Appendix A

Software Update

Update the Software
Introduction

Congratulations on your purchase of the SmartFade lighting control console. The SmartFade console offers a great feature range including hands-on manual control, memory driven operation, and an impressive array of features for systems work. SmartFade is perfect for any venue, usable for small touring shows, auditorium productions, or as a stage manager’s remote console.

This chapter contains the following sections:

• Using this Manual ......................................................... 2
• Help from ETC Technical Services ................................. 3
• Power-up and Shutdown Procedures ............................... 4
• Save & Load to Memory Card ........................................ 6
Using this Manual

This manual will hopefully get you up and running in no time. These are the manual conventions.

Instructions

Instructions are shown in a table with columns for Action, Console and Feedback.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate Blackout mode</td>
<td>BLACK OUT</td>
<td>Button lights up. No output except from the Independents.*</td>
</tr>
</tbody>
</table>

* There may be a comment like this with an asterisk.

Menu Directions

Many functions require menu navigation. For brevity's sake, menu navigation is conveyed in the following method:

Menu>Settings>Language>[English]

Each “>” indicates passage to a new menu sublevel, usually by pressing the MENU button. Items [within brackets] are changed with the wheels.

Displays are shown like this

Crossfade faders
>Upwards only

Text Conventions

- Buttons in tables are shown as images. Buttons in text are indicated with bold capital letters followed by the word button. Like STACK button.
- References to other parts of the manual are indicated in italics. When viewing this manual electronically, click on the reference to jump to that section of the manual.

Note: Notes are helpful hints and information that is supplemental to the main text.

CAUTION: A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, possible data loss or equipment problems.

Please E-mail comments about this manual to: TechComm@etcconnect.com
Help from ETC Technical Services

If you are having difficulties, your most convenient resources are the references given in this user manual. To search more widely, try the ETC Web site at www.etcconnect.com. You can ask other users for advice on the ETC forums at www.etcconnect.com/community.

If none of these resources is sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all ETC offices outside of normal business hours.

When calling for help, please have the following information handy:

• Console model and serial number (located on back panel)
• Dimmer manufacturer and installation type
• Other components in your system (Unison®, other consoles, etc.)

**Americas**
Electronic Theatre Controls Inc.
Technical Services Department
3031 Pleasant View Road
Middleton, WI 53562
800-775-4382 (USA, toll-free)
+1-608 831-4116
service@etcconnect.com

**Asia**
ETC Asia, Ltd.
Technical Services Department
Room 1801, 18/F, Tower 1
Phase 1, Enterprise Square
9 Sheung Yuet Road
Kowloon Bay, Kowloon,
Hong Kong
+852 2799 1220
service@etcasia.com

**United Kingdom**
Electronic Theatre Controls Ltd.
Technical Services Department
26-28 Victoria Industrial Estate
Victoria Road,
London W3 6UU England
+44 (0)20 8896 1000
service@etceurope.com

**Germany**
Electronic Theatre Controls GmbH
Technical Services Department
Ohmstrasse 3
83607 Holzkirchen, Germany
+49 (80 24) 47 00-0
techserv-hoki@etcconnect.com
Power-up and Shutdown Procedures

Unpack & Connect
You can get SmartFade up and running in no time.
- Unpack
- Connect power
- Connect DMX to dimmers
- Power up

Power-up Procedure
SmartFade uses the power button for power-up and power-down. It is also used to access the operating mode selection menu.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press and release</td>
<td>🔥</td>
<td>The LCD shows the current software version.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The button LEDs will light up in the following order: GREEN, RED, then the rest. After this all LEDs light to the levels appropriate to the selected mode of operation.</td>
</tr>
</tbody>
</table>

* During the startup process, LEDs will fade to full brightness regardless of user settings.

Shutdown Procedure

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Press and release</td>
<td>🔥</td>
<td>The LCD shows a message asking that you confirm the shutdown command.</td>
</tr>
<tr>
<td>2a. Confirm</td>
<td>✅</td>
<td>Console is shut down.</td>
</tr>
<tr>
<td>2b. Cancel</td>
<td>❌</td>
<td>Shutdown is cancelled and operation resumed.</td>
</tr>
</tbody>
</table>

When you use the shutdown procedure, the SmartFade console will complete any pending operations and save any system data as required to ensure error-free startup at the next session. Disconnecting power from the console while it is shut down produces no ill effects.
**Operating Modes**

Hold the power button during start-up to enter the Operating Modes menu. This allows you to select different operating modes. No data is lost when changing modes, it will reappear when the corresponding mode is selected again.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Press and hold (console must be off)</td>
<td></td>
<td>The LCD shows the Operating Modes menu.</td>
</tr>
<tr>
<td>2. Select mode</td>
<td>Wheel</td>
<td><strong>&gt;Full Control</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>All functions available</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>&gt;DMXBackup</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The console is a DMX backup for up to 512</td>
</tr>
<tr>
<td></td>
<td></td>
<td>outputs, levels are stored from an external</td>
</tr>
<tr>
<td></td>
<td></td>
<td>device sending to the DMX input.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>&gt;TwoScene mode</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The console functions primarily as a tradit-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ional two-scene console.</td>
</tr>
<tr>
<td>3. Activate mode</td>
<td></td>
<td>The console will enter the selected mode.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The console will continue to power up in this</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mode until the mode is changed.</td>
</tr>
</tbody>
</table>
Save & Load to Memory Card

SmartFade uses either a standard SD Memory card or SDHC Memory card as the primary external storage device. Before you can use a new SD card make sure it is formatted correctly (FAT16). See "Format SD Memory Card" on page 7.

Note: When using SDHC Memory cards for show file storage, please use the following guidelines for best performance:

• Keep your show file names to 8 characters or less. This will ensure the entire name can be viewed in the SmartFade LCD display when loading and saving shows.

• Keep fewer than 100 show files in the root directory of your SDHC Memory card. Other file types or archived show files should be kept in folders on the card. This will speed performance of reading the file directory and will help to minimize excessive scrolling of the file menu.

CAUTION: Only standard SD Memory cards or connection to a PC via USB may be used for updating the software on a SmartFade console. Software update is not possible using an SDHC Memory card.

The file format is ASCII Text Representation for Lighting Console Data. This format is compatible with all systems that follow this standard. Although there may be discrepancies between systems, usually the main play data is compatible. See www.usitt.org.

Save Show to card

This is done from the Save/Load Show menu

Menu>Save/Load Show>[Save as]

| Save Show | Save>SHOW01.ASC |

Shows may be given a two digit number with the wheel. Select the show with the wheel. Confirm loading by pressing MENU.

Show files saved in the ETC application SmartSoft can be given any valid DOS-style name and the suffix ".asc"

• A file or directory name can be no more than eight characters long.

• No spaces can be included in the file name, the extension or the directory name.

• Certain characters (\ / : * ? ’ ” > | ) \ / ) are illegal and cannot be used.
Load show from card

This is done from the Save/Load Show menu.

Menu>Save/Load Show>[Load show]

Select the show with the wheel. Confirm loading by pressing MENU. The default show offered for loading will be the last show, or the lowest numbered recording on the card.

Load patch from card

This is done from the Save/Load Show menu.

Menu>Save/Load Show>[Save as]

Select the show with the wheel. Confirm loading by pressing MENU.

The default show offered for loading a patch from will be the lowest numbered recording on the card. The reason for this is that you may want to save a dummy show with just a patch as show 01.

Format SD Memory Card

SD and SDHC Memory cards are usually pre-formatted. You may need to reformat your card(s) so that they will function with the console. SmartFade supports the following formats on SD and SDHC cards:

- SD Memory cards : FAT16 only
- SDHC Memory cards : FAT16 or FAT32 only

Formatting has to be done in a PC. You will need an SD card reading device connected to your PC.

CAUTION: Formatting your SD Card will erase any information stored on the card. Be sure to remove any important files from the card before formatting.

CAUTION: Only standard SD Memory cards or connection to a PC via USB may be used for updating the software on a SmartFade console. Software update is not possible using an SDHC Memory card.

Step 1: Insert the SD card into its reading device. Make sure the device is connected to your Windows PC.
Step 2: The SD card will appear as a new drive. You should be able to find it as an icon with some drive letter A-Z under My Computer.

Step 3: Right-click on the SD card icon and select **Format**. This will open the formatting window.

![Format Removable Disk (E:) window]

Step 4: In the **File System** field, select **FAT**. This will establish the card’s file system as FAT16.

Step 5: Click **Start** and then complete the formatting process.
Chapter 1
General Information

This chapter gives you the general information you need to get started.

This chapter contains the following sections:

- Control Capacity ............................................. 10
- Frontpanel Functionality ................................. 11
- Philosophy of the Console ............................... 15
- Data Structure & Timing ................................. 16
Control Capacity

SmartFade is a simple to use but very powerful lighting console for 48 (96) intensity channels a specifically designed to be usable right out of the box.

**Intensity channels**

There are 48 (96) intensity channels. Each intensity channel can control one or more dimmers. Dimmers with the DMX address 1-48 (96) should be able to control right out of the box from these two fader modes, since the default patch is 1:1. Intensities can be controlled live, and then stored into memories, sequences or the Stack steps. All intensities interact on a Highest Takes Precedence basis (HTP). *HTP control rules, page 15*

**Independents**

There are two Independent buttons that can control one output each, for specials like houselights, smoke machine or followspot. *See “Patch Independents” on page 22.*

**DMX Output**

There is 1 DMX Out allowing control of up to 512 DMX outputs.

**DMX In**

There is 1 DMX In allowing input of up to 512 DMX outputs.

**MIDI**

There is a recommended subset of the standard MIDI Show Control (MSC) which is one of the most common ways to use MIDI to synchronise show equipment. General MIDI (Music MIDI) may be used to link consoles or to record fader, button and stack actions into a music sequencer for subsequent playback and sound track synchronization.

