ShowSTORE

Software Version 3.0

ELC

ShowSTORE

System description

The *ELC* **ShowSTORE** is a useful tool for replacing expensive lighting desks in set ups with no experienced operator or fixed installations. It's capable of recording 512 DMX channels in real time for up to 26 hours, within 99 shows.

Real time recording means that there is no need to program levels and fade times on the unit, but you do it once on the lighting desk and the **ShowSTORE** will mimic it time and time again. The user can influence a running show by adjusting it's speed from 50% (slower) to 200% (faster), or by playing to programmed markers (or cue points) by means of "GO". A show can also be set into an endless loop to be used in display or exhibition lighting.

Control is possible with the keys and display, the internal real time clock, 4 parallel contacts, RS-232 control by PC or laptop and DMX control with for example an *ELC* **focusHAND2** or ELC **AC612XL**.

When using the 4 contact closure inputs it is even possible to run 4 shows simultaneously, merged in HTP.

For complete multimedia shows connect an *ELC* **DAM44** and you can make a show with both light and sound in sync without expensive SMPTE equipment.

Getting Started

The **ShowSTORE** is a 19" 1HE rack unit with a 1.5m power cord. On the front are 3 key's (**A**, **B** and **Quit/Set up**), 4 leds, a jog encoder with push switch, a 2x16 character LC-display and a power on/off switch.

```
LC Display
2x16 characters
```
A   **B**   **Quit** Setup   ◯
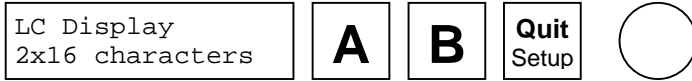
The function of key's A and B are described on the display.

The 4 leds indicate:

LED	Meaning
On	Power is on and the internal processor is working
Play	On → Playing Blink → Holding
Rec.	On → Recording Blink → Record hold
DMX	DMX input OK

On the back are located the DMX input and output, a RS-232 DTE connector and a GPI connector.

DMX connection (input and output)

Pin	Description
1	Ground/Screen
2	Data -
3	Data +
4	loop to other XLR5 pin 4
5	loop to other XLR5 pin 5

RS 232 connection (SUB D9 female) for control.

Pin	Description
1	-
2	TX
3	RX
4	-
5	Ground
6-9	-

GPI connection (parallel contact closure) on 9p SUB-D.

Pin	Description
1	Ground / Shield
2	GPI 1
3	GPI 2
4	GPI 3
5	GPI 4
6	Ground
7	Ground
8	Ground
9	Ground

Starting up the ShowSTORE

Connect the power and switch on the power switch. The **ShowSTORE** will now start up and read the TOC from the hard disk. This will take approximately 10 seconds.

```
ShowStore   V2.0
- TOC Reading   -
```

Main menu

The main menu is showing the current selected show number and name, the jog encoder can change the number.

```
Show 01:showname
A Play B Record
```

Press **A** to start to playback of a show, or **B** to record a show. The **Quit/Setup** key will give access to the setup menu.

Recording a show

From the main menu press **B**. This will bring you in the record menu. The show number will change to a free show.

```
Show 01:- free -
A Record
```

To select a different show number use the jog encoder. Now it is possible to replace an existing show by pressing **A** or to cancel press **B**.

```
Show 01:- free -
A Replace B Esc
```

A new show is now created and is waiting for a change in the DMX input, which is directly connected to the DMX output, to start the recording.

```
Wait DMX Change
A Continue
```

To start recording anyway press **A**.

When recording the screen will show the show number, cue (or mark) number and elapsed time.

```
REC  01c01 01:02
A Hold B Insert
```

Press **B** to set a cue point while recording. Press **A** to hold the recording.

```
RECP 01c02 03:04
A Continue
```

Press **Quit** to end the recording, or **A** to continue the recording. When continuing to recording a cue point will be inserted and again will wait for a DMX change on the DMX input.

