

Release Notes

Spark4D

December 2002

Version SPD06R01.imf
SPD06R01.tim
OSiD08B1.imf
Service Tools: DROA28B3
Last version: SPD06B02.imf

CPU	486 DX4100
BIOS Version	SB510A03-U40

SB-510	Version
PAL U75	SB51S75P C/P
PAL U51	SB1KU51
PAL-SB510 U64	SB51U64B
Keyboard CAN S/W	PHOTOA09 (supports internal SMPTE)

IMPORTANT !!!!

**READ BELOW BEFORE BURNING THIS SOFTWARE. FAILURE
TO FOLLOW THESE INSTRUCTIONS WILL DAMAGE YOUR
CONSOLE**

Burn SPD06* only after burning OSiD08B1!!!!!!
--

Notice for consoles delivered prior to January 1, 2000!

Important! SPD04* must be installed before upgrading to SPD06*. If you have never installed SPD04* read Release Notes SPD04R01 for instructions on installing SPD04* software.

Attention New Console Owners (consoles delivered starting January 1, 2000)!!

Your console has new Flash chips. Avoid burning old software (software previous to SPD04R05) on the new flash chip. If old software is burned on the new flash it becomes impossible to burn the system again and also impossible to modify the NOVRAM and the VC Table. If old software is accidentally burned, use the new Boot Kit (BkitD08) to burn the new software.

1. Go to the BIOS and disable the Internal Cache.
2. Burn the new software using the Boot Kit.
3. Return to the BIOS and change the Internal Cache to Write Back.

Important!!

After burning SPD06* switch the console off and on to enable the panel.

New Features

- **Assign and Free using Soft Keys**
It is now possible to use the Assign and Free keys to directly make assignments and free assignments on the Soft Keys, in order to create new objects (groups, palettes etc.)
- **Call**
Library assignments are included calling an assignment from a specific playback device
- **Chasers**
Time out for Chase Fade
- **Controller On/Off**
"Virtually" force controller level to FULL (Controller on) or to ZERO (Controller off) through the use of Events
- **Device Definition**
Span parameter was added.
- **Display**
Scrolling through spot and channel displays
- **DMX Device Maximized**
New bit R in Service Tools. Allows 16 DMX devices in menu 19 Mix Output
- **Fan**
Apply Fan to selected spot parameters and channels. Fan is applied according to order of selection
- **Flip**
Allows rotation of a moving-head fixture so that it may reach the same point on stage from the other end of its movement range
- **Grand Master Bypass**
A new bit is added in Service Tools to allow the disabling of the Grand Master
- **Last Enacted Macro**
Indicate last enacted macro by blinking LED.
- **Libraries**
Color and gobo libraries have been expanded to include 12 parameters
- **Library Display**
Display Library type and numbers for assignments on playback devices
- **Load/Record Device Files On Network Drives**
Allow user to load or record devices on the network drives as set in menu 26.
- **Mix Output Menu**
DMX offset channel allowance has been extended to 60 channels for big spots and 44 for 22 parameter spots.
- **Pause**
Additional Macro option to ensure proper execution of macros
- **Scheduler**
Schedule automatic operation for Macros, Events, and Snaps using the console's internal clock

New Keys

Key	Description
[Delete S.K.]	Located in macro menu 9. Deletes soft keys mode from the command line, when creating new macro.
[FAN]	Located in macro menu 9.
[FLIP]	Located in macro menu 9.
[HOME]	Located in macro menu 9.
[LIBRARY DISPLAY]	Located in macro menu 9.
[REM DIM]	Located in macro menu 9.
[PAUSE]	Located in macro menu 9.
[SCHEDULER]	Shares the [MACRO MODE/ ADD MACRO] key. Access using [SHIFT] only when command line is clear!!
[SCHEDULER ON]	Located in macro menu 9.
[SCHEDULER OFF]	Located in macro menu 9.

New Features

1. Assign and Free using Soft Keys

Now you can directly assign and free the Soft Keys using SHIFT ASSIGN/FREE keys. This works with groups, snaps, palettes, and effects.

