

Down-Lynx User Guide

Version 2.2

Down-Lynx is a wall-mounted panel Ethernet to DMX512 converter. It converts Art-Net Ethernet data into two universes of DMX512.

Key Features include:

- ❑ DMX routing by Ethernet
- ❑ Connect up to 256 DMX Universes to one network
- ❑ Two DMX512-A compatible outputs
- ❑ 10BaseT Ethernet Port
- ❑ RDM (Remote Device Management V1.0 (E1.20 - 2006 ESTA Standard))
- ❑ Power indicator
- ❑ Data activity indicators
- ❑ Art-Net Compatible
- ❑ Internal Web-Server for configuration
- ❑ Configurable DMX output refresh rates
- ❑ UK & US panels available
- ❑ PoE Compatible

Specification:

Input Voltage:	9-48VDC
Power:	2W
Current:	40mA @ 48VDC
Dimensions: (W x H x D)UK:	146 x 85 x 39mm, US: 162 x 114 x 41mm
IP:	Indoor use only
Listings:	CE, FCC
DMX Output Connections:	XLR5
Network Connections:	XLR-RJ45
Power Connection:	2 pin Jaguar Header & PoE (RJ45)
Isolation Ethernet Port:	Total Isolation
Isolation Power Input:	Total Isolation
Isolation DMX A/B:	Common Ground
Default IP Address:	2.x.x.x

Power Supply Options: (order separately)

PSU Option	Number of Units
Art-Switch PoE4	34(requires 1 x PSU-48-5-DR)
Tour-Lynx	6 or 12 (requires 1 PSU for each block of 6)
Insta-Lynx	6 or 12 (requires 1 PSU for each block of 6)
PSU-24-2-WM2	PSU units for above



- Down-Lynx is mounted in a standard wall panel.
- The Ethernet connection is made via an RJ45 connector (internal).
- The power input can be either from the Ethernet cable using the IEEE 802.3 PoE standard, or from an external power supply.
- The front panel provides two DMX512-A outlets. Each outlet supports the Remote Device Management Protocol (RDM), V1.0 (E1.20 - 2006 ESTA Standard).
- Configuration is simplicity itself. The three rotary dials are used to select the required DMX512 universe.
- Alternatively the internal Web-Server or DMX-Workshop can be used to configure the module.

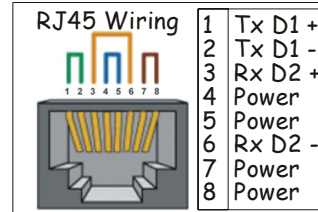
Communication:

Ethernet Interface:

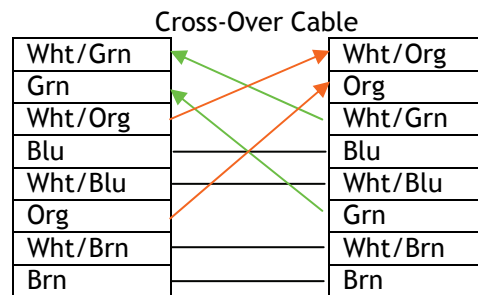
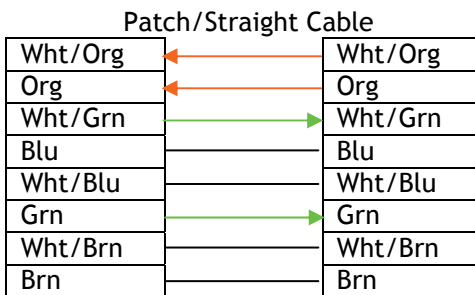
Connect to 10BaseT Ethernet Hub/Switch using Cat5 or better cable

Wiring Detail:

The following guide should be used if custom Cat5 cables are being used



Connecting Down-Lynx to:	Cable to be used:
Ethernet Switch	Patch/Straight Cable
Computer or Node	Cross-Over Cable



DMX Wiring:

The DMX512 is connected to the 5 pin XLR on the front panel. Cable connection is as follows:

XLR Pin (Convention)	Function	Colour (Convention)	RJ45 Pin (DMX512-A)	Cat5 Colour
1	Ground	Black	7 & 8	Wht/Brn & Brn
2	Data -	Blue	2	Org
3	Data +	Red	1	Wht/Org
4	No Connection			
5	No Connection			

Device Operation:

Switches:

- Sub-Net: Set the product address (usually zero)
- Universe Select A/B: DMX512 universe number for A or B

NB: If all the indicators flash when a switch setting has been changed, the product will have been locked by the network administration software.

