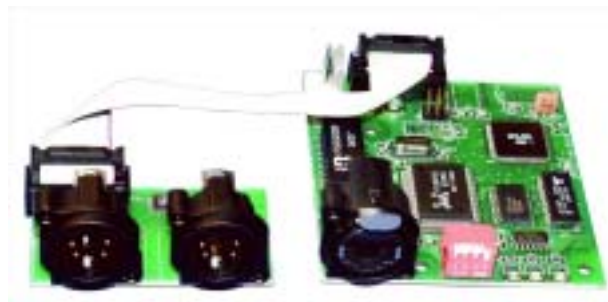


## OPERATING MANUAL

### DMX Ethernet Node „ETHERGATE“ Mk2 UPDATED MANUAL



## PREFACE

This manual is a shortform manual for the EtherGate 7400A. The Ethergate exists in two versions, Mk1 (original version) and Mk2 (updated version). This addendum is for the EtherGate Mk2 and is to be used in addendum to the basic manual.

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# Introduction

Thank you for buying the DMXEtherGate Mk2. At SOUNDLIGHT we are proud of our products and we hope you will enjoy them as much as we enjoy making them.

On the pcb, you will find :

- RJ45 Ethercon connector for a 10Base-T ethernet connection
- Dip-switches to set the DMX universe and configuration
- Status Led indicating if the device is powered up and running
- Activity Led indicating the presence packets on the network
- Link led indicating the presence of an ethernet connection
- 2 DMX connectors, depending on the model you have this might be male DMX input, or female DMX output.

# Features

The DMXEtherGate Mk2 combo provides the following features:

- Full 512 channel DMX512 ethernet gateway.
- Up to 256 universes.
- Plug & Play or Configured mode.
- Unlimited Remote node-universe bindings.
- Node naming.
- IP addressable.
- Simple communication protocol.

Limitations:

As the DMXEtherGate Mk2 is reliant on ethernet, if you are using an existing computer network and sharing the traffic, you might experience delays and drop of the update rate.

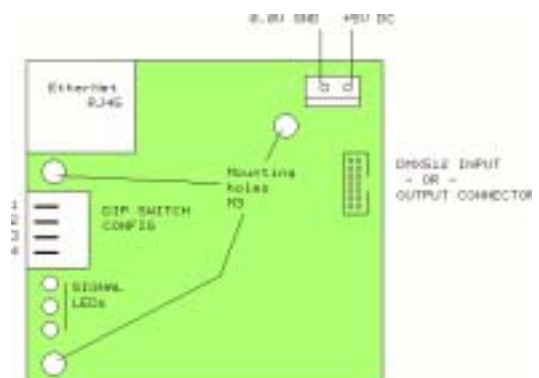
# Connector pinout

**DMX OUT** for DMXEtherGate Mk2 OUT:

- Pin 1: Ground
- Pin 2: Data -
- Pin 3: Data +
- Pin 4: nc (not connected)
- Pin 5: nc (not connected)

**DMX IN** for DMXEtherGate Mk2 IN:

- Pin 1: Ground
- Pin 2: Data -
- Pin 3: Data +
- Pin 4: nc (not connected)
- Pin 5: nc (not connected)



**POWER SUPPLY:**

5.0V DC +/- 0,25V, approx 80mA idle, 100mA traffic

# Configuration

On the front panel of the DMXEtherGate Mk2 you will find 4 DIP-Switches.  
The dip-switches let you set the universe in Plug&Play mode and reset the node.

## Switch settings

1	2	3	4	Description
OFF	OFF	OFF	OFF	Web configuration
ON	OFF	OFF	OFF	System Mode
OFF	OFF	X	X	Output node
OFF	ON	X	X	Input node
OFF	X	OFF	ON	Universe 1-2
OFF	X	ON	OFF	Universe 3-4
OFF	X	ON	ON	Universe 5-6

X = Not important

After changing the universe setting please make sure you reset the node. The node will only read the dip- switch configuration on startup. To use the node in Web configured mode, you must leave the dipswitches all OFF. To set the node in Plug & Play mode and universe 1, set the node to universe 2 and then switch back to universe 1.

When the node is set to Plug&Play mode, all the default parameters will be loaded back into memory.

Attribute	Default	Description
Name	"DMXEthergate 2 port"	Node name.
IP Address	See below	IP address of the node.
Transmission	Full Broadcast	Data is broadcast onto the network.
Data type	RAW DMX	Uncompressed DMX packets are sent on the network.
Protocol	ESP (ENTTEC)	

The default IP address of the node is composed by the unique MAC address of the node e.g.: a node with a MAC address of 01-02-03-04-05-06, will have a default IP of:10.04.05.06. The first address byte is always 10.

## Getting Started (Plug & Play operation)

Before powering, start by setting the universe associated with this node. To do this toggle the dipswitches as indicated on the front panel. The universe configuration is read once on startup; changing it once the unit is powered will have no effect. Connect the power to the DMXEtherGate Mk2. Once the unit is powered, the status led will stay on.