Examples:

1.1.1 Assigning a group using Soft Key

Keypresses	Results/Comments
1. Press [CHAN] [1 THRU 10] [SHIFT] [ASSIGN]	
2. Press [GROUP] if group is not the current mode	Group mode opens on the SK's
3. Press [SK 1]	Group 1 is stored. Message "Group 1 stored" appears in top left of screen.

1.1.2 Freeing a group using Soft Key

Keypresses	Results/Comments
1. Press [SHIFT] [FREE]	
2. Press [GROUP] if group is not the current mode	Group mode opens on the SK's.
3. Press [SK 1]	"Are You Sure?" message appears.
4. Press [SK 1] again	Group 1 is freed/erased. Message "Group 1 erased" appears in top left of screen.

2. Call

- Library assignments are included when using the Call function for a specific playback device.
- A General Call, **[CALL] [ENTER]**, or **[CALL #]** will NOT include library assignments.

►Note

Fader must be at it's top end limit (100 %) in order for Library to be included in Call

2.1 Calling Library Assignments into Editor

Keypresses	Results/Comments
1. Press [CALL]	Call appears in the command line.
2. Press [BUMP KEY] for controller or [A] , [B] .	The selected memory will be entered into the editor, and it will include the library assignment.

To view the library assignments on playback enable **[LIBRARY DISPLAY]** (SEE ITEM 4)

3. Chasers

3.1 Chase Fade Out

- It is now possible to assign a fade-out time for chasers.
- Chase fade out times are entered as 3 digits - ###.
- Pressing **[HOLD]** for a running chaser fades the chaser out according to the assigned fade out time. If no fade out time is assigned the chase fade out defaults to the chase fade in assignment. Pressing **[HOLD] [HOLD]** for a running chaser bumps the chaser out.
- Chase fade out times cannot be assigned to memories with Event, Macro, or Snap assignments. An attempt to do so generates the warning "*Memory # Auto Assign*" Press **[STORE]** to override this warning. In this case, the Auto Assignment is deleted. Press **[CLEAR]** or **[RESET]** to abort the operation.

3.1.1 Assigning Fade-Out Times To Chasers

Keypresses	Results/Comments
1. Select the first memory in the chaser	
2. Press [CHASE FADE] [CHASE FADE]	<i>ChsFd Time-i 00</i> ChsFd Time-o 00 appears in the command line
3. Press [4]	<i>ChsFd Time-o 4</i> appears in the command line
4. Press [STORE]	The Chaser will fade down in 4 seconds. The Chase Fade assignments are displayed in the Memory List.

3.1.2 Erasing Chaser Fade Out Times

Keypresses	Results/Comments
1. Select the first memory in the chaser	
2. Press [CHASE FADE] [CHASE FADE]	<i>ChsFd Time-o #</i> appears in the command line
3. Press [ERASE]	The message " <i>Q # MEM. # Stored</i> " is displayed, the chase fade out time is erased.

➤Note

When a Chase Fade Out is assigned, erasing the Chase Fade In time automatically assigns the Chase Fade Out assignment as Chase Fade In.

4. Controller On/Off

- Controller On/Off function will force the controller level to Full (Controller On) or to Zero (Controller Off), by triggering an event. It gives the operator the ability to "move virtually" any controllers' slider level up or down through the use of events without regard to the sliders physical level.
- The Controller On/Off function may be manually over-ridden by matching the slider to the current level that is forced by the function.
- When the Controller On/Off is active the level of the controller shall be displayed in red with a violet arrow near it. The violet arrow shows in which direction the slider should be moved in order to manually override the function.
- When a controller forced by Controller On/Off function is manually over taken its controller level display will change from red to white, and the violet arrow will disappear.
- The function works on the following types of assignments: chasers, auto-chases, memories, groups and submasters.
- If the Controller On/Off function is triggered during a Chase-Fade or a Go-Controller action, the Controller On/Off function will take over fade from the level at which it was interrupted. In addition, if a Chase-Fade or a Go-Controller function is triggered during a Controller On/Off action the new command will take over fade from the level at which it was interrupted.