**Memory Card**

Shows can be saved to a standard SD Memory card. *See “Save & Load to Memory Card” on page 6.*
Frontpanel Functionality

This is an overview of the functionality of the frontpanel of your SmartFade console.

**General Buttons**

All buttons have LED’s. Some are multi-color. They light up when active, and blink when they can be selected for the current function.

**Power button**

The power button is used to power up and shut down the system. See “Power-up and Shutdown Procedures” on page 4.

**Clear button**

The CLEAR button is used to clear intensities and set memory faders to zero (press 2-4 times). Nothing is deleted, it only sets levels to zero. See “Clear” on page 56.

It can also be held with other buttons for some special functions, this is described in this manual where it so applies.

**Undo**

The UNDO button is used to reverse some specific situations. This applies only to the last performed command, and there is only one level of undo.
Faders & Bump buttons

There are 24 (48) faders. They can be set to control intensities or memories and sequences. These modes are set with the FADERS buttons.

Each fader has a Bump button below it. This button will light up when there is content, and it will mimic the output of the content by varying its intensity. The button color will vary depending on the type of content.

Bump Playback Modes

There are two Bump modes when a Bump button is pressed, **Pile-on** and **Solo**. Both use the level of the BUMPS fader. The SOLO button toggles between these modes. See “Bump Master” on page 56.

**Note:** For intensity faders to control light output live, three things are required:

- The Master Fader is over zero, and normally set to full (the topmost position).
- The BLACKOUT button is off (not lit)
- The NEXT button is off (not lit).

Master & Black Out function

The Master fader proportionally limits all intensity outputs. The Blackout button instantly sends all intensities generated by the console to zero. See “Master & Black Out function” on page 56.

Independents

The two Independent buttons are separate control channels (IND 1, IND 2) that can control any outputs in a toggle or bump mode. These outputs can be separated from all other controls. See “Set up Independents” on page 22.

Crossfader

The Crossfader consists of a Live and Next fader, plus the Crossfade transport buttons. It can be used for fading between the 199 steps of the programmable Stack, or for single-scene fading into intensities that are set blind in NEXT mode. **Stack & Crossfader, page 60**

The following buttons are used together with the crossfader
**Sequence & Stack functions**

These buttons are used to program and edit Sequences in the Mems faders, and the Stack of the Crossfader. See “Sequences” on page 36. See “Stack” on page 39.

**Record & Edit functions**

The row of buttons under the wheel offer recording and editing functions described in the Program and Edit chapters of this manual. See “Program” on page 29. See “Edit” on page 43.
LCD & Wheel Functions

The LCD menu provides quick access to functions.

Main functions.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate menus</td>
<td>![Checkmark]</td>
<td>Buttons Intensity:&gt; 84</td>
</tr>
<tr>
<td>Scroll through choices</td>
<td>Wheel</td>
<td>Choices are shown over the wheel. Use the Menu button again to move to subsequent levels, and to accept setting changes.</td>
</tr>
<tr>
<td>Previous choice</td>
<td>&lt;</td>
<td>Return to previous menu level.</td>
</tr>
<tr>
<td>Exit</td>
<td>◀</td>
<td>Cancels out of the menus.</td>
</tr>
</tbody>
</table>

LCD - Preview mode

In preview mode it’s possible to see programmed intensities for MEMS faders 1-24

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate preview mode</td>
<td>![Preview]</td>
<td>Bumps 1-24 start blinking. Press again to deactivate preview mode.</td>
</tr>
<tr>
<td>Select fader</td>
<td>![1 24]</td>
<td>The selected Bump stops blinking. The LCD(s) will show intensities for the currently selected fader mode.</td>
</tr>
</tbody>
</table>
Philosophy of the Console

SmartFade is designed to be simple to use, and still offer advanced functionality for a standard rig of conventional lights.

The back-lit buttons make it possible to run SmartFade without an additional screen. They offer information about content, fader mode and channel intensities.

The LCD and the wheel provides a powerful menu-driven editing functionality.

**HTP control rules**

Dimmer channels operate using Highest Takes Precedence (HTP). This means that if an intensity is output from more than one fader, the highest level will be the resulting output.

Intensity channels can be set to a level using the channel faders. These channel faders operate in the Live fader of the Crossfader. They can be used to take a level originating from the Crossfader either up or down. Set levels will fade out when the Crossfader is operated.

**Different ways to use SmartFade**

SmartFade consoles can be run in Normal Mode, Two Scene Mode and DMX Backup Mode. See “Two Scene Mode” on page 65. See “DMX Backup” on page 69.

These are some different approaches to using SmartFade in Normal Mode.

**_manual control**

Levels are set directly using faders.

**Single Scene crossfading**

Set up levels blind, and then crossfade into them Live. See “Single Scene Crossfading” on page 63.

**Programming for improvised playback**

Prepare memories and sequences.

**Programming a Cue List for playback**

Record a Stack with up to 199 steps and fade times for playback in the crossfaders.
Data Structure & Timing

The data structure is very simple. The faders offer direct control of intensities and parameters. These levels can be stored in different ways.

**Memories**

Memories are created to store intensities to a fader. These memories can be played back from the faders, and they can be stored as steps in sequences or the Stack. There are 24 fader memories in 12 fader pages = 288 memories in total (in SmartFade 24/96 this is doubled to 576 memories in total).

**Snapshots**

The complete output can be instantly stored with a Snapshot function. Up to 10 such Snapshots can be buffered. They can be stored as memories at a later point.

**Sequences**

The fastest way to create a loop of memories is to record a sequence. A sequence is a list of 24 steps that can be played back manually, looped or as a OneShot from the faders. Each step can be a single intensity channel or a memory. Each step can have an Up, Down and Wait time. There are general timing override functions like Rate, Fade and BPM as well.

**Stack**

The Stack is theatre style list of 199 steps that can be played back manually or as a OneShot from the Crossfader. It is intended as a main cue list for a show. Each step can be a single intensity channel, a memory or a unique Stack memory state. Each step can have an Up, Down and Wait time. There are general timing override functions like Rate and Fade override as well.
Chapter 2
Setup

The default setup of any SmartFade console allows you to run 48 or 96 dimmer channels straight out of the box with a one-to-one patch. You can create your own patch as well. There are user settings for MIDI, buttons, displays and language. These features are described in this chapter.

This chapter contains the following sections:

- **DMX Output** .................................................. 18
- **Clear/Set Patch** ............................................... 19
- **Patch Dimmers** ............................................... 20
- **Patch Independents** ................................. 22
- **Console Settings** ............................................ 23
- **MIDI Setup** ................................................... 26
DMX Output

DMX (Digital MultipleX) is a worldwide standard (or protocol) that your SmartFade console uses to communicate with lighting equipment. It is a digital protocol that basically defines a state of “on”, “off” or a percentage of “on”. DMX can be used to control dimmers, moving lights, fog machines, color scrollers, media servers or any number of other DMX devices.

DMX is restricted to a total of 512 (output) channels available in one DMX line (often referred to as a universe). Your SmartFade console has one such universe.

The DMX outputs are patched to console channels for intensities in SmartFade. There are 48 or 96 intensity channels and 2 independent channels. Each console channel can be patched to multiple outputs. The default is set 1:1.

![DMX Output Diagram]

DMX Out Speed

In rare cases some DMX devices may have trouble reading DMX at the full standard speed supplied by SmartFade. This is often seen as flicker in your lighting devices. You can slow down the DMX out speed to try to alleviate such communications errors with other manufacturer’s equipment. The default is set to “Max”.

Menu>Setup>DMX Out>[Max]..[Slow]..[Medium]..[Fast]
Clear/Set Patch

Clear Patch

The patch is cleared from the Patch Menu.

Menu>Patch>Patch - special>[Clear Patch]

Press (MENU) to confirm.

Set Patch 1 to 1

The patch is set 1 to 1 from the Patch Menu.

Menu>Patch>Patch - special>[Set Patch 1 to 1]

Press (MENU) to confirm.

Unpatch a dimmer

You can unpatch any single dimmer from the Patch Menu.

Menu>Patch>Patch - special>[Unpatch dimmer]

Select dimmer with the wheel, press (MENU) to confirm.
Patch Dimmers

Your SmartFade controls 48 or 96 intensity channels that can be patched to a DMX universe with 512 outputs.

The Default Patch
SmartFade defaults to a “1 to 1” patch for dimmers.
This is the simplest version of a patch and is the most common, as it is easy to remember and provides immediate control with all of your available channels. It is also possible to create a custom patch by assigning any DMX output(s) to any control channel. Setting the patch is simple and is performed on the LCD menu.

Patch Live or Blind
Patching in Live will set the selected DMX output to full, and set all other dimmers to zero so you can see what’s connected to that dimmer. Patching in Blind will not affect current DMX values until changes in the patch override any active channels.

Note: A dimmer can only be patched to one control channel at a time. If you patch a dimmer and then later patch the same dimmer to a different channel, the dimmer will be automatically unpatched from its original channel and assigned to the new channel.

Patch by Dimmer
Patching by dimmer is probably the easiest way to patch a rig that is unknown to you. In Live mode you can turn on each output one by one, select an intensity channel and patch it.

Step 1: Open the Patch:
Menu>Patch>[Patch by dimmer]

Step 2: Choose between Live and Blind mode using the wheel.
Patch by Dimmer
Patch mode: Live

Press (MENU) to confirm.

Step 3: Use the wheel to select dimmer.
Patch mode: Live
D: 1 C: 1

Press (MENU) to confirm and move to Channel.

Step 4: Now use the wheel to select a channel for this dimmer.

Patch mode: Live
D: 1 C: 1

Press (MENU) to confirm and move back to dimmers.
Patch by Channel

Patching by channel is just as simple as patching by dimmer. The only difference is that the starting point is the intensity channel. By doing it Live you can check what is patched to each intensity channel, and then patch or unpatch more dimmer outputs to this channel.

Step 1: Open the Patch:
Menu>Patch>[Patch by Channel]

Step 2: Choose between Live and Blind mode using the wheel.

