



dmXLAN showStoreGBx Quick Start Guide

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The ELC dmXLAN showStoreGBx is an advanced DMX controller with the ability to record and play back DMX data.

Fully programmable and compatible with ELC dmXLAN software, the dmXLAN showStoreGBx can record lighting data from a maximum of 99 separate shows from the Ethernet lighting network or DMX input and subsequently replay this data via Ethernet and/or DMX output. Data for lighting changes, fades and effects distributed on up to 4 DMX universes can be recorded real-time for a maximum of 24 hours and accurately reproduced later on. This makes the ELC dmXLAN showStoreGBx the ideal device for automating large stand-alone shows with moving light effects, such as retail displays and exhibition displays.

Features

- Stand-alone DMX control system - replaces a regular DMX desk
- Full-colour TFT screen with touch interface
- Real-time recording and replay of up to 4 DMX universes (2048 channels) and 99 automated shows for a maximum of 24 hours
- Built-in 4 port DMX/Ethernet node
- Built-in 2 port Gigabit/Ethernet switch
- Comprehensive external triggering using single or combined elements (including contact closures, RS232, real-time clock (with 12-month calendar), TCP/Telnet commands, SMPTE timecode, ASCII command set and DMX-In)
- USB connection for file exchange and backup (PC & Mac compatible)
- Internal webserver features

Main menu overview

The home screen displays the device name at the top of the screen.

Below that is information on the shows stored on the dmXLAN showStoreGBx. Rotating the encoder will scroll through the available slots (*Show 1-99*) and the status of the currently selected slot. When there is no recorded show in the slot, the status will display *Show free*. When a show has been recorded on the slot, the default name will be *SHOW 01* (show number will increment with every new show saved). The show name can be edited when the dmXLAN showStoreGBx is connected to a PC.

Beneath the show information section you will find the control touch buttons for the currently selected show (*Play / Record*). Pressing *Play* will open the show playback screen and pressing *Record* will open the show record screen. Selecting *Record* when there is already a show stored on that slot will prompt a confirmation to overwrite the existing show data.

Setup menu overview

From the main screen, pressing the rotary encoder will open the setup menu.

This menu offers a range of different settings to modify the showStoreGBx configuration that will be further described below.

Viewing DMX values

To get a detailed view of the DMX channel setup of your configuration, select the *View DMX* option. Upon selecting a port, the screen will give an overview of the bars for the first 120 channels. Rotating the encoder will scroll through the consecutive channels. For a different representation of the DMX channels, press and hold the encoder, then rotate it to switch to a different view. Views available are 120 bars, 40 bars, decimal values, percentages and 120 bars RGB. Pressing the encoder will return you to the *View DMX* port selection menu.

Remote Device Management

The *RDM Control* menu allows communication between the dmXLAN showStoreGBx and RDM compliant devices through the 4 bi-directional DMX ports. RDM gives access to configuration and status monitoring of connected RDM devices for each port separately. Scroll through the port list and select a port that has an RDM device connected to it by pressing the encoder.

Quick DMX Setup

To quickly configure the DMX settings for multiple ports of the dmXLAN showStoreGBx, access the *Quick DMX Setup* menu. This is a faster way to configure DMX for a range of ports all at once rather than setting up each port individually.

In the *Quick DMX Setup* submenu, *First Port* and *Last Port* values determine which range of ports you will be setting up. Select one of these choices and subsequently scroll through the ports by rotating the encoder to set the first and last port of the DMX setup you will be configuring. Under *Mode*, select whether the selected ports will be set to *Output* mode (*same, single, double, triple* or *quad*), *Input* mode or *Disabled*.

When the output or input mode have been selected, the type of protocol to use can be indicated. Go to *Input:* or *Output:* (under *Mode:*) and choose either *Art-Net*, *sACN* or *ShowNet*. Next, you can indicate the starting address.

