# ENTTEC

## OPEN DMX ETHERNET ODE

## Box Contents

- Open DMX Ethernet (pn:70305 or 70306)

- Straight connect Ethernet lead (pn:79102)

- Power Adapter (pn: 79111) if you have the POE option, the power adapter is not included.

- This user manual

## Features

- 1 DMX port (5pin) - Male and Female connectors

- 1 Universe Art-Net to DMX node (Output mode)

- 1 Universe DMX to Art-Net (Input mode)

- Setup done through Node Management Utility

- Supports ESP and Art-Net protocols for DMX over Ethernet

- HTP Merging support : up-to 2 sources are merged by default and, can be extended to merge up-to 6 sources by purchasing additional plugin.

- 1 RJ45 Ethercon connector (10/100)

- Automatic multi voltage mains input

- 7V DC Power-supply supplied (not included with the POE model: PN 70306)

- POE (power over ethernet) supported RJ45 connector (only on POE model PN 70306)

## Safety

- Do not expose the ODE to rain or moisture, doing this will void the warranty

- Do not remove the cover, there are no serviceable parts inside

- This unit is intended for indoor use only

- DMX ports are non-isolated, please isolate DMX signal wherever possible to protect this unit from accidental power surge.

Basic Setup

Right out of the box the ODE is factory configured to be a DMX OUTPUT device, running on Art-Net Universe 0,0.
It can be either output or input, however, and can use any possible universe in Art-Net or ESP modes. It has configurable IP address as well. Use the free utility program, Node Management Utility (NMU – available for Windows and Mac), to change the configuration on your ODE.

Please note, ODE only supports static IP address (DHCP is not supported) and comes with factory set IP address set to 10.a.b.c (where a,b,c relates to the Serial number of the ODE) This IP address is also printed on the box (top label).

If NMU or any App has trouble finding ODE on your network , please connect the ODE direct to your computer with your computer's IP address set to 10.0.0.1 and Net-mask set to 255.0.0.0

Use NMU to change ODE IP address, modes (input or output), protocol support (Art-Net or ESP) and the universe the ODE sends or receives data on.

Once setup, any Art-Net supported software or App can be used to send DMX out of the ODE. For recommended apps, please check the website **www.enttec.com/ode**

## LED Status

The ODE comes with four LED indicators located between the DC power jack and the RJ45 ethercon connector.

1. **Status**: This LED will blink when the ODE is operating normally.

2. **Port Direction**: The LED will be ON when the DMX port is in Output mode, and OFF when the DMX port is in input mode.

3. **Ethernet Link**: This LED will be ON when there is an Ethernet Link.

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

## DMX Connector pin out

**5pin DMX OUT/ DMX IN**:

- Pin 1: Ground

- Pin 2: Data -

- Pin 3: Data +

- Pin 4: NC

- Pin 5: NC

Any suitable 3 to 5pin DMX adaptor can be used to connect to 3pin DMX cables or fixtures. Please note the pinout, before connecting to any non-standard DMX connector.

## NMU configuration

NMU (Node Management Utility) is the free Windows and OSX application used to manage compatible ENTTEC DMX over Ethernet nodes including ODE and ODE-POE
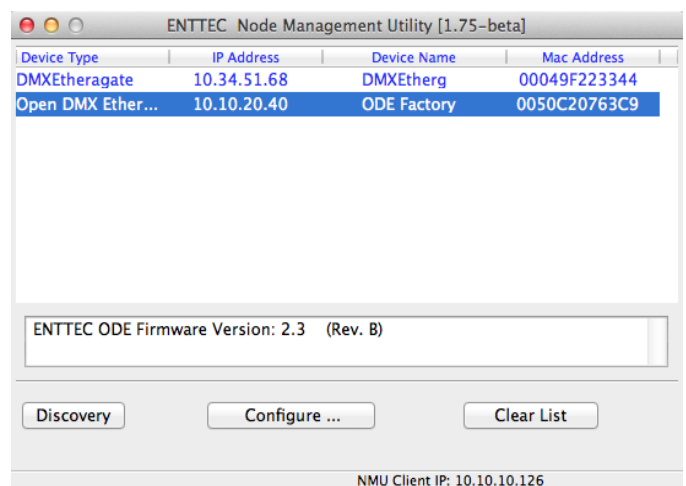
NMU bypasses all your TCP/IP settings allowing you to reconfigure nodes in a plug and play fashion, how ever they are configured.