In Event Menu 21 several new event options have been added:

Key	Description
[ALL CNTR ON]	Located on 2 nd page of options. When selected, Event will turn on all controllers.
[ALL CNTR OFF]	Located on 2 nd page of options. When selected, Event will turn off all controllers.
[ON]/[OFF]	Under F4 assign controller #. When selected, Event will turn on/off assigned controller only.
[ABSOLUTE ON]	Located under F4 assign controller #. Shift of [ON] . When selected, Event will turn on assigned controller and turn off all other controllers.
[ABSOLUTE OFF]	Located under F4 assign controller #. Shift of [OFF] . When selected, Event will turn off assigned controller and turn on all other controllers.

➤**Note**

CONTROLLER MUST HAVE AN ASSIGNMENT FOR CONTROLLER ON/OFF EVENT TO OPERATE.

Below is displayed Controller On/Off Assignment Types and Behavior:

Type of Assignment	Fade Behavior
GROUP	Fades in default fade time (as set in menu 8)
MEMORY	Fades in recorded Time-in memory time
HARD CHASER	Fades In Cut Time
SOFT CHASER	Fades In Memory Time
CHASERS WITH CHASE FADE TIME	Fades in chase fade time.

➤**Note**

Hard chase time has not been implemented yet. Must assign Chase Fade-In of cut time to achieve bump in/ out of hard chase.

5. Device Definition

5.1 Span parameter

This parameter indicates spot horizontal and vertical range.

6. Display

6.1 Scrolling through spots and channels on CRT

- The Display Status option *Scroll page* enables scrolling from channel through to spot displays on monitor.

6.1.1 Enabling the “Scroll Page” option

Keypresses	Results/Comments
1. Press [STAGE]	The Display Format options are on view.
2. Press F2 until the cursor is on <i>Scroll page</i>	
3. Press F3 to enable	<i>Scroll page</i> is highlighted.
4. Press [STAGE] to refresh the display	Monitor returns to stage display

6.1.2 Paging the displays

When *Scroll page* is enabled:

- Use **[PAGE DOWN]**, **[PAGE UP]** to page through all spots and channels.
- Use **[PAGE UP]** for spots only to page through spots.
- What is actually displayed on each monitor depends on what Stage display window is defined and what additional display format options are enabled.

7. DMX Device Maximized

- Bit **R** in Service Tools set to yes will allow user to edit 16 Dmx devices in menu 19 Mix Output.
- Coldstart is required after changing bit setting.
- Care must be taken when loading shows of 8 DMX devices to a 16 DMX device console and vice versa.

8. Fan

- The Fan feature applies spread values to spot parameters and channels according to the selection order. The parameter wheel (for the selected parameter) is used to assign the spread.
- Spot parameters, scrollers, and channels can be fanned from the side, center, or mirrored.
- The **[FAN]** key accesses all of the Fan feature functions. The **[FAN]** key is located on the macro menu 9.
- When the Center or Mirror fan is applied, system assigns values to the spot parameter, scroller, or channel according to their distance from the center of the range selection.
- The Side fan uses the first spot/channel of the selection as the base reference. The Fan is applied to the rest of the selection.
- Fan may be applied to all parameters.
Exception: Mixed steps are supported within the range of a single step (1.0 → 1.f). Discrete steps are not supported.
- **ONLY ONE PARAMETER CAN BE FANNED AT A TIME.**
- When **[FAN]** is active the parameter wheel assigns Fan spread values. Selecting another parameter turns off the Fan feature. You must press **[FAN]** again to reactivate.
- The exception to this rule is the trackball. You can select pan (x), for example, assigning the Fan with the X wheel. If you then use the trackball the Fan is applied to tilt (y) also.
- Fan is interactive with the Effects Editor. You can use the Fan within the Effects Editor to change the Base values, thus retaining the fan formation.

➤Tip

Use the Fan feature for quick programming of Palettes and Libraries.

Fan is useful for position, iris, dimmer, and color mixing.