Indicators:

- POW: On when unit is powered. Flashing if hardware fault detected
- DMX A/B: On when data is transmitted
- COM: On when network data is active

Device Configuration:

Jumper Settings:

In normal operation, no configuration is necessary. In the event of a Network IP address clash, four option jumpers are provided:

Jumper	Option
JP4	Connect to switch to the alternate 10.x.x.x network
JP5	Connect to disable RDM
JP6	Connect to invert the low byte of the IP address
JP7	Connect and cycle power to defeat all custom settings

Wheel Settings:

As the Down-Lynx can be programmed to operate on non-standard IP addresses, it is sometimes useful to override these settings.

To do this, set all of the front panel wheels to the 'F' setting. Cycle the power. The module will then respond on the standard Art-Net addresses as defined by JP4 & JP6 above.

Web-Server:

To configure the Down-Lynx via the internal web-server either type the IP address of the unit or if your web-browser supports NetBios then use the name; downlynx.

The internal web page will show the current status of the module, such as it's DMX status and IP address.

There are two options;

- DMX Settings
 - Sets universe & sub-net values
 - Disables RDM messages (outputs only)
- IP Settings
 - Set a custom IP address, sub-net and Gateway IP

For advanced DMX settings use the IP address of the module and the link;

<http://xxxxxx/editdmx.xml>

Sets the refresh rate of the DMX port (output only)

Power:

Power Requirements:

15VDC to 48VDC @ 200mW (RJ45)

9VDC to 48VDC @ 200mW (XLR)

Connection Options:

- ❑ Powered Hub: Connect to IEEE802.3 PoE compliant 10BaseT Hub/Switch. This will provide device power via the Ethernet connector
- ❑ Independent Power: Connect DC power as specified above to the 2 pin Jaguar Connector located near the RJ45

Error Messages:

On power up Down-Lynx goes through a number of self checks to ensure that it is functioning correctly. If an internal fault occurs the LED's are used to display an error code.

LED State	Description
Stat & All Alternatively Flashing	SRAM Fault*
Net & All Alternatively Flashing	E2Prom Fault*
Port A & All Alternatively Flashing	System ROM Fault*
Net Flashing	Module is in Boot Loader Mode
All LED's Flashing three times	Sub-Net or Universe Switch is locked out
Port LED Flashing	Output is merging data

* = Contact Artistic Licence for advice

The Art-Net Range:

- ❑ Down-Lynx - A wall-mounted panel Ethernet to DMX512 converter
(Available in UK or US formats)
- ❑ Up-Lynx - A wall-mounted panel DMX512 to Ethernet converter
(Available in UK or US formats)
- ❑ Net-Lynx O/P - A desktop Ethernet to DMX512 converter
- ❑ Net-Lynx I/P - A desktop DMX512 to Ethernet converter
- ❑ Cata-Lynx I/P - A 1U rack mounted DMX512 to Art-net converter
- ❑ Cata-Lynx O/P - A 1U rack mounted Art-Net to DMX512 converter
- ❑ Data-Lynx I/P - A 1U rack 12 universe DMX512 to Art-Net converter
- ❑ Data-Lynx O/P - A 1U rack 12 universe Art-Net to DMX512 converter
- ❑ Data-Lynx IO/P - A 1U rack 12 universe, mixed DMX512 to Art-Net & Art-Net to DMX512 converter
- ❑ AL5001 - Art-Net to dual output DMX512/RDM module
- ❑ AL5002 - Dual DMX512 input to Art-Net module
- ❑ AL500x Evaluation PCB - An evaluation PCB for the above modules
- ❑ Art-Lynx I/P - A DIN rail mounted dual DMX512 to Art-Net converter
- ❑ Art-Lynx O/P - A DIN rail mounted Art-Net to dual DMX512/RDM converter
- ❑ Art-Switch PoE4 - A DIN rail mounted 5port Ethernet switch with 4 PoE ports
- ❑ Rack-Switch PoE12 - A 1U rack mounted 14port Ethernet Switch with 12 PoE Ports
- ❑ Rock Solid Ethernet Book - A guide to the world of Ethernet Technology
- ❑ DMX-Workshop - A free windows application that allows the user complete control over an Art-Net network

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