save.

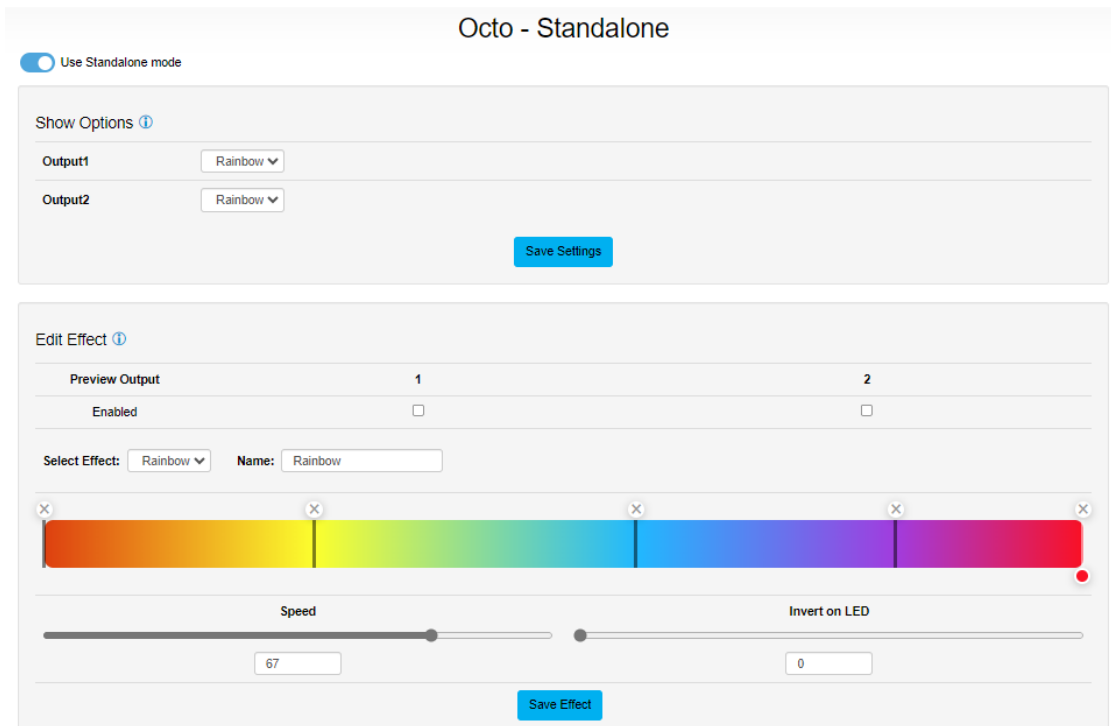
**Reset to Defaults:** This button allows the OCTO MK2 reset back to factory default via the web interface. Please refer to the 'Reset to Factory Defaults' section of this document.

**Reboot:** Please allow up to 10 seconds for the device to reboot. When the web interface page refreshes the OCTO MK2 is ready.

## Standalone

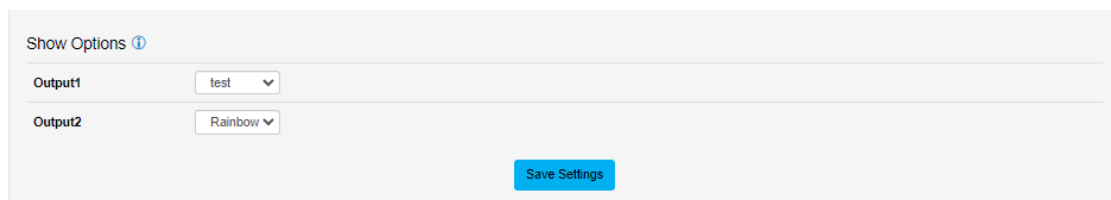
Standalone in OCTO MK2 allows users to create a looping gradient effect that can be set to playback from power on without the requirement of sending DMX data. This feature is also useful for testing the output of OCTO MK2.

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



### Show Options

In the Show Options section, the OCTO MK2 provides the capability to individually control standalone effects on both outputs. This allows for separate and customised control of effects on each output.

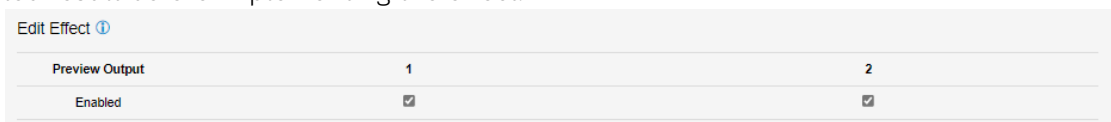


### Edit Effect

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.