Now connect the DMX512 network to the DMXEtherGate Mk2 (node). If you are using an OUT node, you will connect your lighting fixtures or dimmers, if it is an IN node you will be connecting the lighting console.

Each DMXEthergate is built with a set of DMX connectors male or female. You can change an input node to an output node simply by changing the switch 2. In this case you also need to make an adapter to change the gender on the DMX connector, or you can purchase a new connector set from the factory.

## Ethernet Connection

Plug in the ethernet connector. The link LED must turn on as soon as the ethernet is plugged in. If not, you will need to check the cable and the device connected to the other end of the cable.

You might see the Activity LED blinking, this will depend on the current activity on the Ethernet network. Once the Ethernet connection is established between the IN and OUT nodes, DMX should pass through immediately.

If you have connected the 2 nodes together *without* using a HUB please make sure you have used a *cross-over* patch lead. Otherwise it will not work.

## Trouble shooting

### No Ethernet traffic

If there is no DMX on the DMXEtherGate Mk2 IN, the node will not send DMX packets on the ethernet. If there is a valid DMX signal but the values are always the same, a packet will be sent on each second.

If you have checked all physical connections and all are good, please load the GateConfig software from the CD. Install and run the software on a networked Windows computer.

### DMX Output does not change

By moving a fader on the console, you should see the Activity led blink faster on the output node. If the led does blink faster and the values do not change, please check that the IN and OUT nodes are set on the same universe.

Change the dipswitches so they are on the same universe and then, cycle the power. To ensure the unit resets when you cycle the power unplug the DMXEtherGate Mk2, wait 5 seconds and then turn the power back on.

## Configured state

### Why use the configured state ?

You might have to configure the nodes if :

- > You have multiple nodes on the same network and wish to configure them from a remote location.
- > You want to create complex bindings and patches.
- > You have more than 6 DMX512 universes.
- > You wish to monitor the Ethernet traffic generated.
- > You wish to change the DMX over ethernet protocol used.

### Configuring a node

To configure the node, you can use any web browser such as Internet explorer, Netscape or other.

Type in the address of the node in the address bar like this:

http://10.5.2.6, where 10.5.2.6 is the IP address of the DMXEthergate Mk2. By default , the IP address is 10.x.y.z where x,y and z are the last 3 numbers of MAC/Serial number.

### IMPORTANT NOTES:

1. Please note that the serial number (MAC) is in hexadecimal format, e.g. 00 50 C7 07 54 FA. For this serial, the IP address would be: 10.07.84.250 since \$07=7, \$54=84, \$FA=250. Hint: use the windows calculator!

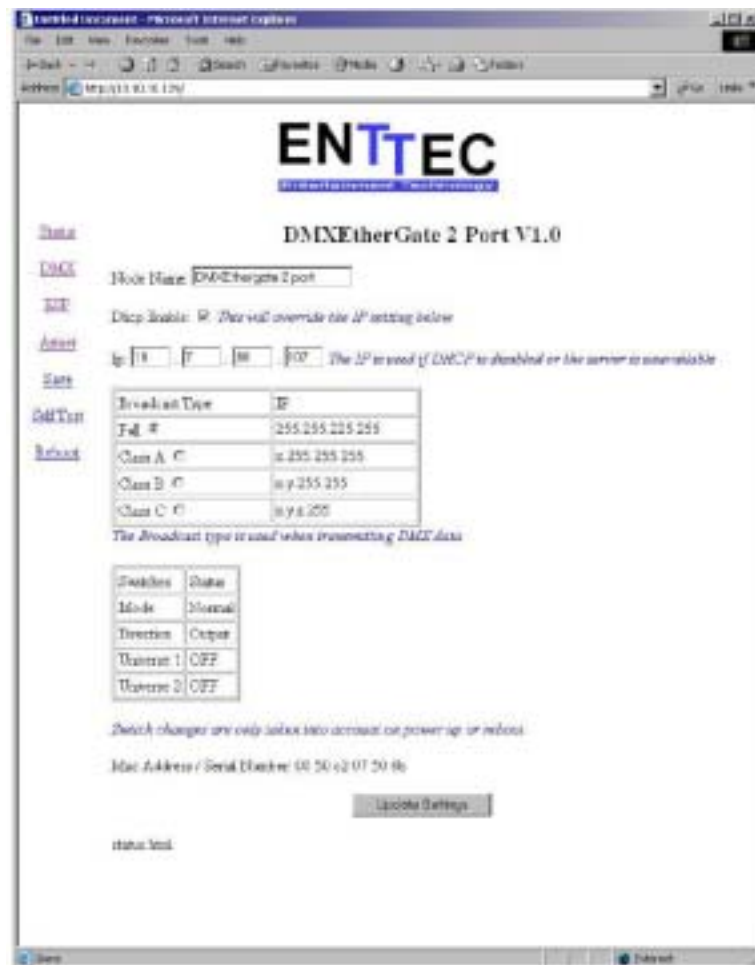
- The DMXEthergate has a default netmask of 255.255.255.0, you will need to set your computer IP in that same class C network. Otherwise the DMXEthergate will not be able to talk to your computer. In any case it is best to consult your IT administrator.