Once you have determined all of the options of your DMX setup, choose *Save and Exit* to store them and the selected port range will be ready to go with the chosen settings.

Setting up individual DMX ports

By selecting the menu options *DMX Port 1 - DMX Port 4*, each DMX port can be set up individually. In the port menu, first select the *Port Mode*. Each port can be set to either *Disabled*, *Input*, *Output* or *LedString*.

For *Input* port mode, you can decide whether the port should be set to *Normal* mode, *Backup* mode or *Disabled*. In *Normal* and *Backup* mode, an extra option becomes available to select the universe to be used (*Art-Net*, *sACN* or *ShowNet*). For *Output* and *LedString* port modes, you can choose between *Out Zero*, *Single*, *HTP*, *Priority*, *FlexPatch* or *Disabled*.

Depending on the output mode, the menu will show further options, e.g. *Primary / Secondary / Tertiary* protocols, *Resend*, *Hold*, *Rate* and *LED* settings.

When all the port setup options are set to your liking, choose *Save and Exit* at the bottom of the port setup menu to store the settings for this DMX port.

Player Routing

The *Player Routing* submenu lets you select up to four DMX universes for show playback and show recording. Highlighting the playback # and pressing the encoder will allow you to specify the protocol and ID of the output universe - or disable playback altogether. The selection for show recording is done in the same manner. When all settings have been modified to your liking, scroll down to the *Save* option and confirm by pressing the encoder.

DMX Control Universe

DMX input triggers can be used to control the dmXLAN showStoreGBx. These triggers are described in the *Direct Triggers* section further in this manual. In the *DMX Control Universe* submenu you can set up the DMX universe that acts as the controller for the dmXLAN showStoreGBx via the DMX input ports or over the network.

Multishow settings

The dmXLAN showStoreGBx enables you to have up to four shows in playback simultaneously. To enable the *Multishow* feature, select the desired merging option using the encoder. The different multishow modes are:

- *Off*: normal operation
- *HTP*: running shows are merged in highest takes precedence
- *LTP*: running shows are merged in latest takes precedence
In LTP mode, the last show activated has the highest priority.
- *Priority*: similar to LTP, but priority is fixed (4 has highest priority, 1 has lowest)

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 showStoreGBx.

Master/Slave configuration

This option lets you determine whether the dmXLAN showStoreGBx should function as a master device, as a slave device or should be used in stand-alone mode.

Renaming the device

The *Rename Config* option lets you pick a name for your device. To change the name to be displayed on the main menu screen, use the rotary encoder to enter a new name for the dmXLAN showStoreGBx.

USB File Exchange

The *Enable USB File* menu option lets you connect the dmXLAN showStoreGBx to your PC through USB. The dmXLAN showStoreGBx will show up as an external drive on the PC, making file transfer from one device to another possible. After copying new files to the device, it needs to be restarted (by power cycling).

Configuring Blacktrax settings

The dmXLAN showStoreGBx supports Blacktrax light tracking equipment. To set up Blacktrax, choose the *Blacktrax* option from the Setup menu. There are three different modes to choose from, namely *Disabled*, *Always On* and *Controlled*. On choosing the *Controlled* mode, further options concerning the *Universe* and *Channel* will be revealed to finetune your Blacktrax configuration. The bottom of the Blacktrax menu will show what server you are connected to.

Configuring network settings

To modify the settings for your network, access the *Network Settings* option.

Here, the dmXLAN showStoreGBx can be configured to use either a dynamic IP or a static IP. Highlight the *Dynamic* setting and press the encoder to turn dynamic IP ON or OFF. Additionally, the Network Settings menu lets you specify the *IP address* and *Netmask* for the showStoreGBx. To alter these settings, highlight them and press the encoder. Editing the IP address or netmask is done by turning the encoder to the correct values, then pressing to confirm the entries. Once the network settings have been modified, select *Save* to store these settings.