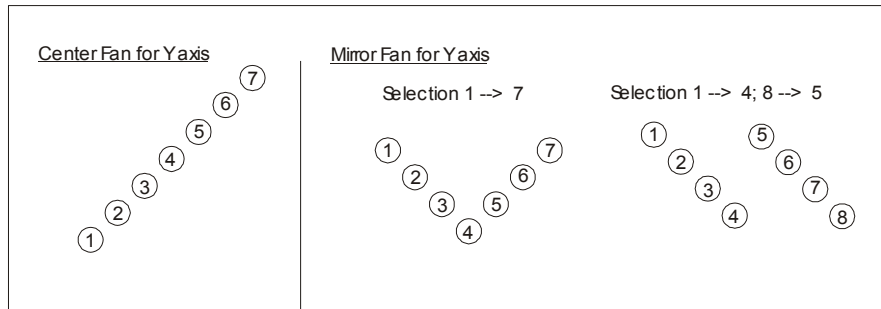
Number of presses	Fan Feature	Command line display	Result/comments
[FAN]	Side fan	<i>Fan</i>	Assigns spread in order of first to last in selection
[FAN] [FAN]	Center fan	<i>Cen</i>	Assigns spread using center of selection as reference point. Wheeling up affects higher selection, down effects lower selection.
[FAN] [FAN] [FAN]	Mirror fan	<i>Mir</i>	Assigns spread starting from center of selection
The fourth (4 th) press disables the Fan feature	Disabled		

►Attention

The 1st spot/channel of the selection is the base reference point for the fan, and remains static.

Examples:

- Colors** Apply the fan to cyan. The result is light cyan to dark cyan according to the selection order. You can add to this a Fan applied to yellow and get graduated shades of green.
- Iris** Applying the Fan to the Iris when the starting value of the first spot in the selection is a small Iris gives you beams that ascend or descend in size.
- Position** See diagram below:



►Note

It is recommended when first testing fan function to home spots before applying the Fan to x and y.

8.1 Assigning A Fan Spread

Keypresses

1. Select a range of spots/channels
2. If you selected spots, select a parameter and set the starting values. Working with channels, set the start value.
3. Press **[FAN]** until the desired Fan type is displayed in the command line.
4. Move the parameter wheel to Fan the selection.

Results/Comments

- The start value is the base reference for the fan spread.
- Side, center or mirror.
- Spread values are assigned according to the selected Fan type and the spot/channel selection order.

➤Note

Fan is not applicable to the following special parameters:

Cyberlight	Intellabeam	Summa
P6	Focus	CL1
P8	Gobo	CL2
P14	Color	Gobo
P12		
P13		

9. Flip

- Flip key is located in macro menu 9.
- Applying this function flips the x/y 180 degrees returning it to its current position.
- This is a particularly useful function for yokes or moving devices whose heads have 360-degree movement.
- Example: In its current position a yoke is at the limit of its pan movement and you want to continue to move the yoke on its pan axis. Apply the flip function. The yoke reverses the x/y axes 180 degrees, returning to its current position and freed from the constraints of the movement limits. Now you can continue the movement as desired without being hampered by the limit switch.

➤Note

A new parameter was added in the device definition called **span**. When working with flip function the correct span values must be entered.

9.1 Using Flip Function

Keypresses	Results/Comments
1. Select a spot or a range of spots.	
2. Press the [FLIP] key	Spot flips to same stage position with different values.
3. Continue wheel or trackball movement.	

10. Grand Master Bypass

- 10.1 There is a new bit S in Service Tools under System Configuration, Special Functions. When set to “Yes” the Grand Master is disabled, setting the value at a constant 100%. The Black Out button is also disabled. After setting the bit in Service Tools the system must be coldstarted. If Grand Master setting is value of 200% the constant value will remain 100%.

11. Last Enacted Macro

- 11.1 Last enacted macro is indicated via blinking LED. The blinking LED is seen when Sk's are in macro mode. The blinking LED is also seen on macro extension device. On CRT the Sk number of last enacted macro will blink in playback display.

12. Libraries

- 12.1 Color and gobo libraries have been expanded to include up to 12 parameters. In Mix Output Menu 19 in the legend at bottom left of display, the added parameters that may be included in the color and gobo libraries are listed. When loading playacts made on earlier software versions the library parameters will remain as before. Only new playacts will be loaded with the new library parameters.