For the example above, set your computer to:  
10.07.84.100, Subnet 255.255.255.0

Once the IP address of your EtherGate is typed into your favorite web browser (example: http://10.7.84.250) the main page should appear:

### Status Page

The main page is the status page; it displays general information about the node.

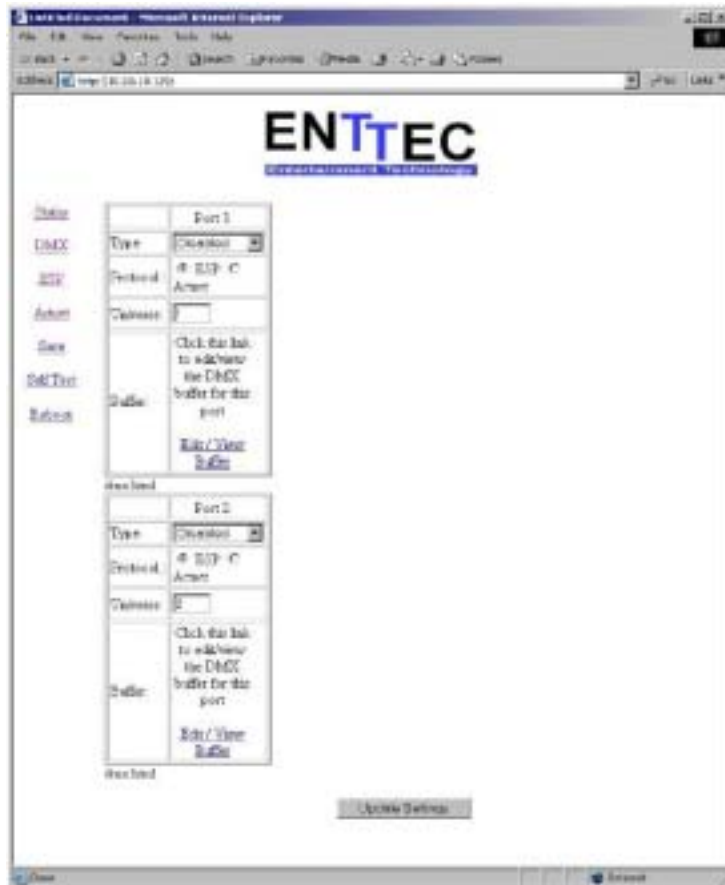


**Node Name:** The node name is displayed when using protocols such as Artnet

**DHCP Enable:** Ticking this box will enable DHCP configuration of the IP address. You must have a DHCP server running on your network for this to work. If not, the node will wait for 60 seconds for a response then use the pre-configured IP address. During the DHCP timeout no DMX is sent or received.

**IP:** This is the IP address that is used if DHCP is disabled.

**Broadcast Type:** When sending DMX data, the node will broadcast on the selected network class.



## DMX

The DMX menu is used to configure each DMX port.

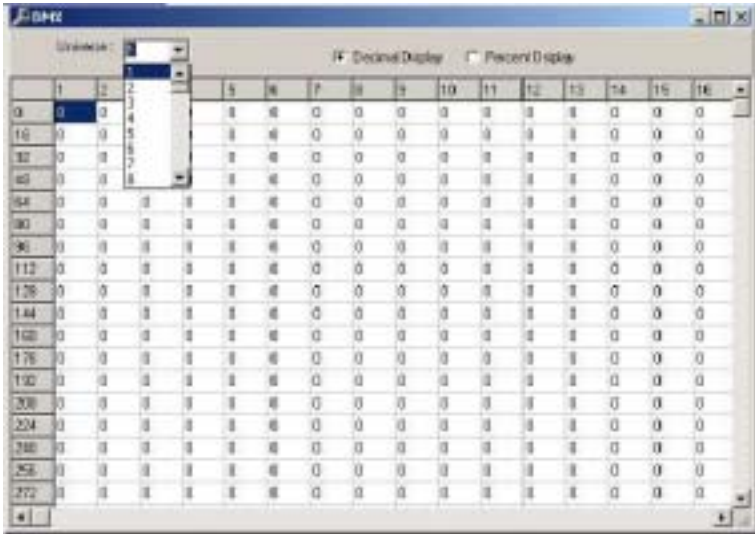
- Type:** Use this drop down box to select if the port is Disabled, Input or Output. The port can also be set for RDM (talk back) operation.
- Universe:** This is the universe assigned to this port, from 1 to 256.
- Buffer:** by clicking on the link you can view or edit the DMX buffer associated with this port. This can be used to modify values

### Saving your settings

When you make a change to any setting, make sure you click on the update setting button on the bottom of the page. The change will take effect immediately but is not saved in non volatile memory.

To save the changes permanently click on the SAVE link in the menu.

# Monitoring



GateConfig available from the tool CD can be used as a monitoring tool. By clicking on the DMX menu, you can monitor the values of all DMX channels for every universe been sent over the Ethernet.

You can also use this as a debugging tool. You can monitor the nodes on your network and also check the amount of traffic been generated.