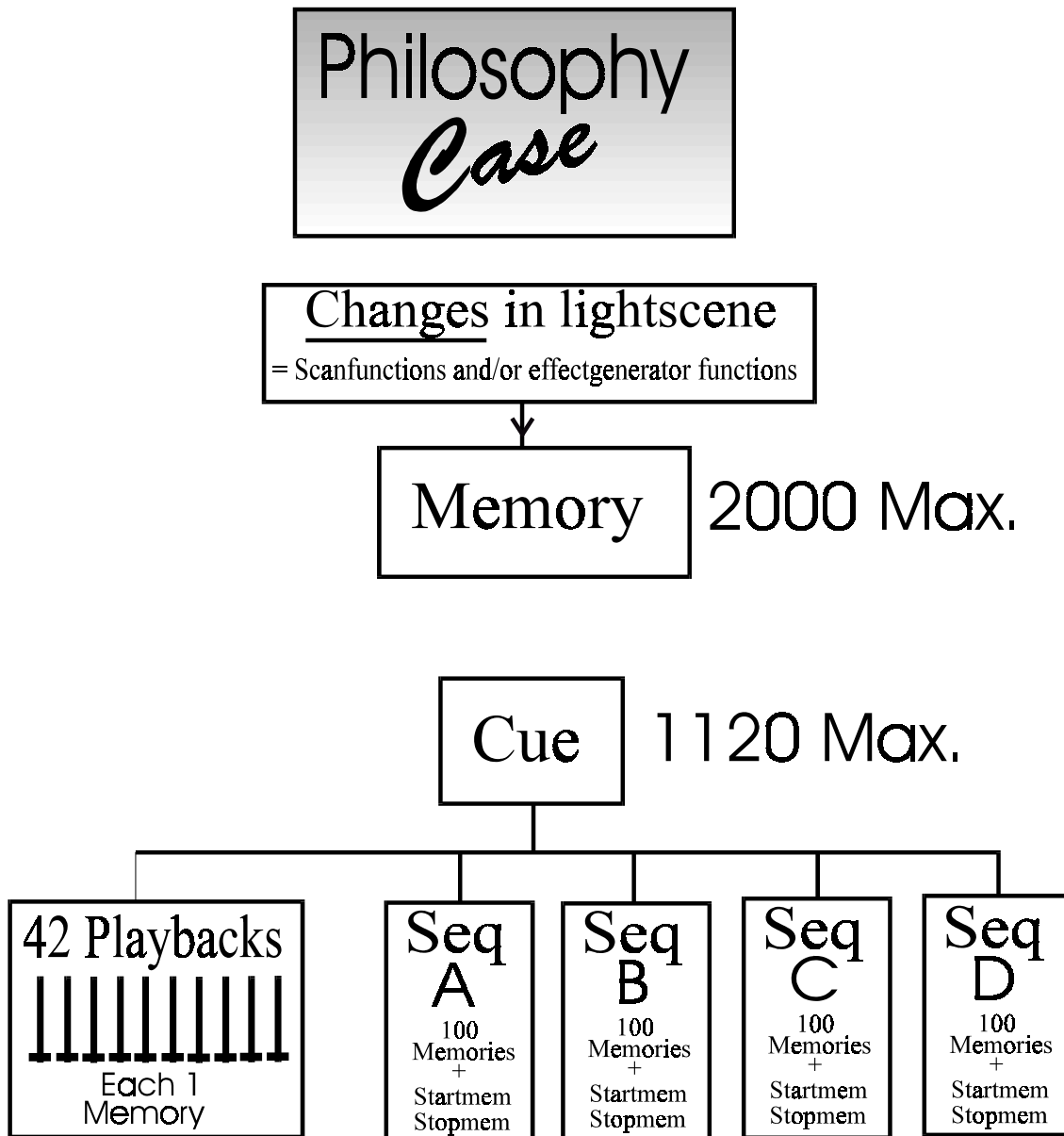


1.1

Case philosophy

Important rules :

- Dimmerchannels : Highest takes precedence
- No dimmerchannels : Latest takes precedence with priorities :
 - Playbacks take precedence over sequences
 - Between playbacks :
Playback 1 takes precedence over 2, 2 over 3, 3 over 4, ...
 - Between sequences :
Seq A takes precedence over B, B over C, C over D
- Manual mode takes precedence over everything

Explanation :

- *Memories contain channel values of fixtures and/or effect generator channel values. Memories don't have to contain all fixture channel values, but only values of channels you want to change to the previous memory.*

Ex. : If you have 3 normal lamps. Each lamp is a channel value.

In the first memory you switch on lamp 1.

In the second memory you switch on lamp 2.

In the third memory you switch on lamp 3.

If you call those 3 memories, one after the other, your 3 lamps will switch on, but they will never switch off, because you didn't switch them off, or in the second memory, you didn't switch off lamp 1 and in the third memory, you didn't switch off lamp 2.

In the example we used only 1 channel per memory, normally we will use more channels of more fixtures together in 1 memory. We have a maximum of 2,000 memories available.

To every channel of every fixture, the controller adds at least 7 channels, called the effect generator channels. With this feature it is possible to program chasers on every channel in just 1 memory.

- *A cue contains max. 42 playbacks and max. 4 sequences (chasers).*

Each playback can contain 1 memory.

Each sequence can contain up to 100 memories + a start memory + a stop memory.

There are 16 pages of 70 cues, resulting in 1,120 cues. So you have a max. of 47,040 playbacks and 4,480 sequences.

- *The priority rules of active sequences and active playbacks:*

When there are dimmer channels involved :

- *Then the highest value of a dimmer channel takes precedence over the other values of the same dimmer channel, if it is programmed in other active sequences or active playbacks.*

When there are no dimmer channels involved :

- *Manual mode has the highest priority over the channel values.*
- *After the manual mode , the active playbacks have the highest priority over those channels in the order playback 1(highest), 2, 3, 4... 42 (lowest)*
- *The sequences have the lowest priority, but sequence A takes precedence over B, B over C and C over D if the same channels are involved and the sequences are active.*

1.2

About memories

Important note : Memories in the console contain only the changed values of the fixture channels. Starting from an empty memory, if memories are called with just one channel programmed, the other channels will not change. **Empty channel parameters in memories don't have a value, they don't change anything.** An empty parameter is not the same as a parameter with value 0.

You can compare this with somebody you hired to do a job. If you give him a paper with the text "Go to that fixture and put it in blue". He will put the fixture in blue. You didn't tell him anything about the rest of the fixture. If you tell him to turn the mirror of a fixture, he will do it, but he won't change the color, because you didn't tell him to do so. So if you give him an empty paper (empty memory), he doesn't know what to do, he simply doesn't do anything.

So it is not necessary to program all the fixtures for every light scene. Only the channels of a previous light scene that have to change, need to be programmed.

The advantage of this method is:

- Fast programming
- Changes in light scenes do not result in reprogramming all the channels, but only those channels involved.
- The possibility to program certain fixtures or certain control channels in memories. This gives the possibility to approach certain fixtures or control channels separately during a show without interfering with other fixtures or control channels. (Playbacks and sequences).
- Running 4 sequences of memories at the same time, without interfering each other.

The console can handle up to 2,000 memories.

Each memory can contain the digital values of the 70 fixtures with up to 32 control channels each, plus the extra Control Channels of the Effect Generator.

Memories can be called immediately, edited, named and can be placed in sequences and/or playbacks.

In a sequence or playback, all the memories can be set up with an additional parameter called the thresholdlib number (1 to 70). Thresholdlibs contain the %fading threshold values of Fixture Control Channels. I.e. in a fading, the fixture channel will not activate unless the % of fading value is reached.

1.3 *About cues and sequences*

*The Console can handle up to 1120 cues.
Each cue contains 4 sequences and 42 playbacks.*

Cues can be called immediately, edited and named.

*Sequences can contain up to 100 memories.
Each sequence can have a start and/or stop step.
The number of loops a sequence has to do can be changed between 1 and infinite.
Memories in sequences can be run forwards, backwards, forewards and backwards (bounce), or at random. The sequence can work in automatic or manually triggered mode. Sequences can also be synchronized with each other.
Each sequence has an easy adjustable fade and wait time.
Timers of sequences can be frozen, so no matter what sequence is taken, wait and fade times will remain the same.
All the memories running in the sequences can be set up with a thresholdlib number.*

Important note :

***The console can be set in cue **replace all mode** or cue **overwrite mode**.
In cue **replace all mode** (default), all the active sequences already running will be replaced by the new called sequences, even if they are empty.
In cue **overwrite mode**, empty sequences (if not frozen) will not overwrite the sequences of active cues.***

*Pan/tilt movements of cue 5 sequence D can run together with gobo changes of cue 20 sequence A if in cue 5 sequence A is unused and if in cue 20 sequence D is unused.
It is also important that one uses always the same sequences in the several cues for the same actions of the fixtures. If one has programmed gobo changes in a sequence A of a particular cue, it is best to program other gobo changes in other cues also in sequence A, so the sequences can't interfere each other. If one fails to do so, sequence A takes precedence over sequence B, and B over C...*

*Each cue contains 42 playbacks, so 47,040 playbacks are available.
A memory in a playback can be set up with a thresholdlib number.*

1.4 About Playbacks

The purpose of a playback is, **to fade a memory manually.**

If only some fixtures or some control channels are programmed in the memory, only they will be involved in the fading, they do not interfere with other fixtures or control channels.