<table>
<thead>
<tr>
<th>Patch by Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch mode: Live</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm.

Step 3: Use the wheel to select channel.

| Patch by Chan: 1 |

Press (MENU) to confirm and move to Dimmer. There are five dimmer positions for each channel to allow you to patch more than one dimmer. If you select an output that is already patched there is an "*" after the number as after dimmer 4 in the image below.

Step 4: Now use the wheel to select a dimmer for this channel.

<table>
<thead>
<tr>
<th>Patch by Chan: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&gt; 4*</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm and move through all five dimmer positions, back to channels.
Patch Independents

Independent buttons **IND 1** and **IND 2** provide two outputs separated from all other controls. They are intended to operate devices such as smoke machines, tab tracks, cue lights, etc.

- **SOLO** does not affect these outputs.
- The state or result of the 2 independent outputs is not recordable.

**The Default Patch**

SmartFade defaults to the outputs 97 & 98 for the independents.

\[
\begin{align*}
\text{IND 1} &= \text{DMX 97} \\
\text{IND 2} &= \text{DMX 98}
\end{align*}
\]

This is easy to remember and provides immediate control with two outputs. It is also possible to create a custom patch by assigning any DMX outputs to the independents. This is done in the Patch. They are indicated in the patch as channels i1 and i2. See “Patch by Dimmer” on page 20. See “Patch by Channel” on page 21.

**Set up Independents**

The basic behavior of the buttons and faders are set up in the Independents menu.

**Menu>[Independents]**

<table>
<thead>
<tr>
<th>Menu choice</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
</table>
| **[Button mode]** | Use **MENU** to select independent and the wheel to select function     | **Ind. button mode**
|               |                                                                        | i1:=Bump 2: Latch                                   |
| **[Master mode]** | Use **MENU** to select independent and the wheel to select function     | **Ind. master mode**
|               |                                                                        | i1:=GM 2: no GM                                     |
|               |                                                                        | Sets if BLACKOUT and MASTER fader will affect or not. |
| **[Set Level]** | Use **MENU** to select independent and the wheel to set the level       | **Independent level**
|               |                                                                        | i1:=100 i2: 100                                     |
Console Settings

Erase Functions
Erasings data is done from the Settings menu.

Menu>Settings>[Erase]

The following kind of data can be erased
- All show data
- Memories
- Sequences
- Stack

MIDI Settings
See "MIDI Setup" on page 26.

DMX In
There are two settings for DMX In. One is the mode, which is how the incoming DMX is patched and merged. The other is what SmartFade shall do if incoming DMX stops (data loss).

DMX In mode
This is set up in the Settings menu.

Menu>Settings>DMX In>[Mode]

DMX In can be used in two ways in normal operational mode: Merge or To Memory.
- **Merge**: combines the DMX Input data with the SmartFade’s post-patch output. DMX input data is not mastered in this mode.
- **To Memory**: directs the input DMX to fader 1 in page 1 and patches incoming DMX outputs 1-48/96 to the intensity channels of the SmartFade console. Fader 1 will be a master for the DMX in control. DMX In data cannot be patched.
Data loss

This is set up in the Settings menu

Menu>Settings>DMX In>[Data Loss]

Data loss can be handled in two ways: Keep or Fade Out.

- **Keep**: the last input is held.
- **Fade Out**: the last input is faded out in 5 seconds.

DMX Out

*See “DMX Out Speed” on page 18.*

Language

You can choose language for the menus from the Settings menu. The console will continue to boot with the last selected language until it is changed.

Menu>Settings>Language>[English]

Current choices are

- English
- Français
- Deutsch
- Español
- Italiano

Display

Display settings are done from the Settings menu.

Menu>Settings>Display>[Contrast]

Menu>Settings>Display>[Brightness]
**Buttons**

You can set the overall intensity for the LED buttons. This is done from the Buttons menu.

Menu>Settings>[Buttons]

<table>
<thead>
<tr>
<th>Buttons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity: 84</td>
</tr>
</tbody>
</table>

**Disable Recording**

Select OFF to allow recording and ON to disable recording.

Menu>Settings>[Recording]

<table>
<thead>
<tr>
<th>Recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable: Off</td>
</tr>
</tbody>
</table>

**Crossfade faders**

The direction in which the Crossfade faders advance to the next step in STACK mode is set in the Settings menu.

Menu>Settings>[Crossfade faders]

<table>
<thead>
<tr>
<th>Crossfade faders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upwards only</td>
</tr>
</tbody>
</table>

There are two choices of behavior

- **Upwards only**, meaning that you will need to pull the faders back to the bottom before fading "up" into the next cue.
- **Both ways**, meaning that each time you move the faders from bottom-to-top or top-to-bottom you will fade into the next cue in the stack.

**Software Version**

You can verify what software version your console is running in the Diagnostics menu.

Menu>Diagnostics>[Software version]

<table>
<thead>
<tr>
<th>SF ML: 3.0.0.1.0.17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalities: 6.4.2</td>
</tr>
</tbody>
</table>
SmartFade includes MIDI (Musical Instrument Digital Interface) facilities to provide three primary functions.

- **Show control systems:** SmartFade may be set to respond to MIDI data from a time-based sequencer or show control system. This can be MSC or functions from the Basic MIDI implementation of SmartFade. The default setting is OFF.

- **Synchronising playback of two SmartFade consoles:** MIDI may be used to connect any two SmartFade consoles together, including SmartFade and SmartFadeML. The Memory faders, bumps and the playback functions of the Stack plus Grand Master and Blackout can be synchronised. The default setting is ON.

- **MIDI Sequencing:** You can record button presses and fader movements to a sequencer and play back.

For show control and synchronising playback it is normally enough to make a MIDI connection and start using without having to set up anything.

**Note:** You must decide if you want to use either MIDI (ch) or MSC to link consoles, and turn ON the one you want and turn OFF the one you don't. Leaving both functions on will cause double stepping and some other strange behaviors.

**MIDI Show Control**

MSC is a show control standard within MIDI that usually is used when different devices are linked in a show control setup. SmartFade supports a basic set of Midi Show Control (MSC) commands. They are both sent and received at all times - regardless of the settings for MIDI channel.

You can set the MSC Device ID from the MIDI menu.

**Menu>Settings>MIDI->[MSC Device ID]**

Use **MENU** to select Device ID (0-126 or All) or On/Off. Use the wheel to change the currently selected parameter.

**Midi Show Control Commands**

- Go
- Stop
- Resume
**Synchronising Two SmartFades**

To synchronise playback of two SmartFade consoles, just connect MIDI OUT from console A to MIDI IN on console B. Now the main playback functions are “mirrored” from console A to console B.

**Functions**
- GO, PAUSE and STOP will be synchronised*.
- In MEM mode the faders and bumps will be synchronised*.
- SOLO mode will be synchronised for MEM bumps*.
- Grand Master, Blackout and Bumps Master will be synchronised*.

* These functions are transmitted from within the Basic MIDI implementation on the currently set MIDI channel. *MIDI Channel, page 28.*

**Basic MIDI implementation**

A set of controllers and buttons can be sent and received. This can be used both for Show Control and to Synchronise two SmartFade consoles.

**Controllers**
- 1-48 = Master 1-48 (only in MEM mode)
- 124 = Live fader
- 125 = Next fader
- 126 = Bump Master
- 127 = Grand Master

**Program Change**
- 0 = Reset the Stack to step 0
- 1-99 = GOTO step 1-99 in the Stack
- 100-111 = Memory pages 1-12
- 124 = Pause
- 125 = Start (GO)
- 126 = B.O. not active
- 127 = B.O. active

**Note on/off**
- 0-47 = MEM bumps 1-48 (only in MEM mode)
MIDI Channel

The Basic and Advanced MIDI functions apart from MSC are sent and received on the same MIDI channel. This is set in the MIDI menu.

Menu>Setup>MIDI>[Midi Channel]

Use MENU to select MIDI Channel (1-16) or On/Off. Use the wheel to change the currently selected parameter.
Program

Once you have set up your console to control the dimmers in your rig, you can start programming.

This chapter contains the following sections:

- **Intensity channels** ........................................30
- **Memories** .........................................................32
- **Snapshots** .......................................................34
- **Sequences** .......................................................36
- **Stack** ...............................................................39
Intensity channels

Intensities for dimmers are set with the faders. Simply press one of the intensity mode buttons and then use the faders to set intensities. The currently selected button is lit in green.

Intensities are piled-on to the output of the console in an HTP manner (Highest Takes Precedence). Intensities may be sourced by a channel fader, a memory fader or the Stack. They are limited by the Master fader and Black out button.

Intensity mimic
The bump button under each fader will light up proportionally to the actual intensity of the corresponding outputs, regardless of the position of the fader. It will do so even if there are no outputs patched to the fader.

The LCD will show the current output of the selected fader mode, with bar graphs.

Bumping channels
The bump buttons will bump instantly to the level of the BUMP fader. If SOLO mode is active the other intensity channels will be temporarily muted.

Matching values
Since the faders are used for several functions, there will be situations where the physical position of the fader does not match the output of the fader. When you move an unmatched fader, the bump button will blink until the actual level is matched by that of the fader.

Set all intensities to zero
Use the CLEAR button to selectively turn lights off. Press CLEAR four times in rapid succession to get a blackout on stage. See “Clear” on page 56.

Live or Next mode
Intensities can be set Live or blind (NEXT mode).

Live mode
Normally Intensities are set directly in the Live fader of the Crossfader. The result of this fader is piled on to the output of the other faders. If a crossfade is run manually or with the Go button - the levels will fade to zero, or to the next step in the Stack of the Crossfader.

Next mode
When NEXT mode is activated, all faders will set intensities in the Next fader of the Crossfader - which means that these levels will be output after the next crossfade. This allows you to preset levels manually and fade into them like in a traditional single-scene manual lighting console. See “Single Scene Crossfading” on page 63.
Adjust Channel Range

It’s possible to select any channel range and adjust proportionally in the Channels menu.