Playback of a show

In the main menu select a show with the jog encoder and press **A**. The screen will now show the playback menu, with the show number, cue (mark) number and elapsed / remaining time.

```
HOLD 01:01 00:00
A Start B Go
```

There are now 3 options to start the show:

1) Press **A**, this will start normal playback of the show

    ```
    PLAY 01:01 00:00
    A Hold B Skip
    ```

2) Press and hold **A** for 1 second, this will start the playback of the show in and endless loop.

    ```
    LOOP 01:01 00:00
    A Hold B Skip
    ```

3) Press **B**, this will start the playback of the show, but stop at the next cue-point.

    ```
    GO   01:01 00:00
    A Hold B Skip
    ```

Adjusting the playback speed can be done with the jog encoder. Speed can vary between 50% and 200%. Pressing **Quit** will switch between elapsed and remaining time. To put the playback in hold (pause) press **A**. Now it's possible to stop by pressing **Quit**. To jump to the next cue-point press **B**. Please note that in **GO** this will mean that the playback will hold. In hold it's possible to change the cue point with the jog encoder.

Setup menu

To go into the set up menu press **Quit/Set up** from the main menu.

```
SETUP:  Rename
A Ok    B Next
```

To select a menu item use the jog encoder or press **B** for the next item. Set up items are:

1) **Rename**: rename the current selected show
2) **Delete**: delete the current selected show
3) **GPI 1**: set the function of parallel input 1
4) **GPI 2**: set the function of parallel input 2
5) **GPI 3**: set the function of parallel input 3
6) **GPI 4**: set the function of parallel input 4
7) **DMX In**: set the function of the DMX input
8) **DMX Fail**: set function DMX input fail event
9) **Power On**: set function for power on (start up)
10) **MultiShw**: Multi show enable
11) **WProtect**: Protect against recording/deleting a show
12) **RS-232**: Setup the function of the RS-232 port
13) **DiskChk** check the disk for FAT errors
14) **RT Clock**: Set Real Time Clock parameters

Press **A** to select the set up item

Rename the current selected show

The screen will now show the current show number (top line) and name (bottom line).

```
Rename Show 01
A Ok    SHOWNAME
```

A cursor under the name will point to the selected character, to change the character use the jog encoder. Possible characters are 'A' to 'Z', '0' to '9' and '_'. To change to the next character press **B** or the jog encoder. To confirm the change of the name press **A**, or to cancel the operation press **Quit**.

Delete the current selected show

The screen will show the show number and name of the selected show.

```
Show 01:SHOWNAME
Delete ? B Ok
```

To delete the show press **B**, or to cancel press **Quit**.

Set the function of contact closure input 1 to 4

The **ShowSTORE** has 4 parallel input's (GPI), that react on contact closure. The function of these input's can be set.

```
GPI 1:   function
A Ok
```

To change the function use the jog encoder. Functions are:

1) **No Func**: the input has no function
2) **Start**: the input will start a show in normal playback
3) **Loop**: the input will start a show in loop playback
4) **Hold**: the input will put a running show in hold
5) **Go**: the input will put a running show in GO
6) **Skip**: the input will skip to the next cue point in a running show
7) **Stop**: the input will stop the playback of a running show, or specific show if it's running
8) **Next**: the input will set the selected show as the next show to run, after the current show has ended
9) **Insert**: the input will insert a cue point while recording a show

For function 2 and 3 (start, loop) it's possible to select a show number. To change the number, press and hold **B** and use the jog encoder. "Show - -" means the current selected show will start/loop on input contact closure.
Press **A** to confirm the function, or press **Quit** to cancel.

Set the function of the DMX input

The DMX input can have 3 functions, to change these use the jog encoder.

```
Dmx In: function
A Ok
```

Press **A** to confirm the function, or press **Quit** to cancel.