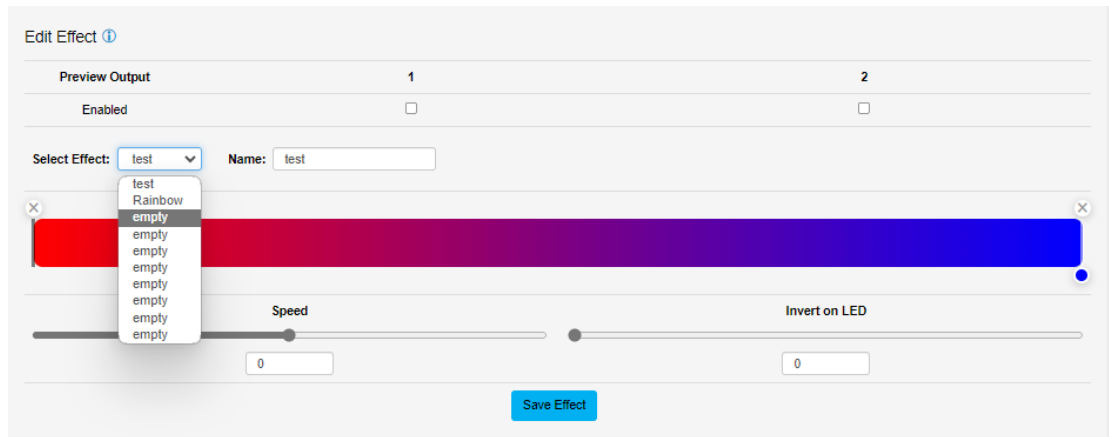
#### ■ Preview Output

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.

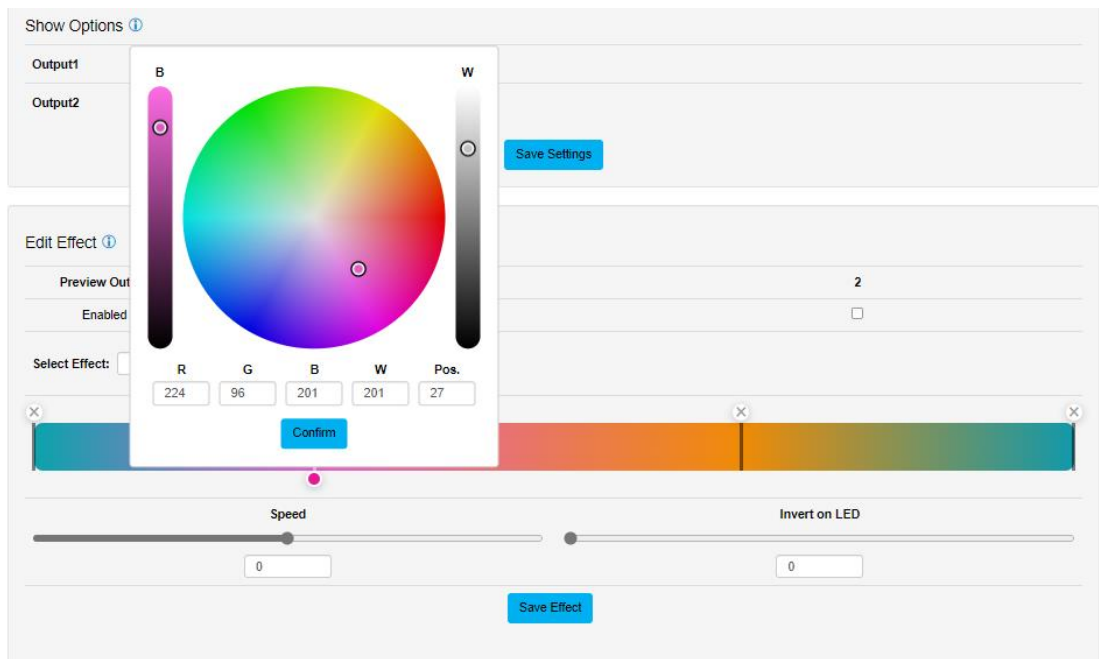


#### ■ Create/Edit a Standalone Effect

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



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

### ESP

- Total Packets Received
- Poll Packets Received
- Data Packets Received
- Last IP where ESP 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

### 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

Octo - Network

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

Summary	
Total Packets Received	606475
Poll Packets Received	0
Data Packets Received	606475
Sync Packets Received	0
Last IP	10.16.0.39
Last Port	6184

Octo - Network

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

Summary	
Total Packets Received	1827
Poll Packets Received	2
Data Packets Received	1824
Last IP	0.0.0.0
Last Port	6586