To employ the NMU, follow this set of instructions:

1. Please download and install NMU application from the Enttec website : **www.enttec.com/nmu**

2. Ensure that your ODE is hooked up physically by Ethernet cable to the same physical network as the computer on which you will run the NMU.
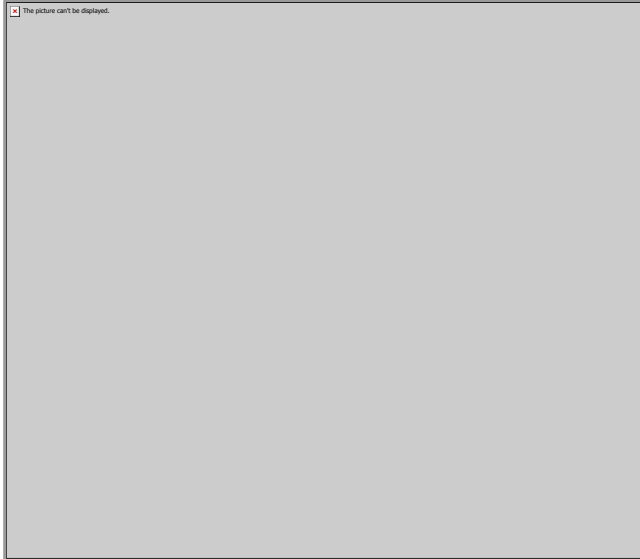
This can be done directly to the ethernet port on your computer or through a switch. When you plan to use multiple ODEs you will need to use a switch.

3. Start the NMU application.

4. Select the correct IP address from multiple networks (if prompted by NMU), that is connected to ODE

5. Press the Discovery button

6. Once found, ODE will appear in the device list, with it's IP address and configured name. Select the ODE and click on configure button to get to the Configure ODE window, from where most of the settings can be changed.

7. At your option, you may choose to enter a new name for the ODE in the Device Name field. Calling it "Truss 1" or "Onstage Dimmers Universe" may be convenient to your application, for instance.



8. If you need to adjust the IP Address for your application, it may be done here. While many users can expect the ODE to work fine with factory default IP, some networks will be a bit trickier. If it works for you as is, don't bother changing anything here, but if you're trying to troubleshoot, a valuable tip would be to choose an IP which is similar in the first 3 numbers (but distinct in the last) from other elements of your lighting system. For further information about this

consult a Network Manager or IT expert who knows your local Ethernet setup well.
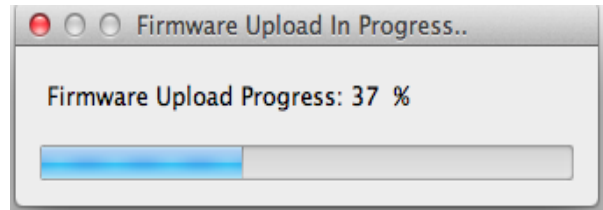


9. Choose which protocol you wish to use, between Art-Net (default) and Enttec Show Protocol (or ESP). Art-Net is supported very widely by other hardware and software, so you have both options available.

10. Universe and/or subnet may be configured as needed, if this is to be the 1$^{st}$ universe in your setup, leave it at 0-0.

11. Port direction: when set to output (default), it outputs DMX, and when set to input it receives DMX and outputs Art-Net or ESP (as configured)

12. Once you have it all set up the way you'd like, click on Save Config button to send this information to the device.

13. You can then close the application and use the ODE right away. Congratulations, you're done!

## Firmware Update

To update the firmware on the ODE, you can perform a simple operation using the NMU App. Follow Steps 1-6 as described above in the NMU configuration section. Then click the button at the bottom called "Update Firmware …"

Upload the correct firmware file for the version of your ODE (latest firmware is available at **www.enttec.com/ode**).



A small progress window will pop up showing the percentage of completion achieved as the procedure happens.

When it reaches 100%, another window will alert you that it successfully completed this operation and that you can Click OK to refresh the list of devices which the NMU can see.

