

showStore XLan

2048 channel DMX / Network recorder playback

Users Manual
Software version: 1.x



Front Panel

The frontpanel has a graphic LC-display, 3 keys and a jog-encoder with push function and 4 LEDs.

Connections at the back

The showStore XLan has many connectivity options. Viewed at the back from left to right:

RS-232 (top SUB-D 9pin)

<i>Pin</i>	<i>Description</i>
1	-
2	TX
3	RX
4	-
5	Ground
6-9	-

To connect the RS-232 port to a PC you'll need an 1 to 1 male/female subd-9pin cable. (NO null-modem / cross cable)

Contact Closure Inputs (bottom SUB-D 9pin)

<i>Pin</i>	<i>Description</i>
1	Ground / Shield
2	Input 1
3	Input 2
4	Input 3
5	Input 4
6-9	Ground

This inputs have an internal pull-up resistor. A simple switch can be connected between the input pin and a ground pin.

MIDI Out / MIDI In

Midi connection uses standard MIDI pinout.

Network 10/100 MBit Ethernet (on Neutrik Ethercon)

The network connection uses standard UTP network connection.

USB 2.0 Full-speed

The USB connection uses standard USB pinout.

DMX output 1+2

<i>Pin</i>	<i>Description</i>
1	Ground/Screen
2	Data -
3	Data +
4	-
5	-

The DMX outputs have an internal terminator resistor and are RDM prepared.

DMX Input 1+2

<i>Pin</i>	<i>Description</i>
1	Ground/Screen
2	Data -
3	Data +
4	-
5	-

The DMX inputs have an internal terminator resistor.

Timecode SMPTE input (1/4" jack)

<i>Pin</i>	<i>Description</i>
Slieve	Ground/Screen
Ring	Data -
Tip	Data +

The timecode input can receive SMPTE LTC at 24, 25, 29.97 and 30 frames per second. Function will be implemented in future software release.

Operation

The showSTore XLan can be controlled in several ways:

- Manual control via front panel
- RS-232 / MIDI
- Network TCP / Telnet
- DMX / Artnet
- Contact Closures
- Internal Real-Time Clock, with date support
- ELC AC612XL wall panel

Main Display



- A Playback the selected show
- B Record a new show
- ← (Setup) Enter setup menu
- Encoder +/- Select show for playback

Record a new show

When recording you'll first need to select a show number



By default the first available empty show number is selected. To select a different show use the encoder,



If a show number is already used, a confirmation to overwrite is asked. Press keys A and B together to confirm.

A new show will be created on the disk and the unit comes in record ready



Press A to start the recording.



Recording will wait for the first change of DMX, press A to start the recording anyway.



Press A during recording to hold (pause) the recording.



In record ready you can press A to continue the recording or ← to end the recording. The show will now be stored to disk.

Playback



From the main menu select an available show and press A.

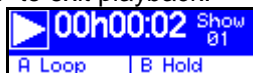


The show is loaded and the playback comes in to hold (pause).

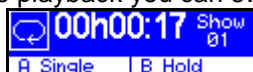
Press A to start the playback in single mode.

Press B to start the playback in loop mode.

Press ← to exit playback.



In single playback you can switch to Loop mode by pressing A, or to hold (pause) by pressing B.



In loop mode press A to go to single mode playback, or B to go to hold.

Setup / Options

The showStore XLAN has a lot of setup options. All options are stored in the config.txt file (accessible via file exchange). Some options can be changed via the setup menu.

In the main menu press ← (setup) key.



Use the encoder to select an option and press A or the encoder to adjust it.

Show Rename



Use the encoder to change the selected character.

Press the encoder to select the next character

Press A to confirm the name change

Press B to set the name back to the default

Press ← to cancel the operation

Show Delete



Use the encoder to select a single show, or all shows to be deleted.

Press ← to cancel the operation

Press A to delete



and next B to confirm, or A to cancel.

DMX Input 1 / 2



Use the encoder to adjust the selected option.