Octo - Network

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

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

Octo - Network

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

Summary	
Total Packets Received	3
Discovery Supply Packets Received	3
Discovery Ports Packets Received	3
DMXOUT Packets Received	3
KTYPE_GET Packets Received	3
KTYPE_SET Packets Received	3
PORTOUT Packets Received	3
PORTOUT Sync Packets Received	3
Set ID Packets Received	3
Set IP Address Packets Received	3
Set Universe Packets Received	3
Last IP	0.0.0.0
Last Port	3



## Updating Firmware

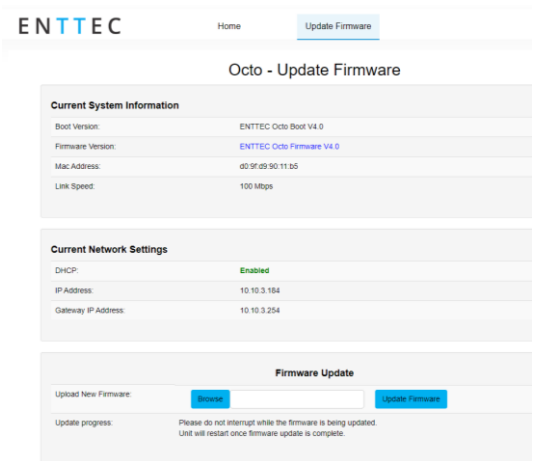
When selecting the Update Firmware tab, the OCTO MK2 will stop outputting and the web interface boots into the Update Firmware mode. It may take a while depending on the network setting.

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](http://www.enttec.com). Use the Browse button to select an OCTO MK2 firmware from your computer. OCTO MK2 firmware files have a .bin extension.

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

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 MK2 will resume operation.

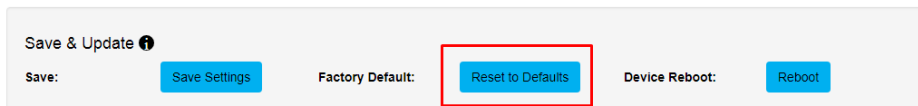


## Reset to Factory Defaults

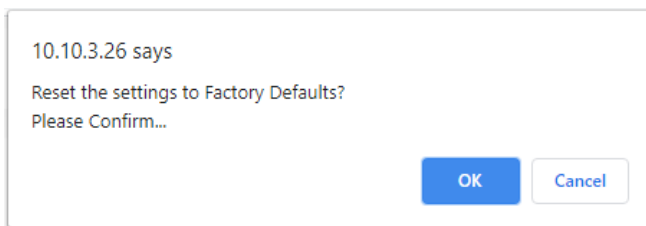
The OCTO MK2 can be reset by either the web interface or the reset button on the device. It resumes the device's settings back to factory default, see

### Resetting via Web Interface

The 'Reset to Defaults' command can be found under the Settings tab of the OCTO MK2'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 MK2 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 blinks red for 3 seconds.
5. Release the Reset button.
6. Power cycle the unit.

## Frequently Asked Questions

### I'm unable to connect to the OCTO MK2 web interface.

Ensure that the OCTO MK2 and your computer are on the same subnet.

To troubleshoot:

1. Connect the OCTO MK2 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 MK2's factory default resets the OCTO MK2 to static IP address 192.168.0.10 and Netmask 255.255.255.0 with DHCP enabled.

When the OCTO MK2 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 MK2?

The OCTO MK2 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 MK2 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 MK2?

The minimum DC voltage the OCTO MK2 requires to run is 4V.

## 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 energized 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 energized 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 MK2
- 2\* WAGO connectors
- 1 \* Din mounting clip & screws
- 1 \* ELM Promo Code (8 Universes) on the device's sticker.

## Revision History

Due to electronic design, please check your serial number and artwork on your device for support:

- OCTO MK1 (SKU: 71520) last SN: 2318130, Please load firmware up to V1.6.
- OCTO MK2 (SKU: 71521) SN: 2318635 to 2323030, please load firmware up to V2.1. MK1 firmware is not compatible with OCTO MK2.
- OCTO MK2 (SKU: 71521) SN 2341008 to 2350677, please load firmware V3.0 up to V3.1 only.
- OCTO MK2 (SKU: 71521) released after SN: 2374307, please load firmware version V4.0 onwards only.
- Use the Serial Number to claim a free license for ELM software unless there is a Promo Code sticker on the device. The ELM Promo code on the sticker is implemented from OCTO MK2 (SKU: 71521) SN: 2374307 onwards.

## Ordering Information

For further support and to browse ENTTEC's range of products visit the [ENTTEC website](https://www.enttec.com).

Item	SKU
OCTO MK2	71521

# enttec.com

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