Step 1: Open the Adjust Channel Range menu:
Menu>Channels>[Adjust Channel Range]

Step 2: Use the wheel to select start channel.

<table>
<thead>
<tr>
<th>Adjust Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 - 1 Lv: 0</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm and move to end channel.

Step 3: Use the wheel to select end channel.

<table>
<thead>
<tr>
<th>Adjust Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 -&gt;24 Lv: 0</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm and move to the level.

Step 4: Use the wheel to adjust the levels for the selected range. The level displayed is the value of the first channel in the selected range, other channels will be altered proportionally from their starting values.

<table>
<thead>
<tr>
<th>Adjust Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 - 24 Lv: 28</td>
</tr>
</tbody>
</table>

Press (MENU) to set a new start channel or exit.

Set Channel Range

It’s possible to select any channel range and set a level in the Channels menu.

Step 1: Open the Set Channel Range menu:
Menu>Channels>[Set Channel Range]

Step 2: Use the wheel to select start channel.

<table>
<thead>
<tr>
<th>Set Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 - 1 Lv: 0</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm and move to end channel.

Step 3: Use the wheel to select end channel.

<table>
<thead>
<tr>
<th>Set Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 -&gt;20 Lv: 0</td>
</tr>
</tbody>
</table>

Press (MENU) to confirm and move to the level.

Step 4: The level displayed is the value of the first channel in the selected range, as the wheel is moved other channels will be forced to this value and then all will be altered in parallel to the same dialed value.

<table>
<thead>
<tr>
<th>Set Chan Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch: 1 - 20 Lv: 34</td>
</tr>
</tbody>
</table>

Press (MENU) to set a new start channel or exit.
Memories

Every intensity can be stored to a memory for playback.

There are 12 fader pages with 24 (48) memory faders in each page. This provides a possible total of 288 memories in a SmartFade 1248/1296 and 576 memories in a SmartFade 2496.

A recorded memory is indicated in red. The bump button lights up at full if the fader is above zero, contributing to the light output.

To select Memories mode for the faders press MEMS.

MEMS

The current fader page 1-12 is indicated in the bump buttons during a second when MEMS is pressed. You can hold MEMS to verify this and to change fader page.

Record a memory

Set up a look you want to record using the channel faders. You may record the output from other memory faders as well.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate recording</td>
<td>REC</td>
<td>Buttons that can record in this mode will blink at full. If there is a memory stored already, this button is dimmed (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. If needed, change page</td>
<td>MEMS</td>
<td>If needed, hold MEMS and press a bump button 1-12 to change page.</td>
</tr>
<tr>
<td>3. Select fader</td>
<td>1 ...</td>
<td>The moment the bump button is pressed, the memory is stored and the console will automatically return to it's previous fader mode. Press UNDO to undo this recording.</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Test memory

Press CLEAR four times to clear all intensities. Select MEMS mode. The light in the bump button of the fader will be dimmed to show that it has content. Move the fader up. The same look you recorded should appear on stage.
**Record a Magic memory**

You can set up and record a random look using the Magic function.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Set channels or memory faders</td>
<td>Faders</td>
<td>All channel and memory faders over 0% will be included in the Magic function. If you are using memory faders, make sure NEXT is off.</td>
</tr>
<tr>
<td>2. Activate recording</td>
<td>REC MEM</td>
<td>Buttons that can record in this mode will blink at full. If there is a memory stored already, this button is dimmed (press CLEAR to exit).</td>
</tr>
<tr>
<td>3. Create a Magic look</td>
<td>MAGIC</td>
<td>Every time MAGIC is pressed, a new random look will be created from all channel and memory faders over 0%.</td>
</tr>
<tr>
<td>4. If needed, change page</td>
<td>MEMS 1 ... 12</td>
<td>If needed, hold MEMS and press a bump button 1-12 to change page.</td>
</tr>
<tr>
<td>5. Select fader</td>
<td>1 ... 24 or 1 ... 48</td>
<td>The moment the bump button is pressed, the memory is stored and the console will automatically return to its previous fader mode. Press UNDO to undo this recording.</td>
</tr>
</tbody>
</table>

**Test memory**

Press CLEAR four times to clear all intensities. Select MEMS mode. The light in the bump button of the fader will be dimmed to show that it has content. Move the fader up. The same look you recorded should appear on stage.
Snapshots

The Snapshot function is designed to make it easy to capture the current output, and store it as a memory at a later point.

- Snapshot can be pressed at any time inside any menu or function.

Snapshot captures a complete state of all output channels and stores them into a buffer. This buffer has 10 snapshot positions. If pressed 11 times, Snapshot will overwrite the 1st Snapshot in the buffer.

**The Snapshot button**

The button is off when there are no Snapshots recorded. As soon as there is a Snapshot recorded it will light at full in red.

**Record a Snapshot**

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record the current output</td>
<td><img src="image" alt="Snapshot" /></td>
<td>The current output is recorded. The display will momentarily display a confirmation. The Snapshot button will light up as soon as there are one or more Snapshots.</td>
</tr>
</tbody>
</table>

**Clear all Snapshots**

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear the Snapshot buffer</td>
<td><img src="image" alt="Clear and Snapshot" /></td>
<td>The Snapshot buffer is immediately deleted, this cannot be undone.</td>
</tr>
</tbody>
</table>
Copy a Snapshot to a Memory

It's possible to copy a Snapshot to a memory live (View & Copy Snap) or blind (Copy Snap) in the Snapshot menu.

Step 1: Open the Snapshot menu:
Menu>Snapshot>[Copy Snap]

Step 2: Use the wheel to select live (View & Copy Snap) or blind (Copy Snap).

Step 3: Use the wheel to select a snapshot.

Press (MENU) to confirm and move to the target page.

Step 4: Use the wheel to select a snapshot.

Press (MENU) to confirm and move to the target fader.

Step 5: Use the wheel to select a fader.

Press (MENU) to confirm.
Sequences

A Sequence is a list of up to 24 steps that can be recorded to and played back from the last four faders. Each fader page carries up to 4 sequences and there are 12 fader pages - so a total of 48 sequences can be recorded. Memory faders containing sequences have yellow bump buttons.

Each step of a sequence can contain one of two items:

- One single intensity channel.
- A memory from any of the 12 fader pages.

Sequence steps can contain memories that have already been recorded, or empty memories that can be edited later.

You can use MAGIC to create randomized sequences. Once recorded, Magic sequences can be edited like any other sequence.

**Step Times**

Sequence steps can have three times; Up, Down and Wait time. There is also an override Rate and Fade factor. See “Sequence & Stack Times” on page 52.

**Playback modes**

Sequences can be played back as a loop (chase), OneShot or manually. See “Run Modes” on page 51.
# Record a Sequence

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate record sequence</td>
<td>![REC SEQ]</td>
<td>All buttons that can record in this mode will blink at full in yellow. If there is a memory or sequence stored already, this button will be dimmed (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Choose location</td>
<td>![21 ... 24 or 45 ... 48]</td>
<td>The moment the bump button is pressed, the console will switch back into the previous fader mode. All bump buttons that can be used will blink at full.</td>
</tr>
<tr>
<td>(change page if desired)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. If desired, set the time</td>
<td>Wheel</td>
<td><img src="image" alt="Seq:24 S: T:&gt;1.0 Select bumps" /></td>
</tr>
<tr>
<td>for this step</td>
<td></td>
<td>You can select any memory or intensity channel. Change fader page if desired. When a bump button is pressed, that memory or intensity will be stored as a step with the times set in the wheels. Repeat steps 3-4 until satisfied.</td>
</tr>
<tr>
<td>4. Select source for this step</td>
<td>![1 ... 24 or 1 ... 48]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>End recording. The console will return to the fader mode prior to recording this sequence. Press UNDO to undo this recording.</td>
</tr>
<tr>
<td>5. End recording</td>
<td>![REC SEQ]</td>
<td></td>
</tr>
</tbody>
</table>

### Test sequence

Press CLEAR three times to clear all intensities. The light in the bump button of the fader will be dimmed in yellow to show that it has a sequence stored. It lights up at full if the fader is above zero and contributing to the output. Select MEMS mode and move the fader for the recorded sequence up. The sequence you recorded should appear on stage.
Record a Magic Sequence

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate record sequence</td>
<td>REC SEQ</td>
<td>All buttons that can record in this mode will blink at full in yellow. If there is a memory or sequence stored already, this button will be dimmed (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Choose location (change page if desired)</td>
<td>21 ... 24 or 45 ... 48</td>
<td>The moment the bump button is pressed, the console will switch back into the previous fader mode. All bump buttons that can be used will blink at full.</td>
</tr>
<tr>
<td>3. Bring the fader to full</td>
<td>Fader</td>
<td>Select MEMS and set the desired seq fader up in order to view the magic seq steps as they are created.</td>
</tr>
</tbody>
</table>
| 4. Activate Magic mode              | MAGIC   | Toggle magic bumps
MAGIC to create seq                                                                                                                                 |
| 5. Select source faders             | 1 ... 24 or 1 ... 48 | You can select/deselect any memory or intensity channel within the same fader page. Change fader page if desired. When a bump button is pressed, that memory or intensity fader is selected as a source. |
| 6. Change values                    | wheel   | You can use the wheel to change the % of the order in the magic function.                                                             |
| 7. Generate magic looks             | MAGIC   | You can use the wheel to change the % in the order of the magic generation function. Press MAGIC again to create a new random chase. Continue until satisfied. |
| 8. End recording                    | REC SEQ | End recording. The console will return to the fader mode prior to recording this sequence. Press UNDO to undo this recording.          |

Test sequence

Press CLEAR three times to clear all intensities. The light in the bump button of the fader will be dimmed in yellow to show that it has a sequence stored. It lights up at full if the fader is above zero and contributing to the output. Select MEMS mode and move the fader for the recorded sequence up. The sequence you recorded should appear on stage.
Stack

The Stack sequence is recorded and played back on the Crossfader. It is intended to be the main cue list for a show. The Stack can contain up to 199 steps. Stack steps are arranged as 199 incremental steps with up to 9 decimal insertions allowed between major steps.