When more than one playback is active, they follow the following rules :

- When there are no common fixtures and/or control channels in the different activated playbacks, they will work totally independent of each other.
- When there are common fixtures and/or control channels in the different activated playbacks, there are 2 possibilities :
 - There are no dimmer channels involved : playback 1 takes precedence over 2, 2 over 3,
 - If there are dimmer channels in the playback memories, the dimmer channels (only them) follow the principle of (**HTP**) **H**ighest **T**akes **P**recedence.

Control channels of fixtures activated in playbacks take **P**recedence over sequences as long as no dimmer channels are involved. For dimmer channels, the (**HTP**) principle of **H**ighest **T**ake **P**recedence is active.

Playbacks can be frozen, so no matter what cue is called, the playbacks will remain unaffected.

There are 3 activation modes for playbacks keys :

- **Flash mode** : The key must be hold to activate the programmed memory.
- **Toggle mode** : The key can be toggled to activate/deactivate the memory.
- **Kill mode** : To activate the memory in the playback and to deactivate the memory of an other playback (when in the same cue) = X-fade

The memories in the playbacks can have fade-in and fade-out timings up to 6,000 sec.

Important note :

The console can be set in cue **replace all mode** or cue **overwrite mode**.

In cue **replace all mode** (default), all the active playbacks will be replaced by the called playbacks, even if they are empty.

In cue **overwrite mode**, empty playbacks will not overwrite the active playbacks.

1.5

Presets

*During programming of memories, it is possible to store certain control channels, that are frequently used with the same values, in **presets**.*

*There are **70 presets** for each of the **4 functions** (Pan/Tilt, Gobo, Color and Effect)
Each of the 4 preset functions can contain more values (Ex. the Pan/Tilt preset can contain also the focus, the gobo preset contains also the knives, if Martins PAL1200 is in use).*

*The advantage of using **presets** :*

- *During programming, one has to know only a **preset number**, to program a specific fixture at that exact place, or in that color or gobo, without having to search for its output value.*
- *When moving a show to an other location, one has to adjust only the presets and not all the memories, because the memories get their values out of the presets if programmed so.*

1.6

Effect generator

The console is equipped with an effect generator. With this effect generator, it is possible to create chasers of gobo's, colors, Pan/Tilt motions, dimmers,... synchronized or not, of all fixtures together, in just 1 memory. This function saves you a lot of program time.

The Pan/Tilt channel of the effect generator is special. On this channel, you can create complex motion patterns just by pressing a few buttons.

Some pre-programmed effects are accessed by the effect macro functions. Complex effects like a Pan/Tilt fall with dimmer chaser over lots of fixtures can now be programmed in seconds. You can even combine your own effects and save them in presets for later use.

Effects can be generated on every fixturechannel.

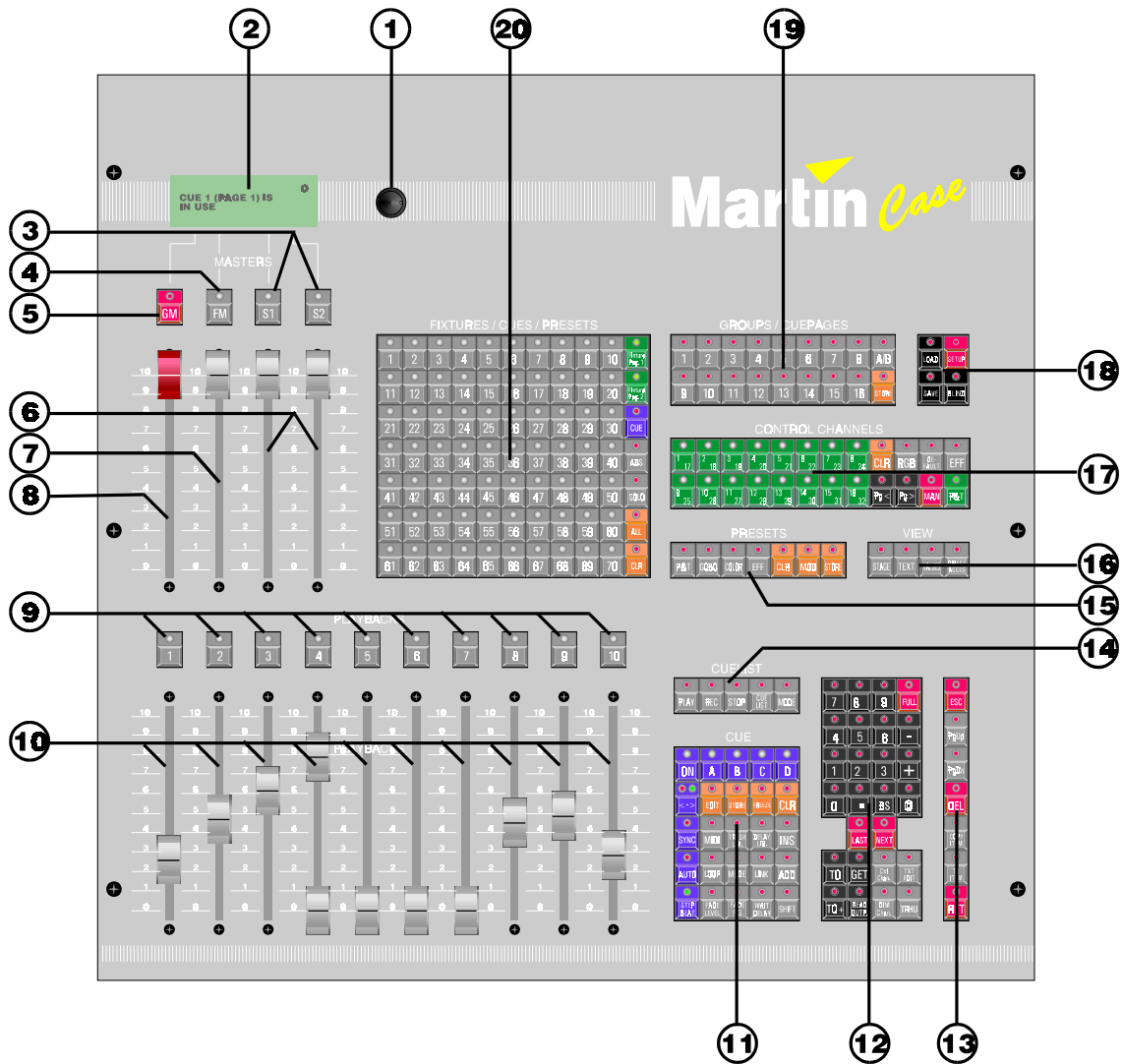
1.7

Walking around

This part of the manual will describe briefly all functions and the use of the keys.

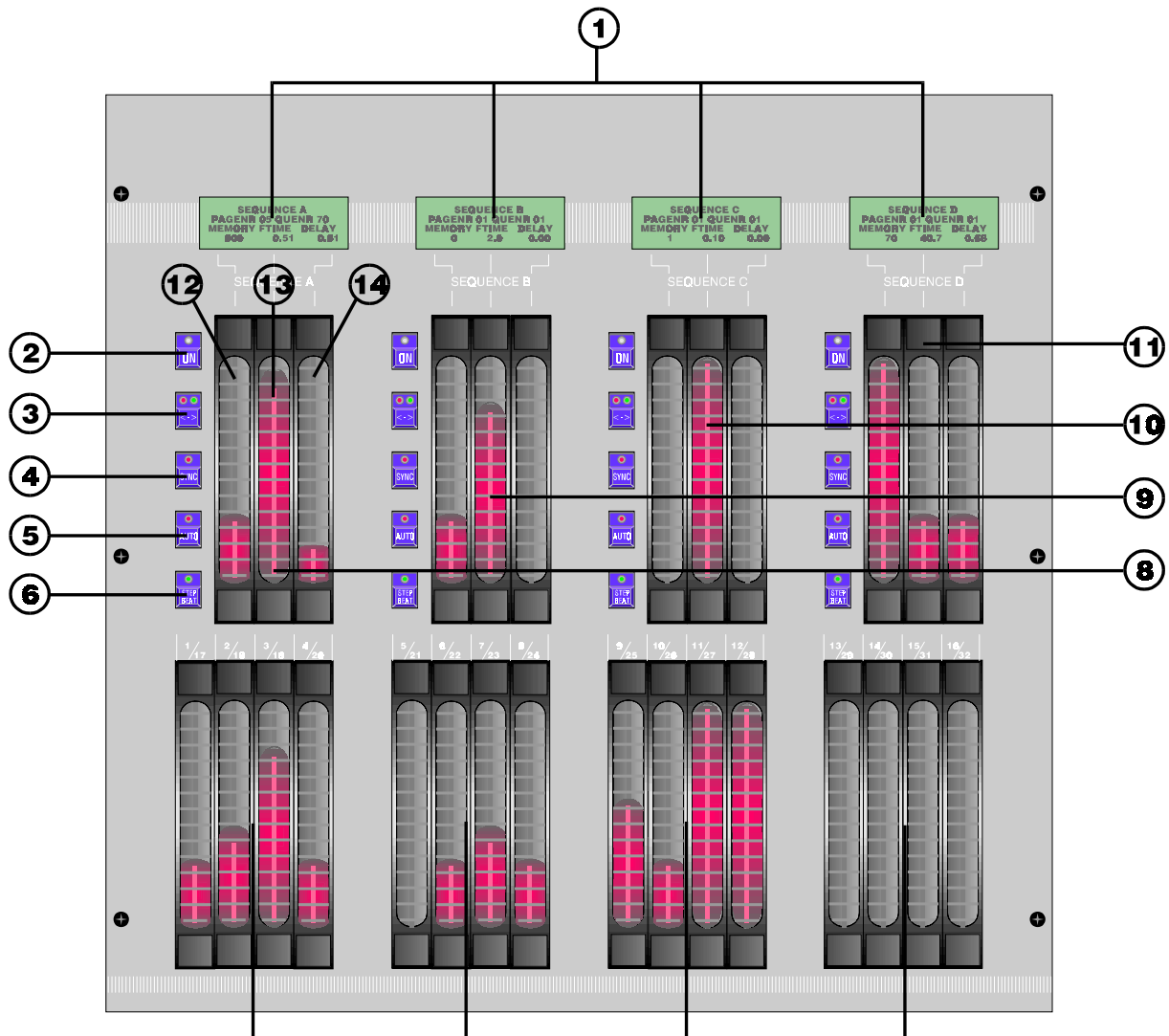
The use of the keys on the console is very simple and logical. Some multifunction keys are equipped with bicoloured LEDS to reduce the amount of keys and to simplify the use of them.