13. Library Display

13.1 Display

This feature displays the Library numbers assigned to playback devices.

The **[LIBRARY DISPLAY]** key is located in Macro Menu 9. This key toggles between standard playback display and library assignment display.

13.2 Displaying Library numbers

Keypresses	Results/Comments
1. Assign memory with libraries to A, B or controller	Standard Playback device display appears.
2. Press [LIBRARY DISPLAY]	Library numbers appear in color appropriate to the playback device on a field in the library color.
3. Press [LIBRARY DISPLAY] again to return to the standard display	Parameter values appear in color appropriate to playback device

13.3 Color code

Library → Output from ↓	Position	Color	Gobo
A/B	Blue numerals Light red field	Blue numerals Dark red field	Blue numerals Orange field
Controllers	Orange numerals Light red field	Orange numerals Dark red field	Orange numerals Orange field

13.4 Viewing Library values

Keypresses

Results/Comments

- | | |
|-------------------------------------|--|
| 1. Press [LIBRARY DISPLAY] | Skip this step if already active. |
| 2. Press [EXAM] [EXAM] | The library values are displayed. |
| 3. Press [EXAM] [EXAM] again | The Library number/type are displayed. |

14. Load/record device files on network drives

- 14.1 Allow user to load or record devices on the network drives as set in menu 26. To utilize this function the user must map drive to PC in Menu 26 Networks Setting. Once drive is mapped Menu 19 Mix Output Menu load or record device options will display mapped drive when pressing F4 change drive.

15. Mix Output Menu

- 15.1 Dmx offset channel allowance has been extended to 60 channels for big spots and 44 for 22 parameter spots. The total amount of Dmx channel allotment remains as it was for each spot type.

16. Pause

- 16.1 This new function when added to a macro will "pause" the command string. In essence the macro will wait for the next "interrupt" before executing the next key command. This means that inserting a "pause" command will not slow down the macro appreciably but will ensure the key commands have time to execute properly. This will solve some problems with macro commands lost when a long string of commands are used.

16.2 Using Pause option

Insert pause option in the middle of a string of commands :

Keypresses	Results/Comments
1. Press [MENU] [9] [ENTER] [F1] [F1]	Enter menu 9 and begin to create macro 1.
2. Press desired keys	
3. Press [F6,MORE] [F2,PAUSE]	Pause enters into chain of commands
4. Press remaining keys and store macro.	

17. Scheduler

- Use the Scheduler to schedule automatic operation of Macros, Events, and Snaps on specified days, at specified times and intervals, within a specific time period or ad infinitum. Scheduler's parameters include start and stop date, start time and stop time, intervals, and days. The automatic operation schedule is entered in the Scheduler table.
- The Scheduler table is saved in the show file, so now there is a new file type added to the show, "xxx.x. MAC.
- Scheduler tables can be loaded separately, using the "Scheduler Only" option in the Load menu.
- In menu 9 there are two new keys, **[SCHEDULER ON]** and **[SCHEDULER OFF]** which allow for executing absolute on and off commands to Scheduler operation.

17.1 Accessing And Navigating The Scheduler

The Scheduler table is available only when the editor is idle:

Keypresses

1. [SHIFT] [MACRO]

Results/Comments

The Scheduler table is displayed. A number of panel keys are enabled for navigating and entering information (see following table).

17.2 Table of Keys Valid For Scheduler

Keys	Function
ON	Toggle to turn ON/OFF Scheduler – When Scheduler is ON system clock is displayed in purple.
Time	Set system clock – When active the clock is displayed in yellow on a red field.
Loop	Access 3 displays showing the frequency of occurrences.
= / thru	Left/Right – Move the cursor to the next or previous field in the line. The [=] key (equal) moves cursor to left. The [→] key (thru) moves the cursor to the right. Or use arrow keys.
+ / -	Up/down- Move the cursor to the field above or below. The [+] key (plus) moves cursor up. The [-] key moves the cursor down. Or use arrow keys
• (dot)	Increase/Toggle – Increment the number selection by one (1) or toggle selections.
Shift •	Decrease – Decrement the number selection by 1 (1).
Exam	Toggle Text column between text display and next occurrence. The next occurrence information is displayed as a countdown.

