



dmXLAN switchGBx 18 Quick Start Guide

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The ELC dmXLAN switchGBx 18 has been specifically designed for live entertainment applications where a mixture of data protocols would overload and saturate commercially-available network switches.

The dmXLAN switchGBx 18 allows you to effortlessly set up VLAN trunking through fast redundant loops. With the ELC dmXLAN switchGBx 18 it's very easy to create virtual networks that can communicate with each other through a trunking connection - thus allowing traffic to and from devices on different networks.

By creating a loop between two or multiple devices, the dmXLAN switchGBx 18 completely eliminates delays and device redundancy. If a connection between two devices is broken, it will be bypassed through a different route in the configuration because every device is part of a loop.

Features

- Real-time backup loops
- Local colour touch screen and rotary encoder
- 8 1Gbps Network Ports with PoE (802.3af-2003 Standard) on the front with RGB LED
- 8 1Gbps Network Ports on the rear
- 2 SFP cages for Fiber Optic modules up to 2.5 Gbps
- Supported by dmXLAN V4 software
- Partition of the network into separate VLANs
- DANTE Compatible
- Can act as master for the dmXLAN nodeGBx 8

Main menu layout

The main menu shows an overview of all 16 Ethernet ports (numbers 1-16) and 2 SFP cages (X1 & X2). On the home screen, a colour is assigned to each port to indicate the mode the port is set to. There is also an RGB LED indicator positioned next to each front port that will show the port status by lighting up in the corresponding colour.

By default, the LED indicators will slowly blink if there is no DMX. When a port is 'taken over' with the dmXLAN software through an external device, the LED indicator of the port will start to rapidly blink.

Port setup mode presets and colour assignment

VLAN ID	Mode	Colour
VLAN 1	Normal	light blue
VLAN 2	Audio	dark blue
VLAN 3	AudioBackup	teal
VLAN 4	GreenGo	lime green
VLAN 5	Video	yellow
VLAN 6	DMX	pink
VLAN 7	sACN	pink
VLAN 8	Lighting	orange
VLAN 9	Internet	purple
VLAN 10	Security	red
VLAN 11	Intercom	light green

Main menu overview

The main overview will show all 16 Ethernet ports and 2 SFP cages by default.

An X beneath the port number indicates that there is currently no linked device. When a link to another device has been established this field will show the communication speed of the network (e.g. 100 for 100 Mbps throughput or 1G for 1 Gbps throughput).

Turning the rotary encoder to the right will show the status of each port. Continuing to turn the rotary encoder to the right will list the status of ports 1-16 and SFP cages 1 & 2 separately (VLAN ID, mode and link status). The final screen will show general info about the switch (device name, serial number and IP).

Settings menu overview

Pressing the rotary encoder will open the Settings menu. The Settings menu allows you to create VLANs and loops, set up the front, rear and fiber ports, set the switch's ID, rename the device and access the network settings. There is also the option to reset the device to Factory Default.

Creating a virtual LAN

To create a virtual LAN, access the Settings Menu and scroll down to *Create Virtual LAN* using the rotary encoder. Press the encoder to enter the VLAN setup menu.

In the VLAN setup menu, the default VLAN type will be set as *Vlan 1 Normal*. To choose a different type of VLAN, click this field and scroll through the different types of VLAN available. Select one by pressing the encoder. When the VLAN type is selected, one or more ports can be included in the VLAN. To select a port, highlight the port and press down on the encoder. The port will be highlighted in yellow, indicating that it has been included in the VLAN.

By scrolling to *Setup* and selecting it, the VLAN will be configured as indicated in the setup options. On exiting the Settings menu and returning to the main screen, the selected ports (and RGB LED indicators) will change colour to indicate that they have been successfully added to the VLAN.

Creating a loop

To create a loop for VLAN trunking, access the Settings Menu and scroll down to *Create Loop* using the rotary encoder. Press the encoder to enter the Loop setup menu.

Highlight *Port* and press the encoder to choose which port will be included in the loop.

Scroll through the available ports and press the encoder again to select the port of choice. Repeat these steps for the *Partner* option to decide which port will be linked with the first chosen port of the loop. By default, the menu will choose the next port as the partner port (e.g. choosing port 1 will set port 2 as the partner port) - but this can be customized to any other (front, rear or fiber) port. To confirm the Loop setup, scroll to *Set Loop Now* and press the encoder to confirm.

On return to the main screen the ports included in the loop will be highlighted white to indicate that the loop has been successfully set up. When the ports are blinking red, the loop is not linked to another switch and VLAN trunking is not possible.