Sometimes, it will happen that keys start blinking. This is a way to show the user, what keys he can use in a function like edit, direct access, etc...



- 1 Contrast adjustment for the Display
- 2 LCD Display
- 3 Programmable submaster flashkeys
- 4 Flash masters for the Playbacks
- 5 General-Master flashkey
- 6 Programmable submasters
- 7 Flash master Slider
- 8 General-Master Slider
- 9 Playback flashkeys
- 10 Playback sliders

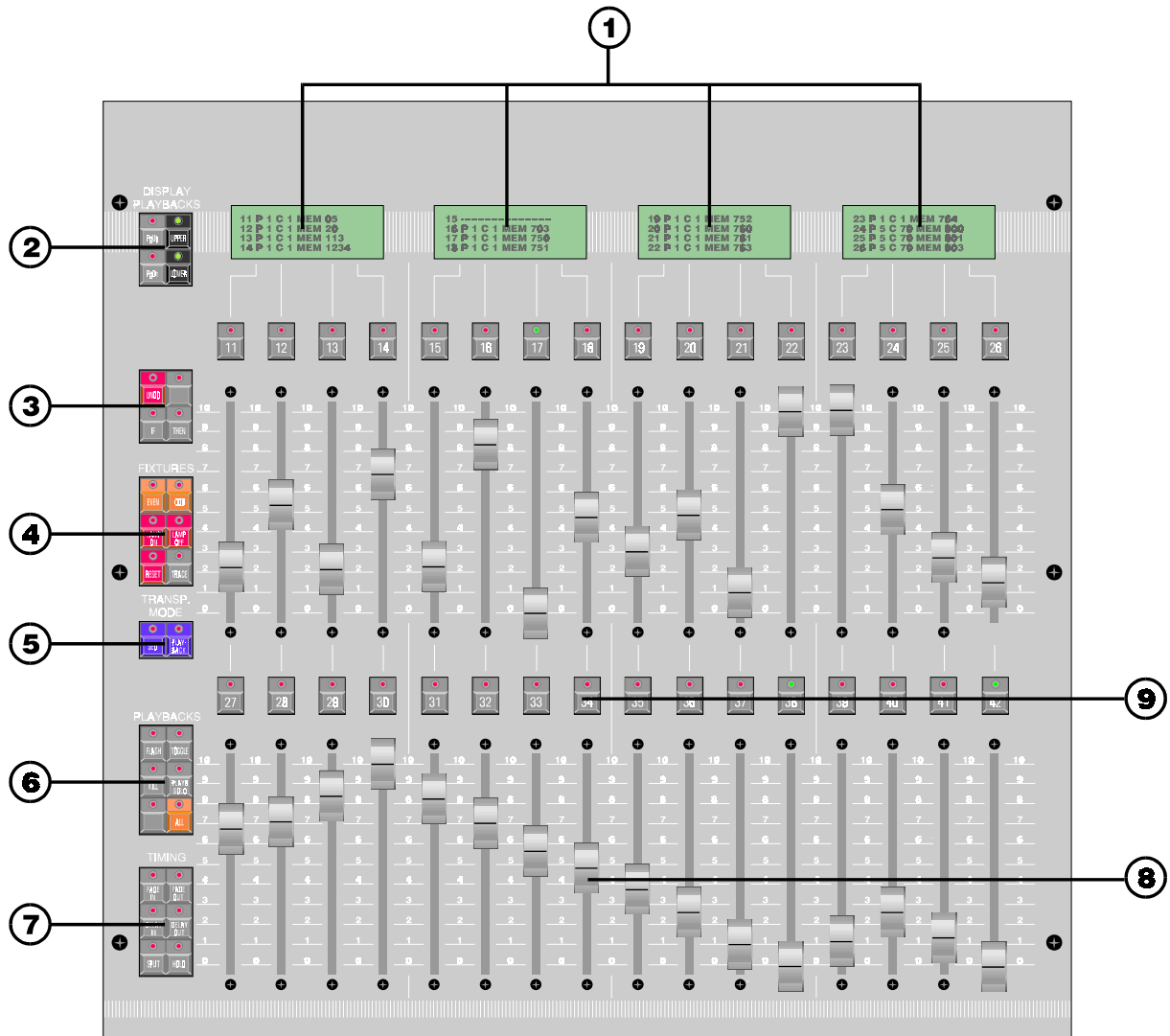
- 11 Cue and Prog/run keys
- 12 Numeric keypad + Memory selection
- 13 Special function keys
- 14 Timecode keys
- 15 Preset keys
- 16 View selection keys
- 17 Control channel keys
- 18 Setup keys
- 19 Group and Cuepages selection keys
- 20 Cues/Fixtures/Presets selection keys



Only for P2 and P2+ controllers

7

- 1 *Displays for sequence info*
- 2 *Start/Stop sequence key*
- 3 *Forward/Backward/Bounce/Random key*
- 4 *Sync key*
- 5 *Auto/Semi auto/Man key*
- 6 *Beat step key*
- 7 *16 Digital belts for fixture control channels*
- 8 *Sequence A*
- 9 *Sequence B*
- 10 *Sequence C*
- 11 *Sequence D*
- 12 *Fade Level belt*
- 13 *Fade Time belt*
- 14 *Wait Time belt*

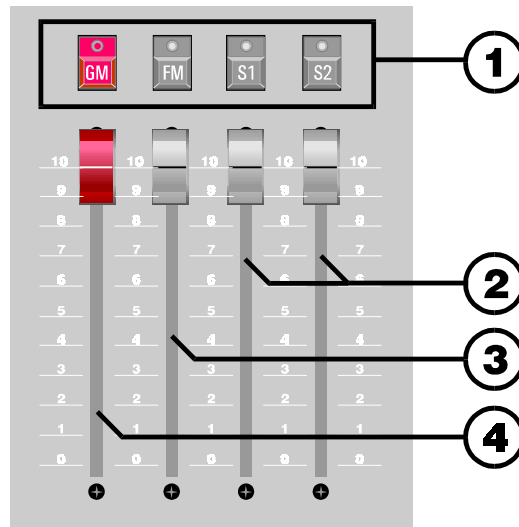


Only for P1+ and P2+ controllers

- 1 4 Displays with playback info
- 2 Display info keys
- 3 Special function keys
- 4 Additional Fixture function keys
- 5 Transparent mode keys
- 6 Playback mode keys
- 7 Playback timing keys
- 8 32 extra playbacks
- 9 Playback flash keys

1.7.1

The master sliders



1 Master flash keys.

Each slider has a flashkey.

The first key is for the Grand-Master, the second key is for the Playbacks, the third and fourth keys are for the submasters. Flashing with those keys means that they will flash to the maximum value of their slider position.

2 Programmable submasters.

One can program the dimmer channels of a group of fixtures to one of both sliders. Holding down the EDIT key in the Cue keywindow will cause the submaster keys to flash orange. Selecting one of the flash keys together with the edit key will enter the program mode of the slider. Now one can select fixtures or a programmed group of fixtures to add to this slider. To end program mode, press the flash key again.

If the slider is programmed and active, the flash key will lit up green.

If the key lites up red, the slider is set on its maximum value.

In submaster program mode the key lites up orange.

3 Flash master slider.

This slider controls the maximum value of the playback flash buttons. If set to zero, no playback flash button will work.

Lighting up red means, the slider is on its maximum value.

Green means, the slider is active.

Out means, the slider is on its minimum value.

4 Master slider.

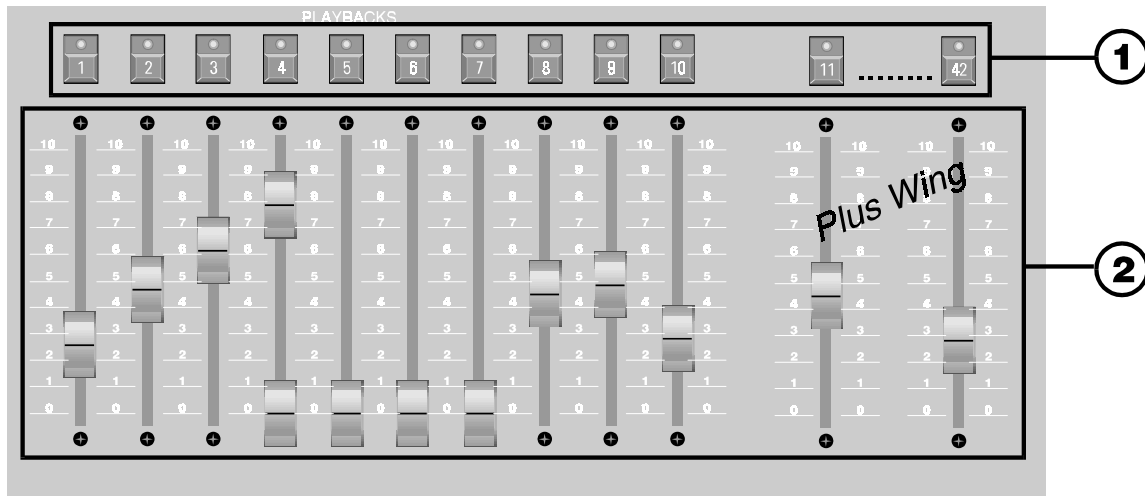
This slider controls the dimmer channels of all fixtures. If set to zero, there will be no light and the key will not lit up.