Backlight settings

The backlighting of the node can be set to fade out after a set time. By choosing the *Backlight* menu option, you can adjust this time from a minimum of 5 seconds to a maximum of 5 minutes. Alternatively, you can opt to always leave the backlighting on.

Clock

This will allow you to change the time and date as displayed on the home screen of the dmXLAN showStoreGBx.

Resetting to factory defaults

Resetting the device to the factory defaults 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 defaults* 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.

Format Drive

Formatting will erase all show data you have saved to the dmXLAN showStoreGBx. On selecting the *Format Drive* option you will be prompted for a confirmation as all stored shows will be permanently removed from the device.

Info screen

Choosing the *Info* menu option will open a screen with information about the dmXLAN showStoreGBx. This screen shows the name, serial number, firmware version and the IP address and MAC address of the device.

Automation / Remote Control

Direct Triggers

The setup menu has a number of predefined triggers stored under the *Direct Triggers* submenu. The conditions to choose from are *Power On*, *Contact 1* through *Contact 4* and *DMX 1* through *11*. Corresponding actions for the direct triggers that can be selected are *No Action / Stop / Hold / Continue / Load / Start / Loop / Next / Restart*.

The last five actions mentioned will also enable a choice of show number that this action should apply to.

Advanced Triggers

The programming of the triggers is saved in a text file called *trigger.txt*, located on the showStoreGBx's internal memory. This file can be edited with any text editor (for example Notepad). If this file does not yet exist on the disk, a new *trigger.txt* file can be created.

Triggers → *trigger = type [,option]*

Trigger entries are made up in 3 parts: trigger / condition / action.

Trigger types can be;

type	Option
poweron	- <i>trigger = poweron</i> (trigger on device start up)
close	Input selection <i>trigger = close, 1</i> (trigger on input 1 close)
open	Input selection <i>trigger = open, 2</i> (trigger on input 2 open)
clock	Time either every hour or once a day <i>trigger = clock, "10:00"</i> (10min past the hour) <i>trigger = clock, "12h00:00"</i> (12 o'clock)
dmx_on	DMX input channel on (value > 55%) <i>trigger = dmx_on, 1</i> (DMX control universe is selected in the config.txt)
dmx_off	DMX input channel off (value < 45%) <i>trigger = dmx_off, 1</i>
ac612xl	AC612XL (in showstore mode) key press, AC612XL is connected to DMX input1 or 2. Keys 1-12, "out", "down", "up", "store" <i>trigger = ac612xl, 3</i> <i>trigger = ac612xl, store</i>

Conditions → *condition = type [,option]*

Triggers can be used in combination with conditions. For example a power_on trigger can be defined twice in the trigger-file, but each with a different condition.

Conditions are;

type	option
closed	Input selection <i>condition = closed, 1</i> (trigger is only valid if input 1 is closed)
open	Input selection <i>condition = open, 1</i> (trigger is only valid if input 1 is open)
weekday	Selection of weekdays (su/mo/tu/we/th/fr/sa) <i>condition = weekday, su, mo, fr</i> (valid on sunday, Monday and Friday)
hour	Selection of hours. This can be 1 hour or a period of hours. <i>condition = hour, 15</i> (valid between 15h00 and 15h59) <i>condition = hour 12, 16</i> (valid between 12h00 and 16h59)
date	Selection of day and month. This can be an exact day/month or a period. (months _jan / feb / mar / apr / may / jun / jul / aug / sep / oct / nev / dec). <i>condition = date, "1 may"</i> (only valid on the first of may) <i>condition = date, "10"</i> (only valid on the tenth of every month) <i>condition = date, "apr"</i> (only valid in april) <i>condition = date, "3 jan", "2 may"</i> (valid between the third of January and the second of may)
dmx_on	DMX input check ON <i>trigger = dmx_on, 1</i> (valid if DMX input channel 1 > 55 %)
dmx_off	DMX input check OFF <i>trigger = dmx_off, 512</i> (valid if DMX input channel 512 < 45%)

Actions → *action = [playback,] action [, value]*

Actions are commands to the playback. If multishow is enabled it is possible to send actions to different playbacks (numbered from 1-4). If no playback is selected, the command is always sent to playback 1.