17.3 Scheduler Information Fields And Information Formats

Macro, Event, Snap #	Status	Start Date	Stop Date	Start Time	Interval	Stop Time	Days							Text
M/E/S #	On Boot Off	dd.mm	dd.mm	hh.mm	hh.mm	hh.mm	M	T	W	T	F	S	S	

17.4 Table below explains Scheduler Information Fields And Information Formats

Field	Function	Data format	Data entry	Remarks
Macro, Event, Snap #	Type of operation	Macro/event/snap # Use [•] (dot) to toggle.	Field must be filled in order to access table.	Scheduler allows programming the schedule before programming the Macros, Events, and Snaps so no warning message is given entering a M/E/S not existing in the system.
Status	Status of operation	On –operation enabled Off –operation is ignored. Boot –operation to execute after powering up the console.	In boot mode: No value required. Start time may be entered	Start Time refers to time elapsed since boot. Example: 15:00 is fifteen hours after booting. If no start time given operation is executed 60 seconds after boot
Start date	Date to begin operation	Day(dd)and month(mm) in 2 digit format	When no value assigned -today's date will appear after storing	If only day is entered operation executed at same day of every month. The display shows the day entered and mm (e.g. 12/mm)
Stop date	Date to stop operation	Day(dd) and month(mm) in 2 digit format	If not specified assumes permanent operation	
Start time	Time to start operation	Hour (hh) and minute(mm) in 24 hour format.	Start time is midnight (appears after storing)	
Interval	Intervals between operation	Hour (hh) and minute (mm) in absolute value	Specify intervals. If not specified, item operates once at start time.	Will operate from start time until stop time
Stop time	Time to stop	Hour (hh) and minute (mm) in 24 hour format (e.g. 1 o'clock in the after noon is 13:00)	If not specified stop time is midnight (appears after storing)	
Weekdays	Specific days of week of operation	+ is on Blank is off. Use (Dot) to toggle on or off.		All days enabled by default
Text	Text	Use alphanumeric keyboard		

17.5 Scheduling Options

The table below contains examples of the information necessary for different operation frequency. In all of the examples below, adding Stop Date limits the operation to the specified period. When no Stop date is specified the operation repeats ad infinitum.

Frequency of Operation	Required Values To Assign
One time occurrence	Start date Start time Stop date (Enter the same date as Start Date)
Once daily for an unlimited period	Start date Start time
Once daily for a limited period	Start date Start time Stop date
Once daily except for selected day of the week	Start date Start time Disable selected day
At specific intervals within a 24-hour period	Start date Start time Interval
At specific intervals in a specified period	Start date Start time Stop time Stop date Interval
At specific intervals for an unlimited period of time	Start date Start time Stop time Interval
After system boot (When Boot is specified in the Status field)	Start time only (optional).

17.6 Programming Scheduler

Active fields appear in red.

Keypresses

1. Press **[SHIFT] [MACRO]**
2. Press **[•]** to toggle between selection
3. Enter **Macro, Event, or Snap Number**
4. Press **[→]** and toggle the status **[ON/BOOT/ OFF]**.
5. Press **[→]** and enter **Start Date**.
6. Press **[→]** and enter **Stop Date**
7. Press **[→]** and enter **Start Time**
8. Press **[→]** and enter **Interval**
9. Press **[→]** and enter **Stop Time**
10. Press **[→]** and then use **[•]** dot to **Enable/Disable Weekdays**
11. Type text on the alphanumeric keyboard
12. Press **[STORE]**

Results/Comments

The scheduler Table is displayed.

Select Macro, Event, or Snap.

This field must be filled in to continue.

Going to the next or previous line generates the message Store Definition? Press **[STORE]** to store or **[CLEAR]** to abort the store operation.

17.7 Viewing the Schedule

There are 4 displays showing the frequency or exact time of operation. The display is per item.

Name of Display	Information Viewed	Keypresses
Next Occurrence	Countdown to next occurrence.	[EXAM]
Exact Time	Day/Date/Hour of next occurrence.	[LOOP]
Additive Time	Number of days/hours countdown to next occurrence.	[LOOP] [EXAM]
Intervals	The first entry is a countdown to the next occurrence. The remaining entries show the amount of time between the occurrence.	[LOOP] [EXAM] [EXAM]

➤Note

To exit these displays, press **[LOOP]**.