Lighting up red means, the slider is on its maximum value.

Green means that the slider is active.

Out means, the slider is on its minimum value.

1.7.2

Playbacks**1 Playback flashkeys.**

When those keys are hit, the playbacks will flash or toggle to their maximum value, set by the Flash master .

In each of the 1,120 cues in the system it is possible to program 42 playbacks. To do this, select a cue and press the EDIT key in the Cue selection keywindow together with one of the flashing playback LEDs, add a memory to the playback and close by pressing the playback key again, or get a memory press and hold the EDIT key and press twice the playback flashkey.

Playback keys can be set in 3 modes :

- | | |
|--------|--|
| Flash | The memory in the playback will be activated as long as the key is pressed . |
| Toggle | Pressing the key will toggle from fade-in to fade-out. |
| Kill | Pressing the key will fade-out a previous activated playback (also in kill mode) of the same cue and fade-in the selected playback (X-fade). |

Playback keys that lit up green are programmed playbacks.

Red means that they are programmed and in use (the playback slider is active).

Out means that they are available to program.

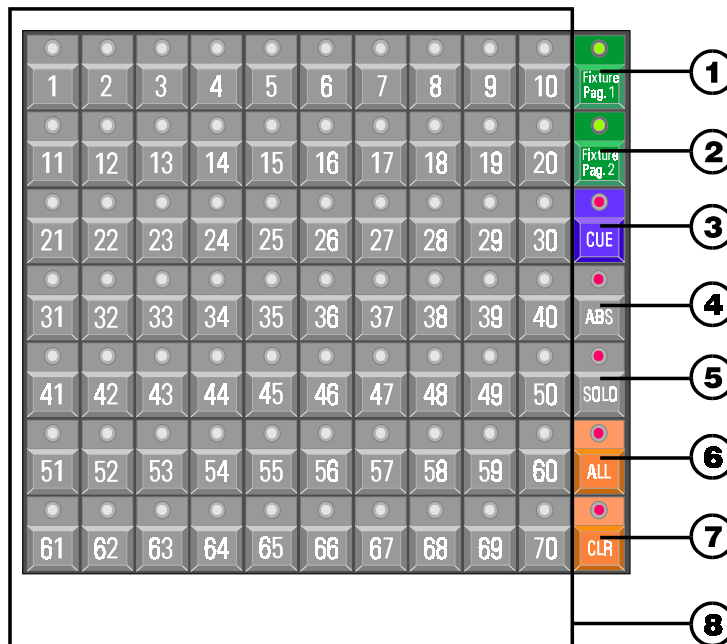
Flashing red means: There will be a change, after setting the slider to zero :

- there will be a new memory in the fader (ex. : when changing to cues with programmed playbacks and the sliders are not frozen).
- the fader becomes empty (ex. : when changing to cues with no playbacks programmed and the playbacks are not frozen, in cue replace all mode).

2 Playback sliders.

Important note : *The priority of active playbacks :
Playback 1 takes precedence over playback 2, 2 over 3,... if the playbacks are loaded with memories that use the same fixture channels. If the playbacks are loaded with memories that use dimmer channels, the priority will be Highest Take Precedence. Playbacks take precedence over sequences if the same fixture channels are involved. For dimmer channels, the principle of highest take precedence is valid.*

1.7.3

Fixtures / Cues / Presets selection keys**1 Fixture selection key (fixtures 1-70) .**

When this key is lit, the console is in fixture mode, and you can make a selection for fixtures 1 up to 70. In this mode, the numbered keys of the selected fixtures will lit green. They indicate the selected fixtures.

2 Fixture selection key (fixtures 71-140) .

When this key is lit, the console is in fixture mode, and you can make a selection for fixtures 71 up to 140. In this mode, the numbered keys of the selected fixtures will lit green. They indicate the selected fixtures.

3 Cue selection key.

When this key is lit, the console is in cue mode. In this mode, the numbered keys of the programmed cues will lit red. The cue in use will lit green.

The combination of the SHIFT key in the **Cue** keywindow with this CUE key, selects the cue replace all mode or cue overwrite mode.

4 **Absolute or relative programming.**

When lit, the pan / tilt movements, the iris, frost, zoom, dimmers and focus will move to absolute positions. When not lit, these channels are relative upon each other.

The relative function can be used to program several fixtures in a spot. When moving this spot, all selected fixtures will follow this spot.

5 **Solo function.**

*When lit, and **no sequences** are active, all the **not selected fixtures** will dim. The selected fixtures will stay open. This is useful if you wish to adjust one fixture, when programming with a lot of fixtures.*

6 **All key.**

In fixture mode, all fixtures that are set up on both pages, will be selected.

*The All key can also be used together with the CLR key of the **Control Channels** selection keywindow. There it is used to clear all channel values of the selected fixtures.*

*The All key used together with the DEFAULT key of the **Control Channels** selection keywindow, puts all fixtures in their default position which is, white beam, no gobo, open (if not changed).*

7 **CLR, Clear key.**

In fixture mode, all selected fixtures on both pages will be deselected when using this key.

8 **Numeric keys.**

- Fixture mode

To select a fixture, press the key. To deselect, press the key again.

One can also make a selection or deselection of several fixtures together by holding down the first and the last key of the succeeding fixtures, at the same time.

- Cue mode

*Together with the **Cuepages** keywindow, one can program 16 pages of 70 cues. Cues, already programmed, will lit red. The last cue in use will lit green.*

- Preset mode

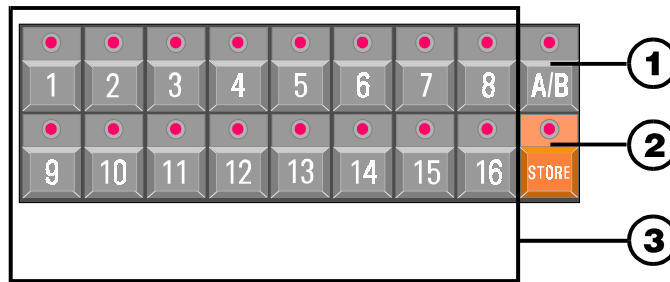
*Holding down one of the 4 preset functions (P&T, Gobo, Color or Fig) in the **Presets** keywindow, will cause all the programmed presets to blink orange. A preset can be chosen by holding down a preset function key together with one of the available preset numbers (1-70 in the **Fixtures/Cues/Presets** keywindow).*

- Direct access mode

*Holding down the **DIRECT ACCESS** key together with one of the blinking keys in the **Control Channels** keywindow will cause, all the selectable values of the chosen control channel of the selected fixtures, to lit up orange. Together with the **DIRECT ACCESS** key, you can choose a value with the numbered keys. This function gives the user the possibility to program very fast.*

1.7.4

Groups / Cuepages selection keys



1 A/B key

In fixture mode, you can make a selection of fixtures and save the selection in a group number. There are 2 banks (A and B) of 16 groups.

In cue mode : no function

2 Store key

*In fixture mode, one can group several fixture selections in one of the 32 fixture groups. To store a group selection of fixtures, select first the fixtures in the **Fixtures/Cues/Presets** keywindow, then select the bank (A or B) and press the **STORE** key together with one of the 16 numbered keys.*

In cue mode : no function

3 Numeric keys

- Fixture mode

In fixture mode, the programmed fixture groups will lit up green. To select a group, select the bank and press one of the 16 keys that are lit.

It is also possible to select more groups together.

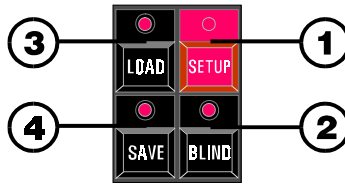
- Cue mode

In cue mode, the numbered keys represent the cuepage number. To select an other cuepage, press one of the 16 keys.

In cue mode, the cuepage in use will lit up red.

1.7.5

Setup selection keys



All these keys have to be pressed for more than 2 seconds to activate the function.

1 Setup key.

Pressing this key for more than 2 seconds will leave the program and enter the setup program.

In the setup program, it is possible to :

- Build up the stage layout
- Select the fixtures, their channels and their protocols
- Repatch the channels of the fixtures
- Select the color library (LeeTM, RoscoTM or CamTM)
- Print out the Stage Layout and Fixture Info

To exit the program press the **SHIFT** key of the **Cue** keywindow together with the setup key for more than 2 seconds

2 Blind key.

This key is used if you want to program blind, when a show is running on the console. You can change the cues, or you can make some changes in the setup. Once the blind programming state is deselected and the changed cue reselected, the changes will be activated. When timecode is activated, it is possible to run through a timecode list and make changes blind. The changes will be activated when blind mode is deselected.

To activate this key, it should be pressed for more than 2 second

3 Load key.

To load a new show or parts of a new show, or to clear the show.

When this key is pressed for more than 1 second, you can select on the numeric keypad :

- 1** : For an internal show (on the systems harddisk)
- 2** : For an external show (on the systems floppy disk)

Now a box with 3 windows will appear on the screen :

Show name window

Available shows window

Data window

You can switch between the windows with the arrow keys on the Keypad (2, 4, 6 or 8).