Setting up ports

To set up individual ports, enter the Settings menu and choose either *Front Port Setup*, *Rear Port Setup* or *Fiber Port Setup* - depending on which port you wish to configure. In the *Select Front/Rear/Fiber Port* menu, scroll to the port number and select the port by pressing the encoder. To configure the port, set the port mode that is requested (*Normal*, *Trunk/Loop* or *Disabled*). *Normal* mode requires that you also select the VLAN type. *Trunk/Loop* mode requires that you also select which partner port needs to be included in the loop.

When all settings are completed, select *Save and Exit* to leave the port setup menu.

Setting the device ID

Changing the device's ID is easily done by selecting the *Set ID* option and then alternately rotating and pressing the encoder to set the 3-digit ID for the switch.

Renaming the device

The *Rename* option lets you pick a name for your device. To enter a new name, select the *Rename* option and alternately rotate and press the encoder to set a new name for the switch.

Configuring network settings

To modify the network settings, go to the Settings Menu and select *Network Settings*. In this menu, the switch can be configured to use either a dynamic IP or a static IP. To do this, highlight the *Dynamic* setting and press the encoder to turn dynamic IP ON or OFF. Under *VLAN ID*, you can assign the switch to a specific VLAN. To do this, select the *VLAN ID* option by pressing the encoder, scroll to the VLAN ID you wish to assign the switch to and confirm by pressing the encoder once again.

Furthermore, the Network Settings menu lets you specify the *IP address* and *Netmask* for the switch. To alter these settings, highlight them and press the encoder to edit the values. Rotate the encoder to change the IP address or netmask values and press the encoder to confirm the entries.

Once the network settings have been modified to your liking, select *Save* to store the settings.

Configuring display settings

To modify the display settings, go to the Settings Menu and select *Display Settings*. In this menu, both the screen brightness and the brightness of the front port LEDs can be adjusted.

Highlight either option with the encoder and press down to modify the current value. The brightness of the screen and LEDs can be adjusted from Low to High or turned off completely.

Factory default

Resetting the device to factory default will restore all settings to their original configuration and will cancel any changes you have made to the settings. To proceed with returning the device to its default settings, select the *Factory default* option from the Settings menu and press down on the encoder. The device will then ask for confirmation as an extra precaution as this choice is irreversible.

General safety instructions

Read all instructions - especially the safety requirements - in the user manual before use.
- Keep these instructions - the safety and operating instructions should be retained for future reference. - Carefully follow all instructions.

→ **Cleaning**

Disconnect all connected supply and signal cables before cleaning the unit. - Clean with a dry cloth. - Do not use any liquid or spray on the unit.

→ **Usage**

Do not use the unit near water or moisture. - Do not block any ventilation openings, they are necessary for the essential airflow within the unit and protect it against overheating. - Install in accordance with the manufacturer's instructions. – Do not insert any objects through the ventilation slots of the unit, as these could get in contact with live parts or could cause short circuits. This could cause electric shock and / or fire. - Do not install near any heat sources such as radiators, stoves or other apparatus (including amplifiers) that produce heat. - Unplug this apparatus during lightning storms or when unused for long periods of time. Do not place the unit on unstable surfaces. – Do not place any objects on the power cord. Protect it from being walked on or pinched particularly at the plugs and the point where they exit from the device. If the power cord or the mains plug is damaged, let a qualified technician replace it immediately. - Do not defeat the safety purpose of the grounding plug. A grounding plug has two blades and a third grounding connection. The third grounding connection is provided for your safety. If the provided plug does not fit in your outlet, consult an electrician for replacement of the obsolete outlet.

→ **Service**

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped. In all of the previous conditions, disconnect the main plug immediately and call your distributor or technical support!

→ CAUTION: RISK OF ELECTRIC SHOCK - DO NOT OPEN

Maintenance and service of the device may only be carried out by qualified service personnel, as when opening and /or removing coverings of the device live parts may be exposed causing the risk of an electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

→ WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE

Declaration of Conformity

We,

Manufacturers name: ELC lighting b.v.

Manufacturers address: Weerijns 8
5422 WV Gemert
the Netherlands

Herewith take the full responsibility to confirm that the product

Product Category: Lighting control equipment

Name of product: ELC-DLS18GBX

Which refer to this declaration are manufactured in the Netherlands and complies with the following product specifications and harmonized standards:

Safety: LVD (Low Voltage Directive) 2014/35/EU, EN62368-1

EMC: 2014/30/EG, EN55032

ROHS (II): 2011/65/EU

With the presumption that the equipment is used and connected according to the manual, supplied with the equipment. All signal input- and output connections must be shielded and the shielding must be connected to the ground of the corresponding plug.

Gemert, February 16, 2018

ing. Joost van Eenbergen