Each step of a Stack can contain one of two items:

- One single intensity channel.
- A memory from any of the 12 fader pages (or created on the fly)
- A unique Stack memory state (Que)

**Step Times**

Stack steps can have three times; Up, Down and Wait time. These times are adjusted on the wheels during playback. They can also be set in the Sequence Time menu afterwards. See “Sequence & Stack Times” on page 52.

**The Stack button**

When a Stack is recorded but not active, the STACK button will be dimly lit. Pressing STACK will activate the stack for playback on the crossfaders and the button will light fully. If there is no stack recorded, the button will be unlit.
Record the Stack from bumps

This function allows you to create the Stack with referenced memories or intensity channels. The steps are created as each bump button for a memory or intensity is pressed.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate record sequence</td>
<td>REC SEQ</td>
<td>All buttons that can record in this mode will blink at full in yellow (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Choose Stack</td>
<td>STACK</td>
<td>The moment the STACK button is pressed, the button will light up in full. Now all bump buttons can be stored as steps, and blink at full in each fader mode.</td>
</tr>
<tr>
<td>2.5 If the Stack exists...</td>
<td>Wheel</td>
<td>If this display is shown:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sequence exists</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Append to existing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Choose Erase &amp; Make New or Append To Existing with the wheel and press (MENU) to confirm.</td>
</tr>
<tr>
<td>3. If desired, set the times</td>
<td>Wheel</td>
<td>Seq: XF S: T: &gt; 5.0</td>
</tr>
<tr>
<td>for this step</td>
<td></td>
<td>Select bumps</td>
</tr>
<tr>
<td>4. Select a source for this</td>
<td>1 ... 24 or 1 ... 48</td>
<td>You can select any memory or intensity channel. Change fader page if desired. When a bump button is pressed, that memory or intensity will be stored as a reference to this step.</td>
</tr>
<tr>
<td>step</td>
<td></td>
<td>Repeat steps 3-4 until satisfied.</td>
</tr>
<tr>
<td>5. End recording</td>
<td>REC SEQ</td>
<td>End recording. The console will return to the fader mode prior to recording this sequence. Press UNDO to skip the recording.</td>
</tr>
</tbody>
</table>

40 SmartFade v3.0.1 User Manual
**Record a Memory and Stack step**

It’s possible to set up and record a memory state as a step of the Stack at the same time.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate record sequence</td>
<td>REC_SEQ</td>
<td>All buttons that can record in this mode will blink at full in yellow (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Choose Stack</td>
<td>STACK</td>
<td>The moment the STACK button is pressed, the button will light up in full. Now all bump buttons can be stored as steps, and blink at full in each fader mode.</td>
</tr>
<tr>
<td>2.5 If the Stack exists...</td>
<td>Wheel</td>
<td>If this display is shown:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Sequence exists</strong> <strong>&gt;Append to existing</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Choose Erase &amp; Make New or Append To Existing with the wheel and press (MENU) to confirm.</td>
</tr>
<tr>
<td>3. If desired, set the times for this step</td>
<td>Wheel</td>
<td>![Image](seq:xf s: t:5.0 select bumps)</td>
</tr>
<tr>
<td>4. Create a new memory &amp; step</td>
<td>REC_MEM</td>
<td>Hold REC MEM. While holding, set levels with the faders in any mode. Release REC MEM when done.</td>
</tr>
<tr>
<td>5. Select a source for this step</td>
<td>1 ... 24 or 1 ... 48</td>
<td>You can select any memory or intensity channel. Change fader page if desired. When a bump button is pressed, that memory or intensity will be stored as a reference to this step. Repeat steps 3-5 until satisfied.</td>
</tr>
<tr>
<td>6. End recording</td>
<td>REC_SEQ</td>
<td>End recording. The console will return to the fader mode prior to recording this sequence. Press UNDO to skip the recording.</td>
</tr>
</tbody>
</table>
## Record a Stack state

It’s possible to record a unique Stack memory state as a step of the Stack. In other words it does not reference a memory from any of the fader pages.

Set up a look you want to record, including effects.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate record</td>
<td>🔄 REC</td>
<td>All buttons that can record in this mode will blink at full (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Choose Stack</td>
<td>🔄 STACK</td>
<td>The button lights up.</td>
</tr>
<tr>
<td>3. Select Record step or Update live step.</td>
<td>🔄 Wheel</td>
<td>Record to the next free step</td>
</tr>
<tr>
<td>Move to step. Adjust step (optional, when recording a new step). This is not necessary when updating the Live step.</td>
<td>✔️ Wheel</td>
<td>Selects step to record to. The next free step from the current live step is auto-selected.</td>
</tr>
<tr>
<td>4. Confirm recording</td>
<td>✔️</td>
<td>The moment the button is pressed, the output is stored and the console will automatically return to it's previous fader mode. Press UNDO to undo this recording.</td>
</tr>
</tbody>
</table>
Once you have started recording information as described in Program you can play back this information, and you can edit it. This Chapter is about editing.

This chapter contains the following sections:

- **Edit Memories** ........................................ 44
- **Edit Sequences & Stack** ............................ 45
Edit Memories

Every memory can be edited blind (fader at zero) or live (fader at full). It is possible to erase all memories at once. See “Erase Functions” on page 23.

Edit a memory

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate Edit mode</td>
<td></td>
<td>All buttons with content that can be edited will blink at full (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Select memory (change page if necessary)</td>
<td>1 ... 24 or 1 ... 48</td>
<td>The moment the bump button is pressed, this memory is selected for editing. EDIT MEM and CLEAR will blink.</td>
</tr>
<tr>
<td>3. Edit intensities</td>
<td></td>
<td>Make any changes with all normal programming functions for intensities. See “Program” on page 29. Intensities may have to be matched by the faders before the level can be changed.</td>
</tr>
<tr>
<td>4. End editing</td>
<td></td>
<td>As soon as EDIT MEM is pressed the changes are stored. The console will automatically return to its previous fader mode. If you press CLEAR instead, changes are aborted.</td>
</tr>
</tbody>
</table>

Delete a memory

To delete a single memory edit it so all intensities are at zero.

Copy a Memory

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate Copy mode</td>
<td>COPY</td>
<td>This button lights up. All buttons with content will blink at full (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Select source memory (change page if necessary)</td>
<td>1 ... 24 or 1 ... 48</td>
<td>When this button is pressed, all possible targets for this copy operation will blink. Empty ones blink at full, occupied ones are dimmed.</td>
</tr>
<tr>
<td>3. Select target</td>
<td></td>
<td>As soon as the button is pressed, the source memory is recorded.</td>
</tr>
</tbody>
</table>
Edit Sequences & Stack

Sequence and Stack steps can be edited in the same way. The Stack has some extra editing functions since there are unique Stack states and point cues, which don’t exist in sequences. There is also a way to edit any Stack step directly, without entering the edit menus. To delete all Sequences and the Stack See "Erase Functions" on page 23.

The functions available for modifying Sequence & Stack steps are Edit, Delete, Insert and Change. For the stack there is also the option of recording up to 9 point Q’s between each step.

Edit the content of a Step

A sequence or Stack step can contain a reference to a memory in a specific page, or a single channel intensity. The Stack can have a unique Stack memory state as well. Memories can be edited in the memory fader, or in the step. Steps that reference a single intensity channel can not be edited, you have to use change instead to change to a different single intensity channel. Unique Stack steps are edited as described, just like memories.

Step 1: Open the Sequences menu:
Menu>[Sequences]

Step 2: Use the wheel to select Sequence (1-24) or Stack (XF).

Press (MENU) to confirm.

Step 3: Use the wheel to select Modify Steps.

Press (MENU) to confirm.

Step 4: Use the wheel to select Step: #.

Press (MENU) to confirm.

Step 5: Use the wheel to select Edit (channels can only be changed).

Press (MENU) to confirm.

Step 6: Use the channel faders to edit the contents.

Press EDIT MEM to confirm and exit or CLEAR to abort.
Delete a Step

Step 1: Open the Sequences menu: 
Menu>[Sequences]

Step 2: Use the wheel to select Sequence (1-24) or Stack (XF).

Step 3: Use the wheel to select Modify Steps.

Step 4: Use the wheel to select Step: #.

Step 5: Use the wheel to select Delete.

Step 6: You will be asked to confirm this command.

Press (MENU) to confirm. You can press UNDO to skip and revert to the data previous to this action.
Insert a Step

Step 1: Open the Sequences menu:

Menu>[Sequences]

Step 2: Use the wheel to select Sequence (1-24) or Stack (XF).

![Sequences
Playback:>24]

Press (MENU) to confirm.

Step 3: Use the wheel to select Modify Steps.

![Playback: XF
Modify Steps]

Press (MENU) to confirm.

Step 4: Use the wheel to select Step: #.

![XF Step:> 6 Mem: 01
Select step]

Press (MENU) to confirm.

Step 5: Use the wheel to select Insert.

![XF Step: 6 Mem: 01
>Insert]

Press (MENU) to confirm.

Step 6: You will be asked to insert by pressing a bump for a channel or memory fader.

![XF Step:> 6 Mem: 01
Insert with bump]

Press (MENU) to confirm. The new step will be inserted after the selected step. You can continue selecting steps and inserting steps. You can press UNDO to skip and revert to the data previous to this action.
Insert a PointQ

Step 1: Open the Sequences menu:

```
Menu> [Sequences]
```

Step 2: Use the wheel to select Sequence (1-24) or Stack (XF).

```
Sequences
Playback: >24
```

Press (MENU) to confirm.

Step 3: Use the wheel to select Modify Steps.

```
Playback: XF
Modify Steps
```

Press (MENU) to confirm.

Step 4: Use the wheel to select Step:#.

```
XF Step: >6 Mem: 01
Select step
```

Press (MENU) to confirm.