In the **available shows window** you can select the show with the arrow keys and by pressing **RET** on the highlighted show.

In the **data window** you can select or deselect (a yellow point means selected) by pressing **RET**.

- The available options are :

- Setup
- Presets
- Memories
- Thresholds
- Cues
- Groups
- Submasters
- Lists (SMPTE, Midi, ...)

When you want to start a new show, you have to load the EMPTY show with all data options activated. If you want to start a new show, but you want to keep your present setup, load the EMPTY show with all data options activated except the **SETUP** option. You can also clear all your memories by loading the EMPTY show with only the **MEMORIES** option activated.

4 Save key.

To save a show or parts of a show.

When this key is pressed for more than 1 second, you can select on the numeric keypad :

1 : For an internal show (on the systems harddisk)

2 : For an external show (on the systems floppy disk)

Now a box with 3 windows will appear on the screen :

Show name window

Available shows window

Data window

You can switch between the windows with the arrow keys on the **Keypad** (2, 4, 6 or 8).

In the **available shows window** you can select the show with the arrow keys and by pressing **RET** on the highlighted show.

In the **data window** you can select or deselect (a yellow point means selected) by pressing **RET**.

- The available options are :

- Setup
- Presets
- Memories
- Thresholds
- Cues
- Groups
- Submasters
- Lists (SMPTE, Midi, ...)

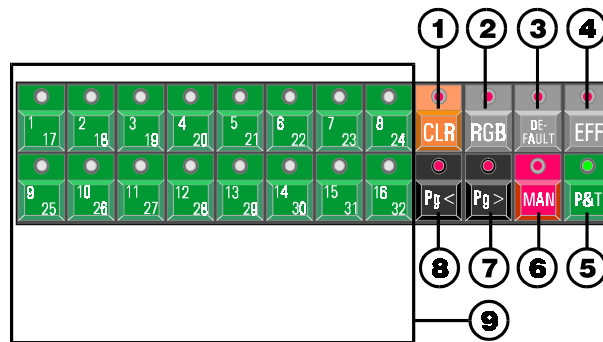
Note : When you load a new show, a backup of the old data will be made in the Show name **BACKUP**. So if you accidentally have loaded a show, it is always possible to restore your old show by loading the **BACKUP** show. **!!!!** If a show is loaded twice, the backup of the old show is lost **!!!**

It is not possible to save an internal show with the name **EMPTY or **BACKUP**.**

Note : If you are programming, there is a **power failure** and you didn't save the show, your data (**setup, memories, presets, cues**) will **not be lost**. An exception is the **timecode list** : **This list will be lost if it isn't saved.**

1.7.6

Control channels



1 Clear key

Partial memories can be created with the controller : i.e. memories with only some values of some fixtures, therefore one has to have the ability to suppress some or all the values in a memory.

Suppressing some channels of 1 fixture :

Select a fixture, then select a memory, press and hold the clear key and select the channels to suppress in the numeric area . Store the memory

Suppressing some channels of more fixtures :

Select some fixtures, then select a memory, press and hold the clear key and select the channels to suppress in the numeric area . Store the memory.

Suppressing entire fixtures :

Select a memory, press and hold the CLR key together with one of the numbered flashing keys in the **Fixtures/Cues/Presets** selection keywindow. Store the memory.

Suppressing everything :

Select a memory, press the CLR key together with the ALL key of the **Fixtures/Cues/Presets** selection keywindow. Store the memory

Suppressing only effectchannels :

Same as above but press the CLR and EFF together with the other keys.

2 RGB library key

If there are RGB fixtures set up and selected, and one wishes to program or select a specific RGB color out of the LeeTM, RoscoTM or CamTM library (the working library is chosen in the setup).

To program a color, select an RGB fixture, and press the RGB key. A window with the color names will appear on the screen. Select a name with the GET MEM key + number + RETURN of the Keypad keywindow or scroll through the names with the 8 or 2 keys. Set up the color with the RGB channel values (be careful that no other color filters are active), then press the TO MEM + RETURN key.

To select a color, press the RGB key and select a color name with the GET MEM + number + RETURN or with the 8 or 2 keys.

3 Default key

Sometimes it can be very useful to have a fixture in its default position which is full open white light without a gobo. These are the preprogrammed default values of the fixture. Default values can be changed.

When using this feature be sure that no sequence is running, no preset is active and one or more fixtures are chosen, because otherwise the sequences and/or playbacks will take over.

One can also take the manual mode to use this function.

There are several possibilities :

<i>DEFAULT + Fixture number(1...70)</i>	:	<i>Selects the default value of the fixture (except Pan/Tilt)</i>
<i>DEFAULT + ALL</i>	:	<i>Sets all fixtures in default (except their Pan/Tilts)</i>
<i>DEFAULT + Group number (1...16)</i>	:	<i>Selects the default value (except Pan/Tilt) for the programmed group of fixtures</i>
<i>DEFAULT + Controlchannel nr (1...32)</i>	:	<i>Sets the selected control channel of the selected fixtures in the default value.</i>
<i>DEFAULT + P/T</i>	:	<i>Sets Pan/Tilt of the selected fixtures in their default position.</i>
<i>DEFAULT + EFF + Fixture number</i>	:	<i>Stops all effects (except figure motions) on the fixture</i>
<i>DEFAULT + EFF + ALL</i>	:	<i>Stops all effects (except figure motions) on all fixtures</i>
<i>DEFAULT + EFF + Group number</i>	:	<i>Stops all effects (except figure motions) on the programmed group of fixtures</i>
<i>DEFAULT + EFF + Controlchannelnr</i>	:	<i>Stops the effect on the selected control channel of the selected fixtures.</i>
<i>DEFAULT + EFF + P/T</i>	:	<i>Stops the figure motions of the selected fixtures.</i>
<i>DEFAULT (twice)</i>	:	<i>Selects the default with Pan/Tilt and stops all effects of the selected fixtures.</i>

When the *DEFAULT* is used with control channels or Pan/Tilt, **first the fixtures have to be selected.**

Note : *If EDIT is used with the DEFAULT key, the default values of all channels of all fixtures can be changed. Use it in the same way as making memories and save the new defaults by pressing the DEFAULT key again. If you want to restore the original defaults, edit the default and press CLR + ALL. Save it again.*

4 **EFF** key.

On every control channel of the fixtures, a chaser effect can be generated. All running effects can be synchronized.

The Pan/Tilt channel effect generator differs from the other channels. On this channel, complex Pan/Tilt motions can be generated.

The effect generator can save you a lot of time during programming.

To enter the effect generator, select a fixture(s), select the control channel for the effect and press the EFF key. The working of the effect generator will be explained later in this manual.

Some frequently used effects are already programmed for you in macro's. To enter the macro mode, select a fixture(s) and press (together) SHIFT + EFF.

5 **P&T (Pan/Tilt)** key

Selecting this key will put both, the Pan and Tilt, on the tracker ball. From software version 6.2, the resolution of the trackerball can be changed with the upper T-Ball buttons. The trackerball can be switched on or off with the lower T-Ball buttons.

*If P&T is pressed together with the **SHIFT** key, the **flip function** is activated for **Moving Head fixtures**. The pan rotates over 180° and the tilt is recalculated so that the same spot on the stage is light again. This function is useless with mirror fixtures.*

6 **Man (manual)** key

All fixtures being set up can be taken manually. Manual mode is the highest priority mode, so no matter what sequence is running or what playback is open, the fixture(s) taken manually will follow the manual actions as soon as one of the control channels is changed. Also running effects can be changed in manual mode. If manual mode is deselected, the fixtures will follow their program again.

7 **Page>** key

To select the next 16 control channels of fixtures that have more than 16 channels.

8 **Page<** key

To select the first 16 channels of fixtures.

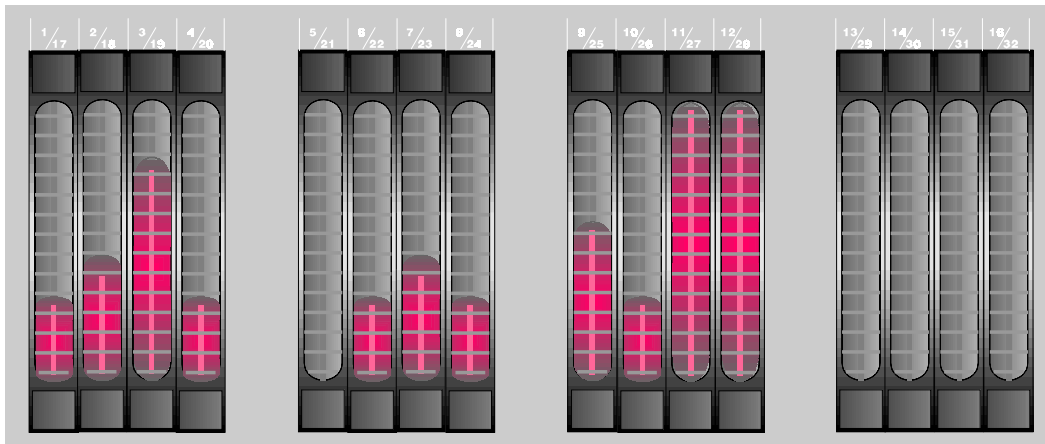
9 Numeric keys

They represent the fixtures control channels (P&T, gobo, color, RGB filters...) as you see them on the screen.

In effect mode they represent the additional effect parameters.

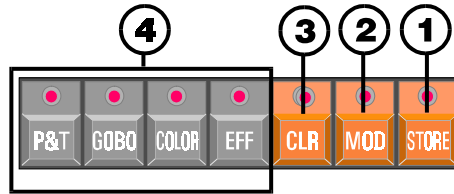
Pressing a key will put the control channel on the tracker ball.