Examples:

action = start, 1 → start show 1 on playback 1

action = 2, loop, 3 → start show 3 on playback 2 in loop

type	Option
load	Open show, do not start <i>action = load, 1</i> (open show 1) <i>action = 1, load, 3</i> (open show 3 on playback 1)
start	Start show in single playback <i>action = start, 5</i> (start single playback of show 5) <i>action = 2, start, 1</i> (start single playback of show 1 on playback 2)
loop	Start show in loop playback <i>action = loop, 4</i> (start show 4 in loop) <i>action = 4, loop, 10</i> (start show 10 in loop on playback 4)
stop	Stop playback <i>action = stop</i> (stop playback) <i>action = 2, stop</i> (stop playback 2, remove DMX output from this playback)
hold	Hold / Pause playback <i>action = hold</i> <i>action = 3, hold</i>
restart	Restart / Jump to start <i>action = restart</i> (jump to the beginning of the show and start single playback) <i>action = 2, restart</i> (same, but on playback 2)
continue	Continue after hold <i>action = continue</i> <i>action = 2, continue</i>

Trigger Examples

Simple example → Start show 1 after input 1 closed

trigger = close, 1

action = start, 1

Complex example → Loop show 2 on playback 4 every Monday, Tuesday and Thursday at 30 minutes past the hour during working hours (08h-17h) between the 12th of May and 24th of September, and only if input 3 is closed and DMX channel 4 is on.

trigger = clock, "30:00"

condition = weekday, mo, tu, th

condition = hour, 8, 16 (16:30 should be the last trigger)

condition = date, "12 may", "24 sep"

condition = closed, 3

condition = dmx_on, 4

action = 4, loop, 2

ASCII Command System

ASCII commands are readable text commands for the dmXLAN showStoreGBx. They can be sent through e.g. hyperterminal/automation systems or user customized software.

Command syntax ([..] is optional);

[playback select '1' – '4'] <2 character command>[2 digit value]<carriage return>

Command	2 character command	2 digit value
Start	ST	Show number '01' – '99'
Loop	LP	Show number '01' – '99'
Load	LD	Show number '01' – '99'
Stop	SP	-
Hold	HD	-
Continue	CT	-
Restart	RS	-

The playback select is used for multishow only. If no playback is selected, then playback 1 is used. If a valid command is received, the dmXLAN showStoreGBx will send back

OK: <send command><carriage return>

If the received command is unusable, then the unit will send back

FAIL: <send command><carriage return>

ASCII Examples

`ST01<cr>` → start show 1
`3LP04<cr>` → start show 4 in loop mode on playback 3 (multishow only)

ASCII Control options

RS-232

ASCII commands can be sent through the RS-232 port located on the back of the device. The RS-232 port has a transfer speed of 9600 baud and uses format 8M1.

Telnet / TCP

Open a TCP connection or Telnet session to the unit using its IP address and TCP port 23. ASCII commands can now be sent through Telnet/TCP.

Custom Webservice

The webservice in the dmXLAN showStoreGBx uses files stored on the internal SD-card. A folder called `/web` is used as the root of the webservice. This folder needs to be made to hold all the web pages and images.

To insert commands in the webservice, you'll need add ASCII commands to hyperlinks, like

`index.htm?LP01`

The ASCII commands are described in the manual of the dmXLAN showStoreGBx. It is also possible to send commands to different internal playbacks (multishow mode) by adding the selected playback to the command.

`index.htm?2LP02`

IMPORTANT NOTE:

The filesystem of the dmXLAN showStoreGBx does **not** handle long filenames (due to Microsoft patent issues). All filenames used by the webservice should be in (old DOS) 8.3 format.

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: Weerijis 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-DSSGBX

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