Press the encoder to select the next option

Press A to confirm

Press B to set the default setting

Press ← to cancel the operation

DMX input modes are:

- disabled → the DMX input does nothing
- normal → any valid DMX is send onto the network (and internal use) using the selected universe (ArtNet)
- backup → the DMX input will not send data if the selected universe is present on the network. If the selected universe is not present on the network for several seconds and the Input has valid DMX, then it will send DMX data. If another sender starts sending the same universe, the input will go back input backup mode.

DMX Output 1 / 2



Use the encoder to adjust the selected option.

Press the encoder to select the next option

Press A to confirm

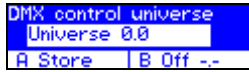
Press B to set the default setting

Press ← to cancel the operation

DMX output modes are

- disabled → the DMX output is disabled
- outzero → the DMX sends out a DMX test signal with all channels at 0%
- single → the output sends out the DMX values of the selected (primary) ArtNet universe. The DMX output is enabled the first time it detects the DMX universe on the network (or internal DMX inputs). If the universe on the network fails, the DMX output will go into DMX hold.
- dual HTP → like single, but merge 2 DMX universes (primary and secondary) in highest take precedence.
- dual LTP → like dual HTP, like dual HTP but in latest takes precedence (on a per channel basis)

DMX Control



DMX control universe
Universe 0.0
A Store | B Off --

The showStore XLAn can be controlled via DMX input triggers, triggers described further in the manual. In this setup menu you can select the DMX (ArtNet) universe that will be used for the control. This universe can come from the DMX input ports or network.

Use the encoder to select the ArtNet universe

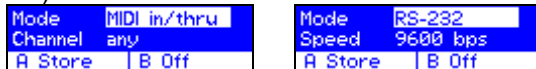
Press A to confirm

Press B to disable the DMX input control

Press C to cancel the operation

MIDI / RS-232

The serial control for the showStore XLAn is via MIDI or RS-232. MIDI commands are used for the triggering system (described further in the manual), RS-232 is used by the ASCII command system (also described further in the manual).



Mode MIDI in/thru
Channel any
A Store | B Off

Mode RS-232
Speed 9600 bps
A Store | B Off

Use the encoder to adjust the selected value

Press A to confirm

Press B to disable serial control

Press C to cancel the operations

Serial modes are:

- off → the serial control is disabled
- MIDI in/thru → MIDI port is enabled and will send commands to the triggering system. The Channel options selects the MIDI channel to be used. The MIDI output acts like a MIDI thru (direct copy of the input port)
- MIDI in/out → like MIDI in/thru, except the MIDI output port is reserved.
- RS-232 → the RS-232 sub-d 9pin connector will be used by the ASCII control system. The speed option sets the baud rate. The RS-232 will use 1 startbit, 8 databits, no parity and 1 stopbit.

Play Routing



Playback Universes
1 0.C 2 0.0 3 0.0 4 0.0
A Store | B 1 -> 234

Select the up to 4 DMX universes for the show playback.

Use the encoder to adjust the selected output universe

Press the encoder to select the next output universe

Press A to confirm

If the first output universe is selected, pressing B will set the other 3 output universes to +1, +2, +3. If output universe 2 3 4 is selected, pressing B will disable this output universe from the playback.

Press ← to cancel the operation

Rec Routing



Playback Universes
1 0.C 2 0.0 3 0.0 4 0.0
A Store | B --

Select the up to 4 DMX universes used during show recording.

Operation is like Play Routing (above).

Multishow



Multishow OFF
A Store | B OFF

Up to 4 shows can be in playback at the same time. To enable multishow, select the desired merging option.

Use the encoder to change the multishow mode.

Press A to confirm.

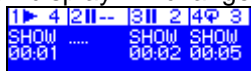
Press B to switch off multishow.

Press ← to cancel the operation.

Multishow modes are:

- Off → Normal operation
- HTP → the shows running are merged in highest take precedence
- LTP → the shows running are merged in latest takes precedence. The last show activated has the highest priority. Is a channel is changed (not zero). The it is used in this showfile.
- Priority → the shows are merged like LTP, but the priority is fixed. 4 has the highest priority and 1 the lowest

The main display will change, indicating the status of the 4 playbacks.