In the Professional 2 system, the 16 control channels can be direct accessed on the digital belts of the left panel. In that system, it is not necessary to select first a control channel number.



The numeric keys can also be used with the CLR, DEFAULT and COPY function.

1.7.7

Presets

On the console, there is the possibility to program 70 presets of 4 functions (P&T, Gobo, Color and Effect)

1 Store preset key

To store a preset.

First the fixture control channels have to be set. Then press the STORE key together with one of the functions + one of the 70 numbered keys in the **Fixture/Cues/Presets** keywindow. Only the specific channels of that function of **all the fixtures** will be stored in the preset. **What you store is what you see on the scene.**

2 Mod (Modify) key

Only the selected fixtures will be modified in the preset, the other fixtures will not be updated. An already stored preset can be modified by pressing the MOD key together with one of the functions + one of the 70 numbered keys in the **Fixture/Cues/Presets** keywindow.

3 CLR key

To clear an already programmed preset, hold down the CLR key + one of the functions + one of the 70 numbered keys in the **Fixture/Cues/Presets** keywindow.

4 Preset function keys

To call a previously stored preset. They can also be used in combination with CLR, MOD, STORE or COPY ITEM keys.

- P&T* : Only Pan/Tilt presets of the selected fixtures, including pan fine, tilt fine and focus.
- Gobo* : Only the gobos of the selected fixtures including other functions like knives (Pal 1200 Martin), iris, zoom, focus, framing,...
- Color* : Only the color of the selected fixtures including RGB colours
- EFF* : All effect generator parameters of the selected fixtures

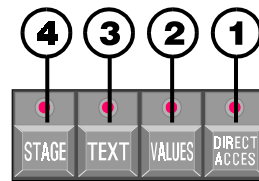
It is possible to preprogram the functions selections you want to load, when loading a preset. Ex. You have stored a gobo preset for Martins PAL-1200. All the values of the gobo wheels and iris values, knives values and focus values will be stored in that preset. Now you want to call only the knives values out of that preset.

*To preprogram the functions selections you want to load, in the example we want only the knives, press the EDIT key together with one of the preset functions (P/T, gobo, color, EFF) and select one or more previously stored presets. Switch to the VALUES (**View** keywindow) screen. A window will open now. You can select or deselect the function you want to load with the numeric control channels keys. Save the selection by pressing the chosen preset function again.*

If you want to freeze the preset screen on the screen, press the desired preset functionkey twice. To cancel press ESC.

1.7.8

View



The view keywindow is used to call one of the four screen views.

1 Direct access

The key is used together with one of the Control Channels keys.

When using this key together with one of the blinking keys of the **Control Channels**, one can direct access one of the preprogrammed values of the chosen channel.

To use the direct access function together in the effect generator, first select the EFF function, then press the direct access key together with one of the blinking figure control channels. A screen with preprogrammed figure motions will be shown. Select a motion by pressing one of the blinking keys in the **Fixtures/Cues/Presets** keywindow.

When you double click this key, and you select a control channel, the direct access keywindow will remain on the screen until you deselect the function by pressing ESC.

2 Value key

To show the digital values of fixtures in a memory in fixture mode, and real output values in cue mode or **to open the master/playback screen (press value key again)**.

When editing preset loadfunctions, this screen shows the functions that will be loaded when the preset is called.

Used together with the SHIFT key, the values on screen can be toggled between Digital or Percentage.

3 Txt key

In fixture mode the screen represents the memory names named by the user. A memory in use will appear with a * if no name is filled in.

In cue mode the screen shows the cuenames named by the user. A cue in use will appear with a *.

In preset mode, when pressing one of the preset functions, the screen shows the preset names of the chosen preset function, named by the user. A preset in use will appear with a *.

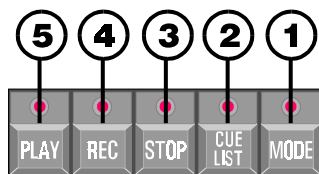
4 Stage key

The screen shows the stage layout, set up by the user in the setup program.

When Fixtures Page1 is active, the screen shows fixtures 1 - 70,

when Fixtures Page2 is active, the screen shows fixtures 71-140.

1.7.9

Timecode

1 Mode key

To select the timecode mode between :

- PC timer (24, 25, 30 or 30 drop frames) : A show can be recorded or played on the internal PC timer. There will be no output on MIDI or SMPTE channels.
- MIDI timecode (24, 25, 30 or 30D frames) : Future use.
- SMPTE timecode (24, 25, 30 or 30D frames) : A show can be recorded or played synchronous with the incoming time on the SMPTE input.
- INTERNAL SMPTE timecode (24, 25, 30 or 30D frames) : A show can be recorded or played synchronous with the outgoing time on the SMPTE output. In this mode, the console is used as master SMPTE generator.
- MAN mode : In manual mode you can create a CUELIST. The selections recorded in the cue list can be played by pressing the LAST or NEXT key.

To record a CUELIST :

Press first the ADD or INS button and select the functions you need.

To play a CUELIST :

Press play twice and select the recorded actions with the LAST or NEXT buttons. To stop playing the cue list, press the STOP button.

Note : You can always have the list displayed on the screen when you press the CUE LIST key.

- CD-ROM mode : When the system is equipped with a cd-rom player, your show can be programmed on the CD-Timecode (75 frames/sec). The CD-Timecode will be converted to a SMPTE 24 frames/sec on the SMPTE output, and the console can be used as a master SMPTE generator.

2 Cue list key

To edit a recorded show. When pressing this key, the recorded show will be displayed on the screen. You can use now the CLR, INS or ADD key to clear, insert or add an event in the show. You can use the arrow keys to place the cursor on an event. In combination of the RET key and the arrow keys, you can change the time of an event.

3 Stop key

To stop the recording or playing of a show.

4 Rec key

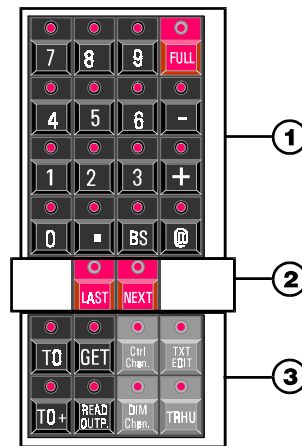
To record a show synchronous with the selected mode.

5 Play key

To play a recorded show synchronous with the selected mode.

<p><i>Important note :</i> When you have recorded a show, <i>do not forget to save the show</i> with the SAVE key. On power failure, a not saved timecode show will be lost.</p>
--

1.7.10

Keypad

1 Numeric keys

They are used in combination with other keys and the RETURN key of the special functions keywindow.

Numeric keys : To call and store memories, to give in values,... . Keys 2, 4, 6 and 8 have a double function, they are also used as cursor keys.

In the setup, these keys are used to give in fixture addresses or to select fixture positions.

BS : Backspace

+ and - : Used in the timecode

Full : Future use

@ : Value key. Selected control channels, thresholds and sequence faders can be given in manually by pressing this key and a numeric value on the keypad.

2 Last, Next

In Fixture mode :

When walking through memories, one can use those keys to call the previous or next **programmed** memory.

In cue mode :

It is used to select the next or last cue in the cue list.

In timecode when manual mode is selected :

To select the next or previous event.

In effect generator macro mode:

To select the macro window, wave window or loop window.

In fixture solo mode :

To select the previous/next fixture.

- 3 *To + number + RETURN*
 - To write channel values to a memory number

To + RETURN + RETURN
 - To overwrite the last called memory

Get + number + RETURN
 - To get the channel values of a memory number

To+
 - To write channel values to the **next** memory

Note : When already programmed memories are overwritten, a second confirming RETURN has to be given.

When you are in RGB mode (only available on fixtures supporting RGB(CMY), The keys 'TO, TO+ and GET' are used to write values to or to get values from the color number of a color library.

Read output

Read output is useful when running cues and/or playbacks together with manually called memories, and all together they give a nice light scene you want to save for later use. To save this light scene to a memory, press the read output button, select fixtures (or ALL fixtures) or control channels and save this to a free memory.

*Note : If read output is used only with control channels then the values will be read out of **the already selected fixtures**. In that way it is possible to read out only some channels of some fixtures.*

*When this key is used together with the SHIFT key, the **DMX INPUT** values of the selected fixtures are read and filled in, in the memory table. So it will be possible to read in memories coming from other light controllers via the DMX INPUT. This function can be used when the MSD (Martin Show Designer) is connected to the DMX input. Lightscenes made on the MSD can be read out and stored in a memory.*

Ctrl ch, Dim ch Thru : Future use

Txt edit

- To give a memory, cue, preset or threshold a title.
- Fixture (memory) mode
 Get a memory, then press the TXT EDIT key together with the TO MEM key.
 Use the PC keyboard to form a title.

- Cue mode

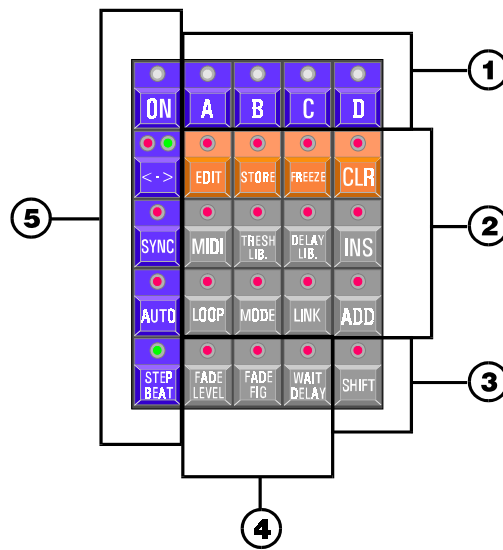
Press the *TXT EDIT* key together with the *CUE* key in the **Fixtures-
/Cues/Presets** keywindow and a cuenumber. Use the PC keyboard to form a title.