Step 5: Use the wheel to select Ins PointQ.

```
XF Step: 6 Mem: 01
>Ins PointQ
```

Press (MENU) to confirm.

Step 6: You can select point 0.1-0.9 with the wheel. You will be asked to insert by pressing a bump for a channel or memory fader.

```
XF Step: >5.1
Insert with bump
```

Press (MENU) to confirm. The new step will be inserted after the selected step. You can continue selecting steps and inserting steps. You can press UNDO to skip and revert to the data previous to this action.
Change the content of a Step

Use this function to change the memory or channel content of a step to another content. This is the only way to edit a step referencing to a single channel.

Step 1: Open the Sequences menu:
Menu> [Sequences]

Step 2: Use the wheel to select Sequence (1-24) or Stack (XF).

Press (MENU) to confirm.

Step 3: Use the wheel to select Modify Steps.

Press (MENU) to confirm.

Step 4: Use the wheel to select Step: #.

Press (MENU) to confirm.

Step 5: Use the wheel to select Change.

Press (MENU) to confirm.

Step 6: You will be asked to change by pressing a bump for a channel or memory fader.

Press (MENU) to confirm. You can continue selecting steps and inserting steps. You can press UNDO to skip and revert to the data previous to this action.
**Edit the content of a Stack Step directly**

A Stack step can contain a reference to a memory in a specific page, or a unique Stack memory state can be edited directly with the **EDIT MEM** function. Steps containing single channels must be edited with the normal editing functions.

**Step 1:** Press **EDIT MEM**

```
Edit Memory
Select Bump or Stack
```

**Step 2:** Select Sequence by pressing a bump button, or press **STACK**. The content of the current step will be selected for editing.

```
Edit:
01/01
```

**Step 3:** Use the intensity faders to edit the memory. Press **EDIT MEM** to confirm.
Copy a Sequence

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate Copy mode</td>
<td>![COPY]</td>
<td>This button lights up. All buttons with content will blink at full (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Select source sequence (change page if necessary)</td>
<td>![21 ... 24] or ![45 ... 48]</td>
<td>When this button is pressed, all possible targets for this copy operation will blink. Empty ones blink at full, occupied ones are dimmed.</td>
</tr>
<tr>
<td>3. Select target</td>
<td>![21 ... 24] or ![45 ... 48]</td>
<td>As soon as the button is pressed, the source sequence is recorded. The console will automatically return to it’s previous fader mode.</td>
</tr>
</tbody>
</table>

Run Modes

There are three run modes for a Sequence: Manual, One Shot and Loop (default). The Stack run mode is determined by the wait times recorded in the Stack steps, if a non-zero wait time is recorded on the last step the Stack will loop back to step 1. Run modes are set from the Sequences menu.

Step 1: Open the Sequences menu: 

**Menu> [Sequences]**

Step 2: Use the wheel to select Sequence (1-24).

**Playback: 24**

Press (MENU) to confirm.

Step 3: Use the (MENU) to confirm Run Mode.

**Playback: 24**

**Run Mode**

Press (MENU) to confirm.

Step 4: Use the wheel to select run mode: OneShot, Manual or Loop.

<table>
<thead>
<tr>
<th>Menu choice</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop</td>
<td>Wheel</td>
<td>The Sequence will loop from the last step back to the first, endlessly.</td>
</tr>
<tr>
<td>Manual</td>
<td>Wheel</td>
<td>Sequences in this mode use the bump button to advance to the next step.</td>
</tr>
<tr>
<td>OneShot</td>
<td>Wheel</td>
<td>Runs sequences through one full cycle only. The seq will stop and hold the last step. To prevent the last step persisting on stage record it as a blackout by using an empty memory.</td>
</tr>
</tbody>
</table>

Step 5: Press (MENU) to confirm. Continue from Step 2 with another Sequence or exit the menus.
**Sequence & Stack Times**

Each Sequence step can have three times, Up, Down and Wait. In addition to these times there is an overall Rate and Fade time that affect the whole Sequence. These times are set/changed during playback.

**Default Fade Times**

Step 1: Open the Set Sequences menu:

```
Menu> [Sequences]
```

Step 2: Use the wheel to select a Sequence (1-24) or the Stack (XF).

```
Sequences
Playback:>24
```

Press (MENU) to confirm.

Step 3: Use the wheel to select **Step Timing**.

```
Playback: XF
Step Timing
```

Press (MENU) to confirm.

Step 4: Use the wheel to select **Default Times**.

```
Default times
U: 6.2 D: 6.2 W: 0.2
```

Use (MENU) to step between choices, and wheel to set a value.

<table>
<thead>
<tr>
<th>Menu choice</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>U&gt;</td>
<td>Wheel</td>
<td>Default Up times</td>
</tr>
<tr>
<td>D&gt;</td>
<td>Wheel</td>
<td>Default Down times</td>
</tr>
<tr>
<td>W&gt;</td>
<td>Wheel</td>
<td>Default Wait times</td>
</tr>
</tbody>
</table>

Step 5: Use **EXIT** to end and exit.

**Rate**

The **RATE** button can provide Fade controls for the Stack. This will affect the playback of the whole Stack.

Press **RATE** (with **STACK** active).

```
XF Fade:> 98% Q 2
U: 5.0 D: 5.0 Ch: 1
```

Use the wheel to set a balance between the fade and the wait time for all steps. Fade 0% means no fade.
**Edit step times blind**

It is possible to edit the times blind, for each step of a Sequence or Stack. This is done with the Step Timing - One Step function in the Sequences menu.

**Step 1:** Open the Set Sequences menu:

Menu > [Sequences]

**Step 2:** Use the wheel to select a Sequence (1-24) or the Stack (XF).

![Sequences](Playback: > 24)

Press **(MENU)** to confirm.

**Step 3:** Use the wheel to select **Step Timing**.

![Playback: XF](Step Timing)

Press **(MENU)** to confirm.

**Step 4:** Use the wheel to select **One step**.

![XF Step: > 1 Ch: 1](U 5.0 D 5.0 W)

Use **(MENU)** to step between choices, and wheel to set a value.

<table>
<thead>
<tr>
<th>Menu choice</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step: &gt;</td>
<td>Wheel</td>
<td>Select step</td>
</tr>
<tr>
<td>U: &gt;</td>
<td>Wheel</td>
<td>Up time</td>
</tr>
<tr>
<td>D: &gt;</td>
<td>Wheel</td>
<td>Down time</td>
</tr>
<tr>
<td>W: &gt;</td>
<td>Wheel</td>
<td>Wait time</td>
</tr>
</tbody>
</table>

**Step 5:** Done. Press **EXIT** to exit.
**Global Time for all steps**

It is possible to edit Up, Down or Wait times globally for all steps of a Sequence or Stack. All previous timing information is replaced and cannot be undone.

**Step 1:** Open the Set Sequences menu:

`Menu > [Sequences]`

**Step 2:** Use the wheel to select a Sequence (1-24) or the Stack (XF).

Press `MENU` to confirm.

**Step 3:** Use the wheel to select All steps.

Press `MENU` to confirm.

**Step 4:** Set Global Timing for all steps of the selected Sequence or Stack.

Use `MENU` to step between choices, and wheel to set a value. The “----” means these times will **not be affected** by the global edit.

<table>
<thead>
<tr>
<th>Menu choice</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>U&gt;</td>
<td>Wheel</td>
<td>Global Up times</td>
</tr>
<tr>
<td>D&gt;</td>
<td>Wheel</td>
<td>Global Down times</td>
</tr>
<tr>
<td>W&gt;</td>
<td>Wheel</td>
<td>Global Wait times</td>
</tr>
</tbody>
</table>

**Step 5:** Press `MENU` to store.

Press `MENU` to confirm.

**Step 6:** Done. Press **EXIT** to exit.
Chapter 5
Playback

As soon as you have programmed information you can play it back in different ways. This Chapter is about playback functions.

This chapter contains the following sections:

- General Functions ..................................................56
- Memories ...............................................................57
- Sequences .............................................................58
- Stack & Crossfader ..................................................60
General Functions

**Master & Black Out function**

To get light output (at all), the Master needs to be at full, and the Black Out button off.

The Master fader proportionally limits all intensity outputs. As soon as the Master is faded under 100% the Blackout button will blink.

The Blackout button instantly sends all intensity outputs to zero. As soon as it is activated the button will light up.

**Note:** The Independent channels patched to IND 1 and IND 2 are not affected by the Master fader or Black Out button unless they are set to “GM” in the Independent Settings. See “Set up Independents” on page 22.

Light output from the intensity faders is also affected by the **NEXT** button. See “Intensity channels” on page 30.

**Clear**

Clear is a very useful button that will bring you back to a “clean” state of the console with no output. Pressing CLEAR will NEVER erase content - it only brings the fader intensities to zero. You can press CLEAR to abort any recording function if it is blinking.

- Set all dimmer intensities from channel faders and Stack to zero . . = 2 presses
- Set all memory faders to zero (blackout). . . . . . . . . = 3 presses
- Set sequence faders to zero (blackout). . . . . . . . . . = 4 presses

CLEAR is also used in combination with other keys. For example

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear intensities 1-24</td>
<td>CLEAR and 1-24</td>
<td>All intensities 1-24 are cleared.</td>
</tr>
<tr>
<td>Clear intensities 25-48</td>
<td>CLEAR and 25-48</td>
<td>All intensities 25-48 are cleared.</td>
</tr>
<tr>
<td>Clear intensities 1-48</td>
<td>CLEAR and 1-48</td>
<td>All intensities 1-48 are cleared.</td>
</tr>
<tr>
<td>Clear intensities 49-96</td>
<td>CLEAR and 49-96</td>
<td>All intensities 49-96 are cleared.</td>
</tr>
<tr>
<td>Clear Stack</td>
<td>CLEAR and</td>
<td>The Stack is cleared and set to zero.</td>
</tr>
<tr>
<td>Clear Snapshots</td>
<td>CLEAR and SNAP SHOT</td>
<td>All Snapshots are cleared, and the counter is set to 1.</td>
</tr>
<tr>
<td>Clear Rate</td>
<td>CLEAR and RATE</td>
<td>All Rate settings are cleared.</td>
</tr>
</tbody>
</table>

**Bump Master**

The Bump Master sets the level to which bump buttons will flash. See Bump Button functionality for each type of fader mode.
Memories

Memories are played back from the faders in MEMS mode. In each of the 12 fader pages the buttons with memories stored will light up dimmed in red when a page is selected. When the fader is contributing to the output, the button will light up in full.