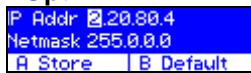


Each of the four parts on the display shows:

- The playback number 1 – 4
- Playback status (hold / single / loop)
- Show number
- Showname
- Show timer

In multishow it is not possible to control it via the front panel. So control is done via triggers or ascii commands (explained further on in the manual).

Network Opt



In network options you set the IP address options for the network interface.

Use the encoder to adjust the selected value

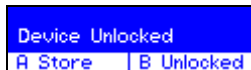
Press the encoder to select the next value

Press A to confirm

Press B to set the address and netmask to the default value for ArtNet

Press ← to cancel the operation

Device Lock



The operations of the unit can be locked in 3 levels.

Use the encoder to change the lock setting

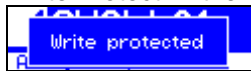
Press A to confirm

Press B to unlock the unit

Press ← to cancel the operation

Device locking levels are:

- Unlocked → all operations are possible
- Write Protect → the recording and deleting of showfiles is disabled

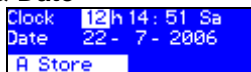


- Device Lock → all front panel operations are locked



To be able to enter the setup menu from main or multishow menu press and hold the encoder and next press the ← (setup) key.

Clock & Date



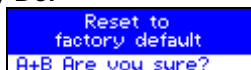
Set the realtime clock and date to the correct values

Press the encoder to select the next value

Press A to confirm

Press ← to cancel the operation

Factory Def



Press A and B to set the configuration to the default factory settings.

Press ← to cancel the operation.

File exchange

Via USB

Connect the showStore's USB connection to your PC. The showstore will come up as an external drive. You can now copy file to and from the showstore. If you have copied new files to the showstore, then you'll need to restart (power cycle) the unit.

Automation / Remote Control

Advanced Trigger

The programming of the triggers is done in a text-file stored on the internal disk, named *trigger.txt*. This file can be edited via any text editor like notepad on windows. If this file does not exist on the disk, you can easily create it.

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

Trigger → *trigger = type [,option]*

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)
midi_note_on	MIDI input note on event <i>trigger = midi_note_on, 10</i>
midi_note_off	MIDI input note off event <i>trigger = midi_note_off, 127</i>
midi_control	MIDI control input <i>trigger = midi_control, 1</i>
midi_program	MIDI program change <i>trigger = midi_program, 4</i>
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	Selections of hours. This can be 1 hour or a period of hours <i>condition = hour, 15</i> (valid between 15h00 and 15h59) <i>contdition = 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

action	value
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 a 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 to the showStore. They can be sent via for example hyperterminal / automation systems or user custom software.

Command syntax is: ([..] 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 showStore XLAN 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

Use the setup menu (MIDI / RS-232) to select RS-232 mode and the desired speed. ASCII commands can be send via the RS-232 port.

Telnet / TCP

Open a TCP connection, or telnet session to the unit using the units ip address and TCP port 23. ASCII commands can now be send via TCP/telnet.

Custom Webserver

The webserver in the showstore uses files stored on the internal SD-card. A folder called /web is used as the root of the webserver. This folder needs to be made to hold all the web pages and imaged.

To insert commands in th webserver, you'll need add ascii-commands to hyperlinks, like

`index.htm?LP01`

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

`index.htm?2LP02`

A very important note: The filesystem inside the showstore does NOT handle long filenames (due to patent issues from Microsoft). So all filenames used by the webserver should be in (old dos) 8.3 format.

General Information

CE – Product

The showStore XLAN permits to the CE requirements set up by the European Community. This can be recognized by this label on the outside of the product.



Technical Specifications:

Power: 85-264 VAC 47-440 Hz 10VA max
Dimensions 19" 1HE rack unit 483 x 44 x 150 mm
Weight 2kg

This product may only be used for controlling dimmers and moving lights. Using the product out of these specifications will remove all responsibility from the supplier

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ELC lighting

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