- Preset mode

Press the *TXT* key together with a preset function key in the *Presets* keywindow and a preset number. Use the PC keyboard to form a title.

- In cue mode and preset mode, if you didn't select the number, the last chosen cue or preset will be taken.

1.7.11

Cue

Some keys in the Cue keywindow (ON, <->, SYNC, AUTO and BEAT STEP) can also be found on the left panel of the Professional 2 system.

1 A, B, C, D.

These are the sequence selection keys. They are used together with other keys of this keywindow.

To select a sequence (A, B, C or D) press one of these keys.

2 EDIT key

It is used to edit a sequence, a playback, a submaster, a preset loadselection or one of the libs (cuelist, thresholdlibs).

Editing a sequence :

Press the EDIT key together with key A, B, C or D. To store the sequence, press the sequence key again.

Editing a playback :

Press the EDIT key together with a playback key. To store the playback, press the playback key again.

Editing a submaster :

Press the EDIT key together with one of both submaster keys. To store the submaster, press the submaster key again.

Editing a preset loadselection :

Press the **EDIT** key together with a preset function (*P/T, Gobo, Color, EFF*) and select one or more presets. Press the **VALUE** key of the **View** keywindow and select/deselect the channels you want to load in the preset(s). Save the selection by pressing the preset function again.

Editing a lib (Cuelist, thresholdlib, delaylib) :

Press the **EDIT** key together with one of the lib keys and a lib number (keys 1 - 70 in the *Fixtures/Cues/Presets* keywindow). To store, press the libkey again.

STORE key

This key is only used to store the timers, the start/stop status, the *clk/aclk*, the sync status and the auto/man status of the sequences **of the last selected cue**. When the timers (*Fade time and delay time*) and the other functions of the sequences of the last selected cue are set, simply press the **STORE** key to store the values of this cue.

Note : When the controller is set in cue replace all mode **OFF**, and only some sequences are programmed in the last called cue, only the key status and timers of the programmed sequences of this last called cue will be stored and not those of sequences in other cues.

FREEZE key

This function is used to freeze playbacks, to freeze total sequences, to freeze only the sequence timers or to freeze a fixture. Freeze means that the frozen function will remain the same, no matter what cue one calls. **Important note :** sequences with loops programmed will keep running and sequences linked with sequences of other cues will never call the other cue when the sequence is frozen.

If a playback is frozen, the memory in the playback will not change if an other cue is called. To freeze a playback, press the **FREEZE** key together with a playback key. The playback key will lit up green. To end the frozen status, freeze it again until the playback key lits up orange again.

If a sequence is frozen, the sequence (memories, timers) will not be overwritten if an other cue is called, the number of loops will become infinite and linked cues will not be called. To freeze a sequence, press the **FREEZE** key together with one of the sequence selection keys. The selected sequence key will lit up green. If the sequence selection key is pressed **twice, only the timers of the sequence are frozen**, not the memories in the sequence. In this case, the sequence selection key will lit up red. To end the freeze status, press the **FREEZE** key together with the sequence selection key untill the key lits up orange again.

When you have programmed a show using all the fixtures, and suddenly you want to freeze one of the fixtures in a certain position, you can freeze the fixture there by pressing FREEZE and the fixture number. This function can also be useful when one of your fixtures broke down during the show. Note : When a fixture is frozen, you can always change his control channel values by taking it in manual mode.

CLR key

Generally used to delete memories out of an edited sequence or playback or to delete an action when editing timecode.

It is also possible to delete entire cues, playbacks or sequences by pressing the CLR key together with one of these functions.

INS key

Generally used to insert memories in an edited sequence or playback or to insert an action when editing timecode.

ADD key

Generally used to add memories in an edited sequence or playback or to add an action when editing timecode.

MIDI key

To assign midicodes to a playback, cue or a sequence trigger.

THRESHOLD LIB key :

Thresholds are % of fading values of fixture channels. I.e. those fixture channels will not change until the fading % is reached, in a fading. Every fixture channel can be set-up with a threshold value. All those threshold values of selected fixtures can be stored in a thresholdlib number.

*To edit a thresholdlib number, press the EDIT key together with the THRESHOLDLIB key and a number (1 - 70 in the **Fixtures/Cues/Presets** keywindow).*

With the Fixture control channel keys and the trackerball (Professional 1 and 2) or with the digital belts (Professional 2), or just give @ and a number on the numeric keypad, the threshold values can be set-up for the selected fixtures. To store the thresholdlib number, press the THRESHOLDLIB key again.

*When editing sequences or playbacks, this key is used to add the programmed threshold to a memory. To do this, edit the sequence or playback and press this key together with the numbered key (1 - 70 in the **Fixtures/Cues/Presets** keywindow) containing the wanted playback.*

DELAY LIB key : Future use

LOOP key :

Used to select the number of loops a sequence will run, when it is activated. The number can be set between 1 and infinite. The key can only be used when editing the sequence.

MODE key :

Used to select the fademode of a memory in a sequence or playback. There are 4 fademodes :

- *Mode 1 :* In a fading, only the fixturechannels marked with a yellow bar in the controlchannel screen (usually Pan/Tilt, Dimmer and RGB) will fade, the other fixturechannels will switch directly to the next value.
- *Mode 2 :* All fixturechannels will fade in a fading.
- *Mode 3 :* For the memory placed in mode 3, the fading will be so quick that one has the impression that there is an immediate jump to the values of the memory placed in this mode. **Thresholdvalues however can be programmed, the fading will keep track with the thresholdvalues**, so a fixturechannel with a thresholdvalue will not react until the thresholdvalue is crossed, then it will jump (not fade) to the next value.
- *Mode 4 :* For the memory placed in mode 4, the fading will be so quick that one has the impression that there is an immediate jump to the values of the memory placed in this mode. **Thresholds will be ignored.**

Mode 3 and 4 will be the same when used in a playback.

- *Mode 5 :* When dimmerchannels are used in memories, they will react on the HTP principle (Highest takes precedence). To change the memorymode to mode 5 when the memory is used in a sequence or playback, the dimmerchannels will react like the other control channels, the LTP principle with priorities (seq D lowest priority, playback 1 highest priority).

This key can only be used in edit mode.

LINK key :

*Used to link a cue to an other cue after the sequence has finished his loops. **Important :** When the number of loops, in a sequence, is set to infinite, the sequence will never be linked with a sequence of an other cue. This key can only be used in edit mode.*

SHIFT key :

*Used together with the CUE key of the **Fixtures/Cues/Presets** keywindow will*

select cue replace all mode or cue overwrite mode.

Used together with the SETUP key will leave the program.

Used together with the READ OUTP key will read the DMX INPUT of the selected scans.

Used together with the EFF key to enter the effect generator MACRO functions.

Used together with the VALUES key to toggle between digital on-screen values or % on-screen values.

FADE LEVEL key :

This key is used to fade a sequence manually when the sequence is activated in manually mode. To use this function, select an activated sequence (A, B, C, D) and press the FADE LEVEL key. The fade level slider will be on the tracker ball now. In the Professional 2 system, one can also use the digital fade belt of the sequence.

FADE FIG key :

The key is used to set the fade time of a sequence between 0 and 60 seconds. To do this, select a sequence (A, B, C or D), activated or not, and press the FADE FIG key. The fade time will be on the tracker ball. In the Professional 2 system, one can also use the digital fade time belt of the sequence.

WAIT DELAY key :

This key is used to set the wait time before preceding to the next memory in a sequence. The wait time can be set between 0 and 60 seconds. To do this, select a sequence, activated or not, and press the WAIT DELAY key. The wait time will be on the tracker ball. In the Professional 2 system, one can also use the digital wait time belt of the sequence.

5 ON key :

To activate the sequence in a cue. Select first the wanted cuenumber, press the wanted sequence key (A, B, C, or D) and press ON. If the sequence is not programmed, nothing will happen. In the Professional 2 system, one can also use the ON key at the left panel. To deactivate the sequence, select the sequence key and press ON again.

<-> key :

Memories in a sequence can advance forwards (green led), backwards (red led), in bounce mode (forwards and backwards) (green and red led) or the memory sequence can be at random(leds off). These modes can be toggled with this key.

SYNC key :

*To synchronize the sequence with the other running sequences, press the SYNC key on **both running** sequences. The sequence that is fastest will wait for the slower*

sequence before continuing to the next memory.

AUTO key :

*To select between automatic running mode (red led), semi automatic mode (blinking led) or manual mode (led off). In manual mode, the sequence can be triggered with the BEAT STEP key, or you can advance to the next memory with the fade level key (on the Professional 1 with the trackerball, on the Professional 2 with the fade level digital belt). **Note : if used with the belt, first go back to zero with the belt (leds will remain at max position).***

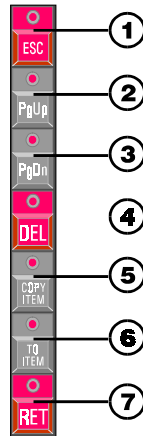
In semi automatic mode, the system has to learn the beat timings, therefore the BEAT STEP key has to be pressed at least 3 times on the desired beat time.

BEAT STEP key :

To proceed to the next memory in an activated sequence. If the key lits up (green), the fading of the memory has completed. It waits now for a manual action on the key before continuing to the next memory. It is not necessary to wait for the key to lit up, one can proceed to the next memory before the fading is ended.