Possible DMX input functions are:

1) **No Func**: no function
2) **Control**: the DMX input can control the **ShowSTORE**
3) **Merge**: the DMX input is merged (in HTP) with playback of shows
4) **Thru**: the DMX input is normally connected directly to the DMX output, also the DMX input fail event is activated (backup device)
5) **C Insert**: cue insert select a channel that will insert a cue marker when recording. To set the channel number press and hold **B** and change with the jog encoder.
6) **AC612XL**: enable the DMX input to be used as a direct remote input from AC612XL or focusHAND2

Using AC612XL or focusHAND2 remote

Each of the 16 buttons on the AC612XL can be used programmed with the same functions as the contact closures. Example:

Key 1 → Start show 1
Key 2 → Loop show 3
Key 3 → Set show 2 as the next show

The 16 buttons of a focusHAND2 can also be used, follow the next conversion table:

focusHAND2	AC612XL
1 - 9	Key 1 - 9
0	Key 10
FUNC	Key 11
AT (@)	Key 12
THRU (→)	OUT
ENTER	STORE
+	UP
-	DOWN

Set the function DMX input fail event

The **ShowSTORE** can be used as a backup device. The DMX input must be set as Thru, so normaly the DMX from the lighting desk is passed thru. On the event of DMX failure (lighting desk fail) the DMX input fail event will be activated.

```
DmxFail:function
A Ok
```

The DMX input fail event can be set to:
   1) **No Func**: nothing happens on DMX input fail
   2) **Start**: on input failure start a show in normal playback
   3) **Loop**: on input failure start a show in loop playback

To change the function, use the jog encoder. Functions are:

For function 2 and 3 (start, loop) it's possible to select a show number. To change the number, press and hold **B** and use the jog encoder. "Show - -" means the current selected show will start/loop on input contact closure.
Press **A** to confirm the function, or press **Quit** to cancel.

Set the function power on (start up)

The **ShowSTORE** can automatically start the playback of a show in normal or loop playback on power on (start up)

```
PowerOn:function
A Ok
```

To change the function use the jog encoder. Functions are:

1) **No Func**: nothing happens when switched on
2) **Start**: starts a show in normal playback when switched on
3) **Loop**: starts a show in loop when switched on

For function 2 and 3 (start, loop) it is possible to select a show number. To change the number, press and hold **B** and use the jog encoder.
 "Show - -" means the current selected show will start/loop after switching on the **ShowSTORE**.
Press **A** to confirm the function, or press **Quit** to cancel.

MultiShow enable / disable

The **ShowSTORE** can run up to 4 shows simultaneously, controlled by the parallel (GPI-) input contacts.

```
MultiShow: off
A Ok
```

Use the jog encoder to enable / disable and confirm with **A**.

The four GPI's must than be set for show start or loop.
The main screen will show:

```
1:> 2:  3:  4:
S01 L02 S03 L04
```

1:> → contact 1 activated
S01 → single playback of show 01 on closing of contact
L02 → loop playback of show 02 while contact is closed

Write Protect enable / disable

To disable recording / deleting of shows set **Write Protect** to ON.

```
WriteProtect:off
A Ok
```

Use jog encoder to select on or off and confirm with **A**.

Setup RS-232 port

Functions for the RS-232 port are:
1) **No Function**: port is disabled
2) **Control**: the showSTORE can be controlled by ascii commands
3) **Backup**: the RS-232 can be used with the file exchange program, to backup or load files to PC and back.
4) **Timecode**: not supported yet
5) **MidiSlv**: not supported yet
6) **Master**: unit functions as master to slaves
7) **Slave**: unit slaves to the commands of the master

RS-232 control

A PC or laptop computer can control the **ShowSTORE** via the RS-232 input. The communication has to be set up to 9600 baud with 8 data bits, no parity bit and 1 stop bit. Commands are character based, so a simple terminal program like HYPERTERMINAL can be used.
A command is build up of 2 characters ('A' to 'Z') with or without 2 digits ('0' to '9') as data, followed by a carriage return (0x0D 0x0A in hexadecimal).