Select Fader Page

If a fader is above zero when a different page is selected, it will not be updated to the content of the new page until it is brought to zero. Press MEMS twice within 1 second to select page 1 quickly.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select fader page</td>
<td>MEMS (Held)</td>
<td>As long as the button is held, the current fader page is indicated with a lit bump 1-12. Bumps for pages with recorded information will blink. To select a new page, press bump 1-12 and let go of the MEMS button.</td>
</tr>
</tbody>
</table>

Memory Bump Modes

The content of memory faders can be bumped to the level of the BUMPS fader in two ways. This is controlled with the SOLO button.

- **OFF** = The level generated by pressing a bump button adds into the live output.
- **ON** = The level generated by pressing a bump button replaces the current output.

Clear Output from Memory Faders

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear output from Memory Faders</td>
<td>CLEAR and MEMS</td>
<td>All memory faders will be set to zero.</td>
</tr>
</tbody>
</table>
Sequences

Sequences can have up to 24 steps, and are played back from the last four faders in MEMS mode. In each of the 12 fader pages the buttons with stored sequences will light up dimmed in yellow when a page is selected. When the fader is contributing to the output, the button will light up in full.

Select Fader Page

If a fader is above zero when a different page is selected, it will not be updated to the content of the new page until it reaches zero.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select fader page</td>
<td>MEMS (Held)</td>
<td>As long as the button is held, the current fader page is indicated with a lit bump 1-12. Bumps for pages with recorded information will blink. To select a new page, press bump 1-12 and let go of the MEMS button.</td>
</tr>
</tbody>
</table>

Sequence Bump Modes

The content of sequence faders can be bumped to the level of the BUMPS fader in two ways. This is controlled with the SOLO button.

- OFF = The level generated by pressing a bump button adds into the live output.
- ON = The level generated by pressing a bump button replaces the current output.

Fade, Rate & BPM for Sequences

The RATE button can provide Rate, Fade and BPM override for any sequence. This will affect the playback of the whole Sequence temporarily. When a Rate, Fade or BPM override is cleared the original times are retained.

Rate

Activate RATE and then press the bump button of any fader (in MEMS mode) with a sequence.

Use the wheel to set a Rate % that will scale the total time of the whole Sequence. Original timing is not lost and may be recovered by clearing the Rate %.

If a BPM is set, it will replace the Rate %.
Fade

Activate **RATE** and then press the bump button of any fader (in **MEMS** mode) with a sequence. Then hold **RATE**.

Use the wheel to set a Fade % that will scale the fade times of the whole Sequence. Fade 0% means no fade. Original fade timing is not lost and may be recovered by clearing the Fade %.

BPM

Beats Per Minute (BPM) is a musical term that can be applied to the playback rate of a sequence in looped mode. The BPM rate will override all times. All steps will be set to toggle on/off with the same duration as the BPM.

Step 1: Activate **RATE** and then press the bump button of any fader (in **MEMS** mode) with a sequence. Then hold **RATE**.

Step 2: While holding **RATE**, tap the bump button of the fader with a sequence to set the BPM. When you let go of **RATE** you will return to the rate display, where the resulting BPM time is shown instead of Rate.

Step 3: Use the wheel to set a BPM that will scale the step times of the whole Sequence. Original timing is not lost and may be recovered by clearing rate.

Clearing Rate, Fade & BPM

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate Rate</td>
<td><strong>RATE</strong></td>
<td>The rate and fade settings for the last selected sequence will be selected and shown in the display.</td>
</tr>
<tr>
<td>1. Select sequence (in <strong>MEMS</strong> mode)</td>
<td>21 … 24 or 45 … 48</td>
<td>The rate and fade settings for the selected sequence will be shown in the display.</td>
</tr>
<tr>
<td>2. Reset Rate, Fade &amp; BPM</td>
<td><strong>CLEAR</strong> and <strong>RATE</strong></td>
<td>The rate and fade settings for the currently selected sequence will be reset and will default back to its original times.</td>
</tr>
</tbody>
</table>
Stack & Crossfader

The Crossfader can be used to play back the Stack with up to 199 steps, or for single-scene operation (depending on the state of the STACK and NEXT buttons).

**General Crossfader Controls**

The Crossfader consists of a Live (A) and Next (B) fader, plus the Crossfade transport buttons. A crossfade is done by moving the crossfaders from the down position to the up position. This can be changed, See “Crossfade faders” on page 25.

The Crossfade transport buttons are these:

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start a crossfade</td>
<td>† † †</td>
<td>Starts a crossfade. The button will blink during the fade.</td>
</tr>
<tr>
<td>Pause a crossfade</td>
<td>††</td>
<td>The current crossfade is paused. It can be resumed with GO, or reversed with PAUSE.</td>
</tr>
<tr>
<td>Go Back</td>
<td>†† and † † †</td>
<td>Hold PAUSE and press GO to fade to the previous step (only when STACK is active).</td>
</tr>
<tr>
<td>Go to first step</td>
<td>CLEAR and † † †</td>
<td>Hold CLEAR and press GO to clear the output of the Crossfader. If STACK is active it will jump to the first step of the Stack.</td>
</tr>
</tbody>
</table>

**Note:** DIPLESS: SmartFade provides dipless crossfades as long as both faders are moved in parallel. This means that active channels which remain unchanged in both scenes will not ‘dip’ to 50% of their level as you move the crossfaders from one scene to the next, making for much better-looking scene transitions. To create a blackout between two steps, move only the Live fader to its end position.

**Stack functions**

By pressing STACK, the Stack is activated (lit at full) and connected to the Crossfader controls. The cue stack is loaded onto the Crossfader at step 0 (a non-existent step before step one) so that pressing GO, or starting a manual fade, will fade to step 1.

The LCDs will show the current state of the Stack.

If STACK is off the Crossfader operates only the Single Scene Crossfading function (except when in Backup Mode). See “Single Scene Crossfading” on page 63.

If there is nothing stored in the Stack, the button will be off completely when not activated. otherwise it will be dimmed.
Jump to step

It’s possible to go directly to any step of the Stack with this function.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate GOTO mode</td>
<td>STACK</td>
<td>As long as the button is held, the display will allow you to scroll to any step.</td>
</tr>
<tr>
<td></td>
<td>(held)</td>
<td></td>
</tr>
</tbody>
</table>

Rate & Fade for the Stack

The RATE button can provide Rate and Fade override for the Stack. This will affect the playback of the whole Stack temporarily. When a Rate or Fade override is cleared the original times are retained.

Fade

Activate RATE and press STACK.

Use the wheel to set a Fade % that will scale the fade times of the whole Stack. Fade 0% means no fade. Original fade timing is not lost and may be recovered by clearing the Fade %.

Rate

Activate RATE and press STACK. Then hold RATE.

Use the wheel to set a Rate % that will scale the total time of the whole Stack. Original timing is not lost and may be recovered by clearing the Rate %.

Reset Rate & Fade

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select Stack rate</td>
<td>STACK and RATE</td>
<td>The rate and fade settings for the Stack will be selected and shown in the display.</td>
</tr>
<tr>
<td>2. Reset Rate</td>
<td>CLEAR and RATE</td>
<td>The rate and fade settings for the currently selected stack/sequence will be reset and will default back to its original times.</td>
</tr>
</tbody>
</table>
Tap Mode for the Stack

Tap Mode allows the recording of actual elapsed time for each step of the Stack by means of the GO button. It should set to OFF at all times unless a timed recording is being made.

Step 1: First record a Stack in the normal way
Step 2: Open the Sequences menu:
Menu>[Sequences]
Step 3: Use the wheel to select the Stack (XF).

```
Sequences
Playback: XF
```

Press (MENU) to confirm.

Step 4: Select Tap mode
Menu>Sequences>Playback>Step Timing>[Tap mode]
Step 5: Use the wheel to set On.

```
Tap mode
> On
```

When TAP mode is on an asterisk is displayed in the bottom right position of the LCD.

Step 6: Press GO for each stack step at the appropriate time and the wait time is stored for subsequent playback, independently for each of the steps. Only wait times are affected by Tap mode.

Step 7: Once a recording has been timed in this way Tap mode should be turned off to play back with the recorded times.

```
Tap mode
> Off
```

Step 8: Press EXIT to confirm and exit.

**Note:** You can reset all wait times set with Tap to zero. See “Global Time for all steps” on page 54.
Single Scene Crossfading

When STACK is off and NEXT is on, SmartFade is set up to run like a single-scene crossfading console. When Next is on the green channel bumps are lit with the levels to be output to stage on the next Crossfade, when Next is Off the lights indicate the actual stage levels. Next may be turned on and off to toggle between these two displays.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate Next mode</td>
<td>NEXT</td>
<td>The intensity faders no longer contribute to the live output.</td>
</tr>
<tr>
<td>2. Set intensities</td>
<td>1-24</td>
<td>Set up any intensities manually with the intensity faders. They will not be output.</td>
</tr>
<tr>
<td></td>
<td>25-48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49-96</td>
<td></td>
</tr>
<tr>
<td>3. Crossfade manually</td>
<td>Crossfaders</td>
<td>Move the Crossfader pair from bottom to top. As soon as both crossfaders reach the end of the current fade, the intensity channels are released from the Live fader for setting the next look.</td>
</tr>
</tbody>
</table>

To fade endlessly between Live and Next: hold PAUSE before reaching the end of a crossfade - this will prevent the release of the intensity channels. Let go of PAUSE to terminate the crossfade.