➤**Note**

1. While Scheduler table window is open, Macros will not be executed, but Events, and Snaps will be executed.
2. While Scheduler table window is open, and the Loop/Exam display is viewed, any scheduled macros, events, and snaps will **not** be executed.
3. When a monthly occurrence is scheduled, it only appears for the current month.

17.8 Printing the Schedule

Use Print Screen to print the scheduler.

17.9 Loading a Schedule table only

A new function key was added to the LOAD menu, under F1- Play Act#, F6- More., F5- Schedule Only.

Bugs Fixed

1. Add Macro

- 1.1 Using [add macro] sometimes generated a trap. This is now fixed.

2. Blind Editor

- 2.1 When the display was set at Active Channels, some channels were not correctly displayed in the blind editor.
- 2.2 In the blind editor, when the display was set at Active Channels, it was possible to select only channels present in the live editor. Thank you Ramon at BEO, Holland.

3. Channel Patch

- 3.1 Various problems using the clear key (Undo function) are now fixed. Thank you Steve Plotkin , Canada.

4. Crossfader

- 4.1 When crossfader B was the active fader, looped memories with wait times did not sequence correctly. This is now fixed. Thank you Pauli at Hedcom, Finland.
- 4.2 When looped memories had cut and delay times, and go was pressed multiple times , go key would become disabled. This does not happen anymore. Thank you Pauli at Hedcom, Finland.
- 4.3 When a looped memory had cut as wait in time, all the channels in the memory flashed to Full. This does not happen anymore. Thank you Fausto at Coemar, Italy.
- 4.4 When the console was in menu mode, **[BACK]** on the crossfaders was disabled. This does not happen anymore. Thank you Stephen Plotkin, Canada.
- 4.5 When go was pressed, faders moved out of limit, and automatic fade completed, the go key was disabled when faders were taken to limit. This is now fixed. Thank you to BEO, Holland.
- 4.6 If updating the time of an incoming memory on A/B, the memory would run in the previously recorded time and not the modified time when **[GO]** was initiated. This no longer happens. Thank you to BEO, Holland.

5. Cyberlight and Intellabeam

- 5.1 Some problems with S-Mix addressing and output are now fixed.

6. Display

- 6.1 Paging sometimes jammed the console. This does not happen anymore.

7. Editing

- 7.1 Selecting another channel immediately after programming a Group bumped out channels that were intentionally left in the editor. This is now fixed.
- 7.2 When overwriting an existing memory using +Store, the command line jumped to its default mode. This does not happen anymore.

8. Exam

- 8.1 Exam for channels or spots required many presses on exam key to toggle between group or library numbers. This is now fixed.

9. Fan

- 9.1 When selecting another parameter after applying FAN to a parameter, the parameter that had been fanned jumped to a different value. This no longer happens.

10. Group

- 10.1 Various problems of scrollers in Groups were fixed.

11. Group Memory

- 11.1 The sequence [GROUP] [MEM] [ASSIGN] [BUMP KEY] [WHEEL] for memories that contained only channels resulted in "illegal number" message . This is now fixed. Thank you BEO, Holland.

12. Libraries

- 12.1 There was a disparity between the display and the actual output when using the sequence [SPOT #] [POS #] [+] OR [-]. This is now fixed. Thank you Gino at Spotlight, Italy and Andy Stone at Stagetec, Great Britain..

13. Loading

- 13.1 When loading a show with 16 DMX devices table to a system with standard 8 DMX (old) table (bit R set to no) there was no warning message that there was a discrepancy in the type of table. Now there is a warning message.
- 13.2 When loading a playact from an earlier version to the Beta version, the Flip function was disabled due to no span values in the device definitions. Now there is a warning message.

14. LTP

- 14.1 When operating under LTP On, immediately after Store Store the output was not according to the last playback device used. Thank you Alon at Danor, Israel.