Since, ODE will reboot after a firmware update, please allow a few seconds for it to be found by NMU. You can verify the firmware version by the text at the bottom, which is displayed when ODE is selected in the NMU device list

## Emergency Firmware Recovery

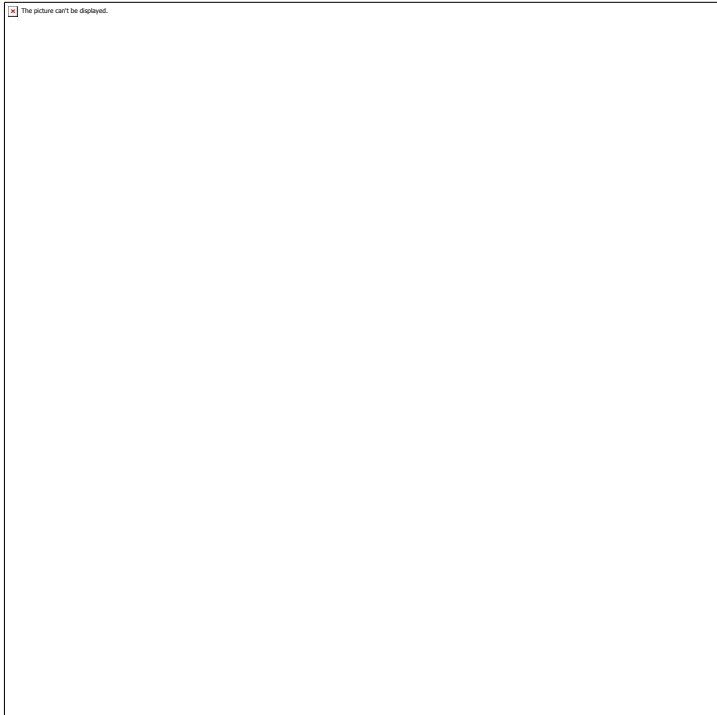If instructed by enttec support to force a firmware update, please follow this procedure.
With NMU opened :
Please Click on File->ODE Emergency Firmware Recovery

NMU will then guide you through the steps needed to restore the ODE. Please follow as directed and reboot the ODE as and when instructed. It is advisable to connect the ODE direct to the computer (no switch or router) while doing this procedure.

## Art-Net Send Test

NMU can also be used to troubleshoot the DMX output on your ODE. Art-Net Test can be accessed from the top menu: Artnet → **Artnet Test** or from within the ODE configuration window (button called **SEND Art-net** ...)



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.Set the universe to be the same as configured on the ODE, and change the Send to either broadcast or send direct to the ODE IP address
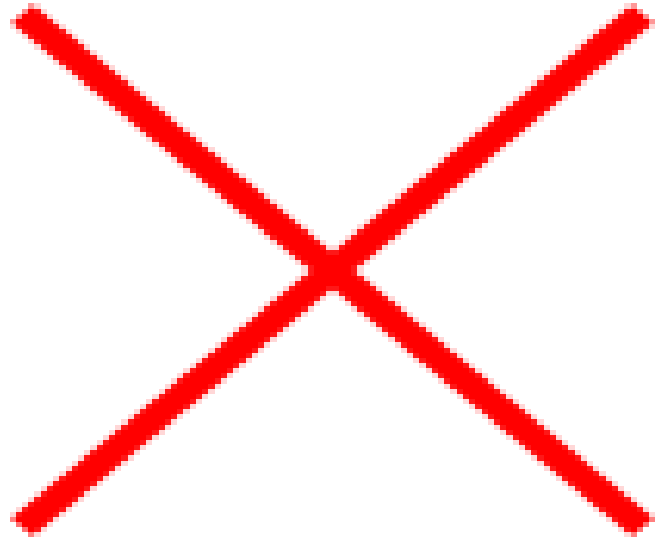
## ODE Plugins

Add Extra functionality to your ODE using plugins. These plugins can be enabled and configured using NMU. The Plugin License Key is unique for each ODE and will only allow you to activate the plugin for that ODE.

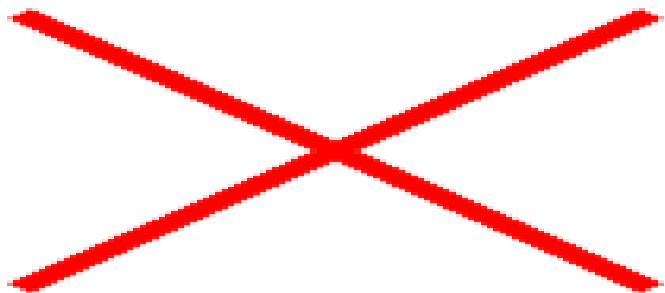For purchase of ODE plugins and more information please check the website:  **www.enttec.com/ode**

## Specifications

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



## Ordering Information

ODE and related products can be ordered from our website or through your ENTTEC dealer using the following part numbers.

## Registration

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

# enttec.com

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