Fade with Times

You can activate set the default Up/Down times with the wheel.

Press GO to execute a crossfade using these times.
Chapter 6
Two Scene Mode

There are three operating modes, and Two Scene Mode is one of them. In this mode you can use your SmartFade console straight out of the box like a manual two scene presetting console.

This chapter contains the following sections:

- General Information ................................................. 66
- Two Scene Fading ...................................................... 67
General Information

To use the console as a two scene console, you have to start it in Two Scene Mode. See “Operating Modes” on page 5.

You will no longer be able to access “normal” SmartFade functions as described in this manual. It is now only a two scene presetting console.

In Two Scene Mode no memories are stored - everything is set manually and faded with the Crossfaders.

Console Settings in Two Scene Mode

Console settings are more or less identical to Normal Mode. See “Console Settings” on page 23.

These are some special settings for Two Scene Mode.

Default Time

Allows you to set a default time for all crossfades.

Menu>Settings>[Default Time]

Patch

Allows you to choose a 1:1 patch, or the Custom patch from Normal Mode. See “Clear/Set Patch” on page 19.

Menu>[Patch]
Two Scene Fading

A two scene console duplicates the same channels over two sets of faders. The principle is that one set of faders contributes to the live output, while a new look is prepared blind levels for the same channels in the other set.

Your SmartFade console has two rows of faders. When the console is started in Two Scene Mode the top row is connected to Crossfader A, and the bottom row is connected to Crossfader B.

In other words, it is the number of physical faders of the console that will decide how many channels your console can control in this mode.

Smartfade 1248 and 1296 = 12 channels
Smartfade 2496 = 24 channels

Preparation & crossfade

Step 1: Make sure the Grand Master is at full, and that BLACKOUT is off.
Step 2: Make sure Crossfader A and B are both down. This means that light is being output from the bottom set of faders since Crossfader A is at 100%
Step 3: Set the channel faders in the top set of faders to new values. No change is visible on stage yet, because Crossfader B is at 0%.
Step 4: Now move both Crossfaders to the top position simultaneously. The output will change from the levels of the bottom set of faders, to the levels of the top set of faders. The time used is the default time shown in the display. You can change this with the wheel anytime.
Step 5: Now the top set of faders control the output. This means that you can set the channel faders in the bottom set of faders to new values.
Step 6: Crossfade to these values by moving both Crossfaders down.
Step 7: Repeat from step 3.
Chapter 7
DMX Backup

Backup mode is the third console operating mode. You can capture 512 outputs of DMX from an external console and store to 24 (48) memories that can be played back from the faders or the Stack.

This chapter contains the following sections:

- General Information ........................................... 70
- Backup memories ............................................. 71
- Stack in Backup Mode ....................................... 72
General Information

To use the console as a backup, you have to start it in Backup Mode. See “Operating Modes” on page 5.

You will no longer be able to access “normal” SmartFade functions as described in this manual. It is now only a backup console.

In Backup Mode, there can be no console output until you connect DMX input from another DMX output device or until you record DMX from another device into the memory faders.

You will be able to store 24 (48) memories to the faders. These can be played back with faders and bumps or from the Stack, in consecutive order (this cannot be edited).

Fader #1 and the Master Fader must be up to pass DMX input levels to the output or to record to memories.

Console Settings in Backup Mode

Console settings are more or less identical to Normal Mode. See “Console Settings” on page 23.

These are some special settings for Backup Mode.

DMX In

Data loss is handled in the same way as in Normal Mode. See “Data loss” on page 24.

There is an additional setting to select if DMX In is controlled from fader 1 or the last fader (First/Last) in your SmartFade console.

Menu>Settings>DMX In>[DMX In Fader]

Bump Mode

Bump Mode is specific for Backup operational mode. It allows you to define if the bump buttons for the memory faders will Bump or Toggle the content of each fader.

Menu>Settings>DMX In>[Bump mode]

Save/Load Backup

Allows you to save or load the currently stored backup memories to the SD memory card.

Menu>[Save/Load Backup]
Backup memories

The backup memories are recorded by connecting the DMX output of an external console to the DMX In port of your SmartFade console when it is started in Backup Mode.

Preparation

Step 1: Set DMX In:To Memory. See “DMX In” on page 70.
Step 2: Connect the DMX out of the external console to DMX In of your SmartFade console.
Step 3: Bring up Fader 1 (or Last) to allow DMX In. See “DMX In” on page 70.
Step 4: Make sure the Grand Master is at full, and that BLACKOUT is off.

Record a Backup Memory

Set up a look you want to record in the console connected to DMX In.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Activate recording</td>
<td></td>
<td>Buttons that can record in this mode will blink at full. If there is a memory stored already, this button is dimmed (press CLEAR to exit).</td>
</tr>
<tr>
<td>2. Select fader</td>
<td>1 ... 24 or 1 ... 48</td>
<td>The moment the bump button is pressed, the memory is stored. Press UNDO to undo this recording.</td>
</tr>
</tbody>
</table>

Test memory

Bring down the fader controlling DMX In. Move the fader of this memory up. The same look you recorded should appear on stage. The light in the bump button of the fader will be dimmed to show that it has content.

Clear Levels

Clear may be used to clear output levels.

<table>
<thead>
<tr>
<th>Action</th>
<th>Console</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear levels from one memory</td>
<td></td>
<td>The selected fader is set to zero. Bring the fader down and back up to restore.</td>
</tr>
<tr>
<td>or Clear from one memory</td>
<td>1 ... 24</td>
<td></td>
</tr>
<tr>
<td>or Clear from one memory</td>
<td>1 ... 48</td>
<td></td>
</tr>
<tr>
<td>Clear all levels</td>
<td></td>
<td>All faders and the Stack is set to zero. Bring the faders down and back up to restore.</td>
</tr>
<tr>
<td>Clear all levels</td>
<td>1 ... 24</td>
<td></td>
</tr>
<tr>
<td>Clear all levels</td>
<td>1 ... 48</td>
<td></td>
</tr>
<tr>
<td>Clear all levels</td>
<td>1 ... 48</td>
<td></td>
</tr>
</tbody>
</table>
Stack in Backup Mode

The Stack provided in DMX Backup mode consists of memories 1-24 (48) linked in order. This Stack cannot be edited. Stack step 1 is the memory recorded to fader 1, etc.

Stack functions

By pressing STACK, the Stack is activated (lit at full) and connected to the Crossfader controls. The cue stack is loaded onto the Crossfader at step 0 (a non-existent step before step one) so that pressing GO, or starting a manual fade, will fade to step 1, which is the memory stored in fader 1.

The LCDs will show the current state of the Stack, and the Up/Down time "Time:>5.0", which you can change with the wheel.

If there is nothing stored in the Stack, the button will be off completely when not activated. Otherwise it will be dimmed.

General Crossfader Controls. See “General Crossfader Controls” on page 60.

Jump to a step. See “Jump to step” on page 61.
Appendix A
Software Update

This appendix contains the instructions for updating the software in your SmartFade console. There are two ways of updating the software.

- Using the SD card
- Connecting with USB to a PC

Software can be downloaded from the ETC Web site: www.etcconnect.com

Please make sure to download the correct software for your console - **SmartFade** and **SmartFadeML** use different software.

To verify the version that your console is running, see “Software Version” on page 25.

**CAUTION:** Make sure to back up any show data you want to keep to the SD card before proceeding with a software upgrade.

**CAUTION:** Only standard SD Memory cards or connection to a PC via USB may be used for updating the software on a SmartFade console. Software update is not possible using an SDHC Memory card.

**Update the Software**

**SD Card Update**

If you are using an SD card for the very first time - make sure it is formatted correctly (FAT16), or it will not function with SmartFade. See “Format SD Memory Card” on page 7.

Step 1: Obtain the software update file **SMRTFADE.SRC** from the download section of the ETC Web site: www.etcconnect.com

Step 2: Copy the **SMRTFADE.SRC** file to the root directory of the SD card. DO NOT RENAME THE FILE!

Step 3: Start the console in test mode. This is done by holding down the **MENU** button and pressing once on **ON**.

The unit will enter self-test mode. Press **MENU** for each of the tests until the memory test has completed. At the end of the memory test the display will prompt:

**Firmware Upgrade**

Are you sure? [No]

Step 4: Insert the SD card into the console.

Step 5: Turn the encoder to select **YES** and press **MENU**. The update will start and the console will boot into the new updated software after the process is complete.
**USB Update**

To update with USB you need a **PC** running the Windows operating system (Windows 98, Windows 2000, Windows XP, or Windows 7).

**Step 1:** Obtain the software update file **SMRTFADE.SRC** and the USB Download application **SFDownloader.exe** from the download section of the ETC Web site: [www.etcconnect.com](http://www.etcconnect.com)

**Step 2:** Connect a USB cable between the SmartFade and the PC. The USB cable must have Type A and Type B connectors.

Make sure you have backed up any show data you want to keep to the SD card before proceeding. Show data will be lost and cannot be recovered.

**Step 3:** Double-click on the **SFDownloader.exe** application you downloaded from the ETC Web site. You should get this display.

**Step 4:** Start the console in test mode. This is done by holding down the **MENU** button and pressing once on **ON**.

The unit will enter self-test mode. Press **MENU** for each of the tests until the memory test has completed. At the end of the memory test the display will prompt:

**Firmware Upgrade**

**Are you sure? [No]**

**Step 5:** Once the connection with the console is recognized, the status information will display the Bootloader Version, and then "Please Load Firmware File". The **FILE** button will be displayed with solid text.

Click **FILE** and select the **SMRTFADE.SRC** file.

**Step 6:** Now the **DOWNLOAD** button will be displayed with a solid text.

Click on **DOWNLOAD** to start downloading. The progress bar will begin to move. When the download is complete, the console will boot into the new updated software.
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