15. Memory Modification

- 15.1 Memory range modification did not work when there was an Effect in the editor. This is now fixed.
- 15.2 Applying Delta modification deleted Effects in the modified memories.
- 15.3 Erasing a part for parameters with a library assignment also erased the library assignment. This does not happen anymore. Thank you BEO, Holland.
- 15.4 Memory range modification for some scroller frames would sometimes modify all scrollers in memory range. This does not happen anymore. Thank you BEO, Holland.

16. Mix Output menu

- 16.1 Under Define Device the first line of the device appeared entirely in white making it impossible to tell what was being edited. This is now fixed. Thank you Andy at Stagetec, Great Britain.
- 16.2 Access was blocked to High End fixtures addresses directly after warm start. This is now fixed.
- 16.3 The device list has been expanded to include up to 300 devices .
- 16.4 It was impossible to save a device definition with new extended library parameters. This has been fixed.

17. Palettes

- 17.1 Palettes with scrollers were not applied correctly when, in the Palette, there was no intensity assignment to the scroller channel. This is now fixed.

18. Print

- 18.1 Memories with more than 36 spots in them were not printed correctly. Now the print is correct. Thank you Peter Tatarek at Lysis, Hungary.
- 18.2 Not all channels in memories were printed out. This has been fixed. Thank you to BEO, Holland.

19. Protect Mode

- 19.1 Events, Macros, and Snaps assigned to memories did not work when Protect mode was enabled. This does not happen anymore.

20. Rem Dim

- 20.1 Rem Dim was not working correctly. It is now fixed.

21. Scheduler

- 21.1 Scheduler boot function would not work if no start time were given. This has been fixed.

22. Snap

- 22.1 Memories with chaser fade times started running immediately after assignment in Snap+ mode ignoring the Hold command as recorded in the Snap. Thank you Andy Stone at Stagetec, Great Britain.
- 22.2 Reprogramming a Snap with a change in the controller mode for a chaser assignment was not accepted by the Snap. This is now fixed.
- 22.3 In certain instances enter of snap on top of another snap resulted in no display of memory assignments on upper controllers. This is now fixed.

23. Software Update

- 23.1 When new software was burned and the console was rebooted, the message "Press any key" was invalid. This does not happen anymore.

24. Spots

- 24.1 Spots with Ignition value of 99 would sometimes cause random disruption or cessation of output for other spots. This has been fixed. Thank you to Peter Tatarek at Lisys, Hungary.
- 24.2 The sequence: [SPOT, # , HOME, +STORE, RESET, SPOT, . (dot)] would result in the disabling of all wheels. This has been fixed.

25. Teach Macro

- 23.1 Using F6 (more) in Channel patch menu during a Teach Macro would erase all the previous keystroke entries. This no longer happens. Thank you to Pauli at Hedcom, Sweden.

26. Text

- 24.1 Storing text to a Group using ENTER on the alphanumeric keyboard would not work if [SHIFT, NSK] was used to enter text mode. This has been fixed. 24.2 Various translation corrections and additions have been made to the German versions. Much thanks to Rudi Burgstaller and Gerhard Feiner at Lichttechnik, Germany.

Known Bugs

1. When crossfading from a memory to no assignment there is a small delay.
2. Manual crossfade of memories with delay on A/B may sometimes result in a blackout. Crossfaders must be traveling together and fader traveling to zero limit must reach its end stop first. Workaround: Always complete fade of incoming memory first when crossfading memories with delay.
3. Ratemaster is affected by controller on/off function.
4. Hard chases ignore Chase- Fade time in/out when used in conjunction with Controller On/OFF function .
5. It is impossible to define flip to big spot values.
6. When changing to Q list 2 while in memory exam of Q list 1 , the sequence { mem #, mem #}, shows incorrectly Q list 1 instead of Q list 2.
7. When a ChaseFade time out is being stored to a memory with an existing auto-assignment there is no warning message given. The auto-assignment is automatically erased and replaced with the ChaseFade time out upon store.
8. In some instances after pressing bump key “cntr #” is stuck in the command line.
9. There is no warning message “ Are you sure?” when erasing a snap using the standard sequences and also using the new Shift Free feature.