Command's:
RI<CR>   **Request Info**: the **ShowSTORE** will return its current status
RIxx<CR>   **Request Info** every xx seconds

RI00<CR>	**End** previous request command
LDxx<CR>	**Load** show xx and put it in hold
STxx<CR>	**Start** show xx, ending previous started shows
SP<CR>	**Stop** current show
LPxx<CR>	**Loop** show xx, ending previous started shows
HD<CR>	**Hold** the current show
CT<CR>	**Continue** the current show
GO<CR>	**Go** in the current show
SK<CR>	**Skip** an index in the current show
RCxx<CR>	**Start recording** show xx
IN<CR>	**Insert cue marker** when recording

RS-232 file backup

The file exchange program can be used to backup and transfer show files to and from a show store. Show files are compressed during transfer to increase the transfer speed and decrease storage.

- Put the showstore RS232 function into BACKUP
- Connect the showstore to the PC
- Start the dss_fe.exe program
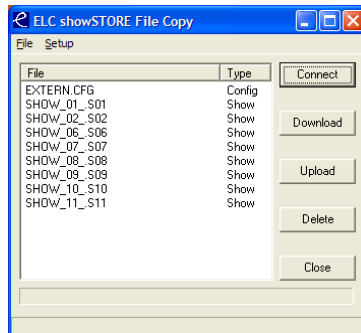
- Select the correct COM port in the Setup Menu
- Press Connect, a list with all the files will appear
- Select one or more files and press download
- To upload, press upload and select the files

Master / Slave

When more than 512 channels are required, multiple showSTORE's can be linked. One unit will be the master and the other will be slaved to the master. A special cable is needed to connect the master to the slaves.

On the SUBD 9 pin connector connect:
- Pin 2 of the master to pin 3 of all the slaves
- Pin 5 of the master to pin 5 of all the slaves

Setup Real Time Clock (if installed)

Setting up the RT clock is done in 22 submenu's:

1) **Set Clock**: set time and day
2) **Clear Markers**: clear all clock markers
3) **Mark 1 - 20**: set clock marker 1 – 20

Use jog encoder to select the submenu and press **A** to confirm.

Set Real Time Clock

The real time clock is set to hours/minutes/day.

```
Clock: 12:23 Mo
A Ok    B Next
```

Use jog encoder to adjust the value and use **B** to go to the next parameter (hours/minutes/day). When the clock is set press **A** to confirm, or **Quit** to cancel the operation (or only to view the current time/day).

Clear Time/Day Markers

To clear all time/day markers in a single action press **A** and **B** simultaneous. To cancel press **Quit**.

```
Clear Markers ?
Press A and B
```

Set Time/Day Marker

A Time/Day marker can be set to a time (hour/minute), a day mask and an action.
Use the jog encoder to change the value and **B** to go to the next parameter.

```
Mark 01: 12:00
A Ok    B Next
```

The **day mask** activates the days on which the marker is active. A capital letter indicates the day is active, a lower case character means inactive. Use the encoder to change.

```
Mark 01: MTwtFSs
A Ok    B Next
```

The **action** can be set to Stop, Play and Loop. For Play and Loop a show number must be set.

```
Mark 01: Play 02
A Ok    B Next
```

When finished press **A** to confirm or **Quit** to cancel.

DMX control

If the DMX input function is set to Control, it is possible to start/hold shows by using 99 channels. Each channel represents a show: channel1 → show 1, channel 2 → show 2, etc.
Setting channel 1 to **100%** will start the playback of show 1.
Channel 1 to **80%** will put show 1 into loop.
Channel 1 to **50%** holds the playback of show 1.
Channel 1 to **0%** stops the playback of show 1.
When a show is running another show can be started, replacing the current running show. In combination with an *ELC* **focus HAND/BRAIN**, **1 Enter** will start show 1, **2 Enter** will start show 2, etc.

General Information

CE – Product

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

$$ C \, E $$

Technical Specifications

ShowSTORE:

Output: DMX 512 (1990) on 5 pin female XLR
Input: DMX 512 (1990) on 5 pin male XLR
Bypass: Relay as failsafe link
Signalisation: 4 Leds
Power: 85-264 VAC 47-440 Hz 20VA max
Dimensions   19" 1HE rack unit 483 x 44 x 150 mm
Weight: 2 kg

Designed and manufactured in the Netherlands by:

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Distributed by:

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