When we wish to trigger all the sequences taken manually together, press the RET key.

1.7.12

Special functions

1 ESC key

To abort an operation like EDIT mode, Timecode,...

2 PgUp

Used to jump to the preceding page, when viewing memories, cues, etc...

When the Master/Playback screen is open (press values key), PgUp and PgDn are used to toggle the text mode in the playbacks. The text showed on the playbackslider can be :

- Page, Cue and Memory number.
- Memory name
- Playback mode (flash, toggle or kill).

3 PgDn

Used to jump to the next page, when viewing memories, cues, etc...

When the Master/Playback screen is open (press values key), PgUp and PgDn are used to toggle the text mode in the playbacks. The text showed on the playbackslider can be :

- Page, Cue and Memory number.
- Memory name
- Playback mode (flash, toggle or kill).

4 DEL

To delete a block selection in a timecode list or cuelist

5 COPY ITEM and 6 TO ITEM

Used to copy :

- *Control channel values from one fixture to another fixture or to a memory in fixture mode.*
- *Playbacks, sequences or cues from one cue to another in cue mode.*

Fixture mode :

- *Copy 1 channelvalue to another fixture*

*Press COPY ITEM + 1 Fixture nr (1..70) and release both.
Press the CLR button of the Control channels keywindow to
deselect all channels. Select now the channel you want to
copy.*

Press TO ITEM + fixture nr (1..70)

- Copy more channels to a memory or to another fixture
Press *COPY ITEM* + 1 Fixture nr (1...70) and release both.
Press the *CLR* button of the Control Channels keywindow to deselect all channels. Select now the channels you want to copy.

Press *TO* and give a number to copy to a memory

or

press *TO+* to copy to the next memory

or

press *TO ITEM* + Fixture nr (1...70) to copy to another fixture.

- Copy all channels of more fixtures to a memory
Press *COPY ITEM* + Fixture numbers (1...70) and release both.

Press *TO* and give a memory number to copy to a memory

or

Press *TO+* to copy to the next memory

Cue mode :

- Copy 1 sequence or 1 playback to another sequence or playback
Press *COPY ITEM* + 1 sequence or 1 playback

Press *TO ITEM* + 1 sequence or 1 playback

- Copy more sequences or more playbacks to another cue.
Press *COPY ITEM* + more sequences or more playbacks

Press *TO ITEM* + CUE (1...70)

- Copy an entire cue to another cue
Press *COPY ITEM* + CUE (1...70)

Press *TO ITEM* + CUE (1...70)

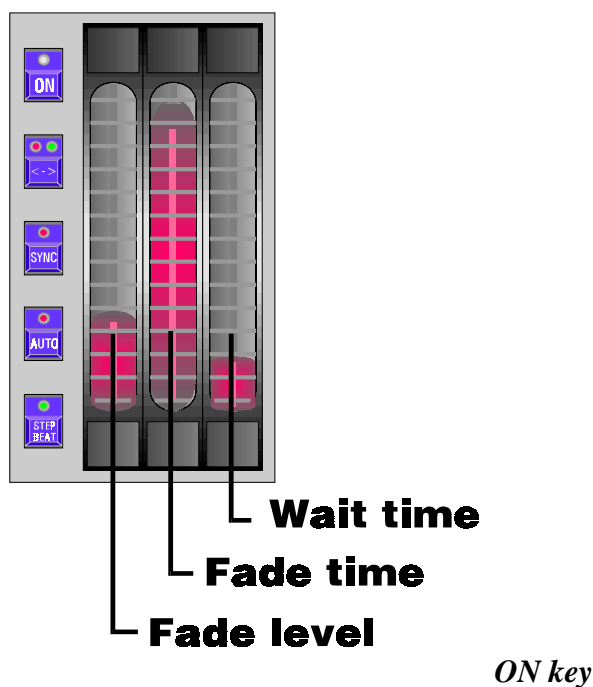
7 RETURN

Generally used to enter data, except when entering text on the PC keyboard (in that case, the return key of the PC keyboard has to be used).

This key is also used to trigger all the manually taken sequences together.

1.8 The Pro 2 side

1.8.1 The sequences



To switch sequence On/Off

<--> key

Memories in a sequence can advance forwards (green led), backwards (red led), in bounce mode (forwards and backwards) (green and red led) or the memory sequence can be at random(leds off). These modes can be toggled with this key.

SYNC key

To synchronize the sequence with the other running sequences, press the SYNC key on **both running** sequences. The sequence that is fastest will wait for the slower sequence before continuing to the next memory.

AUTO key

To select between automatic running mode (red led), semi automatic mode (blinking led) or manual mode (led off). In manual mode, the sequence can be triggered with the BEAT STEP key, or you can advance to the next memory with the fade level fader belt. **Note :** with the fader, first go back to zero with the belt (leds will remain at max position), but on screen the fader will go down. As soon as the belt reaches zero, the next memory will be taken out of the sequence (note the display). Now you can fade-in the memory with the belt.

In semi automatic mode, the system has to learn the beat timings, therefore the BEAT

STEP key has to be pressed at least 3 times on the desired beat time.

BEAT STEP key

To proceed to the next memory in an activated sequence. If the key lits up (green), the fading of the memory has completed. It waits now for a manual action on the key before continuing to the next memory. It is not necessary to wait for the key to lit up, one can proceed to the next memory before the fading is ended.

When we wish to trigger all the sequences taken manually together, press the RET key.

Fade Level belt

The belt shows the fade level of the memory. The belt itselve is only activated in manual mode.

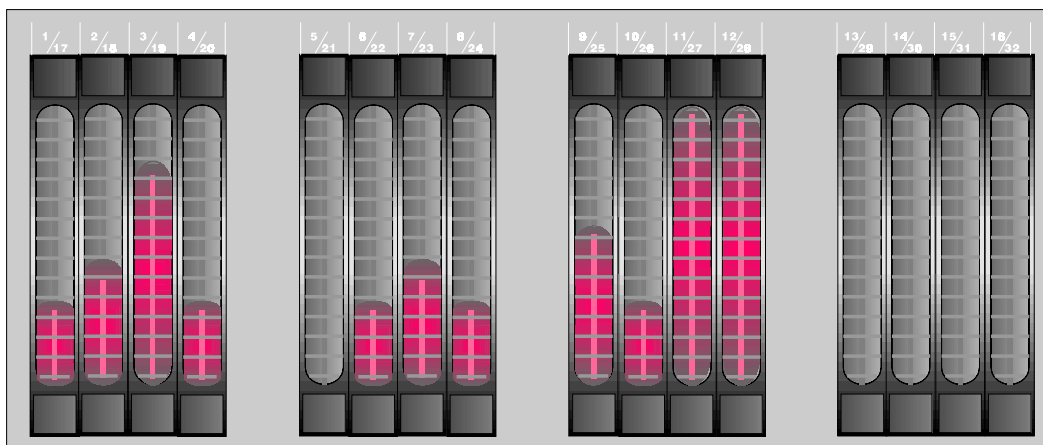
Fade Time belt

To adjust the fading speed of the memories in the sequence (0 to 60 sec.)

Wait Time belt

To adjust the time the sequence has to wait between the end of the memory fading and the begin of the fading of the next memory (0 to 60 sec.)

1.8.2 Control Channel belts



With these belts, 16 fixture control channels or the effect generator channels of the selected fixtures can be direct accessed. To get the next 16 control channels for fixtures with more than 16 channels, press the **Pg>** key.

The level of the leds in the belts correspond with the channel values of the last selected fixture. If more fixtures are selected at the same time, the corresponding channel on the other fixtures will change as well.

If fixtures are equipped with high resolution Pan/Tilt fading and the course channel is touched, the fine channel will move as well. The resolution of the Pan/Tilt motion depends on the resolution of the trackerball which can be adjusted with the upper trackerball buttons.

1.9 The PLUS wing

Note : On software version 6.21, not all keys are in use. Most keys will be used in future versions.

1.9.1 Display Info keys



PgUp and PgDn

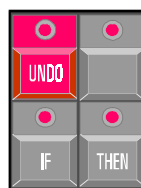
To select the textmode of the playbacks on screen and on the display. Texts can be displayed as :

- *P xx C yy M zzz where xx is the pagenumber of Cue yy and zzz is the memorynumber.*
- *Memory name*
- *MODE x : Flash / Toggle or Kill : represent the mode of the playback.*

Upper and Lower

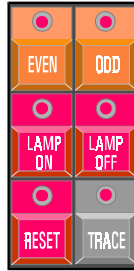
To select the text of playbacks 11-26 or 27-42 in the displays.

1.9.2 Special function keys



Not in use in this version.

1.9.3 Fixture function keys



Even and odd

To select even or odd numbered fixtures.

Other keys

Future use.

1.9.4 Transparent mode keys



Seq and Playback

In this version they will have the same function. They select between cue replace all mode and cue overwrite mode like the SHIFT CUE function on the P1 side. In future versions the sequences and playbacks will be splitted.

1.9.5 Playback mode keys



Flash

*To set a playback of the **selected cue** in flash mode. Press FLASH together with a playback flashbutton.*

Toggle

To set a playback of the **selected cue** in toggle mode. Press TOGGLE together with a playback flashbutton.

Kill

To set a playback of the **selected cue** in kill mode. Press KILL together with a playback flashbutton.

Note : Only playbacks of the same cue in kill mode can do an X-Fade.

Other keys

Future use.

1.9.6 Playback timing keys



Fade in and Fade out

To give a fade-in and fade-out time on a playback **of the selected cue**. Press FADE IN or FADE OUT together with a playback flashbutton and give in a time up to 6,000 sec.

Other keys

Future use.